







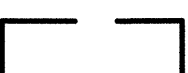

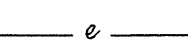

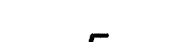


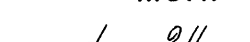

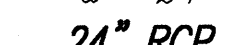








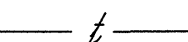













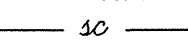





















GENERAL NOTES

1. The Scope of Work for this project consists of resurfacing and reconstructing existing pavement; cold planing; slope protection and stabilization; retaining walls; gabion walls; adjusting of utility manholes and survey monuments; installing pavement markings and signs; installing drain lines, drain inlets and headwalls; replacing damaged concrete drainage swales; erosion control; installing underdrains; upgrading/replacing guardrails and end treatments; installing concrete and moveable barrier systems; upgrading emergency call boxes; disposal of asbestos underdrain pipe; replacing traffic loops; installing pullboxes, handholes, ductlines and overhead detector; and modifying highway lighting. This project starts in the vicinity of Emmeline Place and ends at Wilson Tunnel.
2. The Contractor is reminded of the requirements of Subsection 108.01 – Subletting of Contract, which requires him to perform work amounting to not less than 50 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 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.
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 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 an damages incurred to the existing facilities and/or improvements as a result of his operations.
6. The exact locations and limits or areas to be filled with leveling course, reconstructed and cold planed shall be determined in the field by the Engineer.
7. The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St., Hon., HI 96819 (ph. #848-4571) seven (7) days prior to any paving operations.
8. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting any paving operations.
9. The Contractor shall remove and dispose of all existing raised pavement markers and preformed pavement marking tape prior to the overlaying of Asphalt Concrete pavement. The work shall be incidental to Asphalt Concrete Pavement, Superpave.
10. All holes, depressions and wheel ruts shall be filled and compacted with Asphalt Concrete Pavement, Mix No. V prior to resurfacing. This work shall be incidental to Asphalt Concrete Pavement.
11. Smooth riding connections shall be constructed at all limits of 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.

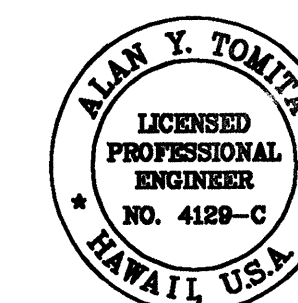
12. Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
13. The Contractor shall provide for access to and from all existing side streets at all times.
14. All saw cutting work shall be considered incidental to Cold Planing.
15. Replace existing street light poles w/ new aluminum light poles mounted on modified type 4E/4F rigid barrier.
16. All guardrail spacer blocks shall be recycled plastic blockouts or polyethylene offset blocks approved by DOT.
17. Remove all existing median barriers w/ steel post and install Type 4E/4F Rigid Barrier w/ concrete glare screen.
18. The Contractor shall clean and remove any accumulation of aggregates along the roadside within 15 feet of the edge of pavement. This work shall be considered incidental to the various contract items.
19. Dressing of shoulders and sidewalk shall consist of clearing, grubbing, grading, reshaping, compacting and grassing the unpaved areas adjacent to the shoulders and sidewalks with suitable excavated material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.
20. The Contractor shall clean, remove and dispose of any silt, trash, and vegetable growth from on and off-site existing culverts, gutters, swales, drainlines, inlet and outlet structures within the State ROW between the project start and end stations. All debris to be removed are not to be flushed or otherwise disposed at downstream. This work shall be paid for under item 603.0100-Clean Existing Drainage System.
21. Work may be performed only between the hours of Monday through Friday except holidays, unless otherwise permitted by the Engineer. Noise variance permit issued to extend the allowable work hours and to include night work.
22. Demolishing, removing and disposing of existing drainage structures shall be considered incidental to contract items 604.5000 through 604.5400.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CM-STP-063-1(21)	2002	3	187

LEGEND

	Reconstruction Areas		Existing Sewer Line
	Reconstruction Areas with Underdrain.		Existing Sewer Manhole
	Transitional Cold Planing Areas		Adjusted Sewer MH Frame/Cover
	Resurfacing Limits		Existing Monument
	Existing Electrical Line		Adjusted Monument
	New Electrical Line		New Monument
	Existing Joint Pole		Existing 24" Drain Line
	Existing Power Pole		New 24" RCP Drain Line
	Existing Electric Manhole		Existing Storm Drain Manhole
	Adjusted Elec. MH Frame/Cover		Adjusted Storm Drain MH Frame/Cover
	New Electric Manhole		New Storm Drain Manhole
	Existing Telephone Line		Existing Grated Drop Inlet
	New Telephone Line		New Grated Drop Inlet
	Existing Telephone Pole		Existing Catch Basin
	Existing Telephone Manhole		New Catch Basin
	Adjusted Tele. MH Frame/Cover		Existing Traffic Sign
	New Telephone Manhole		Existing Highway Lighting Standard
	Existing Signal Corps Line		New Highway Lighting Standard
	Existing TV Cable		Existing Signal Corps Manhole
	New TV Cable		Edge of Pavement
	Existing 12" Water Line		Edge of Shoulder
	Existing Water Manhole		Top of Slab
	Adjusted Water MH Frame/Cover		Existing 10" Underdrain
	New Water Manhole		Right-of-Way
	Existing Water Meter		Vertical Curve
			Point of Curvature
			Point of Intersection
			Point of Tangency
			Length of Curve
			Superelevation
			Station
			Control Point
			Excavation
			Embankment
			Grout Rubble Paving

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



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Alan Y. Tomita

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GENERAL NOTES AND LEGEND

LIKELIKE HIGHWAY RESURFACING
Emmeline Place to the Wilson Tunnel
F. A. Project No. CM-STP-063-1(21)
Scale: As Shown Date: December, 2001
SHEET No. 1 OF 3 SHEETS

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

COLD PLANING NOTES

1. All saw cutting work shall be considered incidental to Cold Planing and will not be paid for separately.
2. The Contractor shall compact the existing aggregate base in accordance with Section 304 – Aggregate Base Course and apply Prime Coat in accordance with Section 408 – Prime Coat, prior to laying the new Asphalt Concrete Base Course. This preparation work shall be considered incidental to the new Asphalt Concrete Base Course, and will not be paid for separately.
3. The vertical pavement drop-off shall not exceed 2-inches. If a vertical pavement drop-off exists at the end of each day's cold planing and paving, the Contractor shall provide a wedge with a 48:1 minimum transition taper for traverse drop-off no steeper than 6:1 for longitudinal drop-off, as approved by the Engineer. This work shall be considered incidental to Cold Planing.
4. The Contractor shall lower manholes prior to Cold Planing, backfill with hot mix and re-adjust after final paving. This work shall be considered incidental to Manhole Adjustments.

Unless otherwise shown on plans, the Contractor shall

5. remove asphalt concrete from existing gutters and swales and shall exercise caution in doing so. The Contractor shall be held liable for any damage caused to the gutters by this removal. This work shall be considered incidental to Cold Planing.

PUBLIC HEALTH, SAFETY AND CONVENIENCE NOTES

1. The Contractor shall observe and comply with all Federal, State, and Local laws required for the protection of public health and safety and environmental quality.
2. The Contractor, at his own expense, shall keep the project and its surrounding areas free from dust nuisance. The work shall be in conformance with the air pollution control standards and regulations of the State Department of Health. The City may require supplementary measures as necessary.
3. No Contractor shall perform any trenching operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural water-courses. Should such violations occur, the cost incurred for any remedial action by the Director, D.O.T shall be payable by the Contractor.
4. The Contractor shall provide, install and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities and shall take all necessary precautions for the protection, convenience, and safety of the public. The Contractor shall apply for a construction permit with a noise pollution control plan.

SEWER NOTES

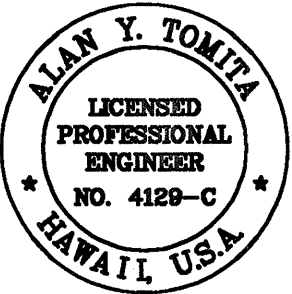
1. All sewer construction shall be performed in accordance with the City's Standard Specifications, September 1986, the Department of Public Works Standard Details, September 1984, Current City Practices and Revised Ordinances of Honolulu, 1990 as amended, and the Design Standards of the Department of Wastewater Management Vol. 1, July 1993.
2. The underground pipes, cables or ductlines known to exist by the Engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities and exercise proper care in excavation of the area. The Contractor shall be responsible and shall pay for all damaged utilities.
3. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
4. The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notification and press releases.
5. The Contractor shall maintain a minimum five (5) feet clear width between street lighting poles and sewer lines.
6. CONFINED SPACE

For entry by State or City personnel, including inspectors, into a permit required confined space as defined in 29 CFR PART 1910.146(B), the Contractor shall be responsible for providing:

1. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include but not be limited to the following:
 - A. Full body harness for up to two personnel
 - B. Lifeline and associated clips
 - C. Ingress/egress and fall protection equipment
 - D. Two-way radios (walkie-talkies) if not out of line-of-sight
 - E. Emergency (escape) respirator (10 minute duration)
 - F. Cellular telephone to call for emergency
 - G. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20-feet away)
 - H. Personal multi-gas detector to be carried by inspector
2. Continuous forced air ventilation adequate to provide safe entry conditions.
3. One attendant/rescue personnel topside (two; if conditions warrant it).
7. SEWER MANHOLE ADJUSTMENTS
 - 1. For SMH adjustments < 3" upwards, see DPW Standard Detail S-25.
 - 2. For SMH adjustments > 3" upwards or any adjustment downward, reconstruct SMH top from below the cone section.

GENERAL CONSTRUCTION NOTES

1. The Contractor shall notify all agencies to verify the actual location of all utilities in the project area prior to excavating. The Contractor shall coordinate all work.
2. When trench excavation is adjacent to or under existing structures or facilities, the Contractor shall be 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 for properly supporting existing structures and facilities with beams, struts or underpinning to fully protect them from damage.
3. Backfill under existing structures or facilities shall be sandy and granular material completely placed as soon as the ducts are laid. The backfill material shall be rammed with proper tools until compacted to 90-95% of its maximum density.
4. All work called for on the plans and not itemized in the proposal and all work not called for but required for the construction of this project shall be considered incidental to trench excavation.
5. The Contractor shall restore to their original condition all improvements damaged as a result of the construction, including pavements, embankments, curbs, signs, landscaping, structures, utilities, walls, fences, etc. unless provided for specifically in the proposal. Demolition and restoration of existing items shall be incidental and included within the amount paid for trench excavation.
6. The Contractor shall observe and comply with the administrative rules of The Department of Health regarding noise control of Oahu.
7. No section of incomplete guardrail, footing and/or excavation shall be left unshielded at the end of each work day. Intermediate concrete barriers and crash cushion end treatments used for shielding shall meet current SOH DOT standards and guidelines along with manufacturer's specifications. All shielding used during construction shall be considered incidental to various guardrail items.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Alan Y. Tomita

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CM-STP-063-1(21)	2002	4	187

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GENERAL NOTES
LIKELIKE HIGHWAY RESURFACING
Emmeline Place to the Wilson Tunnel
F. A. Project No. CM-STP-063-1(21)
Scale: As Shown Date: December, 2001
SHEET No. 2 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CM-STP-063-1(21)	2002	5	187

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

- The Contractor is reminded of the requirements of Section 209 – Water Pollution and Erosion Control, in the "Hawaii Standard Specifications for Road, Bridge and Public Works Construction". 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.
- The Contractor shall follow the guidelines in the "Best Management Practices Manual for Construction Sites in Honolulu", dated May 1999 in developing, installing and maintaining the Best Management Practices (BMP) for the project.
- The Engineer may assess liquidated damages of up to \$25,000 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.

B. WASTE DISPOSAL:

1. Waste Materials

All waste materials shall be collected and stored in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied a minimum of twice per week or as often as is deemed necessary. No construction waste materials shall be buried onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.

2. Hazardous Waste

All hazardous waste materials shall be disposed of in the manner specified by local or State regulations or 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

All sanitary waste shall be collected from the portable units a minimum of once per week, or as required.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

- All control measures shall be inspected at least once each week and following any rainfall event of 0.5 inches or greater.
- All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
- Silt screen or fence shall be inspected 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.
- Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- A maintenance inspection report shall be made promptly after each inspection by the Contractor.
- The Contractor shall select a minimum of three personnel who shall be 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.

D. SUBMITTAL REQUIREMENTS:

1. Construction activities of five (5) acres or more.

a. Storm water discharges into State waters due to construction activities of five (5) acres or more, will require an NPDES permit from the Department of Health (DOH). The Contractor shall submit to the engineer four (4) sets of site-specific Best Management Plans (BMP). The plans shall be submitted no later than thirty (30) calendar days after the award of contract.

E. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

1. Materials Pollution Prevention Plan

a. 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

b. Material Management Practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. An effort shall be made to store only enough product as is required to do the job.

c. All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.

d. Products shall be kept in their original containers with the original manufacturer's label.

e. Substances shall not be mixed with one another unless recommended by the manufacturer.

f. Whenever possible, a product shall be used up completely before disposing of the container.

g. Manufacturer's recommendations for proper use and disposal shall be followed.

h. The Contractor shall conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

a. Products shall be kept in original containers unless they are not resealable.

b. Original labels and material safety data sheets (MSDS) shall be retained.

c. Surplus products shall be disposed of according to manufacturers' instructions or local and State recommended methods.

3. Onsite and Offsite Product Specific Plan

a. The following product specific practices shall be followed onsite:

1) Petroleum Based Products:

All onsite vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite shall be applied according to the manufacturer's recommendation.

2) Fertilizers:

Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to storm water. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.

3) Paints:

All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the highway drainage system but shall be properly disposed of according to manufacturers' instructions or State and local regulations.

4) Concrete Trucks:

Concrete trucks shall be allowed to wash out or drum wash water only at a designated site. Water shall not be discharged in the highway drainage system or waters of the United States. The Contractor shall contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. The Contractor shall clean disposal site as required or as requested by the Owner's representative.

b. Offsite Vehicle Tracking:

A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance shall be cleaned daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.

4. Spill Control Plan

a. A spill prevention plan shall be posted to include measures to prevent and clean up each spill.

b. The Contractor shall be the spill prevention and cleanup coordinator. The Contractor shall 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. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite.

c. Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and cleanup supplies.

d. Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.

e. All spills shall be cleaned up immediately after discovery.

f. The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

g. Spills of toxic hazardous material shall be reported to the appropriate State or local government agency, regardless of the size.

F. PERMIT REQUIREMENTS:

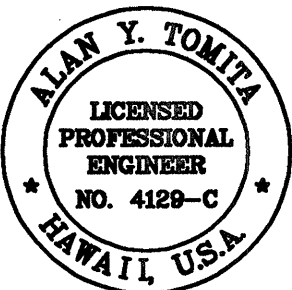
1. If a National Pollutant Discharge Elimination System (NPDES) Permit is required for Construction Activities of five acres or more, the Contractor shall submit to the Engineer four sets of the Water Pollution and Erosion Control Submittals as detailed in Subsection 209.04 of the specifications.

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. The Contractor shall comply with all applicable State and Federal Permit conditions. Permits may include but are not limited to the following:

- NPDES Permit for Construction Activities
- NPDES Permit for Construction Dewatering
- NPDES Permit for Hydrotesting Waters
- Water Quality Certification

ORIGINAL PLAN	DESIGNED BY	DATE	NO.		
				CHECKED BY	
					DESIGNED BY



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Alan Y. Tomita

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WATER POLLUTION & EROSION CONTROL NOTES	
LIKELIKE HIGHWAY RESURFACING	
Emmeline Place to the Wilson Tunnel	
F. A. Project No. CM-STP-063-1(21)	
Scale: As Shown	Date: December, 2001
SHEET No. 3 OF 3 SHEETS	