

GENERAL NOTES:

1. The scope of work for this project includes design and construction of improvements to Queen Kaahumanu Highway between Malulani Drive and Kealakehe Parkway including, but not limited to, construction of additional lanes; paving; resurfacing; drainage system improvements; curb ramps; sidewalk; retaining walls; medians; traffic signal and lighting; installing traffic signs and pavement markings; replacing baseline and reference monuments; and adjusting and relocating water, electric and cable facilities.

2. The Contractor's attention is directed to the following Sections of the Special Provisions : Subsection 107.13 – Public Convenience and Safety; Subsection 107.21 – Contractor's Responsibility For Utility Property And Services; and Section 645 –Traffic Control.

3. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.

4. 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 be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.

5. Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.

6. The Contractor shall provide for safe and accessible pedestrian passage and for free and safe vehicular access to and from all existing side streets (except Kaiwi Street) and driveways at all times.

7. All saw cutting work shall be considered incidental to the various contract items.

8. The location of overhead and underground facilities shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines and shall maintain adequate clearance when operating equipment within or under any overhead lines.

9. The Contractor shall exercise extreme caution when the excavation and construction crosses or is in close proximity of underground telephone and signal cable facilities and shall maintain adequate clearance for his equipment while working close to and/or under overhead facilities. Any damages to the existing underground facilities shall be repaired and paid for by the Contractor.

10. For field location of Verizon Facilities, contact Verizon Outside Plant Engineering Section, a minimum of 72 hours in advance, prior to start of excavation.

11. When trench excavation is adjacent to existing structures or facilities, the Contractor is responsible for properly sheeting and bracing the excavation and stabilizing the existing ground to render it safe and secure from possible slides, cave-ins, and settlement, and facilities with beams, struts, or underpinning to fully protect it from damage. This work shall be considered incidental to various contract items.

12. The Contractor shall survey and stake out the State Highway right-of-way and install all appurtenances associated with the project within the State right-of-way or construction parcels as shown in the plans.

13. The Contractor is advised that in addition to other contractors working in the same areas, various utility companies (or their contractors) may be performing work within the project area. The Contractor is to coordinate all work with other contractors in the area and to coordinate the design. In case of unreasonable conflict among contractors regarding access or work sites, the Engineer will make the final determination of priorities.

14. The term "Engineer for the Utility Companies" shall also mean his delegated Representative and/or the Utilities' Inspectors of Record.

15. When excavating near utility poles, the Contractor shall protect, support, secure and take all other precautions to prevent damage to or leaning of these poles. The Contractor is responsible for all costs associated to repair and/or straighten pole.

16. 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 at all times.

17. 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 and Regulations of the State Department of Health.

18. The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing structures from damages due to construction. Repairing any damage shall be at the Contractor's own expense, and to the satisfaction of the Engineer.

19. Removal and disposal of any debris shall be considered incidental to their respective bid items. The Contractor shall clean and remove any accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental to the various contract items and will not be paid for separately.

20. All holes, depressions and wheel ruts shall be filled and compacted with asphalt concrete, Mix V, prior to resurfacing. This work shall be considered incidental to various contract items and will not be paid for separately.

21. Smooth riding connections shall be constructed at all limits of surfacing.

22. Trimming and dressing of shoulder shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. Suitable materials shall include materials from roadway excavation, including topsoil, and if necessary, additional materials from borrow outside the limits of the right of way. This work shall be considered incidental to various contract items.

23. Contractor shall adjust all existing manholes, valve boxes, street monuments, frames and covers, etc., as necessary. Adjustments shall not be measured for payment but shall be considered incidental to various items of work in the proposal.

24. After completion of paving, the Contractor and the Engineer will test for, and determine ponding areas (i.e. low spots within the paved area). It shall be the responsibility of the Contractor to correct and resurface and/or repair all such ponding areas.

25. Construction and restoration of all existing highway facilities within State right-of-way shall be done in accordance with all applicable section of the 1994 Standard Specifications for Road, Bridge and Public Works Construction, and the Specifications for Installation of Miscellaneous Improvements within State Highways of the State Highway Division.

26. Lane closures will be permitted only from 8:30 a.m. to 3:30 p.m.

27. The Contractor shall provide, install, and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities, and shall take 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 Highway Administration "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI – Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations" and NCHRP 350.
- | FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | NH-019-1(20) | 2005 | 3 | 315 |
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- This work was prepared by me or under my supervision.
Exp. 04-30-10
- Wesley R. Segura*
Wesley R. Segura & Associates, Inc.
- STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

QUEEN KAAHUMANU HIGHWAY WIDENING
HENRY ST. to KEALAKEHE PKWY - PHASE I
Federal Aid Project No. NH-019-1(20)
Date: November 2009

SHEET No. 1 OF 3 SHEETS
- AS-BUILT
- 3

GENERAL NOTES CONT.:

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(20)	2005	4	315

28. The Contractor shall be required to provide adequate, safe, non-skid bridging material over any trench, including shoring, when trenching in pavement areas to handle all types of vehicular traffic. The use of steel plates shall not be used in the freeway travelway.
29. All regulatory, guide and construction signs and barricades shall be high intensity reflective sheeting.
30. Stop work and contact the State Historic Site Office, at 933-0482 immediately should any unidentified archaeological site or remains (such as artifacts, shells, bones, charcoal deposits, road or coral alignments, pavings or walls) be encountered during construction.
31. All signs, pavement markings, striping, etc. removed or damaged by the Contractor shall be replaced by the Contractor at no additional cost to the State.
32. The Contractor shall schedule his work around the Ironman Triathlon Race activities, held annually in October and any other permitted race. All pavement and shoulder areas shall be restored to smooth riding condition, completely cleaned with pavement striping installed, three weeks prior to the event. No construction work within the State right-of-way shall be permitted during this period that interferes with the preparation and running of the race.



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Wesley R. Segawa
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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
GENERAL NOTES
QUEEN KAAHUMANU HIGHWAY WIDENING
HENRY ST. to KEALAKEHE PKWY - PHASE I
Federal Aid Project No. NH-019-1(20)
Date: November 2009

SHEET No. 2 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-019-1(20)	2005	5	315

GRADING NOTES

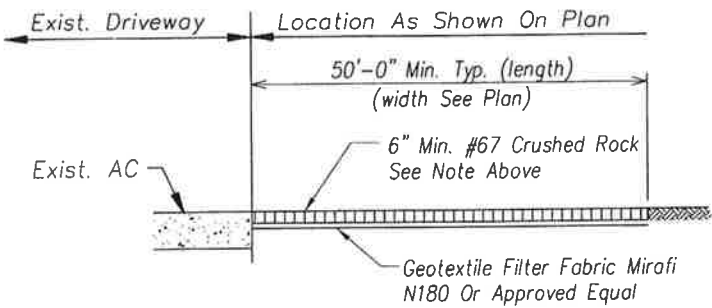
1. All grading work shall conform to Chapter 10 of the Hawaii County Code. Should a grading permit be required, no work shall commence until the Department of Public Works (DPW) approves a grading permit.
2. The Contractor shall remove all silt and debris deposited in drainage facilities, roadways and other areas resulting from his work. The costs incurred for any necessary remedial action by the DPW shall be payable by the Contractor.
3. The Contractor, at his own expense, shall keep the project and surrounding areas free from dust nuisances. The work shall be in conformance with the Air Pollution Control rules of the State Department of Health, HAR 11-60.1, Fugitive Dust.
4. All grading operations shall be performed in conformance with the applicable provisions of the Hawaii Administrative Rules, Title 11, Chapter 55, Water Pollution Control and Chapter 54, Water Quality Standards, and to the Erosion and Sedimentation Control Standards and Guidelines of the Department of Public Works, County of Hawaii.
5. The Contractor shall sod or plant all slopes and exposed areas immediately after the grading work has been completed.
6. Fill on slopes steeper than 5:1 shall be keyed.
7. The Contractor shall inform the DPW of the location of the disposal and/or borrow site(s) required for this project when an application for a grading permit is made. The disposal and/or borrow site(s) must also fulfill the requirements of the grading ordinance.
8. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior approval from the Department of Public Works. Grading work on normal working days shall be between the hours of 7:00 a.m. to 3:30 p.m. M-F
9. Fills shall be compacted to 90 percent of its maximum dry density per ASTM D-1557 test.
10. The Contractor shall remove all vegetation before placing fills on natural ground surface.
11. Estimated earthwork quantities do not include allowances for shrinkage, compaction, and other losses.
12. The contractor is responsible for verifying all earthwork quantities and field conditions.

EARTHWORK QUANTITIES

Area Graded	80	Acres
Excavation	150,639	CY
Embankment	80,377	CY

EROSION CONTROL NOTES

1. The Contractor shall install Dandy Bag II, or approved equal, in all drywells and grated inlets and construction ingress/egress as soon as practicable.
2. Best Management Practices (BMP's) shall not be removed until all permanent erosion controls are in place and established.
3. At the end of grading operations, existing drywells and grated inlets surrounding the project site shall be inspected and any accumulated sediment and debris found in the drain structures shall be removed.
4. Dandy Bag II as manufactured by Dandy Projects, Inc., or approved equal, shall be installed in all drywells and grated inlets upon their construction, and shall remain in place until construction is complete and all exposed areas stabilized. Dandy Bag II, or approved equal, to be maintained by the Contractor per manufacturer's recommendations.



STABILIZED CONSTRUCTION
ENTRANCE DETAIL
NO SCALE

WATERLINE NOTES

1. All work shall be done according to the Water System Standards, State of Hawaii, dated 2002 as amended.
2. The contractor shall inform the Department of Water Supply (DWS) engineer 72 hours prior to the beginning of any waterline work and two weeks prior to any connection, chlorination, shut-off or relocation work.
3. The contractor shall pay for all work, equipment and materials furnished by the DWS.
4. All existing waterlines, waterline appurtenances and other utility locations shown on the plans are obtained from the latest reliable sources. The contractor shall be responsible to verify the exact location of all utilities in the field and shall bear all cost for damages done to the water system.
5. All connections to existing waterlines shall be done by the DWS. Contractor shall perform all excavation, backfill, road repair, traffic control, and provide equipment necessary to complete the connection.
6. Where water shut-off of more than 3 hours becomes necessary, the contractor, at his own expense, shall provide a temporary by-pass line. The DWS Engineer shall determine the by-pass line size. If necessary, the DWS engineer may require a by-pass line, regardless of the expected shut-off period.
7. Minimum horizontal clearance between waterline and other utilities shall be 8 feet unless otherwise specified. Minimum vertical clearance between waterlines and other utilities shall be 12" provided concrete jackets are used, and 18" if no concrete jackets are used. In all applicable instances, the waterlines shall be at a grade higher than other utilities.
8. All fittings (Class 250 minimum) and all gate valves (Class 200) shall be ductile iron, with mechanical joints unless otherwise specified. Butterfly valves shall be class 250 M.J. with epoxy-coated interior unless otherwise specified.
9. The waterline shall be tested at a minimum of 225 psi or one and a half times the static pressure at the low point, whichever is greater, under DWS supervision just prior to paving.
10. The Contractor shall be responsible for the chlorination of the water system and shall bear all costs. The person(s) engaged to do the chlorination work must have the appropriate license to perform the work in The State of Hawaii.
11. Existing valves, f.h. units, valve boxes, frames and covers designated "remove and salvage" shall be cleaned of all dirt, scabs, and concrete and delivered to the respective DWS baseyard. This work shall be considered incidental to the various bid items, unless specified otherwise.
12. All waterline to be removed, exposed valve boxes, valves, pipes and appurtenances shall be removed and disposed of properly by the contractor at no cost to the DWS.

WATERLINE NOTES CONT.

13. Relocation of existing meters shall be done by or under DWS supervision. Relocations of customer service lines to relocated meters shall be copper and done by the contractor. All work and materials required shall be provided by the contractor and considered incidental to the relocation work. Existing meter boxes damaged by the contractor shall be replaced at the contractor's cost. A dielectric union shall be used to connect the copper pipe to the customer's g.i. pipe (if applicable)
14. The DWS will not assume ownership of nor grant any water service until the water system is dedicated to the DWS along with all necessary easements and documents.
15. When compaction test are required, the contractor shall be responsible to provide the DWS with proctor results of materials to be used for that portion of work requiring compaction. These results shall be certified and shall be furnished to DWS one week prior to commencement of work. Costs for compaction tests shall be incidental to pipeline installation.
16. All newly installed waterlines shall have a blue warning tape labeled "waterline" placed directly over the compacted cushion material.
17. Construction projects requiring temporary water service shall be metered and paid for by the contractor.
18. The Contractor shall be responsible for record drawings (as built drawings) and the Licensed Engineer shall certify the drawings as to accuracy and submit the drawings and as-built tracings to the DWS.
19. Install blue reflective hydrant markers at locations shown in Std. Det. FH 12.
20. In lieu of the 4" d.i. pipe hydrant guards specified in Std. Detail FH 10, all hydrants shall have flexible polyethylene surface mount channelizers as manufactured by all Safe-Hit Products, Flexstake or approved equal shall be used. Channelizer post shall be white with yellow reflector.
21. Services within the improvement area requiring a Dept. of Water Supply approved backflow prevention assembly, shall have one. The installation will be the responsibility of the service owner, in accordance with D.W.S. standard detail V.9. The owner shall make provisions for water during the time when the backflow is being tested or maintained. As a protection to the consumer plumbing system, a suitable pressure relief valve shall be installed and maintained by the service owner.



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