

GRADING NOTES

1. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 23, GRADING, SOIL EROSION AND SEDIMENT CONTROL, OF THE REVISED ORDINANCES OF HONOLULU, 1978, AS AMENDED (ORDINANCE NO. 81-13) AND SOIL REPORT BY SOILS INTERNATIONAL DATED MARCH 31, 1982, AS AMENDED MARCH 25, 1983.
2. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS, AND OTHER AREAS. THE COSTS INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE CHIEF ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
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 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 LOCATION AND DEPTH OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING 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. 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.
6. FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEYED.
7. 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.
8. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS, AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE CHIEF ENGINEER.
9. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF GRADING WORK.
10. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
11. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN THE PUBLIC HEALTH REGULATIONS, STATE DEPARTMENT OF HEALTH, ON WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS.
12. TEMPORARY EROSION CONTROLS PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR A GRADING PERMIT.
13. CUT SLOPES FOR DRAINAGE DITCH LOCATED OUTSIDE OF THE ROAD R/W IN THE VICINITY OF STATION 30+00 SHALL BE MAXIMUM 1/2 HORIZONTAL TO 1 VERTICAL.

DRAINAGE NOTE

1. THE DRAINAGE SYSTEM FOR THIS PRIVATE ACCESS ROAD IS BASED ON A HIGHWAY TYPE OF USAGE AND ASSUMES THAT THE RUNOFF ONTO ABUTTING PROPERTIES IS PERMISSIBLE.

HYDROLOGIC DATA

T _M	10 YRS.	50 YRS.
I (1 HR)	2.2"	2.7"
C	0.8	0.8

GENERAL NOTES

1. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, AUGUST 1976 AS AMENDED AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, MAY 1975, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU.
2. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR UNLESS SPECIFIED ON THE PLANS TO BE ABANDONED.
3. WHEREVER CONNECTIONS TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR, PRIOR TO EXCAVATION OF THE UTILITY TRENCHES, SHALL EXPOSE THE EXISTING LINES TO VERIFY THEIR LOCATIONS AND DEPTHS.
4. UTILITIES SHALL BE INSTALLED PURSUANT TO THE PROVISIONS OF ORDINANCE NOS. 2875 AND 3357 (UNDERGROUND UTILITIES).
5. THE CONTRACTOR SHALL ADJUST TOP OF MANHOLES, VALVE BOXES, & METER BOXES TO BE FLUSH WITH FINISH PAVEMENT GRADE. MANHOLES, VALVE BOXES & METER BOXES IN SHOULDER SHALL BE ADJUSTED IN ACCORDANCE WITH DETAIL ON SHEET 12.
6. AZIMUTHS SHOWN ARE ASSUMED.
7. TOPOGRAPHIC DATA SHOWN WERE TAKEN FROM TOPOGRAPHIC MAP PREPARED BY WALTER P. THOMPSON, DATED AUGUST 1981.

GENERAL WATER NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE HONOLULU BOARD OF WATER SUPPLY'S WATER SYSTEM STANDARDS DATED MARCH 1977, AND ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.
2. REAPPROVAL SHALL BE REQUIRED IF THIS PROJECT IS NOT UNDER CONSTRUCTION WITHIN A PERIOD OF ONE YEAR. (SEE RULES AND REGULATIONS OF THE BOARD OF WATER SUPPLY).
3. PRIOR TO EXCAVATING FOR NEW DRAIN, SEWER OR OTHER UTILITY LINES, THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATION OF EXISTING WATER MAINS AND APPURTENANCES.

WHERE THE INSTALLATION OF NEW DRAIN, SEWER OR OTHER UTILITY LINES ARE TO CROSS OVER OR UNDER EXISTING WATER MAINS, THE CONTRACTOR SHALL EXPOSE THE EXISTING WATER MAINS PRIOR TO TRENCHING. EXCAVATION AROUND WATER MAINS SHALL BE DONE BY HAND.

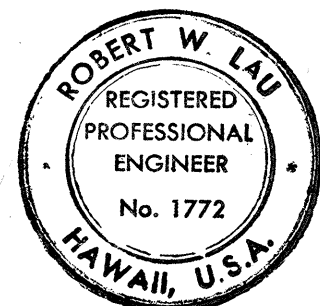
4. THE CONTRACTOR SHALL NOTIFY THE BOARD OF WATER SUPPLY IN WRITING ONE WEEK PRIOR TO COMMENCING WORK ON THE WATER SYSTEM.
5. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA BUT IS NOT GUARANTEED AS TO THE ACCURACY OR THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
6. ANY ADJUSTMENTS TO THE EXISTING WATER SYSTEM REQUIRED DURING CONSTRUCTION TO MEET REQUIREMENTS OF BWS STANDARDS, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE DONE BY THE CONTRACTOR AT NO COST TO THE BOARD.
7. COORDINATION OF PROJECT PLEASE CONTACT FRANCIS AMONG 455-1333

TRAFFIC NOTES FOR CITY JURISDICTION

- a. A permit shall be obtained from the Department of Transportation Services before work on any portion of a public street or highway may begin.
- b. The contractor shall provide, install, and maintain all necessary signs and other protective facilities, which shall conform with the "Rules and Regulations Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways" adopted by the Highway Safety Coordinator, and the Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI - Traffic Controls for Highway Construction and Maintenance Operations."
- c. Work on any City street area may be performed only between the hours of 8:00 a.m. to 3:30 p.m., Monday through Friday, unless otherwise permitted by the Department of Transportation Services.
- d. During working hours, the contractor shall maintain a roadway suitable for one lane of traffic with flagmen at both ends, alternating direction of traffic flow. During non-working hours, all trenches shall be covered with a safe non-skid bridging material.
- e. As required by the Department of Transportation Services, the contractor shall hire special duty police officers to control the flow of traffic.
- f. Where pedestrian walkways exist, they shall be maintained in passable condition or other facilities for pedestrians shall be provided. Passage between walkways at intersections shall likewise be provided.
- g. The contractor shall replace all traffic signs, posts and pavement markings disturbed during the construction.
- h. Call R. Tom, MTL, Inc., (Phone 533-1388), one week prior to construction. Notify him of any detours and relocation of bus stops.

LEGEND

---	RIGHT-OF-WAY LINE
---	CENTERLINE EASEMENT, SWALE, ETC.
○ WV	EXISTING WATER VALVE
○ WMH	EXISTING WATER VALVE MANHOLE
○ B	EXISTING DRAIN LINE
W B 4	EXISTING WATER LINE
EP	EXISTING POWER POLE
---	EXISTING CONTOUR
□ WM	EXISTING WATER METER
B CB	EXISTING CATCHBASIN
→	DIRECTION OF FLOW
---	LIMITS OF GRADING
---	NEW DRAIN LINE
---	EXISTING FUEL LINE STANDPIPE
---	LIMITS OF NEW PAVEMENT
---	EXISTING CONCRETE CURB
---	EXISTING CONCRETE CURB & GUTTER
○	EXISTING STREET MONUMENT
○	EXISTING TREES
	EXISTING RR TRACKS
30.5	FINISH GROUND ELEVATION
SC	EXISTING SIGNAL CORPS CABLE (ABANDONED)
G 16	EXISTING GAS LINE
F 10	EXISTING FUEL LINE



THIS WORK WAS DONE BY ME
OR UNDER MY SUPERVISION

Robert W. Law

REVISION	DATE	BRIEF	BY	APPR'D	



TRUSTEES OF
THE ESTATE OF JAMES CAMPBELL
HONOLULU, HAWAII

KALAELOA BOULEVARD IMPROVEMENTS
HONOLULU, EWA, OAHU, HAWAII

CONSTRUCTION NOTES

DRAWN BY HH ENGINEER KT

APPROVED BY
6/14/83
DATE
FOR GRADING ONLY
DATE

16" GAS TRANSMISSION LINE CONSTRUCTION NOTES

1. THE GASCO 16 INCH HIGH PRESSURE GAS TRANSMISSION LINE IS PLASTIC COATED AND CATHODICALLY PROTECTED. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR THE GAS PIPELINE.
2. PRIOR WRITTEN CLEARANCE MUST BE OBTAINED FROM GASCO MAPS AND RECORDS, 515 KAMAKEE STREET, AT LEAST FIVE WORKING DAYS PRIOR TO THE START OF EXCAVATION NEAR ANY GASCO PIPELINE.
3. SINCE PIPELINE LOCATIONS ON FIELD MAPS ARE APPROXIMATE, THE CONTRACTOR, AFTER OBTAINING WRITTEN CLEARANCE, SHALL CALL GASCO A MINIMUM OF 48 HOURS BEFORE STARTING EXCAVATION TO ARRANGE FOR FIELD LOCATION OF THE PIPELINE. THE TELEPHONE NUMBER IS 547-3575 DURING BUSINESS HOURS AND 526-0066 AFTER HOURS.
4. THE CONTRACTOR SHALL EXCAVATE AND BACKFILL AROUND THE PIPELINE IN THE PRESENCE OF A GASCO REPRESENTATIVE. ALL BACKFILL WITHIN 12 INCHES OF THE PIPELINE SHALL BE SELECT CUSHION MATERIAL APPROVED BY GASCO.
5. MINIMUM VERTICAL AND HORIZONTAL CLEARANCE BETWEEN THE PIPELINE AND OTHER CONDUITS, PIPELINES OR OTHER STRUCTURES SHALL BE 24 INCHES. ADEQUATE SUPPORT AND PROTECTION SHALL BE PROVIDED FOR ANY SECTION OF GAS PIPELINE EXPOSED IN THE TRENCH. SUCH SUPPORT AND PROTECTION SHALL BE APPROVED BY GASCO.
6. THE CONTRACTOR SHALL WORK IN AN EXPEDITIOUS MANNER TO KEEP THE UNCOVERED GAS LINE EXPOSURE TO A MINIMUM.
7. THE CONTRACTOR SHALL NOTIFY GASCO IMMEDIATELY AFTER DAMAGE HAS BEEN CAUSED TO ANY EXISTING PIPELINES, COATINGS, OR CATHODIC PROTECTION DEVICES. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES TO GASCO FACILITIES. REPAIR WORK ON THIS DAMAGE SHALL BE PERFORMED BY GASCO, WITH PAYMENT FOR THIS WORK TO BE BORNE BY THE CONTRACTOR.

CAUTION

8. 500# HIGH PRESSURE GAS LINE. HAND DIG TO EXPOSE GAS LINE BEFORE EXCAVATING WITH MACHINERY.

HIRI OIL LINE NOTES

1. AN EXCAVATION PERMIT IS REQUIRED FOR ALL CONSTRUCTION OR INSTALLATIONS WITHIN 10 FEET OF THE HIRI PIPELINE.
2. THE PERMIT FORM IS AVAILABLE AT THE OFFICE OF THE SUPERINTENDANT OF MAINTENANCE AND CONSTRUCTION, HIRI REFINERY AT CAMPBELL INDUSTRIAL PARK. TELEPHONE: 682-4505.
3. THE PERMIT WILL BE ISSUED WHEN THE CONSTRUCTION DRAWINGS INCLUDE THESE CONSTRUCTION NOTES, THE INSTALLATION IS AT A MINIMUM OF 12-INCHES FROM THE HIRI PIPELINE, AND THE CONTRACTOR UNDERSTANDS THE SUPERINTENDENT OF MAINTENANCE AND CONSTRUCTION MUST BE NOTIFIED AT LEAST 48-HOURS PRIOR TO EXCAVATION IN ORDER THAT AN HIRI MAINTENANCE-MAN LOCATE THE HIRI PIPELINE, AND TO WITNESS THE EXCAVATION OF THE LINE.
4. THE CONTRACTOR WILL BACKFILL ONLY IN THE PRESENCE OF AN HIRI REPRESENTATIVE. BACKFILL CUSHION TO BE INORGANIC SAND CONSISTING OF AT LEAST SIX-INCH DEPTH ENTIRELY AROUND THE PIPELINES.
5. A COMPLETE SET OF FINAL CONSTRUCTION DRAWINGS COVERING THE INSTALLATION OR CONSTRUCTION WITHIN 10 FEET OF THE HIRI PIPELINES MUST BE PRESENTED WHEN REQUESTING THE PERMIT FORM. THESE DRAWINGS WILL BE RETAINED UNTIL SUCH TIME THAT THE PROJECT "AS BUILT" DRAWINGS ARE MADE AVAILABLE.
6. THE CONTRACTOR AGREES TO REIMBURSE HIRI FOR ANY DAMAGE TO HIRI PIPELINE OR EQUIPMENT, PRODUCT LOSSES, TIME INCURRED FOR SUPERVISION AND MATERIAL SUPPLIED IN CONNECTION WITH THE EXCAVATION AND BACKFILLING NEAR THE HIRI PIPELINE.

HECO NOTES

1. THE CONTRACTOR IS TO EXERCISE EXTREME CAUTION WHEN THE CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF OVERHEAD ELECTRICAL FACILITIES AND MAINTAIN ADEQUATE CLEARANCE FOR HIS EQUIPMENT WHILE WORKING CLOSE TO AND/OR UNDER THE OVERHEAD FACILITIES.
2. THE CONTRACTOR IS TO COMPLY WITH THE DIRECTION OF THE STATE OF HAWAII OCCUPATIONAL SAFETY AND HEALTH LAW (DOSH).
3. THE CONTRACTOR IS TO OBTAIN A CLEARANCE TO EXCAVATE FROM HECO MAPPING AND RECORD DIVISION, 4TH FLOOR, 820 WARD AVENUE TWO WEEKS PRIOR TO START OF CONSTRUCTION.
4. FOR POLE BRACING INSTRUCTIONS SHOULD FIELD CONDITIONS AND/OR CONSTRUCTION PROCEDURES REQUIRE THAT POLES BE BRACED TO FACILITATE CONSTRUCTION, THE CONTRACTOR IS TO CONTACT MR. WALTER OKUDARA, HECO DISTRICT CONSTRUCTION SUPERINTENDENT, AT 455-2933 A MINIMUM OF 72 HOURS IN ADVANCE.
5. SHOULD IT BECOME NECESSARY, ANY WORK REQUIRED TO RELOCATE HECO FACILITIES SHALL BE DONE BY HECO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION.
6. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES TO HECO'S FACILITIES.
7. THE CONTRACTOR SHALL REPORT ANY DAMAGES TO HECO'S FACILITIES TO THE HECO TROUBLE DISPATCHER AT PHONE NO. 548-7920.

H.T.CO. NOTES

1. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN CONSTRUCTION WORK IS IN CLOSE PROXIMITY OF EXISTING UNDERGROUND TELEPHONE OR BURIED SIGNAL CORPS CABLE FACILITIES AND MAINTAIN ADEQUATE CLEARANCE FOR HIS EQUIPMENT WHILE WORKING CLOSE TO AND/OR UNDER THE OVERHEAD FACILITIES. SEE SHEETS 8 & 9 FOR LOCATION OF EXISTING BURIED SIGNAL CORPS CABLES (ABANDONED).
2. ANY WORK REQUIRED TO RELOCATE UNDERGROUND OR AERIAL FACILITIES SHALL BE DONE BY H.T.CO. AND PAID FOR BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION AND WILL BE LIABLE FOR ANY DAMAGE TO H.T.CO. FACILITIES.
3. THE CONTRACTOR TO OBTAIN EXCAVATION CLEARANCE FROM H.T.CO. OUTSIDE PLANT ENGINEERING RECORDS SECTION, 3RD FLOOR, 3239 UALENA ST., MINIMUM OF 72 HOURS PRIOR TO START OF WORK.
4. SHOULD FIELD CONDITIONS REQUIRE THAT POLES BE BRACED, CONTRACTOR SHALL CONTACT H.T.CO. INSPECTOR J. GILMAN AT 834-6382 A MINIMUM OF 72 HRS IN ADVANCE.

REVISION	DATE	BRIEF	BY	APPR'D



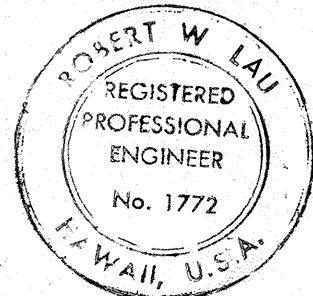
TRUSTEES OF
THE ESTATE OF JAMES CAMPBELL
HONOLULU, HAWAII

KALAELOA BOULEVARD IMPROVEMENTS
HONOLULU, EWA, OAHU, HAWAII

CONSTRUCTION NOTES

DRAWN BY HH ENGINEER KT

APPROVED BY
Chief Div. of Engineering D.P.M. DATE
(FOR BRADING ONLY)



THIS WORK WAS DONE BY ME
OR UNDER MY SUPERVISION

BY Robert W. Lau