

Wed, 07 Dec 2011 - 8:38am  
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ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

**GENERAL NOTES:**

**GENERAL:**

- The scope of work for this project includes but is not limited to demolition of existing concrete rubble masonry outlet structure, a portion of the existing reinforced concrete wall, concrete ditch and PVC fence; construction of a new reinforced concrete drop structure with micropile foundation system, gabion wall, gabion apron, concrete ditch, PVC fence with concrete mow strip, chain link fence and gates; clearing and grubbing; grading; landscaping; and various appurtenant and incidental work.
- Construction and restoration of all existing highway facilities within State highway right-of-way shall be done in accordance with all applicable sections of the current "Standard Specifications For Road and Bridge Construction" and the Project Plans and Special Provisions.
- The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall tone for all utility lines before starting any work. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
- Smooth riding connections shall be constructed at the limits of roadway resurfacing, including the beginning and end of project, connecting approaches, side streets and driveways as shown on the plans and/or as directed by the Engineer.
- All saw cutting work shall be considered incidental to Roadway Excavation. The Contractor shall clean up any cuttings and shall not wash down material into the storm drain or sewer systems.
- All work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid for separately.
- All work to remove temporary facilities by the Contractor shall be considered incidental to the various contract items in the proposal.

**NOTIFICATION:**

- The Contractor shall obtain a Permit to Perform Work Upon State Highways from the Oahu District Engineer, State Highways, at 727 Kakoi Street, prior to commencement of work within the State's highway right-of-way.
- The Permit to Perform Work Upon State Highways may be revoked because of default in any of the following, but not limited to, conditions:
  - Work performed before or after permitted hours.
  - Failure to maintain roadway surfaces in a smooth and safe condition.
  - Failure to clean up construction debris generated from project work.
  - Failure to provide proper traffic control.
  - Failure to replace damaged pavement markings and signs.

Any revocation of the permit shall be at the Contractor's expense and no additional cost to the State and no additional contract time will be added.

- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- The Contractor shall notify the Honolulu Fire and Police Departments, Ambulance and the Oahu Transit Services, Inc. (OTS), Ed Sniffen at 848-4571, or Lowell Tom at 848-1578, two (2) weeks prior to commencing any work. The Contractor shall inform OTS of the location and scope of work, proposed closure of any street or traffic lanes, and the need to relocate any bus stop.
- The Contractor shall inform the State Highways' Permit Office (831-6712) at least two (2) days prior to closing any lanes or performing any trench restoration work. This work shall include any backfilling and compacting of trench material; placing and compacting of base course material; and any paving operations. Any trench restoration work performed by the Contractor that is not witnessed by a State Representative will be required to be removed and restored with a State Representative present. All restoration work will be at the Contractor's expense.
- In the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources-Historic Preservation Division (692-8015), and the State's Engineer.

**PRECAUTION:**

- The Contractor shall exercise care to minimize damages to existing highway and roadway improvements. All damages shall be repaired by the Contractor, at his expense, to the satisfaction of the Engineer.
- The Contractor shall exercise care when performing work in or adjacent to the State highway right-of-way. Damages to the existing facilities shall be immediately reported to the respective utility company, private owner, and/or City/State agency. The repair work shall be done at the Contractor's expense.
- Contractor shall take proper precautions when working near overhead lines.

**WORK EXECUTION:**

- Work may be performed only between the hours of 7:00 a.m. to 3:30 p.m., Monday through Friday, except holidays, unless otherwise permitted by the Engineer. During work hours, only one lane of traffic shall be closed, unless otherwise approved in writing by the Engineer.
- No material and/or equipment shall be stockpiled or otherwise stored within the Highway Right-of-Way except at locations designated in writing and approved by the Engineer.
- The Contractor shall reference, to the satisfaction of the Engineer, all existing traffic signs, posts & pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts & pavement markings disturbed by his activities, at his expense, unless directed otherwise by the Engineer or his representative.

- All regulatory, guide and construction signs and barricades shall have a high intensity reflective background. Portable concrete barriers shall be reflectorized in accordance with the "Standard Plans", State of Hawaii, Department of Transportation.
- All traffic control devices including: signs, barricades, vertical panels, drums, warning lights, arrow boards, changeable message signs, cones, delineators and markers shall conform to the American Traffic Safety Services Association (ATSSA) "Quality Standard for Work Zone Traffic Control Devices" dated 2003, and the MUTCD. Compliance with these requirements shall be as described in Section 645 - Work Zone Traffic Control.
- The Contractor shall provide, install, and maintain all necessary signs, lights, flares, markers, barricades, cones, and other protective facilities, and shall take all necessary precautions for the protection, convenience, and safety of public traffic. All such protective facilities and precautions to be taken shall conform with the "Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways", adopted by the Director of Transportation, and the current U.S. Federal Highways Administration "Manual on Uniform Traffic Control Devices, Part VI - Temporary Traffic Control and NCHRP350.
- Traffic signals shall be kept operational during construction. Temporary operational microwave or other approved detection devices shall be installed three (3) working days prior to any signalized intersection excavation work. All work shall be done in accordance to the requirements of the Department of Transportation Services, City and County of Honolulu, and paid for by the Contractor.
- All construction signs shall be left in place until all construction items have been completed unless otherwise directed by the Engineer. The Contractor shall obtain prior approval from the Engineer to remove construction signs.
- After the project is completed, the Contractor shall restore grades and ground cover within the project limits and surrounding areas affected by the project to a condition equal or better than the existing condition prior to construction.

**ACCESS:**

- Existing pedestrian routes shall be maintained in an ADA accessible condition or an alternate route must be provided around the construction area. Per Americans with Disabilities Act Accessibility Guidelines (ADAAG), the alternate route shall comply with the guidelines found in ADAAG Section 402.1 General.
- Where pedestrian walkways exist, they shall be maintained in a safe and passable condition, or other facilities for pedestrians shall be provided. Passages between walkways at intersections shall likewise be provided. All walkways shall conform to ADA requirements.
- Driveways shall be kept open unless the owners of the properties using these rights-of-way are otherwise provided for satisfactorily.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(125)	2011	3	55

- The minimum clearance around fire hydrants, utility poles, light standard, or any other obstruction shall be 3'-0".
- A minimum of 36" clear width and 80" headroom clearance height shall be maintained along sidewalk and potential walkways.
- The Contractor shall provide for access to and from all existing side streets, sidewalks, ADA access routes complying with ADAAG Section 402.1, driveways and adjacent properties at all times.
- Design and construction of public access shall be in accordance with the Americans with Disabilities Act.

**TRENCHING:**

- The Contractor shall take a profile along the centerline of the proposed utility trench both before commencing trench excavation work and after trench has been repaved. Profiles shall be submitted to the District Engineer and shall used to verify the roadway surface has been restored to its original condition or smoother.
- Unless otherwise noted, no trench shall be opened more than 300 feet in advance of installed and tested pipeline and/or ductline.
- The Contractor shall provide an adequate and safe non-skid bridging material, including shoring, over trenches in pavement areas. The bridging shall be able to support all types of vehicular traffic.
- The Contractor will make every effort to minimize the use and the duration of use of steel plates. All steel plates shall have a non-skid surface. The State may require the backfilling of patches of trenches due to the excessive usage of steel plates.
- Temporary cold mix trench patches will be permitted in any given area for a maximum duration of two weeks, and shall be a minimum of 2-inches thick. All temporary patches shall be placed over properly placed and compacted backfill and base course layers. The Contractor shall be responsible for maintaining all temporary patches and to make repairs to unsatisfactory patches within 24 hours.



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.

*Russell M. Araki*  
RMA, Inc., Inc.  
dba PARK ENGINEERING  
APRIL 30, 2012  
LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>GENERAL NOTES</b>	
CASTLE HILLS ACCESS ROAD Drainage Improvements, Phase 2 FEDERAL-AID PROJECT NO. STP-0300(125)	
Scale: As Shown	Date: December 2011
SHEET No. NI OF N2 SHEETS	



Wed, 07 Dec 2011 - 8:13am  
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ORIGINAL PLAN	SURVEY PLOTTED BY _____		DATE _____
	DESIGNED BY _____		_____
NOTE BOOK	TRACED BY _____		_____
	DESIGNED BY _____		_____
No. _____	QUANTITIES BY _____		_____
	CHECKED BY _____		_____

**GENERAL NOTES (CONTINUED):**

38. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of traffic.
39. Existing drainage systems will be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance and control of flow. The cost shall be incidental to the various Contract Items.

**DRAINAGE:**

40. The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
41. Only non-pneumatic type of drill as approved by the Engineer will be permitted for drilling holes in concrete. Where indicated on Plans, the approximate diameter of drilled holes for installation of dowels shall be 7/8"Ø, and voids after installing dowels shall be filled with non-gaseous, non-shrink epoxy grout. Locate existing rebars before drilling and drill holes so they miss the existing rebars.
42. The existing drainage system and longitudinal drainage along the highway will be maintained and be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.
43. The Contractor shall remove all silt and debris deposited in drainage facilities, on roadways and in other areas resulting from his work. The costs incurred for any necessary remedial action by the Engineer shall be payable by the Contractor.

**ACCESS RESTRICTION FOR PRIVATE ROADWAYS:**

44. The Contractor, its employees, representatives, agents, subcontractors, suppliers and other persons working on the project shall not store any construction material or park any construction equipment, delivery and personal vehicle on the private roadways adjacent to the project site. The private roadways include Kupohu Street and a portion of Po'okela Street. Parking will be permitted on the State-owned portion of Po'okela Street.
45. The Contractor will be allowed to access Area 1 of the privately-owned portion of Po'okela Street for the duration of the project. Access to other areas of the privately-owned portion of Po'okela Street will only be allowed for work zone traffic control, if required. See Existing Conditions on Sheet 11 for the location of Area 1.
46. Access over Kupohu Street will only be allowed for work zone traffic control if required. The Contractor shall use the temporary construction access adjacent to the privately owned portion of Po'okela Street for all work and construction activities within the project site along Kupohu Street.
47. The Contractor shall provide continuous and unrestricted access to the Fathers of the Sacred Hearts (Owner), the Castle Hills Community Association, utility companies and other persons authorized by the Owner over and through the privately-owned portions of Po'okela Street and Kupohu Street.
48. The Contractor shall protect all existing improvements to remain within the privately-owned portion of Po'okela Street and Kupohu Street. All damages, as determined by the Engineer, resulting from the Contractor's work, activities and/or actions shall be restored to its original condition prior to being damaged or better at no additional cost the State and to the satisfaction of the Engineer.

**WATER NOTES:**

1. Unless otherwise specified, all materials and construction of the water system facilities and appurtenances shall be in accordance with the Standard Specifications For Road and Bridge Construction, dated 1994, as amended, of the Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu Board of Water Supply's "Water System Standards", dated 2002, the "Water System External Corrosion Control Standards", Volume 3, dated 1991, and all subsequent amendments and additions.
2. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply. All other features of the water system, such as lines, grades, fittings, drainage, etc., and other features of improvements shall not be the responsibility of the Board of Water Supply.
3. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.
4. Re-approval shall be required if this project is not under construction within a period of two years.
5. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measure necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.
6. Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.
7. The Contractor shall have existing water mains toned before construction of work in vicinity of water mains, call the Investigation Section at 748-5381 for toning services. Guardrail post locations are to be kept to a minimum clear distance of 18 inches to any 2-1/2 inch water lines and meter boxes. No post driving will be allowed when post is to be installed closer than 3 feet from water mains. Excavated areas shall be restored to their original condition.
8. The Contractor shall verify all existing service lateral locations whether shown or not shown on the plans prior to commencing with any of the work and shall not assume that where no services are shown none exists.

**GRADING NOTES:**

1. All grading work shall be done in accordance with Chapter 14, Articles 13, 14, 15 and 16, as related to Grading, Soil Erosion and Sediment Control of the Revised Ordinances of Honolulu, 1990, as amended, and Soils Report by Geolabs, Inc., dated April 29, 2009.
2. No Contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violation occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
3. The Contractor, at his own expense, shall keep the project area and surrounding area free from dust nuisance. The work shall be in conformance with the air pollution control standards contained in the Hawaii Administrative Rules, Title 11, Chapter 60J, "Air Pollution Control".
4. The underground pipes, cables or ductlines known to exist by the engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depth prior to excavation for the new lines.
5. Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.
6. All slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted.
7. Fills on slopes steeper than 5:1 shall be keyed.
8. The City shall be informed of the location of the borrow/disposal site for the project when the application for a grading permit is made. The borrow/disposal site must also fulfill the requirements of the grading ordinance.
9. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice to the Director, DPP, provided such grading work is also in conformance with the community noise control standards contained in the Hawaii Administrative Rules, Title 11, Chapter 46, "Community Noise Control".
10. The limits of the area to be graded shall be flagged before the commencement of the grading work.
11. All grading operations shall be performed in conformance with the applicable provisions of the water quality and water pollution control standards contained in Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards" and Title 11, Chapter 55 "Water Pollution Control" and if applicable, the NPDES permit for the project.
12. Where applicable and feasible the measures to control erosion and other pollutants shall be in place before any earth moving phase of the grading is initiated. The Contractor shall incorporate the measures described in the "Water Pollution and Erosion Control" notes.

13. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.
14. Temporary Erosion Control Procedures shall be submitted for approval prior to application for grading permit.
15. If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable State and Federal requirements.
16. Pursuant to Chapter 6E, HRS, in the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources-Historic Preservation Division (692- 8015) and the Engineer. In addition, for non-City projects, the Contractor shall inform the Civil Engineering Branch, DPP (768-8084)
17. Non-compliance to any of the above requirement shall mean immediate suspension of all work, and the remedial work shall commence immediately. All costs incurred shall be billed to the violator. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.
18. For all projects, which disturb one (1) acre or more of land, the contractor shall not start construction until a notice of general permit coverage (NGPC) is received from the Dept. of Health, State of Hawaii, and has satisfied any other applicable requirements of the NPDES permit program. Also, for non-city and other non-governmental agency projects, the contractor shall provide a written copy of the NGPC to the Permitting and Inspection Section, Civil Engineering Branch, DPP, at least seven (7) calendar days before the start of the construction. For City or other governmental projects, the contractor should provide a written copy of the NGPC to the appropriate city department or governmental agency per their requirements.
19. All grading and construction work shall implement measures to ensure that the discharge of pollutants from the construction site will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of water quality standards.
20. For Benchmarks, see Sheets C1.1 and C1.2.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0300(125)	2011	4	55



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.

*Russell M. Arai*  
ForEn, Inc.  
dba PARK ENGINEERING  
APRIL 30, 2012  
LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>GENERAL NOTES</b>	
<u>CASTLE HILLS ACCESS ROAD</u>	
<u>Drainage Improvements, Phase 2</u>	
<u>FEDERAL-AID PROJECT NO. STP-0300(125)</u>	
Scale: None	Date: December 2011
SHEET No. <b>N2</b> OF <b>N2</b> SHEETS	