‘EWA DEVELOPMENT PLAN REVIEW REPORT

1997 TO 2010
Volume 2 of 2
(Not Published; Available on-line at http://www.honoluludpp.org/Planning or on CD upon request)

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

May 2011
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G. May 2-4, 2004 Smart Growth Workshops Documentation
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All ʻEwa Development Plan Review products, including the Review Report, and the proposed revised ʻEwa Development Plan, in both the "clean" version proposed to be adopted by reference and in the modified Ramseyer version showing how the proposed revised Plan differs from the adopted Plan, are available on the Department of Planning and Permitting web site: http://www.honoluludpp.org/Planning/
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### APPENDIX D: VISION SCORECARD

**OVERVIEW OF HISTORIC TRENDS & ISLANDWIDE PROJECTIONS TO 2035 BY DP/SCP AREA**

#### POPULATION

<table>
<thead>
<tr>
<th>DP/SCP Area</th>
<th>1980</th>
<th>1990</th>
<th>2000</th>
<th>2005</th>
<th>2035</th>
<th>Change 00-35</th>
<th>SHARE OF CHANGE</th>
<th>ANNUAL CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUC</td>
<td>417,215</td>
<td>432,023</td>
<td>419,333</td>
<td>417,336</td>
<td>447,715</td>
<td>28,382</td>
<td>17.50%</td>
<td>946</td>
</tr>
<tr>
<td>'Ewa</td>
<td>35,709</td>
<td>42,983</td>
<td>68,696</td>
<td>82,595</td>
<td>164,556</td>
<td>95,860</td>
<td>59.11%</td>
<td>3,195</td>
</tr>
<tr>
<td>CO</td>
<td>101,494</td>
<td>130,474</td>
<td>148,208</td>
<td>157,008</td>
<td>181,423</td>
<td>33,215</td>
<td>20.48%</td>
<td>1,107</td>
</tr>
<tr>
<td>E.H.</td>
<td>43,242</td>
<td>45,654</td>
<td>46,735</td>
<td>49,229</td>
<td>48,843</td>
<td>2,108</td>
<td>1.30%</td>
<td>70</td>
</tr>
<tr>
<td>K'poko</td>
<td>109,373</td>
<td>117,694</td>
<td>117,999</td>
<td>117,004</td>
<td>111,594</td>
<td>-6,405</td>
<td>-3.95%</td>
<td>-214</td>
</tr>
<tr>
<td>K'loa</td>
<td>11,123</td>
<td>14,263</td>
<td>14,546</td>
<td>14,482</td>
<td>15,452</td>
<td>906</td>
<td>0.56%</td>
<td>30</td>
</tr>
<tr>
<td>N.S.</td>
<td>12,921</td>
<td>15,729</td>
<td>18,380</td>
<td>18,118</td>
<td>19,517</td>
<td>1,137</td>
<td>0.70%</td>
<td>38</td>
</tr>
<tr>
<td>Wai'anae</td>
<td>31,487</td>
<td>37,411</td>
<td>42,259</td>
<td>43,923</td>
<td>49,217</td>
<td>6,958</td>
<td>4.29%</td>
<td>232</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>762,564</td>
<td>836,231</td>
<td>876,156</td>
<td>899,695</td>
<td>1,038,317</td>
<td>162,161</td>
<td>100.00%</td>
<td>5,405</td>
</tr>
</tbody>
</table>

#### HOUSING

<table>
<thead>
<tr>
<th>DP/SCP Area</th>
<th>1980</th>
<th>1990</th>
<th>2000</th>
<th>2005</th>
<th>2035</th>
<th>Change 00-35</th>
<th>SHARE OF CHANGE</th>
<th>ANNUAL CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUC</td>
<td>154,026</td>
<td>162,882</td>
<td>171,773</td>
<td>173,438</td>
<td>207,218</td>
<td>35,445</td>
<td>35.32%</td>
<td>1,182</td>
</tr>
<tr>
<td>'Ewa</td>
<td>9,413</td>
<td>11,734</td>
<td>20,797</td>
<td>25,404</td>
<td>56,344</td>
<td>35,547</td>
<td>35.42%</td>
<td>1,185</td>
</tr>
<tr>
<td>CO</td>
<td>27,101</td>
<td>36,260</td>
<td>45,878</td>
<td>49,439</td>
<td>63,784</td>
<td>17,906</td>
<td>17.84%</td>
<td>597</td>
</tr>
<tr>
<td>E.H.</td>
<td>13,952</td>
<td>15,644</td>
<td>17,099</td>
<td>18,279</td>
<td>20,141</td>
<td>3,042</td>
<td>3.03%</td>
<td>101</td>
</tr>
<tr>
<td>K'poko</td>
<td>30,373</td>
<td>34,774</td>
<td>36,964</td>
<td>37,174</td>
<td>39,280</td>
<td>2,316</td>
<td>2.31%</td>
<td>77</td>
</tr>
<tr>
<td>K'loa</td>
<td>3,707</td>
<td>4,422</td>
<td>4,473</td>
<td>4,518</td>
<td>5,372</td>
<td>899</td>
<td>0.90%</td>
<td>30</td>
</tr>
<tr>
<td>N.S.</td>
<td>3,578</td>
<td>5,287</td>
<td>6,648</td>
<td>6,648</td>
<td>7,966</td>
<td>1,318</td>
<td>1.31%</td>
<td>44</td>
</tr>
<tr>
<td>Wai'anae</td>
<td>9,888</td>
<td>10,680</td>
<td>12,356</td>
<td>13,038</td>
<td>16,242</td>
<td>3,886</td>
<td>3.87%</td>
<td>130</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>252,038</td>
<td>281,683</td>
<td>315,988</td>
<td>327,938</td>
<td>416,347</td>
<td>100,359</td>
<td>100.00%</td>
<td>3,761</td>
</tr>
</tbody>
</table>
### APPENDIX D: VISION SCORECARD

#### NON-CONSTRUCTION JOBS

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PUC</td>
<td>271,520</td>
<td>365,560</td>
<td>351,272</td>
<td>368,134</td>
<td>416,519</td>
<td>65,247</td>
<td>38.62%</td>
<td>2,175</td>
</tr>
<tr>
<td>'Ewa</td>
<td>9,281</td>
<td>11,563</td>
<td>16,408</td>
<td>27,988</td>
<td>87,171</td>
<td>70,763</td>
<td>41.89%</td>
<td>2,359</td>
</tr>
<tr>
<td>CO</td>
<td>36,649</td>
<td>45,215</td>
<td>46,491</td>
<td>58,915</td>
<td>77,373</td>
<td>30,882</td>
<td>18.28%</td>
<td>1,029</td>
</tr>
<tr>
<td>E.H.</td>
<td>4,167</td>
<td>5,890</td>
<td>6,756</td>
<td>6,772</td>
<td>6,888</td>
<td>132</td>
<td>0.08%</td>
<td>4</td>
</tr>
<tr>
<td>K'poko</td>
<td>23,746</td>
<td>31,084</td>
<td>39,618</td>
<td>40,444</td>
<td>41,391</td>
<td>1,773</td>
<td>1.05%</td>
<td>59</td>
</tr>
<tr>
<td>K'loa</td>
<td>4,208</td>
<td>5,993</td>
<td>5,899</td>
<td>5,609</td>
<td>6,571</td>
<td>672</td>
<td>0.40%</td>
<td>22</td>
</tr>
<tr>
<td>N.S.</td>
<td>3,310</td>
<td>4,330</td>
<td>4,416</td>
<td>4,273</td>
<td>4,257</td>
<td>-159</td>
<td>-0.09%</td>
<td>-5</td>
</tr>
<tr>
<td>Wai'anae</td>
<td>5,740</td>
<td>7,664</td>
<td>7,258</td>
<td>6,800</td>
<td>6,893</td>
<td>-365</td>
<td>-0.22%</td>
<td>-12</td>
</tr>
</tbody>
</table>

**TOTAL**: 358,621 477,299 478,118 518,935 647,063 168,945 100.00% 5,632

#### VISITOR UNITS (Hotel Units, Resort Condominium Units)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PUC</td>
<td>32,714</td>
<td>35,353</td>
<td>34,170</td>
<td>32,819</td>
<td>30,142</td>
<td>-4,028</td>
<td>-122.66%</td>
<td>-134</td>
</tr>
<tr>
<td>'Ewa</td>
<td>14</td>
<td>14</td>
<td>392</td>
<td>499</td>
<td>7,204</td>
<td>6,812</td>
<td>207.43%</td>
<td>227</td>
</tr>
<tr>
<td>CO</td>
<td>38</td>
<td>10</td>
<td>207</td>
<td>207</td>
<td>202</td>
<td>-5</td>
<td>-0.15%</td>
<td>0</td>
</tr>
<tr>
<td>E.H.</td>
<td>356</td>
<td>369</td>
<td>371</td>
<td>371</td>
<td>352</td>
<td>-19</td>
<td>-0.58%</td>
<td>-1</td>
</tr>
<tr>
<td>K'poko</td>
<td>99</td>
<td>75</td>
<td>60</td>
<td>60</td>
<td>71</td>
<td>11</td>
<td>0.33%</td>
<td>0</td>
</tr>
<tr>
<td>K'loa</td>
<td>694</td>
<td>626</td>
<td>595</td>
<td>595</td>
<td>1,401</td>
<td>806</td>
<td>24.54%</td>
<td>27</td>
</tr>
<tr>
<td>N.S.</td>
<td>1</td>
<td>9</td>
<td>17</td>
<td>17</td>
<td>27</td>
<td>10</td>
<td>0.30%</td>
<td>0</td>
</tr>
<tr>
<td>Wai'anae</td>
<td>418</td>
<td>516</td>
<td>509</td>
<td>51</td>
<td>206</td>
<td>-303</td>
<td>-9.23%</td>
<td>-10</td>
</tr>
</tbody>
</table>

**TOTAL**: 34,334 36,972 36,321 34,619 39,605 3,284 100.00% 109

**SOURCE:**

- Historical Population, Housing, Jobs: 1980 to 2000 (U.S. Census Bureau); 2005 (DPP Estimate, September 2009)
- Historical Visitor Units: DPP. Projections: Department Of Planning And Permitting, September 2009
APPENDIX D: VISION SCORECARD

How Well Has the Vision Been Implemented Since 1997?

The ‘Ewa Development Plan vision has five major elements.

<table>
<thead>
<tr>
<th>Vision Element</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect Agricultural Lands and Open Space</td>
<td>- Agricultural lands and open space have been protected by the Community Growth Boundary.</td>
</tr>
<tr>
<td></td>
<td>- Lands between Waipahu and the City of Kapolei whose development was to be delayed until 2006 and 2016 have not been developed.</td>
</tr>
<tr>
<td></td>
<td>- New parkland has been acquired and is under development. Transfer to the City of 421 acres at Kalaeloa for a Regional Park and Kalaeloa Neighborhood Park is expected in the near future.</td>
</tr>
<tr>
<td></td>
<td>- The <strong>Pearl Harbor Historic Trail Plan</strong> calls for establishment of bikeways and historic train use on the OR&amp;L corridor from Rainbow Marina to Nānākuli. Extension of the bikeway from Waipahu to ‘Ewa Plantation Villages is under design by the State. Train operations have been extended from ‘Ewa Plantation Villages closer to Nānākuli, but extension from ‘Ewa Plantation Villages to Waipahu or Rainbow Marina is not feasible due to the presence of energy pipelines buried in the railbed.</td>
</tr>
<tr>
<td></td>
<td>- Use of drainageways and utility corridors as greenways has been difficult to implement due to questions of maintenance responsibilities, coordination, and diffusion of ownership.</td>
</tr>
<tr>
<td>Develop the Secondary Urban Center around the City of Kapolei</td>
<td>- Significant progress has been made in creating jobs in the City of Kapolei and surrounding resort and industrial areas. The rate of job growth has outpaced residential development.</td>
</tr>
<tr>
<td></td>
<td>- Developing the UH West O‘ahu Campus is key to continuing the momentum for development of O‘ahu’s second city.</td>
</tr>
<tr>
<td></td>
<td>- In 2002, responsibility for redevelopment of Kalaeloa was transferred to the Hawaii Community Development Authority (HCDA).</td>
</tr>
<tr>
<td></td>
<td>- Planning for Kalaeloa was delayed until the Navy decided that a carrier would not be stationed at Pearl Harbor.</td>
</tr>
<tr>
<td></td>
<td>- HCDA prepared a <strong>Kalaeloa Master Plan</strong> approved by the Governor in 2006.</td>
</tr>
<tr>
<td></td>
<td>- Development of Kalaeloa is inhibited by the need to bring infrastructure inherited from the Navy up to State and City standards and by the lack of profit making uses to help pay for needed improvements.</td>
</tr>
</tbody>
</table>
## APPENDIX D: VISION SCORECARD

<table>
<thead>
<tr>
<th>Vision Element</th>
<th>Findings</th>
</tr>
</thead>
</table>
| **Build Master Planned Communities that Support Walking, Biking, and Transit Use** | o Residential development was slowed by economic conditions after 1997, but rebounded sharply, averaging 800 to 900 units/year until recently.  
  o Affordable housing units have been required and built in all major residential developments in ‘Ewa.  
  o Until recently, subdivision layouts have often not supported walking, biking, utility vehicle circulation, connectivity with adjacent areas, or transit use.  
  o New Express Buses, a hub-and-spoke system of collector buses, and a temporary Kapolei Transit Center were established.  
  o Major east-west and mauka-makai connections are being established with the development of areas on both side of Kualaka‘i Parkway in East Kapolei and in West Kapolei from Maka‘iwa Hills to Kalaeloa Barbers Point Harbor.  
  o A proposed Bus Rapid Transit system between ‘Ewa and downtown Honolulu has been abandoned.  
  o The final environmental impact study for a fixed guideway transit system to link Kapolei with downtown Honolulu has been approved by the Federal Transit Administration and by the Governor. The contract has been awarded to build the initial segment from East Kapolei to Pearl Highlands which is expected to be completed by 2013. Extension to Ala Moana Shopping Center is expected by 2019.  
  o A rapid transit right-of-way has been retained along Kapolei Parkway, Kualaka‘i Parkway (North-South Road), and Farrington Highway.  
  o Little progress has been made in establishing town centers and main street areas, often due to regulatory restrictions and lack of market interest.  
  o Creating vital pedestrian-friendly, mixed-use, Transit Oriented Development around transit stations in ‘Ewa will be a significant challenge and opportunity in the next few years. The Public Review Draft of the [East Kapolei Neighborhood TOD Plan](#) was circulated for comments in April 2010. |
| **Protect Natural, Historical, and Cultural Resources** | o Protection of natural, historical and cultural resources has been included as a condition of land use approvals.  
  o Honouliuli Camp and ‘Ewa Field have been identified as significant historic resources which should be protected until they can be surveyed and appropriate protections / mitigations identified. |
<table>
<thead>
<tr>
<th>Vision Element</th>
<th>Findings</th>
</tr>
</thead>
</table>
| Phase Development and Provide Adequate Infrastructure | - State and County infrastructure development has continued, but providing transportation and schools capacity concurrently with residential development remains a critical challenge.  
- Key roadway connections within ‘Ewa have been completed. The 2002 ‘Ewa Highway Master Plan identified 13 major projects needed to be completed by 2010 to meet expected growth. Work is either completed or under construction with completion expected in 2011 for eight of the projects. Three projects are partially complete and funding is being sought for completion, one project is under design, and one project is on hold until development of the Kapolei West project is begun.  
- The Master Plan has been updated to identify an additional eight priority ‘Ewa roadway and interchange projects needed by 2020.  
- Since 1997, improved express bus service and the Zipper Lane have been added to provide alternatives for the commute to Honolulu, but the quality of the commute for most has not improved.  
- Operation of a high-speed commuter ferry, begun in 2007, was not continued due to lack of patronage and substantial cost.  
- The high-speed rapid transit system is expected to provide initial hourly capacity by 2020 sufficient to carry 90% of the number of peak hour drivers and passengers that were commuting from ‘Ewa and Wai‘anae in 2005.  
- The City has fully supported the DOE’s efforts to provide capacity for existing and new developments through requirements on developers to provide their fair share of land and construction costs which if not met, result in denials of permits.  
- If permanent classrooms are to be built in time to meet expected demand and relieve existing crowding, State appropriations must be made now for three elementary schools, a middle school, and a high school.  
- Community Facility District financing for new developments and Tax Increment Financing (TIF) for redevelopment projects offer a way to finance development of roads and other needed infrastructure concurrently with residential and commercial development. SB693 (2011) which would amend the State Constitution to resolve concerns about TIF constitutionality, was held in committee by the 2011 State Senate. |

Historical and projected indicators for each of the Vision elements are provided on the following pages.
# APPENDIX D: VISION SCORECARD

## GOAL 1: PROTECT AGRICULTURAL LANDS AND OPEN SPACE

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protect Agricultural Lands and Open Space</strong></td>
<td></td>
</tr>
<tr>
<td>Community Growth Boundary (CGB)</td>
<td>• No land outside the CGB has been approved for urban use since the CGB was adopted in 1997</td>
</tr>
<tr>
<td>Acres in P-1 &amp; P-2 zoning</td>
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</tr>
<tr>
<td>Acres of Agricultural Land</td>
<td>• The Kunia Agricultural Research Station is protected from urban development by the Community Growth Boundary.</td>
</tr>
<tr>
<td>Create the Open Space and Greenways Network</td>
<td>• Limited farming is occurring in the PHNMC ESQD West Loch area</td>
</tr>
<tr>
<td>Acreage of Planned Open Space inside CGB</td>
<td>• Aloun Farms, Sugarland Farms &amp; Sygenta Seeds farming 1,500 acres below H-1 in Phase 2 &amp; 3 Areas within the CGB Proposed Plan revision eliminates phasing.</td>
</tr>
<tr>
<td>Percent of total land inside CGB in Planned Open Space</td>
<td>1999 Closure of BPNAS allowed greatly increased public access to Kalaeloa shoreline</td>
</tr>
<tr>
<td>Accessible Beach Park Frontage (miles)</td>
<td>• Navy retains control of White Plains Beach Park and Nimitz Beach Park but allows public use.</td>
</tr>
<tr>
<td>Maintain and Expand Frontage</td>
<td>• Iroquois Point Beach Park was opened to public use in 2008</td>
</tr>
<tr>
<td><strong>See Key to Abbreviations on p. D-24</strong></td>
<td>• Two beach parks at Ko Olina are still under Ko Olina Resort control but are required to be dedicated to City.</td>
</tr>
</tbody>
</table>

### ACHIEVEMENTS

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL¹</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect Agricultural Lands and Open Space</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Growth Boundary (CGB)</td>
<td></td>
<td></td>
<td></td>
<td>• No land outside the CGB has been approved for urban use since the CGB was adopted in 1997</td>
</tr>
<tr>
<td>Acres in P-1 &amp; P-2 zoning</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>2.7⁷</td>
<td>4.6⁷</td>
<td>5.7⁷</td>
<td>5.7⁷</td>
</tr>
</tbody>
</table>

1. GOAL 1

See Key to Abbreviations on p. D-24

Department of Planning and Permitting

‘Ewa Development Plan 5-Year Review
### APPENDIX D: VISION SCORECARD

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL</th>
<th>的历史趋势</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Course Acreage</td>
<td>Retain or Increase Golf Course Acreage</td>
<td>145</td>
<td>1,523</td>
<td>1,712</td>
</tr>
<tr>
<td></td>
<td>Plans for Makakilo Golf Course abandoned.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hoakalei Country Club golf course open for play 2009, club house not completed.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Golf course planned for Kapolei West (old Ko Olina Phase II).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to Trailheads from New Development</td>
<td>Maintain/Add Access</td>
<td>As of 2008, Makaiwa Hills access to Pālehua Road required by Urban Design Plan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public and Private Park Acreage</td>
<td>Maintain Existing Parks; Add Needed Park Land</td>
<td>211</td>
<td>345</td>
<td>355</td>
</tr>
<tr>
<td>Develop Kalaeloa Regional Park</td>
<td>Acquire 421 acres from the National Park Service and developed it for beach and outdoor recreation uses, and for a downtown Kalaeloa neighborhood park</td>
<td>n/a</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Transfer of 421 acres for Kalaeloa Regional Park delayed by Navy carrier port decision; transfer to City expected to be completed in 2011.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ord. 10-12 appropriated $50,000 to update the Regional Park Master Plan.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop Community Based Parks</td>
<td>Meet standard</td>
<td>0</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Standard is 1 acre of district park / 1,000 population)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘Ewa will need to add seven District Parks by 2035</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX D: VISION SCORECARD

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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HISTORICAL TRENDS</td>
</tr>
<tr>
<td>Other Community-Based Park Acreage</td>
<td>Meet standard</td>
</tr>
<tr>
<td>% of Standard met</td>
<td>Meet 100% of need</td>
</tr>
</tbody>
</table>

- Standard is 1 acre of community based park / 1,000 pop.
- ‘Ewa will need to add 75 acres of community and neighborhood parks and recreational centers by 2035

## GOAL 2: DEVELOP THE SECONDARY URBAN CENTER AROUND THE CITY OF KAPOLEI

### Develop the City of Kapolei

<table>
<thead>
<tr>
<th>Roadway Network Completion Percent</th>
<th>Complete modified grid street network</th>
<th>NA</th>
<th>21(^{10})</th>
<th>33(^{10})</th>
<th>61(^{10})</th>
<th>?(^{10})</th>
<th>?(^{10})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Non-construction Jobs</td>
<td>Create 19,700 Jobs(^{11})</td>
<td>50</td>
<td>1,800(^{11})</td>
<td>9,300(^{11})</td>
<td>15,100(^{11})</td>
<td>18,600(^{11})</td>
<td>19,700(^{11})</td>
</tr>
<tr>
<td>Housing Units</td>
<td>Build 2,800 Units(^{11})</td>
<td>0</td>
<td>0</td>
<td>240(^{11})</td>
<td>1,500(^{11})</td>
<td>2,400(^{11})</td>
<td>2,800(^{11})</td>
</tr>
</tbody>
</table>

- As of 2011, 61% of the planned network was either complete or under construction.
- Kapolei Hale, Kapolei Police Station, Kapolei Public Library, Kakuhihewa State Office Building and the Ronald T.Y. Moon Judiciary complex are open.

### Develop Ko Olina and Hoakalei Resorts

<table>
<thead>
<tr>
<th>Visitor Units</th>
<th>Provide 7,200 Visitor Units(^{11})</th>
<th>16(^{12})</th>
<th>392(^{11})</th>
<th>1,150(^{11})</th>
<th>6,500(^{11})</th>
<th>7,000(^{11})</th>
<th>7,200(^{11})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitor Attractions at Resorts</td>
<td>Develop two Marinas with adjacent resort commercial areas</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

- Over 500 units of a 750-unit Marriott timeshare resort at Ko Olina have been completed.
- 800-unit Disney hotel and timeshare resort scheduled to open in 2011.

- Ko Olina Marina completed (2000), but without adjacent commercial area;
- Hoakalei Marina under construction;
- Ko Olina Aquarium not built and tax credit not used

See Key to Abbreviations on D-24
## APPENDIX D: VISION SCORECARD

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<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
</tbody>
</table>
| **Non-resort Visitor Attractions in ‘Ewa** | Add three off-resort Visitor Attractions to ‘Ewa | 313 | 4 | 4 | 5 | 5 | 5 | • Hawaiian Waters Adventure Park (now Wet’n’Wild Hawaii) opened 1999;  
• 1997 theme park plans for Kapolei Harborside area abandoned;  
• ‘Ewa Plantation Villages festival marketplace plans not realized;  
• Kapolei Industrial Park movie studio with visitor attractions proposed in 2007. |
| **Create Jobs** | | | | | | | | |
| Total Non-Construction Jobs in ‘Ewa | Provide 87,200 Jobs | 11,600 | 16,400 | 33,500 | 58,500 | 78,500 | 87,200 | |
| Armed Forces & Public Administration | 4,800 Jobs | 5,600 | 2,100 | 3,100 | 4,400 | 4,700 | 4,800 | Sharp reduction between 1990 and 2000 reflects BPNAS closure. |
| Transportation, Communications, and Utilities | 2,100 Jobs | 300 | 1,100 | 1,200 | 1,500 | 1,900 | 2,100 | |
| Hotel | 2,900 Jobs | 0 | 500 | 600 | 2,100 | 2,700 | 2,900 | |
| FIRE, Services, & Retail | 72,400 Jobs | 4,000 | 10,100 | 26,900 | 46,900 | 64,700 | 72,400 | |
| Industrial Jobs | 4,800 Jobs | 1,200 | 2,20011 | 1,50011 | 3,30011 | 4,30011 | 4,80011 | |
| **Develop the University of Hawai‘i West O‘ahu** | | | | | | | | |
| Campus Construction | Complete Campus Construction | No | No | underway | underway | complete by 2025 | n/a | • Construction of the new campus began in 2010  
• Classes in Phase I of the new campus expected in fall 2012.14 |
| Student Enrollment | Enroll 7,600 Students | 65215 | 66516 | 1,47116 | 3,80017 | 7,60018 | 7,60018 | |
| Faculty & Staff jobs | Provide 1,040 Jobs | 3019 | 4719 | 9320 | 27019 | 1,04018 | 1,04018 | |
| **Redevelop BPNAS / Kalaeloa** | | | | | | | | |
| Non-construction Jobs | Provide 8,100 Jobs | 5,700 | 900 | 1,200 | 2,200 | 6,400 | 8,100 | • National Guard relocation completed; 250 FT jobs at site.21 |
## APPENDIX D: VISION SCORECARD

### GOAL 3: BUILD MASTER PLANNED COMMUNITIES THAT SUPPORT WALKING, BIKING, & TRANSIT USE

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Develop Housing Needed to Meet General Plan Population Goal</td>
<td></td>
<td>11,734</td>
<td></td>
<td>20,878</td>
</tr>
<tr>
<td>Total Housing Units</td>
<td>Provide 56,300 units</td>
<td>11,734</td>
<td>20,878</td>
<td>29,900</td>
</tr>
<tr>
<td>Units Built/Yr in preceding 10yrs/5 yrs</td>
<td>Build 1,000 units/year (2000-2035)</td>
<td>200</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>Share of O'ahu Total</td>
<td>Build 14% by 2035</td>
<td>4%</td>
<td>7%</td>
<td>9%</td>
</tr>
<tr>
<td>Provide a Wide Variety of Housing and Meet the Need for Affordable Housing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Townhouses and Low Rise Apartments</td>
<td>Increase Share</td>
<td>2,097</td>
<td>5,347</td>
<td>7,600</td>
</tr>
<tr>
<td>% Townhouses and Low Rise Apartments</td>
<td>Provide 25% of housing as TH/Apt</td>
<td>18%</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>Affordable Units Built in preceding 10yrs/5yrs</td>
<td>Require 30% of private developments to be affordable units</td>
<td>400</td>
<td>5,700</td>
<td>1,900</td>
</tr>
<tr>
<td>Average Affordable Units built/yr in preceding 10yrs/5yrs</td>
<td>Build at least 300 affordable units/year (2000-2035)</td>
<td>60</td>
<td>570</td>
<td>210</td>
</tr>
</tbody>
</table>

- Townhouse and Low Rise Apartments help meet the need for affordable units appropriate for smaller households.
- Totals include both units required to be built as a condition of zoning (under Unilateral Agreements) and units in State and City projects.
- City policy requires 30% of all new housing projects approved by zone changes be affordable units.

---

Increase ‘Ewa’s Share of O’ahu Population to Meet General Plan Goal

| ‘Ewa Population | Reach pop. of 164,600 | 42,983 | 68,718 | 94,500 | 123,100 | 151,300 | 164,600 |
| ‘Ewa Share of O’ahu Population | Reach 13.0% by 2025 (No Goal Set for 2035) | 4.7% | 7.8% | 10.4% | 12.7% | 14.9% | 15.9% |
| ‘Ewa Share of O’ahu Population Growth in preceding 10yrs/5 yrs | Absorb 60.2% from (1990 to 2035) | 9.9% | 64.4% | 72.3% | 49.6% | 58.7% | 63.8% |

- ‘Ewa was the fastest growing area on O’ahu in 1990’s;
- General Plan goal is for ‘Ewa to have 13% of O’ahu population in 2025.

---

Department of Planning and Permitting 
‘Ewa Development Plan 5-Year Review
## APPENDIX D: VISION SCORECARD

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<tr>
<td><strong>Support Biking, Walking, and Transit as Alternatives to Use of the Automobile</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bikeways &amp; Walkways Incorporated in new projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Major Roadways. Bike/Pedestrian Paths Separated by Landscape Buffer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Bike Lanes 4-6 feet wide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Traffic Calming Integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply Guidelines in development reviews and approvals, and Adopt Guidelines as best practice standards or as development regulations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Development Regulatory Codes and Standards were not formally revised, but inclusion of bikeways and walkways was considered as part of more emphasis on connectivity in review and approval of subdivision applications.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• DP Connectivity Guidelines were often included either directly as requirements of Unilateral Agreements (UAs) approved as part of zone changes or standards used in review and approval of Urban Design Plans required by UAs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• <strong>Ewa Roadway Connectivity Study</strong> (2009) was prepared for use by DPP as a reference for review of development proposals, particularly for determining the locations of future streets and bikeways.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Asing Park Bike Path project would have connected bike paths in the Park to the Leeward O‘ahu Bikeway (LOB); funds for design and construction was appropriated and the design completed but construction was canceled after 2005 due to budget constraints and the uncertain completion date for the Leeward O‘ahu Bikeway. 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Design of Phase I of the Leeward O‘ahu Bikeway (Waipi‘o Point Access Road to the Hawaiian Railway Society Train Station by ‘Ewa Villages) is in the final stages, and design of Phase II from the Train Station to Lualualei Naval Access Road in Nānākuli are beginning. 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Support Future Rapid Transit Corridor &amp; Create Transit Oriented Subdivision Layouts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-of-Way for ‘Ewa Transit Corridor</td>
<td>Preserve 28’ Transit Right-of-Way</td>
<td>The requirement to reserve a transit right-of-way on Kapolei Parkway, North-South Road, and Farrington Highway was established in 1990 by the Ord. 90-30 Unilateral Agreement and extended in 2004 with the Ord. 04-45 Unilateral Agreement.</td>
</tr>
<tr>
<td>Status of Six ‘Ewa Transit Nodes</td>
<td>Adopt Plans and Zoning to Support Mixed Use Transit Oriented Development</td>
<td>Hub and Spoke bus transit system was implemented with a bus transit hub in the City of Kapolei . Mixed use zoning has been established in the City of Kapolei and around the two transit station locations near the UH West O‘ahu campus in East Kapolei. The Public Review Draft East Kapolei Neighborhood TOD Plan with proposed overlay zoning for three transit nodes in East Kapolei was circulated for review and comment in 2010.</td>
</tr>
<tr>
<td>Transit Friendly Subdivisions 32</td>
<td>Adopt and Apply Standards</td>
<td>As part of reviews of transportation master plans required for development approval, developers are required to provide of sufficient right-of-way for bus transit stops and wide outs, and to design the roadway network so that a reasonable and efficient bus route can be established when needed in the future, and that 85% of residents will be within a ¼ mile of a bus stop.</td>
</tr>
<tr>
<td>Connectivity for pedestrians and bike riders</td>
<td>Adopt and Apply Standards</td>
<td>As a result of discussions in 2004 about connectivity problems in ‘Ewa, new subdivisions are required to meet basic connectivity standards in their transportation master plans. DPP published the <strong>Ewa Roadway Connectivity Study</strong> in 2009 to provide guidance to developers and reviewers on how improved connectivity within and between ‘Ewa neighborhoods should be implemented in the design of new streets, pedestrian paths, and bikeways.</td>
</tr>
</tbody>
</table>
# APPENDIX D: VISION SCORECARD

## Create Distinctive Neighborhoods

<table>
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<tr>
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<th>2020 GOAL</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Distinctive Neighborhoods</td>
<td>Achieve Guideline as Best Practice Standards, Regulations, or Design Plans</td>
<td>Most major developments in 'Ewa must comply with DPP approved Urban Design Plans required under UA conditions adopted as part of City Council zone change approvals. All new roadways are required to have DPP approved street tree plans.</td>
<td></td>
</tr>
</tbody>
</table>

## GOAL 4: PROTECT NATURAL, HISTORICAL, and CULTURAL RESOURCES

### Preserve Natural Gulches & Drainageways

- 'Awanui Gulch
- Honouliuli Stream
- Kalo'i Gulch
- Keone'o'io Gulch
- Limaloa Gulch
- Maka'iwa Gulch
- Makakilo Gulch
- Makalapa Gulch
- Pālailai Gulch

<table>
<thead>
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<th>Indicators</th>
<th>2020 GOAL</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserve Natural Gulches &amp; Drainageways</td>
<td>Retain Natural Drainageways; Use Drainageways for recreation areas and bikeways and trails where possible</td>
<td>Kalo'i Gulch has been channelized along Kualaka'i Parkway and where it flows under Renton Road and Kapolei Parkway. Below Renton Road, waters features in Coral Creek Golf Course and Hoakalei Country Club are designed to store and transport flows from Kalo'i Gulch. Other than the use of golf courses to store and transport Kalo'i Gulch flows, no adaptations of streams or drainageways to provide recreational areas or biking and walking trails have been done. A UA condition adopted as part of Ord. 04-46 for the Mehana at Kapolei project zone change requires &quot;the regional drainage corridor abutting the mauka side of the OR&amp;L right-of-way&quot; to be &quot;developed as a grass-lined drainage system with trees along a bicycle path, open for public use, within or abutting the drainage system.&quot; Fragmentation of ownership responsibilities and concerns about maintenance and security responsibilities are obstacles to realizing this vision element.</td>
<td></td>
</tr>
</tbody>
</table>

### Preserve Wildlife Sanctuaries

- Pearl Harbor National Wildlife Refuge: Honouliuli Unit Kalaeloa Unit
- Honouliuli Preserve
- Apoka'a Ponds (West Loch Estates & Golf Course)
- Hoakalei Kauhale Preserve (Batis Salt Marshes)

<table>
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<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserve Wildlife Sanctuaries</td>
<td>Preserve Sanctuaries and Establish Buffers</td>
<td>Wildlife sanctuary lands were preserved, and minimization of impacts on the sanctuaries was a consideration in land use and infrastructure planning during the review period. The Trust for Public Lands, using funds from the State, the U.S. Army, and the U.S. Fish and Wildlife Service, purchased the 3,592 acre Honouliuli Preserve watershed area in the Wai'anae Mountains from the Campbell Estate and transferred it to the State Department of Land and Natural Resources in 2010. The Navy released the Public Review Draft of the Naval Station Pearl Harbor Integrated Natural Resources Management Plan for review and comment in 2010. The proposed Plan would update existing plans to guide natural resource management in the West Loch of Pearl Harbor and Navy retained lands in Kalaeloa.</td>
<td></td>
</tr>
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</thead>
<tbody>
<tr>
<td><strong>Preserve Significant Views &amp; Vistas</strong></td>
<td>Consider Significant Views and Vistas in Project Reviews and Approvals</td>
<td><strong>Preserve Significant Views and Vistas by imposing appropriate limits and mitigations</strong></td>
</tr>
<tr>
<td>• Views from H-1 Freeway to Shoreline</td>
<td><strong>See documentation of scenic views and vistas in Appendix E: Scenic View Inventory, 2009.</strong></td>
<td><strong>Most projects reviewed and approved from 1997 through 2010 had little if any impact on the significant views and vistas identified in the DP.</strong></td>
</tr>
<tr>
<td>• Ocean Views from Farrington Hwy between Kahe Pt and Wa’anae / Ewa DP boundary</td>
<td>• Impacts on views were considered during reviews of both the Waimānalo Gulch Expansion Special Use Permit and the Makakilo Quarry Expansion Special Use Permits. Both permits include requirements that when the land fill or quarry operations are ended at the sites, the surfaces at the sites must be returned to a natural state which is consistent with the surroundings.</td>
<td></td>
</tr>
<tr>
<td>• Views of Wa’anae Range from H-1 &amp; Kunia Rd.</td>
<td>• The City of Kapolei Urban Design Plan was amended in 2008 to show increased maximum building heights for core parcels in the City of Kapolei, adding seven blocks that could build to 150 feet and ten blocks that could build to 120 feet. Such heights may impact some views of nā puʻu. However, zoning changes allowing the heights will need to be approved, and specific view impacts can be assessed during the review of the zone change and limits and/or mitigations could be required as a condition of zoning if appropriate.</td>
<td></td>
</tr>
<tr>
<td>• Views of nā puʻu at Kapolei, Pālailai, and Makakilo</td>
<td><strong>Maintain a 50’ setback on both sides of the 40’ Right-of-Way</strong></td>
<td><strong>Maintain house and grounds as close to its historic condition as possible</strong></td>
</tr>
<tr>
<td>• Mauka/Makai Views</td>
<td>The Lanikūhonua Cultural Institute operates and maintains the house and grounds “to preserve, promote, and display the cultural traditions of Hawai‘i”.</td>
<td>The site continues much as it was in 1997 when the ‘Ewa DP was adopted.</td>
</tr>
<tr>
<td>• Views of Central Honolulu &amp; Diamond Head from Shoreline</td>
<td>The OR&amp;L rails and right-of-way between Fort Weaver Road and Nānākuli are on the National Register of Historic Places. The railway rolling stock are on the State Register of Historic Places.</td>
<td>The Hawai‘i Railway Society operates a historic train ride from their yard near Varona Village to Kahe Point. Extension on to Nānākuli would be difficult due to incursions into the R-O-W by Farrington Highway.34</td>
</tr>
<tr>
<td><strong>Preserve Historic &amp; Cultural Landmarks</strong></td>
<td>The OR&amp;L R-O-W have been required as conditions of zoning for projects along the R-O-W.</td>
<td>Restoration of historic railway operations between ‘Ewa Villages and Waipahū Cultural Garden is infeasible due to the presence of gas lines in the roadbed from near the West Loch Shoreline Park. Operators of the gas lines have long term leases and will not allow rail operations above their gas lines.34</td>
</tr>
</tbody>
</table>

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34. For more details, refer to the 5-Year Review document. Page D-15
### APPENDIX D: VISION SCORECARD

<table>
<thead>
<tr>
<th>Vision Element</th>
<th>Indicators</th>
<th>2020 GOAL</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
</table>
| ‘Ewa Plantation Villages | Restore Housing And Make Adaptive Use Of Plantation Buildings                | • ‘Ewa Plantation Villages is on Hawai‘i State Register of Historic Places.  
• Restored and replacement housing built in Tenney and Renton Villages has preserved the form and historic character of the villages.  
• Adaptive use has been made of the historic administration building and community store, but plans for adaptive use of the Manager's Mansion and the Mill Site have not been implemented. |
| Pearl Harbor National Historic Landmark | Protect historic resources and buffer sites                                      | • The U.S. Naval Base, Pearl Harbor National Historic Landmark is a Federally protected site which is an operational Navy base.  
• Protection of historic resources at Pearl Harbor is governed by a programmatic agreement signed in 2003. |
| Barbers Point Archaeological District – Kala'ela Barbers Point Harbor | Consider historic and cultural resources in project reviews and require the resources to be mitigated or protected and buffered. | • Barbers Point Archaeological District was established by the DLNR State Historic Preservation Division (SHPD) in the 1970s to facilitate the archaeological review of Kala'ela Barbers Point Harbor, and was determined to be eligible for listing on the National Register of Historic Places.  
• Over 130 archaeological sites were destroyed during construction of Barbers Point Harbor in the 1970s.  
• Since the 1970s, requirements have tightened significantly, and protection and mitigation of specific historic resources as approved by SHPD has been required as a condition of approvals for expansions of Kala'ela Barbers Point Harbor. |
| One'ula Archaeological District – Ocean Pointe / Hoakalei | Consider historic and cultural resources in project reviews and require the resources to be mitigated or protected and buffered. | • One’ula Archaeological District was determined to be eligible for listing on National Register of Historic Places.  
• Protection and mitigation of historic resources in the District was required as a condition of land use approvals. A comprehensive survey of historic resources was done, and significant sites were identified for protection. The developer entered into a Memorandum of Agreement with the SHPD for a protection and interpretation program for the selected sites. |

### GOAL 5: PHASE DEVELOPMENT AND PROVIDE ADEQUATE INFRASTRUCTURE

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop the ‘Ewa Highway System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Extensions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Farrington Highway (2020 ORTP C-2) | Widen to 4 lanes from Fort Weaver Road to Kala'ela Boulevard by 2000 | • Farrington Highway is four lanes between Golf Course Road and Kamokila Boulevard. It is still two lanes from Golf Course Road to Fort Weaver Road.  
• The Fort Weaver Road to Golf Course Road project is pending funding. ORTP2035 20C/ Phasing: 2011 to 2020. It is identified in the 2011 ‘Ewa Highway Master Plan as a project needed by 2020. |
## APPENDIX D: VISION SCORECARD

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL</th>
<th>ACHIEVEMENTS</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
</table>
| **Fort Barrette Rd. (2020 ORTP S-10)** | Widen to 4 lanes from H-1 to Kapolei Parkway by 2000 | • Widening from H-1 to Farrington Highway completed by State.  
• Identified in 2002 **'Ewa Highway Master Plan** and Ord. 02-52 as a project needed by 2010.  
• Project extended to Roosevelt Avenue.  
• Final Environmental Assessment accepted and FONSI issued 2006.  
• Project under design. Construction scheduled for 2014.  
• Identified in 2011 **'Ewa Highway Master Plan** as a project needed by 2020, including extension to Saratoga Avenue.  
• Included in **ORTP 2035** as project 21S to Roosevelt and project 56C Roosevelt to Saratoga Avenue to be completed 2011-2020. |
| **Kunia/ Fort Weaver Road (2020 ORTP S-20)** | Widen to 6 lanes from H-1 to Renton Road by 2005 | • Kunia Road widening from H-1 Freeway to Farrington Highway completed 1994  
• Identified in 2002 **'Ewa Highway Master Plan** and Ord. 02-52 as a project extending to North Road and needed by 2010.  
• Fort Weaver Road widening from Farrington Highway to ‘A’awa Drive completed 2006.  
• Fort Weaver Road widening from ‘A’awa Drive to Geiger Road completed 2010.  
• Widening from Geiger Road to North Road not included in 2011 **'Ewa Highway Master Plan** or **ORTP2035**. |
| **Kalaeloa Boulevard (2020 ORTP S-21)** | Widen by 2005 | • Kalaeloa Property Development (KPD) completed Phase 1 (H-1 to Lauwiliwili Street) in 2009.  
• City to begin Phase II (Lauwiliwili Street to Olai Street) in 2011. **ORTP 2035 17 C**/ Phasing: 2011 to 2020.  
• Phase III start by KPD yet to be determined. |
• Included in 2011 **'Ewa Highway Master Plan** as a project needed by 2020. |
| **Farrington Highway (2020 ORTP S-31)** | Widen to 6 lanes from Kalaeloa Blvd to Hakimo Road in Nānākuli by 2020 | • Project pending funding. **ORTP 2035 54 S**/ Phasing: 2021 to 2035 |
| **H-1 HOV Median lane (2020 ORTP HOV-7)** | Build from Makakilo to Waiawa Interchange by 2020 | • AM HOV Zipper lane running from Waikele Stream to near Honolulu International Airport completed 1998.  
• State seeking funds for extending the Contra-Flow Lane from Waiawa Interchange to Kunia Interchange. **ORTP 2035 28 S**/ Phasing: 2011 to 2020.  
(Construction of the first phase of the Contra-Flow Lane project running from the Radford Drive Overpass to the Waiawa Interchange was scheduled to begin in 2010 but delayed by a law suit.) |
## APPENDIX D: VISION SCORECARD

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<thead>
<tr>
<th>Vision Element Indicators</th>
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<th>ACHIEVEMENTS</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
</table>
| **Kapolei Parkway,**  
(2020 ORTP C-5)**42** | Build by 2000**43** | • Identified in 2002 *Ewa Highway Master Plan* and Ord. 02-52 as a project needed by 2010.**46**  
• Haseko completed the segment from Pāpī Road to Gentry ‘Ewa Makai project boundary in 2006**47**  
• Gentry completed the segment from OceanPointe project boundary to Puamāʻole Street in 2006**48**  
• City completed the segment from Puamāʻole Street to Kualakaʻi Parkway in 2009  
• DHHL completed the segment from Kapolei Middle School to Kualakaʻi Parkway in 2009.  
• The Housing and Community Development Corporation of Hawaii, the predecessor agency to the Hawaiʻi Housing Finance and Development Corporation, completed Kapolei Parkway from Kapolei Middle School to Fort Barrette Road in 1994 **49**  
• D.R. Horton completed the segment from Fort Barrette Road to Kūnehi Street in 2009.**50**  
• City will complete the segment from Kūnehi Street to Kamāʻaha Avenue in 2011.  
• City is seeking funding to build segment from Kamāʻaha Avenue to Kamokila Boulevard. **ORTP 2035 19 C/ Phasing 2011 to 2020.**  
• Kapolei Property Development completed the segment from Kamokila Boulevard to the western border of the Kapolei Commons project in 2009  
• Completion of the segment from Kapolei Commons to the eastern end of ‘Aliʻi Nui Drive will occur during the construction of backbone infrastructure for the Kapolei West project. **ORTP C18/ Phasing 2011 to 2020.**  
• Completion from ‘Aliʻi Nui Drive to Kamāʻaha Avenue identified in 2011 *Ewa Highway Master Plan* as a project needed by 2020.**55** |
| **Kualakaʻi Parkway,**  
(North-South Road)  
(2020 ORTP S-19)**42** | Build new mauka-makai roadway by 2005**43** | • Identified in 2002 *Ewa Highway Master Plan* and Ord. 02-52 as a project needed by 2010.**46**  
• State completed a three lane roadway between Kapolei Parkway and the H-1 Freeway in 2010.  
• State seeking funding to widen the roadway to six lanes from Kapolei Parkway to the H-1 Freeway and to extend from Kapolei Parkway to Roosevelt Avenue. **ORTP 2035 22 S/ Phasing 2011 to 2020.**  
• Extension to Roosevelt Avenue identified in 2011 *Ewa Highway Master Plan* as project needed by 2020.**55** |
| **H-1 Kunia Interchange Improvements,**  
• State seeking funds to add East Bound lane. **ORTP 2035 71 S (Illustrative)** **44** |
| **H-1 Makakilo Interchange Improvements,**  
(2020 ORTP S-2)**42** | Build by 2000**43** | • Identified in *Ewa Highway Master Plan* (2002) and Ord. 02-52 as a project needed by 2010.**46**  
• Phase I completed by State. Phase II under construction and expected to be completed in 2011. |
| **H-1 Pālailai Interchange Improvements,**  
(2020 ORTP S-17)**42** | Build by 2005**43** | • Under design. State seeking funding for construction. **ORTP 2035 16 S/ Phasing: 2011-2020.** |
### APPENDIX D: VISION SCORECARD

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<thead>
<tr>
<th>Vision Element</th>
<th>Indicators</th>
<th>ACHIEVEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>New H-1 Kapolei Interchange</td>
<td>(2020 ORTP S-27)</td>
<td>Build by 2000&lt;sup&gt;43&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identified in 2002 ‘Ewa Highway Master Plan’ and Ord. 02-52 as a project needed by 2010&lt;sup&gt;46&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Under construction. Phase I due for completion in 2011. State seeking funding for construction of later phases. ORTP 2035 15 S/ Phasing: 2011-2020&lt;sup&gt;44&lt;/sup&gt;</td>
</tr>
<tr>
<td>Kualaka’i Parkway (North-South Road)</td>
<td>Interchange</td>
<td>Build by 2005&lt;sup&gt;53&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>(2020 ORTP S 19)</td>
<td>• Identified in 2002 ‘Ewa Highway Master Plan’ and Ord. 02-52 as a project needed by 2010&lt;sup&gt;46&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Completed by State in 2009</td>
</tr>
<tr>
<td>New H-1 Maka‘iwa Hills Interchange</td>
<td>(2020 ORTP S-32)</td>
<td>Build by 2020&lt;sup&gt;43&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Awaiting Maka‘iwa Hills project development.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Developer required to contribute fair share of cost as a condition of zoning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Not included in the ORTP 2035.</td>
</tr>
</tbody>
</table>

#### Additional Elements<sup>41</sup>

<table>
<thead>
<tr>
<th>Vision Element</th>
<th>Indicators</th>
<th>ACHIEVEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalaeloa Connectors</td>
<td>Link Fort Barrette Road and Kalaeloa Regional Park</td>
<td>State seeking funding for a new four-lane, east-west spine road within Kalaeloa realigning and connection portions of the existing Saratoga Avenue from Kalaeloa Boulevard in the west to Geiger Road in the east. ORTP 2035 57 S/ Phasing: 2021-2035</td>
</tr>
<tr>
<td>Kalaeloa Connectors</td>
<td>Extend Kualaka’i Parkway into Kalaeloa Regional Park</td>
<td>See discussion of Kualaka’i Parkway in preceding section (ORTP 2035 22 S/ Phasing: 2011 – 2020) and discussion of Keone‘ula Boulevard below (ORTP 2035 23 S/ Phasing 2011 to 2020)</td>
</tr>
<tr>
<td>North-South Roads</td>
<td>Build additional north-south roads near the City of Kapolei</td>
<td>Kamokila Boulevard extension between Roosevelt Avenue and Saratoga Avenue. ORTP 2035 55 C/ Phasing: 2021-2035</td>
</tr>
<tr>
<td>Makakilo Mauka Frontage Road</td>
<td>Build an east-west road mauka of H-1 Freeway</td>
<td>Under design. State seeking funding. ORTP 2035 58 S/Phasing: 2021-2035</td>
</tr>
<tr>
<td>Keone‘ula Boulevard</td>
<td>Extend to link with a road that connects to Geiger Road</td>
<td>State seeking funding to extend Kualaka’I Parkway (North-South Road) from Kapolei Parkway to Keone‘ula Boulevard. ORTP 2035 23 S/ Phasing 2011 to 2020&lt;sup&gt;44&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extension of Kualaka’i Parkway to Keone‘ula Blvd. identified in 2011 EHMP as project needed by 2020&lt;sup&gt;45&lt;/sup&gt;</td>
</tr>
<tr>
<td>Geiger Road</td>
<td>Extend to link with Fort Barrette Road and Campbell Industrial Park</td>
<td>See discussion of Kalaeloa Connectors above.</td>
</tr>
<tr>
<td>North-South Road</td>
<td>Develop an additional north-south road in East Kapolei</td>
<td>Proposed roadway master plan shown in 2008 EIS for Ho‘opili shows a north-south road paralleling Kualaka’i Parkway and connecting the proposed East-West Road and Farrington Highway&lt;sup&gt;51&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

See Key to Abbreviations on D-24
## APPENDIX D: VISION SCORECARD

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>ACHIEVEMENTS</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
<tr>
<td>Develop the Water System</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potable water use in mgd</td>
<td>Provide adequate potable water supply&lt;sup&gt;52&lt;/sup&gt;</td>
<td>10.6</td>
<td>15.3</td>
<td>16.3</td>
</tr>
</tbody>
</table>
|                           | Non-potable water use in mgd | NA | NA | 16.0 | 18.2<sup>52</sup> | 20.4<sup>52</sup> | 21.5<sup>52</sup> | • Non-potable capacity in 2010 included the Honouliuli Water Recycling Facility (12 mgd) and the Waiāhole Ditch (4.73 mgd).
|                           | Provide adequate non-potable water supply to conserve potable water<sup>52</sup> |      |      |      |      |      |      | • Requirements for dual water lines (potable and non-potable) have been adopted as conditions of zoning for all zone changes in ‘Ewa since 1997, and also have been regularly required as part or water master plans adopted as a condition of subdivision approvals. |
| Develop the Wastewater System | Capacity (in mgd): Primary Treatment | 29<sup>53</sup> | 29<sup>53</sup> | 38<sup>54</sup> | 38<sup>55</sup> | 51<sup>56</sup> | 51<sup>55</sup> | • Honouliuli WWTP (HWWTP) upgraded to primary treatment in 1984<sup>55</sup>Error! Bookmark not defined. |
|                           | Secondary Treatment | 0 | 13<sup>55</sup> | 13<sup>55</sup> | 13<sup>55</sup> | 51<sup>56</sup> | 51<sup>55</sup> | • Secondary treatment facility added to HWWTP in 1996<sup>55</sup> |
|                           | Tertiary Treatment / Water Recovery | 12<sup>57</sup> | 12<sup>55</sup> | 12<sup>55</sup> | 12-15<sup>55</sup> | 12-24<sup>55</sup> |      | • BWS ‘Ewa Reclamation Facility opened in 2000 with capacity to produce 10 mgd of R-1 and 2 mgd of Reverse Osmosis treated water.<sup>57</sup> |
|                           | Wastewater flows (mgd) to Honouliuli WWTP<sup>58</sup> | NA | 21<sup>59</sup> | 27<sup>59</sup> | 27<sup>59</sup> | 30-35<sup>59</sup> | 35-40<sup>59</sup> | 40-45<sup>59</sup> |

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Department of Planning and Permitting

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‘Ewa Development Plan 5-Year Review
<table>
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<th>Vision Element / Indicators</th>
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<th>2020 GOAL</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Electrical Power Systems</td>
<td></td>
<td>GOAL</td>
<td>ACHIEVEMENTS</td>
<td>DISCUSSION</td>
<td></td>
</tr>
<tr>
<td>Number of Power Plants in 'Ewa</td>
<td>Locate power plants in 'Ewa areas planned for industrial use based on islandwide siting studies and evaluations</td>
<td>2&lt;sup&gt;60&lt;/sup&gt;</td>
<td>4&lt;sup&gt;60&lt;/sup&gt;</td>
<td>5&lt;sup&gt;60&lt;/sup&gt;</td>
<td>6&lt;sup&gt;61&lt;/sup&gt;</td>
</tr>
<tr>
<td>Municipal Waste Processed by H-Power (average tons per year for preceding decade)</td>
<td>NA</td>
<td>NA</td>
<td>609,431&lt;sup&gt;62&lt;/sup&gt;</td>
<td>600,442&lt;sup&gt;62&lt;/sup&gt;</td>
<td>825,126&lt;sup&gt;62&lt;/sup&gt;</td>
</tr>
<tr>
<td>Share of Municipal Waste Processed by H-Power Which is Converted to Energy</td>
<td>NA</td>
<td>NA</td>
<td>68.3%&lt;sup&gt;63&lt;/sup&gt;</td>
<td>69.0%&lt;sup&gt;63&lt;/sup&gt;</td>
<td>70%&lt;sup&gt;63&lt;/sup&gt;</td>
</tr>
<tr>
<td>Ferrous and Nonferrous Metal Recovered by H-Power (average tons per year for preceding decade)</td>
<td>NA</td>
<td>NA</td>
<td>9,270&lt;sup&gt;62&lt;/sup&gt;</td>
<td>20,362&lt;sup&gt;62&lt;/sup&gt;</td>
<td>28,097&lt;sup&gt;62&lt;/sup&gt;</td>
</tr>
<tr>
<td>Vision Element / Indicators</td>
<td>ACHIEVEMENTS</td>
<td>2020 GOAL</td>
<td>ACHIEVEMENTS DISCUSSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop Drainage Systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of unlined vegetated drainageways and on-site storm water retention basins</td>
<td>Use where appropriate for water recharge, control of non-point source pollution, and provision of recreation benefits</td>
<td>- Vegetated channels and retention basins for Kalo‘i Gulch have been created as part of the Coral Creek and Hoakalei golf courses and extend to the edge of One‘ula Beach Park;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- On-site storm water retention basins have been required along Kualakai Parkway, in the UH West O‘ahu College lands, and DHHL’s East Kapolei project.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- A Unilateral Agreement condition adopted as part of the Mehana at Kapolei Zone Change requires provision of a tree-lined pedestrian and bike path as part of or abutting the adjacent &quot;grass-lined&quot; drainage corridor, but has not been implemented because of maintenance and liability concerns.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Vision Element Indicators

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<thead>
<tr>
<th>Vision Element</th>
<th>2020 GOAL</th>
<th>ACHIEVEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linking drainageways and retention basins to the regional open space network</td>
<td>Create passive recreation areas and pedestrian and bike paths</td>
<td>• Little progress has been made to link vegetated drainage channels and retention basins into the regional open space network as recreational areas or part of pedestrian and bike pathways.</td>
</tr>
</tbody>
</table>
| Use Hoakalei Marina as a storm water storage and detention basin | Complete the Marina as part of the Kalo‘i Gulch drainage system            | • The extent of the Hoakalei Marina was reduced, and the Kalo‘i Gulch drainage plan design was changed to not drain through Hoakalei Marina.  
• As a result, storm waters are required to be held on site until an outlet through One‘ula Beach Park is approved. |
| Kalo‘i Gulch drainage system compatible with the ‘Ewa Villages drainage system | Flows from lands mauka of the ‘Ewa Villages Golf Course do not exceed design levels and velocities | • Drainage systems mauka of the ‘Ewa Villages Golf Course have been required to be designed to hold storm waters and to limit flows to be compatible with the design of the Golf Course storm water holding areas and drainage systems. |

### Vision Element Indicators

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<tr>
<th>Vision Element</th>
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<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop the School System</td>
<td></td>
<td>1990</td>
<td>2000</td>
<td>2010</td>
</tr>
<tr>
<td>Schools Available</td>
<td>Provide adequate permanent classrooms in 64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>17</td>
<td>8</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Intermediate/Middle</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>High School</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>New Schools Built</td>
<td>Build$^{64}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>1$^{58}$</td>
</tr>
<tr>
<td>Intermediate/Middle</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop Public Safety Facilities and Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Fire Stations</td>
<td>Have 6 stations$^{67}$</td>
<td>2$^{68}$</td>
<td>3$^{68}$</td>
<td>3</td>
</tr>
<tr>
<td>Police Beats</td>
<td>Provide adequate staffing</td>
<td>3.5$^{69}$</td>
<td>10$^{69}$</td>
<td>12$^{69}$</td>
</tr>
</tbody>
</table>
## APPENDIX D: VISION SCORECARD

### Key to Abbreviations

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<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
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<tbody>
<tr>
<td>BWS</td>
<td>Honolulu Board of Water Supply</td>
</tr>
<tr>
<td>CAP</td>
<td>Community Action Plans – DPP</td>
</tr>
<tr>
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<td>Civil Engineering Branch – DPP</td>
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<tr>
<td>CGB</td>
<td>Community Growth Boundary (formerly Urban Growth Boundary in 1997 ‘Ewa Development Plan)</td>
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<tr>
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<td>Capital Improvements Program</td>
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<td>City</td>
<td>City &amp; County of Honolulu</td>
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<tr>
<td>DHHL</td>
<td>State Department of Hawaiian Homelands</td>
</tr>
<tr>
<td>DLNR</td>
<td>State Department of Lands and Natural Resources</td>
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<tr>
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<td>mgd</td>
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<td>Waste Water Treatment Plant</td>
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</table>

Notes: **NA** "not available" or "not applicable"
APPENDIX D: VISION SCORECARD

END NOTES

1. Summarized from the ‘Ewa Development Plan (August 1997).
7. Estimated from Department of Planning and Permitting mappings and Department of Design and Construction data.
8. Acreage needed to meet standard based on projected population and Department of Parks and Recreation standards.
9. Cannot project whether the standard will be met because of the uncertainty regarding the pace of private development in key ‘Ewa projects and related dedication to the City of park acres, the level of funding that the Department of Parks and Recreation will receive for operation and development of district park facilities, and the success the HCDA will have in obtaining 70 acres of planned parks as a condition of private development of parcels in Kalaeloa.
10. Based on street completion data provided by Steve Kelly, Vice President, Kapolei Property Development LLC, June 30, 2011. 2020 projection includes only roadway projects under construction in 2011. Unable to project the level of completion beyond current projects due to uncertainty regarding the pace of private development, and the level of funding available for roadway projects.
15. Institutional Research Office, University of Hawai‘i, Fall Enrollment Report University of Hawaiʻi - West O‘ahu Fall 1996, October 1996, p. 4.
17. Projection for 2020 based on average annual growth rate of 11.4% applied to Fall 2105 projection of 2,543 students provided in Institutional Research Office, University of Hawai‘i, Enrollment Projections University of Hawai‘i - West O‘ahu Fall 2010 to Fall 2015, July 2010, p. 4.
APPENDIX D: VISION SCORECARD

18 Projected totals by 2025, telephone conversation with Ryan Mielke, University of Hawai’i West O’ahu Executive Director of Public Affairs, June 8, 2010.
19 E-mail from Lori Foo, University of Hawai’i West O’ahu Fiscal Officer, January 27, 2011.
20 Telephone conversation with Lori Foo, University of Hawai’i West O’ahu Fiscal Officer, December 16, 2010.
21 Most of the O’ahu facilities (85%) are now located at Kalaeloa. Telephone conversation with the Hawai’i Army National Guard Public Affairs Office, June 28, 2011.
22 U.S. Census Bureau, 1990 Census of Population and Housing.
23 U.S. Census Bureau, 2000 Census of Population and Housing.
24 Department of Planning and Permitting, pre-census estimate, September 2009.
25 Department of Planning and Permitting, Socio-Economic Projections, September 2009.
26 Estimated based on the share of townhouse and low rise apartment units for all 'Ewa housing units in the U.S. Census Bureau 2005-2009 American Community Survey and the number of housing units in 'Ewa from the U.S. Census Bureau 2010 Census Redistricting Data (Public Law 94-171).
27 Preliminary estimates based on Department of Planning and Permitting Annual Report on the Status of Land Use on Oahu FY1994 through FY2009 and review of DPP internal records.
28 Projected production of affordable housing assumes that all residential projects either subject to City zoning or under HCDA or DHHL jurisdiction will include at least 30% affordable units.
29 Specifically Resolution 09-241, CD1 requires "that no less than 30 percent of the total dwelling units in the project shall be affordable to households with incomes not exceeding 140 percent of the median income for Honolulu, with no less than 20 percent of the total dwellings units being affordable to households with incomes not exceeding 120 percent of the median income, and with no less than 10 percent of the total number of dwelling units being affordable to households with incomes not exceeding 80 percent of the median income." (pp. 2-3)
30 Telephone conversations with Chris Sayers, City Bicycle Coordinator, Department of Transportation Services, and Terry Hildebrand, Department of Design and Construction, June 28, 2011.
31 State Department of Transportation, Annual Report to the State Legislature: Bikeway Projects and Expenditures (December 2010).
32 The ‘Ewa DP calls for all new subdivisions to be “transit-friendly” but it doesn’t provide any guidance on how you would know if a subdivision was transit friendly. However, in 2001, DTS provided guidelines for a transit friendly subdivision roadway and pedestrian path network that were adopted as City policy with the adoption of the Central O'ahu Sustainable Communities Plan in 2002. Sec. 3.8.2.4 calls for all new subdivisions to:
APPENDIX D: VISION SCORECARD

- provide sufficient right-of-way for bus transit stops and wide outs as part of subdivision master roadway approvals
- establish a street network designed so that a bus route could be established through the subdivision if needed at some point in the future
- establish a street and pedestrian path network designed so that 85% of residents are within a ¼ mile walking distance of either an existing or potential future bus stop.

33 Active projects with Urban Design Plan requirements include ‘Ewa Plantation Villages, Ocean Pointe / Hoakalei, University of Hawai‘i West O‘ahu non-campus lands, Methana at Kapolei, City of Kapolei, Maka‘iwa Hills, and Ko Olina.

34 Information and assessment supplied by Robert W. Yatchmenoff, President, Hawaiian Railway Society in 2010.


37 Under Section 106 of the National Historic Preservation Act, impacts on sites which have been determined to be eligible for listing on the National Historic Register must be assessed and considered in the environmental review for all Federal projects, the Advisory Council on Historic Preservation must be given an opportunity to comment on the impacts on the sites, and the State Historic Preservation Officer must be consulted on how to avoid or mitigate any adverse effects.

38 Ibid., p. 6-3, 6-5.


41 See Table 4.1: ‘Ewa Roadway Network in the ‘Ewa Development Plan (August 1997).

42 Project number from O‘ahu Metropolitan Planning Organization, 2020 O‘ahu Regional Transportation Plan, prepared by Kaku Associates in association with Parsons Brinckerhoff (November 1995) which was the current approved ORTP at the time of adoption of the ‘Ewa DP. Project number prefix codes: C = County; S = State; HOV = High Occupancy Vehicle. Projects must be listed in the current ORTP in order to be eligible for Federal funding.

43 Expected completion date from phasing in 2020 O‘ahu Regional Transportation Plan (November 1995).
Project number and phasing from O‘ahu Metropolitan Planning Organization, **O‘ahu Regional Transportation Plan 2035** (April 2011). Project number suffix codes: C = County; S = State. Projects must be listed in the current ORTP in order to be eligible for Federal funding.

Honolulu Department of Transportation Services, **Ewa Transportation Impact Fee Program Update: Final ‘Ewa Highway Master Plan for Year 2020**, by Fehr & Peers (March 2011).

State Department of Transportation, **Ewa Highway Master Plan** (EHMP) by Kaku and Associates (May 2002). Ord. 02-52 implemented an impact fee program based on the EHMP. Roadway projects listed as needed by 2010 in the EHMP and Ord. 02-52 are eligible for funding from ‘Ewa Highway Impact Fees assessed on all building permits in ‘Ewa and Royal Kunia/Village Park. Developers who build or contribute funds to build portions of eligible roadway projects can receive a credit against the building permit impact fees up to the amount of the developer's expenditures for road building.

Telephone conversation with Nancy Maeda, Haseko, June 28, 2011.

Telephone conversation with Debby Lunning, Gentry Development Company, June 28, 2011.

Telephone conversation with Janice Takahashi, Chief Planner, Hawai‘i Housing Finance and Development Corporation, June 29, 2011.

E-mail from Bob Bruhl, DR Horton: Schuler Division, June 29, 2011.

See Fig. 2.8: Proposed Circulation Plan (following p. 16) in DR Horton: Schuler Division, **Ho‘opili, O‘ahu Final Environmental Impact Statement, Vol 1** by PRB Hawai‘i and Associates, Inc. (July 2008). OEQC 2008-08-23-OA-FEIS-Ho‘opili-Vol-1.

Board of Water Supply (BWS), based on DPP socio-economic projections, estimated in 1996 that 2020 potable demand would be 35 mgd and non-potable demand, including both urban and agricultural uses, would be 36 mgd. Per capita demand estimates have decreased from previous estimates due to the success of water conservation measures. Projected water demands are subject to revision pending analysis of the 2010 Census results for O‘ahu. The Board of Water Supply can provide sufficient capacity to meet the demand for potable and non-potable water in ‘Ewa through 2035. Board of Water Supply staff e-mail to DPP, August 25, 2011.

Design capacity of the liquid process stream is rated 38 mgd, but because of solid processing limitations, capacity is restricted to approximately 29 mgd. Department of Environmental Services (ENV) staff e-mail to DPP, August 26, 2011.

Due to construction of new solids processing improvements, including three anaerobic digesters and new centrifuges, by 2010, the restriction due to solids capacity was removed. **Ibid**.

Full conversion from partial to full secondary treatment by June 1, 2024 per consent decree. ENV e-mail, August 26, 2011.


Flows to Honouliuli WWTP come from ‘Ewa, Central O‘ahu, and portions of the Primary Urban Center, including Pearl City, ‘Aiea, and Hālawa. ENV e-mail, August 26, 2011.

ENV e-mail, August 26, 2011.
APPENDIX D: VISION SCORECARD


61 "Hawaiian Electric has informed the Public Utility Commission that it anticipates the need for 200 MW of firm, renewable generating capacity in the 2016 timeframe and another 100 MW by the 2020 timeframe to accommodate anticipated load growth and the possible retirement of certain existing generating units.", HECO e-mail to DPP, July 29, 2011.

62 Historic and projected tonnage. City Department of Environmental Services, August 2011.

63 Percent weight reduction measured by comparing waste tonnage entering the plant and ash shipped to landfill. Volume reduction which is more relevant for minimizing impact on the landfill is approximately 90%. City Department of Environmental Services, August 2011.

64 School facility needs estimated in 1996 by State Department of Education Facilities Branch based on DPP projections of ‘Ewa 2020 population.

65 Randolph Moore, Assistant Superintendent, Office of School Facilities and Support Services, "Leeward O‘ahu School Needs" PowerPoint Presentation to the Waipahu Neighborhood Board No. 22 (April 23, 2009) as updated by Facilities Branch staff, August 2010. Of the schools identified, only the Mehana Elementary School has been funded. (See note below.)

66 Mehana Elementary received funding in the FY2012-2013 CIP budget for design and construction funds needed to build the school with expected opening in 2014. State Department of Education Facilities Branch, 2011.

67 Honolulu Fire Department estimates in 1996 based on DPP projections of 2020 ‘Ewa population that in addition to the existing ‘Ewa Beach, Makakilo, and Kapolei stations, new stations would be needed at ‘Ewa Villages, Ko Olina, and Makaïwa Hills and the existing ‘Ewa Beach station would need to be replaced with a new station.

68 1990 count includes ‘Ewa Beach and Makakilo Fire Stations; completion of Kapolei Station increases number of stations to 3; 2020 count reflects replacement of the old ‘Ewa Beach station with a new station on Fort Weaver Road and construction of a new station on Kapolei Parkway by DHHL headquarters in 2011.


70 Telephone conversation with Nathan Matsuoka, Research Statistician, HPD Information Technology Division, July 8, 2011.
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The proposed revised ‘Ewa Development Plan provides protection for scenic views as part of the policies and guidelines for Historic and Cultural Resources as shown in the excerpt below:

3.4 HISTORIC AND CULTURAL RESOURCES

‘Ewa contains several different types of historic and cultural sites, which are representative of its history and valuable as historic records and cultural references. In addition, public views which include views along streets and highways, mauka-makai view corridors, panoramic and significant landmark views from public places, views of natural features, heritage resources, and other landmarks, and view corridors between significant landmarks, can be important cultural resources.

This section provides policies, and guidelines for the preservation and development of historic and cultural resources in ‘Ewa.

3.4.1 GENERAL POLICIES

- Emphasize physical references to ‘Ewa's history and cultural roots to help define ‘Ewa's unique sense of place.
- Protect existing visual landmarks, and support creation of new culturally appropriate landmarks.
- Preserve significant historic features from the plantation era and earlier periods.
- Vary the treatment of sites according to their characteristics and potential value.
- Use in situ preservation and appropriate protection measures for historic, cultural, or archaeological sites with high preservation value because of their good condition or unique features. In such cases, the site should be either restored or remain intact out of respect for its inherent value.
- Retain significant vistas whenever possible.
• Where known archaeological and cultural sites have been identified and impact mitigations approved as part of prior development approvals, assume that the mitigations carry out the Plan vision and policies for preservation and development of historic and cultural resources in 'Ewa.

Exhibit 3.2 indicates the locations of a number of ‘Ewa’s significant historic and cultural resources, which are also listed in Table 3.1.

3.4.2 GUIDELINES

The following guidelines suggest how the general policies for Historic and Cultural Resources should be implemented:

3.4.2.1 Sites Under Review

• **Adaptive Reuse** – Allow historic sites to be converted from their original intended use to serve a new function if it can be done without destroying the historic value of the site, especially if its interpretative value is enhanced.

• **Accessibility** - Public access to an historic site can take many forms, from direct physical contact and use to limited visual contact. Determine the degree of access based on what would best promote the preservation of the historic, cultural and educational value of the site, recognizing that economic use is sometimes the only feasible way to preserve a site. In some cases, however, it may be highly advisable to restrict access to protect the physical integrity or sacred value of the site.

• Protect the Honouliuli Internment Camp site from development until efforts to evaluate it for National Historic Register listing and for inclusion as a satellite site in the World War II Valor in the Pacific National Monument have established the value of the site and its appropriate treatment.

• Protect the ‘Ewa Marine Corps Air Field site in Kalaeloa from development while a study is done to establish the condition of the site and the appropriate treatment of historic resources at the site.
Exhibit 3.2
Natural, Historic & Scenic Resources in the ‘Ewa Development Plan Area

Legend
- Single and Concentrated Archaeological Sites
- Dispersed Archaeological Sites
- Historic Archaeological District
- Plantation Villages
- Historic Railway/Bikeway Corridor
- Pu’u
- Rare/Endangered Native Species
- Natural Preserves/Wildlife Refuges
- Wetland/Waterbird Habitat
- Panoramic Views

Note: Some dispersed archaeological sites and rare/endangered species habitat were identified in project Environmental Impact Statements. In such areas, subsequent development approvals and associated mitigation measures should be reviewed to identify which sites still retain archaeological or environmental resource value.
### TABLE 3.2: SIGNIFICANT ‘EWA HISTORIC AND CULTURAL RESOURCES

<table>
<thead>
<tr>
<th>SIGNIFICANT HISTORIC FEATURES AND LANDMARKS</th>
</tr>
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<tbody>
<tr>
<td>'Ewa Plantation Villages</td>
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<tr>
<td>'Ewa Marine Corps Air Field</td>
</tr>
<tr>
<td>Honouliuli Internment Camp</td>
</tr>
<tr>
<td>Lanikūhonua</td>
</tr>
</tbody>
</table>

**NATIVE HAWAIIAN CULTURAL AND ARCHAEOLOGICAL SITES**

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Barbers Point Archaeological District</td>
<td>'Oki'okiolepe Pond</td>
</tr>
<tr>
<td>'Ewa Beach Midden Site</td>
<td>One'ula Archaeological District</td>
</tr>
</tbody>
</table>

**SIGNIFICANT VIEWS AND VISTAS**

- Distant vistas of the shoreline from the H-1 Freeway above the ‘Ewa Plain;
- Views of the ocean from Farrington Highway between Kahe Point and the boundary of the Wai‘analoe Development Plan Area;
- Views of the Wai‘analoe Range from H-1 Freeway between Kunia Road and Kalo‘i Gulch and from Kunia Road;
- Views of Nā Pu'u at Kapolei, Pālailai, and Makakilo;
- *Mauka* and *makai* views; and
- Views of central Honolulu and Diamond Head, particularly from Pu'u O Kapolei, Pu'u Pālailai, and Pu'u Makakilo.

### 3.4.2.2 Impacts of Development on Historic and Cultural Resources

- **Compatible Setting** - The context of an historic site is usually a significant part of its value. Plan and design adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity and historic or cultural value of the site. The appropriate treatment should be determined by the particular qualities of the site and its relationship to its physical surroundings.
Public Views - Design and site all structures, where feasible, to reflect the need to maintain and enhance available views of significant landmarks and vistas. Whenever possible, relocate or place underground overhead utility lines and poles that significantly obstruct public views, under criteria specified in State law.

To document the scenic views that are to be protected, a Scenic View Inventory was done in 2009 for the Ewa Development Plan Area. As shown in the Directory below, an Overview Map for the entire development plan area shows the 27 photo locations used to document the views. It is followed by a map for each individual photo location area and then collages and individual photos showing the views from that location.

‘Ewa Development Plan Scenic Views 2009 Directory

<table>
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<tr>
<th>Area Map</th>
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<tbody>
<tr>
<td>Overview Map</td>
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<td>Area Map 1</td>
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## 'Ewa Development Plan Scenic Views 2009 Directory

*(Continued)*

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<th>Kualaka‘i Parkway/H-3 Intersection</th>
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<td>Panorama: Photos 45-49 and Photos 45-49</td>
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<td>Panorama: Photos 50-53 and Photos 50-53</td>
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<td>Area Map 12</td>
<td>Honouliuli Mauka of H-1</td>
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<td>Area Map 13</td>
<td>Honouliuli Mauka and Makai Near Kunia Road</td>
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<td>Panorama: Photos 60-63 and Photos 60-63</td>
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<td>Area Map 15</td>
<td>One‘ula Beach</td>
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<td>Area Map 17</td>
<td>OR&amp;L Railroad and Hawaiian Railway Society Station</td>
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<td>Photos 79-86</td>
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<td>Kunia Road near Proposed State Ag Park</td>
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<td>Kunia Road near DP Boundary</td>
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<td>Panorama: Photos 141-143 and Photos 141-144</td>
<td>E-67</td>
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Department of Planning and Permitting  'Ewa Development Plan Review Report

E-6
Ewa Development Plan
Scenic Views 2009
Area Map 1

Scale in Feet

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Map 1 Kahe "Tracks" Beach Photos:

Panorama: Photos 1-4
Map 2 Kahe Point Beach Photos:

Panorama: Photos 5-9
Map 3 Lanikūhonua Photos:

Panorama: Photos 10-11

Panorama: Photos 12-13
Map 4 Honokai Hale Photos:

Panorama: Photos 23- 25

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Map 5 Kapolei West Photos:

Panorama: Photos 26- 29

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JANUARY 31, 2004 ORIENTATION WORKSHOP DOCUMENTATION

On January 31, 2004, an Orientation Workshop was held at Kapolei Hale. The workshop was well attended with representatives from the two Neighborhood Boards, developers, land owners, professionals and area political leaders in attendance.

The workshop opened with a PowerPoint presentation providing an overview of the 'Ewa Development Review Program and was followed with a Question and Answer session with all of the participants. After a short break, the participants broke into four Issue Groups (Transportation, Schools, Development Process, Economic and Jobs Development) to discuss what information they needed to understand and help plan for the issue, identify questions and concerns that they had about the issue, and provide suggestions for how the issue could be addressed.

This Appendix documents the Workshop by providing:

2. Handouts given to Workshop participants, including
   a. Workshop Agenda/Flyer;
   b. Draft Briefing Package;
      i. Overview of the Review Program, and
      ii. Vision Scorecard: historical and projected indicators of progress in implementing the Plan Vision;
   c. Exhibit 2.2: Existing and New Master Planned Communities and Table 2.2: Phasing of 'Ewa Development (Draft) (Jan. 30, 2004), providing the most current estimates of residential project capacity and timing of development in 2004, updating Table 2.2 from the Plan;
d. 'Ewa Development Plan Issues: Analysis of Concerns Raised at 'Ewa Neighborhood Boards;

e. 'Ewa Development Plan: Vision Elements, Land Use Policy Listing, Infrastructure Policy Listing, and Implementation Methods Listing; and

f. 'Ewa Development Plan: Vision and Policies Digest (Draft); a digest of the Plan’s vision, land use & infrastructure policies, and implementation methods.

3. The PowerPoint Presentation on the Ewa Development Plan Five Year Review;

4. Notes from the Question and Answer session that followed the presentation; and

5. Comments and Suggestions from the Issue Groups.
The Department of Planning and Permitting held the first workshop for the Ewa Development Plan Five Year Review (EDP5YR) on Saturday, Jan. 31 at Kapolei Hale from 8:30 am to 12:30 pm.

The Department must address three basic questions in its report to the City Council:

1. Are the Ewa Development Plan vision, policies, and implementing methods (adopted in 1997) still appropriate in 2004? If not, what should be changed?

2. Is the purpose of the Plan's phasing guidelines (protection of agricultural areas and providing a greenbelt area between Waipahu and the City of Kapolei) being achieved?

3. Should the phasing priorities be revised to change which areas are to be developed first? (Some areas of Ewa now have to wait until 2006 or 2016 before applications for zone changes and other permits will be accepted for processing.)

The purpose of the workshop was to give a quick orientation to the Five Year Review Project and to hear from participants about their concerns, questions, and suggestions regarding Ewa's development.

Participation in the Workshop was excellent, both in terms of numbers and participants. Participants included City Councilpersons, State legislators, and the two Neighborhood Board Chairs. (See the listing of participants that follows.)

Participants were provided briefing materials, which included

- a draft report showing historical and projected progress in implementing the Plan vision,
- a digest of the Plan vision and land use and infrastructure policies and
- the most current estimates of existing housing development capacity and phasing for Ewa. (For a more complete listing of workshop materials, see the March 9, 2004 Status Report.)

A flyer announcing the workshop was sent to about 170 individuals and organizations who had asked to be on the Department's Ewa Development Plan mailing list. In addition, a letter inviting participation on the Review was sent with a packet of information on the Plan Review to 70 individuals and organizations.
The Workshop program consisted of:

1. A PowerPoint presentation providing
   a. an overview of the Five Year Review program, and
   b. a summary of progress in implementing the five major vision elements of the Ewa Development Plan.

2. A Question and Answer session that turned into a plenary session on Transportation issues, and

3. Breakout sessions on four issues
   - Transportation,
   - Schools,
   - Development Projects and Process, and
   - Job Creation.

Participants in the issue groups were asked to identify
- What information they needed,
- What specific questions or concerns they had, and
- What suggestions or solutions that they would like considered for their Issue Topic.

After about an hour, participants returned and reported on what had happened in their break-out groups.

The Department received a wealth of suggestions and comments to consider as we proceed with our review and revision of the Ewa Development Plan.

Copies of the Workshop Handouts and notes from the Question and Answer session and the Issue Groups are available from the Department. (See the March 9, 2004 Status Report for details.)
PUBLIC WORKSHOP

Ewa Development Plan  Five Year Review

Saturday, January 31, 2004
8:30 – 12:30 AM
Kapolei Hale
1000 Uluohia Street
City of Kapolei

AGENDA

8:00 AM  Registration/Talk Story
8:30 AM  Plan and Program Orientation:
          Ewa DP Overview
          Ewa DP Digest
          Five Year Review Program
9:00 AM  Questions and Answers
9:15 AM  Refreshment Break
9:30 AM  Where We Have Been and Where We Are Going
          Vision Scorecard
          Issues Listing
          Known Projects
10:00 AM Questions and Answers
10:30 AM Issues Discussion Groups
          Transportation
          Schools
          Landfill Site
          Development Projects
          Kalaeloa
12:00 Noon Summing Up
          What's Next
EWA DEVELOPMENT PLAN FIVE-YEAR REVIEW

- Required by the Ordinance that adopted the Plan in 1997
- **Workprogram Steps**
  Community Interviews (Underway)
  Workshop I: Orientation/Community Comments & Questions (Jan 31, 04)
  Inventory Comments/Draft Report/Plan Preparation
  Workshop II: Community Review of Draft Report/Plan
  Inventory of Comments
  Final Report Preparation and Distribution
  Public Information Meeting/Neighborhood Board Briefings
  Planning Commission Hearing
  City Council Review (Three formal votes, 1 public hearing)

You are invited to participate in the Five Year Review of the Ewa Development Plan (DP). An Orientation Workshop will be held on January 31, 2004 at Kapolei Hale from 8:30 am to 12:30 pm. See the flyer on the other side for more information.

For information about additional opportunities to provide comments and suggestions on the Ewa DP, contact Bob Stanfield at the Department of Planning & Permitting by mail at 650 South King Street, 7th Floor, Honolulu, Hawaii 96813; by e-mail at bstanfield@co.honolulu.hi.us; by fax at 527-6743; or by voice mail at 527-6094.

Information about the Ewa DP and the Review is also available at the Planning Division web page [http://www.honoluluudpp.org/Planning/](http://www.honoluluudpp.org/Planning/)

City and County of Honolulu
Department of Planning and Permitting
650 S. King Street, 7th Floor
Honolulu, Hawaii 96813
Why a Five Year Review?

The current Ewa Development Plan took effect on October 21, 1997. It was the first Development Plan (DP) to be revised to reflect a 1992 City Charter amendment that called for conceptual, visionary plans to replace the parcel-specific, map oriented Development Plans adopted in the 1980s. The Plan was adopted by ordinance (Ord. 97-49), and was amended in 2000 to change the review period from three years to five years (Ord. 00-16). Any proposed revisions to the Plan resulting from the Five Year Review must also be submitted to the Planning Commission and the City Council and be adopted by ordinance.

Under the provisions of the ordinance (as amended in 2000), every five years after the adoption of the Plan, the Department of Planning and Permitting must:

- Conduct a "comprehensive" review of the vision and policies of the development plan; and
- Report to the City Council on the review and any recommended revisions to the Plan's vision, policies, guidelines, and implementation methods.

What Do We Want to Learn?

The Department must address three basic questions in the review:

- Are the Plan vision, implementing policies, and implementation methods still appropriate?
- Is the purpose of the Plan's phasing guidelines being achieved?
- Should the phasing priorities in the Plan be revised?

We are asking members of the community to tell us how they would answer these basic questions, and to suggest ways that the Plan might be improved, made clearer, or more effective as a guide to Ewa's future development.

We invite you to review this briefing paper, and participate in the Ewa DP Five Year Review. As listed in the work program on the next page, we are currently conducting interviews and small group discussions in preparation for a public workshop. We also welcome your comments and suggestions by phone, e-mail, fax or letter. We look forward to hearing from you!
Five-Year Review Program

1. Community Interviews. Department staff are meeting with members of the Ewa community for one-on-one interviews and small group meetings to share information and to discuss their experiences with Ewa’s development and their thoughts about the Ewa Development Plan. Among those with whom meetings are being scheduled are the two Neighborhood Boards, the Ewa Vision Team, community associations, developers and major landowners, governmental agencies, and professional organizations.

2. Public Workshop I: Community Comments and Questions. A public workshop to be held in January 2004 to explain the five-year review process, share research and information, and solicit comments and recommendations from the public.

3. Draft Report/Plan Preparation. Based on the Department’s research and on the comments and suggestions received from the public, the Department of Planning and Permitting will draft a Report evaluating the implementation of the Ewa Development Plan since adoption in 1997 and prepare a draft revised Plan.

4. Public Workshop II: Community Review of the Draft Report/Plan. A public workshop will be held to distribute and discuss the Draft Report/Revised Plan. In addition, the Draft Report/Plan will be distributed, and presentations will be made to the Neighborhood Boards and the Ewa Vision Team. The public will be invited to provide comments to correct, clarify, or improve either the Report or proposed Plan.

5. Final Report and Plan Preparation. Based on the comments received, the Report and the Plan will be revised, and transmitted to the Planning Commission and City Council for formal review and consideration.

What Do We Know About What Happened Since 1997?

The Ewa Development Plan vision has five major elements.

- Protect Agricultural Lands and Open Space
- Develop the Secondary Urban Center around the City of Kapolei
- Build Master Planned Communities that Support Walking, Biking, and Transit Use
- Protect Natural, Historical, and Cultural Resources
- Phase Development and Provide Adequate Infrastructure

Historical and projected indicators for each of the Vision elements are provided on the following pages.
GOAL 1: PROTECT AGRICULTURAL LANDS AND OPEN SPACE

- Agricultural lands and open space outside the Urban Growth Boundary and in areas phased for development after 2006 have been protected from development. New parkland has been acquired and is under development.

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect Agricultural Land and Open Space</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Growth Boundary (UGB)</td>
<td>No urban development outside UGB</td>
<td>n/a</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Acres in Preservation zoning</td>
<td>1997 Acres retained in Preservation</td>
<td>n/a</td>
<td>tba</td>
<td>tba</td>
</tr>
<tr>
<td>Acres of Agricultural Land</td>
<td>3,000 Acres Retained Outside UGB</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>700 acres farmed in Phase 3 area until 2016 or later</td>
<td>n/a</td>
<td>700</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>Create the Open Space and Greenways Network</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acreage of Improved Open Space</td>
<td>Create 6,200 Acres</td>
<td>200</td>
<td>2,000</td>
<td>2,300</td>
</tr>
<tr>
<td>Percent inside UGB in Open Space</td>
<td>27% Open Space</td>
<td>n/a</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>Miles of Greenway Corridors</td>
<td>Link Areas Together</td>
<td>0</td>
<td>6.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Beach Park Frontage</td>
<td>Acquire Frontage</td>
<td>0</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Golf Course Acreage</td>
<td>Golf Course Acreage Increases</td>
<td>169</td>
<td>1,186</td>
<td>1,376</td>
</tr>
<tr>
<td>Trailheads in New Developmt</td>
<td>Add Trailheads</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Park Acreage Increases</td>
<td>Develop Acres</td>
<td>126</td>
<td>242</td>
<td>242</td>
</tr>
<tr>
<td>Develop Kalaeloa Regional Park</td>
<td>Source: DPP PPB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total $ Spent (Mil.)</td>
<td>CIP Funds Appropr.</td>
<td>0</td>
<td>0</td>
<td>$0.15M</td>
</tr>
<tr>
<td>Lands Conveyed</td>
<td>Acres Conveyed</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Develop Community Parks</td>
<td>Source: DPP PPB/SDD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planned Parks Completed</td>
<td>Build 8 New Parks</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Cnty Park Acreage Increases</td>
<td>Increase Acres</td>
<td>47</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>Pct of Park Acreage Standard (2 Acres per 1,000 Pop.)</td>
<td>Meet 100% of needs</td>
<td>54%</td>
<td>51%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Department of Planning and Permitting  Ewa Development Plan Five-Year Review
## GOAL 2: DEVELOP THE SECONDARY URBAN CENTER AROUND THE CITY OF KAPOLEI

- Significant progress has been made in development of the Secondary Urban Center since 1997.

### Achievements Discussion

#### Vision Element

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Develop the City of Kapolei</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rise in Total # Jobs</td>
<td>30,000 Jobs</td>
<td>30,000</td>
<td>2,200</td>
<td>2,900</td>
<td>4,500</td>
<td>30,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres Developed</td>
<td>879 Acres</td>
<td>879</td>
<td>70</td>
<td>110</td>
<td>125</td>
<td>879</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Comm. Floor Space</td>
<td>7 Million Sq.ft.</td>
<td>0</td>
<td>0.6</td>
<td>1.3</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Housing Units</td>
<td>2,750 Units</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2,750</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Develop Ko Olina and Ocean Pointe Resorts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Visitor Units Built</td>
<td>4,950 Visitor Units</td>
<td>4,950</td>
<td>0</td>
<td>387</td>
<td>387</td>
<td>2,500</td>
<td>4,950</td>
<td></td>
</tr>
<tr>
<td>Visitor Attractions at Resorts</td>
<td>2 Marinas w/shops</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Visitor Attractions Elsewhere</td>
<td>Added Attractions</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td><strong>Create Industrial Jobs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rise in Total Industrial Jobs</td>
<td>7,000 Jobs</td>
<td>7,000</td>
<td>0</td>
<td>2,200</td>
<td>n/a</td>
<td>2,700</td>
<td>4,100</td>
<td></td>
</tr>
<tr>
<td>New Industrial Acres Added</td>
<td>+1,220 Acres</td>
<td>6</td>
<td>21</td>
<td>24</td>
<td>42</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td><strong>Develop the University of Hawaii West Oahu</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus Construction</td>
<td>Construction Begun</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Student Enrollment</td>
<td>7,600 Students</td>
<td>7,600</td>
<td>652</td>
<td>648</td>
<td>665</td>
<td>838</td>
<td>2,750</td>
<td>7,600</td>
</tr>
<tr>
<td>Faculty &amp; Staff jobs</td>
<td>800 Jobs</td>
<td>800</td>
<td>50</td>
<td>75</td>
<td>75</td>
<td>100</td>
<td>250</td>
<td>800</td>
</tr>
<tr>
<td><strong>Redevelop BPNAS / Kalaeloa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Jobs</td>
<td>6,000 Jobs Total</td>
<td>6,000</td>
<td>[1,851]</td>
<td>1,321</td>
<td>180</td>
<td>n/a</td>
<td>n/a</td>
<td>6,000</td>
</tr>
<tr>
<td>Acres Redeveloped</td>
<td>2,000 Acres Total</td>
<td>2,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>2,000</td>
</tr>
<tr>
<td>New Housing Units</td>
<td>Not Specified</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Park Acreage</td>
<td>[1,000 Acres]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Increase Ewa's Share of Oahu Population to General Plan Goal</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ewa Population</td>
<td>125,000</td>
<td>125,000</td>
<td>42,983</td>
<td>67,300</td>
<td>68,718</td>
<td>72,000</td>
<td>89,400</td>
<td>100,700</td>
</tr>
<tr>
<td>Ewa Share of Oahu Population</td>
<td>11.6%</td>
<td>11.6%</td>
<td>4.7%</td>
<td>7.7%</td>
<td>7.8%</td>
<td>8.2%</td>
<td>9.6%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Ewa Share of Oahu Population Growth</td>
<td>34.8%</td>
<td>34.8%</td>
<td>9.9%</td>
<td>64.5%</td>
<td>34.3%</td>
<td>36.3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Goal 3: Build Master Planned Communities That Support Walking, Biking, & Transit Use

Residential development was slowed by economic conditions but has rebounded more recently. New Express Buses and a Hub and Spoke system of collector buses has been established. A Regional Bus Rapid Transit system is being developed.

### ACHIEVEMENTS

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 Goal</th>
<th>Historical Trends</th>
<th>Projection</th>
<th>Achievements Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Housing Needed to Meet General Plan Goal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units Built/Year.</td>
<td>540</td>
<td>717</td>
<td>777</td>
<td>822</td>
</tr>
<tr>
<td>Total Housing Units</td>
<td>39,500</td>
<td>11,722</td>
<td>19,906</td>
<td>20,804</td>
</tr>
<tr>
<td>Share of Oahu Total</td>
<td>11.6%</td>
<td>4%</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Provide a Wide Variety of Housing and Meet the Need for Affordable Housing</td>
<td>Source: DPP PPB/PRB</td>
<td>GP 2025 goal is for Ewa to have 13% of Oahu population</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affordable Units Constr./Yr</td>
<td>160</td>
<td>468</td>
<td>433</td>
<td>500</td>
</tr>
<tr>
<td>Affordable Units % Provided</td>
<td>30%</td>
<td>65%</td>
<td>56%</td>
<td>61%</td>
</tr>
<tr>
<td>% Townhouses and Apartments</td>
<td>Standard Applied</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Support Biking, Walking, and Transit as Alternatives to Use of the Automobile</td>
<td>Source: DPP TRB DTS-TE</td>
<td>-Ewa DP Guidelines applied to zone changes &amp; Urban Design Plans required by UAs implemented. -Asing Park Bike Path constr. slated 2003; connects Ft. Weaver Rd. to West Loch Bike Path;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bikeways &amp; Walkways Incorporated in new projects</td>
<td>Standard Applied</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Bike Lanes 4-6 feet wide</td>
<td>Standard Applied</td>
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<td>Traffic Calming Integration</td>
<td>Standard Applied</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Support Future Rapid Transit Corridor &amp; Create Transit Oriented Subdivision Layers</td>
<td>Source: DPP TRB, DTS</td>
<td>-New Transit Plan uses H-1: Right-of-way preserved for Transit Corridor -Hub and Spoke transit system also being implemented, -Revised Standards for Development: 85% DUs within ¼ Mile of Transit Stop, provision of right-of-way for transit stops and wideouts, establishment of potential transit route through subdivisions.</td>
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<tr>
<td>Right-of-Way for Ewa Transit Corridor</td>
<td>Preserve 28’ Right-of-Way</td>
<td>n/a</td>
<td>Yes</td>
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<td>Status of Six Ewa Transit Nodes</td>
<td>Zoning/Mixed Use Transit Oriented Development</td>
<td>No</td>
<td>No</td>
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<td>Transit Friendly Subdivisions</td>
<td>Standards</td>
<td>Yes/No</td>
<td>Yes</td>
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<td>Walking Distance to Transit for 85% of Residents</td>
<td>¾ Mile maximum standard applied</td>
<td>No</td>
<td>No</td>
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<td>Link Project Open Space to Ewa Region Open Space Network</td>
<td>Source: DPP CAP</td>
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<tr>
<td>Internal open spaces link to external open spaces.</td>
<td>Standard Applied</td>
<td></td>
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<tr>
<td>Create Distinctive Neighborhoods</td>
<td>Source: DPP</td>
<td>-Urban Design Plans required by UAs implemented.</td>
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<tr>
<td>Entry Features &amp; Landscape Treatments</td>
<td>Standard Applied</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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</table>
VISION SCORECARD  
GOAL 4: PROTECT NATURAL, HISTORICAL, AND CULTURAL RESOURCES  

Historical, cultural, and visual resources have been protected. No subsequent additions or restorations have occurred.

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>ACHIEVEMENTS</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
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<tbody>
<tr>
<td></td>
<td>2020 GOAL</td>
<td></td>
<td></td>
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<tr>
<td>Preserve Natural Gulches &amp; Drainageways</td>
<td></td>
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<tr>
<td>Awanui Gulch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Honouliuli Stream</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<td>Keoneoio Gulch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Limaloa Gulch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Makaiwa Gulch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Makakilo Gulch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Makalapa Gulch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Palailai Gulch</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Preserve Wildlife Sanctuaries</td>
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<td>Honouliuli National Wildlife Refuge</td>
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<td>The Nature Conservancy Honouliuli Preserve</td>
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<td>Apokaa Ponds</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Batis Salt Marshes: West Loch &amp; Ewa Marina</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Preserve Significant Views &amp; Vistas</td>
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<td>H-1 Freeway to Shoreline</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Ocean Views from Farrington Hwy between Kahe Pt and Waianae/Ewa DP boundary</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Views of Waianae Range from H-1 &amp; Kunia Rd.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Views of na pu'u at Kapolei, Palailai, and Makakilo</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Mauka/Makai Views</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Views of Central Honolulu &amp; D.H. from Shoreline</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Vision Element Indicators</td>
<td>2020 GOAL</td>
<td>HISTORICAL TRENDS</td>
<td>PROJECTION</td>
<td>ACHIEVEMENTS DISCUSSION</td>
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<tr>
<td>---------------------------</td>
<td>-----------</td>
<td>------------------</td>
<td>------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Preserve Historic &amp; Cultural Landmarks</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lanikuhonua</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Oahu Railway &amp; Land Company Historic Railway:</td>
<td>50’ Setback both sides of 40’ Right-of-Way</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<td></td>
<td>Operations Restored from Nanakuli to Waipahu Cultural Garden</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Ewa Plantation Villages</td>
<td>Restored housing and adaptive use of Plantation buildings</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Pearl Harbor National Historic Landmark</td>
<td>Maintained</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Barbers Point Archaeological District</td>
<td>Considered in project reviews and protected and buffered</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Oneula Archaeological District – Ewa Marina</td>
<td>Considered in project reviews and protected and buffered</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>
GOAL 5: PHASE DEVELOPMENT AND PROVIDE ADEQUATE INFRASTRUCTURE

State and County Infrastructure development has continued but transportation and schools capacity remain an issue.

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop the Ewa Highway System (See Table 4.1, p. 4-3)</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Commute Time (mins)</td>
<td>Stable or Shorter</td>
<td>28.4</td>
<td>n/a</td>
<td>36.8</td>
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<tr>
<td>Level of Service Peak Hour Makakilo Waiawa Aiea</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Primary Corridor Traffic Volume at Kunia</td>
<td>Daily Volume</td>
<td>100,711</td>
<td>128,547</td>
<td>137,403</td>
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</table>

<table>
<thead>
<tr>
<th>ORTP #</th>
<th>Project Number from Oahu Regional Transportation Plan (Nov 1995): C = County, S = State, HOV = High Occupancy Vehicle</th>
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<tbody>
<tr>
<td>ORTP C-2</td>
<td>Source: PPB PRB TRB DTS DTS-TE, DOT</td>
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<tr>
<td>ORTP S-10 (P#E8 DOT)</td>
<td>Widen to 4 lanes by 2000</td>
</tr>
<tr>
<td>ORTP S-20</td>
<td>Widen to 4 lanes by 2000</td>
</tr>
<tr>
<td>ORTP S-21 (P#E10 DTS)</td>
<td>Widen to 6 lanes by 2005</td>
</tr>
<tr>
<td>ORTP HOV-7</td>
<td>Built by 2005</td>
</tr>
</tbody>
</table>

| ORTP S-31 | Widen to 6 lanes by 2020 |
| ORTP S-19 (P#E17 DOT) | Construct by 2005 |

| ORTP S-1 | H-1 Kunia Interchange Improvements. ORTP S-1 |
| ORTP S-2 (P#E1) | H-1 Makakilo Interchange Improvements |
| ORTP S-17 (P#E3) | H-1 Palailai Interchange Improvements. ORTP S-17 |

- ORTP #: Project Number from Transportation for Oahu Plan TOP 2025 (April 2001) and responsible transportation agency (DOT, DTS)
- Ewa Region Highway Transportation Master Plan to 2010 used as basis for Impact Fees program.
- North-South Road: Design Funded; Construction Not Funded; Phase One, 3-lanes (one contra-lane) starts construction Dec. 2004; Phase Two, 3 more lanes start construction 2007; Total Cost $151 Million
- Kapolei Pkwy Extension Connectors to N-S Rd.: West Connector: 95% Final Design Completed; DOT & DHHL working on Construction Funding; Construction Slated for 2004.
- East Connector: Design Phase

Source: PPB PRB TRB DTS DTS-TE, DOT

Department of Planning and Permitting

Page 8

Ewa Development Plan Five-Year Review
### Vision Element Indicators

<table>
<thead>
<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
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</thead>
<tbody>
<tr>
<td>New H-1 Kapolei Interchange ORTP S-27 (P#E2)</td>
<td>Built by 2000</td>
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<tr>
<td>New H-1 Makaiwa Hills Interchange ORTP S-32</td>
<td>Built BY 2020</td>
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### Achievements Discussion

#### Develop the Water System

- **Capacity**
  - Capacity in mgd: 17, 21, 21, 21, 40, 45

- **Planned Projects Completed**
  - Total $ Spent (Mil): $0, $12, $15, $25, $72, $82

- **Non-potable Water Utilized**
  - mgd of Non-pot.: 1.3, 1.3, 1.3, 8.3, 21.3, 29.3

- **Non-pot. System Expansion**
  - Miles of Line: 5.6, 5.6, 5.6, 28, 28, 33

#### Wastewater System

- **Mgd Capacity Expanded**
  - 51 mgd: 25, 38, 38, 38, 45, 45

- **Improved Treatment Quality**
  - % Not Primary: 0, 20, 35, 45, 40, 30

- **Reclaimed Water Utilization**
  - mgd Reclaimed: 0, 0, 4, 8, 12, 12

- **Planned Facilities are Built**
  - Total $ Spent (Mil) [Cumulative]: $0, $55, $103, $103, $147, n/a

- **Solid Waste Disposal and Recycling System**
  - New Refuse Solutions Systems Added: 1 [H-PWR], 1 [H-PWR]

- **Develop Electrical Power Systems**
  - # Pwr. Plants: 1 (H-PWR), 2 (+AES), 2, 2, 3, 3

- **Develop Drainage Systems**
  - No Lined Concrete Channels- Unlined Only: Yes, Yes, Yes, Yes, Yes, Yes

- **Kaloi Gulch Improvements Completed**
  - 5 Miles: 0, 1, 2, 2, 3, 5

- **Capacity Increased at Kaloi Gulch R.R. Bridge**
  - Yes, No, No, Yes, n/a, n/a

Source:
- BWS
- ENV
- HECO, ENV
- DPP CEB

---

*Source: BWS, ENV, HECO, DPP CEB*
<table>
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<tr>
<th>Vision Element Indicators</th>
<th>2020 GOAL</th>
<th>HISTORICAL TRENDS</th>
<th>PROJECTION</th>
<th>ACHIEVEMENTS DISCUSSION</th>
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<td><strong>ACHIEVEMENTS</strong></td>
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<td><strong>2020 GOAL</strong></td>
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<tr>
<td>New Schools Completed</td>
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<td>More Classrooms Added</td>
<td>Number</td>
<td>413</td>
<td>526</td>
<td>638</td>
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<td>Number of Classrooms</td>
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<td>Increases Concurrent with</td>
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<tr>
<td>Development</td>
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<td>Police &amp; Fire Stations</td>
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<td>Planned Police Stations Open</td>
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<td>Planned Fire Stations Open</td>
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<td>1 S#40</td>
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<td>2 S#42</td>
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<td>New Homes Served Adequately</td>
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<td>Project Timing / Phasing</td>
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<td>Phasing Plan Guides</td>
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<td>Infrastructure</td>
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<tr>
<td>All Public-Private Funding Plans Established</td>
<td>Number established</td>
<td>1 [{Ewa Water Corp}]</td>
<td>+1 2002 impact fee sys.</td>
<td>+1 2002 impact fee sys.</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>DHHL</td>
<td>Department of Hawaiian Homelands</td>
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<td>Planning Research Branch – DPP – City</td>
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<td>Department of Planning and Permitting – City</td>
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<td>Transportation for Oahu Plan 2025</td>
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<td>DTS-TE</td>
<td>DTS-Traffic Engineering - City</td>
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<td>Unilateral Agreement – City</td>
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<td>Ewa Development Plan</td>
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<td>Unchanged</td>
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<td>ENV</td>
<td>Environmental Service Department – City</td>
<td>UGB</td>
<td>Urban Growth Boundary</td>
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<td>F&amp;WD</td>
<td>Forestry and Wildlife Division – State</td>
<td>UHWO</td>
<td>University of Hawaii West Oahu Campus – State</td>
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<td></td>
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<td>WWTP</td>
<td>Waste Water Treatment Plant</td>
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</table>

Notes:  
- **n/a** not applicable  
- **tba** to be added later
Exhibit 2.2
Existing and New Master Planned Communities

Legend

Phase I (1995-2005)
Previously Approved
A Barbers Point Harbor
B City of Kapolei
C Ewa by Gentry
D Ocean Pointe
E Ewa Villages
F Kapolei Business Park
G Kapolei Knolls
H Kapolei Mauka
I Kapolei Shopping Center
J Ko Olina
K Makaiwa Hills
L Makakilo
M Villages of Kapolei

Proposed
N DHHL
O Gentry Ewa Makai East
P East Kapolei
Q Lauanui Commercial
R Gentry Ewa Makai West
S Makakilo Extension
T UH West Oahu/HCDCH
U Kapolei West

Phase II (2006-2015)

U Makaiwa Hills
V East Kapolei
W Kapolei North
X Kapolei LDA

Phase III (2016 and Beyond)

T UH West Oahu/HCDCH
V East Kapolei
X Kapolei LDA

Non-Urban Areas
Existing Urban Areas
Urban Expansion 1995-2005
Urban Expansion 2006-2015
Urban Expansion 2016 and Beyond
Urban Growth Boundary
### Table 2.2: Phasing of Ewa Development

<table>
<thead>
<tr>
<th>Project Area</th>
<th>Housing Units</th>
<th>Needs LUC</th>
<th>Needs ZON</th>
<th>Resid.</th>
<th>Resort</th>
<th>Comm.</th>
<th>Ind.</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td><strong>Phase I (1997-2005)</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Previously Approved (on DP before 1997)</td>
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<td>A Barbiers Point Harbor</td>
<td>2,000</td>
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<td>118</td>
<td>118</td>
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<tr>
<td>B City Compact</td>
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<tr>
<td>C Ewa by Gentry (2002)</td>
<td>2,000</td>
<td>236</td>
<td>13</td>
<td>248</td>
<td></td>
<td></td>
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<tr>
<td>D Ocean Pointe (2002)</td>
<td>3,750</td>
<td>418</td>
<td>40</td>
<td>82</td>
<td>38</td>
<td>578</td>
<td></td>
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<tr>
<td>E Ewa Villages (2003)</td>
<td>840</td>
<td>840</td>
<td></td>
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<tr>
<td>F Kapolei Business Park</td>
<td>217</td>
<td>41</td>
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<td></td>
<td></td>
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<tr>
<td>G Kapolei Knolls (2002)</td>
<td>750</td>
<td>750</td>
<td>50</td>
<td>14</td>
<td>64</td>
<td></td>
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<td>H Kapolei Mauka</td>
<td></td>
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<tr>
<td>J Kapolei Shopping Center (2003)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>L Ko Olina (2003)</td>
<td>4,430</td>
<td>165</td>
<td>70</td>
<td>70</td>
<td>205</td>
<td></td>
<td></td>
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<tr>
<td>M Kapolei West</td>
<td>2,900</td>
<td>2,900</td>
<td>163</td>
<td>30</td>
<td>193</td>
<td></td>
<td></td>
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<tr>
<td>N Makaiwa Hills</td>
<td>1,066</td>
<td>354</td>
<td>30</td>
<td>684</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M Makaiwa (2002)</td>
<td>1,724</td>
<td>241</td>
<td>7</td>
<td>248</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>N Villages of Kapolei (2003)</td>
<td>1,763</td>
<td>136</td>
<td>27</td>
<td>133</td>
<td></td>
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<tr>
<td><strong>TOTAL PREVIOUSLY APPROVED</strong></td>
<td>22,447</td>
<td>7,500</td>
<td>6,206</td>
<td>2,922</td>
<td>110</td>
<td>552</td>
<td>1,164</td>
<td>3,848</td>
</tr>
</tbody>
</table>

| Proposed Projects (added to DP in 1997) | | | | | | | | |
| N DHHA | 1,600 | 1,600 | 200 | | | | | |
| O Gentry Ewa Mauka East | 900 | 900 | 100 | 100 | | | | |
| P East Kapolei I | 4,000 | 4,000 | 350 | 10 | 360 | | | |
| Q Lualani Commercial | | | | | | | | |
| R Gentry Ewa Mauka West | 1,100 | 1,100 | | | | | | |
| S Makaiwo Extension | 200 | 200 | 100 | | | | | |
| T UH WCOC/HCSD | 4,000 | 4,000 | 750 | | | | | |
| **TOTAL PREVIOUSLY APPROVED & PROPOSED** | 11,800 | 9,800 | 2,000 | 1,850 | 30 | 30 | 1,710 | | | |

| Phase II (2006-2015) | | | | | | | | |
| U Makaiwa Hills | 2,000 | 2,000 | 1,000 | | | | | |
| V East Kapolei | 6,000 | 6,000 | 850 | 60 | 910 | | | |
| W Kapolei North | 1,200 | 1,200 | 150 | | | | | |
| X Kapolei Low Density Apartment (LDA) | 500 | 500 | | | | | | |
| **TOTAL PREVIOUSLY APPROVED & PROPOSED** | 5,041 | 9,234 | 10,284 | 9,028 | 110 | 562 | 1,194 | 1,906 | | |

| Phase III (2016 and beyond) | | | | | | | | |
| V East Kapolei III | K Kapolei Low Density apartment (LDA) | | | | | | | |
| **TOTAL APPROVED & PROPOSED** | 5,041 | 9,234 | | | | | | |
| **TOTAL ZONED** | 10,380 | | | | | | | |

**Notes:**
1. No proposed projects in all phases, housing units are rounded to the nearest 100, residential and total acres are rounded to the nearest 1000, all other acreages to the nearest 100. Percentages may not sum to totals shown due to rounding.
2. Lands included in the first phase of development (1997-2006) were eligible for processing zoning changes and other development applications starting with acquisition of the plan. Previously approved residential projects that already had both Development Plan and zoning approvals are eligible for processing zoning changes and other development applications far enough in advance so that construction could begin in 2006.
3. Projects in the third phase of development (2006 onwards) are eligible for processing zoning changes and other development applications far enough in advance so that construction could begin in 2010.
4. Intended for service-oriented small industrial use rather than heavy industrial use.
5. Intended for neighborhood commercial use rather than office use.
6. Acreages and housing units capacity estimates as of July 2002 or July 2003.

Department of Planning Permitting

Ewa DP Five Year Review
EWA DEVELOPMENT PLAN ISSUES
Analysis of concerns raised at Ewa Neighborhood Boards

The relative importance of concerns affecting Ewa can be characterized by the frequency and depth that they were raised and discussed during Neighborhood Board meetings. Meeting minutes from February 2000 to August 2003, reflect that primary community concerns have focused on:

- Transportation Infrastructure – 43%;
- Public Facilities 29% (primarily schools, parks and parking);
- Development Projects – 13%; and
- Environmental impacts (solid waste disposal, water supply and sewerage) – 10%.

Concerns less frequently voiced included issues related to:

- zoning changes – 6%;
- historic preservation & natural resources – 3%; and
- the Ewa Development Plan – 2%.

Clearly, infrastructure (where over 1/3 of the concerns related to roads/traffic), public facilities, and development projects exhibited the most concern, followed closely by environmental issues.

TRANSPORTATION INFRASTRUCTURE

The provision of adequate transportation infrastructure and its timing within the context of on-going and future development appears to be the most outstanding concern of the Ewa community. The focus of this concern is on roads and related infrastructure, which has lagged behind housing and commercial development in the Ewa Plain. Road and traffic concerns involve both internal and external components.

Roads/Traffic
The key regional road components awaited by Ewa residents include:

- North South Road Phase I and II,
- Linking of Kapolei Parkway segments from Ocean Pointe to Ko Olina,
- Widening of Fort Weaver Road,
- Kamokila Road Extension to enable Campbell Industrial Park traffic to bypass Kapolei Parkway, and
- Additional access for Makakilo.

These regional projects are intended to ease internal traffic congestion and to facilitate access to H1 and Farrington Highway.

The major **external transportation projects** are:

- Construction of the envisioned Rapid Transit Corridor, and
- Implementation of the Regional Bus Rapid Transit system to increase Ewa’s access to the Primary Urban Center.

**PUBLIC FACILITIES**

Key public facility concerns are schools, libraries, parks and parking.

- **Schools / Libraries** - With regard to schools, voiced concerns most often relate to their provision and adequacy (i.e. use of temporary facilities) Questions of adequacy have been partially addressed by using portable classrooms and by busing students to nearby under-utilized facilities at Kalaeloa and Campbell Industrial Park.

- **Parks** - Most park issues relate to their operation and maintenance rather than their location and/or adequacy.

- **Parking** – Some concerns expressed regarding parking along residential streets and at public parks.

- **Public Safety** – While crime and other safety issues remain a concern, the location and adequacy of police, fire and emergency facilities have not been expressed as a particular issue. Location specific issues include traffic signals at the intersection of Fort Weaver Road and Honowai Street, and Fort Weaver Road crossing (possible underpass?) at the Child & Family Services Center.
DEVELOPMENT PROJECTS

Major Ewa development projects that will have significant impact over the next 5 years are:

- Continued residential growth (Ewa Makai - 1,865 units south of Ewa by Gentry, Haseko – 940 units);
- Potential development of the UH West Oahu Campus south of Farrington Highway and west of Palehua Road.
- Expanded hotel & resort development (Centex - 320 units at Ko Olina,
- Possible assignment of USN aircraft carrier wing at Kalaeloa (BPNAS) with up to 5000 uniformed personnel; and
- The new Honolulu Aquarium.

While these projects will no doubt generate much needed employment in Ewa, community concerns focus on the impacts these developments will have on traffic, schools, water supply, sewerage systems and other public infrastructure.

ENVIRONMENT – The major environmental concerns are:

- Continued use of the Waimanalo Gulch Landfill site, and
- Inadequacy of the Honouliuli Sewage Treatment Center. The existing sewerage treatment system will be replaced by 2006 at a cost of up to $31.2 million. The facility is planned to service growth in the Ewa Plain to 2020 with capacity increased to 27mgd. This will overcome past problems, which were largely due to equipment malfunction.
‘EWA DEVELOPMENT PLAN

vision elements

1. Protect Open Space and Ag Lands
2. Develop the Secondary Urban Area around the City of Kapolei
3. Build Master Planned Communities that Support Walking, Riding and Transit Use
4. Protect Natural, Historical, and Cultural Resources
5. Phase Development and Provide Adequate Infrastructure

land use policies listing

1. Open Space Preservation and Development
2. Regional Parks and Recreation Complexes
3. Community Based Parks
4. Historical and Cultural Resources
5. City of Kapolei
6. Residential Development
   a. ‘Ewa Villages
   b. Ocean Pointe (‘Ewa Marina)
   c. Existing and Planned Residential Communities
7. Non-Residential Development
   a. Planned Commercial Retail Centers
   b. Ko Olina Resort
   c. Industrial Centers
   d. Kalaeloa (BPNAS)
   e. Pearl Harbor Naval Base (West Loch)
   f. UH West O‘ahu
‘EWA DEVELOPMENT PLAN

infrastructure policies listing

1. Transportation Systems
2. Water Allocations and System Development
3. Wastewater Treatment
4. Electrical Power Development
5. Solid Waste Handling and Disposal
6. Drainage Systems
7. School Facilities
8. Public Safety Facilities
9. Other Community Facilities
10. Added of Changed Public Facilities

infrastructure policies listing

1. Phasing of Development
   a. Phasing Areas
   b. Public Facility Investment Priorities
   c. Private Development Priorities
2. Special Area Plans
3. Functional Plans
4. Land Use Approval Reviews
5. Annual CIP Review
6. Biennial Report
7. Five Year Development Review
8. Transition from Previous System
   b. General Plan Guidelines
   c. Review and Revision of Development Codes
EWA DEVELOPMENT PLAN
Vision and Policies Digest
(Effective October 1997)

1. EWA’S ROLE IN OAHU’S DEVELOPMENT PATTERN
Ewa plays a key role in implementing the directed growth policies of the General Plan of the City and County of Honolulu.

Campbell Industrial Park opened in the early 1960's, bringing industry and jobs to the Leeward Coast, which previously had been predominantly a sugar economy and plantation lifestyle. In the 1970's, residential growth began in Ewa with the development of Makakilo and Ewa Beach.

In 1977, the Honolulu City Council approved a new General Plan for Oahu which designated Ewa as the location for a Secondary Urban Center for Oahu to be centered on the City of Kapolei. The Secondary Urban Center is to be a focus for major economic activity and housing development, and a center for government services.

In support of the General Plan policies, the Ewa Development Plan:

- Provides a secondary employment center with its nucleus in the City of Kapolei to supplement the Primary Urban Center (PUC) and to divert commuter traffic from the PUC;
- Concentrates primary employment activities at industrial and resort areas and at government service and higher education centers around the City of Kapolei so that secondary markets are created for office and retail activities;
- Provides for significant residential development throughout Ewa, consistent with the General Plan to meet Oahu's needs for housing unavailable in the PUC;
- Provides a variety of housing types from affordable units and starter homes to mid-size multi-family and single-family units;
- Promotes diversified agriculture on prime agricultural lands along Kunia Road and surrounding the West Loch Naval Magazine in accordance with the General Plan; Provides a secondary resort area at West Beach (Ko Olina);
- Helps relieve urban development pressures on rural and urban fringe Development Plan Areas (Waianae, North Shore, Koolaupoa, and Koolaupoko) so as to preserve the "country" lifestyle of these areas; and
- Provides, along with the PUC, a focus for directed and concentrated public and private infrastructure investment.
2.1 VISION STATEMENT (and PLANNING HORIZONS)
The 1997 Ewa Development Plan has two planning horizons.
- The first is the 25-year Planning Horizon to the year 2020. When adopted in 1997, the plan expected growth to include a population of about 125,000, about 28,000 new housing units, 64,000 jobs, a new UH campus, new resorts at Ko Olina, the Ewa Marina, regional and community parks, and the City of Kapolei with commercial areas, government services and offices. This horizon quantifies expected growth impacts in order to identify land and infrastructure needs.
- The second, the Build-out Horizon, establishes the urban growth boundary to protect agricultural lands and open space for the foreseeable future.

2.2 KEY ELEMENTS OF THE VISION
The vision for Ewa's future will be implemented through the following key elements:
- Establish an Urban Growth Boundary,
- Retain Prime Agricultural Lands,
- Create a Network of Open Space and Greenways,
- Create a continuous Shoreline Park along the Ewa coastline,
- Establish a major Regional Park and Recreation Complex at Kalaeloa (at the former Barbers Point Naval Air Station),
- Establish The Secondary Urban Center,
- Develop a Network of Master Planned Residential Communities, including rehabilitated Ewa Villages,
- Design Communities to support non-automotive travel,
- Preserve a right-of-way for a future Rapid Transit Corridor,
- Conserve Natural Resources,
- Preserve and enhance Ewa’s Cultural and Historical Resources, and
- Phase Development to Ensure Adequate Infrastructure.

3. LAND USE POLICIES, PRINCIPLES AND GUIDELINES
The vision for development of Ewa will be implemented through application of land use general policies, principles, and guidelines. The following general land use policy areas are addressed:
- Open Space Preservation and Development
- Regional Parks and Recreation Complexes
- Community Based Parks
- Historical and Cultural Resources
- City of Kapolei
- Residential Development
- Non-Residential Development
3.1 OPEN SPACE PRESERVATION AND DEVELOPMENT
The planning approach for the Ewa DP involved two major parts.
- First determine what areas should be preserved, protected or developed for public enjoyment and benefit.
- Determine how remaining areas should be developed.

Policies for open space preservation and development are summarized below:

3.1.1 GENERAL POLICIES
Use open space to:
- Provide long range protection for diversified agriculture on lands outside the Urban Growth Boundary,
- Protect scenic views and provide recreation opportunities,
- Define the boundaries of communities,
- Provide a fire safety buffer where developed areas border “wild lands”, and
- Create linkages between communities through a network of Greenways along transportation, utility and drainage corridors.

3.1.2 PLANNING PRINCIPLES
Planning principles for implementing the Open Space policies include:
- **Visual and Physical Definition of Urban Areas** – Areas outside the urban growth boundary define the regional urban pattern, while within the boundary, open space will visually define and distinguish neighborhoods, communities and land uses.
- **Passive and Active Open Spaces** – Active areas include parks, golf courses and agricultural fields. Passive areas include State conservation and agricultural districts, drainage and utility corridors.
- **Creation of an Open Space Network** - using transportation routes utility corridors and drainage ways.
- **Dual Use of Drainage ways and Utility Corridors** – Linking corridors can be used for pedestrian and bike paths.
- **Accessibility of Recreational Open Space** – This includes access to shoreline and mountain areas.

3.1.3 RELATION TO OPEN SPACE MAP
These open space components are indicated on the Open Space Map in Appendix A of the planning report and show Mountain and Agricultural Areas, Natural Gulches and Drainage ways, Public access to shoreline, Parks, Golf Courses, and greenways or Open Space Corridors.

3.1.4 GUIDELINES
Guidelines are included for the preservation, conservation, access and use of:

3.1.4.1 Mountain Areas
- Public campground and hiking trails to be acquired on the slopes of the Waianae Range.
- Provide public access to trail heads and public campgrounds.
- Access to trail heads and campgrounds from a Makaiwa Hills to be provided.
- Forests in high elevations to be maintained with minimal disturbance from utility corridors and similar uses.
- Important ecological zones to be identified and protected.

3.1.4.2 Natural Gulches and Drainage ways
- Gulches on Waianae Range foothills to be preserved.
- Improvements to Ewa drainage system should be integrated into the regional open space network.

3.1.4.3 Shoreline Areas
- Public pedestrian access to the shoreline should be provided at ¼ mile intervals.
- Public access intervals should not exceed one mile and should provide facilities for water supply and waste disposal.
- Near shore wetlands to be maintained as wildlife habitats.
- Landowners should coordinate efforts to create continuous shoreline easements.
- Access along Ewa Marine coastline should be provided.
- A 60 to 150 foot setback should be provided along the shoreline.

3.1.4.4 Agricultural Areas
- Support facilities for intensive agriculture should be permitted.
- Support facilities for limited outdoor recreation should be permitted where farming is not suitable.
- Farm support buildings should be located to have minimal impact on nearby urban areas and roads.

3.1.4.5 Parks
- Provide a major park at Kalaeloa for beach and other recreation uses.
- Other beach and shoreline parks should be located throughout the Ewa coastline (e.g. 2 at Ko Olina and expansion of Oneula Beach Park by 9.4 acres.
- Pu‘u Kapolei and Pu‘u Palailai should be maintained as natural visual feature.

3.1.4.6 Golf Courses
- Golf courses should optimize their function as drainage retention areas.
- Safe public access should be provided through golf courses.
- Golf courses should provide view amenities and public rights-of-way.
- Landscape screening should avoid use of fencing or solid barriers.
3.1.4.7 Wild lands – Urban Fire Hazard Setbacks
- Additional setbacks may be required in some areas to reduce the risk of fire spreading from “wild lands” to developed areas.

3.1.4.8 Greenways and Open Space Corridors
- Sufficient easements should be provided for major utility lines when outside a road right-of-way to permit landscaping and maintenance.
- Sufficient width to be provided for landscaping of rights-of-way where overhead utility lines exist.
- Utility easements should permit pedestrian and bicycle routes.
- Rights-of-way for major arterials and collector streets should be designed as landscaped parkways or greenways with median strips, sidewalks and bikeways.

3.2. REGIONAL PARKS AND RECREATION COMPLEXES

3.2.1 GENERAL POLICIES
Regional Parks - Regional parks in the Ewa region include:
- *Kalaeloa Regional Park* at the former BPNAS will include:
  - 2 wetland areas and an endangered plant preserve,
  - a proposed Hawaiian cultural park, and various passive and active recreational uses
  - access to a continuous shoreline easement from Ewa Marina to Ko Olina.
- *Kapolei Regional Park* – This 73 acre park will provide diverse active and passive recreation areas close to the City Center and the Villages of Kapolei.
- *Pu’u Palailai Park* – Will be a nature park below Makakilo offering views of the Ewa Plain, Honolulu and Diamond Head.
- *Golf Courses* – Ewa has 7 golf courses with 5 more to be added. These golf courses help provide protection for open space, natural drainage ways and linkages for the open space network.

Recreation Complexes – Several sports and recreation complexes are proposed in various areas of Ewa, but appropriate community and environmental integration will be required.

3.2.2 PLANNING PRINCIPLES
Planning principles for regional parks and recreation complexes address issues of *Appropriate Scale and Siting*, and *Community Integration*.

3.2.3 GUIDELINES
General guidelines are included for island wide and regional parks, sports and recreation complexes, transportation facilities, views, landscape treatment, natural environment and location of facilities.
3.3 COMMUNITY-BASED PARKS

3.3.1 GENERAL POLICIES
Park space will be developed to meet the island-wide standards of 2 acres of park per 1,000 residents as set by the Department of Parks and Recreation. Based on this standard, an additional 76 acres of community-based parks and recreation areas are to be developed to meet the needs of the projected 2020 Ewa population. Access to recreational resources via gulches, mountain and seashore trails should be protected and expanded.

3.3.2 GUIDELINES
- Development of Community based parks with a preference for centrally located in neighborhoods and co-located with elementary or intermediate schools. Joint development of major athletic facilities will enable dual use and reduce duplication.
- Access to Mountain Trails – Access to mountain trails in the Palehua Ridge area should be provided as part of the Makaiwa hills project.
- Siting – Tentative sites for district parks are shown on the Open Space Map. Sites for community and neighborhood parks to be determined based on community facility design considerations and funding priorities.

3.4 HISTORIC AND CULTURAL RESOURCES

3.4.1 GENERAL POLICIES
Ewa’s history and cultural roots should be protected to help retain Ewa’s sense of place with protection for significant views, landmarks, and historic features from the plantation era.

3.4.2 PLANNING PRINCIPLES
- Preservation and protection of historic, cultural or archaeological sites with high preservation value.
- Adaptive reuse gives a new function while preserving historic value.
- Compatible Setting - Adjacent uses should not conflict with historic or cultural sites.
- Accessibility - accessibility should be determined by the characteristics of the site.
- Public Views – Design and siting of structures should maintain / enhance views of significant landmarks.
- Utilities should be placed underground.

3.4.3 GUIDELINES

3.4.3.1 OR&L Historic Railway
- Method of Preservation
  - Repair and maintain existing track where feasible.
• Restore rail link between Ewa Villages and Waipahu and to Ko Olina if feasible.

Adaptive Reuse
• Use of the railroad for historic theme rides to be encouraged.
• A paved bikeway should parallel the rail route.

Adjacent Uses
• A minimum 50-foot setback on each side of OR&L right-of-way for new development, but some exception could be allowed.
• Adjacent bikeway to be landscaped and amenities provided.
• Railroad accessory structures permitted within ROW and setback area.

3.4.3.2 Lanikuhonua

Method of Preservation
• Appearance of house and grounds maintained close to present condition.
• Maintain landscape character and relationship to shoreline environment.
• Site should be used for Hawaiian cultural events.

Adaptive Reuse
• Focus on grounds as site for Hawaiian cultural themed outdoor events.
• Low-key commercial entertainment use allowed on occasional basis.

Architectural Character
• Modifications limited to repairs, rehabilitation or minor expansions.
• Landscaping focus on coco palms and native species (hala & ilima)
• Maintain visual relationship with shoreline and natural cove.

Adjacent Uses
• Landscaping should mask view to/from Ko Olina resort.
• Provide informal public access along fronting shoreline.

Public Access
• Maintained as private facility with limited public access.

3.4.3.3 Native Hawaiian Cultural and Archaeological Sites

Method of Preservation
• Preservation in situ required where State Preservation Officer has recommended.
• Preservations methods should be determined on a site-by-site basis.

Adjacent Uses
• Site boundaries, setbacks and adjacent use restrictions should be determined on a site-by-site basis.
• Criteria for adjacent uses should included appropriate sight lines.

Public Access – Appropriateness of public access should be determined on a site-by-site basis following consultations.

3.5 CITY OF KAPOLEI
This revised Ewa Development Plan incorporates key policies, planning principles, and guidelines for the City of Kapolei from the former Development Plan, as well as from the City of Kapolei Urban Design Plan approved by the
City Council by resolution in 1995, and the Unilateral Agreement adopted as part of the zoning ordinance in 1990. This section describes the general policies, planning principles, and guidelines applicable to development of the City of Kapolei.

3.5.1 GENERAL POLICIES
The City of Kapolei should serve as the "downtown" for the Secondary Urban Center. As such, it should be a prime employer with a balanced mix of business and residential areas, complemented by the recreational, social and cultural activities of a city. It is envisioned to be a true city, with mixed-use development and encompassing a full range of urban land uses, and laid out in small blocks connected by a grid system of public streets.

3.5.1.1 Districts
- City Center – High-density core with larger office towers, ground level shopping and restaurants and some apartments.
- Commercial District – Large lot commercial uses with off-street parking with building coverage of less than 25%.
- Civic Center – City and State offices in an urban park setting.
- Mixed Use Districts – Medium density up to 6 floors with commercial areas adjoining the City Center and along Kapolei Parkway and residential area Makai of Kapolei Regional Park and near Ft. Barrette Road.
- Village Center District – Local shopping district for residents living Makai of Kapolei Parkway.
- Residential District – Multi family housing located Makai of Kapolei Parkway.

3.5.1.2 Key Open Space Elements
- Kapolei Regional Park – This park serves as the major park for Kapolei and should include diverse recreational, athletic and cultural opportunities.
- Wai Aniani Way – Major open space axis within highest density area of the City Center.
- Palailai Mall – A cross-axis to Wai Aniani Way connecting residential sector to the business district.
- Village Walk – Informal pedestrian spine with landscaping, street furniture with non-conflicting accommodation for both pedestrians and bicyclists.

3.5.2 PLANNING PRINCIPLES
The 7 major themes for the City of Kapolei include:
- A Hawaii Garden City - City within a garden with abundant landscaping
- Healthy Living through integration of recreation opportunities,
- Complete Community Services available in the city center,
- Easy Access to all areas of the City,
- Design Reflecting the Past, but adaptable to present and future needs,
- Environmental Sensitivity that focuses on resource conservation,
• *Transit Access and Orientation* transit nodes serving higher density areas.

### 3.5.3 GUIDELINES

#### 3.5.3.1 Urban Form –
Short blocks ill provide pedestrian routes between work places and other activities and encourage walking.

#### 3.5.3.2 Natural Environment and Landscaping –
Focus on xeriscaping and non-potable water use to maintaining a shaded and landscaped garden city.

#### 3.5.3.2 Public Access and Circulation
- Designed for safe, easy and efficient access for pedestrian, bicycle, and vehicles to each district.
- Clear hierarchy of arteries and local streets forming a modified grid pattern and providing a variety of routes for circulation.
- Street cross-sections designed to match road function and create an image for each type of street.
- Provide bus pullouts and shelters.
- Medians wide enough to accommodate future rapid transit line.
- On-street parking allowed until entire roadway is needed for vehicles.
- Bike lanes on major roadways and connected to region’s bikeway system.

### 3.6 RESIDENTIAL DEVELOPMENT

#### 3.6.1 EWA VILLAGES

##### 3.6.1.1 General Policies –
City and County of Honolulu ownership of land comprising the Ewa Villages ensures continued tenancy and preservation efforts. Structural rehabilitation and reuse will create about 1,900 housing units with supporting infrastructure and open space.

##### 3.6.1.2 Planning Principles –
Established planning principles include:
- Preservation of Plantation Village Character.
- Retention of Historic Buildings.
- Compatible Infill Development.
- Support of Community Facilities.

##### 3.6.1.3 Guidelines
- **Urban Form** – Maintain grid development pattern, similar lot sizes, exterior appearances and design characteristics.
- **Circulation** – Continue grid street pattern, narrow streets and present use of Renton Rd.
• **Open Space/Views** – Provide development buffers preserve village
greens and walkways, preserve mature trees and plants with canopy trees
along streets

### 3.6.2 EWA MARINA

The former Ewa Development Plan included specific development objectives,
planning principles, and standards to guide development approvals for Ewa
Marina. Ewa Marina's development is also guided by the **Ewa Marina Urban
Design Plan** approved by the Department of Land Utilization in 1994 and by land
use, environmental, and design requirements included in the Special
Management Area Use Permit and in the Unilateral Agreement attached to the
zone change ordinance (1993).

#### 3.6.2.1 General Policies

- Ewa Marina should be the region's principal recreational marina
destination for local residents and visitors.
- The marina should provide recreational boating opportunities, supported
by 1,400 boat slips, marine haul-out and other repair facilities, and a public
boat ramp.
- Ewa Marina should provide substantial public areas through shoreline and
waterfront access, expansion of One'ula Beach Park, and creation of a
District Park on Fort Weaver Road.
- The existing community commercial center at Ewa Beach should be
enlarged by development on land along Ft. Weaver Road.
- On the west, a mix of activities should be sited around the marina basin,
including a **Marina Mixed Use** area with resort and commercial
development, a **High Density Residential** area, and a **Marine Industrial**
area.

#### 3.6.2.2 Planning Principles

- **Appropriate Scale and Siting** – Large building volumes should be
minimized through building envelope restrictions, site planning and
landscaping.
- **Environmental Compatibility**
  - Residential areas should receive minimal noise impacts.
  - land uses at Ewa Marina should be compatible with airport
    operations and respect airport approach and clear zones.
  - Noise should be kept to an acceptable level in existing and planned
    residential areas.
  - Adverse impacts in the coastal zone should be avoided.
- **Community Integration** - The Marina should be linked with surrounding
areas, such as Ewa Beach and Kalaeloa, by connecting roadways,
walkways, landscape and architectural design.

#### 3.6.2.3 Ewa Marina Land Use Map
The Ewa Marina Land Use Map (Exhibit 3.5, illustrates conceptual land uses with the following special land use designations.

- Marina Industrial
- Marina Mixed Use
- High Density Residential
- Low and Medium Density Residential

### 3.6.2.4 Guidelines

#### Urban Form

- **Marina Industrial** - A light industrial marina support area should be developed adjacent to the marina.
- **Marina mixed use** - A maritime commercial center with associated visitor units should be developed adjacent to the marina.
- **High Density Residential Area** - A high density residential area located adjacent to the Marina Mixed Use area and across the marina waterway.
- **Low and Medium Density Residential Area** - A residential community characterized by low-rise apartments and single-family homes should be developed in this area. Building heights should generally not exceed 30 feet.

#### Natural Environment

- Wetlands and other wildlife habitats should be retained, enhanced and protected.
- The golf course and marina should be designed to accommodate storm water runoff with siting ponds developed mauka of the site to preserve water quality.
- Surf sites should be preserved.

#### Public Access

- Continuous public pedestrian pathway along the shoreline
- Access to the entire waterway and ocean shorelines should be available.
- Support facilities should be provided at all sandy beaches.

#### Views and Vistas

- Views from public streets and thoroughfares to the mountains and sea should be preserved and enhanced wherever possible.
- Hotel and apartment facilities should be oriented lengthwise away from the Waterfront.

#### Circulation

- The street network should connect Ewa Marina to the City of Kapolei.
- All Roadways should have bus pullouts and shelters, bike paths and sidewalks.

#### Landscape Treatment

- Generous landscaping to promote tropical beauty and space.
- Promote continuity between various land uses.
- Promote privacy shade and climate control.
3.6.3 EXISTING AND PLANNED RESIDENTIAL COMMUNITIES

3.6.3.1 General Policies
- Maintain a density range of 10 to 15 units per acre.
- Build high density housing (25 units per acre) along transit corridor and higher at transit nodes.
- Physically define neighborhoods using street patterns, landscaping, etc.
- Employ a variety of housing types and densities to avoid monotony.
- Incorporate street patterns that support mass transit service.
- Encourage pedestrian and bicycle travel especially within neighborhoods.
- Encourage connections between neighborhoods by integrating corridors.
- Provide community facilities.

3.6.3.2 Guidelines
- **Low Density Residential** – 5-12 units per acre with height limit of 2 stories.
- **Medium Density Residential** – Town houses of 10 to 30 units per acre with limit of 3 stories.
- **High Density Residential** – Apartments adjacent major collector streets, transit nodes and in City of Kapolei with heights of 90 to 150 feet.
- **Architectural Character** set by building scale, roof form and material quality.
- **Circulation System** – Define street hierarchy with transit-oriented facilities, pedestrian and bike routes and landscaped corridors.

3.6.3.3 Relation to Urban Land Use Map
Residential areas designated as Low and Medium Density Residential, and High-Density Residential are shown on the Ewa Urban Land Use Map in Appendix A.

3.6.3.4 Relation to Zoning
Zoning guidelines are given which permit use of Land Use Ordinance categories without needing to revise the Development Plan.

3.7 NON-RESIDENTIAL DEVELOPMENT

3.7.1 PLANNED COMMERCIAL RETAIL CENTERS

3.7.1.1 General Policies
Commercial centers outside the City of Kapolei should support nearby residential communities and should be centrally concentrated rather than spread along arterial roads. Four types are envisioned:
- Neighborhood Commercial Center – up to 100,000 sq. ft. on 5-10 acres.
- Community Commercial Center – up to 250,000 sq. ft. on 10-30 acres.
3.7.1.2 Planning Principles

- Mixed Uses – primarily retail and office uses
- Appropriate Scale – building mass should fit with surroundings.
- Compatible Style – Character should respect nearby features and neighborhoods.
- Accessibility – Accessible to pedestrians, bicycles, and transit routes.

3.7.1.2 Guidelines

Guidelines are provided for the physical development of both neighborhood and community commercial centers. These guidelines address various design issues related to building siting, architectural forms, building relationships, pedestrian and vehicular access and landscape elements.

3.7.2 KO OLINA RESORT

3.7.2.1 General Policies

Ko Olina Resort should be an integral part of the Secondary Urban Center. It should be a water-oriented residential and resort area with substantial waterfront areas for public use with preservation of natural open space along the entire shoreline.

3.7.2.2 Planning Principles

- Appropriate Scale and Siting – Minimize visibility of large buildings from waterfront and residential areas.
- Environmental Compatibility – Designed to minimize noise levels and any adverse impacts in the coastal zone.
- Community Integration – Resorts should be linked with adjacent areas using roadways, walkways, and landscape design.

3.7.2.3 Ko Olina Land Use Map

Ko Olina Land Use Map shows land uses and a schematic view of the roadway system within the Ko Olina Resort and designates land uses as: Resort, High Density Residential, Marina Mixed Use, Low and Medium Density Residential.

3.7.2.4 Guidelines

Guidelines for development of Ko Olina address issues of urban form, natural environment, shoreline access, views and vistas, circulation system, transportation facilities, and landscape treatment.

3.7.3 INDUSTRIAL CENTERS

3.7.3.1 General Policies
In addition to the two industrial centers in Ewa, some industrial activity can be permitted in other dispersed areas such as:

- **Barbers Point Industrial Area** – should accommodate light industrial uses and possibly an additional electrical plant.
- **Honouliuli Industrial Area** – smaller industrial area for waste water treatment and light industrial uses.
- **Other Industrial Areas**
  - Service oriented industrial uses can be allowed in Kapolei Business Park and within Kalaeloa.
  - Hawaiian Electric Company generating plant can be expanded.
  - The industrial area planned for the western edge of Ewa Marina should focus on marina related industrial uses.

### 3.7.3.2 Planning Principles

- Appropriate Scale – minimize visual impact through appropriate siting and landscaping.
- Environmental Compatibility – Activities that discharge air or water pollutants should be located in areas where environmental harm is minimized. Noise levels should not be excessive near residential areas.

### 3.7.3.3 Guidelines

- **Barbers Point Industrial Area** – Guidelines address issues of coastal environment, building height and mass, use allocation, and landscape treatment.
- **Honouliuli Industrial Area** – Guidelines address issues of building height and mass, roadway setbacks.
- **Other Industrial Areas** - Guidelines cover issues related to separation of use areas and landscape treatment.

### 3.7.3.4 Relation to Urban Land Use Map

Industrial areas are shown on the Urban Land Use Map, but industrial zoning may be granted to public transportation or utility uses as well.

### 3.7.4 KALELOA (BARBERS POINT NAVAL AIR STATION)

A Special Area Plan will guide Kalaeloa development, which should be consistent with the general policies, principles and guidelines in the Development Plan.

#### 3.7.4.1 General Policies

Development of a major new regional public park, and provision of continuous lateral public access along the shoreline are priority reuse options for the BPNAS Local Reuse Plan.

#### 3.7.4.2 Planning Principles

Base redevelopment should be integrated into the Ewa circulation system and land use pattern. Landscaping should be used to minimize visual impact of large buildings, etc.
3.7.4.3 Guidelines
Parks - A major regional park should be developed within the BPNAS area.
Coastal Environment - Coastal setback should be 60’ minimum with public access along the shoreline.
Separation of Use Areas - Major land use areas should be separately distinguished from one another.
Circulation System - Roadways should connect City of Kapolei to shoreline parks with bus stops serving facilities and areas.
Landscaping - Unsightly buildings and airport/industrial areas should be appropriately screened.

3.7.5 PEARL HARBOR NAVAL BASE (WEST LOCH)
The naval magazine Lualualei will remain and enlargement is not needed. The City should request public shoreline access and wetland areas should be protected.

3.7.6 UNIVERSITY OF HAWAII WEST OAHU

3.7.6.1 General Policies
The campus with about 7,600 students by 2020 should evoke a unique sense of place within Ewa. The campus should support pedestrian access to transit nodes. Campus open space can be used for flood detention and retention.

3.7.6.2 Planning Principles
- University development should be environmentally and culturally sensitive to its site and surroundings.
- The campus should be integrated with the broader regional community.
- The campus should serve the Kapolei area and West Oahu.
- Campus design should reflect appropriate functional relationships, be compact and provide accessibility to academic functions.
- As part of the Kaloi Gulch watershed, campus drainage should not exacerbate or cause negative impacts to the drainage flow.

3.7.6.3 Guidelines
Architectural Forms – Siting of buildings should promote academic continuity and access to support facilities and areas. Low-rise structures with regional forms should prevail.
Landscape Forms – Landscaping should provide shade, enhance circulation corridors and buffer various areas. Native species are preferred where possible.
Circulation – Circulation routes should provide easy access with minimal modal conflicts. Links to the regional public transportation system is integral to the plan.
Open Space/Views – Open space components should be integrated with campus design including links to adjoining regional open space system and the preservation of mauka-makai views and landscape buffering between unsightly functions.
4. PUBLIC FACILITIES AND INFRASTRUCTURE
POLICIES AND PRINCIPLES

4.1 TRANSPORTATION SYSTEMS
This section describes the existing conditions and plans and proposals for
development of Ewa's roadways, transit system, and bikeways.

4.1.1 EXISTING ROADWAY NETWORK
Major east-west arterials of the Ewa roadway system include the H-1 Freeway
and Farrington Highway.
North-south roads, which distribute traffic onto and off of the east-west arterials
include:
- Fort Weaver Road
- Kunia Road
- Fort Barrette Road
- Makakilo Drive
- Kalaeloa Boulevard

4.1.2 PLANNED EXTENSIONS OF THE ROADWAY NETWORK
The 2020 Oahu Regional Transportation Plan (prepared by OMPO in 1995)
and the Ewa Region Highway Transportation Master Plan (prepared by a
landowner developer consortium in 1992) show major elements of the future Ewa
roadway network and include:
- Kapolei Parkway which is planned as a major east-west corridor,
  connecting the eastern parts of Ewa with the City of Kapolei and
  employment areas to the west,
- A new North-South Road which will link Kapolei Parkway with Farrington
  Highway and the H-1 Freeway and extend on mauka of the H-1 Freeway
  interchange to become part of Makakilo Drive,
- Improvements to existing H-1 Freeway interchanges at Palailai, Makakilo,
  and Kunia,
- New H-1 Freeway interchanges at Kapolei and Makaiwa Hills, and
- Extension of Hanua Street parallel to Kalaeloa Boulevard to enhance truck
  access between the H-1 Freeway and Campbell Industrial Park.

4.1.3 ADDITIONAL ELEMENTS OF THE ROADWAY NETWORK
Additional east-west and north-south roadways will be needed to enhance
movement between the various parts of the Ewa region, namely:
- An improved roadway link between Fort Barrette Road and the Kalaeloa
  Regional Park
- Extension from the North-South Road south of Kapolei Parkway into the
  Kalaeloa Regional Park
- Development of an east-west collector roadway system
- Development of additional north-south roads
4.1.4 TRANSIT
Transit service in Ewa should be increased to enhance circulation within Ewa and with adjacent Waianae and Central Oahu Areas and peak hour service.

4.1.4.1 Bus Service
The Comprehensive Bus Facility and Equipment Requirements Study examined the need to:
- Increase buses serving Ewa from 35 to 88, with 45 high capacity buses,
- Increase capacity and frequency of service as well as add new routes,
- Provide transportation centers and park-and-ride facilities (DTS identified two park-and-ride sites with others to be identified as demand develops.

4.1.4.2 Planned Rapid Transit Corridor
The Ewa rapid transit corridor is planned to run from Waipahu along the Farrington Highway right-of-way, turning south at the North-South Road and west again in the Kapolei Parkway right-of-way to the City of Kapolei. The corridor could eventually extend to Barbers Point Harbor and a turn-around/maintenance facility could be sited in the Kapolei Business Park.

4.1.5 BIKEWAY SYSTEM
Major bike paths should run along the OR&L right-of-way and Kapolei Parkway and along the North-South Road and Fort Weaver Road. Bikeways should be incorporated in other major roadways, and there should be an extensive network of bike lanes within the City of Kapolei and Kapolei Villages.

4.1.6 GENERAL POLICIES
The following general transportation systems policies support the vision for development of Ewa.

- Adequate Access and Services - provision of adequate transportation access & services should be part of the zoning approval process.
- Transportation System Functions -
- Improved Linkages
- Reduction in Automobile Use – Auto dependency should be reduced by:
  - Separating pedestrian and bikeway paths with convenient routes for public transit service,
  - Use traditional grid pattern street system,
  - Provide supporting facilities and amenities for pedestrian, bicycle, and public transit use.
  - Acquire dedicated rapid transit right-of-way and support high-density and high traffic land uses along the corridor.

4.1.7 PLANNING PRINCIPLES
- Comprehensive Roadway Network - The roadway system should be designed to provide multiple routes for traveling among the various...
residential communities and activity centers of Ewa, and increase connections between parallel major collectors and arterials.

- **Land Use Planning Anticipating Rapid Transit** - Planning for all the communities along the proposed transit corridor on Farrington Highway, North-South Road, and Kapolei Parkway should reflect the desire to establish a rapid transit corridor with high-density residential and commercial nodes located at regular intervals.

- **Transit Oriented Community Street Systems** - Circulation systems should emphasize connections between north-south and east-west streets and accessibility to bus routes, parks, schools and commercial centers. Circulation systems should be designed to facilitate bicycle and pedestrian travel, to increase transit use, and to reduce d

- **Community Level Street Standards** - Standards for public streets should be revised to support and improve pedestrian and bicycle travel and on-street parking.

4.2 WATER ALLOCATIONS AND SYSTEM DEVELOPMENT
To support Ewa’s future development, The Board of Water Supply estimates that an additional 35 mgd of potable water will be needed by 2020. Long-term demand for non-potable water is estimated to be about 25 mgd and agricultural demand at 10 mgd. The Board of Water Supply has identified potential water sources to meet these expected needs in Ewa through 2020. The Oahu Water Management Plan’s strategy is to develop ground water sources coupled with efforts to increase efficient use, conservation and development of alternative water sources.

4.2.1 GENERAL POLICIES

- **Adequacy of Water Supply** should be assured prior to development.

- **Dual Transmission Lines** - Where required, developments should have dual water lines to allow conservation of potable water and use of non-potable water for irrigation and other appropriate uses.

- **Development and Allocation of Potable Water** - the Board of Water Supply should coordinate development of potable water sources and allocation of all potable water intended for urban use on Oahu.

- **Use of Non-potable Water** should be developed for irrigation.

- **Use of Waiahole Ditch Water** will be primarily for agriculture.

- **Water Reclamation** - The City will reclaim and distribute wastewater effluent, provided that paying customers can be found for the nonpotable water.

- **Integrated Resource Management** - Management of all potable and nonpotable water sources, including ground water, stream water, storm water, and effluent reuse should be integrated through amendments to the Oahu Water Management Plan.

4.3 WASTEWATER TREATMENT
The Department of Environmental Services estimates treatment/disposal capacity at the Honouliuli Wastewater Treatment Plant will need to be increased from existing capacity for primary treatment of 38 million gallons per day (mgd) to almost 51 mgd by 2020 to meet projected population and economic growth in Ewa and Central Oahu.

4.3.1 GENERAL POLICIES
- All wastewater produced by new developments in Ewa should be connected to a regional or municipal sewer service system.
- Where feasible, effluent should be treated and used as a source of nonpotable water for irrigation and other uses.
- Wastewater treatment plants should generally be located in areas shown as planned for industrial use and away from residential areas.

4.4 ELECTRICAL POWER DEVELOPMENT

4.4.1 GENERAL POLICIES
- Major system improvements such as development of a new power generating plant and/or major new transmission lines -- should be analyzed and approved based on island wide studies and siting evaluations.
- Electrical power plants should generally be located in areas shown as planned for Industrial use and away from Residential areas

4.5 SOLID WASTE HANDLING AND DISPOSAL
Two disposal facilities are located in Ewa. H Power at Campbell Industrial Estate is at capacity and Waimanalo Gulch Sanitary Landfill will reach capacity within ten to twenty five years (counting from 1997). Potential expansion sites include Kahe Valley, a site within the West Loch Magazine Blast Zone, and a site in Kapolei

4.5.1 GENERAL POLICIES
East Kapolei site should not be developed as a landfill. Siting of sanitary landfills should be determined through island-wide studies and siting evaluations.

4.6 DRAINAGE SYSTEMS
Low-lying parts of the Ewa Plain are subject to flooding during intense rainstorms. Flood control has typically employed concrete-lined channels to convey storm waters to the ocean. Such discharge, however, is a major source of non-point source pollution of near shore waters, with significant negative impacts. As per federal government regulations, the City requires retention and/or detention facilities to handle surface runoff on developed sites. However, undeveloped mountain areas generate considerable runoff with no specific responsible party.

Drainage improvements are planned for:
A major new system to drain Makaiwa Hills, Kapolei Business Park, and the industrial areas closest to the Barbers Point Deep Draft Harbor;

Expansion of the channel at the western edge of BPNAS to provide additional capacity for the City of Kapolei;

A system to drain the West Loch Drainage Basin, serving Ewa by Gentry and development in East Kapolei; and

A system to drain the Kaloi Gulch Drainage Basin.

The **Makaiwa Hills system** will have detention basins mauka of the H-1 Freeway and a 120-foot-wide concrete-lined channel to convey storm waters to an ocean outlet just south of Barbers Point Harbor. Drainage improvements in the **West Loch Drainage Basin** must be constructed to handle storm water runoff from existing and proposed projects located in the basin.

The drainage plans for Phase I of the Ewa by Gentry East project call for a grass-lined drainage channel running immediately east of the project's boundary.

The Ewa Villages and Ewa by Gentry projects are handling drainage within their projects through the development of golf courses and will adequately meet the Department of Public Works’ drainage and environmental requirements for storm water runoff.

Other proposed urban development projects in the basin, including the University of Hawaii West Oahu and the Ewa Marina project have not yet received City approval for their drainage master plans.

4.6.1 GENERAL POLICIES

- Emphasize control and minimization of non-point source pollution and retention of storm water on site, within open space and wetland areas.
- Storm water considered as irregular source for aquifer recharge.
- Vegetated drainage ways and retention basins should be the preferred solution to drainage problems where possible.

4.6.2 PLANNING PRINCIPLES

- **Retention and Detention** – Storm water run off should be managed using methods of retention or detention for gradual release into the ground.
- **Relation to the Regional Open Space Network.** – Developers should integrate planned improvements to the drainage system into suitable components of the regional open space network.
- **Key Role of Ewa Marina** – Timely development of the Ewa Marina is a key element to mitigate drainage impacts in the Kaloi Gulch watershed.
- **Relation to the Ewa Village Master Plan and Other Previously Approved Developments in the Basin.** - Solutions to drainage problems on lands above Ewa Villages must be compatible with the drainage design of the
Ewa Villages Master Plan and other approved developments in the Kaloi Gulch drainage basin.

4.7 SCHOOL FACILITIES
The DOE has projected a need by 2020 for nine new elementary schools, two new intermediate schools, and at least one new high school in Ewa. An additional high school will be needed after 2020. Sites have been reserved for two of the elementary schools, one intermediate school, and one high school. Sites for elementary schools are not designated because their sites are of community rather than regional concern and should be determined as part of a master planning and design process.

4.7.1 GENERAL POLICIES
- State Department of Education to review and recommend on adequacy of school facilities.
- Developers to pay their fair share of all costs for provision of adequate school facilities.

4.7.2 PLANNING PRINCIPLES
- **Schools as Community Centers** - School should be designed to assume important functions as cultural and recreation centers and as meeting facilities for their communities.
- **Co-location with Parks** – Elementary and intermediate schools should be co-located with neighborhood or community parks with designs coordinated accordingly.
- **Shared Facilities** – DPR should coordinate development and use of athletic facilities to reduce duplication of function.
- **Fair Share Contribution** – Residential developers will be requested to make fair share contributions toward provision of adequate school facilities.

4.8 PUBLIC SAFETY FACILITIES

4.8.1 GENERAL POLICIES
Ensure public safety through adequate staffing and facilities to provide fire and police protection for Ewa development.

4.9 OTHER COMMUNITY FACILITIES
- **Colleges and Hospitals** – Should be located in urban areas near transite nodes, commercial centers, or high density residential areas
- **Correctional Facilities** – Should be located on industrial or agricultural lands. A City review and approval process with public review, analysis, and policy approval should be used.
- **Other Major Facilities** - Major public, quasi-public or private facilities or utilities providing essential community services, but with possible adverse
impact on surrounding land uses should be considered through a City review and approval process.

4.9 ADDED OR CHANGED PUBLIC FACILITIES
Public facilities other than those listed in this plan shall be identified on the Public Infrastructure Map.

5. IMPLEMENTATION

Implementation of the Ewa Development Plan will be accomplished by:
- Phasing development to support the vision for Ewa and to maximize the effect of infrastructure investments;
- Guiding development in areas of critical concern including Kalaeloa (BPNAS) through Special Area Plans;
- Guiding public investment in infrastructure through Functional Plans which support the vision of the Development Plan;
- Recommending approval, approval with modifications or denial of developments seeking zoning and other development approvals based on how well they support the vision for Ewa's development;
- Incorporating Development Plan priorities through the Public Infrastructure Map and the City's annual budget process;
- Evaluating progress in fulfilling the vision of the Ewa Development Plan every two years and presenting the results of the evaluation in the Biennial Report; and
- Conducting a review of the vision, policies, principles, guidelines, and CIP priority investments of the Ewa Development Plan every three years and recommending revisions as necessary.

5.1 PHASING OF DEVELOPMENT
Three types of areas are identified in the Phasing Map indicating when zoning changes and infrastructure investment would be supported if the project advances the Development Plan vision for Ewa and implements the relevant policies, principles and guidelines:

5.1.1 PHASING AREAS
- Urban Expansion, 1997 – 2005 - High priority areas supported for zoning changes and infrastructure investments within the next eight years.
- Urban Expansion, 2006 – 2015 - Secondary priority areas supported for zoning changes and infrastructure investments after the next ten years.
- Urban Expansion, 2016 and Beyond - Projects in these areas will generally be supported for zoning changes and infrastructure investments if projects in the earlier phases have demonstrated substantial progress.

5.1.2 PUBLIC FACILITY INVESTMENT PRIORITIES
Highest priority CIP projects to support the Ewa Development Plan, especially during the first eight years (1997-2005) are:

- A dedicated Rapid Transit Corridor linking the City of Kapolei, Kapolei Village, the UH West Oahu Campus, and Waipahu;
- City Offices in the City of Kapolei;
- State Offices in the City of Kapolei;
- The University of Hawaii West Oahu campus in the vicinity of Pu'u Kapuai and north of the H-1 Freeway;
- The North-South Road and other elements of the Ewa Regional Highway Transportation Plan;
- Drainage Plans for Kaloi Gulch, Kapolei, and West Loch Watersheds;
- New potable and non-potable water sources; and
- Expanded wastewater treatment plant capacity, and reclamation of effluent from the Honouliuli Wastewater Plant for non-potable water uses.

5.1.3 DEVELOPMENT PRIORITIES
Applications for zoning and other regulatory approvals for developments, which are consistent with the Development Plan vision and policies and are located in the High Priority Areas, will be processed during the first eight years (1997 - 2005).

5.1.4 EXCEPTIONS TO DEVELOPMENT PRIORITIES
Support for a project in a Secondary Priority Area could be appropriate during the first phase if:

- The vision for economic development in Ewa would be significantly advanced by development of the project;
- Affordable housing needs or job creation objectives would not otherwise be met;
- Development of higher priority areas has been delayed; and
- Infrastructure cost considerations support development of the project before projects in higher priority areas.

5.2 SPECIAL AREA PLANS
Barbers Point Naval Air Station (BPNAS) is the only area in Ewa identified for Special Area Plan status. Its Special Area Plan will be a combination of a Redevelopment District and Resource Area Plan.

5.3 FUNCTIONAL PLANS
Functional plans provide guiding principles and strategies to be used by functional agencies to determine needs, priorities, development phasing and secure financing. City agencies with functional planning responsibilities include:

- Department of Design and Construction
- Fire Department
- Department of Housing and Community Development
- Department of Parks and Recreation
5.4 REVIEW OF ZONING AND OTHER DEVELOPMENT APPLICATIONS

A primary way in which the vision of the Ewa Development Plan will guide land use will be through the review of applications for zone changes and other development approvals. Approval for all development projects should be based on the extent to which the project supports the policies, principles, and guidelines of the Development Plan.

5.4.1 ENVIRONMENTAL ASSESSMENT

Projects involving a significant zone change will be required to submit an Environmental Assessment. A significant zone change means:

- The application covers 25 acres or more.
- The project exceeds 10 acres and involves a change to a Residential or Country zoning district;
- The project exceeds 5 acres and involves a change to an Apartment, Resort, Commercial or Mixed Use zoning district.
- The project would have major social, environmental or policy impacts or cumulative impacts from a series of applications in same area.

5.4.2 PROJECT MASTER PLANS

The Project Master Plan is intended solely as a guide to help describe in words and illustrations how a project promotes the vision, policies, principles and guidelines for Ewa.

5.4.2.1 Coverage and Scope

The Project Master Plan should cover all phases of a project and should describe, how the project conforms to the vision for Ewa, and the relevant policies, principles, and guidelines for the project site, the surrounding lands, and the region.

5.4.2.2 Key Elements

A Project Master Plan should contain the following elements:
- Statement of Consistency with the Ewa Development Plan Vision.
• **Site Analysis** – describes how the proposed development physically relates to existing site features and its surroundings.
• **Land Use** – indicate proposed pattern of land use by zoning district category.
• **Open Space** – indicates how the proposed development promotes the DP vision policies, principles and guidelines of the integrated open space system.
• **Circulation** – indicates general street pattern and connection to regional roadway network.
• **Design Theme or Character** – depicts intended general urban design and theme for the development.
• **Telecommunications** – indicates sites and network conduit facilities to meet expected telecom needs, if any.

5.4.2.3 **Review Procedures**
The Department of Planning & Permitting shall review the Project Master Plan concurrently with the Environmental Assessment/Environmental Impact statement and shall determine whether the Project Master Plan supports the Ewa Development Plan vision or request changes. The DLU will review recommendations prior to submitting the project to the Planning Commission and City Council.

5.4.2.4 **Modification of Master Plan for Future Phases**
Later phases of large phased projects will be considered as conceptual, but would not necessarily require a new environmental assessment, Master Plan review or separate approval by the City unless there was a major alteration.

5.4.3 **ADEQUATE FACILITIES REQUIREMENT**
All projects requesting zone changes shall be reviewed to determine if adequate public facilities and infrastructure will be available to meet the needs created as a result of the development. Level of Service Guidelines to define adequate public facilities and infrastructure requirements will be established during the Capital Improvement Program.

5.4.4 **ZONING APPLICATION REVIEW** – Zoning applications will be reviewed for consistency with the General Plan, the Ewa Development Plan and any applicable Special Area Plans.

5.4.5 **UNILATERAL AGREEMENTS** – Before enacting a zone change, conditions may be imposed on the applicant’s use of the property in the form of a unilateral agreement.

5.4.6 **DEVELOPMENT AGREEMENTS** – The city may negotiate a Development Agreement with a zoning change applicant, which sets forth mutually acceptable contractual conditions.
5.5 ANNUAL CIP REVIEW
Annually, the Director of DPP will work jointly with the Director of Budget and Fiscal Services and the City agencies to review all projects in the City’s Capital Improvement Program (CIP) budget for conformance to the purposes of the **General Plan**, the Ewa Development Plan, and other Development Plans, any applicable Special Area Plan provisions, and the appropriate Functional Plans. The Director of DPP will make a written report of findings in the budget submittal to the Council. Public review of how projects in the City's CIP budget help accomplish the vision of the Ewa Development Plan should be a high priority.

5.6 BIENNIAL REPORT - Every two years, the DPP prepares the **Biennial Report**, which reviews the City in terms of the General Plan and the Development Plans.

5.7 FIVE YEAR DEVELOPMENT PLAN REVIEW
The Department shall conduct a comprehensive review of the Ewa Development Plan and shall report its findings and recommended revisions to the Planning Commission and the City Council five years after adoption and every five years thereafter. In this review, the Plan will be evaluated to see if the regional vision, policies, principles, guidelines, and implementing actions are still appropriate and if any revisions are required.

5.8 TRANSITION FROM THE CURRENT SYSTEM
This section discusses the transition from the former Development Plan to this revised Development Plan, including its independence from Development Plan Common Provisions, its relationship to the General Plan guidelines, and the need for review and revision of development codes, standards, and regulations.

5.8.1 DEVELOPMENT PLAN COMMON PROVISIONS AND EXISTING LAND USE APPROVALS
This Development Plan will go into effect upon adoption by ordinance. At that time, the revised Development Plan will become a self-contained document, not reliant on the Development Plan Common Provisions, which formerly applied to the Ewa Development Plan as well as all the other Development Plans. Land use approvals granted under previously approved Development Plan amendments would remain in force and guide zoning decisions unless clearly inconsistent with the vision and policies of the Ewa Development Plan.

5.8.2 RELATION TO GENERAL PLAN POPULATION GUIDELINES
The Ewa Development Plan implements the **General Plan** population policies (in Population Objective C) as follows:
- Ewa's share of Oahu population in 2010 will be below the current **General Plan** population distribution range, but is expected to move closer to the range by 2020.
Development will be encouraged within the secondary urban center at Kapolei and the urban fringe areas in Ewa. The recommended land use pattern also implements Population Objective C. Policy 3, which is to limit growth in areas outside the PUC, Central Oahu, and Ewa so that the suburban and country character of these outlying areas can be maintained. The General Plan population distribution guidelines will continue to be used as a guide to direct the pattern of growth and development in the Ewa Development Plan Area.

5.8.3 REVIEW AND REVISION OF DEVELOPMENT CODES
As part of the development plan revision process current regulatory codes and standards should be review and revised to maintain consistency with objectives and policies envisioned for all Development Plan areas. The following codes and standards may be reviewed and revised accordingly.

- **Land Use Ordinance** (Chapter 21, Revised Ordinances of Honolulu).
- **Subdivision Rules and Regulations** (Department of Land Utilization, pursuant to Chapter 22, Revised Ordinances of Honolulu).
- **Traffic Standard Manual** (Department of Transportation Services, July 1976, as revised).
- **State Highways Division Procedures Manual**, Vol. 8, Chapter 5, Section 4 (State Department of Transportation).
- **Storm Drainage Standards** (Department of Public Works, March 1986).
- **Park Dedication Rules and Regulations** (Department of Land Utilization, pursuant to Chapter 22, Article 7, Revised Ordinances of Honolulu).
- **Wastewater Management Design Standards** (Department of Wastewater Management Design Standards, Volumes I and II)
Ewa Development Plan
Five Year Review

Department of Planning and Permitting
City and County of Honolulu

January 2004
Presentation Overview

- Basic Information about the Ewa Development Plan
- Overview of the Five Year Review
- Questions and Answers
- Refreshment Break
- Where We’ve Been and Where We Are Going
Presentation Overview

- Basic Information about the Ewa Development Plan
  - 1992 Charter and DP Revision
  - Format of the Plan
  - Overview of Role and Vision for Ewa
  - DPs as part of Honolulu’s Planning and Development guidance system
Oahu is divided into Eight Development Plan Areas
Development Plans

Sustainable Communities Plans

Development Plan Areas

- PRIMARY URBAN CENTER
- KO'OLAU LOA
- NORTH SHORE
- CENTRAL OAHU
- KOOLAUPOKO
- EWA
- EAST HONOLULU

◆ Development Plans
Sustainable Communities Plans
Honolulu’s Land Use Planning and Management System

Development Plans and Sustainable Communities Plans

Implementing Ordinances & Regulations
- Zone Changes
- Land Use Permits
- Land Use Ordinance
- Sign Ordinance
- Subdivision Ordinance
- Etc.

Special Area Plans

Functional Planning
- Water Use
- Wastewater
- Transportation
- Solid Waste
- Parks

General Plan

CIP Projects
Development Plans and Sustainable Communities Plans

- 1992 City Charter Amendment required revision of all Development Plans.
- Only the DP for the Primary Urban Center has not been revised.
- Ewa DP was the first to be revised. The revised Plan took effect in October 1997.
Development Plans and Sustainable Communities Plans

- Format for the Ewa DP
  - Role in Oahu’s Development
  - Vision for Ewa’s Development
  - Land Use Policies
  - Infrastructure Policies
  - Implementation Methods
Basic Information about the Ewa Development Plan

- DPs as part of Honolulu’s Planning and Development guidance system
- 1992 Charter and DP Revision
- Format of the Plan
- The Vision for Ewa’s Future
  - General Plan Role
  - Development Plan Vision
General Plan Role for Ewa

- Location for Oahu’s Second Urban Center
- Job Development to provide alternatives to commuting to Honolulu
- Master planned low-rise suburban residential communities in urban fringe
- Diversified agricultural areas protected
The Vision for Ewa’s Future

- Protect Open Space & Agricultural Land
- Develop The Secondary Urban Center
- Build Master Planned Communities That Promote Walking, Biking, and Transit
- Protect Natural, Historic, and Cultural Resources
- Provide Adequate Infrastructure
Basic Information about the Ewa Development Plan
- DPs as part of Honolulu’s Planning and Development guidance system
- 1992 Charter and DP Revision
- Format of the Plan
- Overview of Role and Vision for Ewa
Presentation Overview

- Basic Information about the Ewa Development Plan
- Overview of the Five Year Review
Overview of the Five Year Review

- Background
- Scope
- Goals
- Work Program & Schedule
Background for the Review

- Plan was adopted in August 1997 and took effect in October 1997
- Plan was amended in 2000 to change the review period from three to five years
Scope of the Review

- Sec. 5.7 calls for DPP to
  - conduct a comprehensive review of the Plan every five years, and
  - report recommendations and recommended revisions to the Planning Commission and City Council
Specific questions that the review must address

- Are the Plan Vision, Policies, Principles, Guidelines, and Implementing Actions still appropriate?
- Is the purpose of the Development Phasing Guidelines being achieved?
- Should the Phasing Priorities should be revised?
The Ewa DP identified three types of areas for development phasing:

• Urban Expansion: 1997-2005
• Urban Expansion: 2006-2015
• Urban Expansion: 2016 and beyond
Goals for the Review

- Evaluate the Ewa DP and Recommend Appropriate Revisions
- Involve the Community in the Review
- Establish the Model for Future DP and SCP Reviews
- Submit a Report and Revised Plan to Council by mid-2004
Work Program

- Briefing Package and Presentation
- Community Interviews
- Workshop I: Orientation and Evaluations
- Draft Report/Plan Revision Preparation
- Workshop II: Draft Report/Plan Review
- Final Report and Plan Preparation
Current Status

- Briefing Package
  - Overview Presentation
  - Vision Scorecard
  - Public and Private Developments in Ewa
  - Community Issues
    - Neighborhood Board Minutes
    - Interviews and Small Group Meetings
    - Workshop Comment Cards
Current Status

- Conducting Interviews & Focus Groups

  - Ewa Vision Team
  - Ewa Neighborhood Board
  - Makakilo Neighborhood Board
  - Campbell Estate
  - Gentry
  - Schuler
  - Haseko
  - Ko Olina Resort
  - Farmers

  - Hawaii Community Development Authority
  - State Housing & Community Development Corp. of Hawaii
  - University of Hawaii - West Oahu
  - State Department of Transportation
  - State Department of Hawaiian Home Lands
  - U.S. Fish & Wildlife
  - U.S. Dept. of Defense (Navy, Coast Guard)
Schedule

- Aug 03: Interviews/Focus Groups Begun
- Oct 03: Draft Briefing Materials Prepared
- Jan 04: Workshop I: Orientation, Evaluation and Suggestions
- Feb 03: Review Comments and Prepare Draft Report and Proposed Revisions
Schedule

- Mar 04: Draft Report/Plan Ready
- Apr 04: Workshop II: Draft Review
- May 04: Review Comments
- Jun 04: Final Report/Plan Ready
- Jul 04: Planning Commission Hearing
- Aug 04: PC transmits to City Council
Presentation Overview

- Basic Information about the Ewa Development Plan
- Overview of the Five Year Review
Let’s Take a Break
Presentation Overview

- Basic Information about the Ewa Development Plan
- Overview of the Five Year Review
- Refreshment Break
- Where We’ve Been and Where We Are Going
Where We’ve Been and Where We Are Going

- What has happened since 1997?
- What do we know about what might happen in the future?
- How do we make sure we get where we want to go?
Resources for Answering the Questions

- Draft List of Completed, Planned and Proposed Developments
- Draft List of Completed, Planned and Proposed Infrastructure and Public Facilities
- Draft List of Issues: Some Old, Some New
The Vision Scorecard: 1997-2003

- Protect Open Space & Agricultural Land
- Develop The Secondary Urban Center
- Build Master Planned Communities That Promote Walking, Biking, and Transit
- Protect Natural, Historic, and Cultural Resources
- Provide Adequate Infrastructure
Protect Open Space and Agricultural Lands

Urban Growth Boundary Protects Agricultural Lands and Open Space
Protect Open Space and Agricultural Lands

Phasing protects Diversified Agriculture Farms which are in operation on former sugar lands along H-1 and Waianae side of Waipahu
Create the Open Space Network

Greenways Along Transportation Routes, Utility Corridors, and Drainageways are being created to link Major Open Space Areas
Create the Open Space Network

- **Acreage of Active and Passive Recreation Areas Increased from 2,000 acres in 1997 to 2,400 acres in 2002**
- **Active and Passive Recreation Areas are projected to increase to 6,200 by 2020**
Create the Open Space Network

- City Residents Gained Access to 450 acres of Shoreline Park in the Kalaeloa Regional Park

- Transfer of Lands from Navy to City Not Yet Completed
Create the Open Space Network
Protect Shoreline Access

Protect Public Access to the Ewa Shoreline from Tracks Beach Park
Protect Shoreline Access
to Ko Olina Resort Beach Areas and Lagoons
Protect Shoreline Access

To the Newly Opened Kalaeloa Beaches, Oneula Beach Park, and on to Iriquois Point
The Vision Scorecard: 1997-2003

- Open Space Is Protected
- The Secondary Urban Center is developed
The Secondary Urban Center is Developed

- City of Kapolei
- Resort Development
- Industrial / IMX Development
- UH West Oahu Campus
- Redevelopment of Kalaeloa
- Increased share of Oahu population and jobs
City of Kapolei is Growing

- Total Jobs increased from 2,200 in 1997 to 4,500 in 2002
- Total Jobs are projected to grow to 30,000 by 2020

The chart shows the increase in total jobs from 1997 to 2020, with a significant rise from 2,200 to 4,500 between 1997 and 2002, and a projected increase to 30,000 by 2020.
Resort Development Restarts

The initial plan for eight hotels at Ko Olina has been scaled back and revised, ...
Resort Development Restarts

...focusing now more on time share units
Resort Development Restarts

…and resort condominiums in smaller scale buildings
Resort Development Restarts
Resort Development Restarts
Resort Development Restarts

- 103 New Time Share Units Built at the Marriot Beach Club, and 290 Resort Condos Built at Fairways, Coconut Plantation, and Kai Lani
- 4,000 new Units are projected to be built at Ko Olina and OceanPointe by 2020
Resort Development Restarts

- New Resort Attractions Are Under Development
Industrial Jobs Increased

- Industrial Development
  - *Rise in Total Industrial Jobs*
  - New Industrial Acres Added

![Graph showing increase in total industrial jobs from 1997 to 2020.](chart.png)
New University of Hawaii
West Oahu Campus Site Selected

- Site at Corner of North – South Road and Farrington Selected, but
- State Commitment to Build New Campus in Question
Closure of BPNAS resulted in loss of jobs.

Redevelopment activities are bringing jobs back
- Airport use for flights / training
- Relocation of the Hawaii Army National Guard

Major Unknown: Aircraft Carrier Wing ??
Ewa’s Share of Oahu Population Has Grown

- Ewa’s population has grown by about 5,000 persons since 1997
- Ewa’s share of Oahu’s population has grown from 7.7% to 8.2%
The Vision Scorecard: 1997-2003

- Protect Open Space
- Develop The Secondary Urban Center
- Build Master Planned Communities That Promote Walking, Biking, and Transit
Master Planned Communities are Built
- 4000 new homes 1997-2002
- Affordable homes available
- Links to open space, landscaping and distinctive features
- Transit use, biking, and walking encouraged
- Transit Corridor is preserved
The Vision For Ewa’s Future

- Natural, Historic, and Cultural Resources are Protected
  - Natural Drainageways
  - Wildlife Sanctuaries
  - Significant Views
  - Lanikuhonua
  - Ewa Villages
  - OR&L Historic Railway
  - Native Hawaiian cultural and archaeological sites
The Vision For Ewa’s Future

- Adequate Infrastructure is Provided
  - Roads and Transit Service
  - Schools
  - Water
  - Wastewater
  - Kaloi Gulch Drainage
  - Solid Waste
  - Electrical Power Plant
  - Police & Fire
Phase Development; Provide Adequate Infrastructure

- **Ewa Highway System**
  - Oahu Regional Plan (TOP2025)
  - Ewa Highway Master Plan
  - Ewa Highway Impact Fees
  - Preservation of the Transit Corridor

- **Regional and In-Town Bus Rapid Transit System**

- **Rail Transit**
Phase Development; Provide Adequate Infrastructure

SCHOOLS

- Ewa Beach and Campbell High projected to be over capacity by 2007
- Ocean Pointe Elementary to open in 2006
- Gentry Ewa Makai Middle School to open in 2008
- East Kapolei Elementary, Middle School and High School to open between 2010 and 2020
Presentation Overview

This completes our presentation on

- The Ewa Development Plan
- The Five Year Review
- Indicators of Progress
- Projections of Future Development

If you have any questions or comments, we’ll do our best to discuss them with you today. If you still have questions or comments after the workshop:

Contact Bob Stanfield of the DPP Planning Division at 527-6094 or 527-6743 fax by e-mail at bstanfield@co.honolulu.hi.us
Q. Is development of UHWOC site in agreement with Urban Growth Boundary (UGB)?
A. The original 500-acre site selected by the Board of Regents was within the UGB. Under Governor Cayetano, the site was moved mauka of the H-1 freeway and outside of the UGB. The proposed Ewa DP was revised to show the UH symbol in the mauka location, but the surrounding land was still shown as outside the UGB to indicate that only the campus should be developed outside the UGB. Since then, the University has revisited the siting decision and decided to return to the original site within the UGB. That location is shown as designated for low density residential development so that residential development of a portion of the 500 acre campus would be supported by the Ewa DP.

Q. Please put the Orientation PowerPoint presentation on the Web.
A. It will be done as soon as possible.

Q. What is the relationship with Mililani? The perception is that Mililani is growing faster than Ewa and becoming a town center instead of another bedroom community.
A. Ewa’s role is to be the site of both Oahu's 2nd urban center and suburban residential community development. Central Oahu (including Mililani) also are to provide suburban residential community developments. Central Oahu initially did grow faster than Ewa but in recent years, Ewa has grown as fast or faster than Central Oahu.

Ewa has many more job centers developing than Central Oahu does, including the City of Kapolei, Ko Olina, Campbell Industrial Park, the deep draft harbor, Kapolei Business Park, Kalaeloa, and the UH West Oahu campus.
Q. What is Ewa's role vis-à-vis traffic generation with 75% commuting to the Primary Urban Center?

A. Even with very ambitious assumptions about future Ewa growth, the vast majority of jobs on Oahu will still be located in the area from Pearl City to Kahala (at Pearl Harbor, the Airport, Downtown, the University at Manoa, and Waikiki). Job creation in Ewa and Central Oahu will help reduce some congestion (reducing traffic volume by 25% by one estimate), but it will not be enough to relieve the congestion problems on the commute to downtown Honolulu. Transportation planners estimate that, even with construction of all the highway projects identified in the long range transportation plan, existing conditions of congestion and delay for highway travel are unlikely to significantly improve.

As a result, we need to look at competitive alternatives to single occupant use of the automobile. That is why the Ewa Plan and the recently adopted Central Oahu Plan call for an emphasis on developing transit and high occupancy vehicle travel to provide such an alternative.

**Comment:** In developing the Ewa Plan before 1997, we looked at how transportation problems in Ewa are related to development of other communities like Waianae, Central Oahu, and the North Shore. That is why a moratorium just for Ewa would not work, because those other areas would keep on developing, adding to the congestion.

We also were looking at a wide range of alternatives to help solve the transportation problems, not just highways. We need to develop all of those alternatives, including a ferry, transit, and car pools.

Response: Agree that the Ewa Plan envisioned a package of options. One important distinction is between improvement designed to facilitate movement within the Ewa region and those intended to improve the commute between Ewa and the PUC. Many of the current transport problems extend beyond Ewa.
• Comment: The root cause of the problem is that people commute to town for jobs. We need to create new jobs in Ewa on a 2:1 ratio to each new housing unit. The focus should be on creating high tech jobs. Agree that Ewa developers are helping hook up the pieces necessary to move around within Ewa. Feel that there needs to be a stronger commitment to provide jobs as an alternative to commuting. The State has not sufficiently committed to employment creation in Ewa. The UH West Oahu Campus would be a major job center which should be developed instead of the rail transit project. State and City must be committed to job growth in Ewa and the DP needs to be strongly committed to job growth.

• Comment: DOE has said categorically that they will not build more schools in Kapolei, even though the money was appropriated for a new school.

As for the UHWOC, the Regents have to say that they want to see it go forward if it is to happen.

It is not the State's role to create jobs; that is private industry's role.

• Comment: We should have government officials try the commute during school session and during non-school session (so they can experience what we must deal with every day). The impact of school traffic on congestion and delay is major.

• Comment: Ewa is a key piece of Oahu. We need to approach the planning for Ewa in a more wholistic manner. It needs to be clear that jobs are welcomed in Ewa, and to anticipate the kinds of jobs that could be developed. Plan needs to emphasize jobs and facilitate jobs more than it does.

• Comment: The State is responsible for jobs creation. For example, the State is using tax credits to promote and encourage Ko Olina development. Development of Kalaeloa is a responsibility of both the State and the City. The
Legislature needs to appropriate money, and the Regents need to decide if they are going to support the UH WOC.

- **Comment**: Regents have changed their approach with regard to UH WOC. The new regents have questioned the justification for the campus while previous regents were supportive.

- **Comment**: We need additional job sites in Ewa, especially in the Ewa Beach area.

- **Comment**: Stationing of the Stryker Force will affect development plan.

- **Comment**: Tax credits had strings attached that required developers to create jobs and incur tax liabilities that the credits could be applied against. It would help traffic if the UH would build the UH WOC and moves some of Manoa's functions out to Ewa. The State will not raise taxes needed to build the rail system. It is a City responsibility, and the City needs the authority to raise their taxes.

- **Comment**: With regard to Hawaii Railway and Bikeways, easements exist and we should utilize them. We should fully implement the Pearl Harbor Historic Trail. Need to keep mechanism of rail alive with the Feds.

- **Comment**: Need Ewa Community to testify and support legislation needed to get NS Road built.

- **Comment**: State should consider shifting some jobs to Kapolei and should facilitate this within City Government and State Government.

- **Comment**: The good news is that Infrastructure in Ewa has been sized and installed to service higher density development, but it has not yet occurred.

The participants divided into four groups to discuss issues regarding:

- Development Process
- Schools
- Transportation; and
- Jobs and Economic Development

Each group was asked to identify additional information they needed, questions or concerns they would like addressed, and suggestions or solutions to consider.
COMMENTS FROM EWA DP FIVE YEAR REVIEW ORIENTATION WORKSHOP ISSUES GROUPS  
JAN 31, 2004

DEVELOPMENT ISSUES GROUP

Information Needed
- Timing for other non-residential projects – commercial, industrial, educational, resort, etc.
- Timing for infrastructure development
- Timing for military decisions affecting Ewa
- Projected job creation number

Questions And Concerns
- How do we ensure that there is sufficient affordable housing?
- How do we match infrastructure with development – not only residential, but also commercial, industrial, and other?
- Why is transit route being changed?
- How can we tie residential development with local job creation?

Suggestions
- Can Federal funding be made available for infrastructure improvements if Stryker Force is stationed in Schofield Barracks, or if aircraft carrier is stationed at Kalaeloa?
- Include plans for UHWOC.
- Ensure that there is full coordination between all entities (fed, state, city, private) when planning / building infrastructure.

SCHOOLS ISSUES FOCUS GROUP

Information Needed
- When will a need for additional High School or schools arise?

Questions And Concerns
- What will impact on Ewa schools be with Stryker Force being located in Schofield?
- Will Federal impact monies be provided to schools and how to make sure we receive a fair share?
Suggestions

- Currently there are two methods of building schools
  - Traditional legislative funds appropriated to DOE; DAGS builds.
  - Design-build developer dedicates land, legislature provides funding, and developer or non profit designs and builds.
  - Generally design build is quicker or faster. Encourage DOE to design build if it is possible
  - DOE Allow developers to fast track construction of schools in their development.
- DOE is top heavy. Why do a high percentage of funds dedicated to DOE go toward administration and consolidating positions?
- Encourage increased community involvement in State agencies such as DOE.

TRANSPORTATION ISSUES GROUP

Information Needed
- Reference should be made to:
  - OMPO
  - ORTP/TOP 2025
  - TIP

Additional Maps Needed
- Public Facility Maps
- Public Infrastructure Maps
- Pearl Harbor Historic Trail
- Leeward Oahu Bike path

Questions And Concerns
- Need to know what else is affecting transportation plan completion.

Suggestions
- Complete North South Road including interchange at H1 and connection to Makakilo.
- Completion of Kapolei Parkway
- Explore alternatives to single occupancy.
Kunia interchange needs to be expanded to 3 lanes H1 continuous
Ferry system
Motorcycle lane
Rail issues
Create Jobs – UHWOC, Tech Park, Kalaeloa, Industrial Parks.

JOBS AND ECONOMIC DEVELOPMENT ISSUES GROUP

Information Needed
- Federal activity affecting the area (Stryker, Ford Island, etc.)
- Job statistics.
- Overview of job/economic development incentives
- Statistics needed on ratio of homes to jobs.

Specific Questions
- How to attract and keep jobs in Ewa?
- What is needed to promote relocation of Government services?
- What is union’s role in the coordination of government relocation?
- Are there other incentives available to promote job/economic growth?

Suggested Solutions
- Attract new business to Ewa.
- Expand general, not commercial aviation at Kalaeloa.
- Add Ewa Beach as job center.
- Reaffirm and expand vision of job centers planned for Ewa.
- Promote Recreation sports entertainment development in Ewa.
- Create incentives for private boat owners to provide alternative transportation.
- Create funding mechanism to support infrastructure upgrade needed to allow full redevelopment of Kalaeloa.
- Assure full coordination of development of Kalaeloa / Kapolei.
- An entity needs to research opportunities for grant funding to achieve 5 major vision elements of the Ewa DP.
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Beginning in February 2004, at the invitation of the City and County, the U.S. Environmental Protection Agency Smart Growth Program, the University of Hawaii Sea Grant Program and School of Architecture, the Urban Land Institute Hawaii, the American Institute of Architects Hawaii, and the Campbell Estate joined with the City to sponsor a series of workshops and meetings to evaluate how the 'Ewa Development Plan and the City of Kapolei Urban Design Plan might better incorporate "Smart Growth Principles."

**Smart Growth Objectives and Principles.** The U.S. Environmental Protection Agency (EPA) defines Smart Growth as growth that "focuses on the long-term economic, environmental, and social health of communities" in order to:

- "Help minimize the impacts of new development (public infrastructure costs, congestion, air pollution, loss of agricultural land, etc.);
- Provide greater accessibility and choices in how we move about from home, work, shopping and leisure activities;
- Stabilize and improve long-term financial performance for commercial and home owners;
- Maximize return from public investments in existing and new roads, schools, utilities, transit systems, bridges, waterways, etc.;
- Protect natural habitat and watersheds for the future; and
- Foster a greater sense of connection, responsibility and continuity for citizens within their communities."¹

"Smart growth is not opposed to growth; rather it is focused on how and where growth occurs."²

As described on the EPA website, "Based on the experience of communities around the nation that have used smart growth approaches to create and maintain great neighborhoods, the Smart Growth Network developed a set of ten basic principles:

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices
4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions."³

**Smart Growth Team.** A team of nationally renowned planners, architects, developers, urban economists, and transportation planners was assembled by the EPA to consult with stakeholders, lead the workshop sessions, and to provide recommendations for ways to improve the plans and implementing measures (Land Use Ordinance, Subdivision Regulations, etc.)

The team included:

- Geoff Anderson, Environmental Protection Agency;
- Dena Belzer, Principal, Strategic Economics (Berkeley California);
- Jim Charlier, Principal, Charlier Associates (Boulder Colorado);
- Chris Forinash, Environmental Protection Agency;
- Rick Holt, Holt & Everhart (Portland Oregon);
- Brian Leary, Vice President, Jacoby Development (Atlanta Georgia);

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² AASHTO/FHA/US EPA, *Smart Moves: Transportation Strategies for Smart Growth – 2002 Competition*
³ U.S. Environmental Protection Agency, "About Smart Growth" (http://www.epa.gov/dced/about_sg.htm)
May 2-4, 2004 Smart Growth Workshops. A series of well attended workshops involving community members, landowners, builders and developers were held in Kapolei at Kapolei Hale and the Campbell Building.

The team met with developers and governmental agencies staff to discuss Smart Growth on May 2\textsuperscript{nd}, and led a public workshop on the \textit{'Ewa Development Plan} on May 3\textsuperscript{rd} and a charrette on the \textit{Kapolei Urban Design Plan} on May 4\textsuperscript{th}.

In the meetings, the national consultant team presented Smart Growth principles drawn from the team's national work, offered details on mixed-use projects in Atlanta, Portland, and Colorado which had implemented Smart Growth principles to create profitable, successful projects, and collected and discussed questions and concerns from the participants.

Each workshop and the team's recommendations are summarized below:
SmartGrowth: A Workshop for Ewa

Sunday, May 2
1:00 p.m. to 4:00 p.m.
Campbell Building Marketing Room, Kapolei, Hawaii

An Invitation
As a principal stakeholder in the development of the Ewa Region, you are cordially invited to attend a small group workshop hosted by Campbell Estate, the City & County of Honolulu, ULI, EPA, UH.

A Workshop for Developers, Land Owners, Key Decision Makers...
Focusing on Land Use, Transportation, the Environment, and the Economics behind Livable Communities

Speakers
- James Jacoby
- Brian Leary
- Richard E. Holt
- Harrison Hue
- James F. Charles, AICP
- Dena Belzer
- Chris Fornash
- Will Schmeer
- Geoff Anderson
- Bob Odermant, FAIA
- Francis Oda, FAIA

Sponsors
- U.S. EPA
- City & County of Honolulu
- The Estate of James Campbell
- Urban Land Institute – ULI Hawaii
- UH Sea Grant Center for Smart Building and Community Design
- UH School of Architecture

### May 2, 2004 Workshop on Smart Growth for Developers, Owners and Government Agencies Staff

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Major Points</th>
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| Dena Belzer     | • Creating place is a way of creating value for the developer and the residents. A master plan is needed so that the individual pieces fit together. The details are critical.  
• Development needs to be phased, and to build value. Start with the low end and build to the hardest part of the project.  
• Need a public-private infrastructure financing schedule, including financing place making infrastructure for streetscapes, sidewalks, and public parks.  
• Need incentives for developers and proactive plans.  
• Smart Growth does not mean everything has to be vertical mixed use.  
• Mixed use areas hold value best over the long term. The mix of uses provide cross subsidies.  
• Subsidies from government are not needed. What is needed is government participation in place making and help with financing. |
| Brian Leary     | • Atlantic Station in Atlanta financed infrastructure with a Tax Increment Financing (TIF) district. As a result of development of the project, property values went from $300,000 to $25 million. The increased property taxes resulting from this increase in value are being used to pay off the long term bonds used to fund the infrastructure. If you are not using TIF, you are at competitive disadvantage with other cities and states.  
• Shared parking and transit for the site was self-financed.  
• Government helped by doing coordinated and expedited review, and by helping with provision of affordable housing. |
| Rick Holt       | • Used shared parking to reduce the amount of impervious surfaces in Fairview Village  
• Fairview Village is a model of place making, mixed use, and sustainable development that could be expanded to be a model for Kapolei.  
• Needed to resolve code problems to create mixed types of housing.  
• Design is how you make density beautiful.  
• Create the form of the place and allow it to be what it wants to be – retail, residential, or a mix of uses. |
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| Jim Charlier | • Three types of walking:  
  o **Utilitarian**- you walk because you have to get somewhere  
  o **Rambling**- you walk for recreation and exercise  
  o **Strolling and lingering**- you walk between special places where you like to stop, talk, and spend time.  
• Pedestrian environments can be classified as:  
  o **Pedestrian destinations or "places"** which are characterized by limited extent, mixed use development, moderate to high densities, good transit service, great streets, and extensive pedestrian accommodations.  
  o **Pedestrian supportive** environments which are well designed and provide safe walking environments and land uses which generate and attract either utilitarian or recreational walking.  
  o **Pedestrian tolerant** environments are places where you can walk and not be killed, but they are not kid friendly and attract only limited amounts of utilitarian walking.  
  o **Pedestrian intolerant** environments which are places where walking is unsafe and unattractive.  
• Downtown used to be a place where there was shared parking and multiple sales as people walked from store to store  
• Suburban shopping centers typically have 4-6 parking spaces per 1,000 sq. ft. of retail space with the shopping pattern being park-spend-leave (one sale per car)  
• Pedestrian-friendly centers have 1 space per 1,000 sq. ft. of retail space in joint parking and a shopping pattern of park-spend-spend-spend-spend-leave (4-6 sales per car). Key is designing the center so that shoppers are encouraged to walk between stores  
• Focus on creating a place that is attractive rather than on making it easier to get out of Ewa. Faster exits from Ewa will not cure congestion or make H-1 free flowing.  
• Placemaking involves:  
  o Making a place that is friendly to pedestrians, not cars. No community is 100% pedestrian friendly, but you have to consciously decide where the pedestrian destination areas should be located and build accordingly.  
  o Creating communities with centers that have at least three things to do like a library, restaurants, and retail shops  
• You haven’t been successful in place making unless lots of people are hanging out there much of the time, especially on Saturday nights. |
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<tr>
<td>Jim Charlier</td>
<td>• Transportation planning has three important aspects:</td>
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<td>o <strong>Access</strong> – how do you get in the door</td>
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<td>o <strong>Circulation</strong> – how many ways can you get there, how much connectivity is there</td>
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<td>o <strong>Mobility</strong> – how far can you go in a set period of time</td>
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<td></td>
<td>• Connectivity is very important. The trend has been to disconnect from neighbors and the neighborhood. Transportation planning has been</td>
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<td>focused on improving mobility which is in conflict with access and connectivity.</td>
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<td></td>
<td>• Network design needs to be better. What is needed is to:</td>
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<td></td>
<td>o Improve connectivity</td>
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<td></td>
<td>o Leverage economic synergy with mixed use</td>
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<td>o Build community and create value and job centers.</td>
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<td>o Save dollars by focusing on access and connectivity instead of creating excess street capacity needed for auto mobility/speed.</td>
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<td>• Need to stop building suburban pods with only one way in and out.</td>
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<td>• Get the transportation network right at the front end. The roadway network is the longest lasting part of the community, and is very</td>
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<td>difficult to change once it has been established.</td>
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<td>• The plan for the community has to come from the community, not from consultants, and should reflect the culture of the place.</td>
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<tr>
<td>Francis Oda</td>
<td>• It is important to retain a &quot;Hawaiian sense of place.&quot; Great places have cultural and spiritual meanings tied to the land through the</td>
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<td>people that live there, the associations that they have to the land, and the shared history and mythology that they share.</td>
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<td>• Our culture links the past with the future. We have a spiritual sense that tells if change is bringing the loss of something special.</td>
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<td>We are the keepers of the culture, and have the responsibility of making each place more Hawaiian.</td>
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<td>• If we make our places great for local people, tourists will come. For example, the Ward properties transformed night life patterns for</td>
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<td>local people in Honolulu and created a draw for tourists, too. If what is developed is not great for local people, local people will</td>
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<td>hate tourism. Tourists want an authentic local experience, not an artificial experience.</td>
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<td></td>
<td>• There is a Hawaiian sense of place in architecture. We have a regional architecture that is multi-cultural, blending elements of <em>kamaʻāina</em></td>
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<td>architecture, Chinese temples, and New England buildings.</td>
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SmartGrowth:
A Workshop for the Ewa Region

Monday, May 3
8:30 a.m. Registration (free admission)
9:00 a.m. to 4:00 p.m. Kapolei Hale Conference Room

An Invitation
You are cordially invited to attend a PUBLIC WORKSHOP
hosted by Campbell Estate, the City & County of Honolulu, ULI,
EPA and UH Sea Grant and other stakeholders...

A Workshop for all those interested in...
Land Use, Transportation, the Environment, and the
development of Livable Communities in the Ewa Plain

Speakers
- James Jacoby, CEO, Jacoby Development Inc., Atlanta, GA.
- Brian Leary, VP, Design and Development, Jacoby Development, Inc.
- Harrison Rue, Exec. Dir. Thomas Jefferson Planning District Commission
- James F. Charlies, AICP, Charlies Associates, Transportation Consultants
- Dena Belser, Principal, Strategic Economics Inc., Berkeley CA.
- Chris Forman, EPA, Washington D.C.
- Will Schuette, EPA, Washington D.C.
- Geoff Anderson, EPA, Washington D.C.
- Bob Odermatt, FAIA, Architect, Urban Planner, Berkeley CA.
- Francis Oda, FAIA, Chairman, Group 70 International, Honolulu Hi.

Sponsors
- U.S. - EPA
- City & County of Honolulu
- The Estate of James Campbell
- Urban Land Institute - ULI Hawaii
- UH Sea Grant Center for Smart Building and Community Design
- UH School of Architecture

May 3, 2004 Public Workshop on the 'Ewa Development Plan

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Major Points</th>
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</table>
| Ben Lee   | - References on Smart Growth which you may want to consult include:  
  - Local Government Commission, *Creating Great Neighborhoods: Density in Your Community* (September 2003);  
  - International City/County Management Association and the Smart Growth Network, *Getting to Smart Growth: 100 Policies for Implementation* (2002);  
  - Reid Ewing with Robert Holder, *Best Development Practices: A Primer for Smart Growth* (International City/County Management Association and the Smart Growth Network, 1998);  
  - Reid Ewing, *Pedestrian and Transit Friendly Design: A Primer for Smart Growth* (Smart Growth Network and the International City/County Management Association, 1999);  
  - International City/County Management Association and Smart Growth Network, *Why Smart Growth: A Primer* (1998);  
  - U.S. Environmental Protection Agency, *Characteristics and Performance of Regional Transportation Systems* (2004); and  
| Jim Charlimer | - Transportation planning is the most important topic because it establishes the form of the community. In planning the transportation network, you need to decide:  
  - Who you are;  
  - Who you want to be; and  
  - What you want to protect.  
  - Placemaking involves:  
    - Pedestrian Science: how you make places pedestrian friendly; and  
    - Parking Strategy: where do people park and how much parking is provided – less parking is needed than what is typically built now  
  - Connectivity is very important  
    - Roadways should be built more for providing access and circulation and less for providing mobility/travel time reduction  
    - There is an overuse of arterials for local connection in 'Ewa; a grid system providing multiple alternatives should be developed.  
    - Streets are critical to neighborhoods; Streets with high volume divide neighbors and neighborhoods. |
<table>
<thead>
<tr>
<th>Presenter</th>
<th>Major Points</th>
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<tr>
<td>Jim Charlier</td>
<td>• Corridors are difficult to establish. Hang on to the OR&amp;L right-of-way. It will be a valuable resource in the future.</td>
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<td>(continued)</td>
<td>• There is opportunity for economic synergy from the interaction between the City of Kapolei and the adjacent Ko Olina Resort area</td>
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<td></td>
<td>• Evaluation of the <strong>'Ewa Development Plan</strong></td>
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<td>o The vision makes a lot of sense in terms of Smart Growth principles.</td>
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<td></td>
<td>o Actual development in 'Ewa does not reflect the vision very much.</td>
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<td>o The rapid transit corridor &quot;trunk&quot; will happen but the collector network must be established if the &quot;trunk&quot; system is to be successful.</td>
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<tr>
<td></td>
<td>o The devil is in the details.</td>
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<td>o A &quot;pod&quot; system of suburban development projects with one way in and out has been allowed to be created by subdivision approvals.</td>
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<tr>
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<td>• Recommendations:</td>
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<td>o Do better pedestrian planning. Create places and link them to homes.</td>
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<td>Ask where are places of value, where should new places go, how can strip commercial areas be converted to central places?</td>
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<td>o Create a ¼ mile to ½ mile collector/connector grid to fill the gap in the current system which consists of circuitous, inefficient local streets and large, heavily trafficked arterial streets. Provide funding/incentives for development of collector/connector roadways.</td>
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<td>o Connect the existing pod subdivisions together, and prevent creation of any more disconnected pods. Connections and stubouts should be required for all new developments.</td>
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<td>o Plan for internal transit circulation within 'Ewa on the collector/connector grid. Ensure circulation and provide for transit stops.</td>
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<td>• Grid system will be almost impossible to establish on the ridge developments like Makakilo because of the challenges of topography.</td>
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<td>• Gated communities create value by subtracting value from other areas. Older communities that have retained value are not gated and have connections to adjacent subdivisions.</td>
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<td>• Issues that should be addressed include:</td>
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<td>o Local circulation congestion due to lack of connectivity;</td>
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<td></td>
<td>o Financing of transportation infrastructure;</td>
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<td>o Need for innovative solutions like elevated grade fixed rail transit;</td>
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<td>o Preservation of the transit corridor; and</td>
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<td>o Provision of adequate access.</td>
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Issues that should be addressed include:

- Local circulation congestion due to lack of connectivity;
- Financing of transportation infrastructure;
- Need for innovative solutions like elevated grade fixed rail transit;
- Preservation of the transit corridor; and
- Provision of adequate access.
<table>
<thead>
<tr>
<th>Presenter</th>
<th>Major Points</th>
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</table>
| Matt Raimi | • It is important to make the connections between land use, transportation and the environment.  
  • California’s requirement for a regional plan are that it address:  
    o Land Use;  
    o Circulation;  
    o Noise;  
    o Air Quality;  
    o Housing;  
    o Public Services, and  
    o Topics of Importance.  
  • There is a disconnect between the vision of the *Ewa Development Plan* and the outcomes of development that are occurring in ‘Ewa.  
    o Placemaking.  
    o Network of usable open space and corridors  
    o Design of places to support transit use and pedestrian and bike use  
    o Conservation of natural resources; and  
    o Sustainable development.  
  • A much finer grain of planning and detailed design is needed to insure sustainable development. The devil is in the details. |
| Rick Holt  | • Fairview Village in Oregon provides a model for sustainable development.  
  • The natural area for a village is the ¼ mile radius circle with everything within easy walking distance. The key is to develop with sufficient density of residents and workers to support the village center for daily shopping and entertainment.  
  • Connectivity is key to making the village center work.  
  • Concepts used for planning houses can be expanded to plan neighborhoods. The entry to the neighborhoods should be planned so it feels like walking into your home.  
  • Diversity of units is interesting and it encourages tolerance. Include affordable units so that there is a place for everybody in the community.  
  • Uses change over time so build the type of buildings that can accommodate a diversity of uses.  
  • Skinny streets are about community safety. They slow down traffic and make it safe for pedestrians, especially kids.  
  • Design can solve the problems brought by density.  
  • Put some parking in front of stores but put most behind the stores.  
  • Alleys behind the houses are paid for by not having to build driveways off the street in front of the house.  
  • Fairview Village was developed under a special plan district allowing mixed uses because the existing town code would not permit the design. |
Presenter Continued

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Major Points</th>
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<tbody>
<tr>
<td>Rick Holt</td>
<td>• Key Design Features</td>
</tr>
<tr>
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<td>o A community with identity instead of just another bedroom suburb.</td>
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<td>o A focus on family with a design that works for kids and the elderly</td>
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<td>o No fences but low crime because everybody is watching, and the</td>
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<td>pedestrian friendly design encourages a constant flow of walkers</td>
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<td>through the village.</td>
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Participants identified six priorities or concerns for 'Ewa's development:

1. Transportation / traffic;
2. Culture / Recreation;
3. Planning and Zoning;
4. Financing (how to pay for all of the above);
5. Jobs; and

The team asked whether we are implementing the Development Plan to achieve the vision and respond to these priorities.

Participants broke into four discussion groups, and compiled their wish lists for 'Ewa:

**Table 2**

- Create Ohana-friendly neighborhoods and villages which enhance relations between neighbors and serve the needs of all generations.
- Areas where place making should be done:
  - Villages of Kapolei
  - DHHL lands
  - City of Kapolei
  - Palehua East
  - North-South Road intersection with Farrington by UH WO
- Preserve and restore the OR&L Railroad line from Yokohama to Iwilei
- Build UH WOC now
- Better Health Care facilities
- Create Live/Work housing.
- Create affordable housing for teacher retention and for key members of the workforce (firefighters, nurses, etc.)
Table 4

- Connect the neighborhoods.
- Areas where place making should be done:
  - Kalaeloa
  - Gentry Makai
  - OceanPointe
- Live/work/play in the same area to reduce traffic. Encourage home occupations.
- Use schools as gathering places adjacent to parks and commercial centers.
- Uses needed:
  - day care in residential areas
  - backyard mechanics
  - lawn services
  - home repair
  - medical
  - network marketing
  - cultural facilities
  - churches
- Foster entrepreneurial spirit
- Promote connections among people in the communities.

Table 3

- Areas where place making should be done:
  - Makaiwa Hills
  - Villages of Kapolei Fairground area
  - UH West Oahu College
  - Kapolei Middle School
  - Ewa Plantation Villages
  - OceanPointe
- Uses needed in Ewa
  - Churches
  - Art Center
  - Recreation facilities
  - Health facilities
  - Vocational training
  - Department stores
  - Appliance stores
  - Restaurants
  - Performing arts center
- Better design standards
- Better roadway standards and State-City coordination
- Innovative ideas
<table>
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<tr>
<th>Table 1</th>
<th>Uses needed in Ewa</th>
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<tbody>
<tr>
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<td>• Schools, both State schools and pre-schools open from 5 am to 8 pm</td>
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<td></td>
<td>• Churches</td>
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<td>• After-school recreation</td>
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<td>• Convenience stores</td>
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<td>• Ethnic food stores</td>
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<tr>
<td>Areas where place making should be done:</td>
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<tr>
<td></td>
<td>• West Kapolei/Ko Olina</td>
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<td></td>
<td>• East Kapolei</td>
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<td></td>
<td>• Ocean Pointe</td>
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<td>Connectors needed</td>
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<td></td>
<td>• Farrington Highway</td>
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<td>• Kapolei Parkway</td>
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<td>Tax Increment Financing is needed</td>
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<td>A push to create jobs is needed because every job in 'Ewa means one less car on the highway. Build out the City of Kapolei</td>
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SmartGrowth:
Revisions to Kapolei Urban Design Plan

Tuesday, May 4
8:30 a.m. to 3:00 p.m.
Campbell Building Conference Room, Kapolei

An Invitation
You are cordially invited to participate in a charrette for revisions to the City of Kapolei Urban Design Plan, along with local and mainland experts as well as government officials.

A Workshop for Developers, Land Owners, and Key Decision Makers...
Focusing on Urban Design, Mixed Use, Transportation, and the Economics of Livable Communities.

Participants
James Jacoby
Brian Leary
Richard E. Holt
Harison Rus
James F. Charles, AICP
Dena Belzer
Chas Fortmack
Will Schoene
Geoff Anderson
Bob Oda, FAIA
CEO, Jacoby Development Inc., Atlanta, GA.
VP, Design and Development, Jacoby Development, Inc.
Holt & Evenhast Inc. Maxi III, Fairview OR.
Exec. Dir. Thomas Jefferson Planning District Commission
Chandler Associates, Transportation Consultants
Principal, Strategic Economics Inc., Berkeley CA
EPA, Washington D.C.
EPA, Washington D.C.
Architect, Urban Planning, Berkeley CA

Local Participants
Francis Oda, FAIA
City and State Officials
City Councilmembers
Chairman, Group 70 International, Honolulu HI
DPP, UTS, SDOT, and others

Sponsors
U.S. - EPA
City & County of Honolulu
The Estate of James Campbell
Urban Land Institute - ULI Hawaii
UH Sea Grant Center for Smart Building and Community Design
UH School of Architecture

During the charrette, the team raised the following concerns and opportunities that they felt should be addressed in the **City of Kapolei Urban Design Plan**:

<table>
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<tr>
<th>Issue</th>
<th>Comment</th>
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| Main Street                  | • Where is Main Street for the City of Kapolei? The Main Street should be a retail commercial/office street with residential use above.  
  a. What is the Main Street’s relationship to transit? Where is the transit corridor? The transit corridor should either run on Main Street or run perpendicular to it.  
  b. What is the relationship of the Main Street to housing areas in the City of Kapolei? The housing areas should support the commercial and cultural vibrancy of Main Street. |
| Pedestrian Friendliness      | Sidewalk design? Where are the pedestrian friendly streets? Use pedestrian science concepts. Pull the pedestrian away from the curb and create shopping streets.                                                |
| Transit Oriented Development | Design the City to take advantage of Transit Centers/Transit Oriented Development (A transit center is the equivalent of a major grocery store as an anchor.)                                        |
| Malls vs. shopping streets   | Malls are a great solution looking for a problem. Instead of creating pedestrian malls, create a friendly environment for pedestrians but let the automobiles in by allowing store front parking (parallel is okay) and automobile traffic on low speed streets in front of stores. Use alleys for deliveries so that deliveries are not fighting with pedestrians and drive by traffic in front. |
| Office uses                  | Office in the City of Kapolei will be a tough sell. Office uses want to be in Downtown Honolulu. Office development in Kapolei will be later when the business district matures. Reserve office areas. Develop mixed use projects with ground-floor retail and housing in upper stories to set the stage for eventually attracting office uses. |
| UH West Oahu                  | Locating the campus in the City of Kapolei could jump start development of the City, attracting retail and office uses. The decision on the campus location should be revisited.                                |
Final Recommendations. After the May workshops, the team returned twice for meetings and consultations, and prepared final recommendations.

Recommendations for improving the City of Kapolei Urban Design Plan:
1. Fine tune street network and details;
2. Strengthen connections to nearby activities;
3. Create “Transit-Ready” Development in anticipation of arrival of transit system;
4. Focus on building a “Main Street;”
5. It is okay to create a mix of uses as an alternative to building mixed use projects;
6. Add more downtown housing;
7. Review the UH – West Oahu College location decision (consider locating the campus in the City of Kapolei); and
8. Improve implementation & finance tools & policies.

Recommendations for improving the 'Ewa Development Plan and its implementation:
1. Improve connections between regional destinations and activities, and between neighborhoods and communities. The team observed that "development of the roads and streets network on the 'Ewa plain has followed a pattern familiar to suburb areas throughout the U.S." Local roadway networks are built by developers, are "too wide," and range "from well connected internal systems to "loops and lollipops" that function poorly for local circulation and access." They noted that "few new collector or connector roadways are being developed", that "the Ewa development pattern resembles . . . a collection of 'pods' – residential subdivision projects with infrequent outlets to major regional roadways and poor connectivity to adjacent projects," and that "many of the built and planned subdivisions in Ewa make extensive use of abnormally long cul-de-sac streets."

2. Focus on place making: create villages and neighborhoods with centers. Communities with attractive, vibrant pedestrian-friendly centers create value for the developer, the residents, business owners and workers, and the larger community. They help minimize automobile use, promote a healthy lifestyle, and encourage

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community cohesiveness. "Neighborhood-serving commercial districts are generally not being provided (in 'Ewa). Instead, small automobile-oriented commercial sites . . . have been developed at occasional major intersections."4

3. **Mix housing types in neighborhoods.** There should be a "variety of housing types at different affordability levels, including single family and multifamily housing within close proximity. This includes accessory units and second units to increase the ability of multiple generations to live together."5

4. **Get the new stuff right now or the chance to get it right will have passed.** The team was concerned that the time was running out for realizing the vision and incorporating the Plan's smart growth policies and guidelines because the development was progressing rapidly in 'Ewa, land entitlements for the remaining vacant areas were being sought, and as a result, there is only a narrow window to make sure that the designs and plans for those areas carry out the Plan vision for master planned, vibrant, livable, walkable and sustainable communities.

5. **Improve implementation.** In the team's view, the vision in the 1997 'Ewa Development Plan is progressive and includes many of the core smart growth principles. However, they felt the vision was not being realized in what had been built since 1997 because there had not been changes made to the "DNA" of development, the underlying land use development regulations and standards, particularly those in the City's Land Use Ordinance and Subdivision Regulations.

6. **Improve finance tools and policies.** The team's view was that Honolulu was "leaving money on the table" because the City and local developers were not taking advantage of Community Facilities Districts and Tax Increment Financing Districts, infrastructure financing tools that many jurisdictions were using to build needed public infrastructure (such as collector roads) and community benefits concurrently with the development of major residential and commercial projects.

The draft **Ewa Smart Growth Design Code** was circulated to the development community for review and comment with the suggestion that the code might be used as a set of design guidelines rather than an amendment to the Land Use Ordinance. Detailed responses were received from the Land Use Research Foundation of Hawaii, and The Estate of James Campbell.

SMART GROWTH ASSISTANCE TEAM FINAL REPORT & RECOMMENDATIONS: 
(Funding for the preparation of these final reports and recommendations was provided by the U.S. Environmental Protection Agency Smart Growth Program which also helped assemble the team of nationally known planning, transportation, urban design and economic development advisers and provided the funding for their visits to Honolulu to meet with stakeholders and participate in the workshops.)


Van Meter Williams Pollack LLP. **Encouraging Smarter Projects for the Ewa Plain – Smart Project Scorecard for Development Projects Within the City and County of Honolulu (Draft).** San Francisco & Denver: July 12, 2004.


(Draft reports were provided because they are to be used as the starting point for local discussions of how best to incorporate Smart Growth principles into Honolulu's plans and development approval processes.)
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OCTOBER 25, 2008 PUBLIC REVIEW DRAFT
WORKSHOP DOCUMENTATION

A public workshop to collect comments, questions, and suggestions on the Public Review Draft Plan was held on Saturday, October 25, 2008 at the Department of Hawaiian Home Lands Hale Kalaniana'ole Meeting Room in East Kapolei. The meeting was well attended with representation from the community, land owners, developers, professionals and political leaders.

The workshop began with a PowerPoint presentation providing an overview of the Plan Review process, and a report on preliminary findings from the Plan Review and proposed changes to the Plan. Following the presentation, participants were asked to fill out comment cards concerning the proposed changes to the Plan and to implementation, and then to share those comments with the group.

Handouts provided at the Workshop included:

1. Workshop Agenda
3. Neighborhood Board Member Participation in the 'Ewa Development Plan Public Review Draft Workshop
4. 'Ewa DP Five Year Review Status Report (October 2008)
5. Overview of Projections to 2030
6. Proposed Substantive Changes to the Plan

This appendix documents the workshop by providing the Workshop handouts, the PowerPoint Presentation, a summary of comments received at the Workshop, and the Public Review Draft Plan.
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PUBLIC REVIEW DRAFT WORKSHOP

Ewa Development Plan Five Year Review

Department of Hawaiian Home Lands
Hale Kalaniana’ole, East Kapolei
91-5420 Kapolei Parkway
Kapolei, HI 96707

Saturday, October 25, 2008
8:00 AM – 12:30 PM

AGENDA

8:00 AM  Registration/Pick-up Handouts/Talk Story
8:30 AM  Orientation to the Review Process
8:45 AM  Presentation of Preliminary Findings of the Plan Review
9:15 AM  Break
9:30 AM  Presentation of Proposed Changes to the Ewa Development Plan
9:45 AM  Collection & Sharing of Comments on the Proposed Changes
11:00 AM Break
11:15 AM Collection & Sharing of Comments on Implementation
12:00 Noon Closing Remarks/Q & A
12:15 PM  Informal Talk Story & Wrap up

Ewa Development Plan Five Year Review Process

- Review is required by the Ordinance that adopted the Plan in 1997
- Review Milestones
  - Community interviews began in 2003
  - Orientation Workshop and Smart Growth Workshops held in 2004
  - Public Review Draft circulated for review and comments in October 2008
  - Deadline for public comments January 30, 2009
  - Final Plan scheduled to be sent to Planning Commission in February 2009
  - Opportunity to provide testimony at Planning Commission Hearing
  - Planning Commission recommendation sent to City Council
  - Opportunities to provide testimony at City Council meetings and Public Hearing
October 24, 2008

You are invited to participate in the public review of proposed revisions to the Ewa Development Plan. The revisions to the Plan have been prepared based on interviews, workshops, and research conducted since 2003.

Copies of the proposed revised Plan will be available shortly from the Department of Planning and Permitting in pdf format on the Department’s Web page http://www.honoluludpp.org/Planning/ and in hard copy and CD format from the Department offices (Fasi Municipal Building 7th Floor, 650 S. King Street). Please check the website for an announcement when the Plan is available.

A Public Review Draft Workshop will be held on October 25, 2008 at DHHL’s Hale Kalaniana’ole Meeting Room from 8:00 am to 12:30 pm to collect comments on both the proposed changes and the implementation of the Plan since adoption in 1997. See the other side for more information.

The deadline to insure that comments on the Public Review Draft Plan get considered in preparing the final recommended revisions to the Plan is **Jan. 30, 2009**. We will gladly accept comments submitted after that deadline, but cannot insure that we will be able to inventory them and use them in preparing the revised Plan that will be sent to the Planning Commission. Any comments received after the deadline that are not included in our Review Report will be forwarded to the Planning Commission.

To provide comments and suggestions either before or after the Workshop, please contact Bob Stanfield at the Department of Planning and Permitting by

- Mail: 650 South King Street, 7th Floor, Honolulu, Hawaii 96813;
- E-mail: bstanfield@honolulu.gov;
- Fax: (808) 768-6743; or Voice mail: (808) 768-8051.

We also invite members of the community to submit testimony to the Planning Commission and the City Council after the Plan goes to the Planning Commission.
October 24, 2008

Subject: Public Review Draft Ewa Development Plan

The Public Review Draft Ewa Development Plan has been published. Copies of the Public Review Draft Plan are available to the public, both in hard copy and CD format at the Department of Planning and Permitting, 7th Floor, 650 S. King. We will also be providing copies of the Plan at the Saturday, Oct. 25 Public Review Draft Workshop. (See the enclosed Workshop Agenda and Notice.)

A pdf version of the Plan is also available from the Department’s web site: http://honoluludpp.org/Planning/ewa/ewa5yr/PublicReviewDraft/EwaDPPPublicReviewDraft_Oct08.pdf

The Public Review Draft provides proposed revisions to the 1997 Ewa Development Plan. (The existing Ewa Development Plan, which was adopted in 1997 and amended in 2000, is available at http://honoluludpp.org/Planning/DevSust_Ewa.asp)

The deadline to insure that comments get considered in preparing the final recommended revisions which will be sent to the Planning Commission in February 2009 is Friday, January 30, 2009. We will gladly accept comments submitted after the Jan. 30 deadline, but cannot insure that we will be able to inventory them and use them in preparing the Plan and Report that goes to the Planning Commission. Any comments received after the deadline, which are not included in our Review Report, will be forwarded to the Planning Commission.

The Public Review Draft Workshop on October 25 will provide one opportunity to provide comments on the proposed changes to the Plan and on the implementation of the Plan. However, feel free to send questions, comments, and suggestions to by mail, phone, fax, or e-mail either before or after the Workshop. You can contact us by:

- Mail: Department of Planning and Permitting, 650 South King Street, 7th Floor, Honolulu, Hawaii 96813 (attn: Bob Stanfield);
- E-mail: bstanfield@honolulu.gov;
- Fax: (808) 527-6743; or Voice mail: (808) 768-8051.
The Public Review Draft is the result of many years of collecting community comments and suggestions regarding the Plan and its implementation, conducting research, updating information and projections, and drafting revisions to the Plan. It is one product of a required five year review of the Ewa Development Plan vision, policies, and implementation.

**Plan Review Status.** A summary of the Plan Review process and next steps and a preliminary report on findings from review of the Plan and its implementation is enclosed. It is also available on the Web at http://honoluluudpp.org/Planning/ewa/ewa5yr/EwaDPStatusRpt_Oct08.pdf

We also welcome comments on the preliminary findings from the Plan Review, in addition to comments on the proposed revisions to the Plan.

**Oct. 25 Workshop.** A Public Review Draft Workshop will be held on Saturday, Oct. 25, 2008 at the DHHL Hale Kalaniana'ole Meeting Room in East Kapolei to present the Public Review Draft Ewa DP and collect comments on the proposed changes to the Plan and on the implementation of the current Plan. For more information about the workshop, see the enclosed agenda which is also posted on the Web at http://honoluluudpp.org/Planning/ewa/ewa5yr/Oct25_Agenda.pdf

Comments received through January 30, 2009 will be reviewed by the Department for consideration in revising the Plan or suggesting improvements to implementation, and will used in preparing the final proposed revised Plan and the Review Report. A summary of all comments received will be posted on the Ewa Plan Review Website: http://honoluluudpp.org/Planning/ewa/ewa5yr/EwaDPDraftPage.pdf.

**Final Plan and Report Public Information Meeting and Neighborhood Board Presentations.** We plan to submit the final proposed revision of the Plan and the final Review Report to the Planning Commission in February. After the Plan has been transmitted, we will make presentations to the two Neighborhood Boards and hold a Public Information Meeting to distribute the final proposed Plan and the Review Report, and answer questions about the Plan and Report. Both of the Boards will have an opportunity to meet to approve testimony before the Planning Commission public hearing on the Plan will be scheduled.

**At the Planning Commission and City Council.** Even after the Plan has gone to the Planning Commission, there will be several more opportunities to suggest changes to the Plan. We invite members of the community to submit testimony to the Planning Commission and to the City Council regarding the Plan and its implementation. The City Council will make the decision on what changes will be approved in revising the Ewa Development Plan.
Act 153 (9 Jun 08) clarified that the Neighborhood Board members have the right to participate fully in the Department of Planning and Permitting's community planning workshops and informational meetings so long as there is not a quorum of the Board present, and the workshops or informational meetings are open to the public and not just for the Board members.

If those conditions are met, Board members can participate fully in any discussion, including with other Board members, so long as no commitment to a future vote by the Board is involved, and the Board members make a report at the next Board meeting on their attendance and on any of the issues which were discussed and might come before the Board for action.

The specific language from Act 153 is as follows:

§92- Permitted interactions of neighborhood board members.

(a) Two or more members of a neighborhood board, but fewer than the number of members necessary to constitute a quorum for the board, may attend informational meetings or presentations on matters relating to official board business, including meetings of another entity, seminars, and community meetings; provided that the presentation is not specifically and exclusively organized for or directed toward members of the board.

(b) Neighborhood board members may participate in discussions, including discussions among themselves; provided that the discussions occur during and as part of the informational meeting or presentation allowed by subsection (a); and provided further that there is no commitment made relating to a vote on the issue. The board members, at the next duly noticed meeting of the neighborhood board, shall report their attendance and the matters presented and discussed that related to official board business at the informational meeting or presentation.
Ewa community members, agencies, organizations, and others with an interest in Ewa's future development are invited to participate in the Ewa Development Plan Five Year Review (EDP5YR). Please fill out a [participant form](#) to get on our mailing list.

### EWA DEVELOPMENT PLAN REVIEW

- **Required by the Ordinance that adopted the Plan in 1997**
- **WORKPROGRAM STEPS (Status)**
  - Community Interviews (Completed)
  - *Workshop I: Orientation/Community Comments & Questions (Kapolei Hale, January 31, 2004)*
  - *Smart Growth Workshops (Kapolei Hale and Campbell Building, May 2-4, 2004)*
  - Inventory Comments (Listing Prepared and Incorporated in Public Review Draft)
  - *Issues Research/Projections Update (Research Completed and Projections Updated; Preliminary Review Findings Prepared)*
  - *Draft Plan Preparation (Draft Prepared for Circulation October 2008)*
  - Inventory of Comments on Public Review Draft Plan and Preliminary Review Findings
  - Final Proposed Revised Plan and Final Review Report Preparation and Distribution
  - Public Information Meeting/Neighborhood Board Briefings
  - Planning Commission Hearing
  - City Council Review (Three formal votes, 1 public hearing)

### WHAT HAS HAPPENED SO FAR

An [Orientation Workshop](#) for the Review was held Saturday, January 31, 2004 at Kapolei Hale. Handouts provided at the Workshop included

1. Workshop Agenda
2. Draft Briefing Package
   a. Overview of the Review Program and
   b. Vision Scorecard: historical and projected indicators of progress in implementing the Plan Vision

3. Phasing of Ewa Development: Most current estimates of residential project capacity and timing of development, updating Table 2.2.

4. Ewa Development Plan Issues: Analysis of Concerns Raised at Ewa Neighborhood Boards

5. Ewa Development Plan: Vision and Policies Digest; a digest of the Plan's vision, land use & infrastructure policies, and implementation methods.

Copies of the Workshop Handouts, the PowerPoint Presentation, notes from the Question and Answer session that followed the presentation, and a listing of Comments and Suggestions from four Issue Groups (Transportation, Schools, Development Process, Economic and Jobs Development) are available from the Department, and are available from the Planning Division Web page at http://www.honoluludpp.org/Planning/.

Community Interviews. Since the Fall of 2003, Department staff have held a series of interviews and small group meetings with Neighborhood Board members, residents, land owners, developers, and public agencies to collect their evaluations of the Ewa Development Plan and its implementation and ask for recommendations for ways either the Plan or its implementation might be improved.

Smart Growth Workshops and Meetings. Beginning in February 2004, at the invitation of former Mayor Harris, the U.S. Environmental Protection Agency Smart Growth Program, the University of Hawaii Sea Grant Program and School of Architecture, the Urban Land Institute Hawaii Chapter and Campbell Estate sponsored a series of workshops and meetings to evaluate how the Ewa Development Plan and the City of Kapolei Urban Design Plan might better incorporate "Smart Growth Principles."
A team of nationally renowned architects, planners, developers, urban economists, transportation planners and other professionals was recruited to lead the sessions and to provide a report recommending ways to improve the plans and implementing measures (Land Use Ordinance, Subdivision Regulations, etc.)

A series of well attended workshops involving community members, landowners, builders and developers were held in Kapolei at Kapolei Hale and the Campbell Building between May 2 and May 4, 2004. After the May workshops, the team returned twice for meetings and consultations.

The team made the following recommendations for improving the Ewa Development Plan and its implementation:

- Improve connections
  - Between regional destinations and activities
  - Between neighborhoods and communities
- Focus on place making in villages and neighborhoods
- Mix housing types in neighborhoods
- Get the new stuff right now or the chance to get it right will have passed
- Improve implementation and finance tools and policies

WHERE WE ARE NOW

Public Review Draft Plan/Preliminary Plan Review Findings. The Public Review Draft of the revised Ewa Development Plan and a summary of key findings from the Plan Review has been completed and will be shortly be sent out to members of the public and Federal, State, and City agencies for review and comment.

Neighborhood Board Presentation. A presentation on the draft Plan and the preliminary findings will be made to the Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34 on October 22, 2008. Copies of the Public Review Draft Plan will also be distributed to the public at the Board presentation. (A
presentation could not be scheduled for the Ewa Neighborhood Board No. 23 prior to the October Workshop because a candidate's forum was scheduled for their October meeting.)

**Workshop II: Public Review Draft Plan and Preliminary Review Findings.** A public workshop to collect comments, questions, and suggestions on the Public Review Draft Plan will be held on Saturday, October 25, 2008 from 8:00 am to 12:30 pm at the Department of Hawaiian Home Lands Hale Kalaniana'ole Meeting Room (91-5420 Kapolei Parkway, Kapolei, HI 96707).

**Final Plan and Review Report Preparation.** Following the presentations and workshop, DPP will inventory all comments received, determine what final changes are needed, prepare a final version of the Plan Review Report and the proposed revised Plan, and transmit the final Report and the proposed revised Plan to the Planning Commission and the City Council for formal review and decision-making.

The deadline to insure that comments on the Public Review Draft and/or preliminary Review Findings get considered in preparing the final proposed revision to the Plan and the Plan Review Report is **January 30, 2009.** We will gladly accept comments submitted after that deadline, but cannot insure that we will be able to inventory them and use them in preparing the revised Plan and the final Review Report that will be sent to the Planning Commission. Any comments received after the deadline that are not included in our Review Report will be forwarded to the Planning Commission.

**Planning Commission and City Council Review.** We also invite members of the community to submit testimony to the Planning Commission and the City Council after the Plan and Plan Review Report go to the Planning Commission.

The Planning Commission will hold at least one public hearing on the Plan and the Review Report before deciding on what recommendations they will make to the City Council. Contact the Planning Commission secretary at 768-8007 for information on the hearing and requirements for testimony.
The City Council will hold a public hearing and vote three times in adopting an ordinance to amend the existing Plan. In between the Council votes, the Council Planning and Sustainability Committee will hold meetings to review the Plan and Review Report. Members of the public can provide testimony, both written and oral, on each of these occasions. Information on agendas and testimony for the City Council can be found at http://www.co.honolulu.hi.us/council/testify.htm

WHAT HAVE WE LEARNED FROM THE REVIEW

The Five Year Review is required to specifically address three basic questions:

1. Is the Plan vision, and its land use and infrastructure policies and implementing methods still appropriate? We found that:
   - The Plan vision and policies enjoy widespread support from the community, but
   - there is agreement that implementation needs to be improved, particularly with regard to provision of infrastructure for transportation and for schools.

2. Is the purpose of the Plan's phasing guidelines being achieved? We found that:
   - The purpose of having phasing was to focus development around the City of Kapolei and retain agricultural uses as long as possible in the East Kapolei area. That purpose was achieved, but not necessarily because the phasing guidelines were in place.

3. Should the phasing priorities in the Plan be revised? We found that:
   - The phasing priorities and guidelines should be eliminated from the Plan. All undeveloped areas in Ewa within the Urban Growth Boundary are now seeking land use approvals. Council will have an opportunity, through actions on zone changes and other development approvals, to establish any conditions of zoning needed to mitigate development impacts of these projects.
The 1997 Ewa Development Plan vision has five major elements. DPP's evaluation, based on the Five Year Review workshops, meetings and interviews, and research is as follows:

<table>
<thead>
<tr>
<th>Vision Element</th>
<th>Evaluation</th>
</tr>
</thead>
</table>
| Protect Agricultural Lands and Open Space          | • Agricultural lands and open space have been protected by the Urban Growth Boundary (UGB) and by phasing that protected lands inside the UGB until 2006 and 2016.  
  • New parkland has been acquired and is under development.  
  • The Pearl Harbor Historic Trail Plan calls for establishment of bikeways and historic train use on the OR&L corridor from Rainbow Marina to Nanakuli.  
  • Use of drainageways and utility corridors as greenways has been difficult to implement due to questions of maintenance responsibilities. |
| Develop the Secondary Urban Center around the City of Kapolei | • Significant progress has been made in creating jobs in the City of Kapolei and surrounding resort and industrial areas.  
  • Developing the UH West Oahu Campus is a key element needed to continue the momentum for development of Oahu’s second city.  
  • The Navy has decided to not station a carrier at Pearl Harbor. Now that it is known that a carrier wing will not be stationed at Kalaeloa, more definite plans can be made for the redevelopment of Kalaeloa and its role in Ewa’s future.  
  • Development of Kalaeloa is inhibited by the need to bring infrastructure inherited from the Navy up to State and City standards. |
| Build Master Planned Communities that Support Walking, Biking, and Transit Use and Include Affordable Housing. | • Residential development was slowed by economic conditions after 1997, but has rebounded sharply recently, averaging 800 to 900 units/year.  
  • Affordable housing units have been required in all major developments.  
  • Subdivision layouts have often not supported walking, biking, utility vehicle circulation, connectivity with adjacent areas, or transit use. |
New Express Buses, a hub-and-spoke system of collector buses, and a temporary Kapolei Transit Center were established.

Major east-west and mauka-makai connections are being established with the development of areas on both side of North South Road in East Kapolei and in West Kapolei from Makaiwa Hills to Kalaeloa Barbers Point Harbor.

A proposed Bus Rapid Transit system to improve service between Ewa and downtown Honolulu has been abandoned.

A draft environmental impact study and preliminary engineering is underway for a fixed guideway transit system to link Kapolei with downtown Honolulu, with the initial segment proposed to be built starting in 2009 in East Kapolei and extending to Ala Moana Shopping Center by 2017.

A right-of-way has been retained along Kapolei Parkway, North-South Road, and Farrington Highway for future rapid transit use.

Little progress has been made in establishing mixed use town centers and main street areas, often due to regulatory restrictions and the difficulty of development.

Creating vital pedestrian-friendly, mixed-use, Transit Oriented Development around transit stations in Ewa will be a significant challenge and opportunity in the next few years.

Protection of natural, historical and cultural resources has been included as a condition of land use approvals.

State and County infrastructure development has continued, but transportation and schools capacity remains a critical issue.

The Ewa Highway Master Plan identified six major projects needed to be completed by 2010 to meet expected growth. The Master Plan will be updated to identify additional priority projects to be supported by the Ewa Highway Impact Fee assessed on all building permits in Ewa.
Vision Element | Evaluation
---|---

- Work is underway on four of the six projects, and the remaining projects are in the environmental assessment and design stages.
- Financing and building infrastructure capacity concurrently with development is a major need to address.
- Use of Community Facility District financing for new developments and Tax Increment Financing for redevelopment projects should be explored as a way to finance development of roads and other needed infrastructure at the same time as residential and commercial development.

**WHAT CHANGES ARE PROPOSED FOR THE PLAN**

- Most proposed changes are to revise information and references to reflect changes since 1997 or to further clarify how policies and guidelines adopted in 1997 should be implemented. This reflects the consensus that the Plan vision and policies are basically sound, but implementation needs to be improved.

- A list of specific changes will be provided with the Public Review Draft when it is sent out for review and comment in the near future.

- A list of comments, questions and suggestions for revisions received during the Five Year Review process and an explanation of what response is recommended by the Department, including items resulting in proposed revisions to the Plan, or improvements to implementation, will also be provided as part of the Public Review Draft Review phase.

For additional information about the Review scope and work program, contact Bob Stanfield at the Department of Planning & Permitting

- by mail at 650 South King Street, 7th Floor, Honolulu, Hawaii 96813;
- by e-mail at bstanfield@honolulu.gov;
- by fax at 527-6743; or
- by voice mail at 768-8051.

\Dppfp1\planning\PolicyDocuments\DPSCP\EWA\FIVEYRVU\Status Report\Ewa DP 10-08 Status Report.doc
EWA DEVELOPMENT PLAN FIVE YEAR REVIEW
PARTICIPANT RESPONSE FORM

I would like to

☐ Be on the Ewa DP Five Year Review mailing list to receive information about the status of the Review and notices of meetings and workshops

☐ Be listed as a participant in the Five Year Review in workshop handouts

☐ Meet with Department of Planning and Permitting staff in an interview or small group meeting to discuss
  o our experiences and evaluation of the past six years of Ewa development,
  o our vision for Ewa’s future,
  o projects and programs that we are developing or proposing for development in Ewa,
  o research issues and findings important for Ewa, and/or
  o our suggestions for ways to revise and improve the Plan

You can contact me at:
Name ______________________________________________________
Home Phone: ___________________ Work Phone ___________________
Fax # ___________________ e-mail ______________________________
My Organization/Company/Agency Name:
________________________________________________________________
Street _________________________________________________________
City _____________________________ Zip Code ________________
Comments/Suggestions? _______________________________________
________________________________________________________________
________________________________________________________________
OVERVIEW OF PROJECTIONS TO 2030

POPULATION OVERVIEW

<table>
<thead>
<tr>
<th>DP/SCP Area</th>
<th>2000</th>
<th>2030</th>
<th>CHANGE 00-30</th>
<th>SHARE OF CHANGE</th>
<th>ANNUAL CHANGE</th>
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HOUSING OVERVIEW

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NON-CONSTRUCTION JOBS OVERVIEW

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### VISITOR ACCOMMODATION UNITS

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<tr>
<th>DP/SCP Area</th>
<th>2000</th>
<th>2030</th>
<th>CHANGE 00-30</th>
<th>SHARE OF CHANGE</th>
<th>ANNUAL CHANGE</th>
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<tr>
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<tr>
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<td><strong>11,477</strong></td>
<td><strong>100.00%</strong></td>
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**SOURCE:** HISTORICAL 1980 TO 2000: U.S. CENSUS BUREAU
PROJECTIONS: DEPARTMENT OF PLANNING AND PERMITTING, FEB 2007
Changes in the Ewa Development Plan are of three types:

- Editing, spelling and grammatical corrections (identified only with shading);
- Updating of factual data; numbers, dates, place and project names (identified only with shading);
- Substantive text and policy revisions (identified with strikethroughs for text that is deleted and underline for text that is added).

Proposed substantive changes to the 1997 Ewa Development Plan are listed below by section/chapter and page number.

**CHANGES MADE THROUGHOUT ENTIRE PLAN**

- All policies, principles, and guidelines have been put in an active verb/object format. For example, “Design golf courses to provide view amenities for adjacent urban areas” replaces “Golf courses should be designed to provide view amenities for adjacent urban areas.”

- The terms “high-density, medium-density, and low-density residential” used in the 1997 Plan are replaced with “medium density apartment, low density apartment, and residential” in the revised Plan in order to be more consistent with definitions of high density, medium density, and low density apartment used in the Land Use Ordinance (LUO).

  The 1997 Plan describes “high-density residential” uses as multi-story apartment buildings no higher than 150 feet. Typically, the A-3 high-density apartment zoning district is adopted with heights greater than 150 feet, while a 150-foot height limit is the upper limit of height limits adopted for A-2 medium-density apartment zoning district.

  Also, the 1997 Plan describe “medium density residential” as townhouse or low-rise apartment buildings “not over three stories” which is more consistent with the LUO A-1 low density apartment zoning than with the LUO A-2 medium density apartment zoning.

**PREFACE AND EXECUTIVE SUMMARY**

The Ewa Development Plan, when adopted in 1997, did not have a Preface and Executive Summary, unlike the revised Plans which were adopted after it. A Preface and Executive Summary has been created for the proposed revised Plan, following the format and content used for the other Development Plans and Sustainable Communities Plans.
Chapter 1: EWA'S ROLE IN OAHU'S GROWTH

- Added language distinguishing between rural areas and non-Ewa/CO urban fringe areas (p. 1-2)
- Added map showing Primary Urban Center, Secondary Urban Center, Urban Fringe, and Rural areas as well as the eight Development Plan and Sustainable Communities Plan areas (p. 1-3)

Chapter 2: THE VISION FOR EWA'S FUTURE

- Updated description of pedestrian ways and bike paths to include Pearl Harbor Historic Trail and OR&L Railway R-O-W (p. 2-2);
- Added language including the UH West Oahu as part of the Secondary Urban Center (p. 2-3)
- Reorganized order of vision elements (p. 2-3)
- Add vision element that neighborhood centers, town centers or "Main Streets" should be identified and established in new developments (p. 2-4, 2-17);
- Add vision element that accessory apartments (‘granny flats’) and Ohana units could be used to provide housing for seniors, students, and young families where infrastructure will support the additions (p. 2-4);
- Connectivity should be provided within and between communities with an approximate ¼ mile grid allowing improved pedestrian, bicycle and emergency access to parks, schools, community centers and transit facilities (p. 2-4);
- Clarify that the rapid transit corridor can be for either an elevated or at grade system (per language adopted in Central Oahu Sustainable Communities Plan [CO SCP]) (p. 2-5);
- Add updated language on location of the rapid transit corridor (goes through Kalaeloa instead of past Villages of Kapolei on Kapolei Parkway) (p. 2-5)
- Add clean up of contaminated systems as a natural resources protection objective (p. 2-5);
- Add expanded language on how potable water will be conserved and supplemented (p. 2-5)
- Add language adopted in Central Oahu SCP regarding roles and responsibilities for providing adequate infrastructure to address current deficiencies and impacts of future development (p. 2-6);
- Add language supporting use of Tax Increment Financing (TIF) and Community Facilities Districts (CFD) financing mechanisms as a way to improve delivery and timing of infrastructure provision (pp. 2-6, 2-22);
- Updates Table 2.1 which provides estimates of development capacity for Ewa. Eliminates phasing categories and substitutes land use entitlement
status in its place (properties with zoning, properties with State Land Use District but need zoning, properties needing both State Land Use District amendment and zoning). Includes HCDA and DHHL capacity estimates (p. 2-10);

- Adds Pearl Harbor Historic Trail to the open space network, and removes the Makaiwa Hills Golf Course and Makakilo Golf Course from the network (p. 2-14, 2-15);
- Removes development of a sports recreation complex and Aloha Stadium replacement facility from the vision for Kalaeloa (p. 2-15);
- Adds establishment of an Enterprise Zone covering most of the Ewa Development Plan area (p. 2-16);
- Calls for new developments to be designed with identifiable community centers (p. 2-19)
- Connectivity should be supported by use of block and street standards and establishment of a ¼ mile collector/connector master road plan to guide how subdivisions are to be linked together (p. 2-19);
- Updates the transit corridor description, adding information about the initial transit system segment development and the need to reserve right-of-way for the future extension of the transit system through Kalaeloa to the City of Kapolei (p. 2-19);
- Adds language supporting efficient use of water supplies through conservation and leak repair to the natural resource protection vision (p. 2-20), and
- Adds protection of endangered species in sinkholes and cleanup of contaminated areas to natural resource protection vision (p. 2-20);

Chapter 3: LAND USE POLICIES, PRINCIPLES, AND GUIDELINES

- Adds use of open space to protect natural, historic, and cultural resources (p. 3-1)
- Adds clarification that gulches and ravines are important for their role as drainageways and storm water retention areas (p. 3-2);
- Updates description of pedestrian ways and bike paths to include language for the Pearl Harbor Historic Trail/OR & L Railway R-O-W (p. 3-2, 3-8)
- Adds language clarifying that dedication of the two Ko Olina beach parks to the City will happen “at some point in the future” (pp. 3-6, 3-9);
- Adds clarifying language adopted as part of the CO SCP regarding the accommodation of existing paths and bikeways in the design of new golf courses (p. 3-6);
- Adds language regarding undergrounding of transmission lines adopted as part of the CO SCP (p. 3-8);
SUMMARY LIST OF SIGNIFICANT CHANGES

Updates language to reflect the movement of the boat launch ramp at Ko Olina from the site adjacent to the marina to one across the entrance to the Harbor from the marina (p. 3-9);

Deletes the proposal for an “Olympic Village” at Kalaeloa, and clarifies that a major regional park facility is still proposed but the lands have not yet been conveyed (pp. 3-10);

Recalculates need for parks to meet DPR standard of two acres of park per 1,000 residents to include acreage in private parks used to meet park dedication requirement. Revises language regarding standards for community-based parks to reflect 2004 City standards and recalculates adequacy of Ewa community-based parks, separating need for district parks from all other community-based parks (pp. 3-14 to 3-15);

Adds acreage for private golf courses to Table 3.1 (p. 3-17);

Removes language about linking park facility funding to the phasing map priorities because development phasing has been eliminated from the Plan (p. 3-19);

Adds language adopted as part of the CO SCP that states that impact mitigations adopted as part of prior development approvals can be assumed to carry out the Ewa Plan vision and policies for preservation and development of historic and cultural resources (p. 3-19);

Adds language adopted as part of the CO SCP to reflect design guidelines for the Pearl Harbor Historic Trail (p. 3-23 and 24);

Updates the City of Kapolei section to include the recent Council actions in approving zone changes and adopting revisions to the Urban Design Plan and proposed mixed-use commercial areas adjacent to the proposed Hanua Street extension (p. 3-26, 3-29, 3-30, 3-31, 3-33 to 34, 3-53);

Adds an inexpensive business hotel as a use that could be permitted in the City of Kapolei. (p. 3-29);

Revises the Ocean Pointe section to reflect the proposed Kaloi Gulch drainage outlet through Oneula Park (p. 3-39, 3-42, 3-44);

Deletes land use descriptions for areas around the Ocean Pointe marina basin because they duplicate land use information provided in the following Guidelines section (p. 3-41 to 42);

Adds language to the Existing and Planned Residential Communities section indicating that the planning for these communities should identify where its village center, town center, or "Main Street" is and how that center will be established and supported by the development (3-47);

Adds language and guidelines for establishing connectivity within and between subdivisions (p. 3-47, 3-51);
SUMMARY LIST OF SIGNIFICANT CHANGES

Page 5 of 9

- Adds language regarding provision of transit routes and facilities adopted as part of the CO SCP (p. 3-51);
- Adds language reiterating that areas within the City of Kapolei should be zoned for medium density apartment use and mixed use should be encouraged (p. 3-53)

(All page references from this point are for the Public Review Draft hard copy which had a formatting error on p. 3-55 which added an extra page. Users of the on-line or CD pdf version should subtract one from the page reference given to get the correct page.)

- Adds language supporting multi-family residential use above the first floor as a permitted use to be encouraged in planned commercial centers (p. 3-58);
- Adds language and guidelines for how structures in commercial centers and areas can support the establishment of village centers, town centers, or "Main Streets." (p. 3-58, 3-59);
- Adds language supporting a commercial center at the corner of Kapolei Parkway and North-South Road in addition to medium density mixed use transit oriented development around the transit station planned for that location. Notes that DHHL has notified DPP that it intends to exempt itself from City planning and zoning and develop a 1.6 million square foot regional shopping center on 67 acres with two hotels with 300 rooms and two office towers with 100,000 square feet of office space at this location; (p. 3-58);
- Adds language supporting establishment of a commercial center near the intersection of Kunia Road-Farrington Highway as part of the Ho’opili project (p. 3-58);
- Adds guidelines for Regional Commercial Centers from the 1995 Planning Department Ewa Development Plan Report, the technical report prepared by the consultants as backup to the 1997 Ewa Development Plan (pp. 3-62 to 63);
- Removes Ko Olina guidelines calling for development of medium-density apartments on the site where the 750-unit Marriott Beach Club time-share resort is being developed and identifies the area as part of the Resort Center where hotel and resort condos are planned to be developed. (p. 3-68);
- Adds to the Ko Olina guidelines for the OR&L right-of-way language noting that the right-of-way is part of the Pearl Harbor Historic Trail project which goes from Aiea to Nanakuli (p. 3-71);
- Adds language reflecting the HCDA Master Plan for development of industrial areas in Kālāeʻolā (p. 3-72);
- Deletes language supporting development of a "commercial, cultural or recreational entertainment attraction" fronting the OR&L right-of-way, reflecting the Council-approved land use zoning and developer's site plan for the Kapolei West project which shows a golf course for that area (p. 3-72);
SUMMARY LIST OF SIGNIFICANT CHANGES
Page 6 of 9

- Adds language supporting development of a major film studio in the Barbers Point Industrial Area (p. 3-72);
- Clarifies language regarding establishment of a continuous pedestrian route along the Ewa shoreline in the general policies for Kalaeloa (p. 3-79);
- Adds language reflecting the move of the UH West Oahu Campus back to the Farrington Road/North-South Road site, the proposed development of an adjacent University Village, and the need for connectivity between UHWOC and its larger community, adjacent transit nodes, North-South Road, and Farrington Highway (p. 3-81 and 82); and
- Adds language about the importance of creating a University Village as a community center anchored by the UH West Oahu campus at one end and the transit station at the other (p. 3-82).

(Page references after this point are correct for both the on-line and CD pdf version and the hard copy version of the Public Review Draft.)

Chapter 4: PUBLIC FACILITIES AND INFRASTRUCTURE POLICIES AND PRINCIPLES

- Update of road transportation projects in Ewa based on Oahu Regional Transportation Plan 2030 and Ewa Highway Master Plan (p. 4-3, 4-4, and 4-5);
- Adds clarification that the extension of Geiger Road through Kalaeloa to connect with Fort Barrette Road will be via Saratoga (p. 4-6);
- Adds development of an additional east-west road between East Kapolei and Fort Weaver Road and extension of the North-South Road through Kalaeloa to connect with Ocean Pointe to the list of additional needed roadway elements that are not reflected in the Ewa Highway Master Plan, the ORTP or the TIP (p. 4-7);
- Updates information about park-and-ride facilities to be developed in Ewa (p. 4-8);
- Updates information about the rapid transit corridor alignment, initial segment to be developed, and location of stations in Ewa to reflect status as of September 2008 (pp. 4-8 to 9);
- Clarifies that the rapid transit corridor can accommodate either and elevated or at-grade transit system, using language adopted in the Central Oahu SCP (p. 4-9);
- Describes efforts by DR Horton/Schuler, the UH, and DHHL to accommodate the transit corridor (p. 4-9);
- Updates information on TheBoat, the high-speed commuter ferry system running between Kalaeloa and Aloha Tower to reflect status as of September 2008 (p. 4-10);
• Adds policy language calling for subdivisions to be built with fewer dead-end streets and with smaller blocks (p. 4-12);
• Adds transportation development priorities policies adopted as part of the CO SCP which state that projected demand for peak-hour transportation will be met by increased use of transit and by transportation demand management; not by expansion of automobile commuting capacity (p. 4-13);
• Adds policy language calling for establishing a quarter-mile network of east-west and mauka-makai collector-connector streets (p. 4-14, 4-15 to 17);
• Updates information about the BWS Oahu Water Management Plan process to include the Watershed Management Plans (p. 4-17);
• Updates information about the BWS Water Reclamation projects in Ewa, and adds information about the planned BWS desalination project at Kalaeloa (p. 4-18);
• Adds specific language about City water system infrastructure strategies (p. 4-19);
• Updates Table 4.2 Potential Sources of Potable and Nonpotable Water for Ewa based on BWS revisions (p. 4-20);
• Clarifies that adequacy of water supplies is to be evaluated at the time of zone changes and confirmed as part of land subdivision (p. 4-21);
• Adds two Water Use Efficiency and Conservation policies (p. 4-21);
• Clarifies that the requirement for developing dual water lines should apply to developments with large landscaped areas (such as golf courses, parks, or schools), with roadway landscaping, or involving industrial processes (p. 4-21);
• Adds two Alternative Water Supplies policies and deletes a Water Reclamation policy and Integrated Resource Management policy (p. 4-23);
• To be consistent with policy adopted as part of the CO SCP, revises the language regarding the City review and approval process for new electrical power plants (p. 4-26);
• Updates the information regarding the status of the proposed H-power boiler, the Waimanalo landfill extension and expansion, and shipment of waste to the mainland (pp. 4-25 to 26);
• Adds a policy prohibiting development of Makaiwa Gulch (identified as a potential landfill site in 2003) as a landfill; and deletes a prohibition against developing a landfill in East Kapolei (p. 4-27);
• Updates the language regarding the City Storm Water quality practices (p. 4-27);
• Updates the descriptions and mapping of the Ewa drainage basins (p. 4-28 to 30);
• Updates the description of drainage issues caused by the OR&L right-of-way (p. 4-28);
• Deletes a former proposed project to divert Kaloi Gulch drainage through Kalaeloa (p. 4-29);
• Clarifies the drainage general policy supporting use of natural and man-made vegetated drainageways to recognize that concrete-lined channels can be permitted if there is no feasible alternative (p. 4-31);
• Removes policy language describing the Ocean Pointe Marina as playing a key role (as a storm water storage and detention basin) in the Kaloi Gulch drainage system, reflecting the current approved drainage plan which directs flood waters to the ocean through Oneula Beach Park (p. 4-31);
• Updates Table 4.3 to reflect existing and planned schools (p. 4-33);
• Replaces the Schools Project Review and Approval Assessment policy from the 1997 Ewa DP with policy adopted as part of the 2002 CO SCP (p. 4-34);
• Includes policy language reflecting the need for emergency medical service facilities (p. 4-35); and
• Updates Table 4.4 to reflect current plans by the Honolulu Fire Department and the Emergency Medical Service (p. 4-36).

Chapter 5: IMPLEMENTATION

• Deletes phasing as a tool of implementation; and discusses how Council will have the ability to phase development through zoning approvals for projects not yet entitled, and how subdivision and building permit reviews will be used to address infrastructure requirements for already entitled projects (p. 5-1 to 3);
• Revises references to the UH West Oahu Campus location to reflect the current location near the corner of Farrington Highway and North-South Road (p. 5-5);
• Recognizes development of a network of collector / connector roads (at approximately ¼ mile interval) as a public facility investment priority (p. 5-5);
• Recognizes that HCDA has been given responsibility for planning and coordinating development at Kalaeloa and has prepared a community-based master plan for Kalaeloa, which should be submitted to the City Council for acceptance as the Special Area Plan for Kalaeloa (p. 5-9);
• Reiterates the policy of non-acceptance for zone change applications for urban uses for areas outside the Urban Growth Boundary (p. 5-9);
• Deletes the Exhibit 5.1 flow chart of the EA/EIS acceptance and zone change review process to be consistent with the format adopted for the other seven DPs and SCPs (pp. 5-9 to 10)
• Deletes the Table 5.1 listing of Land Use Ordinance zoning district categories, titles and map designations to be consistent with the format adopted for the other seven DPs and SCPs (pp. 5-11 to 12);

• Adds requirement that Master Plans for major projects need to identify where the community center is located and show how any planned commercial development helps create a pedestrian friendly environment for that center (p. 5-14);

• Adds requirement that Master Plan circulation patterns minimize dead end streets and provide adequate connectivity (p. 5-14);

• Clarifies and corrects language about the Planning Commission’s and the City Council’s role regarding unilateral agreements adopted as part of zone changes (p. 5-17); and

• Updates the comparison of the projected Ewa 2025 share of Oahu population with the General Plan population distribution guideline (p. 5-20).
The City is Committed to these Principles:

- Fiscal accountability and integrity
- Providing essential public services in the most efficient manner
- Honest and open relationships with our co-leaders and fellow employees in government
- Creating solutions to the challenges we all face
- Enhancing our quality of life … and, above all,
- Serving the people of the City and County of Honolulu, our home – with pride and the spirit of aloha
Presentation Overview

- The Ewa Development Plan Review
- Findings
- Revisions to the Plan
- Implementation Issues/Proposals

Development Plan Areas

Development Plans
Sustainable Communities Plans
Background for the Review

- Plan was adopted in August 1997 and took effect in October 1997
- Plan was amended in 2000 to change the review period from three to five years

Scope of the Review

- Sec. 5.7 of the Ewa DP calls for DPP to
  - conduct a comprehensive review of the Plan,
  - Address three specific questions, and
  - report recommendations and recommended revisions to the Planning Commission and City Council
Scope of the Review

- The three specific questions that the review must address
  - Are the Plan Vision, Policies, Principles, Guidelines, and Implementing Actions still appropriate?
  - Is the purpose of the Development Phasing Guidelines being achieved?
  - Should the Phasing Priorities should be revised?

The Review Process

- 2003: Research, Interviews, Preparation of Orientation Materials
- Jan 2004: Orientation Workshop
- May-July 2004: Smart Growth Workshops and Meetings
- Suggestions and Information were also collected from
  - Ewa Connectivity Study
  - East Kapolei Working Group
  - Kalaeloa Master Plan Program
  - Transit Corridor Study Discussions
The Vision for Ewa’s Future

- Protect Agricultural Lands & Open Space
- Develop The Secondary Urban Center Around the City of Kapolei
- Build Master Planned Communities That Promote Walking, Biking, and Transit
- Protect Natural, Historic, and Cultural Resources
- Phase Development and Provide Adequate Infrastructure

The Vision Scorecard: 1997-2008

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Protect Agricultural Lands and Open Space

- Urban growth boundary established to protect agricultural lands and open space
- Diversified agriculture farms are operating on former sugar lands along H-1 and Waianae side of Waipahu
- Limited progress establishing greenways along transportation routes, utility corridors, and drainageways
- Residents gained access to park lands and shoreline in Kalaeloa but transfer of lands from Navy to City for Regional Park on hold
- Fifty acres of new City parkland acquired and developed

The Vision Scorecard: 1997-2008

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Develop The Secondary Urban Center

- Over 1/2 of Oahu’s population growth between 1990 and 2005
- Substantial growth in commercial and industrial floor area, visitor units and jobs
  - City of Kapolei
  - Ko Olina
  - Industrial / IMX Development
- UH West Oahu Campus
- HCDA takes responsibility for Kalaeloa development

The Vision Scorecard: 1997-2008

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### Build Master Planned Communities

- 7000 new homes 1997-2005
- 30% of total are “affordable” homes required by Unilateral Agreement conditions
- Limited success in promoting links to open space, landscaping and distinctive features
- Subdivision internal and external connectivity needs to be improved to encourage transit use, biking, and walking
- Transit Corridor was preserved but little progress on transit-ready development

### The Vision Scorecard: 1997-2008

| Protect Agricultural Lands & Open Space | + + |
| Develop The Secondary Urban Center | + + |
| Build Master Planned Communities That Promote Walking, Biking, and Transit | + |
| Protect Natural, Historic, and Cultural Resources | + + |
Protect Natural, Historic, and Cultural Resources

- Natural Drainageways
- Wildlife Sanctuaries
- Significant Views
- Lanikuhonua
- Ewa Villages
- OR&L Historic Railway
- Native Hawaiian cultural and archaeological sites

The Vision Scorecard: 1997-2008

| Protect Agricultural Lands & Open Space | ++ |
| Develop The Secondary Urban Center      | ++ |
| Build Master Planned Communities That Promote Walking, Biking, and Transit | + |
| Protect Natural, Historic, and Cultural Resources | ++ |
| Provide Adequate Infrastructure         | - |
Provide Adequate Infrastructure

- Significant investments are being made
- Transportation and school capacity issues remain

Providing Adequate Infrastructure

- Transportation within Ewa
  - Mauka-Makai Connections
    - Fort Weaver Road
    - Fort Barrette Road
  - East-West Connections
    - Farrington Highway
    - H-1 Freeway
    - Roosevelt Avenue
- Ewa to Honolulu Commute
Provide Adequate Infrastructure

Transportation within Ewa
- Ewa Highway Master Plan
- Ewa Highway Impact Fees
- Preservation of the Transit Corridor

Provide Adequate Infrastructure

- Ewa to Honolulu Commute
  - Zipper Lane for Bus and HOV
  - Express and Hub and Spoke Bus Service
  - Honolulu High Capacity Transit Corridor Project
  - TheBoat High Speed Ferry
Provide Adequate Infrastructure

SCHOOLS
- Ewa Beach Elementary and Campbell High at or over capacity
- Keoneula Elementary opened in 2007
- Gentry Ewa Makai Middle School to start construction in 2009
- East Kapolei Elementary, Middle School and High School to open between 2010 and 2020

Five Year Review Results
- Is the Plan Vision, and its land use and infrastructure policies and implementing methods still appropriate?
  - Plan vision has widespread support
  - Implementation methods need to be improved
    - Vibrant mixed-use community centers
    - Connectivity
    - Adequate infrastructure
The Ewa DP identified three types of areas for development phasing:

- Urban Expansion: 1997-2005
- Urban Expansion: 2016 and beyond

Five Year Review Results

- Is the purpose of the Plan’s phasing guidelines being achieved?
  - The areas between Waiapahu and Kapolei in East Kapolei are in open space and still being farmed.
  - However, parts of the area were identified for immediate development but were not developed.
  - Phasing was not the primary reason that developers did not seek to develop the area.
Five Year Review Results

- Should the phasing priorities be revised?
  - The phasing priorities or designations are not needed
  - Private infrastructure financing and planning works better without phasing designations
  - All areas of Ewa within the urban growth boundary are currently being planned for development
  - Phasing of development will happen due to market forces, infrastructure availability, and timing of land use approvals from the State Land Use Commission and City Council.

Changes to the Plan

- Support Place Making with commercial development design; mixed use
- Improve Connectivity: ¼ mile collector/connector system; shorter blocks and more connections within new subdivisions
- Finance Infrastructure through TIF and CFD financing
- Remove phasing designations
Changes to the Plan

- Add transit loop through Kalaeloa and delete Kapolei Parkway from existing transit corridor
- Revise Kalaeloa details to reflect HCDA master plan and more realistic City plans
- Revise Kaloi Gulch outlet to reflect outlet through Oneula Beach Park
- Move UH WOC main campus back to corner of Farrington and North South Road.
- Add Symbol for UH WOC Mauka site

Changes to the Plan

- Add Community Commercial Centers near Kapolei Parkway – North-South Road intersection and Farrington – Fort Weaver Road intersection
- Add support for a major movie studio in Kapolei Business Park
- Allow a business hotel in the City of Kapolei to provide short term inexpensive accommodations for business travelers
Implementation Issues

- Tax Increment Financing and Community Facilities District Financing
- Placemaking
- Connectivity
  - DOT Resistance
  - Developers want narrower streets if increased connectivity is required

Ewa Connectivity Study

- Purpose
  - Improve road and bikeway connectivity in Ewa
  - Identify “missing links” in the network
  - Improve intersections
  - Mitigate isolated “pod” developments
- Recommendations
  - A loose grid of arterial and collector roads
  - Guidelines for roadway and bikeway planning
  - Priorities
  - Non-arterial roadway connectivity between developments
Implementation Issues

- Coordination of State Roads and Schools Development with Residential Development

- Pressures on Staff Resources Resulting from Simultaneous Approvals of Large Projects

Ewa Development Pressures
Implementation Issues

- Grass Lined Drainage Channels
- Coordination with DHHL in East Kapolei and with HCDA in Kalaeloa

Implementation Issues

- Transit Oriented Development
  - Waipahu Neighborhood TOD Plan
  - Eight Ewa Transit Stations
    - Ho'opili
    - UH West Oahu
    - Kroc Center
    - Ka Makana Ali‘i Center
    - Saratoga/Fort Barrette
    - Kalaeloa Airport
    - City of Kapolei
    - Kapolei Commons/Kapolei West
What’s Next

- Collection of Comments
  - DEADLINE EXTENDED TO JAN. 30
- Preparation of Responses
- Incorporation of Revisions in the proposed Plan and in the Plan Review Report
- Submission of the Plan and Report to the Planning Commission and City Council

QUESTIONS?

- REVIEW PROCESS
- PLANNING COMMISSION AND CITY COUNCIL PROCESS
- PROPOSED CHANGES
- PRELIMINARY REVIEW FINDINGS
Written comments provided by participants who were asked to list their questions, comments and suggestions regarding the preliminary Plan Review findings and proposed changes to the Ewa Development Plan included in the Public Review Draft.

**PLAN REVIEW PROCESS**

<table>
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<th>W2-1</th>
<th>Were the landowners and/or developers involved in the design of the current Plan? If so, to what extent?</th>
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<td>W2-2</td>
<td>I believe this meeting is nothing but smoke and mirrors – and to say that developers don't have a major voice is BS</td>
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| W2-3 | Development Plan  
Looks to the future  
Will continue to change  
List history of changes for reference |
| W2-4 | Keep this Living Document review every 2 years as should be |
| W2-5 | Review development plan more frequently with all the growth that is happening |
| W2-6 | Judging by the Grace Pacific Quarry extension outcome, the developers and the C&C of Honolulu will have their way. On this island, no one wins against big business. |
| W2-7 | U.S. Navy as a significant landholder should be involved in the Ewa Planning Process rather than being aloof and "above" the issues that affect the planning process. |

**PLAN FORMAT**

| W2-8 | Language must include requisites – such as shall/must  
For instance:  
No permits shall be issued for new residential housing until all pre-existing schools are equipped with air condition prior to ... |

**CH. 1: EWA'S ROLE & CH. 2: THE VISION FOR EWA'S DEVELOPMENT**

| W2-9 | It's important to keep in mind that the amount of development approved for Ewa will not just affect Ewa. It affects all communities and the quality of life for this side of Honolulu |
| W2-10 | Keep in mind the "end" results directly/indirectly affects everyone on 'Oahu. |
| W2-11 | Kalaeloa needs to have an integrated historic plan that recognizes the past histories of how the region developed, i.e., Ewa Field, Ewa Marine Corps Air Station, and Barbers Point Naval Air Station |
| W2-12 | For Kapolei to be a "second city" mixed use zoning is vital. Residents should be able to walk to stores & restaurants, parks, etc. rather than build segregated residential, commercial, etc. |
| W2-13 | Can we change the name to "West Oahu Development Plan" to be more inclusive? |
| W2-14 | Should the City of Kapolei be defined to include the area of East Kapolei? |
| W2-15 | Instead of development from land to ocean, reverse the process. |
| W2-16 | More affordable housing |
| W2-17 | More Bike Connectivity. Integrate Road Development with Bikeways. |
| W2-18 | More Connectivity through walkable neighborhoods. |
| W2-19 | More Historic and Cultural Preservation |
| W2-20 | Add Naval Air Museum Barbers Point and other key military historic sites to Table 3.2: Significant Ewa Historic and Cultural Resources (p. 3-21) |
| | Landmarks |
| | Naval Air Museum Barbers Point (9 yrs in service) |
| | MCAS Ewa Field Historical Preservation |
| | Ft. Barrette Museum Effort |
| W2-21 | Need to have Kalaeloa Regional Park include historic Ewa Field – Ewa MCAS |
| W2-21 | Historic Buildings at Kalaeloa need to be identified |
| W2-22 | Need more input on how we are protecting our natural, historic, and cultural resources |
| W2-22 | With all this development, will the ocean be impacted? |
| W2-23 | We want to move the urban growth boundary to exclude all land makai of H-1 that is now in agriculture. That is, move the urban growth boundary to exclude Ho'opili entirely. |
| W2-24 | You have to live in this area to realize how bad the traffic is. Twelve thousand more cars will bring us to a standstill. We already have the worst traffic in the U.S. |

**CH. 3: LAND USE**

| W2-25 | Pueo Owl Habitat Protection – Need to designate preservation land |
| W2-26 | Open space adjacent to Ewa Golf Course/makai should be preserved to permit ground nesting bird – the protected Pueo Owl to thrive. I suggest a swath of 100 yards wide from Ft. Weaver Road behind Child and Family to North South Road be dedicated as territory for this species – would also benefit the Red Ilima. |
| W2-27 | Agricultural land needs to be kept for sustainability |
Changing world conditions - the economy, rising seas, collapsing airlines - make it imperative that we preserve our best farmlands. Ho'opili will take precious A + B quality lands. The plan is out of date on this. The urban growth boundary must be changed.

I am concerned about the preservation of ag land and open space between Kapolei and Waipahu. In these hard economic times, we need more locally grown produce.

The urban growth boundary is no longer appropriate. Freeway traffic jam is far worse than anticipated. At LOS F with no change anticipated with rail we must stop putting thousands more cars on the freeway.

3.1.4.1 Mountain Areas. Coordinate with DLNR, Sierra Club, and Hawaiian Trail & Mountain Club on what trails need access.

3.1.4.1 Mountain Areas. Recommend you include parking areas, not just vehicular access to trail heads. These can be gravel, and only need to be big enough for 5 cars.

Keep open space within housing development

Roller Hockey Rink in Ewa Mahiko Park or within Kalaeloa

Full size dedicated football fields with goal posts at each end, lights and bleachers

Need to consider new stadium at UH Makai site

Add Ho'opili

If the Ewa Villages Master Plan is revised, those revisions should be taken into consideration when revising the Ewa DP

Page 3-58. Plan states "DHHL has notified the DPP that it intends to exempt itself …" should state "DHHL has notified the DPP that it has exempted itself …"

Support Regional Shopping Center in Section 3.9.1

Proposed Change: 3.9 Planned Commercial Retail Center. Fully support proposal specifically Regional Commercial Center as it fulfills vision of building master-planned communities.

3.9 Planned Commercial Retail Center. Fully support proposal as it will be part of developing the secondary urban center

Encourage more shopping, commercial areas & office buildings -- will help with keeping cars off H-1 & need to drive to town for things

Why are commercial centers' size so limited.

Add DHHL's De Bartolo’s Commercial Development

Better and faster land usage at Kalaeloa

Include in the Plan what the Navy has formally transferred to State and City agencies. Also what the Navy plans to lease and length of leases and options.
<table>
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<th>W2-49</th>
<th>What are the plans for Kalaeloa Regional Park? Any private/public partnerships for development?</th>
</tr>
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<tr>
<td><strong>CH 4 INFRASTRUCTURE</strong></td>
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<tr>
<td>W2-50</td>
<td>Cost of infrastructure should not only be burdened on Ewa residents via developer provided infrastructure, Community Facility Districts (CFD) &amp; Tax Increment Financing (TIF). Since the whole island benefits from 2nd City (no additional housing in Kailua, Aina Haina, etc.) everyone should pay their share via real property taxes</td>
</tr>
<tr>
<td>W2-51</td>
<td>What is the status of CFD financing ordinances? When can infrastructure projects be funded thru CFD?</td>
</tr>
<tr>
<td>W2-52</td>
<td>The City &amp; County should have a strategy, timetable, and legislation (if necessary) to finalize the TIF process</td>
</tr>
<tr>
<td>W2-53</td>
<td>State Constitution needs to be amended to permit the issuance of Special Purpose Revenue Bonds to private developers so that developers have the capital to build the roads first.</td>
</tr>
<tr>
<td>W2-54</td>
<td>I agree that the issue of maintenance of grass lined drainageways and sumps needs to be addressed. Homeowners pay property taxes in order for the City to maintain public facilities and the City has been shirking its responsibility of late.</td>
</tr>
<tr>
<td>W2-55</td>
<td>How can this plan encourage renewable energy implementation?</td>
</tr>
<tr>
<td>W2-56</td>
<td>New Communities implement solar as a standard</td>
</tr>
<tr>
<td>W2-57 &amp; 58</td>
<td>Public Transit Ferry landing at Ocean Pointe Marina</td>
</tr>
<tr>
<td>W2-59</td>
<td>Yes to a ferry system for Ewa Beach !!!</td>
</tr>
<tr>
<td>W2-60</td>
<td>Passenger Ferry Service should be accommodated from the Ocean Pointe Marina and include public parking on site</td>
</tr>
<tr>
<td>W2-61</td>
<td>What will the State do (plan) to ensure the infrastructure at Kalaeloa is updated to code?</td>
</tr>
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<td>W2-62</td>
<td>Continued support for future planned fire stations as described in Table 4.4, p. 4-36. Namely: Ocean Pointe, Ewa Villages, Ko'olina, Makaiwa Hills, Kalaeloa Training Facility</td>
</tr>
<tr>
<td>W2-63</td>
<td>I have property in Makakilo. I am concerned that Makakilo Drive be extended as soon as possible so that we have more than one way in and out of the area. (Looks like it is scheduled for 2016??)</td>
</tr>
<tr>
<td>W2-64</td>
<td>What are the plans for improved infrastructure to eliminate the terrific bottleneck leading past the Kunia Road - Waiekele Road corridor? Or are there any?</td>
</tr>
<tr>
<td>W2-65</td>
<td>East-West Connector Road should be mandated to be of public use prior to the Hoopili Project permitted to build homes.</td>
</tr>
<tr>
<td>W2-66</td>
<td>Ft. Weaver goes from 3 lanes to 1. Kunia Road to H-1 Freeway eastbound - Ewa needs a second lane to access freeway.</td>
</tr>
<tr>
<td>W2-67</td>
<td>Intersection of North-South Road and Farrington Highway must be an overpass. No intersection at grade with traffic signals.</td>
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<td>Comment ID</td>
<td>Text</td>
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<tr>
<td>W2-68</td>
<td>To avoid the gridlock traffic that is now experienced in the Ewa Beach area, roadways and transportation issues needs to be addressed prior to housing and commercial development buildout.</td>
</tr>
<tr>
<td>W2-69</td>
<td>Make sure more emphasis on roads and traffic is placed with growth.</td>
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<tr>
<td>W2-70</td>
<td>Need legislation to ensure State DOT and City DTS use developers fees for roads/infrastructure in Kapolei/Ewa area.</td>
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<tr>
<td>W2-71</td>
<td>We need a law requiring the State to use developer fees in the community that they are collected for transportation.</td>
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<td>W2-72</td>
<td>North-South Road must go to Keoneula Boulevard.</td>
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<td>W2-73</td>
<td>Farrington Highway must be widened to four lanes.</td>
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<tr>
<td>W2-74</td>
<td>Fort Weaver widening to Papiipi Road.</td>
</tr>
<tr>
<td>W2-75</td>
<td>Keaunui Road connected to Renton Road.</td>
</tr>
<tr>
<td>W2-76</td>
<td>East West Connector Road priority Number One.</td>
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<td>W2-77</td>
<td>Frontage Road to Child and Family Service Complex connect to Old Fort Weaver Road.</td>
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<td>W2-78</td>
<td>Street light at Renton extension and Roosevelt Avenue.</td>
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<td>W2-79</td>
<td>No road should be permitted across Honowai Street in Ho'opili that would trigger a traffic signal at the intersection of Honowai Street and Kunia Road.</td>
</tr>
<tr>
<td>W2-80</td>
<td>Shoulder land expansion converted to a third lane on Kunia Road and Farrington Highway to provide another dedicated lane to access H-1 Freeway eastbound.</td>
</tr>
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<td>W2-81</td>
<td>All pedestrian paths in Ewa Beach must be resurfaced that are over 8 years old -- all throughout Ewa are paths not worthy of skate boarding or rollerblading on -- they are in condition that tear up wheels due to unraveling surfaces that are dangerous, causing spills unnecessarily even to bike riders.</td>
</tr>
<tr>
<td>W2-82</td>
<td>The Ewa DP advocates minimizing dead end streets and providing for intersections at regular intervals. This is often contrary to what homebuyers want; homebuyers love cul-de-sacs.</td>
</tr>
<tr>
<td>W2-83</td>
<td>Traffic calming implementation. More discussion on traffic calming.</td>
</tr>
<tr>
<td>W2-84</td>
<td>The plan emphasizes automobile connectivity down to micro grids within communities. Why not focus this connectivity on pedestrian and bicycles, but not automobiles. Micro street grids result in encouraging auto use, permanently paving paradise, using scarce resources and driving up costs. This is not smart, green or sustainable and burdens the future with massive maintenance costs.</td>
</tr>
<tr>
<td>W2-85</td>
<td>School enrollment is declining, yet DOE is requiring new schools to be built and exactions (which are passed on to new home buyers). DOE should audit and reorganize, consolidate and close underutilized schools. Use the property to collect income to maintain existing schools and build new schools.</td>
</tr>
<tr>
<td>W2-86</td>
<td>Schools in Kapolei need to be opened earlier to keep up with number of students</td>
</tr>
<tr>
<td>W2-87</td>
<td>We need law requiring DOE to use developer fees in the communities that they are collected, for schools</td>
</tr>
<tr>
<td>W2-88</td>
<td>Need legislation to ensure DOE uses developer's fees for schools in Kapolei area</td>
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<tr>
<td>W2-89</td>
<td>Ewa Beach Elementary is currently under (not over) capacity.</td>
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<td>W2-90</td>
<td>What laws need to be changed to make the DOE build schools we need.</td>
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<tr>
<td>W2-91</td>
<td>Where are the additional schools (i.e. elementary/middle/high) to meet the needs in Kapolei West, Kapolei East, and Ho'opili projects? Where are the parks for community athletics? We need more designations for Parks and Recreation.</td>
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<td>W2-92</td>
<td>What is the follow-up to Waimanalo Gulch Landfill site?</td>
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<td>W2-93</td>
<td>Planning for transit sites and areas around sites, especially downtown Kapolei</td>
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<tr>
<td>W2-94</td>
<td>Place Rail Stop in Downtown Kapolei!</td>
</tr>
<tr>
<td>W2-95</td>
<td>Park &amp; Ride Facility at Waipahu Longs Rail Transit Station</td>
</tr>
<tr>
<td>W2-96</td>
<td>What will be the additional sources for potable water?</td>
</tr>
<tr>
<td>W2-97</td>
<td>Where will the potable water to serve the new communities come from?</td>
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<tr>
<td>W2-98</td>
<td>Development should be mandated on existing water and waste capabilities and not wishful thinking.</td>
</tr>
<tr>
<td>W2-99</td>
<td>The Plan does not include an additional WasteWater Treatment Facility. The present site will not meet needs of projected properties.</td>
</tr>
<tr>
<td>W2-100</td>
<td>Expansion of nonpotable water use. Need further explanation of sources including desalination at Kalaeloa and Ko Olina</td>
</tr>
<tr>
<td>W2-101</td>
<td>Potable water availability for growth to 2030 is contingent upon &quot;desalination or additional groundwater sources&quot; Central Oahu. When is development reached capacity?</td>
</tr>
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**CH 5 IMPLEMENTATION**

| W2-102 | How are you going to operationalize and implement the notions of "concurrency"? |
| W2-103 | road block to public over-sight HCDA & impact fees |
| W2-104 | Instead of spending money to buy Turtle Bay, use those funds to buy all available Ag land to be held in perpetuity |
| W2-105 | Officially include identified historical "partners" in process of planning and implementation of surveys and recommendations to protect and develop Heritage Sites with defined goals and timelines to develop them |
| W2-106 | Regarding master planned development, how will the revised Ewa DP, once adopted, affect applications that are in the hopper -- e.g. subdivision approvals? Will they be grandfathered in? If so, that should be stated in the DP |
| W2-107 | Update/Revise Subdivision Rules and Regulations to include more New Urbanist concepts: Improve walkability, biking and connectivity from a human scale |
| W2-108 | The phasing-in process needs to be brought back. Phase assessment allows easier change or improvement |
| W2-109 | Public policy decisions were made 35 years ago to put growth in Ewa. Federal, State and County need to provide the public services and infrastructure investment to complete the plan. |

**APPENDIX A: CONCEPTUAL MAPS**

| W2-110 | Urban Land Use Map is missing "Regional Commercial Center" in legend section |
| W2-110 | Urban Land Use 'Map at North-South Road & Kapolei Parkway (DHHL Properties) should be labeled "Commercial Community Center/Regional Commercial Center" |
| W2-111 | Urban Land Use Map - show Kroc Center |
| W2-111 | East Kapolei II has elementary school site planned |
Public Review Draft
Ewa Development Plan

Department of Planning and Permitting
City And County Of Honolulu

October 2008
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   - Develop the Secondary Urban Center  2-3
   - Build Master Planned Residential Communities  2-3
     - That Support Walking, Biking, and Transit Use  2-3
   - Protect Natural, Historic, and Cultural Resources  2-5
   - Provide Adequate Infrastructure to Meet the Needs  2-6
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(to be added after Council adopts the revised Ewa Development Plan)
KEY TO REVISION FORMATTING

Proposed changes to the Ewa Development Plan are identified in two ways in this Public Review Draft:

1. Corrections of errors, grammar, and spelling and revisions to improve clarity or to reflect name changes and updated information are shown with shading. For example, all references to the Ewa Marina project in the Plan have been changed to Ocean Pointe/Hoakalei Resort in the Public Review Draft, and the fact that the name has been updated is indicated by the shading. If the reader wants to know exactly what the change is from the 1997 Plan, a comparison must be made with the 1997 Plan text.

2. Revisions to vision elements, policies, principles, and guidelines are shown in Ramseyer format. Additions are indicated with underlining and deletions are shown with strikeouts. This allows the reader to know exactly what change from the vision, policies, principles, or guidelines of the 1997 Plan is proposed.

   (Not all underlined words are additions to the 1997 Plan text. Some underlined words were formatted that way in the 1997 Plan to add emphasis and clarity to the text. In addition, document titles like the General Plan of the City and County of Honolulu are shown in bold font and underlined.)

3. Tables which have been revised from the 1997 Plan have shading of the individual elements that have been revised.

4. Tables which have been added to the Plan are indicating by shading of the entire title. For example, Table 2.1: Phasing of Ewa Development has been updated to reflect the most recent land use development status, and its format changed to indicate the land use entitlement status of the individual projects. The entire table is shaded to indicate that substantial changes have occurred throughout the table.

5. Exhibits which have had the body of the exhibit revised or which are a new exhibit added to the 1997 Plan are indicated by shading of the entire title. If only an element of the Exhibit title, like the number or a word, has changed, then the shading is only on the number or word that is changed from the 1997 Plan.
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Note: The Ewa Development Plan adopted in 1997 did not have a Preface and Executive Summary. The following are proposed for adoption as part of the 2008 revision.

PREFACE AND EXECUTIVE SUMMARY

PREFACE

The Ewa Development Plan has been prepared in accordance with the Charter-prescribed requirements for development plans and is to be accorded force and effect as such for all Charter- and ordinance-prescribed purposes.

It is one of a set of eight community-based plans intended to guide public policy, infrastructure investment, and land use decision-making over the next 25 years. Each plan addresses one of eight planning areas of Oahu, responding to specific conditions and community values of each region. The map on the following page illustrates these planning regions.

The plans for Ewa and the Primary Urban Center, as the areas where the General Plan says population growth and development activity is to be directed over the next 25 years, are designated as "Development Plans."

Plans for the remaining six areas, which are envisioned as relatively stable regions for which public actions will focus on supporting existing populations, have been entitled "Sustainable Communities Plans" to indicate the intent to focus on retaining and sustaining the unique qualities and characteristics of each of these areas.

THE DEVELOPMENT PLAN FIVE YEAR REVIEW PROCESS

This Plan is a revision of the Ewa Development Plan which was adopted by the City Council in 1997. The 1997 Ewa Development Plan was the first of the eight plans to be
revised in response to a 1992 City Charter amendment which changed the nature of the Development Plans from relatively detailed, parcel-specific plans to conceptual, visionary plans.

As amended in 2000, the Plan is to be reviewed every five years to determine if:

1. The Plan vision, implementing land use and infrastructure policies, and implementation methods are still appropriate;
2. The purpose of the Plan's phasing guidelines is being achieved, and
3. The phasing priorities in the Plan should be revised.

This document is the culmination of a community-based planning effort led by the Department of Planning and Permitting which involved public meetings and workshops, interviews, focus groups, and numerous meetings over the past six years.

In its final form, the Plan incorporates and responds to comments received from public outreach to community leaders, business and labor representatives, landowners, developers, and public and private agency staff through a variety of formats since 2002.

The *Director's Report on the Ewa Development Plan Review Program* provides documentation of the comments and suggestions received, and details the Department's assessments of what revisions or implementation recommendations should be made as a result.

**THE HONOLULU LAND USE PLANNING AND MANAGEMENT SYSTEM**

The City and County of Honolulu guides and directs Oahu land use and development through a three-tier system:

- The *General Plan* forms the first tier of this system. First adopted by resolution in 1977, the General Plan is a relatively brief document, consisting primarily of one-sentence statements of objectives and policies. It has been amended several times, but the basic objectives and policies set forth in the 1977 plan remain intact.
- The second tier of the system is formed by the *Development Plans and Sustainable Communities Plans*, which are adopted and revised by ordinance. These plans address eight geographic regions of the island, including the Primary
Urban Center, East Honolulu, Ewa, Waianae, North Shore, Koolauloa, and Koolaupoko.

- The third tier of the system is composed of implementing ordinances and regulations, including the Land Use Ordinance (Honolulu's zoning code), the Subdivision Rules and Regulations, and the City's Capital Improvement Program. Mandated by the City Charter, these ordinances and regulations constitute the principal means for implementing the City's plans. These ordinances and regulations are required to be consistent with the General Plan, the Development Plans, and each other.

In addition, the Development Plans and Sustainable Communities Plans are supplemented by two planning mechanisms that are not mentioned in the Charter:

- Functional plans (such as the Oahu Regional Transportation Plan or the Oahu Water Management Plan), some of which are mandated by state or federal regulations, provide long-range guidance for the development of public facilities and infrastructure; and
- Special Area Plans (such as the Waipahu Town Plan or the Wahiawa Urban Design Plan) give specific guidance for neighborhoods, communities or specialized resource areas.

**AUTHORITY OF THE DEVELOPMENT AND SUSTAINABLE COMMUNITIES PLANS**

The authority of the Development Plans and Sustainable Communities Plans (hereinafter referred to as "Development Plans" for simplicity) is derived from the City Charter, which mandates preparation of a General Plan and Development Plans to guide "the development and improvement of the city."

Together with the General Plan, the Development Plans provide policies to guide land use and budgetary actions of the City and to evaluate progress toward the General Plan objectives.
The Charter provides that "public improvement projects and subdivision and zoning ordinances shall be consistent with the development plan for that area." Although the Development Plans are not themselves regulatory, they "regulate the regulators."

The plans are also intended to aid decisions made in the private sector by clearly indicating what the City's development priorities are, where development is appropriate, and what kinds of development are appropriate in each location.

The 1992 Charter amendments established that the purpose of the Development Plans is to provide:

- "priorities . . . (for the) coordination of major development activities;"
- sufficient description of the "desired urban character and the significant natural, scenic and cultural resources . . . to serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions."

The revised plan presented in this document conforms to that mandate.

EXECUTIVE SUMMARY

This plan is organized in five chapters and an appendix, as follows:

- **Chapter 1: Ewa's Role in Oahu's Development Pattern** defines the Ewa's role and identity within the overall framework of island wide planning and development;
- **Chapter 2: The Vision for Ewa's Future** summarizes the community-based vision for Ewa's future, discusses key elements of that vision, and presents illustrative maps and tables;
- **Chapter 3: Land Use Policies, Principles, and Guidelines** provides the land use policies needed to implement the vision for Ewa described in Chapter 2;
- **Chapter 4: Public Facilities and Infrastructure Policies and Principles** provides the infrastructure policies needed to implement the vision for Ewa described in Chapter 2;
- **Chapter 5: Implementation** identifies the means through which the policies will be applied, including zone changes, and infrastructure budgeting and development; and
Appendix A includes

- Four conceptual maps (Open Space, Urban Land Use, Public Facilities, and Phasing) which illustrate the vision and policies of the Plan; and
- A glossary of terms used on those maps.

The following summarizes the vision, and lists the land use and infrastructure policies of the Plan and the means of implementation.

EWA’S ROLE IN OAHU’S DEVELOPMENT PATTERN

- Provides a second urban center for Oahu with its nucleus in the City of Kapolei and job centers in resort areas, industrial areas, and the University of Hawaii West Oahu;
- Provides a wide range of master planned residential areas to relieve developmental pressures on Oahu’s rural areas and to provide housing types not readily provided in the Primary Urban Center (Kahala to Pearl City);
- Protects and promotes diversified agriculture on prime agricultural lands along Kunia Road and in the Explosive Safety Quantity Distance zone around the West Loch Naval Magazine; and
- Provides resort areas at Ko Olina and at Ocean Pointe.

THE VISION TO 2030

- Population growth from 68,000 in 2000 to over 177,000;
- Addition of over 37,000 new homes to the 20,800 homes in Ewa in 2000;
- Job growth from 16,000 non-construction jobs in 2000 to almost 65,000;
- Growth of the City of Kapolei to include almost 10,000 residents and provide almost 18,000 private and public jobs;
- Development of the University of Hawaii West Oahu campus to serve 7,600 students and employ 800 staff and faculty by 2020; and
- Resort development at Ko Olina and at Ocean Pointe to include over 9,200 visitor units.
ELEMENTS OF THE VISION

1. Protect Agricultural Land and Open Space by containing all urban growth within the existing Urban Growth Boundary, and creating an open space network within the Urban Growth Boundary by linking together open space areas with greenways;

2. Develop the Secondary Urban Center to provide jobs at the City of Kapolei, Ko Olina Resort, the University of Hawaii West Oahu campus, and industrial and commercial areas throughout Ewa so an increasing share of Leeward Oahu residents will not have to commute to downtown Honolulu;

3. Build Master Planned Residential Communities that Support Walking, Biking and Transit Use;

4. Protect Natural, Historic, and Cultural Resources; and

5. Provide Adequate Infrastructure to meet the needs of new and existing development.

IMPLEMENTING POLICIES AND GUIDELINES

Chapter Three provides land use development policies and implementing guidelines for:

- Open Space Preservation and Development;
- Regional Parks and Recreation Complexes;
- Community-Based Parks;
- Historic and Cultural Resources;
- City of Kapolei;
- Ewa Villages;
- Ocean Pointe;
- Existing and Planned Residential Communities;
- Planned Commercial Retail Centers;
- Ko Olina Resort;
- Industrial Centers;
- Kalaeloa;
- Pearl Harbor Naval Base (West Loch); and
- University of Hawaii West Oahu
Chapter Four contains infrastructure policies and implementing guidelines, including policies on:

- Transportation Systems
- Water Allocation and System Development
- Wastewater Treatment
- Electrical Power Development
- Solid Waste Handling and Disposal
- Drainage Systems
- School Facilities
- Public Safety Facilities; and
- Other Community Facilities

Chapter Five describes the means for implementing the Ewa Development Plan through:

- Limiting residential and non-residential development to areas within the Urban Growth Boundary;
- Guiding development within areas of critical concern (like Kalaeloa) with Special Area Plans;
- Incorporating the Plan vision and policies in the review of zone changes and other land use approvals and in establishing conditions for these land use approvals which will help ensure the vision and policies are implemented;
- Incorporating the Plan vision and policies in the review of projects to be added to the Public Infrastructure Map and funded through the Capital Improvement Program budget;
- Evaluating progress made in fulfilling the Plan vision every two years as part of the mandated Biennial Report; and
- Conducting an evaluative review of the Plan vision, policies and implementation five years after the adoption of the revised Plan.
1. EWA'S ROLE IN OAHU'S DEVELOPMENT PATTERN

Ewa plays a key role in implementing the directed growth policies of the General Plan of the City and County of Honolulu. Campbell Industrial Park opened in the early 1960's, bringing industry and jobs to the Leeward Coast, which previously had been predominantly a sugar economy and plantation lifestyle. In the 1970's, residential growth began in Ewa with the development of Makakilo and Ewa Beach.

In 1977, the Honolulu City Council approved a new General Plan, which designated Ewa as the location for a Secondary Urban Center for Oahu to be centered in the Kapolei area. The Secondary Urban Center was to be the focus of major economic activity and housing development, and a center for government services. While the General Plan promotes full development of the Primary Urban Center, it also encourages development of the Secondary Urban Center at Kapolei, and residential development of the urban fringe areas in Ewa and Central Oahu.

This revision of the Ewa Development Plan reaffirms that role and amplifies how the role can be accomplished. In support of the General Plan policies, the Ewa Development Plan:

- Provides a secondary employment center with its nucleus in the City of Kapolei to supplement the Primary Urban Center (PUC) and to divert commuter traffic from the PUC;

- Concentrates primary employment activities at industrial and resort areas and at government service and higher education centers around the City of Kapolei so that regional office and retail activities are attracted to the City of Kapolei;

- Provides for significant residential development throughout Ewa, consistent with the General Plan, to meet the needs of Oahu's citizens;
• Provides for a variety of housing types from affordable units and starter homes to mid-size and larger multi-family and single-family units;

• Promotes diversified agriculture on prime agricultural lands along Kunia Road and surrounding the West Loch Naval Magazine in accordance with the General Plan policy to support agricultural diversification in all agricultural areas on Oahu;

• Provides a secondary resort area at Ko Olina;

• Helps relieve urban development pressures on rural and urban fringe Sustainable Communities Plan Areas (Wai‘anae, North Shore, Ko'olau Loa, Koolaupoko, and East Honolulu) so as to preserve the "country" lifestyle of these areas and sustain the stable, low density residential character of the urban fringe areas; and

• Provides, along with the PUC, a focus for directed and concentrated public and private infrastructure investment to support growth.
Exhibit 1.1
Development Plan and Sustainable Communities Plan Areas for Oahu
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2. THE VISION FOR EWA’S FUTURE

This chapter presents a statement of the vision for Ewa's future, discusses the key elements of the vision, and presents illustrative maps and tables.

2.1 VISION STATEMENT

This vision for Ewa has two horizons. The first horizon extends from the present to the year 2030. This horizon was used to project likely socio-economic change in Ewa and to assess the infrastructure and public facility needs that will have to be met over that period.

The Vision to 2030 - By 2030, the Ewa Development Plan Area shown in Exhibit 1.1 will have experienced tremendous growth, and will have made significant progress toward providing a Secondary Urban Center for Oahu. Population will have grown from 68,000 people in 2000 to over 177,000. Between 2000 and 2030, over 37,000 new housing units will have been built in a series of master planned communities.

Job growth will be equally impressive, rising from 16,000 non-construction jobs in 2000 to almost 65,000 in 2030. Oahu residents and visitors will be attracted to Ewa by a new university campus, the Ko Olina Resort, the Ocean Pointe/Hoakalei Resort, a major super regional park, and a thriving City of Kapolei which has retail and commercial establishments and private and government offices.

Beyond 2030 - In the course of the Development Plan revision in 1995, it became clear that there was value in looking beyond the planning horizon to identify what Ewa should look like when "fully" developed.

Such a perspective helped identify where open space should be preserved within the urbanized area, where the rapid transit corridor should be located, and where to set the...
limits to development in Ewa for the foreseeable future. As such, this second horizon might be called the "built-out" horizon and is probably 40 to 50 years in the future.

**Protect Agricultural Lands and Open Space Creation of An Open Space Network**

Urban growth will be contained within a boundary that will protect prime agricultural lands along Kunia Road and within the West Loch Naval Magazine Explosive Safety Quantity Distance (ESQD) for diversified agriculture. Preservation of prime agricultural lands mauka of H-1 and on the Waianae side of Kunia road for use in diversified agriculture will help retain open space and views, in addition to supporting economic diversification.

Within the Urban Growth Boundary, Ewa will be built around a regional system of open space and greenways so that Ewa has the feel of a network of communities "within a garden", as opposed to an unbroken suburban sprawl from Ko Olina to Ewa Beach.

Residents of these communities will enjoy easy access to the ocean through two major marinas, numerous beaches and a shoreline walkway from Ko Olina to Ewa Beach. Those interested in boating and ocean fishing will be able to use marina facilities and boat ramps at Ko Olina, Kalaeloa, and Ocean Pointe.

Residents will be able to easily access beaches, swimming and surfing spots all along the entire Ewa coastline by road or a network of pedestrian paths and bikeways. Linear shoreline access will be provided along the coast from Ko Olina to Ewa Beach. At its center will be a major new regional park and recreation complex at Kalaeloa (on the former Barbers Point Naval Air Station), which will provide access to the ocean and beaches as well as offering significant active and passive recreation facilities.

A network of greenways will link the communities together, with landscaping along major roads such as Kapolei Parkway, North-South Road, and Fort Weaver Road, and pedestrian and bike paths along grassed drainageways and utility corridors. A major pedestrian and bike path will be provided by the Pearl Harbor Historic Trail, which extends about 18.5 miles from the U.S.S. Arizona Visitor Center through the Ewa Development Plan Area and on to Nanakuli along the OR&L Railroad right-of-way.
Open space will be preserved in parks, golf courses, and agricultural areas that will help to protect significant public views. Wildlife habitats will be located at Kalaeloa, Ocean Pointe, and West Loch.

**Develop the Secondary Urban Center**

A key component of the vision is the **Secondary Urban Center**, which will provide a wide range of jobs located at visitor units and activity centers in Ko Olina and Ocean Pointe, in heavy and light industrial areas near the Kalaeloa Barbers Point Deep Draft Harbor, in offices and retail centers located at the City of Kapolei and community and neighborhood centers in residential communities, at the University of Hawaii West Oahu campus, and in diversified agriculture activities located along Kunia Road and around the West Loch Naval Magazine.

At the heart of the Secondary Urban Center will be the **City of Kapolei** with an urban mix of retail, office and residential uses. By 2030, it is projected that the City of Kapolei will house almost 10,000 residents and provide work sites for over 15,000 private jobs and 2,500 City and State jobs (located primarily at the City’s Civic Center and Judicial Center). The City Center will become a regional commercial center, attracting customers from all parts of Oahu.

Many of the jobs in the City of Kapolei will be supported by development of the **University of Hawaii West Oahu campus**, which is expected to have 7,600 students and 800 staff and faculty by 2020. Continued expansion of **industrial uses** at Campbell Industrial Park, Kalaeloa Barbers Point Deep Draft Harbor, and Kapolei Business Park; and growth of the **Ko Olina Resort** and the Hoakalei Resort at **Ocean Pointe** to include almost 9,200 visitor units by 2030 will also provide basic jobs which will support office and retail jobs in the City of Kapolei.

(Order of following vision elements changed in proposed 2008 Draft Plan from order in 1997 Plan)

**Build Master Planned Residential Communities That Support Walking, Biking, and Transit Use**

Building Communities Growth in Ewa will mean community building, not just project development. Substantial residential growth (over 37,000 new units between 2000 and 2030) will occur primarily in master planned communities including the City of Kapolei, East Kapolei, Ewa by Gentry,
The master plans and design of new developments must demonstrate how they would create communities that interact with neighboring communities and support the vision for development of the entire Ewa region. Such communities should be designed with identifiable and easily accessible town and village centers or “main street areas” and incorporate a mixture of residential and commercial development. While not every community will have a “main street”, all should have a community center.

These communities must be designed to meet the needs of a wide range of families and age groups. Ample housing should be provided for families needing affordable units and starter homes as well as for those seeking large multi-family and single-family units. Housing for persons of all ages will be needed, including students going to school at the UH - West Oahu campus, young families seeking their first home, and senior citizens wanting a retirement home close to their grandchildren. Such a desirable variety in housing types could be partially achieved through the inclusion of “granny flats” (small, accessory apartments) and/or “Ohana” units where infrastructure will support these additions.

Separate identities should be created for existing and planned communities by using open space, architectural design, streetscape treatments and landscaping which links to the regional open space and greenway network.

Communities Designed to Reduce Automobile Use Ewa will be developed with a transportation system which reduces congestion by providing connectivity, both within and between subdivisions, provides easy access to transit, uses traffic calming design, and encourages people to walk and bike, reducing the need for use of the automobile.

Where allowed by terrain, communities will be designed with multiple street/walkway connections to adjacent communities and collector roads at approximate ¼ mile intervals, thereby facilitating and encouraging convenient auto, pedestrian and bikeway access to parks, schools, neighborhood shopping and transit corridors. These connections will also reduce congestion on major regional roads by offering multiple alternative routes and facilitate improved neighborhood access for emergency and utility vehicles. High-Medium density housing and commercial development will be built along a rapid transit corridor extending from the City of Kapolei to Waipahu and will support efficient
use of buses and other forms of mass transit along the corridor, allowing some residents to minimize automobile use.

Sufficient land will be reserved in the corridor so that an elevated or an at-grade separated rapid transit system could be developed on the corridor at some point in the future. (An at-grade separated system would not be elevated and would have its own exclusive right-of-way.) The first segment of the rapid transit system will start near the proposed Kroc Center on North-South Road and continue on to Waipahu along North South Road and Farrington Highway. Sufficient land will be reserved to allow extension of the system through Kalaeloa to the City of Kapolei, ending near the intersection of Kapolei Parkway and the planned extension of Hanua Street. See Appendix A: Public Facility Map, and Phasing Map.

**Protect Natural, Historic, and Cultural Resources**

The Ewa Development Plan provides a vision for preservation, conservation, and enhancement of community resources.

**Natural resources** will be conserved through retaining natural drainageways, protecting valuable plant and wildlife habitats, by cleaning up contaminated areas and by conserving potable water through development of a non-potable water system for irrigation and industrial use efficiently using all water supplies through conservation measures and distribution system leak repair, by developing a dual water distribution system with potable water for drinking and other clean water uses and non-potable water for irrigation and industrial uses, and re-use of sewage reclamation of non-potable water from waste-water effluent where feasible.

**Cultural and historical resources** will be preserved by retaining visual landmarks and significant views, and by preserving significant historic, cultural, and archaeological features from Ewa’s past.
Provide Adequate Infrastructure to Meet the Needs of New and Existing Development

Public agencies and private developers will work together to create adequate infrastructure to meet the needs of the residential and working population of the area. Current deficiencies in roads, schools, and parks will be addressed, and new developments will not be approved until availability of key infrastructure can be guaranteed. Public-private mechanisms for financing infrastructure will be developed to support concurrent development of infrastructure.

Public agencies will work with the community (residents, businesses, developers, and landowners) to address current deficiencies in roads, schools, and parks and to create adequate infrastructure to meet the needs of the residential and working population of the area.

Where possible and practical, construction of new development that generates increased service demands for public schools, emergency medical services, and roadway capacity, will be coordinated with the provision of needed infrastructure capacity.

Public-private mechanisms for financing infrastructure such as Tax Increment Financing (TIF) and Community Facilities Districts (CFD) should be considered to support timely infrastructure provision.

Public agencies' planning for infrastructure needs will be guided by the Development Plan priorities for residential and commercial development. See the discussion of Phasing in Section 2.2.10.

2.2 KEY ELEMENTS OF THE VISION

The vision for Ewa's future will be implemented through the following key plan elements:

2.2.1 Urban Growth Boundary,

2.2.2 Retention of Agricultural Lands,

2.2.3 Open Space and Greenways,
2.2.4 Kalaeloa Regional Park: A major Regional Park and Recreation Complex at Kalaeloa (at the former Barbers Point Naval Air Station).

2.2.5 Secondary Urban Center,

2.2.6 Master Planned Residential Communities

2.2.7 Communities Designed To Support Non-Automotive Travel,

2.2.8 Conservation of Natural Resources,

2.2.9 Preservation and Enhancement of Historic and Cultural Resources

2.2.10 Phased Development

Each of these elements is discussed in the following sections.

2.2.1 URBAN GROWTH BOUNDARY

The Urban Growth Boundary for Ewa gives long-range protection from urbanization for over 3,000 acres of prime agricultural land and for preservation of open space while providing adequate land for urban development in Ewa for the foreseeable future. The Urban Growth Boundary for Ewa is illustrated in Exhibit 2.1, shown in greater detail on the four conceptual maps in Appendix A, and is described below.

**Boundary Description** - The mauka portion of the boundary follows the Special Management Area boundary around Kahe Point, runs along the northern boundary of the Makaiwa Hills project and the existing Makakilo development, and then follows the proposed extension of Makakilo Drive to the H-1 Freeway. It then follows the H-1 Freeway to the intersection with Kunia Road and then up Kunia Road to the boundary between the Central Oahu Sustainable Communities Plan and Ewa Development Plan Areas.

The makai portion of the boundary excludes the Explosive Safety Quantity Distance (ESQD) zone for the West Loch Naval Magazine.
Exhibit 2.1
Urban Growth Boundary
Protection for Prime Agricultural Land - The Urban Growth Boundary protects prime agricultural lands on the Waianae side of Kunia Road and mauka of H-1 freeway from urban development for the foreseeable future, thereby providing an incentive for landowners to give long term leases to farmers. No proposals for urban uses outside the Urban Growth Boundary will be considered.

Open Space Network - Within the Urban Growth Boundary, significant acreage will be retained in open space in parks, wildlife habitats, golf courses, and natural and grass-lined drainageways. (Of the estimated 23,000 acres within the Urban Growth Boundary, over 6,000 acres or 27 percent of the acreage will be in open space.)

Capacity for Growth - Even with the amount of land reserved for agriculture, parks, and open space, there is ample capacity within the Urban Growth Boundary for residential, commercial, and industrial development extending beyond the 20-year horizon (2030).

As shown in Table 2.1, over 4,500 acres are available for residential development; over 700 acres for retail and office development; and over 1,600 acres for industrial development. Providing this capacity allows for competition and promotes more affordable residential, commercial, and industrial development. Development will be approved in phases to match the provision of infrastructure.

Over forty percent of the residential development acreage is already zoned. Developers of these parcels can apply for subdivision, construction permit, and building permit approvals as needed to meet market demand. However, these projects will be subject to infrastructure capacity requirements established through unilateral agreements and subdivision approval requirements.

The remaining residential development acreage requires land use approvals by the State Land Use Commission and/or the City Council before development can proceed.

- About 1,400 acres are in the Urban District but need zoning approval from the City Council, and
- About 1,400 acres of the lands indicated for development are in the State Agriculture Land Use District, and will first have to be approved for transfer to the State Urban District by the State Land Use Commission and then have urban zoning approved by the City Council before they can be developed.
### Ewa Development Plan

#### The Vision for Ewa’s Future

<table>
<thead>
<tr>
<th>PROJECT AREA (1)</th>
<th>Number of Units</th>
<th>DEVELOPABLE LAND AREA (Gross Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Housing</td>
<td>Need</td>
</tr>
<tr>
<td>On DP before 1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A    Kalaeloa Barbers Point Harbor &amp; vicinity</td>
<td>1,150</td>
<td>108</td>
</tr>
<tr>
<td>B    City of Kapolei</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mehana at City of Kapolei</td>
<td>1,150</td>
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<tr>
<td>Leihano Senior Community</td>
<td>714</td>
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<tr>
<td>Kapolei Mixed Use (2)</td>
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<tr>
<td>Kapolei Commercial</td>
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<tr>
<td>C    Ewa by Gentry (3)</td>
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<tr>
<td>D    Ewa Villages</td>
<td>589</td>
<td>54</td>
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<tr>
<td>E    Kapolei Business Park &amp; vicinity</td>
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<td>94</td>
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<tr>
<td>F    Kapolei Harborside (4)</td>
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<td>G    Kapolei Knolls</td>
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<tr>
<td>H    Palalaili Apartments</td>
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</tr>
<tr>
<td>I    Kapolei Shopping Center</td>
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<td>0</td>
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<tr>
<td>J    Ko Olina Resort</td>
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<tr>
<td>K    Makaiwa Hills (5)</td>
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<tr>
<td>L    Makakilo C &amp; D1</td>
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<td>M    Villages of Kapolei</td>
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<td>P    East Kapolei: Ho'opili (7)</td>
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<td>Q    Laulani Commercial</td>
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<tr>
<td>S    Makakilo D2</td>
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<tr>
<td>T    UH West Oahu Campus (8)</td>
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<td>U    Makaiwa Hills (9)</td>
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<td>V    DHHL East Kapolei (10)</td>
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<td>W    Kapolei North</td>
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<tr>
<td>X    Kapolei West (7)</td>
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<td>1,000</td>
</tr>
<tr>
<td>Y    Kapolea (HCDA) (11)</td>
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<td>6,500</td>
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<td><strong>TOTAL ON DP BEFORE 1997</strong></td>
<td>18,483</td>
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<tr>
<td><strong>TOTAL ZONED</strong></td>
<td>14,983</td>
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</tbody>
</table>

**NOTES:**

- See Exhibit 2.3 for location of projects. Estimated capacity of existing projects as of July 2007.
- Housing units estimates are rounded to the nearest 100; residential and total acreages are rounded to the nearest 50; all other acreages to the nearest 10. Parts may not sum to totals shown due to rounding.
- Project needs State Land Use Commission approval of a Land Use District amendment.
- Project needs City Council approval of a zone change (and may need State Land Use District Boundary Amendment).
- As of February 2006, included around 60 acres of vacant BMX-3 zoned lands which could provide residential units as well as commercial and office space.
- Industrial acreage intended for service-oriented light industrial use or industrial mixed use rather than heavy industrial use.
- Acreage needing zoning due to reconfiguration. Zone change will not increase total number of to be built at Ocean Pointe.
- Zone change under consideration by City Council as of September 2008.
- Formerly Ko Olina Phase II. Ten of the residential acres are for mixed use residential development and may include 100,000 s.f. of commercial space. 27 of the commercial acres include mixed-use residential development of 300 units.
- DHHL and HCDA can exempt themselves from County zoning.
- 20 acres near Farrington/Fort Weaver intersection for regional commercial center; remainder intended for neighborhood commercial use. Some residential acreage may also support retail and office uses in mixed use projects.
Almost 1,600 acres are controlled by either the State Department of Hawaiian Home Lands or the Hawaii Community Development Authority. The timing and conditions of the development of these lands are not subject to review and approval by the City Council because both State agencies can exempt themselves from County zoning and land use regulations.

Table 2.1 shows the projected number of housing units and the approximate gross acreage by land use category for previously approved and proposed projects. These represent general indicators of the land areas involved and possible densities. In determining actual land uses and densities, project planning, design and review of project zoning change applications should be directed by the planning principles and guidelines provided in Chapters 3 and 4.

2.2.2 RETENTION OF AGRICULTURAL LANDS

The closure of the Oahu Sugar Company in 1995 raised serious questions about how thousands of acres of former sugar lands in Ewa should be used in the future. The Ewa Development Plan protects the highest value prime agricultural lands from urban development.

These high value lands are located in two areas: lands mauka of H-1 Freeway and on the Waianae side of Kunia Road, and lands in the Explosive Safety Quantity Distance (ESQD) area around the West Loch Naval Magazine. State agencies indicated in 1996 that these prime agricultural lands should have the highest priority for retention of all the prime agricultural lands in Ewa.

These 3,000 acres of agricultural land, protected by the Urban Growth Boundary, have been rated, in the most authoritative studies, as potentially among the most productive lands for diversified agriculture in the State.

The State Department of Agriculture's November 1977 study, *Agricultural Lands of Importance to the State of Hawaii (Revised)*, indicates that the Kunia lands and a portion of the lands within the Navy's ESQD area are "prime" agricultural lands which generally produce the largest yields and the best quality crops for the least expenditure of energy.
The University of Hawaii Land Study Bureau's December 1972 bulletin, *Detailed Land Classification - Island of Oahu*, rated productive capacity of the Kunia lands as either A or B and the lands within the Navy’s ESQD as B or C (An A rating was given to the highest productivity lands and E was given to the lowest.)

These high value agricultural lands have unique advantages in weather, soil productivity, infrastructure, and water availability from the Waiahole Ditch, and access to the local markets of Honolulu and to export markets through Honolulu International Airport.

Successful agricultural operations are currently being pursued on the former sugar lands in the Kunia area, including vegetables, melons, and other truck crops. In addition, the Hawaii Agriculture Research Center (HARC) at the corner of H-1 and Kunia Road is conducting studies on vegetable crops and forage to help diversified agricultural activities in the area. The Navy currently leases out 1,025 acres for agriculture on its lands surrounding the Naval Magazine.

By protecting agricultural lands from urban development, an opportunity is created for retention and development of diversified agriculture on small farms and agricultural parks. Public-private partnerships will be needed to solve problems of lease terms and tenure, access to capital, research, and marketing if this vision is to be realized.

**2.2.3 OPEN SPACE AND GREENWAYS**

A network of Open Space and Greenways will link the Secondary Urban Center and associated employment centers, new master planned residential developments and revitalized established communities, an Ewa shoreline park, and a major regional park and recreation complex at Kalaeloa. See the Open Space Map in Appendix A.

Table 2.2 lists the major components of the Ewa Open Space and Greenways Network.
### TABLE 2.2: EWA OPEN SPACE AND GREENWAYS NETWORK

**Mountain and Agricultural Areas**
- Waianae Mountains Conservation District  
  (Including the Nature Conservancy's Honouliuli Preserve)
- Pu'u Makakilo
- Pu'u Palailai
- Agricultural Lands Mauka of H-1 and Waianae side of Kunia Road
- Agricultural Lands in the West Loch Naval Magazine ESQD zone

**Natural Gulches and Drainageways**
- Honouliuli Stream
- Kaloi Gulch
- Makalapa Gulch
- Makakilo Gulch
- Awanui Gulch
- Palailai Gulch
- maka'ia Gulch
- Keoneioio Gulch
- Limaloa Gulch

**Shoreline Areas**
- Ewa Shoreline Park (Lateral Public Access/Easement from Ko Olina to Pearl Harbor)
- Wetlands and Wildlife Habitats
  - Honouliuli National Wildlife Refuge
  - Apokaa Ponds
  - Batis Salt Marsh at Ocean Pointe
- Kahe Point Beach Park
- Tracks Beach Park
- Ko Olina Beach Parks (2)
- Barbers Point Beach Park
- Oneula Beach Park
- Ewa Beach Park
- Iroquois Point Park (military)
- West Loch Shoreline Park

Continued on next page
### TABLE 2.2: EWA OPEN SPACE AND GREENWAYS NETWORK
(Continued)

#### Regional and District Parks
- Ewa Marina District Park
- Kalaeloa Regional Park
- Ewa Mahiko District Park
- East Kapolei District Park (planned)
- Kapolei Regional Park
- Pu'u Palailai Regional Park (planned)
- Makaiwa District Park (planned)

#### Golf Courses
- Ko Olina
- West Kapolei (planned)
- Makaiwa Hills (planned)
- Makakilo (planned)
- Kapolei
- Ewa Villages
- Coral Creek
- Barbers Point (military)
- Ocean Pointe/Hoakalei Country Club (under construction)
- Hawaii Prince
- Puuloa
- New Ewa Beach Golf Club
- West Loch

#### Greenway Corridors
- Farrington Highway
- Kapolei Parkway
- Pearl Harbor Historic Trail / Historic OR&L Railway
- North-South Road
- Fort Weaver Road

See Exhibits 3.1 and 3.2 for locations of Pu'u, parks, wetlands and wildlife habitats.
The Open Space and Greenways Network:

- connects existing and planned communities through a system of linear greenbelts, consisting of drainage, transportation, and utility corridors, and
- creates separate identities for existing and planned communities through use of landscape buffers, golf courses, wildlife preserves, agricultural lands, regional parks, and other large open spaces at the urban edges.

An important new element in the Ewa Open Space and Greenways Network will be an **Ewa Shoreline Park** that will stretch along the Ewa coastline from Pearl Harbor to Ko Olina. It will be anchored by the **Kalaeloa Regional Park** planned for Kalaeloa.

The Pearl Harbor Historic Trail, running partly along the Pearl Harbor shoreline and across the Ewa Plain on the OR&L right-of-way, will allow bikers and pedestrians to travel as far as Nanakuli to the west. Running east, the path will create a greenbelt linking Ko Olina, the City of Kapolei, the Villages of Kapolei, Ewa Plantation Villages and West Loch to Rainbow Marina near Aloha Stadium and to the Waipahu Cultural Garden Park.

### 2.2.4 KALAELOA REGIONAL PARK AND RECREATION COMPLEX AND OTHER SPORTS COMPLEXES

**Kalaeloa Regional Park** and Recreation Complex will provide needed open space, recreational opportunities, and access to the beaches and ocean.

**Kalaeloa Regional Park** is envisioned as a major nucleus of community and economic activity, attracting visitors from all of Oahu. To be developed on surplus lands at Kalaeloa, it will feature a regional park and commercial with sports and recreation facilities. Taking advantage of its extensive land resources, cultural sites, and spectacular ocean setting, it will offer extensive community-oriented recreation facilities, commercial recreation enterprises, and public facilities. Ocean recreation areas at Kalaeloa will feature coastal lands providing a setting for ocean sports, beach activities, picnicking and family camping.

Future development of the area should also include a sports recreation complex and possible replacement facility for the Aloha Stadium. A sports recreation complex should be developed to sustain and support a professional and semi-professional baseball team and baseball fields for use by the community. In addition, a new sports facility to replace Aloha
Stadium should be identified through a community based planning process, in conjunction with the major landowners in the area. Both facilities should meet the necessary infrastructure needs for the area.

2.2.5 SECONDARY URBAN CENTER

The Secondary Urban Center (See Exhibit 1.1) will provide a wide range of employment opportunities by 2030 and consists of:

- A major office, retail, and residential center at the City of Kapolei (projected to have over 15,000 private non-construction jobs by 2030),
- A Secondary Civic Center with main headquarters for some State and City agencies (projected to have 2,500 government jobs),
- A major resort destination area at Ko Olina (projected to have 8,300 hotel and resort condominium units),
- A marina resort/mixed use area at Ocean Pointe (projected to have 950 visitor units),
- A deep draft harbor at Kalaeloa Barbers Point, a major industrial center at Campbell Industrial Park, and civilian reuse of Kalaeloa compatible with the rest of Ewa (projected to collectively provide almost 18,000 jobs), and
- The University of Hawaii West Oahu (projected to have 800 faculty and staff and 7,600 students)

See the Ewa Urban Land Use Map in Appendix A.

Almost the entire Ewa Development Plan Area (as shown in Exhibit 2.2) has been approved as an Enterprise Zone by the Honolulu City Council.

Under enabling legislation approved by the City Council in 1995 (Resolution 95-292) and in 2002 (Resolution 02-227), qualifying businesses receive a package of incentives including rebates on City property taxes for two years, and waiver of certain county fees for seven years. In addition, under State law (Chapter 209E, Hawaii Revised Statutes), the businesses may receive exemptions from State excise taxes for seven years, a decreasing State income tax credit for seven years, and a State income tax credit for unemployment insurance premiums.
2.2.6 MASTER PLANNED RESIDENTIAL COMMUNITIES

A network of master planned residential communities will provide a wide variety of housing and accommodate the need for affordable housing. Master plans will guide new developments in the City of Kapolei, East Kapolei, Ewa by Gentry, Ocean Pointe/Hoakalei, Ko Olina, Ewa Gentry Makai (previously Laulani), Makaiwa Hills, Kapolei West (previously part of Ko Olina), and the Villages of Kapolei and the rehabilitation of existing structures and development of new housing in Ewa Villages. (See Exhibit 2.3 for locations.)
Exhibit 2.3
Existing and New Master Planned Communities

---

LEGEND

On DP Before 1997
A Kalaeloa Barbers Point Harbor
B City of Kapolei
C Ewa by Gentry
D Ocean Pointe/Hoakalei
E Ewa Villages
F Kapolei Business Park
G Kapolei Knolls
H Kapolei Mauka
I Kapolei Shopping Center
J Ko Olina
K Makaiwa Hills
L Makakilo (C + D)
M Villages of Kapolei
N Kapolei West

Added to DP in 1997
O Gentry Ewa Makai East
P East Kapolei (Ho'opili)
Q Leilani Commercial
R Gentry Ewa Makai West
S Makakilo Extension
T UH WOC
U Makaiwa Hills
V DHHL East Kapolei
W Kapolei North

- Non-Urban Areas
- Existing Urban Areas
- Urban Expansion
- Urban Growth Boundary
These master plans will incorporate planning principles and guidelines to preserve historic and cultural values, establish open space and greenway networks, and create well-designed, livable communities. Such communities should be designed with an identifiable, distinct and easily accessible main street, town center or neighborhood center which may include a mixture of residential and small scale community related commercial development.

2.2.7 COMMUNITIES DESIGNED TO SUPPORT NON-AUTOMOTIVE TRAVEL

The master planned residential communities will be designed or redeveloped to support pedestrian and bike use within the community and transit use for trips both within and outside of the community.

Connectivity will be established within subdivisions by use of block and street standards and between subdivisions by establishing and implementing a ¼ mile collector/connector master road plan, where permitted by terrain.

An east-west Rapid Transit Corridor will link Kapolei West, the City of Kapolei, the Villages of Kapolei, the University of Hawaii West Oahu campus, Waipahu, Leeward Community College, and the Primary Urban Center. Medium density residential development will be built along the corridor within walking distance of transit stops.

High density residential and commercial mixed-use development will be developed at eight transit nodes whose general locations are indicated on the Public Facilities Map in Appendix A. Transit nodes are meant to be located at activity focal points, which would serve as natural points for transferring from one transportation mode to another.

Through 2020, it is projected that transit service along the corridor will be provided by mass transit bus service running on roadways shared with other vehicles. However, the first segment of the rapid transit system will start near the proposed Kroc Center on North-South Road and continue on to Waipahu along North-South Road and Farrington Highway. Sufficient right-of-way shall be reserved for the establishment, when needed in the future, of a separated at-grade or elevated rapid transit system along a route which would extend the system through Kalaeloa to the City of Kapolei, ending near the intersection of Kapolei Parkway and the planned extension of Hanua Street. Such a system will require a 28-foot
right of way along the route and a 75-foot right of way at transit station sites (at the transit nodes).

2.2.8 CONSERVATION OF NATURAL RESOURCES

Ewa Natural Resources, including potable water, coastal water quality, and wetlands and other wildlife habitat, will be conserved by:

- Efficiently using all water supplies through conservation measures and distribution system leak repair;
- Developing a dual water distribution system with potable water for drinking and other clean water uses and non-potable water for irrigation and industrial use;
- Designing the regional drainage and wastewater treatment system to minimize non-point source pollution of the ocean and Pearl Harbor; and
- Protecting valuable habitats for endangered water birds located in Batis Salt Marsh at Ocean Pointe and in the West Loch of Pearl Harbor and for endangered plants located within Kalaeloa (formerly Barbers Point Naval Air Station) and elsewhere.
- Protecting endangered fish and invertebrates present in sinkholes such as Ordy Pond near the east edge of Kalaeloa, and
- Cleaning up contaminated areas that pose hazards to soil and water quality, especially in the Kalaeloa area.

See Exhibit 3.2 in Chapter 3 for a mapping of key natural resources.

2.2.9 PRESERVATION AND ENHANCEMENT OF HISTORIC AND CULTURAL RESOURCES

Ewa’s Historic and Cultural Resources will be preserved and enhanced by:

- Preserving significant historic features from the plantation era and earlier periods, including:
The Ewa Villages and other remnants of the plantation era,
The OR&L right-of-way,
Lanikuhonua, and
Native Hawaiian cultural and archaeological sites; and by

- Retaining visual landmarks and significant public views and vistas, including:
  - Distant vistas of the shoreline from the H-1 Freeway above the Ewa Plain,
  - Views of the ocean from Farrington Highway between Kahe Point and the boundary of the Waianae Development Plan Area,
  - Views of the Waianae Range from H-1 Freeway between Kunia Road and Kaloi Gulch and from Kunia Road,
  - Views of na pu’u at Kapolei, Palailai, and Makakilo,
  - Mauka and makai views, and
  - Views of central Honolulu and Diamond Head.

2.2.10 PHASED DEVELOPMENT

Phased development of Ewa will support the City of Kapolei’s development and conserve scarce infrastructure dollars. It shall be characterized by:

- **Increased land supply** to support economic development and job creation and to accommodate major residential growth with an emphasis on providing affordable housing and a diversity of housing types,
- **Moderate growth of commercial centers in Urban Fringe Areas** to primarily serve the needs of the surrounding residential communities-
- **Phasing approvals of Residential and Commercial development** to support development of the Secondary Urban Center. See Table 2.1.;
- **Adequate Facilities Requirements** as a condition for zoning approval to ensure that infrastructure will be adequate to support expected development;
Coordinated Public-Private Infrastructure and Project Development that supports the directed growth strategy of the General Plan. Examples of project development include construction of the State and City offices in the Kapolei Civic Center, and development of the University of Hawaii West Oahu Campus; and

Adequate funding for infrastructure through methods such as Tax Increment Financing (TIF) and Community Facilities District (CFD) which provide funding for infrastructure concurrently with, or in advance of, residential and/or commercial development.

Table 2.1 shows the approximate land area and projected number of housing units of projects shown in Exhibit 2.3 and on the Land Use Map and Phasing Map in Appendix A. The projects are categorized by status of land use approvals (fully entitled, need zoning, or need State Urban Land Use District designation and zoning), and by the time when they were included on the Development Plan (before 1997 or in 1997 when Ord. 97-49 adopted the revised Plan required by 1992 Charter Amendment).

The capacity for development of 56,600 units in Table 2.1 represents only the Potential Supply of Housing Units based upon projects previously approved or proposed. It is important to emphasize that these projects are not necessarily expected to be completed within the next 25 years. It is expected that housing development activities at many projects would continue for ten years or more after the initial zoning approval. The number of units actually produced and sold, and the timing of their production, will depend upon market forces. Production is projected to be almost 35,000 units between 2005 and 2030, which would be only about 60% of available supply.
3. LAND USE POLICIES, PRINCIPLES, AND GUIDELINES

The vision for development of Ewa described in the preceding chapter will be implemented through application of land use general policies, principles, and guidelines.

3.1 OPEN SPACE PRESERVATION AND DEVELOPMENT

3.1.1 General Policies

Open use of open space will be used to:

- Provide long-range protection for diversified agriculture on lands outside the Urban Growth Boundary,
- Protect scenic views and natural, cultural, and historic resources,
- Provide recreation,
- Define the boundaries of communities,
• Provide a fire safety buffer where developed areas border "wildlands" either in preservation areas within the Urban Growth Boundary or in the State Conservation District,
• Preserve natural gulches and ravines as drainageways and storm water retention areas, and
• Create major pedestrian and bikeway linkages between communities, such as the OR&L / Pearl Harbor Historic Trail, through a network of greenways along transportation and utility corridors and drainageways.

3.1.2 PLANNING PRINCIPLES

Principles which are core to implementation of the Open Space Preservation and Development general policies are:

• **Visual and Physical Definition of Urban Areas** - The large expanses of open space beyond the Urban Growth Boundary should provide the basic definition of the regional urban pattern. Within the Urban Growth Boundary, the open space system should visually distinguish and physically separate individual communities, neighborhoods, and land use areas in Ewa.

• **Passive and Active Open Spaces** - The open space system shall consist of areas in active use, as well as passive areas. Active areas include parks, golf courses and agricultural fields. Passive areas include the State Conservation District, fallow land in the State Agriculture District, drainage and utility corridors. Shoreline areas may be either active or passive.

• **Creation of Open Space Network** - The various types of open space should be linked as an open space network, with major open space areas connected by open space corridors along transportation routes, utility corridors, and drainageways.

• **Dual Use of Drainageways and Utility Corridors** - To create the regional open space network, drainageways and utility corridors should be viewed as opportunities to link major open spaces with pedestrian and bike paths along open corridors. To accommodate such uses, where possible, drainageways should be retained as natural or man-made vegetated channels rather than be replaced by concrete channels.

• **Accessibility of Recreational Open Space** - Public parks and most golf courses will be accessible for recreation use, but the open space system
should also promote the accessibility of shoreline and mountain areas (as required by City Ordinance).

3.1.3 RELATION TO OPEN SPACE MAP

The following areas shown on the Open Space Map in Appendix A are components of the regional open space system:

**Mountain and Agricultural Areas** - These are the areas outside of the Urban Growth Boundary, including areas within the State Conservation District.

**Natural Gulches and Drainageways** - Within the Urban Growth Boundary, the major gulches, including the Kaloi Gulch drainage channel, are shown in preservation uses. (See the listing in Table 2.2.)

**Shoreline Areas** - The proposed lateral public easement/access along the shoreline is indicated by a dotted line. Nearshore, coastal-dependent uses and features such as beach parks and wetlands are indicated as parks and preservation areas, respectively.

**Parks** - Only islandwide and regional district parks are shown. Community and neighborhood parks are part of the open space system, but they are generally too small to display on a regional map, and their location is determined more by community design considerations (see Section 3.3) than by their relationship to the regional open space network.

**Golf Courses** - All golf courses are shown, whether public or private, since their visual contribution to the open space system is the same.

**Greenways or Open Space Corridors** - These corridors are indicated on the map following certain public right-of-ways that are extensive enough to make a significant contribution to the regional open space network as a linear connector.
3.1.4 GUIDELINES

The following guidelines suggest how the general policies for Open Space Preservation and Development should be implemented:

3.1.4.1 Mountain Areas

- **Acquire and maintain a** public campground and hiking trails should be acquired and maintained in the area mauka of the Urban Growth Boundary on the slopes of the Waianae Range.
- **Public** Acquire and maintain public access, including vehicular access from Makakilo Drive to trail heads and public campgrounds, should be acquired and maintained.
- **Dedication** Require dedication of vehicular access to trail heads and public campgrounds from a collector street in the Makaiwa Hills area should be required when that area is developed.
- **At** Maintain the forest at higher elevations, in the State Conservation District, the forest should be maintained. **Utility** Plan utility corridors and other uses should be avoided to avoid disturbance to areas with high concentrations of native species.
- **Endangered** Identify endangered species habitats and other important ecological zones should be identified and protected from threats such as fire, weeds, feral animals and human activity.

3.1.4.2 Natural Gulches and Drainageways

- **The** Preserve the natural gulches on the slopes of the Waianae Range foothills within the Urban Growth Boundary should be preserved as part of the open space system.
- **Planned** Integrate planned improvements to the Ewa drainage systems should be integrated into the regional open space network by emphasizing the use of retention basins and recreational access in the design approach. (See Chapter 4, Section 4.6.)
3.1.4.3 Shoreline Area

- **Public** Provide public pedestrian access to the shoreline should be provided at intervals of approximately one-quarter mile, except where access is restricted by the military for security reasons.

- Where a lateral public easement along the shoreline is available or planned, allow the distance between access points may to be increased. However, the intervals should generally not exceed one mile and vehicular parking spaces and limited facilities for waste disposal and potable water supply should be available at the access points.

- **Nearshore** Maintain and enhance nearshore wetlands and mangroves should be maintained and enhanced, where necessary, as wildlife habitats.

- **Private** Coordinate private and public landowners’ should coordinate efforts to create continuous shoreline easements to ensure the maximum feasible degree of lateral public access.

- **Lateral** Provide lateral shoreline access along the Ocean Pointe coastline and a pathway providing continuous public access around the Ocean Pointe waterway should be provided.

- **At** Provide, at a minimum, a 60-foot setback should be provided along the shoreline, and should, where possible, be expanded to 150 feet.

3.1.4.4 Agricultural Areas

- **Facilities** Permit facilities necessary to support intensive cultivation of arable agricultural lands should be permitted.

- **Facilities** Permit facilities to support limited outdoor recreation use, such as camping, horseback riding, and hiking, should be permitted in areas where agricultural use is not feasible.

- **Residential** Permit residential use should be permitted only to the extent that it is accessory to the agricultural use. Where several dwellings are planned as part of an agricultural use, they should be sited and clustered to avoid the use of more productive agricultural lands and to reduce infrastructure costs.

- **Buildings** Design and locate buildings and other facilities that are accessory to an agricultural operation should be designed and located to minimize impact on nearby urban areas, arterial roads, and major collector streets.
3.1.4.5 Parks

- **There shall be** Develop a major regional park at Kalaeloa (within what is presently Barbers Point Naval Air Station) that provides beach-oriented recreation and support facilities near the shoreline and active recreation facilities in mauka areas, and preserves wildlife habitats such as wetlands and endangered plant colonies. (See Exhibit 3.1: Map of Parks in the Ewa Development Plan Area.)

- **Other** Locate other beach and shoreline parks should be located throughout the Ewa coastline. Planned beach parks include one at either end of the Ko Olina shoreline. Two beach parks at either end of the Ko Olina shoreline have been built, and are to be dedicated to the City at some point in the future. Oneula Beach Park will be expanded by 9.4 acres as part of the Ocean Pointe project.

- **Sites** Maintain prominent landforms for regional parks at Pu’u O Kapolei and Pu’u Palailai include prominent landforms that should be maintained as a natural visual features and regional landmarks.

3.1.4.6 Golf Courses

- **Golf** Locate and design golf courses should be located and designed to optimize their function as drainage retention areas.

- **Safe** Public access should be provided through golf courses, as necessary, for regional pedestrian and bicycle routes. Design new golf courses to accommodate existing and proposed regional trails, paths and bike routes. Where crossings or other physical conflicts are unavoidable, provide landscape screening and appropriate protective measures (i.e., pedestrian and golf cart underpasses) to ensure both public safety and to minimize undesirable impacts on golf course operations.

- **Golf** Design golf courses should be designed to provide view amenities for adjacent urban areas, including public rights-of-way.

- When screening is necessary for safety reasons, use landscape treatment, setbacks, and modifications to the course layout should be used rather than fencing or solid barriers.
3.1.4.7 Wildland - Urban Fire Hazard Setbacks

- As determined appropriate by the Honolulu Fire Department, require residential or commercial developments that are adjacent either to preservation areas within the Urban Growth Boundary or to lands within the State Conservation District may be required to provide a setback to reduce the risk of fire spreading from the "wildlands" to the developed area. Typically, such a setback would be 20 to 30 feet wide and should be landscaped with low growth, low-burn plantings.

3.1.4.8 Greenways and Open Space Corridors

- Provide additional connectivity for bikers and pedestrians by developing the Pearl Harbor Historic Trail, which will extend for about 18.5 miles from Rainbow Marina near Aiea to Nanakuli. The Trail, running on the OR&L right-of-way across the Ewa plain, will allow bikers and pedestrians to travel as far as Nanakuli to the west. Running east, the Trail will follow a greenbelt linking a network of shoreline parks stretching from West Loch to Rainbow Marina near Aloha Stadium. Establish the bikeway even in those sections where the railroad itself is not operational.

- Sufficient easement width should be provided for the major trunk lines and transmission lines for utility systems, when their alignment is not within a road right-of-way, to permit the growth of landscaping within the easement, consistent with all applicable operations, maintenance, and safety requirements.

- When overhead transmission lines are located within or adjacent to a road right-of-way, there should be sufficient width to permit the growth of landscaping adjacent to the transmission line, consistent with all applicable operations, maintenance, and safety requirements. The purpose of the landscaping is to divert attention from the overhead lines and, preferably, obscure views of the overhead lines from the travel way and adjacent residential areas. Place new transmission lines underground where possible under criteria specified in State law.

- Permit the use of utility easements for pedestrian and bicycle routes should be permitted, consistent with all applicable operations, maintenance, and safety requirements.
- **The Design the rights-of-way for major arterials and major collector streets should be designed as landscaped parkways or greenways, complete with a landscaped median strip, landscaped sidewalks, and bikeways. Major arterials should have separate bike paths, and major collectors should have bike lanes. Suggested width for major arterials, including right-of-way and planting strips, is 120 feet wide and for major collectors is 100 feet wide.**

### 3.2. REGIONAL PARKS AND RECREATION COMPLEXES

The following section presents general policies, planning principles, and guidelines for development of regional parks and recreation complexes.

The following information was in the 1997 Plan Sec. 3.2.1 General Policies section. It was updated and moved to this section to make it easier to distinguish the general policies for regional parks and recreation complexes.

Regional parks and recreation complexes include the Kalaeloa Regional Park proposed for surplus lands at the former Barbers Point Naval Air Station, Kapolei Regional Park, Pu'u Palailai Park, various beach and shoreline parks, and public and private golf courses.

The lands for Kalaeloa Regional Park have not yet been conveyed to the City and County by the U.S. Navy. In the meantime, the City and County Department of Parks and Recreation is operating two baseball parks and a beach park at Kalaeloa under a licensing agreement with the Navy.

Existing City beach and shoreline parks are located at Tracks, Kahe Point, Barbers Point, Oneula, Ewa Beach, and West Loch.

Two beach parks at either end of the Ko Olina shoreline have been built and will be turned over to the City at some point in the future as required by ordinance. The larger park at the northern end of the resort provides for picnicking and other passive recreation. A park at the southern end provides direct access to one of the four swimming lagoons. A boat-launching ramp, which is available for public use, is located across the entrance to Kalaeloa Barbers Point Harbor from the southern park, and provides access to the marina channel.

Ewa has eight public and private golf courses. In addition, one golf course is under construction, and one more is planned. (See Table 2.2)

The City's courses include the West Loch and Ewa Villages golf courses. The Ewa Village golf course also provides flood protection and storm water detention for Ewa Villages.
Private golf courses include the Hawaii Prince, the New Ewa Beach Golf Club, Coral Creek, Kapolei, and Ko Olina golf courses. The U.S. military operates a golf course at Kalaeloa. The Coral Creek (Ewa-Gentry) golf course opened in March 1999. The Hoakalei Country Club at Ocean Pointe is under construction, and an 18-hole golf course is planned as part of the proposed Kapolei West project. Plans for golf courses at Makakilo and Makaiwa Hills have been cancelled.

Sports and recreation complexes designed to attract visitors from throughout the region and the rest of Oahu have been proposed for a number of areas in Ewa. Proposals for a Kalaeloa Center on surplus lands at Barbers Point Naval Air Station call for creation of an "Olympic Village" type international training center, a baseball training facility, a rowing water course, a motorsports center, and a water theme park.

3.2.1 GENERAL POLICIES

- To sustain economic development, the City is encouraged to look towards Consider using public-private partnerships to build, and maintain new park and recreation complexes in order to sustain economic development.

Regional Parks
- Develop a new Kalaeloa Regional Park which will feature a large shoreline park with beach recreation and support facilities; a wide range of activity areas including athletic fields in the mauka lands; and preserves for wildlife habitats, wetlands, and endangered plant colonies. The Park will encompass mostly undeveloped lands, bordered by the shoreline on the south, the airfield and developed portions of the facility to the north and west, and the existing military golf course and the Hoakalei Country Club golf course at Ocean Pointe to the east.

Key elements of the Park are as follows:
  - The Park will include and preserve two wetland areas and an endangered plant preserve that have been recommended for preservation by the U.S. Fish and Wildlife Service.
  - Proposed uses for the mauka areas include a Hawaiian cultural park, continuation of the existing riding stable, cabin and tent camping, archery, and various other passive and active recreation uses. The site could also accommodate a baseball complex.
  - The Park will also provide access to a continuous shoreline easement extending from the Ocean Pointe development to Ko Olina.
• Complete development of Kapolei Regional Park to provide diverse active and passive recreation within easy walking distance of both the City Center and the Villages of Kapolei. The 73-acre park includes the Pu'u o Kapolei and serves as a defining limit for the northeastern edge of the City of Kapolei and as a visual gateway to the City. The park provides diverse active and passive recreation within easy walking distance of both the City Center and the Villages of Kapolei.

• Develop Pu'u Palailai Park will be located below Makakilo, and is to be as a nature park. It will offer hikers excellent views of the Ewa Plain and distant views of Honolulu and Diamond Head.

Golf Courses
• Golf courses, where appropriate, can be used to provide protection for open space, and help reduce flooding and non-point pollution by helping retain storm waters.
• Golf course development should be approved only after determination that the course meets social, growth, economic, and environmental guidelines and approval of a community integration program.

Recreation Complexes
• Such complexes should be designed to be compatible with surrounding land uses and environmental features.

3.2.2 PLANNING PRINCIPLES

Principles which are core to implementation of the Regional Parks and Recreation Complexes policies are the following:

• Appropriate Scale and Siting - Architectural elements and siting should be used to heighten the visibility of a major recreation events area as it is approached from principal travel corridors.
• Environmental Compatibility - Uses that generate high noise levels should be located and operated in a way that keeps noise to an acceptable level in existing and planned residential areas. The built environment should avoid adverse impacts on natural resources or processes in the coastal zone or
any other environmentally sensitive area. To retain a sense of place, the design of recreation areas should incorporate natural features of the site and use landscape materials that are indigenous to the area where feasible.

- **Community Integration** - The design of recreational attractions may have a distinct identity and entry, but there should be elements that link these destinations with surrounding areas using connecting roadways, bikeways, walkways, landscape features or architectural design.

3.2.3 GUIDELINES

The following guidelines suggest how the general policies for Regional Parks And Recreation Complexes should be implemented.

3.2.3.1 Island wide and Regional Parks

- **Develop a major park within Kalaeloa** that provides beach-oriented recreation and support facilities near the shoreline, other active recreation facilities in mauka areas, and preserves for wildlife habitats such as wetlands and endangered plant colonies.
- **Facilities** - Provide facilities for tent and cabin camping should be provided within the new park at Kalaeloa in the major recreational area that includes a beach park.
- **Other** - Develop additional beach and shoreline parks should be located along the Ewa coastline. Planned. Two existing beach parks include one at either end of the Ko Olina shoreline will be dedicated to the City and County. Oneula Beach Park will be expanded as part of the Ocean Pointe project.
- **Sites for** - Maintain prominent landforms at regional parks at Pu'u O Kapolei and Pu'u Palailai include prominent landforms that should be maintained as a natural visual features and regional landmarks. (See the Parks Map, Exhibit 3.1)
3.2.3.2 Sports and Recreation Complexes

Definition of Use Areas
- Separate uses that attract a high number of people for events should be separated as much as possible from residential areas and wildlife habitats.
- Provide amenities and service facilities to accommodate "tailgate" picnics, as well as nearby picnic tables and outdoor grills in parking areas for sporting events.

Transportation Facilities
- Locate bus loading areas, shelters and bicycle parking facilities should be located as close as possible to entry gates for special events areas.
- Locate bus stops should be located at all principal activity areas.

Views
- Locate and design facilities for special events should be located and designed to be readily visible and identifiable from the principal transportation corridors that lead to them.
- Establish the visual identity of the complex should be established through distinctive architecture, landscaping, or natural setting.

Landscape Treatment
- Minimize the visibility of perimeter fencing, loading areas, parking lots and garages and other utilitarian elements should be minimized through plantings or other appropriate visual screens along roadway frontages.
- In large parking lots, use canopy trees should be used to provide shade. Special paving or pavement markings could be used to indicate pedestrian routes to destinations and differentiate sections of the parking area.

Natural Environment
- Retain, protect, and incorporate wetland and other wildlife habitat areas shall be retained, protected, and incorporated as passive recreational resources.
3.2.3.3 Siting

- Islandwide and regional parks and golf courses are shown on the Open Space Map and the Public Facilities Maps in Appendix A.
- Change in the location of an islandwide park or a golf course shall require a City review and approval process, such as the Plan Review Use process, which provides adequate public notice and input, complete technical analysis of the project, and approval by the City Council. Approval of changes in size and configuration may be done administratively.
- Funding for new park facilities shall be committed according to the priority for development of the area surrounding the park location, as indicated on the Phasing Map in Appendix A.
- Regional sports and recreation complexes may be located in Kalaeloa, on the fringes of the City of Kapolei, and in areas designated for commercial or park use, subject to a City review and approval process, such as the Plan Review Use process, which provides public review and complete analysis, and approval from the Department of Planning and Permitting and the City Council.

3.3 COMMUNITY-BASED PARKS

The following section provides general policies and guidelines for community-based parks and recreation areas.

The following information was located in the 1997 Plan Sec. 3.3.1 General Policies.

Community-based parks (and associated recommended size and service radius) include mini-parks (1/4 acre and 1/4 mile), neighborhood parks (5 acres and 1/2 mile), community parks (10 acres and one mile), and district parks (20 to 25 acres and two miles).

3.3.1 GENERAL POLICIES

- Adequate parks to meet residents' recreational needs should be provided. The Department of Parks and Recreation (DPR) standard for community-based parks (2004 Standards and Design Precepts for Future Parks Development) is that a minimum of two acres of community-based parks should be provided per 1,000 residents, with one
acre per thousand needed for district parks and one acre needed for community parks, neighborhood parks, and mini-parks. (Even if these standards are met, there may still be unmet park needs due to demographic or other community conditions.) New residential development should strive to provide land for open space and recreation purposes at a minimum of two acres of park per 1,000 residents. The need for community-based parks can be met either through public parks operated by the City and County or private community parks and recreation centers operated by home owner associations.

Currently, Ewa has significantly less community-based park acreage than the DPR standard indicates is needed for its existing population. To meet the DPR standard, the estimated Ewa population of 84,000 in 2005 needed 168 acres of community-based parks, with 84 acres in district parks. The combined total of Ewa public and private community-based parks in 2005 was 100.4 acres, with 25 acres at the only district park, Ewa Mahiko.

Land has been set aside for development of future parks, including the Ocean Pointe District Park, Laulani Community Park, and the Iroquois Point, Kapolei, and Keaunui Neighborhood Parks. The addition of these parks would increase the total community-based park acreage to 181.8 acres with 45 acres in district parks. (See Table 3.1)

Ewa's population is projected to grow to 177,000 by 2030. Based on the DPR standards, 254 more acres of community-based parks beyond those listed in Table 3.1 should be developed to meet the needs of the projected 2030 Ewa population, including 132 acres at district parks.

- Access: Protect and expand access to recreational resources in the mountains, at the shoreline, and in the ocean should be protected and expanded. Trails to and through natural areas of the gulches and mountains are an important public recreational asset. Some areas are difficult to access because of landowner restrictions. New development projects are an opportunity to provide public access to trail heads from the streets extending toward the mountain slopes or approaching the edges of the gulches.
### Table 3.1: Ewa Public and Private Parks and Golf Courses

<table>
<thead>
<tr>
<th>NAME AND TYPE OF PARK</th>
<th>ACRES</th>
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<tbody>
<tr>
<td><strong>Regional Parks</strong></td>
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<tr>
<td>Kalaeloa Regional Park(1)</td>
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<tr>
<td>Kapolei Regional Park</td>
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<td><strong>Regional Park Total</strong></td>
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<td><strong>District Parks</strong></td>
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<tr>
<td>Ocean Pointe District Park(2)</td>
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<tr>
<td>Ewa Mahiko District Park</td>
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<td><strong>District Park Total</strong></td>
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<tr>
<td><strong>Community Parks</strong></td>
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<td>Asing Community Park</td>
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</tr>
<tr>
<td>Ewa Beach Community Park</td>
<td>13.3</td>
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<tr>
<td>Geiger Community Park</td>
<td>10.0</td>
</tr>
<tr>
<td>Kamokila Community Park</td>
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<td>Kapolei Community Park</td>
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</tr>
<tr>
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<tr>
<td>Makakilo Community Park</td>
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<tr>
<td><strong>Community Park Total</strong></td>
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</tr>
<tr>
<td><strong>Neighborhood Parks</strong></td>
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<td>Iroquois Point Neighborhood Park(2)</td>
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<tr>
<td>Kapolei Neighborhood Park(2)</td>
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<tr>
<td>Keanui Neighborhood Park(2)</td>
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<td>Makakilo Neighborhood Park</td>
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<tr>
<td>Maukalani Neighborhood Park</td>
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<td>Palailai Neighborhood Park</td>
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<td><strong>Private Parks and Recreation Centers</strong></td>
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<td>Ocean Pointe</td>
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<td>Villages of Kapolei</td>
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<td>Ko Olina</td>
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<td><strong>Private Parks Total</strong></td>
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<td><strong>Community Based Parks Total</strong></td>
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<td>NAME AND TYPE OF PARK</td>
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<tr>
<td><strong>Beach Parks</strong></td>
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<td>Tracks Beach Park</td>
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<td>West Loch Shoreline Park</td>
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<td><strong>Public Parks Total</strong></td>
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<td><strong>Golf Courses</strong></td>
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<td>Barbers Point (military)</td>
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<td>Coral Creek</td>
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<tr>
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<tr>
<td>Ewa Villages Golf Course(^{(4)})</td>
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<tr>
<td>Hawaii Prince</td>
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<tr>
<td>Hoakalei (Ocean Pointe)</td>
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<tr>
<td>Kapolei</td>
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<tr>
<td>Kapolei West</td>
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<tr>
<td>Ko Olina</td>
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<tr>
<td>West Loch Golf Course(^{(4)})</td>
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<tr>
<td><strong>Public Parks and Golf Course Total</strong></td>
<td>2,628.9</td>
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</tbody>
</table>

Key:
\(^{(1)}\) Land proposed for conveyance to the City as part of the Barbers Point Naval Air Station closure. As of 2008, the land had not yet been conveyed to the City.
\(^{(2)}\) Land set aside for future parks to be developed and dedicated to the City.
\(^{(3)}\) Beachfront parks developed by Ko Olina Resort. Currently, they are owned, maintained, and managed by Ko Olina Resort, but will be dedicated to the City in the future, as required by ordinance.
\(^{(4)}\) City-owned golf courses.
In addition, the City should support other efforts to expand access to mountain and gulch trails in areas where urban development will not occur.

3.3.2 GUIDELINES

The following guidelines suggest how the general policies for Community-Based Parks should be implemented:

3.3.2.1 Development of Community-Based Parks

- The Department of Parks and Recreation should co-locate Neighborhood or Community Parks with elementary or intermediate schools and coordinate design of facilities when efficiencies in development and use of athletic, recreation, meeting, and parking facilities can be achieved.
- The Department of Parks and Recreation should coordinate the development and use of athletic facilities such as swimming pools and gymnasiums with the State Department of Education (DOE) where such an arrangement would maximize use and reduce duplication of function.
- Where feasible, the Department of Parks and Recreation should site Community and Neighborhood Parks near the center of neighborhoods, in order to maximize accessibility.
- Development master plans should provide accessible pathways from surrounding streets to facilitate pedestrian and bicycle access to all features in-parks.

3.3.2.2 Access to Mountain Trails

- Access to mountain trails in the Palehua Ridge area should be provided as part of the Makaiwa Hills project.

3.3.2.3 Siting

- Conceptual locations for district parks are shown on the Open Space Map in Appendix A. These locations may be revised without needing to amend the Development Plan as more detailed site information and planning analysis is available.
- Community and neighborhood parks are part of the open space system, but their location is determined more by community design considerations than by their relationship to the regional open space network. Siting of Community
and Neighborhood Parks should be reviewed and decided at the time the Project Master Plan is submitted, prior to the granting of a zone change.

- Funding for new park facilities should be committed according to the priority for development of the area surrounding the park location, as indicated on the Phasing Map in Appendix A.

### 3.4 HISTORIC AND CULTURAL RESOURCES

This section provides policies, planning principles and guidelines for the preservation and development of historic and cultural resources in Ewa.

#### 3.4.1 GENERAL POLICIES

- **Physical** Emphasize physical references to Ewa’s history and cultural roots should be emphasized to help define Ewa’s unique sense of place.
- **Existing** Protect existing visual landmarks should be protected, and support creation of new culturally appropriate landmarks should be supported.
- **Significant** Preserve significant historic features from the plantation era and earlier periods should be preserved.
- **Significant** Retain significant vistas should be retained whenever possible.
- **Where known archaeological and cultural sites have been identified** and impact mitigations approved as part of prior development approvals, assume that the mitigations carry out the Plan vision and policies for preservation and development of historic and cultural resources in Ewa.

Exhibit 3.2 indicates the locations of a number of these historic and cultural resources, which are also listed in Table 3.1.

#### 3.4.2 PLANNING PRINCIPLES

Principles which are core to implementation of the Historic and Cultural Resources general policies are the following:

- Ewa contains several different types of historic and cultural sites, which are representative of its history and valuable as historic records and cultural references.
Exhibit 3.2 Map of Natural, Historic and Scenic Resources in the Ewa Development Plan Area

Legend
- Single and Concentrated Archaeological Sites
- Dispersed Archaeological Sites
- Historic Archaeological District
- Plantation Villages
- Historic Railway/Bikeway Corridor
- Rare/Endangered Native Species
- Natural Preserves/Wildlife Refuges
- Wetland/Waterbird Habitat
- Panoramic Views

Note: Some dispersed archaeological sites and rare/endangered species habitat were identified in project Environmental Impact Statements. In such areas, subsequent development approvals and associated mitigation measures should be reviewed to identify which sites still retain archaeological or environmental resource value.
### TABLE 3.2: SIGNIFICANT EWA HISTORIC AND CULTURAL RESOURCES

#### SIGNIFICANT HISTORIC FEATURES AND LANDMARKS

- Lanikuhonua
- OR&L Historic Railway
- Ewa Villages
- Pearl Harbor National Historic Landmark

#### NATIVE HAWAIIAN CULTURAL AND ARCHAEOLOGICAL SITES

- Barbers Point Archaeological District
- Oneula Archaeological District

#### SIGNIFICANT VIEWS AND VISTAS

- Distant vistas of the shoreline from the H-1 Freeway above the Ewa Plain;

- Views of the ocean from Farrington Highway between Kahe Point and the boundary of the Waianae Development Plan Area;

- Views of the Waianae Range from H-1 Freeway between Kunia Road and Kaloi Gulch and from Kunia Road;

- Views of Na Pu’u at Kapolei, Palailai, and Makakilo;

- Mauka and makai views; and

- Views of central Honolulu and Diamond Head.
The treatment of a particular site should vary according to its characteristics and potential value. The following planning principles should be used to determine appropriate treatment:

- **Preservation and Protection** - Some historic, cultural, or archaeological sites have high preservation value because of their good condition or unique features. Such sites are recommended for in situ preservation and appropriate protection measures.

- **Adaptive Reuse** - Many historic sites can be converted from their original intended use to serve a new function without destroying the historic value of the site, perhaps even enhancing its interpretative value. In other cases, such as sites with sacred significance, the site should be either restored or remain intact out of respect for its inherent value.

- **Compatible Setting** - The context of an historic site is usually a significant part of its value. Care should be taken in the planning and design of adjacent uses to avoid conflicts or abrupt contrasts that detract from or destroy the physical integrity and historic or cultural value of the site. The appropriate treatment should be determined by the particular qualities of the site and its relationship to its physical surroundings.

- **Accessibility** - Public access to an historic site can take many forms, from direct physical contact and use to limited visual contact. The degree of access should be determined by what would best promote the preservation of the historic, cultural and educational value of the site, recognizing that economic use is sometimes the only feasible way to preserve a site. In some cases, however, it may be highly advisable to restrict access to protect the physical integrity or sacred value of the site.

- **Public Views** - Public views include views along streets and highways, mauka-makai view corridors, panoramic and significant landmark views from public places, views of natural features, heritage resources, and other landmarks, and view corridors between significant landmarks. The design and siting of all structures should reflect the need to maintain and enhance available views of significant landmarks. Whenever possible, overhead utility lines and poles that significantly obstruct public views should be relocated or placed underground.
3.4.3 GUIDELINES

The following guidelines for historic and cultural resources implement the general policies and planning principles listed above:

3.4.3.1 OR&L Historic Railway

Method of Preservation

- The existing track should be maintained or repaired to the extent feasible in order to permit its use for historic theme and educational rides.
- Preferably, extend the route would extend from Ko Olina to Waipahu Aiea to Nanakuli. If this is not feasible, focus preservation efforts should focus on restoring the historic rail link between Ewa Villages and Waipahu, with a terminus at the Waipahu Cultural Garden.
- To allow connectivity within the region, accommodate cross-traffic at appropriate intervals along the right-of-way.

Adaptive Reuse

- Use extension and use of the railroad for historic theme rides to promote the history and culture of the area should be encouraged.
- There should be Develop a parallel paved bikeway along the length of the rail route, either within or adjacent to the right-of-way as part of the Pearl Harbor Historic Trail. The bikeway should be provided even in those sections where the railroad itself is not operational.

Adjacent Uses

- Design structures and elements related to the Pearl Harbor Historic Trail to reflect the historic nature of the railway and its surroundings.
- New development should be set back a minimum of 50 feet on either side of the OR&L right-of-way, unless it is directly related to the operation of the railroad, or reconstruction of an historic use, or is consistent with the use of the right-of-way for open space and bikeway purposes in stretches where railroad operation is not feasible, or is otherwise specified in existing land use approvals.
• Landscaping should be provided. Provide landscaping along the adjacent bikeway, with occasional rest stops with seating and other amenities.
• Railroad permits railroad station platforms, maintenance and equipment buildings, kiosks and other accessory structures with a historic architectural theme (late 19th Century – early 20th Century), as well as parking and loading areas should be permitted in the railroad right-of-way and setback area.

Public Access
• Public encourage public use should be encouraged by continuing and expanding the historic railway operations, operation of historic railroad theme rides and by providing a parallel bikeway.
• Interpretative post interpretative signs along the route should explain the historic significance of the railroad and note points of interest.

3.4.3.2 Lanikuhonua

Method of Preservation
• The maintain the appearance of the house and grounds should be maintained as closely as possible to its present condition.
• The maintain the landscaped character of the grounds and their physical and visual relationship to the shoreline environment should be maintained.
• The perpetuate the sense of place should be perpetuated by using the site for Hawaiian cultural events.

Adaptive Reuse
• Use focus use of the site should focus on the landscaped grounds as a location for outdoor events, particularly those with a Hawaiian cultural theme.
• Commercial limit commercial use of the site should to be occasional rather than intensive, and events should be limited to low-key entertainment.

Architectural Character
• Modifications require modifications to the existing structures should respect the architectural style of the original dwelling and be limited to repairs, rehabilitation or minor expansions.
Coconut palms should be the dominant tree on the grounds, with other complementary coastal vegetation, preferably native species such as hala and ilima.

Maintain the visual relationship between the grounds and the shoreline, particularly the natural cove, should be maintained.

Adjacent Uses

Maintain a dense growth of landscaping should visually separate Lanikuhonua from the surrounding Ko Olina resort to maintain the quiet ambiance and appearance of a remote tropical retreat.

Maintain the visual identity of Lanikuhonua as a unique site apart from Ko Olina should be maintained by retaining the dense growth of tall palm trees.

Provide public access along the shoreline fronting Lanikuhonua should be provided, but not in as formal a manner as Ko Olina.

Public Access

Maintain Lanikuhonua should be maintained as a private facility with limited public access for scheduled community and cultural events and private parties.

3.4.3.3. Native Hawaiian Cultural and Archaeological Sites

Method of Preservation

Preservation in situ should be required only for those features that the State Historic Preservation Officer has recommended for such treatment.

Determine the preservation method, ranging from restoration to "as is" condition, should be determined on a site-by-site basis, in consultation with the State Historic Preservation Officer.

Adjacent Uses

Determine appropriate delineation of site boundaries and setbacks and restrictions for adjacent uses should be determined on a site-by-site basis in consultation with the State Historic Preservation Officer.
Criteria for adjacent use restrictions should include include the sight lines that are significant to the original purpose and value of the site as criteria for adjacent use restrictions.

Public Access

The appropriateness of public access should be determined on a site-by-site basis in consultation with the State Historic Preservation Officer, Hawaiian cultural organizations and the owner of the land on which the site is located.

3.5 CITY OF KAPOLEI

This section describes the general policies, planning principles, and guidelines that are to be applied to development of the City of Kapolei.

This section incorporates key policies, planning principles, and guidelines for the City of Kapolei from the amended City of Kapolei Urban Design Plan approved by the City Council by resolution in 2007, and the Unilateral Agreements adopted as part of zoning ordinances in 1990 and 2004.

The original Unilateral Agreement required revisions and or updates to be submitted for review and approval by the City Council every two years. However, in June 1998, the City Council passed a resolution (No. 98-227) which

(a) approved revisions to The City of Kapolei Urban Design Plan and
(b) stated that no further amendments or revisions to the Urban Design Plan should be made unless they are first recommended by the Kapolei Design Advisory Board, endorsed by Campbell Estate and approved by a City Council resolution.

(Note: The Urban Design Plan applies to Campbell Estate's properties covered by the 1990 Unilateral Agreement and to adjacent areas also covered by unilateral agreements adopted as part of subsequent zone changes.)

Future revisions to the City of Kapolei Urban Design Plan, when adopted by the City Council, should take precedence over the following policies, principles and guidelines in the case of a conflict and should not require an amendment to the Development Plan.)
3.5.1 GENERAL POLICIES

- The City of Kapolei should serve as the urban core, or the "downtown" for the Secondary Urban Center. It should accommodate a major share of the new employment in the Secondary Urban Center.

- The City of Kapolei should have a balanced mix of business and residential areas, complemented by the recreational, social and cultural activities of a city. Mixed use should be permitted and encouraged throughout most of the City area, in order to achieve the diversity and intensity of uses that characterize a city.

- The City of Kapolei is envisioned to be a true city, encompassing a full range of urban land uses, and laid out in small blocks connected by a grid system of public streets. Exhibit 3.3 illustrates the street pattern and the planned land uses by district.

3.5.1.1 Districts

The City should be composed of six different districts that should accommodate the full array of business, commercial, residential, cultural and public uses that characterize a city center. The six districts are described below:

- The City Center should be the high-density core of the city. Larger office towers should be the predominant form of development in this district, with shopping and restaurants at ground level. The inclusion of apartments within some of the towers should also be encouraged to establish a more dynamic mix of uses and help to maintain an active urban environment in the area.

- The Commercial District should accommodate commercial uses, which require a large lot area for all related activities and convenient off-street parking, with most, if not all spaces, located at ground level. Building spaces should generally cover a relatively small portion of the lot (e.g., 25 percent or less).

Examples of possible uses include shopping centers, power centers, theaters, auto dealerships, discount retail outlets, furniture stores, and home improvement centers.
Exhibit 3.3 City of Kapolei Land Use Map
• The **Civic Center** should feature City and State offices in an urban park setting where people and activities are highlighted. The Civic Center should be much like a university campus in the heart of a city, with a balance between built forms and usable landscaped spaces, and between both active and passive uses.

• The **Mixed Use Districts** should be of medium density, with buildings limited to six floors. Commercial development should be emphasized in the area adjoining City Center and, along Kapolei Parkway, and adjoining the Hanua Street extension, while residential use should be emphasized makai of Kapolei Regional Park and near Fort Barrette Road.
  o In the commercial emphasis mixed-use areas, retail development (shopping, restaurants, services, etc.) should be encouraged to locate along the street front, with required parking located behind the building or above the ground floor. Offices may also be located on the ground floor, as well as on upper floors. Housing, when provided, should be located above the ground floor. A business hotel to provide short term inexpensive accommodations for business travelers and others who are not seeking resort accommodations could also be allowed.
  o In residential emphasis mixed use areas, the primary use should be multi-family dwellings. Commercial uses to meet the shopping and service needs of the neighborhood's residents should be encouraged to locate at ground level.

• The **Village Center District** should be the vibrant, pedestrian friendly local shopping dining and entertainment center for residents living in the **Residential Mehana District** makai of the Kapolei Parkway, as well as people living and working in the Mixed Use District on the mauka side of the Parkway.

• The **Residential Mehana District**, located makai of Kapolei Parkway, should feature multi-family and single-family housing units in a series of distinct neighborhoods tied together by a network of pedestrian and bicycle paths.
3.5.1.2 Key Open Space Elements

Four key open space elements should link together and unify Kapolei’s districts into a distinctive, vibrant city. Each of these important spaces is described below:

- **Kapolei Regional Park** should be the major park for both the City of Kapolei and the surrounding region. It should also function as both the City's mauka edge and as a visual gateway to the City. As a strong activity node with a variety of recreational opportunities, it should reinforce the image of Kapolei as a place where people can lead an active, healthy lifestyle.

  The park should provide opportunities to participate in a diversity of recreational activities. Facilities should be included to allow users to bike, walk, hike and jog, and to play volleyball, soccer, football, baseball, and tennis. Multi-use open space should also be available for picnicking, sunbathing and relaxing.

  Facilities for public concerts and gatherings, such as an amphitheater and pavilions, as well as amenities for broader use and enjoyment, such as a formal garden, restaurants and water features, should also be included to help generate both day and evening activity in and around the park.

  The makai edges of the park adjacent to the City’s downtown should be designed to ensure a strong relationship between City and park. The various structures in this area and elsewhere in the park should be designed to ensure compatibility and integration with adjacent commercial uses.

- **Wai Aniani Way** should function as a “Main Street” and major open space axis and amenity within the most central and highest density area of the City. Wai Aniani Way connects the Regional Park and Civic Center and comprises the central spine for the City Center district.

  The corridor should be wide enough to provide a genuine sense of open space, yet not so wide as to disconnect developments on opposite sides from each other. Slow moving vehicular traffic should be allowed from Manawai Street to Wu’ohi’a Street to allow previewing of the opportunities for shopping, dining and entertainment along the corridor.
Canopy shade trees, ample landscaping, seating and water features should be prominent elements of the design in order to create a comfortable atmosphere and promote the idea of Kapolei as a garden city.

- **Palailai Mall** should provide an open space cross axis to Wai Aniani Way, extending mauka-makai and connecting the City’s residential sector to the heart of Kapolei’s business district.

  Canopy shade trees and benches, etc. should be provided as appropriate to establish the mall’s character as a pleasant landscaped path for pedestrian circulation.

  Extensive interaction between pedestrians and the activities in adjoining buildings, and the establishment of a “shopping promenade” character, should be fostered by encouraging the location of kiosks, sidewalk cafes, retail shops, and other people-oriented activities within and along the edges of the mall.

- **Village Walk** should provide an informal pedestrian spine for the City’s residential area, with connections to the Civic Center, the makai end of Palailai Mall, and the neighborhood park located at the corner of Fort Barrette and Renton Roads Mehana Elementary School.

  Landscaping, seating, and other furniture should be provided and arranged in a manner which establishes a pleasant atmosphere for informal gatherings of neighbors, as well as for movement through the area.

  Both pedestrians and bicyclists should be accommodated in a manner that minimizes conflicts.

### 3.5.2 PLANNING PRINCIPLES

Seven major themes define key characteristics of the City of Kapolei and provide basic principles for the planning and design of developments in the City of Kapolei.
• **A Hawaii Garden City** - A city within a garden, in the style of long established Hawaii communities, is to be created. The garden is distinguished by major parks and boulevards with trees, flowers and abundant ground cover.

• **Healthy Living** - The garden city is to provide the setting for and encourage a healthy, outdoor, and active lifestyle through the interlacing of recreational facilities within the fabric of the entire city. These are to be connected by bike and walking paths.

• **Complete Community Services** - The theme of healthy living is to be supported by medical/health/fitness services and facilities. The City of Kapolei is also to serve the surrounding region with entertainment, cultural, educational and religious facilities, State and City government offices, and other city activities.

• **Easy Access** - Within the garden city, attractive paths for walking and biking should allow for convenient access between homes, jobs and recreational areas.

• **Design Reflecting the Past but Adaptable to the Needs of the Present and Future** - Building design in the City of Kapolei should reflect both the charm and more intimate human scale that characterizes the business districts of traditional Hawaii towns such as Hilo, and the market forces and functional needs that shape the architecture of present-day and future business centers.

• **Environmental Sensitivity** - Resource conservation should be emphasized in the design of both the overall city center and its individual parts. The network of bike and walking paths, combined with the concentration of uses that make urban life convenient, should encourage people to leave their cars at home. Landscaping should be abundant and make extensive use of drought tolerant and native plant materials (xeriscaping) to the extent possible.

• **Transit Access and Orientation** - A transit node should be located near the Civic Center and City Center, and high density residential uses should be encouraged within a five minute walking distance (about 1,300 feet) of the node. Uses adjoining the node should be designed so that they face toward the node, encouraging pedestrian traffic to flow to and from the node.
As part of the Development Plan vision for a transit corridor linking the City of Kapolei, Waipahu, and the Primary Urban Center, higher density residential and commercial development should be encouraged around the City of Kapolei transit node and the transit corridor on Kapolei Parkway, superseding lower densities included in the City of Kapolei Urban Design Plan and the Unilateral Agreement elements.

3.5.3 GUIDELINES

The following guidelines suggest how the general policies for the City of Kapolei should be implemented:

3.5.3.1 Urban Form

- Block length: Keep block lengths relatively short (300 to 400 feet) in order to provide for flexible, interesting and reasonably direct pedestrian routes between workplaces, restaurants and shops. Short blocks will encourage people to walk for these trips.
- Density and heights: Permit heights for each of the districts of the City should follow the guidelines provided below as specified in the City of Kapolei Urban Design Plan (2008) and shown in Table 3.3.

3.5.3.2 Natural Environment and Landscaping

- Non-potable water features: Use non-potable water features and automated irrigation systems where possible.
- Xeriscaping: Use xeriscaping (the use of native landscape materials with low water demand), use of non-potable water for irrigation, and use of efficient irrigation systems should be followed wherever possible to conserve groundwater resources.
- Landscaping: Use landscaping consistent with the City of Kapolei’s image as a green and shaded garden city and should provide privacy, screening, shade, and comfort.
- Landscaping: Use landscaping to enhance and complement the City’s urban form, provide continuity between the various districts, and enhance and preserve view corridors wherever possible.
### TABLE 3.3 HEIGHT GUIDELINES FOR THE CITY OF KAPOLEI

<table>
<thead>
<tr>
<th>DISTRICT</th>
<th>HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Center</td>
<td>150 feet</td>
</tr>
<tr>
<td>Civic Center</td>
<td>150 feet mauka of Kapolei Parkway</td>
</tr>
<tr>
<td></td>
<td>90 feet makai of Kapolei Parkway</td>
</tr>
<tr>
<td>Mixed Use Districts</td>
<td>120 to 60 feet</td>
</tr>
<tr>
<td>Commercial Districts</td>
<td>60 feet</td>
</tr>
<tr>
<td>Village Center District</td>
<td>60 feet</td>
</tr>
<tr>
<td>Mehana District</td>
<td>60 to 25 feet</td>
</tr>
</tbody>
</table>


#### 3.5.3.3 Public Access and Circulation

- **The Design** the City of Kapolei should be designed to provide safe, easy, and efficient access for pedestrian, bicycle, and vehicular movement between each of the districts, the open space areas, and recreational amenities.
- **Establish a clear pattern** of arterials and local streets should be established to facilitate travel through the City, to and from individual properties. The streets should form a modified grid pattern, providing a variety of routes for circulation. Major streets include Kamokila Boulevard, Kapolei Parkway, Kama’aha Avenue, and Wakea Street, with Fort Barrette Road and Kalaeloa Boulevard bounding the City on the east and west.
- **Cross-section** vary cross-section design and landscaping schemes should vary with function and to establish distinctive urban images for each type of street.
- **Provide** for bus pullouts and shelters along major traffic arterials.
- **The median of Kapolei Parkway should be of sufficient width in the median of Kapolei Parkway to accommodate a possible future elevated or at-grade separated rapid transit line.**
• **On-street** parking should be permitted along all streets until traffic levels necessitate the use of the entire roadway for vehicular movement. Such parking will be convenient for shoppers, provide a buffer between traffic on the street and pedestrians on the sidewalk, and contribute to the activity level along the City's streets.

• **Exclusive** bike lanes should be provided along major roadways within the City, and be connected to the region's bikeway system. Where automobiles and bicycles share the same roadway, lane widths should be generous to allow safe usage by both.

### 3.6 EWA VILLAGES

This section incorporates key elements for Ewa Villages from the former Ewa Development Plan and the Ewa Villages Master Plan (Department of Housing and Community Development, 1989) to provide guidance in the event that changes are proposed for the Master Plan or zoning in the future.

The following information was included in the 1997 Plan Sec. 3.6.1.1 General Policies.

The City and County of Honolulu acquired the 600 acres surrounding and including Tenney, Renton and Varona Villages in 1993. Subsequently, a City golf course was developed to provide storage for storm waters, and Ewa Mahiko District Park was built to provide a needed community-based recreation area.

#### 3.6.1 General Policies

- The **Master Plan** for the Ewa Villages helps ensure continued tenancy and ownership opportunities for current residents as well as provide.
- Use the Master Plan as a vehicle for preservation efforts within the existing villages.
- **Rehabilitate or adapt** existing village structures in the Ewa Villages for reuse should continue to be rehabilitated or adapted for reuse; and
- **Develop** related affordable and market housing should be developed to create a total of 1,900 units, including the existing housing.
• In addition, a district park, additional neighborhood parks/open space, and a small shopping center should be developed; and make infrastructure improvements should be made.

• Re-establish Ewa Villages should once again stand as a thriving and identifiable community, and should serve as a living example of Hawaii’s plantation heritage.

3.6.2 Planning Principles

Principles which are core to implementation of the Ewa Villages general policies are the following:

• **Preservation of Plantation Village Character** - The existing rural form and historic character of the remaining Ewa Villages should be preserved and enhanced.

• **Retention of Historic Buildings** - Existing buildings of historical, cultural and/or architectural significance should be preserved and maintained through rehabilitation programs and adaptive reuse.

• **Compatible Infill Development** - Vacant areas should be developed in a style that is characteristic of the historic core.

• **Support of Community Facilities** - The sense of the Ewa Villages as a complete community unit should be re-established through the preservation of existing schools and churches, the expansion of parks and public open space areas, and the establishment of community facilities and a market place for local businesses.

3.6.3 Guidelines

The following guidelines suggest how the general policies for Ewa Villages should be implemented.

**Urban Form**

• **Maintain** the current grid development pattern should be maintained in the existing villages and replicated in new infill developments.

• **Lot sizes** for new infill homes in the existing villages should be similar to the existing house lots.
Rehabilitation of existing structures should be, to the extent possible, done in a manner that will not change their exterior appearance.

New structures on vacant lots in the existing villages should complement the exterior design of adjacent homes.

Physically separate new infill "villages" should generally be physically separated from Tenney, Renton, and Varona Villages. The design, appearance, and placement of structures within them should reflect and complement the existing village's character. (See Exhibit 3.4.)

Circulation

Establishment of standard subdivision street hierarchy within the village should be prohibited in favor of maintaining the existing grid pattern and extending it into new infill development.

Any new required collector streets should be located outside the existing villages.

Narrower than standard street widths without sidewalks should be maintained (in the residential portions) of the existing villages, and establish similar widths within new villages, in order to minimize the impacts on existing yards and structures, and visually maintain a rural village character.

As part of In keeping with its Historic Register site designation, restrict traffic on Renton Road is designed to maintain two lanes of traffic in each direction during peak hours and one lane of traffic and one lane of restricted parking during non-peak hours.

Open Space/Views

Where possible, provide open space buffers should be provided between the existing villages and new housing development in order to preserve and enhance the integrity and historic character.

Preserve and expand existing village greens and open promenades, etc. should be preserved and expanded, where possible. Preserve and maintain existing landscaping within Renton, Tenney, and Varona Villages, especially existing stands of mature palm, mango, banyan, and monkey pod trees, should be preserved and maintained. Where trees have been removed, appropriate replacements should be provided.
- **Provide appropriate** canopy trees should be provided along all street frontages.
- **Principal** entry roads to and through the villages should be as tree-lined boulevards. Entries should be highlighted with additional landscape features.
- **Yards** landscape and maintain yards and other open spaces should be landscaped and maintained in a manner that preserves and enhances the open space appearance of the villages.
3.7  OCEAN POINTE

Ocean Pointe’s development is guided by the Ewa Marina Urban Design Plan approved by the Department of Land Utilization in 1994 and by land use, environmental, and design requirements included in the Special Management Area Use Permit and in the Unilateral Agreements attached to the zone change ordinances (1985, 1993, and 2002). (A proposed revision to the Urban Design Plan is under review by the Department of Planning and Permitting.)

Development of Ocean Pointe can proceed under the existing zoning and Unilateral Agreement. This section incorporates key policies, planning principles, and guidelines from the former Development Plan as well as from the Ewa Marina Urban Design Plan, the Special Management Area Use Permit, and the Unilateral Agreements in order to provide guidance as changes are proposed for the Urban Design Plan or the zoning.

3.7.1  General Policies

- Develop Ocean Pointe, when developed, should be as the region’s principal recreational marina destination for local residents and visitors. Developed on with over 1,100 acres located between Ewa Beach and Kalaeloa, the community should be centered around a marina that should serve as a major recreational resource and visual amenity for the community. The marina should provide recreational boating opportunities, supported by boat slips, marine haul-out and other repair facilities, and a public boat ramp.

- The City supports timely development of the Ewa Marina as a key element needed to mitigate drainage impacts in the Kaloi Gulch watershed during major storms. The marina’s role as a storm water storage and detention basin has been acknowledged and included in previously approved environmental impact statements and land use approvals for projects in the Kaloi Gulch watershed.

- Ocean Pointe should provide substantial public areas at Ocean Pointe through shoreline and waterfront access, expansion of Oneula Beach Park, and creation of a District Park on Fort Weaver Road.

- The public waterfront promenade at Ocean Pointe should have with a hard edge and should-a-focus on boating activity. Shoreline Provide
shoreline parks linked by pedestrian ways should be provided for public use along the entire waterway.

- A develop the golf course should to provide a major open space and visual amenity while also providing detention basins to receive run-off from light storms.
- On the eastern end, the Ocean Pointe community should consist of Low and Medium Density Residential neighborhoods extending westward from Ft. Weaver Road, encompassing the eastern "loop" of the marina and an island within the marina.
- The existing community commercial center at Ewa Beach should be enlarged by development on land along Ft. Weaver Road at the eastern corner of the Ewa Marina community.
- On the west, develop a mix of activities should be sited around the marina basin, including a Marina Mixed Use area with resort and commercial development, a High Medium Density Residential area, and a Marine Industrial area. Ocean Pointe is planned to have about 950 visitor units to support its marina-oriented activities.

3.7.2 Planning Principles

Principles which are core to implementation of the Ocean Pointe general policies are the following:

- **Appropriate Scale and Siting** - The visibility of large building volumes and elements from waterfront and residential areas should be minimized through building envelope restrictions, site planning and landscaping.
- **Environmental Compatibility** - Ocean Pointe should be developed in ways that ensure environmental compatibility of uses, as indicated by the following:
  - Residential and apartment units should not be developed in areas that would expose residents to excessive aircraft noise.
  - Since airport operations have continued at Kalaeloa, land uses at Ocean Pointe should be compatible with airport operations and respect restrictions on development within airport approach and clear zones.
  - Uses that generate high noise levels should be located and operated in a way that keeps noise to an acceptable level in existing and planned residential areas.
• The built environment should be designed and developed to avoid adverse impacts on natural resources or processes in the coastal zone.
• To retain a sense of place, the design of hotel and recreation areas should incorporate natural features of the site and utilize landscape materials that are indigenous to the area where feasible.

**Community Integration** - The design of Ocean Pointe may have a distinct identity and entry, but Ocean Pointe should be linked with surrounding areas, such as Ewa Beach and Kalaeloa, using connecting roadways, walkways, landscape and architectural design.

### 3.7.3 Ocean Pointe Land Use Map

The *Ocean Pointe* Land Use Map, Exhibit 3.5, illustrates conceptual land uses described above and provides a schematic view of the roadway system within Ocean Pointe. Special land use designations sited around the marina basin are described below:

**Marina Industrial** - This area should be limited to marina-related and other light industrial uses, including boat haul-out facilities.

**Marina Mixed Use** – This area should have a mix of resort, commercial, hotel and medium and high-density residential uses. Resort uses should be limited to approximately 950 visitor units. Office uses are allowed, but should primarily serve the hotel and residential uses. Commercial and recreational facilities are encouraged.

**High Density Residential** – This area should be limited to medium- and high-density residential uses.

**Low and Medium Density Residential** – This area should have low and medium-density residential units, which will provide a transition to the existing single family units in Ewa Beach.

The boundaries between the golf course and the Marina Mixed-Use and Low- to Medium-Density Residential areas are intended to be flexible. Integration of urban uses with the golf course area is encouraged, as long as the golf course area does not decrease substantially, and it remains effective in retaining storm water drainage.
3.7.4 Guidelines

The following guidelines suggest how the general policies for Ocean Pointe should be implemented:

Urban Form

- **Marina Industrial** — A develop a light industrial marina support area should be developed adjacent to the marina providing facilities such as repair and storage. Building heights should generally not exceed 60 feet in this area.

- **Marina Mixed Use** — A develop a maritime commercial center with associated visitor units should be developed adjacent to the marina, featuring a wide public promenade with retail attractions. Hotel and apartment buildings in this area should generally not exceed 90 feet and all other buildings should generally not exceed 60 feet. Buildings with marina frontage should be limited to 40 feet. Buildings taller than 40 feet should be setback from the marina frontage.

- **High-Medium Density Residential Area** — A develop a high-medium density residential area located adjacent to the Marina Mixed Use area and across the marina waterway behind Oneula Beach Park to provides a transition between the mixed uses of the Marina Mixed Use area and the Low and Medium Single Family and Low Density Residential area to the east. Building heights in this area should generally not exceed 60 feet.

  In order to minimize the visual impacts of the High-Medium Density Residential areas near the marina entrance and adjacent to Oneula Beach Park, the developer should:

  - Maximize mauka-makai and other view corridors in the area by orienting the narrow dimension of buildings parallel to the shoreline or predominant view,

  - Maximize open space by minimizing building bulk and using extensive landscaping to create a park-like setting, and

  - Provide greater setbacks and/or terraced building setback from the edge of the marina waterways for buildings exceeding 25 feet in height.

- **Low and Medium Single Family and Low Density Residential Area** — A develop a residential community characterized by low-rise apartments and single-family homes should be developed in this area. Building heights should generally not exceed 30 feet.
With the exception of the island within the marina, there should be a minimum building setback of about 40 feet along the marina's edge to accommodate a public waterfront promenade. On the island within the marina, the minimum setback may be as little as five feet. Lesser setbacks may be permitted upon design review and approval by the Department of Planning and Permitting.

- **In Commercial And Marina Support Areas**, a small portion of the setback area may be covered by low-rise buildings to allow for boat servicing, marina storage and clubhouses. The maximum building height at the setback line in commercial and marina support areas should be around 40 feet, rising one foot for each additional foot of setback to a maximum of around 60 feet in the High Density Residential area and around 90 feet in the Marina Mixed Use area.

- **All structures** should be set back a minimum distance of 150 feet from the shoreline. Lesser setbacks may be permitted upon design review and approval by the Department of Planning and Permitting. The maximum building height at the setback line along the shoreline should be 40 feet, rising one foot for each additional foot of setback up to the appropriate height limit.

### Natural Environment

- **Retain, enhance, and protect** wetlands and other wildlife habitats should be retained, enhanced and protected.

- **Design** the golf course and marina should be designed to accommodate storm water runoff in a manner that maintains coastal water quality and avoids the use of concrete channels for diversion drainage. **Design** the waterway should be designed to accommodate the runoff of collected storm waters generated by a potential 100-year storm. Channel design should use the most effective means to provide natural flushing of its waters. **Develop** silting ponds should be developed mauka of the site to preserve water quality so that use of the marina and near-shore waters for recreational purposes and aesthetic enjoyment is not limited in any way.

- The marina entrance should **avoid** the use of breakwaters or jetties at the marina entrance, in order to preserve surf sites.
Public Access

- There should be **Provide** a continuous pedestrian pathway open to the public along the shoreline and along most of the marina, with the exception of sections where private residential lots directly front the marina.
- **Access** **Provide access** to the entire waterway and ocean shorelines should be available to the public through the internal and peripheral pedestrian pathways.
- **Public** **Provide public** parking, restrooms, and shower facilities should be provided at regular intervals for all sandy beach areas.

Views and Vistas

- **Views** **Preserve and enhance views** from public streets and thoroughfares to the mountains and sea should be preserved and enhanced wherever possible. In particular, distant views of the Waianae Range and the south coast of Oahu toward Honolulu and Diamond Head from the public promenade near the marina entrance channel should be preserved.
- **Hotel** **Orient hotel** and apartment facilities should be oriented in relationship to the waterfront so as to preserve and maximize both mauka and makai views.

Circulation

- **The** **Design the** street network should include **to provision provide** for a reasonably direct route through Kalaeloa to connect **Ocean Pointe** to the City of Kapolei.
- **All** **Design all** major roadway corridors should be designed to provide for bus pullouts and bus shelters, bike paths, and sidewalks that are separated from the vehicular travel way by a landscape buffer.

Landscape Treatment

- **Generous** **Provide generous** landscaping and vegetation should be provided throughout the development to promote tropical beauty and provide visual relief and a feeling of spaciousness.
- **Landscaping** **Design landscaping should to provide** continuity between residential, resort, marina, commercial areas, the shoreline, golf course, and parks.
3.8 EXISTING AND PLANNED RESIDENTIAL COMMUNITIES

This section provides general policies and guidelines for the development of new communities and the expansion or renovation of existing communities. Guidelines are provided for three types of residential uses: Residential, Low Density Apartment, and Medium Density Apartment.

The following definitions were included in Sec. 3.6.3.2 Guidelines in the 1997 Plan.

- Low Density Residential areas consist of one and two-story single-family attached and/or detached dwellings with individual entries.
- Medium Density Residential-Low Density Apartment areas consist of two- and three-story townhouse or low-rise apartment buildings. Dwelling units may have common entries, but buildings are typically non-elevator structures.
- High Density Residential-Medium Density Apartment developments take the form of multi-story apartment buildings. They may be located in mixed-use zones, with the ground floor or lower floors occupied by retail and service commercial uses.

3.8.1 General Policies

- **Overall Density** - To achieve the desired compactness and character of development in planned residential communities, develop with the housing density of the aggregate area zoned for residential use (including the streets) should be in the range of 10 to 15 units per acre. (This average does not include areas zoned for commercial or industrial use.)

- **Higher Density Housing Along the Transit Corridor** - To promote use of mass transit, develop higher-density residential use should be developed along a major rapid transit corridor linking Kapolei with Waipahu and Primary Urban Center communities to the east. Higher Medium-Density Residential and Commercial uses should be developed at eight transit nodes. Each node would cover a ¼ mile radius (about a five minute walking distance) around a major transit stop. Areas should have at least housing densities of 25 units per acre, with greater densities...
are expected encouraged within the eight transit nodes. See the Urban Land Use Map and the Public Facilities Map in Appendix A for the location of the eight nodes.

- **Physical Definition of Neighborhoods** - The boundaries of neighborhoods should be made evident through the use of natural features, street patterns, landscaping, building form, and siting. The focus of neighborhood activity should be on the local street or a common pedestrian right-of-way or recreation area.

- **Community Centers** — In the Master Plan for each new residential community, identify where its village center, town center or “Main Street” area is and how that center or Main Street will be established and supported by any existing or planned commercial development.

- **Compatible Mix of Building Forms** - There should be a variety of housing types and densities to avoid visual monotony and accommodate a variety of housing needs, but without sharp contrasts between the exterior appearance of adjacent housing areas.

- **Transit-Oriented Streets** - Street design patterns and rights-of-way should be designed to accommodate mass transit service and make it convenient to access for as many households as possible.

- **Connectivity** — Minimize dead end streets, provide for intersections at regular intervals, and connect with adjacent development. Allow roadway cross-sections within new residential developments to be reduced from current standards where higher capacity is provided by multiple alternative routes.

- **Pedestrian and Bicycle Travel** — Pedestrian and bicycle travel should be encouraged, particularly to reach neighborhood destinations such as schools, parks, and convenience stores. At a minimum, provide pedestrian and bikeway connectivity, where roadway connectivity is deemed not feasible, to allow direct travel through the community and to neighborhood districts.

- **Integration of Linear Corridors** — Physical and visual connections between communities should be encouraged through the creative design of transportation and utility corridors and drainage systems.

- **Provision of Community Facilities** — Land should be provided for community facilities including churches; community centers, and elderly and child care centers.
Table 3.4 gives an overview of the density and height guidelines for planned and existing residential developments. Conceptual locations for residential, and low- and medium-density apartment development are shown on the Urban Land Use Map in Appendix A and in maps of specific developments in Exhibits 3.3, 3.5, and 3.6. See Section 3.8.3 for further discussion of the Urban Land Use Map.

<table>
<thead>
<tr>
<th>Residential Category</th>
<th>Density (Housing Units)</th>
<th>Building Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Density Residential</td>
<td>5-12/acre</td>
<td>not over two stories</td>
</tr>
<tr>
<td>Medium Density Low Density Apartment</td>
<td>10-30/acre</td>
<td>not over three stories</td>
</tr>
<tr>
<td>High Density Medium Density Apartment</td>
<td>25-90/acre</td>
<td>not over 90 ft ¹</td>
</tr>
</tbody>
</table>

¹ Building heights up to 150 feet allowed in City of Kapolei and Ko Olina.
3.8.2 Guidelines

The following guidelines suggest how the general policies for Existing and Planned Residential Communities should be implemented.

Low-Density Residential

Density
- Density should be developed at densities of 5 to 12 units per acre, typical of residential zoning districts and allowing the application of optional design standards for Clusters and Planned Unit Developments, encouraging more compact, innovative, environmentally sensitive design and alternative layouts.

Building Height
- In general, buildings should not exceed two stories, although the height may vary according to required flood elevation, slope, and roof form.

Site Design
- The site design for small-lot developments should use features such as varied building setbacks and shared driveways to avoid monotonous rows of garages and driveways along neighborhood street frontages by employing features such as varied building setbacks and shared driveways.

Building Form
- Buildings should provide visual interest and individual identity by using varied roof forms, exterior colors and finishes, building orientation, floor plans, and architectural details to provide visual interest and individual identity.

Medium-Density Residential/Low Density Apartment

Density
- Density should be developed at densities of 10 to 30 units per acre.
Height
- In general, limit buildings to not exceed three stories above grade. Maximum building heights should allow for pitched roof forms.

Building Form
- Use building form, orientation, location of entries and landscape screening should be employed to maintain a sense of residential scale and provide greater privacy and individual identity for housing units.

Compatibility
- Ensure that building scale, roof form, and the quality of materials should be compatible with those of adjacent low-density residential areas.

High-Density Residential

Medium Density Apartment

Location
- In general, high-density residential buildings would be located in large planned residential communities, adjacent to major collector streets, commercial or civic centers.
- High-Density Residential is intended to be as the predominant form of housing in and near the City of Kapolei and around transit nodes on the planned rapid transit corridor between Waipahu and Kapolei.

Density
- Allowable building density should accommodate of 25 to 90 units per acre.

Height
- Limit building heights to not exceed 150 feet in the City of Kapolei and the Ko Olina Resort and 90 feet elsewhere. Taller building heights are intended to allow higher densities, create variation in the cityscape, give a visual sign of transit nodes, and identify the City of Kapolei’s importance as a regional center.
Architectural Character

- The building scale, roof form and the quality of materials may reflect an urban character.

Height Setbacks

- Building height setbacks and landscaping should be employed to reduce the direct visibility of taller buildings from lower density residential areas and from the street front. Lower building elements may directly abut the street front.

Circulation System

Master-planned projects should each have a circulation plan, or "circulation element" in their Project Master Plan (see Chapter 5).

Connectivity

- The circulation plan should define the standards for streets within the project and its relationship to the surrounding transportation network.

- Maximum block size, where allowed by topography, should be 300’ by 500’ or any combination of two sides to 800 feet. (See Exhibit 4.2 Street Network Guidelines.)

- New residential development should connect to adjacent subdivisions to allow creation of an east-west and mauka-makai roadway network at approximately ¼ mile intervals.

Transit Routes and Facilities

- The circulation plan should allow for establishment of efficient bus routes and allow access to efficient transit service for as many households as possible.

- The rights-of-way along transit routes should make provisions for bus shelters, bus pull-outs, and, if applicable, park-and-ride facilities and/or future transit stations.

- Require street patterns showing the alignment of proposed transit routes to be submitted to the Department of Transportation Services at the first stage of the development planning process.
• Design the circulation plan so that potential transit routes can be identified such that at least 85% of all proposed residential housing units are within 1/4 mile of a proposed transit stop, unless localized topographic conditions make such a requirement impractical.

• Require all commercial development with more than 1,000 square feet and all employment sites with more than ten employees to be within 1/8 mile of a transit stop.

• Require all development to be within 1/2 mile of a transit stop, unless localized topographic conditions make such a requirement impractical.

• Require the developer to construct all necessary transit stops in accordance with Department of Transportation Systems design standards.

• Design the circulation plan so that potential transit routes have two different access points into the proposed development. The route alignment should seek to achieve optimal operational efficiency between the two access points.

Pedestrian and Bicycle Routes and Facilities

• The design the circulation plan should indicate any principal pedestrian and bicycle paths that are physically separated from roadways.

• Street intersections along these separated paths should have a narrow curb radius and include special signage, and paving to encourage safe and convenient pedestrian and bicycle crossings.

• Interior pedestrian/bicycle routes may be provided as an alternative to paved sidewalks along local streets.

• Most residences should be within a five-minute (or one-quarter mile) walking distance of a proposed potential bus route, unless localized topographic conditions make such a requirement impractical.

Landscape Treatment

• Conceptual street tree plans should be indicated in the circulation plan.

• Entries to the community should be identified with special landscape treatment.

• The rights-of-way for major arterials and major collector streets should be designed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. Major arterials should
have separate bike paths, and major collectors should have bike lanes. Suggested width for major arterials, including right-of-way and planting strips, is 120 feet wide and for major collectors is 100 feet wide.

- **Canopy Trees**: Plant canopy trees should be planted to shade the sidewalk/bike path areas.
- **Landscape Treatment**: Install landscape treatment along the edges of the project should be that is appropriate for the natural setting and designed to provide continuity and transition from adjacent developed areas.

### 3.8.3 Relation to Urban Land Use Map

Residential areas are shown on the Ewa Urban Land Use Map in Appendix A as follows:

**Low- and Medium-Density Residential** (*Residential and Low Density Apartment*). Areas with this designation should be zoned to allow as a residential or a low density apartment district, subject to appropriate siting considerations and the General Policy for "Overall Density" provided in Section 3.8.1.

**High-Density Residential** (*Medium Density Apartment*). Areas with this designation should be zoned predominantly for medium- to high-density medium density apartment use. Mixed use, with retail activities at the ground level, is encouraged.

**City of Kapolei** – Areas within the City of Kapolei should be zoned for medium density apartment use. Mixed use with retail and office activities at the ground level and second floor should be encouraged.

The following uses are not specifically designated on the Urban Land Use Map, but are allowed in all residential areas:

- Neighborhood commercial centers,
- Elementary schools,
- Parks,
- Churches,
- Community centers,
- Elderly care centers,
- Child care centers,
- Fire stations,
- Other public facility and utility uses serving the area.

All residential developments should be compatible with Aircraft Approach and Clearance Zones for Honolulu International Airport (and Barbers Point Naval Air Station Kalaeloa airport, if airport operations continue after return to civilian use).

3.8.4 Relation to Zoning

Table 3.5 provides guidelines for the zoning that may be appropriate to each of the land use designations indicated in the revised Development Plan.

It is intended for use as a reference, which would permit modification or creation of Land Use Ordinance zoning categories and land use regulations in response to changing conditions without needing to amend the Development Plan.

3.9 PLANNED COMMERCIAL RETAIL CENTERS

This section provides general policies, planning principles and guidelines for the development of commercial retail centers in Ewa.

The following information was included in Sec. 3.7.1.1 General Policies in the 1997 Plan.

These planned commercial centers differ from commercial areas within towns such as Waipahu or the City of Kapolei because they are typically managed as a unit with shared parking and centralized management.

Definitions - Four types of commercial centers can be defined based on size and function:

- **Neighborhood Commercial Center** - (5-10 acres or less, typically located within or adjacent to residential area, up to 100,000 square feet [sq. ft.] of floor area);

  Neighborhood Commercial Centers have frontage on at least one collector street, and may have up to 100,000 sq. ft. of floor area, which is leased to tenants such as grocery stores, sundries stores and other services and shops catering to common household needs.
**TABLE 3.5 GUIDELINES FOR APPROPRIATE ZONING**

<table>
<thead>
<tr>
<th>Land Use Designation</th>
<th>Appropriate Zoning Districts</th>
</tr>
</thead>
</table>
| Park, Golf Course, Preservation/Conservation Military Training Area | P-2 if in State Urban or Agriculture District  
P-1 if in State Conservation District; otherwise P-2  
F-1 |
| Agriculture | AG-1 for all areas except where there is a predominant pattern of lots under 5 acres in size  
AG-2 for areas where lots are under 5 acres in size |
| **Low and Medium Density Residential and Low Density Apartment** | R-5, R-7.5, R-10 for conventional single-family subdivisions  
R-3.5 if identified by Project Master Plan for innovative small lot site design  
A-1 for low-rise flats, apartments, and townhouses  
A-2 if identified by Project Master Plan for medium density apartment development  
AMX-1, AMX-2 if within one-quarter mile of a transit node |
| **High-Density Residential Medium Density Apartment** | A-2, A-3  
AMX-2, AMX-3 if within one-quarter mile of a transit node |
| Commercial Centers | B-2 with limits on floor area for office use for all types of centers except Neighborhood Commercial Centers  
B-1 for Neighborhood Commercial Centers (not shown on Urban Land Use Map)  
B2, BMX-3 for the Ko Olina Marina Mixed Use area |
| Town Center | B-2, BMX-3  
A-1, A-2  
I-1, I-2 in fringe areas where present use is predominantly service industrial |
| Resort | Resort |
| Technology Park | New zoning category designed specifically for this use; for interim, retain the existing IMX-1 and B-2 zoning with use limitations as specified in the UA. |
| Industrial | I-1  
I-2 for service industrial areas near City of Kapolei and master-planned communities  
I-3 in vicinity of Barbers Point Deep Draft Harbor and of Ewa Marina |
Single commercial establishments, such as convenience stores or "Mom and Pop" stores, or groupings of stores smaller than five acres in size also fall within this category, provided that they are appropriately located and will not contribute to the evolution of a commercial strip.

- **Community Commercial Center** - (10-30 acres, typically located on an arterial highway or at the intersection of two major collector streets, up to 250,000 sq. ft. of floor area);

This type of center principally serves the community in which it is located, providing for basic shopping and service needs on a larger scale than the neighborhood center. Community Commercial Centers may contain up to 250,000 sq. ft. of floor area, and major attractions typically include a large grocery store, a drug store, and/or a department store. The other, smaller tenants in the center are largely dependent on the effectiveness of the major tenants to draw customers. The Kapolei Shopping Center is an example of this type of commercial center.

- **Major Community Commercial Center** - (up to 50 acres, located in communities which are not near an urban center, up to 500,000 sq. ft. of floor area); and

- **Regional Commercial Center** - (more than 50 acres, located with frontage on a major arterial highway and access from freeway interchange, more than 500,000 sq. ft. of floor area).

This type of center is typically “anchored” by several major stores and features a wide variety of other tenants, often including entertainment and community facilities. The regional center serves a broad arc of surrounding communities but also attracts business from throughout the island. Examples include Waikele, Pearlridge, and Kahala Mall.

3.9.1 **General Policies**

- *Develop planned* commercial centers, outside of the City of Kapolei, *should* provide retail shopping and services for the Ewa residential communities in which they are located.
• Commercial
develop commercial centers outside of the City of Kapolei should concentrate by concentrating commercial uses in central locations instead of in continuous commercial strips along arterial roads.

• Pedestrian
emphasize pedestrian and transit access to and within the centers should be emphasized.

• Permit multi-family residential use above the first floor and include it wherever possible in commercial centers.

• Wherever possible, design new commercial centers to help create and/or support pedestrian-friendly village centers, town centers, or "Main Street" areas for their communities. Such centers or Main Streets provide a place where people from the surrounding neighborhoods gather, shop, dine, or play and are a key element that defines a community's identity.

• No
limit development of Major Community Commercial Centers or Regional Commercial Centers are indicated for Ewa outside of the City of Kapolei since the City of Kapolei is intended to provide for most regional shopping needs. [Note: The Department of Hawaiian Home Lands has notified the Department of Planning and Permitting that it intends to exempt itself from City and County planning and zoning to develop a 1.6 million square foot Regional Shopping Center on 67 acres near the intersection of North-South Road and Kapolei Parkway. Included in the project are two hotels with 300 rooms and two office towers with 100,000 square feet of office space.

• Allow
neighborhood commercial centers can to be located within any residential community, and should be reviewed and approved as part of development of master planned residential communities or redevelopment of existing communities.

• Allow
locations for existing and planned community commercial centers at Ewa Beach, Laulani, Ho'opili (near the intersection of Farrington Highway and Kunia Road), East Kapolei (near the intersection of Farrington Highway and the North-South Road), the Villages of Kapolei, Makaiwa Hills, and Ko Olina Marina are as shown on the Urban Land Use Map in Appendix A.

• Allow
medium density mixed use commercial development within a quarter-mile radius of proposed transit stations on the rapid transit corridor linking Waipahu with the City of Kapolei/Kapolei West.

• Office
restrict office uses should not be as a principal use in Ewa Community Commercial Centers. Offices that provide services to the local community may be included in the centers, but the emphasis should be on retail uses. In
Ewa, developments primarily oriented to office uses should be located in the City of Kapolei.

3.9.2 Planning Principles

Planning principles for retail centers vary according to the size of the commercial center and the purpose it serves. The following planning principles apply to Neighborhood, Community Commercial Centers, and Regional Commercial Centers:

- **Orientation to "Main Street" or the Town/Village Center.**
  - Structures in the commercial center should be located and oriented to the street up to the "build to" line along the designated "Main Street" or Town/Village Center frontage.
  - Most parking for commercial structures fronting "Main Street" or the Town/Village center should be located behind the structures in joint development parking lots or structures although some on-street parking can be provided on the Main Street or Town/Village Center frontage.
  - The main entrance to commercial structures fronting the "Main Street" or Town/Village Center should be located on that street frontage with secondary entrances from parking areas.
  - Sidewalks in front of retail uses fronting the "Main Street" or Town/Village Center should be wide enough (12 to 16 feet) to allow window shopping or outdoor dining.

- **Mix of Uses** - Planned commercial centers should be dedicated primarily to retail uses and to office uses that provide services to the surrounding community. Residential uses may also be incorporated in such commercial centers.

- **Appropriate Scale** - The building mass of a commercial center should be in keeping with its urban and natural setting.

- **Compatible Style** - The architectural character of commercial centers should respect the surrounding urban and natural features, particularly when located adjacent to a residential area or significant natural or historic feature. Neighborhood commercial centers should reflect a residential architectural character.

- **Accessibility** - Commercial centers should incorporate site design and facilities to promote pedestrian, bicycle and transit access. Pedestrian and
bicycle access is more important for smaller, neighborhood centers, while transit access is more significant for community centers. These planning principles should be applied to the expansion or renovation of existing commercial centers, as well as to new centers.

3.9.3 Guidelines

The following guidelines suggest how the general policies for Planned Commercial Retail Centers should be implemented.

Neighborhood Commercial Centers

Architectural Character
- The architectural character should **design** the project architecture to respect the character of adjacent residential uses.
- **Gable** and **hip-form** roofs are encouraged, using to create breaks in the roofline to reduce the apparent scale of large roof plates.
- Residential character may also be expressed by using **exterior materials** and colors that are typically found in neighborhood houses.

Building Siting
- **Buildings** should be oriented **to the pedestrian**.
- **Storefronts** should be oriented **to face the street and to the extent possible, be sited close to the sidewalk**.
- **Parking** and service areas should be placed **behind the buildings or otherwise visually screened from streets and residential areas**.

Building Height and Density
- **Buildings** should maintain **building height limits** which allow for gable and hip-form roof elements.
- The limit total floor area for a lot or contiguous lots with common parking should not exceed **no more than** 100,000 sq. ft.

Vehicular Access
• **Access** to the parking and loading areas should be from a collector street.

• **Access** to a local residential street may be permitted if it is only if it is for emergency or secondary access and would not encourage through traffic along the local street.

### Pedestrian and Bicycle Facilities

- There should be **Provide** at least one pedestrian access from the public sidewalk or other off-site pedestrian pathway to the entrances of establishments in the commercial center that does not require crossing a traffic lane or parking lot aisle or driveway.

- Bicycle **Design** bicycle racks should be designed to provide for security, convenience, and visibility and be visible from the street entry.

- **Provide** appropriate signage to indicate the availability and location of bicycle racks.

### Visual Screening, Lighting and Signage

- Parking **Screen** parking and service areas should be screened from the street and adjacent residential lots by planting a landscape screen of trees and hedges along street frontages and property lines and by planting shade trees throughout the parking lot.

- Only **Use only** low-level or indirect lighting, if any, should be used in parking lots.

- All signage should **not require** all signage to either be non-illuminated or indirectly illuminated.

### Community Commercial Centers

#### Architectural Character

- The **Allow varied** architectural character may be varied, depending on the context.

- Commercial **Require commercial** center buildings that are visible from adjacent residential areas should to reflect a residential character; while allowing other facades may to have a character more typical of a commercial building.
The design should avoid disruptive contrasts between facades and extended blank walls that are visible simultaneously from public areas.

Building Bulk and Massing
- When the building is adjacent to a residential area or a building of historic value, there should be a transition in scale from larger building elements of the commercial center to finer elements near the adjacent use when the building is adjacent to a residential area or a building of historic value.
- Portions of buildings visible from a street should avoid blank facades on portions of buildings visible from a street by using texture, articulation, color, and fenestration to create visual interest.
- Facades that are close to the public right-of-way should be composed of display windows and pedestrian entrances.

Building Height and Density
- Building heights should generally not exceed 45 feet.
- The total floor area should not exceed 250,000 sq. ft. for a standard Community Commercial Center.

Pedestrian, Bicycle, and Transit Facilities
- Street frontage improvements for bus stops, including a bus shelter and a pull-out off a traffic lane, should be provided along all abutting streets that have bus routes.
- There should be a pedestrian pathway from the bus stop to an entrance to the main building of the commercial center. The pathway should be clearly indicated with special paving or markings and covered to provide weather protection, if the commercial center building is not directly connected to the bus shelter.
- Bicycle racks should be designed to provide security and be visible from the street entry to the commercial center.
- Provide appropriate signage to indicate the availability and location of bicycle racks.
Visual Screening

- **Minimize the** visibility of parking and service areas from the street and adjacent residential areas should be minimized through screening.
- **Plant a** landscape screen, consisting of trees and hedges, should be planted along the street fronting the parking lot or garage.
- If there is a parking lot, shade trees should be planted throughout.
- If there is a parking garage close to and readily visible from a street, **Provide landscape planters should be provided along the facade of each parking level fronting the street, for parking garages close to and readily visible from a street.**
- **Service** Visually screen service areas should be visually screened from public and residential areas.

Signage

- **Indirectly illuminate** signage visible from residential areas should be indirectly illuminated.

Regional Commercial Centers

Architectural Character

- **Use architectural elements to establish a visual identity and design theme,** especially when the theme reflects a cultural, historical, or geographical feature of the area.
- Include public areas to provide for performances and cultural events.

Building Bulk and Massing

- Use varied elevations and building axes to visually differentiate building volumes.
- Avoid blank facades on portions of buildings visible from a street by using texture, articulation, color, and fenestration to create visual interest.
- Require facades that are close to the public right-of-way to be composed of display windows and pedestrian entrances.
- Site buildings to physically define separate sections for parking areas to provide visual relief and easily identifiable references for customers returning to parked vehicles.
Building Height and Density
- Limit building heights to generally not exceed 60 feet, but permit heights up to 90 feet for architectural features expressing a design theme.
- Limit the floor area ratio to no more than 2.0.

Use Allocation
- Limit office and entertainment uses. Office uses should not exceed five percent and entertainment/recreation uses should not exceed 15 percent of gross leaseable area.

Pedestrian, Bicycle, and Transit Facilities
- Locate public bus facilities on the grounds of the center, but allow reduction in the number of parking spaces to offset the cost of providing the easement and improvements on-site.
- Directly connect the bus stops to the commercial center’s main structure via a covered pedestrian walkway.
- Include well-defined walkways at regular intervals in parking lots to minimize conflicts between pedestrians and moving vehicles.
- Provide appropriate signage to indicate the availability and location of bicycle racks.

Visual Screening
- Plant a landscape screen, consisting of trees and hedges, along parking lot street frontages.
- Plant shade trees throughout all parking lots.
- Provide landscape planters along the facade of each parking level for parking garages close to and readily visible from a public right-of-way.
- Locate or screen loading and other service areas so that they are not visible off-site.

3.10 KO OLINA RESORT

The Ewa Development Plan prior to 1997 included specific development objectives, planning principles, and standards for Ko Olina Resort, under its former name of West
Beach. The Unilateral Agreement to the 1986 zoning ordinance for the Resort includes detailed conditions regarding the master plan of the resort, building design, design of the public shoreline area, and public access to the shoreline.

Development of the Resort can proceed based on the existing zoning and Unilateral Agreement. This section incorporates key elements for Ko Olina from the former Development Plan and the Unilateral Agreement.

The following information was located in the Sec. 3.7.2.1 General Policies in the 1997 Plan.

Ko Olina Resort is designated in the **General Plan** as one of four "secondary" resort destinations, which are part of an overall strategy to relieve growth pressure on Waikiki. The resort is located on 640 acres between Kahe Point Beach Park and the Kalaeloa Barbers Point Deep Draft Harbor. When developed, Ko Olina Resort should be a water-oriented residential and resort community with at least 4,000 visitor units in hotels and resort condominiums and 5,200 residential units.

Ko Olina is master-planned to incorporate recreational features in addition to visitor accommodations. Recreational facilities include a golf courses, a small boat marina, and four man-made swimming lagoons. Development of the golf course and the swimming lagoons, and installation of roads and utilities are completed.

The first hotel opened in 1993 with almost 400 rooms. The first phase of a time-share resort began construction in 2001. By early 2009, over 500 units of the planned 750 time-share units are expected to have been completed. In addition, over 1100 homes, second homes, and resort condominiums have been built and sold in recent years.

### 3.10.1 General Policies

- **Develop Ko Olina Resort should be** an integral part of the Secondary Urban Center.
- **As it develops, Develop Ko Olina should to** provide substantial waterfront areas for public use. The entire shoreline should be natural open space, softened by landscaping, and should focus on the beach and swimming lagoons.
3.10.2 Planning Principles

Planning principles which are core to implementing the Ko Olina Resort policies include:

- **Appropriate Scale and Siting** - The visibility of large building volumes and elements from waterfront and residential areas should be minimized through building envelope restrictions, site planning, and landscaping.

- **Environmental Compatibility** - Uses that generate high noise levels should be located and operated in a way that keeps noise to an acceptable level in existing and planned residential areas. The built environment should avoid adverse impacts on natural resources or processes in the coastal zone. To retain a sense of place, the design of resort and recreation areas should incorporate natural features of the site and utilize landscape materials that are indigenous to the area where feasible.

- **Community Integration** - The design of resorts and recreational attractions may have a distinct identity and entry, but the resorts and attractions should be linked with surrounding areas through the use of connecting roadways, walkways, landscape, or architectural design.

3.10.3 Ko Olina Land Use Map

The Ko Olina Land Use Map, Exhibit 3.6, shows land uses and a schematic view of the roadway system within the Ko Olina Resort. Land uses include the following:

- **Resort** - Resort sites are located along the shoreline and should have hotels, apartments, and accessory commercial and recreational facilities for resort use. The Lanikuhonua Cultural Center, located at the northern end of the resort area, should be principally open space with accessory structures as needed to support the cultural center use. The Paradise Cove site, located between Lanikuhonua and the park, should be used for resort commercial purposes.

- **Medium Density Apartment, High-Density Residential** - High-density residential and medium density apartment uses are located along the shoreline between Mauloa Place and Waipahe Place and near the Marina Activity Center. (A high-density residential area is also located in Ko Olina Phase II near the City of Kapolei.)
Exhibit 3.6
Ko Olina Land Use Map

LEGEND
- Residential and Low Density
- Medium Density Apartment
- Resort
- Marina Mixed Use (Marina Activity Center)
- Golf Course
- Park
- Pedestrian Walkway
• **Marina Mixed Use** - The Marina Activity Center is located in this area and should have a mix of commercial and high-density residential uses with BMX zoning.

• **Residential and Low Density Apartment. Low and Medium Density Residential** - Two residential and low density apartment low to medium density residential areas are located within and adjacent to the golf course are included in Ko Olina.

3.10.4 **Guidelines**

The following guidelines suggest how the general policies for Ko Olina Resort should be implemented:

**Urban Form**

• **Marina Activity Center** - A higher density, centrally located hub should be established adjacent to the marina to serve as the activity center for the community and as an attraction that enhances Ko Olina’s role as a secondary resort destination area for Oahu.
  
  o **Commercial** - Permit commercial mixed use development should be permitted in the area generally bounded by the park at the fourth lagoon, Waipaehe Street, Aliinui Drive, Kekai Place and the marina. This area should consist of marina frontage with public promenade, commercial mall, and low and medium density apartment. Medium or high density residential developments.
  
  o **Marina** - Limit marina frontage should generally have to a height limit of 40 feet.
  
  o **Buildings** - Require buildings taller than 40 feet should to be set back from the marina frontage.
  
  o **Variations** - Allow variations in the amount of setback needed may be made to add visual interest.

- **High Density Residential Medium Density Apartment Area** - A high density residential area located along the shoreline between Mauloa Place and Waipahe Place provides a transition between the mixed uses of the Marina Activity Center and the Resort Center. Two additional high density
residential-medium density apartment areas are located on Kekai Place and on Aliiinui Drive. Building limit building heights in these areas should generally not exceed 150 feet.

- **Resort Center - A:** Allow development of a resort destination area containing at least 4,000 visitor units should be developed in the area designated for Resort use on Exhibit 3.6. Hotel limit hotel and apartment buildings in this area should generally not exceed 150 feet.
- **Buildings Limit building heights** at Lanikuhonua and Paradise Cove should be limited to no more than 40 feet in height.
- **Compatibility Encourage compatibility of uses and design integration should be encouraged at the boundaries separating different use areas.**
- **Land Prohibit designation of land within one-half mile of the centers of petroleum and explosives terminals at the Kalaeloa Barbers Point Deep Draft Harbor should not be designated for Resort, Apartment, Residential, or Commercial use.**

**Natural Environment**

- All Set back all structures should generally be set back a minimum distance of 300 feet from the shoreline. Lesser (or greater) setbacks may be permitted upon design review and approval by the Department of Planning and Permitting.
- The Protect the existing coastal environment should be protected against potential negative impacts associated with increased recreational use and public access to the shoreline.
- Further Discourage further modification to the shoreline, including the man-made lagoons, is discouraged unless required either to meet the conditions of existing approvals or to address demonstrated deterioration to the quality of coastal resources. Modifications or alterations to the shoreline should be reviewed on a case-by-case basis.

**Shoreline Access**

- A Provide a continuous public walkway should be provided along the entire shoreline fronting the resort, anchored at either end by public beach parks. Public access should be provided along the shoreline fronting Lanikuhonua and Paradise Cove, but not in as formal a manner as that provided on the
shoreline frontage of the adjacent hotel, apartment, and commercial Ko Olina resort sites.

- In addition to the public parks at each end of the resort, provide a series of privately-owned and maintained parks encompassing a minimum of 20 acres of land should be provided along the shoreline. These private parks should be open to use by the general public and accessible from the continuous shoreline public walkway.

- A public access easement, parking lot, restrooms, and showers should be provided at each of the four swimming lagoons.

Views and Vistas
- Preserve and enhance views from public streets and thoroughfares to the mountains and sea should be preserved and enhanced wherever possible.
- Hotel, commercial, and apartment buildings should be oriented lengthwise away from the shoreline to maximize mauka and makai views.
- Protect important views of landforms along the Waianae Coast, the ridgeline of the Waianae Range, and the ocean should be protected, including but not limited to the following:
  - Makai view from Farrington Highway at the entrance to Ko Olina,
  - Makai view from Ko Olina coastal roadways makai of Farrington Highway,
  - Views of the Waianae Coast from the shoreline at Ko Olina, and
- Allow variation in building heights near the shoreline and along the marina frontage, particularly to preserve long views and minimize the perception of building bulk from the shoreline, beach, and marina frontage.

Circulation System and Transportation Facilities
- Establish an integrated bikeway and pedestrian circulation network should be established throughout the resort, with bicycle lanes and routes and sidewalks along major roadways, lined with shade trees.
- Reserve the OR&L right-of-way should be reserved for a bikeway and historic railroad train service for theme rides between Nanakuli, Ko Olina,
Kapolei, Ewa Villages, Waipahu, and Aiea as part of the Pearl Harbor Historic Trail.

**Landscape Treatment**

- **Generous** Provide generous landscaped open spaces should be provided throughout the resort area to promote tropical beauty and provide visual relief and a feel of spaciousness.
- **Landscaping should** Use landscaping to provide continuity between residential, resort, marina, and commercial areas and the recreational areas at the shoreline, parks, and golf courses.
- **Landscaping should** Use landscaping to enhance and preserve view corridors and provide privacy, screening, shade, and comfort.

### 3.11 INDUSTRIAL CENTERS

This section provides general policies, planning principles, and guidelines for development of industrial centers and industrial uses in Ewa.

The following information was included in Sec. 3.7.3.1 General Policy in the 1997 Plan.

Industrial centers in Ewa include the Barbers Point Industrial Area, Kalaeloa, Honouliuli Industrial Area, Kahe Valley, and an area near the Ocean Pointe marina.

Barbers Point Industrial Area includes Campbell Industrial Park, Kalaeloa Barbers Point Deep Draft Harbor, Kenai Industrial Park, Kapolei Harborside, and Kapolei Business Park. It is the site of the State's largest heavy industrial area (Campbell Industrial Park) and an important industrial harbor and fuel transfer point.

The Barbers Point Redevelopment Commission approved continuation of the airport at Kalaeloa to provide a reliever airport for Honolulu International Airport, and a site for general aviation operations. As a result, the Pacific Aerospace Training Center, a program of the Honolulu Community College, was established to provide flight training for Hawaii, Mainland, and international students. A number of opportunities for aviation-oriented industrial and training developments associated with the Center have been identified.
In 2002, the State Legislature transferred redevelopment responsibility for Kalaeloa to the Hawaii Community Development Authority (HCDA). The HCDA prepared a Master Plan for redevelopment of Kalaeloa. The Master Plan (approved in 2006) identifies lands capable of providing over two million square feet of light industrial floor space.

Honouliuli includes 44 acres of land zoned industrial/commercial mixed use in the Ewa by Gentry project and the 49-acre Honouliuli Wastewater Treatment Plant.

3.11.1 General Policies

- Industrial centers in Ewa include the Barbers Point Industrial Area and Honouliuli Industrial Areas. Maintain industrial activity at Barbers Point Industrial Area, Kalaeloa, Honouliuli Industrial Area, Kahe Valley and permit industrial activity should also be permitted at other dispersed industrial areas, as noted below.

- As an alternative to industrial uses, a commercial, cultural or recreational entertainment attraction may be permitted in the area fronting the OR&L Historic Railway, provided that the use is designed to enhance the viability of the operation of the railway for historic theme rides, strengthen the linkage between the Ko Olina Resort and the City of Kapolei and proceed with a strong community-based planning process.

Barbers Point Industrial Area/Kalaeloa

- It should continue to grow Maintain the Barbers Point Industrial Area as one of Oahu’s and the State’s most important industrial areas.

- Allow construction of an additional electrical power generating plant could be constructed at the Barbers Point Industrial Area, possibly taking advantage of cogeneration opportunities with other industrial activities. The 138 kilovolt transmission corridor running from the Barbers Point Industrial Area to Waiau could accommodate additional load on the existing poles.

- The northern parts of Kapolei Business Park, Kapolei Harborside, and any Kalaeloa lands designated for industrial use should provide for light industrial uses as a transition between heavy industry at Campbell Industrial Park and the City of Kapolei.

- If a major film studio is developed within this area, allow accessory uses, such as film production offices, a "back lot" area with commercial uses, and
visitor attractions. Overnight accommodations for film crews could be approved through a variance if hardship can be demonstrated.

Honouliuli Industrial Area

- **Develop** Honouliuli should remain as a smaller industrial area, used primarily for wastewater treatment.
- **Allow** a power generation facility may to be included if it is dependent on wastewater treatment operations and can be designed so that it is generally not visible from nearby major public rights-of-way, residential areas, and commercial areas.
- **Expand** the Honouliuli Wastewater Treatment Plant should be expanded to accommodate additional growth in the region as well as to provide additional facilities for higher levels of wastewater treatment. The City should acquire an additional 60 acres to accomplish this.

Other Industrial Areas

- **Allow** service-oriented industrial uses should be allowed throughout the region as noted below. Uses requiring larger lots should be located in Campbell Industrial Park. Small-lot uses, including automobile repair shops, contractor’s yards, and businesses serving residential and commercial areas, should be allowed to locate near the City of Kapolei in the Kapolei Business Park and on any industrial lands which may be designated within Kalaeloa.
- The **Hawaiian Electric Company generating plant** in Kahe Valley should remain the largest source of electrical power on Oahu. The **Allow** the plant could to be expanded which would to take advantage of available land area, cooling system capacity, and power transmission lines.
- **Allow** development of the **industrial area planned for the western edge of Ocean Pointe** should to accommodate marine haul-out facilities, repair shops, and related small boat industrial uses.
3.11.2 Planning Principles

Principles which are core to implementation of the Industrial Centers general policies are the following:

- **Appropriate Scale** - The visibility of large building volumes and tall building or machinery elements from resort areas, residential areas, commercial and civic districts, and parks should be minimized through site planning and landscaping.

- **Environmental Compatibility** - Industries and utilities that discharge air or water pollutants, even when treated, should be located in areas where they would impose the least potential harm on the natural environment in case the treatment process fails to perform adequately. Uses that generate high noise levels should be located and operated in a way that will keep noise to an acceptable level in existing and planned residential areas. The building setback from the shoreline should be a minimum of 60 feet in the Ewa coastal area, as recommended in the *Oahu Shoreline Study* (1989), and 150 feet where possible.

3.11.3 Guidelines

The following guidelines suggest how the general policies for Industrial Centers should be implemented.

**Barbers Point Industrial Area**

**Coastal Environment**

- There should be a minimum building setback. Set back all buildings a minimum of 60 feet and 150 feet where possible. A [provide a lateral public access easement](#) should be provided along the entire shoreline from the Barbers Point Deep Draft Harbor to Kalaeloa.

- The [continue to provide the major entry point to the shoreline easement](#) should continue to be at the Barbers Point beach park and lighthouse area. However, [provide at least one additional minor access](#), similar to the one at Kenai Industrial Park, should be provided at the drainage channel next to Kalaeloa. Provide access and at other points where public parking on the street is available.
Building Height and Mass
- Building heights should generally not exceed 60 feet when they consist of large mass.
- Taller vertical structures are acceptable when required as part of an industrial operation, but require a view plane study to be conducted for structures over 100 feet in height to determine if they can be sited or designed to minimize visibility from residential, resort and commercial areas, major public thoroughfares, and the shoreline.

Use Allocation
- Small lots should be provided within the Kapolei Business Park as sites for small business service uses.

Landscape Treatment
- Require the planting of a landscape screen, consisting of trees and hedges, along street frontages to minimize the visibility of parking, storage, industrial equipment, and operations areas from the street.
- Streets should receive special landscape treatment for streets leading to the shoreline access points.

Honouliuli Industrial Area

Building Height and Mass
- Building heights should generally not exceed 60 feet, especially for buildings of large mass.
- Taller vertical structures are acceptable when required as part of an industrial operation, but require a view plane study to be conducted for structures over 100 feet in height to determine if they can be sited or designed to minimize visibility from residential, resort and commercial areas, major public thoroughfares, and the shoreline.
Roadway Setbacks
- Wastewater: Require wastewater treatment structures should be at least 300 feet from the proposed alignments of the Kapolei Parkway, the North-South Road, and any access road that is planned for redevelopment of Kalaeloa. Setbacks for other industrial uses should be as given in the zoning standards.

Landscape Treatment
- Require the planting of a landscape screen, consisting of trees and hedges, along street frontages to minimize the visibility of parking, storage, industrial equipment, and operations areas from the street. The visibility of parking, storage, industrial equipment, and operations areas from the street should be minimized through the planting of a landscape screen, consisting of trees and hedges, along street frontages.

Other Industrial Areas

Separation of Use Areas
- Small: Allow small industrial lots (10,000 sq. ft. or less) for repair services and "incubator" businesses should be located near the commercial core of the City of Kapolei, but not on the principal commercial streets.
- Warehousing: Locate warehousing and other industrial uses requiring larger lots should be located in industrial parks.

Landscape Treatment
- In: Require use of privacy walls and buildings, with minimal use of landscaping to visually screen small-lot industrial areas, outdoor work and storage areas for vehicles, equipment and supplies should be visually screened from the street and adjacent lots by privacy walls and buildings, with minimal use of landscaping.
- In: Require use primarily of landscaped setbacks and street trees to provide visual screening in large-lot industrial subdivisions, this visual screening should be accomplished primarily with landscaped setbacks and street trees.
3.11.4 Relation to Urban Land Use Map

Industrial zoning should generally be limited to those areas shown as "Industrial" on the Urban Land Use Map in Appendix A, provided that industrial zoning may be granted for an individual activity which, because it is a public transportation or utility use or because of its unique characteristics, is unable to locate in a planned industrial area.

Heavy industrial uses should be located at Campbell Industrial Park, transitioning to lighter industrial uses closer to the City of Kapolei.

3.12 KALAELOA

Kalaeloa (formerly Barbers Point Naval Air Station) is designated as a Special Area within the Ewa Development Plan Area because of the need to provide strategies for the redevelopment of the area, to coordinate the activities of the many private, City, State, and Federal agencies involved in the area, and to coordinate redevelopment of Kalaeloa with the development of the rest of Ewa.

In 1999, the Barbers Point Naval Air Station was closed, and the process of transferring the Navy lands to civilian control for public benefit began. Approximately 1,050 acres was retained by the Navy, and 457 acres were transferred for use by various other Federal Agencies. The balance of 2,180 acres were declared surplus and made available for transfer to various State and City agencies for public use. Table 3.6 lists both the acreage retained by Federal agencies and the acreage transferred to City and State agencies.

The Kalaeloa Redevelopment Plan was prepared for Kalaeloa in December 2000 by the Barbers Point Naval Air Station Redevelopment Commission and accepted as the Kalaeloa Special Area Plan by the City Council (Res. 01-86, April 2001).

In July 2002, the State Legislature transferred responsibility for Kalaeloa to the Hawaii Community Development Authority (HCDA). HCDA has prepared a Master Plan for redevelopment of Kalaeloa that was approved by the HCDA Board and the Governor in 2006. It is to be submitted for acceptance by the City Council as the Special Area Plan for Kalaeloa.
TABLE 3.6: KALAELOA LAND CONVEYANCE STATUS (in acres)

<table>
<thead>
<tr>
<th>AGENCY</th>
<th>PROPOSED USE</th>
<th>ACREAGE retained or conveyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Navy</td>
<td>Golf Course, Horse Stables, two beaches, Landfill, Public Works Center, and Defense Reutilization and Marketing Office</td>
<td>437</td>
</tr>
<tr>
<td>U.S. Navy</td>
<td>Lands to be brokered for Ford Island Development</td>
<td>492</td>
</tr>
<tr>
<td>U.S. Coast Guard</td>
<td>Air Wing Headquarters</td>
<td>44</td>
</tr>
<tr>
<td>U.S. Federal Aviation Agency</td>
<td>Navigational Aid Beacon</td>
<td>18</td>
</tr>
<tr>
<td>U.S. Fish &amp; Wildlife</td>
<td>Pearl Harbor National Wildlife Refuge</td>
<td>37</td>
</tr>
<tr>
<td>U.S. Veterans Affairs</td>
<td>Homeless Assistance and Social Services</td>
<td>7</td>
</tr>
<tr>
<td>U.S. Postal Service</td>
<td>Existing Post Office</td>
<td>1</td>
</tr>
<tr>
<td>Hawaii National Guard</td>
<td>Consolidated Headquarters &amp; Operations</td>
<td>148</td>
</tr>
<tr>
<td>State DOE</td>
<td>Barbers Point Elementary School</td>
<td>14</td>
</tr>
<tr>
<td>State DHHL</td>
<td>Leases for commercial and industrial purposes</td>
<td>278</td>
</tr>
<tr>
<td>State HHFDC</td>
<td>Holo Loa’a Shelter</td>
<td>12</td>
</tr>
<tr>
<td>State DOT</td>
<td>Kalaeloa (John Rodgers) Airport</td>
<td>53</td>
</tr>
<tr>
<td>UH School of Ocean &amp; Earth Science &amp; Technology</td>
<td>Field station for scientific research on wetland plant and animal species at Ordy Pond</td>
<td>9</td>
</tr>
<tr>
<td>UH Honolulu CC</td>
<td>Pacific Aerospace Training Center</td>
<td>6</td>
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<tr>
<td>City BWS</td>
<td>Reverse Osmosis Facility</td>
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<tr>
<td>City DTS</td>
<td>Various Roads</td>
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<tr>
<td>City Parks &amp; Recreation</td>
<td>Kalaeloa Regional Park</td>
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<td>City DES</td>
<td>Wastewater System</td>
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<tr>
<td>Ford Island Housing LLC</td>
<td>On-Station Housing</td>
<td>53</td>
</tr>
<tr>
<td>Carmel Partners</td>
<td>Orion, Makai, and Orion Park Housing</td>
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<tr>
<td>Unallocated(1)</td>
<td>Parcels</td>
<td>281</td>
</tr>
<tr>
<td>Unallocated(1)</td>
<td>Roads and Easements</td>
<td>26</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1,146</td>
</tr>
</tbody>
</table>

Notes:
(1) Lands originally assigned to agencies that subsequently withdrew their interest in receiving the lands.

SOURCE: Hawaii Community Development Authority, Kalaeloa Master Plan (March 1, 2006).
3.12.1 General Policies

- Develop a major new regional public park, and provision of continuous lateral public access along the shoreline at Kalaeloa are priority reuse options for the BPNAS Local Reuse Plan.
- Create a continuous pedestrian route along the entire Ewa Coast by reserving the entire shoreline of Kalaeloa should be reserved for public access and recreation after military use of BPNAS ceases, and linking to adjacent pathways in Ocean Pointe and Campbell Industrial Park.
- In addition, building setbacks from the shoreline should be required.
- A lateral public access easement along the Campbell Industrial Park shoreline should be acquired, and.
- Public shoreline pathways should be established at Ko Olina and Ocean Pointe.
- Integrate the road network within Kalaeloa should be integrated with the regional circulation system for all of Ewa to provide additional ways for residents and workers to cross Ewa from east to west and north to south.
- Provide ample lands devoted to uses that will create long-term jobs for Ewa’s residents within Kalaeloa.

3.12.2 Planning Principles

Principles which are core to implementation of the Kalaeloa general policies are the following:

- **Regional Growth Pattern** – Conversion of the base to civilian use Kalaeloa’s redevelopment should be used as an opportunity to integrate the circulation system and land use pattern of the Ewa Plain.
- **Appropriate Scale** - Site planning and landscaping should be used to minimize the visibility of large building volumes and elements from residential areas, commercial and civic districts, and public rights-of-way and parks.

3.12.3 Guidelines

The following guidelines suggest how the general policies for Kalaeloa should be implemented:
• Develop a major regional park at Kalaeloa that provides beach recreation and support facilities near the shoreline, other active recreation facilities in mauka areas, and preserves for wildlife habitat, wetlands, and endangered plant colonies.

Coastal Environment
• Require a minimum building setback of 60 feet and a lateral public access easement along the entire shoreline, with the entry point at the former military beach recreation center. Where possible, the setback should be expanded to 150 feet.
• Connect the easement should connect to shoreline access easements at the Barbers Point Industrial Area to the west and to public pedestrian pathways at Ocean Pointe to the east.

Separation of Use Areas
• Military Design the road pattern and use landscape buffers to separate and distinguish military support housing, airport/industrial facilities, and recreation/wildlife areas should be separated and distinguished from one another through the design of the road pattern and the use of landscape buffers.

Circulation System and Transportation Facilities
• Design the circulation system to include major roadways connecting the City of Kapolei to the shoreline recreation center and Ocean Pointe.
• Bus Upgrade the road system to allow bus stop facilities should be provided at the airport, military housing area, and shoreline recreation area.

Landscape Treatment
• Require the planting of a landscape screen, consisting of trees and hedges, along street frontages to minimize the visibility of parking, storage, and airport/industrial operations from the street should be minimized through the planting of a landscape screen, consisting of trees and hedges, along street frontages.
• Streets Require streets connecting the City of Kapolei to Ewa Marina and the shoreline recreation areas should receive special landscape treatment.
### 3.13 PEARL HARBOR NAVAL BASE (WEST LOCH)

The West Loch Branch of Naval Magazine Lualualei is to be the principal site where U.S. Department of Defense ordnance handling and storage for Oahu is consolidated. The existing Explosive Safety Quantity Distance (ESQD) Zone at West Loch remains, but does not need to be enlarged.

- The City should request expansion of limited public access to the shoreline waters of West Loch beyond the West Loch Shoreline Park, and should support retaining and enhancing wetland areas along the Pearl Harbor shoreline.

### 3.14 UNIVERSITY OF HAWAII WEST OAHU

This section contains general policies, planning principles and guidelines for development of the University of Hawaii West Oahu.

In 1997 at the time when the revised Ewa Development Plan was adopted, the University of Hawaii West Oahu campus was planned to be developed on a site mauka of the H-1 Freeway. In 2004, the Board of Regents decided to move the site of the University of Hawaii West Oahu campus back to a 500 acre parcel at the makai-Waianae corner of the North-South Road – Farrington Highway intersection. The University has negotiated a partnership with a private developer to develop the campus and adjacent residential and commercial lands.

The following information was located in Sec. 3.7.6.1 General Policies in the 1997 Plan.

Projected size is 2,800 students by 2010, and 7,600 students by 2020. The projected 2020 faculty and staff is 800.

#### 3.14.1 General Policies

- The campus should in combination with an adjacent University Village to evoke a unique sense of place that distinguishes it as an important civic and cultural institution in Ewa.
• Provide direct vehicle access to the campus from both Farrington Highway and North-South Road.

• The campus should be oriented to support pedestrian access to and transit usage from a major two transit nodes, one located near the corner of Farrington Highway and North-South Road, and a second located on the North-South Road midway between Farrington and Kapolei Parkway.

• The development of the University of Hawaii West Oahu campus should include plans to provide shuttle bus service to the transit node at the corner of Farrington Highway and the proposed North-South Road.

• The campus should be designed so that open space areas can be used for flood detention and retention as part of the Kaloi Gulch watershed master plan.

3.14.2 Planning Principles

Following are general planning principles to be used as a framework for design of the campus:

• **Place Making.** The main campus should clearly establish an identity and “sense of Place” through attentive design and careful integration with the adjacent mixed-use commercial area referred to as “University Village”. The campus center should serve as one anchor for a University Village “main street” commercial/residential area anchored at the other end by a major transit center near the Farrington/North-South Road intersection.

• **Cultural Sensitivity.** University development should be environmentally and culturally sensitive to the site and reflective of the Hawaiian culture and of the heritage of Ewa.

• **Regional Integration.** The campus should function as a fully integrated community within the context of the broader regional community. The campus should include housing, support services, community and business facilities, in addition to the required academic facilities.

• **Community Orientation and Service.** The campus should be community-oriented and should serve the Kapolei area and West Oahu as an urban park and cultural center, providing community services, cultural opportunities, and remedial educational opportunities.

• **Functional and Accessible Design.** Campus design should reflect appropriate functional relationships, internal compactness, and accessibility between
academic functions and supporting facilities, providing a pleasant and efficient study environment.

- **Drainage Impacts.** A large portion of the campus lies within the Kaloi Gulch watershed.
  - In order to reduce the downstream impact of major storm events, the campus open space system should incorporate flood detention and retention capability. For example, sports playing fields could be designed to act as flood detention basins during major storm events.
  - The drainage plans for the campus should not increase storm water flows or velocity above the design levels used in designing the water retention areas of the Ewa Villages Golf Course and the drainage systems for earlier developments in the Kaloi Gulch watershed.

3.14.3 **Guidelines**

**Architectural Forms**

- **Specific Site and design specific activity areas and structures should be sited and designed to accommodate required internal academic or support relationships.** This would include siting of buildings or facilities to promote academic continuity, provide spatial definition to public areas, and allow easy access to needed support areas (housing, business/food services, recreation, and parking).
- **Buildings** Design buildings and structures should reflect sensitivity to the local environmental conditions, as well as to Hawaiian regional styles.
- **Structures** should not **Avoid use of structures which visually dominate the site.** Rather, low-rise academic structures with more emphasis on regional architectural forms and human scale should prevail.

**Landscape Forms**

- **Trees** Use trees and other landscape materials should be used throughout the campus to provide welcome shade and visual relief.
- **Street trees** and accent plantings should be used to feature gateways, define circulation corridors, or enhance special activity areas. The intensity or selection of landscape treatments should be used to further define, identify, or buffer various campus land uses.
• **Landscape** Use landscape materials should be used which reflect climate conditions, limited water resources, and maintenance issues. Use native/indigenous species should be incorporated into landscape treatments to the greatest extent possible.

**Circulation**

• **Circulation** Design circulation patterns should provide for easily accessed routes to, within, and around the campus. Conflicts between cars, bikes, and pedestrians should be minimized.

• The Use a distinctive design treatment for each element of the system to highlight the hierarchy of roadway, bikeway, and pedestrian circulation patterns should be highlighted by a distinctive design treatment for each element of the system.

• Potential Use appropriate site design and placement to minimize visual impacts from vehicle corridors and parking lots should be minimized through appropriate site design and placement.

• **Provisions** Make provisions for public transportation with ties to the regional system and transit corridor should be an integral part of the campus plan.

**Open Space/Views**

• Open Integrate and blend open space components should be integrated and blended throughout the campus in the form of passive landscape areas, courtyards, mall spaces, and multi-purpose recreation fields or community spaces.

• The Link the internal campus open space system should provide links with the adjoining regional open space systems of the adjacent developments.

• Development of Develop campus gateways and enhancement of enhance internal view corridors should be an integral part of the open space elements within the campus.

• Campus development should preserve Preserve and enhance mauka-makai views within major open spaces and through building siting.

• Visual buffering through Use landscape treatments or building design should occur to visually buffer between conflicting or unsightly functions.
4. PUBLIC FACILITIES AND INFRASTRUCTURE POLICIES AND PRINCIPLES

This chapter sets forth policies and principles to guide planning and construction of proposed public and private public facility projects and infrastructure systems to carry out the vision for future development of Ewa, as described in Chapter 2.

Information on timing and phasing of both planned and proposed infrastructure and public facility projects, which was available during the plan revision period, is also included. However, each project proposal is only identified and presented conceptually; not on a site-specific basis. More detailed information on the specific need, route alignment, site boundaries, capacity, and other specifications for each project, as applicable, will be prepared at the master planning stage required before a specific project can be approved.

As noted in Chapter 5, existing Unilateral Agreements, Zoning and Urban Design Plans will continue to guide development in the area.

Policies and principles are provided for the following public facilities and infrastructure systems:

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<td>4.3</td>
<td>Wastewater Treatment</td>
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<td>4.9</td>
<td>Other Community Facilities</td>
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</table>
4.1 TRANSPORTATION SYSTEMS

This section describes the existing conditions, plans, and proposals for development of Ewa's roadways, transit system, and bikeways. (See the Public Facilities Map in Appendix A and the Planned and Proposed Ewa Roadway Network Improvements listing in Table 4.1.) The section concludes with general policies and planning principles to guide future transportation system development in Ewa.

The planned and proposed roadway elements and other transportation system features which are listed as potentially being needed to meet the projected development in Ewa were identified through the regional planning and transportation analysis done for the initial Ewa Development Plan Revision Program from 1994 to 1997, subsequent revisions of the Oahu Regional Transportation Plan (ORTP) and the Ewa Highway Master Plan.

The following description of Ewa's transportation conditions was included in Sec. 4.1.7 Planning Principles in the 1997 Plan.

Because of its generally even, gradually sloping terrain, Ewa offers decided advantages for transportation.

- It provides an opportunity to create multiple linkages and routes between the various parts of the region. This advantage was enhanced by the closing of the Barbers Point Naval Air Station, which has allowed for increased road linkages to and across Kalaeloa.
- The terrain allows for relatively less expensive development of a dedicated transit right-of-way. The flat terrain also increases the feasibility of constructing a rapid transit system within that right-of-way.
- Both the terrain and the sunny, low rainfall climate enhance bicycling and walking as alternative forms of transportation, as well as for recreation. An improved environment for bicycling and walking also improves the potential for high transit ridership. (See the discussion of the Kapolei Area Bikeway Plan in Section 4.1.5.)

4.1.1 EXISTING ROADWAY NETWORK

The major east-west arterials of the Ewa roadway system include:

- The H-1 Freeway, which is the major arterial road connecting Ewa with the Primary Urban Center,
## Table 4.1 Planned and Proposed Ewa Roadway Network Improvements

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<tr>
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<tbody>
<tr>
<td><strong>Existing Roads Improvements</strong></td>
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<tr>
<td>o Widen Farrington Hwy (4 lanes, Ft. Weaver to Kapolei Golf Course)</td>
<td></td>
<td>C11</td>
<td>2006 to 2015</td>
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<tr>
<td>o Widen Farrington Hwy (Kalaeloa Blvd to Kamokila)</td>
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<tr>
<td>o Widen Ft. Barrette Rd (4 lanes, Farrington to FDR Ave.)</td>
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<td>C12</td>
<td>2006 to 2015</td>
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<tr>
<td>o Widen Ft. Weaver Road</td>
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<td>[ ] (6 lanes, H-1 to Renton Rd.)</td>
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<td>[ ] (6 lanes, Farrington to Geiger Rd.)</td>
<td>X</td>
<td>S7 Baseline</td>
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<tr>
<td>[ ] (6 lanes, Farrington to North Rd.)</td>
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<td>o Widen Kalaeloa Boulevard</td>
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<tr>
<td>o Extend Hanua Street to Farrington Hwy.</td>
<td></td>
<td>C13</td>
<td>2006 to 2015</td>
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<tr>
<td>o Widen Farrington Hwy (6 lanes, H-1 terminus to Nanakuli)</td>
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<td>S39</td>
<td>2016 to 2030</td>
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<tr>
<td>o HOV median lane from Makakilo to Waiawa Interchange</td>
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<td>o Kalaeloa Area Roadway Improvements</td>
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<td>2016 to 2030</td>
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<tr>
<td>o Extend Kamokila to Roosevelt</td>
<td>C18 Baseline</td>
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<td><strong>New Roads</strong></td>
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<tr>
<td>o Kapolei Parkway</td>
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<td>[ ] Ko Olina to Kalaeloa Blvd</td>
<td>X</td>
<td>C27</td>
<td>2006 to 2015</td>
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<tr>
<td>[ ] Kalaeloa Blvd to Ft. Barrette Rd.</td>
<td>X</td>
<td>C26</td>
<td>2006 to 2015</td>
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<tr>
<td>[ ] Kapolei Pkwy Bridge to N-S Road</td>
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<tr>
<td>[ ] North-South Road to Puameaole</td>
<td>X</td>
<td>C26</td>
<td>2006 to 2015</td>
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<tr>
<td>[ ] Puuolua Rd to Keoneula Blvd</td>
<td>X</td>
<td>C26</td>
<td>2006 to 2015</td>
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<td>[ ] Keoneula Blvd to Kalaeloa Dr</td>
<td>X</td>
<td>C26</td>
<td>2006 to 2015</td>
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<td>[ ] Kaimalie St. to Papiip Rd</td>
<td>X</td>
<td>C26</td>
<td>2006 to 2015</td>
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<tr>
<td>o Kalaeloa East-West Spine Road</td>
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<td>C58</td>
<td>2016 to 2030</td>
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<tr>
<td>o North-South Road (H-1 to Kapolei Pkwy)</td>
<td>X</td>
<td>S28</td>
<td>2006 to 2015</td>
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<tr>
<td>o Makakilo Drive extension</td>
<td>C29</td>
<td>2016 to 2030</td>
<td></td>
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<tr>
<td>o Mauka Frontage Road, Makakilo Dr. to Farrington</td>
<td>C51</td>
<td>2016 to 2030</td>
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<td><strong>Interchange Improvements</strong></td>
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<tr>
<td>o H-1 Kunia Interchange</td>
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<td>S49</td>
<td>2016 to 2030</td>
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<tr>
<td>o H-1 Makakilo Interchange</td>
<td>X</td>
<td>S17</td>
<td>2006 to 2015</td>
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<td>o H-1 Palailai Interchange</td>
<td>C13</td>
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<td><strong>New Interchanges</strong></td>
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<tr>
<td>o H-1 Kapolei Interchange</td>
<td>X</td>
<td>S14</td>
<td>2006 to 2015</td>
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<tr>
<td>o North-South Road Interchange</td>
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<tr>
<td>o Makaika Hills</td>
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<tr>
<td>o Additional Proposed Elements (5)</td>
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<tr>
<td>o Extend North-South Rd. into Kalaeloa Regional Park and connect through to Ocean Pointe</td>
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<tr>
<td>o Develop additional north-south and east-west roads near the City of Kapolei</td>
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<tr>
<td>o Extend Geiger Road to connect with Saratoga to link with North-South Road, Fort Barrette Road, and Kalaeloa Boulevard.</td>
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<tr>
<td>o Develop an additional north-south road in East Kapolei</td>
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<tr>
<td>o Develop an additional east-west road in East Kapolei connecting between North South Road and Fort Weaver Road</td>
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**Notes:**

1. Some projects listed in previous editions of the Oahu Regional Transportation Plan (ORTP) were not listed in the ORTP 2030 adopted in 2007. If no number appears, the project was not included in the ORTP 2030.

2. Projects identified in the Ewa Highway Master Plan as needed by 2010.

3. The 2030 ORTP was approved in April 2006 and modified through Amendment #1 in May 2007. A number of projects from the FY2004-2006 TIP were included as baseline projects in the 2030 ORTP, and are shown in bold.

4. A number of additional north-south and east-west connections needed to provide connectivity as Ewa develops are identified on the public facilities map in Appendix A.
• Farrington Highway, which, past Kapolei, is the sole arterial highway connecting the Waianae Coast with Ewa, and, between Kapolei and Waipahu, is a secondary east-west route.

North-south roads distribute traffic onto and off the east-west arterials at several locations. They include:

• Fort Weaver Road which links West Loch, Ewa Villages, Ewa by Gentry, Ocean Pointe, and Ewa Beach with Farrington Highway and H-1,
• Kunia Road, which connects Ewa with Central Oahu's Schofield Barracks and Wahiawa,
• Fort Barrette Road, which extends south from the City of Kapolei to Kalaeloa,
• Makakilo Drive, which continues up the hillside from the Makakilo Interchange of the H-1 Freeway, providing the only access to Makakilo, and
• Kalaeloa Boulevard, which provides access to Campbell Industrial Park and Kalaeloa Barbers Point Harbor via the H-1's Palailai Interchange

According to the Oahu Regional Transportation Plan 2030, if only the baseline projects are built, morning peak hour traffic toward Honolulu on H-1, Farrington Highway, and Fort Weaver Road just before the Kunia Interchange is projected to increase from 6,775 vehicles per hour (vph) in 2002 to 16,723 in 2030, an increase of almost 250%. Traffic congestion on east-west and north-south collector and connector roadways in Ewa is also increasing, even outside the peak commuting hours.

As noted in Section 4.1.6, the substantial development of Secondary Urban Center jobs (from 19,500 jobs in 2000 to over 73,000 jobs by 2030) is expected to increase the number of Ewa residents who work in the area. However, even with this substantial job growth, it is projected that the number of commuters traveling to the PUC from Ewa and Central Oahu will still increase, although at a lower rate than would occur if development of the Secondary Urban Center was not supported.

4.1.2 PLANNED EXTENSIONS OF THE ROADWAY NETWORK

Planning and development of major roadways is the shared responsibility of the State Department of Transportation and the City Department of Transportation Services.
Planning and use of federal transportation funds is coordinated through the Oahu Metropolitan Planning Organization (OMPO), a joint City-State agency.

A consortium of landowners and developers working with the State Department of Transportation and the City Department of Transportation Services funded the Ewa Highway Master Plan which identified major roadway improvements needed to meet projected development through 2025.

Based on the Ewa Highway Master Plan, the City Council adopted Ordinance 02-52 establishing the Ewa Highway Impact Fee which is added to all building permits in Ewa and in the Royal Kunia and Village Park areas of Central Oahu. Funds collected from the fees are to be used to provide the local contribution for seven major Ewa roadway projects needed by 2010 to meet projected growth. (See Table 4.1 for details.)

The Oahu Regional Transportation Plan (ORTP) 2030 replaced the Transportation for Oahu Plan: TOP 2025 adopted in 2001. See Table 4.1 for listings of the Ewa projects in the ORTP 2030 and Ewa Highway Master Plan.

The Ewa Highway Master Plan and the ORTP 2030 show major elements of the future Ewa roadway network. These major improvements include:

- **Widening of Fort Weaver Road,**
- **Completion of Kapolei Parkway,** which is planned as a major east-west corridor, connecting the eastern parts of Ewa with the City of Kapolei and employment areas to the west,
- **Completion of North-South Road (under construction)** which will link Kapolei Parkway with Farrington Highway and the H-1 Freeway and connect mauka of the H-1 Freeway interchange with the extension of Makakilo Drive,
- **Extension of Kamokila Boulevard to Roosevelt** to add another route to Kalaeloa from the City of Kapolei,
- **Improvements to existing H-1 Freeway interchanges** at Palailai, Makakilo, and Kunia,
- **Construction of new H-1 Freeway interchanges** at Kapolei and Makaiwa Hills,
- **Extension of Hanua Street parallel to Kalaeloa Boulevard** to enhance truck access between the Farrington Highway and Campbell Industrial Park, and
• Development of a mauka frontage road to connect Makakilo Drive with Farrington Highway.

Recognition in this Plan of these major improvements to future roadway networks for Ewa in no way implies City Council approval of these projects. Any projects requiring City funding will have to be approved through the CIP process.

4.1.3 ADDITIONAL ELEMENTS OF THE ROADWAY NETWORK

The planned development of East Kapolei and redevelopment of Kalaeloa will eventually open additional areas for use and increase transportation needs beyond the levels planned for the Ewa Highway Master Plan and the ORTP 2030.

Additional east-west and north-south roadways will be needed to enhance movement between the various parts of the Ewa region and to provide improved access to activity centers such as Ocean Pointe and the Kalaeloa Regional Park, including:

• An improved roadway link between Fort Barrette Road and the Kalaeloa Regional Park to provide access to the shoreline and the park for residents of the Kapolei-Makakilo area,

• Extension of the North-South Road south of Kapolei Parkway into the Kalaeloa Regional Park to provide a direct access to the Park for East Kapolei residents and UH-West Oahu campus staff and students,

• Development of an east-west collector-connector roadway system, which connects developments on both sides of North-South Road in an efficient circulation pattern,

• Development of additional north-south roads and a mauka frontage road to improve circulation between the City of Kapolei and the freeway, Makakilo and Makaiwa Hills,

• Extension of Geiger Road to connect with Saratoga Road and provide a direct link between Kalaeloa Boulevard, Fort Barrette Road and the North-South Road,

• Development of a roadway linking the western part of Ocean Pointe with the Kalaeloa Regional Park and the extension of North-South Road and a road within the eastern boundary of BPNAS which connects to Geiger Road,
• Development of an east-west roadway linking Campbell Industrial Park with Geiger Road,
• Development of an additional east-west road between East Kapolei and Fort Weaver Road, and
• Development of at least one additional north-south road between East Kapolei and Farrington Highway, east of the North-South Road.

The need for these roads has been established only at the conceptual stage, and further study, planning, and approvals will be required to establish need, appropriate route, capacity, and other characteristics.

DPP is completing a road connectivity study for the Ewa region to identify where east-west and mauka-makai connector roads should be located to link adjacent subdivisions. Results of the study will be used by the Department in the approval of subdivision layouts.

4.1.4 TRANSIT

With population growth, the City should increase transit service in Ewa in order to enhance circulation among Ewa communities and between Ewa and the adjacent Waianae and Central Oahu areas, and to provide suitable service for peak-hour commuting.

4.1.4.1 Bus Service

Bus service is provided through the Department of Transportation Services, which currently contracts with Oahu Transit Services (OTS) for operation of TheBus. A second vendor operates the Handi-Van system. As of 2005, OTS operated a fleet of 525 buses. About 62 buses are currently assigned to TheBus' Ewa Service Area, which is identical to the Ewa Development Plan area.

The Comprehensive Bus Facility and Equipment Requirements Study, published in 1994 by the Honolulu Public Transit Authority, examined bus system expansion and financing needs for the period 1994 - 2006. This study has not been updated. Currently, there are no plans to expand the bus fleet beyond the current 525 buses. For the fleet to expand its service, public review and Council approval will be necessary.
The Department of Transportation Services has currently identified and proposed for development three park-and-ride facilities in Ewa, one in the future civic center area of the City of Kapolei, one further east, near the future North-South Road/Kapolei Parkway intersection, and another near the corner of North-South Road and Farrington Highway.

Policies, planning principles, and guidelines in this Development Plan support the establishment of transit service throughout Ewa and creation of linkages feeding into transit nodes along the rapid transit corridor (see Section 4.1.4.2).

4.1.4.2 Planned Rapid Transit Corridor

In 2006, the City Department of Transportation Services completed a planning Alternatives Analysis to evaluate alternatives that would provide high-capacity transit for the corridor between the University of Hawaii at Manoa, downtown Honolulu, and the fast growing areas in Leeward Oahu and Kapolei. On December 22, 2006, the City Council selected as the Locally Preferred Alternative, a fixed-guideway transit system extending from the City of Kapolei to the University of Hawaii Manoa with a connection to Waikiki. The initial phase of the transit system will begin in East Kapolei near the planned Kroc Center and the Department of Hawaiian Home Lands headquarters, and end at the Ala Moana Shopping Center.

As shown on the Public Facilities Map in Appendix A, a rapid transit corridor is planned to connect the City of Kapolei with Waipahu and onward to the Primary Urban Center. The corridor could provide for both an Ewa shuttle service, which could travel back and forth on the transit corridor between Ko Olina, the City of Kapolei, the University of Hawaii West Oahu Campus (UH WOC) and Waipahu, and a commuter service, which could provide peak-hour express bus service to and from the Primary Urban Center. In peak-hour commuting, the corridor could carry express bus service, or even will provide high-speed dedicated transit service.

By connecting to the Primary Urban Center via Waipahu, the corridor will provide for a future high-speed connection between the Kapolei campus of the University of Hawaii at West Oahu and Leeward Community College, Honolulu Community College, and the University of Hawaii at Manoa.
The Ewa rapid transit corridor is planned to run from Waipahu through the proposed Ho'opili project, turning south to run along North-South Road to extend into Kalaeloa where it turns west and runs along Saratoga Road until it turns north and enters the City of Kapolei on Wakea Street, turning west on Kapolei Parkway until reaching its terminus near the Kapolei Commons shopping center.

Developments along the proposed transit corridor are being required to set aside appropriate sized right-of-way and space for pedestrian-station interface areas and under existing Unilateral Agreements, the land will be donated by Campbell Estate to the City at the time that a rapid transit system is developed for Ewa for the establishment, when needed in the future, for either an elevated or a separated at-grade transit system. Such a system will require a 28 foot right-of-way along the route and a 75 foot right-of-way for transit station sites (at the transit nodes).

Land has been set aside for a rapid transit right-of-way in the median of Kapolei Parkway and in the North-South Road corridor.

DR Horton, Schuler Division has purchased the former Campbell Estate lands along Farrington Highway between North-South Road and Fort Weaver Road. They have made a commitment to provide a transit corridor right-of-way between North-South Road with Waipahu. The Farrington Highway right-of-way through Waipahu has adequate land to accommodate rapid transit development.

Land has been set aside in the City of Kapolei for a transit station/bus terminal/park-and-ride facility, and provisions should be made for transit stations/park-and-ride facilities at each of the transit nodes along the rapid transit corridor.

High density residential Medium density apartment and commercial development should be permitted and encouraged within a ¼ mile radius (15 minutes walking distance) around the transit station/park-and-ride facility site at the center of the transit node. These transit nodes should be designed to give priority to pedestrians and areas intended for pedestrian access and circulation. The objective is to create a land use pattern that would allow residents to minimize use of the private automobile and encourage use of transit for longer trips and walking or biking for short trips.
4.1.4.3 Commuter Ferry System

The Boat, a high-speed commuter ferry system, began operating in September 2007, and provides an alternative way to commute to the Primary Urban Center from Ewa and West Oahu. The ferry runs between Kalaeloa Barbers Point Harbor and the Aloha Tower.

The Oahu Intra-Island Ferry project is included in both the Oahu Transportation Improvement Program for Fiscal Year (FY) 2008 to 2011, and in the Oahu Regional Transportation Plan 2030. Funding for the project is included in the FY2008-2009 budget.

4.1.5 BIKEWAY SYSTEM

The Kapolei Area Bikeway Plan (KABP), published by Campbell Estate in 1991, establishes a comprehensive bikeway network to serve the Ewa Plain. The network would include 56 miles of bikeway facilities, including bike paths (separated from the roadway), bike lanes (four- to six-foot lanes) and bike routes (shared curbside vehicle lane, with minimum 12-foot width).

The Kapolei Area Bikeway Plan is part of the City of Kapolei Urban Design Plan, which was updated and adopted by the City Council in 2008. The KABP covers all of Ewa except for military bases in the area. Elements of the KABP have been adopted by the State Department of Transportation as part of the State bikeway plan, Bike Plan Hawaii (2003), and have been included in draft Oahu Bike Plan maps for Ewa which are being reviewed as part of a City update to the 1999 Honolulu Bicycle Master Plan.

This Plan includes all the projects found either in the KABP, or in the State’s Bike Plan Hawaii. As shown in Exhibit 4.1, major bike paths should run along the OR&L right-of-way,
Kapolei Parkway, the North-South Road, and Fort Weaver Road. Bikeways should also be incorporated into other major roadways, and there should be an extensive network of bike lanes within the City of Kapolei and the Villages of Kapolei.
4.1.6 GENERAL POLICIES

The order of the policies in this section has been changed from the 1997 Plan.

- **Transportation System Functions.** To support Ewa’s role as the site for the Secondary Urban Center and a major growth area for new residential and employment development, its transportation system should:
  - Provide adequate access between residences and jobs, shopping, and recreation centers in Ewa as development occurs;
  - Provide improved access to and from adjacent areas, especially Central Oahu; and
  - Provide adequate capacity for major peak-hour commuting to work in the Primary Urban Center. (Although the share of residents who will both live and work in Ewa is projected to increase from 17% in 1990 to 46% by 2030, a majority of residents will still commute to jobs outside the region.)

- **Adequate Access and Services.** Before zoning approval is given by the City Council for new residential and commercial development in Ewa, the Department of Transportation Services, Department of Planning and Permitting, and State Department of Transportation should:
  - Indicate that adequate transportation access and services can be provided with existing facilities and systems; or
  - If adequate capacity cannot be provided by existing facilities, recommend conditions that should be included as part of the zone change approval in order to assure adequacy, including timing of any necessary improvements.

- **Reduction in Automobile Use - Reliance.** Reduce reliance on the private passenger vehicle should be reduced by:
  - Providing circulation systems with separated pedestrian and bicycle paths and convenient routes for public transit service;
  - Use of more traditional "grid" patterns for street systems in new development areas to facilitate bus routes and encourage pedestrian travel. Designing street systems in new development areas which reduce the length of dead end streets and provide for smaller blocks in order to facilitate bus routes, provide better access for emergency and utility vehicles and encourage walking and biking;
  - Providing supporting facilities and amenities for pedestrian, bicycle, and public transit use, including the use of bike trails, and the
provision of bicycle racks at commercial centers, bicycle storage facilities at employment centers and bus shelters at bus stops; and

- Acquisition of a dedicated rapid transit right-of-way prior to development; and;
  - Support for allowing and encouraging medium-density high-density and high-traffic land uses along the rapid-transit corridor, especially within a quarter-mile of centers of the transit nodes, subject to City Council approval of any system.

- **Transportation Development Priorities.** Meet demand for peak-hour transportation in Ewa by:
  - Increased use of transit; and
  - Transportation demand management through:
    - High Occupancy Vehicle (HOV) facilities,
    - Park-and-ride facilities, and
    - Other programs which encourage reduced use of the private automobile.

The following general policies for roadways, transit, and bikeways were included in Sec. 4.1.2, 4.1.3, 4.1.4, and 4.1.5 in the 1997 Plan.

**Roadways**

- Develop the roads listed in the Ewa Region Highway Transportation Master Plan and the Oahu Regional Transportation Plan to meet the development anticipated by 2020.
- Develop additional east-west and north-south roadways to enhance movement between the various parts of the Ewa region and to provide improved access to activity centers such as the proposed Kalaeloa Regional Park and the Ocean Pointe marina.

**Transit**

- Increase transit service in Ewa to enhance circulation within Ewa and between Ewa and the adjacent Waianae and Central Oahu areas and to provide suitable service for peak-hour commuting.
- Provide sites for transportation centers and park-and-ride facilities as new communities are developed.
- Develop a rapid transit corridor connecting the City of Kapolei with the Primary Urban Center to provide both a shuttle service linking Ko Olina, the
City of Kapolei, the University of Hawaii West Oahu Campus, and Waipahu and a peak-hour commuting express high speed transit service.

- Set aside land in the City of Kapolei and along the rapid transit corridor for future transit stations and park-and-ride facilities.

**Bikeway System**

- Develop major bike paths along the OR&L right-of-way, Kapolei Parkway, the North-South Road, and Fort Weaver Road.
- Incorporate bikeways into other major roadways.
- Develop an extensive network of bike lanes within the City of Kapolei and the Villages of Kapolei.

**Improved Linkages** - Additional routes, as noted in section 4.1.3 of this Plan, should be created between the various parts of the region, including to and across Kalaeloa after it is returned to civilian control.

### 4.1.7 PLANNING PRINCIPLES

Planning principles and guidelines addressing residential and commercial land uses, set forth in Chapter 3, Sections 3.6 and 3.7, provide substantial guidance toward enhancing pedestrian, bicycle, and transit modes of transportation.

Principles which are core to implementation of the Transportation System general policies are the following:

- **Comprehensive Roadway Network** - The roadway system should be designed to provide multiple routes for traveling among the various residential communities and activity centers of Ewa, thereby lending variety to travel within the region and promoting communication among its communities. Network designs for communities should take on more of a grid pattern, providing increasing intersections between collector or connector streets at approximately quarter-mile intervals.

- The design should also increase connections between parallel major collectors and arterials - e.g., between North-South Road and Fort Weaver Road - rather than relying primarily upon loop roads to feed the major roadways. Planning for East Kapolei and for Kalaeloa are important opportunities for creating such connections.
• **Land Use Planning Anticipating Rapid Transit.** Key to the vision for Ewa is reservation of a rapid transit corridor prior to development and the planning of high-medium density, high-traffic land uses along the corridor. This strategy will contribute to the feasibility of developing a high-speed transit line and will result in a more mobile, less automobile-dependent community. Planning for all the communities along the proposed transit corridor on Farrington Highway, North-South Road, and Kapolei Parkway should reflect the desire to establish a rapid transit corridor with high-medium density residential and commercial nodes located at regular intervals.

• **Transit-Oriented Community Street Systems.** Circulation systems within residential communities and commercial centers should emphasize connections between north-south and east-west streets and accessibility from residential streets to bus routes, parks, schools, and commercial centers. Circulation systems should be designed to facilitate bicycle and pedestrian travel, to increase transit use, and to reduce dependence on automobile travel (see Chapter 3, Sections 3.6 and 3.7, for more detailed planning principles and guidelines for circulation in residential communities and commercial centers).

• **Community-Level Street Standards.** Standards for public streets within residential communities and commercial centers should be revised to support and improve pedestrian and bicycle travel and on-street parking. While average motor vehicle speed may be reduced, safety and enjoyment for pedestrians and bicyclists would be increased, and greater efficiency in land use, reduced construction costs, and improved street function may also be achieved.

### 4.1.8 GUIDELINES

The following guidelines suggest how the general policies for providing improved access in Ewa should be implemented.

• The street network should provide multiple options for reaching major amenities such as the Main Street/Village Center shops, schools, parks and community facilities, without needing to access an arterial boulevard.

• View corridors to the mountains, open space, and other local and regional landmarks should be a basic consideration in the arrangement of streets.
commercial centers, and shared spaces within both residential and mixed use districts.

- A circulation network master plan over the entire Plan Area should be provided that is comprised of a loose “grid” of arterials at 1/2-1 mile intervals, collector streets at 1/4 mile intervals and connectors roads between individual developments at regular intervals between collectors, where permitted by terrain. See Exhibit 4.2.

**Exhibit 4.2 Street Network Guidelines**

The purpose of the recommended circulation guidelines is to create a detailed framework of attractive streets designed to provide multiple alternative routes to quickly and easily move pedestrians, bicyclists, and drivers.
• New streets, bike ways, paths, and trails should connect to existing adjacent neighborhoods.
• Traffic calming measures should be used to slow traffic making short cuts and support a desirable living environment.
• Multiple connecting streets within and between residential neighborhoods should knit neighborhoods together, not form barriers.
• Streets, bikeways, and walkways should create a unifying circulation network that provides convenient routes throughout the community.
• Specific connectivity standards (minimum intersection frequency, maximum dead end length, number of dwellings or buildings on a cul-de-sac, and minimum street spacing) should be established for each zoning district.

4.2 WATER ALLOCATION AND SYSTEM DEVELOPMENT

In 1987, the State enacted the State Water Code in order to protect, control, and regulate the use of the State's water resources for the benefits of its people. Under the Code, the City is responsible for preparing the water use and development plan for the City and County of Honolulu.

This plan, called the Oahu Water Management Plan (OWMP), is prepared by the Board of Water Supply with the assistance of the State Commission on Water Resource Management and the Department of Planning and Permitting, and approved by the City Council following extensive public review and comment. The current OWMP was adopted by the State Commission on Water Resources and the City Council in 1990.

The Board of Water Supply (BWS) has begun the development of eight district-wide Watershed Management Plans for each of the eight Development Plan and Sustainable Communities Plan areas. The Waianae Watershed Management Plan, and Koolau Loa Watershed Management Plan are the first two plans to be prepared. They will be followed by plans for the North Shore and Koolaupoko, and then Ewa, Central Oahu, the Primary Urban Center, and East Honolulu. When completed, the eight Watershed Management Plans will be used to update the Oahu Water Management Plan.

The following description of the City’s water reclamation and desalination projects was included in Sec. 4.2.1 general policies in the 1997 Plan.
Water Reclamation. Under the City’s agreement through a Consent Decree with the U.S. Environmental Protection Agency and the State Department of Health, the City established a water reclamation facility at Honouliuli Wastewater Treatment Plant (WTP) to recover nonpotable water for beneficial uses such as irrigating parks and golf courses and cooling industrial processes.

Construction of the secondary treatment unit at the Honouliuli WTP was completed in 1996. The facility is capable of providing 13 million gallons per day (mgd) of non-disinfected secondary treated reclaimed water (R-3 quality). The R-3 quality water receives further treatment known as tertiary treatment at the Honouliuli Water Recycling Facility (WRF) which produces two grades of recycled water, R-1 for irrigation and RO (Reverse Osmosis) for industrial uses. The WRF can process up to 12 mgd which is distributed to customers throughout Ewa through separate lines for each grade of water. The Board of Water Supply is planning expansion of the distribution system, in conjunction with expansion of both the Honouliuli WTP and WRF, to provide over 26 mgd of nonpotable water for use in Ewa.

Desalination Project. Following the success of a small State of Hawaii sponsored pilot project, the Board of Water Supply is planning to construct an initial 5 mgd desalination plant on a 20-acre parcel at Kalaeloa. Capacity of the plan could be increased to 15 mgd in a second phase. An adjacent site of 10.8 acres may be transferred to the BWS which will enable further plant expansion approaching up to 35 mgd of potable water. The plant is expected to have an operational life of between 30 to 50 years.

The Board of Water Supply evaluated the water development needs of the existing and new residential and commercial (including retail, office, resort, recreational, and industrial) development likely by 2030, as a result of implementation of the Ewa Development Plan.

- The Board of Water Supply forecasts that an additional 27 mgd of potable (or drinkable) water will be needed in Ewa by 2030 to meet projected growth in residential and commercial demand from the levels in 2000.
- In addition, long term demand for nonpotable water for
  - Existing and new urban irrigation and other urban purposes is estimated to be approximately 21 mgd, and
o The 3,000 acres of agricultural land in Ewa protected from development by this plan could be as much as 10 mgd (based on estimates from the State Agricultural Water Use and Development Plan).

Potable water system infrastructure has been master planned by the Board of Water Supply to accommodate Ewa’s planned growth. Ultimately potable water demands of the remaining lands within the urban growth boundary should be met by desalination or additional groundwater sources in Central Oahu if sustainable yield is determined available.

The demand for nonpotable water for urban irrigation and other urban purposes and for agricultural irrigation for lands over the Ewa Plain nonpotable aquifer will be met with a combination of recycled water, brackish caprock water, and brackish basal water. Infrastructure providing R-1 recycled water (the most highly treated recycled water) connects the Campbell Industrial Park with Fort Weaver Road, and brackish water systems exist in several developments. Demineralized recycled water is also provided by the Board of Water Supply to refineries and power plants in Campbell Industrial Park for industrial purposes.

The demand for nonpotable water for agricultural irrigation of lands over the Pearl Harbor potable water aquifer should be met with low chloride irrigation water such as the Waiahole Ditch or freshwater wells.

As shown in Table 4.2, the Board of Water Supply has identified potential sources of potable and nonpotable water to meet the projected demand in Ewa through 2030. These sources will be pursued as part of the Board's development and operation of a diversified and integrated island wide water system.

Strategies in the Watershed Management Plan promote on-going groundwater source development coupled with efforts to increase water delivery efficiency, water conservation, and continued development of alternative sources of water, such as recycled and brackish water and desalination.
### TABLE 4.2 POTENTIAL SOURCES OF POTABLE AND NONPOTABLE WATER FOR EWA

#### POTABLE GROUNDWATER RESOURCES

<table>
<thead>
<tr>
<th>GROUND WATER SOURCE</th>
<th>Estimated Source Yield (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kunia Wells III&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3.00</td>
</tr>
<tr>
<td>2. Waipahu Wells IV&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>3.00</td>
</tr>
<tr>
<td>3. Honouliuli Wells&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>2.00</td>
</tr>
<tr>
<td>4. Ewa Shaft</td>
<td>10.00</td>
</tr>
<tr>
<td>5. Additional Central Oahu Wells&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18.00</strong></td>
</tr>
</tbody>
</table>

#### ALTERNATIVE WATER RESOURCES

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>Minimum Estimate</th>
<th>Maximum Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kalaeloa Seawater Desalination Plant</td>
<td>5.00</td>
<td>15.00</td>
</tr>
<tr>
<td>Kapolei Brackish Desalination Plant</td>
<td>0.20</td>
<td>0.50</td>
</tr>
<tr>
<td><strong>Total Potable</strong></td>
<td><strong>5.20</strong></td>
<td><strong>15.50</strong></td>
</tr>
<tr>
<td>Nonpotable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ewa Caprock&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>8.70</td>
<td>9.00</td>
</tr>
<tr>
<td>Brackish Basal Water&lt;sup&gt;(5)&lt;/sup&gt;</td>
<td>4.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Recycled Water&lt;sup&gt;(6)&lt;/sup&gt;</td>
<td>12.00</td>
<td>12.00</td>
</tr>
<tr>
<td>Waiahole Ditch (Ewa only)&lt;sup&gt;(7)&lt;/sup&gt;</td>
<td>4.73</td>
<td>6.00</td>
</tr>
<tr>
<td><strong>Total Nonpotable</strong></td>
<td><strong>29.43</strong></td>
<td><strong>32.00</strong></td>
</tr>
</tbody>
</table>

#### NOTES:
- mgd = million gallons per day, mg/l = milligram per liter
- <sup>(1)</sup> Portion of the source will supply water for Waianae’s growth.
- <sup>(2)</sup> Of the 6.72 mgd permitted use, 2.0 mgd remains available for new development.
- <sup>(3)</sup> Unpermitted sustainable yield is available but hydro-geologic analysis must be conducted.
- <sup>(4)</sup> Minimum is existing use July 2005. Maximum was 1996 proposed sustainable yield. Ewa caprock is now managed by a chloride limit of 1,000 mg/l.
- <sup>(6)</sup> Expansion of recycled water supply beyond 12 mgd is possible but not planned at this time.
- <sup>(7)</sup> Minimum estimate is Campbell Estate 3.98 mgd and Puu Makakilo 0.75 mgd allocation. Max adds possible unpermitted water.

Allocation of groundwater sources require the approval of the State Commission on Water Resource Management (CWRM).

Source:
- Honolulu Board of Water Supply, 2006, Watershed Management Plan
- CWRM Database
4.2.1 GENERAL POLICIES

Adequacy of Water Supply

- Before zoning approval is given for new residential or commercial development in Ewa, the Board of Water Supply should:
  - either indicate that adequate potable and nonpotable water is available, or
  - If adequate potable and nonpotable water is not available, recommend conditions that should be included as part of the zone change approval in order to assure adequacy.

- Confirm adequacy of existing capacity at the time of land subdivision.

Water Use Efficiency and Conservation

- Require developments to conserve water resources by implementing water conservation measures, such as low flow plumbing fixtures, drought tolerant landscaping, sub-metering and efficient irrigation systems with soil moisture sensors. Such requirements shall be determined during review of building permit applications.

- Encourage owners of existing plumbing systems to conduct regular water audits and effect repairs to reduce water loss.

- **Dual Water Lines** - Where required, require developments with large landscaped areas (such as golf courses, parks, or schools), roadway landscaping, and industrial processes should have dual water lines to allow conservation of potable water and use of nonpotable water for irrigation and other appropriate uses. Such requirements shall be determined during review of project master plans for new developments and approval of zoning applications.

- **Development and Allocation of Potable Water** - The State Commission on Water Resource Management has final authority in all matters regarding administration of the State Water Code. Under that authority, allow the Board of Water Supply to coordinate development of potable water sources and allocation of all potable water intended for urban use on Oahu. State and private well development projects could then be integrated into and made consistent with City water source development plans.
Use of Nonpotable Water

- An adequate supply of nonpotable water should be developed for irrigation and other suitable uses on the Ewa Plain in order to conserve the supply of potable water and to take advantage of dual water systems constructed by Ewa developers.

The Pearl Harbor aquifer is the most cost effective and accessible water resource of potable quality on Oahu, and it is needed to support the existing and future domestic potable water uses described in the development plans. To minimize the risk of impacts to our precious potable water sources, the use of recycled water reclaimed from wastewater effluent and brackish waters as nonpotable irrigation sources in the coastal caprock area such as the Ewa Plain should be given high priority.

Significant demand exists for nonpotable water for golf courses, landscape irrigation, and industrial uses on the Ewa Plain. In addition to the compatibility of the source to the demand in the area, the infrastructure to distribute the reclaimed water in that area is being planned and developed by the Board of Water Supply. Reclaimed water from the Honolulu Water Recycling Facility and brackish water should, therefore, be used to meet demand in the Ewa Plain where there are no adverse consequences to the drinking water resources.

- Nonpotable water used for irrigation above Pearl Harbor aquifer should be low in total dissolved solids to protect the quality of drinking water withdrawn from wells located down-gradient of the application. Experiences with increasing chloride, nitrate, and pesticide contamination of groundwater indicate that activities on the surface of the land can have a detrimental effect on the quality of drinking water.

- Use of Waiahole Ditch Water - The State Commission on Water Resource Management should consider all sources of water, including Waiahole Ditch Water, in making allocations. A sufficient amount of water is needed to meet the diversified agricultural needs for Ewa and Central Oahu along with providing for high quality recharge of the Pearl Harbor aquifer. A number of potential sources are identified in Table 4.2, including: caprock, surface water, spring waters, Waiahole Ditch Water, and recycled water.
recovered from wastewater effluent. The amount of water available and the potential use of each of these sources vary according to location.

**Alternative Water Supplies**

- Where practical, develop alternative water supplies using new technologies in water reclamation, membrane and distillation desalination and deep ocean water applications to ensure adequate supply for planned uses.
- Encourage use of technologies conserving water and providing renewable energy that could support alternative water supplies, such as seawater air conditioning, photovoltaics, efficient plumbing and lighting fixtures, wave energy, and bio-fuels.
- **Water Reclamation** - The City will reclaim and distribute wastewater effluent, provided that paying customers can be found for the nonpotable water. No additional costs will be borne by sewer users to subsidize private users of recycled effluent.
- **Integrated Resource Management** - Management of all potable and nonpotable water sources, including ground water, stream water, storm water, and effluent reuse should be integrated through amendments to the Oahu Water Management Plan and future Integrated Resource Management plans, which will require Council approval and adequate public review, following City development of plans and adoption of an appropriate management process.

4.3 WASTEWATER TREATMENT

The City’s West Mamala Bay Wastewater Facilities Plan (2001) provides estimates that treatment/disposal capacity at the Honouliuli WTP will need to be increased from existing capacity for primary treatment of 38 mgd to almost 51 mgd by 2020 to meet projected population and economic growth in Ewa and Central Oahu resulting from implementation of the Development Plans. In addition, the capacity of specific sewer lines and pump stations will need to be increased.
As noted above, the City is meeting its commitment to the U.S. Environmental Protection Agency and the State Department of Health to reclaim and use, islandwide, up to 10 mgd of recycled water recovered from wastewater effluent.

### 4.3.1 GENERAL POLICIES

- **All** Require all wastewater produced by new developments in Ewa should be connected to a regional or municipal sewer service system.
- **Where feasible, use recycled water recovered from wastewater effluent** should be treated and used as a source of nonpotable water for irrigation and other uses below the Underground Injection Control (UIC) line of the State Department of Health and the "No-Pass" Line of the Board of Water Supply.
- **Wastewater Locate wastewater** treatment plants should generally be located in areas shown as planned for industrial use and away from residential areas shown on the Urban Land Use Map in Appendix A. Existing treatment plants are shown on the Urban Land Use Map and the Public Facilities Map in Appendix A.
- **A Use a City review and approval process, such as the Plan Review Use process**, which provides adequate public notice and input, complete technical analysis of the project by the Department of Planning and Permitting, and approval by the City Council, shall be required for any major new private wastewater treatment plant. Other system elements, such as pump stations and mains, should not require such comprehensive review and policy approval.

### 4.4 ELECTRICAL POWER DEVELOPMENT

The Hawaiian Electric Company (HECO) forecasts that increased demand and the proposed retirement of the Honolulu Power Plant from service will create a need for additional islandwide power generation capacity by 2025. Potential sites in Ewa for additional generating units include Campbell Industrial Park and Kahe Point. In May 2007, the State Public Utilities Commission approved HECO’s proposal to build a 110-megawatt generating plant adjacent to the company’s Barber’s Point Tank Farm in Campbell Industrial Park. The new generator is planned to come on line in 2009.
4.4.1 GENERAL POLICIES

- **Major Analyze and approve** system improvements -- such as development of a new power generating plant and/or major new transmission lines -- should be analyzed and approved based on islandwide studies and siting evaluations.

- **Strong Give strong** consideration should be given to placing any new transmission lines underground where possible under criteria specified in State law.

- **Electrical Locate electrical** power plants should generally be located in areas shown as planned for Industrial use and away from residential areas shown on the Urban Land Use Map in Appendix A. Existing power plants are shown on the Urban Land Use Map and Public Facilities Map in Appendix A. Other system elements, such as sub-stations and transmission lines, are not shown on the map and should be reviewed and approved administratively.

- **Any Consider any** proposed major new electrical power plant or proposals for a new above-ground or underground transmission corridor carrying voltages of 138kV or greater shall be considered through a City review and approval process, such as the Plan Review Use process, which provides public notification and opportunity to comment and public agency analysis of impacts and mitigations review, complete analysis, and approval from the Department of Planning and Permitting and the City Council.

4.5 SOLID WASTE HANDLING AND DISPOSAL

Two major solid waste handling and disposal facilities are located in Ewa:

- The H-Power plant at Campbell Industrial Park is operating at maximum capacity, receiving over 600,000 tons of solid waste each year. A proposed new boiler would boost the processing capacity up to 720,000 tons per year and provide a significant reduction of material sent to the landfill for disposal.

- The Waimanalo Gulch Sanitary Landfill, located between the proposed Makaiwa Hills residential development and Kahe Valley, is the major active waste disposal site on Oahu.
To comply with a 2003 State Land Use Commission order setting 2008 as the limit for Waimanalo Gulch Landfill operations, a special Advisory Committee was convened to locate new landfill sites. In its December 2003 report, the Advisory Committee recommended four sites for consideration, including Makaiwa Gulch. In December 2004, the City Council decided to seek permission from the State Land Use Commission for an expansion of the Waimanalo Gulch Landfill site.

In May 2008, the State Land Use Commission approved an extension of the Waimanalo Gulch Sanitary Landfill land use permit until November 2009.

A Draft Environmental Impact Statement (EIS) for the proposed expansion by 92 acres was completed in May 2008. After the Final EIS is accepted, approvals from the Department of Health, the Planning Commission, and the State Land Use Commission would be required before the site could be expanded.

On an interim basis, the City is seeking bids for contracts to ship 100,000 tons of waste to the Mainland out of Kalaeloa Barbers Point Harbor in order to reduce the amount of waste being disposed at the Waimanalo Gulch Landfill.

The Solid Waste Integrated Management (SWIM) Plan was updated in 2004 to provide detailed plans through 2009 and more general guidance through 2029. The 2004 SWIM Plan identifies a number of goals which pertain to Ewa, including:

- Constructing and operating a third boiler at the H-Power Plant;
- Obtaining regulatory approval of a disposal site that will provide at least 25 years of landfill life;
- Exploring alternatives to disposal in landfills and burning waste in the H-Power plant, such as mass burn waste-to-energy, gasification, and plasma torch/arc;
- Requesting proposals to recycle wood, metals, concrete, and other materials delivered to the Waimanalo Gulch Landfill; and
- Continuing to work with the State Department of Health to obtain approval for alternative uses for H-Power ash.

4.5.1 GENERAL POLICIES
4.6 DRAINAGE SYSTEMS

Low-lying parts of the Ewa Plain are subject to flooding during intense rainstorms. Flood control has typically been provided for urbanized areas through the development of concrete-lined channels to convey storm waters to the ocean. Discharge of stormwater to the ocean, however, is a major source of non-point source pollution of nearshore waters, negatively affecting coral growth, fish populations and use of the shoreline for swimming, surfing, and other types of ocean recreation.

The federal government has initiated a major program to reduce non-point-source pollution, mandating response by the State and the counties. In general, the City requires all residential, commercial, public facilities, and transportation development and redevelopment projects to address storm water quality through the use of best management practices in accordance with the City’s Rules Relating to Storm Drainage Standards. In many watersheds, however, undeveloped mountain areas generate a disproportionately large share of the total storm flow, and no party appears to be responsible for mitigating the environmental impact.

Concrete-lined drainage channels can have other negative environmental impacts, including disruption of lateral shoreline access, beach erosion, down drift of channel mouths, and visual blight.

**Drainage improvements** are planned for:

- Do not develop the Makaiwa Gulch area identified by the Mayor's Advisory Committee in December 2003 as a landfill. It is in an area planned for residential use and is adjacent to the Ko Olina Resort which plays an important role in job creation for Ewa.
- The East Kapolei site identified in the SWIM Plan should not be developed as a landfill. It is in an area planned for residential use and is adjacent to the University of Hawaii West Oahu campus.
- Siting—Analyze and approve siting and/or expansion of sanitary landfills should be analyzed and approved based on island wide studies and siting evaluations.
• A major new system to drain Makaiwa Hills, Kapolei Business Park, and the industrial areas closest to the Barbers Point Deep Draft Harbor;
• Expansion of the channel at the western edge of Kalaeloa to provide additional capacity for the City of Kapolei;
• A system to drain the West Loch Drainage Basin, serving Ewa by Gentry and Ho'opili; and
• A system to drain the Kaloi Gulch Drainage Basin.

The Makaiwa Hills system may have detention basins mauka of the H-1 Freeway and a concrete-lined channel to convey storm waters to an ocean outlet just south of Kalaeloa Barbers Point Harbor. It is being planned by Kapolei Property Development LLC (KPD). KPD is also planning to expand the existing channel on the western boundary of Kalaeloa.

Drainage improvements in the West Loch Drainage Basin need to be constructed to handle storm water runoff from existing and proposed projects located in the basin. These projects include the City's West Loch residential project, Phase I of the Ewa by Gentry residential project, and the proposed Ho'opili master-planned community project.

The developer for Phase I of the Ewa by Gentry East project had planned to construct a grass-lined drainage channel running immediately east of the project's boundary to terminate at a detention basin immediately makai of the Honouliuli National Wildlife Refuge. However, currently the developer is considering using a large retention pond to hold storm waters, in lieu of constructing the grass-lined channel.

The Kaloi Gulch Drainage Basin is one of the larger drainage basins in the region. It encompasses an area of approximately 7,140 acres, and has a peak design flow of approximately 11,500 cubic feet per second (cfs). Historically, the drainage pattern in this basin has flowed from the Waianae Mountain Range above Makakilo through the Kaloi Gulch toward the ocean terminating on Haseko's Ocean Pointe property. Floodwaters typically spread out in sheet flows through the former sugarcane fields below Farrington Highway.

Prior to 2000, drainage flow through the Kaloi Gulch basin, was constrained by the elevation of the OR&L right-of-way which formed a man-made barrier that impeded storm
water runoff. However, this constriction was addressed by the construction of a new railroad bridge in 2000.

In the interim until an ocean outlet is constructed, the Ewa Villages, Ewa by Gentry, and Ocean Pointe projects handle drainage within their projects through use of golf courses. The golf courses provide detention of storm waters and meet the Department of Planning and Permitting drainage requirements for stormwater runoff.

Other proposed urban development projects in the basin, including the University of Hawaii West Oahu and the Department of Hawaiian Home Lands East Kapolei project, have not yet received City approval for their drainage master plans.

The drainage system serving the Villages of Kapolei, which consists of golf course retention and disposal of storm water into large pits and a large ditch near the Kalaeloa boundary, may need to be augmented in the future.

Both the regional drainage system and the on-site drainage facilities for Kalaeloa need to be addressed during the redevelopment of Kalaeloa. The existing regional drainage channel and box culverts that discharge into the coral pit near the intersection of Fort Barrette Road and Franklin D. Roosevelt Road are inadequate to handle the runoff from the 100-year storm, according to the Kalaeloa Master Plan. In addition, the Master Plan notes that the Navy’s system of drywells which were installed to handle runoff within Kalaeloa do not conform to City standards.

See Exhibit 4.3 for the location of Ewa Drainage Basins.

### 4.6.1 GENERAL POLICIES

- Drainage system design should emphasize flood control and minimization of non-point source pollution and the retention and/or detention of storm water on-site and in appropriate open space and wetland areas.
Exhibit 4.3 Ewa Drainage Basins Map
• **Storm Use** storm water should be viewed as a potential irregular source of water for recharge of the aquifer that should be retained for absorption rather than quickly moved to coastal waters.

• **Natural Use** natural and man-made vegetated drainageways and retention basins should be the preferred solution to drainage problems wherever they could promote water recharge, help control non-point source pollutants, and provide passive recreation benefits. However, concrete-lined channels can be permitted, despite their potential adverse environmental impacts, if there is no other feasible alternative to meet specific design challenges.

### 4.6.2 PLANNING PRINCIPLES

Principles to guide the development of Ewa drainage systems include:

• **Retention and Detention** - Public and private agencies should employ methods of retaining or detaining storm water for gradual release as the preferred strategy for management of storm water. Where feasible, any open space, including parking lots, landscaped areas, mini and community parks, and public and private golf courses, should be used to detain or infiltrate storm water flows to reduce their volume and runoff rates and the amounts of sediments and pollutants transported.

• **Relation to the Regional Open Space Network** - To the extent possible, the developers should integrate planned improvements to the drainage system into the regional open space network by emphasizing the use of retention basins, creation of passive recreational areas, and recreational access for pedestrians and bicycles.

• **Preservation of Natural Gulches** - Natural gulches on the slopes of the Waianae Range foothills that are within the Urban Growth Boundary should be preserved as part of the open space network.

The following principles apply specifically to development within the Kaloi Gulch drainage basin.

• **Key Role of Ewa Marina**. The City supports timely development of the Ewa Marina as a key element needed to mitigate drainage impacts in the Kaloi Gulch watershed during major storms. The marina's role as a storm water storage and detention basin has been acknowledged and included in
previously approved environmental impact statements and land use approvals for projects in the Kaloi Gulch watershed.

- **Relation to the Ewa Village Master Plan and Other Previously Approved Developments in the Basin** - Solutions to handling drainage problems on lands above Ewa Villages must be compatible with the drainage design of the [Ewa Villages Master Plan](#) and other developments in the Kaloi Gulch drainage basin which have already been approved. The Ewa Villages drainage design assumes that runoff will not exceed levels previously received from sugarcane fields north of the golf course, will enter the Ewa Villages golf course water retention areas through a number of dispersed channels, and will not be at velocities which would scour out the golf course water retention areas.

### 4.7 SCHOOL FACILITIES

Statewide, the State Department of Education (DOE) faces an enormous shortfall in funding to meet projected needs for new classrooms. As a result, the DOE is asking for developer "fair-share" contributions, exploring alternative school financing options such as lease/purchase agreements, and seeking to increase the number of schools operating year-round and with multi-tracking or double shifts.

As shown in Table 4.3, the DOE has projected a need by 2030 for **eight** new elementary schools, **three** new intermediate schools, and at least **one** new high school in Ewa. An additional high school will be needed after 2020. (Needs estimates could change if estimates of housing production and density or school operation policies and funding are revised.)

Conceptual locations of **three** new intermediate schools and **one** new high schools are shown on the Public Facilities Map in Appendix A. Elementary schools are not mapped because their sites are of community rather than regional concern and should be determined as part of a master planning and design process. Sites have been reserved for two of the elementary schools, one intermediate school, and one high school. (Minimum site size for elementary schools is **twelve** acres, for intermediate schools is 18 acres, and for high schools is 50 acres.)
### TABLE 4.3 EXISTING AND PLANNED SCHOOLS IN THE EWA DEVELOPMENT PLAN AREA (Under Revision)

<table>
<thead>
<tr>
<th>School</th>
<th>Capacity</th>
<th>Site Reserved</th>
<th>Opening Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary Schools</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campbell Complex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ewa Beach Elementary</td>
<td>419</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Ewa Elementary</td>
<td>672</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Holomua Elementary</td>
<td>1,331</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Iroquois Point Elementary</td>
<td>950</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Kaimiloa Elementary</td>
<td>762</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Pohakea Elementary</td>
<td>690</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Kapolei Complex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barbers Point Elementary</td>
<td>689</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Kapolei Elementary</td>
<td>1,215</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Makakilo Elementary</td>
<td>593</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Mauka Lani Elementary</td>
<td>687</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Planned</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ocean Pointe</td>
<td></td>
<td>X</td>
<td>2006</td>
</tr>
<tr>
<td>Ko Olina^</td>
<td></td>
<td>X</td>
<td>N.D.</td>
</tr>
<tr>
<td>Mehana at Kapolei^</td>
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<tr>
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<td>X</td>
<td>N.D.</td>
</tr>
<tr>
<td><strong>Intermediate/Middle School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilima Intermediate (Campbell Complex)</td>
<td>1,352</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Kapolei Middle (Kapolei Complex)</td>
<td>1,847</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Planned</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ewa Intermediate^</td>
<td></td>
<td>X</td>
<td>2008</td>
</tr>
<tr>
<td>East Kapolei Middle</td>
<td></td>
<td>X</td>
<td>N.D.</td>
</tr>
<tr>
<td>West Kapolei Middle</td>
<td></td>
<td>X</td>
<td>N.D.</td>
</tr>
<tr>
<td><strong>High School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campbell High</td>
<td>1,934</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td>Kapolei High</td>
<td>1,957</td>
<td>Existing</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Planned</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Kapolei High I^</td>
<td></td>
<td></td>
<td>N.D.</td>
</tr>
<tr>
<td>East Kapolei High II^</td>
<td></td>
<td></td>
<td>N.D.</td>
</tr>
</tbody>
</table>

**NOTES:**
- ^1 No legislative appropriation
- N.D. Not Determined
- Source: State Department of Education Facilities Branch, 2006
4.7.1 GENERAL POLICIES

- **Project Review and Approval Assessment** - As new residential developments are reviewed as part of the project application review and approval process, request that the DOE report to the Department of Planning and Permitting whether the DOE will be able to provide adequate school facilities, either at existing schools or at new school sites, so that needs from the proposed development can be met. The State Department of Education (DOE) should review and recommend on the adequacy of school facilities, either at existing schools or at new school sites to be made available when the development is completed.

- **Fair Share Provisions** - Developers should require developers to comply with DOE school impact fees requirements and pay their fair share of all costs needed to provide adequate school facilities for the children living in their developments.

4.7.2 PLANNING PRINCIPLES

The following principles should be followed in planning and operating schools in Ewa:

- **Schools as Community Centers** - Because of the difficult financial problems for all sectors, new communities are likely to have fewer churches, private social halls, and recreation facilities. As a result, schools may have to assume important functions as cultural and recreational centers and as meeting facilities. The State DOE should design school facilities to facilitate community use during non-school hours and weekends.

- **Co-location with Parks** - Elementary and intermediate schools should be co-located with neighborhood or community parks, and design of facilities should be coordinated by the State DOE and the Department of Design and Construction when needless duplication of parking and of athletic, recreation, and meeting facilities can be avoided.

- **Shared Facilities** - The Department of Parks and Recreation should coordinate the development and use of athletic facilities such as swimming pools and gymnasiums with the DOE where such facilities would maximize use and reduce duplication of function.
• **Fair Share Contribution** - The City will support the State Department of Education’s request for fair share contributions from developers of residential projects to insure that adequate school facilities are in place at existing and new schools to meet the needs of residents.

### 4.8 PUBLIC SAFETY FACILITIES

Table 4.4 provides a listing of existing and planned fire and police stations in the Ewa Development Plan area.

To meet projected population and economic growth by 2030, the Fire Department estimates Ewa will need four new fire stations. They also plan to establish an islandwide training facility at Kalaeloa.

Because police operate primarily in the field and do not have a need for outlying stations, no substations are projected by the Police Department to be needed to serve the 2030 population of 177,000. A new regional station was built in the City of Kapolei on donated land and became operational in 2001.

The expected population growth and development of new communities and community facilities in Ewa will result in a need for additional emergency medical service facilities and response units. The specific needs will depend on the size, demographics, and location of the future population. The State Department of Health has identified a need for _____ new stand-alone emergency medical service facilities in Ewa by _____.

#### 4.8.1 GENERAL POLICIES

- **Adequate** - Provide adequate staffing and facilities are needed to ensure public safety.
- **New** - Approve new development should be approved only if staffing and facilities will be adequate to provide fire and police protection when development is completed.
<table>
<thead>
<tr>
<th>Facilities</th>
<th>Site</th>
<th>Service Area</th>
<th>Service Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Stations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ewa Beach 1</td>
<td>Ewa Beach</td>
<td>Ewa by Gentry, Ocean Pointe, Ewa Beach, Iroquois Point</td>
<td>Existing</td>
</tr>
<tr>
<td>Makakilo</td>
<td>Makakilo</td>
<td>Makakilo, Ko Olina, Villages of Kapolei</td>
<td>Existing</td>
</tr>
<tr>
<td>Kapolei</td>
<td>Kapolei</td>
<td>Campbell Industrial Park, City of Kapolei, Kapolei Business Park</td>
<td>Existing</td>
</tr>
<tr>
<td>Kalaeloa</td>
<td>Former FFD site</td>
<td>Kalaeloa, Ewa, and Kapolei</td>
<td>Existing</td>
</tr>
<tr>
<td>Ewa Beach 2</td>
<td>Fort Weaver Road</td>
<td>Ewa by Gentry, Ocean Pointe, Ewa Beach, Iroquois Point</td>
<td>N.D.</td>
</tr>
<tr>
<td>Ewa Villages</td>
<td>Tenney Village</td>
<td>West Loch, Ewa Villages, East Kapolei</td>
<td>N.D.</td>
</tr>
<tr>
<td>Ko Olina</td>
<td>Ko Olina</td>
<td>Ko Olina Resort</td>
<td>N.D.</td>
</tr>
<tr>
<td>Makaiwa Hills</td>
<td>Makaiwa Hills</td>
<td>Makaiwa Hills</td>
<td>N.D.</td>
</tr>
<tr>
<td>Kalaeloa Tactical Training Facility</td>
<td>Kalaeloa (Former BPNAS site)</td>
<td>Islandwide</td>
<td>N.D.</td>
</tr>
<tr>
<td>Police Stations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ewa Plains Regional Station</td>
<td>City of Kapolei</td>
<td>Ewa Region</td>
<td>Existing</td>
</tr>
<tr>
<td>Emergency Medical Services Facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waiting for DOH response</td>
<td>Waiting for DOH response</td>
<td>Waiting for DOH response</td>
<td>Waiting for DOH response</td>
</tr>
</tbody>
</table>

**NOTES:**

1. To be replaced with new station on Fort Weaver Road.
2. New.
N.D. Not Determined.
4.9 OTHER COMMUNITY FACILITIES

Other existing and proposed community facilities shown on the Urban Land Use Map in Appendix A include hospitals, colleges, correctional facilities, and cemeteries. Key facilities include the planned University of Hawaii West Oahu campus. St. Francis West Hospital is the major medical facility serving the Ewa region.

Location of new community facilities should comply with the following principles:

- **Colleges and Hospitals** - Colleges and hospitals should generally be located in urban areas near transit nodes, commercial centers, or high-density residential areas.

- **Correctional Facilities** - Correctional facilities should generally be located on industrial or agricultural lands. (However, a youth detention facility can be located within the City of Kapolei as part of a relocated Family Court.) If such a facility is proposed for lands not planned for industrial or agricultural use, a City review and approval process that provides for public review, complete analysis, and policy approval should be used.

- **Other Major Facilities** - Major public, quasi-public or private facilities or utilities which provide essential community services, but which could have a major adverse impact on surrounding land uses, should be considered through a City review and approval process such as the Plan Review Use (PRU). The PRU process requires public notification, review by appropriate agencies, opportunities for public comment, and approval by the City Council.

4.10 ADDED OR CHANGED PUBLIC FACILITIES

Public facilities other than those listed in this plan shall be identified on the Public Infrastructure Map.
5. IMPLEMENTATION

Implementation of the Ewa Development Plan will be accomplished by:

- Limiting urban development to areas within the Urban Growth Boundary to support the vision for protection of agricultural lands and open space in Ewa. Phasing development to support the vision for Ewa and to maximize the effect of infrastructure investments;

- Guiding development in areas of critical concern including Kalaeloa through Special Area Plans;

- Guiding public investment in infrastructure through Functional Plans that support the vision, and implement policies, principles and guidelines of the Development Plan;

- Recommending approval, approval with modifications and/or conditions, or denial of developments seeking zoning and other development approvals based on how well they support the vision for Ewa's development and implement the Development Plan's policies, principles and guidelines;

- Incorporating Development Plan priorities through the Public Infrastructure Map amendments and the City's annual budget process;

- Evaluating progress in fulfilling the vision of the Ewa Development Plan every two years and presenting the results of the evaluation in the Biennial Report; and

- Conducting a review of the vision, policies, principles, guidelines, and Capital Improvement Program (CIP) priority investments of the Ewa Development Plan every five years and recommending revisions as necessary.
5.1 PHASING OF DEVELOPMENT

Phasing development provides the opportunity to focus the impact of scarce public funds for infrastructure development, supports the directed growth strategy of the General Plan, and provides a clear signal to private landowners and developers as to where and when development will be supported. Active projects in various stages of the development process are proceeding for all the undeveloped areas in Ewa within the Urban Growth Boundary.

1. As identified in Table 2.1, residential projects with estimated development capacity of over 29,000 units already have the zoning needed to proceed to apply for subdivision approval, and construction and building permits. These projects, subject to availability of infrastructure, are the projects likely to be developed first. These projects will have to meet both unilateral agreement conditions adopted as part of zoning approval for each of these projects, and subdivision approval requirements that help insure that adequate infrastructure is available, and that project development implements key elements of the Plan vision.

2. Following these are projects which are in the State Urban District but need a zone change approval from the City Council. These projects have an estimated residential development capacity of over 9,000 units.

3. Finally, there are projects which need the State Land Use Commission to approve a change from the State Agricultural District to the Urban District and then the City Council to approve a zone change. These projects have an estimated residential development capacity of over 19,000 units.

The City Council, in reviewing and deciding on the zone changes for these latter two groups of projects, will have the opportunity to evaluate the availability of infrastructure and require conditions that the developer must meet as a condition of zoning to insure infrastructure adequacy and attainment of key elements of the Plan vision.

However, there are two major projects involving substantial amounts of residential, commercial, and office development which are not required to gain Council approval or
incorporate conditions regarding infrastructure adequacy or other elements of the Ewa Plan vision.

- The Department of Hawaiian Home Lands (DHHL) currently is developing 630 acres in Ewa, located along the North-South Road. Because the DHHL has the power under the State Constitution to exempt itself from all State and County land use laws, rules and regulations, the City has no ability to require DHHL to follow the Ewa Plan vision, policies and guidelines. Over 2,600 residential units and a million square feet of retail and office space could be developed under DHHL's current plans for the area.

- In 2002, the State Legislature transferred redevelopment responsibility for Kalaeloa to the Hawaii Community Development Authority (HCDA). HCDA also has the power, under its establishing statutes, to exempt itself from County land use laws, rules and regulations. The HCDA estimates that almost 6,500 dwelling units could be developed at Kalaeloa by 2025, and over 116 thousand square feet of commercial space, 725 thousand square feet of office space, 1.8 million square feet of light industrial space, and 470 thousand square feet of light industrial mixed use space.

The City will seek the cooperation of the Department of Hawaiian Home Lands and the Hawaii Community Development Authority in implementing the vision for Ewa's Development.

5.1.1 PRIVATE DEVELOPMENT PHASING AREAS

The Ewa Development Plan provides a clear signal to private landowners and developers as to where development will be supported.

The Urban Expansion Area is shown on the Phasing Map in Appendix A. The Urban Expansion Area shows where new urban development is occurring and where applications for new urban development will be accepted for processing.

Projects in the Urban Expansion Area needing zone changes and other development approvals would be eligible for processing with the adoption of the revised Plan and will be supported if:

- The project implements the vision for Central Oahu Ewa and relevant policies, principles and guidelines, and
• Adequate infrastructure will be available to meet the demand resulting from the project.

No additional areas should be approved for development beyond the Urban Growth Boundary in order to protect agricultural and preservation lands.

5.1.2 PUBLIC FACILITY INVESTMENT PRIORITIES

Three types of areas are identified in the Phasing Map in Appendix A, indicating when zoning changes and infrastructure investment would be supported if the project advances the Development Plan vision for Ewa and implements the relevant policies, principles and guidelines:

• **Urban Expansion, 2005–2015** – High priority areas supported for zoning changes and infrastructure investments within the next ten years if the project supports the vision for Ewa and implements relevant policies, principles, and guidelines;

• **Urban Expansion, 2015–2025** – Secondary priority areas supported for zoning changes and infrastructure investments after the next ten years if the project advances the vision for Ewa and implements relevant policies, principles, and guidelines; and

• **Urban Expansion, 2025 and Beyond** – Projects in these areas will generally be supported for zoning changes and infrastructure investments if projects in the earlier phases have demonstrated substantial progress.

The regional directed growth strategy requires the cooperation of both public and private agencies in planning, financing, and constructing infrastructure. The City must take an active role in planning infrastructure and coordinating construction of needed infrastructure, such as expansion of Hono'ouliuli Wastewater Treatment Plant and recovery of nonpotable water from its effluent, development of drainage systems for the Kaloi Gulch and Kapolei watersheds, provision of recreational open spaces, and development of the regional transportation system, parks, police and fire facilities.

Capital Improvement Projects shall be developed to support the development of High Priority Areas during the first eight years (1997–2005).

Significant Capital Improvement Projects of the highest priority for the Ewa Development Plan are:

---

Ewa Development Plan

Implementation

5-4
• A dedicated Rapid Transit Corridor linking the City of Kapolei, Kapolei Village, the University of Hawaii West Oahu Campus, and Waipahu;
• City Offices in the City of Kapolei;
• Additional State Offices in the City of Kapolei, including Family Court;
• The University of Hawaii West Oahu campus and related development near the intersection of North-South Road and Farrington Highway in the vicinity of Pu'u Kapuai and north of the H-1 Freeway;
• The North-South Road, and other elements of the Ewa Regional Highway Transportation Plan.
• A network of collector / connector roads (at approximately ¼ mile intervals) where feasible;
• Drainage Plans for Kaloi Gulch, Kapolei, and West Loch Watersheds;
• New potable and non-potable water sources; and
• Expanded wastewater treatment plant capacity, and reclamation of non-potable water from wastewater effluent at the Honouliuli Wastewater Treatment Plant.

5.1.3 DEVELOPMENT PRIORITIES

Applications for zoning and other regulatory approvals for developments that are consistent with the Development Plan vision and policies and are located in the High Priority Areas will be processed during the first eight years (1997—2005).

5.1.4 EXCEPTIONS TO DEVELOPMENT PRIORITIES

Support for development of a project in a Secondary Priority Area could be appropriate during the first eight years (1997—2005) only if:

• The vision for economic development in Ewa would be significantly advanced by development of the project;
• Affordable housing needs or job creation objectives would not otherwise be met;
• Development of higher priority areas has been delayed; and
• Infrastructure cost, timing, locational and/or technical considerations support development of the project before those in higher priority areas.
5.2 SPECIAL AREA PLANS

Special Area Plans provide more detailed policies, principles, and guidelines than the Development Plan for areas requiring particular attention. The form and content of Special Area Plans depends on what characteristics and issues need to be addressed in greater detail for the planning and guiding of development or use within the Special Area.

Special Area Plans can be used to guide land use development and infrastructure investment in Special Districts, Redevelopment Districts, or Resource Areas. Plans for Special Districts would provide guidance for development and infrastructure investment in areas with distinct historic or design character or significant public views. Plans for Redevelopment Districts would provide strategies for the revitalization or redevelopment of an area. Plans for Resource Areas would provide resource management strategies for areas with particular natural or cultural resource values.

Kalaeloa is the only area in Ewa currently identified for Special Area Plan status. Its Special Area Plan is a combination of a Redevelopment District and Resource Area Plan.

A Local Reuse Master Plan is being prepared by the Barbers Point Redevelopment Commission under guidelines of the Federal Base Closure Act. BPNAS is anticipated to be returned to civilian use by 1999.

The Local Reuse Master Plan is intended to become the Special Area Plan. Land use and infrastructure policies, principles, and guidelines and other relevant sections from the BPNAS Special Area Plan should be submitted to the Planning Commission for public review and to the City Council for its consideration for adoption.

The Kalaeloa Redevelopment Plan, A Special Area Plan of the Ewa Development Plan, was prepared by the Barbers Point Naval Air Station Redevelopment Commission in December 2000 under guidelines of the Federal Base Realignment and Closure Act (BRAC). It was accepted by the City Council as the Special Area Plan for Kalaeloa in April 2001.

Responsibility for planning for and coordinating redevelopment of Kalaeloa was transferred from the Redevelopment Commission to the Hawaiian Community Development Authority (HCDA) in 2002 by the Hawaii State Legislature. HCDA has prepared a community-based...
master plan for Kalaeloa that should be submitted to the City Council for acceptance as the revised Special Area Plan for Kalaeloa.

5.3 FUNCTIONAL PLANS

Functional Plans are meant to provide guiding principles and strategies, which will be used by the various functional agencies to determine needs, assign priorities, phase infrastructure and facilities development, and secure financing to meet the needs identified in the Development Plan.

City agencies responsible for developing infrastructure and public facilities shall review existing Functional Plans, and in consultation with the Director of Planning and Permitting, update the existing Plans or prepare and submit to the Mayor new long-range Functional Plans for providing facilities and services for Ewa to the year 2030.

Agencies with Functional Planning responsibilities include:

- Department of Planning and Permitting
- Department of Design and Construction
- Department of Environmental Services
- Honolulu Fire Department
- Honolulu Emergency Services Department
- Oahu Metropolitan Planning Organization
- Department of Parks and Recreation
- Honolulu Police Department
- Department of Transportation Services
- Board of Water Supply

The Functional Plans should provide:

- A Resource-constrained Long-Range Capital Improvement Program with priorities
- A Long-Range Financing Plan, with any necessary new revenue measures,
- A Development Schedule with first priority to areas designated for earliest development, and
• Service and facility design standards, including Level of Service Guidelines for determining infrastructure adequacy.

A resource-constrained program is one that identifies the fiscal resources that can be reasonably expected to be available to finance the improvements.

Level of Service Guidelines for determining adequacy of public facilities and infrastructure to support new development shall be established by the responsible City line agencies as part of their review and update of Functional Plans. Level of Service Guidelines for infrastructure and utilities which are primary State agency responsibilities (such as schools) shall be established by the Department of Planning and Permitting in consultation with the responsible State agencies.

In preparing the Functional Plans, a proactive public involvement process should be established which provides the public with access to complete information about infrastructure and public facility needs assessment, alternatives evaluation, and financing. Outreach activities should involve the Neighborhood Boards, community organizations, landowners, and others who might be significantly affected by the infrastructure or public facilities projects to be developed under the Functional Plan.

The process should be characterized by opportunities for early and continuing involvement, timely public notice, public access to information needed to evaluate the decision, and the opportunity to suggest alternatives and to express preferences.

5.4 REVIEW OF ZONING AND OTHER DEVELOPMENT APPLICATIONS

A primary way in which the vision of the Ewa Development Plan will guide land use will be through the review of applications for zone changes and other development approvals. Approval for all development projects should be based on the extent to which the project supports the policies, principles, and guidelines of the Development Plan.

Projects which do not involve significant zone changes will be reviewed by the Department of Planning and Permitting for consistency with the policies, principles, and guidelines of
Projects involving significant zone changes will require an Environmental Assessment or Environmental Impact Statement (See Section 5.4.1) which must include a Project Master Plan when 25 acres or more are involved (See Section 5.4.2). This is submitted to the Department of Planning and Permitting for review and acceptance prior to initiation of the first Zone Change Application for the project. See Exhibit 5.1 for a flow chart of the approval process to be followed by significant projects. (See definition of significant zone change in Section 5.4.1 below, and the definition of Project Master Plan in Section 5.4.2 below.)

Applications for zone changes for projects in Secondary Priority Areas as shown on the Phasing Map will not be accepted until 2003 unless extenuating conditions (noted above in Section 5.1.4) exist. Zone change applications to permit urban uses on parcels outside the Urban Growth Boundary or on parcels identified as part of the Open Space Network will not be accepted for processing since they are not consistent with the Plan’s vision to retain these areas in non-urban uses.

5.4.1 ENVIRONMENTAL ASSESSMENT

Projects involving a significant zone change will be required to submit an Environmental Assessment (prepared in compliance with procedures for Chapter 343, Hawaii Revised Statutes) to the Department of Planning and Permitting to help the Department determine whether the project involves a significant environmental effect and if the project is supportive of the vision for Ewa’s development.

A project will be considered to involve a significant zone change if:

- The application involves a zone change of 25 acres or more to any zoning district or combination of zoning districts, excluding preservation and agricultural zoning districts; or
- The project is more than 10 acres and involves a change from one zoning district to a Residential, or Country zoning district; or
• The project is more than 5 acres and involves a change from one zoning district to an Apartment, Resort, Commercial, Industrial, or Mixed Use zoning district; or
• The project would have major social, environmental, or policy impacts, or cumulative impacts due to a series of applications in the same area.

Zoning district categories, zoning district titles, and associated zoning map designations in effect as of February 1996 are shown below in Table 5.1.

The Director of the Department of Planning and Permitting will determine, based on review of the Environmental Assessment, whether an Environmental Impact Statement (prepared in compliance with procedures for Chapter 343, Hawaii Revised Statutes) will be required or whether a Finding of No Significant Impact should be issued.

In applying for a zoning change, the applicant must either:
• Receive a determination from the Director of Planning and Permitting that the project does not involve a significant zone change, or
• Submit an Environmental Assessment or Environmental Impact Statement that includes a Project Master Plan when required, with the zone change application.

Before an application for a significant zone change can be initiated accepted for processing by the Department of Planning and Permitting, the applicant must either:
• Receive a Finding of No Significant Impact (FONSI) from the Director of Planning and Permitting, or
• Receive an acceptance of a Final Environmental Impact Statement (FEIS) for the project from the Director of Planning and Permitting.

All Environmental Assessments/Environmental Impact Statements (EA/EIS) required for a significant zone change involving 25 acres or more should include a Project Master Plan (See Section 5.4.2 following). The scope of the EA/EIS must cover at a minimum the specific development associated with a particular zone change application, but at the option of the applicant, may cover subsequent phases of a larger project, as well.
<table>
<thead>
<tr>
<th>TABLE 5.1: ZONING DISTRICT CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ZONING DISTRICT CATEGORY</strong></td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>Preservation</td>
</tr>
<tr>
<td>Agricultural</td>
</tr>
<tr>
<td>Country</td>
</tr>
<tr>
<td>Residential</td>
</tr>
<tr>
<td>Apartment</td>
</tr>
<tr>
<td>Apartment Mixed-Use</td>
</tr>
<tr>
<td>Resort</td>
</tr>
<tr>
<td>Business</td>
</tr>
<tr>
<td>Business Mixed-Use</td>
</tr>
<tr>
<td>Industrial</td>
</tr>
<tr>
<td>Industrial - Commercial Mixed Use</td>
</tr>
</tbody>
</table>

**SOURCE:** *Land Use Ordinance*, Department of Land Utilization, City and County of Honolulu. February 1996.
Zone change applications for a project already assessed under the National Environmental Policy Act, Hawaii Revised Statutes Chapter 343, Revised Ordinances of Honolulu Chapter 25 (Shoreline Management), or a preceding zoning change application, will not require a new Environmental Assessment so long as the Director of Planning and Permitting determines that the desired zoning and land use generally conform to that described in the existing Environmental Assessment/Environmental Impact Statement.

5.4.2 PROJECT MASTER PLANS

The Project Master Plan is intended solely as a guide to help describe in words and illustrations how a project promotes the vision, policies, principles and guidelines for Ewa.

Projects associated with a significant zone change for 25 acres or more, shall include a Project Master Plan as part of the Environmental Assessment or Environmental Impact Statement submitted to the Department of Planning and Permitting. The Project Master Plan shall cover all project phases. It shall be reviewed to determine whether the project supports the vision, policies, principles, and guidelines of the Ewa Development Plan. In the event a Final EIS has already been accepted by the City for a particular project, then a subsequent Project Master Plan will not be required.

The Project Master Plan should be based on the best information available to the applicant at the time the Zone Change Application is submitted to the City.

5.4.2.1 Coverage and Scope

The Project Master Plan should cover all phases of the project and should describe, using narrative and graphic illustration, how the project conforms to the vision for Ewa, and the relevant policies, principles, and guidelines for the project site, the surrounding lands, and the region.

5.4.2.2 Key Elements

While the scope and detail will vary according to the scope and complexity of the project, the Project Master Plan should contain the following elements. When a key element enumerated below is adequately addressed elsewhere in an EA/EIS, discussion of related issues should be referenced within the Master Plan portion of the document.
• **Statement of Consistency with the Ewa Development Plan Vision** - The Master Plan should indicate how the project supports the vision, policies, principles, and guidelines of the Ewa Development Plan.

• **Site Analysis** - The Master Plan should identify how the proposed development physically relates to prominent existing site features, views identified in Table 3.2 and on the Open Space Map in Appendix A, and surrounding urban or urbanizing areas and should describe any related opportunities and constraints.

• **Land Use** - The Master Plan should indicate the proposed pattern of land uses by general zoning district category. General zoning district categories from the Land Use Ordinance as of February 1996 are shown in Table 5.1.
  - Land uses proposed for lands in any future development phases that are not included in the current Zone Change Application will be considered only conceptual and intended to serve only as a working guide for future development.
  - In larger projects, residential neighborhoods should be designated, and concepts intended to create a sense of neighborhood should be described.
  - The Master Plan should identify where the community’s “main street” or village or town center is located and show how any planned commercial development will help create a pedestrian friendly environment for that center.
  - For projects that involve multiple uses, the intended relationship between zoning districts should be described.

• **Open Space** - The Master Plan should discuss open space as a component of the overall land use element, and should indicate how the proposed development promotes the Development Plan open space principles and guidelines and the vision of an integrated regional open space system.

• **Circulation** - The Master Plan should indicate:
  - General street patterns and the application of street and block standards which minimize dead end streets and provide adequate connectivity,
  - Intended connections to the regional roadway network and adjacent communities, and
  - Potential transit routes and pedestrian and bicycle routes.
• **Design Theme or Character** - The Master Plan should depict, with sketches, photos or descriptions, the intended general urban design of the area. These vignettes should be represented and understood to be conceptual depictions of the potential general design theme of the project.

• **Telecommunications** - The Master Plan should indicate the sites and network conduit facilities that would be provided to meet expected telecommunications infrastructure needs, if applicable.

5.4.2.3 Review Procedures

The Department of Planning and Permitting shall review the Project Master Plan concurrently with the Environmental Assessment/Environmental Impact Statement as shown in Exhibit 5.1 (Revised) and determine whether the Project Master Plan supports the Ewa Development Plan vision or request whether changes are needed.

5.4.2.4 Modification of Master Plans for Future Phases

Often, projects are developed in phases. As a result, the Project Master Plan is likely to cover more land than the developer is currently requesting for a zone change. The feasibility and desirability of plans for later phases of the Project Master Plan can be greatly altered in light of more detailed study of site characteristics and site planning, or change in market forces or government policies.

As a result, elements of Master Plans covering lands in phases which are not included in a current Zone Change Application should be considered only conceptual and intended to serve only as a working guide for future development. Changes to these parts of a Master Plan can be made by the developer at any time without requiring approval by the City.

If a Master Plan has been revised in planning for a subsequent phase of a project, an updated version of the Master Plan should be submitted with the zone change application for that phase. No new Environmental Assessment or Master Plan review should be required unless there has been a major alteration in the project vision and land uses from that proposed in the original Master Plan.
5.4.3 ADEQUATE FACILITIES REQUIREMENT

All projects requesting zone changes shall be reviewed to determine if adequate public facilities and infrastructure will be available to meet the needs created as a result of the development. Level of Service Guidelines to define adequate public facilities and infrastructure requirements will be established during the Capital Improvement Program.

In order to guide development and growth in an orderly manner as required by the City's General Plan, zoning and other development approvals for new developments should be approved only if the responsible City and State agencies indicate that adequate public facilities and utilities will be available at the time of occupancy or if conditions the functional agency indicates are necessary to assure adequacy are otherwise sufficiently addressed.

The Department of Planning and Permitting will review and summarize any individual agency's findings regarding public facilities and utilities adequacy which are raised as part of the EA/EIS process. The Department of Planning and Permitting will address these findings and any additional agency comments submitted as part of the agency review of the zone change application, and will recommend conditions that should be included in the Unilateral Agreement or Development Agreement to insure adequacy of facilities.

5.4.4 ZONING APPLICATION REVIEW

Zoning applications which do not involve a significant zone change will be reviewed by the Department of Planning and Permitting for consistency with the General Plan, the Ewa Development Plan, and any applicable Special Area Plan provisions as part of the Zone Change application review.

The Director of Planning and Permitting will recommend either approval, approval with changes and/or conditions, or denial within the prescribed period as set forth in ROH Section 21-2.40, and the Director's written review of the application shall address the consistency or inconsistency of the project with the General Plan, the Ewa Development Plan and any applicable Special Area Plan and shall become part of the zone change report which will be sent to the Planning Commission and the City Council.
5.4.5 UNILATERAL AGREEMENTS

Before the enactment of an ordinance for a zone change, conditions may be imposed on the applicant's use of the property associated with the zone change approval. These conditions are set forth in the applicant's Unilateral Agreement which is recorded with the Bureau of Conveyances and/or the Land Court so that the conditions set forth in the agreement run with the land and bind all subsequent owners of the property.

The Director of Planning and Permitting proposes conditions, evaluates zone change requests and may initially recommend conditions of approval in a report to the Planning Commission which evaluates the requested zone change and recommends approval, denial or approval with conditions. The Director's recommendations and the Planning Commission recommendations are sent to the City Council which makes the final decision on the proposed development, including what conditions should be included in the Unilateral Agreement.

In the evaluation, the Director of Planning and Permitting evaluates the proposed project zone change for consistency with the Ewa Development Plan vision, policies and guidelines, and recommends conditions to insure that the project supports the Development Plan policies, principles, and guidelines. In addition, Project Master Plans submitted for large projects at the time of the zone change application should be referenced as a working guide in the Unilateral Agreement formulating conditions of approval.

5.4.6 DEVELOPMENT AGREEMENTS

Before the enactment of an ordinance for a zone change, the City and the applicant may negotiate a Development Agreement with the applicant. The Development Agreement sets forth mutually acceptable contractual conditions agreed upon by the City and the applicant at the time of the adoption of an ordinance for a zoning change. The Development Agreement conditions are recorded with the Bureau of Conveyances and/or the Land Court so that the conditions of the agreement run with the land and bind all subsequent owners of the property.

Development agreements negotiated by the City Council shall be consistent with the Development Plan vision for Ewa and should incorporate key conditions that are necessary to implement the Development Plan vision.
5.5 ANNUAL CIP REVIEW

Annually, the Director of Planning and Permitting will work jointly with the Director of Budget and Fiscal Services and the City agencies to review all projects in the City’s Capital Improvement Program (CIP) budget for conformance to the purposes of the General Plan, the Ewa Development Plan, and other Development Plans, any applicable Special Area Plan provisions, and the appropriate Functional Plans. The Director of Planning and Permitting will make a written report of findings in the budget submittal to the Council, pursuant to Revised Charter Section 6-903.1503.

Public review of how projects in the City's CIP budget help accomplish the vision of the Ewa Development Plan should be a high priority. Public review should be encouraged both in the screening of agency CIP budget proposals in the preliminary draft CIP Budget (which is available in November), in review of projects included in the Draft CIP Budget (typically completed sometime in January or February), and in the City Council's formal public review and CIP Budget adoption processes.

5.6 BIENNIAL REPORT

Every two years, the Department of Planning and Permitting prepares the Biennial Report. The Report is a review of the City in terms of the General Plan and the Development Plans.

Each Biennial Report should address the achievements and progress in fulfilling the vision of the Ewa Development Plan.

5.7 FIVE YEAR DEVELOPMENT PLAN REVIEW

The Department of Planning and Permitting shall conduct a comprehensive review of the Ewa Development Plan and shall report its findings and recommended revisions to the
Planning Commission and the City Council five years after adoption and every five years thereafter.

In the Five Year review, the Ewa Development Plan will be evaluated to see if the regional vision, policies, principles, guidelines, and implementing actions are still appropriate. In addition, the development phasing guidelines will be reviewed to determine if their purpose is being achieved and if phasing priorities should be revised.

5.8 TRANSITION FROM THE CURRENT SYSTEM

This section discusses the transition from the former Development Plan to this revised Development Plan, including its independence from Development Plan Common Provisions, its relationship to the General Plan guidelines, and the need for review and revision of development codes, standards, and regulations.

5.8.1 DEVELOPMENT PLAN COMMON PROVISIONS AND EXISTING LAND USE APPROVALS

This Development Plan will go into effect upon adoption by ordinance. At that time, the revised Development Plan will become a self-contained document, not reliant on the Development Plan Common Provisions which formerly applied to the Ewa Development Plan as well as all the other Development Plans.

Land use approvals granted under previously approved Development Plan amendments will remain in force and guide zoning decisions unless clearly inconsistent with the vision and policies of the Ewa Development Plan.

Development can proceed in accordance with existing zoning, Unilateral Agreements, and approved Urban Design Plans.

If an Environmental Assessment or Environmental Impact Statement (EA/EIS) was accepted in the course of a Development Plan land use approval for a project, it should be acceptable to meet the requirement for an initial project EA/EIS when zone change
applications are submitted for subsequent phases of the project unless the project scope and land uses are being significantly changed from that described in the initial EA/EIS.

5.95.8.2  RELATION TO GENERAL PLAN POPULATION GUIDELINES

The Ewa Development Plan implements the General Plan population distribution policies (in Population Objective C) as follows:

- Ewa's projected share of Oahu population in 2025 (14.5%) will be slightly above the General Plan guideline of 13%; Ewa's share of Oahu population in 2010 will be below the current General Plan population distribution range, but is expected to move closer to the range by 2020.
- Development will be encouraged within the secondary urban center at Kapolei and the urban fringe areas in Ewa.
- The recommended land use pattern also implements Population Objective C, Policy 3, which is to limit growth in areas outside the PUC, Central Oahu, and Ewa so that the suburban and country character of these outlying areas can be maintained.

The General Plan population distribution guidelines will continue to be used as a guide to direct the pattern of growth and development in the Ewa Development Plan Area. Assessments of this performance will be reported in both the Biennial Report and in the Five Year Reviews of the Development Plan.

Under the new Ewa Development Plan, all proposed projects will be evaluated against how well they fulfill the vision for Ewa set forth in the Development Plan and how closely they meet the policies, principles, and guidelines selected to implement that vision.

5.10 REVIEW AND REVISION OF DEVELOPMENT CODES

Upon completion of the Development Plan Revision Program, To insure that the vision, policies, and guidelines of the Ewa Development Plan and other Development Plans and Sustainable Communities Plans are implemented, current regulatory codes and standards
should be reviewed and revised, as necessary, including the following: to maintain their consistency and effectiveness as standards to guide attainment of the objectives and policies envisioned for all Development Plan areas.

To achieve the vision for Ewa as identified in this plan, at the time such reviews are conducted, the following regulatory codes and standards should be reviewed, may warrant further review and revision to ensure achievement of the vision for the Ewa region, as well as consistency with the Ewa Development Plan:

- **Land Use Ordinance** (Chapter 21, Revised Ordinances of Honolulu). Zoning code standards and the zoning map for Ewa need to be revised to reflect policies, principles and guidelines in the Ewa Development Plan.

- **Subdivision Rules and Regulations** (Department of Planning and Permitting, pursuant to Chapter 22, Revised Ordinances of Honolulu). Public right-of-way standards used for subdivision and consolidation of land need to be revised to reflect transportation policies, principles, and guidelines in the Development Plan.

- **Traffic Standard Manual** (Department of Transportation Services, July 1976, as revised). Standards which are applied to local and most collector/connector streets need to be revised to reflect transportation policies, principles, and guidelines in the Ewa Development Plan.

- **State Highways Division Procedures Manual**, Vol. 8, Chapter 5, Section 4 (State Department of Transportation). These State highway standards need to be reviewed to identify provisions which may conflict with the transportation policies, principles, and guidelines in the Ewa Development Plan.

- **Standard Details for Public Works Construction** (Honolulu Department of Public Works with Kauai, Maui, and Hawaii County Departments of Public Works, September 1984). Engineering standards for the dedication of public works construction need to be revised to reflect Ewa Development Plan principles and guidelines.

- **Storm Drainage Standards** (Department of Planning and Permitting, January 2000). Standards for the dedication of drainage systems to incorporate grassed swales and retention basins into the design need to be created to reflect the Development Plan policies, principles, and guidelines for open space.
• **Park Dedication Rules and Regulations** (Department of Planning and Permitting, pursuant to Chapter 22, Article 7, Revised Ordinances of Honolulu). Regulations need to be reviewed to determine if passive drainage systems, which are designed for recreation use, should count toward park dedication requirements, especially in cases where the area would exceed the amount of land that would be required under current rules and regulations.

• **Wastewater Management Design Standards** (Department of Wastewater Management Design Standards, Volumes I and II) and the 1990 Revised Ordinance of Honolulu, Chapter 14 (relating to sewer services). These standards and ordinance may require review to further implement Development Plan policies and guidelines.
APPENDIX A: CONCEPTUAL MAPS

This appendix includes the four primary conceptual maps used to illustrate the vision for Ewa's future development. The maps include:

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These maps illustrate the long-range vision of the future of the plan area and the major land use, open space, and public facility policies that are articulated in the plan. In using these maps, the reader should keep in mind that:

1. These maps are general and conceptual, and are not intended to be used to determine specific land use boundaries. Such boundaries are to be determined during the review of specific land use or public facilities investment decisions, and their exact locations are to be guided by the vision and policies of this Plan.

2. These maps illustrate the Plan’s vision and policies which are presented in Chapters Two, Three, and Four. These policy statements are considered the most important elements of the Plan.

The maps are considered illustrations of the policies. However, the text should be consulted to determine the appropriate application of the Plan vision, policies, and guidelines for any specific project or location. In case of disagreement, the text should prevail over the map depiction.

A brief explanation of the terms used in each of these maps follows.
GLOSSARY OF TERMS

Descriptions of elements common to each of the four maps are presented in the following section. Descriptions of elements specific to each map (Open Space, Land Use, Public Facilities, Phasing) are presented in separate sections for each map which follow the section on Common Elements.

COMMON ELEMENTS

Preservation Areas

Preservation areas are lands with natural, cultural, or scenic resource value.

They include the following types of land:

- Land necessary for protecting watersheds, water resources and water supplies.
- Lands necessary for the conservation, preservation and enhancement of sites with scenic, historic, archaeologic or ecologic significance.
- Lands necessary for providing and preserving park lands, wilderness and beach reserves, and for conserving natural ecosystems of endemic plants, fish and wildlife, for forestry, and other related activities to these uses.
- Lands with topography, soils, climate or other related environmental factors that may not be normally adaptable or presently needed for urban, rural or agricultural use.
- Lands with general slopes of 20 percent or more which provide for open space amenities and/or scenic values.
- Lands susceptible to floods and soil erosion, lands undergoing major erosion damage and requiring corrective attention by the State or Federal Government, and lands necessary to the protection of the health, safety and welfare of the public by reason of soil instability or the lands’ susceptibility to landslides and/or inundation by tsunami and flooding.
• Lands used for national, state or city parks.
• Lands suitable for growing of commercial timber, grazing, hunting, and recreation uses, including facilities accessory to such uses when said facilities are compatible with the natural physical environment.

Agricultural Areas
Agricultural areas are lands with agricultural value by virtue of current agricultural use or high value for future agricultural use, including those areas identified as Prime, Unique, or Other Important lands on the Agricultural Lands Important to the State of Hawaii (ALISH) maps. These are lands suitable for crop growing, grazing and livestock raising, flower cultivation, nurseries, orchards, aquaculture, or similar activities.

Parks
The maps show locations of existing public and private parks and recreational facilities, including regional parks, district parks, shoreline parks, and nature parks and conceptual locations for planned and proposed parks. Smaller community-based parks, including community parks, neighborhood parks, and mini-parks, are not shown.

Golf Courses
The maps show the locations of existing and proposed public and private golf courses.

Historic Railway/Bikeway Corridor
The corridor shown on the Ewa maps is part of the Pearl Harbor Historic Trail, a continuous greenway stretching from Nanakuli across the Ewa Plain to West Loch and then along the shores of Pearl Harbor to Rainbow Marina near Aloha Stadium with a connection to the Waipahu Cultural Garden Park. The corridor will include a major pedestrian and bike path and a restored OR&L right-of-way that would allow train operations between Ko Olina and Waipahu with a possible extension on to the Makalapa area in the Primary Urban Center.

Urban Growth Boundary
The Urban Growth Boundary defines and contains the intended extent of developed or "built up" areas of urban and urban fringe communities.
Its purpose is to provide adequate land to support established or developing communities while protecting lands outside this boundary for agriculture or open space values. Areas within this boundary are generally characterized by extensive tracts of residential, commercial, industrial, or mixed-use development clearly distinguishable from undeveloped or more "natural" portions of a region's environment.

In the Ewa Development Plan, the mauka portion of the Urban Growth Boundary follows the Special Management Area boundary around Kahe Point, runs along the mauka boundary of the Makaiwa Hills project and Makakilo, follows the proposed extension of Makakilo Drive to the H-1 freeway, and then follows the H-1 freeway to the Kunia Road where it turns and follows Kunia Road to the boundary between the Ewa Development Plan area and the Central Oahu Sustainable Communities Plan area. It excludes all State Agricultural and Conservation District lands mauka of the boundary from urban development.

The makai portion of the Urban Growth Boundary excludes the Explosive Safety Quantity Distance (ESQD) zone for the West Loch Naval Magazine from urban development.

**Highways, Arterials, and Major Collector Streets**
Major existing and proposed roadways providing east-west and mauka-makai linkages across the Ewa Development Plan area.

**OPEN SPACE MAP**

The Open Space Map illustrates the vision for the Ewa Open Space Network. The Open Space Network consists of large areas of preservation and agricultural lands outside the Urban Growth Boundary and a network of parks, wildlife habitats, golf courses, agricultural lands, ravines, grass-lined drainageways, and greenways along utility corridors and major arterials within the Urban Growth Boundary. (See definitions of terms and discussion in Sections 2.2.1, 2.2.2, 2.2.3 in Chapter 2 and in Section 3.1 in Chapter 3.)
The Open Space Map shows major open space elements and resources, including agricultural and preservation lands, major recreational facilities, important "panoramic" views, natural stream corridors and drainageways, and important boundaries.

Terms on the Open Space Map which are not common to all of the maps include:

**Natural Drainageways/Gulches**
Natural waterways which are to be retained as flood plains and open space resources and protected from development, disturbance, or channelization except where absolutely necessary to protect existing urban development from flooding.

**Panoramic Views**
Significant views and vistas which are to be retained, whenever possible. (See Table 3.2, Exhibit 3.2, and Section 3.4.2.)

**Shoreline Access**
The proposed lateral public easement/access along the Ewa shoreline with public pedestrian access to the shoreline at intervals of approximately $\frac{1}{4}$ mile.

**Urban Areas**
Areas which have been developed or are planned for development for residential, retail, office, and industrial uses.

**Landscaped Boulevard/Greenway**
Major arterials and major collector streets which should be developed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. (See Sections 3.1.4.8 and 3.8.2.)
The Urban Land Use Map illustrates the desired long-range land use pattern for Ewa resulting from implementation of the plan's vision and policies. It portrays the vision for development of the City of Kapolei, for the development of master planned residential communities, and for creation of new jobs at the Ko Olina Resort, Campbell Industrial Park, Kapolei Business Park, West Kalaeloa Industrial Park, Kalaeloa, the University of Hawaii West Oahu, and the resort area at Ocean Pointe. (See definition of terms and discussion in Sections 2.2.4, 2.2.5, 2.2.6, 2.2.7, and 2.2.10 in Chapter 2, and in Chapter 3.)

Terms on the Urban Land Use Map which are not common to all the maps include:

**Residential and Low-Density Apartment.**
Suburban communities characterized by
- Single-family detached homes;
- Attached homes or townhouse units with individual entries; and
- Low density, low rise, multi-family residences, including townhouses, stacked flats, or apartment buildings.

In addition to residential uses, these areas may include neighborhood commercial centers, elementary schools, parks, churches, community centers, elderly care centers, child care centers, fire stations and other public facility and utility uses serving the community.

**Medium-Density Apartment**
Mixed use communities adjacent to transit nodes or resort areas which are characterized by medium density, low- to mid-rise multi-family residences with retail or service commercial uses on the ground or lower floors, where appropriate.

**Community Commercial Center**
This type of center principally serves the community in which it is located, providing for basic shopping and service needs on a larger scale than the neighborhood center. Community Commercial Centers may contain up to 250,000 sq. ft. of floor area. Major attractions typically include a large grocery store, a drug store, and/or a department store.
Regional Commercial Center
An urban or urban fringe shopping center of more than 50 acres and more than 500,000 sq. ft. of floor area with major commercial outlets and a regional or islandwide service area.

City of Kapolei
The urban core or "downtown" for Ewa which is intended to be Ewa's center for shopping, civic activity, and municipal services. It offers a wide range of shopping and dining opportunities and professional, business and industrial services, and provides housing in high and medium density residential mixed-use buildings.

Resort/Recreation Area
Areas at Ko Olina and Ocean Pointe to be developed for hotels, apartments, and accessory commercial and recreational facilities for resort use.

Industrial
Areas shown include the State's prime location for heavy industry at Campbell Industrial Park and Kalaeloa Barbers Point Harbor as well as areas designated for light- and service-related industrial uses associated with repair, processing, construction, manufacturing, transportation, wholesaling, distribution, storage and similar economic activities. Industrial areas also can include a range of compatible commercial activities. See Sec. 3.11 for more details on the appropriate uses for specific industrial locations in Ewa.

Military
Lands for military and military support purposes.

Public Institution
Facilities for public use or benefit, including schools, churches, hospitals, group living establishments, utilities, civic buildings, social services offices and centers, and government buildings.
Transit Node (Medium Density Residential and Commercial)
Centers of medium density residential and commercial development located at regular intervals along a planned rapid transit corridor which extends from the City of Kapolei through Waipahu to downtown Honolulu. (See Sections 3.5 and 4.1.4.2.)

Civic Center
The regional center with City and State offices and facilities providing services to all Oahu residents.

Electric Power Plant
Existing power plants at Kahe Point and Campbell Industrial Park.

Wastewater Treatment Plant
The existing wastewater treatment plant at Honouliuli.

Intermediate School
Existing intermediate schools, Ilima Intermediate in Ewa Beach, and Kapolei Middle School in the Villages of Kapolei and conceptual locations for new intermediate schools at Gentry Ewa Makai, East Kapolei, and Kapolei West.

High School
Existing high schools, James Campbell High in Ewa Beach, and Kapolei High School in the Villages of Kapolei, and conceptual locations for new high schools near the intersection of North-South Road and Farrington Highway and near the corner of H-1 and Kunia Road.

UH West Oahu
Proposed campus location on 175 acres near the intersection of North-South Road and Farrington Highway

Hospital
The existing St. Francis Hospital on Fort Weaver Road.
Small Boat Marina
The existing Ko Olina Marina and the proposed Ocean Pointe Marina.

Commercial Harbor
The existing Kalaeloa Barbers Point Deep Draft Harbor.

Airfield
The existing airfield at Kalaeloa.

PUBLIC FACILITIES MAP

The Public Facilities Map illustrates the major infrastructure needed to implement the vision for Ewa. It shows the location of existing facilities and conceptual locations for some of the future required infrastructure facilities.

It is not meant to be amended between revisions of the Plan, and should not be confused with the Public Infrastructure Map used in the Capital Improvement Program budget process.

Public facilities which are to be funded through Capital Improvement Program budget appropriates must be shown on the Public Infrastructure Map (PIM). The PIM is not part of the Ewa Development Plan, and is adopted and amended by resolution.

Projects which are not listed in the Ewa Development Plan or not shown on the Ewa Development Plan maps can still be added to the Public Infrastructure Map by Council resolution if the Council finds them to be consistent with the vision and policies of the Ewa Development Plan. (For definitions, information about existing and planned public facilities, and functional planning processes, see Chapter 4 and Sec. 5.3 in Chapter 5.)

Terms on the Public Facilities Map which are not common to all maps include:
Urban Areas
Areas which have been developed or are planned for development for residential, retail, office, and industrial uses.

Grade Separated Interchange
Existing interchanges at Kunia Road and H-1 Freeway, Makakilo Drive and H-1 Freeway, Kalaeloa Boulevard and H-1 Freeway, and Aliinui Drive and H-1 Freeway, and proposed interchanges at North-South Road and H-1 Freeway, Kapolei (Wakea Street and H-1 Freeway), Makaiwa Hills, and Koio Drive.

Transit Corridor
An area designated for establishment of communities that encourage use of transit, walking, and biking as an alternative to use of the automobile to go to work, school, shop, or have fun because they have access to high speed mass transit and are developed at densities that make it easy for most residents to walk to the nearest transit node. Areas along the corridor will be supported for medium-density residential and commercial development to permit efficient use of buses and other forms of mass transit on the corridor. Sufficient land will be reserved in the corridor so that a rapid transit system can be developed in the future. (See Sections 2.2.7, 3.8.1, and 4.1.4.2.).

Transit Node
Centers of medium density residential and commercial development located at regular intervals along a planned rapid transit corridor which extends from the City of Kapolei through Waipahu to downtown Honolulu. (See Sections 3.5 and 4.1.4.2.)

Park and Ride Site
Special parking lots where commuters park their cars and continue their commute by mass transit.
HOV (High Occupancy Vehicle) Lane
An exclusive lane on a roadway reserved for transit and vehicles with more than one occupant which is developed to improve transit speed and to provide incentives for commuters to opt for mass transit or carpooling.

Bike Lane
A biking facility (bikeway) which is a four- to six-foot lane exclusively for bike use which is included in a roadway.

Bike Path
A biking facility (bikeway) which is separate from the roadway network.

Civic Center
The regional center with City and State offices and facilities providing services to all Oahu residents.

Electric Power Plant
Existing power plants at Kahe Point and Campbell Industrial Park.

Wastewater Treatment Plant
The existing wastewater treatment plant at Honouliuli.

Intermediate School
Existing intermediate schools, Ilima Intermediate in Ewa Beach, and Kapolei Middle School in the Villages of Kapolei and conceptual locations for new intermediate schools at Gentry Ewa Makai, East Kapolei, and Kapolei West.

High School
Existing high schools, James Campbell High in Ewa Beach, and Kapolei High School in the Villages of Kapolei, and conceptual locations for new high schools near the intersection of North-South Road and Farrington Highway and near the corner of H-1 and Kunia Road.
Glossary: Public Facilities Map

**UH West Oahu**
Proposed campus location on 175 acres near the intersection of North-South Road and Farrington Highway.

**Hospital**
The existing St. Francis West Hospital on Fort Weaver Road.

**Small Boat Marina**
The existing Ko Olina Marina and the proposed Ocean Pointe Marina.

**Commercial Harbor**
The existing Kalaeloa Barbers Point Deep Draft Harbor.

**Airfield**
The existing airfield at Kalaeloa.

**Corporation Yard**
The site of the Kapolei Corporation Yard which is under design and construction in 2006.

**Landfill**
The current Waimanalo Gulch Landfill site.

**Desalinization Plant**
The Board of Water Supply's Kalaeloa Desalination Plant located in the Campbell Industrial Park.
PHASING MAP

The Phasing Map shows where urban development has already occurred in Ewa, where new development will take place within the Urban Growth Boundary, and where the areas are that have Special Area Plans (Waipahu and Wahiawa).

Terms on the Phasing Map which are not common to all of the maps include:

**Existing Urban Areas**
Areas which already have been developed for residential, retail, office, institutional, or industrial uses. Growth in such areas can occur through re-development or in-fill.

**Urban Expansion Areas**
Undeveloped areas formerly in agricultural uses which are either already approved or will be considered for approval for development for residential, retail, office, institutional, or industrial uses. Applications for zone changes and other development approvals needed for new urban development in the Urban Expansion Area will be accepted for processing, and will be supported for approval if the project supports the vision and implementing policies of the Ewa Development Plan and if adequate infrastructure can be provided. (See Sections 2.2.10 and 5.1.2.) Total acreage is estimated at almost 4,900 acres with capacity for development of over 56,000 housing units (See Table 2.1.)

**Kalaeloa Special Area**
Special areas are areas which require more detailed planning than can be provided in a Development Plan (See Section 5.2). Kalaeloa is the only area in Ewa currently designated for a Special Area Plan.

**Transit Corridor**
An area designated for establishment of communities that encourage use of transit, walking, and biking as an alternative to use of the automobile to go to work, school, shop, or have fun because they have access to high speed mass transit and are developed at densities that make it easy for most residents to walk to the nearest transit node. Areas along the corridor will be supported for medium-density residential and commercial
development to permit efficient use of buses and other forms of mass transit on the corridor. Sufficient land will be reserved in the corridor so that a rapid transit system can be developed in the future. (See Sections 2.2.7, 3.8.1, and 4.1.4.2.).

**Transit Node**
Centers of medium density residential and commercial development located at regular intervals along a planned rapid transit corridor which extends from the City of Kapolei through Waipahu to downtown Honolulu. (See Sections 3.5 and 4.1.4.2.)

**Landscaped Boulevard/Greenway**
Major arterials and major collector streets which should be developed as landscaped parkways, complete with a landscaped median strip, landscaped sidewalk, and bikeways. (See Sections 3.1.4.8 and 3.8.2.)
Errata

3-57 The 3rd bullet from the end of the page should read:

- Locations for existing and planned Community Commercial Centers at Ewa Beach, Laulani, Ho'opili (near the intersection of Farrington Highway and Kunia Road), East Kapolei (near the intersection of Farrington Highway and the North-South Road and near the intersection of Kapolei Parkway and North-South Road), the Villages of Kapolei, Makaiwa Hills, and Ko Olina Marina are as shown on the Urban Land Use Map in Appendix A.

4-3 Table 4.1 description of the three phases of the Fort Weaver Road widening is mislabeled. The three segments should be:

- Widen Fort Weaver Road
  (6 lanes, H-1 to Aawa Street)
  (6 lanes, Aawa Street to Geiger Road)
  (6 lanes, Geiger Road to North Road)

4-35 Fourth paragraph in Sec. 4.8 should be shaded to indicate that it is an addition to the 1997 Plan

The expected population growth and development of new communities and community facilities in Ewa will result in a need for additional emergency medical service facilities and response units. The specific needs will depend on the size, demographics, and location of the future population. The State Department of Health has identified a need for new stand-alone emergency medical service facilities in Ewa by ___.