

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(28)PH.1	2012	4	288

GENERAL NOTES

- ORIGINAL PLAN

NOTE BOOK

No. \_\_\_\_\_

SURVEY PLATTED BY \_\_\_\_\_

DRAWN BY \_\_\_\_\_

TRACED BY \_\_\_\_\_

CHECKED BY \_\_\_\_\_

DATE \_\_\_\_\_
1. The scope of work for this project includes widening a portion of Keaau–Pahoa Road by removing the temporary northbound shoulder lane and installing an additional northbound lane; installing an additional temporary southbound shoulder lane; widening Waipahoehoe Bridge; extending existing culverts; rehabilitating existing culverts; installing new culverts; removing and installing a new traffic counter sensor station; removing existing and installing new water system facilities; relocating utility poles; and installing pavement markings, striping and signing.

2. The Contractor is reminded of the requirements of Subsection 105.16 (A) – Subcontract Requirements, which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Non–compliance with this Subsection may be grounds for rejection of bid.

3. The Contractor’s attention is directed to the following Sections of the Standard Specifications: Subsection 107.06 – Contractor Duty Regarding Public Convenience; Subsection 104.11 – Utilities And Services; and Section 645 – Work Zone Traffic Control.

4. 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.

5. The existence and location of underground utilities, manholes, monuments, buried railroad tracks, and concrete pavements, and other structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The Contractor shall make an independent check on the ground by probing and/or with the various utility companies and governmental agencies to verify the exact locations and depths of the existing utilities and obstructions. The Contractor shall exercise proper care in excavating in the area. Whenever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connection to verify their location and depth prior to excavating for the new lines. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.

6. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.

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

8. The Contractor shall provide and maintain for access to and from all existing driveways, sidewalks and ADA access routes, and side streets and cross streets at all times. This work shall be considered incidental to the various contract items and will not be paid for separately.

9. All saw cutting work shall be considered incidental to Roadway Excavation.

10. Smooth riding connections shall be constructed at all times on the project, including the beginning and end of the project, connecting approaches, side streets, walkways and driveways as shown on the plans and/or as directed by the Engineer.

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

12. The Contractor shall clean and remove all 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.

13. Removal and disposal of existing curb and gutter, curb, sidewalk and asphalt concrete pavement, curb, sidewalk and any debris shall be considered incidental to Roadway Excavation and will not be paid for separately, unless otherwise noted.

14. The Contractor shall provide and maintain a temporary pedestrian–safe and easily accessible route or detour with barricades in or near the work zone. This temporary route or detour shall be stable, firm and slip–resistant and shall be Americans With Disabilities Act compliant (This only applies if existing surface is non–ADA compliant). This work shall be incidental to all contract items and will not be paid for separately.

15. The Contractor shall remove and dispose of all existing raised pavement markers, thermo line markings, traffic tapes, and epoxy adhesives prior to the overlaying of Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately. These work items shall be considered incidental to Roadway Excavation.

16. The Contractor shall adjust flush to finish grade all manhole, valve, pullbox, and handhole frames and covers, including those not shown on the plans, if there is a change in grade due to construction of the project. If the proposal does not show a contract item, the Engineer will consider them incidental to the various contract items.

17. Two lanes of traffic, one lane in each direction, shall be provided at all times. Lane closures or detours that slow down traffic shall not occur during peak hours (6:00 a.m. to 8:30 a.m. and 3:30 p.m. to 6:00 p.m.). The Contractor shall continue to provide two Northbound lanes to weekday (Monday to Friday, excluding State holidays) traffic between 6:00 a.m. and 8:30 a.m. for the duration of construction. Night work will be permitted at no additional cost to the State. If the Contractor elects to perform work at night, a noise variance permit shall be obtained at his cost with no additional time added to the contract.

18. Unprotected dropoffs greater than 2 inches shall not be allowed during non–working hours, except where approved by the Engineer in writing.

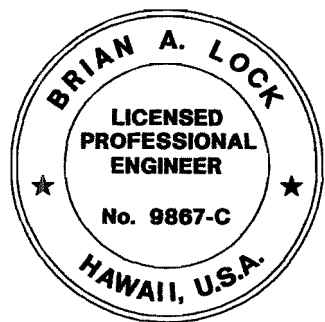
19. No material and/or equipment shall be stockpiled or otherwise stored within the highway right–of–way except at locations designated in writing and approved by the Engineer.

20. After the project is completed, the Contractor shall restore grades and ground cover disturbed as a result of the project to a condition equal or better than existing before such damage or injury was done.

21. Existing utilities shall remain in service and in place at all times. If relocation of the existing utilities is required by the Contract Documents or for the Contractor’s convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor’s expense with the approval of the affected utility company.

22. The Contractor shall verify all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the Engineer.

23. All construction work shall be done in accordance with the standards and specifications of the HDOT as amended, unless otherwise specified by the contract plans and specifications.



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.  
*[Signature]*  
APRIL 30, 2014  
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

NOTES

KEAAU-PAHOA ROAD, SHOULDER  
LANE CONVERSION, PHASE 1  
Keaau Bypass Road to Shower Drive  
Fed. Aid Proj. No. STP-0130(28), Phase 1  
Scale: None Date: June 2012


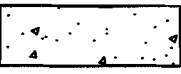
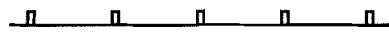
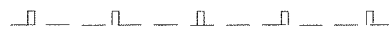
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SHEET No. N1 OF 6 SHEETS

GENERAL NOTES (Cont.)

24. No Contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing County drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
25. Tack coat shall be incidental to the various asphalt concrete pavement items.
26. The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
27. Contractor shall notify the State construction inspector before commencement of work on any site with trees in close proximity (20'±).
28. Contractor shall comply with conditions as stated in the project NPDES Permit.
29. The Contractor must notify the Cadastral Section prior to removal of any State Survey Monument (Brass Disk) so that Cadastral can reference the monument prior to demolition of the existing monument. The Contractor shall bear all costs involved in restoring the State Survey Monuments which are affected by their work.
30. Work may be performed only between the hours of 8:30 a.m. and 3:30 p.m., Monday through Friday, except holidays, unless otherwise permitted by the Engineer.
31. All necessary permits for work within the jurisdiction of the County of Hawaii shall be obtained by the Contractor at his own cost.
32. Contractor shall provide assistance to utility companies to clear and grub and grade temporary and permanent gravel truck access to new utility pole locations from the highway shoulder. Work shall be considered incidental to Section 201-Clearing and Grubbing and Section 203-Excavation and Embankment, respectively. Access shall remain within State right-of-way. Utility companies shall be able to access utility poles at all times throughout construction.

LEGEND

	New Pavement Areas – (See Typical Sections for Pavement Structures)
	New P.C.C.
--- E ---	New Electrical Line
--- e ---	Existing Electrical Line
• JP	Relocated Joint Pole
○ jph	Existing Joint Pole
• PP	Relocated Power Pole
○ pph	Existing Power Pole
○ emh	Existing Electrical Manhole
--- l ---	Existing Telephone Line
○ lph	Existing Telephone Pole
○ tmh	Existing Telephone Manhole
— SC —	New Signal Corps Line
— sc —	Existing Signal Corps Line
□ cph	Existing Cable TV Pullbox
— c —	Existing Cable TV Line
— w12 —	Existing 12” Water Line
○ wmh	Existing Water Manhole
○ av	Existing Water Air Valve
○ wv	Existing Water Valve Box
□ wm	Existing Water Meter
○ fh	Existing Fire Hydrant
	New Guard Rail
	Existing Guard Rail
-----	New Right-of-Way
-----	Existing Right-of-Way
— S12 —	New 12” Sewer Line
— s12 —	Existing Sewer Line And Size
○ smh	Existing Sewer Manhole
--- g6 ---	Existing 6” Gas Line
○ gv	Existing Gas Valve Box
○ gmh	Existing Gas Manhole
● MON.	New Monument
○ mon.	Existing Monument

24” RCP

--- d24 ---

•SDMH

○sdmh

□GDI

□gdi

CB

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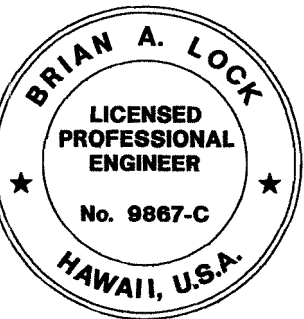
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New 24” RCP Drain Line
Existing 24” Drain Line
New Storm Drain Manhole Frame & Cover
Existing Storm Drain Manhole
New Grated Drop Inlet
Existing Grated Drop Inlet
New Catch Basin
Existing Catch Basin
New Traffic Sign
Existing Traffic Sign
New Highway Lighting Standard
Existing Highway Lighting Standard
New Traffic Signal Pullbox
Existing Traffic Signal Pullbox
Existing Traffic Signal Control Box
Existing Traffic Signal Pole
New Loop Detector
Existing Loop Detector
New Pavement Grade
Existing Pavement Grade

ABBREVIATIONS

A.C., a.c.	Asphalt Concrete
ℙ	Baseline
E.P.	New Edge Of Pavement
E.S.	New Edge of Shoulder
E.S.L.	New Edge of Shoulder Lane
e.p.	Existing Edge Of Pavement
e.s.	Existing Edge of Shoulder
N.B., n.b.	Northbound
P.C.	Point Of Curvature
P.C.C.	Point Of Compound Curvature
P.C.C.	Portland Cement Concrete
P.I.	Point Of Intersection
P.O.C.	Point on Curvature
P.T.	Point Of Tangency
R	Radius
S.B., s.b.	Southbound
S.E.	Superelevation



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.  
*Wilson Okamoto*  
WILSON OKAMOTO CORPORATION L.C. EXP. DATE APRIL 30, 2014

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>NOTES</u>	
KEAAU-PAHOA ROAD, SHOULDER LANE CONVERSION, PHASE 1 Keaau Bypass Road to Shower Drive Fed. Aid Proj. No. STP-0130(28), Phase 1	
Scale: None	Date: June 2012
SHEET No. N2 OF 6 SHEETS	

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
	CHECKED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	
	No.	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(28)PH.1	2012	6	288

NOTES FOR GENERAL CONSTRUCTION

1. All construction work is to be constructed in accordance with the publications "Hawaii Standard Specifications for Road, Bridge and Public Works Construction 2005" and its amendments and "Standard Details for Public Works Construction" and its amendments.
2. No grading between 7 P.M. To 7 A.M. on any given day or on Saturdays, Sundays and Holidays without written permission from the State Department of Health.
3. Construction shall start within a period of one year from the date of approval of construction plans; if construction does not commence within this one-year time from the date of approval, the construction plans will need to be resubmitted to all County of Hawaii agencies for review and approval.
4. All grading, grubbing and stockpiling work shall be performed in accordance with County of Hawaii.
5. During cleaning operations, the Contractor shall supply a water truck for dust control purposes until vegetation has re-established itself. Excess water, including silt and dirt shall not be allowed to run-off the project site.

WATER 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 with epoxy-coated interior unless otherwise specified.

WATER NOTES (Cont.)

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. Existing waterlines, valves, fittings and appurtenances not designated "remove and salvage" shall be removed and disposed of properly at no cost to the DWS.
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 tests 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 the DWS one week prior to commencement of work. Cost 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. All waterline 4-inch and larger shall be ductile iron class 52, and all waterlines smaller than flinch shall be soft copper type k unless otherwise specified.
20. Lots requiring a Dept. of Water Supply approved backflow prevention assembly shall have one. Its installation is not required for final subdivision approval. The installation shall be the responsibility of the service owner, in accordance with DWS Standard Detail V-9. The owner shall make provisions for the water during the time the backflow is being tested or maintained. As protection to the consumer plumbing system, a suitable pressure relief valve shall be installed and maintained by the service owner.

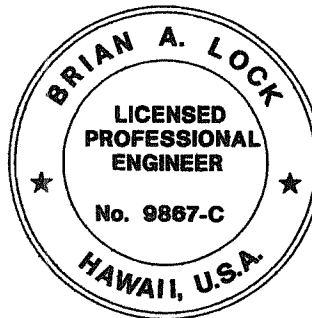
APPROVED

Kurt y. Iwata  
Manager-Chief Engineer  
Department of Water Supply  
County of Hawaii

7/11/12  
Date

DATE

REVISION



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.  
msk  
WILSON OKAMOTO CORPORATION LIC. EXP. DATE APRIL 30, 2014

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>NOTES</u>	
<u>KEAAU-PAHOA ROAD, SHOULDER</u> <u>LANE CONVERSION, PHASE 1</u> <u>Keaau Bypass Road to Shower Drive</u> <u>Fed. Aid Proj. No. STP-0130(28), Phase 1</u> <u>Scale: None Date: June 2012</u>	
SHEET No. <u>N3</u> OF <u>6</u> SHEETS	

ORIGINAL PLAN	DATE	DESIGNED BY	DATE
		TRACED BY	DATE
		NOTE BOOK	DATE
		QUANTITIES BY	DATE
CHECKED BY		DATE	
No.			

CONSTRUCTION NOTES FOR  
TRAFFIC CONTROL PLAN

1. The permittee shall make adjustments at intersections, driveways, bridges, structures, etc. To fit field conditions.
2. Cones or delineators shall be extended to a point where they are visible to approaching traffic.
3. Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
4. Regulatory and warnings signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be restored upon completion of the work.
5. Flaggers and/or police officers shall be in sight of each other or in direct communication at all times.
6. When required by the issuing office, the permittee shall install a flashing arrow signal as shown on the traffic control plans.
7. All traffic lanes shall be a minimum of 10 feet wide.
8. All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
9. The backs of all signs shall be promptly removed or covered to preclude the display of inapplicable sign messages (i.e., when signs have messages on both faces), whenever the messages is not applicable or not in use.
10. At the end of each day's work or as soon as the work is completed, the permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in reverse order of installation.
11. Replace permanent pavement markings and traffic signs upon completion of each phase of work.
12. Police officer/flagmen shall be present at all times.
13. The Contractor shall make a flyer showing the changes in traffic patterns and estimated times of use. Sufficient copies of the flyer shall be provided to each business for distribution to its employees and guests.
14. Contractor to provide access and/or directional signs to reroute pedestrian traffic.
15. The Contractor shall comply with FHWA Final Rule on Work Zone Safety and Mobility, 23 CFR 630, Subpart J.

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 approves a grading permit.
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 violations occur, the costs incurred for any remedial action by the County Engineer shall be payable by the contractor.
3. The contractor, at his own expense, shall keep the project 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.
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 depths 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 with hydroseed grass 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. The county 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.
8. Fill slope banks shall not exceed 2:1 and cut slope banks shall not exceed 1:1 unless otherwise noted.

EARTHWORK SUMMARY

Excavation = 27,455 cy  
Embankment = 10,250 cy  
Graded area = 6.31 acres

NOTES:

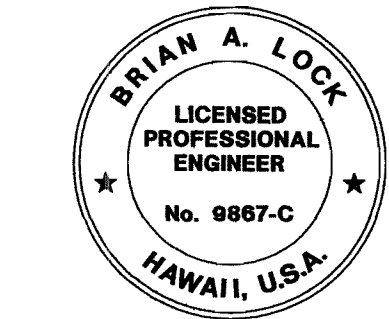
1. Quantities are shown for permit purpose only and are not to be used for bidding purposes.
2. Contractor is responsible to complete the grading work to the grades and dimension shown on the plans. Grades shown are finished grades. Contractor to coordinate with landscape drawings to allow for placement of topsoil.
3. If imported materials are required to obtain finished grades, Contractor is required to import suitable material as specified at the Contractor's expense.

GRADING NOTES (Cont.)

9. The Contractor shall remove all vegetation before placing fills on natural ground surface.
10. Fills shall be compacted to 90 percent (90%) of the maximum density per ASTM D-1557 test.
11. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice to the County of Hawaii Department of Public Works.
12. The limits of the area to be graded shall be flagged before the commencement of the grading work.
13. All grading operations shall be performed in conformance with the applicable provisions of the Water Pollution Control and Water Quality Standards contained in Hawai'i Administrative Rules, Chapter 11-55, "Water Pollution Control" and Chapter 11-54, "Water Quality Standards" and the "Erosion and Sedimentation Control Standards and Guidelines" of the Department of Public Works County of Hawaii, and the NPDES permit for the project.
14. If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable state and federal requirements.
15. Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work shall commence immediately. All costs incurred shall be billed to the contractor and/or grading permit applicant. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.

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ORIGINAL PLAN	No.	SURVEY PLOTTED BY	DATE
			DRAWN BY
			DESIGNED BY
			CHECKED BY
NOTE BOOK	No.	QUANTITIES BY	



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.  
*[Signature]*  
APRIL 30, 2014  
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>NOTES</u>	
<u>KEAAU-PAHOA ROAD, SHOULDER</u> <u>LANE CONVERSION, PHASE 1</u> <u>Keaau Bypass Road to Shower Drive</u> <u>Fed. Aid Proj. No. STP-0130(28), Phase 1</u> Scale: None Date: June 2012	
SHEET No. N4 OF 6 SHEETS	

DATE	REVISION



WATER POLLUTION AND EROSION CONTROL NOTES:

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(28)PH.1	2012	8	288

A. GENERAL:

- See Section 209 – Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment.
- Effective October 1, 2008, follow the guidelines in the "Construction Best Management Practices Field Manual", dated January 2008 in developing, installing and maintaining the Best Management Practices (BMP) for the project.
- Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
- The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
- The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
- For projects that require an NPDES Permit from the Department of Health, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall, and have an opening of at least one-inch in diameter. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.

B. WASTE DISPOSAL:

1. Waste Materials

Collect and store all waste materials in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster a minimum of twice per week or as often as is deemed necessary. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.

2. Hazardous Waste

Dispose all hazardous waste materials in the manner specified by local or State regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

3. Sanitary Waste

Collect all sanitary waste from the portable units a minimum of once per week, or as required.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

- Inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.5 inches or greater within a 24 hour period. The contractor shall regularly monitor local weather reports for anticipated large rain storm events or weather warnings, watches or alerts. The contractor shall inspect and document the condition of all erosion control measures on the day prior, during and after the event. Documentation shall be submitted to the engineer with the next weekly inspection report. Documentation during the storm event does not apply during extreme weather conditions.

- Maintain all measures in good working order. If repair is necessary, it shall be initiated immediately after the inspection, and repairs or replacement complete within 24 hours. To facilitate repair or replacement, the contractor shall store surplus material on the project site. Surplus material shall be incidental to Section 209.
- Remove built-up sediment from silt fence when it has reached one-third the height of the fence.
- Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
- Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
- Make a maintenance inspection report promptly after each inspection. Submit a copy to the Engineer no later than one week from the date of the inspection.
- Provide a stabilized construction entrance to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold planed materials, dirt, or rock tracked from the site. Cover dump trucks hauling material from the construction site with a tarpaulin.
- Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
- Submit to the engineer and the Department of Health the name and contact information of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
- Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Payment for confinement, removal, and disposal of slurry shall be considered incidental to the various contract items.
- Erosion and sediment control measures that do not effectively contain project site pollutants and sediment shall be re-evaluated by the contractor and replaced or augmented with effective erosion and sediment control measures.

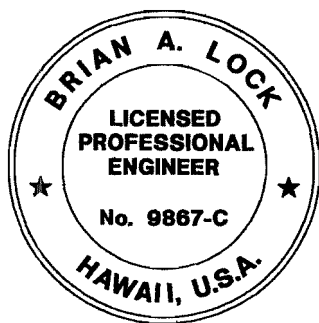
D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

1. Materials Pollution Prevention Plan

- Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.

Concrete  
Detergents  
Paints (enamel and latex)  
Metal Studs  
Tar

Fertilizers  
Petroleum Based Products  
Cleaning Solvents  
Wood  
Masonry Block



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.  
*[Signature]*  
APRIL 30, 2014  
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>NOTES</u>	
<u>KEAAU-PAHOA ROAD, SHOULDER</u> <u>LANE CONVERSION, PHASE 1</u> <u>Keaau Bypass Road to Shower Drive</u> <u>Fed. Aid Proj. No. STP-0130(28), Phase 1</u> Scale: None Date: June 2012	
SHEET No. N5 OF 6 SHEETS	

ORIGINAL PLAN	SURVEY PLATTED BY	DATE	DRAWN BY	DESIGNED BY	CHECKED BY
No.					

DATE	REVISION

WATER POLLUTION AND EROSION CONTROL NOTES: (Cont.)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(28)PH.1	2012	9	288

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES: –Cont.

- b. Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.
- c. Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Keep products in their original containers with the original manufacturer’s label.
- e. Do not mix substances with one another unless recommended by the manufacturer.
- f. Whenever possible, use a product up completely before disposing of the container.
- g. Follow manufacturer’s recommendations for proper use and disposal.
- h. Conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

- a. Keep products in original containers unless they are not resealable.
- b. Retain original labels and material safety data sheets (MSDS).
- c. Dispose of surplus products according to manufacturers’ instructions and local and State regulations.

3. Onsite and Offsite Product Specific Plan

The following product specific practices shall be followed onsite:

- a. Petroleum Based Products:  
Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer’s recommendation.
- b. Fertilizers:  
Apply fertilizers used only in the minimum amounts recommended by the manufacturer. Once applied, work fertilizer into the soil to limit exposure to storm water. Storage shall be in a covered shed. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.
- c. Paints:  
Seal and store all containers when not required for use. Do not discharge excess paint to the highway drainage system. Dispose properly according to manufacturers’ instructions or State and local regulations.
- d. Concrete Trucks:  
Wash out or discharge concrete truck drum wash water only at a designated site. Do not discharge water in the highway drainage system or waters of the United States. Contact Drinking Water Branch, Department of Health at 586–4258 to receive permission to designate a disposal site. Clean disposal site as required or as requested by the Owner’s representative.

4. Spill Control Plan

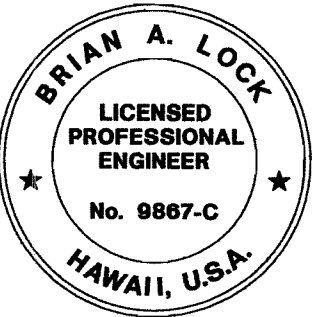
- a. Post a spill prevention plan to include measures to prevent and clean up each spill.
- b. The Contractor shall be the spill prevention and cleanup coordinator. Designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. Post the names of responsible spill personnel in the material storage area and in the office trailer onsite.
- c. Clearly post manufacturers’ recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.
- d. Keep materials and equipment necessary for spill cleanup in the material storage area onsite.

- e. Clean up all spills immediately after discovery.
- f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size.

E. PERMIT REQUIREMENTS:

- 1. If a National Pollutant Discharge Elimination System (NPDES) Permit is required for Construction Activities of one acre or more, submit to the Engineer six sets of the Water Pollution and Erosion Control Submittals as detailed in Subsection 209.03 of the specifications. The Contractor’s attention is directed to the applicable NPDES Permit documents on the bid package compact disc.
- 2. If an NPDES Permit for Construction Dewatering is required, the Contractor shall be responsible to obtain the Permit from the Department of Health, Clean Water Branch.
- 3. Comply with all applicable State and Federal Permit conditions. Permits may include but are not limited to the following:
  - a. NPDES Permit for Construction Activities
  - b. NPDES Permit for Construction Dewatering
  - c. NPDES Permit for Hydrotesting Waters
  - d. Other permits as required

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION.  
*[Signature]*  
WILSON OKAMOTO CORPORATION APRIL 30, 2014 LIC. EXP. DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

NOTES

KEAAU-PAHOA ROAD, SHOULDER  
LANE CONVERSION, PHASE 1  
Keaau Bypass Road to Shower Drive  
Fed. Aid Proj. No. STP-0130(28), Phase 1  
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DATE REVISION

SHEET No. N6 OF 6 SHEETS