HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

No. 25-26

RESOLUTION

AUTHORIZING EXEMPTIONS FROM CERTAIN REQUIREMENTS RELATING TO THE HALE O LĪPOA AFFORDABLE RENTAL HOUSING DEVELOPMENT PROJECT IN ʻAIEA, OʻAHU.

WHEREAS, Līpoa Development LLC (the "Applicant") proposes to develop the Hale O Līpoa Rental Housing Development Project on approximately 42,000 square feet ("ft.") of land zoned BMX-3 Community Business Mixed Use District and the ʻAiea-Pearl City Transit-Oriented Development ("TOD") Special District ("SD") located at 98-150 Līpoa Place within the ʻAiea neighborhood of Oʻahu, and identified as Tax Map Key 9-8-014: 021, (the "Project"); and

WHEREAS, as proposed, the Project will be an eight-story building consisting of 153 multi-family dwelling units (including one manager's unit) and amenities including bicycle parking, a gym, mailroom, storage rooms, open landscaped deck, and lounge.

WHEREAS, as proposed, the Project will consist of 152 affordable dwelling units (studio, one-bedroom, two-bedroom, and three-bedroom units), under one of two of the following scenarios, being available to:

- Households earning 30 percent or below the Area Median Income ("AMI") as determined by the U.S. Department of Housing and Urban Development annually for the Honolulu Metropolitan Statistical Area as adjusted for household size (16 units), households earning less than 40 percent or below of AMI (16 units), households earning less than 60 percent or below of AMI (120 units) with Low Income Housing Tax Credits financing ("LIHTC"); or

- Household earning below 80 percent AMI (32 units) and households earning between 80 percent AMI but no more than 100 AMI (120 units) with Rental Housing Revolving Fund financing ("RHRF");

WHEREAS, all affordable dwelling units will remain affordable for a minimum period of 65 years; and

WHEREAS, the Project is eligible to receive consideration under the City's Rules implementing Hawai'i Revised Statutes ("HRS") § 201H-38, which require that at least 20 percent of a Project's total units must be available to households earning 80 percent of the AMI or below and at least 31 percent of the Project's total units must be available to households earning between 81 percent and 120 percent of the AMI; and

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ZON

HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

No. 25-26

RESOLUTION

WHEREAS, the City Council ("Council") is empowered and authorized to approve the Project which may include exemptions from statutes, ordinances, charter provisions, and rules of any government agency relating to planning, zoning, construction standards for subdivision, development and improvement of land, and the construction of units thereon pursuant to HRS §§ 46-15.1 and 201H-38; and

WHEREAS, the Council has reviewed the preliminary plans and specifications for the Project, dated September 20, 2024, prepared by Lowney Architecture (Plans and Specifications), and submitted to the Council by the Department of Planning and Permitting ("DPP") on _____, 2025 by Departmental Communication_____; and

WHEREAS, the Project is consistent with the housing and community development goals and objectives of the City; and

WHEREAS, the granting of the exemptions is necessary for the timely and successful implementation of the Project; and

WHEREAS, the Project does not contravene any safety standards, tariffs, rates, or fees approved by the Public Utilities Commission or the Board of Water Supply ("BWS"); and

WHEREAS, the exemptions authorized herein meet the intent of HRS Chapter 201H, and minimum requirements of health and safety; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that it approves the Project, which approval includes exemptions from certain requirements for the Project as set forth in the Plans and Specifications for the Project, as follows:

Application Fees:

1. Exemption from Revised Ordinances of Honolulu 2021 ("ROH") § 18-6.1, to allow an exemption from payment of plan review fees, estimated at $25,000.

2. Exemption from ROH § 18-6.2, to allow an exemption from payment of building permit fees, estimated at $314,800.

3. Exemption from ROH § 18-2.4A, to allow an exemption from payment of grading and grubbing permit fees, estimated at $1,000.

4. Exemption from ROH Table 18-A, to allow an exemption from payment of special

assignment inspection fees, estimated at $1,000.

5. Exemption from ROH § 14-13.6(d), to allow an exemption from payment of stormwater quality review and erosion control and sediment plan review fees, estimated at $500.

6. Exemption from ROH § 14-2.1, to allow an exemption from payment of a trenching permit fee, estimated at $400.

Infrastructure and Public Works Fees and Charges:

7. Exemption from ROH §§ 43-10.1 through 43-10.3, to allow an exemption from the payment of wastewater system facility charges attributable to:

   152 affordable units rented to households earning 60 percent or below of AMI, estimated at $483,665 (LIHTC financed); or

   32 affordable units rented to households earning below 80 percent of AMI, estimated at $101,824 (RHRF financed).

8. Deferral from ROH §§ 43-10.1 through 43-10.3, to allow the deferral until the issuance of the certificate of occupancy ("CO") for the Project of the payment of wastewater system facility charges attributed to one manager's unit, estimated at $3,182.

9. Exemption from ROH § 43-11.12 (f), to allow an exemption from the storm drain connection fee, estimated at $200.

Fire Department Plan Review Fees:

10. Exemption from ROH § 20-1.1(3), to allow an exemption from payment of a fire department plan review fee, estimated at $31,480.

BWS Rules and Regulations:

11. Deferral from Sections 1-102 and 2-202 of the BWS Rules and Regulations, to allow a deferral until the installation of the water meter for the Project of payment of water system facility charges and installation of water service fees estimated at $302,000; provided that all BWS requirements are satisfied. The actual fees to be deferred will be determined by the BWS during review of the Project's building permit application.

ROH Chapter 21, the Land Use Ordinances ("LUO"):

12. Exemption from ROH § 21-3.120-2(b), Table 21-3.4, and the applicable zoning map relating to maximum height, to allow for a maximum height of 90 ft. (instead of 60 ft.). Rooftop structures must conform to ROH § 21-4.60(c).

13. Exemption from ROH § 21-3.120-2(b), Table 21-3.4, relating to density, to allow for a maximum floor area ratio ("FAR") of 3.61 (instead of 2.5).

14. Exemption from ROH § 21-3.120-2(b), Table 21-3.4, relating to required yards, to allow the Project to encroach:

    5.33 ft. into the side yard (east);

    2.0 ft. into the side yard (west);

    3.0 ft. into the front yard (south); and

    3.0 ft. into the rear yard (north).

15. Exemption from ROH § 21-3.120-2(c)(2), relating to height setbacks, to allow the Project to encroach:

    5.58 ft. along the side (east) property boundary;

    5.58 ft. along the side (west) property boundary;

    5.83 ft. along the front (south) property boundary; and

    7.17 ft. along the rear (north) property boundary.

TOD SD Standards

16. Exemption from ROH § 21-9.100-8(a)(1)(A), relating to FAR to allow a maximum FAR of 3.61 instead of 3.5 without a Planned Development Transit ("PD-T").

17. Exemption from ROH § 21-9.100-8(a)(1)(D), relating to maximum height, to allow a maximum height limit of 90 ft., 30 ft. over the 60 ft. height limit without a PD-T.

18. Exemption from ROH § 21-9.100-8(a)(1)(E), relating to the provision of community benefits for project seeking height or density bonuses, to allow such bonuses without said provision.

19. Exemption from ROH § 21-9.100-8(a)(3)(D), relating to street façade and building placement, to allow the Project not to conform the building placement to encroach into the 50 ft. TOD building setback above 60 ft. by 46 ft. along the east property line, 45 ft. along the south property line, 43 ft. along the north property line, and 42 ft. along the west property line (see Exhibit D-7 and D-8).

20. Exemption from ROH § 21-9.100-8(a)(4) relating to TOD SD requirements for building orientation and entrances, access, and location.

21. Exemption from ROH § 21-9.100-8(a)(6), relating to pedestrian walkways, to allow the Project not to conform to these provisions.

22. Exemption from ROH § 21-9.100-8(c)(1), relating to vehicle parking, to allow the parking garage to be located nine ft. from the front property line, instead of 40 ft..

23. Exemption from ROH § 21-9.100-8(c)(4), to allow the ground floor of the parking structure to not have active ground floor activities.

24. Exemption from ROH §§ 21-9.100-9 and 21-9.100-11, relating to the requirements of PD-T projects to allow for the modifications to FAR and height without first obtaining a PD-T, as shown in the attached exhibits.

Park Dedication Ordinance

25. Exemption from ROH § 22-7, to allow exemption from park dedication requirements attributable to the 153 affordable dwelling units, estimated at 16,830 sq.ft. of park space, or the payment of an equivalent in-lieu fee estimated at $2,440,350; provided that the park dedication requirement attributed to the one manager's unit is only exempt if federal or State of Hawai'i funding for the Project, such as the use of low-income housing tax credits, prohibits the use or sale of the manager's dwelling unit as a revenue-generating or profit-generating dwelling unit for the required affordability period, including any extensions thereof.

BE IT FURTHER RESOLVED that the Project is approved subject to the following conditions:

A. Except as modified herein, development must be in general conformance with the approved Project, as described herein and shown on plans and drawings labeled as Exhibits A, B, C, D-1 through D-10, and E-1 through E-4. Minor changes may be approved by the DPP Director. Major modifications to the Project will require approval by the City Council.

B. Prior to the issuance of any building permits for the Project, the Applicant must submit to the DPP for review and approval:

1. A time line or phasing plan of the anticipated dates to obtain major building permit(s) for demolition and/or construction work, including the projected date of occupancy or opening in a format acceptable to the Department. The time line should identify when the construction management plan ("CMP"), the traffic management plan ("TMP"), updates and/or validation to the findings of the traffic impact analysis report ("TIAR") will be submitted for review and approval. Typically, the CMP should be submitted for review and approval prior to the issuance of demolition/building permits for major construction work. The TMP should be submitted and approved prior to the issuance of the (temporary) CO.

2. The CMP shall identify the type, frequency, and routing of heavy trucks and construction related vehicles. Every effort shall be made to minimize impacts from these vehicles and related construction activities. The CMP should identify and limit vehicular activity related to construction to periods outside of the peak periods of traffic, utilizing alternate routes for heavy trucks, provisions for either on-site or off-site staging areas for construction related workers and vehicles to limit the use of on-street parking around the project site and other mitigation measures related to traffic and potential neighborhood impacts. Preliminary or conceptual traffic control plans should also be included in the CMP. The Applicant shall document the condition of roadways prior to the start of construction activities and provide remedial measures, as necessary, such as restriping, road resurfacing and/or reconstruction if the condition of the roadways has deteriorated as a result of the related construction activities.

3. A TMP shall include traffic demand management ("TDM") strategies to minimize the amount of vehicular trips for daily activities by residents.

TDM strategies could include carpooling and ride sharing programs, transit, bicycle and pedestrian incentives, and other similar TDM measures. A pedestrian and bicycle circulation plan should also be included to provide accessibility and connectivity to and along the surrounding public sidewalks and at street intersections, as it relates to complete streets initiatives. A parking management plan should also be included in the TMP. The parking management plan should address where pick-up/drop-off would occur and how delivery trucks would access/egress the site and how it will be managed. A post TMP will be required after full build-out, to validate the relative effectiveness of the various TDM strategies identified in the initial report.

4. Updates to the TIAR will be required approximately one year after the issuance of the CO, to validate the traffic projections, distribution, and assignment contained in the initial TIAR. If additional traffic mitigation measures or modifications are necessary to support related traffic impacts directly attributable to this development, the applicant will be required to implement these measures. TIAR updates should also include an evaluation of the relative effectiveness of the TDM strategies.

5. Construction plans for all work within or affecting public streets should be submitted for review and approval. Traffic control plans during construction should also be submitted for review and approval, as required. All vehicular access points shall be constructed as standard City dropped driveways. The minimum driveway width for two-way traffic is 20 feet. Adequate vehicular sight distance shall be provided and maintained at all driveways to pedestrians and other vehicles.

6. Driveway grades shall not exceed five percent for a minimum distance of 25 ft. from the back of the designated pedestrian walkway. Any entry gates or guard shacks, if used, should be recessed as far into the driveway as necessary to avoid any queuing onto public streets. All loading, trash, and parking areas shall be designed such that vehicles enter and exit, front first. Provide turning templates to demonstrate the maneuvering of these vehicles and any possible impacts to the driveway operations.

7. Bicycle parking or bike racks shall be provided within this project and shall be located in a safe and convenient location.

C. Prior to the issuance of any building permit for the Project, the Applicant must execute a 201H Agreement with the DPP Director that includes terms, conditions, and provisions to facilitate the efficient development and monitoring of the Project, and to ensure the Project's compliance with the requirements of HRS Chapter 201H, and this resolution; and

BE IT FURTHER RESOLVED that references to specific statutes, ordinances, or regulations include respective successor statutes, ordinances, or regulations; and

BE IT FURTHER RESOLVED that the exemptions granted for this Project are not transferable to any other real property; and

BE IT FURTHER RESOLVED that this resolution is null and void unless construction of the Project commences no later than 60 months after the adoption of this resolution; and

BE IT FURTHER RESOLVED that the final plans and specifications for the Project constitute the zoning, building, and construction standards for the Project and are approved if those plans and specifications do not substantially deviate from the Plans submitted to the Council; provided that minor modifications to the design character, specifications of the building, or landscaping, may be approved by the DPP, if such modifications are consistent with the prevailing neighborhood character; and

BE IT FURTHER RESOLVED that no action may be prosecuted or maintained against the City and County of Honolulu, its officials or employees, on account of actions taken by them in reviewing or approving the preliminary plans and specifications or in granting these exemptions listed herein; and

BE IT FURTHER RESOLVED that the Director of the DPP is authorized to execute and record the 201H Agreement referenced in Condition C, pursuant to the terms, conditions, and provisions approved as to form and legality by the Corporation Counsel as being necessary, advisable, or desirable for the purpose of carrying out this resolution; and

BE IT FURTHER RESOLVED that the Director of the DPP is hereby authorized to execute any incidental or related documents to carry out the transactions, above described, as long as said documents do not increase either directly or indirectly the financial obligations of the City; and

HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

No. 25-26

RESOLUTION

BE IT FINALLY RESOLVED that copies of this Resolution be transmitted to Dawn Takeuchi Apuna, Director of the DPP, 650 South King Street, 7th Floor, Honolulu, Hawai'i, 96813; Christopher M. Flaherty, Līpoa Development, LLC, 745 Fort Street, Suite 702, Honolulu, Hawai'i, 96813; Nainoa J. Watson, 'Ikenākea Development LLC, 745 Fort Street, Suite 702, Honolulu, Hawai'i, 96813.

INTRODUCED BY:

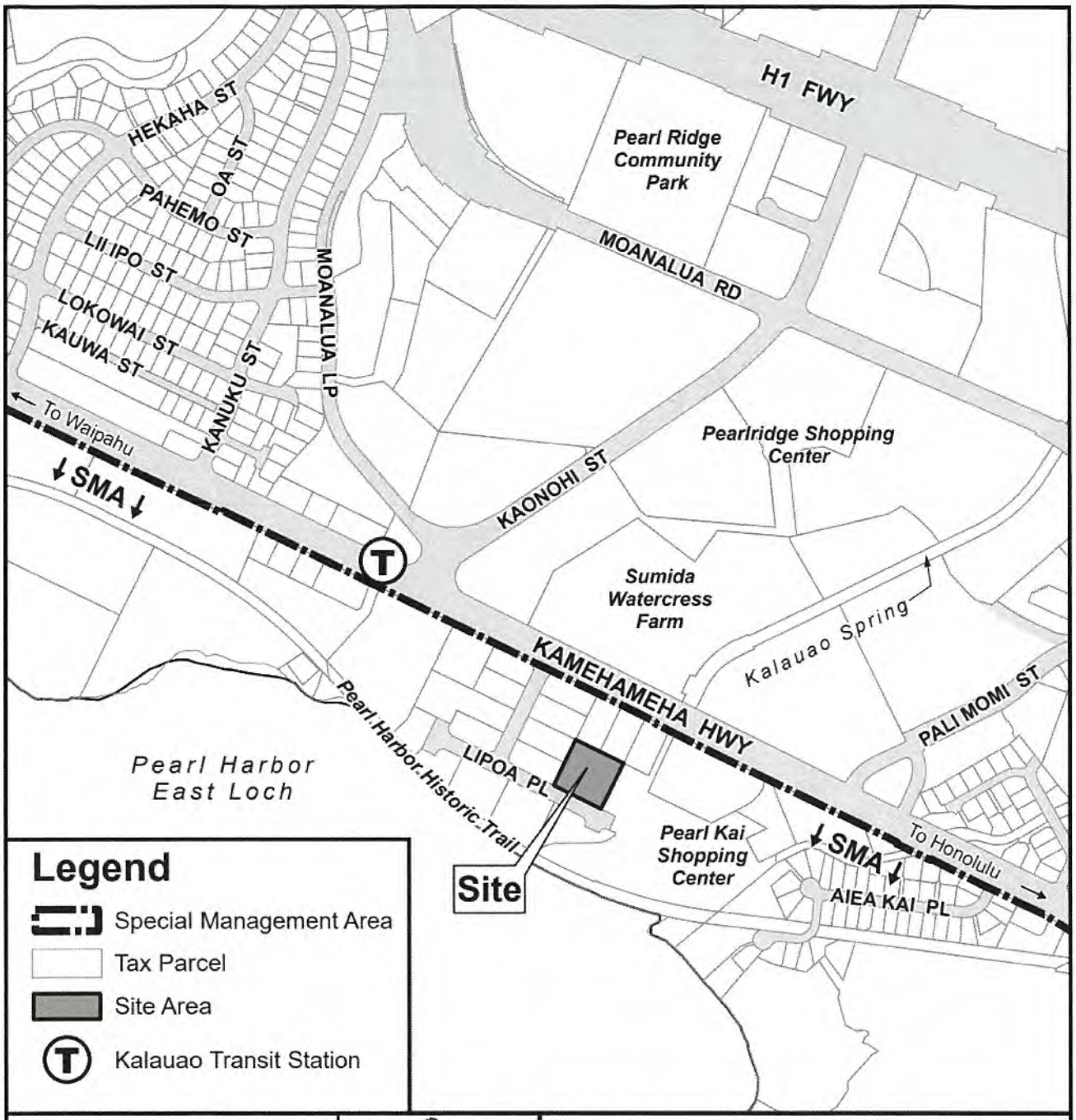
(br)

DATE OF INTRODUCTION:

JAN 9 2025

Honolulu, Hawai'i

Councilmembers



LOCATION MAP w/ SMA

AIEA

TAX MAP KEY(S): 9-8-014:021

FOLDER NO.: 2024/GEN-18

Prepared by: Honolulu Land Information System (HoLIS) - CS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 10/2024

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EXHIBIT A

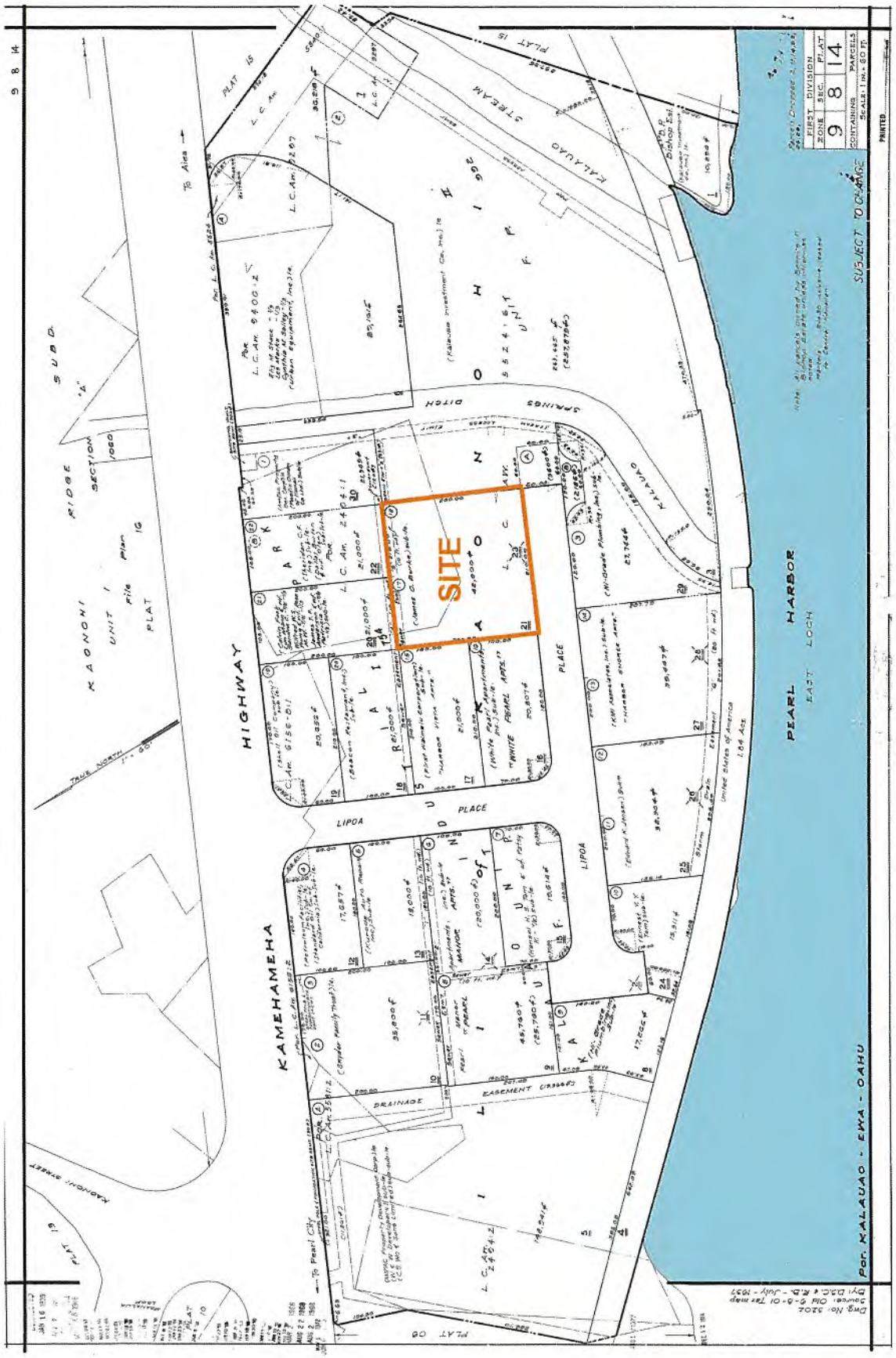
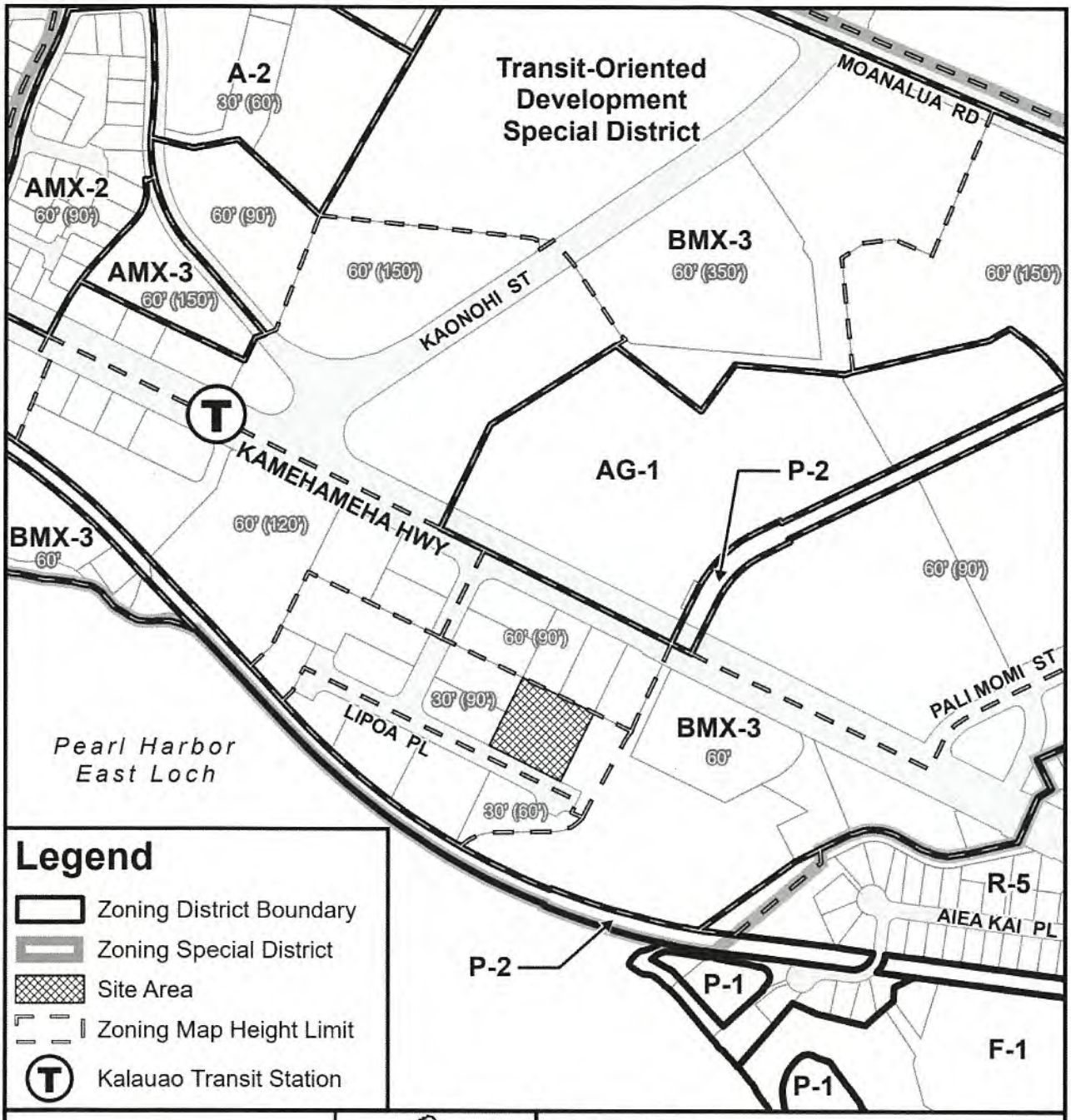


EXHIBIT B **FILE NO.: 2024/GEN-18**



PORTION OF
ZONING MAP
HALAWA - PEARL CITY

TAX MAP KEY(S): 9-8-014:021

FOLDER NO.: 2024/GEN-18

Prepared by: Honolulu Land Information System (HoLIS) - CS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 10/2024

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EXHIBIT C



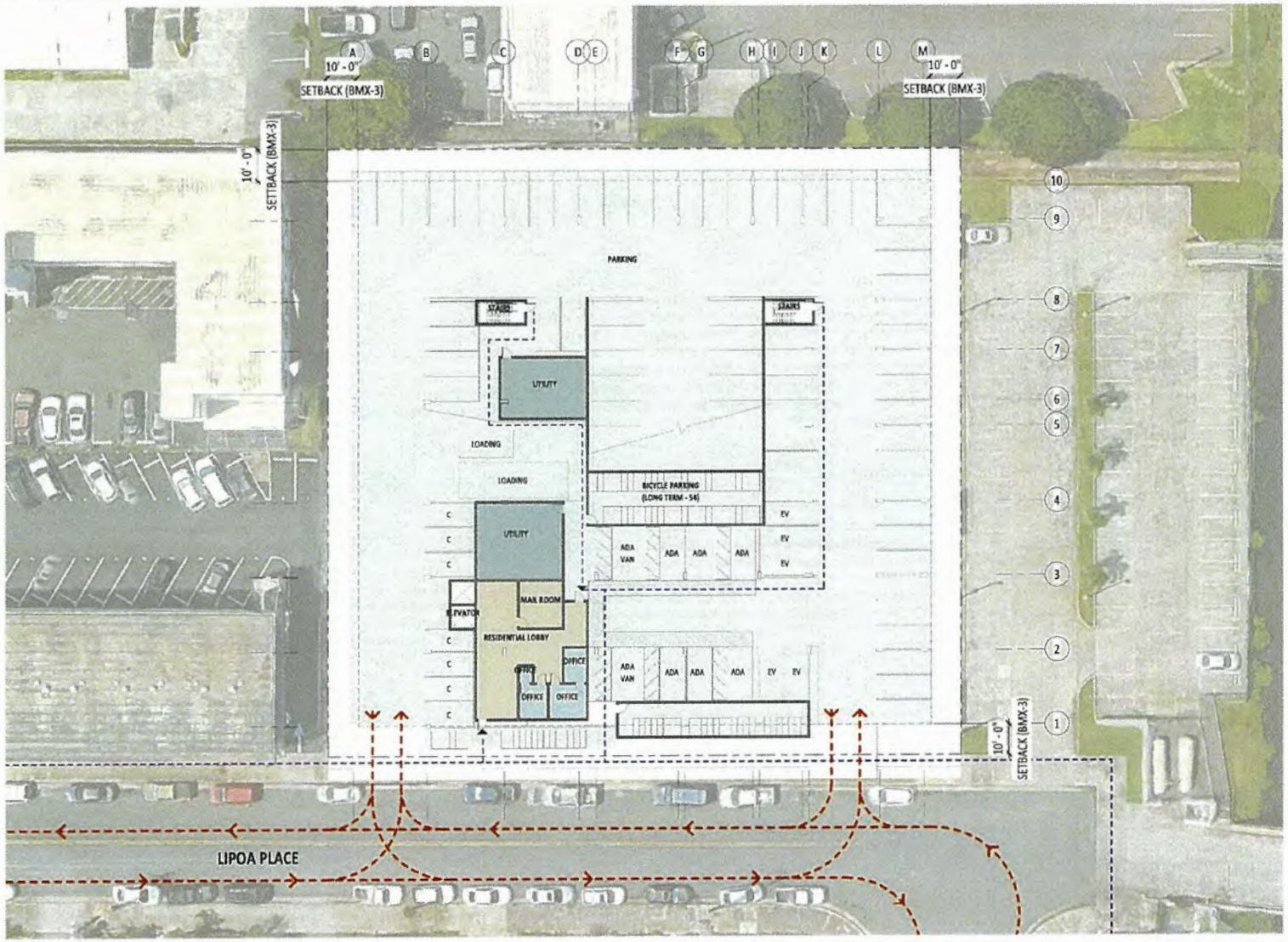
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'IKENAKEA

EXHIBIT D-1

AERIAL VIEW G0.8

HALE O LIPOA - 09/06/2024



CIRCULATION LEGEND

- VEHICULAR CIRCULATION
- PEDESTRIAN CIRCULATION
- LOBBY ENTRANCE

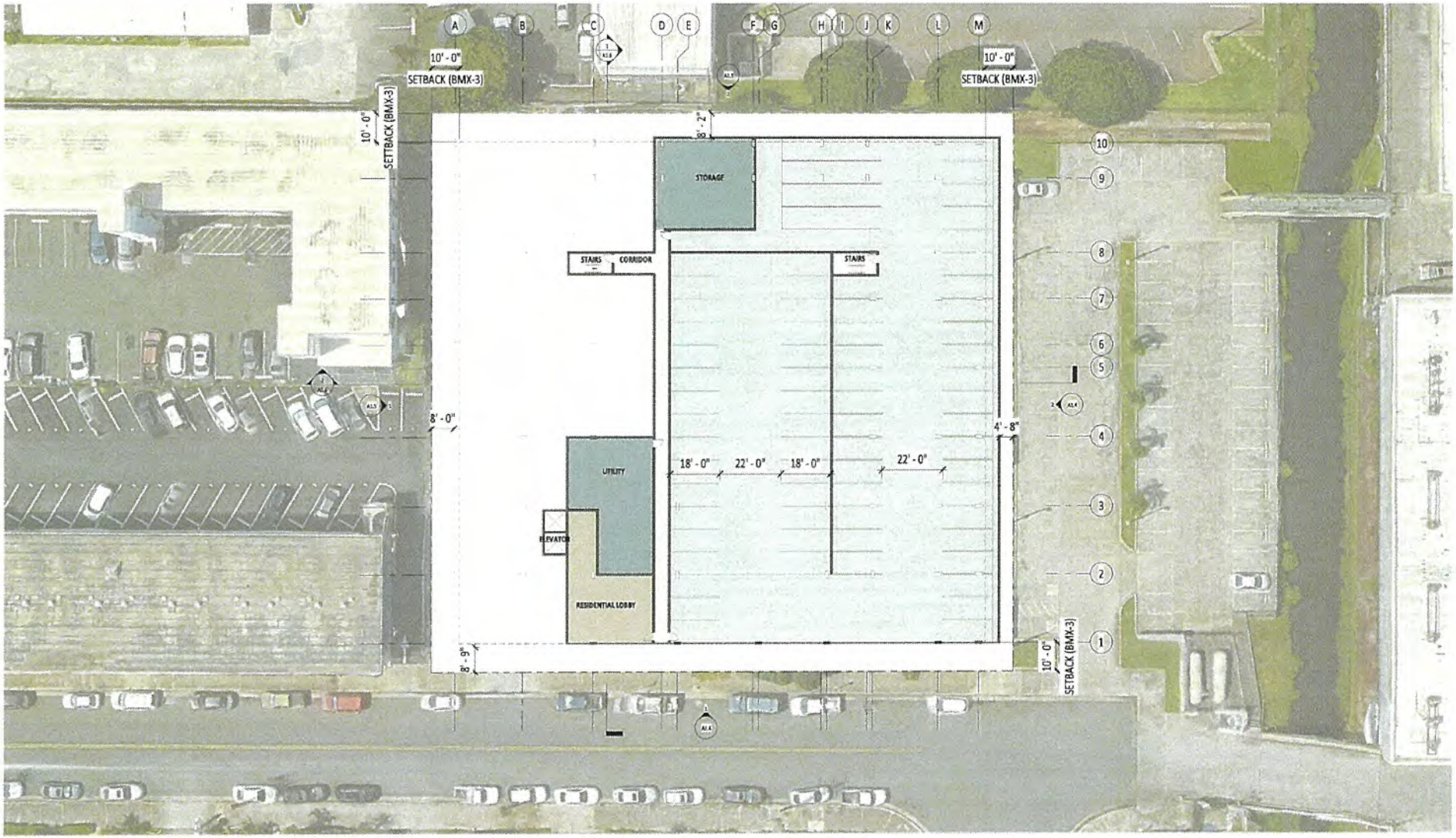
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EXHIBIT D-2

CIRCULATION A0.3

HALE O LIPOA - 09/06/2024



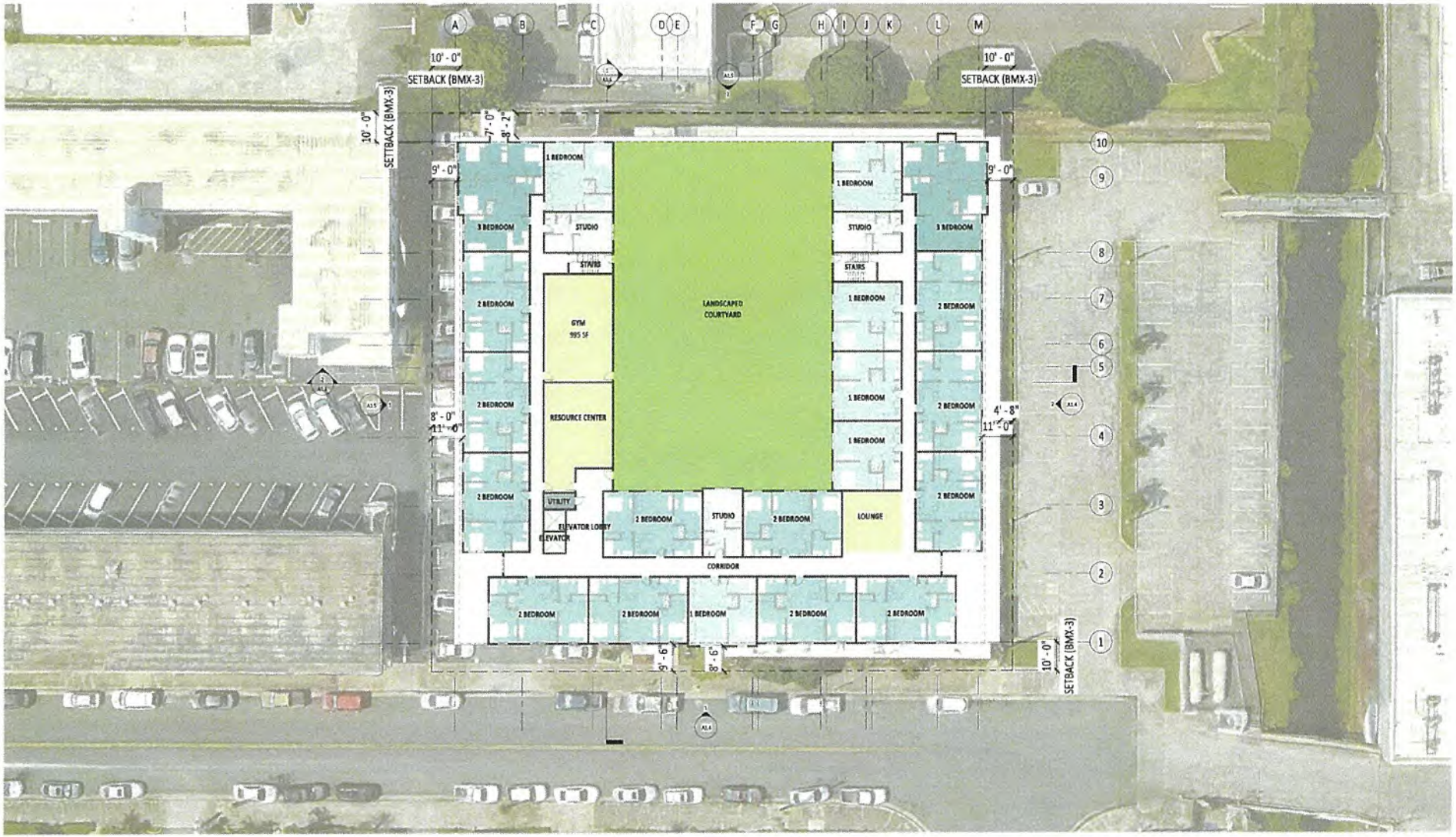
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EXHIBIT D-3

SECOND FLOOR PLAN A0.8

HALE O LIPOA - 09/06/2024



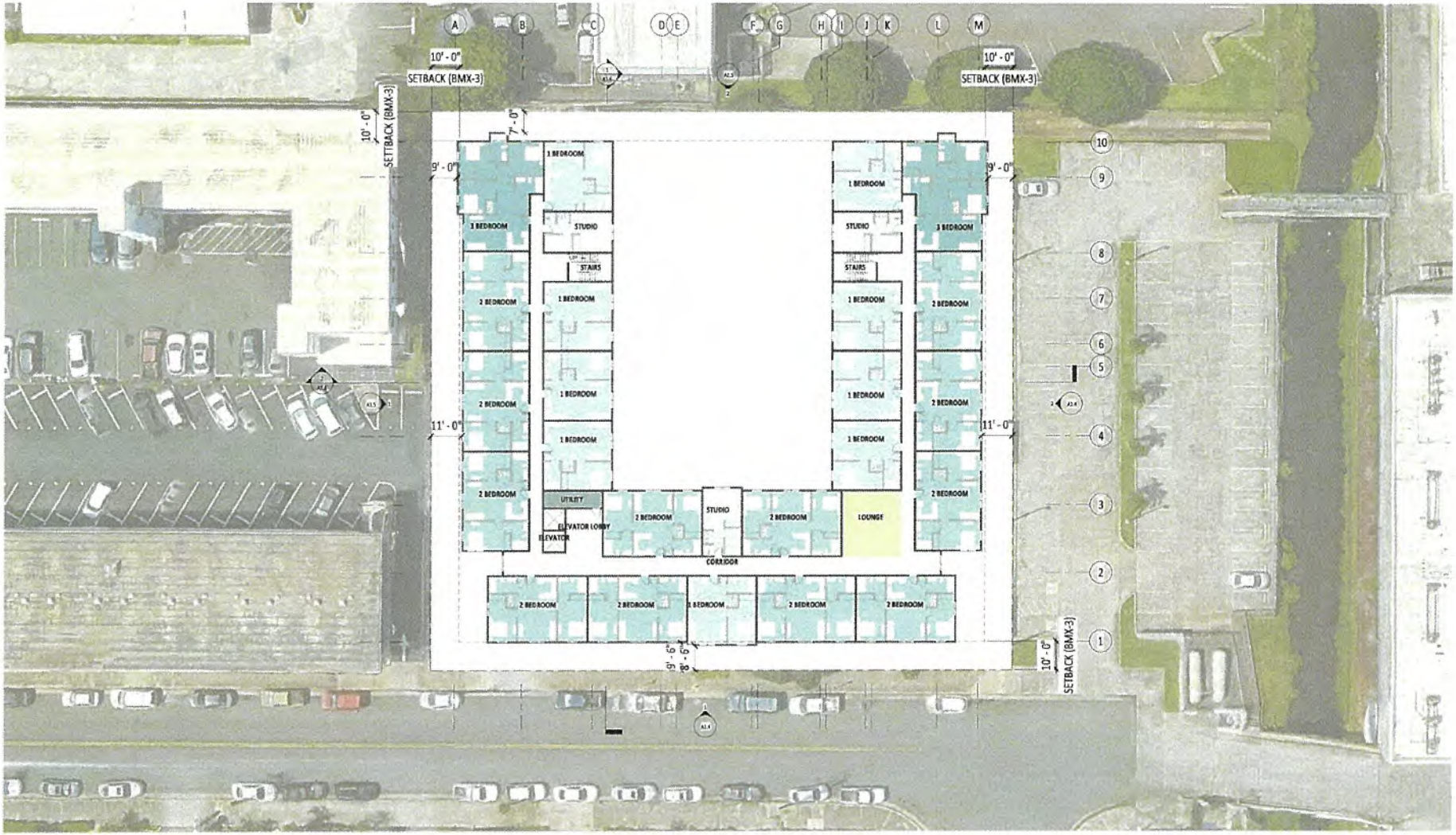
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EXHIBIT D-4

PODIUM FLOOR PLAN A0.9

HALE O LIPOA - 09/06/2024



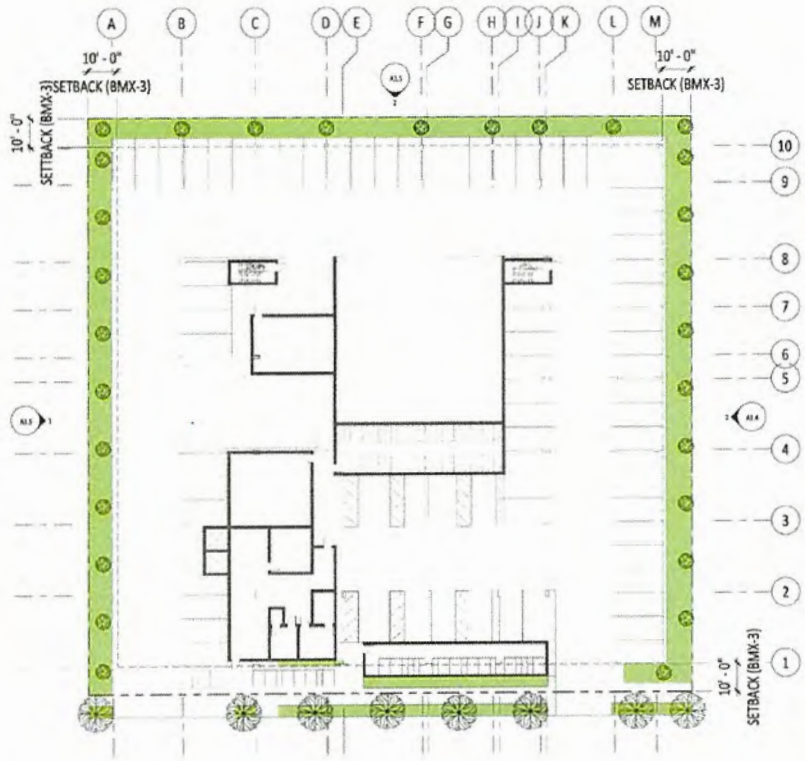
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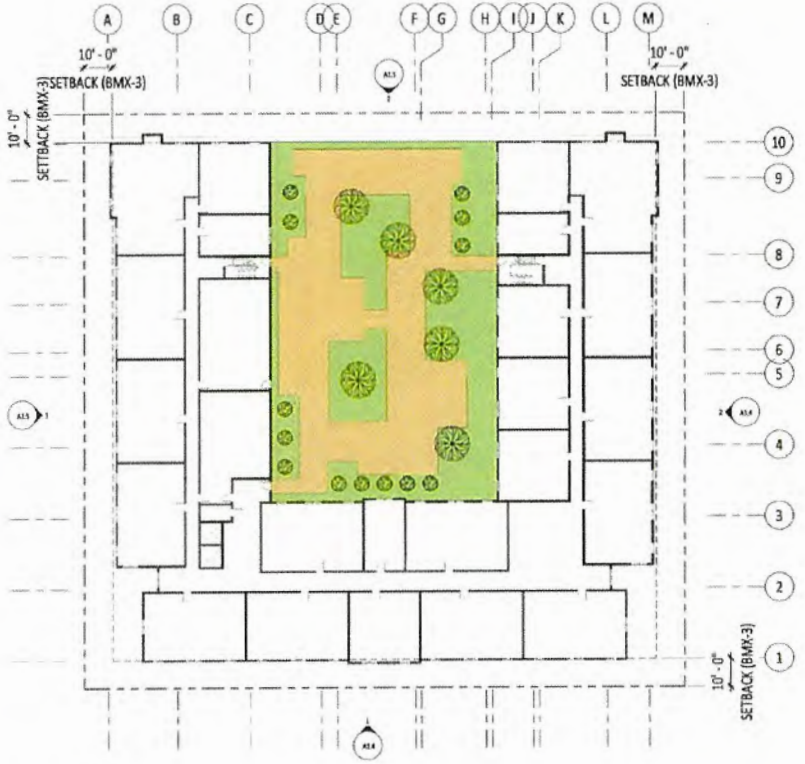
EXHIBIT D-5

TYP RESIDENTIAL LEVEL 4-8 PLAN A1.0

HALE O LIPOA - 09/06/2024



2 GROUND FLOOR LANDSCAPE PLAN



1 PODIUM LEVEL LANDSCAPE PLAN

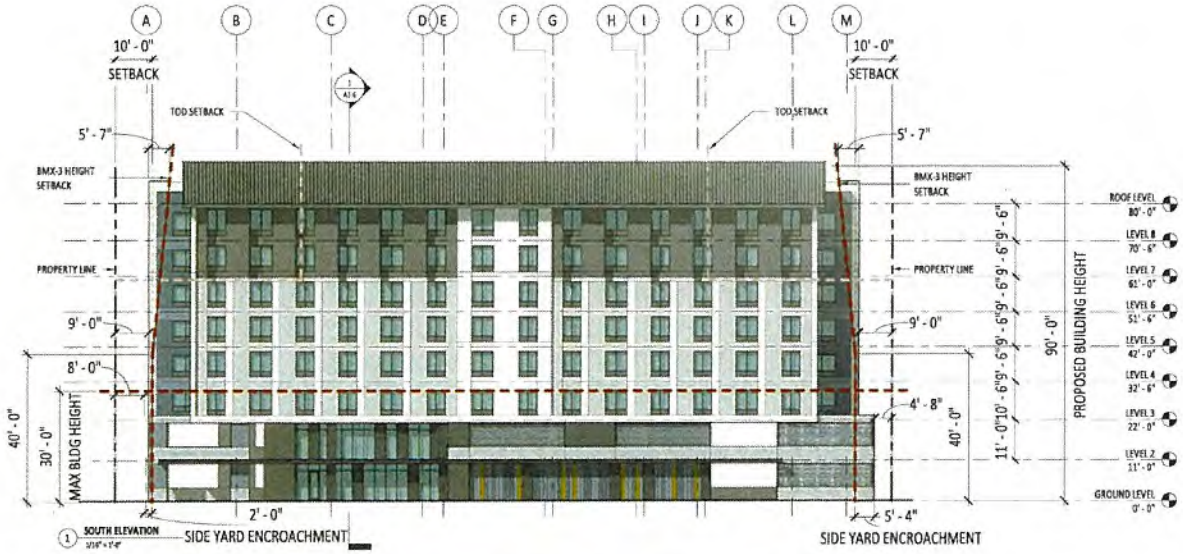
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EXHIBIT D-6

CONCEPTUAL LANDSCAPE PLAN A0.6

HALE O LIPOA - 09/06/2024





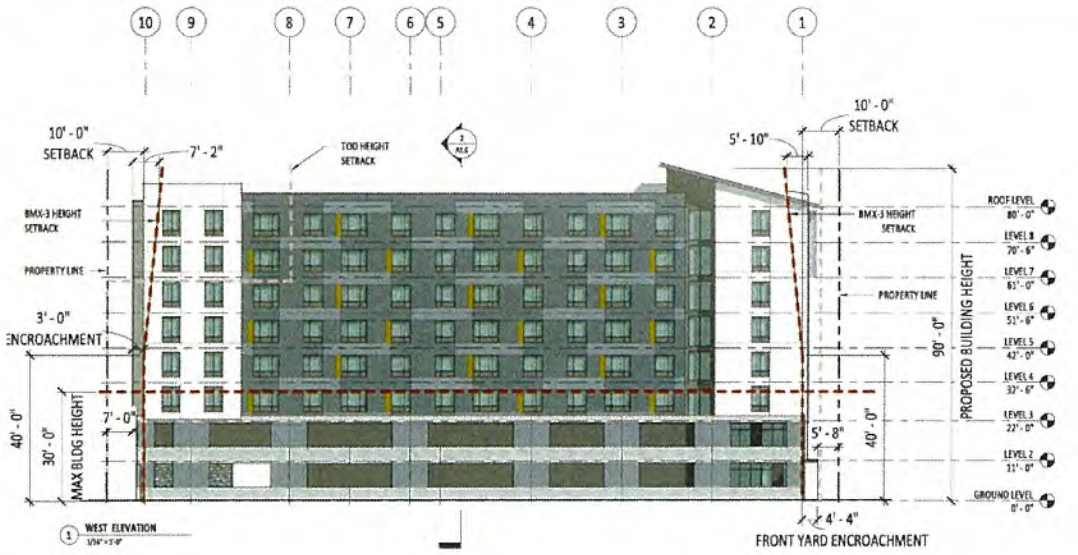
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EXHIBIT D-7

BUILDING ELEVATIONS A1.4

HALE O LIPOA - 09/06/2024





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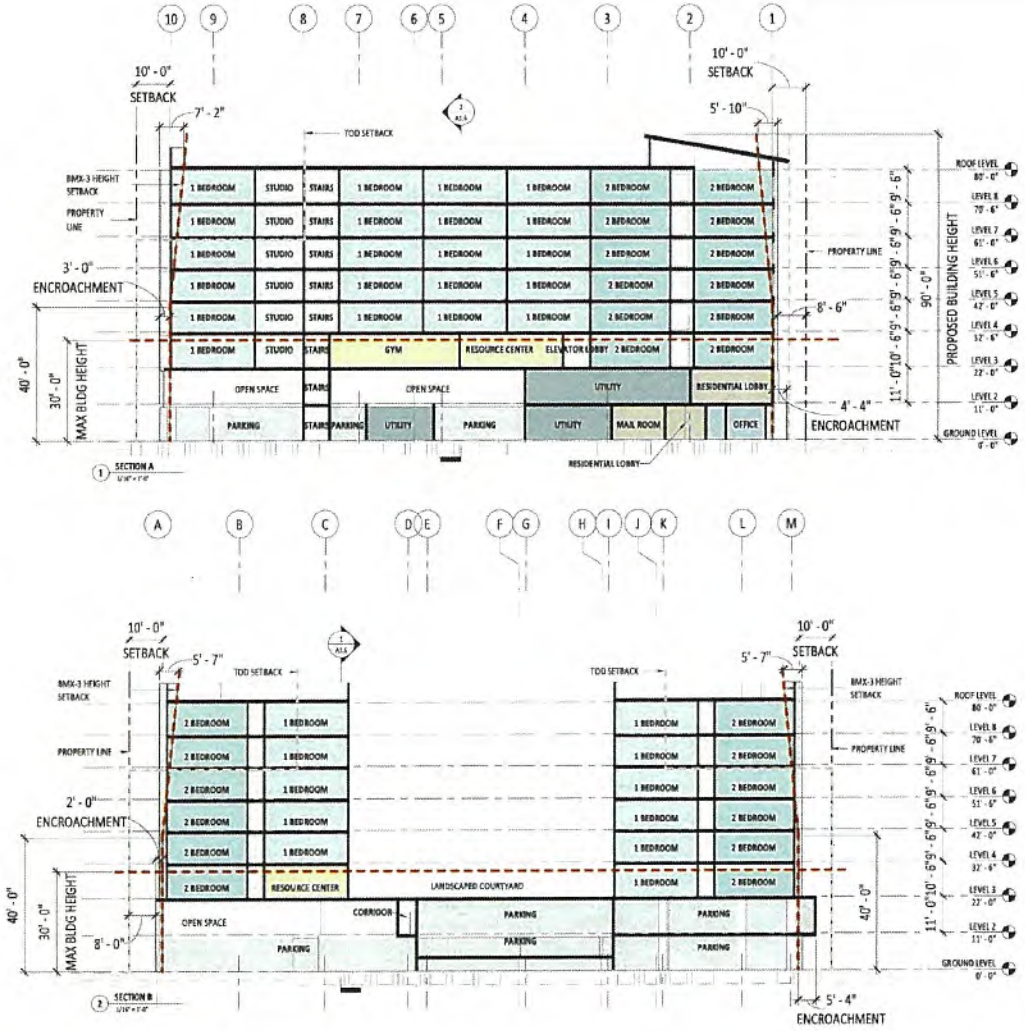
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EXHIBIT D-8

BUILDING ELEVATIONS A1.5

HALE O LIPOA - 09/06/2024

EXHIBIT D-9



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SECTIONS **A1.6**

HALE O LIPOA - 09/06/2024

EXHIBIT D-10



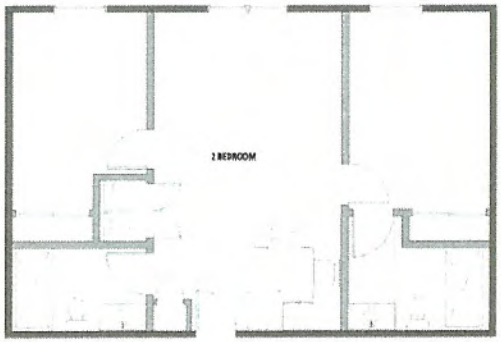
1 BEDROOM - TYPE 2
~638 SF



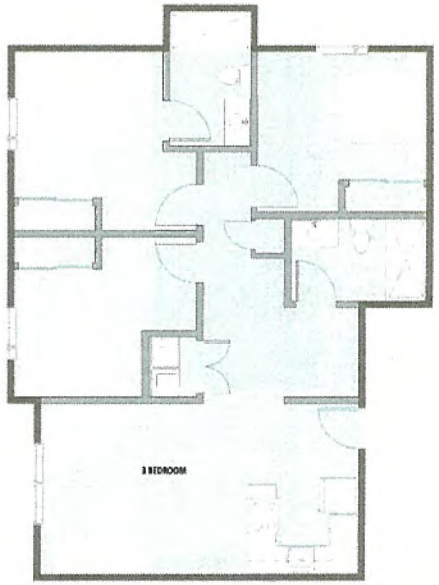
STUDIO
~370 SF



1 BEDROOM
~638 SF



2 BEDROOM
~882 SF



3 BEDROOM
~1,127 SF

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UNIT PLANS A1.7
HALE O LIPOA - 09/06/2024



lowney arch

'IKENAKEA

EXHIBIT E-1

3D VIEWS
HALE O LIPOA - 09/06/2024

A1.8



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'IKENĀKEA

EXHIBIT E-2

3D VIEWS
HALE O LIPOA - 09/06/2024

A1.9



Figure 2-19: Project Rendering showing visual simulation on Lipoa Place toward Diamond Head



Figure 2-20: Project Rendering showing visual simulation from shoreline toward Diamond Head

EXHIBIT E-3



Figure 2-21: Project Rendering showing visual simulation from shoreline toward Ewa



Figure 2-22: Project Rendering showing visual simulation from Kamehameha Highway toward Pearl Harbor

EXHIBIT E-4



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A1.7	UNIT PLANS
A1.8	3D VIEWS
A1.9	3D VIEWS

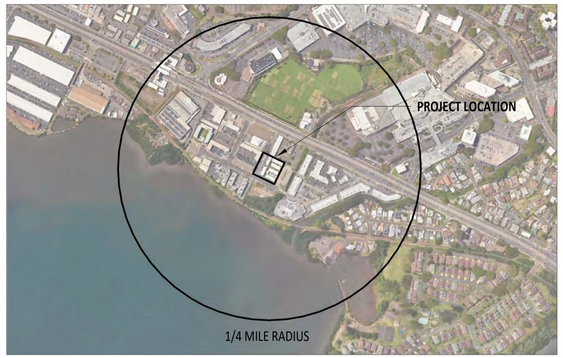
HALE O LIPOA

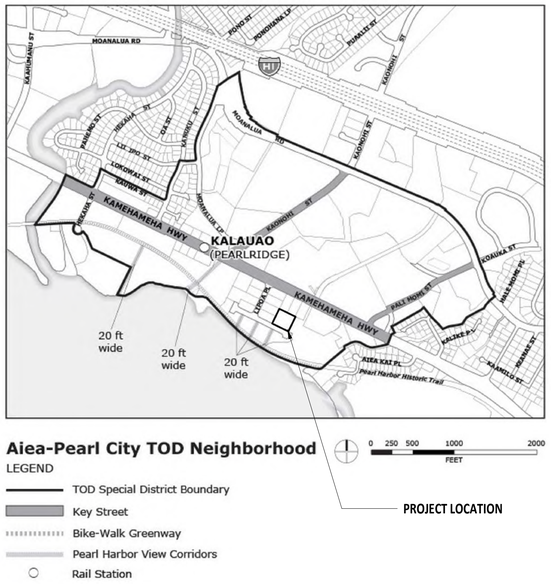
98-150 LIPOA PLACE, AIEA, HI 96701

09/06/2024

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GENERAL LUO ZONING ANALYSIS





PROJECT INFORMATION

SITE LOCATION:
98-150 Lipoa Place, Aiea, HI 96701

TMK:
9-8-014:021

ZONING DISTRICT:
BMX-3 - Business Mixed Use

LOT AREA:
42,000 SF (0.9642 acres)

PROPERTY CLASS:
Residential

STATE LAND USE DISTRICT:
Urban

FLOOD ZONE:
X, Area of Minimal Flood Hazard

SUSTAINABLE COMMUNITIES PLANS:
Primary Urban Center

SPECIAL MANAGEMENT AREA:
SMA-1*
*Major SMA Permit required

SPECIAL DISTRICT:
Kalauao (Pearlridge) station area TOD special district*
*Minor SD Permit required

PERMITTED USES

LUO Master Use Table 21-3

FOR THE BMX-3 ZONING DISTRICT:

Dwellings, multifamily:	Permitted use subject to standards in Article 5

(In the BMX-3 zoning district, where multifamily dwellings are integrated with other uses, pedestrian access to the dwellings must be physically, mechanically, or technologically independent from other uses and must be designed to enhance privacy for residents and their guests.)

21-9.100-7 TOD Special District Use Regulations

Permitted uses and structures are as enumerated in Table 21-3, except as provided below:

(a) In the business mixed-use district, the ground floor of buildings facing a key street, public open space, or transit station must be designed and used for active ground floor activities

**Project site does not face a key street, public open space, or transit station*

21-9.100-8 GENERAL REQUIREMENTS AND DEVELOPMENT STANDARDS.

(a) Site development and design standards.

(1) Density and height

(A) The maximum FAR is as prescribed by the underlying zoning district

BMX-3 District - Base FAR	2.5*

Project will request a 201H exemption

(B) The open space bonus provisions of 21-3.110-1 and 21-3.120-2 are not applicable.

(D) Height. The allowable height is as prescribed on the zoning map

Height Limit:	30 ft*

Project will request a 201H exemption

(2) Building area.

Maximum building area (percent of zoning lot)

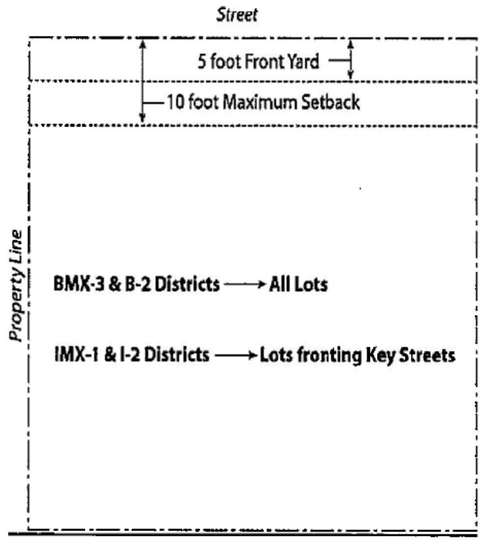
BMX-3:	Not regulated

(3) Yards, setbacks, street facade, and building placement

Minimum Front Setback:	5'
Maximum Front Setback:	10'

(B) The maximum setback must be measured from the front property line to the exterior face of the building. See figure 21-9.3.

Figure 21-9.3:



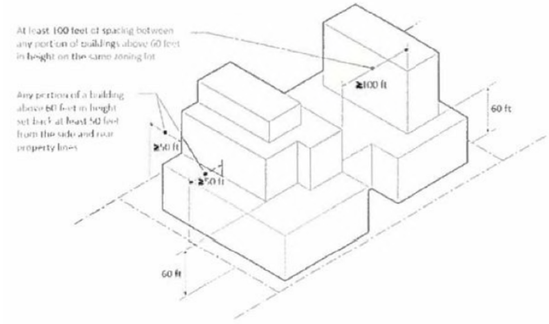
21-9.100-8 GENERAL REQUIREMENTS AND DEVELOPMENT STANDARDS CONT.

(D) Street facade and building placement

(iii) On a zoning lot with a street frontage greater than 100 feet per frontage, the ground floor building facade must be placed within the maximum front setback for at least 65 percent of the linear street frontage.

(v) Any portion of a building above 60 feet in height must be set back at least 50 feet from the side and rear property lines, and spaced at least 100 feet from any portion of other buildings above 60 feet in height on the same zoning lot as depicted in the following illustration*:

Project will request a 201H exemption

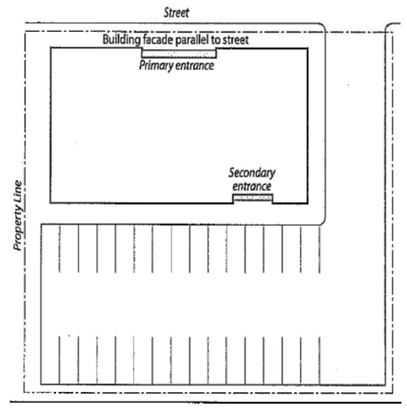


(vii) Buildings above 40 feet in height must be oriented with the long axis aligned in a mauka-makai direction.

(E) Setback improvements.

(iii) For ground-floor residential uses, covered porches, stoops, or lanais may encroach into the required front yard. Other portions of the front yard must be landscaped, except for necessary access driveways and walkways.

Project will request a 201H exemption



lowney arch

'IKENĀKEA

GENERAL LUO ZONING ANALYSIS

21-9.100-8 GENERAL REQUIREMENTS AND DEVELOPMENT STANDARDS CONT.

(a) Site development and design standards

(4) Building orientation and entrances

(A) Building facades must be predominantly oriented to and parallel with the street, property line, or adjacent public spaces. A primary building entrance must be placed on that street frontage.

(C) At least one entrance must be placed every 50 feet of the building facade facing a street or pedestrian plaza.*

Project will request a 201H exemption

(5) Building transparency, blank wall limits, and required openings for ground-floor facades

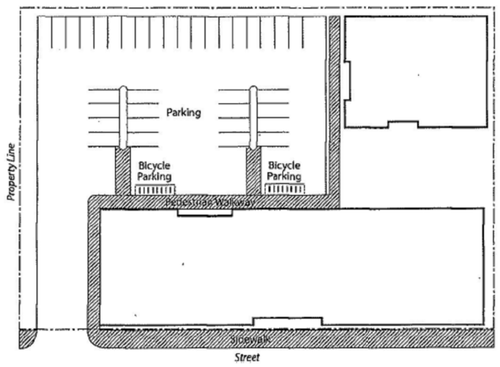
(A) Building facades within 20 feet of a front or street-facing property line must contain windows, doors, or other openings for at least 60 percent of the building facade area located between 2.5 and 7 feet above the level of the sidewalk. See Figure 21-9.13. Blank walls must not extend for more than 25 feet in a continuous horizontal plane without an opening on the ground floor of a building; provided that:

(ii) Along non-key streets, structures with residential or industrial uses on the ground floor are exempt from this standard.

(6) Pedestrian walkways. Walkways with a minimum 5-foot unobstructed width must be provided according to the following standards:

(A) Pedestrian walkways must create internal connections by connecting all buildings on a zoning lot to each other, to onsite automobile and bicycle parking areas, and to any onsite open space areas or pedestrian amenities.

Figure 21-9.15:



21-9.100-8 GENERAL REQUIREMENTS AND DEVELOPMENT STANDARDS CONT.

(b) Specific use development standards.

(1) Projects must satisfy the applicable affordable housing requirements of Chapter 29*

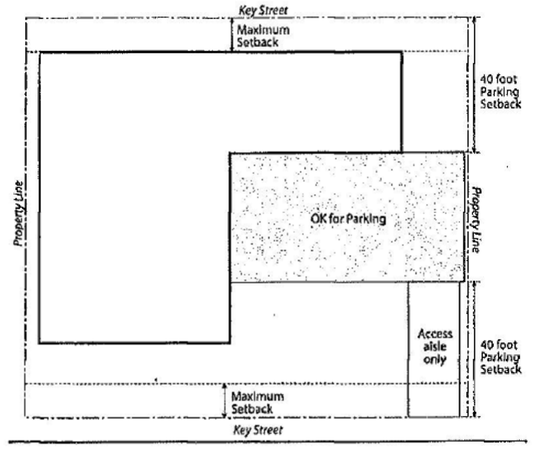
Project will request a 201H exemption

(c) Vehicle parking, loading, and bicycle parking.

(1) At-grade parking spaces and parking on the ground floor of any structure must not be located within 40 feet of any front property line. See Figures 21-9.8 and 21-9.9.

Project will request a 201H exemption

Figure 21-9.8:



(2) Service areas and loading spaces must be located at the side or rear of the site.

(4) The ground floor of parking structures on all streets must be designed and used for active ground floor activities within 40 feet of the property line.*

Project will request a 201H exemption

21-3.120-2 BUSINESS MIXED USE DISTRICTS AND DEVELOPMENT STANDARDS. (ONLY THE DEVELOPMENTS STANDARDS NOT OVERRIDDEN BY 21-9.100-8)

(a) Within the business mixed-use districts, permitted uses and structures shall be as enumerated in Table 21-3.

Dwellings, multi-family = P/c

P/c = Permitted use subject to standards in Article 5

Article 5 = In the BMX-3 zoning district, where multifamily dwellings are integrated with other uses, pedestrian access to the dwellings must be physically, mechanically, or technologically independent from other uses and must be designed to enhance privacy for residents and their guests.

(b) Within the business mixed-use districts, development standards shall be as enumerated in Table 21-3.4

Minimum lot area (square feet)	5,000
Minimum lot width and depth (feet)	50
Yards (feet)	
Front	See 21-9.100-8
Side and rear	10 for multi-family dwellings
Maximum building area (percent of zoning lot)	Not regulated
Maximum density (FAR)	2.5
Open space bonus	See 21-9.100-8
Maximum height	30'

(c) Additional development standards.

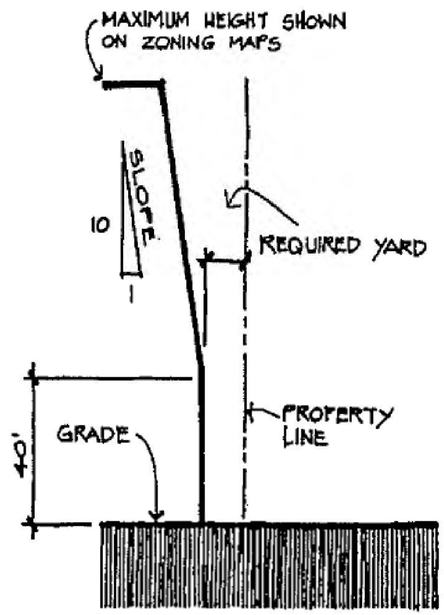
(1) Except for necessary access drives and walkways, all yards must be landscaped.

(2) BMX-3 district height setbacks. Within the BMX-3 district, any portion of a structure over 40 feet in height must have additional height setbacks as follows:

(A) For each 10 feet of additional height or portion thereof, an additional 1-foot setback must be provided; and

(B) The additional setback must be a continuous plane from the top of the structure to the height of 40 feet above grade (see Figure 21-3.3).

Figure 21-3.3:



GENERAL LUO ZONING ANALYSIS

OFF-STREET PARKING

No off-street parking is required in the Primary Urban Center Development Plan area and Ewa Development Plan area, except for those areas thereof located in the residential, agricultural, and preservation zoning districts.

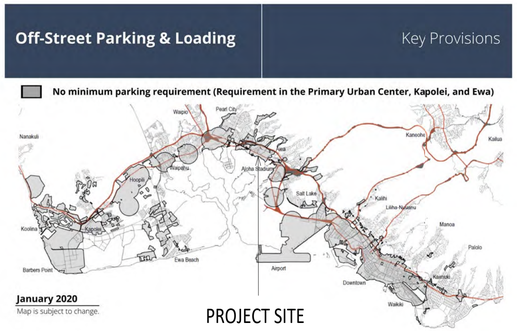


figure from the Parking Reform for a Resilient Oahu - Ordinance 20-41

LUO 21-6.50. Parking space dimensions and access.

DIMENSION OF PARKING SPACES:

- *Standard parking spaces must be at least 18' x 8'-3", with parallel spaces at least 22' in length.*
- *Compact parking spaces must be 16' x 7'-6", with parallel spaces at least 19' in length.*
- *All provided parking spaces must be standard-sized parking spaces, except that duplex units, detached dwellings, and multifamily dwellings may have up to 50 percent of the total number of provided parking spaces as compact parking spaces*

Minimum aisle widths for parking bays must be provided in accordance with Table 21-6.4.

Table 21-6.4
Parking Aisle Widths

Parking Angle	Aisle Width
0 degrees to 44 degrees	12 feet
45 degrees to 59 degrees	13.5 feet
60 degrees to 69 degrees	18.5 feet
70 degrees to 79 degrees	19.5 feet
80 degrees to 89 degrees	21 feet
90 degrees	22 feet

LOADING

LUO Table 21-6.5. Required Number of Loading Spaces

MULTIFAMILY DWELLINGS:

151 - 300 units 2 spaces

LOADING SPACE DIMENSIONS AND ACCESS

- When more than one loading space is required, the minimum horizontal dimensions for one-third of the required spaces are 35 feet in length and 12 feet in width, with a minimum vertical clearance of 14 feet.
- For the remaining required loading spaces, the minimum horizontal dimensions are 19 feet in length and eight feet six inches in width, with a minimum vertical clearance of 10 feet.
- When computation of the total required loading spaces with the dimensions 35 feet in length by 12 feet in width results in a number with a fraction of 0.5 or greater, the number of required loading spaces will be the next highest whole number.
- Loading spaces or maneuvering areas are not permitted in any required yard*, except in the preservation, agricultural, and country districts. For lots that are split zoned and have nonresidential loading, the loading spaces may encroach entirely into the side yard created by the zoning boundary that splits the lot.

STRUCTURED PARKING SITE PLANNING AND DESIGN STANDARDS

- *All mechanical equipment on or in structured parking that is visible from a street, right-of-way, or public park, including but not limited to electrical panels, transformers, telecommunication distribution boxes, and backflow preventers must be screened from view. Mechanical equipment necessary for emergency responders, such as fire prevention standpipes, need not be screened.*
- *Parking structures that are adjacent to zoning lots with side or rear setback requirements must meet the following requirements:*
  - *(1) An 18-inch landscaping strip along the abutting property line must be provided, and consist of landscaping a minimum of 42 inches in height; provided that a solid wall 42 inches in height may be substituted for this requirement;*
  - *(2) A minimum 2-inch caliper vertical-form tree must be planted for every 50 linear feet of structured parking building length facing a required yard.*

SEE PARKING AND LOADING PLAN FOR REQUIRED AND PROVIDED LOADING STALLS

BICYCLE PARKING

LUO Table 21-6.3. Bicycle Parking Spaces Required

Parking for bicycles is required in the apartment, apartment mixed use, business, business mixed use, and resort districts, and in all precincts of the Waikiki special district.

RESIDENTIAL USES:

Short-Term: 1 for every 10 dwelling or lodging units.
Long-Term: 1 for every 2 dwelling or lodging units.

- *Each bicycle parking space must be a minimum of 2 FT in width, 6 FT in length, and must be accessible without moving another bicycle. Vertical or stacked spaces that meet the dimension, security, and accessibility requirements above are permitted, and the depth and height of these spaces must be a minimum of 4 feet.*
- *All types of bicycle parking spaces must be clear of walls, poles, landscaping (other than ground cover), street furniture, drive aisles, pedestrian ways, and vehicle parking spaces for at least 5 FT from the edge of the bicycle parking space on the side that the bicyclist accesses the bicycle parking area.*

Short-Term Requirement: 153 units / 10 = 15.3 = 15 short-term spaces
Long-Term Requirement: 153 units / 2 = 76.5 = 77 long-term spaces

LANDSCAPING AND SCREENING

LUO Section 21-4.70

LANDSCAPING AND SCREENING

- Parking lots and structures must be landscaped as required in Article 6.
- All outdoor trash storage areas, except those for one-family or two-family dwelling use, must be screened on a minimum of three sides by a wall or hedge at least six feet in height. The wall must be painted, surfaced, or otherwise treated to blend with the development it serves. All trash storage areas must be curbed or graded to prevent runoff from reaching storm drains or surface water.
- Within the country, residential, apartment, apartment mixed use and resort districts, utility substations, other than individual transformers, must be enclosed by a solid wall or a fence with a screening hedge a minimum of five feet in height, except for necessary openings for access. Transformer vaults for underground utilities and similar uses must be enclosed by a landscape hedge, except for access openings.
- All plant material and landscaping must be provided with a permanent irrigation system.
- All rooftop machinery and equipment, except for solar panels, antennas, plumbing vent pipes, ventilators, and guardrails, must be screened from view from all directions, including from above provided that screening from above is not required for any machinery or equipment whose function would be impaired by the screening. Rooftop machinery and equipment in the strictly industrial districts and on structures or portions of structures less than 150 feet in height will be exempt from this subsection.
- Any use located in the B-1, B-2, or BMX-4 district, and any use located in the BMX-3 district except detached dwellings and multi-family dwellings, shall be screened from any adjacent zoning lot in a residential, apartment, or apartment mixed-use district, by a landscaped area not less than 5 feet in width along side and rear property lines. Such landscaped area shall contain a screening hedge not less than 42 inches in height. The requirements of this subsection shall not apply to necessary drives and walkways, nor to any meeting facility, day-care facility, group living facility, or other use governed by subsection

GENERAL LUO ZONING ANALYSIS

ADA PARKING REQUIREMENTS

2010 ADA Standards for Accessible Design, 2004 ADAAG

233.3.1.1 Residential Dwelling Units with Mobility Features.
In facilities with residential dwelling units, at least 5 percent, but no fewer than one unit, of the total number of residential dwelling units shall provide mobility features complying with 809.2 through 809.4 and shall be on an accessible route as required by 206.

233.3.1.2 Residential Dwelling Units with Communication Features.
In facilities with residential dwelling units, at least 2 percent, but no fewer than one unit, of the total number of residential dwelling units shall provide communication features complying with 809.5.

208.2.3.1 Parking for Residents.
Where at least one parking space is provided for each residential dwelling unit, at least one parking space complying with 502 shall be provided for each residential dwelling unit required to provide mobility features complying with 809.2 through 809.4.

208.2.3.2 Additional Parking Spaces for Residents.
Where the total number of parking spaces provided for each Residential dwelling unit exceeds one parking space per residential dwelling unit, 2 percent, but no fewer than one space, of all the parking spaces not covered by 208.2.3.1 shall comply with 502.

208.2.3.3 Parking for Guests, Employees, and Other Non-Residents.
Where parking spaces are provided for persons other than residents, parking shall be provided in accordance with Table 208.2.

208.2.4 Van Parking Spaces.
For every six or fraction of six parking spaces required by 208.2 to comply with 502, at least one shall be a van parking space complying with 502.

SEE PARKING AND LOADING PLAN FOR REQUIRED AND PROVIDED LOADING STALLS.

Table 208.2 Parking Spaces

Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

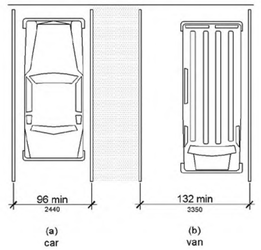


Figure 502.2
Vehicle Parking Spaces

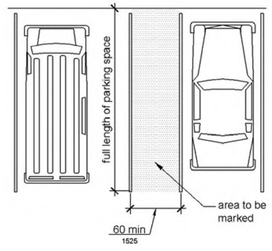


Figure 502.3
Parking Space Access Aisle

EV READINESS COMPLIANCE

Per Bill 25, C406.8.1

For construction of new parking stalls at new residential or commercial buildings to be compliant with Ordinance 20-10, the development should be designed and constructed to include adequate electrical panel capacity and dedicated conduit for a future Level 2 EV-charger at a certain percentage of parking stalls.

Twenty-five percent or more of the parking stalls must be EV-ready for multi-unit residential projects that add 8 or more newly-added parking stalls, and new commercial buildings that add 12 or more newly-added parking stalls, to support minimum AC Level 2 charging.

As used in this section, “electric vehicle charger ready”means that sufficient wire, conduit, electrical panel service capacity, overcurrent protection devices, and suitable termination points are provided to connect to a charging station capable of providing simultaneously an AC Level 2 charge per required parking stall.

Exceptions:
2. For affordable housing units offered for sale or rent to households earning more than 100 percent of the area median income for Honolulu, up to 140 percent of the area median income for Honolulu, the total number of newly-added parking stalls that would otherwise be required to be electric vehicle charger ready to comply with the baseline requirements under this subsection will be reduced by 20 percent.

3. For affordable housing units offered for sale or rent to households earning 100 percent or below of the area median income for Honolulu, none of the total number of newly-added parking stalls that would otherwise be required to be electric vehicle charger ready to comply with the baseline requirements under this subsection will be required.

SEE PARKING AND LOADING PLAN FOR REQUIRED AND PROVIDED LOADING STALLS.

PROJECT SITE (98-150 Lipoa Place, Aiea, HI 96701)	
TMK:	9-8-014:021
Zoning:	BMX-3 - Business Mixed Use
	Kalauao Station TOD Special District
Lot Area:	42,000
Total FAR GSF*	151,784
FAR	3.61
Total Units	153
Total Parking Stalls	147
Parking Ratio	0.96
Proposed Height	90'

INCREASED DENSITY	Allowed by Right	Proposed	Difference
FAR	2.50	**3.61**	**+ 1.11**
	105,000 SF	**151,784 SF**	**+46,784 SF**
REQUESTING 201H EXEMPTION			

LUO Table 21-3.4 Business Mixed-Use District Development Standards
Maximum density (FAR) for BMX-3 zones = 2.5

INCREASED HEIGHT	Allowed by Right	Proposed	Difference
	30 FT	**90 FT**	**+60 SF**
REQUESTING 201H EXEMPTION			

LUO Table 21-3.4 Business Mixed-Use District Development Standards
per zoning map

YARD SETBACKS	Proposed Setbacks
North (Rear):	**3'-0" Encroachment into rear yard**
East (Side):	**5'-4" Encroachment into side yard**
South (Front):	**4'-4" Encroachment into front yard**
West (Side):	**2'-0" Encroachment into side yard**
REQUESTING 201H EXEMPTION FROM YARD SETBACKS	

LUO Table 21-3.4 Business Mixed-Use District Development Standards
Side and rear (feet) = 10 for multi-family dwellings

BMX-3 HEIGHT SETBACKS	Proposed Setbacks
North (Rear):	**7'-2" Encroachment beyond 1:10 setback plane**
East (Side):	**5'-7" Encroachment beyond 1:10 setback plane**
South (Front):	**5'-10" Encroachment beyond 1:10 setback plane**
West (Side):	**5'-7" Encroachment beyond 1:10 setback plane**
Note: Encroachment dimensions are max. instances and are not continuous along property lines.	
REQUESTING 201H EXEMPTION FROM HEIGHT SETBACKS	

LUO 21-3.120-2 (c) (2) BMX-3 district height setbacks.
Within the BMX-3 district, any portion of a structure over 40 feet in height muct have additional height setbacks as follows:
(A) For each 10 feet of additional height or portion thereof, an additional 1-foot setback must be provided; and
(B) The additional setback must be a continuous plane from the top of the structure to the height of 40 feet above grade

PROJECT SITE (98-150 Lipoa Place, Aiea, HI 96701)	
TMK:	9-8-014:021
Zoning:	BMX-3 - Business Mixed Use Kalauao Station TOD Special District
Lot Area:	42,000
Total FAR GSF*	151,784
FAR	3.61
Total Units	153
Total Parking Stalls	147
Parking Ratio	0.96
Proposed Height	90'

BUILDING ORIENTATION	Required	Proposed
Building above 40 feet in height	Long axis aligned in mauka-makai direction	**U-Shape, long axis aligned perpendicular to mauka-makai direction**
REQUESTING 201H EXEMPTION FROM BUILDING ORIENTATION REQUIREMENT		

LUO 21-9.100-8 (a) (3) (D) (v) Street façade and building placement

Buildings above 40 feet in height must be oriented with the long axis aligned in a mauka-makai direction.

FRONT YARD	Required	Proposed
Ground-floor residential uses	All portions of front yard must be landscaped	**Short term bike parking in front yard**
REQUESTING 201H EXEMPTION FROM FRONT YARD LANDSCAPING REQUIREMENT		

LUO 21-9.100-8 (a) (3) (E) (iii) Setback improvements

For ground-floor residential uses, covered porches, stoops, or lanais may encroach into the required front yard. Other portions of the front yard must be landscaped, except for necessary access driveways and walkways.

BUILDING ENTRANCES	Required	Proposed
Building Entrances	One entrance every 50 feet (3 entrances)	**1 Entrance**
REQUESTING 201H EXEMPTION FROM BUILDING ENTRANCE REQUIREMENT		

LUO 21-9.100-8 (a) (4) (C) Building orientation and entrances

At least one entrance must be placed every 50 feet of the building facade facing a street or pedestrian plaza.

CHAPTER 29 AFFORDABLE HOUSING
*Chapter 29 affordable housing requirements conflict with 201H afforable housing requirements
REQUESTING 201H EXEMPTION FROM CHAPTER 29 AFFORDABLE HOUSING REQUIREMENT

LUO 21-9.100-8 (b) (1) Specific use development standards

Projects must satisfy the applicable affordable housing requirements of Chapter 29.

AT-GRADE PARKING SPACES	Required	Proposed	Difference
Distance from front property line	40 FT	**10 FT**	**-30 FT**
REQUESTING 201H EXEMPTION FROM AT-GRADE PARKING REQUIREMENT			

LUO 21-9.100-8 (c) (1) Vehicle parking, loading, and bicycle parking

At-grade parking spaces and parking on the ground floor of any structure must not be located within 40 feet of any front property line.

GROUND FLOOR ACTIVE SPACES	Required	Proposed
Distance from front property line	Active ground floor activies within 40 feet of front property line	**Parking spaces within 40 feet of front property line**
REQUESTING 201H EXEMPTION FROM GROUND FLOOR ACTIVE SPACE REQUIREMENT		

LUO 21-9.100-8 (c) (4) Vehicle parking, loading, and bicycle parking

The ground floor of parking structures on all streets must be designed and used for active ground floor activities within 40 feet of the front property line.

PROJECT SITE (98-150 Lipoa Place, Aiea, HI 96701)	
TMK:	9-8-014:021
Zoning:	BMX-3 - Business Mixed Use
	Kalauao Station TOD Special District
Lot Area:	42,000
Total FAR GSF*	151,784
FAR	3.61
Total Units	153
Total Parking Stalls	147
Parking Ratio	0.96
Proposed Height	90'

PARK DEDICATION			
	Required	Provided	**Difference**
Park Dedication	16,720 SF	0 SF	**-16,720 SF**
REQUESTING 201H EXEMPTION			

Park Dedication rules and regulations of the City and County of Honolulu

Rule 8. Parks and Playground Land Area Requirements

Apartment, Resort, and Mixed Use Districts and Planned Development Housing projects within Residential District. (amended Ordinance No. 90-2 effective 1/18/90) The minimum land area required shall be either 10% of the maximum permitted floor area or 110 square feet per dwelling or lodging unit, whichever is less.

10% of FAR

110 SF per dweeling unit



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AERIAL VIEW G0.8

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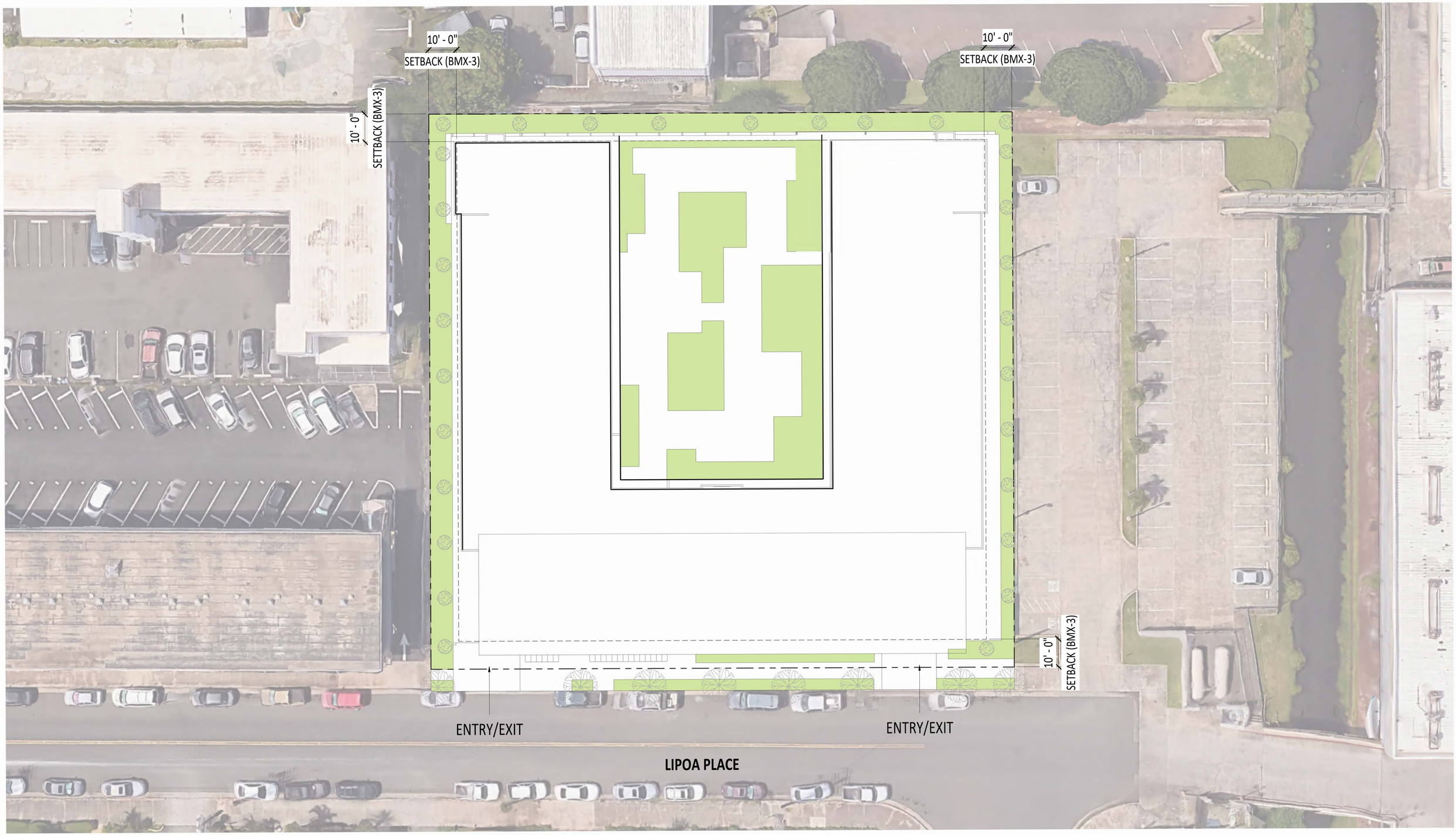
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EXISTING SITE PLAN A0.1

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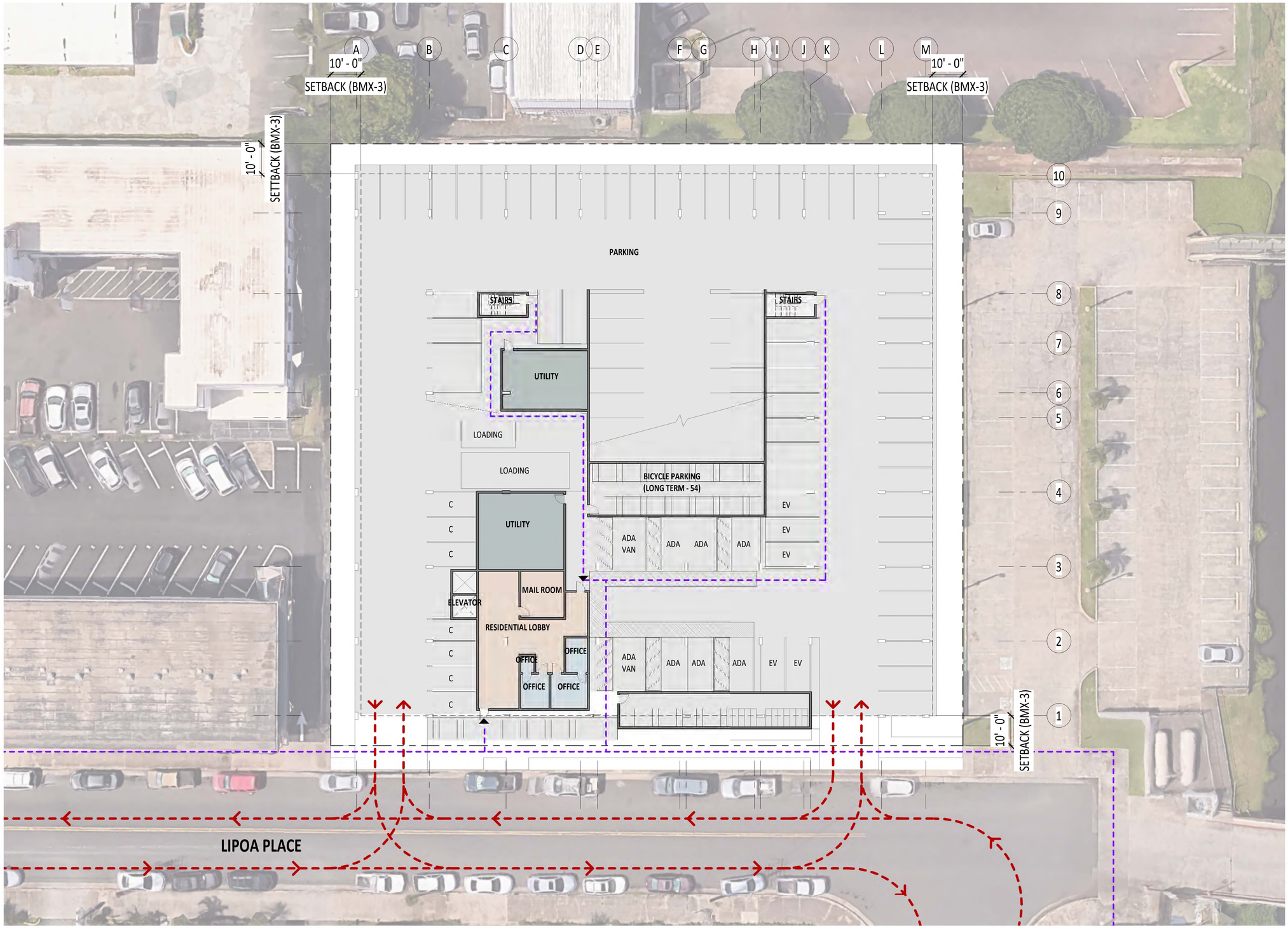
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0 16' 32'

OVERALL SITE PLAN A0.2

HALE O LIPOA - 09/06/2024



CIRCULATION LEGEND

- VEHICULAR CIRCULATION
- PEDESTRIAN CIRCULATION
- LOBBY ENTRANCE

0 16' 32'

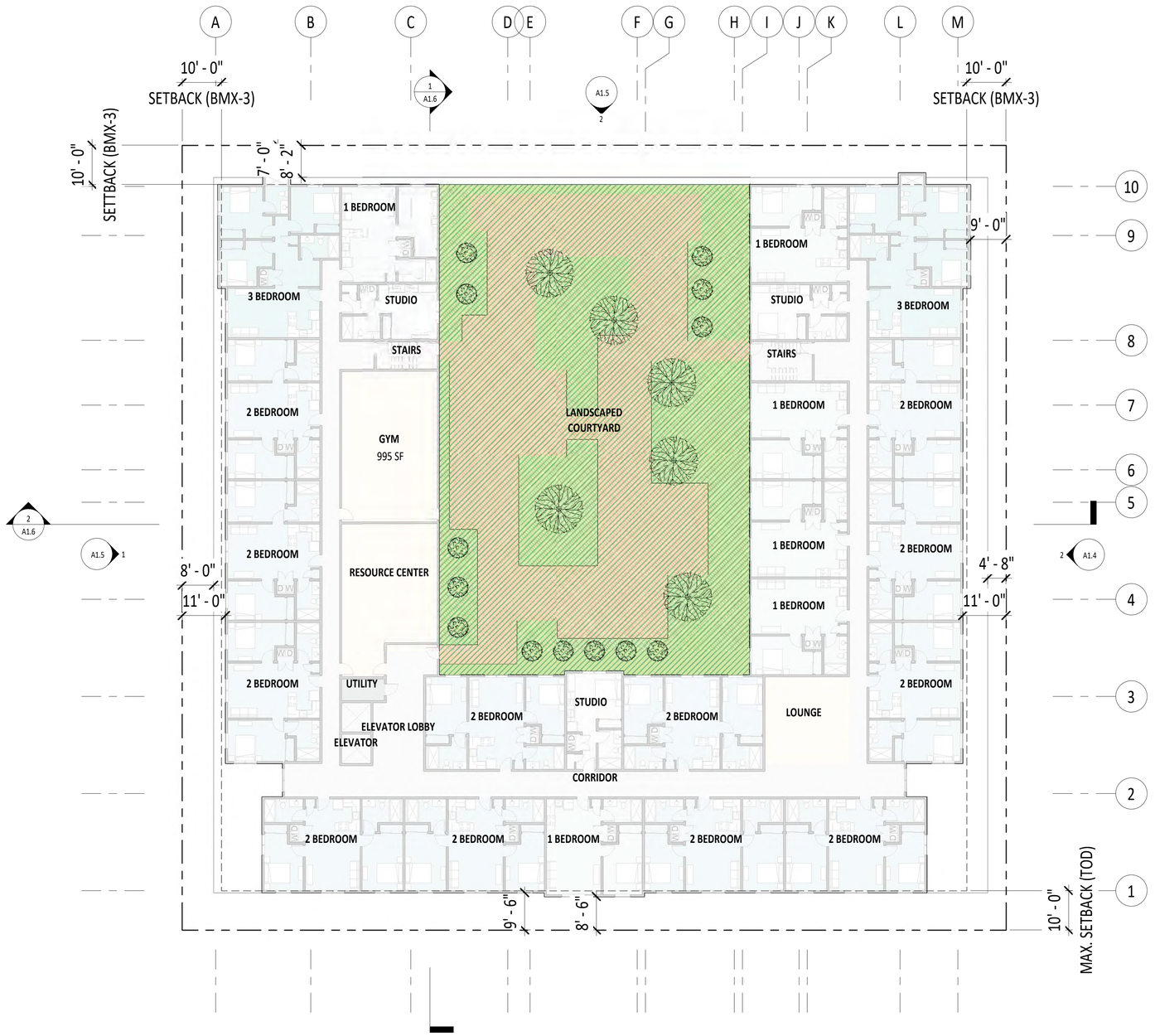
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CIRCULATION A0.3

HALE O LIPOA - 09/06/2024



OPEN SPACE LEGEND

PRIVATE OPEN SPACE

OPEN SPACE	SF
LOT AREA	42,000
APPROX. PROPOSED OPEN SPACE	
Private	9,860
Percent Open Space	23%

0 16' 32'

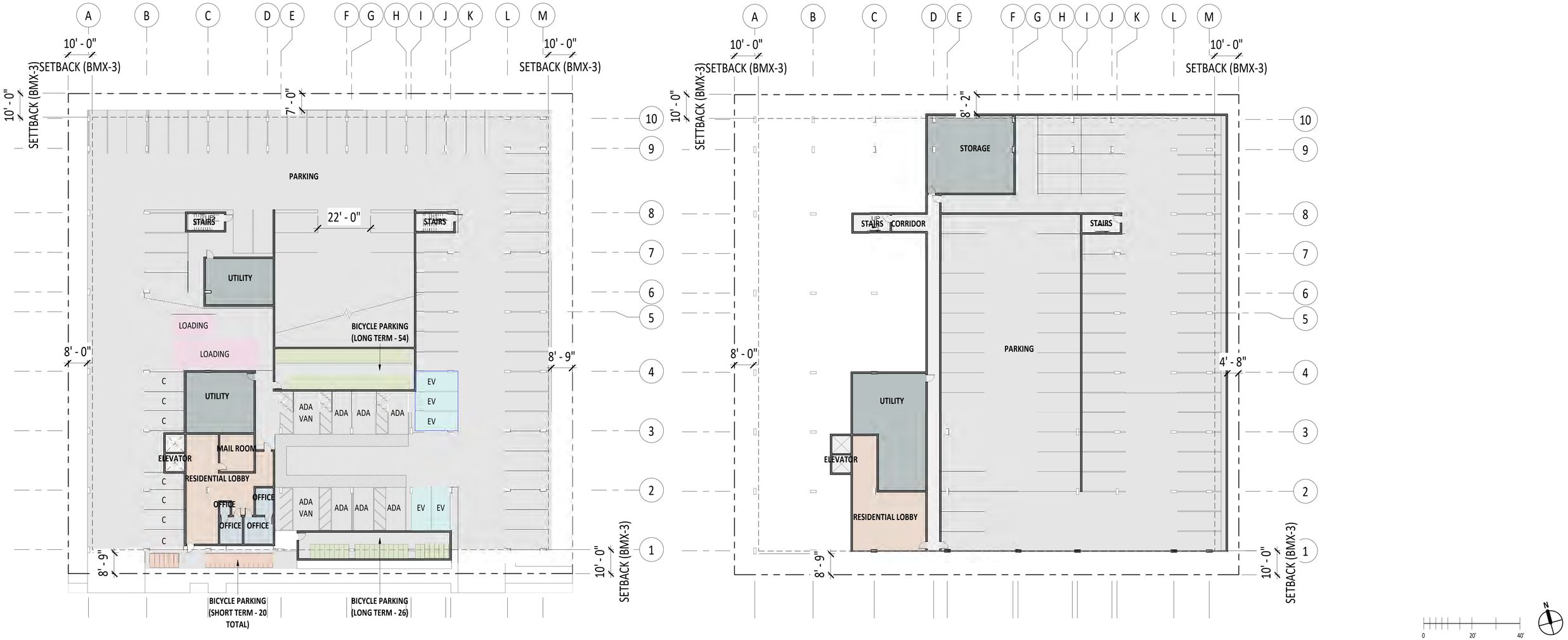
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OPEN SPACE A0.4

HALE O LIPOA - 09/06/2024



PARKING LEGEND

- EV STALLS
- LOADING
- SHORT-TERM BIKE RACKS
- LONG-TERM BIKE RACKS

No off-street parking is required per the the Primary Urban Center

PARKING						
	Standard	**Compact**	**Tandem**	**ADA**	**EV**	**Total**
LEVEL 6						**0**
LEVEL 5						**0**
LEVEL 4						**0**
LEVEL 3						**0**
LEVEL 2	69		4			**73**
LEVEL 1	54	7		8	5	**74**
TOTAL	123	7	4	8	5	**147**

NOTE: Standard spaces are a min. of 8'-3" x 18'-0"

ADA PARKING			
	Required (5% of Units)	**Provided**	
For 153 units	8	**8**	(2 are Van)

EV PARKING		
	Required	**Provided**
For AMI<100	NONE	5

LOADING		
	Required	**Provided**
Loading	2	2

BICYCLE PARKING		
	Required	**Provided**
Short-term (1 per 10 units)	15	**20**
Long-term (1 per 2 units)	77	**80**
Total	92	**100**

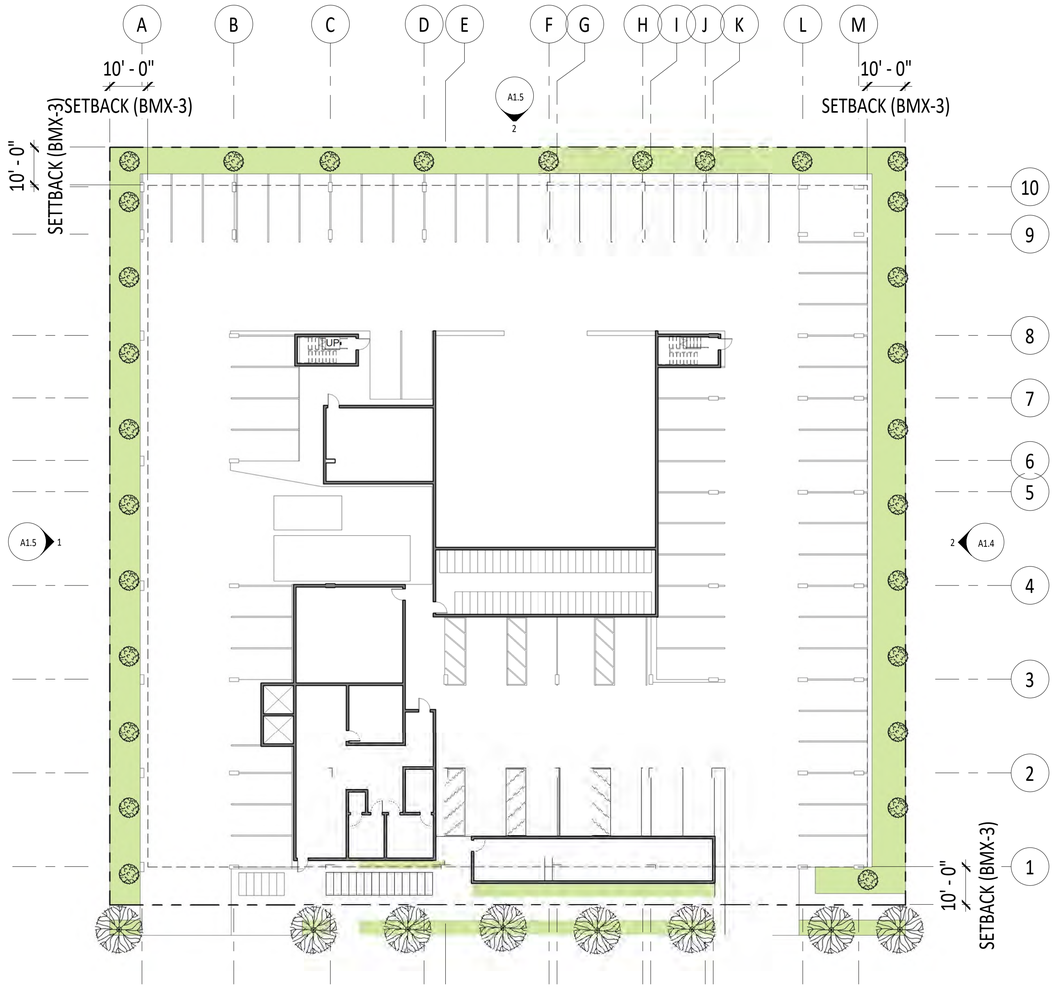
PARKING RATIO	**0.96**

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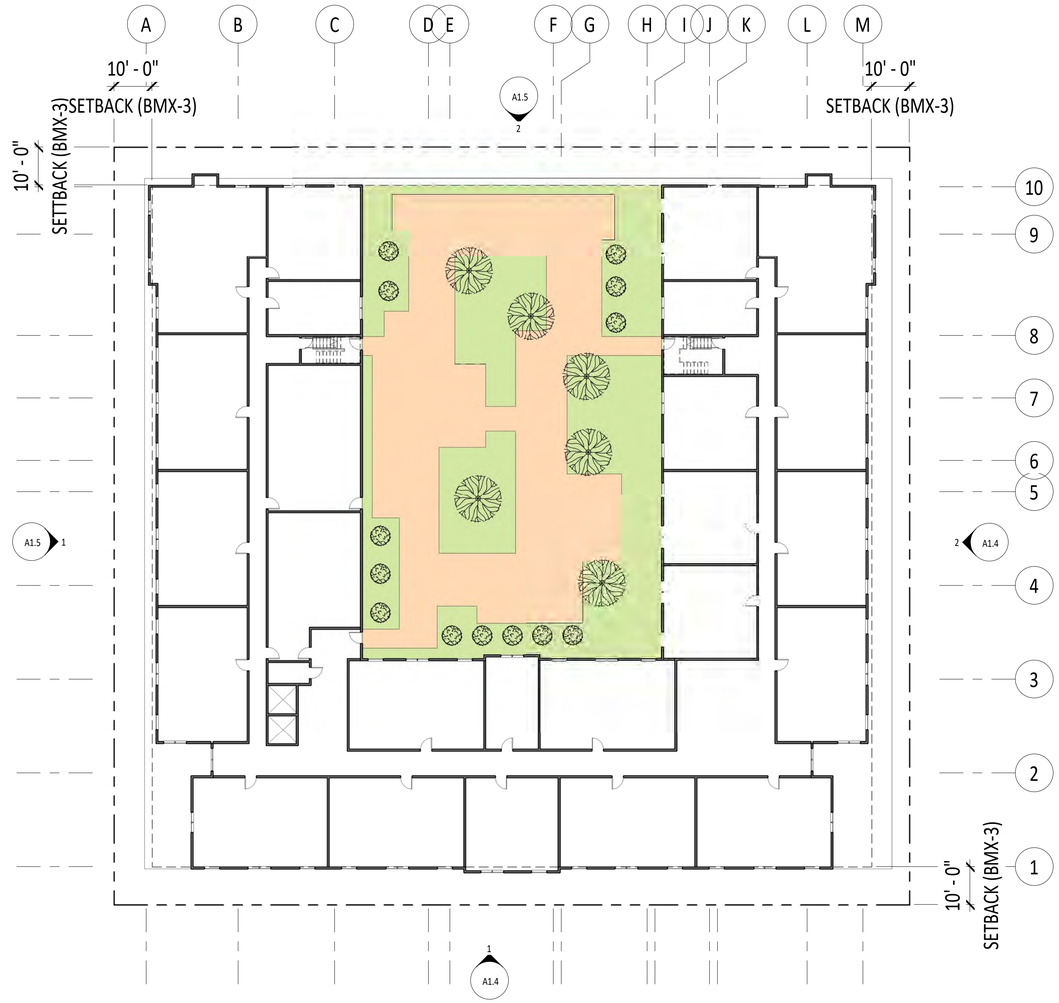
'IKENĀKEA

PARKING & LOADING PLAN A0.5

HALE O LIPOA - 09/06/2024



2 **GROUND FLOOR LANDSCAPE PLAN**
1" = 20'-0"



1 **PODIUM LEVEL LANDSCAPE PLAN**
1" = 20'-0"

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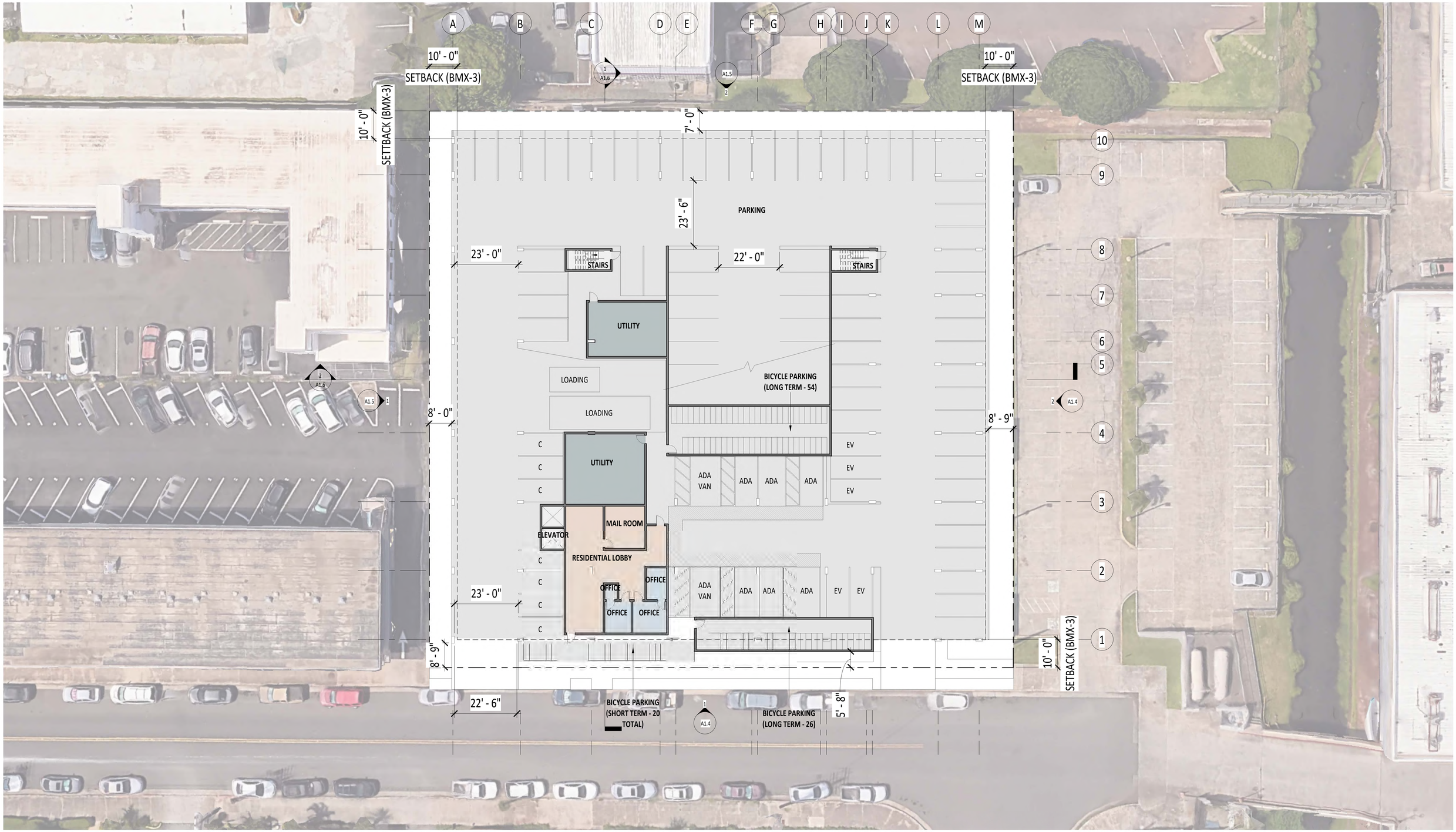
'IKENĀKEA

0 20' 40'

N

CONCEPTUAL LANDSCAPE PLAN A0.6

HALE O LIPOA - 09/06/2024



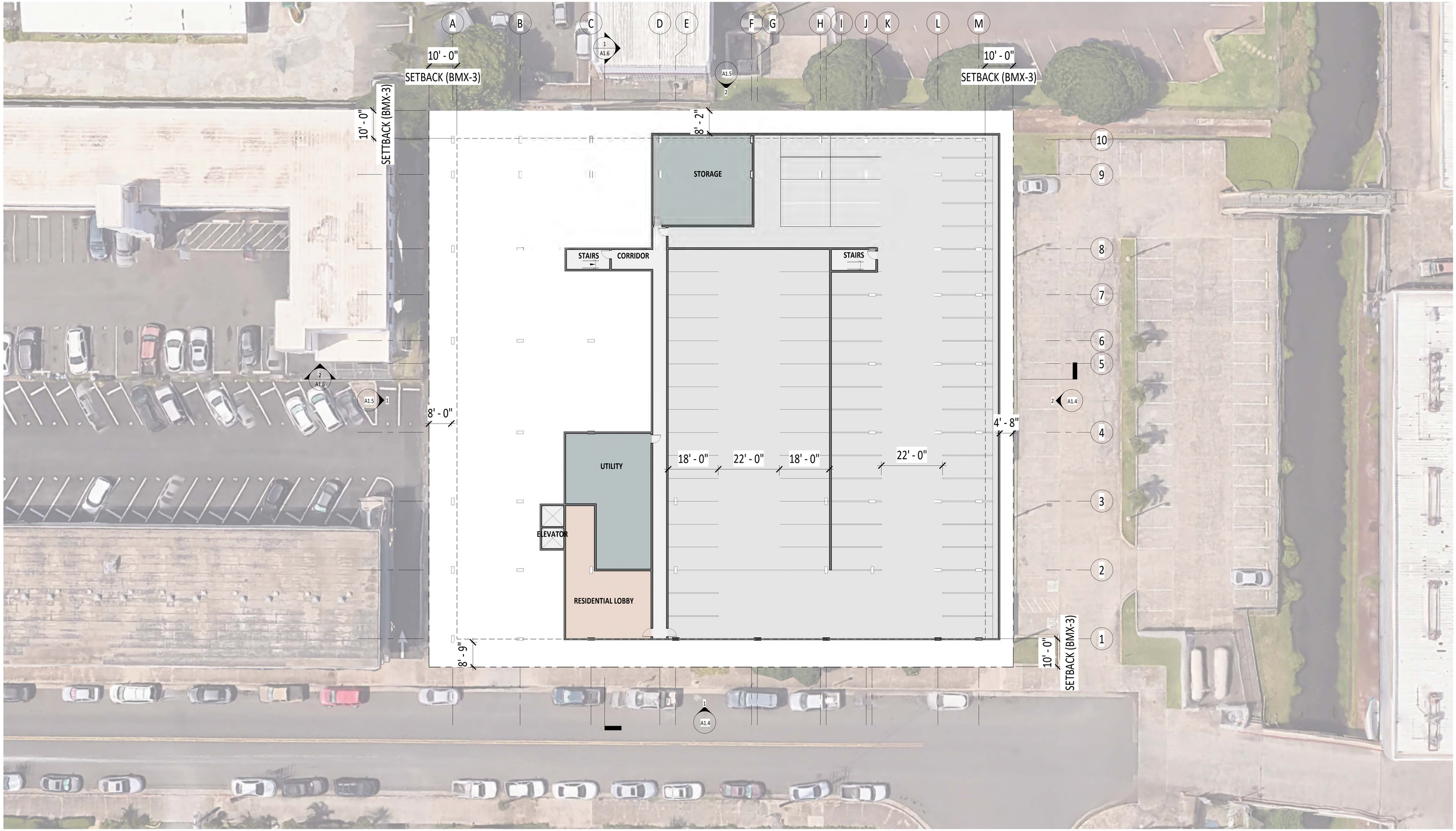
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'IKENĀKEA

0 16' 32'

GROUND FLOOR PLAN A0.7

HALE O LIPOA - 09/06/2024



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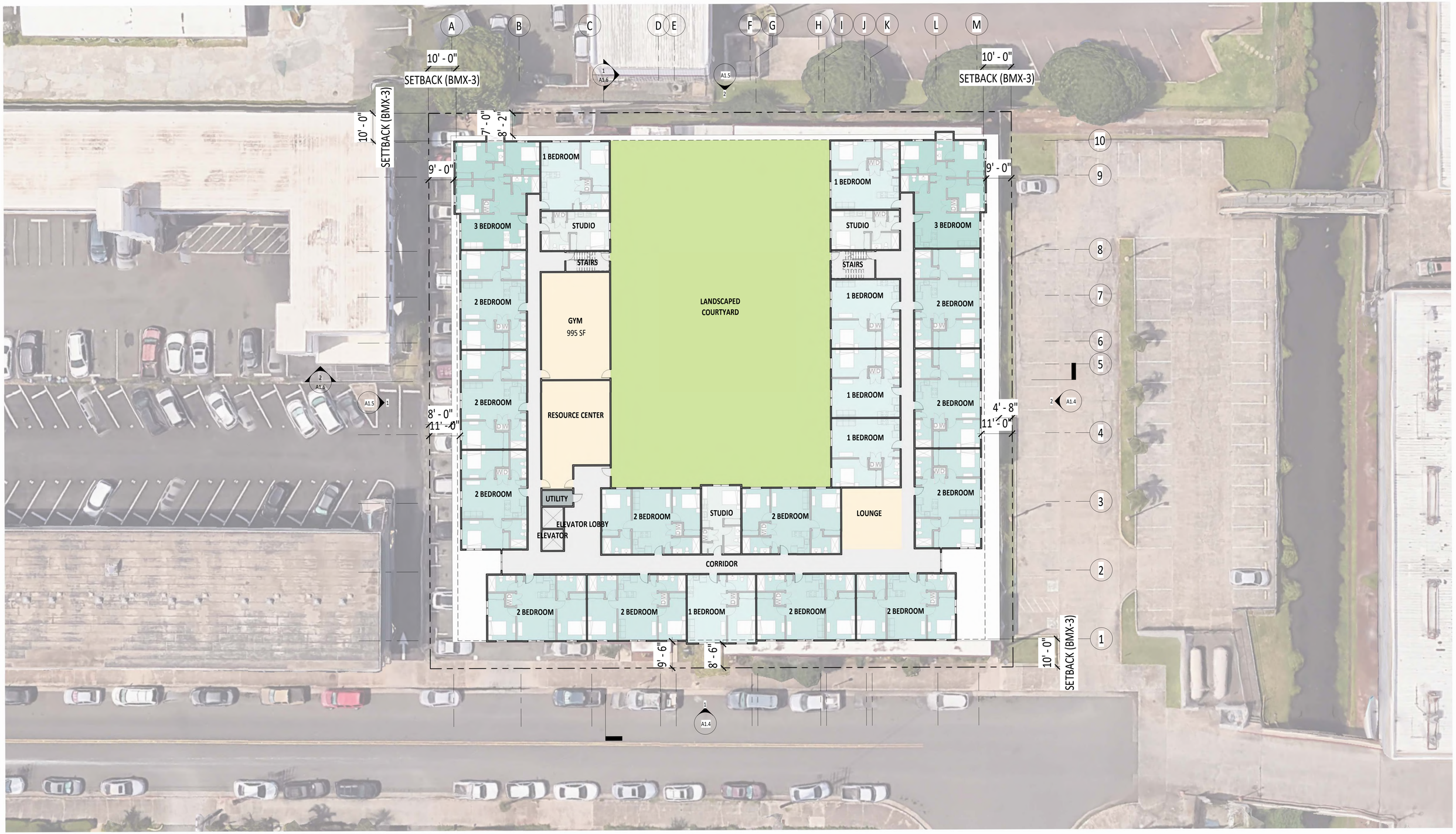
'IKENĀKEA

0 16' 32'

N

SECOND FLOOR PLAN A0.8

HALE O LIPOA - 09/06/2024



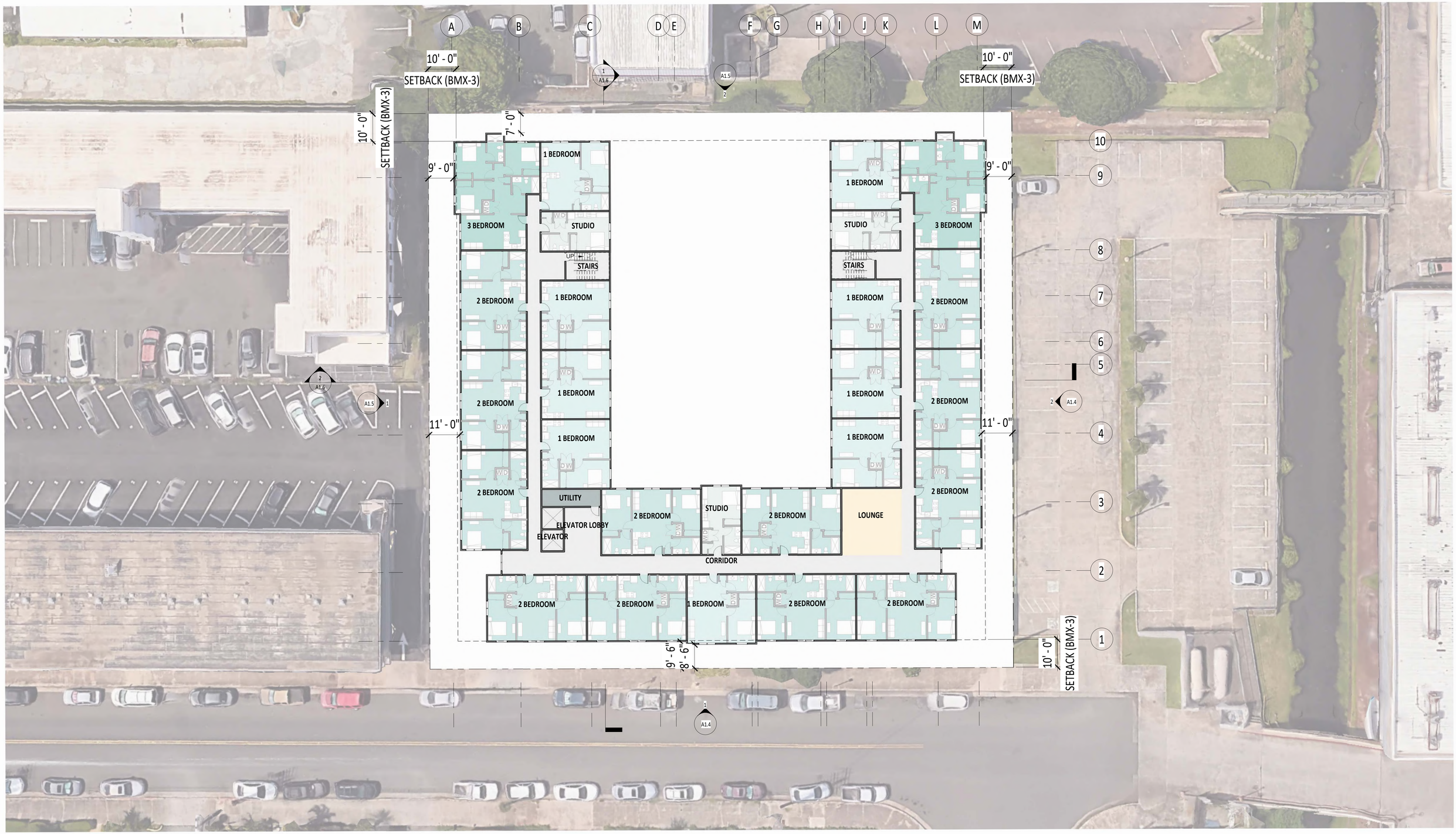
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'IKENĀKEA

0 16' 32'

PODIUM FLOOR PLAN A0.9

HALE O LIPOA - 09/06/2024



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'IKENĀKEA

0 16' 32'

N

TYP RESIDENTIAL LEVEL 4-8 PLAN A1.0

HALE O LIPOA - 09/06/2024

PROJECT SITE (98-150 Lipoa Place, Aiea, HI 96701)	
TMK:	9-8-014:021
Zoning:	BMX-3 - Business Mixed Use
	Kalauao Station TOD Special District
Lot Area:	42,000 SF (0.9642 acres)
Total FAR GSF*	151,784 SF
FAR	3.61
Total Units	153
Total Parking Stalls	147
Parking Ratio	0.96
Proposed Height	90'

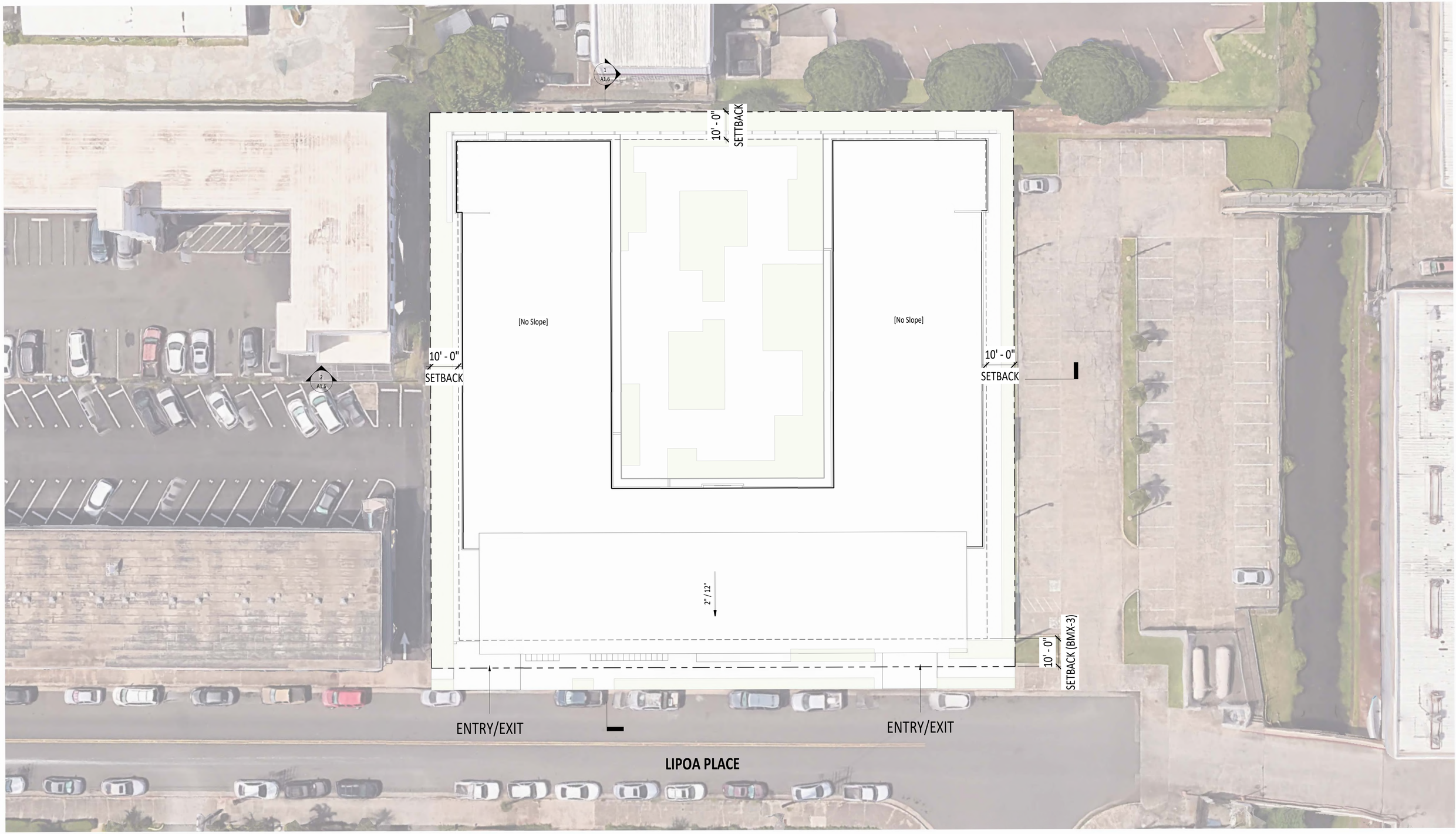
PROGRAM SUMMARY

	UNIT TYPES					PARKING STALLS						AREAS GSF				
	STUDIO	1BED	2BED	3BED	TOTAL	STANDARD	COMPACT	ADA	EV	GUEST	TOTAL	RESIDENTIAL	COMMON	PARKING	AREA GSF	FAR GSF*
ROOF															0	0
LEVEL 8	3	9	12	2	26							19,737	3,810		23,547	23,547
LEVEL 7	3	9	12	2	26							19,737	3,810		23,547	23,547
LEVEL 6	3	9	12	2	26							19,737	3,810		23,547	23,547
LEVEL 5	3	9	12	2	26							19,737	3,810		23,547	23,547
LEVEL 4	3	9	12	2	26							19,737	3,810		23,547	23,547
LEVEL 3	3	6	12	2	23							17,825	5,723		23,548	23,548
LEVEL 2						73	0	0	0	0	73		5,091	20,548	25,639	5,091
LEVEL 1						54	7	8	5	0	74		5,410	31,365	36,775	5,410
TOTAL	**18**	**51**	**72**	**12**	**153**	**127**	**7**	**8**	**5**	**0**	**147**	**116,510**	**35,274**	**51,913**	**203,697**	**151,784**
RATIO	12%	33%	47%	8%	88%											

*Excludes parking structure

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'IKENĀKEA



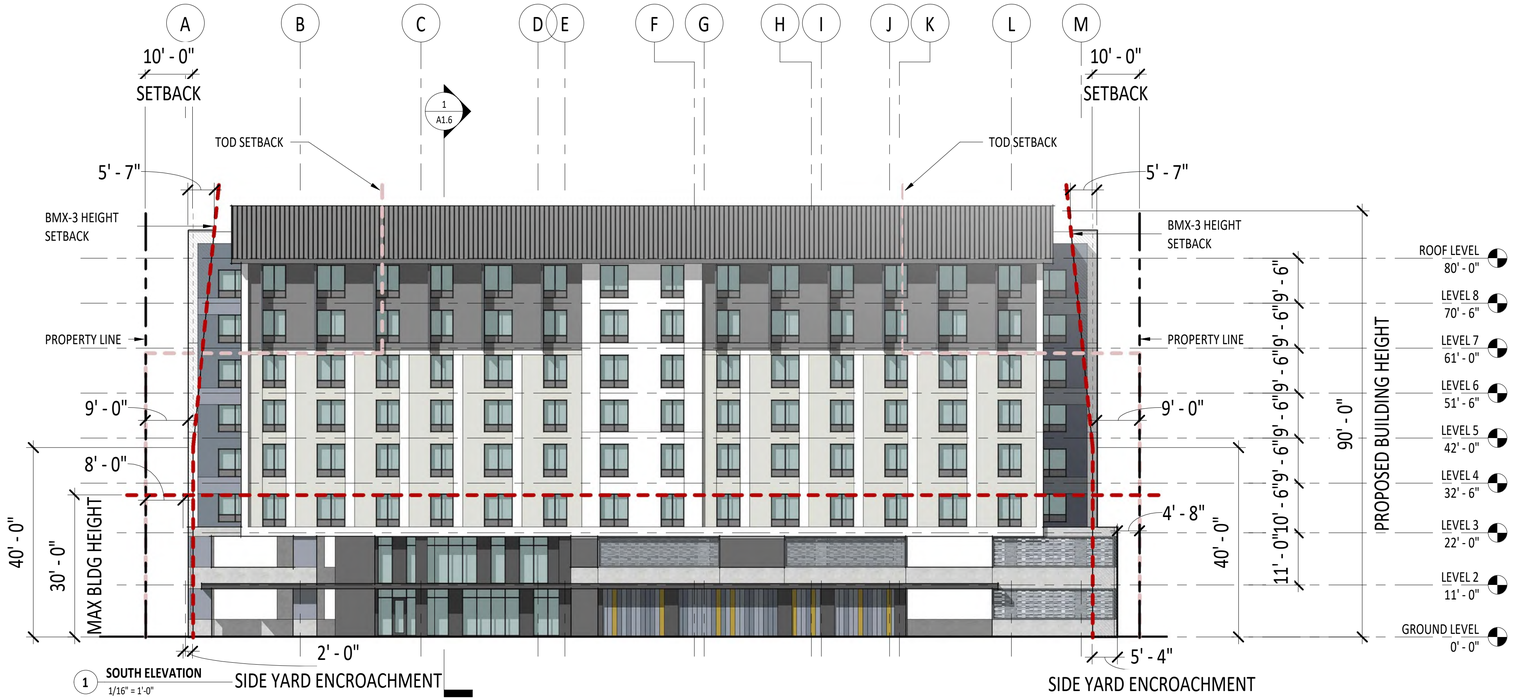
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'IKENĀKEA

0 16' 32'

ROOF PLAN A1.3

HALE O LIPOA - 09/06/2024



1 **SOUTH ELEVATION**
1/16" = 1'-0"



2 **EAST ELEVATION**
1/16" = 1'-0"

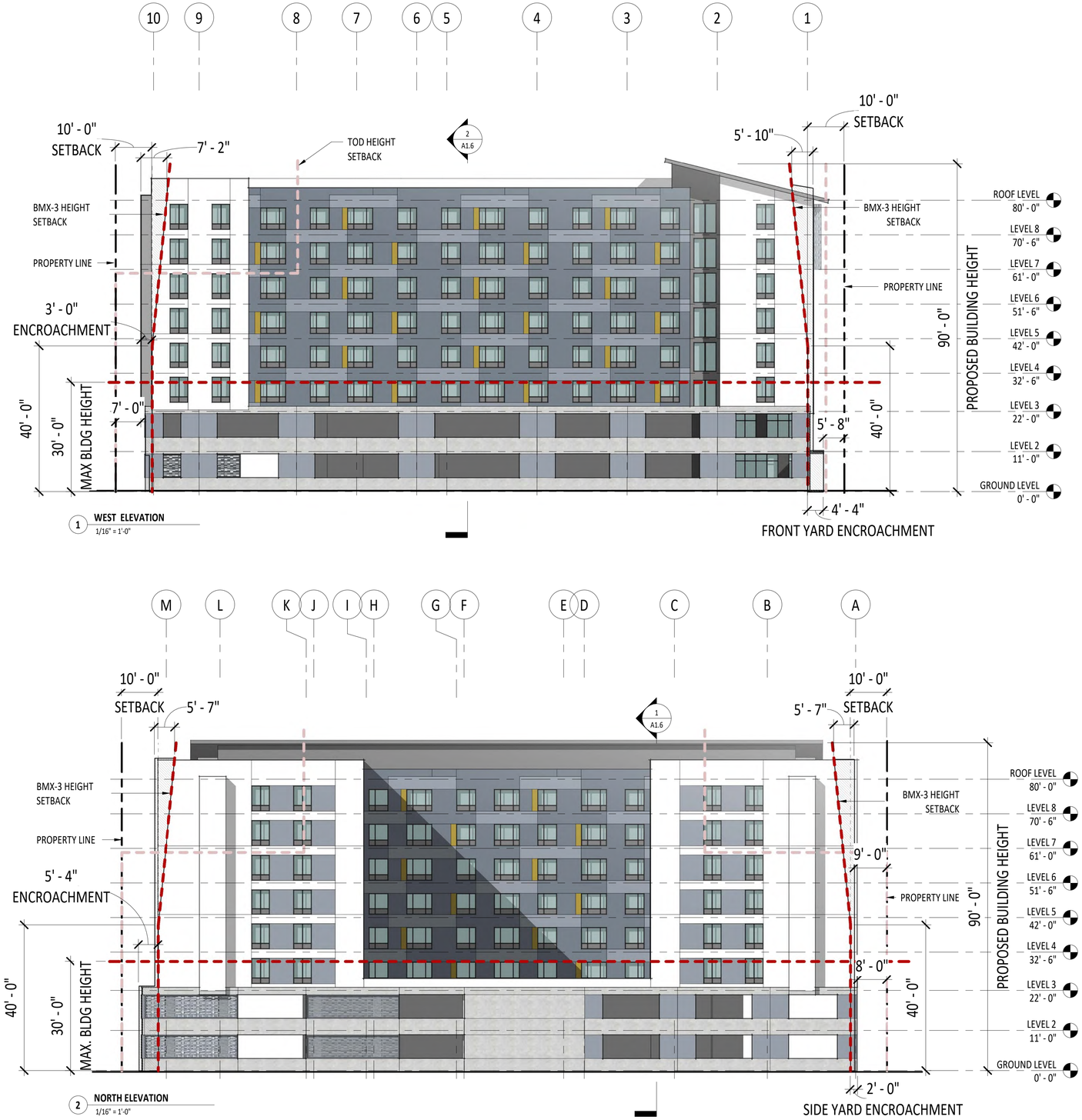
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'IKENĀKEA

0 16' 32'

BUILDING ELEVATIONS A1.4

HALE O LIPOA - 09/06/2024



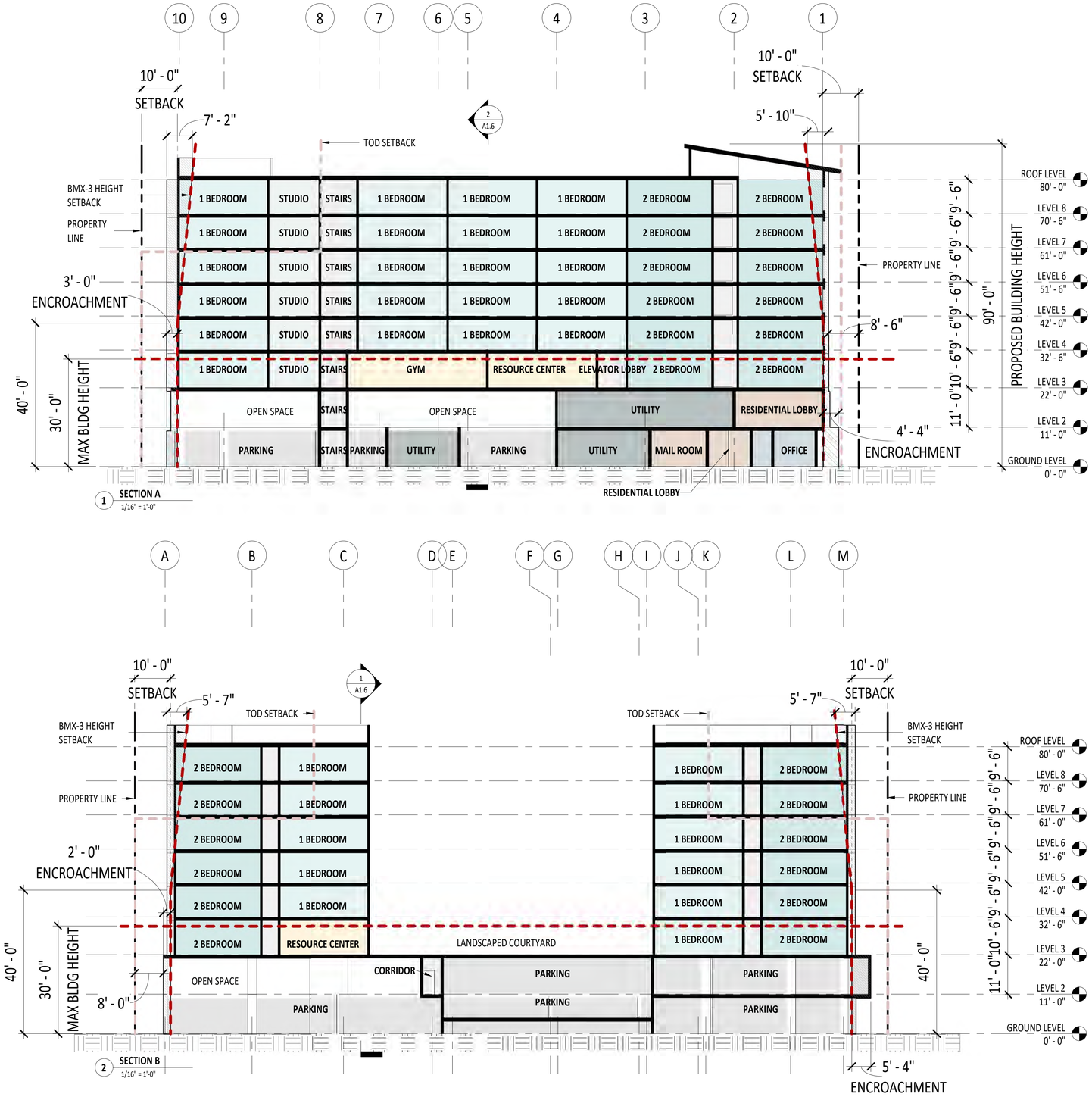
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'IKENĀKEA

0 16' 32'

BUILDING ELEVATIONS A1.5

HALE O LIPOA - 09/06/2024



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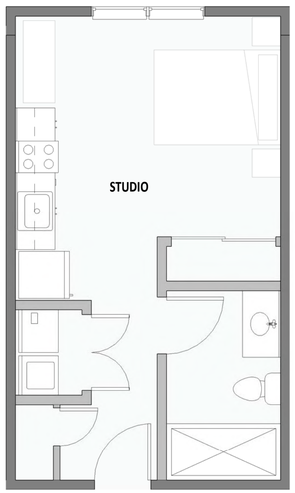
0 16' 32'

SECTIONS A1.6

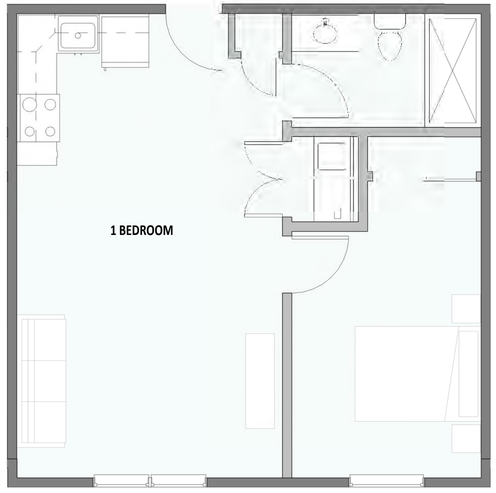
HALE O LIPOA - 09/06/2024



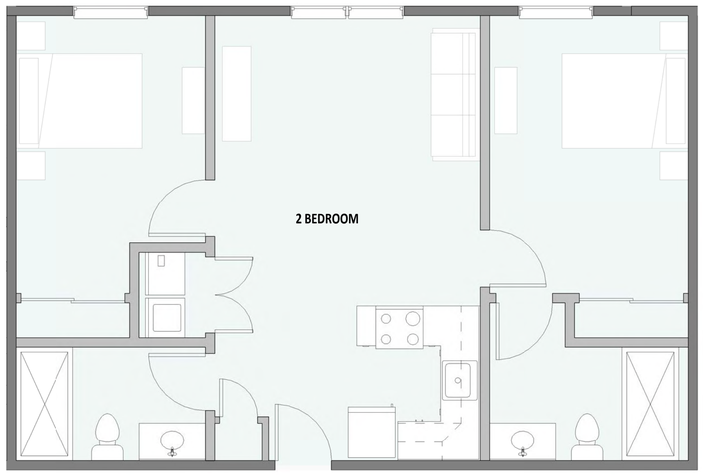
1 BEDROOM - TYPE 2
~638 SF



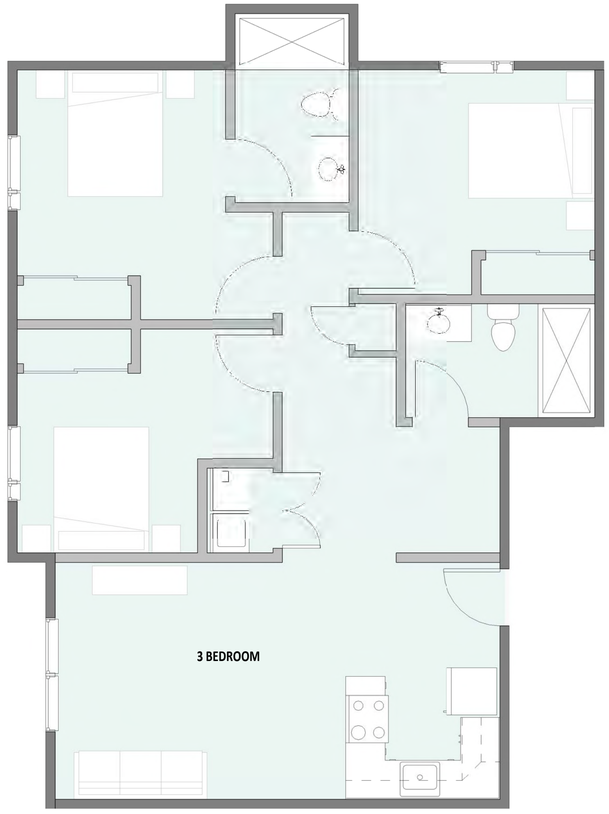
STUDIO
~370 SF



1 BEDROOM
~638 SF



2 BEDROOM
~882 SF



3 BEDROOM
~1,127 SF

lowney arch

'IKENĀKEA

0 4' 8'

UNIT PLANS **A1.7**

HALE O LIPOA - 09/06/2024



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'IKENĀKEA

3D VIEWS A1.8

HALE O LIPOA - 09/06/2024



lowney arch

'IKENĀKEA

3D VIEWS **A1.9**

HALE O LIPOA - 09/06/2024

Hale O Lipoa
Financing Sources

Interim/Construction Sources			Type	Interest Only	Interest Rate	Term (in Years)	Amortization (in Years)	Annual Debt Service	Amount
Sponsor Equity			Equity	-	-	-	-	-	-
LIHTC Equity			Equity	-	-	-	-	-	8,521,966.00
Grant - Negative Basis Adjustment	Source:		Equity	-	-	-	-	-	-
Historic Equity - Negative Basis Adj.	Source:		Equity	-	-	-	-	-	-
HMMF Bond	Source:	American Savings Bank	Debt	Yes	6.50%	2	-	-	46,500,000.00
Senior Debt - Financial Institution	Source:		Debt	No	0.00%	-	-	-	-
RHRF			Debt	No	0.00%	2	-	-	56,797,019.00
DURF Loan			Debt	No	0.00%	-	-	-	-
Subordinate Debt	Source:	Affordable Housing Fund	Debt	No	0.00%	-	-	-	2,295,000.00
Other Government Financing	Source:			No	0.00%	-	-	-	-
Non-qualified Non-recourse Funds	Source:			No	0.00%	-	-	-	-
Deferred Developer Fee [1]			Debt	-	-	-	-	-	-
Deferred Developer Overhead/Other [1]			Debt	-	-	-	-	-	-
Other Deferred Costs [1]			Debt	-	-	-	-	-	-
Total									114,113,985.00

Permanent Sources			Type	Interest Only	Interest Rate	Term (in Years)	Amortization (in Years)	Annual Debt Service	Amount
Sponsor Equity			Equity	-	-	-	-	-	-
LIHTC Equity			Equity	-	-	-	-	-	42,609,822.00
Grant - Negative Basis Adjustment	Source:		Equity	-	-	-	-	-	-
Historic Equity - Negative Basis Adj.	Source:		Equity	-	-	-	-	-	-
HMMF Bond	Source:	American Savings Bank	Debt	No	6.50%	15	35	888,107	12,250,000.00
Senior Debt - Financial Institution	Source:		Debt	No	0.00%	-	-	-	-
RHRF			Debt	No	0.25%	60	-	-	56,959,163.00
DURF Loan	Source:		Debt	No	0.00%	-	-	-	-
Subordinate Debt	Source:	Affordable Housing Fund	Debt	No	0.00%	-	-	-	2,295,000.00
Other Government Financing	Source:			No	0.00%	-	-	-	-
Non-qualified Non-recourse Funds	Source:			No	0.00%	-	-	-	-
Deferred Developer Fee [1]			Debt	-	-	-	-	-	-
Deferred Developer Overhead/Other [1]			Debt	-	-	-	-	-	-
Other Deferred Costs [1]			Debt	-	-	-	-	-	-
Total									114,113,985.00

[1] Deferred Developer, Fee, Overhead, and Other cannot exceed Developer Fee, Overhead, and Other disclosed in Exhibit Bravo 3 - Developer Fee.

Hale O Lipoa
Project Budget/Uses

		Total Units	Total Sq. Ft.			
		153.00	203,697			Eligible Basis [1]
		Cost Per Unit	Cost Per Square Foot	Cost	% of Total Cost	if Using LIHTC
Acquisition:						
1 Land		111,348.04	83.64	17,036,250.00	15%	-
2 Building/Improvements		-	-	-	0%	-
Subtotal: Acquisition [2]		111,348.04	83.64	17,036,250.00	15%	-
Construction/Rehabilitation Work:						
3 Site Work - Off Site		1,350.00	1.01	206,550	0%	103,275
4 Site Work - On Site (Exhibit B-5)		79,484.48	59.70	12,161,125	11%	11,633,545
5 Rehabilitation (Exhibit Bravo-1)		-	-	-	0%	-
6 New Construction - Residential (Exhibit B-6)		312,091.50	234.42	47,750,000	42%	47,750,000
7 New Construction - Commercial (Exhibit B-6)		-	-	-	0%	-
8 New Construction - Community Svc Facility (Exhibit B-6)		-	-	-	0%	-
9 Parking - Structured (Exhibit B-6)		-	-		0%	-
10 Contractor Profit		17,525.11	13.16	2,681,342	2%	2,681,342
11 Contractor Overhead		15,525.11	11.66	2,375,342	2%	2,375,342
12 Contractor General Requirements		23,287.67	17.49	3,563,013	3%	3,563,013
Subtotal: Construction/Rehabilitation [2]		449,263.87	337.45	68,737,372.00	60%	68,106,517.00
Interim and Soft Costs:						
13 Accounting/Cost Certification		326.80	0.25	50,000	0%	50,000
14 Advertising/Marketing		627.45	0.47	96,000	0%	-
15 Appraisal		163.40	0.12	25,000	0%	-
16 Architect Fee - Design		18,300.65	13.75	2,800,000	2%	2,800,000
17 Architect Fee - Supervision		1,633.99	1.23	250,000	0%	250,000
18 Building Permits		326.80	0.25	50,000	0%	50,000
19 Consulting		1,307.19	0.98	200,000	0%	200,000
20 Engineering		1,960.78	1.47	300,000	0%	300,000
21 Environmental Report		-	-		0%	-
22 Insurance		2,941.18	2.21	450,000	0%	450,000
23 Legal Fee		784.31	0.59	120,000	0%	100,000
24 Market Study		130.72	0.10	20,000	0%	20,000
25 Organizational Expenses		3,594.77	2.70	550,000	0%	550,000
26 Payment & Perform. Bond - Owner Paid		-	-	-	0%	-
27 Taxes - Other		261.44	0.20	40,000	0%	40,000
28 Taxes - Real Property		-	-	-	0%	-
29 Other:	Furnishings	1,960.78	1.47	300,000	0%	300,000
30 Other:	Non Profit Fee	980.39	0.74	150,000	0%	150,000
Subtotal: Interim & Soft [2]		35,300.65	26.51	5,401,000	5%	5,260,000.00
Financing and Syndication Costs:						
31 Bond Financings Costs (Exhibit Bravo-2)		1,851.88	1.39	283,338	0%	-
32 Construction Loan - Fees		1,317.06	0.99	201,510	0%	62,520.00
33 Construction Loan - Interest		48,645.61	36.54	7,442,778	7%	5,891,183.48
34 Credit Report		-	-		0%	-
35 HHFDC LIHTC Fee		2,497.64	1.88	382,138	0%	382,138.18
36 Legal Fee - Financing		-	-		0%	-
37 Lender/Investor Inspection Fee		-	-		0%	
38 Permanent Loan - Enhancement Fee		-	-	-	0%	-
39 Permanent Loan - Fee		400.33	0.30	61,250	0%	-
40 Tax Opinion		-	-	-	0%	-
41 Title, Escrow & Recording		1,437.91	1.08	220,000	0%	220,000.00
42 Other:	Guarantee & Third Party Fees	6,711.11	5.04	1,026,800	1%	880,800.00
43 Other:	Miscellaneous	10,816.99	8.12	1,655,000	1%	1,615,000.00
Subtotal: Financing & Syndication [2]		73,678.52	55.34	11,272,813	10%	9,051,641.66

Developer Fee: (Exhibit Bravo-3)					
44 Developer - Fee	35,168.94	26.42	5,380,848	5%	5,380,848.34
45 Developer - Overhead	7,033.79	5.28	1,076,170	1%	1,076,169.67
46 Developer - Consulting Fee	-	-	-	0%	-
47 Developer - Management Fee	-	-	-	0%	-
Subtotal: Developer Fee [2]	42,202.73	31.70	6,457,018	6%	6,457,018.01
Project Reserves:					
48 Replacement/Capital Reserve	1,633.99	1.23	250,000	0%	100,000.00
49 Operating Reserve	5,883.42	4.42	900,163	1%	-
50 Rent-Up Reserve	-	-	-	0%	-
51 Other:	-	-	-	0%	-
Subtotal: Project Reserves [2]	7,517.40	5.65	1,150,163	1%	100,000.00
Contingency:					
52 Contingency	26,531.82	19.93	4,059,369	4%	4,059,368.60
Subtotal: Contingency [2]	26,531.82	19.93	4,059,369	4%	4,059,368.60
Total	**745,843.04**	**560.21**	**114,113,985**	**100%**	**93,034,545.27**
			114,113,985		

[1] Eligible Basis input cannot exceed Cost input.

Financial Narrative

The Applicant is not contributing any cash, land, or “in kind” goods and/or services to the project because it is not necessary for the financing of these types of affordable/workforce housing developments. A significant amount of upfront costs (or predevelopment costs) are incurred by the Applicant prior to receiving any funding to get these projects entitled and ready for financing.

Operating subsidies have not been awarded but will be contemplated if available.

ʻIKENĀKEA

Experience in Multi-Family Residential and Commercial Rental Development

808.282.5991 | 1188 Bishop Street. Suite 907. Honolulu. HI 96813

COMPANY PROFILE

'Ikenākea Development LLC ('Ikenākea) is the combined strength and experience of Hawaiian Community Development Board (HCDB), Wa'a Partners, and 3 Leaf Holdings, Inc. (3 Leaf). 'Ikenākea means "having great wisdom with a specific vision for the community and aiming to breathe this vision into existence in the community". It is a Hawaiian word that symbolizes the goals of the partnership: to create affordable housing opportunities for low-income families across the state of Hawai'i. Ms. Patti Tancayo as Principal of Wa'a Partners, serves as the managing member, and 'Ikenākea is headquartered in Honolulu, Hawai'i.

BRINGING THE VISION TO LIFE

'Ikenākea works to truly meet the needs of the low-income families in the community. Together the members bring complementary strengths to deliver a high-value product to a market that is traditionally the hardest to serve. Effective low-income housing requires a vision for how a dwelling can become a home and transform a family's future. In order to achieve that goal, it is necessary to coalesce public and private funding sources, contractors, consultants, and professionals to assess all possibilities, and ascertain a high-value project that yields positive results.

The 'Ikenākea team brings a strong financial standing and history to the proposed project. Together, Wa'a Partners, HCDB and 3 Leaf have built 305 LIHTC affordable housing units in Hawai'i, and have another 776 in the pipeline. The two principles of the partnership have extensive experience in the development of affordable housing projects funded through the Low Income Tax Credit Program. Combined, the members of the partnership have successfully completed a mix of developments in excess of $541.8 million and have another $400 million in developments in progress.

OFFICE

745 Fort Street, Suite 702
Honolulu, HI 96813

CONTACT

HCDB Phone
808.529.0404

3 Leaf Phone
209.483.8105

Chris Flaherty
cflaherty@3leafholdings.com

Patti Barbee
patti.tancayo@ikenakea.com

Jackie Burke
jackieburke13@gmail.com

PARTNERS

3 Leaf Holdings, Inc.
General Partner

Wa'a Partners
General Partner

Hawaiian Community
Development Board
Member

The partners have a proven track record of leveraging Low Income Housing Tax Credits (LIHTC) to bring affordable housing solutions to low-income families. Together, the two will have utilized more than $105.3 million in LIHTC to build affordable housing units in Hawaii, and more than $301.7 million for developments in Hawaii and California combined.

Selected LIHTC Projects Completed, In-Progress, or in Pre-Development		
Project Name	Location	Units
Medici Artist Lofts	Stockton, CA	34
Cal Weber 40	Stockton, CA	40
Hale Makana O Nanakuli	Nanakuli, HI	48
Hale Makana O Ma'ili	Waianae, HI	52
Hale Makana O Mo'ili'ili	Honolulu, HI	105
Halawa View Apartments	Aiea, HI	120
Kewalo Apartments	Honolulu, HI	37
Halawa View 2	Aiea, HI	151
Halawa View 3	Aiea, HI	151
Kulana Hale Phase 2	Kapolei, HI	143
Cottage Village Apartments	Manteca, CA	48
Oakhurst Apartments	Oakhurst, CA	50
Pleasant Valley Pines	Coalinga, CA	52
Tulare Arms Apartments	Shafter, CA	48
Hallmark Apartments	Shafter, CA	48
Springhill Gardens Apartments	Grass Valley, CA	121
Gridley Springs Apartments	Gridley, CA	32
Kauhalepono Home Replacement	Oahu, HI	23
Kula Residential Down Payment	Kula, HI	25
Garden Valley	San Joaquin, CA	70
Armona Village Apartments	Armona, CA	33
Victory Gardens	French Camp, CA	49
Las Terrazas Apartments	Nogales, AZ	104
Walnut Apartments	Fort Bragg, CA	56

Selected LIHTC Projects Completed, In-Progress, or in Pre-Development		
Hale Makana O Uluwehi	Waianae, HI	40
Hale O Pi'ikea	Kihei, HI	90
Hale O Pi'ikea II	Kihei, HI	96
Hale O Pi'ikea III	Kihei, HI	36
The Hillcrest	San Diego, CA	68
Uahi Ridge I	Līhu'e, HI	96
Uahi Ridge II	Līhu'e, HI	60
Hale O Lipoa	Aiea, HI	153
Kukalahale Place	Honolulu, HI	120
Kamo'ili'ili Apartments	Honolulu, HI	180
Total		1,970

Purpose, Direction, Approach...

OUR VALUES



Ho'omau:
Our passion for preserving Hawaiian culture, values, and traditions is what drives us in building communities. We incorporate Hawaiian culture into the design of our projects to perpetuate the feeling of being home and comfortable. We nurture Hawaiian values by giving communities the spaces to feel free and live prosperously while being surrounded by family and friends. Traditions are everlasting because the communities are provided places to continue to thrive.



Laulima:
Our projects provide the opportunity for many hands to work together in satisfying community needs. Collaboration is critical because we are invested in each other's success. We want to build communities that function in a cohesive manner. We interact and thrive together in ways that are rooted in Hawaiian practices. Our projects strive to connect the community by engaging and including everyone in the development of a project. Our development strategy involves taking a holistic approach in cultivating a viable community through the incorporation of both residential and commercial foundations.



Kōkua:
Our presence in development is to foster growth for generations to come. Every element of our project is directed to strengthening the community. We function in improving the quality of life of as many families as we can reach. The programs we include in our projects act as a backbone and provide assistance for low-income families that need help in alleviating their financial distress. We work towards giving our tenants the freedom to express themselves and help them look forward to a strong and vibrant community. We are always moving forward to build a better future.



ʻIKENĀKEA

THE TEAM

Wa'a Partners, 3 Leaf Holdings, & Hawaiian Community Development Board



Hawaiian Community Development Board

1507 Liliha St, #14, Honolulu, HI 96817
Ph: (808)529-0404
jackieburke13@gmail.com



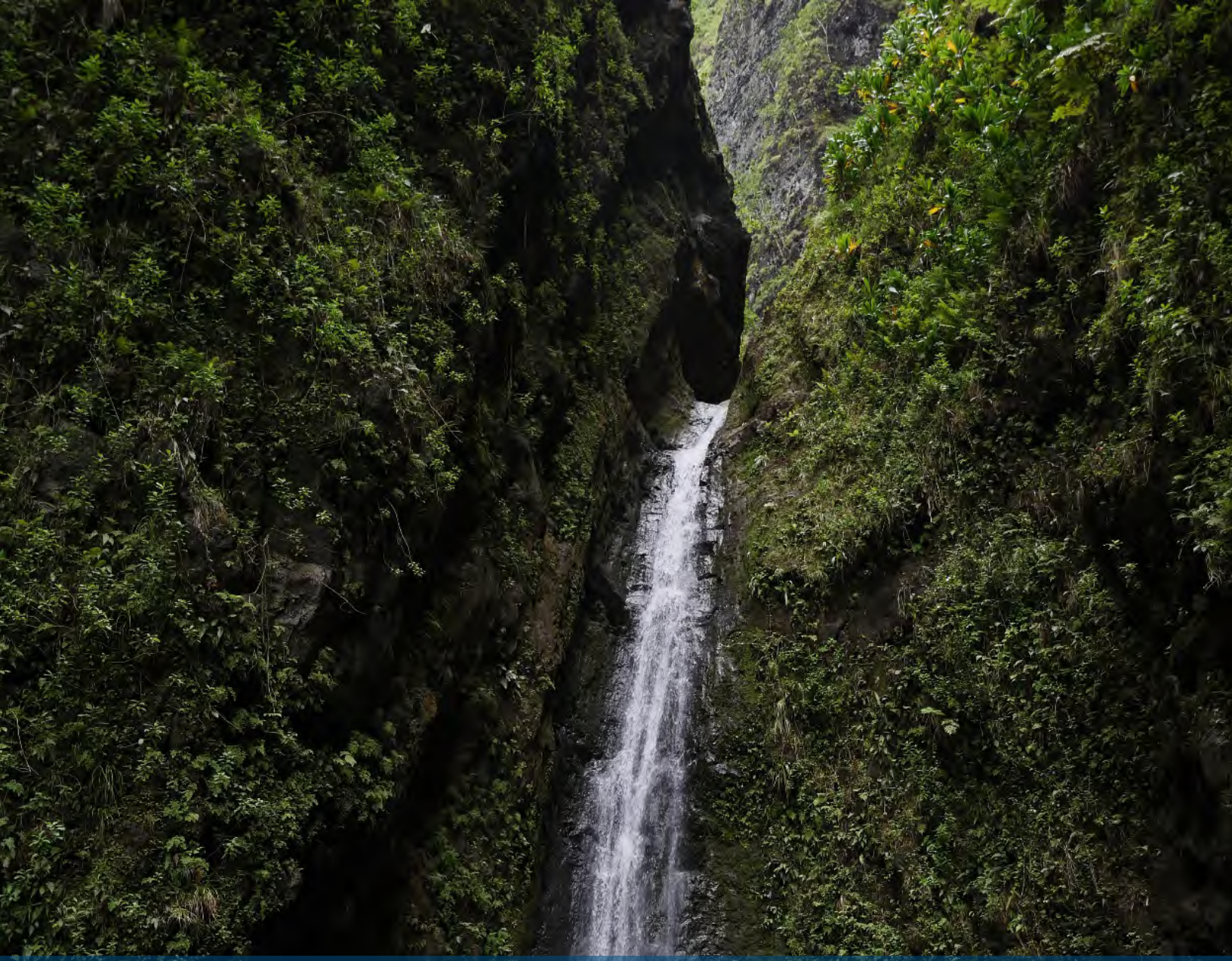
HAWAIIAN COMMUNITY DEVELOPMENT



Incorporated in 2000, Hawaiian Community Development Board (HCDB) is a non-profit 501c3 organization specializing in developing projects that provide low-income families with affordable housing and other opportunities. It is governed by a 7-member Board of Directors, all of whom are Native Hawaiian. A majority of the board members are beneficiaries of the Hawaiian Homes Commission Act, and leaders in their respective communities. HCDB has a strong connection with communities across the state, and a demonstrated track record of developing projects that serve the needs of the residents in ways they want to be served. HCDB believes in finding creative solutions and providing pathways for residents to become homeowners, such the incorporation of self-help housing solutions, affordable rentals, rent-to-own, Habitat for Humanity, kupuna housing, and traditional developer-built subdivisions.

HCDB is qualified as a Community Housing Development Organization (CHDO) and received certification several times. Under HUD Regulations, to qualify as a CHDO, a non-profit must demonstrate its board includes representation from the community with at least one-third of its membership being low-income members: significant experience in serving the community, and a strong financial management capacity.

HCDB has been an active partner with communities in developing effective solutions for some of the most challenging concerns. HCDB believes the affordable rentals with an option to purchase approach, will provide a critically needed pathway to homeownership for many of the individuals who have struggled for years. HCDB believes in working with and for individuals based on their present financial reality and family needs.



KEY PERSONNEL

Jackie Burke

Chairperson of HCDB



EDUCATION

Kamehameha Schools

Bachelor of Science & Matters in Public Health
Master in Urban & Regional Planning
University of Hawai'i at Mānoa

PROFESSIONAL EXPERIENCE

Jackie Burke, the Chairwoman of the Hawai'i Community Development Board (HCDB) and a founding member, stands as a significant figure in Hawaiian community development. Her tenure has been marked by impactful roles in various Hawaiian organizations. Her commitment to the Native Hawaiian Chamber of Commerce and her active participation in the Kalihi-Pālama Hawaiian Civic Club showcase her dedication to cultural preservation and community empowerment. Additionally, Jackie's involvement with Pā Kui A Holo, focusing on the art of Lua, and her foundational contributions to the housing sector of HCDB further highlight her deep-rooted engagement with Hawaiian communities.

Jackie's achievements reflect her diverse talents and dedication to Hawaiian culture. Her artistic skills have been recognized through her featured works with the Association of Hawai'i Artists, demonstrating her creative flair. As a cultural ambassador, she played a pivotal role in the Cook's Life in the Pacific exhibition at the Honolulu Academy of Arts, facilitating the international exchange of valuable cultural artifacts. Moreover, her leadership in the community is evident through her orchestration of significant initiatives like the Once Were Warriors event, which addressed domestic violence in Hawaiian communities, and her pioneering role as the publisher/editor of The 'Ōiwi Files, a prominent Hawaiian news journal and publishing company. Her involvement in the Pew Civic Entrepreneur Leadership National Project further underscores her unwavering commitment to nurturing a resilient and culturally enriched Hawaiian community.



3 Leaf Holdings, Inc.

745 Fort Street, Suite 702, Honolulu, HI 96813
Ph: (209)483-8105
cflaherty@3leafholdings.com



KEY PERSONNEL

Chris Flaherty

Chairman and CEO of 3 Leaf



EDUCATION

Bachelor of Science, Business Administration
California State University at Fresno

PROFESSIONAL EXPERIENCE

Christopher Flaherty is Chairman and CEO of 3 Leaf Holdings and a Co-Managing Member of 'Ikenākea. Flaherty's experience over the past 25 years includes construction and development in apartment, commercial, residential and agricultural properties.

Well-versed in the industry, Mr. Flaherty is a Co-Founder, Partner, and Director of Origination in Terra Massa Capital, an investment management firm. Additionally, he is a Co-Managing partner of Laulima Development LLC, a Co-Managing partner in Pupukahi Development LLC, a Co-Managing partner in DFA Development LLC, a Co-Managing partner in Ho'okahua Development LLC, and also currently the President and Sole Shareholder of Trinity Development & Construction, Inc. These companies aim to develop affordable, market, and mixed use multi-family housing and commercial/retail in California and Hawaii. Flaherty's expertise in development and construction has allowed him to orchestrate every development project phase, from site selection to assessing environmental impact and working through financing options. Chris specializes in utilizing financing from low-income housing tax credits, tax-exempt bonds, city redevelopment funds, HOME Funds, and existing permanent loans from USDA-Rural Development. Chris Flaherty commits himself to every project by taking a hands-on approach throughout all phases of development.

Furthermore, a Co-Managing Member of two Renewable Energy Production Companies, Affordable Energy Partners, LLC, and Trinity Solar, Inc., Mr. Flaherty is dedicated to creating energy focused on the environmental impact of energy production throughout California and the Hawaiian Islands.

He has also been involved in several charitable boards, including YMCA, Child Abuse Prevention Council, and SOOPCO. Flaherty was involved in the start-up of SOOPCO, an organization with the goal of helping the less fortunate children in his community. To date, SOOPCO has been instrumental in donating over $250,000 within the last seven years to the neediest of children in the community through olive oil donations.

Daniel Fred

Principal and President of Multi-Family Development



EDUCATION

Bachelor of Anthropology
University of California at Berkeley

Master of City and Regional Planning
Harvard University

PROFESSIONAL EXPERIENCE

Daniel Fred is a co-managing member of DFA Development LLC and its founder. Prior to his establishing DFA Development LLC and Fred Consulting, Mr. Fred served as Director of Community Development for the City of Galveston, TX and Director of Housing Programs for the City of Palo Alto, CA.

Mr. Fred currently serves as financial advisor to a number of housing authorities in California and is responsible for evaluating portfolios and advising the housing authority staff and Boards of Commissioners on all of their development projects. He has assisted these housing authorities in the disposition and demolition of outdated public housing and the redevelopment of the sites with contemporary housing developments. When a housing authority embarks on projects, DFA's role is to assist the staff with all financial aspects of those developments. In addition, DFA has been retained by city and county government agencies to advise them on how best to utilize their funding sources and how to re-structure projects when and if a project fails to perform.

He has extensive financial advisory expertise and a broad range of experience in all areas of housing development, including finance, project feasibility and market analysis, program design, land use planning (entitlement permits), and project coordination.



Waʻa Partners

745 Fort Street, Suite 702, Honolulu, HI 96813
Ph: (808) 358-3633
Patti.tancayo@ikenakea.com



KEY PERSONNEL

Patti Tancayo

Principal of Wa'a Partners



EDUCATION

Molokai High School

Bachelor of Business Administration Chaminade University of Honolulu - Dean Hutter Award for Most Outstanding Woman in Business

PROFESSIONAL EXPERIENCE

With a professional journey spanning over 35 years in community and housing development, Patti Tancayo Barbee stands as a luminary in the field. Her rich tapestry of experience and her unmatched expertise in creating housing opportunities for Hawai'i's low-income families underscore her unwavering dedication and passion.

Throughout her illustrious career, Patti has adeptly harnessed low-income housing tax credits to propel significant projects to fruition, amassing investments that soar beyond an impressive $500 million. Her versatile portfolio is a testament to her capabilities, showcasing a range of housing formats, from single-family homes and multi-family residences to mid-rise establishments. This diverse body of work underscores her profound understanding of Hawai'i's intricate housing landscape.

A significant highlight of Patti's journey was her influential tenure with OHA. There, she skillfully orchestrated strategic partnerships with financial titans like Fannie Mae, First Hawaiian Bank, and Bank of Hawaii. These collaborations paved the way for innovative housing programs, notably the OHA 103 – a $100 million secondary mortgage initiative that has since become a benchmark in Hawai'i's housing development landscape.

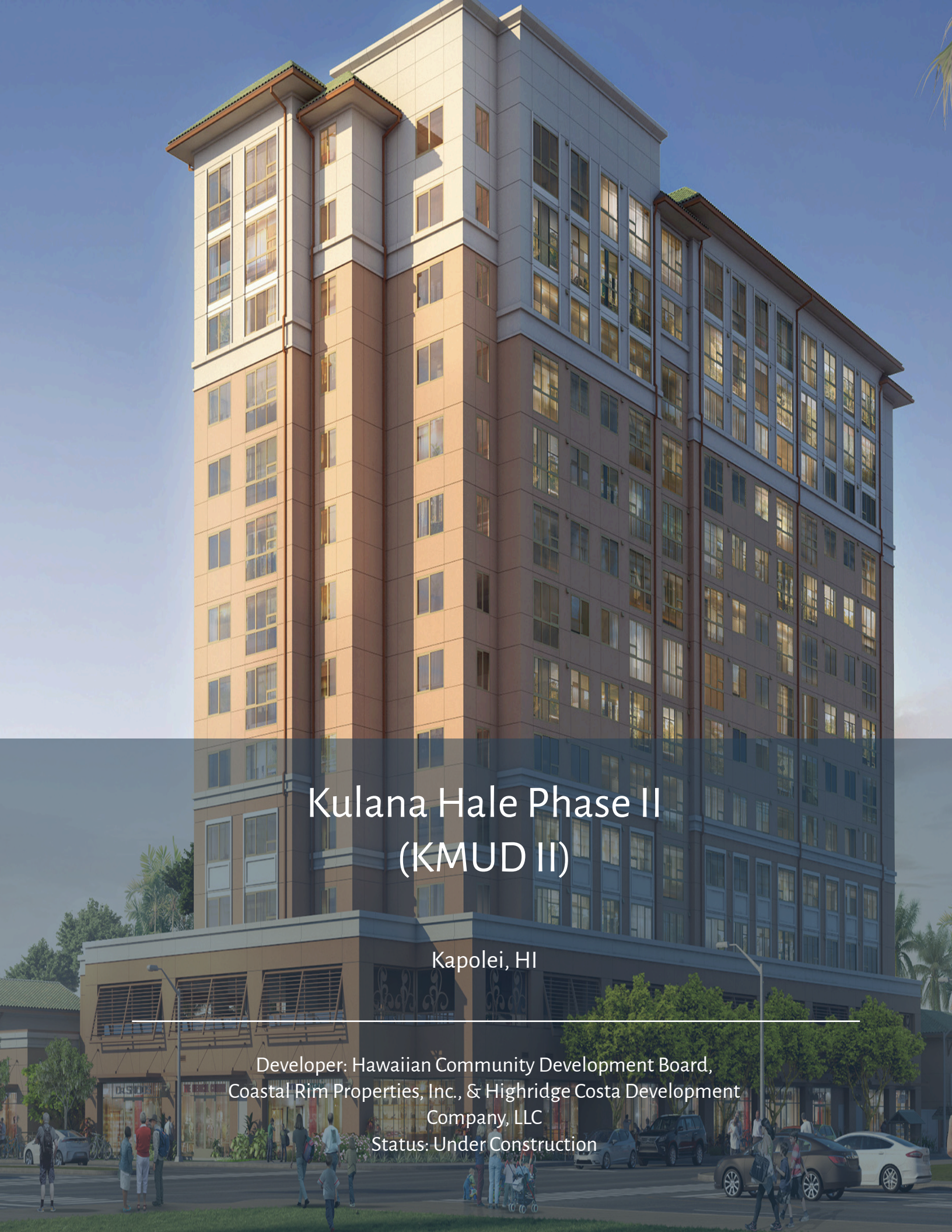
At the core of Patti's ethos is her hands-on approach. She immerses herself in every project from its inception to its culmination, ensuring a seamless and impactful realization. This blend of tangible experience and forward-thinking vision positions her as a leading figure in Hawaiian economic development, consistently advocating for the growth and well-being of Hawai'i's residents.

Under Patti's guidance, Wa'a Partners has assembled a formidable team of planners, consultants, and community partners. This collective synergy ensures the successful development of urgently needed housing projects, echoing Patti's lifelong commitment to enhancing Hawai'i's housing solutions.



ʻIKENĀKEA

SELECTED WORK



Kulana Hale Phase II (KMUD II)

Kapolei, HI

Developer: Hawaiian Community Development Board, Coastal Rim Properties, Inc., & Highridge Costa Development Company, LLC
Status: Under Construction



The second phase of this development will include 143 units of family housing targeted to households earning 30%-60% of AMI. Hawaiian Community Development Board is working with Costal Rim Properties Inc. and Highridge Costa Development Company LLC to develop this portion of the Project. Construction started and scheduled to be finished early 2021. The development will include 2,705 sf of ground floor retail, 2,500 sf dedicated to a Community Center, 16,500 sf allotted for a recreation deck, lobby offices, laundry room, and 159 parking stalls. The Honolulu City Council approved the project's 201H entitlement application in January of 2016. On Sept. 14, 2017 HHFDC approved financing of $63,796,716: Hula Mae tax exempt bond-backed construction and permanent Loans, 4% Low Income Housing tax credits, and Rental Housing Revolving Fund. This second Phase of a 3 phase concept in the City Center of Kapolei will be close to public transit, shopping, recreation, and civic amenities.





Hale Makana O Nanakuli

89 Lepeka Avenue, Waianae, HI 96792

Developer: Hawaiian Community Development Board and Urban Housing Communities LLC
Status: Completed





The Nanakuli Hawaiian Homes Community Association approached HCDB with a concern that too many members of their community lived in overcrowded or homeless situations and asked HCDB to find a solution. In 2009, HCDB partnered with Urban Housing Communities (UHC) to create a 48-unit multi-family project designed to meet the needs of low-income families whose household income levels fall between 30% and 40% of the area median income (AMI). Creating affordable housing options is an acknowledged development challenge, and meeting the needs of this particular low-income population is particularly difficult because of the reduced income in the form of rents. Because the project was funded through the 4% tax credit program, HCDB secured adequate bond revenues needed to leverage a variety of funding and financing sources to complete the project.

HCDB was able to leverage $1.5 million from the Hawai'i Community Reinvestment Corporation (HCRC) and $249,300 in a soft loan from the Nanakuli Hawaiian Homes Community Association (NHHCA). In partnership with the University of Hawai'i West Oahu, NHHCA secured a grant through the HUD Native Hawaiian Institutions Assisting Communities (NHIAC) program, enabling it to provide a 50-year soft loan to the project. One critical element of ensuring the continuing viability and success of the Hale Makana O Nanakuli project is to ensure sufficient resources are available to subsidize a tenant's ability to pay the full rental rate when their income and ability to pay is diminished. The Hale Makana o Nanakuli project receives approximately $400,000 to $700,000 each year in USDA 521 rental subsidies.





Nanakuli Village Center

Nanakuli, HI

Developer: Hawaiian Community Development Board and 3 Leaf Holdings, Inc.
Status: Completed



In an effort to determine their own destiny, obtain self-governance, and independence from the state's oversight, and after many years of intensive community-based planning, the Nanakuli Hawaiian Homestead Community Association (NHHCA) with the help of Hawaiian Community Development Board (HCDB) developed a major "village center" project that includes a multipurpose learning center, a 48-unit affordable rental housing complex, a Waianae Comp satellite health clinic with an affordable drug pharmacy, a large renal clinic and a commercial center with Longs as the anchor tenant. This center neighbors the Hale Makana O Nanakuli affordable housing project and Kamehameha School's Kalaniho'okaha Learning Center.

Pursuant to a 65-year general lease to NHHCA from Department of Hawaiian Home Lands (DHHL) , this exciting community development project is ideally located on a 13.57 acre site centrally located in the Nanakuli Hawaiian homesteading community (adjacent to the Nanaikapono Elementary School, Ka Waihona Charter School and the YET Boys & Girls Club).





Fronting Farrington Highway, this one story shopping center has a Hawaiian cultural plantation theme motif. Anchor tenant is CVS Longs Drug Store. It's stand alone store has a drive-thru window and pharmacy. Smaller tenants include Starbucks, Wendy's, Taco Bell, L&L Drivein, Pizza Hut, and Kainalu Surf Shop. The community owned and run Waianae Coast Comprehensive Health Center built a 9,252 sq. ft. single story, stand alone satellite medical facility that houses a family clinic and low-cost pharmacy. There is also a centrally located area within the shopping center reserved for kiosks for small community based businesses and special events. Liberty Dialysis Hawaii LLC, an affiliated company of Fresenius Medical Care, has a space there in order to treat patients with kidney disease.



Cal Weber 40

Stockton, CA

Developer: 3 Leaf Holdings, Inc.
Status: Completed





CalWeber 40 is a multi-family affordable rental housing development located at the intersection of North California Street and East Weber Avenue in Stockton, California. DFA Development and 3 Leaf Holdings partnered to develop this project through the sourcing of LIHTC. CalWeber 40 apartments consist of 40 units; 28 apartments with two bedrooms, and one bathroom, 12 apartments with three bedrooms and two bathrooms. The modern apartment complex includes solar-powered units, a computer lab and a private playground. This property has designated parking, common areas, private balconies, as well as a, 12' + ceiling height for third story units. The ground level has remained commercial with the exception of four units located at the north and south entrances in the Cal Weber building residential lobby. The two existing buildings known as the McKeegan building and the Cal Weber building were in serviceable condition and were well suited for adaptive re-use. Adaptive re-use is the method of development with the smallest carbon footprint and therefore the "greenest" construction method. This allows for a compressed budget as well as a way to preserve the history of the city with the partial conservation of the original structure. The method also sets a good example for the future redevelopment of downtown Stockton.







Hale Makana O Ma'ili

87-037 Kulaaupuni Street, Waianae, HI 96792

Developer: Hawaiian Community Development Board, 3 Leaf Holdings, Inc., & Pacific Development Group
Status: Completed

Hale Makana O Ma'ili is a 52-unit multi-family affordable rental housing development on a 1.95 acre portion of a 2.78 acre parcel in the ili of Ma'ili, in the ahupua'a of Lualualei, in the district of Wai'anae on the island of O'ahu. The development consists of 6 buildings, a central park, parking and a perimeter fence. Development funding was obtained for this $22 million project from the City & County of Honolulu and the State's Hawaii Housing Finance and Development Corp. The project includes a 2,463 sq. ft. Resource Center, which provides residents with a variety of useful spaces, including a library and computer center, two multi-purpose rooms and laundry facilities. Additionally, the center includes a reception and lounge, a manager's office, storage spaces, a public restroom, a covered picnic area and playground. Construction was completed in December 2020.



The primary purpose of the project is to provide much-needed, long-term affordable housing to the Waianae Coast communities. It is designed to serve individuals and families with a 30%, 50% or 60% Area Median Income (AMI) with quality affordable housing options where they can feel secure and proud of their home. Based on the high demand for affordable housing among current residents of the Waianae Coast and 'Ikenākea's prior experience in the area, it is anticipated that the residents at HMoM will predominantly be very low and extremely low income individuals and families with existing roots in the community.





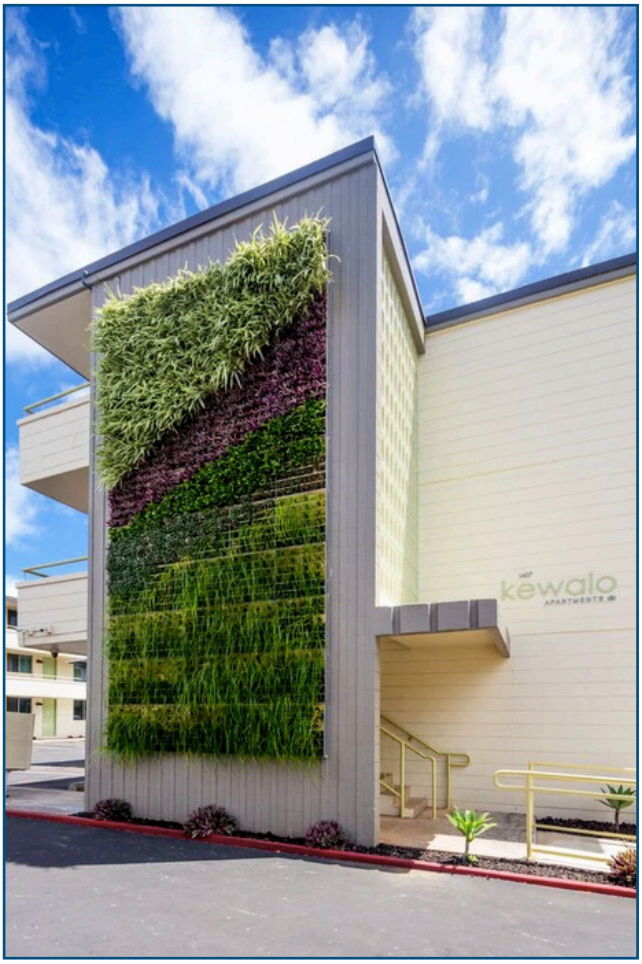


Kewalo Apartments

Honolulu, HI

Developer: Hawaiian Community Development Board &
Pacific Development Group
Status: Completed







Kewalo Apartments is a 38-unit affordable housing property located at 1407 Kewalo Street in Honolulu. The property was built in the mid 1960's. The project consists of two mid-rise buildings and contains all 2-bedroom units. Pacific Development Group in partnership with Hawaiian Community Development Board has completed an extensive renovation/rehabilitation program while retaining its affordability for the existing residents. Issues included lead paint abatement, asbestos abatement, freeway noise attenuation, concrete roof parapet spalling, rebar rusting. The development team for Kewalo earned LEED Silver Certification for the completed renovations. Kewalo is the recipient of the BIA-Hawai'i 31st annual Renaissance Award of Merit for Hawai'i BuiltGreen and was awarded a 2016 NAIOP Renovation Award.







Hālawa View

Aiea, O'ahu

Developer: Hawaiian Community Development Board &
Pacific Development Group
Status: Completed









Hālawa View Apartments is a 121-unit affordable housing property located near Joint Base Pearl Harbor-Hickam overlooking the USS Arizona Memorial. This 14-story property was building in the early 1970's and consists of one high rise and two mid-rise buildings and contains 2, 3, and 4 bedroom units. Pacific Development Group, in partnership with Hawaiian Community Development Board completed an extensive renovation/rehabilitation program while retaining its affordability for the existing residents. The team earned LEED Gold and Silver Certification through the renovations of the three residential buildings on site. Utilizing less energy and water, LEED-certified spaces save money, reduce carbon emissions and contribute to a healthier environment for residents. The renovation program consisted of new bathrooms and kitchens as well as floor coverings, low VOC paints and sealers, efficient light fixtures, energy efficient appliances, water saving faucets, recycled materials, photovoltaic systems, exterior modernization and native drought tolerant landscaping upgrades. The renovation was the recipient of the BIA-Hawai'i Award of Merit for Commercial Remodeling for projects more than 15,001 square feet. Hālawa also claims the record for largest portrait in the State of Hawaii for the 14 story depiction of Hina that was hand painted by co-lead director of POW! WOW! Kamea Hadar.



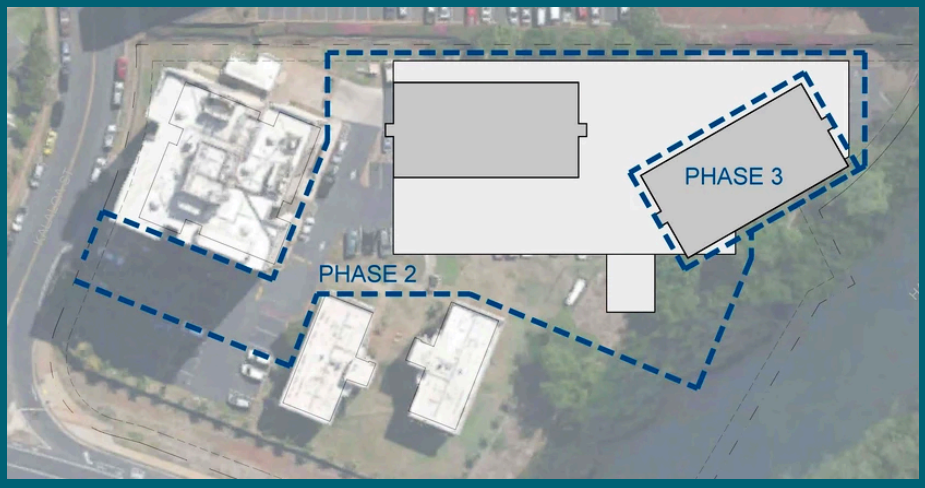
Hālawa View II & III

Aiea, O'ahu

Developer: Hawaiian Community Development Board &
Pacific Development Group
Status: Project Funding Awarded and Approved



On July 11, 2019, the State of Hawaii's Housing Finance and Development Corp. approved a total of $130 million in tax-exempt bonds, low-interest loans, state and federal tax credits for the 24-story tower and adjacent 22-story tower, which will provide 302 low-income rental apartments in Halawa about ½ mile from Aloha Stadium. HCDB and California-based Pacific Development Group formed Halawa View Housing Partners LP, which hopes to start construction in April 2020 and finish by September 2021. Most of the 302 apartments will be two-bedroom units with monthly rents between $705 and $1,493. There will also be studios, one-bedroom units and four-bedroom units. These combined towers are in addition to the existing Halawa View Apartments complex that has 121 low-income rental rehabilitated apartments in a roughly 140-foot tower, and two three-story buildings on a 3-acre site which the partnership developed in 2014. Adjacent private and public lands are expected be redeveloped over the next several years in anticipation of the rail line opening from Kapolei to the stadium late next year. The State also enacted a law providing $350 million to replace the Aloha Stadium.





Hale Makana O Mo'ili'ili

Honolulu, HI

Developer: Hawaiian Community Development Board & 3 Leaf Holdings, Inc.
Status: Project Funding Awarded and Approved





Hale Makana O Moiliili provides 105 affordable kupuna rental housing units to community of Mo'ili'ili in Honolulu. As rents continue to rise at alarming levels on the island of Oahu, all members of our community are under duress to find quality affordable housing.

Uniquely perched at the corner of Algaroba Street and Makahiki Way, this site and the future development has quality pedestrian accessibility to services that cater to kupuna within the community. The prime location, in the Mo'ili'ili neighborhood, provides kupuna access to all necessities that would make residing at the site quite suitable. The project has great walkability as it is next to the City Library, City Park and Health Clinic.

The development consists of new construction on a site that totals 17,743 SF. This 7-story building will consist of 105 studio and one-bedroom units, on-site parking and a community resource center. The residences will be built from level 2 to level 7 (concrete podium over parking and community space). Other on-site amenities include a computer lab, a multi-purpose room for social gatherings, a laundry facility, and a rooftop open space area for the residents. The target market are Independent kupuna, and rents are restricted to kupuna aged 55 and over earning 30, 50 and 60 percent of the AMI or below.

An allocation of 4% low-income housing tax credits and tax-exempt bonds from the Hawaiian Housing Finance and Development Corporation (HHFDC) helped finance this affordable rental housing project in 2019, and the project was completed in April of 2023.

ʻIKENĀKEA

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HONOLULU COUNTY INCOME SCHEDULE BY FAMILY SIZE 2024

THE FOLLOWING TABLE PRESENTS INCOME LIMITS BY FAMILY SIZE AND BY PERCENTAGES OF THE VERY LOW INCOME LEVELS ESTABLISHED BY HUD. THESE INCOME LIMITS SERVE AS GUIDELINES TO ESTABLISH SALES/RENTAL PREFERENCES.

		LIMITS BY FAMILY SIZE							
MEDIAN		1 PERSON	2 PERSON	3 PERSON	4 PERSON	5 PERSON	6 PERSON	7 PERSON	8 PERSON
$120,100									
Adjustments for family size		0.7000	0.8000	0.9000	1.0000	1.0800	1.1600	1.2400	1.3200
% of Income	10%	$9,750	$11,140	$12,530	$13,920	$15,040	$16,150	$17,270	$18,380
	20%	$19,500	$22,280	$25,060	$27,840	$30,080	$32,300	$34,540	$36,760
	30%	$29,250	$33,420	$37,590	$41,760	$45,120	$48,450	$51,810	$55,140
	40%	$39,000	$44,560	$50,120	$55,680	$60,160	$64,600	$69,080	$73,520
	50%	$48,750	$55,700	$62,650	$69,600	$75,200	$80,750	$86,350	$91,900
	60%	$58,500	$66,840	$75,180	$83,520	$90,240	$96,900	$103,620	$110,280
	70%	$68,250	$77,980	$87,710	$97,440	$105,280	$113,050	$120,890	$128,660
	80%	$78,000	$89,120	$100,240	$111,360	$120,320	$129,200	$138,160	$147,040
	90%	$87,750	$100,260	$112,770	$125,280	$135,360	$145,350	$155,430	$165,420
	100%	$97,500	$111,400	$125,300	$139,200	$150,400	$161,500	$172,700	$183,800
	110%	$107,250	$122,540	$137,830	$153,120	$165,440	$177,650	$189,970	$202,180
	120%	$117,000	$133,680	$150,360	$167,040	$180,480	$193,800	$207,240	$220,560
	130%	$126,750	$144,820	$162,890	$180,960	$195,520	$209,950	$224,510	$238,940
	140%	$136,500	$155,960	$175,420	$194,880	$210,560	$226,100	$241,780	$257,320

The U.S. Department of Housing and Urban Development (HUD) sets income limits that determine the eligibility of applicants for its assisted housing programs. HUD typically uses the Very Low-Income Limit (VLIL) as the basis for deriving other income limits. The VLIL is calculated by taking the 4-person income limit equal to 50% of the estimated median family income (based on the U.S. Census Bureau's ACS median family income estimates) and making adjustments if this income is outside formula constraints. For example, the VLIL is increased for areas where rental housing costs are unusually high in relation to the median income or if it is less that the relevant State non-metropolitan median family income level.
See https://www.huduser.gov/portal/datasets/il.html#faq_2024 .

These income limits are not used for projects funded with tax credits under section 42 of the Internal Revenue Code and projects financed with tax exempt housing bonds issued to provide qualified residential rental development under section 142 of the Internal Revenue Code, i.e., LITHC, RHRF, etc. Go to HHFDC's website at https://dbedt.hawaii.gov/hhfdc/files/2024/04/HUD-MF-AMI-Tables-Only-2024.pdf for tax credit rental program projects.

NOTE: This chart is provided as a guide only. You are responsible to ensure the accuracy of the numbers.

AFFORDABLE RENT GUIDELINES* 2024

Affordable rents are based on 30% of income (including utilities)**

Area	$120,100	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
HONOLULU COUNTY						
30% of Median		$731	$783	$939	$1,086	$1,211
50% of Median		$1,218	$1,305	$1,566	$1,810	$2,018
60% of Median		$1,462	$1,566	$1,879	$2,172	$2,422
80% of Median		$1,950	$2,089	$2,506	$2,896	$3,230
100% of Median		$2,437	$2,611	$3,132	$3,620	$4,037
120% of Median		$2,925	$3,133	$3,759	$4,344	$4,845
140% of Median		$3,412	$3,655	$4,385	$5,068	$5,652

*Please note that area market rents may be lower than these rent guidelines.

**Monthly rent levels would include the cost of the following utilities: water, sanitary sewage services, electricity and gas (where applicable). Please refer to the Utility Allowance Schedule for each island.

PROPOSED RENT RATES

The determination of the Project's affordability levels will be made after the HRS 201H resolution is adopted and will depend on the sources of financing the Applicant is able to secure. The Project is designed so that it may be developed as either one of the following two scenarios, with the first scenario being preferred by the Applicant. The Applicant is requesting approval to develop the Project either as:

1. Scenario 1: A 100% affordable rental project for households earning up to the maximum of 60% of the Area Median Income (AMI), plus one manager's unit. This scenario proposes to use Low-Income Housing Tax Credits and other HHFDC financing programs.

2. Scenario 2: A 100% affordable rental project for households earning between 80% and 100% of the AMI, plus one manager's unit. This scenario proposes to use HHFDC's Rental Housing Revolving Fund.

ENVIRONMENTAL PLANNING & ASSESSMENTS

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May 7, 2024

Public Outreach

This narrative summarizes the public outreach conducted to date by the Applicant. These presentations and community discussions were held outside of the 30-day Draft EA public review period. The Applicant addressed these comments at these meetings, and as applicable, in the various sections of the Final EA. If comments/questions could not be addressed during the meetings, the responses are provided herein.

Neighborhood Board (No.20) Meeting – November 14, 2023

On November 9, 2023, the Applicant mailed a written notification of a November 14, 2023, presentation on the proposed project at the Aiea Neighborhood Board No. 20 meeting to adjoining property owners as required by the Special Management Area Major Permit Application. A presentation describing the project details was provided during the Board Business section as shown in the attached minutes of the neighborhood board. Questions, comments, and concerns followed the presentation. Opinions were expressed about including adequate parking and conducting appropriate community engagement. This engagement was conducted as early consultation prior to the transmittal of the Draft Environmental Assessment.

A summary of the comments is provided below:

Community Concern: Adequate parking should be accommodated as many working families have more than one vehicle. Not providing enough onsite parking could overload the neighboring communities and streets.

Response: *Parking needed to be balanced here at an almost one to one ratio to consider the needs of the future residents, existing transportation alternatives in the surrounding area, and the anticipated construction costs of the project. Off-street parking at the site will provide ride share options, short- and long-term bicycle storage, and is in close proximity to the newly constructed rail station.*

Community Concern: Appropriate community engagement needs to be conducted. Encouraged the applicant to go door to door to ask for feedback.

Response: *The Applicant attended a total of three (3) neighborhood board meetings, held a town hall meeting, and presented at the Aiea Community Association. Information was mailed to residents on Lipoa Place inviting them to the Town Hall to provide feedback and ask questions.*

Community Comment: Felt like the project is needed. The development of this project will hopefully kickstart the revitalization of the area.

Community Comment: It is in a great location and the project is needed.

Community Comment: Try to get as close to 2-to-1 parking as possible.

Community Question: Question around the existing structure was raised.
Community Question: Were the area elected officials notified about the project?
Community Question: Is it possible to do a basement parking structure?
Community Question: How many residents would be displaced with the new project? Would they be offered a spot at the "upgraded beautiful development"?

Neighborhood Board (No.20) Meeting – March 12, 2024

On March 12, 2024, a representative of the Applicant attended the Neighborhood Board meeting to announce a Town Hall on the Hale O Lipoa Affordable Housing Project to be held on April 3, 2024. An additional announcement was made for a follow-up presentation at the April Neighborhood Board meeting. Meeting minutes representing this announcement are attached.

Town Hall – April 3, 2024

On March 27, 2024, the Applicant mailed out invitations ahead of the Town Hall to residents on Lipoa Place. The Town Hall was held at 6 PM at Waimalu Elementary School. There were 7 people who signed in. A presentation on the details of the Proposed Project was held and was followed by questions, comments and concerns from the attendees.

A summary of the comments is provided below:
Community Comment: Appreciation for the for-sale option was shared.
Community Comment: Encouraged the incorporation of the area's culture into the building, not just by design but with historical context.
Community Question: What is the AMI of Aiea? Will the residents in Aiea be able to afford the AMI presented in the project?
Community Comment: Concentration of affordable housing and homeless in Aiea is not wanted. The new stadium development will have about 4,000 affordable units.
Community Concerns: The proposed height is of concern.
Community Comment: Need to address concerns shared in the Cultural Impact Assessment regarding the project's proximity to the nearby streams and the area's cultural importance.
*Note: *Some of the concerns included in the CIA have been removed in the FEA at the request of the interviewee.*
Community Comment: There are other developable sites in the area that are ready for development.
Community Concern: There have been two water main breaks in the area. Concerns were brought up around infrastructure.
Community Comment: Look at the Sea Level Rise Viewer and the economic loss feature.

Neighborhood Board (No.20) Meeting – April 9, 2024

On April 9, 2024, representatives of the Applicant attended the Neighborhood Board meeting to present the details of the Proposed Project. A presentation describing the project

details was provided during the Board Business section as shown in the attached agenda of the neighborhood board. This presentation was followed by questions, comments and concerns from the attendees.

A summary of the comments is provided below:
Community Comment: Excitement for the project was shared, however the parking provided onsite would be inadequate.
Community Comment: Cultural awareness and incorporation into the project as discussed at the Town Hall.
Community Concern: Inadequate notice of Town Hall.
Community Concern: Town Hall issues not addressed during presentation.
Community Question: Asked if a follow-up meeting in January 2025 could be scheduled to provide a project update and get more comments before permits are submitted.
Community Comment: Suggestion to reduce the size of the building to accommodate visibility of the shoreline.
Community Concern: Brought up concerns about the children and where they would be attending school.

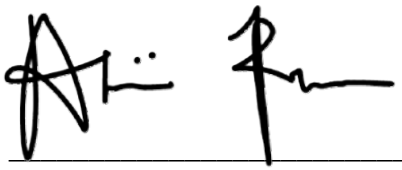
Aiea Community Association Meeting – April 15, 2024
On April 15, 2024, representatives of the Applicant attended the Aiea Community Association meeting to present the details of the Proposed Project as shown in the attached agenda of the Aiea Community Association. This presentation was followed by questions, comments and concerns from the attendees.

A summary of the comments is provided below:
Community Question: How many EV parking stalls are provided? There may be a need to convert some stalls to EV later down the road.
Community Question: How long is the applicant going to own the property?
Community Comment: Alternative sites were discussed such as the old Toys R Us.
Community Concerns: The proposed height is too large.
Community Question: Who are the investors?
Community Question: How much of the project's ground floor is available for landscaping in percentage terms?
Response: *Approximately 10%*
Community Comment: The project should anticipate running into issues with flooding as experienced in the neighboring Pearl Kai Shopping Center parking basement.
Community Comment: Revise EA to eliminate the statement that the proposed building will fit in with the surrounding community relative to its height relationship to the existing developments in the area.
Response: *This has been corrected in the FEA.*
Community Comment: The proposed height is incompatible with the existing land use policies and development recommendations.
Community Question: Looking at the projected Sea Level Rise in 2090, what precautions are taken to account for this?

Community Question: What is the reason behind the 61-year affordability period? Who will take ownership of the property after 61 years?
Community Comment: The preliminary engineering report contained in the DEA incorrectly labels Kalauao Springs Ditch as Kalauao Stream.
Response: *This has been corrected in the FEA.*
Community Question: Could the applicant consider broadening the AMI levels to include some higher income level units?
Response: *The various financing scenarios explained in Section 2.4 of the EA provide a variety of affordability levels.*
Community Comment: A general opposition to this project was shared. Bill 50 was mentioned to address the traditional cultural spaces and practices in the area. Requested that the Applicant do more cultural analysis. Shared that the community has been working with the Navy to clean the water in the harbor and is committed to restoration of a nearby fish pond.
Response: *Acknowledged. The FEA has been updated to include an expanded discussion on the hydrology in the area. In addition, the Applicant will work with community-based organizations, such as the Aiea Community Association, neighborhood board, Ali'i Hawaiian Civic Club, among others, to facilitate outreach and appropriate incorporation of the significant cultural elements into the design of the proposed project. The goals would be to highlight the historic and cultural significance of the area through certain design elements throughout the project to provide both education and recognition.*
Community Question: How will monitoring occur for stormwater quality?
Response: *The project will comply with the rules and regulations regarding stormwater quality.*
Community Question: Who is the landscaping company?
Response: *Monaghan Landscape Architects LLC*

An email containing additional comments from a member of the Aiea Community Association was received following this meeting and is also attached.

Sincerely,



Alicia Ruelke, President
Environmental Planning & Assessments LLC

AIEA NEIGHBORHOOD BOARD NO. 20

c/o 925 DILLINGHAM BOULEVARD, SUITE 160 HONOLULU, HI 96817
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DRAFT REGULAR MEETING WRITTEN SUMMARY FOR VIDEO RECORD
TUESDAY, NOVEMEBR 14, 2023
AIEA PUBLIC LIBRARY PROGRAM ROOM AND ONLINE VIA WEBEX

Video Recording of Meeting Link: https://www.youtube.com/watch?v=JtuTtDQ11QU

Google Drive Link: https://drive.google.com/drive/folders/1PYA1awPDNKw0d94SfFP4_-JAuhzlifUp

1. **CALL TO ORDER** [0:00:00]

Chair Wood called the meeting to order at 7:00 p.m. **Quorum WAS established with 11 board members present.** Note – This 15-member board requires eight (8) members to establish quorum and to take official board action.

Members Present: Stephen Wood, Tracy Arakaki, Bill Clark, Danielle Espiritu, Ronald Fitch, Paul Glen, May Imamura-Uruu, Richard Mizusawa, Russell Tsuji, Alyn Vasquez, Francie Whitfield, and Jane Sugimura (7:16 p.m.).

Members Absent: Jane Anderson, Kimo Burgess, and Mike Dwyer.

Guests: Firefighter I Nick Hudson (HFD); Sergeant Miller (HPD); Tracy Burgo (BWS); Chris Kinimaka, Samantha Spain, David Harris (Stadium Authority), Jeff Ramsey (Crawford Architects); Bettina Mehnert (OCCC); David Cianelli (Pearl Ridge Shopping Center); Victor Flint (U.S. Navy); Casey Abe (Highways Division); Tommy Johnson (Department of Public Safety), Cathi Schar, Caroline Whitesel, Creesha Layaoen, Dean (UHCDC); Keegan Flaherty, Chris Flaherty, Nainoa Watson (Ikenakea); Janelle Saneishi (Governor Green); Senator Elefante, Michael Greenough; Representative Micah Aiu; Representative Sam Kong; DDC Director Haku Milles (Mayor Blangiardi); Aaron Wilson, Jocelyn Roberts (Councilmember Okimoto); Tricia Riopelle (Councilmember Cordero); Susan Morishige (ACA); Garner Shimizu, Wayne Takara, Kylie Akiona, Joanna Chang, Randy Chang, Jaimie Davis, Rachael Pang, Iris Pang, Jeffrey Pang, Lawrence Higa, Danielle Baans, Paul Gasper, Laila Bueno (Residents); Logan Hutchinson (NCO). **Note: Name not included if not legible or stated for the record. There were 59 total participants.**

2. **MONTHLY REPORTS** [0:00:25]

Honolulu Fire Department (HFD) [0:00:25]: Firefighter I Nick Hudson gave the report, which a copy of can be found at https://drive.google.com/file/d/16qQP9JmEknZBKD5CAx4cZbOruRVWq7zA/view?usp=drive_link. Should you have any questions, please email the Honolulu Fire Department Community Relations Office at hfdnhb@honolulu.gov.

- October 2023 Statistics: There were two (2) structure fires, one (1) wildland/brush fire, one (1) nuisance fire, five (5) activated alarms (no fire), 130 medical emergencies, three (3) motor vehicle crash/collisions, and one (1) mountain rescue.
- Safety Tip: Holiday Cooking Safety – Keep everyone safe this holiday season. Thanksgiving is the peak day for home cooking fires with more than three times the daily average for such incidents. Christmas Day and Christmas Eve rank second and third, with both having nearly twice the daily average. Unattended cooking is by far the leading contributing factor in cooking fires and fire deaths. Stay in the kitchen and focus on the food when you are cooking on the stove top. Stay in the home when cooking your turkey, and check on it frequently. If you want a fried turkey, purchase it from a grocery store, restaurant or buy a fryer that does not use oil. Turkey fryers that use cooking oil are not safe. These fryers use large amounts of oil at high temperatures, which can cause devastating burns. Consider purchasing an infrared fryer, air fryer, or electric turkey fryer, that has been listed by a qualified testing laboratory. Do not leave fryers unattended when in use. For more information, visit https://fire.honolulu.gov/.

Questions, comments, and concerns followed [0:02:41].

Honolulu Police Department (HPD) [0:07:14]: Sergeant Miller reported the following:

- October 2023 Statistics: There were six (6) motor vehicle thefts, two (2) burglaries, 21 thefts, 14 unauthorized entries into motor vehicles (UEMV), and 6,205 total calls for service. Further statistical information can be found at www.honolulupd.org.
- September 2023 Statistics: There were six (6) motor vehicle thefts, four (4) burglaries, 30 thefts, eight (8) unauthorized entries into motor vehicles (UEMV), and 5,840 total calls for service.

Questions, comments, and concerns followed [0:08:09].

Board of Water Supply (BWS) [0:12:07]: Tracy Burgo provided the monthly report, which a copy of can be found at https://drive.google.com/file/d/1vl3TxhSLYyNUdMXcGJkDPc87PUCeJw7F/view?usp=drive_link. There were five (5) main breaks reported in October in the district. BWS has launched its 2024 Poster and Poetry Contest. For more information, go to www.boardofwatersupply.com/wcwcontest.

Questions, comments, and concerns followed [0:13:50].

Sugimura joined the meeting at 7:16 p.m.; 12 members present.

Stadium Authority [0:15:47]: Chris Kinimaka highlighted the Stadium Authority website at https://nased.hawaii.gov/ including the market sounding process and October 2023 newsletter. Samantha Spain highlighted the Holiday Light Show in the Lower Halawa Lot.

Questions, comments, and concerns followed [0:20:46].

Oahu Community Correctional Center (OCCC) [0:24:51]: Bettina Mehnert deferred her report due to the presentation on alternative models for OCCC and community-based continuum of care later in the meeting.

Questions, comments, and concerns followed [0:25:52].

Pearl Ridge Shopping Center [0:27:21]: David Cianelli highlighted a few of the upcoming events at Pearl Ridge Shopping Center. For more information, go to https://pearlridgeonline.com/.

Questions, comments, and concerns followed [0:31:06].

U.S. Navy/Department of Defense (DOD) [0:33:16]: No representative present at this time.

Environmental Protection Agency (EPA) [0:33:45]: No representative present. No report provided.

State Department of Transportation (DOT), Highways Division [0:33:55]: Casey Abe provided an update on the Moanalua Freeway Lighting Improvements Project at the Halawa Heights off-ramp to the Middle Street overpass.

Questions, comments, and concerns followed [0:35:44].

Hearing no objections, Chair Wood returned to a previous agenda item [0:39:56]**.**

U.S. Navy/Department of Defense (DOD) [0:39:56]: Victor Flint provided the report, which a copy can be found of at https://drive.google.com/file/d/18d5BJh2bkgMi5o459skpcuH3DStLvJFf/view?usp=drive_link.

Questions, comments, and concerns followed [0:42:42].

3. **BOARD BUSINESS** [0:49:12]

Wildfire Prevention Efforts for Pearl City and Aiea [0:49:12]: Chair Wood added this agenda item to allow any community discussion on the topic before getting an update from HFD at the next meeting. No board action taken.

Alternative Models for OCCC and Community-Based Continuum of Care [0:49:58]: Tommy Johnson, Cathi Schar, Caroline Whitesel, Creesha Layaoen, and Dean gave the presentation, prepared by the University of Hawaii Community Design Center (UHCDC), which a copy of can be found at https://drive.google.com/file/d/1rewzgkF3DlaARI7L48d3VeYpht5D2mnb/view?usp=drive_link. Highlights included the project timeline, goals/objectives, and engaging stakeholders in alternatives for a new jail and strengthening a community-based continuum of care. Links were provided to 1) Project website: https://www.engagehawaii.org/ (click on project icon), 2) Symposium website: https://www.breaking-cycles-symposium.org/, and 3) the UHCDC website: https://www.uhcdc.manoa.hawaii.edu/.

Questions, comments, and concerns followed [1:03:30].

2023/CUP-25 Group Living Facility Halawa Care Home Update [1:08:05]: Member Arakaki requested Chair Wood give a brief of what has occurred since the permit was approved. Chair Wood shared he knew that the permit was approved with restrictions and that testimony/concerns were submitted. Member Vasquez asked and Councilmember Cordero shared a bill needs to be heard in the next session in order to introduce penalties for those who were granted permits under false pretenses. On October 26, 2023, Conditional Use Permit No. 2023/CUP-25 was approved with conditions. Anyone wishing to appeal the Director's action must submit a written petition and a $400 filing fee to the Zoning Board of Appeals by November 25, 2023. For more information, please contact Lena Phomsouvanh of the Department of Planning and Permitting (DPP), at (808) 768-8052 or lena.phomsouvanh@honolulu.gov. Member Arakaki raised a concern about lack of proper notice prior to one of the public hearings. Chair Wood requested either Member Arakaki or a committee take point on this issue moving forward.

Use of Board Funds [1:19:48]: Chair Wood requested the board brainstorm ideas for the use of $1,000 allocated in board funds. Ideas mentioned included, but were not limited to, a scholarship, a board newsletter, community clean-ups, and equipment/support for committee meetings.

Hale O Lipoa Affordable Housing Development [1:26:28]: Keegan and Chris Flaherty (Ikenakea) gave the presentation, which a copy of can be found at https://drive.google.com/file/d/1HCymiZlwZF-_nGit67z980QDzQQUNPYy/view?usp=drive_link. The project is located at 98-150 Lipoa Place. Highlights included background information about Ikeanakea Development LLC, an overview of the project, and unit details including amenities, rent ranges, and parking. The expected project completion is in May 2027. The Draft Environmental Assessment (DEA) was just submitted today, November 14, 2023.

Questions, comments, and concerns followed [1:36:17].

Approval of Regular Meeting Written Summary for Video Record – September 12, 2023 [1:57:11]: **Vasquez MOVED and Glen SECONDED to approve the Tuesday, September 12, 2023 Regular Meeting Written Summary for Video Record as written** [1:57:41]. Hearing no discussion, the board conducted a voice vote. **The motion WAS ADOPTED; 12 – 0 – 0** (**Aye**: Arakaki, Clark, Espiritu, Fitch, Glen, Imamura-Uruu, Mizusawa, Sugimura, Tsuji, Vasquez, Whitfield, Wood; **Nay**: None; **Abstain**: None) [1:57:56].

4. **RESIDENTS/COMMUNITY CONCERNS** [1:58:37]: None.

5. **ELECTED OFFICIALS** [1:58:50]

Governor Josh Green's Representative [1:58:50]: Janelle Saneishi highlighted wildfire mitigation efforts. The State House of Representatives establishing a Wildfire Prevention Working Group. A report from the group will be submitted to the legislature in the upcoming session. For more information, go to https://www.capitol.hawaii.gov/legislature/specialcommittee.aspx?comm=wfpwg&year=2023. The Hawaii Wildfire Management Organization (HWMO) is another organization and their website is https://www.hawaiiwildfire.org/home. Saneishi also provided follow-up responses to concerns raised at a previous meeting.

Questions, comments, and concerns followed [2:02:38].

U.S. Representative Ed Case [2:05:53]: No representative present. No report provided.

Senator Glenn Wakai [2:06:06]: No representative present. No report provided.

Senator Brandon Elefante [2:06:15]: Senator Elefante announced the legislature will be going into special session for the Supreme Court nominees. Senator Elefante and Michael Greenough did site visits to look at the different Capital Improvement Projects (CIP) going on in the district. The link to Senator Elefante's legislative page is https://www.capitol.hawaii.gov/legislature/memberpage.aspx?member=229&year=2023.

Representative Linda Ichiyama [2:07:56]: No representative present. No report provided.

Representative Micah Pookela Kim Aiu [2:08:06]: Representative Aiu shared that the defueling of Red Hill is nearly complete, there is an upcoming Joint Task Force Red Hill Task Force (JTFRH) meeting, and to keep an eye out for a survey in the mail to solicit community input on certain issues. The news release for the JTFRH meeting can be found at https://health.hawaii.gov/news/files/2023/11/News-Release-November-2023-FTAC-Media-Advisory.pdf and the meeting agenda can be found at https://health.hawaii.gov/ust/files/2023/11/Nov-15-2023-FTAC-Final-Agenda.pdf.

Questions, comments, and concerns followed [2:09:24].

Representative Sam Kong [2:10:18]: Representative Kong provided his report, which a copy of can be found at https://drive.google.com/file/d/1oU68NnymYPGMGnnqLAG9GYHyccX3KNwx/view?usp=drive_link. Representative Kong highlighted the groundbreaking ceremonies for the Aloha Ia Halewiliko, 140-unit senior affordable housing project in the area.

Mayor Rick Blangiardi's Representative [2:12:54]: Department of Design & Construction (DDC) Director Haku Milles gave the report and provided follow-up responses to concerns raised at a previous meeting. The Mayor's Newsletter can be found at https://www.oneoahu.org/newsletter. To explore career opportunities at the City and County of Honolulu, please visit: https://www.governmentjobs.com/careers/honolulu. Regarding the Marites Callado Care Home: On October 26, 2023, Conditional Use Permit No. 2023/CUP-25 was approved with conditions. Anyone wishing to appeal the Director's action must submit a written petition and a $400 filing fee to the Zoning Board of Appeals by November 25, 2023. For more information, please contact Lena Phomsouvanh of the Department of Planning and Permitting (DPP), at (808) 768-8052 or lena.phomsouvanh@honolulu.gov. Regarding Department of Facility Maintenance (DFM) storm drain maintenance, please reach out to DFM Division of Road Maintenance at (808) 768-3600 or dfmroads@honolulu.gov.

Questions, comments, and concerns followed [2:19:27].

Councilmember Val Okimoto [2:26:53]: Aaron Wilson provided legislature updates and Councilmember Okimoto's newsletter, which a copy of can be found at https://drive.google.com/file/d/1SHoL0UHNFwSC3S0bKPViq5X-IvRNcOBA/view?usp=drive_link.

Councilmember Radiant Cordero [2:29:30]: Councilmember Cordero's provided her report, which a copy can be found at https://drive.google.com/file/d/1DVUyR4reJsMoEN2dNIxqa7z9LNWW1FdG/view?usp=drive_link. Councilmember Cordero highlighted repairs to facilities at Aiea District Park, ongoing activation of Makalapa Park, and plans to conduct walk audits in the area. Councilmember Cordero plans to request the Department of Planning & Permitting (DPP) to attend a future meeting to provide clear information and answer questions on the concern with monster homes in the area.

Questions, comments, and concerns followed [2:36:16].

6. **REPORTS** [2:37:25]

Board Members Attendance at Other Meetings Affecting Aiea Neighborhood Board Business [2:37:29]: Chair Wood shared that he attended the Conference of Chairs on October 30, 2023. Member Arakaki, Member Vasquez, and Chair Wood attended a walkthrough of the new Halawa Housing Apartments.

Aiea Community Association (ACA) [2:41:20]: Susan Morishige announced a book sale on November 18, 2023 from 9:00 a.m. to 2:00 p.m. at Aiea Public Library. Help is needed to setup on November 17, 2023 at 3:30 p.m. and breakdown on November 18, 2023 at 2:30 p.m. The next ACA meeting will take place after the book sale. The Aiea Christmas Parade is taking place on December 9, 2023.

Committees [2:42:59]

i. Executive: No report.
ii. Transportation: No report.
iii. Community Relations and Publicity: No report.
iv. Parks and Recreation: No report.
v. Planning and Zoning: No report.
vi. Restoration Advisory Board, Military, & Intergovernmental Affairs (RABMIA): Member Whitfield shared a tentative date on December 6, 2023 at the Oahu Veterans Center for the next Peal Harbor Hickam Restoration Advisory Board (RAB) meeting.
vii. Red Hill Fuel Tanks: No report.
viii. Education and Culture: Member Espiritu announced an upcoming event.

7. **ANNOUNCEMENTS** [2:45:03]

Next Meeting – The Aiea Neighborhood Board No.20 will recess in December 2023. The next meeting is tentatively scheduled on Tuesday, January 9, 2024 at 7:00 p.m. at Aiea Public Library and online via WebEx.

ʻŌlelo Rebroadcasts: Rebroadcasts of the Aiea Neighborhood Board No.20 meetings are scheduled each month on ʻŌlelo channel 49 for every last Thursday at 6:00 p.m. An archive of past meetings may be found on https://olelo.org/olelonet/ by searching <Aiea>.

8. **ADJOURNMENT** [2:45:17]: The meeting adjourned at 9:46 p.m.

Submitted by: Logan Kealoha Hutchinson, Neighborhood Assistant
Reviewed by: Dylan Whitsell, Deputy
Finalized by:

AIEA NEIGHBORHOOD BOARD NO. 20

c/o 925 DILLINGHAM BOULEVARD, SUITE 160 HONOLULU, HI 96817
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET: http://www.honolulu.gov/nco

DRAFT REGULAR MEETING WRITTEN SUMMARY FOR VIDEO RECORD
TUESDAY, MARCH 12, 2024 AT 7:00 P.M.
AIEA PUBLIC LIBRARY PROGRAM ROOM AND ONLINE VIA WEBEX

Video Recording of Meeting Link: https://www.youtube.com/watch?v=yVF1chIafBk

Google Drive Link: https://drive.google.com/drive/folders/1PYA1awPDNKw0d94SfFP4_-JAuhzIifUp

1. **CALL TO ORDER** [0:00:14]

Chair Wood called the meeting to order at 7:00 p.m. **Quorum WAS established with 11 board members present.** Note – This 15-member board requires eight (8) members to establish quorum and to take official board action.

Members Present: Stephen Wood, Jane Anderson, Tracy Arakaki, Bill Clark, Danielle Espiritu, Paul Glen, Lawrence Higa, May Imamura-Uruu, Richard Mizusawa, Russell Tsuji, Francie Whitfield and Jane Sugimura (7:28 p.m.).

Members Absent: Kimo Burgess and Ronald Fitch.

Guests: Sergeant Miller (HPD); Firefighter Watkins (HFD); Tracy Burgo, Kathleen Pahinui, Raelynn Nakabayashi, Steven Norstrom (BWS); Chris Kinimaka, Samantha Spain (Stadium Authority), Jeff Ramsey (Crawford Architects); David Cianelli, Lori Lum (Pearlridge Shopping Center); Victor Flint (U.S. Navy); Casey Abe (DOT, Highways Division); Cathi Schar, Caroline Whitesel, Creesha Layaoen, Dean Matsumura (UHCDC); Janelle Saneishi (Governor Green); Senator Brandon Elefante, Taylor Sayles; Mitsie Kim (Representative Ichiyama); Representative Micah Aiu; Representative Sam Kong; DDC Director Haku Milles (Mayor Blangiardi); Councilmember Val Okimoto, Jocelyn Roberts, Aaron Wilson; Councilmember Radiant Cordero, Robert Sato; Clair Tamamoto, Susan Morishige (ACA); Keegan Flaherty, Nainoa Watson (Ikenakea Development); Bettina Mehnert (AHL); Sean Paio (OTS); Mandee New-Lorenzo, Wayne Takara, Litia Uini-Kuehu, (Guests); Logan Hutchinson (NCO). **Note: Name not included if not legible or stated for the record. There were 50 total participants.**

Chair Wood passed the gavel to Vice Chair Mizusawa [0:00:17].

2. **MONTHLY REPORTS** [0:01:50]

Honolulu Police Department (HPD) [0:02:10]: Sergeant Miller reported the following:

- January 2024 Statistics: There were eight (8) motor vehicle thefts, five (5) burglaries, 21 thefts, and 15 unauthorized entries into motor vehicles (UEMV). Further statistical information can be found at www.honolulupd.org.
- February 2024 Statistics: There were eight (8) motor vehicle thefts, 12 burglaries, 17 thefts, and 18 UEMVs.

Questions, comments, and concerns followed [0:02:56].

Honolulu Fire Department (HFD) [0:12:18]: Firefighter Watkins gave the report. Should you have any questions, please email the Honolulu Fire Department Community Relations Office at hfdnhb@honolulu.gov.

- Report: https://drive.google.com/file/d/1_qPYBx6xMjxHx7eXOJYH8KPIH-rrTVcs/view?usp=drive_link
- February 2024 Statistics: There were two (2) structure fires, one (1) wildland/brush fire, one (1) nuisance fire, one (1) cooking fire, seven (7) activated alarms (no fire), 135 medical emergencies, and 11 motor vehicle crash/collisions.
- Safety Tip: Smoke Alarm Safety Tips – Smoke alarms save lives and are an important part of a home fire escape plan. Properly installed and maintained smoke alarms give occupants early warning to get outside quickly. Install smoke alarms inside each bedroom and outside the sleeping areas (hallways) and on every level of the home (including the basement). Keep smoke alarms away from the kitchen or bathroom to reduce false alarms. Test all smoke alarms once a month. Press the test button to ensure the alarm is working. If the smoke alarm requires a nine-volt battery, replace the battery each year. Replace smoke alarm unit every ten years, or sooner if they do not respond properly. For more information, visit https://fire.honolulu.gov/.

Board of Water Supply (BWS) [0:14:35]: Tracy Burgo and Kathleen Pahinui gave the report. Highlights included no main breaks in the area during February 2024, World Water Day on Friday, March 22, 2024, and the following resources:

- Report: https://drive.google.com/file/d/1p5HLigK3qCeX57fHm5fvKMcglQ6VrCi_/view?usp=drive_link
- World Water Day: https://www.boardofwatersupply.com/worldwaterday
- Water Yield Map: https://drive.google.com/file/d/1z2h_PsyhfOgH66-v44F8NpsQ-Ml3wHN6/view?usp=drive_link
- FTCA Claim: https://drive.google.com/file/d/1IYoQ6wGyR6Bt_YWt2dX1GnC81zQPUv6o/view?usp=drive_link
- New Fresh Water Wells Construction Project: https://drive.google.com/file/d/1pcxHfXcAzVe3AFJnrARNyI2uNbVfPgOd/view?usp=drive_link
- Toilet Rebate: https://drive.google.com/file/d/1XD2zqqVqUTJqHRW0PtsdDHjcaLrZ-F_A/view?usp=drive_link

Questions, comments, and concerns followed [0:22:16].

Sugimura joined the meeting at 7:28 p.m.; 12 members present.

Stadium Authority [0:37:31]: Chris Kinimaka reported on the ongoing procurement process and Community Engagement Conference scheduled for May 6, 2024 at 6:30 p.m. in-person at the existing stadium. Kinimaka also highlighted Senate Bill (SB) 3197 and House Bill (HB) 2664. Samantha Spain announced some upcoming events.

- Website and Newsletter: https://nased.hawaii.gov/

Questions, comments, and concerns followed [0:47:52].

Pearlridge Shopping Center [0:49:24]: David Cianelli gave the report and highlighted upcoming events in March and April 2024. For more information, go to https://pearlridgeonline.com/.

- Report: https://drive.google.com/file/d/1lpvtDvEIXhZTFLNudSecAKls5sFo1WMx/view?usp=drive_link

U.S. Navy/Department of Defense (DOD) [0:52:41]: Victor Flint gave the report. Highlights included the Joint Task Force Red Hill (JTF-RH) transitioning to the Navy Closure Task Force (NCTF), drinking water long-term monitoring, and the Naval Facilities/Halawa Utility Corridor.

- Report: https://drive.google.com/file/d/1USTjiyfNlsL7OFmbUdiHhrGoPl2g1RzK/view?usp=drive_link

Questions, comments, and concerns followed [0:56:22].

State Department of Transportation (DOT), Highways Division [1:02:22]: Casey Abe reported on 1) the eastbound zipper lane after the Aiea off-ramp being closed, 2) assistance for business near the Gulick Avenue overpass, 3) pothole repairs on Ulune Street, 4) the Moanalua Freeway Resurfacing Project, and 5) various concerns near the Aiea Heights Drive overpass. For questions/concerns, email casey.abe@hawaii.gov or call (808) 265-7299.

Questions, comments, and concerns followed [1:08:09].

3. BOARD BUSINESS [1:10:08]

Oahu Community Correctional Center (OCCC) Workshop Findings [1:10:08]: Caroline Whitesel, Dean Matsumura, and Creesha Layaoen presented on the preliminary findings from the community engagement so far. Highlights included the OCCC project timeline, a summary of the Aiea OCCC Community Engagement Workshop on Thursday, February 1, 2024 at the Aiea Elementary School Cafeteria, possible programs/potential partners for the new facility, site design, and next steps. To get in contact, email uhcdc@hawaii.edu.

- Websites: https://www.breaking-cycles-symposium.org/, https://www.engagehawaii.org/

BWS Rates Presentation [1:20:08]: Raelynn Nakabayashi presented on the BWS rates and charges. Highlights included inflation and other measures affecting purchasing power, a breakdown of where users money goes, customer classes, and water conservation.

- Presentation: https://drive.google.com/file/d/1m1BlftsKUmgWvCmz6Uf6-TL8wEBS_CsS/view?usp=drive_link
- Water Rates Handout: https://drive.google.com/file/d/1to6YDHK2_sjWfeSMC24RUg1-SvSPrCm5/view?usp=drive_link

Questions, comments, and concerns followed [1:30:42].

Certificates of Recognition for Mike Dwyer and Lynn Vasquez [1:44:17]: Chair Wood explained a way for the Board to recognize two (2) of their members who resigned recently. **Glen MOVED and Arakaki SECONDED to create certificates of recognition for Mike Dwyer and Lynn Vasquez** [1:46:13]. Hearing no discussion, the Board conducted a voice vote. **The motion WAS ADOPTED; 12 – 0 – 0** (**Aye**: Anderson, Arakaki, Clark, Espiritu, Glen, Higa, Imamura-Uruu, Sugimura, Tsuji, Whitfield, Wood, Mizusawa; **Nay**: None; **Abstain**: None) [1:46:33].

Approval of Regular Meeting Minutes – Tuesday, February 13, 2024 [1:46:50]: **Espiritu MOVED and Clark SECONDED to approve the Tuesday, February 13, 2024 Regular Meeting Written Summary for Video Record as written** [1:47:01]. Hearing no discussion, the Board conducted a voice vote. **The motion WAS ADOPTED; 12 – 0 – 0** (**Aye**: Anderson, Arakaki, Clark, Espiritu, Glen, Higa, Imamura-Uruu, Sugimura, Tsuji, Whitfield, Wood, Mizusawa; **Nay**: None; **Abstain**: None) [1:47:20].

4. RESIDENTS/COMMUNITY CONCERNS [1:47:31]

Town Hall Meeting [1:47:44]: Keegan Flaherty from Ikenakea Development announced a meeting and presentation about the Hale O Lipoa Affordable Housing Project which will be at Waimalu Elementary School on Wednesday, April 3, 2024 at 6:00 p.m.

- Flyer: https://drive.google.com/file/d/1DXnqLMY2rGsh6mQ2v4xxpjNtUGjRQnPf/view?usp=drive_link
- Website: https://www.ikenakea.com/

Peal Harbor Bike Bath Cleanup [1:49:42]: Robert Sato from Councilmember Cordero's Office announced an Earth Day Cleanup on Saturday, April 20, 2024 from 8:00 to 10:30 a.m.

- View Event(s) and Sign-Up: https://www8.honolulu.gov/swg/get-involved/events-calendar/

5. ELECTED OFFICIALS [1:51:36]

Governor Josh Green's Representative [1:51:36]: Janelle Saneishi gave the report. Highlights included continued efforts at remediation following the wildfires on Maui in August 2023 and the Governor wanting to reduce the homeless population by 50% by the end of his term.

- Website: https://governor.hawaii.gov/

Questions, comments, and concerns followed [1:53:14].

U.S. Representative Ed Case [2:02:53]: No representative present.

- Report: https://case.house.gov/news/email/show.aspx?ID=XPBR2D2ICFBAK

Senator Glenn Wakai [2:03:00]: No representative present. No report provided.

Senator Brandon Elefante [2:03:54]: Senator Elefante provided his newsletter. Highlights included legislature related to speeding and details on laws regarding assaulting law enforcement.

- Report: https://drive.google.com/file/d/1EU64iTioWC7WEHqkBfOfpcBgyerW9cgy/view?usp=drive_link
- Aiea High School Track, Field, & Other Improvements Capital improvement Project Funding: https://drive.google.com/file/d/1n6Kgz2Z0a4vuaKJEwNAp74ejZRmaUsXv/view?usp=drive_link

Representative Linda Ichiyama [2:06:25]: Mitsie Kim from Representative Ichiyama's Office provided the report and was available for any questions/concerns.

- Report: https://drive.google.com/file/d/14uViLx-NZMtmxk0xpD5Q-nlq-ocWtRAe/view?usp=drive_link

Representative Micah Pookela Kim Aiu [2:06:53]: Representative Aiu provided his newsletter and reported on the House Budget that will be distributed on Wednesday, March 13, 2024, HB 2664, HB 1653, and a follow-up from the community survey from the previous month.

- Newsletter: https://drive.google.com/file/d/1iyPD9zroYpqgHOHNNUfE1prLidnIhXbL/view?usp=drive_link

Representative Sam Kong [2:09:47]: Representative Kong reported on legislature he is tracking and some work the Lions Club is doing in the area.

- Report: https://drive.google.com/file/d/1KQGzXV_M4YXYu2XeKQUNF0PZdGAqQtMy/view?usp=drive_link

Questions, comments, and concerns followed [2:11:32].

Mayor Rick Blangiardi's Representative [2:12:45]: Department of Design & Construction (DDC) Director Haku Milles gave the report and provided follow-up responses to concerns raised at a previous meeting. Mayor Blangiandi's Town Hall meetings are returning.

- Mayor's Newsletter: https://www.oneoahu.org/newsletter
- Town Halls: https://drive.google.com/file/d/1aUEAQTYAimohLdAGbpsQKmnEhmLyqhNB/view?usp=drive_link
- Career Opportunities at the City & County of Honolulu: https://www.governmentjobs.com/careers/honolulu

Questions, comments, and concerns followed [2:18:12].

Councilmember Val Okimoto [2:20:02]: Aaron Wilson gave the report and highlighted budget season and several constituent concerns that are being followed up with.

- Newsletter: https://drive.google.com/file/d/10J5fXhvZNIEVSzaZiAXSRrEXISktwexL/view?usp=drive_link

Councilmember Radiant Cordero [2:22:04]: Robert Sato provided the report and highlighted faded road markings in the area and Councilmember Cordero's work as Budget Committee Chair.

- Newsletter: https://drive.google.com/file/d/1AwW0d6icKmOlkirr0lGVt0mlgp1iTJ9s/view?usp=drive_link

6. REPORTS [2:24:09]

Board Members Attendance at Other Meetings Affecting Aiea Neighborhood Board Business [2:24:09]: None.

Aiea Community Association (ACA) [2:24:20]: No representative present. The next ACA meeting will be on April 15, 2024 at 7:00 p.m. For more information, call Claire Tamamoto at (808) 429-1282.

- Website: https://www.aieacommunity.org/

Committees [2:24:28]

i. Executive: No report.
ii. Transportation: No report.
iii. Community Relations & Publicity: VACANT.
iv. Parks and Recreation: No report.
v. Planning & Zoning: No report.
vi. Restoration Advisory Board, Military, & Intergovernmental Affairs (RABMIA): Member Whitfield shared that files related to Per- and Polyfluorinated Substances (PFAS) are available.
vii. Red Hill Fuel Tanks: No report.
viii. Education & Culture: Member Espiritu shared dates for Community Workdays in the area.

7. ANNOUNCEMENTS [2:25:33]

Next Meeting: The Aiea Neighborhood Board No.20 is tentatively scheduled to hold its next regular meeting on Tuesday, April 9, 2024 at 7:00 p.m. at Aiea Public Library and online via WebEx.

ʻŌlelo Rebroadcasts: Rebroadcasts of the Aiea Neighborhood Board No.20 meetings are scheduled each month on ʻŌlelo channel 49 for every last Thursday at 6:00 p.m. An archive of past meetings may be found on https://olelo.org/olelonet/ by searching <Aiea>.

YouTube Archive: For a playlist containing the YouTube videos of the Aiea Neighborhood Board No.20 meetings from 2023-2025, go to https://www.youtube.com/playlist?list=PLV5UMa3mvn9O8DYk0i8VEUQhvsP-MVJwU.

8. ADJOURNMENT [2:25:40]: The meeting adjourned at 9:26 p.m.

Submitted by: Logan Kealoha Hutchinson, Neighborhood Assistant
Reviewed by: Lindon Valenciano, Public Relations Assistant
Finalized by:

AIEA NEIGHBORHOOD BOARD NO. 20

NEIGHBORHOOD COMMISSION • 925 DILLINGHAM BOULEVARD, SUITE 160 • HONOLULU, HAWAII, 96817
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET : http://www.honolulu.gov/nco

REGULAR MEETING AGENDA
TUESDAY, APRIL 9, 2024 AT 7:00 P.M.
AIEA PUBLIC LIBRARY – PROGRAM ROOM
99-374 POHAI PLACE, AIEA, HI 96701
AND ONLINE VIA WEBEX
Board Meetings are held on the Second Tuesday of the Month

Meeting Link: https://cchnl.webex.com/cchnl/j.php?MTID=m4bf5227db5d656a70f152af65bf58187
Meeting Number / Access Code: 2491 087 6781
Password: NB20 (6220 from phones and video systems)
Join by Video System: Dial 24910876781@cchnl.webex.com or 173.243.2.68 and enter your meeting number.
Join by Phone: +1-408-418-9388 United States Toll

Board Google Drive: https://drive.google.com/drive/folders/1PYA1awPDNKw0d94SfFP4_-JAuhzIifUp
Board Meeting Recordings: https://www.youtube.com/channel/UC1DZJTKor6TTNYiqx5U-P2w

Rules of Speaking for a Video Conference: Anyone wishing to speak is asked to raise their hand and wait to be recognized by the Chair. Speakers are encouraged to keep their comments to under three (3) minutes, and those giving reports are urged to keep their reports under five (5) minutes. Please mute your microphone when not speaking.
Note: The Board may take action on any agenda item. As required by the State Sunshine Law (HRS 92), SPECIFIC ISSUES NOT NOTED ON THIS AGENDA CANNOT BE VOTED ON, UNLESS ADDED TO THE AGENDA. A two-thirds vote (10) of this 15-member Board is needed to add an item to the agenda. Items may not be added if they are of major importance and will affect a number of people.

I. CALL TO ORDER – Chair Stephen Wood

II. MONTHLY REPORTS (Limited to five (5) minutes each)
   a. Honolulu Fire Department (HFD)
   b. Honolulu Police Department (HPD)
   c. Board of Water Supply (BWS) – Tracy Burgo
   d. Stadium Authority – Christine Kinimaka, Samantha Spain
   e. Pearlridge Shopping Center – David Cianelli
   f. U.S. Navy/Department of Defense (DOD) – Victor Flint
   g. State Department of Transportation (DOT), Highways Division – Casey Abe

III. BOARD BUSINESS (Limit presentations to 10 minutes each)
   1. Filling of Vacancy – One (1) Subdistrict 4: Residents interested in filling a vacant board seat must bring current proof of residency to the meeting or contact Neighborhood Assistant Logan Hutchinson (logan.hutchinson@honolulu.gov) to verify residency in advance.
   2. Hale O Lipoa Affordable Housing Community - K. Flaherty
   3. Hawaiian Cement – C. Olsen-Orr
   4. TheBus Service Modifications – K. Yang
   5. Kokua Na “Aina – J. Ryff
   6. Resolution Opposing Senate Bill 3202 and House Bill 1630 – S. Wood
   7. Monster Homes in Aiea – DPP Deputy Director Jiro Sumida
   8. Approval of Regular Meeting Minutes: Tuesday, March 12, 2024
   9. Motion to Establish New Committee(s), Designate Chair(s), and Add Members

IV. RESIDENTS’/COMMUNITY CONCERNS (Limited to three (3) minutes each)

V. ELECTED OFFICIALS (Limited to three (3) minutes each)
- a. State Governor Josh Green's Representative – Janelle Saneishi
- b. U.S. Representative Ed Case – Nestor Garcia
- c. District 15 State Senator Glenn Wakai
- d. District 16 State Senator Brandon Elefante
- e. District 31 State Representative Linda Ichiyama
- f. District 32 State Representative Micah Pookela Kim Aiu
- g. District 33 State Representative Sam Kong
- h. Mayor Rick Blangiardi's Representative – DDC Director Haku Milles
- i. City Councilmember Val Okimoto
- j. City Councilmember Radiant Cordero

VI. REPORTS (Limited to three (3) minutes each)
- a. Board Member attendance at other meetings affecting Aiea Neighborhood Board Business
- b. Community Reports
  - i. Aiea Community Association (ACA) – Next meeting: Monday, May 20, 2024 at 7:00 p.m. For further information call Claire Tamamoto at (808) 429-1282 http://aieacommunity.org/
- c. Committees
  - i. Executive – S. Wood
  - ii. Transportation – K. Burgess
  - iii. Community Relations & Publicity – VACANT
  - iv. Parks & Recreation – P. Glen
  - v. Planning & Zoning – K. Burgess
  - vi. Restoration Advisory Board, Military, & Intergovernmental Affairs (RABMIA) – F. Whitfield
  - vii. Red Hill Fuel Tanks – T. Arakaki
  - viii. Education & Culture – D. Espiritu

VII. ANNOUNCEMENTS
- a. Next Meeting – The Aiea Neighborhood Board No.20 is tentatively scheduled to hold its next regular meeting on Tuesday, May 14, 2024 at 7:00 p.m. at Aiea Public Library and online via WebEx.
- b. ʻŌlelo Rebroadcasts: Rebroadcasts of the Aiea Neighborhood Board No.20 meetings are scheduled each month on ʻŌlelo channel 49 for every last Thursday at 6:00 p.m. An archive of past meetings may be found on https://olelo.org/olelonet/ by searching <Aiea>.
- c. YouTube Archive: For a playlist containing the YouTube videos of the Aiea Neighborhood Board No.20 meetings from the 2023-2025 board term, go to https://www.youtube.com/playlist?list=PLV5UMa3mvn9O8DYk0i8VEUQhvsP-MVJwU.

VIII. ADJOURNMENT

A mailing list is maintained for interested persons and agencies to receive this board's agenda and minutes. Additions, corrections, and deletions to the mailing list may be directed to the Neighborhood Commission Office (NCO) at Kapālama Hale, 925 Dillingham Boulevard, Suite 160, Honolulu, Hawaii 96817, by telephone on (808) 768-3710, fax (808) 768-3711, or e-mailing nco@honolulu.gov. Agenda documents and minutes are also available online at http://www.honolulu.gov/nco/boards.html

All written testimony must be received in the Neighborhood Commission Office 48 hours prior to the meeting. If within 48 hours of the meeting, written and/or oral testimony may be submitted directly to the Board at the meeting. If submitting written testimony, please note the Board and agenda item(s) your testimony concerns. Send to: Neighborhood Commission Office, 925 Dillingham Boulevard, Suite 160, Honolulu, HI 96817, fax (808) 768-3711, or email nbtestimony@honolulu.gov.

If you need an auxiliary aid/service or other accommodation due to a disability or an interpreter for a language other than English, please call the Neighborhood Commission Office at (808) 768-3710 between 8:00 a.m. and 4:00 p.m. or send an email to nco@honolulu.gov at least three (3) business days before the scheduled meeting. It may not be possible to fulfill requests received after this date.

`Aiea Community Association
Agenda
April 15, 2024
www.aieacommunity.org

Please join my meeting from your computer, tablet or smartphone
https://meet.goto.com/664277317
You can also dial in using your phone.
United States: +1 (312) 757-3121

Access Code: 664-277-317

I. Introductions

II. Secretary's Minutes – February, March recess

III. Treasurer's Report – Balance 23, 575.92, Deposit for 13 Aiea Books of $325.00,
Expenses: DCCA registration
Friends of the Aiea Library deposit of $100 in memory of Naomi from Catherine Payne

IV. Neighborhood Watch – Wayne Suzuki

V. Aloha Iā Halewilikō – Questor Lau update

VI. 'Ikenākea – redevelopment of the Peppertree Apts.

VII. Aloha Stadium/Stadium Authority – Samantha Spain

VIII. Aloha Stadium Entertainment District Updates – Chris Kinimaka

IX. OCCC – Bettina Mehnert and Cathy Ho Schar

X. Loko I'a Pā'aiau Update - Kehaulani Lum
Ho'ike – Kumu Keola Kalani – Hale Haola Kanaka Cultural Institute, April 20, 2024
Moanalua Performing Arts Center, Moanalua School 6:00 – 8:00 pm, Free Donations accepted.

XI. Friends of Makalapa Park -Ati Jeffers Fabro/Sherry Cassetta/ Wayne Suzuki

XII. Navy Matters/Concerns: Lydia Robertson/Kris

XIII. 2024 Christmas Parade and Blood Drive– December 14, 2024
Permit submitted, Statewide Safety Systems contacted, Application? And Sponsors?

XIV. Election of officers

IX. By Law amendments: Jo Ann Update, schedule regarding Lifetime members.

X. Hawaiian Cement Variance for 12 existing structures over height limit.

XI. Aiea Stream (downstream blockage). Stream cleared but tables, chairs, ladders and rubbish are still there. Recent rains (two weeks ago) brought them together and some damming is occurring.

XII. OTS is removing bus route 11 but 551, 545 hopefully take it's place for service. Check https://moovitapp.com/index/en/public_transit-lines-Honolulu_HI-1144-10747 for bus routes linking to rail and beyond.

XIII. HONU Project – Homeless shelter at Neal Blaisdell Park.

Announcements

a. Ho'ike – April 20, 2024, 6:00 pm – 8:00 pm Moanalua Performing Arts Center
b. Stadium Representatives Outreach meeting – 3 reps May 6, 2024, 6:00-8:00 pm
c. Aiea Neighborhood Board Hybrid Meeting – Tues, May 14, 2024, 7:00 pm Aiea Library
d. 'Aiea Community Association – May 20, 2024, 7:00 pm Aiea Library, Hybrid

Hale O Lipoa Affordable Housing:

Transportation Impact Analysis Report (TIAR)

Prepared for:

ʻIkenākea Development LLC

May 13, 2024

FEHR & PEERS

SD23-0483

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Appendix B: Existing (2023) Conditions Intersection Analysis Worksheets

Appendix C: Baseline (2027) Conditions Intersection Analysis Worksheets

Appendix D: Baseline (2027) Plus Project Conditions Intersection Analysis Worksheets

Appendix E: Pedestrian, Bicycle, and Transit Evaluation Worksheets (DTS Analysis)

Appendix F: 2nd Peak Hour Intersection Volumes and Evaluation Worksheets

Appendix G: NACTO Safe Speed Determination Worksheets

1. Executive Summary

This Transportation Impact Analysis Report (TIAR) presents the results of the transportation study conducted by Fehr & Peers for the proposed Hale O Lipoa Affordable Housing (Project) located in the Aiea-Pearl City neighborhood on the island of O'ahu.

The TIAR assists with the development of the project site plan including providing input on required transportation infrastructure (e.g., roadways) and multi-modal facilities to provide access to the site. Also, the TIAR identifies the impacts of the proposed project on the surrounding transportation system and was conducted per the requirements of the State of Hawai'i Department of Transportation – Highways Division Planning Branch (HDOT), which has jurisdiction over Kamehameha Highway, as well as the City & County of Honolulu Department of Planning and Permitting (DPP) Traffic Review Branch (TRB).

The proposed project is the construction of a 201H affordable and family-oriented residential community and the revitalization of an existing property utilizing the guiding principles of the Aiea-Pearl City Neighborhood Transit-Oriented Development (TOD) Plan. The project site is expected to include up to 154 residential units replacing the existing 48-unit apartment complex (currently known as Pepper Tree Apartments).

The proposed redevelopment is a new eight-story medium-density affordable housing project along the Pearl Harbor Shoreline and within an approximate ¼-mile walk of the new Pearlridge rail station known as Kalauao. According to the project team, the proposed site development is expected to be completed and fully operational by 2027.

Transportation Impact Analysis

The following provides a summary of the findings under three study scenarios: Existing, Baseline (2027), and Baseline (2027) + Project conditions.

Existing Conditions:

The project site is located within ½ distance of a major transit stop that serves several bus routes to/from the neighboring communities. Sidewalks, crosswalks, and pedestrian facilities are available connecting the proposed project to the nearby bus/rail stations. While there are no dedicated bike facilities along the Kamehameha Highway, the project residents can travel to nearby destinations using the Pearl Harbor Bike Path.

Intersection operations at Kamehameha Highway and Pearl Harbor were evaluated as part of this report. The intersection was calculated to operate at LOS A during the existing conditions. While the westbound traffic into Lipoa Place was calculated to operate at an undesirable LOS, the queues on this movement were observed to clear during each cycle. Overall, no significant pedestrian, bike, transit, or auto operation deficiencies were found within the study area.

Baseline Year 2027:

To evaluate the potential impacts of traffic generated by the proposed project on the surrounding street system, baseline future conditions in the area were developed to reflect traffic increases and network changes due to regional growth and development. Based on the review of several planning documents in the area, no additional changes were identified to be constructed before the implementation of the proposed project. Pedestrian, bicycle, transit, and auto modes were evaluated under the Baseline Year 2027 and all facilities were estimated to continue operating at a similar level under existing conditions.

Baseline Year 2027 + Project

The transportation network was evaluated with the addition of the proposed projects. The proposed project is calculated to generate approximately 393 net new trips including 28 trips (9 inbound / 19 outbound) during the morning peak hour and 26 trips (17 inbound / 9 outbound) during the evening peak hour. The findings of this report indicate no significant impact from the implementation of the proposed development. Additionally, the construction of the proposed development should not preclude the implementation of any potential enhancements to walking, biking, transit, or auto facilities.

Recommended Improvements

Site Access & Circulation

Access to the site will be provided via a new driveway on the east side of the project site and an existing driveway on the west side of the project site on Lipoa Place. Given the relatively low site-generated peak hour traffic volumes, as well as the low volume on Lipoa Place, no need for separate turn lanes on Lipoa Place was identified. The proposed driveway on Lipoa Place is recommended to be operated as a stop-controlled driveway.

Parking

The project proposed to provide 150 parking spaces including accessible parking and reserved parking for car-sharing services. The site will also include 15 short-term bicycle stalls off of the sidewalk fronting the building and 78 long-term parking stalls withing the parking structure. Considering that the project site is

located within the vicinity of a major bus stop and rail station, the proposed number of parking spaces is identified to be sufficient to serve the project site.

Transportation Demand Management (TDM)

The proposed project includes the allocation of designated parking stalls for car-sharing services. It is recommended that the developer provide information in a tenant-accessible common area about the car-sharing program, instructing individuals on how to utilize the service. This information should also include information on available transit options, as well as micro-mobility (e.g., bike and e-bikes). This will serve to encourage people to choose shared transportation options, thereby reducing the reliance on private vehicles and alleviating congestion on the roads. By facilitating convenient access to car-sharing services, this measure promotes sustainability, enhances efficiency, and contributes to a more streamlined and eco-friendly transportation system within the area.

Department of Transportation Services (DTS) Analysis Requirements

The following TIA also includes the evaluation of the level and quality of service of all transportation facilities following the guidelines provided in the 2020 City and County of Honolulu TIA guide. The following table provides a summary of findings under the plus project conditions. All calculated scores were then compared to target scores for the facility type.

Facility	Pedestrian	Bicycle	Transit	Parking	Auto
Intersection					
Kamehameha Highway & Lipoa Place	2	n/a	n/a	n/a	1
Segment					
Kamehameha Highway between Kaonohi Street and Pali Momi Street	2	4	1	n/a	2
Lipoa Place between Kamehameha Highway and Project Site	1	3	n/a	4	1

The performance of all modes was compared to target scores which vary by street type throughout the City and County of Honolulu.

- Nearby pedestrian facilities along the Kamehameha Highway were calculated at comfort level 2, where *basic pedestrian conditions* exist. The goal for a parkway or boulevard is comfort level 1.
- Biking along Kamehameha Highway near the project site was calculated to maintain comfort level 4 where the highest level of traffic stress is experienced. The goal for a parkway or boulevard is comfort level 2. The level of traffic stress is estimated to improve to comfort level 3 when the proposed bike lanes along the Kamehameha are maintained. While Kamehameha Highway maintains a high level of stress, the project site has access to the nearby Pearl Harbor Bike Path that connects residents to nearby destinations.

- The pedestrian comfort level along Lipoa Place is calculated at level 1. The target for a local street is level 1.
- The level of traffic stress for bicyclists along Lipoa Place is calculated at LTS 3. The goal for a local street is LTS 2. The calculated LTS is typical for residential streets and low-volume roadways.
- The parking occupancy rating along Lipoa Place is calculated at level 4 (more than 85% occupied). The goal for a local street is level 3. It is anticipated that with the implementation of the TDM strategies implemented by the project site, the parking occupancy will be maintained at a similar level.

Safe Speed Study

As per request from DTS, a Safe Speed Study was conducted based on the National Association of City Transportation Officials (NACTO) guide. The framework determines maximum safe speed limits based on the density of conflict points and the level of activity on a roadway. According to the Conflict-Density Analysis guidelines provided by NACTO, Lipoa Place is classified under the High Conflict Density category as there are more than 3 T-intersection/Major driveways within ¼ miles of the project site. In terms of Activity Level Analysis, it is classified as the Moderate Activity category. According to the Risk Matrix, the speed limit is recommended to be 20 mph.

2. Introduction

This Transportation Impact Analysis Report (TIAR) presents the results of the mobility study conducted by Fehr & Peers for the proposed Hale O Lipoa Affordable Housing (Project) located in the Aiea-Pearl City neighborhood on the island of O'ahu.

The TIAR assists with the development of the project site plan including providing input on required transportation infrastructure (e.g., roadways) and multi-modal facilities to provide access to the site. Also, the TIAR identifies the impacts of the proposed project on the surrounding transportation system and was conducted per the requirements of the appropriate public agencies: the State of Hawai'i Department of Transportation – Highways Division Planning Branch (HDOT), which has jurisdiction over Kamehameha Highway, and the City & County of Honolulu Department of Planning and Permitting (DPP) Traffic Review Branch (TRB), which has jurisdiction over Lipoa Place.

This chapter includes a description of the proposed project, the assumptions, and methods used to conduct the study, as well as a discussion of the criteria used to identify significant impacts.

2.1 Project Description

The proposed project is the construction of a 201H affordable and family-oriented residential community and the revitalization of an existing property on TMK 1-9-8-014021 utilizing the guiding principles of the Aiea-Pearl City Neighborhood Transit-Oriented Development (TOD) Plan. The project site is located at 98-150 Lipoa Place between Kamehameha Highway and the Pearl Harbor Shoreline within an approximate ¼-mile walk of the new Pearlridge rail station known as Kalauao. Lipoa Place is fronted by residential and retail uses and connects to Kamehameha Highway and an adjacent shopping center.

The project includes up to 154 multi-family residential units replacing the existing 48-unit apartment complex currently known as Pepper Tree Apartments. The new units will be affordable studios plus one-, two-, and three-bedroom units to serve families and individuals. The units will be housed in a new eight-story building with parking included within the structure and designated as a medium-density development in an urban area.

According to the project team, the proposed site development is expected to be completed and fully occupied by 2027.

Figure 1 illustrates the proposed Project site Location. **Figure 2** illustrates the project site plan.



Figure 1

Project Site Location



1. VEHICULAR ENTRY
2. PEDESTRIAN ENTRY
3. RESIDENTIAL LOBBY
4. ADMINISTRATIVE OFFICE
5. MAIL ROOM
6. UTILITIES
7. BICYCLE PARKING (LONG TERM)
8. PARING
9. RAMP
10. EXIT STAIRS
11. OUTDOOR PLAZA
12. RIDE SHARE LOADING/UNLOADING AREA
13. SECURED PARKING ENTRY POINT
14. BICYCLE PARKING (SHORT TERM)
15. STREET LIGHT

PARKING

STANDARD	61
COMPACT	7
ELECTRIC VEHICLE	5
ELECTRIC VEHICLE VAN	1
ACCESSIBLE	6
LOADING/UNLOADING (INC. RIDE SHARE)	3

SITE/GROUND FLOOR PLAN

HALE C LIPOA
DEVELOPMENT STUDY
DECEMBER 2022

Figure 2

Project Site Plan

2.2 Project Study Location

Given the anticipated low trip generation of the project, the transportation analysis focused on evaluating the potential project-related traffic impacts at one (1) existing intersection in the vicinity of the site: Kamehameha Highway & Lipoa Place. Once project-generated traffic is beyond this location, it is expected to have a negligible impact on traffic operations.

2.3 Analysis Scenarios

The operations of the study intersection were evaluated during the morning and evening peak hours for the following scenarios:

Existing (2023) Conditions – The analysis of existing traffic conditions was based on 2023 counts collected for the weekday peak hours. The existing conditions analysis includes a description of key area streets and an assessment of bicycle, pedestrian, and transit facilities and services in the study area.

Baseline (2027) Conditions – Future traffic volumes in the anticipated completion year of the full project buildout were projected by increasing the existing volumes using an annual growth factor to account for ambient growth. This scenario does not include any project traffic.

Baseline (2027) Plus Project Conditions – Traffic projections from baseline Conditions plus traffic estimated from the completion and full occupancy of the project. The impact of the project under this scenario was also assessed for potential impacts to bicycle, pedestrian, and transit facilities and services.

2.4 Analysis Methods

The analysis of roadway operations performed for this study is based on procedures presented in the *Highway Capacity Manual 6th Edition* (HCM 6), published by the Transportation Research Board in 2016. The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, which is the least congested operating conditions, to LOS F, which is the most congested operating conditions. LOS E represents "at-capacity" operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions. The methodology for unsignalized intersections is described below. Unsignalized intersections in this report refer to uncontrolled or stop sign-controlled intersections.

2.4.1 Signalized Intersections

Signalized intersection operations were analyzed using the method described in Chapter 19: Signalized Intersections of the HCM 6th edition. The LOS method analyzes a signalized intersection's operation based on the average control delay per vehicle. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay includes the initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections is calculated using Synchro 11.0 software. LOS criteria for signalized intersection are shown in **Table 1**.

Table 1: Signalized Intersection Level of Service Criteria

LOS	Description	Delay (sec)
A	Progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	≤ 10.0
B	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	> 10.0 to 20.0
C	Higher congestion may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, though many still pass through the intersection without stopping.	> 20.0 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	> 35.0 to 55.0
E	This level is considered by many agencies to be the limit of desirable delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0
F	This level is considered undesirable with oversaturation, which is when arrival flow rates exceed the capacity of the intersection. This level may also occur at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to such delay levels.	> 80.0

Source: Highway Capacity Manual 6th Edition, Transportation Research Board, 2016.

2.4.2 Significant Impact Criteria for Traffic

The analysis of future conditions compares the baseline or "no project" condition with conditions that include project-generated traffic assuming full build-out and occupancy. This is done to determine whether the addition of project traffic is expected to result in a significant impact on the surrounding roadways. The minimum desired operating standard for a signalized or roundabout intersection is LOS D for the overall intersection, and this guideline is employed by both HDOT and DPP TRB. Additionally, a significant impact is defined to occur when the operation of an intersection changes from LOS D or better to LOS E or F. Also, when evaluating intersection movement or approach LOS at any location, other factors should be considered in the analysis, such as traffic volumes and potential secondary impacts on pedestrians, bicyclists, and transit travel.



Each of the identified significant impacts could be further categorized as either a cumulative impact or a project-specific impact. At a signalized or roundabout intersection, if the addition of project traffic is expected to degrade desirable service levels (LOS D or better) to undesirable service levels (LOS E or F), then the new development is considered to have a project-specific impact. Alternatively, if the intersection LOS is determined to be LOS E or F without the project and the project adds traffic to this location, causing the delay to increase by five (5) seconds or more, then this result would be characterized as a cumulative impact.

2.4.3 Significant Impact Criteria for Non-Auto Modes

The State of Hawai'i and DPP TRB do not publish formal impact criteria for pedestrian, bicycle, and transit impacts. For this analysis, these impacts are evaluated based on whether a proposed project would: 1) conflict with the existing or planned pedestrian, bicycle, or transit facilities and services, or 2) create substantive walking, bicycling, or transit use demand without providing adequate and appropriate facilities for non-motorized mobility. Existing facilities for pedestrians, bicycles, and transit users were inventoried to evaluate the quality and scope of facilities/services currently in place. The assessments of planned pedestrian, bicycle, and transit facilities were conducted using the information in planning documents, such as the *Oahu Bike Plan (2019)*, *Oahu Pedestrian Plan* (2022), *Statewide Pedestrian Master Plan (2013), etc*. For these modes, if the proposed project is expected to conflict with existing or planned improvements to pedestrian and bicycle facilities, or if the project is expected to generate a substantial demand that could warrant additional transit service, then the project would be determined to have a project-specific impact to non-motorized modes of transportation.

3. Existing Conditions

This chapter describes the study area's existing transportation network and includes a discussion of the roadway, bicycle, pedestrian, and transit facilities. Overall, the assessment of the existing conditions relevant to this study establishes the scenario against which the future baseline and proposed project changes may be compared.

3.1 Roadway System

The key roadways providing access to the site are described below.

Kamehameha Highway (State Route 99) is a four- to six-lane divided road extending from Farrington Highway and the H-1 freeway in Pearl City to Center Drive at the H-1 freeway near Joint Base Pearl Harbor-Hickam. The posted speed limit is 25 miles per hour (mph) near the project site area. No designated areas for on-street parking are provided. Honolulu's Skyline elevated rail system is located in the median of Kamehameha Highway.

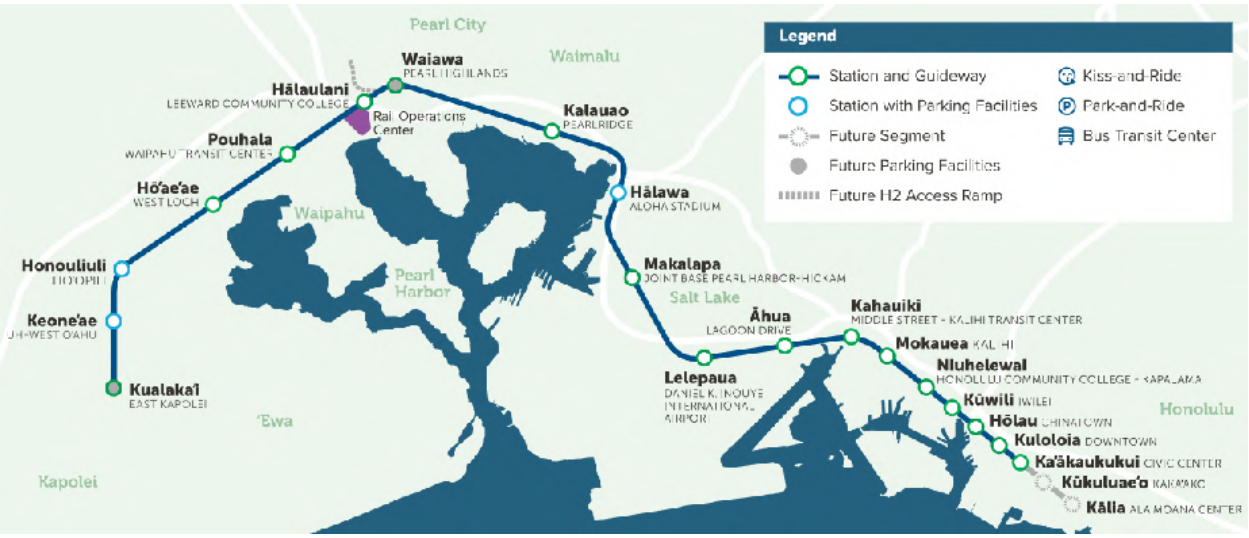
Lipoa Place is a two-lane local street serving an area makai of Kamehameha Highway and Pearlridge Shopping Center. This roadway provides access to a number of residential and commercial buildings and properties including the proposed project site, as well as to an adjacent shopping plaza located on the Diamond Head side of the site. The posted speed limit on this roadway is 25 miles per hour (mph). On-street parking spaces are provided along both sides of Lipoa Place.

3.2 Transit Facilities

TheBus (i.e., O'ahu Transit Service) operates several bus routes along Kamehameha Highway including Routes 11, 20, 32, 40, 42, 51, 53, 88A, and Route A near the project area. Service on these routes is provided at 15- to 60-minute headways on the weekdays and weekends depending on the route. The closest stops are located approximately ¼ miles Mauka from the project site on both sides of the Kamehameha Highway near the Kaonohi Street intersection.

A new rail service (Skyline) began operation with several stops in the Ewa region. The route provides a driverless, urban rail system along the south shore of Oahu. The closest station near the project site will be Pearlridge (Kalauao Station) approximately 0.5 miles from the project site. **Figure 3** shows the existing and future transit stations along the rail line.

Figure 3: Planned Transit Improvements



Source: https://honolulutransit.org/about/route-map/

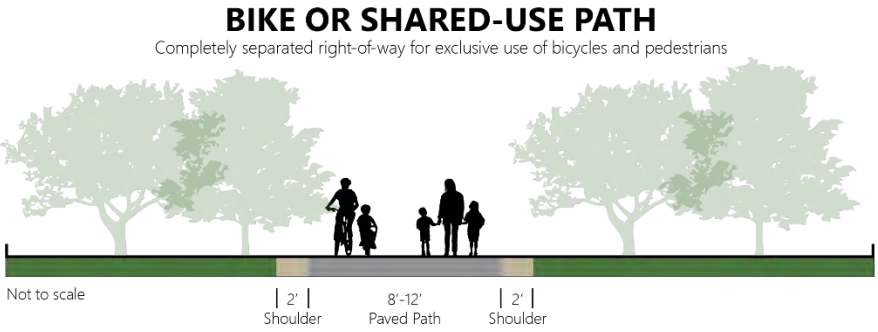
3.3 Pedestrian Facilities

Pedestrian facilities consist of crosswalks, curb ramps, and pedestrian signals at signalized intersections, as well as sidewalks and paths near segments between intersections. Lipoa Place includes sidewalks on both sides of the road connecting the project site to the nearby transit facilities and adjacent commercial spaces. At the signalized Lipoa Place/Kamehameha Highway intersection, high-visibility crosswalks are provided across the south and east legs with ADA truncated dome mats on the south side.

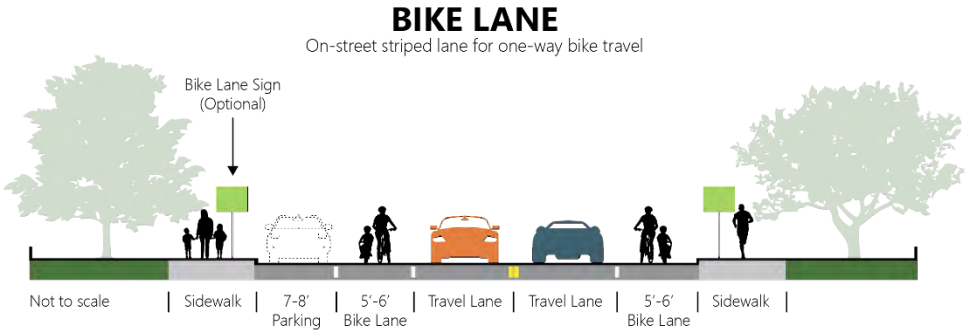
3.4 Bicycle Facilities

Bicycle facilities generally consist of four types of facilities, which are outlined below:

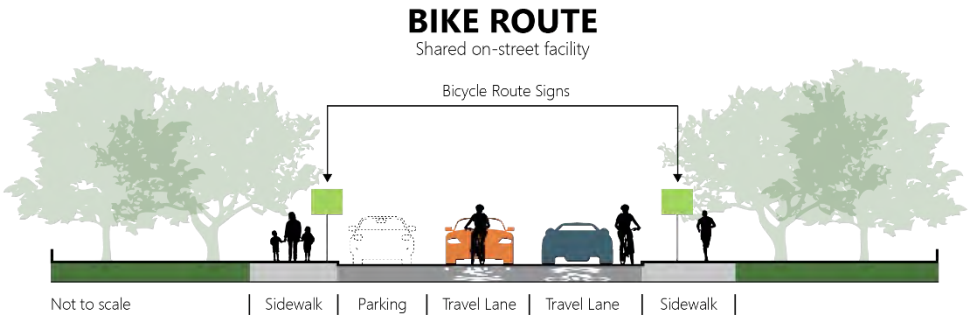
- *Bike or Shared Use Paths* provide a separate right-of-way and are designated for the exclusive use of bicycles and pedestrians (or exclusively bicycles) with the vehicle and pedestrian cross-flow minimized. Generally, the recommended pavement width for a two-directional bike or multi-use path is ten (10) feet.



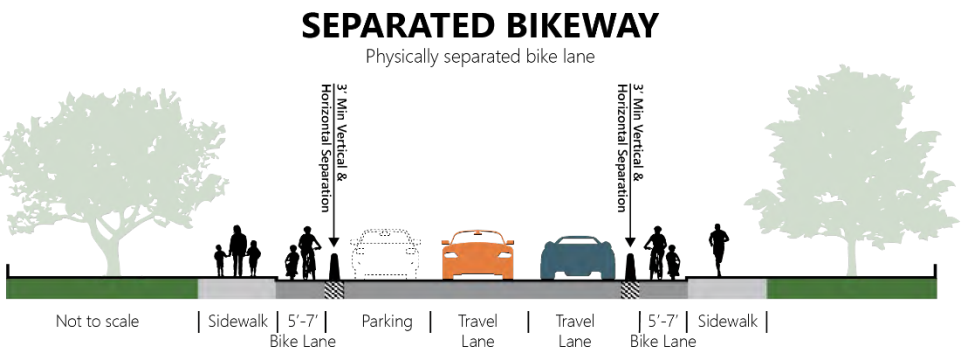
- *Bike Lanes* provide a restricted right-of-way and are designated for the use of bicycles with a striped lane on a street or highway. Bicycle lanes are generally a minimum of five (5) feet wide with six feet of width preferred for lanes that include a concrete gutter. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.



- *Bike Route or Signed Shared Roadways* provide for a right-of-way designated by signs or shared lane pavement markings, or "sharrows," for shared use with pedestrians or motor vehicles.



- *Separated Bikeways or Cycle Tracks* provide a restricted right-of-way with physical separation and are designated for the use of bicycles with a raised barrier such as curbs or bollards. Separated bikeways are generally a minimum of five (5) feet wide with a three-foot horizontal and vertical separation area desired. Narrower separations can be provided if adjacent vehicle parking is not provided. Where adjacent parking is permitted next to the cycle track, vehicle/pedestrian cross-flow is restricted to selected locations (e.g., driveways) indicated by breaks in the barrier and buffer.



Lipoa Place is a low-speed local roadway where bicycles can share the road with other vehicles. The project site is also located within ½ mile distance from the Pearl Harbor Bike Path which connects bicyclists to several destinations along Pearl Harbor Bay including shopping centers, commercial centers, and community parks. The bike path provides an alternative to bicyclists so that they do not have to share lanes on Kamehameha Highway, where no separate or designated facilities are provided.

3.5 Existing Traffic Operations

The operations of the intersection of Kamehameha Highway & Lipoa Place were studied under existing conditions. Multimodal intersection turning movement counts were collected on Wednesday, May 10th, 2023 when schools and universities were in session. Traffic count data sheets are provided in **Appendix A. Figure 4** shows AM and PM peak hour turning movement volumes used in the analysis. Operations at the intersection of the two segments of Lipoa Place were not analyzed as the volumes at this location are very low, and no issues with capacity are anticipated.

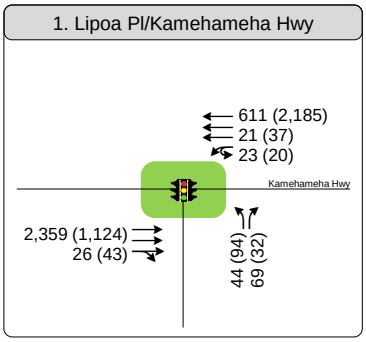
Roadway segment counts were collected between May 9th and May 11th, 2023, on Kamehameha Highway (east of Lipoa Place). The segment counts were used to identify any potential variation in weekday volumes along Kamehameha Highway. **Table 2** provides the comparison results. Based on this table, the average ADT along Kamehameha Highway was estimated at 39,532 daily vehicles, which is nearly identical to the daily volume counted on Wednesday, May 10th when the intersection counts were obtained. As such, no adjustments needed to be made to the existing intersection volumes. Roadway segment count sheets are provided in **Appendix A**.

Table 2: Segment Volumes on Kamehameha Hwy

Weekday	Average Daily Traffic
Tuesday	38,571
Wednesday [a]	39,583
Thursday	40,441
Average	*39,532*

a. Intersection volumes collected on Wednesday





LEGEND

AM (PM) Peak Hour Traffic Volumes

Lane Configuration

AM / PM — A-C | D | E | F — Level of Service (LOS)

Figure 4

Peak Hour Traffic Volumes and Lane Configurations
Existing Conditions (2023)

The results of the existing LOS analysis are presented below in **Table 3,** and the corresponding LOS calculation sheets are included in **Appendix B**. The results of the calculations indicate that the Kamehameha Highway and Lipoa Place study intersection operates at a good service level (LOS A) during both the AM and PM peak periods. This good overall operating level and low average delay results from low traffic volumes on the Lipoa Place approach and extended green time for high volumes of through traffic on Kamehameha Highway that experience limited delay.

Table 3: Existing Intersection Level of Service

Study Intersection	Traffic Control	Peak Hour	Existing (2023) Conditions	
			Delay (sec/veh)	LOS
1. Kamehameha Highway and Lipoa Place	Traffic Signal	AM	9.8	A
		PM	7.2	A

3.6 Field Observations

Field observations conducted in May 2023 showed that traffic generally moves well throughout the study area during the AM and PM peak hours. No significant vehicle queues were observed for through movements at the intersections of Kamehameha Highway and Lipoa Place. Occasional queuing was observed on the westbound left-turn movement on Kamehameha Highway, however, the queue was not observed to exceed the storage lane, and the movement cleared during each signal phase. The calculated existing peak hour intersection operating levels at the study intersection shown in **Table 3** are representative of field conditions.

Very low pedestrian and bicycle activity was observed during the field observation. Based on the data collected at the study intersection, 16 pedestrians were the maximum volume observed crossing the east leg of the study intersection during the PM peak hour.

4. Baseline (2027) No Project Conditions

To evaluate the potential impacts of traffic generated by the proposed project on the surrounding street system, it was necessary to first develop estimates of future traffic conditions in the area without the project. Baseline traffic conditions without the project reflect traffic increases due to regional growth and development. This scenario is referred to as baseline or "no project" conditions. The forecasted future traffic volumes were then used as a baseline to identify impacts on the roadway system from the project. The development of this baseline traffic scenario is described in this chapter.

4.1 Planned Active Transportation Improvements

Based on the review of the existing planning document in the area. The project site is located near several planned active transportation and transit improvements in the area.

According to the *Oahu Pedestrian Plan* (City and County of Honolulu Department of Transportation Services, 2022), the planned pedestrian improvements near the project site are listed in the table below and illustrated in **Figure 5**.

Improvement ID	Description
O-18	Pearl Harbor Bike Path to Pearl Ridge Transit Station - Connector pedestrian path from Kamehameha Highway to Pearl Harbor Bike Path (New facility)
2-25	Walkway along Hekaha Street between Kamehameha Hwy and Moanalua Road (New facility)
2-49	Walkway along Kanuku Street between Kamehameha Hwy-Hekaha Street (New facility)

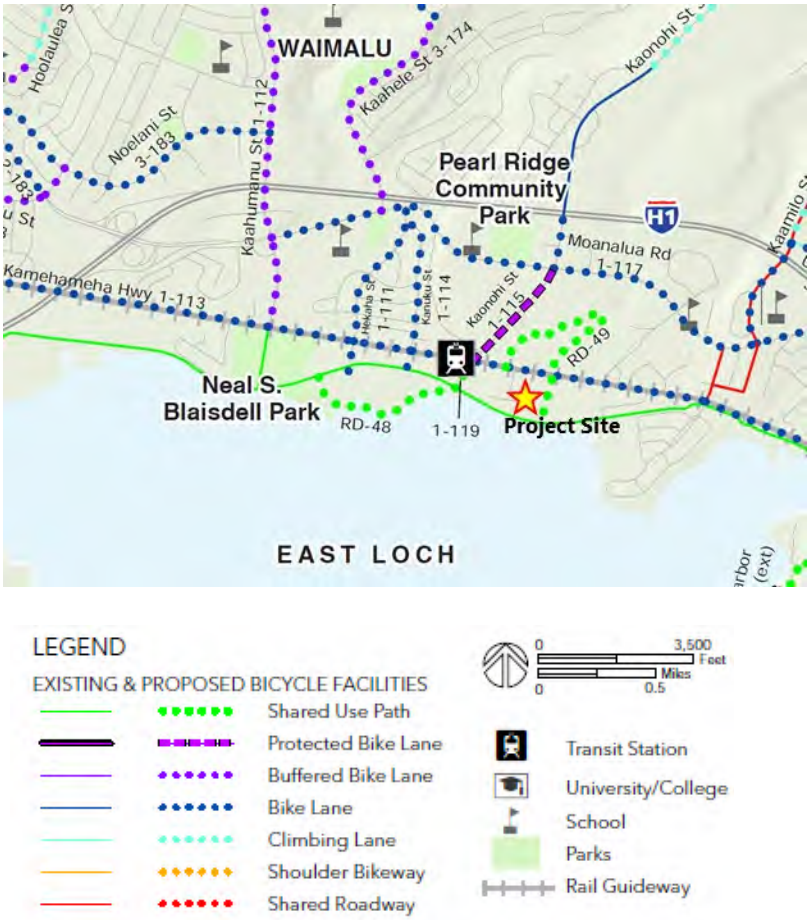
Figure 5: Planned Pedestrian Facilities Improvements



According to the *Oahu Bike Plan* (City and County of Honolulu Department of Transportation Services, 2019), the planned bicycle improvements near the project site are listed in the table below and illustrated on **Figure 6**.

Improvement ID	Description
1-111	Bike Lane along Hekaha Street from Moanalua Road to the Pearl Harbor Bike Path (New facility)
1-113	Bike Lane along Kamehameha Highway (East Loch) from Waihona Street to Center Drive (New facility)
1-114	Bike Lane along Kanuku Street from Hekaha Street to the Pearl Harbor Bike Path (New facility)
1-115	Protected Bike Lane along Kaonohi Street from Kamehameha Highway to Moanalua Road (New facility)
1-117	Bike Lane along Moanalua Road (Aiea) from Kaahumanu Street to Kaimakani Street (New facility)
RD-48	Shared-Use Path parallel to Pearl Harbor Historic Trail Shoreline Connection (New facility)
RD-49	Shared-Use Path along Pearl Harbor Bike Path Connector (Pearlridge Center) from Pearlridge Center to Pearl Harbor Bike Path (New facility)

Figure 6: Planned Bicycle Facilities Improvements



4.2 Planned Transit Improvements

No bus transit improvements are planned along Kamehameha Highway adjacent to the project site. However, the bus service is periodically adjusted to respond to demand and to improve service and access for transit patrons.

4.3 Baseline (2027) Street Roadway Improvements

HDOT's Statewide Transportation Improvement Program and City & County of Honolulu Capita Improvement Programs were reviewed to identify future construction projects that are expected within the study area. No new capacity improvements are currently funded or planned for construction within the timeframe of the proposed project opening year of 2027. Therefore, no change was assumed in the condition of the roadway infrastructure near the project.

The Skyline is planned to provide 19 stations along the south shore of O'ahu. The operation began in June 2023 along 9 stations in the Ewa region. The Honolulu Authority for Rapid Transportation (HART) is in the process of continuing the transit route to the Civic Center (Remaining 10 stations). The rail transit is planned to extend to Middle Street Station by 2025 and to Civic Center Station by 2031.

4.4 Baseline (2027) Traffic Volumes

A growth factor was applied to existing traffic volumes to account for future study area growth prior to occupancy of the proposed project in 2027. The growth factor in through traffic volumes on Kamehameha Highway was calculated based on historical data available from HDOT in 2016 and field data collected in 2023:

Kamehameha Highway ADT in 2016 = 36,200 (Source: HDOT historical counts)
Kamehameha Highway ADT in 2023 = 39,532 (Source: Fehr & Peers)
Compound growth factor = 1.27%

Additionally, a background annual growth rate of 0.5% was applied to all movements in and out of Lipoa Place. Although limited new development is anticipated along Lipoa Place by 2027, the application of this growth factor results in conservative volume estimates for purposes of the traffic operations analysis.

Calculated growth rates were compounded over the five-year timeframe (2023 to the end of 2027) and applied to each of the applicable existing intersections turning movement traffic volumes. **Figure 7** illustrates the forecasted peak hour traffic volumes for Baseline (2027) No Project Conditions.

4.5 Baseline (2027) No Project Levels of Service

Levels of service (LOS) calculations were conducted using the volume data in **Section 4.4** and the existing lane configurations and traffic control to evaluate the operating levels of the study intersection under Baseline (2027) No Project Conditions with the forecasted growth in traffic. The results of the LOS analysis are presented in **Table 4**. The corresponding LOS calculation sheets are included in **Appendix C**.

Table 4: Baseline (2027) No Project Intersection Level of Service

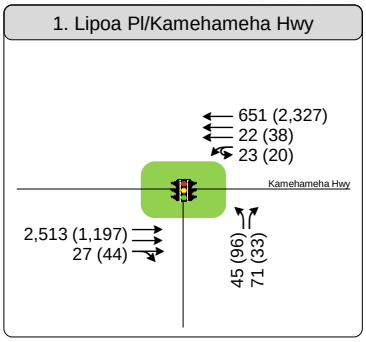
Study Intersection	Traffic Control	Peak Hour	Baseline (2027) Conditions	
			Delay (sec/veh)	LOS
1. Kamehameha Highway and Lipoa Place	Traffic Signal	AM	10.4	B
		PM	7.5	A

The analysis results indicate that the study intersection continues to operate at LOS A during the PM peak hour and operates at LOS B during the AM peak hour under Baseline (2027) No Project Conditions, (with slight increases in delay). The increases in delay over Existing Conditions are the result of the addition of the forecast traffic growth.

It should be noted that the Ewa- or westbound left-turn movement from Kamehameha Highway into Lipoa Place is calculated to operate at LOS E during the morning and evening peak hours. Similar to the Existing Conditions, the left-turn movement must wait for the relatively longer phase length for east- or Diamond Head-bound through traffic). The westbound left-turn movement is projected to serve 45 vehicles during the morning peak hour and 58 vehicles during the evening peak hour, and these vehicles can be accommodated by the available storage length.







LEGEND

AM (PM) Peak Hour Traffic Volumes

Lane Configuration

AM / PM | A-C | D | E | F — Level of Service (LOS)

Figure 7

Peak Hour Traffic Volumes and Lane Configurations
Future Baseline Year (2027)

5. Project Traffic Estimates

This chapter describes the anticipated number of vehicle trips and the directionality of those trips that would result from implementation of the proposed project. Future traffic added to the roadway system by the project is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. The first step estimates the amount of project-generated traffic which will be added to the roadway network. The second step identifies the direction of travel to and from the project site and the proportion of traffic on each potential travel path. The new trips are assigned to specific street segments and intersection turning movements during the third step. This process is described in more detail below.

5.1 Trip Generation

The vehicle trip generation for the proposed project was estimated using a combination of standard trip rates from the *Trip Generation Manual* (11th Edition, 2020) published by the Institute of Transportation Engineers (ITE) and data provided by the project team. Fehr & Peers' MainStreet web application, which incorporates the ITE rates, was used to estimate trip reductions resulting from mixed-use development (MXD), as well as active transportation and transit use. Main Street uses the MXD method developed in partnership with the Environmental Protection Agency (EPA) and estimates multimodal trip reductions and internalization using local travel data and has been shown to be statistically superior to other estimation methods used by ITE and other sources.

As noted in the project description in **Section 2.2**, the proposed 154 new apartments will replace the existing 48-unit complex, resulting in a net new total of 106 apartments. Thus, this net total was used to determine the amount of new traffic that would be added to the roadway network. Based on **Table 5**, the proposed project is expected to generate a total of 393 net new daily vehicle trips on a weekday, including 28 net new vehicle trips during the AM peak hour (9 inbound/19 outbound) and 26 net new vehicle trips during the PM peak hour (17 inbound/9 outbound).

Table 5: Project Vehicle Trip Generation Estimates

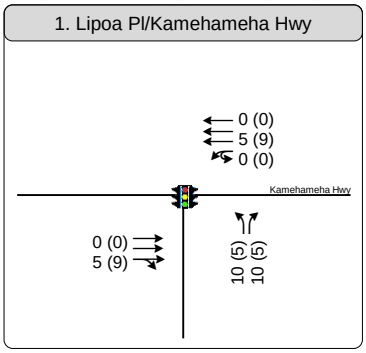
Land Use		Daily Trips	AM Peak Hour Vehicle Trips					PM Peak Hour Vehicle Trips				
			%		Trips		Total	%		Trips		Total
			In	Out	In	Out		In	Out	In	Out	
Multi-Family Housing (Mid-Rise): Close to Transit	*154 Proposed*	732	36%	64%	18	32	50	65%	35%	29	16	45
	48 Exisiting	*-228*			*-6*	*-10*	*-16*			*-9*	*-5*	*-14*
Walk, Bike, and Transit Reduction		*-111*	*-*	*-*	*-3*	*-3*	*-6*	*-*	*-*	*-3*	*-2*	*-5*
Total Trips		***393***			***9***	***19***	***28***			***17***	***9***	***26***

5.2 Trip Distribution and Assignment

The geographic distribution of trips generated by the proposed project is dependent on the characteristics of the street system serving the project site, the level of accessibility of routes to and from the project site, and commercial areas where residents would be commuting. Based on the existing turning movement volumes and our general understanding of the study area, the distribution was estimated as 50% of trips traveling to/from the east and 50% of traffic traveling to/from the west side of Lipoa Place.

Using the estimated trip generation and the distribution patterns discussed above, the traffic generated by the proposed project was assigned to the individual turning movements at intersections within the street network. **Figure 8** details the project's trip assignment at the study intersection.





LEGEND

AM (PM) Peak Hour Traffic Volumes

Lane Configuration

AM PM | A-C | D | E | F — Level of Service (LOS)

Figure 8

Peak Hour Project Traffic Volumes
Opening Year 2027

6. Baseline (2027) Plus Project Conditions

This section describes the analysis of potential impacts on the roadway system due to projected future increases in traffic, including traffic generated by the project in 2027. The Baseline (2027) Plus Project roadway network is the same network assumed under the Baseline No Project scenario. The analysis compares the project levels of service (LOS) at each study intersection with and without the addition of project-generated trips to determine potential impacts on the transportation network.

6.1 Active Transportation and Transit Impacts

Implementation of the proposed project is not expected to conflict with any existing transit, pedestrian, or bicycle facilities, and it will not preclude the implementation of any other potential enhancements to walking biking, or transit activity (e.g., a path or sidewalk along with a facility where it does not currently exist). Accordingly, no significant active transportation or transit impacts are anticipated.

6.2 Baseline (2027) Plus Project Intersection Level of Service

Figure 9 presents the forecasted Baseline (2027) Plus Project AM and PM peak hour volumes. The peak hour volumes were used to analyze operations using the LOS methodology described in **Section 2.4**.

The LOS analysis results for the study intersection under both Baseline (2027) No Project and Plus Project conditions are presented in **Table 6**. Detailed LOS results for intersection movements and corresponding LOS calculation sheets are included in **Appendix D**.

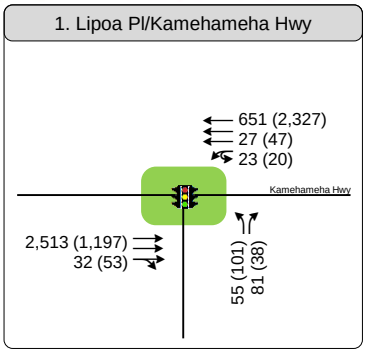
Table 6: Baseline (2027) Without and With Project Intersection Level of Service

Study Intersection	Traffic Control	Peak Hour	Baseline (2027)		Baseline (2027) + Project		Δ
			Delay	LOS	Delay	LOS	
1. Kamehameha Highway and Lipoa Place	Traffic Signal	AM	10.4	B	11.5	B	1.1
		PM	7.5	A	8.0	A	0.5

Based on the results in **Table 6**, the study intersection is calculated to continue operating at a good operating level (LOS A during the PM peak hour and LOS B during the AM peak hour) with the addition of

the proposed project based on the assumptions described in **Section 5.1**. According to **Table 6**, the implementation of the project site is not expected to result in any significant impacts on the roadway network.





LEGEND

AM (PM) Peak Hour Traffic Volumes

Lane Configuration

AM / PM | A-C | D | E | F — Level of Service (LOS)

Figure 9

Peak Hour Traffic Volumes and Lane Configurations
Future Baseline Year (2027) Plus Project

7. Site Access, Circulation, and Parking

7.1 Site Access Assessment

As noted in the project description, Access to the site will be provided via a new driveway on the east side of the project site and an existing driveway on the west side of the project site on Lipoa Place. Given the relatively low site-generated peak hour traffic volumes, as well as the low volume on Lipoa Place, separate turn lanes are not needed on Lipoa Place. Traffic exiting the proposed driveway on Lipoa Place will be required to stop before crossing the sidewalk is also recommended to be operated as a stop-controlled driveway.

Overall, site access is considered adequate and no modifications are recommended.

7.2 On-Site Circulation & Parking

The project proposes to include 150 parking spaces including accessible parking and reserved parking for car-sharing services. The plan proposes to locate the parking spaces on two levels. In addition, several EV charging stations will be incorporated into the design of the project. The parking aisles will feature perpendicular parking stalls, allowing for optimal access from both directions of travel. Only the area with the EV and accessible spaces will be designed as a dead-end aisle. Furthermore, short-term bicycle storage will be provided along the Lipoa Place frontage of the project site, and long-term bicycle storage is proposed for the Mauka side of the site.

No recommendations are needed regarding on-site circulation and parking supplies.

8. DTS Analysis

8.1 Introduction

The City and County of Honolulu Department of Transportation Services (DTS) provides additional methods for evaluating the potential transportation impacts of a proposed project including all modes of transportation. The evaluation process starts with identifying the level and quality of service of each mode using specific tools developed for each mode. Based on the performance evaluation methods, each street segment will receive a score of one (1) to four (4) for each mode. The scores are input into the table in the City's multimodal radar tool in Excel and a visual diagram is automatically generated that compares the target performance to the existing condition and proposed design concept performance. The following sections describe methods used to evaluate each mode.

9.1 Pedestrian Level of Service

Pedestrian LOS analysis was conducted using the most current version of the Pedestrian Environmental Quality Index (PEQI), as recommended in the DTS TIA Guidelines. PEQI measures 36 indicators across six categories: including intersection safety, traffic, street design, land use, perceptions of safety, and perceptions of walkability. Each indicator is assigned a weighted score and added together to generate a total score for a segment or an intersection. Then, a comfort rating from one (1) to four (4) is assigned to each PEQI score range representing relative pedestrian comfort. It should be noted that pedestrian LOS (PEQI score) for a segment was determined using the worst calculated scores for any given block within the segment. This means that if one segment consists of multiple blocks, then the entire segment would receive a score associated with the least comfortable (lowest scoring) segment. Pedestrian LOS analysis of the following two study segments and one study intersection is described below.

Segments:

- Kamehameha Highway from Kaonohi St to Pali Momi St – covers two blocks with similar pedestrian environments east and west of Lipoa Place. No changes to the pedestrian environment are proposed for these segments.
- Lipoa Place from Kamehameha Highway to the shopping center driveway – to the project site covers two blocks (N-S and E-W section) with similar pedestrian environments. No modifications to the pedestrian environment are proposed for these segments.

Intersections:

- Kamehameha Highway and Lipoa Place – is a signalized intersection with pedestrian signals installed at two (2) out of the three (3) legs. Additionally, high-visibility ladder crosswalks are present on two of the legs.

Table 7 provides the Pedestrian Comfort Ratings for all study segments and intersections. Detailed analysis is provided in **Appendix C**. As no changes to the pedestrian environment are proposed with the project, only existing pedestrian comfort ratings are reported below.

Table 7: Pedestrian Comfort Ratings for Study Segments and Intersections

Analysis Facility	Location	Pedestrian Comfort Rating	Target	Meet Target?
Segment	Kamehameha Highway from Kaonohi Street to Pali Momi Street	2	1	No
	Lipoa Place from Kamehameha Highway to the project site	1	1	Yes
Intersection	Kamehameha Highway/Lipoa Place	2	1	No

Source: Fehr & Peers, 2023

8.2 Bicycle Level of Service

The Level of Traffic Stress (LTS) analysis for bicycles was conducted using the City-specific LTS tool, as recommended by the DTS TIA Guidelines. The LTS tool evaluates bicycling conditions using four (4) metrics including traffic volumes, vehicle speeds, type of bicycle infrastructure, and roadway design. An LTS rating from one (1) to four (4) is assigned to each study segment or intersection representing the level of comfort for bicyclists. Segment ratings are based on the worst rating for any block within the segment to capture gaps in infrastructure. Bicycle Comfort Ratings are evaluated for the following two study segments:

- Kamehameha Highway from Kaonohi St to Pali Momi St – covers two blocks east and west of Lipoa Place with no dedicated bicycle facility. No changes to the bicycle environment are proposed with the study area, however, Kamehameha Highway is proposed to include bike lanes per the 2019 O'ahu Bike Plan.
- Lipoa Place from Kamehameha Highway to the shopping center driveway – covers two blocks (N-S and E-W sections) with similar bicycle environments.

The Bicycle Comfort Ratings for the single study segment are summarized in **Table 8**. Detailed LTS analysis sheets are provided in **Appendix C**.

Table 8: Bicycle LTS Ratings for Study Segments

Analysis Facility	Location	Existing Bicycle Comfort Rating	Future Bicycle Comfort Rating	Target	Meet Target?
Bicycle	Kamehameha Highway from Kaonohi Street to Pali Momi Street	4	3	2	No
	Lipoa Place from Kamehameha Highway to the project site	3	3	3	No

Source: Fehr & Peers, 2023

8.3 Transit Level of Service

As noted in **Section 3.2** several bus routes provide frequent bus services along the Kamehameha Highway. No substantial increase in transit demand is anticipated with the implementation of the proposed project. The relatively short walk of roughly 300 feet from the project site to the Kamehameha Highway stops will encourage most people to use the bus. Additionally, as described in **Section 4.2**, the proposed project is approximately within ½ mile from the future Pearlridge (Kalauao Station) along the High-Speed Rail transit network.

The Transit LOS analysis was conducted using the Transit Capacity and Quality of Service Manual (TCQSM), recommended by the DTS TIA Guidelines. The TCQSM tool evaluates transit operations, transit amenities, and pedestrian environment; and assigns a score to each study segment by direction. Both transit and pedestrian input scores are weighted and added together to generate the total score. A rating from one (1) to four (4) is assigned to each segment representing relative transit operations/comfort. Each direction of travel of two-way segments may receive different ratings. In these cases, the average of two directions reflects the overall rating of the segment.

The transit access rating for one (1) study segment along Kamehameha is shown in **Table 9**. The TCQSM data inputs are provided in **Appendix C**.

Table 9: Transit Access Scores for Study Segments

Analysis Category	Location	Existing and Future Transit Access Score
Segment	Kamehameha Highway from Kaonohi Street to Pali Momi Street	1

Source: Fehr & Peers, 2023

8.4 Parking Supply and Demand Assessment

To calculate the parking occupancy, which is the percent of occupied parking spaces, two inputs were used: parking supply (count of total available parking spaces) and parking utilization (count of total occupied spaces). Any parking occupancy of more than 85% receives the highest parking occupancy rating. Similar to other modes, the rating is from one (1) through four (4) representing the availability of corridor-serving parking.

While no detailed parking occupancy counts were conducted near the project site, based on field observation conducted in May 2023, the on-street spaces along Lipoa Place were observed to be almost fully utilized throughout most of the day with few available spaces.

As noted in the project description, the number of proposed parking spaces (150) will supply the project including reserved parking for the car-sharing program. This lower supply rate is consistent with the City & County of Honolulu code that does not have a minimum requirement for residential development parking, especially for those within a reasonable walking distance of frequent and high-quality transit.

With the lack of available street parking and the fact that the rail system is currently operating with a limited alignment length, parking availability will likely continue to be constrained in this area. As such, the parking occupancy score is projected to be four (4) with the project in place.

8.5 2nd Peak Hour Analysis (Intersection)

Per DTS guidelines and reflective of local priorities and goals for active transportation mode share, this vehicle LOS analysis method uses traffic volumes from the second-highest peak hour, where analyzing impacts and mitigation for the first peak hour focuses the analysis on automobile travel. The second-hour standard allows for some levels of congestion to occur and better balances the multimodal analysis. This results in decisions that do not prematurely widen roadways for additional automobile capacity. It also requires practitioners to conduct analysis that acknowledges automobile traffic can be at or above capacity for the peak hour and in some cases, there are no practical ways to build roadway improvements that eliminate such congestion without impacting walkability. With this approach, the analysis applies to



actual traffic volume counts, rather than traffic volume conditions present only during the highest 15 minutes of the day.

The second peak hour analysis was conducted for the same scenarios as the first peak hour evaluation: Existing, the Year 2027 No Project, and Year 2027 Plus Project Conditions. The results of this evaluation are presented in **Table 10**, **Table 11**, and **Table 12**. According to these tables, the intersection of Kamehameha Highway and Lipoa Place is calculated to operate at LOS A during the 2nd peak hour of the morning and evening commute peaks. The study intersection is calculated to continue operating at LOS A under the Year 2027 with/without the proposed project during the 2nd peak hour.

Table 10: Existing Intersection Level of Service

Study Intersection	Traffic Control	Peak Hour	Existing (2021) Conditions	
			Delay (sec/veh)	LOS
1. Kamehameha Highway and Lipoa Place	Traffic Signal [a]	AM	8.5	A
		PM	8.5	A

Table 11: Baseline (2027) Conditions Intersection Level of Service

Study Intersection	Traffic Control	Peak Hour	Baseline (2027) Conditions	
			Delay (sec/veh)	LOS
1. Kamehameha Highway and Lipoa Place	Traffic Signal [a]	AM	8.5	A
		PM	9.0	A

Table 12: Baseline (2027)+ Project Intersection Level of Service

Study Intersection	Traffic Control	Peak Hour	Baseline (2027) + Project Conditions	
			Delay (sec/veh)	LOS
1. Kamehameha Highway and Lipoa Place	Traffic Signal [a]	AM	9.0	A
		PM	9.4	A

Intersection analysis volumes are provided in **Appendix F**.

8.6 Roadway Segment

In addition to the intersection LOS calculations, the study road segment LOS should be calculated based on the HCM 2010 Generalized Daily Service Volumes for Urban Street Facilities. This method assumes LOS C as the best possible score. The Roadway Segment Analysis was conducted for the same scenarios as the intersection evaluation: Existing, the Year 2027 No Project, and Year 2027 Plus Project Conditions.

Table 13: Existing Roadway Segment Conditions

Roadway Segment	ADT	LOS	Vehicle Operations Scale
Kamehameha Highway from Kaonohi Street to Pali Momi Street (6-lane)	39,532	D	2
Lipoa Place from Kamehameha Highway to project site (2-lane)	2,900	C	1

Table 14: Baseline (2027) + Project Roadway Segment Conditions

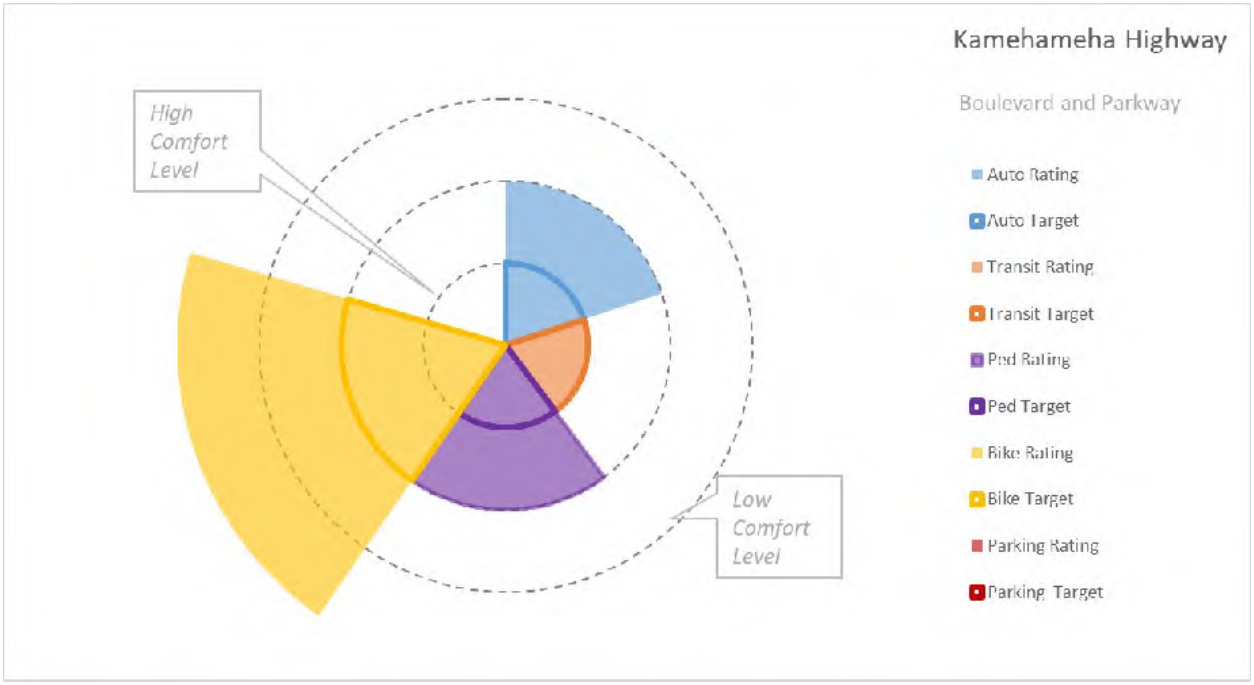
Roadway Segment	ADT	LOS	Vehicle Operations Scale
Kamehameha Highway from Kaonohi Street to Pali Momi Street (6-lane)	43,197	D	2
Lipoa Place from Kamehameha Highway to project site (2-lane)	3,393	C	1

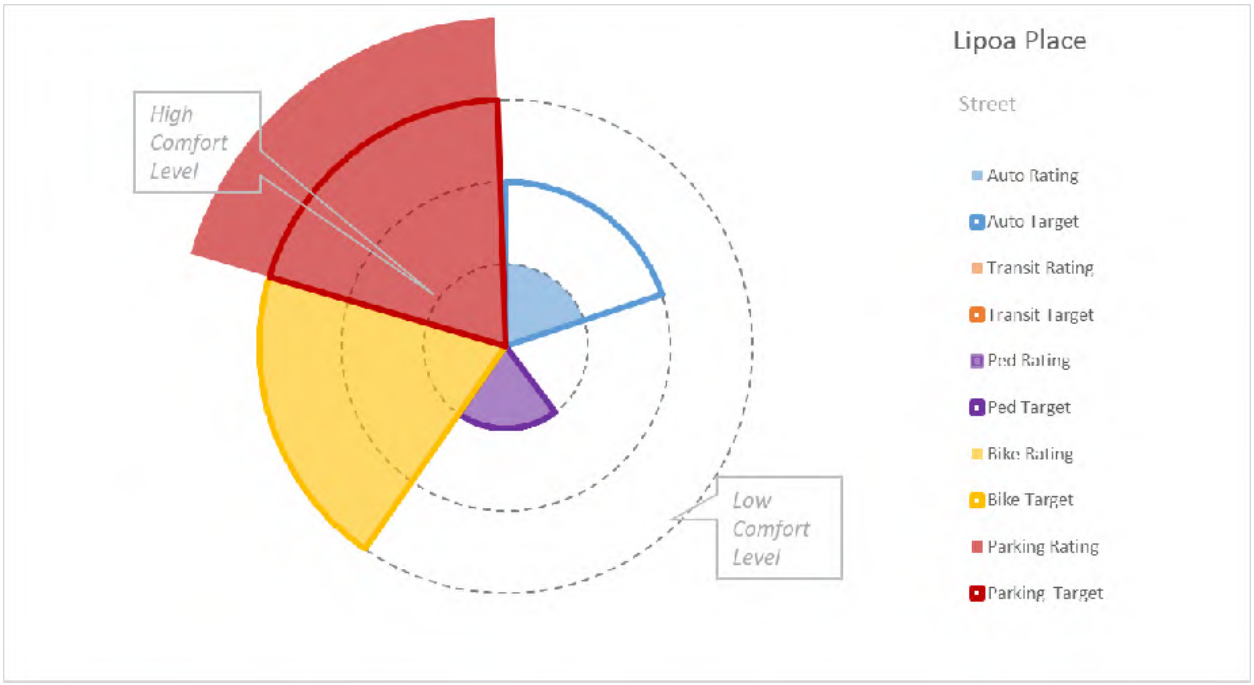
8.7 Overview of Analysis Outcomes

The performance of all modes was compared to target scores which vary by street type throughout the City and County of Honolulu. Targets are based on the priorities for the study segments. For instance, automobile traffic and transit services are prioritized on expressways, boulevards, and parkways where traffic speeds and volumes are higher, while pedestrian and bicycle comfort scores are prioritized on streets, shared streets, and mews (pedestrian malls). Another distinction is that parking is not evaluated for boulevards and parkways. Kamehameha Hwy is classified as a Boulevard/Parkway and Lipoa Place is considered a local street within the study area.

Figure 10 compares the target performance to the projected performance of all modes for each study facility. The closer to the bullseye, the better the target and ratings are aligned.

Figure 10: Street Segments Auto, Transit, Pedestrian, Bicycle, and Parking Performance Targets for Kamehameha Highway and Lipoa Place





Pedestrian

The Pedestrian Comfort Ratings was calculated at one (1) along Lipoa Place indicating *reasonable pedestrian conditions*. The study segment along the Lipoa place meets the target identified for its facility type based on the Complete Streets Modal Priority analysis tool.

The Pedestrian Comfort Rating was calculated to be two (2) along Kamehameha Highway indicating that *basic pedestrian conditions* exist within the study area connecting the project site to nearby destinations. Based on the Complete Streets Modal Priority analysis tool, the Pedestrian Comfort target for Kamehameha Highway is 1 (Reasonable/Ideal pedestrian conditions).

Currently, the sidewalks along the Kamehameha Highway are situated right next to the auto travel lane, which compromises pedestrian comfort. It is anticipated that implementing a buffered bike lane along the Kamehameha Highway, as outlined in the 2019 O'ahu Bike Plan, will create a physical separation between pedestrians and vehicles, significantly enhancing pedestrian comfort. The proposed modification, combined with an adequate margin, is calculated to elevate the Pedestrian Comfort Rating to level 1 based on the Complete Streets Modal Priority analysis tool.

Bicycle

The section of Lipoa Place between Kamehameha Highway and the shopping center driveway at its Diamond Head terminus is rated at LTS three (3). While this segment does not provide separate bicycle facilities, vehicular demand, and vehicle speeds were observed to be low and will continue that way even with project implementation. The project is expected to generate a relatively small number of additional bicycle trips, and the existing facilities can accommodate these trips from a capacity perspective. Lower-speed and lower-volume residential streets typically do not include separate bicycle facilities. Thus, no need for additional bike facilities is recommended along Lipoa Place.

Kamehameha Highway between Kaonohi Street to Pali Momi Street LTS is rated at four (4) indicating the highest level of traffic stress where only the most experienced cyclists are willing to use these roadways. With the addition of the bike lanes proposed in the O'ahu Bike Plan, the segment is rated at an improved Comfort Rating of three (3) where fewer cyclists are comfortable biking on the roadway. The LTS is still considered less than desirable for the majority of bicyclists. As an alternative, residents going to destinations on the Ewa or Diamond-Head direction are able to use the dedicated Pearl Harbor Bike Path connection to avoid the higher traffic volumes and higher speeds on Kamehameha Highway.

Transit

The study segment is calculated to maintain an Existing and Future transit access score of one (1) indicating sufficient transit access for the project site. As such, no changes to the transit environment are proposed with the proposed development only existing transit access scores are reported below.

Parking

With the lack of available street parking and the fact that the rail system is currently operating with a limited alignment length, parking availability will likely continue to be constrained in this area. As such, the parking occupancy score is projected to remain at four (4) with the project in place.

As described in section **Section 9.2**, the project is proposing to include space for car-sharing services to reduce the need for vehicle ownership at the site. Additionally, we recommend that the project developer provide residents with information regarding non-automobile modes of transportation to encourage multimodal travel and reduce parking demand.

Auto (Intersection)

Based on the 2nd Peak Hour Analysis conducted at the intersection of Kamehameha Highway and Lipoa Place, the study intersection is calculated to maintain a vehicle operation score of 1. No improvements are recommended at this location.

Auto (Segment)

Kamehameha Highway is calculated to maintain a vehicle operation score of 2 under existing and future conditions. Lipoa place is calculated to maintain a vehicle operation score of 1 under existing and future conditions. Lipoa Place is calculated to meet its facility type target based on the Complete Streets Modal Priority analysis tool. The target for a Boulevard or Parkway is an Auto rating of 1.

8.8 Safe Speed Study

As per request from DTS, a Safe Speed Study was conducted based on the National Association of City Transportation Officials (NACTO) guide. When determining a safe speed limit for a major street, there are two primary considerations:

1. Conflict Density (How frequently potential conflicts arise on a given street): A conflict exists when a normal interaction, such as crossing the street while turning vehicles yield, is so close and at such a speed that a crash would happen unless sudden action is taken. In urban conditions, this is usually a factor of how separated modes are, and what the crossing demand is.
2. Activity Level (How active a street currently is or is expected to be): Crashes that cause fatalities or serious injuries are generally the result of conflicts happening at speeds that are too high for a human body to endure. Therefore, streets with a greater number of potentially serious conflicts and a higher level of activity should have lower speed limits.

The framework determines maximum safe speed limits based on the density of conflict points and the level of activity on a roadway. According to the Conflict-Density-Analysis guideline provided by NACTO, Lipoa Place goes under the High Conflict Density category as there are more than 3 T-intersections/Major driveways within ¼ miles of the project site. In terms of Activity Level Analysis, it falls under the Moderate Activity category considering the moderate density residential or commercial uses along Lipoa Place. Having Conflict and activity Level analysis applied to the Risk Matrix, the speed limit is recommended to be 20 mph. NACTO Safe Speed determination worksheets are provided in **Appendix G**.

9. Recommended Improvements

9.1 Active Transportation

In general, the existing sidewalks and bicycle facilities are assessed as sufficient to accommodate the pedestrian/bicycle demand generated by the project for walking/biking trips to nearby destinations.

The Project driveway should be designed so that the path crossing the project driveway provides adequate sight distance for drivers and pedestrians/bicyclists exiting and entering the project site. This includes the placement of monument signage, fencing, and other potential impediments to visibility.

Additionally, it is recommended that the site facilities be ADA compliant, ensuring equal access for individuals with disabilities by implementing necessary modifications to buildings, pathways, and transportation facilities, The area would become more inclusive and accommodating, allowing everyone, regardless of their physical abilities, to actively participate in and benefit from the various transportation options available.

9.2 Transportation Demand Management (TDM)

Transportation demand management (TDM) refers to a set of strategies and policies aimed at managing and optimizing transportation systems by reducing travel demand or redistributing it by mode and time. The goal of TDM is to improve transportation efficiency, reduce congestion, enhance mobility, and promote sustainable transportation options.

The proposed project includes the allocation of designated parking stalls for car-sharing services. It is recommended that the developer provide information in a tenant-accessible common area about the car-sharing program, instructing individuals on how to utilize the service. This information should also include information on available transit options, as well as micro-mobility (e.g., bike and e-bikes). This will serve to encourage people to choose shared transportation options, thereby reducing the reliance on private vehicles and alleviating congestion on the roads. By facilitating convenient access to car-sharing services, this measure promotes sustainability, enhances efficiency, and contributes to a more streamlined and eco-friendly transportation system within the area.



Appendix A: Traffic and Segment Counts

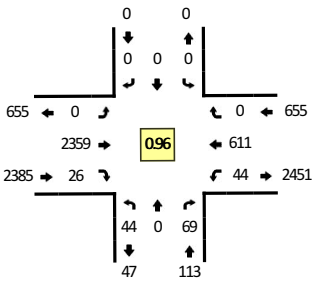
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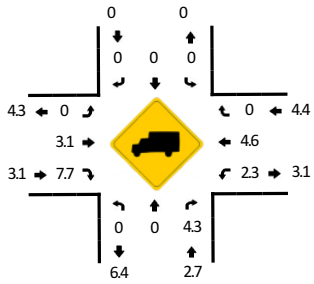
Method for determining peak hour: Total Entering Volume

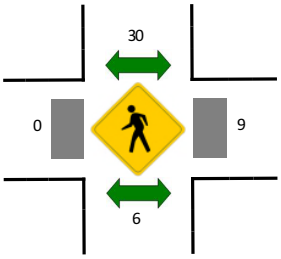
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CITY/STATE: Waimalu, HI

QC JOB #: 16185801
DATE: Wed, May 10 2023

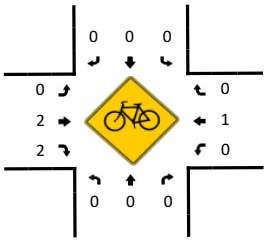
Peak-Hour: 6:30 AM -- 7:30 AM
Peak 15-Min: 6:30 AM -- 6:45 AM

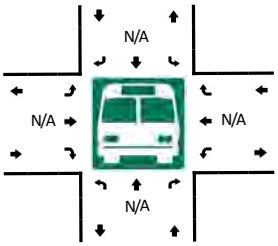




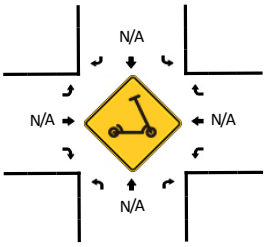












5-Min Count Period Beginning At	Lipoa Pl (Northbound)				Lipoa Pl (Southbound)				Kamehameha Hwy (Eastbound)				Kamehameha Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
6:00 AM	1	0	1	0	0	0	0	0	0	164	0	0	4	30	0	1	201	
6:05 AM	3	0	6	0	0	0	0	0	0	186	0	0	3	27	0	2	227	
6:10 AM	4	0	6	0	0	0	0	0	0	198	3	0	1	30	0	1	243	
6:15 AM	2	0	1	0	0	0	0	0	0	210	2	0	2	30	0	0	247	
6:20 AM	7	0	6	0	0	0	0	0	0	210	1	0	0	36	0	0	260	
6:25 AM	3	0	4	0	0	0	0	0	0	196	1	0	2	34	0	3	243	
6:30 AM	4	0	4	0	0	0	0	0	0	248	4	0	1	35	0	2	298	
6:35 AM	1	0	7	0	0	0	0	0	0	207	2	0	4	37	0	1	259	
6:40 AM	1	0	9	0	0	0	0	0	0	218	2	0	1	36	0	0	267	
6:45 AM	7	0	2	0	0	0	0	0	0	145	2	0	2	52	0	5	215	
6:50 AM	1	0	3	0	0	0	0	0	0	225	2	0	0	38	0	1	270	
6:55 AM	2	0	8	0	0	0	0	0	0	191	2	0	0	59	0	2	264	2994
7:00 AM	3	0	4	0	0	0	0	0	0	220	1	0	2	51	0	1	282	3075
7:05 AM	6	0	6	0	0	0	0	0	0	164	1	0	2	42	0	3	224	3072
7:10 AM	4	0	4	0	0	0	0	0	0	183	4	0	3	68	0	1	267	3096
7:15 AM	5	0	8	0	0	0	0	0	0	165	3	0	2	56	0	1	240	3089
7:20 AM	3	0	10	0	0	0	0	0	0	218	2	0	1	55	0	1	290	3119
7:25 AM	7	0	4	0	0	0	0	0	0	175	1	0	3	82	0	5	277	3153
7:30 AM	5	0	3	0	0	0	0	0	0	167	3	0	3	64	0	2	247	3102
7:35 AM	6	0	9	0	0	0	0	0	0	138	5	0	1	66	0	2	227	3070
7:40 AM	8	0	8	0	0	0	0	0	0	124	4	0	6	62	0	6	218	3021
7:45 AM	0	0	5	0	0	0	0	0	0	154	1	0	3	69	0	1	233	3039
7:50 AM	6	0	3	0	0	0	0	0	0	150	4	0	2	88	0	1	254	3023
7:55 AM	3	0	8	0	0	0	0	0	0	123	3	0	0	68	0	2	207	2966
8:00 AM	6	0	0	0	0	0	0	0	0	110	3	0	3	62	0	2	186	2870
8:05 AM	4	0	4	0	0	0	0	0	0	123	3	0	1	61	0	1	197	2843
8:10 AM	7	0	2	0	0	0	0	0	0	86	3	0	4	67	0	1	170	2746
8:15 AM	11	0	4	0	0	0	0	0	0	81	3	0	2	79	0	1	181	2687
8:20 AM	5	0	3	0	0	0	0	0	0	130	3	0	0	78	0	6	225	2622
8:25 AM	7	0	4	0	0	0	0	0	0	101	4	0	2	93	0	2	213	2558
8:30 AM	8	0	5	0	0	0	0	0	0	76	5	0	1	68	0	2	165	2476
8:35 AM	10	0	0	0	0	0	0	0	0	105	2	0	2	61	0	3	183	2432
8:40 AM	4	0	2	0	0	0	0	0	0	107	6	0	2	97	0	1	219	2433
8:45 AM	4	0	5	0	0	0	0	0	0	103	3	0	0	72	0	2	189	2389
8:50 AM	7	0	4	0	0	0	0	0	0	67	4	0	2	80	0	3	167	2302
8:55 AM	4	0	6	0	0	0	0	0	0	88	9	0	2	80	0	5	194	2289

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	24	0	80	0	0	0	0	0	0	2692	32	0	24	432	0	12	3296
Heavy Trucks	0	0	4		0	0	0		0	64	4		0	24	0		96
Buses																	
Pedestrians		8				20				0				8			36
Bicycles	0	0	0		0	0	0		0	4	4		0	0	0		8
Scooters																	

Comments:

Report generated on 5/17/2023 12:29 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

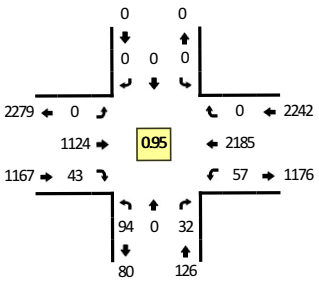
Type of peak hour being reported: Intersection Peak

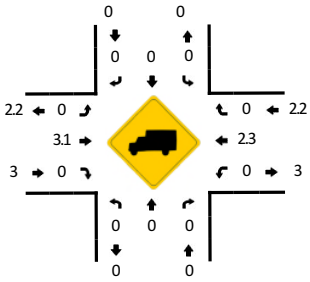
Method for determining peak hour: Total Entering Volume

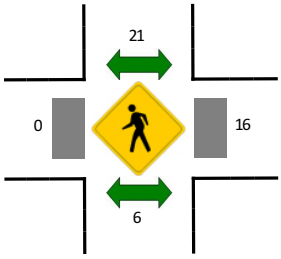
LOCATION: Lipoa Pl -- Kamehameha Hwy
CITY/STATE: Waimalu, HI

QC JOB #: 16185802
DATE: Wed, May 10 2023

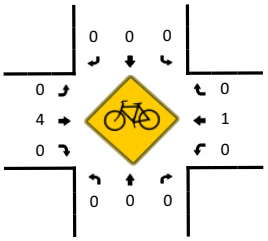
Peak-Hour: 3:10 PM -- 4:10 PM
Peak 15-Min: 3:10 PM -- 3:25 PM

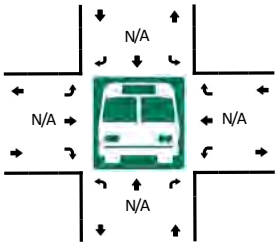




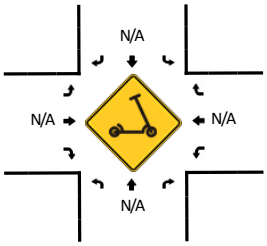












5-Min Count Period Beginning At	Lipoa Pl (Northbound)				Lipoa Pl (Southbound)				Kamehameha Hwy (Eastbound)				Kamehameha Hwy (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
3:00 PM	12	0	0	0	0	0	0	0	0	62	2	0	5	151	0	5	237	
3:05 PM	12	0	4	0	0	0	0	0	0	86	2	0	0	189	0	2	295	
3:10 PM	3	0	3	0	0	0	0	0	0	103	0	0	3	194	0	3	309	
3:15 PM	4	0	3	0	0	0	0	0	0	103	2	0	2	187	0	0	301	
3:20 PM	9	0	4	0	0	0	0	0	0	103	3	0	5	191	0	3	318	
3:25 PM	12	0	2	0	0	0	0	0	0	120	4	0	1	168	0	2	309	
3:30 PM	11	0	4	0	0	0	0	0	0	70	0	0	2	187	0	2	276	
3:35 PM	2	0	2	0	0	0	0	0	0	78	9	0	5	169	0	2	267	
3:40 PM	7	0	3	0	0	0	0	0	0	96	4	0	4	182	0	1	297	
3:45 PM	12	0	3	0	0	0	0	0	0	103	3	0	2	180	0	0	303	
3:50 PM	8	0	3	0	0	0	0	0	0	88	4	0	5	191	0	1	300	
3:55 PM	8	0	1	0	0	0	0	0	0	79	5	0	1	184	0	3	281	3493
4:00 PM	3	0	1	0	0	0	0	0	0	74	5	0	5	183	0	0	271	3527
4:05 PM	15	0	3	0	0	0	0	0	0	107	4	0	2	169	0	3	303	3535
4:10 PM	9	0	4	0	0	0	0	0	0	100	2	0	10	177	0	2	304	3530
4:15 PM	17	0	4	0	0	0	0	0	0	93	0	0	5	175	0	2	296	3525
4:20 PM	9	0	2	0	0	0	0	0	0	70	1	0	5	174	0	4	265	3472
4:25 PM	13	0	6	0	0	0	0	0	0	72	3	0	1	195	0	1	291	3454
4:30 PM	7	0	2	0	0	0	0	0	0	83	4	0	4	165	0	3	268	3446
4:35 PM	10	0	2	0	0	0	0	0	0	116	10	0	1	190	0	0	329	3508
4:40 PM	11	0	1	0	0	0	0	0	0	97	4	0	5	185	0	1	304	3515
4:45 PM	11	0	6	0	0	0	0	0	0	85	7	0	5	166	0	3	283	3495
4:50 PM	7	0	2	0	0	0	0	0	0	91	4	0	6	148	0	2	260	3455
4:55 PM	9	0	7	0	0	0	0	0	0	71	5	0	4	147	0	2	245	3419
5:00 PM	8	0	4	0	0	0	0	0	0	95	3	0	2	190	0	1	303	3451
5:05 PM	11	0	2	0	0	0	0	0	0	88	3	0	6	173	0	1	284	3432
5:10 PM	6	0	3	0	0	0	0	0	0	66	3	0	6	175	0	2	261	3389
5:15 PM	11	0	3	0	0	0	0	0	0	110	11	0	1	172	0	5	313	3406
5:20 PM	7	0	7	0	0	0	0	0	0	75	4	0	3	175	0	2	273	3414
5:25 PM	14	0	4	0	0	0	0	0	0	75	4	0	6	158	0	4	265	3388
5:30 PM	13	0	4	0	0	0	0	0	0	82	7	0	4	141	0	2	253	3373
5:35 PM	16	0	4	0	0	0	0	0	0	78	3	0	5	100	0	1	207	3251
5:40 PM	16	0	1	0	0	0	0	0	0	61	7	0	1	125	0	0	211	3158
5:45 PM	5	0	4	0	0	0	0	0	0	64	4	0	3	144	0	0	224	3099
5:50 PM	7	0	3	0	0	0	0	0	0	83	4	0	5	111	0	2	215	3054
5:55 PM	4	0	2	0	0	0	0	0	0	79	4	0	0	113	0	4	206	3015

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	64	0	40	0	0	0	0	0	0	1236	20	0	40	2288	0	24	3712
Heavy Trucks	0	0	0		0	0	0		0	52	0		0	52	0		104
Buses																	
Pedestrians		8				32				0				24			64
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 5/17/2023 12:29 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of report: Tube Count - Volume Data

LOCATION: Kamehameha Highway East of Lipoa Pl **QC JOB #:** 16185803

SPECIFIC LOCATION: **DIRECTION:** EB

CITY/STATE: Waimalu, HI **DATE:** May 9 2023 - May 11 2023

Start Time	Mon	Tue 9 May 23	Wed 10 May 23	Thu 11 May 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		85	94	74		84			84	
01:00 AM		47	49	57		51			51	
02:00 AM		65	60	63		63			63	
03:00 AM		96	110	105		104			104	
04:00 AM		270	296	289		285			285	
05:00 AM		1131	1136	1069		1112			1112	
06:00 AM		**2277**	**2229**	**2268**		**2258**			**2258**	
07:00 AM		1935	1967	2055		1986			1986	
08:00 AM		1193	1196	1293		1227			1227	
09:00 AM		1012	1075	1308		1132			1132	
10:00 AM		1097	1132	1405		1211			1211	
11:00 AM		1205	1179	1194		1193			1193	
12:00 PM		**1246**	**1244**	1223		**1238**			**1238**	
01:00 PM		1127	1154	1187		1156			1156	
02:00 PM		1156	1155	**1230**		1180			1180	
03:00 PM		1127	1099	1122		1116			1116	
04:00 PM		1082	1058	1044		1061			1061	
05:00 PM		965	983	1009		986			986	
06:00 PM		892	939	922		918			918	
07:00 PM		841	800	827		823			823	
08:00 PM		634	617	688		646			646	
09:00 PM		476	516	520		504			504	
10:00 PM		297	266	265		276			276	
11:00 PM		134	151	163		149			149	
Day Total		20390	20505	21380		20759			20759	
% Weekday Average		98.2%	98.8%	103%						
% Week Average		98.2%	98.8%	103%		100%				
AM Peak Volume		6:00 AM 2277	6:00 AM 2229	6:00 AM 2268		6:00 AM 2258			6:00 AM 2258	
PM Peak Volume		12:00 PM 1246	12:00 PM 1244	2:00 PM 1230		12:00 PM 1238			12:00 PM 1238	

Comments:

Report generated on 5/17/2023 10:12 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
DATA THAT DRIVES COMMUNITIES

Type of report: Tube Count - Volume Data

LOCATION: Kamehameha Highway East of Lipoa Pl | **QC JOB #:** 16185803

SPECIFIC LOCATION: | **DIRECTION:** EB, WB

CITY/STATE: Waimalu, HI | **DATE:** May 9 2023 - May 11 2023

Start Time	Mon	Tue 9 May 23	Wed 10 May 23	Thu 11 May 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		143	164	173		160			160	
01:00 AM		104	97	105		102			102	
02:00 AM		109	102	111		107			107	
03:00 AM		137	173	158		156			156	
04:00 AM		351	414	380		382			382	
05:00 AM		1357	1346	1288		1330			1330	
06:00 AM		**2716**	2669	2696		**2694**			**2694**	
07:00 AM		2610	**2729**	**2742**		2694			2694	
08:00 AM		2068	2056	2277		2134			2134	
09:00 AM		1846	2011	2366		2074			2074	
10:00 AM		2153	2520	2422		2365			2365	
11:00 AM		2349	2518	2293		2387			2387	
12:00 PM		2401	2414	2295		2370			2370	
01:00 PM		2177	2380	2275		2277			2277	
02:00 PM		2604	2695	2768		2689			2689	
03:00 PM		3160	**3080**	**3126**		**3122**			**3122**	
04:00 PM		**3188**	3063	3110		3120			3120	
05:00 PM		2816	2641	2946		2801			2801	
06:00 PM		1940	2062	2305		2102			2102	
07:00 PM		1572	1582	1593		1582			1582	
08:00 PM		1154	1187	1269		1203			1203	
09:00 PM		818	877	918		871			871	
10:00 PM		533	498	508		513			513	
11:00 PM		265	305	317		296			296	
Day Total		38571	39583	40441		39531			39531	
% Weekday Average		97.6%	100.1%	102.3%						
% Week Average		97.6%	100.1%	102.3%		100%				
AM Peak Volume		6:00 AM 2716	7:00 AM 2729	7:00 AM 2742		6:00 AM 2694			6:00 AM 2694	
PM Peak Volume		4:00 PM 3188	3:00 PM 3080	3:00 PM 3126		3:00 PM 3122			3:00 PM 3122	

Comments:

Report generated on 5/17/2023 10:12 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Type of report: Tube Count - Volume Data

LOCATION: Kamehameha Highway East of Lipoa Pl **QC JOB #:** 16185803

SPECIFIC LOCATION: **DIRECTION:** WB

CITY/STATE: Waimalu, HI **DATE:** May 9 2023 - May 11 2023

Start Time	Mon	Tue 9 May 23	Wed 10 May 23	Thu 11 May 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM		58	70	99		76			76	
01:00 AM		57	48	48		51			51	
02:00 AM		44	42	48		45			45	
03:00 AM		41	63	53		52			52	
04:00 AM		81	118	91		97			97	
05:00 AM		226	210	219		218			218	
06:00 AM		439	440	428		436			436	
07:00 AM		675	762	687		708			708	
08:00 AM		875	860	984		906			906	
09:00 AM		834	936	1058		943			943	
10:00 AM		1056	**1388**	1017		1154			1154	
11:00 AM		**1144**	1339	**1099**		**1194**			**1194**	
12:00 PM		1155	1170	1072		1132			1132	
01:00 PM		1050	1226	1088		1121			1121	
02:00 PM		1448	1540	1538		1509			1509	
03:00 PM		2033	1981	2004		2006			2006	
04:00 PM		**2106**	**2005**	**2066**		**2059**			**2059**	
05:00 PM		1851	1658	1937		1815			1815	
06:00 PM		1048	1123	1383		1185			1185	
07:00 PM		731	782	766		760			760	
08:00 PM		520	570	581		557			557	
09:00 PM		342	361	398		367			367	
10:00 PM		236	232	243		237			237	
11:00 PM		131	154	154		146			146	
Day Total		18181	19078	19061		18774			18774	
% Weekday Average		96.8%	101.6%	101.5%						
% Week Average		96.8%	101.6%	101.5%		100%				
AM Peak Volume		11:00 AM 1144	10:00 AM 1388	11:00 AM 1099		11:00 AM 1194			11:00 AM 1194	
PM Peak Volume		4:00 PM 2106	4:00 PM 2005	4:00 PM 2066		4:00 PM 2059			4:00 PM 2059	

Comments:

Report generated on 5/17/2023 10:12 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

Quality Counts
DATA THAT DRIVES COMMUNITIES

Appendix B: Existing (2023) Conditions Intersection Analysis Worksheets



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2359	26	44	611	44	69
Future Volume (veh/h)	2359	26	44	611	44	69
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	2564	28	48	664	48	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	5	2	2
Cap, veh/h	3859	42	77	4181	115	102
Arrive On Green	0.75	0.75	0.04	0.84	0.06	0.06
Sat Flow, veh/h	5331	56	1781	5149	1781	1585
Grp Volume(v), veh/h	1674	918	48	664	48	75
Grp Sat Flow(s),veh/h/ln	1689	1844	1781	1662	1781	1585
Q Serve(g_s), s	30.8	31.0	3.3	3.1	3.2	5.8
Cycle Q Clear(g_c), s	30.8	31.0	3.3	3.1	3.2	5.8
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2524	1378	77	4181	115	102
V/C Ratio(X)	0.66	0.67	0.63	0.16	0.42	0.73
Avail Cap(c_a), veh/h	3787	2068	244	6516	517	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	7.9	58.3	1.9	55.7	56.9
Incr Delay (d2), s/veh	0.3	0.6	8.1	0.0	2.4	9.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	10.9	1.7	0.7	1.5	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.2	8.4	66.4	1.9	58.2	66.7
LnGrp LOS	A	A	E	A	E	E
Approach Vol, veh/h	2592			712	123	
Approach Delay, s/veh	8.3			6.2	63.3	
Approach LOS	A			A	E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.3	98.6				110.0	14.0
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	5.3	33.0				5.1	7.8
Green Ext Time (p_c), s	0.1	59.6				5.5	0.3

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	9.8
HCM 6th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1124	43	57	2185	94	32
Future Volume (veh/h)	1124	43	57	2185	94	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1222	47	62	2375	102	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	2	2	2
Cap, veh/h	3413	131	99	4081	139	124
Arrive On Green	0.68	0.68	0.06	0.80	0.08	0.08
Sat Flow, veh/h	5167	192	1781	5274	1781	1585
Grp Volume(v), veh/h	825	444	62	2375	102	35
Grp Sat Flow(s),veh/h/ln	1689	1815	1781	1702	1781	1585
Q Serve(g_s), s	10.1	10.1	3.3	17.1	5.5	2.0
Cycle Q Clear(g_c), s	10.1	10.1	3.3	17.1	5.5	2.0
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2305	1239	99	4081	139	124
V/C Ratio(X)	0.36	0.36	0.63	0.58	0.73	0.28
Avail Cap(c_a), veh/h	4793	2575	309	8446	655	583
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.5	6.5	45.3	3.7	44.1	42.5
Incr Delay (d2), s/veh	0.1	0.2	6.5	0.1	7.2	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	3.4	1.6	3.9	2.7	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	6.6	6.7	51.7	3.8	51.3	43.8
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1269			2437	137	
Approach Delay, s/veh	6.7			5.0	49.4	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.4	72.9				84.3	13.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	5.3	12.1				19.1	7.5
Green Ext Time (p_c), s	0.1	12.6				59.2	0.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	7.2
HCM 6th LOS	A

Appendix C: Baseline (2027) Conditions Intersection Analysis Worksheets



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2513	27	45	651	45	71
Future Volume (veh/h)	2513	27	45	651	45	71
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	2732	29	49	708	49	77
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	5	2	2
Cap, veh/h	3937	42	75	4227	115	102
Arrive On Green	0.76	0.76	0.04	0.85	0.06	0.06
Sat Flow, veh/h	5333	55	1781	5149	1781	1585
Grp Volume(v), veh/h	1783	978	49	708	49	77
Grp Sat Flow(s),veh/h/ln	1689	1844	1781	1662	1781	1585
Q Serve(g_s), s	36.4	36.8	3.7	3.4	3.6	6.5
Cycle Q Clear(g_c), s	36.4	36.8	3.7	3.4	3.6	6.5
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2573	1405	75	4227	115	102
V/C Ratio(X)	0.69	0.70	0.65	0.17	0.43	0.75
Avail Cap(c_a), veh/h	3428	1872	221	5898	468	417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.2	8.3	64.6	1.8	61.6	63.0
Incr Delay (d2), s/veh	0.4	0.7	9.2	0.0	2.5	10.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	13.1	1.9	0.8	1.7	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.6	9.0	73.8	1.9	64.1	73.6
LnGrp LOS	A	A	E	A	E	E
Approach Vol, veh/h	2761			757	126	
Approach Delay, s/veh	8.7			6.5	69.9	
Approach LOS	A			A	E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.8	110.3				122.1	14.8
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	5.7	38.8				5.4	8.5
Green Ext Time (p_c), s	0.1	65.5				6.0	0.4

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		10.4	
HCM 6th LOS		B	



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1197	44	58	2327	96	33
Future Volume (veh/h)	1197	44	58	2327	96	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1301	48	63	2529	104	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	2	2	2
Cap, veh/h	3552	131	95	4166	138	123
Arrive On Green	0.71	0.71	0.05	0.82	0.08	0.08
Sat Flow, veh/h	5176	185	1781	5274	1781	1585
Grp Volume(v), veh/h	877	472	63	2529	104	36
Grp Sat Flow(s),veh/h/ln	1689	1816	1781	1702	1781	1585
Q Serve(g_s), s	11.5	11.5	3.9	20.3	6.4	2.4
Cycle Q Clear(g_c), s	11.5	11.5	3.9	20.3	6.4	2.4
Prop In Lane		0.10	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2395	1288	95	4166	138	123
V/C Ratio(X)	0.37	0.37	0.66	0.61	0.75	0.29
Avail Cap(c_a), veh/h	4177	2247	269	7361	571	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.4	6.4	52.2	3.8	50.8	48.9
Incr Delay (d2), s/veh	0.1	0.2	7.7	0.1	8.1	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	4.0	1.9	4.8	3.2	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	6.5	6.6	59.9	3.9	58.9	50.2
LnGrp LOS	A	A	E	A	E	D
Approach Vol, veh/h	1349			2592	140	
Approach Delay, s/veh	6.5			5.3	56.6	
Approach LOS	A			A	E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.0	85.7				97.7	14.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	5.9	13.5				22.3	8.4
Green Ext Time (p_c), s	0.1	14.1				69.4	0.4

Intersection Summary							
HCM 6th Ctrl Delay, s/veh			7.5				
HCM 6th LOS			A				

Appendix D: Baseline (2027) Plus Project Conditions Intersection Analysis Worksheets



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2513	32	50	651	55	81
Future Volume (veh/h)	2513	32	50	651	55	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	2732	35	54	708	60	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	5	2	2
Cap, veh/h	3893	50	79	4201	128	114
Arrive On Green	0.76	0.76	0.04	0.84	0.07	0.07
Sat Flow, veh/h	5320	66	1781	5149	1781	1585
Grp Volume(v), veh/h	1787	980	54	708	60	88
Grp Sat Flow(s),veh/h/ln	1689	1842	1781	1662	1781	1585
Q Serve(g_s), s	38.5	39.0	4.2	3.6	4.5	7.7
Cycle Q Clear(g_c), s	38.5	39.0	4.2	3.6	4.5	7.7
Prop In Lane		0.04	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2551	1391	79	4201	128	114
V/C Ratio(X)	0.70	0.70	0.68	0.17	0.47	0.78
Avail Cap(c_a), veh/h	3348	1826	216	5760	457	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	9.0	66.0	2.0	62.5	64.0
Incr Delay (d2), s/veh	0.4	0.8	9.8	0.0	2.7	10.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	14.2	2.1	0.9	2.2	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.3	9.8	75.7	2.0	65.2	74.7
LnGrp LOS	A	A	E	A	E	E
Approach Vol, veh/h	2767			762	148	
Approach Delay, s/veh	9.5			7.3	70.8	
Approach LOS	A			A	E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.2	111.9				124.2	16.0
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	6.2	41.0				5.6	9.7
Green Ext Time (p_c), s	0.1	64.9				6.0	0.4

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		11.5	
HCM 6th LOS		B	



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1197	53	67	2327	101	38
Future Volume (veh/h)	1197	53	67	2327	101	38
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1301	58	73	2529	110	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	2	2	2
Cap, veh/h	3481	155	105	4151	144	129
Arrive On Green	0.70	0.70	0.06	0.81	0.08	0.08
Sat Flow, veh/h	5131	221	1781	5274	1781	1585
Grp Volume(v), veh/h	885	474	73	2529	110	41
Grp Sat Flow(s),veh/h/ln	1689	1809	1781	1702	1781	1585
Q Serve(g_s), s	12.0	12.0	4.6	20.8	6.8	2.8
Cycle Q Clear(g_c), s	12.0	12.0	4.6	20.8	6.8	2.8
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2368	1268	105	4151	144	129
V/C Ratio(X)	0.37	0.37	0.70	0.61	0.76	0.32
Avail Cap(c_a), veh/h	4146	2220	267	7305	566	504
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.8	6.8	52.3	3.9	51.0	49.1
Incr Delay (d2), s/veh	0.1	0.2	8.1	0.1	8.0	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.3	2.3	5.0	3.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	6.9	7.0	60.4	4.1	58.9	50.5
LnGrp LOS	A	A	E	A	E	D
Approach Vol, veh/h	1359			2602	151	
Approach Delay, s/veh	7.0			5.7	56.6	
Approach LOS	A			A	E	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.6	85.4				98.0	15.2
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	6.6	14.0				22.8	8.8
Green Ext Time (p_c), s	0.1	14.3				69.3	0.4

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		8.0	
HCM 6th LOS		A	

Appendix E: Pedestrian, Bicycle, and Transit Evaluation Worksheets (DTS Analysis)

Street name 1	Street name 2	1 Cross-walks	2 ladder xwalks	3a ped signal countdn	3b ped signal no countdn	4 stop signs	5 no turn on red	6 curb cuts	7a traffic signal	7b crossing time	7c crossing distance (# paces)	7d crossing distance (stride)	weighted crossing speed	8 crosswalk scramble	9 TCFs - code	10 add'l ped signs	Signal Unadjusted score	Min score	Max Score	Adjusted Score	Ped Comfort Scale	Stop Sign Unadjusted score	Min score	Max Score	Adjusted Score	Ped Comfort Scale
Kamehameha Highway	Lipoa Place	2	2	2	1	0	0	3	1	34	44	2.3	3.0	0	1-2	0										
		15	16	13		8	5	15	-	-	-	-	20	5	15	7	111.0	61	180	42.02	2	n/a	53	149	0.00	0

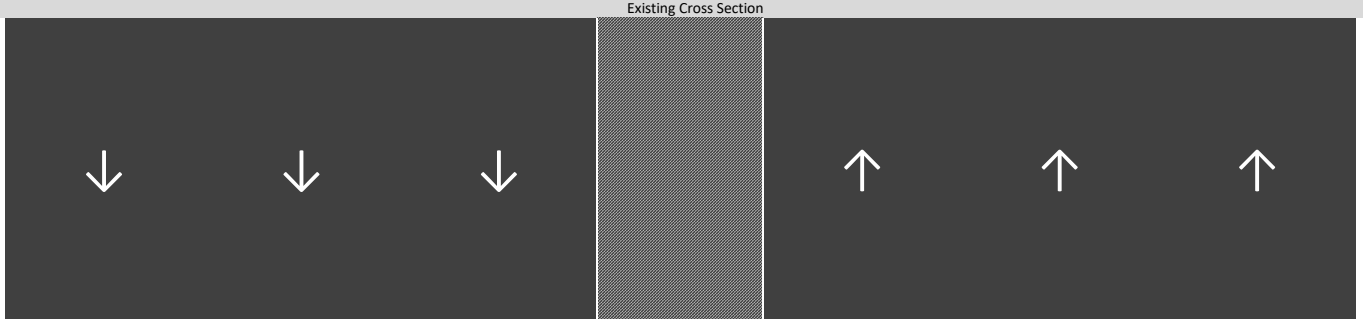
Item #				11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37					
Item name	Street Name	Cross street 1	Cross street 2	lanes	two-way traffic	posted speed limit	TCFs Code	sidewalk width	sidewalk surface condition	sidewalk obstructions	curb	driveway cuts (#)	trees	planters/ gardens	public seating	buffer-bike lane	store/ retail use (#)	public art	graffiti	litter	ped-scale lights-private	construct'n	abandoned buildings	bike racks	vacant lots	visually attractive	feels safe	strong odors	noisy	overall how walkable	**Unadjusted Score**	**Min score**	**Max Score**	**Adjusted Score**	Ped Comfort Scale
1	Kamehameha Highway	Kaonohi	Pali Momi	6	1	20-25	1	5 ft - 7ft 11 inch	no impediments in surface	1 (perm obstructions)	1	5+	a few trees, sporadically lined	1	0	none	3+	0	0	0	0 (none)	0	0	0	0	2	2	2	2	7					
				4	10	22	20	13	24	9	17	5	11	9	7	4	19	6	9	10	7	13	13	5	13	15	15	15	15	13	323	146	463	56.00	2
1	Lipoa Place	Kamehameha Highway	Lipoa Place	2	1	20-25	1	8 ft - 11ft 11 inch	no impediments in surface	1 (perm obstructions)	1	5+	a few trees, sporadically lined	1	0	none	1-2	0	0	0	0 (none)	0	0	0	0	2	2	2	1	7					
				19	10	22	20	19	24	9	17	5	11	9	7	4	11	6	9	10	7	13	13	5	13	15	15	15	20	13	341	146	463	62.00	1

Level of Traffic Stress Assessment - Existing Street Configuration

Road name:	Kamehameha Hwy
From:	Kaonohi St
To:	Pali Momi St

Curb to curb width (ft)	82
Existing stress in ↓ direction	LTS 4
Existing stress in ↑ direction	LTS 4

Existing Cross Section



Lane width (ft)		12	12	12	10	12	12	12
Lane type	Nor	Vehicle lane	Vehicle lane	Vehicle lane	Median	Vehicle lane	Vehicle lane	Vehicle lane
Direction		↓	↓	↓	↑	↑	↑	↑

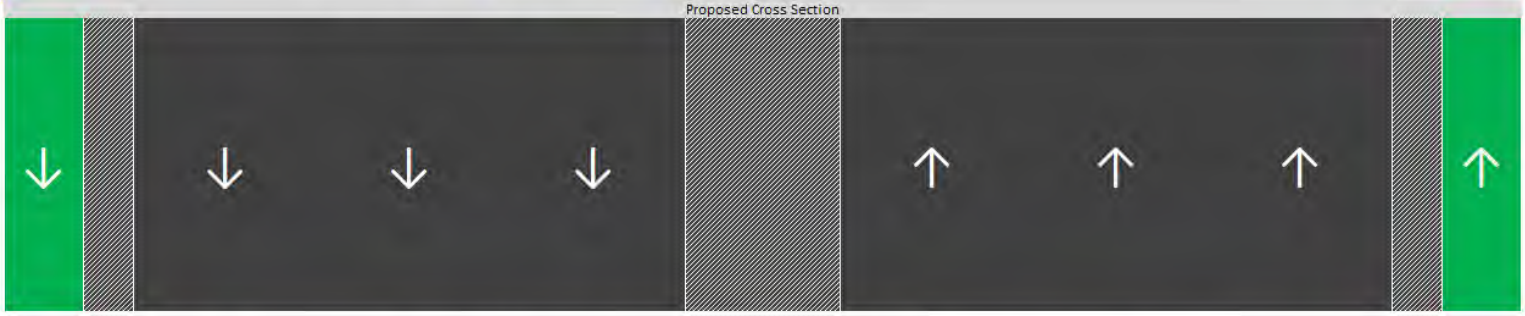
Prevailing speed	25
Marked centerline	Yes
AADT	39531

Level of Traffic Stress Assessment - Proposed Street Configuration

Road name:	Kamehameha Hwy
From:	Kaonohi St
To:	Pali Momi St
Alternative Name/Number:	Enter Alternative Name/Number

Curb to curb width (ft)	93
Proposed stress in ↓ direction	LTS 3
Proposed stress in ↑ direction	LTS 3

Proposed Cross Section



Lane width (ft)	5	3	12	12	12	10	12	12	12	3	5
Lane type	Bike lane	nted bu	Vehicle lane	Vehicle lane	Vehicle lane	Median	Vehicle lane	Vehicle lane	Vehicle lane	nted bu	Bike lane
Direction	↓	↓	↓	↓	↓	↑	↑	↑	↑	↑	↑

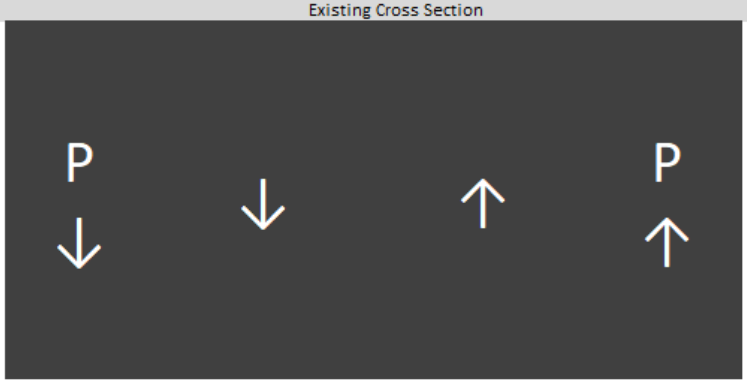
Speed limit	25
Marked centerline	Yes
AADT	43197

Level of Traffic Stress Assessment - Existing Street Configuration

Road name:	Lipoa Place (NB-SB)
From:	Kamehameha Hwy
To:	Lipoa Place (EB-WB)

Curb to curb width (ft)	40
Existing stress in ↓ direction	LTS 3
Existing stress in ↑ direction	LTS 3

Existing Cross Section



Lane width (ft)	8	12	12	8
Lane type	Parking lane	Vehicle lane	Vehicle lane	Parking lane
Direction	↓	↓	↑	↑

Prevailing speed	25
Marked centerline	Yes
AADT	2900

Level of Traffic Stress Assessment - Proposed Street Configuration

Road name:	Lipoa Place (NB-SB)
From:	Kamehameha Hwy
To:	Lipoa Place (EB-WB)
Alternative Name/Number:	

Curb to curb width (ft)	40
Proposed stress in ↓ direction	LTS 3
Proposed stress in ↑ direction	LTS 3

Proposed Cross Section



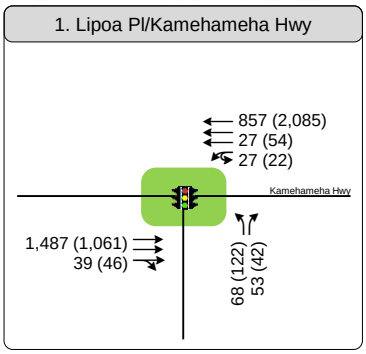
Lane width (ft)	8	12	12	8
Lane type	Parking lane	Vehicle lane	Vehicle lane	Parking lane
Direction	↓	↓	↑	↑

Speed limit	20
Marked centerline	Yes
AADT	3293

Multimodal Transit LOS Calculation			
		Kamehameha Hwy_EB	Kamehameha Hwy_WB
Inputs		**1**	**2**
	TRANSIT OPERATIONS INFORMATION		
	Number of local buses on street segment per hour (bus/h)	12	12
	Number of express buses stopping in segment per hour (bus/h)	2	2
t_{ex}	Average excess wait time (min)	0.0	0.0
L_f	Average passenger load factor (p/seat)	0.5	0.5
S	Average transit travel speed (mi/h)	20.0	20.0
l_{pt}	Average passenger trip length (mi)	10.0	10.0
	Is the segment in the CBD of a metro area of 5 million or more?	No	No
	TRANSIT AMENITY DATA		
p_{sh}	Percent stops in segment with a shelter	0%	0%
p_{be}	Percent stops in segment with a bench	100%	100%
	PEDESTRIAN ENVIRONMENT DATA		
W_A	Sidewalk width (ft) (Enter 0 if no sidewalk)	8.0	6.0
W_{buf}	Buffer width from sidewalk to street (ft)	0.0	0.0
	Does a continuous barrier exist between the street and sidewalk?	No	No
	Is the street divided?	Yes	Yes
	Are parking spaces striped?	No	No
p_{pk}	Proportion of on-street parking occupied	0%	0%
W_{bl}	Bicycle lane width (ft)	0.0	0.0
W_{os}	Shoulder/parking lane width (ft)	0.0	0.0
W_{ol}	Outside travel lane (closest to sidewalk) width (ft)	12.0	12.0
v_m	Outside lane demand flow rate at midsegment (veh/h)	500	500
S_R	Average vehicle running speed, including intersection delay (mi/h)	25.0	25.0
Calculations			
f	Transit frequency (bus/h)	14	14
f_h	Headway factor	3.61	3.61
f_{pl}	Passenger load weighting factor	1.00	1.00
T_{at}	Perceived amenity time rate (min/mi)	0.0	0.0
T_{ex}	Excess wait time rate due to late arrivals (min/mi)	0.0	0.0
T_{ptt}	Perceived travel time rate (min/mi)	3.0	3.0
T_{btt}	Base travel time rate (min/mi)	4.0	4.0
f_{tt}	Perceived travel time factor	1.12	1.12
$s_{w\text{-}r}$	Transit wait-ride score	4.06	4.06
f_s	Motorized vehicle speed adjustment factor	0.25	0.25
f_v	Motorized vehicle volume adjustment factor	1.14	1.14
W_{aA}	Adjusted available sidewalk width (ft)	8.0	6.0
f_{sw}	Sidewalk width coefficient	3.60	4.20
f_b	Buffer area coefficient	1.00	1.00
W_t	Total width of outside lane, bike lane, and parking lane/shoulder (ft)	12.0	12.0
W_v	Effective total width as a function of traffic volume (ft)	12.0	12.0
W_1	Effective width of combined bike lane and shoulder (ft)	0.0	0.0
f_w	Cross-section adjustment factor	-4.55	-4.44
I_p	Pedestrian environment score	2.88	2.99
	Pedestrian LOS	C	C
I_t	Transit LOS score	0.34	0.36
Output			
	Transit LOS	***A***	***A***

Appendix F: 2nd Peak Hour Intersection Volumes and Evaluation Worksheets





LEGEND

AM (PM) Peak Hour Traffic Volumes

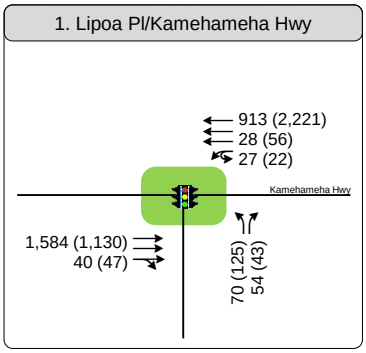
Lane Configuration

AM / PM | A-C | D | E | F Level of Service (LOS)

Figure A

Second Peak Hour Traffic Volumes and Lane Configurations
Existing Conditions (2023)





LEGEND

AM (PM) Peak Hour Traffic Volumes

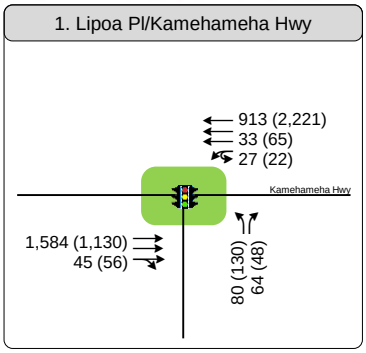
Lane Configuration

AM / PM | A-C | D | E | F — Level of Service (LOS)

Figure B

Second Peak Hour Traffic Volumes and Lane Configurations
Future Baseline Year (2027)





LEGEND

AM (PM) Peak Hour Traffic Volumes

Lane Configuration

AM / PM | A-C | D | E | F — Level of Service (LOS)

Figure C

Second Peak Hour Traffic Volumes and Lane Configurations
Future Baseline Year (2027) Plus Project



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1487	39	54	857	68	53
Future Volume (veh/h)	1487	39	54	857	68	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	1616	42	59	932	74	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	5	2	2
Cap, veh/h	2878	75	140	3690	126	113
Arrive On Green	0.57	0.57	0.08	0.74	0.07	0.07
Sat Flow, veh/h	5240	132	1781	5149	1781	1585
Grp Volume(v), veh/h	1076	582	59	932	74	58
Grp Sat Flow(s),veh/h/ln	1689	1827	1781	1662	1781	1585
Q Serve(g_s), s	12.9	12.9	2.0	3.8	2.6	2.2
Cycle Q Clear(g_c), s	12.9	12.9	2.0	3.8	2.6	2.2
Prop In Lane		0.07	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1916	1037	140	3690	126	113
V/C Ratio(X)	0.56	0.56	0.42	0.25	0.59	0.52
Avail Cap(c_a), veh/h	7381	3994	476	12698	1008	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	8.7	27.9	2.6	28.6	28.5
Incr Delay (d2), s/veh	0.3	0.5	2.0	0.0	4.2	3.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	4.2	0.9	0.7	1.2	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.0	9.2	29.9	2.7	32.9	32.1
LnGrp LOS	A	A	C	A	C	C
Approach Vol, veh/h	1658			991	132	
Approach Delay, s/veh	9.1			4.3	32.5	
Approach LOS	A			A	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.0	42.1				53.1	10.5
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	4.0	14.9				5.8	4.6
Green Ext Time (p_c), s	0.1	21.2				8.6	0.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	8.5
HCM 6th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1061	46	76	2085	122	42
Future Volume (veh/h)	1061	46	76	2085	122	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1153	50	83	2266	133	46
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	2	2	2
Cap, veh/h	3166	137	122	3935	176	157
Arrive On Green	0.64	0.64	0.07	0.77	0.10	0.10
Sat Flow, veh/h	5138	215	1781	5274	1781	1585
Grp Volume(v), veh/h	783	420	83	2266	133	46
Grp Sat Flow(s),veh/h/ln	1689	1810	1781	1702	1781	1585
Q Serve(g_s), s	10.1	10.1	4.2	16.8	6.7	2.5
Cycle Q Clear(g_c), s	10.1	10.1	4.2	16.8	6.7	2.5
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2150	1152	122	3935	176	157
V/C Ratio(X)	0.36	0.36	0.68	0.58	0.75	0.29
Avail Cap(c_a), veh/h	5105	2736	329	8996	697	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	7.9	41.8	4.4	40.3	38.4
Incr Delay (d2), s/veh	0.1	0.2	6.5	0.1	6.4	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.5	2.0	4.1	3.2	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.0	8.1	48.3	4.5	46.8	39.5
LnGrp LOS	A	A	D	A	D	D
Approach Vol, veh/h	1203			2349	179	
Approach Delay, s/veh	8.0			6.0	44.9	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.3	64.6				76.9	15.1
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	6.2	12.1				18.8	8.7
Green Ext Time (p_c), s	0.1	11.6				52.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	8.5
HCM 6th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1584	40	55	913	70	54
Future Volume (veh/h)	1584	40	55	913	70	54
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	1722	43	60	992	76	59
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	5	2	2
Cap, veh/h	3016	75	130	3761	125	112
Arrive On Green	0.59	0.59	0.07	0.75	0.07	0.07
Sat Flow, veh/h	5246	127	1781	5149	1781	1585
Grp Volume(v), veh/h	1145	620	60	992	76	59
Grp Sat Flow(s),veh/h/ln	1689	1829	1781	1662	1781	1585
Q Serve(g_s), s	14.3	14.3	2.2	4.2	2.8	2.5
Cycle Q Clear(g_c), s	14.3	14.3	2.2	4.2	2.8	2.5
Prop In Lane		0.07	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2006	1086	130	3761	125	112
V/C Ratio(X)	0.57	0.57	0.46	0.26	0.61	0.53
Avail Cap(c_a), veh/h	6851	3710	442	11786	936	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	8.5	30.5	2.6	30.9	30.7
Incr Delay (d2), s/veh	0.3	0.5	2.5	0.0	4.6	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.7	1.0	0.8	1.3	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.8	9.0	33.0	2.6	35.6	34.6
LnGrp LOS	A	A	C	A	D	C
Approach Vol, veh/h	1765			1052	135	
Approach Delay, s/veh	8.9			4.3	35.1	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.0	46.7				57.7	10.8
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	4.2	16.3				6.2	4.8
Green Ext Time (p_c), s	0.1	24.4				9.4	0.4

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	8.5
HCM 6th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1130	47	78	2221	125	43
Future Volume (veh/h)	1130	47	78	2221	125	43
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1228	51	85	2414	136	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	2	2	2
Cap, veh/h	3314	138	119	4027	174	155
Arrive On Green	0.67	0.67	0.07	0.79	0.10	0.10
Sat Flow, veh/h	5149	207	1781	5274	1781	1585
Grp Volume(v), veh/h	832	447	85	2414	136	47
Grp Sat Flow(s),veh/h/ln	1689	1812	1781	1702	1781	1585
Q Serve(g_s), s	11.6	11.6	4.9	20.0	7.9	2.9
Cycle Q Clear(g_c), s	11.6	11.6	4.9	20.0	7.9	2.9
Prop In Lane		0.11	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2247	1205	119	4027	174	155
V/C Ratio(X)	0.37	0.37	0.71	0.60	0.78	0.30
Avail Cap(c_a), veh/h	4436	2380	286	7817	606	539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	7.9	48.4	4.5	46.6	44.4
Incr Delay (d2), s/veh	0.1	0.2	7.7	0.1	7.4	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.2	2.4	5.1	3.8	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.0	8.1	56.1	4.6	54.0	45.5
LnGrp LOS	A	A	E	A	D	D
Approach Vol, veh/h	1279			2499	183	
Approach Delay, s/veh	8.0			6.4	51.8	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.1	76.4				89.5	16.4
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	6.9	13.6				22.0	9.9
Green Ext Time (p_c), s	0.1	12.8				61.4	0.5

Intersection Summary							
HCM 6th Ctrl Delay, s/veh			9.0				
HCM 6th LOS			A				



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1584	45	60	913	80	64
Future Volume (veh/h)	1584	45	60	913	80	64
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	1722	49	65	992	87	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	5	2	2
Cap, veh/h	2994	85	128	3736	140	125
Arrive On Green	0.59	0.59	0.07	0.75	0.08	0.08
Sat Flow, veh/h	5225	144	1781	5149	1781	1585
Grp Volume(v), veh/h	1149	622	65	992	87	70
Grp Sat Flow(s),veh/h/ln	1689	1825	1781	1662	1781	1585
Q Serve(g_s), s	14.7	14.7	2.5	4.3	3.3	3.0
Cycle Q Clear(g_c), s	14.7	14.7	2.5	4.3	3.3	3.0
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1999	1080	128	3736	140	125
V/C Ratio(X)	0.57	0.58	0.51	0.27	0.62	0.56
Avail Cap(c_a), veh/h	6723	3633	434	11566	918	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	8.8	31.2	2.7	31.2	31.0
Incr Delay (d2), s/veh	0.3	0.5	3.1	0.0	4.4	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.9	1.1	0.8	1.5	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.1	9.3	34.4	2.8	35.6	34.9
LnGrp LOS	A	A	C	A	D	C
Approach Vol, veh/h	1771			1057	157	
Approach Delay, s/veh	9.2			4.7	35.3	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.0	47.3				58.3	11.5
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	4.5	16.7				6.3	5.3
Green Ext Time (p_c), s	0.1	24.6				9.4	0.5

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		9.0	
HCM 6th LOS		A	



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1130	56	87	2221	130	48
Future Volume (veh/h)	1130	56	87	2221	130	48
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1228	61	95	2414	141	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	2	2	2	2	2
Cap, veh/h	3247	161	129	4016	180	160
Arrive On Green	0.66	0.66	0.07	0.79	0.10	0.10
Sat Flow, veh/h	5102	245	1781	5274	1781	1585
Grp Volume(v), veh/h	840	449	95	2414	141	52
Grp Sat Flow(s),veh/h/ln	1689	1803	1781	1702	1781	1585
Q Serve(g_s), s	12.1	12.1	5.6	20.4	8.2	3.2
Cycle Q Clear(g_c), s	12.1	12.1	5.6	20.4	8.2	3.2
Prop In Lane		0.14	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2222	1186	129	4016	180	160
V/C Ratio(X)	0.38	0.38	0.74	0.60	0.78	0.33
Avail Cap(c_a), veh/h	4408	2354	284	7767	602	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.3	8.3	48.4	4.6	46.8	44.5
Incr Delay (d2), s/veh	0.1	0.2	8.0	0.1	7.3	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	4.4	2.7	5.3	4.0	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.4	8.5	56.4	4.8	54.1	45.7
LnGrp LOS	A	A	E	A	D	D
Approach Vol, veh/h	1289			2509	193	
Approach Delay, s/veh	8.4			6.7	51.8	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.7	76.1				89.8	16.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	17.0	139.0				162.0	36.0
Max Q Clear Time (g_c+I1), s	7.6	14.1				22.4	10.2
Green Ext Time (p_c), s	0.1	13.0				61.4	0.5

Intersection Summary			
HCM 6th Ctrl Delay, s/veh		9.4	
HCM 6th LOS		A	

Appendix G: NACTO Safe Speed Determination Worksheets

ACTIVITY LEVEL ANALYSIS CHECKLIST

START:

IF the street is any of the following...

- ☐ Downtown / Central Business District street
- OR
- ☐ Retail corridor
- OR
- ☐ High density residential or commercial street

THEN the street has:

HIGH ACTIVITY

IF NOT, proceed...

IF the street is a...

- ☑ Moderate density residential or commercial street
- OR
- ☐ Street with light retail activity
- OR
- ☐ Mixed use corridor

THEN the street has:

MODERATE ACTIVITY

IF NOT, proceed...

IF the street is a...

- ☐ Low density industrial or residential street

THEN the street has:

LOW ACTIVITY

PROCEED to the Risk Matrix to determine the correct speed limit for the street.

PROCEED to the Risk Matrix.

PROCEED to the Risk Matrix.

Sample Activity Level Metrics

There are many metrics that a city can use to measure a street's activity levels. The list below provides a starting point. Cities can use land use metrics as an alternative in the absence of the volumes below. Cities can set quantitative high, medium, and low activity thresholds based on local conditions.

- Pedestrian sidewalk volume per day or hour
- Scheduled transit stops per hour
- Bicycle volume per day or hour
- Social and public space use volume per day or hour
- Parking or curbside loading maneuvers per hour
- Crash volumes by mode

RESULTS FOR: Activity Level Analysis

Based on the **activity level** analysis, the street has:

- ☐ **HIGH ACTIVITY**
- ☐ **MODERATE ACTIVITY**
- ☐ **LOW ACTIVITY**

CONFLICT DENSITY ANALYSIS CHECKLIST

START:

IF any of these apply to the street...

- ☐ No sidewalks
- OR
- ☐ Bicycle traffic in the traffic lane, even where marked or signed (e.g., sharrows)
- OR
- ☐ Sidewalks directly adjacent to moving traffic
- OR
- ☑ ≥ 3 “through” or “T” intersections (signalized or unsignalized), major driveways, or other crossing points per ¼ mile

THEN the street has:

HIGH CONFLICT DENSITY

PROCEED to the Activity Analysis.

IF NOT, proceed...

IF the street has...

- ☐ 1-3 “through” or “T” intersections (signalized or unsignalized), major driveways, or other crossing points per ¼ mile
- AND
- ☐ Curbside loading/parking lane and sidewalk, or a USDG-compliant sidewalk
- AND EITHER:
  - ☐ A marked bike lane or better, if designated bike route
  - OR
  - ☐ A full sidewalk with permissible bike use, if not a designated bike route

THEN the street has:

MODERATE CONFLICT DENSITY

PROCEED to the Activity Analysis.

IF NOT, proceed...

IF the street has...

- ☐ No “through” or “T” intersections (signalized or unsignalized), major driveways, or other crossing points per ¼ mile
- AND
- ☐ Curbside loading/parking lane and sidewalk, or a USDG-compliant sidewalk
- AND
- ☐ Passengers exiting parked or loading vehicles are not directly in general traffic lanes
- AND EITHER:
  - ☐ Protected bike lane, shared use path, or USDG consistent sidewalk, if designated bike route
  - OR
  - ☐ Full sidewalk with legally permissible bike use, if not designated a bike lane

THEN the street has:

LOW CONFLICT DENSITY

PROCEED to the Activity Analysis.

Sample Conflict Density Metrics

There are many metrics that a city can use to measure a street’s conflict levels. The list below provides a starting point. Cities can set quantitative thresholds based on local conditions.

- Pedestrian crossing volume per day or hour
- Pedestrians walking in the street per hour
- Left turn volume per day or hour
- Midblock or uncontrolled-intersection crossings per hour per ¼ mile
- Motor vehicle lane blockage or bike-lane blockage percent per hour

RESULTS FOR: **Conflict Density Analysis**

Based on the **conflict density** analysis, the street has:

- ☐ **HIGH CONFLICT DENSITY**
- ☐ **MODERATE CONFLICT DENSITY**
- ☐ **LOW CONFLICT DENSITY**

APPLYING THE **CONFLICT & ACTIVITY LEVEL** ANALYSIS TO THE RISK MATRIX

CONTINUE

Based on the **Conflict Density Analysis**, the street has...

CONTINUE

Based on the **Activity Level Analysis**, the street has...

	HIGH CONFLICT	MODERATE CONFLICT DENSITY	LOW CONFLICT DENSITY
HIGH ACTIVITY	20 MPH	20 MPH	25 MPH
MODERATE ACTIVITY	20 MPH	25 MPH	30 MPH
LOW ACTIVITY	25 MPH	25 MPH	35 MPH

FINISH

Based on the analyses, the major street's speed limit should be:

- ✓ **20** MPH
- **25** MPH
- **30** MPH
- **35** MPH

EXHIBIT 17

THIS SECTION IS INTENTIONALLY OMITTED

Explanation: There is no Land Use Commission App for Hale O Lipoa

EXHIBIT 18

THIS SECTION IS INTENTIONALLY OMITTED

Explanation: A draft Development Agreement is not available at this time