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**NOTICE TO BIDDERS
INVITATION FOR BID (IFB)
Department of Hawaiian Home Lands
Land Development Division**

IFB NO.: IFB-17-HHL-010

SEALED BIDS for IFB No.: IFB-17-HHL-010, PAPA KOLEA SUBDIVISION SEWER IMPROVEMENTS, SEWER LINES E, F, L, A, C, D AND K-3 IMPROVEMENTS, Papakolea, Honolulu, Oahu, State of Hawaii, will be received by the Department of Hawaiian Home Lands (DHHL), at Hale Kalanianaʻole, 91-5420 Kapolei Parkway, Kapolei, Hawaii 96707, until **2:00 p.m., Hawaii Standard Time (H.S.T.), April 5, 2017**. The sealed bids will be publicly opened and read aloud at 2:15 p.m. Bids received after the specified bid deadline or if delivered anywhere other than the location specified above will not be opened or considered.

This project consists of furnishing all labor, materials, equipment and supervision to satisfactorily repair and/or replace the existing sewer lines and manholes within DHHL's Papakolea Subdivision, Papakolea, Honolulu, Oahu, Hawaii.

To be eligible to submit a bid, the Bidder and/or his subcontractors shall possess all required valid State of Hawaii licenses and specialty licenses needed to perform the work for this project. A surety bid bond will be required for this Invitation for Bids (IFB).

This project is subject to Section 103D, Hawaii Revised Statutes, and to the payment of not less than the prevailing salaries and wages promulgated by the State of Hawaii, Department of Labor and Industrial Relations.

Bid documents may be examined at or obtained from DHHL at the Department of Hawaiian Home Lands website:

<http://www.dhhl.hawaii.gov/procurement/>

There is no fee assessment to download the IFB documents from the DHHL website.

It is the responsibility of Interested Bidders to check the DHHL website for any addenda issued by DHHL.

All prospective bidders/offerors are invited to attend a PRE-BID CONFERENCE to be held at 9:00 a.m., H.S.T, on March 15, 2017 at the Papakolea Community Center, 2150 Tantalus Drive. Subcontractors and union representatives are also invited to attend. The conference is to provide bidders/offerors with an opportunity to ask questions about the contractual requirements and technical aspects of the project. A site visit of the project site will follow the pre-bid conference. Attendance of the pre-bid conference and/or site visit is not a condition for submitting a bid, but strongly recommended. Persons needing special accommodations due to a disability may submit such requests to Mitchell Kawamura, Project Manager, Land Development Division, via facsimile at (808) 620-9299, or e-mail to mitchell.h.kawamura@hawaii.gov.

A written NOTICE OF INTENTION TO BID is required and shall be received by the DHHL, Land Development Division, at 91-5420 Kapolei Parkway, Kapolei, Hawaii 96707, no later than March 24, 2017. Submittal of a NOTICE OF INTENTION TO BID via facsimile at (808) 620-9299, or e-mail to mitchell.h.kawamura@hawaii.gov is acceptable.

A properly executed and notarized STANDARD QUALIFICATION QUESTIONNAIRE FOR OFFERORS, SPO Form-21 ("Questionnaire") is required and shall be submitted by mail or hand-delivery to the DHHL Land Development Division, at 91-5420 Kapolei Parkway, Kapolei, Hawaii 96707 for evaluation no later than March 20, 2017. The Questionnaire is include with the bid documents, and can be downloaded at the State Forms Central website: <http://spo.hawaii.gov/all-forms/>

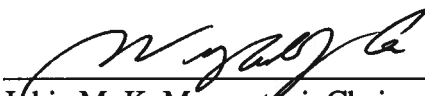
Bids shall comply with the requirements of the IFB. Bids that do not comply with the IFB may be subject to disqualification. DHHL reserves the right to amend the IFB by written addenda, to reject any and all bids, or to waive any defects in said bids where DHHL deems it is in the best interest of the State.

CAMPAIGN CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS PROHIBITED. If awarded a contract in response to this solicitation, offeror agrees to comply with HRS §11-355, which states that campaign contributions are prohibited from a State and county government contractor during the term of the contract if the contractor is paid with funds appropriated by the legislative body between the execution of the contract through the completion of the contract.

Questions regarding this project may be directed in writing to Mitchell Kawamura, Project Manager, Land Development Division, DHHL, 91-5420 Kapolei Parkway, Kapolei, Hawaii 96707, via facsimile at (808) 620-9299, or e-mail to mitchell.h.kawamura@hawaii.gov no later than March 20, 2017.

Dated at Honolulu, Hawaii, this 1st day of March 2017.

DEPARTMENT OF HAWAIIAN HOME LANDS



Jobie M. K. Masagatani, Chairman
Hawaiian Homes Commission

Posted on the internet at: <http://spo3.hawaii.gov/notices/notices>

Instructions for Bid Submittal

General Instructions for Bid Submittal

The bid offer form must be completed and submitted to the DHHL by the required due date and time, and in the form prescribed by the DHHL. Electronic mail and facsimile transmissions shall not be accepted.

For your convenience, an "IFB Checklist for Bidders" is included in this section for your use.

No supplemental literature, brochures or other unsolicited information should be included in the bid packet.

A written response is required for each item unless indicated otherwise.

Bid documents and all certifications should be written legibly or typed and completed with black ink.

I. PROPOSAL REQUIREMENTS AND CONDITIONS

A. QUALIFICATION OF BIDDERS.

Prospective Bidders must be capable of performing the work for which bids are invited, and must be capable of entering into a public contract of \$25,000 (twenty-five thousand dollars) or more.

B. NOTICE OF INTENTION TO BID

1. In accordance with Section 103D-310, Hawaii Revised Statutes, and Section 3-122-108, Hawaii Administrative Rules, a written notice of intention to bid must be submitted to the Chairman, who is the officer charged with letting the contract. The notice may be faxed, hand carried, mailed, or e-mailed to the office indicated in the Notice to Contractors.
2. The written notice must be received by the office indicated in the Notice to Contractors no later than the 10th calendar day prior to the day designated for opening bids. If the 10th calendar day prior to the day designated for opening bids is a Saturday, Sunday, or legal State holiday, then the written notice must be received by the Department no later than the last working day immediately prior to said Saturday, Sunday, or legal State holiday. The written notice will be time stamped when received by said office. The time designated by the time stamping device in said office shall be official. If the written notice is hand carried, then the bearer is responsible to ensure that the notice is time stamped by said office. If the notice is faxed, the time of receipt by the Department fax machine shall be official. If the notice is sent by email, the time indicated in the date and time field of the email as received by the Department shall be official.

3. It is the responsibility of the prospective Bidder to ensure that the written notice of intention to bid is received in time and the Department assumes no responsibility for failure of timely delivery caused by the prospective Bidder or by any method of conveyance chosen by the prospective Bidder.
4. If two (2) or more prospective Bidders desire to bid jointly as a joint venture on a single project, they must file an affidavit of joint venture with their notice of intention to bid. Such affidavit of joint venture will be valid only for the specific project for which it is filed. No further license is required when all parties to the joint venture possess current and appropriate contractor's licenses. Joint ventures are required to be licensed in accordance with Chapter 444 of the Hawaii Revised Statutes, as amended, and the rules and regulations of the Contractor's License Board when any party to the joint venture agreement does not hold a current or appropriate contractor's license. The joint venture must be registered with the office of the Director of Commerce and Consumer Affairs in accordance with Chapter 425 of the Hawaii Revised Statutes, as amended.
5. No persons, firm or corporation may bid where (1) the person, firm, or corporation, or (2) a corporation owned substantially by the person, firm, or corporation, or (3) a substantial stockholder or an officer of the corporation, or (4) a partner or substantial investor in the firm is in arrears in any payment owed to the State of Hawaii or any of its political subdivisions or is in default of any obligation to the State of Hawaii or to all or to any of its political subdivisions, including default as a surety or failure to perform faithfully and diligently any previous contract with the Department.

C. STANDARD QUALIFICATION QUESTIONNAIRE FOR OFFERORS

1. Prospective Bidders shall submit answers to questions contained in the STANDARD QUALIFICATION QUESTIONNAIRE FOR OFFERORS (SPO Form-21), properly executed and notarized, setting forth a complete statement of the experience of such prospective Bidder and its organization in performing similar work and a statement of the equipment proposed to be used, together with adequate proof of the availability of such equipment, no later than 2:00 p.m. on the tenth calendar day prior to the day designated for opening bids. If the tenth calendar day prior to the day designated for opening bids is a Saturday, Sunday, or legal State holiday, then the questionnaire must be received by the Department no later than 2:00 p.m. on the last working day immediately prior to said Saturday, Sunday, or legal State holiday. The questionnaire will be time stamped when received by said office. The time designated by the time stamping device in said office shall be official. If the questionnaire is hand carried, then the bearer is responsible to ensure that the notice is time stamped by said office. E-mail and facsimile (FAX) transmissions are not acceptable in whole or in part, under any circumstances. If the information in the questionnaire proves satisfactory, the Bidder's proposal will be received. All information contained in the answers to the questionnaire shall be kept confidential. The questionnaire will be returned to the Bidder after it has served its purpose.

2. If upon review of the Questionnaire, or otherwise, the Bidder appears not fully qualified or able to perform the intended work, the Chairman shall, after affording the Bidder an opportunity to be heard and if still of the opinion that the Bidder is not fully qualified to perform the work, refuse to receive or to consider any bid offered by the prospective Bidder.
3. Failure to complete and submit the prequalification questionnaire by the designated deadline will be sufficient cause for the Department to disqualify a prospective Bidder.

D. PROPOSAL FORM

1. Prospective Bidders are being furnished with the proposal form giving the location, description, and the contract time of the work contemplated for which a lump sum bid price is asked or containing a schedule of items, together with estimated quantities of work to be performed and materials to be furnished, for which unit bid prices and/or lump sum bid prices are asked.
2. All papers bound with or attached to the proposal form shall be considered a part thereof and shall not be detached or altered when the proposal is submitted.
3. The drawings, specifications and other documents designated in the proposal form will also be considered a part thereof whether attached or not.
4. When quantities for individual items of work are listed in the proposal form for which respective unit prices are asked, said quantities are estimated or approximate and are to be used by the Department only for the purpose of comparing on a uniform basis bids offered for the work. The Department does not, expressly or by implication agree that the actual quantity of work will correspond therewith.
5. On unit price bids, payment will be made only for the actual number of units incorporated into the finished project at the unit price bid, subject to DHHL Construction General Conditions (CGC), Section 4.7, VARIATIONS IN ESTIMATED QUANTITIES.
6. The Bidder's proposal must be submitted on the proposal form furnished by the Department. The proposal must be prepared in full accordance with the instructions herein. The Bidder must state, both in words and numerals, the lump sum price or total sum bid at which the work contemplated is proposed to be done. These prices must be written in ink or typed. In case of a discrepancy between the prices written in words and those written in figures, the words shall govern over the figures. The Bidder shall sign the proposal in the spaces provided with ink.

7. If the proposal is made by an individual, the person's name and post office address must be shown in the space provided. If made by a partnership, the name and post office address of each member of the partnership must be shown and the proposal signed by all partners or evidence in the form of a partnership agreement must be submitted showing the authority of the partner to enter, on behalf of said partnership, into contract with the Department. If made by a corporation the proposal must show the name, title and business address of the president, secretary and treasurer and also evidence in the form of a corporate resolution must be submitted showing the authority of the particular corporate representative to enter on behalf of said corporation into contract with the Department. If made by a joint-venture the name and post office address of each member of the individual firm, partnership or corporation comprising the joint-venture must be shown with other pertinent information required of individuals, partnerships or corporations as the case may be. The proposal must be signed by all parties to the joint-venture or evidence in the form of a Joint-Venture Agreement must be submitted showing the authority of the joint-venture's representative to enter on behalf of said joint-venture into contract with the Department.
8. Pursuant to the requirements of Section 103D-302, HRS, each Bidder shall include in its bid the name of each person or firm to be engaged by the Bidder on the project as joint contractor or subcontractor indicating also the nature and scope of work to be performed by such joint contractor and/or subcontractor and their respective contractor's license number. A joint contractor or subcontractor performing less than or equal to one percent of the total bid amount is not required to be listed in the proposal. The Bidder shall be solely responsible for verifying that their joint contractor or subcontractor has the proper license at the time of the submitted bid.
9. It is understood and agreed that the Contractor shall make no claim for anticipated profit, loss of profit or unabsorbed field, branch or home office overhead and impact losses due to the exercise of the Departments right to eliminate entire portions of the work or to increase or decrease any or all the quantities shown in the proposal form.
10. By submitting a bid on the proposal form, a Bidder accepts the language therein as its own.

E BID SECURITY

1. Subject to the exceptions in Section 3-122-223(d) HAR, all lump sum bids of \$50,000 (fifty thousand dollars) and higher, or lump sum base bids including alternates of \$50,000 (fifty thousand dollars) and higher, that are not accompanied by bid security are non-responsive. Bid security shall be one of the following: §3-122-222(a) HAR

- a. Surety bid bond underwritten by a company licensed to issue bonds in this State which shall be substantially in the form of the Surety Bid Bond form in Procurement Circular No. 2007-05; or
 - b. Legal Tender; or
 - c. Certificate of Deposit; credit union share certificate; or cashier's, treasurer's, teller's or official check drawn by, or a certified check accepted by, and payable on demand to the State by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration.
 - (a) These instruments may be utilized only to a maximum of \$100,000 (one hundred thousand dollars).
 - (b) If the required security or bond amount totals over \$100,000 (one hundred thousand dollars), more than one instrument not exceeding \$100,000 (one hundred thousand dollars) each and issued by different financial institutions shall be accepted.
 - (c) CAUTION - Bidders are cautioned that certificates of deposit or share certificates with an early withdrawal penalty must have a face value sufficient to cover the maximum penalty amount in addition to the proposal guaranty requirement. If the certificate is made out to two names, the certificate must be assigned unconditionally to the Chairman.
2. Unless otherwise stated, the bid security shall be in an amount equal to at least five percent (5%) of the lump sum bid or lump sum base bid including all additive alternates or in an amount required by the terms of the federal funding, where applicable.
 3. If the Bidder is a corporation, evidence in the form of a corporate resolution, authorizing the corporate representative to execute the bond must be submitted with the proposal. (See sample in Appendix.) If the Bidder is a partnership, all partners must sign the bond or evidence in the form of a partnership agreement must be submitted showing the authority of the partner.
 4. If the Bidder is a joint-venture, all parties to the joint-venture must sign the bond; provided, that one party to the joint-venture may sign on behalf of the joint-venture if evidence in the form of a joint-venture agreement or power of attorney, is submitted showing the authority of the signatory to sign the bond on behalf of the joint-venture.
 5. In the case where the award will be made on a group or item basis, the amount of bid security shall be based on the total bid for all groups or items submitted.

6. Bidders are cautioned that surety bid bonds which place a limit in value to the difference between the bid amount and the next acceptable bid, such value not to exceed the purported amount of the bond, are not acceptable. Also, surety bid bonds which place a time limit on the right of the State to make claim other than allowed by statutes or the GENERAL CONDITIONS are not acceptable. Bidders are hereby notified that a surety bid bond containing such limitation(s) is not acceptable and a bid accompanied by such surety bid bond will be automatically rejected.

F. BIDDER'S RESPONSIBILITY FOR EXAMINATION OF CONTRACT DOCUMENTS, SITE OF WORK, ETC.

The Bidder shall carefully examine the project site and study all Contract Documents (as defined in the DHHL Construction General Conditions) and any documents or items referenced therein and contract and bond forms therefore. The submission of a bid shall be considered as a warranty that the Bidder has made such examination and is informed of the conditions to be encountered in performing the Work and of the requirements of the Contract Documents and any documents and items referenced therein, and contract and bonds.

G. ADDENDA AND BID CLARIFICATIONS

1. The terms and requirements of the bid documents (i.e. drawings, specifications and other bid and contract documents) cannot be changed prior to the bid opening except by a duly issued addendum.
2. The Department may alter, increase or decrease the scope of the work or the contract time, provisions and conditions by issuing a written addendum which sets forth such alterations, increase or decrease.
3. If a Bidder discovers what it considers to be a discrepancy, ambiguity, omission or doubt as to the meaning of drawings, specifications and any other bid or contract documents, the Bidder shall request in writing an interpretation from the Chairman.
4. If the Department agrees that a discrepancy, ambiguity, omission or doubt exists, it shall issue a written addendum to the bid documents to all prospective Bidders known to have received a solicitation eight (8) days before the bids are opened. The Department may extend the bid opening to allow at least eight (8) days from the notification date of the addendum. Upon notification by the Department, all Bidders/addressees shall be deemed to be on notice of the information therein whether or not the addendum is actually received. All addenda so issued shall become part of the contract documents.

5. No claim for additional compensation and/or time for performance will be allowed if the Contractor discovered, or in the exercise of reasonable care, should have discovered a discrepancy, ambiguity, omission or doubt for which an interpretation was not requested.

H. SUBSTITUTION OF MATERIALS AND EQUIPMENT BEFORE BID OPENING

1. Brand names of materials or equipment are specified or shown on the drawings to indicate a quality, style, appearance or performance and not to limit competition. The Bidder shall base its bid on one of the specified brand names unless alternate brands are qualified as equal or better in an addendum. Qualifications of such proposed alternate brands shall be submitted in writing and addressed to the Project Manager. The face of the envelope containing the request must be clearly marked "SUBSTITUTION REQUEST". The request may be hand carried or mailed to DHHL, 91-5420 Kapolei Parkway, Kapolei, Hawaii, 96707. In either case, the written request must be received by DHHL no later than fourteen (14) days before the bid opening date and time specified in the Notice to Bidders. The written request will be time stamped by DHHL. For the purpose of this section, the time designated by the time stamping device in DHHL shall be official. If the written request is hand carried, the bearer is responsible to ensure that the request is time stamped by DHHL.
2. Submit three (3) sets of the written request, technical brochures, and a statement of variances.
3. A statement of variances must list all features of the proposed substitution which differ from the drawings, specifications and/or product(s) specified and must further certify that the substitution has no other variant features. The brochure and information submitted shall be clearly marked showing make, model, size, options, etc., and must include sufficient evidence to evaluate each feature listed as a variance. A request will be denied if submitted without sufficient evidence. If after installing the substituted product, an unlisted variance is discovered, Contractor shall immediately replace the product with a specified product at no cost to the Department.
4. Any substitution request not complying with the above requirements will be denied. Substitution requests sent to other agencies and received by Project Manager after the deadline above will be denied.
5. An addendum shall be issued to inform all prospective Bidders of any accepted substitution.

I. DELIVERY OF PROPOSALS.

The entire proposal shall be placed together with the bid security, in a sealed envelope and delivered as indicated in the Notice to Bidders. Bids which do not comply with this requirement may not be considered. Proposals will be received up to the time fixed in the public notice for opening of bids and must be in the hands of the official by the time indicated. The time designated by the time stamping device in DHHL shall be official.

J. WITHDRAWAL OR REVISION OF PROPOSAL. Proposal may be modified prior to the deadline to submit the proposal by any of the following documents:

1 Withdrawal of Proposals:

- (a) A signed, written notice received in the office designated in the solicitation; or
- (b) A signed written notice faxed or e-mailed to the office designated in the solicitation.

2 Modification of Proposals:

- (a) A signed written notice received in the office designated in the solicitation, accompanied by a duly executed certificate of resolution for corporations, partnerships and joint-ventures, stating that a modification to the proposal is submitted; and
- (b) The actual modification sealed securely in a separate envelope or container, accompanying the written notice.
- (c) The modification may be sent by fax or email, provided that the originals must be submitted within two working days of the fax or email.

K. PUBLIC OPENING OF PROPOSALS.

Proposals will be opened and read publicly at the time and place indicated in the Notice to Bidders. Bidders, their authorized agents and other interested parties are invited to be present.

L. DISQUALIFICATION OF BIDDERS. Any one or more of the following causes will be considered as sufficient for the disqualification of a Bidder and the rejection of its proposal or proposals:

- 1. Non-compliance with Section I.A. QUALIFICATION OF BIDDERS;
- 2. Evidence of collusion among Bidders;

3. Lack of responsibility and cooperation as shown by past work such as failing to complete all of the requirements to close the project within a reasonable time or engaging in a pattern of unreasonable or frivolous claims for extra compensation;
4. Being in arrears on existing contracts with the State of Hawaii, or having defaulted on a previous contract with the State of Hawaii;
5. Lack of proper equipment and/or sufficient experience to perform the work contemplated, as revealed by the Standard Questionnaire and Financial Statement for Bidders;
6. No contractor's license or a contractor's license which does not cover type of work contemplated;
7. More than one proposal for the same work from an individual, firm, partnership, corporation or joint venture under the same or different name;
8. Delivery of bids after the deadline specified in the advertisement calling for bids;
9. Failure to pay, or satisfactorily settle, all bills overdue for labor and materials of former contracts in force at the time of issuance of proposal forms; and/or
10. Debarment or suspension pursuant to the provisions of Chapters 103D, 104 and 444, Hawaii Revised Statutes, as amended.

M. PROTESTS

1. Protests shall be governed by Section 103D-701, Hawaii Revised Statutes, and amended hereafter, and its implementing rules set forth in Title 3, Chapter 126, Subchapter 1, of the Hawaii Administrative Rules, and as amended hereafter.
2. The Chairman is the Department's chief procurement officer to whom protests shall be addressed unless specified otherwise in the solicitation.

N. WRONGFUL REFUSAL TO ACCEPT A BID.

In the event the Chairman, for any reason, wrongfully refuses to accept what would otherwise be a responsive and responsible lowest bid, the exclusive remedy for such lowest Bidder shall be the recovery of the reasonable actual costs of preparing the bid. No other Bidder shall have any claim for damages.

II AWARD AND EXECUTION OF CONTRACT

A. CONSIDERATION OF PROPOSALS; CANCELLATION.

After the proposals are opened and read, the figures will be extended and/or totaled in accordance with the bid prices of the acceptable proposals and the totals will be compared and the results of such comparison shall be made public. In the event of a tie bid, the low Bidder shall be determined in accordance with HAR 3-122-34. In the comparison of bids, words written in the proposals will govern over figures and unit prices will govern over totals. Until the award of the contract, the Department may cancel the solicitation, reject any and all proposals in whole or part and may waive any defects or technicalities whenever such action is deemed to be in the best interest of the Department.

B. IRREGULAR PROPOSALS.

Proposals will be considered irregular and may be rejected for the following reasons:

1. If the proposal is unsigned.
2. If bid security is not in accordance with Section I.E. BID SECURITY.
3. If proposal is on a form other than that furnished by the Department; or if the form is altered or any part thereof detached.
4. If the proposal shows any non-compliance with applicable law, alteration of form, additions not called for, conditional bids, incomplete bids, non-initialed erasures, other defects, or if the prices are obviously unbalanced.
5. If the Bidder adds any provisions reserving the right to accept or reject an award.
6. If the Bidder adds any provisions reserving the right to enter into a contract pursuant to an award.
7. When a proposal is signed by an officer or officers of a corporation and a currently certified corporate resolution authorizing such signer(s) to submit such proposal is not submitted with the proposal or when the proposal is signed by an agent other than the officer or officers of a corporation or a member of a partnership and a power of attorney is not submitted with the proposal.

8. Where there is an incomplete or ambiguous listing of joint contractors and/or subcontractors the proposal may be rejected. All work which is not listed as being performed by joint contractors and/or subcontractors must be performed by the Bidder with its own employees. Additions to the list of joint contractors or subcontractors will not be allowed. Whenever there is a doubt as to the completeness of the list, the Bidder will be required to submit within five (5) working days, a written confirmation that the work in question will be performed with its own work force. Whenever there is more than one joint contractor and/or subcontractor listed for the same item of work, the Bidder will be required to either confirm in writing within five (5) working days that all joint contractors or subcontractors listed will actually be engaged on the project or obtain within five (5) working days written releases from those joint contractors and/or subcontractors who will not be engaged.
9. If in the opinion of the Chairman, the Bidder and/or its listed subcontractors do not have the contractor's licenses or combination of contractor's licenses necessary to complete all of the work.

C. CORRECTION OF BIDS AND WITHDRAWAL OF BIDS (§3-122-31 HAR)

1. Corrections to bids after bid openings but prior to award may be made under the following conditions:
 - (a) If the mistake is attributable to an arithmetical error, the Chairman shall so correct the mistake. In case of error in extension of bid price, the unit price shall govern.
 - (b) If the mistake is a minor informality which shall not affect price, quantity, quality, delivery, or contractual conditions, the Bidder shall request correction by submitting proof of evidentiary value which demonstrates that a mistake was made. The Chairman shall prepare a written approval or denial in response to this request. Examples of such mistakes include:
 - (1) Typographical errors;
 - (2) Transposition errors;
 - (3) Failure of a Bidder to sign the bid, but only if the unsigned bid is accompanied by other material indicating the Bidder's intent to be bound.
 - (c) For reasons not allowable under Subsections II.C.1.(a) and II.C.1.(b) when the Chairman determines that the correction or waiver of an obvious mistake is in the best interest of the Department or is warranted for the fair treatment of other Bidders.

2. Withdrawal of bids after bid opening but prior to award may be made when the bid contains a mistake attributable to an obvious error which affects price, quantity, quality, delivery, or contractual conditions, and the Bidder requests withdrawal by submitting proof of evidentiary value which demonstrates that a mistake was made. The Chairman shall prepare a written approval or denial in response to this request.
3. Correction or withdrawal of bids after award is not permissible except in response to a written withdrawal or correction request by the Contractor, and the Chairman makes a written determination that the Department's procurement practices and policies would not be materially affected by such correction or withdrawal.

D. AWARD OF CONTRACT

1. The award of contract, if it be awarded, will be made within one hundred twenty (120) consecutive calendar days after the opening of the proposals to the lowest responsible and responsive Bidder (including the alternate or alternates which may be selected by the Chairman in the case of alternate bids) whose proposal complies with all the requirements prescribed, but in no case will an award be made until all necessary investigations are made. The successful Bidder will be notified, by letter mailed to the address shown on the proposal, that its bid has been accepted and that it has been awarded the contract.
2. If the contract is not awarded within the one hundred twenty (120) days noted in Subsection II.D.1 above, the Department may request the successful Bidder to extend the time for the acceptance of its bid. The Bidder may reject such a request without penalty; and in such case, the Department may at its sole discretion make a similar offer to the next lowest responsive and responsible Bidder and so on until a bid is duly accepted or until the Department elects to stop making such requests.
3. No contract will be awarded to any person or firm suspended or debarred under the provisions of Chapters 103D, 104 and Chapter 444, Hawaii Revised Statutes as amended.
4. The contract will be drawn on the forms furnished by the Chairman. The contract will not be binding on the Department until all required signatures have been affixed thereto and written certification that funds are available for the work has been made.
5. Prior to award of the contract, the Department shall verify compliance with Sections 103D-310 and 103D-328 HRS via Hawaii Compliance Express (HCE).

E. CANCELLATION OF AWARD.

The Department reserves the right to cancel the award of any contract at any time before the execution of said contract by all parties. The exclusive remedy to the awardee for such cancellation shall be payment of the reasonable bid preparation costs and the reimbursement of any direct expenses incurred as directed in the Notice of Award. Such cancellation will not incur any liability by the Department to any other Bidder.

F. RETURN OF BID SECURITY.

All bid securities, except those of the four (4) lowest Bidders, will be returned following the opening and checking of the proposals. The retained bid securities of the four lowest Bidders will be returned within five (5) working days following the complete execution of the contract.

G. REQUIREMENT OF PERFORMANCE AND PAYMENT BONDS

1. Performance and Payment Bonds shall be required for contracts \$50,000 (fifty thousand dollars) and higher. At the time of the execution of the contract, the successful Bidder shall file good and sufficient performance and payment bonds on the form furnished by the Department, each in an amount equal to one hundred percent (100%) of the amount of the contract price unless otherwise stated in the solicitation of bids. Acceptable performance and payment bonds shall be limited to the following:
 2. Surety bonds underwritten by a company licensed to issue bonds in this State; or
 3. A certificate of deposit; credit union share certificate; or cashier's, treasurer's, teller's or official check drawn by, or a certified check accepted by, and payable on demand to the Department by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration.
 - (a) These instruments may be utilized only a maximum of \$100,000 (one hundred thousand dollars).
 - (b) If the required security or bond amount totals over \$100,000 (one hundred thousand dollars), more than one instrument not exceeding \$100,000 (one hundred thousand dollars) each and issued by different financial institutions shall be acceptable.
4. If the Contractor fails to deliver the required performance and payment bonds, the Contractor's award shall be canceled, the Department shall have the remedies provided below under FAILURE TO EXECUTE THE CONTRACT and award of the contract shall be made to the next lowest responsible and responsive Bidder.

H. EXECUTION OF THE CONTRACT

1. The contract shall be signed by the successful Bidder and returned, together with satisfactory performance and payment bonds, within ten (10) calendar days after the Bidder is awarded the contract for execution or within such further time as the Chairman may allow. No proposal or contract shall be considered binding upon the Department until the contract has been fully and properly executed by all parties thereto. For projects funded with State Capital Improvement Project (CIP) funds, the Chairman shall also endorse thereon its certificate, as required by Section 103D-309, HRS, that there is an available unexpended appropriation or balance of an appropriation over and above all outstanding contracts sufficient to cover the Department's amount required by such contract.
2. On any individual award totaling less than \$25,000 (twenty five thousand dollars), the Department reserves the right to execute the contract by the issuance of a Purchase Order. Issuance of a Purchase Order shall result in a binding contract between the parties without further action by the Department. The issuance of a Purchase Order shall not be deemed a waiver of the General Conditions, and Contract Document requirements.

I. FAILURE TO EXECUTE THE CONTRACT

1. Before the Award. If a low Bidder without legal justification withdraws its bid after the opening of bids but before the award of the contract, the Department shall be entitled to retain as damages the amount established as bid security, and may take all appropriate actions to recover the damages sum from the property or third-party obligations deposited as bid security.
2. After the Award. If the Bidder to which a contract is awarded shall fail or neglect to enter into the contract and to furnish satisfactory security within ten (10) calendar days after such award or within such further time as the Chairman may allow, the Department shall be entitled to recover from such Bidder its actual damages, including but not limited to the difference between the bid and the next lowest responsive bid, as well as personnel and administrative costs, consulting and legal fees and other expenses incurred in arranging a contract with the next low responsible and responsive Bidder or calling for new bids. The Department may apply all or part of the amount of the bid security to reduce its damages. If upon determination by the Department that the bid security exceeds the amount of its damages, it shall release or return the excess to the person who provided same.
3. Chairman's Options. Upon a withdrawal of the lowest responsive bid, or upon a refusal or failure of the lowest Bidder to execute the contract, the Chairman may thereupon award the contract to the next lowest responsible and responsive Bidder or may call for new bids, whichever method the Chairman may deem to be in the best interests of the Department.

IFB Checklist for Bidders
IFB-17- HHL-010
Papakolea Sewer Improvements

Items required prior to Bid Opening:

- ☐ Notice of Intention to Bid, due on **March 24, 2017**.
- ☐ SPO Form 21 (Standard Qualification Questionnaire), submitted to DHHL, Land Development Division due on **March 20, 2017**.
- ☐ SPO-38 (Hawaii Product Preference Request, if any), due on **March 20, 2017**.

Items required with Sealed Bid:

- ☐ Bid Package Envelope Cover (with the words "Sealed Bid"), included with this IFB.

The Envelope Cover Form shall be used for Sealed Bid Envelopes. The cover form should be glued or taped to the front of the bid envelope and the information type- written or printed clearly in ink.

- ☐ Bid Offer Form (included with this IFB)

The total sum bid amount must be typed or clearly written in both numbers and words in the appropriate space on the Bid Offer Form. Illegible writing on any portion of the Bid Offer Form, except for the signee's signature, may be grounds for considering a Bid "non-responsive".

- ☐ Corporate Resolution (Indicating who is authorized to sign bid documents and contracts)
- ☐ Bid Security
- ☐ Form 1 – Certification of Bidder's Participation in Approved Apprenticeship Program Under Act 17 (Apprenticeship Agreement Preference, if any).

**STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS**

BID OFFER FORM FOR

**PAPAKOLEA SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3**

PAPAKOLEA, HONOLULU, OAHU, HAWAII

**TAX MAP KEYS
2-2-015, 2-4-039, 041 & 042 and 2-5-021 & 022**

IFB No.: IFB-17-HHL-010

Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

The undersigned has carefully examined, read, and understands the terms and conditions in the Plans and Specifications, Special Conditions attached hereto, DHHL Construction General Conditions, and General Conditions specified in the Invitation for Bids (IFB) No. IFB-17-HHL-010. The State of Hawaii's (State) Contract for Goods and Services Based on Competitive Sealed Bids AG-003 Rev. 6/22/2009, AG-008 103D General Conditions, are included by reference and made part hereof and available upon written request to the Procurement Officer. The undersigned hereby submits the following offer to perform the work for IFB No. IFB-17-HHL-010 as specified herein, all in accordance with the true intent and meaning thereof.

The undersigned understands and agrees that:

1. The State reserves the right to reject any and all offers and to waive any items that are defective when, in the State's opinion, such rejection or waiver will be in the best interest of the State. A solicitation may be rejected in whole or part when in the best interest of the State.
2. If awarded the contract, all services will be in accordance with Hawaii Revised Statutes (HRS) § 103-55.5.
3. In submitting this offer, the Offeror is not in violation of HRS Chapter 84, concerning prohibited State contracts.
4. By submitting this offer, the Offeror certifies that the offer was independently arrived at without collusion and the Offeror did not participate in any practices to restrict competition.
5. It is understood that the failure to receive any addendum shall not relieve the Offeror from any obligation under this IFB.

Date: _____

Papakolea Sewer Improvements
Sewer Lines E, F, L, A, C, D, and K-3
IFB-17-HHL-010

The undersigned represents that it is: (Check ☒ one only)

- ☐ A **Hawaii business** incorporated or organized under the laws of the State of Hawaii; **OR**
☐ A **Compliant Non-Hawaii business** not incorporated or organized under the laws of the State of Hawaii, is or shall be registered at the State of Hawaii Department of Commerce and Consumer Affairs Business Registration Division (DCCA-BREG) to do business in the State of Hawaii.

State of incorporation: _____

Offeror is:

☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Joint Venture ☐ Other: _____

Federal ID No.: _____

Hawaii General Excise Tax ID No.: _____

Telephone No.: _____

Fax No.: _____

E-Mail Address.: _____

Payment address (other than street address below)

(Street Address, City, State, Zip Code)

Business address

(Street Address, City, State, Zip Code)

Respectfully submitted:

Authorized (Original) Signature

Name and Title (Please Type or Print)

*

Exact Legal Name of Company (Offeror)

*If Offeror shown above is a "dba" or a "division" of a corporation, furnish the exact legal name of the corporation under which the awarded contract will be executed:

The following bid is hereby submitted for the Papakolea Sewer Improvements Sewer Lines E, F, L, A, C, D and K-3 to the Department of Hawaiian Home Lands.

Papakolea Sewer Improvements
Sewer Lines E, F, L, A, C, D, and K-3 2
IFB-17-HHL-010

Bid Offer Form
February 2017

Item No.	No. of Units	Description	Unit Price	Unit Total
1.	L.S.	Mobilization Lump Sum		\$ _____
2.	L.S.	Temporary Erosion Control, including installing and maintaining all temporary erosion control measures as specified in the construction plans, and removing all measures upon full establishment of permanent vegetative cover and permanent erosion control measure Lump Sum		\$ _____
3.	L.S.	Archaeological services, including monitoring and final report. Lump Sum		\$ _____
4.	16	Ea., Demolish and remove existing brick SMH Each	\$ _____	\$ _____
5.	39	Ea., Tree Removal Each	\$ _____	\$ _____
6.	205	Lin. Ft., Demolish and remove existing chain link fence. Per Lin. Ft.	\$ _____	\$ _____
7.	2	Lin. Ft., Demolish and restore 1 to 2 foot high rock pile, in place complete Per Lin. Ft.	\$ _____	\$ _____
8.	80	Lin. Ft., Relocate existing 1 to 2.99-foot high rock wall. Per Lin. Ft.	\$ _____	\$ _____
9.	32	Lin. Ft., Demolish and restore 1 to 2.99-foot high rock wall, in place complete Per Lin. Ft.	\$ _____	\$ _____

Item No.	No. of Units	Description	Unit Price	Unit Total
10.	4	Lin. Ft., Demolish and restore 4 to 4.99-foot high rock wall, in place complete Per Lin. Ft.	\$ _____	\$ _____
11.	4	Lin. Ft., Demolish and restore 1 to 2.99-foot high rock wall with 4-foot high chain link fence, in place complete Per Lin. Ft.	\$ _____	\$ _____
12.	2	Lin. Ft., Demolish and restore 3 to 3.99-foot high rock wall with 4-foot high chain link fence, in place complete Per Lin. Ft.	\$ _____	\$ _____
13.	2	Lin. Ft., Demolish and restore 3 to 3.99-foot high rock wall with 6-foot high chain link fence, in place complete Per Lin. Ft.	\$ _____	\$ _____
14.	2	Lin. Ft., Demolish and restore 4 to 4.99-foot high rock wall with 4-foot high chain link fence, in place complete Per Lin. Ft.	\$ _____	\$ _____
15.	1	Ea., Demolish and remove drain inlet. Plug drainline. Each	\$ _____	\$ _____
16.	L.S.	Relocate existing concrete pad (approx. 10-ft by 6-ft), in place complete. (TMK:1-2-4-040: 029) Lump Sum		\$ _____
17.	L.S.	Relocate existing shed, in place complete. (TMK: 1-2-5-022: 020) Lump Sum		\$ _____
18.	L.S.	Relocate existing shed, in place complete. (TMK: 1-2-5-021: 024) Lump Sum		\$ _____

Item No.	No. of Units	Description	Unit Price	Unit Total
19.	3,670	L.F., 8-inch PVC sewer line installed by open trenching in unpaved easement, inclusive of bypassing, and all incidentals, in place complete. Per Lin. Ft.	\$ _____	\$ _____
20.	16	L.F., 8-inch PVC sewer line installed by open trenching in roadway, inclusive of bypassing, and all incidentals in place complete. Per Lin. Ft.	\$ _____	\$ _____
21.	52	Ea., Sewer lateral re-connection, in place complete. Each	\$ _____	\$ _____
22.	255	Lin. Ft., Reinforced concrete jacket, in place complete. Per Lin. Ft.	\$ _____	\$ _____
23.	6	Ea., Epoxy line sewer manholes, including cleaning, preparation, removal of rungs, repair of cracks, and all incidentals, in place complete. Each	\$ _____	\$ _____
24.	340	Cu.Yd., Additional fill for 2' minimum cover with erosion control mat and hydromulch, in place complete. Per Cu. Yd.	\$ _____	\$ _____
25.	95	Lin. Ft., 4'-high Chain Link Fence, in place complete. Per Lin. Ft.	\$ _____	\$ _____
26.	80	Lin. Ft., 5'-high Chain Link Fence, in place complete. Per Lin. Ft.	\$ _____	\$ _____
27.	30	Lin. Ft., 6'-high Chain Link Fence, in place complete. Per Lin. Ft.	\$ _____	\$ _____

Item No.	No. of Units	Description	Unit Price	Unit Total
28.	2	Ea., Boulder Removal, including protection of existing utilities and structures. Each	\$ _____	\$ _____
29.	1	EA, Standard Sewer Manhole (3.00'-3.99' depth from top of cover to invert), in place complete. Each	\$ _____	\$ _____
30.	12	EA, Standard Sewer Manhole (4.00'-4.99' depth from top of cover to invert), in place complete. Each	\$ _____	\$ _____
31.	2	EA, Standard Sewer Manhole (5.00'-5.99' depth from top of cover to invert), in place complete. Each	\$ _____	\$ _____
32.	1	EA, Standard Sewer Manhole (6.00'-6.99' depth from top of cover to invert), in place complete. Each	\$ _____	\$ _____
33.	1	EA, Standard Sewer Manhole (8.00'-8.99' depth from top of cover to invert), in place complete. Each	\$ _____	\$ _____
34.	2,120	6" Cured-in-place-pipe, inclusive of mobilization, CIPP, pre and post CCTV inspection, cleaning and preparation, reconnection of laterals, testing, traffic control and bypass, and all incidentals, in place complete. Per Lin. Ft.	\$ _____	\$ _____

Item No.	No. of Units	Description	Unit Price	Unit Total
35.	550	8" Cured-in-place-pipe, inclusive of mobilization, CIPP, pre and post CCTV inspection, cleaning and preparation, reconnection of laterals, testing, traffic control and bypass, and all incidentals, in place complete. Per Lin. Ft.	\$ _____	\$ _____
36.	Allow. 300	Lin. Ft. of 6-inch or 8-inch CIPP Preliner, in place complete. Allowance, Per Lin Ft.	\$ _____	\$ _____
37.	Allow. 50	Lin. Ft. of 6-inch or 8-inch Spot Repair Allowance, Per Lin Ft.	\$ _____	\$ _____
38.	L.S.	Traffic Control, inclusive of all traffic control devices, off-duty police officers, and all incidentals required to complete the work. Lump Sum		\$ _____
39.	L.S.	Project Sign Lump Sum		\$ _____
40.	L.S.	Field Office, shall be full compensation for furnishing materials, labor, tools, equipment, and incidentals necessary to construct the field office, in place complete, as required. Lump Sum		\$ _____

TOTAL BID AMOUNT = _____
 _____ Dollars (\$ _____).

The prices herein for the above items shall include all materials, labor, tools, equipment, machinery and all incidentals necessary, inclusive of general excise tax to install or to construct these items in place complete and in accordance with the plans and specifications contained in this IFB.

The CONTRACTOR shall complete all work as specified or indicated in the Contract Documents on or before **Nine Hundred (900)** calendar days after receiving written Notice to Proceed, subject to extensions, as may be granted.

HAWAII PRODUCTS PREFERENCE

In accordance with HRS §103D-1002, the Hawaii products preference is applicable to this solicitation. Hawaii Products [are / may be] available for those items noted on the offer form. The Hawaii products list is available on the SPO webpage at <http://hawaii.gov/spo>, under Toolbox/QuickLinks click on Goods, Services and Construction, then click on Goods, Services and Construction for Vendors, Contractors and Service Providers, under Preferences, click on Preferences pursuant to HRS 103D Part X including Hawaii Products, then click on Preference for Hawaii Products, and select *Hawaii Products List* to view.

Offeror submitting a Hawaii Product (HP) shall identify the HP on the solicitation offer page(s). Any person desiring a Hawaii product preference shall have the product(s) certified and qualified if not currently on the Hawaii products list, prior to the deadline for receipt of offer(s) specified in the procurement notice and solicitation. The responsibility for certification and qualification shall rest upon the person requesting the preference.

Persons desiring to qualify their product(s) not currently on the Hawaii product list shall complete form SPO-038, *Certification for Hawaii Product Preference* and submit to the Procurement Officer issuing the solicitation (IFB or RFP), and provide all additional information required by the Procurement Officer. For each product, one form shall be completed and submitted (i.e. 3 products should have 3 separate forms completed). Form SPO-038 is available on the SPO webpage at <http://spo.hawaii.gov/all-forms/>. The manufacturers and producers must complete and submit SPO-38 to DHHL. The form must be received by DHHL on **March 20, 2017**. Submittal by facsimile (808 620-9299) is acceptable. If DHHL receives and approves SPO-38s relating to this solicitation DHHL will issue an addendum listing the additional certified and qualified Hawaii products by **March 27, 2017**.

Bidders may claim a Hawaii product preference for products that it manufactures or produces with its own workforce and equipment. The SPO-38, *Certification for Hawaii Product Preference*, must be submitted in accordance with the procedures described above in order for Bidder to claim a Hawaii product preference for such Hawaii products Bidder intends to use in this work.

When a solicitation contains both HP and non-HP, then for the purpose of selecting the lowest bid or purchase price only, the price offered for a HP item shall be decreased by subtracting 10% for the class I or 15% for the class II HP items offered, respectively. The lowest total offer, taking the preference into consideration, shall be awarded the contract unless the offer provides for additional award criteria. The contract amount of any contract awarded, however, shall be the amount of the price offered, exclusive of the preferences.

Change in Availability of Hawaii product. In the event of any change that materially alters the offeror's ability to supply Hawaii products, the offeror shall notify the procurement officer in writing no later than five working days from when the offeror knows of the change and the parties shall enter into discussions for the purposes of revising the contract or terminating the contract for convenience.

SCHEDULE OF ACCEPTABLE HAWAII PRODUCTS AND DESIGNATION OF HAWAII PRODUCTS TO BE USED			
ACCEPTABLE HAWAII PRODUCTS		HAWAII PRODUCTS TO BE USED Cost FOB Jobsite, Unloaded Including Applicable General Excise and Use Taxes	
Description	Manufacturer	Base Bid	Additive Alternate
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____

It is further understood by the Bidder that if upon being granted Hawaii Products, and being awarded the contract, if the Bidder fails to use such products or meet the requirements of such preference, the Bidder shall be subject to penalties, if applicable.

APPRENTICESHIP AGREEMENT PREFERENCE

Hawaii Revised Statutes §103-55.6 (ACT 17, SLH 2009) provides for a Hawai'i Apprenticeship Preference for public works contracts having an estimated value of \$250,000.00 or more. The preference shall be in the form of a 5% bid adjustment applied to the Bidder's amount for bidders that are parties to apprenticeship agreements. The estimated value of this public works contract is \$250,000.00 or more and the apprenticeship agreement preference **shall** apply.

To be eligible for the preference, the Bidder shall:

1. Be a party to an apprenticeship agreement registered with the DLIR at the time the bid is made for each apprenticeable trade the Bidder will employ to construct the public works project for which the bid is being made.
 - a. The apprenticeship agreement shall be registered and conform to the requirements of HRS Chapter 372.
 - b. Subcontractors do not have to be a party to an apprenticeship agreement for the Bidder to obtain the preference.
 - c. The Bidder is not required to have apprentices in its employ at the time the bid is submitted to qualify for the preference.
 - d. If a Bidder's employee is multi-skilled and able to perform work in more than one trade (for example, a project requires a carpenter and a laborer, and the employee is a carpenter, but is also able to perform the work of a laborer), the Bidder need only be a party to the carpenter's apprenticeship agreement and does not need to be a party to the laborer's apprenticeship agreement in order to qualify for the preference. The Bidder is not "employing" a laborer, only a carpenter, and so only needs to be a party to the carpenter's apprenticeship agreement.
 - e. Qualification for the preference is given on a project-by-project basis and depends upon the specific offer for a specific project. A Bidder's employees may vary from project to project and may qualify for the preference on one project but may not qualify on another project. For example, on one project, if the Bidder only employs carpenters to perform work in the carpentry and labor trades, then the Bidder only needs to be a party to the carpenter's apprenticeship agreement in order to qualify for the preference. However, on another project if the same Bidder employs both carpenters and laborers, then the Bidder will not qualify for the preference if the Bidder is only a party to the carpenter's apprenticeship agreement and not the laborer's apprenticeship agreement.
2. State the trades the Bidder will employ to perform the work;

3. For each trade to be employed to perform the work, the Bidder shall submit a completed signed original *CERTIFICATION OF BIDDER'S PARTICIPATION IN APPROVED APPRENTICESHIP PROGRAM UNDER ACT 17 (Certification Form 1)* verifying the participation in an apprenticeship program registered with the State Department of Labor and Industrial Relations (DLIR);
4. The *Certification Form 1* shall be authorized by an apprenticeship sponsor of the DLIR list of registered apprenticeship programs. The authorization shall be an original signature by an authorized official of the apprenticeship sponsor; and
5. The completed *Certification Form 1* for each trade must be submitted by the Bidder with the offer. A facsimile or copy is acceptable to be submitted with the offer; however, the completed signed original must be submitted within five (5) working days of the due date of the offer. If the signed original is not received within this timeframe, the preference may be denied. Previous certifications shall not apply.

Failure to comply with ALL of the conditions noted above, without exception, shall disqualify the Bidder from qualifying for, and thus receiving, benefit of the Hawai'i Apprenticeship Preference.

The *Certification Form 1* and the List of Construction Trades in Registered Apprenticeship Programs is available on the DLIR website at: <http://labor.hawaii.gov/wdd/>.

Upon receiving *Certification Form 1*, the DHHL will verify with DLIR that the apprenticeship program is on the list of apprenticeship programs registered with the DLIR. If the program(s) are not confirmed by the DLIR, the Bidder will not qualify for the preference.

If the Bidder is certified to participate in an apprenticeship program for each trade which will be employed by the Bidder for the project, a preference will be applied to decrease the Bidder's total bid amount by five per cent (5%) for evaluation purposes.

Should the Bidder qualify for other preferences (for example, Hawaii Products Preference), all applicable preferences shall be applied to the bid amount.

While preference for Hawai'i Apprenticeship will be taken into consideration to determine the low Bidder, the contract awarded shall be the original bid amount, exclusive of any preferences. The preference is only for evaluation purposes.

The Bidder hereby certifies that it will employ the following apprenticeable trades to perform the work for this project:

<u>LIST OF APPRENTICEABLE TRADES TO BE EMPLOYED</u>	
<u>TRADE</u>	<u>APPRENTICESHIP PROGRAM SPONSOR</u>

(Add additional sheets if necessary)

ALL JOINT CONTRACTORS OR SUBCONTRACTORS TO BE ENGAGED ON THIS PROJECT

The Bidder certifies that the following is a complete listing of all joint Contractors or Subcontractors covered under Chapter 444, Hawaii Revised Statutes, who will be engaged by the Bidder on this project to perform the nature and scope of work indicated pursuant to Section 103D-302, Hawaii Revised Statutes, and understands that failure to comply with this requirement shall be just cause for rejection of the bid.

The Bidder further understands that only those joint Contractors or Subcontractors listed shall be allowed to perform work on this project and that all other work necessary shall be performed by the Bidder with his own employees. If no joint Contractor or Subcontractor is listed, it shall be construed that all of the work shall be performed by the Bidder with his own employees.

The Bidders must be sure that they possess and that the Subcontractors listed in the bid possess all the necessary licenses needed to perform the work for this project. The Bidder shall be solely responsible for assuring that all the specialty licenses required to perform the work are covered in his bid.

The Bidder shall include the license number of the joint Contractors or Subcontractors listed below. Failure to provide the correct names and license numbers as registered with the Contractor's Licensing Board may cause rejection of the bid submitted.

Complete Firm Name of Joint Contractor or Subcontractor	License Number	Hawaii Tax ID Number	Nature and Scope of Work to be Performed

(Add additional sheets if necessary)

METHOD OF AWARD

Bidder is required to bid on the entire project. The low Bidder shall be determined by the procedures outlined in items 1) through 4) below:

- 1) Prior to opening of bids, the State will determine the amount of funds available for the project. This amount will be designated the "control amount". The control amount shall be announced at, and prior to the opening of bids.
- 2) The Base Bid and Alternate, if any, of each Bidder will be adjusted to reflect the applicable preferences in accordance with Chapter 103D, HRS. The Alternate, if any, will then be added to the Base Bid and compared with the control amount.
- 3) The low Bidder shall be the Bidder having the lowest aggregate amount, within the control amount (after application of the various preferences), for the Base Bid plus the Alternate, if any.
- 4) If adding the Alternate, if any, would make the aggregate amount exceed the control amount for all Bidders, the low Bidder shall be the Bidder having the lowest Base Bid after application of the various preferences.

It is further understood and agreed that:

- 1) The Chairman reserves the right to reject any and/or all bids and waive any defects when, in his opinion, such rejection or waiver will be in the best interest of the State.
- 2) After determining the low Bidder, an award may be made either on the amount of the Base Bid alone, or including the Alternate (exclusive of preferences), if:
 - a. It is in the best interest of the State;
 - b. Funds are available at time of the award; and
 - c. The combination of the Base Bid plus Alternate does not change the apparent low Bidder.
- 3) In the event the Base Bid for all Bidders exceed the control amount, the Chairman reserves the right to negotiate with the lowest responsible and responsive Bidder to award a contract within available funds.
- 4) In the event the award is made for the Base Bid alone, the Chairman reserves the right to amend the contract at a later date to include the Alternate should funds subsequently become available.

OTHER CONDITIONS

- 1) The liquidated damages per working day for failure to complete the work on time have been determined and are noted in the Special Conditions of the sample contract.
- 2) By submitting this bid, the undersigned is declaring that his firm has not been assisted or represented on this matter by an individual who has, in a State capacity, been involved in the subject matter of this contract in the past one (1) year.
- 3) By submitting this bid, the undersigned is declaring that Bidder's own organization will perform at least 20% of the contractor's work. For the purposes of this section, the Contractor's work is defined as: direct cost labor for contractor's forces; direct cost materials installed by the contractor's direct cost labor force; direct cost equipment, either owned or leased, used by the contractor's direct cost labor force; and field overhead cost to include: field supervision, field office trailer (if any), field office equipment and supplies, etc.
- 4) Upon the acceptance of the bid by the Chairman, the undersigned must enter into and execute a contract for the same and furnish a Performance and Payment Bond, as required by law. These bonds shall conform to the provisions of Sections 103D-324 and 325, Hawaii Revised Statutes, and any law applicable thereto.
- 5) The quantities given herewith are approximate only and are subject to increase or decrease.
- 6) The estimated quantities shown for items for which a UNIT PRICE is asked in this bid are only for the purpose of comparing on a uniform basis bids offered for the work under this contract. No claim shall be filed for anticipated profit or loss because of any difference between the quantities of the various classes of work done or the materials and equipment actually installed and the said estimated quantities. Payment on UNIT PRICE items will be made only for the actual number of units incorporated into the finished project at the contract UNIT PRICE.
- 7) If the product of the UNIT PRICE BID and the number of units does not equal the total amount stated by the undersigned in the Bid for any item, it will be assumed that the error was made in computing the total amount. For the purpose of determining the lowest Bidder, the stated UNIT PRICE alone will be considered as representing the Bidder's intention and the total amount bid on such items shall be considered to be the amount arrived at by multiplying the UNIT PRICE by the number of units.

- 8) Certification for Safety and Health Programs for Bids in Excess of \$100,000. In accordance with Sections 103D-327 and 396-18, Hawaii Revised Statutes, by submitting this bid, the undersigned certifies that his firm will have a written Safety and Health Plan for this project that will be available and implemented by the Notice to Proceed date of this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational, Safety and Health Division.
- 9) Any contract arising out of this offer is subject to the approval of the Department of the Attorney General as to form, and to all further approvals, including the approval of the Governor, required by statute, regulation, rule, order, or other directive.

Receipt of the following addenda issued by the Department is acknowledged by the date(s) of receipt indicated below:

	Date		Date
Addendum No. 1	_____	Addendum No. 5	_____
Addendum No. 2	_____	Addendum No. 6	_____
Addendum No. 3	_____	Addendum No. 7	_____
Addendum No. 4	_____	Addendum No. 8	_____

It is understood that failure to receive any such addendum shall not relieve the Contractor from any obligation under this IFB as submitted.

Bid Security in the amount of: _____

_____ DOLLARS (\$_____)

as required by law, is enclosed herewith in the form of:

- | | |
|--|---|
| <input type="checkbox"/> Surety Bond (*1) | <input type="checkbox"/> Official Check (*3) |
| <input type="checkbox"/> Legal Tender (*2) | <input type="checkbox"/> Share Certificate (*3) |
| <input type="checkbox"/> Cashier's Check (*3) | <input type="checkbox"/> Teller's Check (*3) |
| <input type="checkbox"/> Certificate of Deposit (*3) | <input type="checkbox"/> Treasurer's Check (*3) |
| <input type="checkbox"/> Certified Check (*3) | |

Respectfully submitted,

Name of Company, Joint Venture or Partnership

License No.

By _____
Signature (*4)

Title: _____

Date: _____

Address: _____

Telephone No.: _____

(IF A CORPORATION, AFFIX CORPORATE SEAL TO SIGNATURE, BE SURE TO FILL IN ATTACHED LIST OF SUBCONTRACTORS. THIS BID FORM MAY NOT BE ALTERED AND BIDDERS MAY NOT QUALIFY OR CONDITION THEIR BIDS IN ANY WAY.)

PLEASE FILL OUT THE ATTACHED CERTIFICATE OF RESOLUTION GIVING EVIDENCE OF THE AUTHORITY OF THIS OFFICER TO SUBMIT BIDS ON BEHALF OF THE COMPANY.

NOTES:

- *1. Surety bond underwritten by a company licensed to issue bonds in this State;
- *2. Legal tender; or
- *3. A certificate of deposit; share certificate; or cashier's, treasurer's, teller's, or official check accepted by, and payable on demand to the State by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation of the National Credit Union Administration.
 - a. These instruments may be utilized only to a maximum of \$100,000.

- b. If the required security or bond amount totals over \$100,000, more than one instrument not exceeding \$100,000 each and issued by different financial institutions shall be accepted.
- *4. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company, and also the names and residence addresses of all officers of the Company.
- *5. Fill in all blank spaces with information asked for or bid may be invalidated. BID MUST BE INTACT; MISSING PAGES MAY INVALIDATE YOUR BID.

CERTIFICATE OF RESOLUTION

I, _____, Secretary of _____, a Hawaii Corporation, do hereby certify that the following is a full, true and correct copy of a resolution duly adopted by the Board of Directors of said Corporation, at its meeting duly called and held at the office of the Corporation _____, Hawaii, on _____ day of _____, 20_____, at which a quorum was present and acting throughout; and that said resolution has not been modified, amended or rescinded and continues in full force and effect.

“RESOLVED that any individual at the time holding the position(s) of _____, be, and each of them hereby is, authorized to execute on behalf of the Corporation any bid, proposal or contract for the sale or rental of the products of the Corporation or for the services to be performed by the Corporation and to execute any bond required by any such bid, proposal or contract with the United States Government or the State of Hawaii or the City and County of Honolulu, or any County of Municipal Government of said State, or any department or subdivision of any of them.”

IN WITNESS THEREOF, I have hereunto set my hand and affixed the corporate seal of said

_____ this _____ day of _____, 20____.

Secretary

END OF BID

DEPARTMENT OF HAWAIIAN HOME LANDS

PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS

PAPAKOLEA, HONOLULU, OAHU, HAWAII

IFB NO.: IFB-17-HHL-010

SEALED BID

Submitted by: _____

Address: _____

Date: _____



STATE OF HAWAII
CONTRACT FOR GOODS OR SERVICES
BASED UPON
COMPETITIVE SEALED BIDS

This Contract, executed on the respective dates indicated below, is effective as of _____, _____, between _____ Department of Hawaiian Home Lands
(Insert name of state department, agency, board or commission)
State of Hawaii ("STATE"), by its _____ Chairman, Hawaiian Homes Commission
(Insert title of person signing for State)
(hereafter also referred to as the HEAD OF THE PURCHASING AGENCY or designee ("HOPA")), whose address is 91-5420 Kapolei Parkway, Kapolei, Hawaii, 96707
_____ and _____
("CONTRACTOR"), a _____
(Insert corporation, partnership, joint venture, sole proprietorship, or other legal form of the Contractor)
under the laws of the State of _____ Hawaii _____, whose business address and federal and state taxpayer identification numbers are as follows: _____

RECITALS

- A. The STATE desires to retain and engage the CONTRACTOR to provide the goods or services, or both, described in this Contract and its attachments, and the CONTRACTOR is agreeable to providing said goods or services, or both.
- B. The STATE has issued an invitation for competitive sealed bids, and has received and reviewed bids submitted in response to the invitation.
- C. The solicitation for bids and the selection of the CONTRACTOR were made in accordance with section 103D-302, Hawaii Revised Statutes ("HRS"), Hawaii Administrative Rules, Title 3, Department of Accounting and General Services, Subtitle 11 ("HAR"), Chapter 122, Subchapter 5, and applicable procedures established by the appropriate Chief Procurement Officer ("CPO").
- D. The CONTRACTOR has been identified as the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in the invitation.
- E. Pursuant to _____ HHCA of 1920, as amended _____, the STATE
(Legal authority to enter into this Contract)
is authorized to enter into this Contract.
- F. Money is available to fund this Contract pursuant to:
- (1) _____ General Obligation Bond Funds, Act 134, SLH 2013, as amended by Act 122, SLH 2014
(Identify state sources)
- or (2) _____
(Identify federal sources)
- or both, in the following amounts: State \$ _____
Federal \$ _____

NOW, THEREFORE, in consideration of the promises contained in this Contract, the STATE and the CONTRACTOR agree as follows:

1. Scope of Services. The CONTRACTOR shall, in a proper and satisfactory manner as determined by the STATE, provide all the goods or services, or both, set forth in the Invitation for Bids number IFB-17-HHL-010 ("IFB")* and the CONTRACTOR'S accepted bid both of which, even if not physically attached to this Contract, are made a part of this Contract.

2. Compensation. The CONTRACTOR shall be compensated for goods supplied or services performed, or both, under this Contract in a total amount not to exceed

* and summarized in Attachment S-1

_____ DOLLARS
(\$ _____), including approved costs incurred and taxes, at the time and in the manner set forth in the IFB and CONTRACTOR'S Bid.

3. Time of Performance. The services or goods required of the CONTRACTOR under this Contract shall be performed and completed in accordance with the Time of Performance set forth in Attachment-S3, which is made a part of this Contract.

4. Bonds. The CONTRACTOR ☒ is required to provide or ☐ is not required to provide: ☒ a performance bond, ☒ a payment bond, ☐ a performance and payment bond in the amount of _____ DOLLARS (\$ _____).

5. Standards of Conduct Declaration. The Standards of Conduct Declaration of the CONTRACTOR is attached to and made a part of this Contract.

6. Other Terms and Conditions. The General Conditions and any Special Conditions are attached to and made a part of this Contract. In the event of a conflict between the General Conditions and the Special Conditions, the Special Conditions shall control. In the event of a conflict among the documents, the order of precedence shall be as follows: (1) this Contract, including all attachments and addenda; (2) the IFB, including all attachments and addenda; and (3) the CONTRACTOR'S Bid.

7. Liquidated Damages. Liquidated damages shall be assessed in the amount of _____ DOLLARS
One Thousand and 00/100
(\$ 1,000.00) per day, in accordance with the terms of paragraph 9 of the General Conditions.

8. Notices. Any written notice required to be given by a party to this Contract shall be (a) delivered personally, or (b) sent by United States first class mail, postage prepaid. Notice to the STATE shall be sent to the HOPA'S address indicated in the Contract. Notice to the CONTRACTOR shall be sent to the CONTRACTOR'S address indicated in the Contract. A notice shall be deemed to have been received three (3) days after mailing or at the time of actual receipt, whichever is earlier. The CONTRACTOR is responsible for notifying the STATE in writing of any change of address.

IN VIEW OF THE ABOVE, the parties execute this Contract by their signatures, on the dates below, to be effective as of the date first above written.

STATE

(Signature)

Jobie M. K. Masagatani

(Print Name)

Chairman, Hawaiian Homes Commission

(Print Title)

(Date)

CONTRACTOR

CORPORATE SEAL

(If available)

(Name of Contractor)

(Signature)

(Print Name)

(Print Title)

(Date)

APPROVED AS TO FORM:

Deputy Attorney General

*Evidence of authority of the CONTRACTOR'S representative to sign this Contract for the CONTRACTOR must be attached.



STATE OF HAWAII

CONTRACTOR'S ACKNOWLEDGMENT

STATE OF _____)
) SS.
_____ COUNTY OF _____)

On this _____ day of _____, _____ before me appeared
_____ and _____, to me
known, to be the person(s) described in and, who, being by me duly sworn, did say that he/she/they is/are
_____ and _____ of
_____, the
CONTRACTOR named in the foregoing instrument, and that he/she/they is/are authorized to sign said
instrument on behalf of the CONTRACTOR, and acknowledges that he/she/they executed said
instrument as the free act and deed of the CONTRACTOR.

(Notary Stamp or Seal)

(Signature)

(Print Name)

Notary Public, State of _____

My commission expires: _____

Doc. Date: _____ # Pages: _____

Notary Name: _____ Circuit _____

Doc. Description: Contract for Goods or Services Based Upon

Competitive Sealed Bids

(Notary Stamp or Seal)

Notary Signature

Date

NOTARY CERTIFICATION



STATE OF HAWAII
**CONTRACTOR'S
STANDARDS OF CONDUCT DECLARATION**

For the purposes of this declaration:

"Agency" means and includes the State, the legislature and its committees, all executive departments, boards, commissions, committees, bureaus, offices; and all independent commissions and other establishments of the state government but excluding the courts.

"Controlling interest" means an interest in a business or other undertaking which is sufficient in fact to control, whether the interest is greater or less than fifty per cent (50%).

"Employee" means any nominated, appointed, or elected officer or employee of the State, including members of boards, commissions, and committees, and employees under contract to the State or of the constitutional convention, but excluding legislators, delegates to the constitutional convention, justices, and judges. (Section 84-3, HRS).

On behalf of TBD, CONTRACTOR, the undersigned does declare as follows:

1. CONTRACTOR ☐ is ☐ is not a legislator or an employee or a business in which a legislator or an employee has a controlling interest. (Section 84-15(a), HRS).
2. CONTRACTOR has not been represented or assisted personally in the matter by an individual who has been an employee of the agency awarding this Contract within the preceding two years and who participated while so employed in the matter with which the Contract is directly concerned. (Section 84-15(b), HRS).
3. CONTRACTOR has not been assisted or represented by a legislator or employee for a fee or other compensation to obtain this Contract and will not be assisted or represented by a legislator or employee for a fee or other compensation in the performance of this Contract, if the legislator or employee had been involved in the development or award of the Contract. (Section 84-14 (d), HRS).
4. CONTRACTOR has not been represented on matters related to this Contract, for a fee or other consideration by an individual who, within the past twelve (12) months, has been an agency employee, or in the case of the Legislature, a legislator, and participated while an employee or legislator on matters related to this Contract. (Sections 84-18(b) and (c), HRS).

CONTRACTOR understands that the Contract to which this document is attached is voidable on behalf of the STATE if this Contract was entered into in violation of any provision of chapter 84, Hawaii Revised Statutes, commonly referred to as the Code of Ethics, including the provisions which are the source of the declarations above. Additionally, any fee, compensation, gift, or profit received by any person as a result of a violation of the Code of Ethics may be recovered by the STATE.

***Reminder to Agency:** If the "is" block is checked and if the Contract involves goods or services of a value in excess of \$10,000, the Contract must be awarded by competitive sealed bidding under section 103D-302, HRS, or a competitive sealed proposal under section 103D-303, HRS. Otherwise, the Agency may not award the Contract unless it posts a notice of its intent to award it and files a copy of the notice with the State Ethics Commission. (Section 84-15(a), HRS).

CONTRACTOR

By _____

(Signature)

Print Name _____

Print Title _____

Name of Contractor TBD

Date _____



STATE OF HAWAII
SCOPE OF SERVICES

Project: Papakolea Subdivision Sewer System Improvements – Sewer Lines E, F, L, A, C, D and K-3
Location: Honolulu, Oahu, Hawaii
Contractor: TBD

Pursuant to 103D, Hawaii Revised Statutes, the CONTRACTOR shall perform and provide the Scope of Services detailed in Invitation for Bids, IFB-17-HHL-010 and in CONTRACTOR's proposal submitted on _____, in a proper and satisfactory manner as determined by the STATE and in accordance with all federal, state and local laws, both of which are incorporated by reference.



STATE OF HAWAII

COMPENSATION AND PAYMENT SCHEDULE

Project: Papakolea Subdivision Sewer System Improvements – Sewer Lines E, F, L, A, C, D and K-3
Location: Honolulu, Oahu, Hawaii
Contractor: TBD

The State shall pay the CONTRACTOR a sum not to exceed _____ AND __/100 DOLLARS (\$_____) for the satisfactory completion of the work under this contract.



STATE OF HAWAII

TIME OF PERFORMANCE

Project: Papakolea Subdivision Sewer System Improvements – Sewer Lines E, F, L, A, C, D and K-3
Location: Honolulu, Oahu, Hawaii
Contractor: TBD

1. The Time of Performance for this Contract shall be Nine Hundred (900) Calendar Days from the effective date specified in the Notice to Proceed, unless extended by delays excused by the STATE as documented in writing. The Notice to Proceed shall be issued by the STATE separately to the CONTRACTOR.
2. This Contract shall expire on the date on which the later of the following occurs:
 - (a) the State makes final payment to the CONTRACTOR in accordance with (1) paragraph 17(d) of the General Conditions (AG-008 103D General Conditions) and (2) no dispute between the parties hereto as to the Work or other obligations of the CONTRACTOR hereunder is outstanding, or
 - (b) the STATE issues a Final Acceptance letter to the CONTRACTOR.
3. The Contract expiration date is for administrative purposes only and not to be confused with the Time of Performance which refers to the time in which the CONTRACTOR is required to complete the work, or with any continuing obligations on the part of the CONTRACTOR.



STATE OF HAWAII

**CERTIFICATE OF EXEMPTION
FROM CIVIL SERVICE****1. By Heads of Departments Delegated by the Director of the Department of Human Resources Development ("DHRD").***

Pursuant to a delegation of the authority by the Director of DHRD, I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to § 76-16, Hawaii Revised Statutes (HRS).

(Signature)

Jobie M. K. Masagatani

(Date)

(Print Name)

Chairman, Hawaiian Homes Commission

(Print Title)

* This part of the form may be used by all department heads and the heads of attached agencies to whom the Director of DHRD expressly has delegated authority to certify § 76-16, HRS, civil service exemptions. The specific paragraph(s) of § 76-16, HRS, upon which an exemption is based should be noted in the contract file. If an exemption is based on § 76-16(b)(15), the contract must meet the following conditions:

- (1) It involves the delivery of completed work or product by or during a specific time;
- (2) There is no employee-employer relationship; and
- (3) The authorized funding for the service is from other than the "A" or personal services cost element.

NOTE: Not all attached agencies have received a delegation under § 76-16(b)(15). If in doubt, attached agencies should check with the Director of DHRD prior to certifying an exemption under § 76-16(b)(15). Authority to certify exemptions under §§ 76-16(b)(2), and 76-16(b)(12), HRS, has not been delegated; only the Director of DHRD may certify §§ 76-16(b)(2), and 76-16(b)(12) exemptions.

2. By the Director of DHRD, State of Hawaii.

I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to § 76-16, HRS.

(Signature)

(Date)

(Print Name)

(Print Title, if designee of the Director of DHRD)



STATE OF HAWAII
SPECIAL CONDITIONS

Project: Papakolea Subdivision Sewer System Improvements – Sewer Lines E, F, L, A, C, D and K-3
Location: Honolulu, Oahu, Hawaii
Contractor: TBD

SC-01 INTERCHANGEABLE TERMS

The following terms are one and the same:

- a. "Contract" and "Agreement".
- b. "Department of Hawaiian Home Lands", "Department", "DHHL" and "STATE".
- c. "Construction Management" and "CM".
- d. "Construction Management Manager" and "CMM".

SC-02 INSURANCE COVERAGE

The CONTRACTOR shall obtain separate insurance coverage for this project that complies with the requirements set forth in the DHHL Construction General Conditions, Article 7, Section 7.3, as amended. Payment for all work required to comply with this item will not be paid for separately but shall be considered incidental to the various Contract items.

The CONTRACTOR shall maintain insurance acceptable to the STATE in full force and effect throughout the term of this Contract. The policies of insurance maintained by the CONTRACTOR shall provide the following minimum coverage:

<u>Coverage</u>	<u>Limit</u>
General Liability Insurance (occurrence form)	Bodily Injury and Property Damage (combined single limit): <u>\$1,000,000</u> per occurrence and <u>\$2,000,000</u> aggregate Personal Injury: <u>\$1,000,000</u> per occurrence and <u>\$2,000,000</u> aggregate
Automobile Insurance (covering all owned, non-owned and hired automobiles)	Bodily Injury: <u>\$1,000,000</u> per person and <u>\$1,000,000</u> per occurrence. Property Damage: <u>\$1,000,000</u> per accident or combined single limit of <u>\$2,000,000</u> .
Workers Compensation (statutory limit is required by laws of the State of Hawaii)	Insurance to include Employer's Liability. Both such coverages shall apply to all employees of the CONTRACTOR and, in case any sub-contractor fails to provide adequate similar protection for all his employees, to all employees of subcontractors.



STATE OF HAWAII
SPECIAL CONDITIONS

Builder's Risk covering the CONTRACTOR and all subcontractors	100% Replacement Value
Fire and extended coverage	100% Replacement Value
Malicious Mischief	100% Replacement Value
Flood Insurance, if applicable	Maximum Coverage available

- a. The State of Hawaii, Department of Hawaiian Home Lands, its elected and appointed officials, officers, employees, and agents shall be named as additional insured with respect to operations, services or products provided to the State of Hawaii. The CONTRACTOR agrees to provide to the DHHL, before the effective date of the Contract, certificate(s) of insurance necessary to evidence compliance with insurance provisions of this Contract. The CONTRACTOR shall keep such insurance in effect and the certificate(s) on deposit with DHHL during the entire term of this Contract. Upon request by the STATE, the CONTRACTOR shall furnish a copy of the policy or policies.
- b. Failure of the CONTRACTOR to provide and keep in force such insurance shall be regarded as a material default under this Contract. The STATE shall be entitled to exercise any or all of the remedies provided in this Contract for default of CONTRACTOR.
- c. The procuring of such required policy or policies of insurance shall not be construed to limit the CONTRACTOR's liability under this Contract or to fulfill the indemnification provisions and requirements of this Contract. Notwithstanding said policy or policies of insurance, the CONTRACTOR shall be obliged for the full and total amount of any damage, injury, or loss caused by negligence or neglect connected with this Contract.
- d. The CONTRACTOR shall immediately provide written notice to the contracting department or agency should any of the insurance policies evidenced on its Certificate of Insurance form be cancelled, limited in scope, or not renewed upon expiration.
- e. DHHL is a self-insured State agency. The CONTRACTOR's insurance shall be primary. Any insurance maintained by the State of Hawaii shall apply in excess of, and shall not contribute with, insurance provided by the CONTRACTOR.



STATE OF HAWAII

SPECIAL CONDITIONS

- f. The CONTRACTOR shall require all subcontractors to have in full force and effect the same insurance coverage as required of the CONTRACTOR. Such insurance shall name the State of Hawaii, Department of Hawaiian Home Lands, its elected and appointed officials, officers, employees, and agents as additional insured with respect to operations, services or products provided to the State of Hawaii. The CONTRACTOR shall be responsible to enforce its subcontractors' compliance with these insurance requirements and CONTRACTOR shall, upon request, provide the STATE a copy of the policy or policies of insurance for any subcontractor.

SC-03 COMPLETION SCHEDULE AND LIQUIDATED DAMAGES

The CONTRACTOR shall complete all work as specified or indicated in the Contract Documents on or before **900** calendar days after receiving written Notice to Proceed, subject to extensions, as may be granted.

In case of failure on the part of the CONTRACTOR to complete the work within the time specified, the CONTRACTOR shall pay to DHHL as liquidated damages, and not as a penalty, \$1,000.00 per calendar day for each day that the project, in its entirety, remains incomplete.

SC-04 PROCESS THROUGH DHHL

Any and all submittals, reports, requests, claims and notices under the Contract shall be processed through Land Development Division Project Manager, at Hale Kalaniana'ole, 91-5420 Kapolei Parkway, Kapolei, Hawaii 96707.

SC-05 SURVEYING SERVICES

Any surveying services required shall be the responsibility of the CONTRACTOR and considered incidental to the scope of work under this Contract and therefore covered under the terms of this Contract. No separate payment shall be made.

Upon completion, the CONTRACTOR shall prepare an as-built plan for the project site in which the finished grades are certified by a Registered Land Surveyor. Six (6) copies of the as-built plan shall be submitted to the Project Manager. The cost of the as-built plan shall be incidental to the Contract. No separate payment shall be made.



STATE OF HAWAII

SPECIAL CONDITIONS

SC-06 ALLOWANCES

The proposal may contain payment items designated as allowances. Funds listed in allowance items are to be spent at the direction of DHHL. The allowance is an estimate only and is subject to increase or decrease depending on the actual cost of the item. The funds are for the direct costs of an item and all pricing, submittal and review, overhead, installation, profit, insurance, surety, processing of the issuance of checks for payment to other parties, and all other costs will be included. No payment will be made for incidental costs.

Allowances specifically set aside for construction work and materials will be negotiated when the scope of work is determined. Any unspent allowance costs will be deducted from the Contract by change order prior to final payment.

SC-07 SCHEDULE OF PRICES

The CONTRACTOR shall submit a schedule of values in accordance with DHHL Construction General Conditions, Article 7.2.4 Schedule of Prices within 14 calendar days of the Notice to Proceed. The format and breakdown of the schedule of values shall be acceptable to DHHL.

The schedule of values shall show the work of each subcontractor and shall be based on installed work. No payment will be made until the CONTRACTOR has presented an acceptable schedule of values to DHHL. Performance and Payment Bonds costs shall be a separate line item and the cost shall be authenticated by surety invoice. All overhead and profit shall be prorated across all payment line items.

SC-08 PERMITS AND FEES

The CONTRACTOR shall apply and pay for all permits and inspection fees as required by all governmental agencies having jurisdiction over this project.

SC-09 COORDINATION WITH OTHER PARTIES

The CONTRACTOR shall coordinate all the necessary work for temporary utility services, permanent service and appurtenances with the appropriate agencies, including but not limited to the Department of Health and the City and the County of Honolulu (County).

SC-10 CONTRACTOR'S LICENSING

It is the CONTRACTOR's sole responsibility to review the requirements of this project and determine the appropriate contractor's licenses that are required to complete the project. If the CONTRACTOR does not hold all of the licenses required to perform a particular item of work on this project with its own workers, when bidding, he must list subcontractors that hold the appropriate licenses in its proposal.



STATE OF HAWAII

SPECIAL CONDITIONS

SC-11 WATER CHARGES AND REQUIREMENTS

The CONTRACTOR shall be solely responsible for obtaining water to meet any requirements of the Contract. Unless otherwise indicated or provided for, any work, costs, charges and fees necessary to obtain water for this Contract shall not be paid for separately but shall be considered incidental to the various Contract items; no separate or additional payment will be made therefore.

SC-12 SOIL AND DUST CONTROL

To control the dust during construction, the CONTRACTOR shall have an adequate supply of water for dust control and if necessary, moisture conditioning of fill material at all times. The CONTRACTOR shall institute an erosion control program and dust control program to minimize soil erosion and wind erosion and airborne fugitive dust nuisance, respectively for the entire duration of this project.

SC-13 NPDES PERMITS

DHHL will submit an NPDES Permit application to the Department of Health for the work within the Papakolea Subdivision. Authorization to proceed with clearing, grubbing or grading work will not be granted until the permit is approved.

The CONTRACTOR agrees to schedule and sequence his operations to take all of the foregoing into account along with the requirements of DHHL General Condition 7.21.4 shall govern in the event of any delay(s) in DHHL obtaining approvals for these NPDES permits.

The CONTRACTOR shall provide the Consultant with the additional pertinent information required for preparation of the site-specific Best Management Practices (BMPs) Plan, and the Solid Waste Disclosure Form for Construction Sites for this project.

SC-14 NOTIFICATION OF WORK

The CONTRACTOR shall notify the Project Manager, and give a minimum of five (5) working days' notice before starting any work. The CONTRACTOR shall notify the Project Manager a minimum of five (5) working days prior to start of any critical activities including, but not limited to, activities impacting noise, access, and air quality.



STATE OF HAWAII
SPECIAL CONDITIONS

SC-15 EXISTING OCCUPIED LOTS

The CONTRACTOR shall provide and maintain continuous vehicular access and utility service (water, telephone and electrical) to the various occupied lots within and surrounding the project for the duration of construction and to the satisfaction of the Project Manager. The CONTRACTOR shall identify, locate and protect all utility services to these lots prior to any construction activity.

The CONTRACTOR shall provide safe and convenient access to these lots at all times to the satisfaction of the Project Manager. The CONTRACTOR shall also coordinate any temporary utility services with the proper utility companies. The CONTRACTOR shall pay all utility installation charges and fees to any utility company for any temporary utility connections.

SC-16 DOCUMENTATION OF EXISTING IMPROVEMENTS

The CONTRACTOR shall compile a documentation and record of the existence and condition of any significant existing improvements adjacent to the project site within thirty (30) calendar days after the Notice to Proceed date and immediately before the the start of any work.

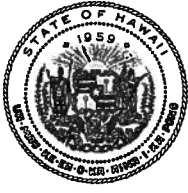
“Immediately before”, in this case only, shall be defined as no more than twelve (12) hours, and no less than one (1) hour, before beginning any construction activity, including but not limited to clearing, grubbing, or earthwork, occurs.

Improvements, which shall be documented, shall include, but not be limited to;

1. Improvements that could be directly affected by dust nuisance, silt damage from heavy rain, or weakening of foundations of supporting earth by earthmoving operations or machinery vibration.
2. Significant improvements within 25-feet of the work area limits such as existing houses, sheds, structures, fences, posts, walls, trees, shrubs, lawns landscaping, gardens and driveways.
3. Existing roads approaching or adjoining any work area.

Existing conditions shall be documented in detail and, where applicable, quantified (measurement of lengths, widths and depths of cracks in structures and pavements, etc.).

Documentation shall be done by the CONTRACTOR on the day work commences and shall be done by photographs.



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All photographs taken shall be color, dated and numbered. A reference site map shall be prepared by the CONTRACTOR indicating the approximate locations, and directions, that the photographs were taken from by referencing the photograph numbers to an appropriate number, and arrow, on the site map.

A copy of all materials; the photographs and accompanying reference site map shall be submitted to, and become the property of DHHL within (7) working days after documentation occurs. Photographs shall be mounted and bound for submittal. Laser copied or mounted photographs in a binder or photograph album will be acceptable. Loose photographs are not acceptable. A letter identifying the materials, their date of recordation, the time(s), and person(s) involved in the recordation, and a statement to the effect that the materials being submitted are a record of existing visible conditions observed immediately prior to the start of construction shall also be provided. Submittal of the photographs, maps and descriptions in digital format on a compact disk (CD) is also acceptable.

The CONTRACTOR shall keep their own copy of the materials for their files.

The Department will also compile their own separate independent documentation on the existence and condition of the existing improvements. Therefore it is imperative that the CONTRACTOR adhere to the requirements of Section 7.1 of the DHHL General Conditions regarding notification prior to beginning any work.

The Department will consider the requirements imposed by this subsection and work done by the CONTRACTOR to comply with this subsection incidental to the various contract items. The Department will not make separate or additional payment.

SC-17 PRE-CONSTRUCTION/POST-CONSTRUCTION SITE CRACK AND PHOTO SURVEY:

The CONTRACTOR shall prepare a pre-construction site crack and photo survey of the existing properties within thirty (30) calendar days after the Notice to Proceed date and prior to the start of any work.

The CONTRACTOR shall submit four (4) copies of the report to the Construction Management Manager (CMM). The CMM will retain one (1) copy and distribute two (2) copies to the Department of Hawaiian Home Lands and one (1) copy to the Project Manager.

The CONTRACTOR shall be responsible for a visual survey of the existing properties along with photo documentation with associated dates and captions of the visual survey to document the existence and non-existence of cracks or damage that exists on adjacent properties.



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Upon completion of all work associated with the sewer lines, the CONTRACTOR shall prepare a post-construction site crack and photo survey of the existing properties. The CONTRACTOR shall submit four (4) copies of the report to the CMM. The CMM will retain one (1) copy and distribute two (2) copies to the Department of Hawaiian Home Lands and one (1) copy to the Project Manager.

SC-18 PROTECTIVE MEASURE NECESSARY TO MITIGATE EXISTING BUILDING DAMAGE:

The CONTRACTOR shall submit to the CMM for approval, a design and plans for the proposed measures, such as trench shoring, underpinning, etc. necessary to mitigate any damage to the existing structures surrounding the subject work. The design and plans shall be prepared by a professional structural engineer licensed in the State of Hawaii. Along with the design and plan, the CONTRACTOR shall submit any findings as reported by his geotechnical engineer.

The submittal shall be handled as a construction submittal as defined in the technical specifications Section 01300 and Section 01340 – Drawings to be Furnished by CONTRACTOR, and in accordance with Section 5.5 – Shop Drawings and Other Submittals of the DHHL General Conditions.

SC-19 FINAL INSPECTION

Throughout the construction period, the work may be subject to periodic inspection by DHHL, the Construction Management (CM) Inspector, the Department of Health, the County and other applicable government agencies. Once work has been satisfactorily completed, the County, accompanied by DHHL and the CM Inspector, will make the final inspection of the work to determine whether all work has been done in complete compliance with the requirements of the plans and these specifications.

The CONTRACTOR shall therefore schedule the final inspection with the County, Department of Health, and CM Inspector, and notify the DHHL Project Manager one week prior to the final inspection.

Neither the scheduling nor the conduct of the aforementioned final inspection shall be deemed a waiver of DHHL's right to subsequently require CONTRACTOR to complete all unfinished or defective work to the satisfaction of DHHL.



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SC-20 GENERAL CONDITIONS

In the event of conflicts and/or discrepancies, the DHHL Construction General Conditions shall govern over Form AG-008, 103D General Conditions (eff. 10/17/13).

SC-21 CAMPAIGN CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS

Contractors are hereby notified of the applicability of Section 11-355, HRS, which states that campaign contributions from specified State or County government contractors during the term of the Contract if the contractors are paid with funds appropriated by a legislative body.

SC-22 APPRENTICESHIP AGREEMENT PREFERENCE – CONTRACTOR'S RESPONSIBILITY

1. For the duration of the Contract awarded utilizing the Hawai'i Apprenticeship Preference, the CONTRACTOR shall certify each month that work is being conducted on the project, that it continues to be a participant in the relevant apprenticeship program for each trade it employs.
2. Monthly certification shall be made on *MONTHLY REPORT OF CONTRACTOR'S PARTICIPATION IN APPROVED APPRENTICESHIP PROGRAM UNDER ACT 17 (Monthly Certification Form 2)* prepared and made available by the DLIR. *Monthly Certification Form 2* shall be a signed original by the respective apprenticeship program sponsor's authorized official, and submitted by the CONTRACTOR with its monthly payment requests. *Monthly Certification Form 2* is available on the DLIR website at: <http://hawaii.gov/labor/wdd>
3. Should the CONTRACTOR fail or refuse to submit its monthly certification forms, or at any time during the construction of the project, cease to be a party to a registered apprenticeship agreement for each apprenticeable trade the CONTRACTOR employs, the CONTRACTOR will be subject to the following sanctions:
 - a. Withholding of the requested payment until the required form(s) are submitted;
 - b. Temporary or permanent cessation of work on the project, without recourse to breach of Contract claims by the CONTRACTOR; provided the DHHL shall be entitled to restitution for nonperformance or liquidated damages claims; or
 - c. Proceed to debar pursuant to HRS §103D-702.



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4. If events such as “acts of God,” acts of a public enemy, acts of the State or any other governmental body in its sovereign or contractual capacity, fires, floods, epidemics, freight embargoes, unusually severe weather, or strikes or other labor disputes prevent the CONTRACTOR from submitting the certification forms, the CONTRACTOR shall not be penalized as provided herein, provided the CONTRACTOR completely and expeditiously complies with the certification process when the event is over.

SC-23 ARCHAEOLOGICAL REPORT

An Archaeological Field Inspection Report of the project area was not preformed within the project limits. The CONTRACTOR should be aware that archaeological sites may be encountered during the construction of this project. If the CONTRACTOR encounters a potential archaeological site during construction, he shall immediately cease all operations in the area and contact the Project Manager.

SC-24 INADVERTENT DISCOVERY OF HUMAN BURIALS

Although not expected, in the event human burials are inadvertently discovered, the CONTRACTOR shall immediately stop work in the vicinity of the burial and contact the following parties and agencies immediately: State Historic Preservation Division, DHHL, Office of Hawaiian Affairs and the Oahu Island Burial Council.

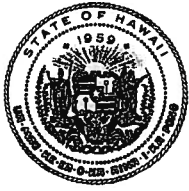
DHHL shall provide the CONTRACTOR with a Supplemental Agreement for additional time added to the CONTRACTOR’s performance schedule for the mitigation of any inadvertent discovery of human remains.

SC-25 CERTIFICATION

The CONTRACTOR and CONTRACTOR’s Hawaii Licensed Professional Land Surveyor shall jointly certify the finish elevation of any new work.

SC-26 GEOTECHNICAL ENGINEER

The services of a geotechnical engineering firm will be retained by DHHL. The CONTRACTOR shall notify the Project Manager whenever the geotechnical engineering firm’s presence is needed at the site. The geotechnical engineer shall be present to observe site grading and other work concerning excavation, placing and compacting soil materials, and to take field density tests. Also, the geotechnical engineer shall perform laboratory testing of all imported soils or on-site soils to determine its acceptability for its intended use as select material or general fill material. The geotechnical engineer shall compile the daily observations, test data, test results and recommendations into a weekly submittal to the Project Manager. The geotechnical engineer shall ensure that the geotechnical work complies with the specifications and drawings.



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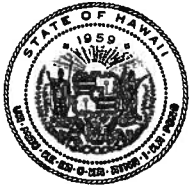
Upon completion of the grading operation, the geotechnical engineer shall provide the information needed to complete the "Report after Grading" as required by the Revised Ordinances of Honolulu (ROH), Section 14-15.1(n). As a minimum, six (6) copies of compaction data with 11"x17" location map, moisture content at the time of compaction, and certification letter (stamped and signed by an engineer licensed in the State of Hawaii) that the work was done in conformity to the plans and specifications.

SC-27**FIELD OFFICE**

The CONTRACTOR shall provide a field office for exclusive use and entry of the Construction Management and DHHL personnel, or their representatives, at a location approved by the Project Manager within the Project limits. It shall be available within thirty (30) calendar days after the Notice to Proceed date of the Contract.

The field office shall:

1. Be separated by a soundproof wall if it adjoins the CONTRACTOR's office.
2. Have security measures (i. e. window bars) to discourage illegal entry into the field office and theft and vandalism of the contents.
3. Be weatherproof.
4. Have a minimum gross floor area of 10 feet by 24 feet.
5. Have a monitored wireless security alarm system.
6. Have an aggregate window area not less than 10 percent of the floor area.
7. Have two exterior doors with a keyed cylinder type lock.
8. Be furnished with a conference room table with sufficient chairs, one plan rack holding a minimum of 10 sets of plans, two new executive desks of minimum 36 inch x 72 inch size, two new executive type black chairs, one new 3-tier shelf with each tier a minimum of 13 inches high and 12 inches deep, one broom, telephone service, electric lighting, one new 4-drawer (legal size) file cabinet, one facsimile machine with automatic document feeder, hot/cold bottled drinking water dispenser unit, bottled water delivery service, and sewer system (as necessary).
9. Window-type air conditioning unit(s) capable of keeping the field office at 76°F. or cooler.
10. Have two (2) parking stalls for full-size trucks.
11. Have a high-speed cable or DSL modem with wireless capability compatible with the internet service account. The CONTRACTOR to pay for internet services.



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12. Be provided with potable water service, water closet, lavatory, paper towels, toilet paper, paper cups, and soap. If the office cannot be equipped with a water closet and lavatory, the CONTRACTOR shall make other arrangements to provide such facilities for the CM personnel as approved by the Project Manager.
13. Be provided with electrical service and lighting.

At the discretion of the Project Manager: 1) the field office may be located outside of the Project limits; and 2) the above requirements for the field office may be reduced.

The CONTRACTOR shall maintain the field office in good repair and clean and sanitary condition and shall provide disposable items (paper towels, toilet paper, paper cups, soap, etc.) to the satisfaction of the Project Manager throughout the duration of the Project. Should the Project Manager, in his judgment, feel that the office is not being adequately maintained, operated or repaired, partial or full retention of the CONTRACTOR's monthly progress payment may be enforced until such inadequacies are corrected.

The field office, equipment, and telephone shall be maintained in good repair and in a clean and sanitary condition by the CONTRACTOR until final payment or an earlier date as determined by the Project Manager. The ownership of the field office and equipment shall remain with the CONTRACTOR and shall not be removed until instructed by the Project Manager.

Payment for furnishing and maintaining the Project field office, equipment, furnishings, supplies, and all appurtenances shall be made at the lump sum price bid as provided for in the Proposal Schedule.

SC-28 EARTHWORK QUANTITIES

Prior to any grading operations, the CONTRACTOR shall submit to the Project Manager a list of estimated quantities for excavation to complete the drainage grading work. The CONTRACTOR is responsible to dispose of all excavated material offsite. Borrow material shall not be imported until all excavation work is completed and authorized by the Project Manager.

SC-29 STATE GENERAL EXCISE TAX

This project is not exempt from the State of Hawaii General Excise Tax. The CONTRACTOR's prices shall include the General Excise Tax for all work.



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SC-30 CONTRACTOR'S DAILY CONSTRUCTION ACTIVITY REPORT

The CONTRACTOR shall submit a daily construction activity report electronically through DHHL's CM Manager, for DHHL review. The daily construction activity report shall include the following:

1. Date
2. Weather Condition
3. Activity at the site by the CONTRACTOR
 - a. Labor (who and what labor classification)
 - b. Equipment on site
 - c. Materials delivered
 - d. Work performed
4. Activity at the site by the Subcontractors
 - a. Labor (who and what labor classification)
 - b. Equipment on site
 - c. Materials delivered
 - d. Work performed
5. Visitors to the jobsite (Construction Manager, County Inspectors, etc.)
6. Problems or questions, including recommendations and/or resolutions, if any
7. Safety report status including any safety issues
8. Quality control report status

SC-31 FINAL SETTLEMENT OF CONTRACT

The following shall be made additional conditions of compliance with DHHL Construction General Condition 7.33:

1. The CONTRACTOR shall coordinate with all government agencies and utility companies on behalf of DHHL to obtain letter(s) from each respective government agency or utility company indicating that acceptance of the Contract work for the project has been granted to DHHL. Copies of the letters shall be submitted to DHHL.
2. Signature, execution, and return of the "Record Drawing" Title tracings.

Payment for all work required to comply with the above items will not be paid for separately but shall be considered incidental to the various Contract items.

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1. Coordination of Services by the STATE. The head of the purchasing agency ("HOPA") (which term includes the designee of the HOPA) shall coordinate the services to be provided by the CONTRACTOR in order to complete the performance required in the Contract. The CONTRACTOR shall maintain communications with HOPA at all stages of the CONTRACTOR'S work, and submit to HOPA for resolution any questions which may arise as to the performance of this Contract. "Purchasing agency" as used in these General Conditions means and includes any governmental body which is authorized under chapter 103D, HRS, or its implementing rules and procedures, or by way of delegation, to enter into contracts for the procurement of goods or services or both.
2. Relationship of Parties: Independent Contractor Status and Responsibilities, Including Tax Responsibilities.
 - a. In the performance of services required under this Contract, the CONTRACTOR is an "independent contractor," with the authority and responsibility to control and direct the performance and details of the work and services required under this Contract; however, the STATE shall have a general right to inspect work in progress to determine whether, in the STATE'S opinion, the services are being performed by the CONTRACTOR in compliance with this Contract. Unless otherwise provided by special condition, it is understood that the STATE does not agree to use the CONTRACTOR exclusively, and that the CONTRACTOR is free to contract to provide services to other individuals or entities while under contract with the STATE.
 - b. The CONTRACTOR and the CONTRACTOR'S employees and agents are not by reason of this Contract, agents or employees of the State for any purpose, and the CONTRACTOR and the CONTRACTOR'S employees and agents shall not be entitled to claim or receive from the State any vacation, sick leave, retirement, workers' compensation, unemployment insurance, or other benefits provided to state employees.
 - c. The CONTRACTOR shall be responsible for the accuracy, completeness, and adequacy of the CONTRACTOR'S performance under this Contract. Furthermore, the CONTRACTOR intentionally, voluntarily, and knowingly assumes the sole and entire liability to the CONTRACTOR'S employees and agents, and to any individual not a party to this Contract, for all loss, damage, or injury caused by the CONTRACTOR, or the CONTRACTOR'S employees or agents in the course of their employment.
 - d. The CONTRACTOR shall be responsible for payment of all applicable federal, state, and county taxes and fees which may become due and owing by the CONTRACTOR by reason of this Contract, including but not limited to (i) income taxes, (ii) employment related fees, assessments, and taxes, and (iii) general excise taxes. The CONTRACTOR also is responsible for obtaining all licenses, permits, and certificates that may be required in order to perform this Contract.
 - e. The CONTRACTOR shall obtain a general excise tax license from the Department of Taxation, State of Hawaii, in accordance with section 237-9, HRS, and shall comply with all requirements thereof. The CONTRACTOR shall obtain a tax clearance certificate from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of the Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid and submit the same to the STATE prior to commencing any performance under this Contract. The CONTRACTOR shall also be solely responsible for meeting all requirements necessary to obtain the tax clearance certificate required for final payment under sections 103-53 and 103D-328, HRS, and paragraph 17 of these General Conditions.
 - f. The CONTRACTOR is responsible for securing all employee-related insurance coverage for the CONTRACTOR and the CONTRACTOR'S employees and agents that is or may be required by law, and for payment of all premiums, costs, and other liabilities associated with securing the insurance coverage.

- g. The CONTRACTOR shall obtain a certificate of compliance issued by the Department of Labor and Industrial Relations, State of Hawaii, in accordance with section 103D-310, HRS, and section 3-122-112, HAR, that is current within six months of the date of issuance.
- h. The CONTRACTOR shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs, State of Hawaii, in accordance with section 103D-310, HRS, and section 3-122-112, HAR, that is current within six months of the date of issuance.
- i. In lieu of the above certificates from the Department of Taxation, Labor and Industrial Relations, and Commerce and Consumer Affairs, the CONTRACTOR may submit proof of compliance through the State Procurement Office's designated certification process.

3. Personnel Requirements.

- a. The CONTRACTOR shall secure, at the CONTRACTOR'S own expense, all personnel required to perform this Contract.
- b. The CONTRACTOR shall ensure that the CONTRACTOR'S employees or agents are experienced and fully qualified to engage in the activities and perform the services required under this Contract, and that all applicable licensing and operating requirements imposed or required under federal, state, or county law, and all applicable accreditation and other standards of quality generally accepted in the field of the activities of such employees and agents are complied with and satisfied.

4. Nondiscrimination. No person performing work under this Contract, including any subcontractor, employee, or agent of the CONTRACTOR, shall engage in any discrimination that is prohibited by any applicable federal, state, or county law.

5. Conflicts of Interest. The CONTRACTOR represents that neither the CONTRACTOR, nor any employee or agent of the CONTRACTOR, presently has any interest, and promises that no such interest, direct or indirect, shall be acquired, that would or might conflict in any manner or degree with the CONTRACTOR'S performance under this Contract.

6. Subcontracts and Assignments. The CONTRACTOR shall not assign or subcontract any of the CONTRACTOR'S duties, obligations, or interests under this Contract and no such assignment or subcontract shall be effective unless (i) the CONTRACTOR obtains the prior written consent of the STATE, and (ii) the CONTRACTOR'S assignee or subcontractor submits to the STATE a tax clearance certificate from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR'S assignee or subcontractor have been paid. Additionally, no assignment by the CONTRACTOR of the CONTRACTOR'S right to compensation under this Contract shall be effective unless and until the assignment is approved by the Comptroller of the State of Hawaii, as provided in section 40-58, HRS.

- a. Recognition of a successor in interest. When in the best interest of the State, a successor in interest may be recognized in an assignment contract in which the STATE, the CONTRACTOR and the assignee or transferee (hereinafter referred to as the "Assignee") agree that:

- (1) The Assignee assumes all of the CONTRACTOR'S obligations;
- (2) The CONTRACTOR remains liable for all obligations under this Contract but waives all rights under this Contract as against the STATE; and
- (3) The CONTRACTOR shall continue to furnish, and the Assignee shall also furnish, all required bonds.

- b. Change of name. When the CONTRACTOR asks to change the name in which it holds this Contract with the STATE, the procurement officer of the purchasing agency (hereinafter referred to as the "Agency procurement officer") shall, upon receipt of a document acceptable or satisfactory to the

Agency procurement officer indicating such change of name (for example, an amendment to the CONTRACTOR'S articles of incorporation), enter into an amendment to this Contract with the CONTRACTOR to effect such a change of name. The amendment to this Contract changing the CONTRACTOR'S name shall specifically indicate that no other terms and conditions of this Contract are thereby changed.

- c. Reports. All assignment contracts and amendments to this Contract effecting changes of the CONTRACTOR'S name or novations hereunder shall be reported to the chief procurement officer (CPO) as defined in section 103D-203(a), HRS, within thirty days of the date that the assignment contract or amendment becomes effective.
 - d. Actions affecting more than one purchasing agency. Notwithstanding the provisions of subparagraphs 6a through 6c herein, when the CONTRACTOR holds contracts with more than one purchasing agency of the State, the assignment contracts and the novation and change of name amendments herein authorized shall be processed only through the CPO's office.
- 7. Indemnification and Defense. The CONTRACTOR shall defend, indemnify, and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys' fees, and all claims, suits, and demands therefore, arising out of or resulting from the acts or omissions of the CONTRACTOR or the CONTRACTOR'S employees, officers, agents, or subcontractors under this Contract. The provisions of this paragraph shall remain in full force and effect notwithstanding the expiration or early termination of this Contract.
 - 8. Cost of Litigation. In case the STATE shall, without any fault on its part, be made a party to any litigation commenced by or against the CONTRACTOR in connection with this Contract, the CONTRACTOR shall pay all costs and expenses incurred by or imposed on the STATE, including attorneys' fees.
 - 9. Liquidated Damages. When the CONTRACTOR is given notice of delay or nonperformance as specified in paragraph 13 (Termination for Default) and fails to cure in the time specified, it is agreed the CONTRACTOR shall pay to the STATE the amount, if any, set forth in this Contract per calendar day from the date set for cure until either (i) the STATE reasonably obtains similar goods or services, or both, if the CONTRACTOR is terminated for default, or (ii) until the CONTRACTOR provides the goods or services, or both, if the CONTRACTOR is not terminated for default. To the extent that the CONTRACTOR'S delay or nonperformance is excused under paragraph 13d (Excuse for Nonperformance or Delay Performance), liquidated damages shall not be assessable against the CONTRACTOR. The CONTRACTOR remains liable for damages caused other than by delay.
 - 10. STATE'S Right of Offset. The STATE may offset against any monies or other obligations the STATE owes to the CONTRACTOR under this Contract, any amounts owed to the State of Hawaii by the CONTRACTOR under this Contract or any other contracts, or pursuant to any law or other obligation owed to the State of Hawaii by the CONTRACTOR, including, without limitation, the payment of any taxes or levies of any kind or nature. The STATE will notify the CONTRACTOR in writing of any offset and the nature of such offset. For purposes of this paragraph, amounts owed to the State of Hawaii shall not include debts or obligations which have been liquidated, agreed to by the CONTRACTOR, and are covered by an installment payment or other settlement plan approved by the State of Hawaii, provided, however, that the CONTRACTOR shall be entitled to such exclusion only to the extent that the CONTRACTOR is current with, and not delinquent on, any payments or obligations owed to the State of Hawaii under such payment or other settlement plan.
 - 11. Disputes. Disputes shall be resolved in accordance with section 103D-703, HRS, and chapter 3-126, Hawaii Administrative Rules ("HAR"), as the same may be amended from time to time.
 - 12. Suspension of Contract. The STATE reserves the right at any time and for any reason to suspend this Contract for any reasonable period, upon written notice to the CONTRACTOR in accordance with the provisions herein.
 - a. Order to stop performance. The Agency procurement officer may, by written order to the CONTRACTOR, at any time, and without notice to any surety, require the CONTRACTOR to stop all or any part of the performance called for by this Contract. This order shall be for a specified

period not exceeding sixty (60) days after the order is delivered to the CONTRACTOR, unless the parties agree to any further period. Any such order shall be identified specifically as a stop performance order issued pursuant to this section. Stop performance orders shall include, as appropriate: (1) A clear description of the work to be suspended; (2) Instructions as to the issuance of further orders by the CONTRACTOR for material or services; (3) Guidance as to action to be taken on subcontracts; and (4) Other instructions and suggestions to the CONTRACTOR for minimizing costs. Upon receipt of such an order, the CONTRACTOR shall forthwith comply with its terms and suspend all performance under this Contract at the time stated, provided, however, the CONTRACTOR shall take all reasonable steps to minimize the occurrence of costs allocable to the performance covered by the order during the period of performance stoppage. Before the stop performance order expires, or within any further period to which the parties shall have agreed, the Agency procurement officer shall either:

- (1) Cancel the stop performance order; or
 - (2) Terminate the performance covered by such order as provided in the termination for default provision or the termination for convenience provision of this Contract.
- b. Cancellation or expiration of the order. If a stop performance order issued under this section is cancelled at any time during the period specified in the order, or if the period of the order or any extension thereof expires, the CONTRACTOR shall have the right to resume performance. An appropriate adjustment shall be made in the delivery schedule or contract price, or both, and the Contract shall be modified in writing accordingly, if:
- (1) The stop performance order results in an increase in the time required for, or in the CONTRACTOR'S cost properly allocable to, the performance of any part of this Contract; and
 - (2) The CONTRACTOR asserts a claim for such an adjustment within thirty (30) days after the end of the period of performance stoppage; provided that, if the Agency procurement officer decides that the facts justify such action, any such claim asserted may be received and acted upon at any time prior to final payment under this Contract.
- c. Termination of stopped performance. If a stop performance order is not cancelled and the performance covered by such order is terminated for default or convenience, the reasonable costs resulting from the stop performance order shall be allowable by adjustment or otherwise.
- d. Adjustment of price. Any adjustment in contract price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

13. Termination for Default.

- a. Default. If the CONTRACTOR refuses or fails to perform any of the provisions of this Contract with such diligence as will ensure its completion within the time specified in this Contract, or any extension thereof, otherwise fails to timely satisfy the Contract provisions, or commits any other substantial breach of this Contract, the Agency procurement officer may notify the CONTRACTOR in writing of the delay or non-performance and if not cured in ten (10) days or any longer time specified in writing by the Agency procurement officer, such officer may terminate the CONTRACTOR'S right to proceed with the Contract or such part of the Contract as to which there has been delay or a failure to properly perform. In the event of termination in whole or in part, the Agency procurement officer may procure similar goods or services in a manner and upon the terms deemed appropriate by the Agency procurement officer. The CONTRACTOR shall continue performance of the Contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring similar goods or services.
- b. CONTRACTOR'S duties. Notwithstanding termination of the Contract and subject to any directions from the Agency procurement officer, the CONTRACTOR shall take timely, reasonable, and

necessary action to protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest.

- c. Compensation. Payment for completed goods and services delivered and accepted by the STATE shall be at the price set forth in the Contract. Payment for the protection and preservation of property shall be in an amount agreed upon by the CONTRACTOR and the Agency procurement officer. If the parties fail to agree, the Agency procurement officer shall set an amount subject to the CONTRACTOR'S rights under chapter 3-126, HAR. The STATE may withhold from amounts due the CONTRACTOR such sums as the Agency procurement officer deems to be necessary to protect the STATE against loss because of outstanding liens or claims and to reimburse the STATE for the excess costs expected to be incurred by the STATE in procuring similar goods and services.
- d. Excuse for nonperformance or delayed performance. The CONTRACTOR shall not be in default by reason of any failure in performance of this Contract in accordance with its terms, including any failure by the CONTRACTOR to make progress in the prosecution of the performance hereunder which endangers such performance, if the CONTRACTOR has notified the Agency procurement officer within fifteen (15) days after the cause of the delay and the failure arises out of causes such as: acts of God; acts of a public enemy; acts of the State and any other governmental body in its sovereign or contractual capacity; fires; floods; epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather. If the failure to perform is caused by the failure of a subcontractor to perform or to make progress, and if such failure arises out of causes similar to those set forth above, the CONTRACTOR shall not be deemed to be in default, unless the goods and services to be furnished by the subcontractor were reasonably obtainable from other sources in sufficient time to permit the CONTRACTOR to meet the requirements of the Contract. Upon request of the CONTRACTOR, the Agency procurement officer shall ascertain the facts and extent of such failure, and, if such officer determines that any failure to perform was occasioned by any one or more of the excusable causes, and that, but for the excusable cause, the CONTRACTOR'S progress and performance would have met the terms of the Contract, the delivery schedule shall be revised accordingly, subject to the rights of the STATE under this Contract. As used in this paragraph, the term "subcontractor" means subcontractor at any tier.
- e. Erroneous termination for default. If, after notice of termination of the CONTRACTOR'S right to proceed under this paragraph, it is determined for any reason that the CONTRACTOR was not in default under this paragraph, or that the delay was excusable under the provisions of subparagraph 13d, "Excuse for nonperformance or delayed performance," the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to paragraph 14.
- f. Additional rights and remedies. The rights and remedies provided in this paragraph are in addition to any other rights and remedies provided by law or under this Contract.

14. Termination for Convenience.

- a. Termination. The Agency procurement officer may, when the interests of the STATE so require, terminate this Contract in whole or in part, for the convenience of the STATE. The Agency procurement officer shall give written notice of the termination to the CONTRACTOR specifying the part of the Contract terminated and when termination becomes effective.
- b. CONTRACTOR'S obligations. The CONTRACTOR shall incur no further obligations in connection with the terminated performance and on the date(s) set in the notice of termination the CONTRACTOR will stop performance to the extent specified. The CONTRACTOR shall also terminate outstanding orders and subcontracts as they relate to the terminated performance. The CONTRACTOR shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated performance subject to the STATE'S approval. The Agency procurement officer may direct the CONTRACTOR to assign the CONTRACTOR'S right, title, and interest under terminated orders or subcontracts to the STATE. The CONTRACTOR must still complete the performance not terminated by the notice of termination and may incur obligations as necessary to do so.

- c. Right to goods and work product. The Agency procurement officer may require the CONTRACTOR to transfer title and deliver to the STATE in the manner and to the extent directed by the Agency procurement officer:

- (1) Any completed goods or work product; and
- (2) The partially completed goods and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (hereinafter called "manufacturing material") as the CONTRACTOR has specifically produced or specially acquired for the performance of the terminated part of this Contract.

The CONTRACTOR shall, upon direction of the Agency procurement officer, protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest. If the Agency procurement officer does not exercise this right, the CONTRACTOR shall use best efforts to sell such goods and manufacturing materials. Use of this paragraph in no way implies that the STATE has breached the Contract by exercise of the termination for convenience provision.

- d. Compensation.

- (1) The CONTRACTOR shall submit a termination claim specifying the amounts due because of the termination for convenience together with the cost or pricing data, submitted to the extent required by chapter 3-122, HAR, bearing on such claim. If the CONTRACTOR fails to file a termination claim within one year from the effective date of termination, the Agency procurement officer may pay the CONTRACTOR, if at all, an amount set in accordance with subparagraph 14d(3) below.
- (2) The Agency procurement officer and the CONTRACTOR may agree to a settlement provided the CONTRACTOR has filed a termination claim supported by cost or pricing data submitted as required and that the settlement does not exceed the total Contract price plus settlement costs reduced by payments previously made by the STATE, the proceeds of any sales of goods and manufacturing materials under subparagraph 14c, and the Contract price of the performance not terminated.
- (3) Absent complete agreement under subparagraph 14d(2) the Agency procurement officer shall pay the CONTRACTOR the following amounts, provided payments agreed to under subparagraph 14d(2) shall not duplicate payments under this subparagraph for the following:
 - (A) Contract prices for goods or services accepted under the Contract;
 - (B) Costs incurred in preparing to perform and performing the terminated portion of the performance plus a fair and reasonable profit on such portion of the performance, such profit shall not include anticipatory profit or consequential damages, less amounts paid or to be paid for accepted goods or services; provided, however, that if it appears that the CONTRACTOR would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss;
 - (C) Costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to subparagraph 14b. These costs must not include costs paid in accordance with subparagraph 14d(3)(B);
 - (D) The reasonable settlement costs of the CONTRACTOR, including accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the Contract and for the termination of subcontracts thereunder, together with reasonable storage, transportation, and other costs incurred in connection with the protection or disposition of property allocable to the terminated portion of this Contract. The total sum to be paid the CONTRACTOR under this subparagraph shall not exceed the

total Contract price plus the reasonable settlement costs of the CONTRACTOR reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under subparagraph 14d(2), and the contract price of performance not terminated.

- (4) Costs claimed, agreed to, or established under subparagraphs 14d(2) and 14d(3) shall be in accordance with Chapter 3-123 (Cost Principles) of the Procurement Rules.

15. Claims Based on the Agency Procurement Officer's Actions or Omissions.

- a. Changes in scope. If any action or omission on the part of the Agency procurement officer (which term includes the designee of such officer for purposes of this paragraph 15) requiring performance changes within the scope of the Contract constitutes the basis for a claim by the CONTRACTOR for additional compensation, damages, or an extension of time for completion, the CONTRACTOR shall continue with performance of the Contract in compliance with the directions or orders of such officials, but by so doing, the CONTRACTOR shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

- (1) Written notice required. The CONTRACTOR shall give written notice to the Agency procurement officer:

- (A) Prior to the commencement of the performance involved, if at that time the CONTRACTOR knows of the occurrence of such action or omission;
- (B) Within thirty (30) days after the CONTRACTOR knows of the occurrence of such action or omission, if the CONTRACTOR did not have such knowledge prior to the commencement of the performance; or
- (C) Within such further time as may be allowed by the Agency procurement officer in writing.

- (2) Notice content. This notice shall state that the CONTRACTOR regards the act or omission as a reason which may entitle the CONTRACTOR to additional compensation, damages, or an extension of time. The Agency procurement officer, upon receipt of such notice, may rescind such action, remedy such omission, or take such other steps as may be deemed advisable in the discretion of the Agency procurement officer;

- (3) Basis must be explained. The notice required by subparagraph 15a(1) describes as clearly as practicable at the time the reasons why the CONTRACTOR believes that additional compensation, damages, or an extension of time may be remedies to which the CONTRACTOR is entitled; and

- (4) Claim must be justified. The CONTRACTOR must maintain and, upon request, make available to the Agency procurement officer within a reasonable time, detailed records to the extent practicable, and other documentation and evidence satisfactory to the STATE, justifying the claimed additional costs or an extension of time in connection with such changes.

- b. CONTRACTOR not excused. Nothing herein contained, however, shall excuse the CONTRACTOR from compliance with any rules or laws precluding any state officers and CONTRACTOR from acting in collusion or bad faith in issuing or performing change orders which are clearly not within the scope of the Contract.

- c. Price adjustment. Any adjustment in the price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

16. Costs and Expenses. Any reimbursement due the CONTRACTOR for per diem and transportation expenses under this Contract shall be subject to chapter 3-123 (Cost Principles), HAR, and the following guidelines:

- a. Reimbursement for air transportation shall be for actual cost or coach class air fare, whichever is less.
- b. Reimbursement for ground transportation costs shall not exceed the actual cost of renting an intermediate-sized vehicle.
- c. Unless prior written approval of the HOPA is obtained, reimbursement for subsistence allowance (i.e., hotel and meals, etc.) shall not exceed the applicable daily authorized rates for inter-island or out-of-state travel that are set forth in the current Governor's Executive Order authorizing adjustments in salaries and benefits for state officers and employees in the executive branch who are excluded from collective bargaining coverage.

17. Payment Procedures; Final Payment; Tax Clearance.

- a. Original invoices required. All payments under this Contract shall be made only upon submission by the CONTRACTOR of original invoices specifying the amount due and certifying that services requested under the Contract have been performed by the CONTRACTOR according to the Contract.
- b. Subject to available funds. Such payments are subject to availability of funds and allotment by the Director of Finance in accordance with chapter 37, HRS. Further, all payments shall be made in accordance with and subject to chapter 40, HRS.
- c. Prompt payment.
 - (1) Any money, other than retainage, paid to the CONTRACTOR shall be disbursed to subcontractors within ten (10) days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes; and
 - (2) Upon final payment to the CONTRACTOR, full payment to the subcontractor, including retainage, shall be made within ten (10) days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract.
- d. Final payment. Final payment under this Contract shall be subject to sections 103-53 and 103D-328, HRS, which require a tax clearance from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid. Further, in accordance with section 3-122-112, HAR, CONTRACTOR shall provide a certificate affirming that the CONTRACTOR has remained in compliance with all applicable laws as required by this section.

18. Federal Funds. If this Contract is payable in whole or in part from federal funds, CONTRACTOR agrees that, as to the portion of the compensation under this Contract to be payable from federal funds, the CONTRACTOR shall be paid only from such funds received from the federal government, and shall not be paid from any other funds. Failure of the STATE to receive anticipated federal funds shall not be considered a breach by the STATE or an excuse for nonperformance by the CONTRACTOR.

19. Modifications of Contract.

- a. In writing. Any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract permitted by this Contract shall be made by written amendment to this Contract, signed by the CONTRACTOR and the STATE, provided that change orders shall be made in accordance with paragraph 20 herein.
- b. No oral modification. No oral modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract shall be permitted.

- c. Agency procurement officer. By written order, at any time, and without notice to any surety, the Agency procurement officer may unilaterally order of the CONTRACTOR:
 - (A) Changes in the work within the scope of the Contract; and
 - (B) Changes in the time of performance of the Contract that do not alter the scope of the Contract work.
 - d. Adjustments of price or time for performance. If any modification increases or decreases the CONTRACTOR'S cost of, or the time required for, performance of any part of the work under this Contract, an adjustment shall be made and this Contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined, where applicable, in accordance with the price adjustment clause of this Contract or as negotiated.
 - e. Claim barred after final payment. No claim by the CONTRACTOR for an adjustment hereunder shall be allowed if written modification of the Contract is not made prior to final payment under this Contract.
 - f. Claims not barred. In the absence of a written contract modification, nothing in this clause shall be deemed to restrict the CONTRACTOR'S right to pursue a claim under this Contract or for a breach of contract.
 - g. Head of the purchasing agency approval. If this is a professional services contract awarded pursuant to section 103D-303 or 103D-304, HRS, any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract which increases the amount payable to the CONTRACTOR by at least \$25,000.00 and ten per cent (10%) or more of the initial contract price, must receive the prior approval of the head of the purchasing agency.
 - h. Tax clearance. The STATE may, at its discretion, require the CONTRACTOR to submit to the STATE, prior to the STATE'S approval of any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract, a tax clearance from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid.
 - i. Sole source contracts. Amendments to sole source contracts that would change the original scope of the Contract may only be made with the approval of the CPO. Annual renewal of a sole source contract for services should not be submitted as an amendment.
20. Change Order. The Agency procurement officer may, by a written order signed only by the STATE, at any time, and without notice to any surety, and subject to all appropriate adjustments, make changes within the general scope of this Contract in any one or more of the following:
- (1) Drawings, designs, or specifications, if the goods or services to be furnished are to be specially provided to the STATE in accordance therewith;
 - (2) Method of delivery; or
 - (3) Place of delivery.
- a. Adjustments of price or time for performance. If any change order increases or decreases the CONTRACTOR'S cost of, or the time required for, performance of any part of the work under this Contract, whether or not changed by the order, an adjustment shall be made and the Contract modified in writing accordingly. Any adjustment in the Contract price made pursuant to this provision shall be determined in accordance with the price adjustment provision of this Contract. Failure of the parties to agree to an adjustment shall not excuse the CONTRACTOR from proceeding with the Contract as changed, provided that the Agency procurement officer promptly and duly makes the provisional adjustments in payment or time for performance as may be reasonable. By

proceeding with the work, the CONTRACTOR shall not be deemed to have prejudiced any claim for additional compensation, or any extension of time for completion.

- b. Time period for claim. Within ten (10) days after receipt of a written change order under subparagraph 20a, unless the period is extended by the Agency procurement officer in writing, the CONTRACTOR shall respond with a claim for an adjustment. The requirement for a timely written response by CONTRACTOR cannot be waived and shall be a condition precedent to the assertion of a claim.
- c. Claim barred after final payment. No claim by the CONTRACTOR for an adjustment hereunder shall be allowed if a written response is not given prior to final payment under this Contract.
- d. Other claims not barred. In the absence of a change order, nothing in this paragraph 20 shall be deemed to restrict the CONTRACTOR'S right to pursue a claim under the Contract or for breach of contract.

21. Price Adjustment.

- a. Price adjustment. Any adjustment in the contract price pursuant to a provision in this Contract shall be made in one or more of the following ways:
 - (1) By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
 - (2) By unit prices specified in the Contract or subsequently agreed upon;
 - (3) By the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as specified in the Contract or subsequently agreed upon;
 - (4) In such other manner as the parties may mutually agree; or
 - (5) In the absence of agreement between the parties, by a unilateral determination by the Agency procurement officer of the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as computed by the Agency procurement officer in accordance with generally accepted accounting principles and applicable sections of chapters 3-123 and 3-126, HAR.
- b. Submission of cost or pricing data. The CONTRACTOR shall provide cost or pricing data for any price adjustments subject to the provisions of chapter 3-122, HAR.

22. Variation in Quantity for Definite Quantity Contracts. Upon the agreement of the STATE and the CONTRACTOR, the quantity of goods or services, or both, if a definite quantity is specified in this Contract, may be increased by a maximum of ten per cent (10%); provided the unit prices will remain the same except for any price adjustments otherwise applicable; and the Agency procurement officer makes a written determination that such an increase will either be more economical than awarding another contract or that it would not be practical to award another contract.

23. Changes in Cost-Reimbursement Contract. If this Contract is a cost-reimbursement contract, the following provisions shall apply:

- a. The Agency procurement officer may at any time by written order, and without notice to the sureties, if any, make changes within the general scope of the Contract in any one or more of the following:
 - (1) Description of performance (Attachment 1);
 - (2) Time of performance (i.e., hours of the day, days of the week, etc.);
 - (3) Place of performance of services;

- (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the STATE in accordance with the drawings, designs, or specifications;
 - (5) Method of shipment or packing of supplies; or
 - (6) Place of delivery.
- b. If any change causes an increase or decrease in the estimated cost of, or the time required for performance of, any part of the performance under this Contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this Contract, the Agency procurement officer shall make an equitable adjustment in the (1) estimated cost, delivery or completion schedule, or both; (2) amount of any fixed fee; and (3) other affected terms and shall modify the Contract accordingly.
 - c. The CONTRACTOR must assert the CONTRACTOR'S rights to an adjustment under this provision within thirty (30) days from the day of receipt of the written order. However, if the Agency procurement officer decides that the facts justify it, the Agency procurement officer may receive and act upon a proposal submitted before final payment under the Contract.
 - d. Failure to agree to any adjustment shall be a dispute under paragraph 11 of this Contract. However, nothing in this provision shall excuse the CONTRACTOR from proceeding with the Contract as changed.
 - e. Notwithstanding the terms and conditions of subparagraphs 23a and 23b, the estimated cost of this Contract and, if this Contract is incrementally funded, the funds allotted for the performance of this Contract, shall not be increased or considered to be increased except by specific written modification of the Contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract.
24. Confidentiality of Material.
- a. All material given to or made available to the CONTRACTOR by virtue of this Contract, which is identified as proprietary or confidential information, will be safeguarded by the CONTRACTOR and shall not be disclosed to any individual or organization without the prior written approval of the STATE.
 - b. All information, data, or other material provided by the CONTRACTOR to the STATE shall be subject to the Uniform Information Practices Act, chapter 92F, HRS.
25. Publicity. The CONTRACTOR shall not refer to the STATE, or any office, agency, or officer thereof, or any state employee, including the HOPA, the CPO, the Agency procurement officer, or to the services or goods, or both, provided under this Contract, in any of the CONTRACTOR'S brochures, advertisements, or other publicity of the CONTRACTOR. All media contacts with the CONTRACTOR about the subject matter of this Contract shall be referred to the Agency procurement officer.
26. Ownership Rights and Copyright. The STATE shall have complete ownership of all material, both finished and unfinished, which is developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract, and all such material shall be considered "works made for hire." All such material shall be delivered to the STATE upon expiration or termination of this Contract. The STATE, in its sole discretion, shall have the exclusive right to copyright any product, concept, or material developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract.
27. Liens and Warranties. Goods provided under this Contract shall be provided free of all liens and provided together with all applicable warranties, or with the warranties described in the Contract documents, whichever are greater.

28. Audit of Books and Records of the CONTRACTOR. The STATE may, at reasonable times and places, audit the books and records of the CONTRACTOR, prospective contractor, subcontractor, or prospective subcontractor which are related to:
- a. The cost or pricing data, and
 - b. A state contract, including subcontracts, other than a firm fixed-price contract.
29. Cost or Pricing Data. Cost or pricing data must be submitted to the Agency procurement officer and timely certified as accurate for contracts over \$100,000 unless the contract is for a multiple-term or as otherwise specified by the Agency procurement officer. Unless otherwise required by the Agency procurement officer, cost or pricing data submission is not required for contracts awarded pursuant to competitive sealed bid procedures.
- If certified cost or pricing data are subsequently found to have been inaccurate, incomplete, or noncurrent as of the date stated in the certificate, the STATE is entitled to an adjustment of the contract price, including profit or fee, to exclude any significant sum by which the price, including profit or fee, was increased because of the defective data. It is presumed that overstated cost or pricing data increased the contract price in the amount of the defect plus related overhead and profit or fee. Therefore, unless there is a clear indication that the defective data was not used or relied upon, the price will be reduced in such amount.
30. Audit of Cost or Pricing Data. When cost or pricing principles are applicable, the STATE may require an audit of cost or pricing data.
31. Records Retention.
- (1) Upon any termination of this Contract or as otherwise required by applicable law, CONTRACTOR shall, pursuant to chapter 487R, HRS, destroy all copies (paper or electronic form) of personal information received from the STATE.
 - (2) The CONTRACTOR and any subcontractors shall maintain the files, books, and records that relate to the Contract, including any personal information created or received by the CONTRACTOR on behalf of the STATE, and any cost or pricing data, for at least three (3) years after the date of final payment under the Contract. The personal information shall continue to be confidential and shall only be disclosed as permitted or required by law. After the three (3) year, or longer retention period as required by law has ended, the files, books, and records that contain personal information shall be destroyed pursuant to chapter 487R, HRS or returned to the STATE at the request of the STATE.
32. Antitrust Claims. The STATE and the CONTRACTOR recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, the CONTRACTOR hereby assigns to STATE any and all claims for overcharges as to goods and materials purchased in connection with this Contract, except as to overcharges which result from violations commencing after the price is established under this Contract and which are not passed on to the STATE under an escalation clause.
33. Patented Articles. The CONTRACTOR shall defend, indemnify, and hold harmless the STATE, and its officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys fees, and all claims, suits, and demands arising out of or resulting from any claims, demands, or actions by the patent holder for infringement or other improper or unauthorized use of any patented article, patented process, or patented appliance in connection with this Contract. The CONTRACTOR shall be solely responsible for correcting or curing to the satisfaction of the STATE any such infringement or improper or unauthorized use, including, without limitation: (a) furnishing at no cost to the STATE a substitute article, process, or appliance acceptable to the STATE, (b) paying royalties or other required payments to the patent holder, (c) obtaining proper authorizations or releases from the patent holder, and (d) furnishing such security to or making such arrangements with the patent holder as may be necessary to correct or cure any such infringement or improper or unauthorized use.

34. Governing Law. The validity of this Contract and any of its terms or provisions, as well as the rights and duties of the parties to this Contract, shall be governed by the laws of the State of Hawaii. Any action at law or in equity to enforce or interpret the provisions of this Contract shall be brought in a state court of competent jurisdiction in Honolulu, Hawaii.
35. Compliance with Laws. The CONTRACTOR shall comply with all federal, state, and county laws, ordinances, codes, rules, and regulations, as the same may be amended from time to time, that in any way affect the CONTRACTOR'S performance of this Contract.
36. Conflict Between General Conditions and Procurement Rules. In the event of a conflict between the General Conditions and the procurement rules, the procurement rules in effect on the date this Contract became effective shall control and are hereby incorporated by reference.
37. Entire Contract. This Contract sets forth all of the agreements, conditions, understandings, promises, warranties, and representations between the STATE and the CONTRACTOR relative to this Contract. This Contract supersedes all prior agreements, conditions, understandings, promises, warranties, and representations, which shall have no further force or effect. There are no agreements, conditions, understandings, promises, warranties, or representations, oral or written, express or implied, between the STATE and the CONTRACTOR other than as set forth or as referred to herein.
38. Severability. In the event that any provision of this Contract is declared invalid or unenforceable by a court, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining terms of this Contract.
39. Waiver. The failure of the STATE to insist upon the strict compliance with any term, provision, or condition of this Contract shall not constitute or be deemed to constitute a waiver or relinquishment of the STATE'S right to enforce the same in accordance with this Contract. The fact that the STATE specifically refers to one provision of the procurement rules or one section of the Hawaii Revised Statutes, and does not include other provisions or statutory sections in this Contract shall not constitute a waiver or relinquishment of the STATE'S rights or the CONTRACTOR'S obligations under the procurement rules or statutes.
40. Pollution Control. If during the performance of this Contract, the CONTRACTOR encounters a "release" or a "threatened release" of a reportable quantity of a "hazardous substance," "pollutant," or "contaminant" as those terms are defined in section 128D-1, HRS, the CONTRACTOR shall immediately notify the STATE and all other appropriate state, county, or federal agencies as required by law. The Contractor shall take all necessary actions, including stopping work, to avoid causing, contributing to, or making worse a release of a hazardous substance, pollutant, or contaminant, and shall promptly obey any orders the Environmental Protection Agency or the state Department of Health issues in response to the release. In the event there is an ensuing cease-work period, and the STATE determines that this Contract requires an adjustment of the time for performance, the Contract shall be modified in writing accordingly.
41. Campaign Contributions. The CONTRACTOR is hereby notified of the applicability of 11-355, HRS, which states that campaign contributions are prohibited from specified state or county government contractors during the terms of their contracts if the contractors are paid with funds appropriated by a legislative body.
42. Confidentiality of Personal Information.
- a. Definitions.
- "Personal information" means an individual's first name or first initial and last name in combination with any one or more of the following data elements, when either name or data elements are not encrypted:
- (1) Social security number;
 - (2) Driver's license number or Hawaii identification card number; or

- (3) Account number, credit or debit card number, access code, or password that would permit access to an individual's financial information.

Personal information does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.

"Technological safeguards" means the technology and the policy and procedures for use of the technology to protect and control access to personal information.

b. Confidentiality of Material.

- (1) All material given to or made available to the CONTRACTOR by the STATE by virtue of this Contract which is identified as personal information, shall be safeguarded by the CONTRACTOR and shall not be disclosed without the prior written approval of the STATE.
- (2) CONTRACTOR agrees not to retain, use, or disclose personal information for any purpose other than as permitted or required by this Contract.
- (3) CONTRACTOR agrees to implement appropriate "technological safeguards" that are acceptable to the STATE to reduce the risk of unauthorized access to personal information.
- (4) CONTRACTOR shall report to the STATE in a prompt and complete manner any security breaches involving personal information.
- (5) CONTRACTOR agrees to mitigate, to the extent practicable, any harmful effect that is known to CONTRACTOR because of a use or disclosure of personal information by CONTRACTOR in violation of the requirements of this paragraph.
- (6) CONTRACTOR shall complete and retain a log of all disclosures made of personal information received from the STATE, or personal information created or received by CONTRACTOR on behalf of the STATE.

c. Security Awareness Training and Confidentiality Agreements.

- (1) CONTRACTOR certifies that all of its employees who will have access to the personal information have completed training on security awareness topics relating to protecting personal information.
- (2) CONTRACTOR certifies that confidentiality agreements have been signed by all of its employees who will have access to the personal information acknowledging that:
 - (A) The personal information collected, used, or maintained by the CONTRACTOR will be treated as confidential;
 - (B) Access to the personal information will be allowed only as necessary to perform the Contract; and
 - (C) Use of the personal information will be restricted to uses consistent with the services subject to this Contract.

d. Termination for Cause. In addition to any other remedies provided for by this Contract, if the STATE learns of a material breach by CONTRACTOR of this paragraph by CONTRACTOR, the STATE may at its sole discretion:

- (1) Provide an opportunity for the CONTRACTOR to cure the breach or end the violation; or
- (2) Immediately terminate this Contract.

In either instance, the CONTRACTOR and the STATE shall follow chapter 487N, HRS, with respect to notification of a security breach of personal information.

e. Records Retention.

- (1) Upon any termination of this Contract or as otherwise required by applicable law, CONTRACTOR shall, pursuant to chapter 487R, HRS, destroy all copies (paper or electronic form) of personal information received from the STATE.
- (2) The CONTRACTOR and any subcontractors shall maintain the files, books, and records that relate to the Contract, including any personal information created or received by the CONTRACTOR on behalf of the STATE, and any cost or pricing data, for at least three (3) years after the date of final payment under the Contract. The personal information shall continue to be confidential and shall only be disclosed as permitted or required by law. After the three (3) year, or longer retention period as required by law has ended, the files, books, and records that contain personal information shall be destroyed pursuant to chapter 487R, HRS or returned to the STATE at the request of the STATE.

Department of Hawaiian Home Lands
CONSTRUCTION GENERAL CONDITIONS
Dated March 2014

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ARTICLE 1: DEFINITIONS AND ABBREVIATIONS

- 1.1 DEFINITIONS.** Whenever the following terms or pronouns are used in these Construction General Conditions, or in any contract documents or instruments where these Construction General Conditions govern, the intent and meaning shall be interpreted as follows:

ADDENDUM (*plural - Addenda*). A written or graphic document, including Drawings and Specifications, issued by the Chairman during the bidding period which modifies or interprets the bidding documents, by additions, deletions, clarifications or corrections, which shall be considered and made a part of the bid proposal and the contract.

ADDITION (*to the contract sum*). Amount added to the contract sum by Change Order.

ADMINISTRATIVE RULES. Hawaii Administrative Rules for Chapter 103-D of the Hawaii Revised Statutes.

ADVERTISEMENT. A public announcement inviting bids for work to be performed or materials to be furnished.

BAD WEATHER DAY. When weather or other conditions prevent a minimum of four hours of work with the Contractor's normal work force on controlling items of work at the site. (See excess bad weather day.)

BENEFICIAL OCCUPANCY. The point of project completion when the Department can use the constructed facility in whole or in part for its intended purpose even though substantial completion may not be achieved.

BID. See PROPOSAL.

BID SECURITY. The security furnished by the Bidder from which the Department may recover its damages in the event the Bidder breaches its promise to enter into a contract with the Department and fails to execute the required bonds covering the work contemplated, if its proposal is accepted.

BIDDER. Any individual, partnership, firm, corporation, joint venture, or other legal entity submitting, directly or through a duly authorized representative or agent, a proposal for the work contemplated.

BIDDING DOCUMENTS. The advertisement "Notice to Contractors", or invitation to bid, instructions to Bidders, proposal requirements, the bid form and the proposed Contract Documents including all addenda issued prior to receipt of Bids.

BULLETIN. A written notice to the Contractor requesting a price and / or time proposal for contemplated changes preparatory to the issuance of a field order or change order.

BY OR TO THE PROJECT MANAGER. To avoid cumbersome and confusing repetition of expressions in these General Conditions, it is provided that whenever the following words or words of like import are used, they shall be understood as if they were followed by the words "by the Project Manager" or "to the Project Manager", unless the context clearly indicates another meaning: contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected or condemned.

CALENDAR DAY. Any day shown on the calendar beginning at midnight and ending at midnight the following day. If no designation of calendar or working day is made, “day” shall mean calendar day.

CHAIRMAN. The Chairman of the Hawaiian Homes Commission, Department of Hawaiian Home Lands.

CHANGE ORDER. A written order signed by the Chairman that establishes the full payment and final settlement of all claims for direct, indirect and consequential costs, including costs of delays, and establishes any adjustments to contract time related to the work covered and affected by one or more field orders, or for change work done or agreed to be done without issuance of a separate field order. A change order signed by all the parties to the contract constitutes a supplemental agreement.

COMPLETION. See SUBSTANTIAL COMPLETION and FINAL COMPLETION.

CONSULTANT. A person, firm or corporation having a contract with the Department to furnish services with respect to the project.

CONTRACT. The written agreement between the Contractor and the Department by its Chairman, by which the Contractor is bound to furnish all labor, equipment, and materials and to perform the specified work within the contract time stipulated, and by which DHHL is obligated to compensate the Contractor therefor at the prices set forth therein. The contract shall include the Contract Documents, also any and all amendments, and change orders, which are required to complete the construction in an acceptable manner.

CONTRACT COMPLETION DATE. The calendar day on which all work on the project, required by the contract, must be completed. See CONTRACT TIME and FINAL COMPLETION.

CONTRACT DOCUMENTS. The Contract, Addenda (which pertain to the Contract Documents, Contractor’s Proposal (including Wage Schedule, List of Subcontractors and other documentation accompanying the Bid and any post bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the contract, the Notice to Proceed, the Bonds, these General Conditions, the SPECIAL CONDITIONS, the Specifications and the Drawings as the same are more specifically identified in the contract together with all written Amendments, Change Orders, Field Orders, any written order for minor changes in the work and Project Manager’s written interpretations and clarifications issued on or after the effective date of the contract.

CONTRACT PRICE. The amount designated on the face of the contract for the performance of work including allowances, if any.

CONTRACT TIME. The number of working or calendar days provided in the contract for completion of the contract, exclusive of authorized time extensions. The number of days shall begin running on the effective date in the Notice to Proceed. If in lieu of providing a number of working or calendar days, the contract requires completion by a certain date, the work shall be completed by that date.

CONTRACTOR. Any individual, partnership, firm, corporation, joint venture, or other legal entity undertaking the execution of the work under the terms of the contract with the State of Hawaii, and acting directly or through its agents, or employees.

DEPARTMENT. The Department of Hawaiian Home Lands (abbreviated DHHL).

DRAWINGS (or Plans). The contract drawings in graphic or pictorial form, which show the design, location, character, dimensions and details of the work to be done and which shall be a part of the Contract Documents.

EQUAL OR APPROVED EQUAL. Whenever this term is used in the drawings or specifications, it shall be interpreted to mean a brand or article, prequalified in accordance with Section 6.3 SUBSTITUTION OF MATERIALS AND EQUIPMENT AFTER BID OPENING, that may be used in place of the one specified.

EXCESS BAD WEATHER DAY. A working day on which inclement weather prevents work on the contract and is beyond the average weather for the location of the project and the time of the year.

FIELD ORDER. A written order issued by the Project Manager to the Contractor requiring the contract work to be performed in accordance with a change or changes in the work. A field order may (1) establish a price adjustment and/or time adjustment in an amount the Project Manager believes is reasonable for the change; or (2) may declare that the Project Manager does not intend to adjust contract time or price for the work; or (3) may request the Contractor to submit a proposal for an adjustment to the contract time and/or price by a certain date.

FINAL COMPLETION. The date set by the Chairman that all work required by the contract and any amendments or changes thereto is in full compliance with the contract.

FORCE ACCOUNT. Term used when work is ordered to be done at the sole option of the Department and is to be billed for at cost of labor, materials and equipment, insurance(s), taxes, etc., plus a percentage for overhead and profit.

GUARANTEE. Legally enforceable assurance of the duration of satisfactory performance of quality of a product or work.

HAZARDOUS MATERIALS. Any and all radioactive materials, asbestos, polychlorinated biphenyls, petroleum, crude oil, chemicals known to cause cancer or reproductive toxicity, pollutants, contaminants, toxic substances or materials cited in Hazardous Material Laws. Abandoned motor vehicles or parts thereof are not hazardous material.

HOLIDAYS. The days of each year which are set apart and established as State holidays pursuant to Chapter 8, Hawaii Revised Statutes.

INSPECTOR. The person assigned by the Department to make detailed inspections of contract performance and materials supplied for the work.

LAWS. All Federal, State, City and County Laws, ordinances, rules and regulations, and standard specifications, including any amendments thereto effective as of the date of the call for sealed bids.

LETTER OF AWARD. A written notice from the Chairman to the successful Bidder(s) stating that the Department has accepted its proposal.

LIQUIDATED DAMAGES. The amount prescribed in the Special Conditions, LIQUIDATED DAMAGES to be paid to the Department or to be deducted from any payments due or to become due the Contractor for each working day or calendar day (as applicable) delay in completing the whole or any specified portion of the work beyond the Contract Time.

MAJOR UNIT PRICE ITEM. A unit price item which, when extended on its estimated quantities in the proposal form, exceeds five percent (5%) of the total base bid proposal less any allowance and contingent items included in the proposal.

NON-CONFORMING WORK. Work that does not meet the requirements of the Contract Documents.

NOTICE TO PROCEED. A written notice from the Project Manager to the Contractor advising it of the date on which it is to begin the prosecution of the work, which date shall also be the beginning of Contract Time.

POST CONTRACT DRAWINGS. Drawings issued after the award of the contract for the purpose of clarification and / or changes to the work indicated in the original drawings and which may be made a part of the contract.

PROJECT ACCEPTANCE DATE. The calendar day on which the Project Manager accepts the project as sufficiently completed in compliance with the contract so that the Department can occupy or utilize the work for its intended use. See SUBSTANTIAL COMPLETION.

PROJECT CONTRACT LIMITS (or CONTRACT ZONE). The portion of the site as delineated on the drawings which define the Contractor's primary area of operation for the prosecution of the work. It does not define the exact limits of all construction that may be required under the contract.

PROJECT MANAGER. The Department's Contract Administrator as described in ARTICLE 5, CONTROL OF WORK.

PROJECT GUARANTEE. A guarantee issued by the Contractor to the Department. See GUARANTEE.

PROPOSAL (BID). The executed document submitted by a Bidder in the prescribed manner, in response to a request for proposals or invitation to Bid, to perform at the prices quoted, for the work specified under the contract, within the time prescribed for performance.

PROPOSAL FORM. The form prepared by the Department on which the written offer or formal bid for the work to be done is submitted by the Bidder. By submitting a bid on the proposal form, a Bidder adopts the language therein as its own.

PUNCHLIST. A list compiled by the Project Manager (or Contractor) stating work yet to be completed or corrected by the Contractor in order to substantially complete or finally complete the contract requirements.

SHOP DRAWINGS/SUBMITTALS. All drawings, diagrams illustrations, schedules and other data or information which are prepared or assembled by the Contractor and submitted by Contractor to illustrate some portion of the work.

SPECIAL CONDITIONS. The specific clauses that supplements or modify the standard clauses of the GENERAL CONDITIONS setting forth conditions or requirements peculiar to the individual project under consideration, which are not thoroughly or satisfactorily covered, described or explained in these GENERAL CONDITIONS.

SPECIFICATIONS. That portion of the Contract Documents consisting of written descriptions for materials, equipment, construction systems, standards, workmanship, directions, provisions and

requirements that pertain to the method and manner of performing the work and certain administrative requirements applicable thereto.

STATE. The State of Hawaii acting through its authorized representative.

SUBCONTRACT. Any written agreement between the Contractor and its subcontractors which contains the conditions under which the subcontractor is to perform a portion of the work for the Contractor.

SUBCONTRACTOR. An individual, partnership, firm, corporation, joint venture or other legal entity, as covered in Chapter 444, Hawaii Revised Statutes, which enters into an agreement with the Contractor to perform a portion of the work for the Contractor.

SUBSTANTIAL COMPLETION. The status of the project when the Contractor has completed all the work and (1) all utilities and services are connected and working; (2) all equipment is in acceptable working condition; (3) additional activity by the Contractor to correct punchlist items as described herein will not prevent or disrupt use of the work or the facility in which the work is located; and 4) the building, structure, improvement or facility can be used for its intended purpose.

SUPERINTENDENT. The employee of the Contractor, authorized to receive and fulfill instructions from the Project Manager, who is charged with the responsibility of all the work.

SURETY. The qualified individual, firm or corporation other than the Contractor, which executes a bond with and for the Contractor to ensure its acceptable performance of the contract.

UNUSUALLY SEVERE WEATHER. Uncommonly harsh weather including but not limited to hurricanes, tornadoes, tropical storms and tropical depressions.

WORK. The furnishing of all labor, materials, equipment, and other incidentals necessary or convenient for the successful completion of the project and the execution of all the duties and obligations imposed by the contract.

WORKING DAY. A calendar day, exclusive of Saturdays, Sundays and State-recognized legal holidays for the month in question.

1.2 ABBREVIATIONS

DHHL	Department of Hawaiian Home Lands.
HAR	Hawaii Administrative Rules
HRS	Hawaii Revised Statutes
VECP	Value Engineering Cost Proposal

~ END OF ARTICLE 1~

ARTICLE 2: [reserved]

ARTICLE 3: CONTRACT

3.1 NOTICE TO PROCEED

3.1.1 After the contract is fully executed and signed by the Chairman, the Contractor will be sent a formal Notice to Proceed letter advising the Contractor of the date on which it may proceed with the work. The Contractor shall be allowed ten (10) consecutive working days from said date to begin its work. In the event that the Contractor refuses or neglects to start the work, the Chairman may terminate the contract in accordance with Section 7.27, TERMINATION OF CONTRACT FOR CAUSE.

3.1.2 The Contractor may commence its operations strictly at its own risk prior to receipt of the formal notice to proceed, provided it makes a written request and has received approval from the Chairman in writing. All work performed shall be conducted in accordance with Section 7.1, PROSECUTION OF THE WORK.

3.1.3 In certain cases, the Department, with agreement of the Contractor, may issue a Notice to Proceed before full execution of the contract by the Chairman and it may further issue a Notice to Proceed concurrently with the Notice of Award.

3.1.4 In the event the Notice to Proceed is not issued within one hundred eighty (180) days after (1) the date the contract is executed by all parties; or (2) for projects funded with State Capital Improvement Project (CIP) funds, the date that the written certificate that funds are available is issued, whichever is later, the Contractor may submit a claim for increased labor and material costs (but not overhead costs) which are directly attributable to the delay beyond the first one hundred eighty (180) days. Such claims shall be accompanied with the necessary documentation to justify the claim. No payment will be made for assumed escalation costs.

3.2 RELATIONSHIP OF PARTIES. Independent Contractor Status and Responsibilities, including Tax Responsibilities.

3.2.1 In the performance of services required under this Contract, the CONTRACTOR is an “independent contractor,” with the authority and responsibility to control and direct the performance and details of the work and services required under this Contract; however, the STATE shall have a general right to inspect work in progress to determine whether, in the STATE’s opinion, the services are being performed by the CONTRACTOR in compliance with this Contract. Unless otherwise provided by special condition, it is understood that the STATE does not agree to use the CONTRACTOR exclusively, and that the CONTRACTOR is free to contract to provide services to other individuals or entities while under contract with the STATE.

3.2.2 The CONTRACTOR and the CONTRACTOR’s employees and agents are not by reason of this Contract, agents or employees of the State for any purpose, and the CONTRACTOR and the CONTRACTOR’s employees and agents shall not be entitled to claim or receive from the STATE any vacation, sick leave, retirement, workers’ compensation, unemployment insurance, or other benefits provided to state employees.

3.2.3 The CONTRACTOR shall be responsible for the accuracy, completeness, and adequacy of the CONTRACTOR’s performance under this Contract. Furthermore, the CONTRACTOR intentionally, voluntarily, and knowingly assumes the sole and entire liability to the CONTRACTOR’s employees

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and agents, and to any individual not a party to this Contract, for all loss, damage, or injury caused by the CONTRACTOR, or the CONTRACTOR's employees or agents in the course of their employment.

- 3.2.4 The CONTRACTOR shall be responsible for payment of all applicable federal, state, and county taxes and fees which may become due and owing by the CONTRACTOR by reason of this Contract, including but not limited to (i) income taxes, (ii) employment related fees, assessments, and taxes, and (iii) general excise taxes. The CONTRACTOR also is responsible for obtaining all licenses, permits, and certificates that may be required in order to perform this Contract.
- 3.2.5 The CONTRACTOR shall obtain a general excise tax license from the Department of Taxation, State of Hawaii, in accordance with Section 237-9, HRS, and shall comply with all requirements thereof.
- 2.2.6 The CONTRACTOR is responsible for securing all employee-related insurance coverage for the CONTRACTOR and the CONTRACTOR's employees and agents that is or may be required by law, and for payment of all premiums, costs, and other liabilities associated with securing the insurance coverage.
- 3.3 PERSONNEL REQUIREMENTS:
- 3.3.1 The CONTRACTOR shall secure, at the CONTRACTOR's own expense, all personnel required to perform this Contract.
- 3.3.2 The CONTRACTOR shall ensure that the CONTRACTOR's employees or agents are experienced and fully qualified to engage in the activities and perform the services required under this Contract, and that all applicable licensing and operating requirements imposed or required under federal, state, or county law, and all applicable accreditation and other standards of quality generally accepted in the field of the activities of such employees and agents are complied with and satisfied.
- 3.4 NONDISCRIMINATION. No person performing work under this Contract, including any subcontractor, employee, or agent of the Contractor, shall engage in any discrimination that is prohibited by any applicable federal, state, or county law.
- 3.5 CONFLICTS OF INTEREST. The CONTRACTOR represents that neither the CONTRACTOR, nor any employee or agent of the CONTRACTOR, presently has any interest, and promises that no such interest, direct or indirect, shall be acquired, that would or might conflict in any manner or degree with the CONTRACTOR's performance under this Contract.
- 3.6 EMPLOYMENT OF STATE RESIDENTS (§103B-3 HRS). The Contractor shall ensure that Hawaii residents comprise not less than eighty per cent of the workforce employed to perform the contract work on the project. The 80% requirement shall be determined by dividing the total number of hours worked on the contract by Hawaii residents, by the total number of hours worked on the contract by all employees of the Contractor in the performance of the contract. The hours worked by any Subcontractor of the Contractor shall count towards the calculation for this section. The hours worked by employees within shortage trades, as determined by the Department of Labor and Industrial Relations (DLIR), shall not be included in the calculation for this section.

~END OF ARTICLE 3~

ARTICLE 4: SCOPE OF WORK

- 4.1 INTENT OF CONTRACT, DUTY OF CONTRACTOR. The intent of the Contract is to provide for the construction, complete in every detail, of the work described at the accepted bid price and within the time established by the contract. The Contractor has the duty to furnish all labor, materials, equipment, tools, transportation, incidentals and supplies and to determine the means, methods and schedules required to complete the work in accordance with the drawings, specifications and terms of the contract.
- 4.1.1 ENTIRE CONTRACT. This Contract sets forth all of the Contract, conditions, understandings, promises, warranties, and representations between the STATE and the CONTRACTOR relative to this Contract. This Contract supersedes all prior Contracts, conditions, understandings, promises, warranties and representations, which shall have no further force or effect. There are no Contracts, conditions, understandings, promises, warranties, or representations, oral or written, express or implied, between the STATE and the CONTRACTOR other than as set forth or as referred to herein.
- 4.2 CHANGES. The Project Manager may at any time, during the progress of the work, by written order, and without notice to the sureties, make changes in the work as may be found to be necessary or desirable. Such changes shall not invalidate the Contract nor release the Surety, and the Contractor will perform the work as changed, as though it had been a part of the original Contract.
- 4.2.1 MINOR CHANGES. Minor changes in the work may be directed by the Project Manager with no change in contract price or time of performance. Minor changes are consistent with the intent of the Contract Documents and do not substantially alter the type of work to be performed or involve any adjustment to the contract sum or extension of the contract time.
- 4.2.2 ORAL ORDERS
- 4.2.2.1 Any oral order, direction, instruction, interpretation or determination from the Chairman or any other person which in the opinion of the Contractor causes any change, shall be considered as a change only if the Contractor gives the Chairman written notice of its intent to treat such oral order, direction, instruction, interpretation or determination as a change directive. Such written notice must be delivered to both the Chairman and the Project Manager before the Contractor acts in conformity with the oral order, direction, instruction, interpretation or determination, but not more than five (5) days after delivery of the oral order to the Contractor. The written notice shall state the date, circumstances, whether a time extension will be requested, and source of the order that the Contractor regards as a change. Such written notice may not be waived and shall be a condition precedent to the filing of any claim by the Contractor. Unless the Contractor acts in accordance with this procedure, any such oral order shall not be treated as a change for which the Contractor may make a claim for an increase in the contract time or contract price related to such work.
- 4.2.2.2 No more than five (5) days after receipt of the written notice from the Contractor, a Field Order shall be issued for the subject work if the Department agrees that it constitutes a change. If no Field Order is issued in the time established, it shall be deemed a rejection of Contractor's claim for a change. If the Contractor objects to the failure to issue a Field Order, it shall file a written protest with the Chairman within thirty (30) days after delivery to the Chairman of the Contractor's written notice of its intention to treat the oral order as a change. In all cases, the Contractor shall proceed with the work. The protest shall be determined as provided in Section 7.25, DISPUTES AND CLAIMS.
- 4.2.3 FIELD ORDERS. All changes will be set forth in a field order or change order. Upon receipt of a field order, the Contractor shall proceed with the changes as ordered. If the Contractor does not agree

with any of the terms or conditions or in the adjustment or non-adjustment to the contract time and/or contract price set forth therein, it shall file with the Chairman a written protest setting forth its reasons in detail within thirty (30) days after receipt of the field order. In all cases, the Contractor shall proceed with the work as changed. The protest shall be determined as provided in Section 7.25, DISPUTES AND CLAIMS. Failure to file such a protest within the time specified shall constitute agreement on the part of the Contractor with the terms, conditions, amounts and adjustments or non-adjustment to the contract price and/or contract time set forth in the field order.

4.2.4 CHANGE ORDERS

4.2.4.1 The Department will issue sequentially numbered change orders at times it deems appropriate during the contract period. A change order may contain the adjustment in contract price and / or time for a number of Field Orders. No payment for any change will be made until the change order is issued.

4.2.4.2 The penal sum of the Surety Performance and Payment Bonds will be adjusted by the amount of each and every change order.

4.3 DUTY OF CONTRACTOR TO PROVIDE PROPOSAL FOR CHANGES

4.3.1 A Field Order may request the Contractor to supply the Department with a proposal for an adjustment to the contract time or contract price for the work described therein. Any such request for a proposal shall not affect the duty of the Contractor to proceed as ordered with the work described in the Field Order.

4.3.2 The Project Manager from time to time may issue a Bulletin to the Contractor requesting price and / or time adjustment proposals for contemplated changes in the work. A Bulletin is not a directive for the Contractor to perform the work described therein.

4.3.3 Within seven (7) days after receipt of a Bulletin or Field Order containing a request for proposal, the Contractor shall submit to the Project Manager a detailed written statement setting forth all charges the Contractor proposes for the change and the proposed adjustment of the contract time, all properly itemized and supported by sufficient substantiating data to permit evaluation. No time extension will be granted for delays caused by late Contractor pricing of changes or proposed changes. If the project is delayed because Contractor failed to submit the cost proposal within the seven (7) days, or longer as allowed by the Project Manager, liquidated damages will be assessed in accordance with Section 7.26, FAILURE TO COMPLETE THE WORK ON TIME.

4.3.4 No payment shall be allowed to the Contractor for pricing or negotiating proposed or actual changes. No time extension will be granted for delay caused by late Contractor pricing of changes or proposed changes.

4.3.5 The Chairman may accept the entire proposal, or any discreet cost item contained within the proposal or the proposed adjustment to contract time by a notice in writing to the Contractor delivered to the Contractor within thirty (30) days after receipt of the proposal. The written acceptance by the Chairman of all or part of the Contractor's proposal shall create a binding agreement between the parties for that aspect of the change.

4.3.6 If the Department refuses to accept the Contractor's entire proposal, the Chairman may issue a Field Order for the work; or if a Field Order has already been issued, the Department may issue a supplemental Field Order establishing the remaining adjustments to contract price and/or contract time for the ordered changes. If the Contractor disagrees with any term, condition or adjustment

contained in such Field Order or supplemental Field Order, it shall follow the protest procedures set forth in and be subject to the other terms of Subsection 4.2.3, FIELD ORDERS.

4.4 PRICE ADJUSTMENT (§3-125-13 HAR)

4.4.1 Any adjustment in the contract price pursuant to a change or claim in this contract shall be made in one or more of the following ways:

4.4.1.1 By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;

4.4.1.2 By unit prices specified in the contract or subsequently agreed upon;

4.4.1.3 Whenever there is a variation in quantity for any work covered by any line item in the schedule of costs submitted as required by Section 7.2, COMMENCEMENT REQUIREMENTS, by the Department at its discretion, adjusting the lump sum price proportionately;

4.4.1.4 In such other manner as the parties may mutually agree;

4.4.1.5 At the sole option of the Project Manager, by the costs attributable to the event or situation covered by the change, plus appropriate profit or fee, all as specified in Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT and the force account provision of Section 8.3, PAYMENT FOR ADDITIONAL WORK; or

4.4.1.6 In the absence of an agreement between the two parties, by a unilateral determination by the Department of the reasonable and necessary costs attributable to the event or situation covered by the change, plus appropriate profit or fee, all as computed in accordance with applicable Sections of Chapters 3-123 and 3-126 of the Hawaii Administrative Rules and Regulations, and Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

4.5 ALLOWANCES FOR OVERHEAD AND PROFIT (§3-125-13 HAR)

4.5.1 In determining the cost or credit to the Department resulting from a change, the allowances for all overhead, including, extended overhead resulting from adjustments to contract time (including home office, branch office and field overhead, and related delay impact costs) and profit combined, shall not exceed the percentages set forth below:

4.5.1.1 For the Contractor, for any work performed by its own labor forces, twenty percent (20%) of the direct cost;

4.5.1.2 For each subcontractor involved, for any work performed by its own forces, twenty percent (20%) of the direct cost;

4.5.1.3 For the Contractor or any subcontractor, for work performed by their subcontractors, ten percent (10%) of the amount due the performing subcontractor.

4.5.1.4 Field overhead includes, but is not limited to all costs of supervision, engineering, clerical, layout, temporary facilities, improvements and structures, all general condition expenditures, storage, transport and travel, housing, small tools (as defined in 8.3.4.5(h)), pickup trucks and automobiles.

- 4.5.2 Not more than three markup allowance line item additions not exceeding the maximum percentage shown above will be allowed for profit and overhead, regardless of the number of tier subcontractors.
- 4.5.3 The allowance percentages will be applied to all credits and to the net increase of direct costs where work is added and deleted by the changes.
- 4.6 PAYMENT FOR DELETED MATERIAL
- 4.6.1 CANCELED ORDERS. If acceptable material was ordered by the Contractor for any item deleted by an ordered change in the work prior to the date of notification of such deletion by the Project Manager, the Contractor shall use its best efforts to cancel the order. The Department shall pay reasonable cancellation charges required by the supplier excluding any markup for overhead and profit to the Contractor.
- 4.6.2 RETURNED MATERIALS - If acceptable deleted material is in the possession of the Contractor or is ultimately received by the Contractor, if such material is returnable to the supplier and the Project Manager so directs, the material shall be returned and the Contractor will be paid for the reasonable charges made by the supplier for the return of the material, excluding any markup for overhead and profit to the Contractor. The cost to the Contractor for handling the returned material will be paid for as provided in Section 4.4, PRICE ADJUSTMENT.
- 4.6.3 UNCANCELLED MATERIALS. If orders for acceptable deleted material cannot be canceled at a reasonable cost, it will be paid for at the actual cost to the Contractor including an appropriate markup for overhead and profit as set forth in Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT. In such case, the material paid for shall become the property of the Department and the cost of further storage and handling shall be paid for as provided in Section 4.4, PRICE ADJUSTMENT.
- 4.7 VARIATIONS IN ESTIMATED QUANTITIES (§3-125-10 HAR)
- 4.7.1 Where the quantity of a major unit price item in this contract is estimated on the proposal form and where the actual quantity of such pay item varies more than fifteen percent (15%) above or below the estimated quantity stated in this contract, an adjustment in the contract price shall be made upon demand of either party. The adjustment shall be based upon any increase or decrease in costs due solely to the variation above one hundred fifteen percent (115%) or below eighty-five percent (85%) of the estimated quantity. The adjustment shall be subject to Section 4.4 PRICE ADJUSTMENT and Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT. If the quantity variation is such as to cause an increase in the time necessary for completion, the Chairman shall, upon receipt of a written request for an extension of time within thirty (30) days of the item's completion, ascertain the facts and make such adjustment to the completion date as the Chairman finds justified.
- 4.8 VARIATIONS IN BOTTOM ELEVATIONS. The Contractor shall plan and construct to the bottom elevations of footings, piles, drilled shafts, or cofferdams as shown on the drawings. When the bottom of a footing, pile, drilled shaft, or cofferdam is shown as an estimated or approximate elevation, the Contractor shall plan and construct to that elevation or to any deeper elevation required by the drawings or direction of the Project Manager. In the event the bottom elevation is lowered, the Contractor shall be entitled to additional payment in accordance with Sections 4.4 PRICE ADJUSTMENT and 4.5 ALLOWANCES FOR OVERHEAD AND PROFIT. In the event the bottom elevation is raised, the Department shall be entitled to a credit in accordance with Sections 4.2 CHANGES, 4.4, PRICE ADJUSTMENT and 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

- 4.9 DIFFERING SITE CONDITIONS (§3-125-11 HAR)
- 4.9.1 During the progress of the work, if the Contractor encounters conditions at the site differing materially from those shown in the drawings and specifications, Contractor shall promptly, and before any such conditions are disturbed or damaged (except in an emergency as required by Subsection 7.17.8. EMERGENCIES), notify the Project Manager in writing of:
- 4.9.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the contract; or
- 4.9.1.2 Unknown physical conditions at the site, of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract. Unclaimed motor vehicles or parts thereof and discarded materials or unclaimed items are not unknown or unforeseen physical conditions. (See also Section 5.8, EXAMINATION OF DRAWINGS, SPECIFICATIONS, PROJECT SITE).
- 4.9.2 After receipt of written notice, the Chairman shall promptly investigate the site, and if it is found that such conditions do materially differ and cause an increase in the Contractor's cost of, or the time required to, perform any part of the work, whether or not changed as a result of such conditions, an adjustment shall be made and the contract modified accordingly. Any adjustment in contract price made pursuant to this Section 4.9. DIFFERING SITE CONDITIONS (§3-125-11 HAR) shall be determined in accordance with Sections 4.4, PRICE ADJUSTMENT and 7.25, DISPUTES AND CLAIMS.
- 4.9.3 Nothing contained in this Section 4.9, DIFFERING SITE CONDITONS shall be grounds for an adjustment in compensation if the Contractor had actual knowledge or should have known of the existence of such conditions prior to the submission of bids.
- 4.10 COSTS AND EXPENSES. Any reimbursement due the CONTRACTOR for per diem and transportation expenses under this Contract shall be subject to Chapter 3-123 (Cost Principles) of the Procurement Rules and the following guidelines:
- 4.10.1 Reimbursement for air transportation shall be actual cost or coach class air fare, whichever is less.
- 4.10.2 Reimbursement for ground transportation costs shall not exceed the actual cost of renting an intermediate-sized vehicle.
- 4.10.3 Unless prior written approval of the CHAIRMAN is obtained, reimbursement for subsistence allowance (i.e., hotel and meals, etc.) shall not exceed the applicable daily authorized rates for interisland or out-of-state travel that are set forth in the current Governor's Executive Order authorizing adjustments in salaries and benefits for state officers and employees in the Chairman branch who are excluded from collective bargaining coverage.

~END OF ARTICLE 4~

ARTICLE 5: CONTROL OF WORK

- 5.1 **AUTHORITY OF THE CHAIRMAN** - The Chairman shall make final and conclusive decisions on all questions which may arise relating to the quality and acceptability of the materials furnished and work performed, the manner of performance and the rate of progress of the work, the interpretation of the plans and specifications, the acceptable fulfillment of the contract on the part of the Contractor, the compensation under the contract and the mutual rights of the parties to the contract. The Chairman shall have the authority to enforce and make effective such decisions and orders at the Contractor's expense when the Contractor fails to carry such decisions and orders out promptly and diligently. The Chairman shall have the authority to suspend the work wholly or in part as provided in Section 7.24, SUSPENSION OF WORK.
- 5.2 **AUTHORITY OF THE PROJECT MANAGER.** The Project Manager has the authority to act on behalf of the Department on all matters regarding the contract and the work that are not reserved for the Chairman. The Project Manager's authority is vested exclusively in the Project Manager except when specific authority to act for the Project Manager has been delegated to a specific person or persons. Such delegation of authority may be established by the Contract Documents; otherwise, it is not effective or binding upon the Department until such written notification of the delegation is received by the Contractor. The Administrator of the Land Development Division of the Department, or his designee, shall also have authority to act on behalf of the Department on all matters regarding the contract that are not reserved for the Chairman.
- 5.3 **AUTHORITY OF THE INSPECTOR**
- 5.3.1 The Inspector shall observe and inspect the contract performance and materials. The Inspector does not have any authority vested in the Project Manager unless specifically delegated in writing.
- 5.3.2 The Inspector may offer advice and recommendations to the Contractor, but any such advice or recommendations are not directives from the Project Manager.
- 5.3.3 The Inspector has no authority to allow deviations from the Contract Documents and may reject any and all work that the Inspector deems is not in conformity with the contract requirements. Failure of an Inspector at any time to reject non-conforming work shall not be considered a waiver of the Department's right to require work in strict conformity with the Contract Documents as a condition of final acceptance.
- 5.4 **AUTHORITY OF CONSULTANT(S).** The Department may engage Consultant(s) for limited or full observation to supplement the inspections performed by the Department and respective Counties. Unless otherwise specified in writing to the Contractor, such retained Consultant(s) will have the authority of an Inspector.
- 5.5 **SHOP DRAWINGS AND OTHER SUBMITTALS.** The following documents shall be submitted where required by the Contract Documents:
- 5.5.1 **SHOP DRAWING**
- (a) The Contractor shall prepare, thoroughly check, and approve all shop drawings, including those prepared by subcontractors or any other persons. The Contractor shall indicate its approval by stamping and signing each drawing. Any shop drawing submitted without being reviewed, stamped and signed will be considered as not having been submitted, and any delay caused thereby shall be the Contractor's responsibility.

- (b) Shop drawings shall indicate in detail all parts of an item of work, including erection and setting instructions and engagements with work of other trades or other separate contractors. Shop drawings for structural steel, millwork and pre-cast concrete shall consist of calculations, fabrication details, erection drawings and other working drawings to show the details, dimensions, sizes of members, anchor bolt plans, insert locations and other information for the complete fabrication and erection of the structure to be constructed.
- (c) The Contractor shall be responsible for the design of all structural curtain walls, all connections and fasteners for structural steel and architectural and structural precast concrete. Curtain walls, connections and fasteners shall be designed by a licensed professional engineer to carry the indicated or necessary loads. The precast concrete pieces shall be designed to withstand erection, transportation and final loading stresses. All calculations shall be performed by a licensed professional engineer and submitted to the Project Manager for review.
- (d) The cost of shop drawings or any other submittal shall not be a separate or individual pay item. All costs of furnishing shop drawings required by the contract shall be included in the price agreed to be paid for the various contract items of work, and no additional allowances will be made therefor.
- (e) All shop drawings as required by the contract, or as determined by the Project Manager to be necessary to illustrate details of the work shall be submitted to the Project Manager with such promptness as to cause no delay in the work or in that of any other Contractor. Delay caused by the failure of the Contractor to submit shop drawings on a timely basis to allow for review, possible resubmittal and acceptance will not be considered as a justifiable reason for a contract time extension. Contractor, at its own risk, may proceed with the work affected by the shop drawings before receiving acceptance; however the Department shall not be liable for any costs or time required for the correction of work done without the benefit of accepted shop drawings.
- (f) It is the Contractor's obligation and responsibility to check all of its and its subcontractor's shop drawings and be fully responsible for them and for coordination with connecting and other related work. The Contractor shall prepare, and submit to the Project Manager coordination drawings showing the installation locations of all plumbing, piping, duct and electrical work including equipment throughout the project. By approving and submitting shop drawings, the Contractor thereby represents that it has determined and verified all field measurements and field construction criteria, or will do so, and that it has checked and coordinated each shop drawing with the requirements of the work and the contract documents. When shop drawings are prepared and processed before field measurements and field construction criteria can be or have been determined or verified, the Contractor shall make all necessary adjustments in the work or resubmit further shop drawings, all at no change in contract price or time.

5.5.1.1 **SHOP DRAWING FORM.** Each drawing and/or series of drawings submitted must be accompanied by a letter of transmittal giving a list of the titles and number of the drawings. Each series shall be numbered consecutively for ready reference and each drawing shall be marked with the following information:

- (a) Date of Submission
- (b) Name of Project
- (c) Project Number
- (d) Location of Project
- (e) Name of submitting Contractor and Subcontractor
- (f) Revision Number
- (g) Specification and/or any drawing reference by article or sheet number.

- 5.5.1.2 No shop drawing shall be smaller than 24" x 36" nor larger than 28" x 42". At the determination of the Project Manager, each sheet of drawings for the submittal shall consist of either (1) reproducible transparency and three ozalid prints; or (2) six ozalid prints.
- 5.5.1.3 The Department will not be responsible for any cost of modifying/adjusting precast structures to fit the final as-built design, actual field conditions and finished work. To this end, the Contractor shall follow the following procedures:
- (a) Submit shop drawings for general design conformity for approval. Delay precasting operations.
 - (b) Start infrastructure work. Expose, check grade and install improvements requiring precast structures. Resubmit shop drawings with schedule for all structures indicating required deviations, correct and final inverts, depths, openings, special reinforcing and details, alignments, correct configurations, tops, grating, etc. The Contractor shall submit a schedule for the precasting work. Precast operations may commence based on approved shop drawings. During precast operations, the Project Manager may inspect the operations at least once per differing group of structures. The Contractor shall assume all risks and costs associated with modifying/adjusting the precast structures due to incomplete field verification, premature analysis and shop drawings.
- 5.5.2 **DESCRIPTIVE SHEETS AND OTHER SUBMITTALS.** When a submittal is required by the contract, the Contractor shall submit to the Project Manager eight (8) complete sets of descriptive sheets such as brochures, catalogs, illustrations, etc., which will completely describe the material, product, equipment, furniture or appliances to be used in the project as shown in the drawings and specifications. Prior to the submittal, the Contractor will review and check all descriptive sheets for conformity to the contract requirements and indicate such conformity by marking or stamping and signing each sheet. It is the responsibility of the Contractor to submit descriptive sheets for review and acceptance by the Project Manager as required at the earliest possible date after the date of award in order to meet the construction schedule. Delays caused by the failure of the Contractor to submit descriptive sheets as required will not be considered as justifiable reasons for contract time extension. The submittal shall list the seven (7) items of information as listed in Subsection 5.5.1, Shop Drawing.
- 5.5.3 **MATERIAL SAMPLES AND COLOR SAMPLES.** Prior to their submittal, all color samples and material shall be assembled and presented as required by the Department. When sample submittals are required by the contract, the Contractor shall review, approve, indicate its approval and submit to the Project Manager samples of the materials to be used in the project and color selection samples. It is the responsibility of the Contractor to submit material and color samples for review as required at the earliest possible date after the date of award in order to meet the construction schedule. Delays caused by the failure of the Contractor to submit material and color samples will not be considered as justifiable reasons for contract time extension. The submittal shall list the seven (7) items of information as listed in Subsection 5.5.1, Shop Drawing.
- 5.5.4 **SUBMITTAL VARIANCES.** The Contractor shall include with the submittal, written notification clearly identifying all deviations or variances from the contract drawings, specifications and other Contract Documents. The notice shall be in a written form separate from the submittal. The variances shall also be clearly indicated on the shop drawing, descriptive sheet, material sample or color sample. Failure to so notify of and identify such variances shall be grounds for the subsequent rejection of the related work or materials, notwithstanding that the submittal was accepted by the Project Manager. If the variances are not acceptable to the Project Manager, the Contractor will be

required to furnish the item as specified or indicated on the Contract Documents at no additional cost or time.

- 5.5.5 **REVIEW AND ACCEPTANCE PROCESS.** The Project Manager shall check shop drawings and within forty-five (45) days of receipt return them to the Contractor unless otherwise agreed between the Contractor and the Department. Submittals required for work to be installed within the first sixty days after the notice to proceed shall be returned by the Project Manager within twenty (20) days. If the volume of shop drawings submitted at any time for review is unusually large, the Contractor may inform the Project Manager of its preferred order for review and the Project Manager shall use reasonable efforts to accommodate the Contractor's priorities.
- 5.5.5.1 The acceptance by the Project Manager of the Contractor's submittal relates only to their sufficiency and compliance with the intention of the contract. Acceptance by the Project Manager of the Contractor's submittal does not relieve the Contractor of any responsibility for accuracy of dimensions, details, and proper fit, and for agreement and conformity of submittal with the Contract Drawings and Specifications. Nor will the Project Manager's acceptance relieve the Contractor of responsibility for variance from the Contract Documents unless the Contractor, at the time of submittal, has provided notice and identification of such variances required by this section. Acceptance of a variance shall not justify a contract price or time adjustment unless the Contractor requests such an adjustment at the time of submittal and the adjustment are explicitly agreed to in writing by the Department. Any such request shall include price details and proposed scheduling modifications. Acceptance of a variance is subject to all contract terms, stipulations and covenants, and is without prejudice to any and all rights under the surety bond.
- 5.5.5.2 If the Project Manager returns a submittal to the Contractor that has been rejected, the Contractor, so as not to delay the work, shall promptly make a resubmittal conforming to the requirements of the Contract Documents and indicating in writing on the transmittal and the subject submittal what portions of the resubmittal has been altered in order to meet the acceptance of the Project Manager. Any other differences between the resubmittal and the prior submittal shall also be specifically described in the transmittal.
- 5.5.5.3 No mark or notation made by the Project Manager or Consultant(s) on or accompanying the return of any submittal to the Contractor shall be considered a request or order for a change in work. If the Contractor believes any such mark or notation constitutes a request for a change in the work for which it is entitled to an adjustment in contract price and/or time, the Contractor must follow the same procedures established in Section 4.2, CHANGES for oral orders, directions, instructions, interpretations or determinations from the Project Manager or else lose its right to claim for an adjustment.
- 5.6 **COORDINATION OF CONTRACT DOCUMENTS.** It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. The Contract Documents are complementary: any requirement occurring in one document is as binding as though occurring in all. In the event of conflict or discrepancy the priorities stated in the following Subsections shall govern:
- 5.6.1 Addenda shall govern over all other Contract Documents. Subsequent addenda issued shall govern over prior addenda only to the extent specified.
- 5.6.2 Special Conditions and Proposal shall govern over the General Conditions and Specifications.
- 5.6.3 Specifications shall govern over drawings.

- 5.6.4 Specification Error - Should an error or conflict appear within the specification, the Contractor shall immediately notify the Project Manager. The Project Manager shall promptly issue instructions as to procedure. Any requirement occurring in one or more parts of the specification is as binding as though occurring in all applicable parts.
- 5.6.4.1 Should an error or conflict appear within a specification section, between a listed manufacturer / product and the performance requirements of the specification section, the performance requirements shall govern.
- 5.6.4.2: In the event of a conflict between AG-008 103D General Conditions (the “General Conditions”) and these DHHL Construction General Conditions, the requirements of these DHHL Construction General Conditions will apply to the extent provided by and as allowed under law.
- 5.6.5 DRAWINGS
- 5.6.5.1 Schedules shall govern over all other notes and drawings.
- 5.6.5.2 Bottom elevations of footings shown on drawings shall govern over a general note such as: “All footings shall rest on firm, undisturbed soil and extend a minimum of a certain number of feet into natural or finish grade, whichever is lower.” In the event the footing must be lowered below the bottom elevation shown, the Contractor shall be entitled to additional payment as provided in Section 4.2, CHANGES. In the event the footing is raised above the bottom elevation shown, the Department shall be entitled to a credit as provided in Section 4.2, CHANGES.
- 5.6.5.3 When a bottom of pile, drilled shaft, piling or cofferdam is shown as an estimated or approximate elevation, the Contractor shall plan and construct to that elevation or to any deeper elevation required by the plans or the direction by the Project Manager. The Project Manager, at the Project Manager’s sole discretion, may order in writing termination of all or part of the work above the estimated or approximate elevation.
- 5.6.5.4 Except for drawing schedules and bottom elevations as noted above, general notes shall govern over all other portions of the drawings:
- 5.6.5.5 Larger scale drawings shall govern over smaller scale drawings.
- 5.6.5.6 Figured or numerical dimensions shall govern over dimensions obtained by scaling. Measurements from the drawings when scaled shall be subject to the approval of the Project Manager.
- 5.6.5.7 In cases of discrepancies in the figures or drawings, the discrepancies shall be immediately referred to the Project Manager without whose decision said discrepancy shall not be corrected by the Contractor save at its own risk and in the settlement of any complications arising from such adjustment without the knowledge and consent of the Project Manager, the Contractor shall bear all extra expense involved.
- 5.6.5.8 Items shown on the drawings that are completely void in terms of description, details, quality and / or performance standards in both the Drawings and Specifications to make a price determination shall be considered an omission and the Contractor shall immediately refer same to the Project Manager for a decision.

- 5.6.5.9 Where there is a conflict between the architectural sheets and the civil or landscaping or electrical sheets, etc., the conflict shall be considered a discrepancy and the Contractor shall immediately refer same to the Project Manager for a decision.
- 5.6.5.10 Any requirement occurring in one or more of the sheets is as binding as though occurring in all applicable sheets.
- 5.7 INTERPRETATION OF DRAWINGS AND SPECIFICATIONS. The Contractor shall carefully study and compare the Contract Documents with each other, with field conditions and with the information furnished by the Department and shall at once report to the Project Manager errors, conflicts, ambiguities, inconsistencies or omissions discovered. Should an item not be sufficiently detailed or explained in the Contract Documents, Contractor shall report and request the Project Manager's clarification and interpretation. The Project Manager will issue a final clarification or final interpretation.
- 5.8 EXAMINATION OF DRAWINGS, SPECIFICATIONS, PROJECT SITE
- 5.8.1 The Contractor shall examine carefully the Project Site to become familiar with the conditions to be encountered in performing the work and the requirements of the Contract Documents.
- 5.8.1.1 No extra compensation will be given by reason of the Contractor's misunderstanding or lack of knowledge of the requirements of the work to be accomplished or the conditions to be encountered in performing the project.
- 5.8.1.2 No extra compensation will be given by reason of the Contractor's misunderstanding or lack of knowledge when the existence of differing site, subsurface or physical conditions could have been reasonably discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the bidding requirements or contract documents to be conducted by or for the Contractor.
- 5.8.2 When the contract drawings include a log of test borings showing a record of the data obtained by the Department's investigation of subsurface conditions, said log represents only the opinion of the Department as to the character of material encountered in its test borings and at only the location of each boring. The Contractor acknowledges that underground site conditions in Hawaii vary widely. There is no warranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the work or any part of it, or that other conditions may not occur.
- 5.8.3 Reference is made to the Special Conditions for identification of subsurface investigations, reports, explorations and tests utilized by the Department in preparation the Contract Documents. Such reports, drawings, boring logs etc., if any, are not part of the Contract Documents.
- 5.9 COOPERATION BETWEEN THE CONTRACTOR AND THE DEPARTMENT
- 5.9.1 FURNISHING DRAWINGS AND SPECIFICATIONS. Contractor will be supplied copies of the Contract Drawings and Specifications as specified in the Special Conditions. Contractor shall have and maintain at least one unmarked copy of the Contract Drawings and Specifications on the work site, at all times. Contractor shall cooperate with the Project Manager, the Inspector(s), and other contractors in every possible way.
- 5.9.2 SUPERINTENDENT. The Contractor shall have a competent superintendent on the work site as its designated agent. The superintendent shall be able to read and understand the project plans and

specifications and shall be experienced in the type of project being undertaken and the work being performed. The superintendent shall receive instructions from the Project Manager or its authorized representative. The Contractor shall authorize the superintendent to (a) execute the orders and directions of the Project Manager or its authorized representative without delay and (b) promptly supply such materials, equipment, tools, labor and incidentals as may be required to complete the project within the prescribed contract time. The Contractor shall furnish a superintendent regardless of the amount of project work sublet.

- 5.9.2.1 If the superintendent or agent is not present at the work site, the Project Manager shall have the right to suspend the work as described under Section 7.24, SUSPENSION OF WORK.
- 5.9.2.2 The Contractor shall file with the Project Manager a written statement giving the name of the superintendent or agent assigned to the project. The Contractor shall be responsible for notifying the Project Manager in writing of any change in the superintendent or agent.
- 5.9.2.3 The requirements of this Subsection 5.9.2, SUPERINTENDENT may be waived by the Project Manager.
- 5.9.3 **ENGINEERING WORK.** The Contractor shall properly and accurately lay out the work, perform all engineering work, and furnish all engineering materials and equipment required to establish and maintain all lines, grades, dimensions and elevations called for in the drawings or required in the progress of construction, unless otherwise noted in the contract documents. The Contractor will be held definitely and absolutely responsible for any errors in lines, grades, dimensions and elevations and shall at once, on instruction from the Project Manager, correct and make good such errors or any errors, or faults in the work resulting from errors in engineering performed under the requirements of its contract to the entire satisfaction of the Project Manager. Full compensation for the work shall be included in the prices paid for contract items of work. No additional allowance will be made for the correction of incorrect engineering work.
 - 5.9.3.1 The Project Manager shall furnish the requisite bench elevations.
 - 5.9.3.2 The Contractor shall locate and verify all lines, grades, dimensions and elevations indicated on the drawings before any excavation, or construction begins. Any discrepancy shall be immediately brought to the attention of the Project Manager; any change shall be made in accordance with the Project Manager's instruction.
 - 5.9.3.3 The Contractor shall verify all street survey monuments (horizontal and vertical alignment) prior to final acceptance by the Project Manager in accordance with any governmental requirements.
 - 5.9.3.4 The Contractor shall provide a surveyor or Civil Engineer licensed in the State of Hawaii to verify and establish all lines, grades, dimensions and elevations.
- 5.9.4 **USE OF STRUCTURE OR IMPROVEMENT.** The Department shall have the right, at any time during construction of the structure or improvements, to enter same for the purpose of installing by government labor or by any other Contractor or utility any necessary work in connection with the installation of facilities, it being mutually understood and agreed, however, that the Contractors, utilities and the Department will, so far as possible work to the mutual advantage of all, where their several works in the above mentioned or in unforeseen instances touch upon or interfere with each other. As a convenience to those involved, the Project Manager shall allocate the work and designate the sequence of construction in case of controversy between Contractors on separate projects under Department jurisdiction.

- 5.9.4.1 The Department shall also have the right to use the structure, equipment, improvement or any part thereof, at any time after it is considered by the Project Manager as available. In the event that the structure, equipment or any part thereof is so used, the Department shall be responsible for all expenses incidental to such use and any damages resulting from the Department's use.
- 5.9.4.2 Equipment warranty will commence to run before the work is complete when and if the Department begins actual use of the equipment for the purpose for which the equipment was designed and installed.
- 5.9.4.3 If the Department enters the structure for construction and/or occupancy and the Contractor is delayed because of interference by the Department or by extra work resulting from damage which the Contractor is not responsible for, or by extraordinary measures the Contractor must take to accommodate the Department, the Contractor shall be granted an extension of time in accordance with Section 7.21, CONTRACT TIME. However, if such use increases the cost or delays the completion of the remaining portions of work, the Contractor shall be entitled to such extra compensation or extension of time or both, as the Department may determine to be proper. Any additional work necessary will be paid in accordance with Section 8.3, PAYMENT FOR ADDITIONAL WORK.
- 5.10 INSPECTION. The Project Manager, the Department's consultants, inspectors employed by the Department and other representatives duly authorized by the Department shall at all times have access to the work during its construction and shall be furnished with every reasonable facility for ascertaining at any time that the materials and the workmanship are in accordance with the requirements and intentions of the contract. All work done and all materials furnished shall be subject to inspection and acceptance.
- 5.10.1 Such inspection and approval may extend to all or part of the work, and to the preparation, fabrication or manufacture of the materials to be used. By entering into a contract for the supply of materials, equipment or performance of labor in connection with the work, such material and equipment supplier or labor contractor consents to and is subject to the terms of Section 5.9, COOPERATION BETWEEN THE CONTRACTOR AND THE DEPARTMENT to the same extent as the Contractor.
- 5.10.2 AUTHORITY TO SUSPEND OPERATIONS. The Project Manager shall have the authority to suspend operations of any work being improperly performed by issuing a written order giving the reason for shutting down the work. Should the Contractor disregard such written order, the work done thereafter will not be accepted nor paid for.
- 5.10.3 The inspection of the work shall not relieve the Contractor of any of its obligations to fulfill the contract as prescribed. Notwithstanding prior payment and acceptance by the Project Manager, any defective and nonconforming work shall be corrected to comply with the contract requirements. Unsuitable, unspecified or unapproved materials may be rejected.
- 5.10.4 FEDERAL AGENCY INSPECTION. Projects financed in whole or in part with Federal funds shall be subject to inspection and corrective requirements at all times by the Federal Agency involved at no cost to the Department.
- 5.11 REMOVAL OF DEFECTIVE, NON-CONFORMING AND UNAUTHORIZED WORK
- 5.11.1 All work which has been rejected as not conforming to the requirements of the Contract shall be remedied or removed and replaced by the Contractor in an acceptable manner and no compensation

will be allowed for such removal or replacement. Any work done beyond the work limits shown on the drawings and specifications or established by the Project Manager or any additional work done without written authority will be considered as unauthorized and will not be paid for. work so done may be ordered removed at the Contractor's expense.

- 5.11.2 SCHEDULING CORRECTIVE WORK. The Contractor shall perform its corrective or remedial work at the convenience of the Department and shall obtain the Project Manager's approval of its schedule.
- 5.11.3 FAILURE TO CORRECT WORK. Upon failure on the part of the Contractor to comply promptly with any order of the Project Manager made under the provisions of Section 5.10, the Project Manager shall have authority to cause defective work to be remedied or removed and replaced, and unauthorized work to be removed, at the Contractor's expense, and to deduct the costs from any monies due or to become due the Contractor.
- 5.12 VALUE ENGINEERING INCENTIVE (§3-132 HAR amended by Act 149 SLH 1999). On projects with contract amounts in excess of \$250,000 (two hundred fifty thousand dollars), the following Value Engineering Incentive Clause shall apply to allow the Contractor to share in cost savings that ensue from cost reduction proposals it submits.
 - 5.12.1 The Value Engineering Incentive Clause applies to all Value Engineering Change Proposals (cost reduction proposals, hereinafter referred to as (VECP) initiated and developed by the Contractor for changing the drawings, designs, specifications or other requirements of this contract. This clause does not however, apply to any VECP unless it is identified as such by the Contractor at the time of its submission to the Project Manager.
 - 5.12.2 VALUE ENGINEERING CHANGE PROPOSAL (VECP). All VECP must:
 - 5.12.2.1 Result in a savings to the Department of at least \$4000 (four thousand dollars) by providing less costly items and without impairing any essential functions and characteristics such as service life, reliability, economy of operation, ease of maintenance and all necessary features of the completed work;
 - 5.12.2.2 Require, in order to be applied to this Contract, a change order to this Contract; and
 - 5.12.2.3 Not adversely impact on the schedule of performance or the Contract completion date.
 - 5.12.3 VECP REQUIRED INFORMATION. The VECP will be processed expeditiously and in the same manner as prescribed for any other change order proposal. As a minimum, the following information will be submitted by the Contractor with each proposal:
 - 5.12.3.1 A description of the difference between the existing contract requirements and the VECP, and the comparative advantages and disadvantages of each including durability, service life, reliability, economy of operation, ease of maintenance, design safety standards, desired appearance, impacts due to construction and other essential or desirable functions and characteristics as appropriate;
 - 5.12.3.2 An itemization of the requirements of the contract which must be changed if the VECP is adopted and a recommendation as to how to make each such change;

- 5.12.3.3 An estimate of the reduction in performance costs that will result from adoption of the VECP taking into account the costs of implementation by the Contractor, including any amounts attributable to subcontracts, and the basis for the estimate;
- 5.12.3.4 A prediction of any effects the VECP would have on other costs to the Department, such as Department furnished property costs, costs of related items, and costs of maintenance and operation over the anticipated life of the material, equipment, or facilities as appropriate; the construction schedule, sequence and time; and bid item totals used for evaluation and payment purposes;
- 5.12.3.5 A statement of the time by which a change order adopting the VECP must be issued so as to obtain the maximum cost reduction during the remainder of this contract noting any effect on the contract time; and 5.12.3.6 The dates of any previous submissions of the VECP, the numbers of any Government contracts under which submitted and the previous actions by the Government, if known.
- 5.12.4 **REQUIRED USE OF LICENSED ARCHITECT OR ENGINEER.** When, in the judgment of the Project Manager, a VECP alters the design prepared by a registered professional architect or engineer, the Contractor shall ensure the changes to be prepared are by or under the supervision of a licensed professional architect or engineer, and stamped and so certified.
- 5.12.5 Unless and until a change order applies a VECP to a contract, the Contractor shall remain obligated to perform in accordance with the terms of the contract and the Department shall not be liable for delays incurred by the Contractor resulting from the time required for the Department's determination of the acceptability of the VECP.
- 5.12.5.1 The determination of the Project Manager as to the acceptance of any VECP under a contract shall be final.
- 5.12.6 **ACCEPTANCE OF VECP.** The Project Manager may accept in whole or in part any VECP submitted pursuant to this section by issuing a change order to the Contract. Prior to issuance of the change order, the Contractor shall submit complete final contract documents similar to those of the original Contract showing the accepted changes and the new design and features as well as the following:
 - 5.12.6.1 Design calculations;
 - 5.12.6.2 The design criteria used; and
 - 5.12.6.3 A detailed breakdown of costs and expenses to construct or implement such revisions.
 - 5.12.6.4 The change order will identify the final VECP on which it is based.
- 5.12.7 **VECP PRICE ADJUSTMENTS.** When a VECP is accepted under a contract, an adjustment in the contract price shall be made in accordance with Section 4.4, PRICE ADJUSTMENT. The adjustment shall first be established by determining the effect on the Contractor's cost of implementing the change, including any amount attributable to subcontractors and to the Department's charges to the Contractor for architectural, engineering, or other consultant services, and the staff time required to examine and review the proposal. The contract price shall then be reduced by fifty percent (50%) of the net estimated decrease in the cost of performance.

- 5.12.8 The Contractor may restrict the Department's right to use the data or information or both, on any sheet of a VECP or of the supporting data, submitted pursuant to this Subsection, if it is stated on that sheet as follows:
- 5.12.8.1 "This data or information or both shall not be disclosed outside the Department or be duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate this VECP. This restriction shall not limit the Department's right to use this data or information or both if obtained from another source, or is otherwise available, without limitations. If this VECP is accepted by the Department by issuance of a change order after the use of this data or information or both in such an evaluation, the Department shall have the right to duplicate, use and disclose any data or information or both pertinent to the proposal as accepted in any manner and for any purpose whatsoever and have others so do."
- 5.12.9 In the event of acceptance of a VECP, the Department shall have all rights to use, duplicate or disclose in whole or in part in any manner and for any purpose whatsoever, and to have or permit others to do so, any data or information or both reasonably necessary to fully utilize such proposal.
- 5.12.10 The Contractor shall submit with each VECP all required information and provide all additional information as may be required by the Project Manager to evaluate and implement the VECP. The cost for preparing the VECP shall be the Contractor's responsibility, and any part of the Contractor's cost for implementing the change shall be due only when the proposal is accepted and a change order is issued.
- 5.12.11 If the service of the Department's architect, Project Manager or consultant is necessary to review and evaluate a VECP, the cost therefor shall be paid for by the Contractor.
- 5.12.12 Each VECP shall be evaluated as applicable to this contract, and past acceptance on another Department project for a similar item shall not be automatic grounds for approval.
- 5.12.13 The method by which the Contractor will share a portion of the cost savings from an accepted VECP shall be for this contract only, and no consideration shall be made for future acquisition, royalty type payment or collateral savings.
- 5.12.13.1 The Department may accept the proposed VECP in whole or in part. The Chairman shall issue a contract change order to identify and describe the accepted VECP.
- 5.13 SUBCONTRACTS. Nothing contained in the contract documents shall create a contractual relationship between the Department and any subcontractor.
- 5.13.1 SUBSTITUTING SUBCONTRACTORS. Contractors may enter into subcontracts only with subcontractors listed in the proposal. No subcontractor may be added or deleted and substitutions will be allowed only if the subcontractor:
- 5.13.1.1 Fails, refuses or is unable to enter into a subcontract; or
- 5.13.1.2 Becomes insolvent; or
- 5.13.1.3 Has its subcontractor's license suspended or revoked; or
- 5.13.1.4 Has defaulted or has otherwise breached the subcontract in connection with the subcontracted work; or

- 5.13.1.5 Is unable to comply with other requirements of law applicable to contractors, subcontractors and public works projects.
- 5.13.2 Requesting Approval to Substitute a Subcontractor. Requests to substitute a subcontractor shall be submitted to the Project Manager for approval. Contractor agrees to hold the Department harmless and indemnify the Department for all claims, liabilities, or damages whatsoever, including attorney's fees arising out of or related to the approval or disapproval of the substitution.
- 5.13.3 The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and the other contract documents insofar as applicable to the work of the subcontractor and to give the Contractor the same rights regarding the termination of a subcontractor as the Department may exercise over the Contractor.
- 5.13.4 The Contractor shall not sponsor any unliquidated subcontractor's claim against the Department and shall defend, indemnify and hold the Department harmless against any direct claims by its subcontractors. Any claim for additional compensation by a subcontractor in connection with the work shall be made only against the Contractor. The Contractor may not assert any such claim against the Department until the liability of the Contractor has been unconditionally established by negotiation, arbitration or litigation, and the amount due the subcontractor has been determined, save for interest due.
- 5.13.5 Once a subcontractor's claim is established, should the Contractor intend to make the claim against the Department, it shall follow the procedure set forth under Section 7.25, DISPUTES AND CLAIMS.
- 5.13.6 SUBCONTRACTING. Contractor shall perform with its own organization, work amounting to not less than twenty percent (20%) of the total contract cost, exclusive of costs for materials and equipment the Contractor purchases for installation by its subcontractors, except that any items designated by the Department in the contract as "specialty items" may be performed by a subcontractor and the cost of any such specialty items so performed by the subcontractor may be deducted from the total contract cost before computing the amount of work required to be performed by the Contractor with its own organization. For the purposes of this section, the Contractor's work is defined as: direct cost labor for contractor's forces; direct cost materials installed by the contractor's direct cost labor force; direct cost equipment, either owned or leased, used by the contractor's direct cost labor force; and field overhead cost to include: field supervision, field office trailer (if any), field office equipment and supplies, etc.

~END OF ARTICLE 5~

ARTICLE 6: CONTROL OF MATERIALS AND EQUIPMENT

- 6.1 MATERIALS AND EQUIPMENT. Contractor shall furnish, pay for and install all material and equipment as called for in the drawings and specifications. Materials and equipment shall be new and the most suitable for the purpose intended unless otherwise specified. The Department does not guarantee that the specified or pre-qualified product listed in the drawings and specifications are available at the time of bid or during the contract period.
- 6.2 SOURCE OF SUPPLY AND QUALITY OF MATERIALS
- 6.2.1 Only materials conforming to the drawings and specifications and, when required by the contract have been accepted by the Project Manager, shall be used. In order to expedite the inspection and testing of materials, at the request of the Project Manager, the Contractor shall identify its proposed sources of materials within ten (10) days after notification by the Project Manager.
- 6.2.2 At the option of the Project Manager, the materials may be accepted by the Project Manager at the source of supply before delivery is started. Representative preliminary samples of the character and quantity prescribed shall be submitted by the Contractor or producer for examination and tested in accordance with the methods referred to under samples and tests.
- 6.2.3 PROJECT MANAGER'S AUTHORIZATION TO TEST MATERIALS. Materials proposed to be used may be inspected and tested whenever the Project Manager deems necessary to determine conformance to the specified requirements. The cost of testing shall be borne by the Contractor. However, should test results show that the material(s) is in compliance with the specified requirements; the cost of the testing will be borne by the Department.
- 6.2.4 UNACCEPTABLE MATERIALS. In the event material(s) are found to be unacceptable, the Contractor shall cease their use, remove the unacceptable material(s) that have already been installed or applied, and furnish acceptable materials all at no additional cost to the Department. No material which is in any way unfit for use shall be used.
- 6.3 SUBSTITUTION OF MATERIALS AND EQUIPMENT
- 6.3.1 SUBSTITUTION OF MATERIALS AND EQUIPMENT BEFORE BID OPENING For materials and equipment submitted in compliance with Instructions to Bidders, if after installing the substituted product, an unlisted variance is discovered the Contractor shall immediately replace the product with a specified product at no cost to the Department.
- 6.3.2 SUBSTITUTION AFTER CONTRACT AWARD. Subject to the Project Manager's determination if the material or equipment is equal to the one specified or prequalified, substitution of material or equipment may be allowed after the Letter of Award is issued only:
- 6.3.2.1 If the specified or prequalified item is delayed by unforeseeable contingencies beyond the control of the Contractor which would cause a delay in the project completion; or
- 6.3.2.2 If any specified or prequalified item is found to be unusable or unavailable due to a change by the manufacturer or other circumstances; or
- 6.3.2.3 If the Contractor desires to provide a more recently developed material, equipment, or manufactured model from the same named manufacturer than the one specified or prequalified; or
- 6.3.2.4 If the specified material and / or equipment inadvertently lists only a single manufacturer.

- 6.3.3 A substitution request after the Contract is awarded shall be fully explained in writing. Contractor shall provide brochures showing that the substitute material and / or equipment is equal or better in essential features and also provide a matrix showing comparison of the essential features. Contractor shall justify its request and include quantities and unit prices involved, respective supplier's price quotations and such other documents necessary to fully support the request. Any savings in cost will be credited to the Department. Contractor shall absorb any additional cost for the substitute item(s) or for its installation. Submitting a substitution request, does not imply that substitutions, for brand name specified materials and equipment will be allowed. The Project Manager may reject and deny any request deemed irregular or not in the best interest of the Department. A request for substitution shall not in any way be grounds for an extension of contract time. At the discretion of the Project Manager, a time extension may be granted for an approved substitution.
- 6.4 ASBESTOS CONTAINING MATERIALS. The use of materials or equipment containing asbestos is prohibited under this contract. Contractor warrants that all materials and equipment incorporated in the project are asbestos-free.
- 6.5 TEST SAMPLES
- 6.5.1 The Project Manager may require any or all materials to be tested by means of samples or otherwise. Contractor shall collect and forward samples requested by the Project Manager. Contractor shall not use or incorporate any material represented by the samples until all required tests have been made and the material has been accepted. In all cases, the Contractor shall furnish the required samples without charge. Where samples are required from the completed work, the Contractor shall cut and furnish samples from the completed work. Samples so removed shall be replaced with identical material and refinished. No additional compensation will be allowed for furnishing test samples and their replacement with new materials.
- 6.5.2 Tests of the material samples will be made in accordance with the latest standards of the American Society for Testing and Materials (ASTM), as amended prior to the contract date unless otherwise provided. In cases where a particular test method is necessary or specifications and serial numbers are stipulated, the test shall be made by the method stated in the above-mentioned publication. Where the test reference is the American Association of State Highway and Transportation Officials (AASHTO), it means the specifications and serial numbers of the latest edition and amendments prior to the bid date.
- 6.5.3 The Project Manager may, at no extra cost to the Department retest any materials which have been tested and accepted at the source of supply after the same has been delivered to the work site. The Project Manager shall reject all materials which, when retested, do not meet the requirements of the Contract.
- 6.6 MATERIAL SAMPLES
- 6.6.1 The Contractor shall furnish all samples required by the drawings and specifications or that may be requested by the Project Manager of any and all materials or equipment it proposes to use. Unless specifically required, samples are not to be submitted with the bid.
- 6.6.2 No materials or equipment of which samples are required shall be used on the work until the Project Manager has received and accepted the samples. If the Contractor proceeds to use such materials before the Project Manager accepts the samples, the Contractor shall bear the risk.

- 6.6.3 Contractor shall furnish two (2) copies of a transmittal letter with each shipment of samples. The letter shall provide a list of the samples, the name of the building or work for which the materials are intended and the brands of the materials and names of the manufacturers. Also, each sample submitted shall have a label indicating the material represented, its place of origin, the names of the producer, the Contractor and the building or work for which the material is intended. Samples of finished materials shall be marked to indicate where the materials represented are required by the drawings or specifications.
- 6.6.4 Acceptance of any sample(s) shall be only for the characteristics or for the uses named in such acceptance and for no other purpose. Acceptance of samples shall not change or modify any contract requirement. All samples will be provided by the Contractor at no extra cost to the Department. See also Section 5.5, SHOP DRAWINGS AND OTHER SUBMITTALS.
- 6.7 NON-CONFORMING MATERIALS. All materials not conforming to the requirements of this contract documents, whether in place or not, shall be rejected and removed immediately from the site of work unless otherwise permitted by the Project Manager in writing. No rejected material which has subsequently been made to conform shall be used unless and until written acceptance has been given by the Project Manager. If the Contractor fails to comply forthwith with any order of the Project Manager made under the provisions of this Section 6.7, NON-CONFORMING MATERIALS the Project Manager shall have the authority to remove and replace non-conforming materials and charge the cost of removal and replacement to the Contractor.
- 6.8 HANDLING MATERIALS. Contractor shall handle all materials to preserve their quality and fitness for work. Transport aggregates from the source or storage site to the work in tight vehicles to prevent loss or segregation of materials after loading and measuring.
- 6.9 STORAGE OF MATERIALS. Contractor shall store all materials to preserve their quality and fitness for the work. Unless otherwise provided, any portion of the project site within the Project Contract Limit not required for public travel may be used for storage purposes and for the Contractor's plant and equipment. Any additional space required shall be provided by the Contractor at its expense subject to the Project Manager's acceptance. Contractor shall store materials on wooden platforms or other hard, clean surfaces and covered to protect it from the weather and damage. Stored materials shall be located to allow prompt inspection.
- 6.10 PROPERTY RIGHTS IN MATERIALS. Nothing in the contract shall be construed to vest in the Contractor any right to any materials and equipment after such materials and equipment have been attached, affixed to, or placed in the work.
- 6.11 ANTITRUST CLAIMS. The STATE and the CONTRACTOR recognized that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, the CONTRACTOR hereby assigns to STATE any and all claims for overcharges as to goods and material purchased in connection with this Contract, except as to overcharges which result from violations commencing after the price is established under this Contract and which are not passed on to the STATE under an escalation clause.

~END OF SECTION 6~

ARTICLE 7: PROSECUTION AND PROGRESS (Including Legal Relations and Responsibility)

7.1 PROSECUTION OF THE WORK

- 7.1.1 After approval of the Contract by the Chairman, a Notice to Proceed will be given to the Contractor as described in Section 3.10, NOTICE TO PROCEED. The Notice to Proceed will indicate the date the Contractor is expected to begin the construction and from which date contract time will be charged.
- 7.1.2 The Contractor shall begin work no later than ten (10) working days from the date in the Notice to Proceed and shall diligently prosecute the same to completion within the contract time allowed. The Contractor shall notify the Project Manager at least three (3) working days before beginning work.
- 7.1.3 If any subsequent suspension and resumption of work occurs, the Contractor shall notify the Project Manager at least twenty-four (24) hours before stopping or restarting actual field operations.
- 7.1.4 **WORKING PRIOR TO NOTICE TO PROCEED.** The Contractor shall not begin work before the date in the Notice to Proceed. Should the Contractor begin work before receiving the Notice to Proceed, any work performed in advance of the specified date will be considered as having been done at the Contractor's risk and as a volunteer and subject to the following conditions:
 - 7.1.4.1 Under no circumstances shall the Contractor commence work on site until it has notified the Project Manager of its intentions and has been advised by the Project Manager in writing that the project site is available to the Contractor. The project site will not be made available until the Contractor has complied with commencement requirements under Section 7.2, COMMENCEMENT REQUIREMENTS.
 - 7.1.4.2 In the event the contract is not executed, the Contractor shall, at its own expense, do such work as is necessary to leave the site in a neat condition to the satisfaction of the Project Manager. The Contractor shall not be reimbursed for any work performed.
 - 7.1.4.3 All work done prior to the Notice to Proceed shall be performed in accordance with the Contract Documents, but will only be considered authorized work and be paid for as provided in the Contract after the Notice to Proceed is issued.
- 7.1.5 For repairs and/or renovations of existing buildings, unless otherwise permitted by the Project Manager, the Contractor shall not commence with the physical construction unless all or sufficient amount of materials are available for either continuous construction or completion of a specified portion of the work. When construction is started, the Contractor shall work expeditiously and pursue the work diligently until it is complete. If only a portion of the work is to be done in stages, the Contractor shall leave the area safe and usable for the user agency at the end of each stage.
- 7.2 **COMMENCEMENT REQUIREMENTS.** Prior to beginning work on site, the Contractor shall submit the following to the Project Manager:
 - 7.2.1 Identification of the Superintendent or authorized representative on the job site. Refer to Section 5.9, COOPERATION BETWEEN THE CONTRACTOR AND THE DEPARTMENT;
 - 7.2.1.1 Identification of the surveyor who shall be licensed in the State of Hawaii and will work for it throughout the course of the project. Refer to Section 5.9.3.4.

- 7.2.2 Proposed Working Hours on the job. Refer to Section 7.5, NORMAL WORKING HOURS;
- 7.2.3 Permits and Licenses. Refer to Section 7.4, PERMITS AND LICENSES;
- 7.2.4 Schedule of Prices to be accepted for the agreed Monthly Payment Application. Unless the proposal provides unit price bids on all items in this project, the successful Bidder will be required, after the award of contract, to submit a schedule of prices for the various items of construction included in the contract. For projects involving more than a single building and / or facility, the breakdown cost shall reflect a separate schedule of prices for the various items of work for each building and/or facility. The sum of the prices submitted for the various items must equal the lump sum bid in the Bidder's proposal. This schedule will be subject to acceptance by the Project Manager who may reject same and require the Bidder to submit another or several other schedules if in the Project Manager's opinion the prices are unbalanced or not sufficiently detailed. This schedule of prices shall be used for the purpose of determining the value of monthly payments due the Contractor for work installed complete in place; and may be used as the basis for determining cost and credit of added or deleted items of work, respectively;
- 7.2.4.1 The Contractor shall estimate at the close of each month the percentage of work completed under each of the various construction items during such month and submit the Monthly Payment Application to the Project Manager for review and approval. The Contractor shall be paid the approved percentage of the price established for each item less the retention provided in Section 8.4, PROGRESS AND/OR PARTIAL PAYMENTS; and
- 7.2.5 PROOF OF INSURANCE COVERAGE. Certificate of Insurance or other documentary evidence satisfactory to the Project Manager that the Contractor has in place all insurance coverage required by the contract. Refer to Section 7.3, INSURANCE REQUIREMENTS.
- 7.2.6 Until such time as the above items are processed and approved, the Contractor shall not be allowed to commence on any operations unless authorized by the Project Manager.
- 7.3 INSURANCE REQUIREMENTS
- 7.3.1 OBLIGATION OF CONTRACTOR. Contractor shall not commence any work until it obtains, at its own expense, all required herein insurance. Such insurance shall be provided by an insurance company authorized by the laws of the State to issue such insurance in the State of Hawaii. Coverage by a "Non-Admitted" carrier is permissible provided the carrier has a Best's Rating of "A-VII" or better.
- 7.3.2 All insurance described herein will be maintained by the Contractor for the full period of the contract and in no event will be terminated or otherwise allowed to lapse prior to written certification of final acceptance of the work by the Department.
- 7.3.3 Certificate(s) of Insurance acceptable to the Department shall be filed with the Project Manager prior to commencement of the work. Certificates shall identify if the insurance company is a "captive" insurance company or a "Non-Admitted" carrier to the State of Hawaii. The Best's rating must be stated for the "Non-Admitted" carrier. Certificates shall contain a provision that coverage(s) being certified will not be cancelled or materially changed without giving the Project Manager at least thirty (30) days prior written notice. The Department is to be named as Additional Insured on any of the required insurance and it shall be so noted on the certificate. Should any policy be cancelled before final acceptance of the work by the Department, and the Contractor fails to immediately procure replacement insurance as specified, the Department, in addition to all other remedies it may have for

such breach, reserves the right to procure such insurance and deduct the cost thereof from any money due to the Contractor.

- 7.3.4 Nothing contained in these insurance requirements is to be construed as limiting the extent of Contractor's responsibility for payment of damages resulting from its operations under this Contract, including the Contractor's obligation to pay liquidated damages, nor shall it affect the Contractor's separate and independent duty to defend, indemnify and hold the Department harmless pursuant to other provisions of this Contract. In no instance will the Department's exercise of an option to occupy and use completed portions of the work relieve the Contractor of its obligation to maintain the required insurance until the date of final acceptance of the work.
- 7.3.5 All insurance described herein shall be primary and cover the insured for all work to be performed under the Contract, all work performed incidental thereto or directly or indirectly connected therewith, including traffic detour work or other work performed outside the work area and all change order work.
- 7.3.6 The Contractor shall, from time to time, furnish the Project Manager, when requested, satisfactory proof of coverage of each type of insurance required covering the work. Failure to comply with the Project Manager's request may result in suspension of the work, and shall be sufficient grounds to withhold future payments due the Contractor and to terminate the contract for Contractor's default.
- 7.3.7 TYPES OF INSURANCE. Contractor shall purchase and maintain insurance described below which shall provide coverage against claims arising out of the Contractor's operations under the Contract, whether such operations be by the Contractor itself or by any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.
- 7.3.7.1 WORKER'S COMPENSATION. The Contractor shall obtain worker's compensation insurance for all persons whom they employ in carrying out the work under this contract. This insurance shall be in strict conformity with the requirements of the most current and applicable State of Hawaii Worker's Compensation Insurance laws in effect on the date of the execution of this contract and as modified during the duration of the contract.
- 7.3.7.2 COMMERCIAL GENERAL LIABILITY INSURANCE AND AUTOMOBILE INSURANCE. Contractor's commercial general liability insurance and automobile liability insurance shall both be obtained in a combined, single limit of not less than \$1,000,000 (one million dollars) unless otherwise indicated in the Special Conditions per occurrence that shall include coverage for bodily injury, sickness, disease or death of any person, arising directly or indirectly out of, in connection with, the performance of work under this contract.
- 7.3.7.3 "General Liability and Automobile Insurance. CONTRACTOR shall maintain, at its own expense, the minimum insurance coverage specified below, or as amended in the Special Conditions, throughout the term of this Contract.
- a. General Liability insurance providing coverage of no less than ONE MILLION DOLLARS (\$1,000,000.00) per occurrence and TWO MILLION DOLLARS (\$2,000,000.00) in the aggregate.
 - b. Automobile insurance providing coverage of no less than ONE MILLION DOLLARS (\$1,000,000.00) per accident."
- 7.3.7.4 The Contractor shall either (a) Require each of its subcontractors to procure and to maintain during the life of its subcontract, subcontractor's comprehensive general liability, automobile liability and

property damage liability insurance of the type and in the same amounts specified herein; or (b) Insure the activities of its subcontractors in its own policy.

- 7.3.7.5 **BUILDERS RISK INSURANCE.** Unless excluded by the Special Conditions of this contract, the Contractor shall provide builder's risk insurance during the progress of the work and until final acceptance by the Department upon completion of the contract. It shall be "All Risk" (including but not limited to earthquake, windstorm and flood damage) completed value insurance coverage on all completed work and work in progress to the full replacement value thereof. Such insurance shall include the Department as an additional named insured. The Contractor shall submit to the Project Manager for its approval all items deemed to be uninsurable. The policy may provide for a deductible in an amount of up to twenty five percent (25%) of the amount insured by the policy. With respect to all losses up to any deductible amount, the relationship between the Contractor and the Department shall be that of insurer and the additional insured respectively as if no deductible existed. The Contractor is responsible for theft, if any item of the contract is stolen prior to, or after installation, until the work is accepted by the Department. Progress payment does not constitute acceptance.

7.4 PERMITS AND LICENSES

- 7.4.1 The Department or its representative may process Federal (e.g. Army Corps of Engineers), State and county permit applications. The Contractor shall pick up the preprocessed Permits at the appropriate governmental agency and pay the required fees. Other permits necessary for the proper execution of the work such as utility connection permits, elevator installation permits etc., unless processed by the Department and paid for by the Contractor, shall be obtained and paid for by the Contractor.

- 7.4.2 Until such time as the above permits are approved, the Contractor shall not be allowed to commence any operations without written approval of the Project Manager.

- 7.4.3 The Project Manager reserves the right to waive application and processing of the building permit.

- 7.5 **NORMAL WORKING HOURS.** Prior to beginning operations, unless otherwise established by the Department, the Contractor shall notify the Project Manager in writing of the time in hours and minutes, A.M. and P.M. respectively, at which it desires to begin and end the day's work. If the Contractor desires to change the working hours, it shall request the Project Manager's approval three (3) consecutive working days prior to the date of the change.

7.6 HOURS OF LABOR (§104-2 HRS)

- 7.6.1 No laborer or mechanic employed on the job site of any public work of the Department or any political sub-division thereof shall be permitted or required to work on Saturday, Sunday or a legal holiday of the State or in excess of eight (8) hours on any other day unless the laborer or mechanic receives overtime compensation for all hours worked on Saturday, Sunday and a legal holiday of the State or in excess of eight (8) hours on any other day. For the purposes of determining overtime compensation under this Section 7.6, HOURS OF LABOR (§104-2 HRS) the basic hourly rate of any laborer or mechanic shall not be less than the basic hourly rate determined by the Department of Labor and Industrial Relations to be the prevailing basic hourly rate for corresponding classes of laborers and mechanics on projects of similar character in the Department.

- 7.6.2 Overtime compensation means compensation based on one and one-half times the laborers or mechanics basic hourly rate of pay plus the cost to an employer of furnishing a laborer or mechanic with fringe benefits.

7.7 PREVAILING WAGES (State §104-2 HRS & Federal Davis-Bacon)

7.7.1 The Contractor shall at all time observe and comply with all provisions of Chapter 104, HRS, the significant requirements of which are emphasized in the Department of Labor and Industrial Relations Publication No. H104-3 entitled "Requirements of Chapter 104, Hawaii Revised Statutes, Wages and Hours of Employees on Public Works Law". The Contractor must also comply with all provisions of Federal Davis-Bacon Act (40 U.S.C. 276-276a-5 and Code of Federal Regulation (CFR) Title 29 and related Acts.

7.7.2 WAGE RATE SCHEDULE. The wage rate schedule may not be physically enclosed in the bid documents. However, the wage rate schedule is incorporated herein by reference and made a part of the Bid and Contract Documents. The bidder must obtain and use the latest minimum rates ten (10) days prior to the date set for the bid opening of bids. The wage rate schedule may be obtained from the DHHL, Labor Compliance Specialist, Hale Kalanianaʻole, 91-5420 Kapolei Parkway, Kapolei, Hawaii, 96707 or, State Department of Labor and Industrial Relations web site:

<http://labor.hawaii.gov/rs/home/wages/72-2/>

or the Federal Department of Labor (Davis- Bacon) wage rate schedule web site:

<http://www.wdol.gov>.

7.7.3 The Contractor or its subcontractor(s) shall pay all laborers and mechanics employed on the job site, unconditionally and not less often than once a week, and without deduction or rebate on any account except as allowed by law, the full amounts of their wages including overtime, accrued to not more than five (5) working days prior to the time of payment, at wage rates not less than those stated in the contract, regardless of any contractual relationship which may be alleged to exist between the Contractor and subcontractor and such laborers and mechanics. The wages stated in the contract shall not be less than the minimum prevailing wages (basic hourly rate plus fringe benefits), as determined by the of Labor and Industrial Relations and published in wage rate schedules. Any increase in wage rates, as determined by the of Labor and Industrial Relations and issued in the wage rate schedule, shall be applicable during the performance of the contract, in accordance with Section 104-2(a) and (b), Hawaii Revised Statutes. Notwithstanding the provisions of the original contract, if the of Labor and Industrial Relations determines that prevailing wages have increased during the performance of the contract, the rate of pay of laborers and mechanics shall be raised accordingly.

7.7.4 The applicable wage rate schedule shall be physically included in the Contract Documents executed by the successful Bidder.

7.7.5 POSTING WAGE RATE SCHEDULE. The rates of wages to be paid shall be posted by the Contractor in a prominent and easily accessible place at the job site and a copy of such wages required to be posted shall be given to each laborer and mechanic employed under the contract by the Contractor at the time the person is employed thereunder, provided that where there is a collective bargaining agreement, the Contractor does not have to provide its employees the wage rate schedules. Any revisions to the schedule of wages issued by the Department of Labor and Industrial Relations during the course of the Contract shall also be posted by the Contractor and a copy provided to each laborer and mechanic employed under the Contract as required above.

7.7.6 The Chairman may withhold from the Contractor so much of the accrued payments as the Chairman may consider necessary to pay to laborers and mechanics employed by the Contractor or any

subcontractor on the job site. The accrued payments withheld shall be the difference between the wages required by this Contract and the wages actually received by such laborers or mechanics.

7.8 FAILURE TO PAY REQUIRED WAGES (§104-4, HRS or Federal Davis-Bacon). If the Department finds that any laborer or mechanic employed on the job site by the Contractor or any subcontractor has been or is being paid wages at a rate less than the required rate by the Contract, or has not received their full overtime compensation, the Department may, by written notice to the Contractor, terminate its right, or the right of any subcontractor, to proceed with the work or with the part of the work on which the required wages or overtime compensation have not been paid and may complete such work or part by contract or otherwise, and the Contractor and its sureties shall be liable to the Department for any excess costs occasioned thereby.

7.9 PAYROLLS AND PAYROLL RECORDS (§104-3 HRS)

7.9.1 A certified copy of each weekly payroll shall be submitted to the Chairman within seven (7) calendar days after the end of each weekly payroll period. Failure to do so on a timely basis shall be cause for withholding of payments, termination of the contract, and/or debarment. The Contractor shall be responsible for the timely submission of certified copies of payrolls of all subcontractors. The certification shall affirm that payrolls are correct and complete, that the wage rates contained therein are not less than the applicable rates contained in the wage determination decision, any amendments thereto during the period of the contract, and that the classifications set forth for each laborer and mechanic conform with the work they performed.

7.9.2 Payroll records for all laborers and mechanics working at the site of the work shall be maintained by the General Contractor and its subcontractors, if any, during the course of the work and preserved for a period of four (4) years thereafter. Such records shall contain the name of each employee, their address, their correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. Such records shall be made available for inspection at a place designated by the Chairman, the U.S. Department of Labor and any authorized persons who may also interview employees during working hours on the job site.

7.9.3 Note that the falsification of certifications noted in this Section 7.9, PAYROLLS AND PAYROLL RECORDS (§104-3 HRS) may subject the Contractor or subcontractor to penalties and debarment under the laws referenced in Section 7.14, LAWS TO BE OBSERVED and / or criminal prosecution.

7.10 OVERTIME AND NIGHT WORK

7.10.1 Overtime work shall be considered as work performed in excess of eight (8) hours in any one (1) day or work performed on Saturday, Sunday or legal holiday of the State. Overtime and night work are permissible when approved by the Project Manager in writing, or as called for elsewhere within these Contract Documents.

7.10.2 OVERTIME NOTIFICATION. Contractor shall inform the Project Manager in writing at least two (2) working days in advance as to exactly what specific work is to be done during any overtime and night period to ensure that proper inspection will be available.

7.10.3 In the event that work other than that contained in the above notification is performed and for which the Project Manager determines Department inspection services were necessary but not available because of the lack of notification, the Contractor may be required to remove all such work and perform the work over again in the presence of Department inspection personnel.

- 7.10.4 Any hours worked in excess of the normal eight (8) working hours per day or on Saturdays, Sundays or legal State holidays will not be considered a working day.
- 7.10.5 The Department hereby reserves the right to cancel the overtime, night, Saturday, Sunday or legal State holiday work when it is found that work during these periods is detrimental to the public welfare or the user agency.
- 7.11 OVERTIME AND NIGHT PAYMENT FOR DEPARTMENT INSPECTION SERVICE
- 7.11.1 Whenever the Contractor's operations require the Department's inspection and staff personnel to work overtime or at night, the Contractor shall reimburse the Department for the cost of such services unless otherwise instructed in the Contract. The Project Manager will notify the Contractor of the minimum number of required Department employees and other personnel engaged by the Department prior to the start of any such work. The costs chargeable to the Contractor shall include but not be limited to the following:
- 7.11.1.1 The cost of salaries which are determined by the Department and includes overtime and night time differential for the Department's staff and inspection personnel. In addition to the cost of the salaries, the Contractor shall reimburse the Department's share of contributions to the employee's retirement, medical plan, social security, vacation, sick leave, worker's compensation funds, per diem, and other applicable fringe benefits and overhead expenses;
- 7.11.1.2 The transportation cost incurred by the Department's staff and inspection personnel which are based on established rental rates or mileage allowance in use by the Department for the particular equipment or vehicle; and/or
- 7.11.1.3 Fees and other costs billed the Department by Consultants engaged on the project for overtime and/or night time work.
- 7.11.2 PAYMENT FOR INSPECTION SERVICES. The monies due the Department for staff and inspection work and use of vehicles and equipment as determined in Subsection 7.11.1, OVERTIME AND NIGHT PAYMENT FOR DEPARTMENT INSPECTION SERVICE shall be deducted from the monies due or to become due the Contractor. In any and all events, the Contractor shall not pay the Department's employees directly.
- 7.12 LIMITATIONS OF OPERATIONS
- 7.12.1 Contractor shall at all times conduct the work in such manner and in such sequence as will ensure the least practicable interference with pedestrian and motor traffic passageways. The Contractor shall furnish convenient detours and provide and plan other appropriate signs, flashers, personnel, warnings, barricades and other devices for handling pedestrian and motor traffic.
- 7.12.2 In the event that other contractors are also employed on the job site, the Contractor shall arrange its work and dispose of materials so as not to interfere with the operations of the other contractors engaged upon adjacent work. The Contractor shall join its work to that of others and existing buildings in a proper manner, and in accordance with the drawings and specifications, and perform its work in the proper sequence in relation to that of others, all as may be directed by the Project Manager.

- 7.12.3 Each Contractor shall be responsible for any damage done by it to work performed by another contractor. Each Contractor shall conduct its operations and maintain the work in such condition that no fugitive dust shall be created and adequate drainage shall be in effect at all times.
- 7.12.4 In the event that the Contractor fails to prosecute its work as provided in this Section 7.12, LIMITATIONS OF OPERATIONS or disregards the directions of the Project Manager, the Project Manager may suspend the work until such time as the Contractor provides for the prosecution of the work with minimum interference to traffic and passageways or other contractors, dust control, adequate drainage, the repair of damage and complies with the direction of the Project Manager. No payment will be made to the Contractor for the costs of such suspension.
- 7.13 ASSIGNMENT OR CHANGE OF NAME (§3-125-14 HAR)
- 7.13.1 SUBCONTRACTS AND ASSIGNMENT. The CONTRACTOR shall not assign or subcontract any of the CONTRACTOR's duties, obligations, or interests under this Contract and no such assignment or subcontract shall be effective unless (i) the CONTRACTOR obtains the prior written consent of the STATE and (ii) the CONTRACTOR's assignee or subcontractor submits to the STATE a tax clearance certificate from the of Taxation, State of Hawaii, showing that all delinquent taxes, if any, levied or accrued under state law against the CONTRACTOR's assignee or subcontractor have been paid. Additionally, no assignment by the CONTRACTOR of the CONTRACTOR's right to compensation under this Contract shall be effective unless and until the assignment is approved by the Comptroller of the State of Hawaii, as provided in Section 40-58, HRS.
- 7.13.2 RECOGNITION OF A SUCCESSOR IN INTEREST. When in the best interest of the State, a successor in interest may be recognized in an assignment Contract in which the STATE, the CONTRACTOR and the assignee or transferee (hereinafter referred to as the "Assignee") agree that:
- 7.13.2.1 The Assignee assumes all of the CONTRACTOR's obligations;
- 7.13.2.2 The CONTRACTOR remains liable for all obligations under this Contract but waives all rights under this Contract as against the STATE; and
- 7.13.2.3 The CONTRACTOR shall continue to furnish, and the Assignee shall also furnish, all required bonds.
- 7.13.3 CHANGE OF NAME. When the CONTRACTOR asks to change the name in which it holds this Contract with the STATE, the procurement officer of the purchasing agency (hereinafter referred to as the "Agency procurement officer") shall, upon receipt of a document acceptable or satisfactory to the Agency procurement officer indicating change of name (for example, an amendment to the CONTRACTOR's articles of incorporation), enter into an amendment to this Contract with the CONTRACTOR to effect such a change of name. The amendment to this Contract changing the CONTRACTOR's name shall specifically indicate that no other terms and conditions of this Contract are thereby changed.
- 7.13.4 REPORTS. All assignment Contracts and amendments to this Contract effecting changes of the CONTRACTOR's name or novations hereunder shall be reported to the CPO within thirty days of the date that the assignment Contract or amendment becomes effective.
- 7.13.5 ACTIONS AFFECTING MORE THAN ONE PURCHASING AGENCY. Notwithstanding the provisions of Subsections 7.13.2 through 7.13.4 herein, when the CONTRACTOR holds Contracts

with more than one purchasing agency of the State, the assignment Contracts and the novation and change of name amendments herein authorized shall be processed only through the CPO's office.

- 7.14 LAWS TO BE OBSERVED. The CONTRACTOR shall comply with all federal, state, and county laws, ordinances, codes, rules, and regulations, as the same may be amended from time to time, that in any way affect the CONTRACTOR's performance of this Contract.
- 7.14.1 The Contractor at all times shall observe and comply with all Federal, State and local laws or ordinances, rules and regulations which in any manner affect those engaged or employed in the work, the materials used in the work, and the conduct of the work. The Contractor shall also comply with all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the work. Any reference to such laws, ordinances, rules and regulations shall include any amendments thereto before and after the date of this Contract.
- 7.14.2 The Contractor shall defend, protect, hold harmless and indemnify the State and its departments and agencies and all their officers, representatives, employees or agents against any claim or liability arising from or based on the violation of any such laws, ordinances, rules and regulations, orders or decrees, whether such violation is committed by the Contractor or its Subcontractor(s) or any employee of either or both. If any discrepancy or inconsistency is discovered in the contract for the work in relation to any such laws, ordinances, rules and regulations, orders or decrees, the Contractor shall forthwith report the same to the Project Manager in writing.
- 7.14.3 While the Contractor must comply with all applicable laws, attention is directed to: Wage and Hours of Employees on Public Works, Chapter 104, Hawaii Revised Statutes (HRS); Hawaii Public Procurement Code, Authority to debar or suspend, Section 103D-702, HRS; Hawaii Employment Relations Act, Chapter 377, HRS; Hawaii Employment Security Law, Chapter 383, HRS; Worker's Compensation Law, Chapter 386, HRS; Wage and Hour Law, Chapter 387, HRS; Occupational Safety and Health, Chapter 396, HRS; and Authority to Debar or Suspend, Chapter 126, subchapter 2, Hawaii Administrative Rules (HAR).
- 7.14.4 CONFLICT BETWEEN GENERAL CONDITIONS AND PROCUREMENT RULES. In the event of a conflict between the General Conditions and the Procurement Rules, the Procurement Rules in effect on the date this Contract became effective shall control and are hereby incorporated by reference.
- 7.15 PATENTED DEVICES, MATERIALS AND PROCESSES. If the Contractor desires to use any design, device, material, or process covered by letters of patent or copyright, the right for such use shall be procured by the Contractor from the patentee or owner. The Contractor shall defend, protect, indemnify and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including attorney' fees, and all claims, suits, and demands arising out of or resulting from any claims, demands, or actions by the patent holder for infringement or other improper or unauthorized use of any patented article, patented design, patented device, patented process, patented appliance or patented material in connection with this Contract. The Contractor shall be solely responsible for correcting or curing to the satisfaction of the DHHL any such infringement or improper or unauthorized use, including, without limitation: (a) furnishing at no cost to the DHHL a substitute article, design, device, process, appliance or material acceptable to the DHHL; (b) paying royalties or other required payments to the patent holder; (c) obtaining proper authorizations or releases from the patent holder; and (d) furnishing such security to or making such arrangement with the patent holder as may be necessary to correct or cure any such infringement or improper or unauthorized use. This

section shall not apply to any article, design, device, material, appliance or process covered by letters of patent or copyright, which the Contractor is required to use by the Drawings or Specifications.

7.16 SANITARY, HEALTH AND SAFETY PROVISIONS

7.16.1 The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of its employees as may be necessary to comply with the requirements of the State and local boards of health, or other bodies or tribunals having jurisdiction. Unless otherwise stated in the drawings or specifications, the Contractor shall install toilet facilities conveniently located at the job site and maintain same in a neat and sanitary condition for the use of the employees on the job site for the duration of the Contract. The toilet facilities shall conform to the requirements of the State Department of Health. The cost of installing, maintaining and removing the toilet facilities shall be considered incidental to and paid for under various contract pay items for work or under the lump sum bids as the case may be, and no additional compensation will be made therefor. These requirements shall not modify or abrogate in any way the requirements or regulations of the State Department of Health.

7.16.2 Attention is directed to Federal, State and local laws, rules and regulations concerning construction safety and health standards. The Contractor shall not require any worker to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to their health or safety.

7.17 PROTECTION OF PERSONS AND PROPERTY

7.17.1 SAFETY PRECAUTIONS AND PROGRAMS. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury or loss to:

7.17.1.1 All persons on the work site or who may be affected by the work;

7.17.1.2 All the work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor and its subcontractors; and

7.17.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavement, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

7.17.2 Contractor shall give notices and comply with applicable laws, ordinances, regulations, rules, and lawful orders of any public body having jurisdiction for the safety of persons or property or their protection from damage, injury or loss; and the Contractor shall erect and maintain reasonable safeguards for safety and protection, including posting danger signs, or other warnings against hazards.

7.17.3 The Contractor shall notify owners of adjacent properties and of underground (or overhead) utilities when performing work which may affect the owners; and shall cooperate with the owners in the protection, removal and replacement of their property.

7.17.4 All damage, injury or loss to any property referred to in Subsections 7.17.1.2 and 7.17.1.3 caused by the fault or negligence or damage or loss attributable to acts or omissions directly or indirectly in whole or part by the Contractor a subcontractor or any one directly or indirectly employed by them, or by anyone for whose acts they might be liable, shall be remedied promptly by the Contractor.

- 7.17.5 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the protection of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor.
- 7.17.6 The Contractor shall not load or permit any part of the construction to be loaded so as to endanger its safety. The Contractor shall not injure or destroy trees or shrubs nor remove or cut them without permission of the Project Manager. Contractor shall protect all land monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.
- 7.17.7 In the event the Contractor encounters on the site, material reasonably believed to be asbestos or other hazard material that has not been rendered harmless, the Contractor shall stop work in the area and notify the Project Manager promptly. The work in the affected area shall be resumed in the absence of hazard materials or when the hazard has been rendered harmless.
- 7.17.8 EMERGENCIES. In an emergency affecting the safety and protection of persons or the work or property at the site or adjacent thereto, Contractor without special instructions or authorization from the Project Manager, shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Contractor shall give the Project Manager prompt written notice of the emergency and actions taken. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined under the provisions of Section 7.25, DISPUTES AND CLAIMS.
- 7.18 ARCHAEOLOGICAL SITES
- 7.18.1 Should historic sites such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentration of charcoal or shells be encountered during construction, work shall cease in the immediate vicinity of the find and the find shall be protected from further damage. The Contractor shall immediately notify the Project Manager and contact the State Historic Preservation Division which will assess the significance of the find and recommend the appropriate mitigation measures, if necessary.
- 7.18.2 When required, the Contractor shall provide and install any temporary fencing to protect archaeological sites within the project. The fencing shall be installed prior to any construction activity and shall be maintained by the Contractor for the duration of the project. Fence installation and maintenance shall be to the satisfaction of the Project Manager. The Contractor shall remove the fencing upon completion of construction, or as directed by the Project Manager.
- 7.18.3 No work shall be done within the temporary fencing area. If any construction work is done within the temporary fencing, the Contractor shall notify the Project Manager immediately; and if the Contractor entered the archaeological site area without permission, it shall stop work in this area immediately. The Project Manager shall notify the archaeologist to assess any damage to the area. The Contractor shall allow the archaeologist sufficient time to perform the field investigation.
- 7.18.4 Any site requiring data recovery within the project shall not be disturbed until data recovery is completed.
- 7.19 RESPONSIBILITY FOR DAMAGE CLAIMS; INDEMNITY
- 7.19.1 The CONTRACTOR shall defend, indemnify, and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost,

and expense, including all attorneys' fees, and all claims, suits, and demands therefor, arising out of or resulting from the acts or omissions of the CONTRACTOR or the CONTRACTOR's employees, officers, agents, or subcontractors under this Contract. The provisions of this Subsection shall remain in full force and effect notwithstanding the expiration or early termination of this Contract.

- 7.19.2 The Contractor agrees that it will not attempt to hold the State and the Department, their officers, representatives, employees or agents, liable or responsible for any losses or damages to third parties from the action of the elements, the nature of the work to be done under these Contract Documents or from any unforeseen obstructions, acts of God, vandalism, fires or encumbrances which may be encountered in the prosecution of the work.
- 7.19.3 The Contractor shall pay all just claims for materials, supplies, tools, labor and other just claims against the Contractor or any subcontractor in connection with this contract and the surety bond will not be released by final acceptance and payment by the Department unless all such claims are paid or released. The Department may, but is not obligated to, withhold or retain as much of the monies due or to become due the Contractor under this contract considered necessary by the Project Manager to cover such just claims until satisfactory proof of payment or the establishment of a payment plan is presented.
- 7.19.4 The Contractor shall defend, indemnify and hold harmless the State and the Department, their officers, representatives, employees or agents from all suits, actions or claims of any character brought on account of any claims or amounts arising out of or recovered under the Workers' Compensation Laws or violation of any other law, by-law, ordinance, order or decree.
- 7.19.5 COST OF LITIGATION. In case the STATE shall, without any fault on its part, be made a party to any litigation commenced by or against the CONTRACTOR in connection with this Contract, the CONTRACTOR shall pay all costs and expenses incurred by or imposed on the STATE, including attorneys' fees.
- 7.20 CHARACTER OF WORKERS OR EQUIPMENT
 - 7.20.1 The Contractor shall at all times provide adequate supervision and sufficient labor and equipment for prosecuting the work to full completion in the manner and within the time required by the contract.
 - 7.20.2 Character and Proficiency of Workers - All workers shall possess the proper license and/or certification, job classification, skill and experience necessary to properly perform the work assigned to them. All workmen engaged in special work or skilled work, such as bituminous courses or mixtures, concrete pavement or structures, electrical installation, plumbing installation, or in any trade shall have sufficient experience in such work and in the operation of the equipment required to properly and satisfactorily perform all work. All workers shall make due and proper effort to execute the work in the manner prescribed in these Contract Documents, otherwise, the Project Manager may take action as prescribed herein.
 - 7.20.2.1 Any worker employed on the project by the Contractor or by any subcontractor who, in the opinion of the Project Manager, is not careful and competent, does not perform its work in a proper and skillful manner or is disrespectful, intemperate, disorderly or neglects or refuses to comply with directions given, or is otherwise objectionable shall at the written request of the Project Manager, be removed forthwith by the Contractor or subcontractor employing such worker and shall not be employed again in any portion of the work without the written consent of the Project Manager. Should the Contractor or subcontractor continue to employ, or again employ such person or persons on the project, the

Project Manager may withhold all payments which are or may become due, or the Project Manager may suspend the work until the Project Manager's orders are followed, or both.

- 7.20.3 INSUFFICIENT WORKERS. A sufficient number of workers shall be present to ensure the work is accomplished at an acceptable rate. In addition, the proper ratio of apprentice to journey worker shall be maintained to ensure the work is properly supervised and performed. In the event that the Project Manager finds insufficient workers are present to accomplish the work at an acceptable rate of progress or if a adequate number of journey workers are not present and no corrective action is taken by the Contractor after being informed in writing, the Chairman may terminate the Contract as provided for under Section 7.27, TERMINATION OF CONTRACT FOR CAUSE.
- 7.20.4 EQUIPMENT REQUIREMENTS. All equipment furnished by the Contractor and used on the work shall be of such size and of such mechanical condition that the work can be performed in an acceptable manner at a satisfactory rate of progress and the quality of work produced will be satisfactory.
 - 7.20.4.1 Equipment used on any portion of the project shall be such that no injury to the work, persons at or near the site, adjacent property or other objects will result from its use.
 - 7.20.4.2 If the Contractor fails to provide adequate equipment for the work, the contract may be terminated as provided under Section 7.27, TERMINATION OF CONTRACT FOR CAUSE.
 - 7.20.4.3 In the event that the Contractor furnishes and operates equipment on a force account basis, it shall be operated to obtain maximum production under the prevailing conditions.
- 7.21 CONTRACT TIME
 - 7.21.1 Time is of the essence for this Contract.
 - 7.21.2 CALCULATION OF CONTRACT TIME. When the contract time is on a working day basis, the total contract time allowed for the performance of the work shall be the number of working days shown in the contract plus any additional working days authorized in writing as provided hereinafter. Refer to ARTICLE 1, DEFINITIONS for the definition of Working Day. The count of elapsed working days to be charged against contract time shall begin from the date of the Notice to Proceed and shall continue consecutively to the date of Project Acceptance determined by the Project Manager. When the contract completion time is a fixed calendar date, it shall be the date on which all work on the project shall be completed. Maintenance periods are not included within the contract time unless specifically noted in the Contract Documents. Failure to complete the work by contract completion date shall not terminate the Contract.
 - 7.21.3 MODIFICATIONS OF CONTRACT TIME (§3-125-4 HAR)
 - 7.21.3.1 EXTENSIONS. For increases in the scope for work caused by alterations and additional work made under Section 4.2, CHANGES, the Contractor will be granted a time extension only if the changes increase the time of performance for the Contract. If the Contractor believes an extension of time is justified and is not adequately provided for in a Field Order, it must request the additional time sought in writing when the detailed cost breakdown required by Section 4.2, CHANGES, is submitted. The Contractor must show how the time of performance for the critical path will be affected and must also support the time extension request with schedules and statements from its subcontractors, suppliers, and/or manufacturers. Compensation for any altered or additional work will be paid as provided in Section 4.2, CHANGES.

- 7.21.3.2 The Department may direct changes to the work at any time until the work is finally accepted. The issuance of a Field Order at any time may alter or modify the contract duration only by the days specified therein; or if not specified therein, for the days the critical path must be extended for the change. Additional time to perform the extra work will be added to the time allowed in the contract without regard to the date the change directive was issued, even if the contract completion date has passed. A change requiring time will not constitute a waiver of pre-existing Contractor delay.
- 7.21.4 DELAY FOR PERMITS. For delays beyond the control of the Contractor in obtaining necessary permits, one day extension for each day delay may be granted by the Project Manager, provided the Contractor notifies the Project Manager that the permits are not available, as soon as the delay occurs. Time extensions shall be the exclusive relief granted on account of such delays. No additional compensation will be paid for these time extensions.
- 7.21.5 DELAYS BEYOND CONTRACTOR'S CONTROL. For delays affecting the critical path caused by acts of God, or the public enemy, fire, unusually severe weather, earthquakes, floods, epidemics, quarantine restrictions, labor disputes, freight embargoes and other reasons beyond the Contractor's control, the Contractor may be granted an extension of time provided that:
- 7.21.5.1 The Contractor notifies the Project Manager in writing within five (5) work days after the occurrence of the circumstances described above and states the possible effects on the completion date of the contract.
- 7.21.5.2 No time extension will be granted for weather conditions other than unusually severe weather occurrences, and floods.
- 7.21.5.3 The Contractor, if requested, submits to the Project Manager within ten (10) work days after the request, a written statement describing the delay to the project. The extent of delay must be substantiated as follows:
- (a) State specifically the reason or reasons for the delay and fully explain in a detailed chronology the effect of this delay to the work and/or the completion date;
 - (b) Submit copies of purchase order, delivery tag, and any other pertinent documentation to support the time extension request;
 - (c) Cite the period of delay and the time extension requested; and
 - (d) A statement either that the above circumstances have been cleared and normal working conditions restored as of a certain day or that the above circumstances will continue to prevent completion of the project.
- 7.21.5.4 Time extensions shall be the exclusive relief granted and no additional compensation will be paid the Contractor for such delays.
- 7.21.6 DELAYS IN DELIVERY OF MATERIALS. For delays in delivery of materials and/or equipment which occur as a result of unforeseeable causes beyond the control and without fault or negligence of the Contractor, its subcontractor(s) or supplier(s), the Contractor may be granted an extension of time provided it complies with the following procedures:
- 7.21.6.1 The Contractor must notify the Project Manager in writing within five (5) consecutive working days after it first has any knowledge of delays or anticipated delays and state the effects such delays may have on the completion date of the Contract.

- 7.21.6.2 The Contractor, if requested, must submit to the Project Manager within ten (10) working days after a firm delivery date for the material and equipment is established, a written statement as to the delay to the progress of the project. The delay must be substantiated as follows:
- (a) State specifically the reason or reasons for the delay. Explain in a detailed chronology the effect of this delay to the other work and / or the completion date;
 - (b) Submit copies of purchase order(s), factory invoice(s), bill(s) of lading, shipping manifest(s), delivery tag(s) and any other pertinent correspondence to support the time extension request; and
 - (c) Cite the start and end date of the delay and the days requested therefore. The delay shall not exceed the difference between the originally scheduled delivery date versus the actual delivery date.
- 7.21.6.3 Time extensions shall be the exclusive relief granted and no additional compensation will be paid the Contractor on account of such delay.
- 7.21.7 DELAYS FOR SUSPENSION OF WORK. Delay during periods of suspension of the work by the Project Manager shall be computed as follows:
- 7.21.7.1 When the performance of the work is totally suspended for one (1) or more days (calendar or working days, as appropriate) by order of the Project Manager in accordance with Subsections 7.24.1.1, 7.24.1.2, 7.24.1.4 or 7.24.1.6 the number of days from the effective date of the Project Manager's order to suspend operations to the effective date of the Project Manager's order to resume operations shall not be counted as contract time and the contract completion date will be adjusted. Should the Contractor claim for additional days in excess of the suspension period, Contractor shall provide evidence justifying the additional time. During periods of partial suspensions of the work, the Contractor will be granted a time extension only if the partial suspension affects the critical path. If the Contractor believes that an extension of time is justified for a partial suspension of work, it must request the extension in writing at least five (5) working days before the partial suspension will affect the critical operation(s) in progress. The Contractor must show how the critical path was increased based on the status of the work and must also support its claim, if requested, with statements from its subcontractors. A suspension of work will not constitute a waiver of pre-existing Contractor delay.
- 7.21.8 CONTRACTOR CAUSED DELAYS - No time extension will be considered for the following:
- 7.21.8.1 Delays in performing the work caused by the Contractor, subcontractor and/or supplier;
 - 7.21.8.2 Delays in arrival of materials and equipment caused by the Contractor, subcontractor and / or supplier in ordering, fabricating, delivery, etc.;
 - 7.21.8.3 Delays requested for changes which the Project Manager determines unjustifiable due to the lack of supporting evidence or because the change is not on the critical path;
 - 7.21.8.4 Delays caused by the failure of the Contractor to submit for review and acceptance by the Project Manager, on a timely basis, pricing proposals, shop drawings, descriptive sheets, material samples, color samples, etc. except as covered in Subsection 7.21.5 and 7.21.6;
 - 7.21.8.5 Failure to follow the procedure within the time allowed to qualify for a time extension; and
 - 7.21.8.6 Days the Contractor is unable to work due to normal rainfall or other normal bad weather day conditions.

- 7.21.9 REDUCTION IN TIME - If the Department deletes any portion of the work, an appropriate reduction of contract time may be made in accordance with Section 4.2, CHANGES.
- 7.22 CONSTRUCTION SCHEDULE
- 7.22.1 The Contractor shall submit its detailed construction schedule to the Project Manager prior to the start of the work. The purpose of the schedule is to allow the Project Manager to monitor the Contractor's progress on the work. The schedule shall account for normal inclement weather, unusual soil or other conditions that may influence the progress of the work, schedules and coordination required by any utility, off or on site fabrications, and all other pertinent factors that relate to progress.
- 7.22.2 Submittal of and the Project Manager's receipt of the construction schedule shall not imply the Department's approval of the schedule's breakdown, its individual elements, and any critical path that may be shown. Any acceptance or approval of the schedule: (1) shall be for general format only and not for sequences or durations thereon; and (2) shall not be deemed an agreement by the Department that the construction means, methods and resources shown on the schedule will result in work that conforms to the contract requirements. The Contractor has the risk of all elements (whether or not shown) of the schedule and its execution.
- 7.22.3 In the event the Contractor submits and the Department receives an accelerated schedule (shorter than the contract time), such will not constitute an agreement to modify the contract time or completion date, nor will the receipt, acceptance or approval of such a schedule incur any obligation by the Department. The Contractor shall be solely responsible for and shall accept all risks and any delays that may materialize during the construction work until the contract completion date is reached. The contract time or completion date is established for the benefit of the Department and cannot be changed without an appropriate change order issued by the Department. All float on an accelerated schedule belongs exclusively to the Department. The Department will not be responsible for or obligated to accept the work before the completion date established by the Contract.
- 7.23 STATEMENT OF WORKING DAYS - For all contracts on a working day basis, the Contractor will submit a statement of the number of working days for each month together with the Monthly Payment Application. The Monthly Payment Application will not be processed without the statement of working days.
- 7.24 SUSPENSION OF WORK (§3-125-7 HAR)
- 7.24.1 PROCEDURE TO BE FOLLOWED. The Chairman may, by written order to the Contractor, at any time and without notice to any surety, suspend the performance of the work either in whole or in part for any cause, including but not limited to:
- 7.24.1.1 Weather or excess bad weather days, considered unsuitable by the Project Manager for prosecution of the work; or
- 7.24.1.2 Soil Conditions considered unsuitable by the Project Manager for prosecution of the work; or 7.24.1.3 Failure of the Contractor to:
- (a) Correct conditions unsafe for the general public or for the workers;
 - (b) Carry out orders given by the Project Manager;
 - (c) Perform the work in strict compliance with the provisions of the contract; or
 - (d) Provide a qualified Superintendent on the jobsite as described under Subsection 5.9.2, SUPERINTENDENT.

- 7.24.1.4 When any redesign is deemed necessary by the Project Manager; or
- 7.24.1.5 Disturbance due to noise, odors or dust arising from the construction even if such disturbance does not violate the section on Environmental Protection contained in the Contract Documents; or
- 7.24.1.6 The convenience of the Department.
- 7.24.2 PARTIAL OR TOTAL SUSPENSION OF WORK. Suspension of work on some but not all items of work shall be considered a partial suspension. Suspension of work on the entire work at the job site shall be considered total suspension. The period of suspension shall be computed as set forth in Subsection 7.21.7, Delays for Suspension of Work.
- 7.24.3 PAYMENT
- 7.24.3.1 In the event that the Contractor is ordered by the Chairman in writing as provided herein to suspend all work under the contract in accordance with Subsections 7.24.1.4 or 7.24.1.6, the Contractor may be reimbursed for actual direct costs incurred on work at the jobsite, as authorized in writing by the Chairman, including costs expended for the protection of the work. Payment for equipment which must standby during such suspension of work shall be made as described in clause 8.3.4.5.(e). No payment will be made for profit on any suspension costs. An allowance of five percent (5%) will be paid on any reimbursed actual costs for indirect categories of delay costs, including extended branch and home-office overhead and delay impact costs.
- 7.24.3.2 However, no adjustment to the contract amount or time shall be made under this Section 7.24, SUSPENSION OF WORK (§3-125-7 HAR) for any suspension, delay, or interruption:
- (a) To the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor; or
 - (b) For which an adjustment is provided for or excluded under any other provision of this Contract.
- 7.24.3.3 Any adjustment in contract price made pursuant to this subsection shall be determined in accordance with this Section 7.24, SUSPENSION OF WORK (§3-125-7 HAR) and Section 4.2, CHANGES.
- 7.24.3.4 Claims for such compensation shall be filed with the Project Manager within ten (10) calendar days after the date of the order to resume work or such claims will be waived by the Contractor. Together with the claim, the Contractor shall submit substantiating documents supporting the entire amount shown on the claim. The Chairman may make such investigations as are deemed necessary and shall be the sole judge of the claim and the Chairman's decision shall be final.
- 7.24.4 CLAIMS NOT ALLOWED. No claim under this Section 7.24, SUSPENSION OF WORK (§3-125-7 HAR) shall be allowed:
- 7.24.4.1 For any direct costs incurred more than twenty (20) days before the Contractor shall have notified the Project Manager in writing of any suspension that the Contractor considers compensable. This requirement shall not apply as to a claim resulting from a suspension order under Subsections 7.24.1.4 or 7.24.1.6; and 7.24.4.2 Unless the claim is asserted in writing within ten (10) calendar days after the termination of such suspension, delay, or interruption, but in no case not later than the date of final payment under the contract.
- 7.24.4.2 No provision of this Section 7.24, SUSPENSION OF WORK (§3-125-7 HAR) shall be construed as entitling the Contractor to compensation for delays due to failure of surety, for suspensions made at

the request of the Contractor, for any delay required under the Contract, for partial suspension of work or for suspensions made by the Project Manager under the provisions of Subsections 7.24.1.1, 7.24.1.2, 7.24.1.3 and 7.24.1.5.

- 7.25 DISPUTES AND CLAIMS (§3-126-31 HAR). Disputes shall be resolved in accordance with Section 103D-703, HRS, and chapter 126, Procurement Rules, as the same may be amended from time to time.
- 7.25.1 REQUIRED NOTIFICATION. As a condition precedent for any claim, the Contractor must give notice in writing to the Project Manager in the manner and within the time periods stated in Section 4.2, CHANGES for claims for extra compensation, damages, or an extension of time due for one or more of the following reasons:
 - 7.25.1.1 Requirements not clearly covered in the Contract, or not ordered by the Project Manager as an extra;
 - 7.25.1.2 Failure by the Department and Contractor to agree to an Oral Order or an adjustment in price or contract time for a Field Order or a Change Order (which was not previously agreed on by a Field Order), issued by the Department;
 - 7.25.1.3 An action or omission by the Project Manager requiring performance changes beyond the scope of the Contract; and/or
 - 7.25.1.4 Failure of the Department to issue a Field Order for controversies within the scope of Section 4.2, CHANGES.
 - 7.25.1.5 For any other type of claim, the Contractor shall give notice within the time periods set forth in contract provisions pertaining to that event. If no specific contract provisions pertain to the claim, then the written notice of claim must be submitted within fifteen (15) days of the event giving rise to the claim.
- 7.25.2 CONTINUED PERFORMANCE OF WORK. The Contractor shall at all times continue with performance of the contract in full compliance with the directions of the Project Manager. Continued performance by the Contractor shall not be deemed a waiver of any claim for additional compensation, damages, or an extension of time for completion, provided that the written notice of claim is submitted in accordance with Subsection 7.25.1, REQUIRED NOTIFICATION.
- 7.25.3 The requirement for timely written notice shall be a condition precedent to the assertion of a claim.
- 7.25.4 REQUIREMENTS FOR NOTICE OF CLAIM. The notice of claim shall clearly state the Contractor's intention to make claim and the reasons why the Contractor believes that additional compensation, changes or an extension of time may be remedies to which it is entitled. At a minimum, it shall provide the following:
 - 7.25.4.1 Date of the protested order, decision or action;
 - 7.25.4.2 The nature and circumstances which caused the claim;
 - 7.25.4.3 The contract provision(s) that support the claim;
 - 7.25.4.4 The estimated dollar cost, if any, of the protested work and how that estimate was determined; and

- 7.25.4.5 An analysis of the progress schedule showing the schedule change or disruption if the Contractor is asserting a schedule change or disruption.
- 7.25.5 If the protest or claim is continuing, the information required in Subsection 7.25.4 REQUIREMENTS FOR NOTICE OF CLAIMS above shall be supplemented as requested by the Project Manager.
- 7.25.6 FINAL STATEMENT FOR CLAIM. The Contractor shall provide a final written statement of the actual adjustment in contract price and/or contract time requested for each notice of claim. Such statement shall clearly set forth that it is the final statement for that notice of claim. All such final statements shall be submitted within thirty (30) days after completion of the work that is the subject of the claim, but in no event no later than thirty (30) days after the Project Acceptance Date or the date of termination of the Contractor, whichever comes first.
- 7.25.7 All claims of any nature are barred if asserted after final payment under this Contract has been made.
- 7.25.8 Contractor may protest the assessment or determination by the Project Manager of amounts due the Department from the Contractor by providing a written notice to the Chairman within thirty (30) days of the date of the written assessment or determination. Said notice shall comply with all requirements of Subsections 7.25.4, REQUIREMENTS FOR NOTICE OF CLAIM and 7.25.6, FINAL STATEMENT FOR CLAIM above. The requirement of such notice cannot be waived and it is a condition precedent to any claim by the Contractor. Failure to comply with these notice provisions constitutes a waiver of any claim.
- 7.25.9 In addition to the requirements of Subsections 7.25.4, 7.25.6, and 7.25.8, all final written statements of claim shall be certified. This certification requirement applies to the Contractor without exception, including, but not limited to, situations involving claims of subcontractors or suppliers which meet the requirements of Subsection 5.13.4. The certification must be executed by a person duly authorized to bind the Contractor with respect to the claim. The certification shall state as follows:
- “I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Department is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.”
- 7.25.10 DECISION ON CLAIM/APPEAL. The decision of the Chairman on the claim shall be final and conclusive, unless fraudulent, or unless the Contractor delivers to the Chairman a written appeal of the Chairman’s decision. Said appeal shall be delivered to the Chairman no later than thirty (30) days after the date of the Chairman’s decision.
- 7.25.10.1 In that event, the decision of the Chairman shall be final and conclusive, unless fraudulent or unless the Contractor brings an action seeking judicial review of the Chairman’s decision in an appropriate circuit court of this State within six (6) months from the date of the Chairman’s decision.
- 7.25.11 PAYMENT AND INTEREST. The amount determined payable pursuant to the decision, less any portion already paid, normally should be paid without awaiting Contractor action concerning appeal. Such payments shall be without prejudice to the rights of either party. Interest on amounts ultimately determined to be due to a Contractor shall be payable at the Statutory rate applicable to judgments against the State under Chapter 662, HRS from the date of receipt of a properly certified final written statement of actual adjustment required until the date of decision; except, however, that if an action is initiated in circuit court, interest under this Section 7.25, DISPUTES AND CLAIMS (§3-126-31 HAR) shall only be calculated until the time such action is initiated. Interest on amounts due the

Department from the Contractor shall be payable at the same rate from the date of issuance of the Project Manager's notice to the Contractor. Where such payments are required to be returned by a subsequent decision, interest on such payments shall be paid at the statutory rate from the date of payment.

7.25.12 Contractor shall comply with any decision of the Chairman and proceed diligently with performance of this contract pending final resolution by a circuit court of this State of any controversy arising under, or by virtue of, this Contract, except where there has been a material breach of contract by the Department; provided that in any event the Contractor shall proceed diligently with the performance of the Contract where the Project Manager has made a written determination that continuation of work under the Contract is essential to the public health and safety.

7.25.13 **WAIVER OF ATTORNEY'S FEES.** In the event of any litigation arising under, or by virtue of, this Contract, the Contractor and the Department agree to waive all claims against each other for attorney's fees and agree to refrain from seeking attorney's fees as part of any award or relief from any court.

7.26 **FAILURE TO COMPLETE THE WORK ON TIME**

7.26.1 Completion of the work within the required time is important because delay in the prosecution of the work will inconvenience the public and interfere with the Department's business. In addition, the Department will be damaged by the inability to obtain full use of the completed work and by increased engineering, inspection, superintendence, and administrative services in connection with the work. Furthermore, delay may detrimentally impact the financing, planning, or completion of other Department projects because of the need to devote Department resources to the project after the required completion date. The monetary amount of such public inconvenience, interference with Department business, and damages, is difficult, if not impossible, to accurately determine and precisely prove. Therefore, it is hereby agreed that the amount of such damages shall be the appropriate sum of liquidated damages.

7.26.1.1 When the Contractor fails to complete the work or any portion of the work within the time or times fixed in the contract or any extension thereof, it is agreed the Contractor shall pay liquidated damages to the Department in the amount of \$1,000 (one thousand dollars) per calendar day, unless otherwise indicated in the Special Conditions.

7.26.1.2 If the Contractor fails to correct Punchlist deficiencies as required by Section 7.32, **PROJECT ACCEPTANCE DATE**, the Department will be inconvenienced and damaged, therefore, it is agreed that the Contractor shall pay liquidated damages to the Department based upon the amount stated in Section 7.26.1.1. Liquidated damages shall accrue for all days after the Contract Completion Date or any extension thereof, until the date the Punchlist items are corrected and accepted by the Project Manager.

7.26.1.3 If the Contractor fails to submit final documents as required by Section 7.33, **FINAL SETTLEMENT OF CONTRACT**, the Department will be inconvenienced and damaged, therefore, it is agreed that the Contractor shall pay liquidated damages to the Department in the amount stated in the Section 7.26.1.1. Liquidated damages shall accrue for all days after the Contract Completion Date or any extension thereof, until the date the final documents are received by the Project Manager.

7.26.1.4 The Project Manager shall assess the total amount of liquidated damages in accordance with the amount of \$1,000 (one thousand dollars) per day, unless otherwise indicated in the Special Conditions, and provide written notice of such assessment to the Contractor.

- 7.26.2 ACCEPTANCE OF LIQUIDATED DAMAGES. The assessment of liquidated damages by the Project Manager shall be accepted by the parties hereto as final, unless the Contractor delivers a written appeal of the Project Manager's decision in accordance with Subsection 7.25.10, DECISION ON CLAIM/APPEAL REQUIREMENTS. Any allowance of time or remission of charges or liquidated damages shall in no other manner affect the rights or obligations of the parties under this contract nor be construed to prevent action under Section 7.27, TERMINATION OF CONTRACT FOR CAUSE. If the Department terminates the Contractor's right to proceed, the resulting damage will include such liquidated damages for such time as may be required for final completion of the work after the required contract completion date.
- 7.26.3 PAYMENTS FOR LIQUIDATED DAMAGES. Liquidated damages shall be deducted from monies due or that may become due to the Contractor under the contract or from other monies that may be due or become due to the Contractor from the Department.
- 7.26.4 If the Contractor contests the per diem liquidated charge, the Department may elect to recover the actual damages caused by the Contractor's delay. Should the Department claim liquidated damages for delay and if such liquidated damages are disallowed for any reason, the Department shall recover the actual damages to which it is legally entitled as a result of the Contractor's delay or other breach.
- 7.27 TERMINATION OF CONTRACT FOR CAUSE (§3-125-18 HAR)
- 7.27.1 DEFAULT. If the Contractor refuses or fails to perform the work, or any separable part thereof, with such diligence as will assure its completion within the time specified in this contract, or any extension thereof, fails to complete the work within such time, or commits any other material breach of this contract, and further fails within seven (7) days after receipt of written notice from the Project Manager to commence and continue correction of the refusal or failure with diligence and promptness, the Chairman may, by written notice to the Contractor, declare the Contractor in breach and terminate the Contractor's right to proceed with the work or the part of the work as to which there has been delay or other breach of contract. In such event, the Department may take over the work and perform the same to completion, by contract or otherwise, and may take possession of, and utilize in completing the work, the materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, the Contractor and the Contractor's sureties shall be liable for any damage to the Department resulting from the Contractor's refusal or failure to complete the work within the specified time.
- 7.27.2 ADDITIONAL RIGHTS AND REMEDIES. The rights and remedies of the Department provided in this contract are in addition to any other rights and remedies provided by law.
- 7.27.3 COSTS AND CHARGES
- 7.27.3.1 All costs and charges incurred by the Department, together with the cost of completing the work under contract, will be deducted from any monies due or which would or might have become due to the Contractor had it been allowed to complete the work under the contract. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay the Department the amount of the excess.
- 7.27.3.2 In case of termination, the Chairman shall limit any payment to the Contractor to the part of the contract satisfactorily completed at the time of termination. Payment will not be made until the work has satisfactorily been completed and the tax clearance required by Section 8.8, FINAL PAYMENT

is submitted by the Contractor. Termination shall not relieve the Contractor or Surety from liability for liquidated damages.

- 7.27.4 **ERRONEOUS TERMINATION FOR CAUSE.** If, after notice of termination of the Contractor's right to proceed under this Section 7.27, **TERMINATION OF CONTRACT FOR CAUSE** (§3-125-18 HAR) it is determined for any reason that good cause did not exist to allow the Department to terminate as provided herein, the rights and obligations of the parties shall be the same as, and the relief afforded the Contractor shall be limited to, the provisions contained in Section 7.28, **TERMINATION FOR CONVENIENCE**.
- 7.28 **TERMINATION FOR CONVENIENCE** (§3-125-22 HAR)
- 7.28.1 **TERMINATION.** The Chairman may, when the interests of the Department so require, terminate this contract in whole or in part, for the convenience of the Department. The Chairman shall give written notice of the termination to the Contractor specifying the part of the contract terminated and when termination becomes effective.
- 7.28.2 **CONTRACTOR'S OBLIGATIONS.** The Contractor shall incur no further obligations in connection with the terminated work and on the date set in the notice of termination the Contractor will stop work to the extent specified. The Contractor shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work subject to the Department's approval. The Chairman may direct the Contractor to assign the Contractor's right, title, and interest under terminated orders or subcontracts to the Department. The Contractor must still complete the work not terminated by the notice of termination and may incur obligations as necessary to do so.
- 7.28.3 **RIGHT TO CONSTRUCTION AND GOODS.** The Chairman may require the Contractor to transfer title and delivery to the Department in the manner and to the extent directed by the Chairman, the following:
- 7.28.3.1 Any completed work; and
- 7.28.3.2 Any partially completed construction, goods, materials, parts, tools, dies, jigs, fixtures, drawings, information, and contract rights (hereinafter called "construction material") that the Contractor has specifically produced or specially acquired for the performance of the terminated part of this contract.
- 7.28.3.3 The Contractor shall protect and preserve all property in the possession of the Contractor in which the Department has an interest. If the Chairman does not elect to retain any such property, the Contractor shall use its best efforts to sell such property and construction material for the Department's account in accordance with the standards of Section 490:2-706, HRS.
- 7.28.4 **COMPENSATION**
- 7.28.4.1 Contractor shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data, submitted to the extent required by subchapter 15, chapter 3-122, HAR. If the Contractor fails to file a termination claim within one (1) year from the effective date of termination, the Chairman may pay the Contractor, if at all, an amount set in accordance with Subsection 7.28.4.3.

- 7.28.4.2 The Chairman and the Contractor may agree to a settlement provided the Contractor has filed a termination claim supported by cost or pricing data submitted as required and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the Department, the proceeds of any sales of construction, supplies, and construction materials under Subsection 7.28.3.3 of this Section, and the contract price of the work not terminated.
- 7.28.4.3 Absent complete agreement, the Chairman shall pay the Contractor the following amounts, less any payments previously made under the Contract.
- (a) The cost of all contract work performed prior to the effective date of the notice of termination work plus a five percent (5%) markup on the actual direct costs, including amounts paid to subcontractor(s), less amounts previously paid or to be paid for completed portions of such work; provided, however, that if it appears that the Contractor would have sustained a loss if the entire contract would have been completed, no markup shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss. No anticipated profit or consequential damage will be due or paid.
 - (b) Subcontractors shall be paid a markup of ten percent (10%) on their direct job costs incurred to the date of termination. No anticipated profit or consequential damage will be due or paid to any subcontractor. These costs must not include payments made to the Contractor for subcontract work during the contract period.
 - (c) In any case, the total sum to be paid the Contractor shall not exceed the total contract price reduced by the amount of any sales of construction supplies, and construction materials.
- 7.28.4.4 Costs claimed, agreed to, or established by the Department shall be in accordance with chapter 3-123, HAR.
- 7.29 **CORRECTING DEFECTS.** If the Contractor fails to commence to correct any defects of any nature, within ten (10) working days after the correction thereof has been requested in writing by the Department, and thereafter to expeditiously complete the correction of said defects, the Project Manager may without further notice to the Contractor or surety and without termination of contract, correct the defects and deduct the cost thereof from the contract price.
- 7.30 **FINAL CLEANING.** Before final inspection of the work, the Contractor shall clean all ground occupied by the Contractor in connection with the work of all rubbish, excess materials, temporary structures and equipment, and all parts of the work must be left in a neat and presentable condition to the satisfaction of the Project Manager. However, the Contractor shall not remove any warning and directional signs prior to the formal acceptance by the Project Manager. Full compensation for final cleaning will be included in the prices paid for the various items of work or lump sum bid, as the case may be, and no separate payment will be made therefor.
- 7.31 **SUBSTANTIAL COMPLETION AND FINAL INSPECTION.** Before the Department accepts the project as being completed, unless otherwise stipulated by the Project Manager the following procedure shall be followed:
- 7.31.1 **SUBSTANTIAL COMPLETION**
- 7.31.1.1 The Contractor and its subcontractors shall inspect the project to confirm whether the Project is Substantially Complete. This inspection effort shall include the testing of all equipment and providing a Punchlist that identifies deficiencies which must be corrected. Contractor shall make the corrections and if required repeat the procedure. Also, the Contractor shall schedule final Building, Plumbing, Electrical, Elevator, Fire and other required inspections and obtain final approvals.

- (a) When in compliance with the above requirements, the Contractor shall notify the Project Manager in writing that project is Substantially Complete and ready for a Final Inspection. Along with the Substantial Completion notification, the Contractor shall provide its Punchlist(s) with the status of the deficiencies and dates when the deficiencies were corrected. The Project Inspector and / or the Project Manager shall make a preliminary determination whether project is Substantially Complete.
- (b) If the Project is not Substantially Complete, the Project Manager shall inform the Contractor. The Contractor shall identify deficiencies which must be corrected, update its Punchlist, make the necessary corrections and repeat the previous step. After completing the necessary work, the Contractor shall notify the Project Manager in writing that Punchlist deficiencies have been corrected and the project is ready for a Final Inspection.
- (c) If the Project is Substantially Complete, the Project Manager shall schedule a Final Inspection within fifteen (15) days of the Contractor's notification letter or as otherwise determined by the Project Manager.

7.31.1.2 In addition, and to facilitate closing of the project, the Contractor shall also proceed to obtain the following closing documents (where applicable) prior to the Final Inspection:

- (a) Field-Posted As-Built Drawings;
- (b) Maintenance Service Contract and two (2) copies of a list of all equipment;
- (c) Five (5) sets of operating and maintenance manuals;
- (d) Air conditioning test and balance reports; and
- (e) Any other final submittal required by the Contract.

7.31.2 **FINAL INSPECTION.** If at the Final Inspection the Project Manager determines that all work is completed, the Project Manager shall notify the Contractor in accordance with Section 7.32, **PROJECT ACCEPTANCE DATE**. Should there be remaining deficiencies which must be corrected the Contractor shall provide an updated Punchlist to the Project Manager, within five (5) days from the Final Inspection Date. The Contractor shall make the necessary corrections.

7.31.2.1 The Project Manager shall confirm the list of deficiencies noted by the Contractor's punchlist(s) and will notify the Contractor of any other deficiencies that must be corrected before final settlement.

7.31.3 The Project Manager may add to or otherwise modify the Punchlist from time to time. The Contractor shall take immediate action to correct the deficiencies.

7.31.4 **REVOKING SUBSTANTIAL COMPLETION.** At any time before final Project Acceptance is issued the Project Manager may revoke the determination of Substantial Completion if the Project Manager finds it was not warranted. The Project Manager shall notify the Contractor in writing with the reasons and outstanding deficiencies negating the declaration. Once notified, the Contractor shall make the necessary corrections and repeat the required steps noted in Subsections 7.31.1 and 7.31.2.

7.32 **PROJECT ACCEPTANCE DATE**

7.32.1 If upon Final Inspection, the Project Manager finds that the project has been satisfactorily completed in compliance with the contract, the Project Manager shall declare the project completed and accepted and will notify the Contractor in writing of the acceptance by way of the Project Acceptance Notice.

7.32.2 **PROTECTION AND MAINTENANCE.** After the Project Acceptance Date, the Contractor shall be relieved of maintaining and protecting the work except that this does not hold true for those portions of the work which have not been accepted, including Punchlist deficiencies. The Department shall be responsible for the protection and maintenance of the accepted facility.

- 7.32.3 The date of Project Acceptance shall determine:
- 7.32.3.1 End of Contract Time;
- 7.32.3.2 Commencement of all guaranty periods except as noted in Section 7.34, CONTRACTOR'S RESPONSIBILITY FOR WORK: RISK OF LOSS; and
- 7.32.3.3 Commencement of all maintenance services except as noted in Section 7.34, CONTRACTOR'S RESPONSIBILITY FOR WORK: RISK OF LOSS.
- 7.32.4 PUNCHLIST REQUIREMENTS. If a Punchlist is required under Section 7.31, SUBSTANTIAL COMPLETION AND FINAL INSPECTION, the Project Acceptance Notice will include the Project Manager's Punchlist and the date when correction of the deficiencies must be completed.
- 7.32.5 Upon receiving the Punchlist, the Contractor shall promptly devote the required time, labor, equipment, materials and incidentals necessary to correct the deficiencies expeditiously.
- 7.32.6 For those items of work that cannot be completed by the established date, the Contractor shall submit a schedule in writing to the Project Manager for approval along with documentation to justify the time required, no later than five (5) working days before the date stipulated for completion of the Punchlist work. A Proposed schedule submitted after the five (5) day period will not be considered.
- 7.32.7 FAILURE TO CORRECT DEFICIENCIES. After the Contract Completion Date, or any extension thereof, if the Contractor fails to correct the deficiencies within the established date or agreed to Punchlist completion date, the Project Manager shall assess liquidated damages as required by Section 7.26, FAILURE TO COMPLETE THE WORK ON TIME.
- 7.32.8 If the Contractor fails to correct the deficiencies and complete the work by the established or agreed to date, the Department also reserves the right to correct the deficiencies by whatever method it deems necessary and deduct the cost from the final payment due the Contractor.
- 7.32.9 The Contractor may further be prohibited from bidding in accordance with Section 2.12, DISQUALIFICATION OF BIDDERS. In addition, assessment of damages shall not prevent action under Section 7.27, TERMINATION OF CONTRACT FOR CAUSE.
- 7.33 FINAL SETTLEMENT OF CONTRACT
- 7.33.1 The contract will be considered settled after the project acceptance date and when the following items have been satisfactorily submitted, where applicable:
- 7.33.1.1 Necessary Submissions in addition to the items noted under Subsection 7.31.1.2.
- 7.33.1.2 All written guarantees required by the contract.
- 7.33.1.3 Complete and certified weekly payrolls for the Contractor and its Subcontractor(s).
- 7.33.1.4 Certificate of Plumbing and Electrical Inspection.
- 7.33.1.5 Certificate of Building Occupancy.

- 7.33.1.6 Certificate for Soil Treatment and Wood Treatment.
- 7.33.1.7 Certificate of Water System Chlorination.
- 7.33.1.8 Certificate of Elevator Inspection, Boiler and Pressure Pipe installation.
- 7.33.1.9 Certification of compliance with §103B-3 HRS, Employment of State Residents.
- 7.33.1.10 All other documents required by the Contract.
- 7.33.2 FAILURE TO SUBMIT CLOSING DOCUMENTS. The Contractor shall submit the final Payment Application and the above applicable closing documents within sixty (60) days from the date of Project Acceptance or the agreed to Punchlist completion date. Should the Contractor fail to comply with these requirements, the Chairman may terminate the Contract for cause. The pertinent provisions of Section 7.27, TERMINATION OF CONTRACT FOR CAUSE shall be applicable.
- 7.33.3 In addition, should the Contractor fail to furnish final closing documents within the required time period, the Project Manager shall assess liquidated damages as required by Section 7.26, FAILURE TO COMPLETE THE WORK ON TIME.
- 7.34 CONTRACTOR'S RESPONSIBILITY FOR WORK; RISK OF LOSS
 - 7.34.1 Until the establishment of the Project Acceptance Date or Beneficial Occupancy, whichever is sooner, the Contractor shall take every necessary precaution against injury or damage to any part of the work caused by the perils insured by an All Risk policy, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore and make good all injuries or damage to any portion of the work occasioned by the perils insured by an All Risk policy before the date of final acceptance and shall bear the risk and expense thereof.
 - 7.34.2 After the Project Acceptance Date or Beneficial Occupancy, whichever is sooner, the Contractor shall be relieved of maintaining and protecting the work except for those portions of the work which have not been accepted including Punchlist deficiencies.
 - 7.34.3 The risk of damage to the work from any hazard or occurrence that may be covered by a required Property Insurance policy is that of the Contractor, unless such risk of loss is placed elsewhere by express language in the Contract Documents. No claims for any loss or damage shall be recognized by the Department, nor will any such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.
- 7.35 GUARANTEE OF WORK
 - 7.35.1 In addition to any required manufacturers warranties, all work and equipment shall be guaranteed by the Contractor against defects in materials, equipment or workmanship for one year from the Project Acceptance Date or as otherwise specified in the Contract Documents.
 - 7.35.2 REPAIR OF WORK. If, within any guarantee period, repairs or changes are required in connection with the guaranteed work, which in the opinion of the Project Manager is necessary due to materials, equipment or workmanship which are inferior, defective or not in accordance with the terms of the Contract, the Contractor shall within five (5) working days and without expense to the Department commence to:

- 7.35.2.1 Place in satisfactory condition in every instance all such guaranteed work and correct all defects therein; and
- 7.35.2.2 Make good and repair or replace to new or pre-existing condition all damages to the building, facility, work or equipment or contents thereof, resulting from such defective materials, equipment or installation thereof.
- 7.35.3 MANUFACTURER'S AND INSTALLER'S GUARANTEE. Whenever a manufacturer's or installer's guarantee on any product specified in the respective Specification sections, exceeds one year, this guarantee shall become part of this contract in addition to the Contractor's guarantee. Contractor shall complete the guarantee forms in the name of the Department and submit such forms to the manufacturer within such time required to validate the guarantee. Contractor shall submit to the Department a photocopy of the completed guarantee form for the Department's record as evidence that such guarantee form was executed by the manufacturer.
- 7.35.4 If a defect is discovered during a guarantee period, all repairs and corrections to the defective items when corrected shall again be guaranteed for the original full guarantee period. The guarantee period shall be tolled and suspended for all work affected by the defect. The guarantee period for work affected by the defect shall restart for its remaining duration upon confirmation by the Project Manager that the deficiencies have been repaired or remedied.
- 7.36 WORK OF AND CHARGES BY UTILITIES
- 7.36.1 The Contractor shall be responsible for scheduling and coordinating the work with the utility companies and applicable governmental agencies for permanent service installation and connections or modifications to existing utilities. The Contractor shall make available all portions of the work necessary for the utility companies to do their work. The Department shall not bear the risk of any damage to the contract work caused by any utility company, and work of repairing such damage and delay costs must be resolved between the Contractor, the utility company, and their insurers.
- 7.36.2 Unless stated as an allowance item to be paid by the Contractor, the Department will pay the utility companies and applicable governmental agencies directly for necessary modifications and connections. Contractor charges for overhead, supervision, coordination, profit, insurance and any other incidental expenses shall be included in the Contractor's Bid whether the utility is paid directly by the Department or by an allowance item in the Contract.
- 7.37 RIGHT TO AUDIT RECORDS
- 7.37.1 The STATE may, at reasonable times and places, audit the books and records of the CONTRACTOR, prospective contractor, subcontractor or prospective subcontractor which are related to the cost or pricing data, and a State contract, including subcontracts, other than a firm fixed-price contract. The Contractor and subcontractor(s) shall maintain the books and records for a period of four (4) years from the date of final payment under the Contract.
- 7.37.2 The Contractor shall ensure that its subcontractors comply with this requirement and shall bear all costs (including attorney's fees) of enforcement in the event of its subcontractor's failure or refusal to fully cooperate.
- 7.37.3 Additionally, Sections 231-7, 235-108, 237-39 and other HRS chapters through reference, authorize the Department of Taxation to audit all taxpayers conducting business within the State. Contractors

must make available to the Department of Taxation all books and records necessary to verify compliance with the tax laws.

7.38 RECORDS MAINTENANCE, RETENTION AND ACCESS

7.38.1 The Contractor and any subcontractor whose contract for services is valued at \$25,000 (twenty five thousand) or more shall, in accordance with generally acceptable accounting practices, maintain fiscal records and supporting documents and related files, papers, and reports that adequately reflect all direct and indirect expenditures and management and fiscal practices related to the Contractor and subcontractor's performance of services under this Contract.

7.38.2 The representative of the Department, the Chairman, the Attorney General, (the Federal granting agency, the Comptroller General of the United States, and any of their authorized representatives when federal funds are utilized), and the Legislative Auditor of the State of Hawaii shall have the right of access to any book, document, paper, file, or other record of the Contractor and any subcontractor that is related to the performance of services under this Contract in order to conduct an audit or other examination and /or to make copies, excerpts and transcripts for the purposes of monitoring and evaluating the Contractor and subcontractor's performance of services and the Contractor and subcontractor's program, management, and fiscal practices to assure the proper and effective expenditure of funds and to verify all costs associated with any claims made under this Contract.

7.38.3 The right of access shall not be limited to the required retention period but shall last as long as the records are retained. The Contractor and subcontractor shall maintain and retain all books and records related to the Contractor and subcontractor's performance of services under this Contract, including any cost or pricing data for three (3) years from the date of final payment, except that if any litigation, claim, negotiation, investigation, audit or other action involving the books and records has been started before the expiration of the three (3) year period, the Contractor and subcontractors shall retain the books and records until completion of the action and resolution of all issues that arise from it, or until the end of the three (3) year retention period, whichever occurs later. Furthermore, it shall be the Contractor's responsibility to enforce compliance with this provision by any subcontractor.

7.39 COST OR PRICING DATA. Cost or pricing data must be submitted to the Agency purchasing officer and timely certified as accurate for contracts over \$100,000 unless the contract is for a multiple-term or as otherwise specified by the procurement officer. Unless otherwise required by the Agency procurement officer, cost or pricing data submission is not required for Contracts awarded pursuant to competitive sealed bid procedures. If certified cost or pricing data are subsequently found to have been inaccurate, incomplete, or noncurrent as of the date stated in the certificate, the STATE is entitled to an adjustment of the contract price, including profit or fee, to exclude any significant sum by which the price, including profit or fee, was increased because of the defective data. It is presumed that overstated cost or pricing data increased the contract price in the amount of the defect plus related overhead and profit or fee. Therefore, unless there is a clear indication that the defective data was not used or relied upon, the price will be reduced in such amount.

7.39.1 AUDIT OF COST OR PRICING DATA. When cost or pricing principles are applicable, the STATE may require an audit of cost or pricing data.

7.40 CONFIDENTIALITY OF MATERIAL

7.40.1 All material given to or made available to the CONTRACTOR by virtue of this Contract, which is identified as proprietary or confidential information, will be safeguarded by the CONTRACTOR and

shall not be disclosed to any individual or organization without the prior written approval of the STATE.

- 7.40.2 All information, data, or other material provided by the CONTRACTOR to the STATE shall be subject to the Uniform Information Practices Act, chapter 92F, HRS.
- 7.41 **PUBLICITY.** The CONTRACTOR shall not refer to the STATE, or any office, agency, or officer thereof, or any State employee, including the head of the purchasing agency, the Chief Procurement Officer, the Director, the Agency procurement officer, or to the services or goods, or both, provided under this Contract, in any of the CONTRACTOR's brochures, advertisements, or other publicity of the CONTRACTOR. All media contacts with the CONTRACTOR about the subject matter of this Contract shall be referred to the Agency procurement officer.
- 7.42 **OWNERSHIP RIGHTS AND COPYRIGHT.** The STATE shall have complete ownership of all material, both finished and unfinished which is developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract, and all such material shall be considered "works made for hire." All such material shall be delivered to the STATE upon expiration or termination of this Contract. The STATE, in its sole discretion, shall have the exclusive right to copyright any product, concept, or material developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract.
- 7.43 **GOVERNING LAW.** The validity of this Contract and any of its terms or provisions, as well as the rights and duties of the parties to this Contract, shall be governed by the laws of the State of Hawaii. Any action at law or in equity to enforce or interpret the provisions of this Contract shall be brought in a state court of competent jurisdiction in Honolulu, Hawaii.
- 7.44 **SEVERABILITY.** In the event that a court declares any provision of this Contract invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining terms of this Contract.
- 7.45 **WAIVER.** The failure of the STATE to insist upon the strict compliance with any term, provision, or condition of this Contract, shall not constitute or be deemed to constitute a waiver or relinquishment of the STATE's right to enforce the same in accordance with this Contract. The fact that the STATE specifically refers to one provision of the Procurement Rules or one section of the Hawaii Revised Statutes, and does not include other provisions or statutory sections in this Contract shall not constitute a waiver or relinquishment of the STATE's rights or the CONTRACTOR's obligations under the Procurement Rules or statutes.
- 7.46 **UTILITIES AND SERVICES**
- 7.46.1 Where its operations are next to or near properties of utility companies or other property, the CONTRACTOR shall not start work until the CONTRACTOR makes arrangements necessary for the protection of said property.
- 7.46.2 The CONTRACTOR shall cooperate, coordinate and schedule its work to suit the owners of underground or overhead utility lines or other property in removing or altering such lines or providing new services in order for the work to progress according to the contract. Cooperation includes rearranging the CONTRACTOR's operations and normal work schedules and realignment of work as approved by the Department in order to accommodate the operations and work of the utilities and/or other property in and around the work site at no additional cost to the Department.

- 7.46.3 The CONTRACTOR shall contact all the various utility companies before the start of the work to ascertain any existing utilities and to develop a full understanding of the utility requirements with respect to this project. The CONTRACTOR shall furnish the Project Manager with evidence that the CONTRACTOR has contacted the utility companies.
- 7.46.4 If the CONTRACTOR discovers that the existence and location of utilities in the contract plans are not correct, the CONTRACTOR shall not disturb the utilities and immediately notify the Project Manager. The Project Manager will advise the CONTRACTOR regarding actions to take.
- 7.46.5 The CONTRACTOR shall ascertain the exact location and depth of utilities within the project area. The CONTRACTOR shall mark such locations to warn workers or equipment operators of their existence and location. The CONTRACTOR shall be responsible to acquaint personnel working near utilities with the type, size, location and depth of the utilities and the consequences that might result from disturbances. The CONTRACTOR shall not start trenching or start similar operations until the CONTRACTOR has taken reasonable and appropriate precautions to protect the utilities.
- 7.46.6 Any utilities or other property that the CONTRACTOR encounters during the progress of the work, such as telephone ducts, electric ducts, water lines, sewer lines, electric lines and drainage pipes, whether shown or not on the contract plans, shall not be disturbed or damaged unless otherwise instructed in the plans and specifications.
- 7.46.7 In the event the utilities or other property are damaged or disturbed by the CONTRACTOR, the CONTRACTOR shall be liable for all such damage where the utilities or other property are:
- (a) Shown on the plan in its actual or approximate location; or
 - (b) Exposed on the job as it progresses; or
 - (c) Pointed out to the CONTRACTOR in the field.
- 7.46.8 Such utilities or other property as described above shall be "known utilities or other property." If the CONTRACTOR encounters an unknown utility or other property, it shall not proceed until it has notified the Project Manager and receives instructions. If the Project Manager directs additional work, it shall be paid for under Section 4.2, CHANGES.
- 7.46.9 The CONTRACTOR shall repair and restore to pre-damaged condition any utilities or any other property it may damage, and it shall be liable for any and all resulting damage at no cost to the Department, the work or utility owner or property owner. Any damage claim due to the disruption of service caused by the utilities being damaged shall be paid by the CONTRACTOR who shall defend, indemnify and hold harmless the Department from all suits, actions or claims of any character brought on account of such damages, whether or not the Department may have been partially at fault. Public liability and property damage insurance to be obtained by the CONTRACTOR pursuant to Section 7.3 INSURANCE REQUIREMENTS shall cover such risk of damage.
- 7.46.10 In the event the CONTRACTOR simultaneously with the discovery of an unknown utility or other property damages that utility or other property, the CONTRACTOR shall not be held liable beyond the extent of the CONTRACTOR's liability insurance but shall immediately notify the Project Manager. Upon instruction from the Project Manager, the CONTRACTOR shall repair all damages and execute a plan for dealing with the damaged utility or other property. This repair work shall be considered additional work as covered in Section 4.2, CHANGES.

~END OF ARTICLE 7~

ARTICLE 8: MEASUREMENT AND PAYMENT

8.1 MEASUREMENT OF QUANTITIES

8.1.1 All work completed under the Contract shall be measured by the Project Manager according to United States standard measures, or as stated in this Contract. The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract shall conform to good Managing practice. These measurements shall be considered correct and final unless the Contractor has protested same to the Project Manager and has demonstrated the existence of an error by actual physical measurement before the work has progressed in a manner, which would prohibit a proper check.

8.1.2 All measurements of the area of the various surfaces, pavement and base courses will be made in the horizontal projection of the actual surface and no deductions will be made for fixtures or structures having an area of nine (9) square feet or less. All measurements of headers, curbs, fences and any other type of construction which is to be paid for by its length will be made in the horizontal projection of the actual driven length from toe to top of cutoff, and for piles, which will be by actual length. All materials which are specified for measurement by the cubic yard "Loose Measurement" or "Measured in the Vehicle" shall be hauled in approved vehicles and measured therein at the point of delivery. Approved vehicles for this purpose may be of any type or size satisfactory to the Project Manager, provided that the body is of such type that the actual contents may be readily and accurately determined. Unless all approved vehicles on a job are of a uniform capacity each approved vehicle must bear a plainly legible identification mark indicating the specific approved capacity. The Inspector may reject all loads not hauled in such approved vehicles.

8.2 **NO WAIVER OF LEGAL RIGHTS.** The Project Manager shall not be precluded or estopped by any measurements, estimate or certificate made either before or after the completion and acceptance of the work and payment therefor, from showing the true amount and character of the work performed and materials furnished by the Contractor, or from showing that any such measurement estimate or certificate is untrue or incorrectly made, or rejecting the work or materials that do not conform in fact to the contract. The Project Manager shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and its sureties such damages as the Department may sustain by reason of the Contractor's failure to comply with the terms of the Contract. Neither the acceptance by the Project Manager or any representative of the Project Manager, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, or any possession taken by the Project Manager, shall operate as a waiver of any portion of the contract, or of any power herein reserved, or any right to damage herein provided. A waiver of any notice requirement or breach of the contract shall not be held to be a waiver of any other notice requirement or subsequent breach.

8.3 PAYMENT FOR ADDITIONAL WORK

8.3.1 Additional work as defined in Section 4.2, **CHANGES**, when ordered, shall be paid for as defined in Section 4.4, **PRICE ADJUSTMENT** by a duly issued change order in accordance with the terms provided therein.

8.3.2 On credit proposals and proposals covering both increases and decreases, the application of overhead and profit shall be on the net change in direct costs for the performance of the work.

8.3.3 When payment is to be made for additional work directed by a Field Order, the total price adjustment as specified in the Field Order or if not specified therein for the work contained in the related change

order shall be considered full compensation for all materials, labor, insurance, taxes, equipment use or rental and overheads, both field and home office including extended home and branch office overhead and other related delay impact costs.

- 8.3.4 **FORCE ACCOUNT METHOD.** When, for the convenience of the Department, payment is to be made by the Force Account method, all work performed or labor and materials and equipment furnished shall be paid for as described below. Payment by the Force Account method will not alter any rights, duties and obligations under the contract.
- 8.3.4.1 **LABOR.** For all hourly workers, the Contractor will receive the rate of wage including fringe benefits when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work, which shall be agreed upon in writing before beginning work for each and every hour that said labor is actually engaged in said work.
- (a) All markups for overhead and profit shall be added subject to limitations established in Section 4.5, **ALLOWANCES FOR OVERHEAD AND PROFIT.**
 - (b) No allowance for overtime compensation will be given without the written approval of the Project Manager prior to performance of such work.
- 8.3.4.2 **INSURANCE AND TAXES.** The Contractor and subcontractor(s) will also receive the actual additional costs paid for property damage, liability, worker's compensation insurance premiums, State unemployment contributions, Federal unemployment taxes, social security and Medicare taxes.
- 8.3.4.3 **MATERIALS.** For materials accepted by the Project Manager and used, the Contractor and subcontractor(s) shall receive the actual cost of such materials delivered and incorporated into work, plus a markup allowed under Section 4.5, **ALLOWANCES FOR OVERHEAD AND PROFIT.**
- 8.3.4.4 **SUBCONTRACTORS.** Subcontractor costs shall be the actual costs of the subcontractor marked up as defined in this Section 8.3, **PAYMENT FOR ADDITIONAL WORK** plus a markup allowed under Section 4.5, **ALLOWANCES FOR OVERHEAD AND PROFIT.**
- 8.3.4.5 **EQUIPMENT**
- (a) For machinery or special equipment (other than small tools as herein defined in Subsection 8.3.4.5.(h) owned or leased by the Contractor or a related entity, the use of which has been authorized by the Project Manager:
 - (1) The Contractor will be paid at the per-hour rental rates based on the monthly rate established for said machinery or equipment in the then-current edition of the Rental Rate Blue Book for Construction Equipment including the estimated operating cost per hour and regional correction provided therein.
 - (2) If no rate is listed for a particular kind, type or size of machinery or equipment, then the monthly, hourly rates shall be as agreed upon in writing by the Contractor and the Project Manager prior to the use of said machinery or equipment. If there is no agreement, the Project Manager will set a rate. The Contractor may contest the rate pursuant to Section 7.25, **DISPUTES AND CLAIMS.**
 - (3) Rental rates which are higher than those specified in the aforesaid Rental Rate Blue Book publication may be allowed where such higher rates can be justified by job conditions such as work in water and work on lava, etc. Request for such higher rates shall be submitted in writing to the Project Manager for approval prior to the use of the machinery or equipment in question.

- (b) For machinery or special equipment [other than small tools as herein defined in clause 8.3.4.5 (h)] rented by the Contractor or a related entity specifically for the Force Account work, the use of which has been authorized by the Project Manager, the Contractor will be paid the actual rental cost for the machinery or equipment, including mobilization and demobilization costs. A receipt from the equipment supplier shall be submitted to the Project Manager.
- (c) For machinery or special equipment [other than small tools as herein defined in clause 8.3.4.5 (h)] rented by the Contractor or a related entity for use in the project, but which will also be used for the Force Account work, the use of which has been authorized by the Project Manager, the Contractor will be paid the actual rental cost for the machinery or equipment. No additional mobilization and demobilization costs will be paid. A receipt from the equipment supplier shall be submitted to the Project Manager.
- (d) The rental rate for trucks not owned by the Contractor shall be those as established under the Hawaii State Public Utilities Commission, which will be paid for as an equipment item pursuant to Subsection 8.3.4.5, EQUIPMENT. Rental rates for Contractor owned trucks not listed in the Rental Rate Blue Book shall be agreed upon in writing by the Contractor and Project Manager prior to the use of said trucks. If there is no agreement, the Project Manager shall set the rate. The Contractor may contest the rate pursuant to Section 7.25, DISPUTES AND CLAIMS.
- (e) The rental period shall begin at the time equipment reaches the site of work, shall include each day that the machinery or equipment is at the site of the work and shall terminate at the end of the day on which the equipment is no longer needed. In the event the equipment must standby due to work being delayed or halted by reason of design, traffic, or other related problems uncontrollable by the Contractor, excluding Saturdays, Sundays and Legal Holidays, unless the equipment is used to perform work on such days, the rental shall be two (2) hours per day until the equipment is no longer needed.
 - (1) The rental time to be paid will be for the time actually used. The Project Manager prior to the performance of such work must approve any hours or operation in excess of eight (8) hours in any one (1) day.
 - (2) Rental time will not be allowed or credited for any day on which machinery or equipment is inoperative due to its breakdown. On such days, the Contractor will be paid only for the actual hours, if any, that the machinery or equipment was in operation.
 - (3) In the event the Force Account work is completed in less than eight (8) hours, equipment rental shall nevertheless be paid for a minimum eight (8) hours.
 - (4) For the purpose of determining the rental period the continuous and consecutive days shall be the normal eight (8) hour shift work day, Monday through Friday excluding legal holidays. Any work day to be paid less than eight (8) hours shall not be considered as continuous, except for equipment removed from rental for fuel and lubrication.
 - (5) No additional premium beyond the normal rates used will be paid for equipment over eight (8) hours per day or forty (40) hours per week.
- (f) All rental rates for machinery and equipment shall include the cost of fuel, oil, lubricants, supplies, small tools, necessary attachments, repairs, maintenance, tire wear, depreciation, storage, and all other incidentals.

- (g) All machinery and equipment shall be in good working condition and suitable for the purpose for which the machinery and equipment is to be used.
- (h) Individual pieces of equipment or tools having a replacement value of \$2,000 (two thousand dollars) or less, whether or not consumed by use, shall be considered to be small tools and included in the allowed markup for overhead and profit and no separate payment will be made therefor.
- (i) The total of all Force Account rental charges accrued over the duration of the contract for a specific item of equipment shall not exceed the replacement cost of that equipment.
 - (1) The Contractor shall provide the cost of replacement to the Project Manager prior to using the equipment. If the Project Manager does not agree with the replacement cost, the Project Manager shall set the replacement cost. The Contractor may contest the replacement cost pursuant to Section 7.25, DISPUTES AND CLAIMS.
- (j) Should the item of equipment be rented from an unrelated entity, the rental cost will be treated as equipment cost under Subsection 8.3.4.5, EQUIPMENT.
- (k) Transportation and/or Mobilization: The following provisions shall govern in determining the compensation to be paid to the Contractor for use of equipment or machinery on the Force Account method:
 - (1) The Project Manager shall approve the location from which the equipment is to be moved or transported.
 - (2) Where the equipment must be transported to the site of the Force Account work, the Department will pay the reasonable cost of mobilizing and transporting the equipment, including its loading and unloading, from its original location to the site of Force Account work. Upon completion of the work the Department will pay the reasonable cost of mobilizing and transporting the equipment back to its original location or to another location, whichever cost is less.
 - (3) The cost of transporting the equipment shall not exceed the rates established by the Hawaii State Public Utilities Commission. If such rates are nonexistent, then the rates will be determined by the Project Manager based upon the prevailing rates charged by established haulers within the locale.
 - (4) Where the equipment is self-propelled, the Department will pay the cost of moving the equipment by its own power from its original location to the site of the Force Account work. Upon completion of the work the Department will pay the reasonable cost of moving of the Equipment back to its original or another location, whichever cost is less.
 - (5) At the discretion of the Project Manager, when the Contractor desires to use such equipment for other than Force Account work, the costs of mobilization and transportation shall be prorated between the Force Account and non- Force Account work.
- (l) Pickup trucks, vans, storage trailers, unless specifically rented for the Force Account work, shall be considered incidental to the Force Account work and the costs therefor are included in the markup allowed under Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

- 8.3.4.6 **STATE EXCISE (GROSS INCOME) TAX AND BOND.** A sum equal to the current percentage rate for the State excise (Gross Income) tax on the total sum determined in Subsections 8.3.4.1, 8.3.4.2, 8.3.4.3 and 8.3.4.4 above, and the bond premium shall be added as compensation to the Contractor. The actual bond premium not to exceed one percent (1%) shall be added to items covered by Subsections 8.3.4.1, 8.3.4.2, 8.3.4.3 and 8.3.4.4 when applicable.
- (a) The compensation as determined in Subsections 8.3.4.1, 8.3.4.2, 8.3.4.3, 8.3.4.4 and 8.3.4.5 above shall be deemed to be payment in full for work paid on a Force Account basis.
- 8.3.4.7 **RECORDS.** The Contractor and the Project Manager shall compare records of the labor, materials and equipment rentals paid by the Force Account basis at the end of each day. These daily records, if signed by both parties, shall thereafter be the basis for the quantities to be paid for by the Force Account method. The Contractor shall not be entitled to payment for Force Account records not signed by the Project Manager.
- 8.3.4.8 **STATEMENTS.** No payment will be made for work on a Force Account basis until the Contractor has submitted to the Project Manager, duplicate itemized statements of the cost of such Force Account work detailed as follows:
- (a) **Laborers.** Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman and also the amount of fringe benefits payable if any.
- (b) **Equipment.** Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
- (c) **Materials:**
- (1) Quantities of materials, prices and extensions.
- (2) Costs of transporting materials, if such cost is not reflected in the prices of the materials.
- (3) Statements shall be accompanied and supported by receipted invoices for all materials used and transportation charges. However, if materials used on the Force Account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractors shall submit an affidavit certifying that such materials were taken from stock and that the amount claimed represents the actual cost to the Contractor.
- (d) **Insurance.** Cost of property damage, liability and worker's compensation insurance premiums, unemployment insurance contributions, and social security tax.
- 8.4 **PROGRESS AND/OR PARTIAL PAYMENTS**
- 8.4.1 **PROGRESS PAYMENTS.** The Contractor will be allowed progress payments on a monthly basis upon preparing the Monthly Payment Application forms and submitting the originals to the Project Manager. The monthly payment shall be based on the items of work satisfactorily completed and the value thereof at unit prices and/or lump sum prices set forth in the contract as determined by the Project Manager and will be subject to compliance with Section 7.9, PAYROLLS AND PAYROLL RECORDS.
- 8.4.1.1 **ORIGINAL INVOICES REQUIRED.** All payments under this Contract shall be made only upon submission by the CONTRACTOR of original invoices specifying the amount due and certifying that services requested under the Contract have been performed by the CONTRACTOR according to the Contract.
- 8.4.1.2 **SUBJECT TO AVAILABLE FUNDS.** Such payments are subject to availability of funds and allotment by the Director of Finance in accordance with chapter 37, HRS. Further, all payments shall be made in accordance with and subject to chapter 40, HRS.

- 8.4.2 In the event the Contractor or any Subcontractor fails to submit certified copies of payrolls in accordance with the requirements of Section 7.9, PAYROLLS AND PAYROLL RECORDS, the Project Manager may retain the amount due for items of work for which payroll affidavits have not been submitted on a timely basis notwithstanding satisfactory completion of the work until such records have been duly submitted. The Contractor shall not be due any interest payment for any amount thus withheld.
- 8.4.3 PARTIAL PAYMENT FOR MATERIALS. The Contractor will also be allowed partial payments to the extent of ninety percent (90%) of the manufacturer's, supplier's, distributor's or fabricator's invoice cost of accepted materials to be incorporated in the work on the following conditions:
- 8.4.3.1 The materials are delivered and properly stored at the site of the work; or
- 8.4.3.2 For special items of materials accepted by the Project Manager, the materials are delivered to the Contractor or subcontractor(s) and properly stored in an acceptable location within a reasonable distance to the site of the work.
- 8.4.4 Partial payments shall be made only if the Project Manager finds that:
- 8.4.4.1 The Contractor has submitted bills of sale for the materials or otherwise demonstrates clear title to such materials.
- 8.4.4.2 The materials are insured for their full replacement value to the benefit of the Department against theft, fire, damages incurred in transportation to the site, and other hazards.
- 8.4.4.3 The materials are not subject to deterioration.
- 8.4.4.4 In case of materials stored off the project site, the materials are not commingled with other materials not to be incorporated into the project.
- 8.4.5 FEDERAL FUNDS. If this Contract is payable in whole or in part from federal funds, Contractor agrees that, as to the portion of the compensation under this Contract to be payable from federal funds, the Contractor shall be paid only from such funds received from the federal government, and shall not be paid from any other funds.
- 8.4.6 Final Payment Requirements (§3-122-112, HAR). Upon receipt of the Contractor's invoice for final payment, the Department shall verify compliance with Section 103D-328 HRS via Hawaii Compliance Express (HCE).
- 8.5 PROMPT PAYMENT (§3-125-23 HAR)
- 8.5.1 Any money, other than retainage, paid to the CONTRACTOR shall be dispersed to subcontractors within ten days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes; and
- 8.5.2 BONA FIDE DISPUTES. The existence of a bona fide dispute with a subcontractor or material supplier shall not release the Contractor of its prompt payment obligations as to all sums due that are not directly affected by such dispute.

- 8.5.3 FILING NON-PAYMENT COMPLAINT. Subcontractors and material suppliers may file in writing a complaint with the Chairman regarding non-payment by the Contractor. Such complaint shall include:
- 8.5.3.1 The amount past due for work performed and already paid for by the Department;
- 8.5.3.2 That all the terms, conditions or requirements of its subcontract have been met; and
- 8.5.3.3 That no bona fide dispute over its performance exists. The Department will investigate the validity of the complaint.
- 8.5.4 The Department may withhold from future progress payments amounts to cover any sums paid to the Contractor for work performed by a subcontractor if the Department finds that the subcontractor complaint regarding non-payment by the Contractor has merit.
- 8.5.5 If the Project Manager determines that the Contractor failed to make prompt payment required to a subcontractor or material supplier with whom it has no bona fide dispute, the Project Manager shall inform the Contractor of the findings and request the Contractor make payment accordingly. If the Contractor does not act promptly, the Project Manager shall take appropriate action as allowed under this Contract and/or refer the matter to the Contractor Licensing Board for appropriate action under Section 444-17, Hawaii Revised Statutes regarding the Revocation, Suspension and Renewal of (Contractor) Licenses and/or initiate a petition for debarment of the Contractor from bidding on other Department jobs.
- 8.6 RETAINAGE
- 8.6.1 The Department will retain five percent (5%) of the total amount of progress and / or partial payments until after completion of the entire Contract in an acceptable manner at which time this balance, less any previous payments, will be certified and paid to the Contractor. After fifty percent (50%) of the work is completed and progress is satisfactory, no additional sum will be withheld. If progress is not satisfactory, the Department may continue to withhold retainage sums not exceeding five percent (5%) of the amount due the Contractor.
- 8.6.1.1 Contractor may withhold from amounts due its subcontractors, only the same percentage of retainage as that of the Contractor, and only if its subcontractors have provided valid performance and payments bonds or other bond or collateral acceptable to the Contractor.
- 8.6.1.2 Contractor or Subcontractor may negotiate with, and retain from its respective subcontractors, a different retainage percentage which cannot exceed ten percent (10%).
- 8.6.2 The retainage shall not include sums deducted as liquidated damages from monies due or that may become due the Contractor under the Contract.
- 8.7 WARRANTY OF CLEAR TITLE. The Contractor warrants and guarantees that all work and materials covered by progress or partial payments made thereon shall be free and clear of all liens, claims, security interests or encumbrances, and shall become the sole property of the Department. This provision shall not, however, be construed as an acceptance of the work nor shall it be construed as relieving the Contractor from the sole responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, or as waiving the right of the Department to require the fulfillment of all the items of the Contract.

- 8.7.1 LIENS AND WARRANTIES. Goods provided under this Contract shall be provided free of all liens and provided together with all applicable warranties, or with the warranties described in the Contract documents, whichever are greater.
- 8.8 FINAL PAYMENT
- 8.8.1 Upon final payment to the CONTRACTOR, full payment to the subcontractor, including retainage, shall be made within ten days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract.
- 8.8.2 Sums necessary to meet any claims of any kind by the Department may be retained from the sums due the Contractor until said claims have been fully and completely discharged or otherwise satisfied.
- 8.9 STATE'S RIGHT TO OFFSET. The STATE may offset against any monies or other obligations the STATE owes to the CONTRACTOR under this Contract, any amounts owed to the State of Hawaii by the CONTRACTOR under this Contract or any other Contracts or pursuant to any law or other obligation owed to the State of Hawaii by the CONTRACTOR, including, without limitation, the payment of any taxes or levies of any kind or nature. The STATE will notify the CONTRACTOR in writing of any offset and the nature of such offset. For purposes of this Subsection, amounts owed to the State of Hawaii shall not include debts or obligations which have been liquidated, agreed to by the CONTRACTOR, and are covered by an installment payment or other settlement plan approved by the State of Hawaii, provided, however, that the CONTRACTOR shall be entitled to such exclusion only to the extent that the CONTRACTOR is current with, and not delinquent on, any payments or obligations owed to the State of Hawaii under such payment or other settlement plan.

~END OF ARTICLE 8~

NOTICE OF INTENTION TO BID

Date: _____

Ms. Jobie M.K. Masagatani, Chairman
Hawaiian Homes Commission
DEPARTMENT OF HAWAIIAN HOME LANDS
91-5420 Kapolei Parkway
Kapolei, Hawaii, 96707

Attention: Mr. Mitchell Kawamura, Land Development Division
Notice of Intention to Bid due on March 24, 2017.

Gentlemen:

In accordance with the provisions of Section 103D-310, Hawaii Revised Statutes and Hawaii Administrative Rules 3-122-111, it is the intention of the undersigned to bid on IFB No. IFB-17-HHL-010, Papakolea Subdivision Sewer Improvements, Papakolea, Honolulu, Oahu, State of Hawaii, for which bids are due on **2:00 p.m., April 5, 2017.**

_____ Name of Firm	_____ Contractor's License No.
_____ Address	_____ Hawaii General Excise Tax No.
_____ City, State and Zip Code	_____ Telephone No. / Facsimile No.
	_____ e-mail address

Respectfully submitted,

Signature

Print Name and Title

Gentlemen:

Date: _____

The Department of Hawaiian Home Lands acknowledges on this date above of your Notice of Intention to Bid on IFB-17-HHL-010.

Jobie M. K. Masagatani, Chairman
Hawaiian Homes Commission

SAMPLE

STATE OF HAWAII
STANDARD
QUALIFICATION QUESTIONNAIRE
FOR
OFFERORS

issued by the

PROCUREMENT POLICY BOARD

STATE OF HAWAII

June 16, 2003

To be filed with the procurement officer calling for offers

in accordance with Section 103D-310, HRS, as amended.

Submitted By _____

Address _____

Date _____

STANDARD QUALIFICATION QUESTIONNAIRE

COVERING EXPERIENCE, EQUIPMENT AND FINANCIAL STATEMENT OF OFFERORS. THE OFFICER CALLING FOR OFFERS MAY REQUIRE THE OFFEROR TO FURNISH ADDITIONAL INFORMATION NOT SPECIFICALLY COVERED HEREIN. ALL ITEMS MUST BE ANSWERED AND OMISSIONS MAY BE CONSIDERED GOOD CAUSE FOR UNFAVORABLE CONSIDERATION.

GENERAL INFORMATION

1. The statements contained in this Questionnaire are being furnished for consideration in submitting an offer for the following project:

(a) Project Title _____

(b) Location _____

(c) Bid Opening Date _____

2. The Questionnaire is being submitted in behalf of:

(a) Name of Offeror _____

- ☐ A Corporation
☐ A Partnership
☐ An Individual
☐ A Joint-Venture

(b) Address _____

(c) Telephone No. _____

(d) Date Submitted _____

3. If the bid is submitted by a joint venture, composed of two or more individual firms, then each member firm comprising the joint venture must submit all information listed on pages 3 through 16, inclusive, of the Questionnaire and, in addition, answer the following:

(a) Members of joint Venture _____

(b) Date of Joint Venture Agreement _____

(c) Is agreement between members comprising the joint venture joint and several liability? _____
If not, state the terms of agreement in this respect: _____

EXPERIENCE QUESTIONNAIRE

Submitted by _____

- ☐ A Corporation
☐ A Partnership
☐ An Individual

Principal Office _____

The signatory of this questionnaire guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made

1. How many years has your organization been in business as a [General Contractor] under your present business name? _____
2. How many years experience in [construction] _____ has your organization had: (A) as a [General Contractor] _____; (B) as a [Sub-Contractor] _____
3. Show what [construction] projects your organization has completed in the past five (5) years in the following tabulation:

Contract Amt.	Class of Work	When Completed	Name and Address of Owner

4. Have you ever failed to complete any work awarded to you? _____ If so, state when, where and why? _____

5. Has any officer or partner of your organization in the past five (5) years been an officer or partner of some other organization that failed to complete a contract? If so, state name of individual, other organization and reason therefore _____

6. Has any officer or partner of your organization in the past five (5) years failed to complete a contract handled in his own name? _____ If so, state name of individual, name of Owner and reason therefore.

7. In what other lines of business are you financially interested? _____

8. For what corporations or individuals in the past five (5) years have you performed work, and to whom do you refer? _____

9. For what counties within the State of Hawaii have you performed work and to whom do you refer?

10. For what Bureaus or Departments of the State government have you performed work and to whom do you refer?

11. Have you performed work for the U. S. Government? _____ If so, when and to whom do you refer?

12. Have you ever performed any work for any other governmental agencies outside the State of Hawaii? _____ If so, when and to whom do you refer? _____

13. What is the [construction] experience of the principal individuals of your organization?

Individual's Name	Present Position or Office	Years of Work Experience	Magnitude and Type of Work	In What Capacity?

EQUIPMENT QUESTIONNAIRE

Submitted by _____

- ☐ A Corporation
☐ A Partnership
☐ An Individual

Principal Office _____

The signatory of this questionnaire guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made

1. In what manner have you inspected this proposed work? Explain in detail. _____

2. Explain your plan or layout for performing the proposed work. _____

3. The work, if awarded to you, will have the personal supervision of whom? _____

4. Do you intend to do the hauling on the proposed work with your own force? _____ If so, give amount and type of equipment to be used. _____

5. If you intend to sublet the hauling or perform it through an agent, state amount of sub-contract or agent's contract, and, if known, the name and address of sub-contractor or agent, amount and type of his equipment and financial responsibility _____

6. Do you intend to do grading on the proposed work with your own forces? _____ If so, give type of equipment to be used _____

7. If you intend to sublet the grading or perform it through an agent, state amount of sub-contract or agent's contract, and, if known, the name and address of sub-contractor or agent, amount and type of his equipment and financial responsibility _____

8. Do you intend to sublet any other portions of the work? _____ If so, state -amount of sub-contract, and, if known, the name and address of the sub-contractor, amount and type of his equipment and financial responsibility _____

9. From which sub-contractors or agents do you expect to require a bond? _____

10. What equipment do you own that is available for the proposed work?

Quantity	Item	Description, Size, Capacity, Etc.	Condition	Years of Service	Present Location

11. What equipment do you intend to purchase for use on the proposed work, should the contract be awarded to you?

Quantity	Item	Description, Size, Capacity, Etc.	Approximate Cost

12. How and when will you pay for the equipment to be purchased? _____

13. Do you propose to rent any equipment for this work? _____ If so, state type, quantity and reasons for renting _____

FINANCIAL STATEMENT

Submitted by _____

- ☐ A Corporation
☐ A Partnership
☐ An Individual

Principal Office _____

The signatory of this questionnaire guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made

BALANCE SHEET

As of _____, 20____

Assets

Current assets:

Cash and cash equivalents (1)	\$ _____
Short-term investments (2)	_____
Accounts receivable, net (3)	_____
Inventories (4)	_____
Costs and estimated earnings in excess of billings on uncompleted contracts (5)	_____
Prepaid expenses and other (6)	_____
Sub-Total Current Assets	_____

Property and equipment:

Land (7)	_____
Buildings (8)	_____
Vehicles, machinery and equipment (9)	_____
Furniture and fixtures (10)	_____
Less accumulated depreciation	(_____)
Sub-Total Net Property and Equipment	_____

Other assets:

Cash surrender value of life insurance policies (11)	_____
Deposits and other (12)	_____
Sub-Total Other Assets	_____

Total Assets: \$ _____

BALANCE SHEET (Continued)

Liabilities and Stockholder's Equity

Current liabilities:

Current portion of long-term debt (1)	\$ _____
Accounts payable (2)	_____
Billings in excess of costs and estimated earnings on uncompleted contracts (3)	_____
Accrued liabilities and other (4)	_____
Sub-Total Current Liabilities	_____

Long-term debt, net of current portion (5)	_____
--	-------

Sub-Total Liabilities & Long-term Debt:	\$ _____
---	----------

Stockholder's equity:

Capital stock (6)	_____
Additional paid-in capital (7)	_____
Retained earnings	_____
Treasury stock (8)	(_____)
Sub-Total Stockholder's Equity	\$ _____

Total Liabilities and Stockholder's Equity	\$ _____
--	----------

DETAILS RELATIVE TO ASSETS

(1) Cash and cash equivalents:

<u>Financial Institution</u>	<u>Type of Account</u>	<u>Amount</u>
		\$ _____

		\$ _____

(2) Short-term investments:

<u>Type of Security</u>	<u>Cost</u>	<u>Unrealized Gains</u>	<u>Unrealized Losses</u>	<u>Estimated Fair Value</u>
	\$ _____	\$ _____	\$ _____	\$ _____
	_____	_____	_____	_____
	_____	_____	_____	_____
	\$ _____	\$ _____	\$ _____	\$ _____

(3) Accounts receivable (list major debtors):

Completed contracts

<u>Name</u>	<u>Description</u>	<u>Completion Date</u>	<u>Contract Amount</u>	<u>Amount Receivable</u>
		\$ _____	\$ _____	\$ _____
		_____	_____	_____
		_____	_____	_____
		\$ _____	\$ _____	\$ _____

Other than completed contracts

<u>Name</u>	<u>Description</u>	<u>Due Date</u>	<u>Amount Receivable</u>
Less allowance for doubtful accounts			(_____)
			\$ _____

(4) Inventories

<u>Description</u>	<u>Cost</u>	<u>Market Value</u>	<u>Lower of Cost or Market Value</u>
	\$ _____	\$ _____	\$ _____
	_____	_____	_____
	_____	_____	_____
	\$ _____	\$ _____	\$ _____

DETAILS RELATIVE TO ASSETS (Continued)

(5) Costs and estimated earnings in excess of billings on uncompleted contracts

<u>Name</u>	<u>Description</u>	<u>Completion Date</u>	<u>Contract Amount</u>	Costs and	Costs and Estimated
				<u>Earnings to Date</u>	<u>Billings to Date</u>
		\$	\$	\$	\$
			\$	\$	\$

(6) Prepaid expenses and other

<u>Description</u>	<u>Amount</u>
	\$ _____

	\$ _____

(7) Land

<u>Description</u>	<u>Location</u>	<u>Amount</u>
		\$ _____

		\$ _____

(8) Buildings

<u>Description</u>	<u>Location</u>	<u>Amount</u>
		\$ _____

		\$ _____

(9) Vehicles, machinery and equipment

<u>Description</u>	<u>Amount</u>
	\$ _____

	\$ _____

(10) Furniture and fixtures

<u>Description</u>	<u>Amount</u>
	\$
	\$

DETAILS RELATIVE TO ASSETS (Continued)

(11) Cash surrender value of life insurance policies

<u>Key Employee</u>	<u>Insurance Company</u>	<u>Policy Amount</u>	<u>Paid-Up Additional Insurance</u>	<u>CSV Amount</u>
_____	_____	\$ _____	\$ _____	\$ _____
_____	_____	_____	_____	_____
Less loans payable	_____	_____	_____	(_____)
		\$ _____	\$ _____	\$ _____

(12) Deposits and other

<u>Description</u>	<u>Amount</u>
_____	\$ _____
_____	_____
_____	_____
	\$ _____

DETAILS RELATIVE TO LIABILITIES AND STOCKHOLDER'S EQUITY

(1) Current portion of long-term debt (maturing within 12 months)

<u>Lender</u>	<u>Description</u>	<u>Security Pledged</u>	<u>Due Date</u>	<u>Amount</u>
				\$ _____

				\$ _____

(2) Accounts payable (list major creditors)

<u>Name</u>	<u>Past Due Amount</u>	<u>Amount</u>
	\$ _____	\$ _____
	_____	_____
	_____	_____
	\$ _____	\$ _____

(3) Billings in excess of costs and estimated earnings on uncompleted contracts

<u>Name</u>	<u>Description</u>	<u>Completion Date</u>	<u>Contract Amount</u>	<u>Costs and Estimated Earnings to Date</u>	<u>Billings to Date</u>	<u>Billings in excess of costs and Estimated Earnings</u>
			\$ _____	\$ _____	\$ _____	\$ _____
			_____	_____	_____	_____
			\$ _____	\$ _____	\$ _____	\$ _____

(4) Accrued liabilities and other

<u>Description</u>	<u>Amount</u>
	\$ _____

	\$ _____

(5) Long-term debt, net of current portion

<u>Lender</u>	<u>Description</u>	<u>Security Pledged</u>	<u>Due Date</u>	<u>Amount</u>
				\$ _____

				\$ _____

DETAILS RELATIVE TO LIABILITIES AND STOCKHOLDER'S EQUITY (Continued)

(6) Capital stock

<u>Type of Stock</u>	<u>Class</u>	<u>No. of Shares Authorized</u>	<u>No. of Shares Issued and Outstanding</u>	<u>Par Value</u>	<u>Amount</u>
				\$	\$
					\$

(7) Additional paid-in capital

<u>Description</u>	<u>Amount</u>
	\$
	\$

(8) Treasury stock

<u>Type of Stock</u>	<u>Class</u>	<u>No. of Shares</u>	<u>Cost</u>
			\$
			\$

STATEMENTS OF INCOME AND RETAINED EARNINGS

For the Years Ended _____, 20____ and 20____

	20____	20____
	_____	_____
Contract revenues	\$ _____	\$ _____
Costs of contracts	_____	_____
Gross income from contracts		
General and administrative expenses	_____	_____
Income from operations		
Other income (expense)	_____	_____
Income before income taxes		
Income taxes	_____	_____
Net income		
Retained earnings, beginning of the year	_____	_____
Retained earnings, end of the year	\$ <u> </u>	\$ <u> </u>

If a corporation, answer this: Capital paid in cash, \$ _____ When Incorporated _____ In what State _____ Date registered in Hawaii _____ President's name _____ Vice-President's name _____ Secretary's name _____ Treasurer's name _____	If a partnership, answer this: Date of organization _____ Date registered in Hawaii _____ State whether partnership is general or limited _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 80%;">Name and address of partners:</th> <th style="width: 20%;">Age</th> </tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </table>	Name and address of partners:	Age	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Name and address of partners:	Age												
_____	_____												
_____	_____												
_____	_____												
_____	_____												
_____	_____												

The undersigned hereby declares: that the foregoing is a true statement of the financial condition of the individual, partnership or corporation herein first named, as of the date herein first given; that this statement is for the express purpose of inducing the party to whom it is submitted to award the offeror a contract; and that any depository, vendor or other agency herein named is hereby authorized to supply such party with any information necessary to verify this statement.

NOTE: A partnership must give firm name and signatures of all partners. A corporation must give full corporate name, signature of official, and affix corporate seal.

Affidavit for Individual

STATE OF HAWAII

COUNTY OF _____

_____ being duly sworn, deposes and says that the foregoing financial statement, taken from his books, is a true and accurate statement of his financial condition as of the date thereof and that the answers to the foregoing interrogatories are true.

Sworn to before me this _____ day of _____ 20____

 (Applicant must also sign here)

 Notary Public

Affidavit for Partnership

STATE OF HAWAII

COUNTY OF _____

_____ being duly sworn, deposes and says that he is a member of the firm of _____; and that he is familiar with the books of the said firm showing its financial condition; that the foregoing financial statement, taken from the books of the said firm, is a true and accurate statement of the financial condition of the said firm as of the date thereof and that the answers to the foregoing interrogatories are true.

Sworn to before me this _____ day of _____ 20____

 (Members of firm must also sign here)

 Notary Public

Affidavit for Corporation

STATE OF HAWAII

COUNTY OF _____

_____ of the _____, the corporation described in and which executed the foregoing statement; that he is familiar with the books of the said corporation showing its financial condition; that the foregoing financial statement, taken from the books of the said corporation, is a true and accurate statement of the financial condition of said corporation as of the date thereof and that the answers to the foregoing interrogatories are true.

Sworn to before me this _____ day of _____ 20____

 (Officer must also sign here)

 Notary Public

Corporate Resolution Form

CORPORATE RESOLUTION
(Name of Corporation - Use Letterhead)

I, _____, Secretary of _____
Corporation, a _____ corporation, do hereby certify that the following is a full,
true and correct copy of a resolution duly adopted by the Board of Directors of said Corporation,
at its meeting duly called and held at the office of the Corporation located at
_____,
(address)

on the _____ day of _____, 20____, at which a quorum was present
and acting throughout; and that said resolution has not been modified, amended or rescinded and
continues in full force and effect:

"RESOLVED that any individual at the time holding the position of
President or Vice President, be, and each of them hereby is, authorized to
execute on behalf of the Corporation any bid, proposal or contract for the
sale or rental of the products of the Corporation or for services to be
performed by the Corporation and to execute any bond required by any
such bid proposal or contract with the United States Government or the
State of Hawaii or the City and County of Honolulu, or any County or
Municipal Government of said State, or any department or subdivision of
any of them."

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of
said _____ Corporation this _____ day of
_____, 20_____.

Secretary

(Names and Addresses of)
President
Vice President
Secretary

EXHIBIT A

SURETY [BID] [PROPOSAL] BOND
(11/17/98)

Bond No. _____

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Name or Legal Title of Offeror)

as Offeror, hereinafter called Principal, and _____,
(Name of Bonding Company)

as Surety, hereinafter called Surety, a corporation authorized to transact business as a Surety
in the State of Hawaii, are held and firmly bound unto _____,
(State/County Entity)
as Owner, hereinafter called Owner, in the penal sum of _____

(Required Amount of Bid Security)

Dollars (\$ _____), lawful money of the United States of America, for the payment of
which sum well and truly to be made, the said Principal and the said Surety bind ourselves, our
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these
presents.

WHEREAS:

The Principal has submitted an offer for _____

(Project by Number and Brief Description)

NOW, THEREFORE:

The condition of this obligation is such that if the Owner shall reject said offer, or in the
alternate, accept the offer of the Principal and the Principal shall enter into a Contract with the
Owner in accordance with the terms of such offer, and give such bond or bonds as may be
specified in the solicitation or Contract Documents with good and sufficient surety for the faithful
performance of such Contract and for the prompt payment of labor and material furnished in the
prosecution thereof as specified in the solicitation then this obligation shall be null and void,
otherwise to remain in full force and effect.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Offeror)

Signature

Title

(Seal)

Name of Surety

Signature

Title

EXHIBIT B

PERFORMANCE BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a
surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Obligee, in the amount of _____

DOLLARS (\$ _____), to which payment Principal and Surety bind themselves,
their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the above-bound Principal has signed a Contract with Obligee on
_____, for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part
hereof.

NOW THEREFORE, the condition of this obligation is such that:

If the Principal shall promptly and faithfully perform, and fully complete the Contract in
strict accordance with the terms of the Contract as said Contract may be modified or amended
from time to time; then this obligation shall be void; otherwise to remain in full force and effect.

Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

In the event of Default by the Principal, of the obligations under the Contract, then after written Notice of Default from the Obligee to the Surety and the Principal and subject to the limitation of the penal sum of this bond, Surety shall remedy the Default, or take over the work to be performed under the Contract and complete such work, or pay moneys to the Obligee in satisfaction of the surety's performance obligation on this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

*ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC

EXHIBIT C

PERFORMANCE BOND

(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____, its successors and assigns, as Obligee, hereinafter called
(State/County Entity)
Obligee, in the amount of _____

(Dollar Amount of Contract)

DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heirs, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- ☐ Legal tender;
- ☐ Share Certificate unconditionally assigned to or made payable at sight to
Description _____;
_____;
- ☐ Certificate of Deposit, No. _____, dated _____, issued by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;
- ☐ Cashier's Check No. _____, dated _____, issued
by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;

- ☐ Teller's Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Treasurer's Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Official Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Certified Check No. _____, dated _____, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Oblige for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed this _____ day of _____, _____.

(Seal)

Name of Contractor

* _____
Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT D

LABOR AND MATERIAL PAYMENT BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____,
(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Obligor, in the amount of _____

_____ Dollars (\$ _____), to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above-bound Principal has signed Contract with the Obligor on _____ for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to any Claimant, as hereinafter defined, for all labor and materials supplied to the Principal for use in the performance of the Contract, then this obligation shall be void; otherwise to remain in full force and effect.

1. Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

2. A "Claimant" shall be defined herein as any person who has furnished labor or materials to the Principal for the work provided in the Contract.

Every Claimant who has not been paid amounts due for labor and materials furnished for work provided in the Contract may institute an action against the Principal and its Surety on this bond at the time and in the manner prescribed in Section 103D-324, Hawaii Revised Statutes, and have the rights and claims adjudicated in the action, and judgment rendered thereon; subject to the Obligee's priority on this bond. If the full amount of the liability of the Surety on this bond is insufficient to pay the full amount of the claims, then after paying the full amount due the Obligee, the remainder shall be distributed pro rata among the claimants.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

*ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC

EXHIBIT E

LABOR AND MATERIAL PAYMENT BOND

(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____, its successors and assigns, as Obligee, hereinafter called
(State/County Entity)

Obligee, in the amount of _____

(Dollar Amount of Contract)

DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heirs, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- ☐ Legal tender;
- ☐ Share Certificate unconditionally assigned to or made payable at sight to
Description _____;
_____;
- ☐ Certificate of Deposit, No. _____, dated _____, issued by
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;
- ☐ Cashier's Check No. _____, dated _____, issued by
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;
- ☐ Teller's Check No. _____, dated _____, issued by
drawn on _____;

a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

☐ Treasurer's Check No. _____, dated _____, issued by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

☐ Official Check No. _____, dated _____, issued by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

☐ Certified Check No. _____, dated _____, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Oblige for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, free from all liens and claims and without further cost, expense or charge to the Oblige, its officers, agents, successors or assigns, free and harmless from all suits or actions of every

nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, and shall promptly pay all persons supplying labor and materials for the performance of the Contract, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

AND IT IS HEREBY STIPULATED AND AGREED that this bond shall inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in said work so as to give any and all such persons a right of action as contemplated by Sections 103D-324(d) and 103D-324(e), Hawaii Revised Statutes.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment of mechanics' liens which may be filed of record against the Project, whether or not claim for the amount of such lien be presented under and against this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Contractor

* _____
Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT I

CONTRACTOR ACKNOWLEDGMENT

[FOR USE WITH PERFORMANCE AND PAYMENT BONDS]

(11/12/97)

CONTRACTOR ACKNOWLEDGMENT:

STATE OF _____)

: SS.

COUNTY OF _____)

On this _____ day of _____, 19_____, before me
appeared _____ and _____
to me known to be the person(s) described in and, who, being by me duly sworn, did say that
he/she/they is/are _____ and _____
of _____
the Contractor named in the foregoing instrument, and that he/she/they is/are authorized to
sign said instrument in behalf of the Contractor, and acknowledges that he/she/they executed
said instrument as the free act and deed of the Contractor.

(Notary Seal)

Notary Public

State of

My commission expires:

SURETY ACKNOWLEDGMENT

SURETY ACKNOWLEDGMENT:



**STATE OF HAWAII
STATE PROCUREMENT OFFICE**

CERTIFICATION FOR HAWAII PRODUCT PREFERENCE

1. Legal Name of the company whose product is mined, excavated, produced, manufactured, raised or grown in the state of Hawaii

Requester: _____

2. dba: _____

3. Hawaii General Excise Tax Number: _____

4. Address

5. Email Address

6. Contact Person

7. Phone

Submit one (1) form for each product.

8. Specify and provide details of the product for which preference is claimed (ie: Milk, white, 2% low fat, 1 gallon, four (4) to a case etc.):

9. Quality Standards met by product (ie. California Milk Standards, ASTM/AHSTO, USDA, etc.) :

10. Product available on: ☐ Oahu ☐ Maui ☐ Hawaii ☐ Lanai ☐ Kauai ☐ Molokai

11. Product is certified an agricultural, aquacultural, horticultural, silvicultural, floricultural, or livestock product raised, grown, or harvested in the state of Hawaii.

☐ Yes or ☐ No

12	Definition: "Hawaii Input" is the part of the product cost attributable to production, manufacturing, or other expenses arising within the state of Hawaii. Fill in every line in column s A, B, & C	A Hawaii Input	B Non- Hawaii Input	C Total A + B
a	Cost to mine, excavate, produce, manufacture, raise, or grow the materials in the state of Hawaii.	\$_____ per unit	\$_____ per unit	\$_____ per unit
b	The added value of that portion of the cost of imported materials incurred after landing in the state of Hawaii, including but not limited to other articles, materials, and supplies, added to the imported materials.	\$_____ per unit	\$_____ per unit	\$_____ per unit
c	Cost of labor, variable overhead, utilities, and services, incurred in the production and manufacturing of materials or products in the state of Hawaii	\$_____ per unit	\$_____ per unit	\$_____ per unit
d	Fixed overhead cost and amortization or depreciation cost, if any, for buildings, tools, and equipment situated and located in the state of Hawaii used in the production or manufacturing of a product.	\$_____ per unit	\$_____ per unit	\$_____ per unit
e	Totals	\$_____ per unit (Add Column A)	\$_____ per unit (Add Column B)	\$_____ per unit (Add Column C)

13. Percent of Hawaii Input _____ % (12e. Column A Total ÷ Column C Total)

14. Failure to adequately verify, deliver, or supply Hawaii products. A procurement officer who has awarded a contract finds the contractor has failed to comply with HRS §103D-1002, Hawaii products, the contract shall be cancelled and the findings shall be referred for debarment or suspension proceedings under HRS §103D-702. Any purchase made or any contract awarded or executed in violation of this section shall be void and no payment shall be made by any purchasing agency. If debarred, the person or company shall be prohibited from bidding on any state or county government solicitations for up to three (3) years.

Should the procurement officer receiving a protest challenging the validity of the classification of a Hawaii product request an audit of the information of the proper classification of the product as defined under HRS §103D-1002, the cost of the audit shall be paid for by the requester.

In the event of any change that materially alters the offeror's ability to supply the certified Hawaii products, the offeror shall notify in writing the procurement officer within five (5) working days of knowing of the change and the parties shall enter into discussions for the purposes of revising the contract or terminating the contract for convenience.

Information submitted is CONFIDENTIAL or PROPRIETARY DATA, and the procurement officer shall not disclose this form, pursuant to HRS §92F-13(3) on government records; exception's to general rule.

I certify, under penalties set forth in HRS §103D-1002, on Hawaii products, that the information provided herein has been examined by me and to the best of my knowledge and belief is true, correct, complete, and made in good faith pursuant to HRS §103D-101.

Signature of Authorized Representative: _____

Date: _____

Print Name of Authorized Representative: _____

Title: _____

GOVERNMENT USE ONLY

☐ APPROVED ☐ DISAPPROVED
SPO-038 (Rev. 11/12/10)

Procurement Officer Signature _____

Government Agency _____

FORM 1

CERTIFICATION OF BIDDER'S PARTICIPATION IN APPROVED APPRENTICESHIP PROGRAM UNDER ACT 17

I. Bidder's Identifying Information			
A. Legal Business Name: _____			
B. Project Bid Title & Reference No.: _____			
C. Contact Person's Name: _____			
1. Phone No.: _____		2. E-Mail: _____	
II. Apprenticeable Trades To Be Employed*			
A. (List)		B. Apprenticeship Sponsor* (One Sponsor Per Form)	C. No. Enrolled (# of apprentices currently enrolled as of bidder's request date)
1. _____			D. No. Completed (# of apprentices who completed the apprenticeship program in the 12 months prior to request date)
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
III. Bidder's Certification			
I certify that the above information is accurate to the best of my knowledge. I understand that my willful misstatement of facts may cause forfeiture of the preference under Act 17 and may result in criminal action. I give permission for outside sources to be contacted and for them to disclose any information necessary to verify the bidder's preference.			
A. Name (Type) _____		B. Title _____	
C. Signature (original signature required) _____		D. Date _____	
IV. Apprenticeship Sponsor's Contact Information			
A. Training Coordinator's Name: _____			
B. Address: _____			
C. Phone No.: _____		D. E-Mail: _____ E. Fax No: _____	
V. Apprenticeship Program Sponsor's Certification			
I certify that the above information is accurate to the best of my knowledge. I understand that my willful misstatement of facts may cause forfeiture of the bidder's preference and may result in criminal action. I give permission for outside sources to be contacted and for them to disclose any information necessary to verify the bidder's preference under Act 17.			
A. Name of Authorized Official _____		B. Title _____	
C. Signature (original signature required) _____		D. Date _____	

* Name of Apprenticeable Trade and Apprenticeship Sponsor must be the **same** as recorded in the List of Construction Trades in Registered Apprenticeship Programs that is posted on the State Department of Labor and Industrial Relations website.

FORM 2

MONTHLY REPORT OF CONTRACTOR'S PARTICIPATION IN APPROVED APPRENTICESHIP PROGRAM UNDER ACT 17

I. Contractor's Identifying Information		II. Reporting Period	
A. Legal Business Name:		A. Month:	B. Year:
B. Project Contract Title & Reference No.:			
C. Contact Person's Name:			
1. Phone No.:		2. E-Mail:	
III. Apprenticeship Program (Complete a separate form for each apprenticeship program in which workers are employed on the project.)			
A. Contractor was a party to an apprenticeship program or programs with the following sponsor: (Give sponsor's name.)*		B. Was the contractor a party to the program during the <i>entire</i> report month?	
		1. Yes <input type="checkbox"/>	
		2. No <input type="checkbox"/> If NO, state applicable period and why (may be subject to sanctions.)	
IV. Contractor's Certification			
I certify that the above information is accurate to the best of my knowledge. I understand that my willful misstatement of facts may cause forfeiture of the preference under Act 17 and may result in criminal action. I give permission for outside sources to be contacted and for them to disclose any information necessary to verify the bidder's preference.			
A. Name (Type)		B. Title	
C. Signature (original signature required)		D. Date	
V. Apprenticeship Sponsor's Contact Information			
A. Training Coordinator's Name:			
B. Address:			
C. Phone No.:		D. E-Mail:	
		E. Fax No:	
VI. Apprenticeship Program Sponsor's Certification			
I certify that the above information is accurate to the best of my knowledge. I understand that my willful misstatement of facts may cause forfeiture of the bidder's preference and may result in criminal action. I give permission for outside sources to be contacted and for them to disclose any information necessary to verify the bidder's preference under Act 17.			
A. Name of Authorized Official		B. Title	
C. Signature (original signature required)		D. Date	

* Name of Apprenticeship Sponsor must be the **same** as recorded in the List of Construction Trades in Registered Apprenticeship Programs that is posted on the State Department of Labor and Industrial Relations website.

**CERTIFICATION OF COMPLIANCE
FOR
EMPLOYMENT OF STATE RESIDENTS
HRS CHAPTER 103B, AS AMENDED BY ACT 192, SLH 2011**

Project Title: _____

Agency Project No: _____

Contract No.: _____

As required by Hawai'i Revised Statutes Chapter 103B, as amended by Act 192, Session Laws of Hawaii 2011—Employment of State Residents on Construction Procurement Contracts, I hereby certify under oath, that I am an officer of _____ and

(Name of Contractor or Subcontractor Company)

for the Project Contract indicated above, _____ was in

(Name of Contractor or Subcontractor Company)

compliance with HRS Chapter 103B, as amended by Act 192, SLH 2011, by employing a workforce of which not less than eighty percent are Hawai'i residents, as calculated according to the formula in the solicitation, to perform this Contract.

☐ I am an officer of the **Contractor** for this contract.

☐ I am an officer of a **Subcontractor** for this contract.

CORPORATE SEAL

(Name of Company)

(Signature)

(Print Name)

(Print Title)

Subscribed and sworn to me before this
_____ day of _____, 2011.

Doc. Date: _____ # of Pages _____ 1st Circuit

Notary Name: _____

Doc. Description: _____

Notary Public, 1st Circuit, State of Hawai'i

My commission expires: _____

Notary Signature

Date

NOTARY CERTIFICATION

EXHIBIT 2

Department of Hawaiian Home Lands - Land Development Division

SIGN-IN SHEET

IFB-17-HHL-010	This project consists of furnishing all labor, materials, equipment and supervision to satisfactorily repair and/or replace the existing sewer lines and manholes within DHHL's Papakolea Subdivision, Papakolea, Honolulu, Oahu, Hawaii.
-----------------------	---

INSTRUCTIONS

Read this packet carefully. If you have any questions, please call Mitchell Kawamura, LDD Project Manager, at 808-620-9278 or email to mitchell.h.kawamura@hawaii.gov

Note: Please fax this sheet to 620-9299, mail or email to kehaulani.a.quartero@hawaii.gov after downloading this document from the Department of Hawaiian Home Lands website.

Pre-Bid Conference:	Date: March 15, 2017 Time: 9:00 a.m. Location: Papakolea Community Center, 2150 Tantalus Drive, Honolulu, Hawaii
Pre-Bid Site Inspection:	Date: March 15, 2017 Time: 10:00 a.m. Location: Papakolea Community Center, 2150 Tantalus Drive, Honolulu, Hawaii
Notice of Intention to Bid Due:	Date: March 24, 2017 Time: Midnight Location: Hale Kalaniana'ole, 91-5420 Kapolei Parkway, Kapolei, Hawaii, 96707 Submittal of a Notice of Intention to Bid via facsimile at (808)620-9299 or email to kehaulani.a.quartero@hawaii.gov is acceptable.
Bid Offer Form Due:	Date: April 5, 2017 Time: 2:00 p.m. Location: 91-5420 Kapolei Parkway, Kapolei, Hawaii, 96707
Bid Opening:	Date: April 5, 2017 Time: 2:15 pm Location: Hale Kalaniana'ole 91-5420 Kapolei Parkway Kapolei, Hawaii, 96707
Date: _____	
Company:	_____
Address:	_____ _____ _____
Phone No.	_____ Cell No. _____
Fax No.	_____
Email Address:	_____
Contact Person:	_____

Signature of Person Downloading Packet (Print Name & Title after signature)

State of Hawai'i
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
Princess Ruth Ke'elikolani Building
830 Punchbowl Street
Honolulu, Hawai'i 96813



February 20, 2017

WAGE RATE SCHEDULE BULLETIN NO. 489

This schedule of wage rates contained herein is recognized by the Director of Labor and Industrial Relations to be prevailing on public construction work for the purposes of Chapter 104, Hawai'i Revised Statutes. The schedule of wage rates determines the applicable wage determination for each classification and does not impose any staffing requirements for any classification. The schedule of wage rates is applicable only to those laborers and mechanics employed at the site of work.

As required by law, future wage rates for laborers and mechanics are incorporated into this bulletin based on available information and are subject to change. Whenever the Director determines that the prevailing wage has increased as shown in the wage rate schedule, the contractor must increase the wages accordingly during the performance of the contract. For addenda or additional wage rate schedules, please consult the Internet at <http://labor.hawaii.gov/rs>.

The Apprentice Schedule is available on the Internet or upon request from the Research and Statistics Office. Pursuant to Section 12-22-6 (1), Hawai'i Administrative Rules, the Apprentice Schedule is applicable only to apprentices who are parties to apprenticeship agreements registered with or recognized by the Department of Labor and Industrial Relations.

Questions on the schedule should be referred to the Research and Statistics Office at (808) 586-9005.

The next regular schedule will be issued on or about September 15, 2017.

LINDA CHU TAKAYAMA
Director

STATE OF HAWAII
DAVID Y. IGE, Governor

DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
LINDA CHU TAKAYAMA, Director

RESEARCH AND STATISTICS OFFICE
PHYLLIS DAYAO, Research & Statistics Officer

OPERATIONS MANAGEMENT INFORMATION STAFF
Janet Kaya, Supervisor

In cooperation with:
WAGE STANDARDS DIVISION
PAMELA MARTIN, Administrator

WAGE RATE SCHEDULE BULLETIN NO. 489

Classification	Current						2017						2018						2019						Remarks See Pg 7-9	
	Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate		Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate		Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate		Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate			
* ASPHALT PAVING GROUP:																										
Asphalt Concrete Material Transfer Asphalt Raker Asphalt Spreader Operator Laborer, Hand Roller Roller Operator (5 tons and under) Roller Operator (over 5 tons) Screed Person EQUIPMENT OPERATOR: Combination Loader/Backhoe (over 3/4 cu. yd.) Combination Loader/Backhoe (up to 3/4 cu. yd.) Concrete saws and/or Grinder (self-propelled unit on streets, highways, airports and canals) Grader, Soil Stabilizer, Cold Planer Loader (2-1/2 cu. yds. and under) Loader (over 2-1/2 cu. yds. to and including 5 cu. yds.) TRUCK DRIVER: Assistant to Engineer Oil Tanker (double), Hot Liquid Asphalt Tanker Semi-Trailer, Semi-Dump, Asphalt Distributor Slip-in or Pup Single or Rock Cans Tandem Dump Truck (8 cu. yds. & under, water level) Single or Rock Cans Tandem Dump Truck (over 8 cu. yds., water level) Tractor Trailer (hauling equipment) Utility, Flatbed		9/19/16	\$71.14	\$40.67	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$70.18	\$39.71	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.66	\$41.19	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$67.41	\$36.94	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$69.91	\$39.44	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.34	\$40.87	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.14	\$40.67	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$70.18	\$39.71	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$69.20	\$38.73	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.14	\$40.67	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.97	\$41.50	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.14	\$40.67	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.46	\$40.99	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$69.91	\$39.44	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
		\$71.46	\$40.99	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13
\$71.14	\$40.67	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13		
\$71.46	\$40.99	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13		
\$70.18	\$39.71	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13		
\$70.49	\$40.02	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13		
\$71.57	\$41.10	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13		
\$69.91	\$39.44	\$30.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.13		
BOILERMAKER																										
9/19/16	\$63.88	\$34.43	\$29.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	
CARPENTER:																										
8/29/16				9/4/17				9/3/18																		
	\$66.86	\$45.65	\$21.21	\$68.91	\$47.45	\$21.46	\$71.16	\$49.45	\$21.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,12.13	
	\$67.11	\$45.90	\$21.21	\$69.16	\$47.70	\$21.46	\$71.41	\$49.70	\$21.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,12.13	
	\$67.01	\$45.80	\$21.21	\$69.06	\$47.60	\$21.46	\$71.31	\$49.60	\$21.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,12.13	
CEMENT FINISHER:																										
9/19/16				9/4/17			9/3/18																			
	\$65.64	\$38.50	\$27.14	\$67.28	\$39.10	\$28.18	\$68.83	\$39.80	\$29.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,12.13	
	\$65.79	\$38.65	\$27.14	\$67.43	\$39.25	\$28.18	\$68.98	\$39.95	\$29.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,12.13	

WAGE RATE SCHEDULE BULLETIN NO. 489

Classification	Current			2017			2018			2019			Remarks See Pg 7-9
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
CHAIN-LINK FENCE ERECTOR	10/3/16 \$34.45	\$21.30	\$13.15	10/2/17 \$36.55	\$22.60	\$13.95	10/1/18 \$38.75	\$24.00	\$14.75	-	-	-	10.13
CHLORINATOR	9/19/16 \$31.92	\$28.90	\$3.02	-	-	-	-	-	-	-	-	-	
* DIVER:	9/19/16												
Diver (Aqua Lung) (Scuba) - Up to a depth of 30 feet	\$84.29	\$54.38	\$29.91	-	-	-	-	-	-	-	-	-	12.13
Diver (Aqua Lung) (Scuba) - Over a depth of 30 feet	\$93.66	\$63.75	\$29.91	-	-	-	-	-	-	-	-	-	12.13
Stand-By Diver (Aqua Lung) (Scuba)	\$74.91	\$45.00	\$29.91	-	-	-	-	-	-	-	-	-	12.13
Diver (Other than Aqua Lung)	\$93.66	\$63.75	\$29.91	-	-	-	-	-	-	-	-	-	3,12.13
Stand-By Diver (Other than Aqua Lung)	\$74.91	\$45.00	\$29.91	-	-	-	-	-	-	-	-	-	3,12.13
Tender (Other than Aqua Lung)	\$71.88	\$41.97	\$29.91	-	-	-	-	-	-	-	-	-	12.13
DRAPERY INSTALLER	9/19/16 \$23.61	\$21.00	\$2.61	-	-	-	-	-	-	-	-	-	
DRYWALL INSTALLER	8/29/16 \$67.11	\$45.90	\$21.21	9/4/17 \$69.16	\$47.70	\$21.46	9/3/18 \$71.41	\$49.70	\$21.71	-	-	-	12.13
* ELECTRICIAN (Note: 2 increases per year.)	2/19/17			8/20/17			2/18/18			2/17/19			
Cable Splicer (inside/outside)	\$79.61	\$51.54	\$28.07	\$81.03	\$52.58	\$28.45	\$82.47	\$53.68	\$28.79	\$84.67	\$55.33	\$29.34	4.13
Ground Worker (outside)	\$58.75	\$35.14	\$23.61	\$59.77	\$35.85	\$23.92	\$60.77	\$36.60	\$24.17	\$62.30	\$37.73	\$24.57	4.13
Heavy Equipment Operator (outside)	\$67.70	\$42.17	\$25.53	\$68.88	\$43.02	\$25.86	\$70.08	\$43.92	\$26.16	\$71.90	\$45.27	\$26.63	4.13
Line Installer (outside); Wire Installer (inside)	\$73.66	\$46.85	\$26.81	\$74.96	\$47.80	\$27.16	\$76.27	\$48.80	\$27.47	\$78.28	\$50.30	\$27.98	4.13
Cable Splicer (inside/outside)	-	-	-	-	-	-	8/26/18			8/25/19			
Ground Worker (outside)	-	-	-	-	-	-	\$83.98	\$54.78	\$29.20	\$85.48	\$55.88	\$29.60	4.13
Heavy Equipment Operator (outside)	-	-	-	-	-	-	\$61.83	\$37.35	\$24.48	\$62.87	\$38.10	\$24.77	4.13
Line Installer (outside); Wire Installer (inside)	-	-	-	-	-	-	\$71.31	\$44.82	\$26.49	\$72.56	\$45.72	\$26.84	4.13
	-	-	-	-	-	-	\$77.65	\$49.80	\$27.85	\$79.01	\$50.80	\$28.21	4.13
Telecommunication Worker	8/28/16			9/3/17									
Licensed Technician	\$40.78	\$28.79	\$11.99	\$42.13	\$29.94	\$12.19	-	-	-	-	-	-	13
Technician I / Splicer	\$38.09	\$27.35	\$11.74	\$40.38	\$28.44	\$11.94	-	-	-	-	-	-	13
* ELEVATOR CONSTRUCTOR MECHANIC	2/20/17 \$87.195	\$55.61	\$31.585	-	-	-	-	-	-	-	-	-	13

WAGE RATE SCHEDULE BULLETIN NO. 489

Classification	Current			2017			2018			2019			Remarks See Pg 7-9
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
*EQUIPMENT OPERATOR:													
Group 1	9/19/16	\$69.60	\$39.69	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 2		\$69.71	\$39.80	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 3		\$69.88	\$39.97	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 4		\$70.15	\$40.24	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 5		\$70.46	\$40.55	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 6		\$71.11	\$41.20	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 7		\$71.43	\$41.52	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 8		\$71.54	\$41.63	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 9		\$71.65	\$41.74	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 9A		\$71.88	\$41.97	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 10		\$71.94	\$42.03	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 10A		\$72.09	\$42.18	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 11		\$72.24	\$42.33	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 12		\$72.60	\$42.69	\$29.91	-	-	-	-	-	-	-	-	5.12.13
Group 12A		\$72.96	\$43.05	\$29.91	-	-	-	-	-	-	-	-	5.12.13
FENCE ERECTOR (CHAIN-LINK TYPE)													
See Chain-Link Fence Erector		-	-	-	-	-	-	-	-	-	-	-	
FLOOR LAYER (CARPET, LINOLEUM & SOFT TILE)													
	9/19/16	\$58.49	\$32.00	\$26.49	2/26/17	\$60.73	\$33.00	\$27.73	3/4/18	\$63.47	\$34.15	\$29.32	13
GLAZIER													
	9/19/16	\$65.12	\$35.78	\$29.34									6.13
*HELICOPTER WORK:													
Airborne Hoist Operator	9/19/16	\$73.46	\$43.55	\$29.91									12.13
Co-Pilot		\$73.60	\$43.69	\$29.91									12.13
Pilot		\$73.77	\$43.86	\$29.91									12.13
*INSULATOR													
	9/21/15	\$63.15	\$39.65	\$23.50	9/3/17	\$64.40	\$40.50	\$23.90	9/2/18	\$65.10	\$41.00	\$24.10	7.12.13
IRONWORKER:													
Reinforcing, Structural	9/19/16	\$68.66	\$37.75	\$30.91									8.13

WAGE RATE SCHEDULE BULLETIN NO. 489

Classification	Current			2017			2018			2019			Remarks See Pg 7-9
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
*LABORER:													
Driller	8/29/16 \$54.76	\$36.35	\$18.41	9/4/17 \$56.66	\$37.40	\$19.26	9/3/18 \$58.66	\$38.40	\$20.26	-	-	-	1,13
Gunitie Operator or Shotcrete Operator	\$54.26	\$35.85	\$18.41	\$56.16	\$36.90	\$19.26	\$58.16	\$37.90	\$20.26	-	-	-	1,13
High Scaler (Working Suspended)	\$54.26	\$35.85	\$18.41	\$56.16	\$36.90	\$19.26	\$58.16	\$37.90	\$20.26	-	-	-	1,13
Laborer I	\$55.76	\$35.35	\$18.41	\$55.66	\$36.40	\$19.26	\$57.66	\$37.40	\$20.26	-	-	-	1,13
Laborer II	\$51.16	\$32.75	\$18.41	\$53.06	\$33.80	\$19.26	\$55.06	\$34.80	\$20.26	-	-	-	1,13
Light/Final Clean-up (Janitorial) Laborer	\$41.04	\$26.75	\$14.29	\$42.94	\$27.80	\$15.14	\$44.92	\$28.80	\$16.12	-	-	-	1,13
Mason Tender/Hod Carrier	\$54.26	\$35.85	\$18.41	\$56.16	\$36.90	\$19.26	\$58.16	\$37.90	\$20.26	-	-	-	1,13
Powder Blaster	\$54.76	\$36.35	\$18.41	\$56.66	\$37.40	\$19.26	\$58.66	\$38.40	\$20.26	-	-	-	1,13
Window Washer (Outside) (On bosun's chair, cable-suspended scaffold or work platform)	\$53.26	\$34.85	\$18.41	\$55.16	\$35.90	\$19.26	\$57.16	\$36.90	\$20.26	-	-	-	13
*LANDSCAPER:													
Landscape & Irrigation Laborer A	8/29/16 \$35.52	\$24.25	\$11.27	9/4/17 \$36.82	\$24.85	\$11.97	9/3/18 \$38.18	\$25.50	\$12.68	9/2/19 \$39.60	\$26.15	\$13.45	
Landscape & Irrigation Laborer B	\$36.22	\$24.95	\$11.27	\$37.62	\$25.65	\$11.97	\$39.08	\$26.40	\$12.68	\$40.60	\$27.15	\$13.45	
Landscape & Irrigation Maintenance Laborer	\$31.52	\$20.25	\$11.27	\$32.62	\$20.65	\$11.97	\$33.78	\$21.10	\$12.68	\$35.00	\$21.55	\$13.45	
*LATHER													
	8/29/16 \$67.11	\$45.90	\$21.21	9/4/17 \$69.16	\$47.70	\$21.46	9/3/18 \$71.41	\$49.70	\$21.71	-	-	-	12,13
*MASON, Bricklayer,													
Cement Blocklayer, Stone Mason, Precast Sill Setter	9/19/16 \$66.33	\$39.11	\$27.22	9/4/17 \$68.03	\$39.76	\$28.27	-	-	-	-	-	-	2,12,13
Pointer-Caulker-Weatherproof	\$66.58	\$39.36	\$27.22	\$68.28	\$40.01	\$28.27	-	-	-	-	-	-	2,12,13
*PAINTER:													
Painter, Spray Painter, Sandblaster or Waterblaster	2/20/17 \$64.55	\$36.35	\$28.20	7/1/17 \$65.38	\$36.85	\$28.53	1/1/18 \$66.21	\$37.35	\$28.86	1/1/19 \$67.74	\$38.35	\$29.39	
Painter, Spray Painter, Sandblaster or Waterblaster	-	-	-	-	-	-	7/1/18 \$67.04	\$37.85	\$29.19	7/1/19 \$68.44	\$38.80	\$29.64	
*PLASTERER:													
	9/19/16 \$66.93	\$39.79	\$27.14	9/4/17 \$68.72	\$40.54	\$28.18	9/3/18 \$70.37	\$41.34	\$29.03	-	-	-	2,12,13
*PLUMBER: (Note: 2 increases per year.)													
Plumber, Pipefitter, Refrigeration Fitter, Heating & Air Conditioning Fitter, Sprinkler Fitter, Steamfitter	1/1/17 \$66.60	\$41.35	\$25.25	7/2/17 \$67.35	\$41.85	\$25.50	1/7/18 \$68.12	\$42.35	\$25.77	1/6/19 \$69.59	\$43.35	\$26.24	9,13
Plumber, Pipefitter, Refrigeration Fitter, Heating & Air Conditioning Fitter, Sprinkler Fitter, Steamfitter	-	-	-	-	-	-	7/1/18 \$68.87	\$42.85	\$26.02	7/7/19 \$70.34	\$43.85	\$26.49	9,13

WAGE RATE SCHEDULE BULLETIN NO. 489

Classification	Current			2017			2018			2019			Remarks See Pg 7-9
	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	Prevailing Wage Total	Basic Hourly Rate	Fringe Hourly Rate	
ROOFER: Shingle, Tile, Built-up Roofing Coal Tar Pitch	9/19/16 \$57.78 \$97.63	\$39.85 \$79.70	\$17.93 \$17.93	- -	- -	- -	- -	- -	- -	- -	- -	- -	
SANDBLASTER OR WATERBLASTER: Use wages of craft to which sand or water blasting is incidental.													
* SHEETMETAL WORKER (Note: 2 increases per year starting from 2017)	8/28/16 \$65.91	\$40.59	\$25.32	2/26/17 \$67.20	\$41.29	\$25.91	3/4/18 \$69.23	\$42.20	\$27.03				13
				9/3/17 \$68.33	\$41.80	\$26.53	9/2/18 \$69.99	\$42.55	\$27.44				13
TAPER	1/1/17 \$65.90	\$42.00	\$23.90	- -	- -	- -	- -	- -	- -	- -	- -	- -	
TERMITE TREATER	9/19/16 \$13.00	\$13.00	\$0.00	- -	- -	- -	- -	- -	- -	- -	- -	- -	
TERRAZZO: Terrazzo Setter Terrazzo Base Grinder Certified Terrazzo Floor Grinder and Tender Terrazzo Floor Grinder	9/19/16 \$67.12 \$65.31 \$63.76 \$60.76	\$40.20 \$38.39 \$36.84 \$33.84	\$26.92 \$26.92 \$26.92 \$26.92	9/4/17 \$68.92 \$67.11 \$65.56 \$62.56	\$40.95 \$39.14 \$37.59 \$34.59	\$27.97 \$27.97 \$27.97 \$27.97	9/3/18 \$70.52 \$68.71 \$67.16 \$64.16	\$41.70 \$39.89 \$38.34 \$35.34	\$28.82 \$28.82 \$28.82 \$28.82	- - - -	- - - -	- - - -	2.13 2.13 2.13 2.13
TILE SETTER: Ceramic Hard Tile, Marble Setter Certified Ceramic Tile & Marble Helper	9/19/16 \$67.12 \$63.76	\$40.20 \$36.84	\$26.92 \$26.92	9/4/17 \$68.92 \$65.56	\$40.95 \$37.59	\$27.97 \$27.97	9/3/18 \$70.52 \$67.16	\$41.70 \$38.34	\$28.82 \$28.82	- -	- -	- -	2.13 2.13
TRUCK DRIVER: Concrete Mixer Concrete Mixer/Booster	9/19/16 \$31.79 \$46.76	\$28.71 \$33.53	\$3.08 \$13.23	- -	- -	- -	- -	- -	- -	- -	- -	- -	
* Dump Truck, 8 cu. yds. & under (water level); Water Truck (up to & including 2,000 gallons)	\$70.15	\$40.24	\$29.91	-	-	-	-	-	-	-	-	-	12.13
* Flashed, Utility, etc.	\$69.88	\$39.97	\$29.91	-	-	-	-	-	-	-	-	-	12.13
* End Dump, Unlicensed (Euclid, Mack, Caterpillar, or similar); Tractor Trailer (hauling equipment)	\$71.54	\$41.63	\$29.91	-	-	-	-	-	-	-	-	-	12.13
* Semi-Trailer, Rock Cans, or Semi-Dump	\$71.11	\$41.20	\$29.91	-	-	-	-	-	-	-	-	-	12.13
* Slip-in or Pup	\$71.43	\$41.52	\$29.91	-	-	-	-	-	-	-	-	-	12.13
* Tandem Dump Truck, over 8 cu. yds. (water level); Water Truck (over 2,000 gallons)	\$70.46	\$40.55	\$29.91	-	-	-	-	-	-	-	-	-	12.13

WAGE RATE SCHEDULE BULLETIN NO. 489

Classification	Current						2017						2018						2019						Remarks See Pg 7-9	
	Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate		Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate		Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate		Prevailing Wage Total		Basic Hourly Rate		Fringe Hourly Rate			
UNDERGROUND LABORER:																										
Worker in a raise, shaft, or tunnel.																										
Group 1		\$54.36		\$35.95		\$18.41		\$56.26		\$37.00		\$19.26		\$58.26		\$38.00		\$20.26		-		-		-		13
Group 2		\$55.86		\$37.45		\$18.41		\$57.76		\$38.50		\$19.26		\$59.76		\$39.50		\$20.26		-		-		-		13
Group 3		\$56.36		\$37.95		\$18.41		\$58.26		\$39.00		\$19.26		\$60.26		\$40.00		\$20.26		-		-		-		13
Group 4		\$57.36		\$38.95		\$18.41		\$59.26		\$40.00		\$19.26		\$61.26		\$41.00		\$20.26		-		-		-		13
Group 5		\$57.61		\$39.20		\$18.41		\$59.51		\$40.25		\$19.26		\$61.51		\$41.25		\$20.26		-		-		-		13
Group 6		\$57.71		\$39.30		\$18.41		\$59.61		\$40.35		\$19.26		\$61.61		\$41.35		\$20.26		-		-		-		13
Group 7		\$57.96		\$39.55		\$18.41		\$59.86		\$40.60		\$19.26		\$61.86		\$41.60		\$20.26		-		-		-		13
Group 8		\$58.41		\$40.00		\$18.41		\$60.31		\$41.05		\$19.26		\$62.31		\$42.05		\$20.26		-		-		-		13
*WATER FRONT CONSTRUCTION (DREDGING):																										
CLAMSHELL OR DIPPER DREDGES:																										
Clamshell or Dipper Operator		\$72.60		\$42.69		\$29.91		-		-		-		-		-		-		-		-		-		11,12,13
Mechanic, Welder, Watch Engineer		\$71.94		\$42.03		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Deckmate, Bargemate		\$71.54		\$41.63		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Fire Person, Oiler, Deckhand, Barge Worker		\$69.88		\$39.97		\$29.91		-		-		-		-		-		-		-		-		-		12,13
HYDRAULIC SUCTION DREDGES:																										
Lever Operator		\$72.24		\$42.33		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Mechanic, Welder		\$71.94		\$42.03		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Watch Engineer (steam or electric)		\$72.09		\$42.18		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Dozer Operator		\$71.88		\$41.97		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Deckmate		\$71.54		\$41.63		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Winch Operator (stem winch on dredge)		\$71.43		\$41.52		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Fire Person, Oiler, Deckhand (can operate anchor screw under direction of deckmate), Levee Operator		\$69.88		\$39.97		\$29.91		-		-		-		-		-		-		-		-		-		12,13
DERRICKS:																										
Operator, Derrick, Piledriver, Crane		\$72.60		\$42.69		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Deckmate, Sauman Type Dragline (up to & including 5 yds.)		\$71.54		\$41.63		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Sauman Type Dragline (over 5 cu. yds.)		\$71.94		\$42.03		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Fire Person, Oiler, Deckhand		\$69.88		\$39.97		\$29.91		-		-		-		-		-		-		-		-		-		12,13
BOAT OPERATORS:																										
Master Boat Operator		\$72.24		\$42.33		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Boat Operator		\$72.09		\$42.18		\$29.91		-		-		-		-		-		-		-		-		-		12,13
Boat Deckhand		\$69.88		\$39.97		\$29.91		-		-		-		-		-		-		-		-		-		12,13
WATER WELL DRILLER:																										
Water Well Driller		\$39.68		\$31.00		\$8.68		-		-		-		-		-		-		-		-		-		
Water Well Driller Helper		\$25.58		\$18.00		\$7.58		-		-		-		-		-		-		-		-		-		
WELDER:																										
Use wages of craft to which welding is incidental, except for Chain-Link Fence Erector. See remark.																										
																										10

Comments: Overtime must be paid at one and one-half times the basic hourly rate plus the hourly cost of required fringe benefits.
 * Indicates a wage, fringe benefit, remark, or title change from the previous bulletin.

WAGE RATE SCHEDULE BULLETIN NO. 489

REMARKS

1. Carpenter, Laborer (excluding High Scaler, Window Washer): \$.50 per hour shall be added to the regular straight-time rate for height pay for each hour while working from a bosun's chair and/or from a cable-suspended scaffold or work platform which is free swinging (not attached to building) for each hour worked on said rig.
2. Cement Finisher, Mason, Plasterer, Terrazzo, Tile Setter: \$1.00 per hour shall be added to the regular straight-time rate for height pay for each hour while working from a bosun's chair and/or from a cable-suspended scaffold or work platform which is free swinging (not attached to building) for each hour worked on said rig.
3. Diver (Other than Aqua Lung), Stand-By Diver (Other than Aqua Lung):
 - A. On any dive exceeding 50 feet, the diver shall, in addition, be paid the following amount of "depth money":

50 feet to 100 feet	\$1.50 per foot in excess of 50 feet
100 feet to 150 feet	\$100.00 plus \$2.00 per foot in excess of 100 feet
150 feet to 200 feet	\$200.00 plus \$3.00 per foot in excess of 150 feet
 - B. When it is necessary for a Diver to enter any pipe, tunnel or other enclosure, the said Diver shall, in addition to the hourly rate, receive a premium in accordance with the following schedule for distance traveled from the entrance of the pipe, tunnel or other enclosure:
 - 1) When able to stand erect, but in which there is no vertical ascent:

5 feet to 50 feet	\$5.00 per day
50 feet to 100 feet	\$7.50 per day
100 feet to 150 feet	\$12.50 per day
 - 2) When unable to stand erect and in which there is no vertical ascent:

5 feet to 50 feet	\$5.00 per day
50 feet to 100 feet	\$7.50 per day
100 feet to 150 feet	\$12.50 per day
150 feet to 200 feet	\$36.75 per day
200 feet to 300 feet	\$1.00 per foot
300 feet to 450 feet	\$1.50 per foot
450 feet to 600 feet	\$2.50 per foot
4. Electrician:
 - A. One and one-half times the straight-time rate while working in a tunnel under construction; under water with aqualing equipment; in a completed tunnel which has only one entrance or exit providing access to safety and where no other personnel are working; or in an underground structure having no access to safety or where no other personnel are working.
 - B. Double the straight-time rate shall be paid for the following types of hazardous work regardless if fall prevention devices are used:
 - 1) While working from poles, trusses, stacks, towers, tanks, bosun's chairs, swinging or rolling scaffolds, supporting structures, and open platforms, over 70 feet from the ground where the employee is subject to a free fall; provided, however, that when work is performed on stacks, towers or permanent platforms where the employees are on a firm footing within an enclosure, a hazardous condition does not exist regardless of height.
 - 2) While working outside of a railing or enclosure, or temporary platforms extending outside of a building, or from scaffolding or ladder within an enclosure where an employee's footing is within one foot of the top of such railing, and the employee is subject to a free fall of over 70 feet.
 - 3) Working on buildings while leaning over the railing or edge of the building, and is subject to a free fall of 70 feet; or
 - 4) Two hours minimum hazardous pay per day shall be paid while climbing to a stack, tower or permanent platform which exceeds 70 feet from the ground but where the employee is on a firm footing within an enclosure.
 - C. Five percent per hour shall be added to the hourly wage for height pay while working above 9,000 feet elevation.

WAGE RATE SCHEDULE BULLETIN NO. 489

REMARKS

5. Equipment Operator:

- A. Operators and Assistants to Engineer (climbing a boom) of cranes (under 50 tons) with booms of eighty feet or more (including jib) or of cranes (under 50 tons) with leads of one hundred feet or more, shall receive additional premium according to the following schedule:

	Per Hour
Booms of 80 feet up to, or leads of 100 feet up to, but not including 130 feet	\$0.50
Booms and/or leads of 130 feet up to, but not including 180 feet	\$0.75
Booms and/or leads of 180 feet up to and including 250 feet	\$1.15
Booms and/or leads over 250 feet	\$1.50

Operators and Assistants to Engineer (climbing a boom) of cranes (50 tons and over) with booms of 180 feet or more (including jib) shall receive additional premium according to the following schedule:

	Per Hour
Booms of 180 feet up to and including 250 feet	\$1.25
Booms over 250 feet	\$1.75

Note: The boom shall be measured from the center of the heel pin to the center of the boom or jib point sheave.

- B. \$1.25 per hour shall be added to the hourly wage while operating a rig suspended by ropes or cables or to perform work on a Yo-Yo Cat.
- C. In a raise or shaft, a premium of \$.40 per hour will be paid in addition to the regular straight time wage.
A raise is defined to be an underground excavation (lined or unlined) whose length exceeds its width and the inclination of the grade from the excavation is greater than 20 degrees from the horizontal.
A shaft is defined to be an excavation (lined or unlined) made from the surface of the earth, generally vertical in nature, but may decline up to 75 degrees from the vertical, and whose depth is greater than 15 feet and its largest horizontal dimension. Includes an underground silo.
- D. In a tunnel, a premium of \$.30 per hour will be paid in addition to the regular straight time wages.
A tunnel is defined to be an underground excavation (lined or unlined) whose length exceeds its width and the inclination of the grade from the excavation is no greater than 20 degrees from the horizontal.
6. Glazier: \$1.00 per hour shall be added to the hourly wage for height pay for exterior glazing work performed in a walking/working surface with an unprotected side or edge 10 feet or more above a lower level which requires protection from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, position devise systems, fall restraint systems, perimeter safety cables or controlled decking zones.
7. Insulator: Six percent per hour shall be added to the hourly wage for hazardous pay while working from a boatswain chair, staging or free standing scaffolding erected from the ground up or mezzanine floor subject to a free fall and skyclimber suspended from a permanent structure and when working above 40 feet.
8. Ironworker: \$.50 per hour shall be added to the hourly wage while working in tunnels or coffer dams. \$1.00 per hour shall be added to the hourly wage while working under or covered with water (submerged), or on the summits of Mauna Kea, Mauna Loa or Haleakala.
9. Plumber: One and one-half times the straight-time rate for height pay while working from OSHA approved trusses, stacks, towers, tanks, bosun's chair, swinging or rolling scaffolding, supporting structures or on open platforms where the employee is subject to a direct fall of 40 feet or more. Provided, however, that when said work is performed where the employee is on a firm footing within an enclosure, a hazardous condition does not exist regardless of height. \$1.00 per hour shall be added to the straight-time rate while working with flame cutting or any type of welding equipment on any galvanized material or product for at least an hour.

10. Chain-Link Fence Erector: \$1.00 per hour shall be added to the hourly wage while performing welding services.

11. Water Front Construction: Clamshell or Dipper Operator: \$.50 per hour shall be added to the straight-time rate while working with boom (including jib) over 130 feet.

12. Possible wage/fringe option increases:

Carpenter, Drywall and Lather: Effective WRS 490 - \$0.20; 9/3/18 - \$0.25

Cement Finisher, Plasterer: - Effective WRS 490 - \$0.30; 9/3/18 - \$0.30

Asphalt Paving, Diver, Equipment Operator, Helicopter Work, Truck Driver except Concrete Mixer & Concrete Mixer Booster, Water Front Construction (Dredging) – Effective

WRS 490 - \$2.45; 9/3/18 – \$2.75

Insulator: Effective 9/19/19 - \$0.25

Mason, Bricklayer: Effective WRS 490 - \$0.20

REMARKS

WAGE RATE SCHEDULE BULLETIN NO. 489

13. Overtime/Holiday must be paid at one and one-half times the basic hourly rate plus the hourly cost of required fringe, with the following exceptions:

A. Two times the basic hourly rate plus the hourly cost of required fringe.

Asphalt Paving: Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Boilermaker: Sunday, New Year's Day, President's Day, Memorial Day, Kamehameha Day, July 4th, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Diver: Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Electrician: Sunday, New Year's Day, President's Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

Elevator Constructor: Saturday, Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Equipment Operator: Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Floor Layer: Labor Day.

Glazier: Sunday.

Helicopter Worker: Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Ironworker: Sunday, New Year's Day, President's Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Plumber: Sunday, New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, Kamehameha Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Sheetmetal Worker: Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Kamehameha Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Telecommunication: Sunday, New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.
Truck Driver, except Concrete Mixer & Concrete Mixer/Booster: Sunday, New Year's Day, Martin Luther King Day, President's Day Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Water Front Construction (Dredging): Sunday, New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

B. Three times the basic hourly wage plus the hourly cost of required fringe on Labor Day.

Carpenter
Cement Finisher
Chain Link Fence Erector
Drywall
Insulator
Laborer
Lather
Mason
Plasterer
Terrazzo
Tile Setter
Underground Laborer

APPRENTICE SCHEDULE BULLETIN NO. 489 February 20, 2017

Rates are applicable only to apprentices who are parties to agreements registered with the Department of Labor and where the journeyworker to apprentice ratio is met.

Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
BOILERMAKER	1000	\$24.10	\$25.82	\$27.54	\$29.27	\$30.99	\$32.71					\$29.45	10
CARPENTER													
Indentured Prior to 9/1/02	1000	\$18.26	\$20.54	\$22.83	\$27.39	\$31.96	\$36.52	\$41.09	\$43.37			\$12.52	1,10
"	1000											\$21.21	1,10
Indentured After 9/1/02	1000	\$18.26	\$20.54	\$22.83	\$27.39	\$31.96	\$36.52	\$41.09	\$43.37			\$8.52	1,10
"	1000											\$12.51	1,10
"	1000											\$15.01	1,10
"	1000											\$17.01	1,10
"	1000											\$19.01	1,10
(Effective 9/4/17)													
* CARPENTER													
Indentured Prior to 9/1/02	1000	\$18.98	\$21.35	\$23.73	\$28.47	\$33.22	\$37.96	\$42.71	\$45.08			\$12.77	1,10
"	1000											\$21.46	1,10
Indentured After 9/1/02	1000	\$18.98	\$21.35	\$23.73	\$28.47	\$33.22	\$37.96	\$42.71	\$45.08			\$8.77	1,10
"	1000											\$12.76	1,10
"	1000											\$15.26	1,10
"	1000											\$17.26	1,10
"	1000											\$19.26	1,10
CEMENT FINISHER													
Indentured Prior to 9/1/03	1000	\$19.25	\$21.18	\$23.10	\$26.95	\$28.88	\$30.80	\$32.73	\$34.65			\$8.92	2,10
"	1000											\$27.14	2,10
Indentured On or After 9/1/03	1000	\$19.25	\$21.18	\$23.10	\$26.95	\$28.88	\$30.80	\$32.73	\$34.65			\$14.03	2,10
(Effective 9/4/17)													
* CEMENT FINISHER													
Indentured Prior to 9/1/03	1000	\$19.55	\$21.51	\$23.46	\$27.37	\$29.33	\$31.28	\$33.24	\$35.19			\$9.37	2,10
"	1000											\$28.18	2,10
Indentured On or After 9/1/03	1000	\$19.55	\$21.51	\$23.46	\$27.37	\$29.33	\$31.28	\$33.24	\$35.19			\$15.08	2,10

APPRENTICE SCHEDULE BULLETIN NO. 489 February 20, 2017
 Rates are applicable only to apprentices who are parties to agreements registered with the Department of Labor
 and where the journeyworker to apprentice ratio is met.

Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
CONSTRUCTION CRAFT LABORER (LABORER I)	1000	\$17.68	\$21.21	\$24.75	\$28.28							\$7.05	1.10
Indentured On or After 9/3/02	1000											\$13.60	1.10
"													
(Effective 9/4/17)													
* CONSTRUCTION CRAFT LABORER (LABORER I)	1000	\$18.20	\$21.84	\$25.48	\$29.12							\$7.55	1.10
Indentured On or After 9/3/02	1000											\$14.20	1.10
"													
CONSTRUCTION EQUIPMENT OPERATOR	1000	\$20.99	\$23.08	\$25.18	\$29.38	\$33.58	\$37.77					\$7.50	3.10
Indentured On or After 9/1/02	1000											\$17.82	3.10
"	1000											\$18.76	3.10
"	1000											\$20.64	3.10
"	1000											\$22.51	3.10
"	1000											\$24.39	3.10
DRYWALL INSTALLER	1000	\$18.36	\$20.66	\$22.95	\$27.54	\$32.13	\$36.72	\$41.31	\$43.61			\$12.52	10
Indentured Prior to 9/1/02	1000											\$21.21	10
Indentured After 9/1/02	1000	\$18.36	\$20.66	\$22.95	\$27.54	\$32.13	\$36.72	\$41.31	\$43.61			\$8.52	10
"	1000											\$12.51	10
"	1000											\$15.01	10
"	1000											\$17.01	10
"	1000											\$19.01	10
(Effective 9/4/17)													
* DRYWALL INSTALLER	1000	\$19.08	\$21.47	\$23.85	\$28.62	\$33.39	\$38.16	\$42.93	\$45.32			\$12.77	10
Indentured Prior to 9/1/02	1000											\$21.46	10
"	1000											\$8.77	10
Indentured After 9/1/02	1000	\$19.08	\$21.47	\$23.85	\$28.62	\$33.39	\$38.16	\$42.93	\$45.32			\$12.76	10
"	1000											\$15.26	10
"	1000											\$17.26	10
"	1000											\$19.26	10

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Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
ELECTRICIAN (WIRE & LINE INSTALLER)	1000	\$16.40										\$9.43	10
"	1000		\$18.74									\$9.75	10
"	1000			\$21.08								\$16.01	4.10
"	1000				\$23.43							\$16.99	4.10
"	1000					\$25.77						\$17.98	4.10
"	1000						\$28.11					\$18.95	4.10
"	1000							\$30.45				\$19.94	4.10
"	1000								\$32.80			\$20.92	4.10
"	1000									\$37.48		\$22.87	4.10
"	1000										\$42.17	\$24.84	4.10
(Effective 8/20/17)													
* ELECTRICIAN (WIRE & LINE INSTALLER)	1000	\$16.73										\$9.47	10
"	1000		\$19.12									\$9.80	10
"	1000			\$21.51								\$16.18	4.10
"	1000				\$23.90							\$17.18	4.10
"	1000					\$26.29						\$18.18	4.10
"	1000						\$28.68					\$19.17	4.10
"	1000							\$31.07				\$20.16	4.10
"	1000								\$33.46			\$21.17	4.10
"	1000									\$38.24		\$23.16	4.10
"	1000										\$43.02	\$25.16	4.10
* ELEVATOR CONSTRUCTOR													
"	850	\$27.805										-	10
"	850		\$30.59									\$31.585	10
"	1700			\$36.15		\$38.93						\$31.585	10
FLOOR LAYER													
Indentured After 2/27/94	1000	\$14.40	\$16.00									\$17.49	10
"	1000			\$17.60	\$19.20							\$22.49	10
"	1000					\$20.80	\$22.40	\$25.60	\$28.80			\$26.49	10
(Effective 2/26/17)													
* FLOOR LAYER	1000												
Indentured after 2/27/94	1000	\$14.85	\$16.50	\$18.15	\$19.80	\$21.45	\$23.10	\$26.40	\$29.70			\$18.48	10
"	1000											\$23.48	10
"	1000											\$27.73	10

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Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
GLAZIER													
Indentured On or After 7/1/99	1000	\$16.10										\$26.70	5.10
"	1000		\$17.89									\$26.94	5.10
"	1000			\$19.68								\$27.18	5.10
"	1000				\$21.47							\$27.42	5.10
"	1000					\$25.05						\$27.90	5.10
"	1000						\$26.84					\$28.14	5.10
"	1000							\$28.62				\$28.38	5.10
"	1000								\$30.41			\$28.62	5.10
"	1000									\$32.20		\$28.86	5.10
"	1000										\$33.99	\$29.10	5.10
HEAVY DUTY REPAIRER & WELDER (EQUIP. OPR 9A)													
Indentured on or after 9/1/02	1000	\$20.99										\$7.50	3.10
"	1000		\$23.08									\$17.82	3.10
"	1000			\$25.18								\$18.76	3.10
"	1000				\$29.38							\$20.64	3.10
"	1000					\$33.58						\$22.51	3.10
"	1000						\$35.67					\$23.46	3.10
"	1000							\$37.77				\$24.39	3.10
"	1000								\$39.87			\$25.34	3.10
INSULATOR													
Indentured After 5/3/95	2000	\$19.83										\$7.70	6.10
"	2000		\$19.83									\$17.31	6.10
"	2000			\$23.79								\$17.59	6.10
"	2000				\$27.76							\$17.88	6.10
"	2000					\$31.72						\$18.16	6.10
(Effective 9/3/17)													
* INSULATOR													
Indentured After 5/3/95	2000	\$20.25										\$7.80	6.10
"	2000		\$20.25									\$17.71	6.10
"	2000			\$24.30								\$17.99	6.10
"	2000				\$28.35							\$18.28	6.10
"	2000					\$32.40						\$18.56	6.10

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Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
IRONWORKER (REINFORCING & STRUCTURAL)													
Indentured After 10/31/93	1000	\$18.88	\$20.76	\$22.65	\$26.43	\$30.20	\$33.98					\$25.40	7.10
"	1000											\$25.95	7.10
"	1000											\$26.50	7.10
"	1000											\$27.60	7.10
"	1000											\$28.70	7.10
"	1000											\$29.81	7.10
LANDSCAPER	1000	\$15.76	\$16.98	\$18.19	\$19.40							\$5.60	
(Effective 9/4/17)	1000											\$9.20	
* LANDSCAPER	1000	\$16.15	\$17.40	\$18.64	\$19.88							\$6.15	
"	1000											\$9.82	
* MASON													
BRICKLAYER	1000	\$19.56	\$21.51	\$23.47	\$27.38	\$29.33	\$31.29	\$33.24	\$35.20			\$8.67	2.10
Indentured prior to 9/1/03	1000											\$27.22	2.10
Indentured On or After 9/1/03	1000	\$19.56	\$21.51	\$23.47	\$27.38	\$29.33	\$31.29	\$33.24	\$35.20			\$15.07	2.10
STONE MASON	1000	\$21.51	\$23.47	\$25.42	\$27.38	\$29.33	\$31.29	\$33.24	\$35.20			\$15.07	2.10
Indentured On or After 9/1/03	1000												
POINTER-CAULKER-WEATHERPROOFER	1000	\$19.68	\$21.65	\$23.62	\$27.55	\$31.49	\$35.42					\$15.07	2.10
Indentured On or After 9/1/03	1000												
(Effective 9/4/17)													
* MASON													
BRICKLAYER	1000	\$19.88	\$21.87	\$23.86	\$27.83	\$29.82	\$31.81	\$33.80	\$35.78			\$9.12	2.10
Indentured prior to 9/1/03	1000											\$28.27	2.10
Indentured On or After 9/1/03	1000	\$19.88	\$21.87	\$23.86	\$27.83	\$29.82	\$31.81	\$33.80	\$35.78			\$15.87	2.10
STONE MASON	1000	\$21.87	\$23.86	\$25.84	\$27.83	\$29.82	\$31.81	\$33.80	\$35.78			\$15.87	2.10
Indentured On or After 9/1/03	1000												
POINTER-CAULKER-WEATHERPROOFER	1000	\$20.01	\$22.01	\$24.01	\$28.01	\$32.01	\$36.01					\$15.87	2.10
Indentured On or After 9/1/03	1000												

APPRENTICE SCHEDULE BULLETIN NO. 489 February 20, 2017

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Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
* PAINTER	1000	\$16.36	\$18.18	\$19.99	\$21.81	\$23.63	\$25.45	\$27.26	\$30.90			\$9.02	
"	1000											\$12.52	
"	1000											\$13.52	
"	1000											\$14.27	
(Effective 7/1/17)													
* PAINTER	1000	\$16.58	\$18.43	\$20.27	\$22.11	\$23.95	\$25.80	\$27.64	\$31.32			\$9.02	
"	1000											\$12.52	
"	1000											\$13.52	
"	1000											\$14.27	
PAVING EQUIPMENT OPERATOR	1000	\$22.37	\$28.47	\$32.54	\$36.60							\$7.50	10
"	1000											\$18.28	10
"	1000											\$21.21	10
"	1000											\$25.13	10
PLASTERER	1000	\$15.92	\$17.91	\$19.90	\$21.88	\$23.87	\$27.85	\$31.83	\$35.81			\$14.03	2, 10
Indentured On or After 9/1/03 (Effective 9/4/17)													
* PLASTERER	1000	\$16.22	\$18.24	\$20.27	\$22.30	\$24.32	\$28.38	\$32.43	\$36.49			\$15.08	2, 10
Indentured On or After 9/1/03													
PLUMBER:													
PLUMBER: FIRE SPRINKLER FITTER; REFRIGERATION AIR CONDITIONING; STEAMFITTER-WELDER	1000	\$14.47	\$16.54	\$18.61	\$20.68	\$22.74	\$24.81	\$26.88	\$28.95	\$31.01	\$33.08	\$19.08	8, 10
Indentured Prior to 9/2/85													
"	1000											\$19.55	8, 10
"	1000											\$20.03	8, 10
"	1000											\$20.50	8, 10
"	1000											\$20.98	8, 10
"	1000											\$21.45	8, 10
"	1000											\$21.93	8, 10
"	1000											\$22.40	8, 10
"	1000											\$22.88	8, 10
"	1000											\$23.35	8, 10

PLUMBER: Continued on Next Page

APPRENTICE SCHEDULE BULLETIN NO. 489 February 20, 2017

Rates are applicable only to apprentices who are parties to agreements registered with the Department of Labor
and where the journeyworker to apprentice ratio is met.

Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
Indentured On or After 9/2/85	1000	\$16.62										\$5.96	8.10
"	1000		\$16.62									\$6.01	8.10
"	1000			\$19.64								\$8.08	8.10
"	1000				\$19.64							\$8.08	8.10
"	1000					\$22.74						\$8.79	8.10
"	1000						\$22.74					\$8.79	8.10
"	1000							\$26.88				\$9.64	8.10
"	1000								\$26.88			\$9.64	8.10
"	1000									\$31.01		\$10.28	8.10
"	1000										\$31.01	\$10.28	8.10
(Effective 7/2/17)													
* PLUMBER:													
PLUMBER; FIRE SPRINKLER FITTER;													
REFRIGERATION AIR CONDITIONING;													
STEAMFITTER-WELDER													
Indentured Prior to 9/2/85	1000	\$14.65										\$19.33	8.10
"	1000		\$16.74									\$19.80	8.10
"	1000			\$18.83								\$20.28	8.10
"	1000				\$20.93							\$20.75	8.10
"	1000					\$23.02						\$21.23	8.10
"	1000						\$25.11					\$21.70	8.10
"	1000							\$27.20				\$22.18	8.10
"	1000								\$29.30			\$22.65	8.10
"	1000									\$31.39		\$23.13	8.10
"	1000										\$33.48	\$23.60	8.10
Indentured On or After 9/2/85	1000	\$16.82										\$5.96	8.10
"	1000		\$16.82									\$6.01	8.10
"	1000			\$19.88								\$8.39	8.10
"	1000				\$19.88							\$8.39	8.10
"	1000					\$23.02						\$9.11	8.10
"	1000						\$23.02					\$9.11	8.10
"	1000							\$27.20				\$9.99	8.10
"	1000								\$27.20			\$9.99	8.10
"	1000									\$31.39		\$10.64	8.10
"	1000										\$31.39	\$10.64	8.10

APPRENTICE SCHEDULE BULLETIN NO. 489 February 20, 2017

Rates are applicable only to apprentices who are parties to agreements registered with the Department of Labor
and where the journeyworker to apprentice ratio is met.

Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th		
												Total	
ROOFER													
Indentured Prior to 11/1/98	1000	\$17.93	\$19.93	\$23.91	\$27.90	\$31.88	\$35.87	\$37.86				\$13.68	9
"	1000											\$17.93	
Indentured On or After 11/1/98 and Prior to 11/4/12	1000	\$17.93	\$19.93	\$23.91	\$27.90	\$31.88	\$33.87	\$35.87	\$37.86			\$17.93	9
"	1000											\$17.93	
Indentured On or After 11/4/12	2000	\$17.93	\$23.91	\$31.88	\$35.87							\$13.68	9
"	2000											\$17.93	
SHEETMETAL WORKER													
"	1000	\$16.24	\$18.27	\$20.30								\$11.65	10
"	1000											\$11.83	10
"	1000			\$20.30								\$20.30	10
"	1000				\$22.32							\$20.80	10
"	1000					\$24.35						\$21.30	10
"	1000						\$26.38					\$21.80	10
"	1000							\$28.41				\$22.30	10
"	1000								\$30.44			\$22.82	10
"	1000									\$32.47		\$23.31	10
"	1000										\$34.50	\$23.81	10
(Effective 2/26/17)													
* SHEETMETAL WORKER													
"	1000	\$16.52										\$11.77	10
"	1000		\$18.58									\$11.96	10
"	1000			\$20.65								\$20.79	10
"	1000				\$22.71							\$21.30	10
"	1000					\$24.77						\$21.81	10
"	1000						\$26.84					\$22.33	10
"	1000							\$28.90				\$22.84	10
"	1000								\$30.97			\$23.35	10
"	1000									\$33.03		\$23.86	10
"	1000										\$35.10	\$24.37	10

SHEETMETAL WORKER: Continued on Next Page

APPRENTICE SCHEDULE BULLETIN NO. 489 February 20, 2017

Rates are applicable only to apprentices who are parties to agreements registered with the Department of Labor
and where the journeyworker to apprentice ratio is met.

Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
(Effective 9/3/17) * SHEETMETAL WORKER	1000	\$16.72	\$18.81	\$20.90	\$22.99	\$25.08	\$27.17	\$29.26	\$31.35	\$33.44	\$35.53	\$11.93	10
"	1000											\$12.12	10
"	1000											\$21.32	10
"	1000											\$21.83	10
"	1000											\$22.35	10
"	1000											\$22.88	10
"	1000											\$23.40	10
"	1000											\$23.93	10
"	1000											\$24.44	10
"	1000											\$24.96	10
TAPER	1000	\$16.80	\$18.90	\$21.00	\$23.10	\$25.20	\$27.30	\$31.50	\$35.70			\$8.90	
	1000											\$12.90	
TELECOMMUNICATION WORKER (TECHNICIAN I / SPLICER)	1000	\$16.41	\$17.78	\$19.15	\$20.51	\$21.88	\$24.62					\$9.90	10
"	1000											\$10.12	10
"	1000											\$10.36	10
"	1000											\$10.59	10
"	1000											\$10.83	10
"	1000											\$11.28	10
(Effective 9/3/17) * TELECOMMUNICATION WORKER (TECHNICIAN I / SPLICER)	1000	\$17.06	\$18.49	\$19.91	\$21.33	\$22.75	\$25.60					\$10.00	10
"	1000											\$10.24	10
"	1000											\$10.49	10
"	1000											\$10.72	10
"	1000											\$10.97	10
"	1000											\$11.44	10

APPRENTICE SCHEDULE BULLETIN NO. 489 February 20, 2017

Rates are applicable only to apprentices who are parties to agreements registered with the Department of Labor
and where the journeyworker to apprentice ratio is met.

Apprentice Classifications	Interval Hrs	BASIC HOURLY RATE										FRINGE BENEFIT HOURLY RATE	Remarks See Pg 11-12
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Total	
TILE SETTER CERAMIC & HARD TILE Indentured Prior to 9/1/03	1000	\$20.10	\$22.11	\$24.12	\$28.14	\$30.15	\$32.16	\$34.17	\$36.18			\$8.72	2.10
"	1000		\$22.11	\$24.12	\$28.14	\$30.15	\$32.16	\$34.17	\$36.18			\$26.92	2.10
Indentured On or After 9/1/03 (Effective 9/4/17)	1000	\$20.10	\$22.11	\$24.12	\$28.14	\$30.15	\$32.16	\$34.17	\$36.18			\$14.37	2.10
* TILE SETTER CERAMIC & HARD TILE Indentured Prior to 9/1/03	1000	\$20.48	\$22.52	\$24.57	\$28.67	\$30.71	\$32.76	\$34.81	\$36.86			\$9.17	2.10
"	1000		\$22.52	\$24.57	\$28.67	\$30.71	\$32.76	\$34.81	\$36.86			\$27.97	2.10
Indentured On or After 9/1/03	1000	\$20.48	\$22.52	\$24.57	\$28.67	\$30.71	\$32.76	\$34.81	\$36.86			\$15.42	2.10

* Indicates a wage, fringe benefit, remark, or title change from the previous bulletin.

REMARKS:

1. Carpenter, Construction Craft Laborer: \$.50 per hour shall be added to the regular straight-time rate for height pay for each hour while working from a bosun's chair and/or from a cable-suspended scaffold or work platform which is free swinging (not attached to building) for each hour worked on said rig.
2. Cement Finisher, Mason, Plasterer, Tile Setter: \$1.00 per hour shall be added to the regular straight-time rate for height pay for each hour while working from a bosun's chair and/or from a cable-suspended scaffold or work platform which is free swinging (not attached to building) for each hour worked on said rig.
3. Construction Equipment Operator, Heavy Duty Repairer & Welder: \$1.25 per hour shall be added to the hourly wage while operating a rig suspended by ropes or cables or to perform work on a Yo-Yo Cat.
4. Electrician:
 - A. One and one-half times the straight-time rate while working in a tunnel under construction; under water with aqualung equipment; in a completed tunnel which has only one entrance or exit providing access to safety and where no other personnel are working; or in an underground structure having no access to safety or where no other personnel are working.
 - B. Double the straight-time rate shall be paid for the following types of hazardous work regardless if fall prevention devices are used:
 - 1) While working from poles, trusses, stacks, towers, tanks, bosun's chairs, swinging or rolling scaffolds, supporting structures, and open platforms, over 70 feet from the ground where the employee is subject to a free fall; provided, however, that when work is performed on stacks, towers or permanent platforms where the employees are on a firm footing within an enclosure, a hazardous condition does not exist regardless of height;
 - 2) While working outside of a railing or enclosure, or temporary platforms extending outside of a building, or from scaffolding or ladder within an enclosure where an employee's footing is within one foot of the top of such railing, and the employee is subject to a free fall of over 70 feet;
 - 3) Working on buildings while leaning over the railing or edge of the building, and is subject to a free fall of 70 feet; or
 - 4) Two hours minimum hazardous pay per day shall be paid while climbing to a stack, tower or permanent platform which exceeds 70 feet from the ground but where the employee is on a firm footing within an enclosure.
 - C. Five percent per hour shall be added to the hourly wage for height pay while working above 9,000 feet elevation.
5. Glazier: \$1.00 per hour shall be added to the hourly wage for height pay for exterior glazing work performed in a walking/working surface with an unprotected side or edge 10 feet or more above a lower level which requires protection from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, position devise systems, fall restraint systems, perimeter safety cables or controlled decking zones.
6. Insulator: Six percent per hour shall be added to the hourly wage for hazardous pay while working from a boatswain chair, staging or free standing scaffolding erected from ground up or mezzanine floor subject to a free fall and skyclimber suspended from a permanent structure and when working above 40 feet.
7. Ironworker: \$.50 per hour shall be added to the hourly wage while working in tunnels or coffer dams. \$1.00 per hour shall be added to the hourly wage while working under or covered with water (submerged), or on the summits of Mauna Kea, Mauna Loa or Haleakala.
8. Plumber: One and one-half times the straight-time rate for height pay while working from OSHA approved trusses, stacks, towers, tanks, bosun's chair, swinging or rolling scaffolding, supporting structures or on open platforms where the employee is subject to a direct fall of 40 feet or more. Provided, however, that when said work is performed where the employee is on a firm footing within an enclosure, a hazardous condition does not exist regardless of height. \$1.00 per hour shall be added to the straight-time rate while working with flame cutting or any type of welding equipment on any galvanized material or product for at least an hour.
9. Roofer: When an apprentice has accumulated 2500 hours, \$4.25 will be added to his/her pension/annuity plan.
The apprenticeship program for apprentices indentured on or after November 4, 2012, consists of four steps with 2,000 hours for each step.

REMARKS:

10. Overtime/Holiday must be paid at one and one-half times the basic hourly rate plus the hourly cost of required fringe, with the following exceptions:

A. Two times the basic hourly rate plus the hourly cost of required fringe.

Boilermaker: Sunday, New Year's Day, Presidents' Day, Memorial Day, Kamehameha Day, July 4th, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Construction Equipment Operator: Sunday, New Year's Day, Martin Luther King Day, Presidents' Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Electrician: Sunday, New Year's Day, Presidents' Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

Elevator Constructor: Saturday, Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Floor Layer: Labor Day.

Glazier: Sunday.

Heavy Duty Repairer & Welder: Sunday, New Year's Day, Martin Luther King Day, Presidents' Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Ironworker: Sunday, New Year's Day, Presidents' Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Paving Equipment Operator: Sunday, New Year's Day, Martin Luther King Day, Presidents' Day, Memorial Day, Kamehameha Day, Fourth of July, Labor Day, Veterans' Day, Thanksgiving Day and Christmas Day.

Plumber: Sunday, New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Kamehameha Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Sheetmetal Worker: Sunday, New Year's Day, Martin Luther King Day, Presidents' Day, Memorial Day, Kamehameha Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day.

Telecommunication Worker: Sunday, New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

B. Three times the basic hourly wage plus the hourly cost of required fringe on Labor Day.

Carpenter
Cement Finisher
Drywall Installer
Insulator
Construction Craft Laborer
Lather
Mason
Plasterer
Tile Setter



**STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS**

List of Construction Trades in Registered Apprenticeship Programs

Apprenticeship programs for the following construction trades were approved and registered by the State Department of Labor and Industrial Relations in accordance with Chapter 372, Hawaii Revised Statutes, and Title 12, Chapter 30, Hawaii Administrative Rules. Union and non-union programs are listed separately. The minimum requirements are not exclusive as a program sponsor may add other requirements in their selection procedures.

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Boilermaker	Western State Area Joint Apprenticeship Committee (International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers, and Helpers, AFL-CIO, and the Western States Joint Apprenticeship Committee, and Association of Boilermaker Employers)	x		03/18/1991	6,000	<ul style="list-style-type: none"> At least 18 years old High school graduate or GED equivalent 	Business Manager Address: 1414 Dillingham Blvd, Room 205 Honolulu, HI 96817 Phone: (808) 848-7744 Fax: (808) 848-0311
Bricklayer-Mason	Joint Apprenticeship Committee for Bricklayer-Mason (Masonry Contractors Association of Hawaii and Other Signatory Employers and Local 1 of Hawaii of the Bricklayers and Allied Craftsmen International Union, AFL-CIO)	x		02/10/64	8,000	<ul style="list-style-type: none"> At least 16 years old High school graduate or GED equivalent Physically able to perform duties of the trade 	Director of Training or Training Coordinator Address: Hawaii Masons & Plasterers Training 1188 Sand Island Parkway Honolulu, HI 96819 Phone: (808) 848-0565 Fax: (808) 847-7068 Website: http://www.opcma.org/

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Carpenter	Carpenters Joint Apprenticeship Committee aka Hawaii Carpenters Apprenticeship and Training Program	x		04/01/64	8,000	<ul style="list-style-type: none"> At least 17 years old High school diploma or equivalent education, or equivalent work experience Pass basic math test Complete questionnaire and pass a personal interview Complete a 24 hours pre-selection screening Able to lift 75 lbs. Able to legally work in the US 	<p>Director of Training</p> <p>Address: 1311 Houghtailing Street Room 201 Honolulu, HI 96817</p> <p>Phone: (808) 848-0794 Ext. 5 Fax: (808) 841-5961 (808) 841-0300</p> <p>Website: http://www.carpenters.org/</p>
Carpenter	(General Contractors Association of Hawaii and Building Industry Labor Association and Other Signatory Contractors and the United Brotherhood of Carpenters and Joiners of America, Local 745 AFL-CIO)		x	02/08/90	8,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED Full-time employee of a member company for a period of not less than six continuous weeks Legally able to work Physically able to perform duties of the trade 	<p>Director of Training</p> <p>Address: 1375 Dillingham Blvd. Suite 200 Honolulu, HI 96817</p> <p>Phone: (808) 845-4887 Fax: (808) 847-7876</p> <p>Website: http://www.abchawaii.org/</p>
Cement Finisher	Joint Apprenticeship Committee for Cement Finishers (Operative Plasterers and Cement Finishers International Association, Local 630, AFL-CIO, and Local 1 of the International Union of Bricklayers and Allied Craftsmen, AFL-CIO)	x		04/01/61	8,000	<ul style="list-style-type: none"> At least 16 years old Physically able to perform duties of the trade 	<p>Director of Training or Training Coordinator</p> <p>Address: Hawaii Masons & Plasterers Training 1188 Sand Island Parkway Honolulu, HI 96819</p> <p>Phone: (808) 848-0565 Fax: (808) 847-7068</p> <p>Website: http://www.opcmia.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Construction Craft Laborer	Hawaii Laborers' Joint Apprenticeship Committee (International Union of North America, Local 368, and Signatory Contractors Association)	x		02/11/00	4,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED or proof of 10th grade education Valid driver's license Successfully complete Pre-Construction Apprentice Evaluation Course 	Director of Training Address: 96-138 Farrington Hwy. Pearl City, HI 96782 Phone: (808) 455-7979 Fax: (808) 456-8689 Website: http://www.liuna.org/
Construction Equipment Operator	Hawaii Joint Apprenticeship Committee for Operating Engineers (General Contractors Labor Association and the Building Industry Labor Association and International Union of Operating Engineers, Local Union #3, AFL-CIO)	x		11/14/67	6,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED or C-based test Physically able to perform duties of the trade School transcripts Driver's license Current State DOT PUC physical Pass industry or general knowledge test Have reliable transportation 	State Administrator Address: P. O. Box 428 Kaneohe, HI 96731-0428 Phone: (808) 232-2001 Fax: (808) 232-2217 Website: http://oe3.org/training/
Drywall	Carpenters Joint Apprenticeship Committee aka Hawaii Carpenters Apprenticeship and Training Program (General Contractors Association of Hawaii and Building Industry Labor Association and Other Signatory Contractors and the United Brotherhood of Carpenters and Joiners of America, Local 745, AFL-CIO)	x		04/06/88	8,000	<ul style="list-style-type: none"> At least 17 years old High school diploma or equivalent work experience Pass basic math test Complete questionnaire and pass a personal interview Complete a 24 hours pre-selection screening Able to lift 100 lbs. Able to legally work in the US 	Director of Training Address: 1311 Houghtailing Street Room 201 Honolulu, HI 96817 Phone: (808) 848-0794 Ext 5 Fax: (808) 848-5961 Website: http://www.carpenters.org/

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Electrical Wireperson	PECA-HEW Joint Apprenticeship Committee (Pacific Electrical Contractors Association and the Hawaii Electrical Workers Division of Laborers International, Local 368)	x		11/20/91	10,000	<ul style="list-style-type: none"> • At least 16 years old • High school diploma or GED • Pass color code test • Transcript of high school or post high school courses • Pass one-year high school Algebra 1 (not pre-Algebra) or higher • Valid driver's license and legally able to work 	<p>Training Coordinator</p> <p>Address: 1617 Palama Street Honolulu, HI 96817</p> <p>Phone: (808) 841-5877 Ext 234 Fax: (808) 847-7829 Website: N/A</p>
Electrician	Associated Builders and Contractors Apprenticeship Committee		x	02/08/90	10,000	<ul style="list-style-type: none"> • At least 18 years old • High school diploma or GED • Full-time employee of a member company for a period of not less than six continuous weeks • Legally able to work • Physically able to perform duties of the trade • Pass eye examination for color blindness • Completed one-year high school algebra (not pre-algebra) 	<p>Director of Training</p> <p>Address: 1375 Dillingham Blvd. Suite 200 Honolulu, HI 96817</p> <p>Phone: (808) 845-4887 Fax: (808) 847-7876 Website: http://www.abcthawaii.org/</p>
(Electrician) Wireperson	Hawaii Electricians Joint Apprenticeship Committee (International Brotherhood of Electrical Workers (IBEW) Local 1186, AFL-CIO, and Signatory Employers)	x		04/08/47	10,000	<ul style="list-style-type: none"> • At least 18 years old • Completed twelfth (12th) grade of school or equivalent, or passed GED • Complete an application form • Successful completion of one full credit of high 	<p>Apprenticeship or Training Coordinator</p> <p>Address: 1935 Hau Street Room 301 Honolulu, HI 96819</p> <p>Phone: (808) 847-0629 Fax: (808) 843-8818 Website: http://www.njatic.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
						<ul style="list-style-type: none"> school algebra with a passing grade, or one post high school algebra course, successfully completed the National Joint Apprenticeship and Training Committee Math Course Transcript of high school or post high school courses Pass electrical industry's aptitude test and validated by the American Institute for research Application fee (non-refundable) US citizen to work on U.S. Military bases 	
Elevator Constructor	International Union of Elevator Constructors Local 126 Joint Apprenticeship Committee (International Union of Elevator Constructors, Local 126 and Signatory Employers)	x		03/27/03	6,800	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED School transcripts Pass aptitude test (math, reading) Consent to a post-offer pre-hire medical exam Physically able to perform duties of the trade 	Business Representative Address: 707 Alakea Street Room 314 Honolulu, HI 96813 Phone: (808) 536-8653 Fax: (808) 537-3779 Website: http://iuec.org/

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Fire Sprinkler Fitter	Honolulu Joint Apprenticeship and Training Committee for the Plumbing and Pipefitting Industry aka JATC of UA Plumbers and Fitters, Local 675, AFL-CIO, and PAMCAH (Plumbing and Mechanical Contractors Association of Hawaii and United Association of Plumbers and Pipefitters Local 675, AFL-CIO)	x		10/19/92	10,000	<ul style="list-style-type: none"> • At least 17 years old • High school diploma or GED • School transcripts • Pass placement evaluation with minimum score of 70% • Driver's license 	<p>Training Coordinator</p> <p>Address: 720 Iwilei Road, Suite 222 Honolulu, HI 96817</p> <p>Phone: (808) 456-0585 Fax: (808) 456-7131 Website: http://www.ua.org/</p>
Floor Layer	Joint Apprenticeship and Training Committee for Floor Layers (Hawaii Floor Covering Association and Carpet, Linoleum, and Soft Tile Union Local 1926, AFL-CIO)	x		02/17/66	8,000	<ul style="list-style-type: none"> • At least 17 years old • Driver's license • Pass color vision test 	<p>Training Coordinator</p> <p>Address: 2240 Young Street Honolulu, HI 96826</p> <p>Phone: (808) 942-3988 Fax: (808) 946-6667 Website: http://www.iupat.org/</p>
Glazier	Joint Apprenticeship Committee for Glaziers, Architectural Metal and Glassworkers Industry aka Glaziers, Architectural Metal and Glassworkers JATC (Glass/Metal Contractors Association of Hawaii and Other Signatory Contractors and the Glaziers, Architectural Metal and Glassworkers Union Local 1889, AFL-CIO)	x		04/01/01	10,000	<ul style="list-style-type: none"> • At least 16 years old • High school diploma or GED • Driver's license • Physically able to perform duties of the trade 	<p>Training Coordinator</p> <p>Address: 1414 Dillingham Blvd. Suite 211 Honolulu, HI 96817</p> <p>Phone: (808) 842-1214 Fax: (808) 847-5338 Website: http://www.iupat.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Insulation Worker	Honolulu Joint Apprenticeship Committee for the Heat and Frost Asbestos Insulator Trade (Heat and Frost Insulators and Asbestos Workers, Local 132, and Signatory Participating Employers)	x		07/23/71	10,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED Physically able to perform duties of the trade 	<p>Training Coordinator</p> <p>Address: 1019 Laia Street Bay #4 Kapolei, HI 96707</p> <p>Phone: (808) 521-6405 Fax: (808) 523-9861 Website: http://www.iinsulators.org/</p>
Heavy Duty Repairman and Welder	Hawaii Joint Apprenticeship Committee for Operating Engineers (General Contractors Labor Association and the Building Industry Labor Association and International Union of Operating Engineers, Local Union #3, AFL-CIO)	x		11/14/67	8,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED or C-based test Physically able to perform duties of the trade School transcripts Driver's license Current State DOT PUC physical Pass industry or general knowledge test Have reliable transportation 	<p>State Administrator</p> <p>Address: P.O. Box 428 Kahuku, HI 96731-0428</p> <p>Phone: (808) 232-2001 Fax: (808) 232-2217 Website: http://oe3.org/training/</p>
Ironworker Shop Fabricator / Welder	Hawaii Shopmen's Local 803 Joint Apprenticeship and Training Committee (International Association of Bridge, Structural and Ornamental Ironworkers, Local 803, AFL-CIO, and Participating Employers)	x		12/31/63	8,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED Physically able to perform duties of the trade Must be sponsored by employer who is signatory to the Shopmen's Local 803 collective bargaining agreement 	<p>Training Coordinator</p> <p>Address: 94-497 Ukee Street Waipahu, HI 96797</p> <p>Phone: (808) 671-4344 Fax: (808) 676-1144 Website: http://www.ironworkers.org/</p>
Ironworker (Reinforcing)	Joint Apprenticeship Committee for Ironworker (Reinforcing) aka Ironworkers Joint Apprenticeship Committee (Reinforcing) (International Association of Bridge, Structural and Ornamental Ironworkers, Local 625, AFL-CIO and Participating Employers)	x		06/26/53	6,000	<ul style="list-style-type: none"> At least 16 years old Physically able to perform duties of the trade 	<p>Training Coordinator</p> <p>Address: 94-497 Ukee Street Waipahu, HI 96797</p> <p>Phone: (808) 671-8225 Fax: (808) 676-1144 Website: http://www.ironworkers.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Ironworker (Structural)	Joint Apprenticeship Committee for Ironworker (Structural) aka Ironworkers Joint Apprenticeship Committee (Structural) (International Association of Bridge, Structural and Ornamental Ironworkers, Local 625, AFL-CIO and Participating Employers)	x		03/01/61	6,000	<ul style="list-style-type: none"> At least 16 years old Physically able to perform duties of the trade 	<p>Training Coordinator</p> <p>Address: 94-497 Ukee Street Waipahu, HI 96797</p> <p>Phone: (808) 671-8225 Fax: (808) 676-1144 Website: http://www.ironworkers.org/</p>
Landscape and Irrigation Laborer	Hawaii Laborers Union Local 368	x		03/30/2016	4,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED or 10th grade education Valid driver's license Complete and pass the Pre-Landscape and Irrigation Apprentice Evaluation Course 	<p>Director of Training</p> <p>Address: 96-138 Farrington Hwy. Pearl City, HI 96782</p> <p>Phone: (808) 455-7979 Fax: (808) 456-8689 Website: http://www.liuna.org/</p>
Painter	Joint Apprenticeship and Training Committee for Painters (Painting and Decorating Contractors of Hawaii (PDCA) and the International Union of Painters and Allied Trades (IUPAT) Local 1791, AFL-CIO)	x		09/01/61	8,000	<ul style="list-style-type: none"> At least 16 years old High school diploma or GED Driver's license Physically able to perform the duties of the trade Pass color code vision test 	<p>Training Coordinator</p> <p>Address: 2240 Young Street Honolulu, HI 96826</p> <p>Phone: (808) 947-6606 Fax: (808) 942-0195 Websites: http://www.dc50.org/ http://www.iupat.org/</p>
Painter	Associated Builders and Contractors Apprenticeship Committee		x	05/02/90	8,000	<ul style="list-style-type: none"> At least 18 years old Full-time employee of a member company for a period of not less than six continuous weeks Legally able to work Physically able to perform duties of the trade Pass physical examination if required by Committee 	<p>Director of Training</p> <p>Address: 1375 Dillingham Blvd. Suite 200 Honolulu, HI 96817</p> <p>Phone: (808) 845-4887 Fax: (808) 847-7876 Website: http://www.abohawaii.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Painter	Color Dynamics, Inc.		x	12/01/89	8,000	<ul style="list-style-type: none"> • At least 16 years old • Physically fit to perform duties of the trade • Must not be color blind 	President Address: 816 Gulick Avenue Honolulu, HI 96819 Phone: (808) 848-7000 Fax: (808) 842-0800 Website: http://www.colordynamics.com
Painter	Kawika's Painting		x	10/01/84	8,000	<ul style="list-style-type: none"> • At least 16 years old • Physically fit to perform duties of the trade • Must not be color blind 	Address: 2147 Eliwene Street Honolulu, HI 96819 Phone: (808) 848-0003 Fax: (808) 842-1908 Website: http://www.kawikapainting.com
Paving Equipment Operator	Hawaii Joint Apprenticeship Committee for Operating Engineers (General Contractors Labor Association and the Building Industry Labor Association and International Union of Operating Engineers, Local Union #3, AFL-CIO)	x		04/29/10	4,000	<ul style="list-style-type: none"> • At least 18 years old • High school diploma or GED or C-based test • Physically able to perform duties of the trade • School transcripts • Driver's license • Current State DOT PUC • Physical • Pass industry or general knowledge test • Have reliable transportation 	State Administrator Address: P.O. Box 428 Kahuku, HI 96731-0428 Phone: (808) 232-2001 Fax: (808) 232-2217 Website: http://ce3.org/training/
Plasterer	Joint Apprenticeship Committee for Plasterers (Pacific Bureau for Lathing and Plastering and the Operative Plasterers and Cement Finishers Association of the U.S. and Canada, Local 630, AFL-CIO)	x		06/30/59	8,000	<ul style="list-style-type: none"> • At least 16 years old • Physically able to perform duties of the trade 	Director of Training or Training Coordinator Address: Hawaii Masons & Plasterers Training 1188 Sand Island Parkway Honolulu, HI 96819 Phone: (808) 848-0565 Fax: (808) 847-7068 Website: http://www.opcmia.org/

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Plumber	Honolulu Joint Apprenticeship and Training Committee for the Plumbing and Pipefitting Industry aka JATC of UA Plumbers and Fitters, Local 675, AFL-CIO, and PAMCAH (Plumbing and Mechanical Contractors Association of Hawaii and United Association of Plumbers and Pipefitters Local 675, AFL-CIO)	x		11/14/52	10,000	<ul style="list-style-type: none"> At least 17 years old High school diploma or GED School transcripts Pass placement evaluation with a minimum score of 70% Driver's license 	<p>Training Coordinator</p> <p>Address: 720 Iwilei Road, Suite 222 Honolulu, HI 96817</p> <p>Phone: (808) 456-0585 Fax: (808) 456-7131 Website: http://www.ua.org/</p>
Plumber	Associated Builders and Contractors Apprenticeship Committee		x	02/02/99	10,000	<ul style="list-style-type: none"> At least 18 years old Full-time employee of a member company for a period of not less than six continuous weeks Legally able to work Physically able to perform duties of the trade Pass physical examination if required by Committee 	<p>Director of Training or Training Coordinator</p> <p>Address: 1375 Dillingham Blvd. Suite 200 Honolulu, HI 96817</p> <p>Phone: (808) 845-4887 Fax: (808) 847-7876 Website: http://www.abchawaii.org/</p>
Pointer-Caulker-Weatherproofer	Joint Apprenticeship Committee for Pointer-Caulker-Weatherproofer (Pointing, Caulking and Weatherproofing Contractors and the International Union of Bricklayers and Allied Crafts, Local 1, AFL-CIO)	x		08/23/95	6,000	<ul style="list-style-type: none"> At least 16 years old High school graduate or GED equivalent Physically able to perform duties of the trade 	<p>Director of Training or Training Coordinator</p> <p>Address: Hawaii Masons & Plasterers Training 1188 Sand Island Parkway Honolulu, HI 96819</p> <p>Phone: (808) 848-0565 Fax: (808) 847-7068 Website: http://www.opcmia.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Refrigeration Air-Conditioning	Honolulu Joint Apprenticeship and Training Committee for the Plumbing and Piping Industry aka JATC of UA Plumbers and Fitters, Local 675, AFL-CIO, and PAMCAH (Plumbing and Mechanical Contractors Association of Hawaii and United Association of Plumbers and Pipefitters Local 675, AFL-CIO)	x		09/04/62	10,000	<ul style="list-style-type: none"> At least 17 years old High school diploma or GED School transcripts Pass placement evaluation with a minimum score of 70% Driver's license 	<p>Training Coordinator</p> <p>Address: 720 Iwilei Road, Suite 222 Honolulu, HI 96817</p> <p>Phone: (808) 456-0585 Fax: (808) 456-7131 Website: http://www.ua.org/</p>
Roofer	Joint Apprenticeship and Training Committee for Roofers (United Union of Roofers, Waterproofers and Allied Workers, AFL-CIO, Local 221, and All Participating Employers)	x		01/13/68	8,000	<ul style="list-style-type: none"> At least 16 years old High school diploma or GED Driver's license Physically able to perform duties of the trade Able to lift 100 lbs. 	<p>Training Director</p> <p>Address: 2045 Kamehameha IV Rd. Room 203 Honolulu, HI 96819</p> <p>Phone: (808) 847-5757 Fax: (808) 848-8707 Website: http://www.unionroofers.com</p>
Roofer	Associated Builders and Contractors Apprenticeship Committee		x	01/09/96	7,000	<ul style="list-style-type: none"> At least 18 years old Full-time employee of a member company for a period of not less than six continuous weeks Legally able to work Physically able to perform duties of the trade Pass physical examination if required by Committee 	<p>Director of Training</p> <p>Address: 1375 Dillingham Blvd. Suite 200 Honolulu, HI 96817</p> <p>Phone: (808) 845-4887 Fax: (808) 847-7876 Website: http://www.abcthawaii.org/</p>
Sheet Metal Worker	Hawaii Joint Apprenticeship Committee for the Sheet Metal Industry (Sheet Metal Contractor's Association and Sheet Metal Workers' International Association, Local 293)	x		01/02/58	10,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED Driver's license 	<p>Apprenticeship Coordinator</p> <p>Address: 1405 North King Street Room 403 Honolulu, HI 96817</p> <p>Phone: (808) 841-6106 Fax: (808) 841-1842 Website: http://www.srmwa.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Steamfitter/ Welder	Honolulu Joint Apprenticeship and Training Committee for the Plumbing and Pipefitting Industry aka JATC of UA Plumbers and Fitters, Local 675, AFL-CIO, and PAMCAH (Plumbing and Mechanical Contractors Association of Hawaii and United Association of Plumbers and Pipefitters Local 675, AFL-CIO)	x		02/05/02	10,000	<ul style="list-style-type: none"> • At least 17 years old • High school diploma or GED • School transcripts • Pass placement evaluation with a minimum score of 70% • Driver's license 	<p>Training Coordinator</p> <p>Address: 720 Iwilei Road, Suite 222 Honolulu, HI 96817</p> <p>Phone: (808) 456-0585 Fax: (808) 456-7131 Website: http://www.ua.org/</p>
Stone Mason	Joint Apprenticeship Committee for Stone Mason Industry (Masonry Contractors Association of Hawaii and Local 1 of Hawaii of the Bricklayers and Allied Craftsmen International Union, AFL-CIO, and Other Signatory Employers)	x		02/10/64	8,000	<ul style="list-style-type: none"> • At least 16 years old • High school graduate or GED equivalent • Physically able to perform duties of the trade 	<p>Director of Training or Training Coordinator</p> <p>Address: Hawaii Masons & Plasterers Training 1188 Sand Island Parkway Honolulu, HI 96819</p> <p>Phone: (808) 848-0565 Fax: (808) 847-7068 Website: http://www.opcma.org/</p>
Taper	Joint Apprenticeship Committee for Tapers (Gypsum Drywall Contractors Association of Hawaii and the International Brotherhood of Painters and Allied Trades Tapers Local Union 1944, AFL-CIO)	x		09/01/67	8,000	<ul style="list-style-type: none"> • At least 16 years old • Physically able to perform duties of the trade 	<p>Training Coordinator</p> <p>Address: 2240 Young Street Honolulu, HI 96826</p> <p>Phone: (808) 941-0991 Fax: (808) 946-6623 Website: http://www.dc50.org/</p>

Trade	Sponsor	Union	Non-Union	Date of Approval/Registration	No. of Hours of On-the-Job Training	Minimum Requirements	Contact Information
Telecommunication / CATV Installer Technician	Hawaii Electricians Joint Apprenticeship Committee aka Joint Apprenticeship Committee for Telecommunications (International Brotherhood of Electrical Workers Local Union 1186, AFL-CIO, and Signatory Employers)	x		09/16/98	6,000	<ul style="list-style-type: none"> At least 16 years old High school diploma or equivalent or GED High school transcript Pass color code test Physically fit to perform duties of the trade One-year satisfactory completion of high school algebra (not Pre-Algebra) 	Apprenticeship or Training Coordinator Address: 1935 Hau Street Room 301 Honolulu, HI 96819 Phone: (808) 847-0629 Fax: (808) 843-8818 Website: http://www.njatl.org/
Tile Setter	Joint Apprenticeship Committee for Tile Setters (Tile, Marble and Terrazo Contractors Association of Hawaii and Local 1 of Hawaii of the Bricklayers, and Allied Craftsmen International Union of America, AFL-CIO)	x		06/24/58	8,000	<ul style="list-style-type: none"> At least 16 years old High school graduate or GED equivalent Physically able to perform duties of the trade 	Director of Training or Training Coordinator Address: Hawaii Masons & Plasterers Training 1188 Sand Island Parkway Honolulu, HI 96819 Phone: (808) 848-0565 Fax: (808) 847-7068 Website: http://www.opcmia.org/
Truck Operator and Driver	Hawaii Joint Apprenticeship Committee for Operating Engineers (General Contractors Labor Association and the Building Industry Labor Association and International Union of Operating Engineers, Local Union #3, AFL-CIO)	x		03/01/91	2,000	<ul style="list-style-type: none"> At least 18 years old High school diploma or GED or C-based test Physically able to perform duties of the trade School transcripts Driver's license Current State DOT PUC physical Pass industry or general knowledge test Have reliable transportation 	State Administrator Address: P.O. Box 428 Kahuku, HI 96731-0428 Phone: (808) 232-2001 Fax: (808) 232-2217 Website: http://oe3.org/training/

LINDA LINGLE
GOVERNOR

AARON S. FUJIOKA
ADMINISTRATOR



PROCUREMENT POLICY BOARD
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**STATE OF HAWAII
STATE PROCUREMENT OFFICE**
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July 24, 2007

PROCUREMENT CIRCULAR NO. 2007-05

TO: Executive Department Heads
FROM: Aaron S. Fujioka *Aaron S. Fujioka*
SUBJECT: Bid Security, Contract Performance and Payment Bonds

This circular is issued to:

- 1) Rescind Procurement Circular No. 1998-09, dated November 23, 1998; and
- 2) Reissue amended bond forms Exhibits B, D, F, and includes the bond and acknowledgment forms Exhibits A, C, E, G, H, I, J, which did not require any changes. The forms are as required by HAR Subchapter 24, Chapter 3-122, and in accordance with HRS §§103D-323 to 103D-328.

Bonds are to protect against the failure or refusal of the offeror to proceed with the performance of the contract, secure the faithful performance of contract requirements, and payment of suppliers or subcontractors. Exemptions on the use of these bond forms are allowed, with the prior approval of the Administrator.

Changes made to the bond forms, effective June 21, 2007, are as follows:

- 1) Exhibits B & D:

Page 1, 2nd paragraph, is amended to read: "WHEREAS, the above-bound Principal has [entered-into] signed a Contract with Obligor [dated] on _____ for the following project: _____."

- 2) Exhibit F:

a. Page 1, 2nd paragraph, is amended to read: "WHEREAS: The Principal has by _____ [entered-into] signed a Contract with _____ following Project: _____."

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(Procurement Circular 2014-08)

b. Page 2, 5th paragraph, is amended to read: "...the performance of the Contract who has not been paid in full therefor after [two-months] ninety days from the completion...."

c. Page 3, 1st sentence, is amended to read: "The amount of this bond may be reduced in accordance with and subject to section [3-122-226] 3-122-225, Hawaii Administrative Rules."

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3) Exhibits A, C, E, G, H, I, J: No changes were made to these exhibits.

Purchasing agencies shall utilize bond and acknowledgment forms as provided in the exhibits listed below:

EXHIBIT A: Surety bid security titled "*Surety [Bid] [Proposal] Bond*", dated 11/17/98.

EXHIBIT B: Surety contract performance bond titled "*Performance Bond (Surety)*", dated 6/21/07.

EXHIBIT C: Contract performance bond for types of security pursuant to HAR §3-122-222(2) and (3), titled "*Performance Bond*", dated 11/17/98.

EXHIBIT D: Surety contract labor and material payment bond titled "*Labor and Material Payment Bond (Surety)*", dated 6/21/07.

EXHIBIT E: Contract labor and material payment bond for types of security pursuant to HAR §3-122-222(2) and (3), titled "*Labor and Material Payment Bond*", dated 11/17/98.

~~**EXHIBIT F:** Surety combination contract performance and payment bond titled "*Performance and Payment Bond*", dated 6/21/07.~~

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(Procurement Circular 2014-08)

EXHIBIT G: Surety contract performance bond for goods and services supplemental agreement titled "*Performance Bond (Surety) for Supplemental Agreement for Goods and Services*", dated 11/17/98.

EXHIBIT H: Contract performance bond for goods and services supplemental agreement for types of security pursuant to HAR §3-122-222(2) and (3), titled "*Performance Bond for Supplemental Agreement for Goods and Services*", dated 11/17/98.

EXHIBIT I: Contractor acknowledgement form for use with contract performance and payment bonds titled "*Contractor Acknowledgment*", dated 11/12/97.

EXHIBIT J: Surety acknowledgement form for use with contract performance and payment bonds titled "*Surety Acknowledgment*", dated 11/12/97.

The exhibit bond and related forms are available on the SPO homepage at www.spo.hawaii.gov, under the "Quick Links" section, click on "Forms for State Agencies". To view the complete listing of all current Procurement Circulars, click on "Procurement Circulars".

Questions may be directed to Justin Fo at 586-0577 or Colin Tanaka at 586-0558, or call me at 587-4700.

EXHIBIT A

SURETY [BID] [PROPOSAL] BOND
(11/17/98)

Bond No. _____

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Name or Legal Title of Offeror)

as Offeror, hereinafter called Principal, and _____,
(Name of Bonding Company)

as Surety, hereinafter called Surety, a corporation authorized to transact business as a Surety
in the State of Hawaii, are held and firmly bound unto _____,
(State/County Entity)
as Owner, hereinafter called Owner, in the penal sum of _____

(Required Amount of Bid Security)

Dollars (\$ _____), lawful money of the United States of America, for the payment of
which sum well and truly to be made, the said Principal and the said Surety bind ourselves, our
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these
presents.

WHEREAS:

The Principal has submitted an offer for _____

(Project by Number and Brief Description)

NOW, THEREFORE:

The condition of this obligation is such that if the Owner shall reject said offer, or in the
alternate, accept the offer of the Principal and the Principal shall enter into a Contract with the
Owner in accordance with the terms of such offer, and give such bond or bonds as may be
specified in the solicitation or Contract Documents with good and sufficient surety for the faithful
performance of such Contract and for the prompt payment of labor and material furnished in the
prosecution thereof as specified in the solicitation then this obligation shall be null and void,
otherwise to remain in full force and effect.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Offeror)

Signature

Title

(Seal)

Name of Surety

Signature

Title

EXHIBIT B

PERFORMANCE BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a
surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Obligee, in the amount of _____

DOLLARS (\$ _____), to which payment Principal and Surety bind themselves,
their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the above-bound Principal has signed a Contract with Obligee on
_____, for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part
hereof.

NOW THEREFORE, the condition of this obligation is such that:

If the Principal shall promptly and faithfully perform, and fully complete the Contract in
strict accordance with the terms of the Contract as said Contract may be modified or amended
from time to time; then this obligation shall be void; otherwise to remain in full force and effect.

Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

In the event of Default by the Principal, of the obligations under the Contract, then after written Notice of Default from the Oblige to the Surety and the Principal and subject to the limitation of the penal sum of this bond, Surety shall remedy the Default, or take over the work to be performed under the Contract and complete such work, or pay moneys to the Oblige in satisfaction of the surety's performance obligation on this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT C
PERFORMANCE BOND
(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____, its successors and assigns, as Oblige, hereinafter called
(State/County Entity)
Oblige, in the amount of _____

(Dollar Amount of Contract)

DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which to the said Oblige, well and truly to be made, Contractor binds itself, its heirs, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- ☐ Legal tender;
- ☐ Share Certificate unconditionally assigned to or made payable at sight to
Description _____
_____;
- ☐ Certificate of Deposit, No. _____, dated _____, issued by
_____ drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____
_____;
- ☐ Cashier's Check No. _____, dated _____, issued
by _____
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____
_____;

- ☐ Teller's Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Treasurer's Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Official Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Certified Check No. _____, dated _____, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Obligor for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed this _____ day of _____, _____.

(Seal)

Name of Contractor

* _____
Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT D

LABOR AND MATERIAL PAYMENT BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)
as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a surety
in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Oblgee, in the amount of _____

_____ Dollars (\$_____), to which payment Principal and Surety bind themselves,
their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the above-bound Principal has signed Contract with the Oblgee on
_____ for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part
hereof.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall
promptly make payment to any Claimant, as hereinafter defined, for all labor and materials
supplied to the Principal for use in the performance of the Contract, then this obligation shall be
void; otherwise to remain in full force and effect.

1. Surety to this Bond hereby stipulates and agrees that no changes, extensions of
time, alterations, or additions to the terms of the Contract, including the work to be performed
thereunder, and the specifications or drawings accompanying same, shall in any way affect its
obligation on this bond, and it does hereby waive notice of any such changes, extensions of
time, alterations, or additions, and agrees that they shall become part of the Contract.

2. A "Claimant" shall be defined herein as any person who has furnished labor or materials
to the Principal for the work provided in the Contract.

Every Claimant who has not been paid amounts due for labor and materials furnished for work provided in the Contract may institute an action against the Principal and its Surety on this bond at the time and in the manner prescribed in Section 103D-324, Hawaii Revised Statutes, and have the rights and claims adjudicated in the action, and judgment rendered thereon; subject to the Obligor's priority on this bond. If the full amount of the liability of the Surety on this bond is insufficient to pay the full amount of the claims, then after paying the full amount due the Obligor, the remainder shall be distributed pro rata among the claimants.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT E

LABOR AND MATERIAL PAYMENT BOND
(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____, its successors and assigns, as Obligee, hereinafter called
(State/County Entity)

Obligee, in the amount of _____

(Dollar Amount of Contract)

DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heirs, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- ☐ Legal tender;
- ☐ Share Certificate unconditionally assigned to or made payable at sight to
Description _____
_____;
- ☐ Certificate of Deposit, No. _____, dated _____, issued by
_____ drawn on _____
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____
_____;
- ☐ Cashier's Check No. _____, dated _____, issued by
_____ drawn on _____
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____
_____;
- ☐ Teller's Check No. _____, dated _____, issued by
_____ drawn on _____
_____;

a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

☐ Treasurer's Check No. _____, dated _____, issued by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

☐ Official Check No. _____, dated _____, issued by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

☐ Certified Check No. _____, dated _____, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Obligee for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every

nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, and shall promptly pay all persons supplying labor and materials for the performance of the Contract, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

AND IT IS HEREBY STIPULATED AND AGREED that this bond shall inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in said work so as to give any and all such persons a right of action as contemplated by Sections 103D-324(d) and 103D-324(e), Hawaii Revised Statutes.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment of mechanics' liens which may be filed of record against the Project, whether or not claim for the amount of such lien be presented under and against this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Contractor

* _____
Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT F

COMBINATION PERFORMANCE AND PAYMENT BOND
(8/21/07)

KNOW TO ALL BY THESE PRESENTS:

That we, _____
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as surety, hereinafter called Surety, a corporation(s) authorized to transact business as a
surety in the State of Hawaii, are held and firmly bound unto the _____
(State/County Entity)
its successors and assigns, as Obligor, hereinafter called Obligor, in the amount of

(Twice the Dollar Amount of Contract)

DOLLARS (\$ _____) (being _____
DOLLARS as performance bond and _____
DOLLARS as payment bond, each in the amount of one hundred percent of the contract price
as required by 103D-324, Haw. Rev. Stat.), lawful money of the United States of America, for
the payment of which to the said Obligor, well and truly to be made, Contractor and Surety bind
ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally,
firmly by these presents.

WHEREAS:

The Principal has by written agreement dated _____ signed a contract with
Obligor for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part
hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Principal perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Principal or its agents or servants or the improper performance of the Contract by the Principal or its agents or servants or from any other cause, and shall promptly pay all persons supplying labor and materials for the performance of the Contract, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that no change, extension, alteration, deduction or addition, permitted by the Contract, in or to the terms of the Contract, or the plans or specifications pertaining thereto, shall in any way affect the obligation of the Surety on this bond; and the Surety does hereby waive notice of any such change, extension, alteration, deduction or addition in or to the terms of the Contract, or the plans or specifications pertaining thereto, or in or to the said Project.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

AND IT IS HEREBY STIPULATED AND AGREED that this bond shall inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in said work so as to give any and all such persons a right of action as contemplated by Sections 103D-324(d) and 103D-324(e), Hawaii Revised Statutes.

The above-named Principal and Surety hereby jointly and severally agree with the Obligee that every person who has furnished labor or material to the Principal for the performance of the Contract who has not been paid in full therefor after ninety days from the completion and final settlement of any contract, may institute an action against the Principal and its sureties, and have their rights and claims adjudicated in the action, and judgment rendered thereon. If the full amount of the liability of the sureties on the bond is insufficient to pay the full amount of the claims, then, after paying the full amount due the Obligee, the remainder shall be distributed pro rata among the claimants. The Obligee shall not be liable for the payment of any costs or expenses of any such suit.

The amount of this bond may be reduced in accordance with and subject to section 3-122-226, Hawaii Administrative Rules.

Signed this _____ day of _____, _____.

Not available for use in solicitations
(Procurement Circular 2014-08)

(Seal)

Name of Principal (Contractor)

* _____
Signature

Title

(Seal)

Name of Surety

* _____
Signature

Title

*ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC

EXHIBIT G

PERFORMANCE BOND (SURETY)
FOR SUPPLEMENTAL AGREEMENT
FOR GOODS AND SERVICES
(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Obligee, in the amount of

_____ DOLLARS (\$ _____), to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above-bound Principal has entered into a Contract with Obligee dated _____ for _____

_____ and entered into Supplemental Agreement No. _____, dated _____ for the period _____; hereinafter collectively called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW THEREFORE, the condition of this obligation is such that:

If the Principal shall promptly and faithfully perform, and fully complete the Contract in strict accordance with the terms of the Contract as said Contract may be modified or amended from time to time; then this obligation shall be void; otherwise to remain in full force and effect.

Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its

obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

In the event of Default by the Principal, of the obligations under the Contract, then after written Notice of Default from the Oblgee to the Surety and the Principal, Surety shall either remedy the Default, or take over the work to be performed under the Contract and complete such work, subject, however, to the limitation of the penal sum of this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

* _____
Signature

Title

(Seal)

Name of Surety

* _____
Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT H

PERFORMANCE BOND
FOR SUPPLEMENTAL AGREEMENT
FOR GOODS AND SERVICES
(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)
as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____, its successors and assigns, as Oblige, hereinafter called Oblige,
(State/County Entity)
in the amount of _____

(Dollar Amount of Contract)
DOLLARS (\$ _____), lawful money of the United States of America, for the
payment of which to the said Oblige, well and truly to be made, Contractor binds itself, its
heirs, executors, administrators, successors and assigns, firmly by these presents. Said
amount is evidenced by:

- ☐ Legal tender;
- ☐ Share Certificate unconditionally assigned to or made payable at sight to

Description _____;
- ☐ Certificate of Deposit, No. _____, dated _____ issued
by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
- ☐ Cashier's Check No. _____, dated _____, drawn
on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
- ☐ Teller's Check No. _____, dated _____, drawn
on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;

- ☐ Treasurer's Check No. _____, dated _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Official Check No. _____, dated _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- ☐ Certified Check No. _____, dated _____, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Obligee for the following Project: _____

and entered into Supplemental Agreement No. _____, dated _____ for the period _____; hereinafter collectively called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed this _____ day of _____, _____.

(Seal)

Name of Contractor

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

Years 2017 and 2018

Holidays to be observed by the HAWAII STATE GOVERNMENT

www.dhrd.hawaii.gov

Website where State Holiday Schedule posted

Year 2017 HAWAII STATE HOLIDAYS

<u>(Hawaii Rev. Statutes, Sec. 8-1)</u>	<u>Day Observed in 2017</u>	<u>Official Date Designated in Statute/Constitution</u>
New Year's Day.....	Jan. 2 Monday	The first day in January
Dr. Martin Luther King, Jr. Day.....	Jan. 16 Monday.....	The third Monday in January
Presidents' Day.....	Feb. 20 Monday.....	The third Monday in February
Prince Jonah Kuhio Kalaniana'ole Day.....	Mar. 27 Monday	The twenty-sixth day in March
Good Friday.....	April 14 Friday.....	The Friday preceding Easter Sunday
Memorial Day.....	May 29 Monday.....	The last Monday in May
King Kamehameha I Day.....	June 12 Monday.....	The eleventh day in June
Independence Day.....	July 4 Tuesday.....	The fourth day in July
Statehood Day.....	Aug. 18 Friday.....	The third Friday in August
Labor Day.....	Sept. 4 Monday.....	The first Monday in September
Veterans' Day.....	Nov. 10 Friday.....	The eleventh day in November
Thanksgiving.....	Nov. 23 Thursday.....	The fourth Thursday in November
Christmas.....	Dec. 25 Monday.....	The twenty-fifth day in December

Year 2018 HAWAII STATE HOLIDAYS

<u>(Hawaii Rev. Statutes, Sec. 8-1)</u>	<u>Day Observed in 2018</u>	<u>Official Date Designated in Statute/Constitution</u>
New Year's Day.....	Jan. 1 Monday.....	The first day in January
Dr. Martin Luther King, Jr. Day.....	Jan. 15 Monday.....	The third Monday in January
Presidents' Day.....	Feb. 19 Monday.....	The third Monday in February
Prince Jonah Kuhio Kalaniana'ole Day.....	Mar. 26 Monday.....	The twenty-sixth day in March
Good Friday.....	Mar. 30 Friday.....	The Friday preceding Easter Sunday
Memorial Day.....	May 28 Monday.....	The last Monday in May
King Kamehameha I Day.....	June 11 Monday.....	The eleventh day in June
Independence Day.....	July 4 Wednesday.....	The fourth day in July
Statehood Day.....	Aug. 17 Friday.....	The third Friday in August
Labor Day.....	Sept. 3 Monday.....	The first Monday in September
General Election Day.....	Nov. 6 Tuesday.....	The first Tuesday in Nov. following the first Monday of even-numbered years. (Hawaii State Constitution, Article 2 – Section 8)
Veterans' Day.....	Nov. 12 Monday.....	The eleventh day in November
Thanksgiving.....	Nov. 22 Thursday.....	The fourth Thursday in November
Christmas.....	Dec. 25 Tuesday.....	The twenty-fifth day in December

FOOTNOTES: For use solely by State government agencies. Federal government and local banking holidays may differ. For State agencies that operate on other than Monday-Friday 7:45 AM to 4:30 PM schedules, also refer to appropriate collective bargaining agreements. Created by the Department of Human Resources Development 9/21/2016; subject to change.

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DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01010 - GENERAL REQUIREMENTS

PART 1 - GENERAL

- 1.01 GENERAL REQUIREMENTS AND COVENANTS: The General Conditions, Construction General Specifications, Special Provisions, and other applicable documents preceding these specifications shall govern all work specified hereinafter in all Divisions and Sections.
- 1.02 APPLICABLE REGULATIONS: The Contractor shall comply with all local laws, ordinances, rules and regulations pertaining to such work and must obtain all required permits, licenses, and certificates and publish and post all notices required thereby.
- 1.03 DESCRIPTION OF THE WORK: Major components of this project include, but are not limited to the following:
1. Sewer Line E, replacement of the 8-inch line approximately 1,510 linear feet;
 2. Sewer Line F, replacement of the 8-inch line approximately 1,760 linear feet;
 3. Sewer Line L, replacement of 8-inch line approximately 430 linear feet.
 4. Sewer Line A, install 6-inch cured-in-place pipe (CIPP), approximately 485 linear feet
 5. Sewer Line C, install 6-inch cured-in-place pipe, approximately 850 linear feet
 6. Sewer Line D, install 6-inch cured-in-place pipe, approximately 775 linear feet
 7. Sewer Line K-3, install 8-inch cured-in-place pipe, approximately 550 linear feet

Sewer line replacement shall be constructed back into the same trench bedding, and is inclusive of all lateral reconnection, bypassing to provide continuous sewer service, and restoration to surfaces.

Installation of CIPP is inclusive of bypassing, cleaning, pre and post rehabilitation television inspection, liner installation, testing, reconstruction and restoration of access sewer manholes, and lateral cutouts.

These specifications are divided for convenience into titled divisions and sections as set forth in the TABLE OF CONTENTS preceding these specifications and shall not be considered an accurate or complete segregation of the several units of labor and materials. No responsibility, either direct or implied is assumed by the Department of Hawaiian Home Lands (DHHL) for omissions or duplications of the subject matter. The Contractor will be held responsible for the complete work whenever or wherever the parts are described in one or more trade heads. Any mention in these sections or indication on the drawings of articles, materials, operations, or methods, require that the Contractor furnish each item so mentioned or indicated, of the kind, type, or design and quality of each item so mentioned or indicated on the drawings, and that the Contractor furnish all labor, materials, equipment, incidentals and supervision necessary to complete the work in accordance with the drawings and the true meaning and intent of these specifications, even though such mention of articles, materials, operations, methods, quality, qualifications or condition is not expressed in complete sentences.

Where devices or items, or parts thereof are referred to in the singular, it is intended that such references shall apply to as many such devices, items, or parts as are required to properly complete the work.

Schedule of work included in these specification sections are given for convenience and shall not be considered as a comprehensive list of items necessary to complete the work of any section. The Contractor shall employ the usual standard practice of coordinating the work covered in each section with the work of other sections. The necessary information and the items, accessories, anchors, connections, patterns, templates, etc., shall be delivered when required in order to prevent any delay in the progress and completion of the work.

- 1.04 **PLANS AND SPECIFICATIONS:** These specifications are intended to cover all labor, materials and standards of workmanship employed in the work indicated on the plans and called for in the specifications or reasonably implied therein. The plans and specifications complement one another. Any part of the work mentioned in one and not represented in the other, shall be done the same as if it had been mentioned or represented in both.

The Contractor shall not alter from the drawings and specifications. In the event of errors or discrepancies, the Contractor shall immediately notify the Project Manager.

All figured dimensions take precedence over scaled measurements. No important dimension shall be determined by scale.

Specifications and drawings are prepared in abbreviated form and may include incomplete sentences. Omissions of words or phrases such as "the Contractor shall", "as shown on the drawing", "a", "an", and "the" are intentional. Omitted words and phrases shall be provided by inference to form complete sentences.

1.05 **STATE WATERS:**

- A. During construction of this project, DHHL does not intend for any discharges of construction water into State waters, as defined by HAR, Title 11-54 and Title 11-55.
- B. The Contractor shall be responsible for the planning, permitting, designing, and implementing measures to avoid any construction activity discharges from entering State waters.

- C. The Contractor shall be responsible for submitting, obtaining, and procuring the following NPDES permits with the State Department of Health (DOH) if required.
1. Hydrotest fluids.
 2. Dewatering fluids.
- D. DHHL has obtained NPDES permit for stormwater runoff due to construction activity with the State DOH. For any deviation from the approved permit, the Contractor shall be responsible for submitting, obtaining, amending and/or procuring as required.
- E. The cost and time to obtain approvals for all permits shall be inclusive in the Bid Price and any permit approval delays shall be the responsibility of the Contractor.
- 1.06 COORDINATION WITH CONCURRENT PROJECTS: The Contractor shall coordinate work with DHHL and contractor of concurrent DHHL project, IFB-17-HHL-011, "Papakolea Subdivision Sewer Improvement, Auwaiolimu Slope Stabilization & Sewer Lines C and C-1 Improvements", at no additional cost to DHHL.
- 1.07 REFERENCE STANDARDS: All work shall be done in accordance with the most current standards listed below as amended and/or amplified herein.

ASTM	American Society for Testing and Materials
UPC	Uniform Plumbing Code

END OF SECTION

SECTION 01070 – SAFETY AND HEALTH

PART 1 - GENERAL

This section shall supplement construction documents pertaining to the safety and health in connection with the performance of the project

- 1.01 WORK INSIDE EXISTING MANHOLES: The Contractor shall exercise extreme caution when working inside any sewer manhole.

The following are major health and safety hazards which may be present in the sewer manholes.

- Ammonia gas (NH₃) poisoning,
- Oxygen deficiency,
- Hydrogen sulfide gas poisoning,
- Flammable gases and liquids,
- Pathogens, and
- Carbon monoxide poisoning

The Contractor shall assume all responsibility for the health and safety of his personnel who are working at the job site. Failure to comply with the provisions of the safety plan or with the applicable safety and health regulations outlined previously will be grounds for stoppage of work with no additional compensation.

- 1.02 SAFETY AND HEALTH REGULATIONS: The Contractor shall comply with hand safety requirements as specified in Section 01560, "Confined Space Entry".

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01300 - SUBMITTAL PROCEDURE

PART 1 - GENERAL

- 1.01 GENERAL: Where required by the specifications the Contractor shall submit descriptive information which will enable the Project Manager to advise whether the Contractor's proposed materials, equipment or methods of work are in general conformance to the design concept and in compliance with the drawings and specifications.

Shop drawings and submittals shall be made in accordance with Section 5.5 – Shop Drawings and Other Submittals of the Interim General Conditions.

The information to be submitted shall consist of:

- Drawings
- Specifications
- Manufacturer's Instruction Manuals
- List of Deviations
- Performance Schedule
- Submittal Schedule
- Laboratory Test/Reports
- Descriptive Data
- Certificates
- Samples
- Test Results and such other information, all as specifically required in the specifications.

1.02 CONTRACTOR'S RESPONSIBILITIES:

A. GENERAL

1. The Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the submittal. Submittals shall contain all required information, including satisfactory identification of items, units, and assemblies in relation to the contract drawings and specifications. The Contractor shall verify that the material and equipment described in each submittal conform to the requirements of the specifications and drawings. Submittals shall be made only by the Contractor, who shall indicate by a signed stamp, in accordance with paragraph 1.02.A.5, on the submittals, that the Contractor has checked the submittals, and that the work shown conforms to contract requirements and has been checked for dimensions and relationship with work of all other trades involved. If the information shows deviations from the specifications or drawings, the Contractor, by statement in writing accompanying the information, shall identify the deviations and state the reason(s) therefore.

The Contractor shall insure that there is no conflict with other submittals and shall notify the Project Manager in each case where its submittal may affect the work of another contractor or DHHL. The Contractor shall insure coordination of submittals among the related crafts and subcontractors.

2. To expedite the submittal procedures, the Project Manager shall be allowed to contact directly all material or equipment suppliers for necessary information that is missing in the submittal. The supplier shall be responsible for documenting the discussion and coordinating with the Contractor. The Contractor shall be responsible for the accuracy and completeness of information contained in all submittals.
3. All equipment and manufacturer's instruction submittals, including follow-up submittals, shall be submitted no later than 30 calendar days following the Notice to Proceed nor later than the time necessary to procure the item or avoid schedule delays as established in the Contractor's construction schedule.
4. The Contractor is responsible for the coordination of all contractual work and submittals.
5. The Contractor shall maintain at the job site two sets of full size contract drawings, marking them in red to show all variations between the construction actually provided and that indicated or specified in the contract documents, including buried or concealed herein, or where variations in scope or character of work from that of the original contract are authorized, the drawings shall be marked to define the construction actually provided. Where equipment installation is involved, the size, manufacturer's name, model number and power input or output characteristics are applicable shall be shown on the as-built drawings. The representations of such changes shall conform to standard and details as necessary to clearly portray the as-built construction.
6. All changes made to the submittal drawings by the Contractor in the form of written or typewritten markings shall be initialed and dated by the Contractor.
7. The stamp below, certified by the Contractor, shall appear on the title sheet of each shop drawing, on a cover sheet of submittals in an 8-1/2" x 11" format, or on one face of a cardstock tag (min. 3" x 6") securely attached to each sample. The tag shall clearly identify the nature of the sample. The back of this tag will be used by the Project Manager for his/her receipt, review, and log stamp and for any comments that relate to the sample.

CONTRACTOR NAME

PROJECT: _____

JOB NO: _____

THIS SUBMITTAL HAS BEEN CHECKED BY THIS GENERAL CONTRACTOR. IT IS CERTIFIED CORRECT, COMPLETE, AND IN COMPLIANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS. ALL AFFECTED CONTRACTORS AND SUPPLIERS ARE AWARE OF, AND WILL INTEGRATE THIS SUBMITTAL INTO THEIR OWN WORK.

SUBMITTAL NO. _____

DESCRIPTION _____

DATE RECEIVED _____

SPECIFICATION SECTION _____

SPECIFICATION PARAGRAPH _____

DRAWING NUMBER _____

SUBCONTRACTOR NAME _____

SUPPLIER NAME _____

MANUFACTURER NAME _____

NUMBER OF DEVIATIONS _____

EXCEPTIONS TAKEN: Yes _____ No _____

DETAILS OF EXCEPTION _____

CERTIFIED BY: _____

8. The person signing the Contractor's submittal stamp shall be the one designated under the contract agreement with the DHHL. The signature shall be in original ink. Stamped signature will not be acceptable. Submittal form shall be completely filled out, signed and dated.

9. When the Contractor takes any exception to the submittal drawings, such exception shall be brought to the attention of the Project Manager. The exception shall be submitted with the shop drawings together with sufficient details and justifications.

B. SUBMITTALS: Submittals referred to herein shall include shop drawings and other submittals for both shop and field-fabricated items.

The submittals shall include satisfactory identification of items, units, and assemblies in relation to the Specification section number, and the system or equipment identification shown on the Drawings, or as provided in the applicable specification section.

Should the Contractor propose any item on his/her shop drawings, or incorporate an item into the work, and that item should subsequently prove to be defective or otherwise unsatisfactory, (regardless of the Project Manager's preliminary review), the Contractor shall, at his/her own expense, replace the item with another item that will perform satisfactorily.

- C. **PERFORMANCE (CONSTRUCTION) SCHEDULE:** The Contractor shall provide a construction schedule for scheduling and coordinating the work within the contract time. Approved contract time extensions shall be incorporated into updated schedules, reflecting their effect at the time of occurrence. Failure of the Contractor to comply with these requirements for submittal of the performance schedule and reports shall be cause for no payments by the Owner. Project status review and update shall be provided each month and submitted with progress payment requests.
- D. **SUBMITTAL SCHEDULE:** Within 30 days after receipt of notice to proceed, the Contractor shall submit to the Project Manager in duplicate, a schedule, listing all items that will be submitted to the Project Manager for review and approval. The schedule shall include, among other things, a list of shop drawings and manufacturer's literature, certificates of compliance, material samples, and guarantees. The schedule shall indicate the type of item, contract requirement reference, the Contractor's scheduled dates for submitting the above items and projected needs for approval answers and procurement dates. In preparing the schedule, the Contractor shall allow the appropriate time for the Project Manager's review and approval as stated in the General Conditions, section 5.5; additional time shall be allowed to provide for possible resubmittal. Also, the scheduling shall be coordinated with the approved progress schedule.
- E. **SUBMITTALS REQUIRED FOR FOREIGN-MANUFACTURED ITEMS:** In addition to the submittal requirements stated above, suppliers of foreign-manufactured items shall submit the names and addresses of companies within the United States that maintain technical service representatives and a complete inventory of spare parts and accessories for each foreign-made item proposed for incorporation into the work. Failure to prove the foregoing capabilities shall be just cause for rejection of the foreign-manufactured items.
- F. **RECORD DRAWINGS:** Record drawings shall be submitted by the Contractor in conformance with Section 01340, "Drawings to be Furnished By Contractor."
- G. **SAMPLES AND TESTING:** Where required in the Specifications, and as determined necessary by the Project Manager, samples of materials, appliances, and fittings to be used or offered for use in connection with the work shall be submitted to the Project Manager at the Contractor's expense, with information as to their sources, with all shipping charges prepaid, and in such quantities and sizes as may be required for proper examination to establish the quality or equality thereof, as applicable.

All samples shall be submitted in ample time to enable the Project Manager to make any necessary examinations, without delay to the work. The Contractor will be held responsible for any loss of time due to his/her neglect or failure to deliver the required samples to the Project Manager, as specified.

Samples also shall be taken during the course of the work, as required by the Project Manager.

Laboratory tests and examinations that the Project Manager elects to make in its own laboratory will be made at no cost to the Contractor, except that, if a sample of any material or equipment proposed for use by the Contractor fails to meet the Specifications, the cost of testing subsequent samples shall be borne by the Contractor.

All tests required by the Specifications to be performed by an independent laboratory shall be made at the sole expense of the Contractor.

Material used in the work shall conform with the submitted samples and test certificates as approved by the Project Manager.

- H. **COST FOR SERVICES:** Costs for providing services during installation and testing shall be included in the costs for providing the applicable specified equipment.

1.03 **TRANSMITTAL PROCEDURE:**

- A. **General:** A separate form shall be used for each specific item, class of material, equipment, and items specified in separate, discrete sections, for which the submittal is required. Submittals of various items shall be made with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole.
- B. A unique number, sequentially assigned, shall be noted on the transmittal form accompanying each item submitted. Original submittal numbers shall have the following format: "XXX"; where "XXX" is the sequential number assigned by the Contractor. Resubmittals shall have the following format: "XXX-Y"; where "XXX" is the originally assigned submittal number and "Y" is a sequential letter assigned for resubmittals, i.e., A, B, or C being the 1st, 2nd, and 3rd resubmittals, respectively. Submittal 25B, for example, is the second resubmittal of submittal 25.
- C. **CONTACT:**
- Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707**
- Attention: Mr. Mitchell Kawamura
- D. **Deviation from Contract:** If the Contractor proposes to provide material or equipment which does not conform to the specifications and drawings, it shall indicate so under "deviations" on the submittal transmittal form accompanying the submittal copies. The Contractor shall prepare its reason for a change, including cost and time differential. The contractor shall be responsible for omission or deviation in the submittal. Failure to identify deviation shall be subject to rejection of the submittal without review.

- E. Submittal Completeness: Submittals which do not have all the information required to be submitted, including deviations, shall be considered as not complying with the intent of the contract and are not acceptable and will be returned without review. Contractor is advised to review and assure that all submittals are complete prior to submittal to the Project Manager.

1.04 REVIEW PROCEDURE:

- A. When the contract requires a submittal, the Contractor shall submit to the Project Manager for review, the specified information in accordance with the General Conditions and as follows:
1. Ten (10) copies of all the submitted information.
 2. Only one (1) set of sample materials need be submitted, unless otherwise directed by the Project Manager.

- B. Unless otherwise specified, within 30 calendar days after receipt of the submittal by the Project Manager the submittal shall be reviewed and the Project Manager shall return one (1) copy of the marked-up submittal or detailed shop drawing comment forms. The returned submittal shall indicate one of the following actions:

If the review indicates that the material, equipment or work method is in general conformance with the design concept and complies with the drawings and specifications, submittal copies will be marked "No Exceptions Taken." In this event the Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

If the review indicates minor corrections are required, copies will be marked "MAKE CORRECTIONS NOTED." The Contractor may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with the noted corrections. Where submittal information will be incorporated in the O&M data, a corrected copy shall be provided in the O&M Manual.

If the review reveals that the submittal is insufficient or contains incorrect data, copies will be marked "REVISE AND RESUBMIT." Except at his/her own risk, the Contractor shall not undertake work covered by this submittal until the submittal has been revised, resubmitted and returned and marked either "NO EXCEPTIONS TAKEN," or "MAKE CORRECTIONS NOTED."

If the review indicates that the material, equipment, or work method is not in general conformance with the design concept or in compliance with the drawings and specifications, copies of the submittal will be marked "**REJECTED.**" Submittals with deviations which have not been identified clearly may be rejected. Except at its own risk, the Contractor shall not undertake work covered by such submittals until a new submittal is made and returned marked either "NO EXCEPTIONS TAKEN, or "MAKE CORRECTIONS NOTED."

- C. No changes shall be made by the Contractor. The resubmittals shall be a complete set and not just the portions that have been changed.
- D. Unless otherwise approved by the Project Manager, shop drawings shall be submitted only by the Contractor, who shall indicate by a signed stamp on the drawings or other approved means that the Contractor has checked the shop drawings and that the work or equipment shown is in accordance with contract requirements and has been checked for dimensions and relationship with work of all other trades involved. All deviations from the plans and specifications shall be listed. The practice of submitting incomplete or unchecked shop drawings for the Project Manager to correct or finish will not be acceptable, and shop drawings which, in the opinion of the Project Manager, clearly indicate that they have not been checked by the Contractor will be considered as not complying with the intent of the contract documents and will be returned to the Contractor for resubmission in the proper form.
- E. The Project Manager shall be allowed by the Contractor to contact manufacturers, dealers, vendors, suppliers, and subcontractors directly for the sole purpose of expediting the submittal process.

1.05 EFFECT OF REVIEW OF CONTRACTOR'S SUBMITTALS:

- A. The Project Manager's review of drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of its responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Owner or by any officer, employee, agent, consultants or subcontractor thereof, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed, unless the Contractor has called attention to such deviations, in writing, by a letter accompanying the drawings and the City approved the change or deviations, in writing, at the time of submission; nor shall review by the Project Manager relieve the Contractor from the responsibility for errors in the shop drawings. When the Contractor does call such deviations to the attention of the Project Manager, he/she shall state in his/her letter whether or not such deviations involve any deduction or extra cost adjustment. A mark of "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" shall mean that the City has no objection to the Contractor, upon its own responsibility, using the plan or method of work proposed or providing the material or equipment proposed.

- B. If such deviation is not indicated to the Project Manager in writing, and such deviation is inadvertently approved, such approval will be rescinded and any cost related to redoing the work to conform with the plans and specifications shall be borne by the Contractor.
- C. The approval of the above drawings, lists, prints, specifications, or other data shall in no way release the Contractor from his/her responsibility for the proper fulfillment of the requirements of this contract nor for fulfilling the purpose of the installation nor from his/her liability to replace the same should it prove defective or fail to meet the specified requirements.

PARTS 2 AND 3 – (NOT USED)

END OF SECTION

SECTION 01320 – PROJECT MANAGEMENT AND PROGRESS DOCUMENTATION

PART 1 – GENERAL

- 1.01 **SUMMARY:** This Section includes administrative and procedural requirements for management of the project and documenting the progress of construction during performance of the Work, including the following:

1. Notice to Community Groups and Individuals.
2. Project Meetings.
3. Progress Reports.

1.02 **NOTICE TO COMMUNITY GROUPS AND INDIVIDUALS:**

The Contractor shall be responsible for coordinating the Project work with affected residents and for notifying them in writing two (2) weeks prior to commencing any work affecting them or requiring access to their property. Work shall not commence until such timely notices have been given.

- A. The required written notices shall be coordinated with the Project Manager and shall include the following information:
1. Brief description of the project.
 2. Method of construction.
 3. Dates that work will be performed.
 4. Detailed description of the work that will be performed.
 5. Description of the inconveniences that may be experienced by property owner, the duration of inconveniences, and the measures that will be taken to minimize the inconveniences.
 6. Description of restoration that will be performed upon completion of the work.
 7. Names and daytime and emergency telephone numbers of key Contractor and DHHL personnel.
 8. If applicable, detail the portions of access ways, roadways, driveways, and parking spaces that will be temporarily blocked or unavailable for public use and the alternative measures that will be provided.
- B. The Contractor shall submit draft copies of all notices to the Project Manager for approval a minimum of four (4) weeks prior to commencing any work.
- C. Copies of all notices shall be submitted to the Project Manager at the same time they are mailed to property owners, lessees, and community groups.

- D. The Contractor shall maintain a notification log which will include:
- a. Date and time of the notification,
 - b. The contact person's name
 - c. If no contact was made, the notation that the information was left at the person's door.

1.03 PROJECT MEETINGS:

- A. Preconstruction Conference: The Project Manager may schedule a preconstruction conference before the start of construction, at a time convenient to the Project Manager, but no later than seven (7) days before the Project start date or jobsite start date whichever is later. Conference will be held at the Project site or another convenient location. The Project Manager shall conduct the meeting to review responsibilities and personnel assignments.
- B. Progress Meetings: The Contractor shall schedule and attend meetings and conferences as directed by the Project Manager.
1. Agenda: Items to be discussed at the progress meetings are:
 - a. Construction Schedule
 - b. Outstanding requests for information (clarification)
 - c. Interface requirements
 - d. Sequence of operations
 - e. Status of outstanding submittals
 - f. Deliveries
 - g. Off-site fabrication
 - h. Access
 - i. Site utilization
 - j. Temporary facilities and controls
 - k. Work hours
 - l. Hazards and risks
 - m. Progress cleaning
 - n. Quality and work standards.
 - o. Change Orders and Change Proposals
 - p. Documentation of information for payment requests
 2. Contractor's Construction Schedule: The Contractor shall review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 3. Corrective Action Plan: The Contractor shall provide a plan of corrective action for any item which is delayed or expected to be delayed, then that item impacts the contractual dates.

4. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

1.04 PROGRESS REPORTS:

- A. The General Contractor and all Subcontractors shall keep a daily report of report events.
- B. The form of the Contractor Daily Progress Report shall be as directed by the Project Manager.
- C. Submit copies of the previous week's reports on Monday morning at 10:00 a.m.
- D. Submit copies of the reports with the monthly payment request for the whole period since the last payment request submittal.
- E. Deliver the reports in hard copy or by e-mail as directed by the Project Manager.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01410 – PERMITS AND LICENSES

PART 1 - GENERAL

- 1.01 GENERAL: The Contractor shall consult with all appropriate governmental agencies to determine the applicable permits, charges and fees required for the Project. Unless otherwise specified in the Contract, two (2) copies of all permits required for the Project shall be submitted to the Project Manager.

Permits, charges, and fees required for the Project may include, but not be limited to, the following:

- A. Sidewalk and Driveway Permit
- B. Trenching Permit
- C. Grading Permit
- D. Street Usage Permits (City and/or State)
- E. Fire Hydrant Usage Permit
- F. Community Noise Control Permit
- G. Dumping Charges
- H. Permit to Discharge Effluent into the City and County Separate Storm Sewer System
- I. Permit to Discharge Effluent into State Drainage System
- J. Chapter 55 Water Pollution Control, Hawaii Administrative Rules, Title 11, State Department of Health, permits for discharges of storm water runoff associated with construction.
- K. Noise Variance
- L. Industrial Wastewater Discharge Permit for Temporary Discharges into the City's Sewer System

Time required to obtain all permits and fees associated with Items A thru L above shall be included in the work order completion period.

Items J and L above have been obtained by DHHL. The Contractor shall be responsible to submit any additional information required to complete the permit. The Contractor shall also be responsible if resubmittal for a new permit is necessary.

END OF SECTION

SECTION 01430 – TEMPORARY WATER POLLUTION, DUST AND EROSION CONTROL

PART 1 - GENERAL

- 1.01 **GENERAL:** This section covers temporary water pollution, dust, and erosion controls during construction operations under this contract and for those measures set forth in other sections of the TECHNICAL SPECIFICATIONS. This section describes detailed plans, diagrams, and written site-specific best management practices (BMP); constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site, including local material sources and work areas. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, State and County laws and regulations concerning environmental protection and pollution control, and to secure all necessary permits.
- 1.02 **SUBMITTALS:** The Contractor shall submit the following in accordance with provisions as herein specified:
- A. Water Pollution, Dust, and Erosion Control Meeting. Submit Site Specific BMP to Project Manager. Schedule a water pollution, dust, and erosion control meeting with Project Manager after site specific BMP is accepted in writing by Project Manager. Meeting shall be scheduled 14 days before start of construction work. Discuss sequence of work, plans and proposals for water pollution, dust, and erosion control.
 - B. Water Pollution, Dust, and Erosion Control Submittals:
Submit the following:
 - 1. Written site specific BMP describing activities to minimize water pollution and soil erosion into State waters, drainage or sewer systems. BMP shall include the following:
 - a. An identification of potential pollutants and their sources.
 - b. List of all materials and heavy equipment to be used during construction.
 - c. Descriptions of the methods and devices used to minimize the discharge of pollutants into state waters, drainage or sewer systems.
 - d. Details of the procedures used for maintenance and subsequent removal of any erosion or siltation control devices.
 - e. Methods of removing and disposing hazardous wastes encountered or generated during construction.
 - f. Spill control.
 - g. Methods of storing and handling of oils, paints and other products used for the project.
 - h. Material storage and handling areas, and other storage areas.
 - i. Fueling and maintenance of vehicles and other equipment.
 - j. Tracking of sediments offsite from project entries and exits.
 - k. Litter management.
 - l. Toilet facilities.
 - m. Other factors that may cause water pollution, dust and erosion control.

2. Provide plans indicating location of water pollution, dust and erosion control devices; provide plans and details of BMP's to be installed or utilized; show areas of soil disturbance, indicate areas where vegetative practices are to be implemented, and areas used for the storage of soil or waste. Indicate intended drainage patterns on plans. Include separate drawings for each phase of construction that alters drainage patterns. Indicate approximate date when device will be installed and removed.
3. Construction schedule.
4. Names of specific individual(s) designated responsible for water pollution, dust, and erosion controls on the project site. Include home and business telephone numbers, fax numbers, and e-mail addresses.

Date and sign BMP. Keep accepted copy on site throughout duration of the project. Revisions to the BMP shall be included with original BMP. Modify contract documents to conform to revisions. Include actual date of installation and removal of BMP. Obtain written acceptance by Project Manager before revising BMP.

Follow guidelines in the "Construction Best Management Practices Field Manual" dated January 2008, in developing, installing, and maintaining BMPs for all projects. Follow Honolulu's City and County "Rules for Soil Erosion Standards and Guidelines" for all projects on Oahu.

- 1.03 **IMPLEMENTATION:** After receipt of Notice to Proceed, the Contractor shall submit in writing the above site-specific BMP for approval of the Project Manager within 5 days after Notice to Proceed. Approval of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures.
- 1.04 **SUBCONTRACTORS:** Assurance of compliance with this section by subcontractors will be the responsibility of the Contractor.
- 1.05 **NOTIFICATION:** The Project Manager will notify the Contractor in writing of any observed noncompliance with the aforementioned Federal, State or local laws or regulations, permits, and other elements of the Contractor's site specific BMP. The Contractor shall, after receipt of such notice, inform the Project Manager of proposed corrective action and take such action as may be approved. If the Contractor fails to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 WATER POLLUTION CONSTRUCTION REQUIREMENTS:

Do not begin work until submittals detailed in Subsection 1.02, Submittals, are completed and accepted in writing by Project Manager.

Install, maintain, monitor, repair and replace site-specific BMP measures, such as for water pollution, dust and erosion control.

Address all comments received from Project Manager.

Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

Do not expose or disturbed surface area of earth material (including clearing and grubbing) until BMP measures are installed and accepted in writing by the Project Manager. BMP measures shall be in place and operational at the end of workday.

Clean up and remove any pollutant that can be attributed to the Contractor.

Install or modify BMP measures due to change in the Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted site specific BMP or a BMP that replaces an accepted site specific BMP that is not satisfactorily performing.

Properly maintain all BMP features. Inspect, remove debris collected, prepare a written report, and make necessary repairs to BMP measures at the following intervals:

1. Weekly during dry periods.
2. Within 24 hours of any rainfall of 0.5 inch or greater which occurs in a 24-hour period.
3. Daily during periods of prolonged rainfall.
4. When existing erosion control measures are damaged or not operating properly as required by site specific BMP.
5. Temporary removal of construction BMPs that may affect drainage or cause a potential flooding hazard in the event of a weather advisory warning.

Remove, destroy, replace or relocate any BMP that must be removed, destroyed, replaced or relocated due to potential or actual flooding, or potential danger or damage to project or public.

Maintain records of inspections of BMP work. Keep continuous records for duration of the project. Submit weekly copy of records to Project Manager.

In addition to weekly reports, submit to Project Manager all amounts spent initializing and maintaining bmp during previous week. Amount spent includes, but is not limited to: purchases of erosion control material, construction of storage areas, and installation of water pollution, erosion and dust control measures. Submit report weekly along with site inspection report.

Protect finished and previously seeded areas from damage and from spillover materials placed in upper lifts of embankment.

When there are conflicts between these requirements and laws, rules, or regulations of other Federal or State local agencies, the more restrictive laws, rules, or regulations shall apply.

Non-Compliance: The Project Manager will notify the Contractor of any non-compliance with the foregoing provisions and the action to be taken. If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No extension of time or payment for excess costs or damages shall be made for the time lost due to such stop action.

The Contractor's designated representative specified in Subsection 1.02.B.4 shall address any BMP concerns brought up by Project Manager within 24 hours of notification, including weekends and holidays. Failure to satisfactorily address these concerns, Project Manager's own labor forces to provide necessary corrective measures. Project Manager will charge Contractor such incurred costs plus any associated Project Management costs. Project Manager will make appropriate deductions from Contractor's monthly progress estimate. Failure to apply BMP measures shall result in either or both the establishment and increase in the amount of retainage due to unsatisfactory progress or withholding of monthly progress payment. Continued failure to apply BMP measures may result in one or more of the following: assessment of liquidated damages, suspension, or cancellation of Contract with the Contractor being fully responsible for all additional costs incurred by State.

3.02 DUST CONTROL CONSTRUCTION REQUIREMENTS:

- A. For the duration of the contract, the Contractor, at his own expense, shall keep the project area and the surrounding areas free from dust that would cause a hazard or nuisance to the work or the operations of other contractors or to persons or property. The work shall be in conformance with the Air Pollution Control Standards and the Regulations of the State Department of Health. Contractor shall construct dust fence as designated on plan and submit dust fence assembly and materials used for fence. Approved temporary methods of stabilization consisting of sprinkling or similar methods may be permitted to control dust. If approved, sprinkling must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor must have sufficient competent equipment on the job to accomplish this if sprinkling is used. Chemicals or oil treating shall not be used.
- B. Control dust as the work proceeds and whenever a dust nuisance or hazard occurs. Controls shall be maintained from the start of construction until completion of the project or as directed by the Project Manager. No separate or direct payment will be made for dust control and the cost thereof shall be considered incidental to and included in the Contract price.
- C. The Contractor shall construct dust screens around all non-granular stockpile materials and spoil materials.

END OF SECTION

SECTION 01500 – MAINTAINING THE EXISTING WASTEWATER SYSTEM

PART 1 - GENERAL

- 1.01 GENERAL: The existing wastewater system shall be maintained in full operation at all times. When the existing wastewater system are affected by the Contractor's performance of the Contract, the Contractor shall provide adequate provisions to ensure that sewage flow through the existing system and facilities is maintained without spillage.

1.02 RELATED SECTIONS:

Section 01410	Permits and Licenses
Section 01518	Environmental Pollution Control

- 1.03 SUBMITTALS: Within 30 calendar days after the Notice to Proceed date, the Contractor shall submit a Wastewater Spill Mitigation Plan for approval to the Project Manager and the State Department of Health (DOH). The Wastewater Spill Mitigation Plan shall detail the procedures and provisions that the Contractor will implement to ensure uninterrupted sewage flow throughout the Project and, should a spill occur, regulatory agencies' requirements are satisfied. Any revisions to the plan requested by the above agencies prior to approval shall be the responsibility of the Contractor. No construction activities involving the existing wastewater system will be allowed until the Contractor's Wastewater Spill Mitigation Plan has been approved.

The Contractor's Wastewater Spill Mitigation Plan, at minimum, shall include:

1. The Contractor's sewage diversion and bypass pumping plan which has been approved by the Project Manager before any diversion of sewage flows has started.
2. Specific details of all work which will affect the existing sewer system.
3. A project schedule indicating when work affecting the existing sewer system will occur.
4. Spill prevention, mitigation, containment, treatment, and disposal provisions and procedures to be implemented whenever the existing wastewater facilities are affected.
5. Reporting requirements which conform with the current edition of Department of Health (DOH) Wastewater Branch's (telephone no. 586-4294) "Protocol for Sewage Spills" and which include immediate coordination with DOH and Division of Environmental Quality of the City Department of Environmental Services (EQ) (telephone no. 768-3279) through the Project Manager. A January 2002 edition of the "Protocol for Sewage Spills" has been attached on pages 01500-3 through 01500-6 for information only. The Contractor shall obtain a current official copy of the "Protocol for Sewage Spills" from DOH.
6. Acknowledgement of the requirements of Section 01410, "Permits and Licenses".
7. Identification of potential liabilities involved with working with the wastewater system, sewage spills, reporting requirements should spills occur, and monitoring requirements of pollutant discharges into receiving waters.

- 1.04 GENERAL REQUIREMENTS: The Contractor shall be liable for any fines and damages relating to sewage spills or the failure to maintain normal sewage flows in the existing wastewater system. The Contractor shall be responsible for coordination of his work with the Project Manager to ensure that his intended work procedures will be compatible with the design and operation of the existing wastewater system and the new wastewater improvements being constructed under this contract.

The Contractor shall be responsible for any damages to the existing wastewater system caused by his construction activities. This includes, but is not limited to, existing sewer lines, manholes, and other improvements.

The Contractor shall be responsible for all costs to return everything back to its original condition or better. This includes, but is not limited to, restoring or replacing all materials, equipment, property, or improvements damaged or disturbed as a result of the Contractor's activities.

Protocol for Sewage Spills (Revised January 2002) follows on pages 01500-3 to 01500-6

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

PROTOCOL FOR SEWAGE SPILLS
(Revised January 2002)

Spills to Surface Waters

1. The County or Federal agency shall immediately notify the Chief of the Clean Water Branch (586-4309) on all spills into State Waters.

If a spill occurs on the neighbor islands, the County or Federal agency shall immediately notify the Environmental Health Program (EHP) chief or their representatives:

Kauai District Health Office (DHO) (241-3323);
Maui DHO (984-8234, 984-8200); or
Hawaii DHO (974-6006)

During non-working hours contact the:

Call the State Hospital Operator (24 hrs.) at 247-2191. The next working day notify the Clean Water Branch and the respective district EHP chief with a follow-up call.

2. As part of the requirement, the County or Federal agency shall immediately send out a press release for spills over a thousand gallons and for lesser spills if they present a substantial threat to public health. The press release shall describe the location of the spill, the amount of sewage released, what caused the spill, and what is being done to rectify the situation. Also, include a contact person and telephone number (including an after-hours/weekend contact). Fax or telephone the press releases to the following:

- * Associated Press (for radio dissemination) (Phone No. 536-5510)
- * Major statewide and island newspapers
- * Major television news stations
- * Department of Health (Fax No. 586-4444)

For neighbor island spills also include your respective island EHP chiefs: Kauai

DHO (Fax No. 241-3566)
Maui DHO (Fax No. 984-8222)
Hawaii DHO (Fax No. 974-6000)

3. Sewage that is spilled into near shore waters shall be disinfected prior to being discharged if sufficient disinfection contact time is available. Best judgment should be used in determining the amount of chlorine added to the discharge if chlorine is used as a disinfectant.
4. The County or Federal agency shall immediately post "Warning Signs" in the areas likely to be impacted by the spill and where public access is possible.

5. The DOH shall also assure that sufficient number and location of the "Warning Signs" have been posted. Authorization to remove the signs will also come from the DOH.
6. The County or Federal agency shall conduct bacteria (enterococci and either clostridium perfringens or fecal coliform) sampling of spills greater than 100 gallons, or when public health may be threatened in the area in the receiving water affected by the discharge as soon as possible. The results shall be submitted to the DOH immediately. Monitoring shall continue until notification to stop is received from the DOH.
7. The DOH shall be informed of the sampling stations and may modify the number of stations and site selection.
8. The DOH may require additional bacteria monitoring by the County or Federal agency to supplement their existing monitoring program, as may be necessary or appropriate. The DOH may also require the County or Federal agency to post additional "Warning Signs" as needed and may assist in removal of the signs.
9. The County or Federal agency shall submit a written report of the details of the spill within five (5) calendar days of the incident to the Director of Health. The report shall include the cause of the incident, clean-up efforts, and remedial actions to prevent future incidents, a summary of the sampling data, a map of the sampling locations and public notification procedures if applicable.

Spills Not Reaching Surface Waters

Spills within the Confines of a Wastewater Facility (where public access is restricted):

1. Immediate reporting of minor spills (less than 1,000 gallons **but greater than 50 gallons**) within the confines or fence line of a wastewater facility is not required but should be recorded by operating personnel. Spill records are to be tabulated and kept onsite for review by DOH personnel.
2. Major (greater than 1,000 gallons) or chronic (**occurring more than twice within a 12 month period**) spills within the confines or fence line of a wastewater facility shall be immediately reported to the Chief of the Wastewater Branch (586-4294). The County or Federal agency shall submit a written report of the details of the spill within five (5) calendar days of the incident to the Director of Health. The report shall include the cause of the incident, clean up efforts, and remedial actions to prevent future incidents.

Spills Outside of the Confines of a Wastewater Facility:

1. The County or Federal agency shall immediately notify the Chief of the Wastewater Branch (586-4294) of all spills greater than a thousand gallons that have not entered State Waters.

If a spill that is greater than a thousand gallons occurs on the neighbor islands, the County or Federal agency shall immediately notify the Environmental Health Program chiefs or their representatives:

Kauai DHO (241-3323);
Maui DHO (984-8234, 984-8200); or
Hawaii DHO (974-6006).

During non-working hours contact the:

Call the State Hospital Operator (24 hrs.) at 247-2191. The next working day notify the Wastewater Branch or on the neighbor islands, the respective district EHP chief with a follow-up call.

2. As part of the requirement, the County or Federal agency shall immediately send out a press release for spills over a thousand gallons and for lesser spills if they present a substantial threat to public health. The press release shall describe the location of the spill, the amount of sewage released, what caused the spill, and what is being done to rectify the situation. Also, include a contact person and telephone number (including an after hours/weekend contact). Fax or telephone the press releases to the following:

- * Associated Press (for radio dissemination) (Phone No. 536-5510)
- * Major statewide and island newspapers
- * Major television news stations
- * Department of Health (Fax No. 586-4444)

For neighbor island spills also include your respective island DHOs:

Kauai DHO (Fax No. 241-3566)
Maui DHO (Fax No. 984-8200)
Hawaii DHO (Fax No. 974-6006)

3. Sewage that is spilled shall be disinfected prior to being discharged if sufficient disinfection contact time is available.
4. The County or Federal agency shall submit a written report of the details of spills greater than a thousand gallons within five (5) calendar days of the incident to the Director of Health. The report shall include the cause of the incident, clean up efforts, remedial actions to prevent future incidents, and public notification procedures if applicable.
5. The County or Federal agency shall immediately post "Warning Signs" in the vicinity of the discharge area where public access is possible. All spill sites shall be cleared of all debris and standing wastewater, and disinfected. Areas containing standing wastewater which cannot be removed shall be limited to public access by having the area roped off or limited by other means.

6. For spills less than a thousand gallons immediate reporting is not required. A tabulated summary of spills less than a thousand gallons shall be submitted quarterly to DOH.
7. Reporting of leaks or breaks in pipelines discovered during inflow/infiltration repair work is not required. These situations are considered exfiltration.

The Contractor shall notify Construction Manager of all spills. Construction Manager will inform the appropriate parties/agencies.

END OF SECTION

SECTION 01518 – ENVIRONMENTAL POLLUTION CONTROL

PART 1 - GENERAL

- 1.01 DESCRIPTION OF WORK: Furnish all labor, material and equipment and perform all work required for the prevention of environmental pollution during and as the result of construction operations under this Contract.

This Section contains general specifications pertaining to the prevention of environmental pollution to be maintained until completion of the contract and shall become a part of the work of all other Sections as applicable. The requirements of this Section take precedence over conflicting or contradictory provisions of other Sections.

The work in this Section shall include the following:

1. Obtain all permits required by the State Department of Health
2. Provide all air and water quality testing and monitoring work required by the permits during construction.
3. Provide the facilities, equipment, and structural controls for minimizing adverse impacts upon the environment during the construction period.

1.02 DEFINITIONS:

- A. For the purpose of this specification, Environmental Pollution is defined as the presence of chemical, physical, or biological elements or agents which:
1. Adversely affect human/animal health or welfare.
 2. Unfavorably alter ecological balances important to human/animal life.
 3. Affect other species of importance to man.
 4. Degrade the utility of the environment for its normal daily function, for aesthetic, and for recreational purposes.
- B. The control of environmental pollution requires consideration of air, water, and land, and involves noise control, solid waste management, and management of other pollutants.

1.03 RELATED SECTIONS:

Section 01430	Temporary Water Pollution, Dust and Erosion Control
Section 01500	Maintaining the Existing Wastewater System
Section 01560	Confined Space Entry

1.04 GENERAL REQUIREMENTS

- A. Comply with all applicable Federal and State laws, including the latest Hawaii Public Health regulations, local laws and regulations concerning pollution control and abatement.
- B. The Contractor shall become familiar with the latest requirements of the National Pollutant Discharge Elimination System (NPDES) Permit and all other necessary permits to discharge water to State receiving waters, into storm drainage system and into sanitary sewer system prior to bidding on this project. The Contractor will apply for appropriate NPDES permits required by the State Department of Health (DOH). The Contractor shall prepare and submit a written site-specific construction BMP Plan to DOH thirty (30) calendar days prior to constructions.
- C. Notification: The Project Manager will notify the Contractor in writing of any non-compliance with the foregoing provisions and the action to be taken. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose of notification. After receipt of such notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to comply promptly, the Project Manager may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it was later determined that the Contractor was in compliance.
- D. Sub-Contractor: Compliance with the provisions of this Section by subcontractors will be the responsibility of the Contractor.

1.05 WASTEWATER DISCHARGES/SPILLS:

- A. The Contractor shall be liable for any treatment of discharges that is required before disposal and for any fines, clean-up costs and damages which may occur through the violation of any federal, state or local law which may be applicable.
- B. The Contractor shall be liable for all clean-up costs, fines and damages resulting from wastewater spills related to any construction activities. The Contractor shall not store chemicals, materials or equipment at the work site unless specifically authorized by the Project Manager.
- C. All sewage spills shall be cleaned up immediately. Every effort must be made to prevent spills from entering the storm drainage system. After the majority of the sewage from the spill has been removed, the contaminated area(s) shall be disinfected with Triton (manufactured by Zep Inc.) or an approved equal.
- D. Within 30 calendar days after the Notice to Proceed date, the Contractor shall prepare a Wastewater Spill Mitigation Plan as specified in SECTION 01500, "Maintaining. The Existing Wastewater System". This plan shall be approved by the Project Manager, prior to commencing construction.

- E. The Contractor shall be responsible for any damages to the existing wastewater system and facilities caused by his construction activities. This includes, but is not limited to, existing sewer lines, manholes, treatment processes, and other improvements. The Contractor shall be responsible for all costs to return all sewer facilities and property back to its original working conditions. This includes, but is not limited to, restoring or replacing all materials, equipment, property, or improvements damaged or disturbed as a result of the Contractor's activities.

1.06 ODOR: The Contractor shall ventilate all sewer manholes and pipelines where man entry is required in accordance with Section 01560, "Confined Space Entry". Otherwise, any open sewer manholes or openings in the sewer pipe shall be sealed at all times to minimize dispersal of sewer pipe odor above ground. In cases where an opening cannot be sealed because of concerns for worker safety, the opening shall be vented and filtered before release into the atmosphere.

1.07 NOISE CONTROL:

- A. The Contractor shall comply with the provisions of Chapter 46, Community Noise Control for Oahu, of the State Department of Health, Administrative Rules. When required, the Contractor shall obtain a Community Noise Permit. Construction equipment and on-site vehicles or devices requiring an exhaust of gas or air shall have mufflers. The Contractor shall comply with conditional use of the permit as specified in the rules and the conditions issued with the permit. Should there be a baseyard or stockpile area located adjacent to residences, mitigative measures, such as barriers or berms, shall be developed in the event that noise complaints are received.

- B. The Contractor shall comply with provisions of Chapter 46, Community Noise Control for Oahu, of the State Department of Health, Administrative Rules, and with all approval conditions issued with the project's Community Noise Variance for all work activities conducted during the following times:

- Mondays through Fridays: Midnight to 7:00 a.m. and from 6:00 p.m. to Midnight.
- Saturdays: Midnight to 9:00 a.m. and from 6:00 p.m. to Midnight
- Sundays: Midnight to Midnight

With the exception of the operation of the temporary bypass lines and sewage pumps, construction activities will not be performed during federal and state holidays, and/or special events.

- C. Compliance with the provisions of this section by the subcontractors will be the responsibility of the Contractor.

- D. The Project Manager will notify the Contractor of any non-compliance with the foregoing provisions and the action to be taken. If the Contractor fails or refuses to comply promptly, the Project Manager, upon the recommendation of the Project Manager, may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No extension of time or payment for excess costs or damages shall be made for the time lost due to such stop action."

1.08 LAND RESOURCES PROTECTION:

- A. General: Unless otherwise indicated on the drawings, existing land resources within the property lines and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction that will appear to be natural and not detract from the appearance of the project. Insofar as possible, confine construction activities to areas defined by the plans or specifications.
- B. Restoration of Damage: Restore any trees or other landscape feature scarred or damaged by the Contractor's equipment or operations as nearly as possible to its original condition at the Contractor's expense. The Project Manager will decide what method of restoration shall be used and whether damaged trees or other landscape feature shall be treated and healed or removed from the site and replaced with new.
- C. Post-Construction Clean-Up: Obliterate all signs of temporary construction facilities such as work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the Project Manager. No separate payment will be made for post- construction cleanup or obliteration and all cost thereof shall be considered a portion of the Contract Price, except as otherwise provided for in the Contract Documents.

- 1.09 HISTORICAL AND ARCHAEOLOGICAL FINDS: All items having any apparent historical or archeological interest discovered in the course of construction activities shall be carefully preserved. Leave the archeological find undisturbed and immediately report the find to the Project Manager and the State Historic Preservation Officers from the State Department of Land and Natural Resources at phone (808) 692-8015 to assess the significance of the find and recommend an appropriate mitigation measure, if necessary.

- 1.10 BURNING: No materials may be burned within the contract area at any time within the contract period.

PART 2 – (NOT USED)

PART 3 – (NOT USED)

END OF SECTION

SECTION 01560 – CONFINED SPACE ENTRY

PART 1 – GENERAL

- 1.01 For entry by DHHL personnel, including its inspectors and representatives, into a permit required confined space as defined in 29 CFR Part 1910.146(b), the Contractor shall be responsible for providing:
- A. All safety equipment required by the confined space regulations applicable to all parties other than construction industry, to include, but not limited to, the following:
 - (1) Full body harnesses for up to two(2) personnel.
 - (2) Lifeline and associated clips.
 - (3) Ingress/egress and fall protection equipment.
 - (4) Two-way radios (walkie-talkies) if out of line-of-sight.
 - (5) Emergency (escape) respirator (10 minuteduration).
 - (6) Cellular telephone to call for emergency assistance.
 - (7) Continuous gas monitoring instrument (calibrated) to measure oxygen content, and concentrations of hydrogen sulfide, carbon monoxide and flammable gases (capable of monitoring at a distance at least 20 feet away).
 - (8) Personal multi-gas detector to be carriedby inspector.
 - (9) Signed permit to enter confined space area.
 - B. Continuous forced air ventilation adequate to provide safe entry conditions.
 - C. One attendant/rescue personnel topside (two, if conditions warrant it) for each entrant into a confined space.

All safety equipment shall comply with the standards of the Occupational Safety and Health Administration (OSHA) and all applicable Federal, State, and City laws and regulations relating to safety.

1.02 SAFETY AND EXPERIENCE

The Contractor shall have a documented, in-place safety program which meets or exceeds all Federal and State OSHA regulations, with special emphasis on hazard-free work in confined spaces and sewage environment.

Additionally, the Contractor shall submit documentation of confined space training certification for all personnel performing confined space entry at preconstruction conference.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01750 - GUARANTEE

This work shall be done in accordance with Section 7.35 - Guarantee of Work of the Interim General Conditions and the criteria listed below.

Any period that a particular equipment is not operable due to its failure, shall not be considered as a part of the guarantee period. The guarantee period shall be extended for a like period. If due to failure of other equipment the equipment is unable to perform its intended function, the guarantee period shall be extended for a like period. Time that equipment is operating shall be counted as applying to the warranty. Such time shall be determined by use of plant operator's log or other suitable documentation.

If the Contractor fails to perform corrective work in the manner and within the time stated, the Department of Hawaiian Home Lands (DHHL) may proceed to have such work performed at the Contractor's expense and his sureties will be liable therefor. The DHHL shall be entitled to reasonable attorney's fees and court costs necessarily incurred by the Contractor's refusal to honor and pay such costs of corrective work.

The Contractor's performance bond shall continue in full force and effect during the period of this guarantee.

The rights and remedies of the DHHL under this provision do not preclude the exercise of any other rights or remedies provided by this contract or by law with respect to unsatisfactory work performed by the Contractor.

This guarantee shall be deemed supplemental to guarantee provisions provided in other sections of the specifications for the individual units and systems of units so specified.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

DIVISION 2 - SITE WORK

SECTION 02050 - DEMOLITION AND REMOVAL

PART 1 - GENERAL

1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.

1.02 WORK INCLUDED:

- A. Accomplish all demolition, removal, and related work indicated on or required by the drawings, and as specified herein.
- B. Work shall include, but not be limited to the following:
 - 1. Demolition and removal of the existing features (sewer pipe, retaining walls, chain link fences, utilities, etc.), as indicated on the drawings.
 - 2. Clearing and disposing of all debris, rubbish, junk, abandoned cars and miscellaneous items.

1.03 GENERAL REQUIREMENTS:

- A. It shall be the responsibility of the Contractor to examine the project site and determine for himself the existing conditions.
- B. Obvious conditions which exist on the site shall be accepted as part of the work, even though they may not be clearly indicated on the drawings and/or described herein, or may vary therefrom.
- C. All debris of any kind accumulated from the work of this section shall be disposed of off the site.
- D. Burning of debris on site will not be permitted.
- E. Permits, Notice, Etc.
 - 1. The Contractor shall apply for and obtain all necessary permits or certificates that may be required in connection with this work. The Contractor shall pay for all fees.
 - 2. The Contractor shall serve proper notice and consult with the Project Manager regarding any temporary disconnections of electrical or other utility lines in the area which may interfere with the removal work, and all such lines where necessary shall be properly disconnected before commencing with the work.

- F. Protection: Throughout the work, protection shall be provided for all roads, walks, property, trees, etc., scheduled to remain. Safe working conditions shall be maintained at all times for all personnel, and temporary lights and barricades shall be provided and maintained.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 DEMOLITION AND REMOVAL:

- A. All work shall be executed in an orderly and careful manner, with due consideration for all items to remain, and the Contractor shall be strictly responsible for any damage thereto.
- B. Demolish and remove existing concrete pads, chain link fence, and other obstructions or encumbrances of any kind or character within the property lines, unless otherwise directed by the Project Manager.

- 3.02 PROCEDURES: The procedures and the timetable proposed for the demolition work shall be submitted to the Project Manager for approval prior to the start of the work. The procedures shall provide for safe conduct of the work, careful removal and disposition of materials, protection of property which is to remain undisturbed, coordination with other work in progress. The procedures shall include a description of the method and equipment to be used for each operation and the sequence of each operation. Contractor shall be responsible for the restoration of any utility disconnected for this work.

- 3.03 DUST CONTROL: The amount of dust resulting from demolition shall be controlled to prevent the spread of dust and to avoid creation of a nuisance in the surrounding area. Use of water will not be permitted when it will result in, or create, a hazardous condition such as flooding or pollution.

- 3.04 CONTRACT LIMITS OF WORK: The Contract Limits of Work shall be as directed on the site plan, however, work outside the Limits of work necessary to complete the project shall be included.

- 3.05 BARRICADE: Erect temporary barricade as required, to prevent people and animals from entering the project area to the extent as approved by the Project Manager. The extent of barricade may be adjusted as necessary with the approval of the Project Manager. This work shall be accomplished to the satisfaction of the Department of Hawaiian Home Lands (DHHL) and at no extra cost to the DHHL. Barricade shall be removed upon completion of work, and job site premises left clean and operational.

3.06 MAINTAINING TRAFFIC:

- A. The Contractor shall conduct operations with minimum interference to streets, driveways, sidewalks, etc.
- B. When necessary, the Contractor shall provide, erect and maintain lights, barriers, etc., as required by traffic and safety regulations with special attention to protection of life.

- 3.07 CLEAN UP: Debris and rubbish shall be removed from the site daily. Debris and rubbish shall not be allowed to accumulate on site. Debris shall be removed and transported in a manner that will prevent spillage on streets or adjacent areas.

END OF SECTION

SECTION 02100 - CLEARING AND GRUBBING

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 WORK INCLUDED:
- A. Furnish all labor, materials, equipment and tools necessary to accomplish all clearing and grubbing work as indicated on the drawings and as specified herein.
 - B. It shall be the responsibility of the Contractor to examine the project site and determine for himself the existing conditions.
 - C. Obvious conditions of the site existing on the date of the bid opening shall be accepted as part of the work, even though they may not be clearly indicated on the drawings and/or described herein or may vary therefrom.
 - D. All debris of any kind accumulated from clearing or grubbing shall be disposed of off-site weekly, and the whole area left clean. The Contractor shall be required to make all necessary arrangements related to the proposed place of disposal.
- 1.03 STANDARD SPECIFICATIONS: "Standard Specifications," 1986, Department of Public Works, City and County of Honolulu, hereinafter referred to as the "Standard Specifications".
- 1.04 SUBMITTALS: Landfill Disposal Receipts: Submit copies of receipts issued by a landfill facility. Include receipts with Contractor Daily Progress Report.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

- 3.01 SEQUENCE OF WORK: All sequence of work shall be subject to the approval of the Project Manager.
- 3.02 PROTECTION:
- A. Adequate precautions shall be taken before commencing and during the course of the work to insure the protection of life, limb and property.
 - B. The Contractor shall protect from damage all surrounding structures, trees, plants, grass, walks, pavements, utility boxes, etc. Any damages will be repaired or replaced by the Contractor to the satisfaction of the Project Manager at no cost to DHHL.
- 3.03 PERMITS: The Contractor shall apply for and obtain the necessary permits prior to the commencement of work. The Contractor shall pay for all fees.

3.04 BARRICADE: Erect temporary barricade to prevent people and animals from entering the project area, to the extent as approved by the Project Manager. The extent of barricades may be adjusted as necessary with the approval of the Project Manager. This work shall be accomplished to the satisfaction of the DHHL and at no extra cost to the DHHL. Barricades shall be removed upon completion of work, and job site premises left clean.

3.05 MAINTAINING TRAFFIC:

- A. The Contractor shall conduct operations with minimum interference to streets, driveways, sidewalks, etc.
- B. When necessary, the Contractor shall provide, erect and maintain lights, barriers, etc., as required by traffic and safety regulations with special attention to protection of life.

3.06 CONSTRUCTION LINES, LEVELS AND GRADES:

- A. The Contractor shall verify all lines, levels and elevations indicated on the drawings before any clearing or construction begin. Any discrepancy shall be immediately brought to the attention of the Project Manager and any change shall be made in accordance with his instruction. The Contractor shall not be entitled to extra payment if he fails to report the discrepancies before proceeding with any work whether within the area affected or not.
- B. All lines and grades shall be established by a Surveyor licensed in the State of Hawaii and hired by the Contractor.

3.07 CLEARING AND GRUBBING:

- A. Clearing and Grubbing: All limits of work areas shall be cleared and grubbed. All vegetation, debris, rubbish, and other unsuitable materials, such as organic and/or ash soil materials shall be removed and disposed of properly off-site.
- B. The Contractor shall clear off and remove from the entire limits of work area, all rubbish, grass and weeds, stumps, large roots, buried logs, garbage, boulders and other unsuitable material. Where soft wet soils are encountered, light equipment should be used.
- C. The Contractor shall grub the ground surface within the work area of all grass and weeds. Grub out tree root structures.
- D. Any stumps and roots larger than 3 inches in diameter shall be removed.
- E. No slope stabilization shall be undertaken until area has been cleared and grubbed.
- F. Perform all clearing and grubbing in accordance with Standard Specifications.

3.08 CONTRACT ZONE LIMITS: The Contract Zone Limits shown on the drawings indicate only in general the limits of the work involved. The Contractor, however, is required to perform any and all necessary and incidental work which may fall outside of these demarcation lines.

- 3.09 VERIFICATION OF EXISTING GRADES: Verify existing grades and improvements before any clearing and grubbing work is done. Immediately bring to the attention of the Project Manager any discrepancy, and make any changes in accordance with his instructions. Starting of clearing and grubbing operations will be construed to mean that the Contractor agrees that the existing grades and improvements are essentially correct as indicated. No extra compensation will be allowed if existing grades and improvements are in error after verification thereof or if he fails to report the discrepancies before proceeding with any work.
- 3.10 CLEAN UP: Clean up and remove all debris accumulated from construction operations from time to time, when and as directed by the Project Manager. Upon completion of the construction work and before final acceptance of work, remove all surplus materials, equipment, etc., and leave entire job site clean and neat.

END OF SECTION

SECTION 02210 - SITE EARTHWORK

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 WORK INCLUDED: Furnish all labor, materials, services, equipment and related items necessary to excavate, fill, remove, transport, stockpile and dispose of all materials within the limits of the project required to construct the site work improvements in accordance with these specifications, dimensions, sections and details shown on the drawings, and the approval of DHHL.
- 1.03 RELATED WORK IN OTHER SECTIONS:
- | | |
|--|---------------|
| Temporary Water Pollution, Dust, and Erosion Control | Section 01430 |
| Environmental Pollution Control | Section 01518 |
| Trench Excavation and Backfill | Section 02221 |
| Temporary Soil Erosion Control | Section 02270 |
- 1.04 STANDARD SPECIFICATIONS: "Standard Specifications for Public Works Construction," September 1986, Departments of Public Works County of Kauai, City and County of Honolulu, County of Maui, County of Hawaii of the State of Hawaii, hereinafter referred to as the "Standard Specifications."
- 1.05 SUBMITTALS: Contractor to submit test data reports of proposed fill material to be incorporated in conformance with the Standard Specifications as revised, except as amended on the drawings and/or in the specifications herewith.
- 1.06 PROTECTION:
- A. Erosion Control: The Contractor shall incorporate into his work schedule the Temporary Erosion Control Measures and the Permanent Erosion Control procedures indicated on the drawings and as specified in the contract.
- B. Dust Control: Every effort shall be made by the Contractor to keep dust to a minimum. Spraying the ground with water or other means of control shall be used wherever possible. The Contractor shall have an adequate supply of water for moisture conditioning of fill material.
- Without limiting the generality or applicability of other indemnity provisions of the contract, the Contractor agrees that he shall indemnify and hold harmless the DHHL from and against all suits, actions, claims, demands, damages, costs and expenses (including but not limited to attorney's fees) arising out of any damage to any property whatsoever or injury to any person whomsoever, in any way caused or contributed to by dust from the Contractor's operations.
- C. Existing Utilities and Work Areas: The Contractor shall be responsible for the protection of existing surface and subsurface utilities and poles within and abutting the project site, trench excavations and other work areas.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. General Fill and Borrow: Shall be in accordance with the following sections of the Standard specifications, as revised, except as amended on the drawings and/or in the specifications herewith.

Borrow

Section 16

Embankment

Section 17

- B. Topsoil: Subsequent to acceptable clearing and grubbing, remove any surface material approved by the Project Manager and stockpile at a convenient location for replacement as topsoil under landscape work. Consult with the Project Manager to determine suitability of topsoil, and to determine stockpile location and quantity of stockpile. Soils rejected by the Project Manager as topsoil quality shall be removed.

PART 3 - EXECUTION

- 3.01 STANDARD SPECIFICATIONS: This work shall be done in accordance with the following specifications sections.

The following section of the Standard Specifications, as revised, shall apply except as amended on the drawings and/or in the specifications herewith.

Embankment

Section 17

END OF SECTION

SECTION 02221 - TRENCH EXCAVATION AND BACKFILL

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 WORK INCLUDED: Furnish all labor, materials, tools, equipment and related items necessary for excavating and backfilling trench for drain, water lines, electrical units and appurtenances in conformity with the dimensions, profiles, section and details shown on the plans. Work shall be governed by Section 11 of the Standard Specifications as amended herein. The Contractor shall be solely responsible for the means, techniques, procedures, and sequences for dewatering and bracing and shoring the excavation.
- 1.03 SUPPLEMENTS: All excavated material shall be unclassified regardless of its composition, whether soil, solid rock, coral, asphalt pavement, concrete, rubbish or other material.

The installation and removal of sheeting shall be done in a manner that will not cause settlement or disturbance of the pipe cradle material.

All existing ground, roadways and other improvements damaged, destroyed, or disturbed shall be, at the Contractor's expense, replaced, reconstructed and restored in kind to an equal or better condition satisfactory to the Project Manager.

- 1.04 STANDARD SPECIFICATIONS: The following specifications shall be made a part of this section:
- A. "Standard Specifications for Public Works Construction," September 1986, Departments of Public Works County of Kauai, City and County of Honolulu, County of Maui, County of Hawaii of the State of Hawaii, hereinafter referred to as the "Standard Specifications."
 - B. "Water System Standards," 2002, Department of Water Supply, County of Hawaii, State of Hawaii, hereinafter referred to as the "Water Standards."
- 1.05 SUBMITTALS: The Contractor shall submit product data of materials to be installed.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials for roads shall be in accordance with the following sections of the Standard Specifications, as revised, except as amended on the drawings and/or in the specifications herewith.

Restoring Pavements and Other Improvements

Section 38

- B. Trench Backfill: Material shall be in accordance with the following section of the Standard Specifications, as revised, except as amended on the drawings and/or in the specifications herewith.

Trench Excavation and Backfill

Section 11

- C. Pipe Cushion: Pipe cushion shall consist of No. 3B fine gravel as described by ASTM C33 (No. 67 gradation) or 1-inch minus aggregate base course.

PART 3 - EXECUTION

- 3.01 STANDARD SPECIFICATIONS: This work shall be done in accordance with the following specification sections.

The following section of the Standard Specifications, as revised, shall apply except as amended on the drawings and/or in the specifications herewith.

Trench Excavation and Backfill

Section 11

- 3.02 PLACEMENT AND COMPACTION OF BACKFILL

Trench backfill and compaction shall be done in accordance with the Standard Specifications.

Any loose areas or cavities disclosed during trenching excavations shall be backfilled and compacted according to Section 02210 - Site Earthwork. This work shall be considered incidental to the various contract items.

END OF SECTION

SECTION 02270 - TEMPORARY SOIL EROSION CONTROL

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 WORK INCLUDED: Submit three (3) sets of the erosion control materials for approval by the Project Manager. Furnish all labor, materials, services, equipment and related items necessary to implement the temporary erosion control measures, submitted separately, as required by these specifications and as ordered by the Project Manager during the life of the contract to control water pollution through the use of berms, dikes, dams, sediment basins, fiber mats, netting, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.
- A. Temporary erosion and siltation control measures as described herein shall be applied to any erodible material within this project, including local material sources and work areas.
 - B. The Contractor shall be responsible for providing the necessary erosion control measures which are shown on the plans or which may be ordered by the Project Manager.
 - C. The Contractor shall be responsible for promptly (the day after a storm) removing all silt and debris resulting from his work and deposited in drainage facilities, roadways, neighboring lands, and other areas.
- 1.03 RELATED WORK IN OTHER SECTIONS:
- | | |
|--|---------------|
| Temporary Water Pollution, Dust, and Erosion Control | Section 01430 |
| Environmental Pollution Control | Section 01518 |
| Clearing and Grubbing | Section 02100 |

PART 2 - PRODUCTS

- 2.01 MATERIALS:
- A. Mulches: To be bagasse, hay, straw, fiber mats, netting, wood cellulose, bark, wood chips, or other suitable material acceptable to the Project Manager and shall be reasonably clean and free of noxious weeds and deleterious materials.
 - B. Grass: To be a quick growing species (such as rye grass, Italian rye grass, or cereal grasses) suitable to the area and which provides temporary cover that does not later compete with the permanent cover.
 - C. Fertilizer and Soil Conditioners: To be a standard commercial grade acceptable to the Project Manager.
 - D. Compost Filter Sock: Refer to construction plans for construction requirements.

PART 3 - EXECUTION

3.01 TEMPORARY EROSION CONTROL:

- A. The Project Manager has the authority to limit the surface area exposed by clearing and grubbing and to limit the surface area exposed. The Project Manager may also direct the Contractor to provide immediate, permanent, or temporary pollution control measures to prevent contamination of streams, lakes, ponds, drainage channels and pipes, roads, neighboring lands, and other areas.

Except for specified measures which may be shown on the plans the Contractor shall determine the appropriate erosion control measures to use. Such work may involve the construction of temporary berms, dikes, dams, sediment basins, and slope drains, and the use of temporary mulches, mats, and grassing, or the construction and use of other control devices or methods as necessary to control erosion.

- B. The Contractor shall incorporate all erosion control measures shown in the plans. The erosion controls may be modified as necessary to adjust to conditions that develop during construction. All modifications are subject to approval by the Project Manager.
- C. The Contractor shall limit the surface area exposed by grubbing to that which is necessary for him to perform the next operation and which is within his capability and progress in keeping the pollution control measures current.

The grubbing of the vegetative root mat and stumps and the stripping of topsoil shall be confined within the limits of trenching and grading which can be actively and continuously prosecuted within 15 calendar days. The area to be graded shall be limited to the minimum area necessary to accommodate the Contractor's equipment and work force and shall not at any time exceed 15 acres without prior approval of the Project Manager.

Any area remaining bared or cleared for more than 10 calendar days and which is not within the limits of active construction shall be immediately hydro-mulch seeded or remedied as directed by the Project Manager at the Contractor's expense without cost to the DHHL.

- D. The Contractor shall, at the end of each work operation in any one day, shape the earthwork in such a manner as to control and direct the runoff to minimize the erosion of soils. He shall construct earth berms along the top edges of embankments or along the property line with adjacent properties, streams and water channels, to intercept any runoff. Temporary slope drains shall be provided to carry runoff from the top of cuts and fills. Temporary facilities for controlled discharges shall be provided for runoff impounded, directed, or controlled by project activities or by any erosion control measure employed.

- E. Fill slopes shall be shaped, topsoil added if necessary, and planted as the work progresses. In no case shall the exposed surface be greater than 15 feet in height. Whenever major excavation is suspended or halted and the slope is bared for more than 15 consecutive days, the exposed surfaces shall be hydro-mulch seeded or protected as directed by the Project Manager at the Contractor's expense without cost to the Department of Hawaiian Home Lands.
- F. Construction of berms, cofferdams, or other such construction in or near the vicinity of streams, ponds, waterways, or other bodies of water shall be approved materials.
- G. The temporary erosion and siltation control measures outlined in these specifications are minimum requirements and shall not preclude the provision of any additional measures which the Contractor may deem necessary. Damages caused by the erosion of soils and the pollution of downstream areas shall be the responsibility of the Contractor and all costs for repairing, correcting, replacing, and cleaning damaged or polluted facilities shall be borne by the Contractor.

END OF SECTION

SECTION 02730 – SEWER SYSTEM

PART 1 – GENERAL

1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.

1.02 WORK INCLUDED: Furnish all labor, materials, tools, equipment and related items necessary to complete, in place, of the sewer system.

1.03 RELATED SECTIONS:

Section 01500	Maintaining the Existing Wastewater System
Section 02221	Trench Excavation and Backfill
Section 02731	Sewer Flow Control
Section 02732	Sewer Line and Manhole Cleaning
Section 02733	Television Inspection
Section 02734	Cured-in-Place Pipe (CIPP)

1.04 REFERENCES:

A. Department of Public Works, County of Kauai, City and County of Honolulu, County of Maui, County of Hawaii of the State of Hawaii

1. “Standard Specifications for Public Works Construction,” September 1984, Departments of Public Works, City and County of Honolulu, hereinafter referred to as the “Standard Specifications”.
2. “Standard Specifications for Public Works Construction,” September 1986, Departments of Public Works, City and County of Honolulu, hereinafter referred to as the “Standard Specifications”.
3. Design Standards for Wastewater Management, Vol. 1, July 1993 as applicable to City and County of Honolulu

B. ASTM A74 - Cast Iron Soil Pipe and Fittings.

C. ASTM C564 - Rubber Gaskets for Cast Iron Soil Pipe and Fittings.

D. ASTM D2321 - Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.

E. ASTM D3212 - Joints for Drain and Sewer Plastic Pipe Using Flexible Elastomeric Seals.

F. ASTM F477 - Elastomeric Seals (Gaskets for Joining Plastic Pipe).

G. ASTM F794 - Poly(Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter.

H. IAPM0 - Uniform Plumbing Code (UPC)

1.05 SUBMITTALS:

- A. Submit under provisions of Section 01340 - Drawings To Be Furnished By Contractor.
- B. Product Data: Describe pipe and pipe accessories.
- C. Test and Inspection Reports: For tests and instructions performed.
- D. Manufacturer's Installation Instructions: Indicate special procedures and installation instructions.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- F. As-Builts:
 - 1. Accurately record actual locations of pipe runs, connections, cleanouts, and invert elevations.
 - 2. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.06 QUALITY ASSURANCE:

- A. Standard Specifications and Standard Details; for material and installation.
- B. Maintain a copy of each document on site.

1.07 REGULATORY REQUIREMENTS: Provide products with identification marks and data as required by Standard Specifications.

1.08 MATERIAL HANDLING: Deliver, store, and handle products with adequate protection against damage.

1.09 FIELD MEASUREMENTS: Verify that field measurements and elevations are as indicated on drawings.

PART 2 – PRODUCTS

2.01 MATERIALS:

- A. Provide in accordance with following sections of Standard specifications
 - 1. PVC sewer pipe and appurtenances for 6 inch to 8 inch Section 21 with following exceptions:
 - a. Mandrel shall have a cross section equivalent to a circle having a diameter minimum 97 percent of specified bass Inside diameter of pipe.

- b. Mandrel shall be rigid nine-sled (9) mandrel constructed to prevent damage to pipe interior, with no sharp cutting edges which may damage pipe interior. Mandrel shall be tested and measured by a third party certified laboratory as approved by the Project Manager. Provide written certification.
 - c. Perform testing no sooner than 30 days after trench backfill is completed.
 - 2. Sewer Manholes..... Section 23
 - 3. Concrete Jacket Section 43
- B. Provide other materials not specified herein as specified in the references.

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Verify that field conditions are acceptable and ready to receive work.
- B. Beginning of work means installer accepts existing conditions.

3.02 PREPARATION:

- A. Be responsible for precisely laying out sanitary sewage system. Locations shown on drawings of various existing utility lines were determined on basis of best information available; however, no assurance can be given that actual locations will be precisely as shown on drawings.
- B. Exercise due care and caution necessary to avoid damage to and impairment in use of existing utility lines. Repair and restore immediately damages inflicted on existing lines as directed by the Project Manager at no cost to DHHL.

3.03 INSTALLATION:

- A. Install sanitary sewage system as per applicable Standard Specifications, Standard Details and as noted on drawings.
- B. Connect to existing sewer per Section 22 - Connection to Existing Sewer and Connecting Cesspool in Direct Line of Sewer of the Standard Specifications.
- C. Concrete Jacket shall be installed per Section 43 – Concrete Blocks, Cradles and Jackets of the Standard Specifications, and Standard Details.

3.04 BACKFILLING:

- A. Backfilling is not permitted until lines have been tested and approved by the Project Manager.
- B. Backfilling shall be as specified under Section 02221 - Trench Excavation and Backfill.

3.05 FIELD QUALITY CONTROL:

- A. Conduct field tests required by Standard Specifications in presence of the Project Manager.
- B. Provide leakage test for sewer pipes and appurtenances in accordance with the requirements of the Standard Specifications.

3.06 PROTECTION OF FINISHED WORK: Protect pipe from damage or displacement until backfill operation is in progress.

END OF SECTION

SECTION 02731 – SEWER FLOW CONTROL

PART I - GENERAL

1.01 **DESCRIPTION:** The Contractor shall furnish all labor, tools, materials and equipment necessary, including traffic control plans and work necessary to control sewer line flows to sewer lines undergoing replacement or CIPP repair. The Contractor shall use one or more of the following flow control methods unless otherwise allowed by the Project Manager:

- A. **Plugging and Blocking:** Sewer line plugs shall be inserted into the line at an upstream manhole location. The plug shall be designed so that a portion of the sewage flow can be released as may be required. During the work, flows shall be controlled and shall be either completely shut off or, as allowed by the Project Manager, reduced sufficiently to ensure proper performance of Contract work.
- B. **Pumping and Bypassing:** Pumping equipment, piping, and any other appurtenant equipment and tools shall be furnished and placed by the Contractor to bypass all gravity sewer lines where work is being performed. Standby pumps of equal size shall be on-site during pumping operations all pumps must be capable of pumping the highest of all Existing Design Peak Flows (Q_R), which accounts for existing population, daily peak flow, dry weather I/I and wet weather I/I.

Where additional temporary bypass piping is required, the bypass piping shall be buried in vehicular traffic areas, including driveways and road travelways, if required by the Project Manager. Safe passage of pedestrian and vehicular traffic must be ensured through and around all bypassing equipment and materials. In areas not subject to vehicular traffic, temporary bypass piping may be laid on the ground surface as approved by the Project Manager, but shall be pinned firmly in place to prevent movement and/or breakage during usage. All temporary bypass piping joints and connections shall be positively sealed with no leaks occurring. When the sewage bypass system is in operation, the Contractor shall ensure that the system is continuously manned, operated, monitored and maintained by skilled personnel specifically trained and experienced in all aspects of such systems. Standby pumps shall be checked, maintained, and started up periodically to ascertain their operational status.

The Contractor shall coordinate with property owners for use of cleanouts for bypassing purposes. The Contractor shall provide to the Project Manager a list of addresses that require installation of cleanouts for bypassing purposes where no cleanout exists. The list shall be submitted within seven calendar days of acceptance to allow sufficient time for DHHL to contact DHHL and the homeowner and inform him that a cleanout must be installed.

Where sewer flow controls and bypassing are used, precautions shall be taken to ensure that water levels do not create backups nor cause damage or flooding to any public or private properties. Any such damage, claims or fines due to the Contractor's operations shall be repaired, cleaned or compensated at the sole expense of the Contractor. The Contractor shall reference Section 01500, "Maintaining the Existing Wastewater System".

All sewage flow from residences connecting to a sewer line shall have their flows bypassed or collected and disposed of to a downstream line. Pumping and collecting of sewage shall be performed by inserting a suction line into the sewer cleanout. If a cleanout is buried, the Contractor shall perform the necessary work to locate and expose the cleanout to complete the sewage flow bypassing work. For cleanouts that cannot be located, the Contractor may be required to install a new cleanout, per City Standard Details, upon approval or request from the Project Manager.

- C. Hauling of Wastewater: Provisions shall be made by the Contractor to haul wastewater from the manhole(s) in the event of an emergency or wet weather flow event. All costs associated with wastewater hauling as a result of any emergency or wet weather flow shall be paid for by the Contractor.

- 1.02 CONTRACTOR REQUIREMENTS: The pumping and bypassing contractor/subcontractor shall have successfully performed a minimum of two projects requiring pumping and bypassing of sewer line of 6-inch or larger diameter and/or average daily flows larger than 1 million gallons per day (mgd). The Contractor shall submit documentation of his meeting this minimum requirement within 15 calendar days of the Notice to Proceed date. The documentation shall include name of project, name and address of owner, owner contact person and phone number, description of constraints, significant environmental concerns, and letters of confirmation and project completion from owner.
- 1.03 SAFETY: Sanitary sewers convey sanitary sewage and certain substances which may be considered hazardous. These substances may include hydrogen sulfide, a natural gaseous byproduct of sanitary sewage. The Contractor shall exercise extreme caution and comply with all applicable Federal, State, and City regulations and all applicable OSHA requirements when performing the required sewer work or when in the vicinity of any hazardous substances.
- 1.04 SUBMITTALS: At least fifteen (15) calendar days prior to the planned start of actual construction activities, the Contractor shall prepare and submit for approval to the Project Manager a proposed sewer bypass plan. The Contractor's proposed bypass plan shall include, but not be limited to, a sewer system map showing all sewer inverts, the anticipated sewage water level and rim elevations at manholes (record drawing information may be used, however, the Contractor shall adjust the elevations to reflect a common survey datum) in the areas affected by any diversion, anticipated peak sewage flows, and locations of plugs, pumps, piping, and monitoring sites for each stage of construction.

The Contractor shall submit a contingency plan that outlines the actions to be taken in the event that any sewage spills should occur. The Contractor's bypass plan shall be approved by the Project Manager before any diversion of sewage flows will be allowed.

Should the Contractor deviate from the approved traffic control plans (TCP) in the construction drawings set, the Contractor shall be responsible for designing and submitting approved traffic control plans for approval from the City Department of Transportation Services. Traffic control plans shall be designed by an Project Manager licensed in the State of Hawaii and shall conform to applicable provisions of the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD), as amended, published by the Federal Highway Administration.

Design of the Contractor's traffic control plans and obtaining approvals from the City Departments of Transportation Services (DTS) and/or Planning and Permitting (DPP) shall be the total responsibility of the Contractor. No additional time will be allowed for the design and processing for approval of the traffic control plans.

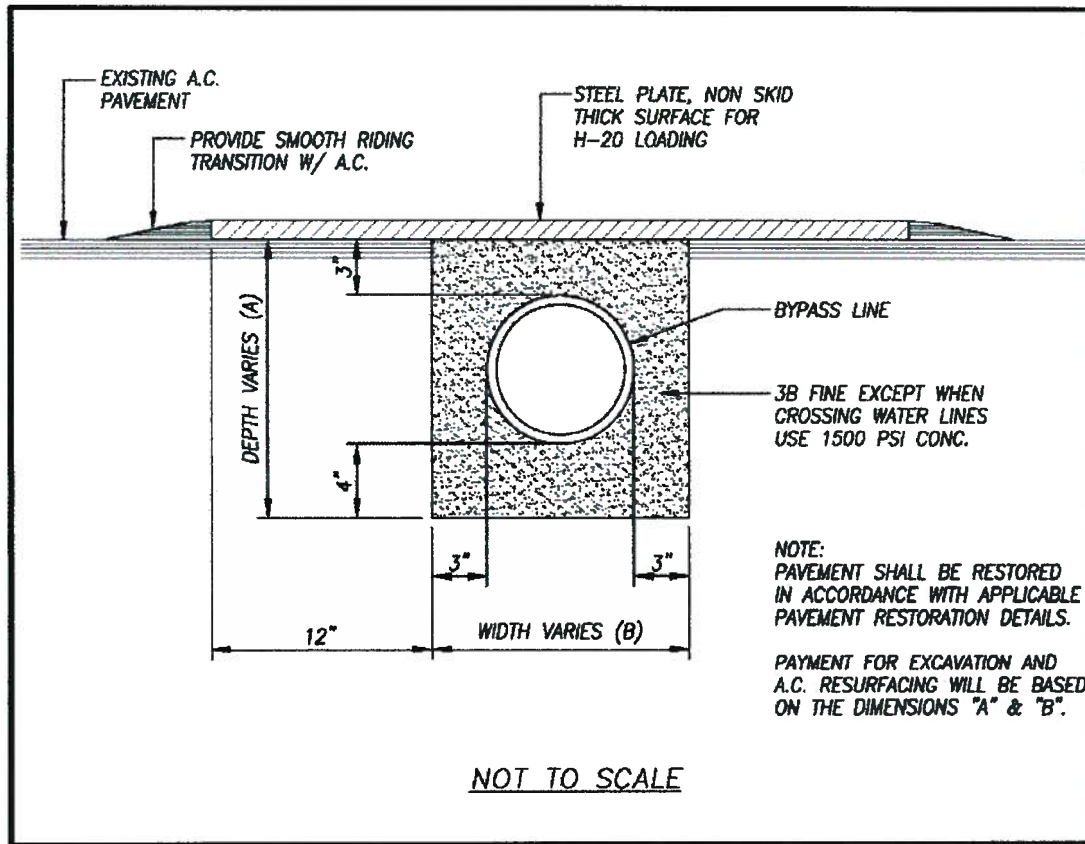
PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

The Contractor shall adhere to the following requirements when performing any work to plug, pump or bypass sewage flows:

- A. The Contractor shall continuously monitor the sewage water level elevations in cleanouts or manholes upstream and downstream of the Project area and at any discharge manhole where flow is being diverted or pumped to. The Contractor shall obtain approval from the Project Manager of all monitoring locations prior to commencing the bypassing or diversion of any sewage flows.
- B. A trial diversion shall be performed one day before beginning rehabilitation work unless otherwise directed by the Project Manager. Trial diversion shall continue for two (2) consecutive hours in the presence of the Project Manager. Pumping equipment and piping shall be leak tested with potable water prior to pumping sewage.
- C. In the event of an emergency, the Contractor shall be capable of immediately removing all plugs, diversion plates, bypass pumps, bypass piping, or any portions of diversion and bypass pumping equipment and materials as may be required.
- D. Pumping equipment and piping shall be checked for leaks by the Contractor at all times. Leak detection shall be performed any time the bypass pumping system is disassembled, reassembled or modified. No leaks in the diversion piping shall be permitted. Any fines resulting from sewage spills due to the Contractor's work shall be the total responsibility of the Contractor.
- E. Where sewer flow controls are used, precautions shall be taken to ensure that sewer water levels do not create backups, damages, or flooding of public or private properties. Damages caused by the Contractor's operations shall be repaired and cleaned by the Contractor at no cost to the Owner. The Contractor shall also be responsible for the settlement of all claims for damages resulting from his work or actions.
- F. Sewage flowing by gravity shall not be allowed to flow higher than the top of the crown of the flowing sewer pipe at any manhole as a result of construction or diversion activities. No diversion shall be implemented or left in place once the sewage level reaches aforementioned limits.
- G. The Contractor shall be responsible for monitoring for high sewage flow conditions and for temporarily suspending his sewage flow control activities if conditions warrant it. The Contractor shall also temporarily suspend his sewage flow control activities if so directed by the Project Manager. On-going Project work that requires sewage flow control shall be suspended until the conditions and the Project Manager allow for the resumption of the sewage flow control activities.

- H. No CIPP inversion activity shall be performed when it is raining or when rain is imminent.
- I. Following the completion and acceptance of each section of sewer line replacement or rehabilitation work, the Contractor shall remove all diversion and bypass pumping equipment and piping and the area shall be restored to its original or better condition. The Project Manager will evaluate the restoration work in accordance with the preconstruction site survey photographs, videotapes, and report of the project site provided by the Contractor.



Temporary Bypass Line Detail

END OF SECTION

SECTION 02732 - SEWER LINE AND MANHOLE CLEANING

PART 1 - GENERAL

- 1.01 **GENERAL:** The term "clean" as used in these specifications shall be defined as the removal of materials to render the gravity sewer line to 100% of its original capacity or as directed by the Project Manager.

The work covered by this Section shall consist of furnishing all labor, materials, equipment, and supervision to perform all work necessary to clean the designated gravity sewer line. Television inspection as specified in SECTION 02733 "Television Inspection" shall be performed after completion of the gravity sewer line cleaning to verify that the cleaning has been satisfactorily performed and meets the requirements for the subsequent cured-in-place pipe rehabilitation work in SECTION 02734, "Cured-in-Place Pipe (CIPP)" and manhole rehabilitation work in Section 02736 "Sewer Manhole Rehabilitation." Where more stringent requirements are specified in SECTIONS 02733 and 02736, those requirements shall govern.

All work will be performed by experienced personnel using equipment and materials which meet the requirements hereinafter specified. The Contractor shall obtain a fire hydrant use permit from the Board of Water Supply (BWS) prior to any use of water from a fire hydrant. The Contractor shall obtain all necessary permits required for the proper disposal of debris and other materials resulting from the cleaning work.

- 1.02 **SAFETY AND EXPERIENCE:** The Contractor shall have a documented, in place safety and health program which meets or exceeds all Federal and State OSHA regulations, with special emphasis on hazard free work in confined spaces and sewage environment.

Additionally, the Contractor shall have successfully performed a minimum of 5,000 linear feet of cleaning of gravity sewer lines. The Contractor shall submit documentation of his meeting this minimum requirement within 14 calendar days of the Notice to Proceed date.

- 1.03 **SUBMITTAL:**

- A. **Work Procedure:** Submit for review a description of the procedures to be followed to accomplish the work and the necessary equipment to be used. Submittal shall be made fifteen (15) calendar days prior to initiating the work.
- B. **Records:** Maintain printed records of all cleaning performed, including the pipe section (start manhole number to end manhole number), line size, length of the section, type of pipe, length cleaned, cleaning method(s) used, special remarks and observations, and other pertinent data. These records shall be available to the Project Manager for inspection during the performance of work and shall become the property of DHHL after completion of the Project.

- 1.04 **EQUIPMENT:** All designated gravity sewer line sections and manholes to be rehabilitated shall be cleaned using vacuum and/or high velocity sewer cleaning equipment as specified herein, and the selection of equipment to be used shall be based on the condition of the pipe sections at the time the work commences. The equipment, and the methods selected for cleaning shall be capable of removing all dirt, sand, grease, rocks, air pockets, debris, sludge, roots, and other deleterious materials from the gravity sewer lines.

All sewer line cleaning equipment shall be used in a manner to ensure that all dirt, mud, sand, grease, air pockets, debris, sludge, roots, and other fine materials have been removed. Satisfactory precautions shall be taken to protect the gravity sewer lines and manhole from damage that might be inflicted by the use of the cleaning equipment.

When additional quantities of water from nearby fire hydrants are necessary to avoid delays in the normal working procedure and use of such quantities of water have been approved by BWS, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed at any time. All sludge, dirt, rocks, sand, grease, and other solid or semi-solid materials resulting from all types of cleaning operations shall be trapped and removed at the upstream access point of the pipe section being cleaned. Passing materials from one pipe section to another pipe section shall not be permitted. All solid or semisolid materials resulting from the cleaning operations shall be removed from the Project area and properly disposed of by the Contractor. An appropriate disposal site shall be arranged for by the Contractor and approved by the Project Manager. All permits required for the proper transportation and disposal of the materials shall be the sole responsibility of the Contractor.

- A. Vacuum Removal/Cleaning Equipment: This equipment shall be truck mounted for ease of operation, and designed to use air movement for cleaning and vacuuming of materials in the sewer pipe and manholes. The equipment shall be capable of removal of materials a distance of 600 feet from the operating manhole. The equipment used shall have the capability of moving a minimum of 8,500 cubic feet per minute (cfm).
- B. High Velocity Hydrocleaning Equipment: All high velocity sewer line cleaning equipment shall be truck mounted for ease of operation. The equipment shall have a minimum of 500 feet of one inch I.D. high pressure hose with a selection of four or more cleaning nozzles.

The equipment shall have a minimum capacity of 60 gpm and a working pressure of 1,200 psi. The nozzles shall be capable of producing a scouring action from 15° to 45° in all size lines designated to be cleaned. The equipment shall also include a high velocity gun for washing and scouring manhole walls and floors. Manholes shall be pressure washed at a minimum pressure of 4,000 psi

The equipment shall carry its own 1,200 gallon water tanks capable of holding corrosive or caustic cleaning or sanitizing chemicals, auxiliary engines, pumps and a hydraulically driven hose reel. Any proposed cleaning chemicals shall first be approved for use by the Project Manager. All controls shall be located so that the equipment can be operated from above ground with minimal interference to existing traffic and/or danger to the operator.

Manhole and hose guides shall be used to protect the hose from wear and to lead the hose around buildings, trees, stationary equipment, etc.

Cutter attachments shall be hydraulically operated and designed to clear 6" and larger diameter sewer lines. Cutters shall have rear propelling jets, revolving jets and replaceable cutting blades inside a protective cage.

- C. Portable Non-Truck Mounted Jetting Equipment: This equipment shall be made available for cleaning required in easements or other areas where accessibility is restricted. Portable system shall at minimum include a 3.5 hp motor, root cutter attachments, and flexible sectional rods.
- D. Mechanical Cleaning Equipment: Bucket machines shall be used in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt powered or have an overload shutoff device. Machines with a direct drive that could cause damage to the pipe will not be allowed. Power rodding machines shall be either a sectional or continuous-rod type capable of holding a minimum 750 feet of rod and shall be fully enclosed and have an automatic safety clutch or relief valve.

Whenever lines to be cleaned show evidence of being more than one-half filled with solids, bucket machines and rodding machines shall be utilized to remove the major portion of the materials before hydraulic equipment is brought in to use to finish cleaning.

The Contractor shall also be required to provide and utilize bucket machines and rodding machines in instances to facilitate the removal of root or heavy grease.

Whenever bucket machines are used, work shall be limited to one pipe section at a time. A bucket of proper size shall be placed in the downstream access point and pulled at intervals toward the upstream access point until the entire pipe section has been cleaned. Upon completion of the bucketing operation, high velocity sewer cleaning equipment shall be used to ensure that all sand, grease and other fine materials have been removed. Satisfactory precautions shall be taken to protect the gravity sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Precautions shall also be taken to control drippings on the ground, since this will be construed as a spill.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

- A. Cleaning shall commence at the upstream pipe section and proceed downstream.
- B. Materials resulting from the cleaning operations shall be trapped and removed from the downstream access point of the pipe section being cleaned. No materials shall be allowed to continue through the upstream access point into an adjacent pipe section at any time. The Contractor shall be responsible for properly disposing of all materials removed. Under no circumstances shall sewage or solids be dumped onto streets, or into streams, ditches, catch basins, storm drains, or the ocean. A vacuum truck shall be used to remove heavy accumulations of material.
- C. The Contractor shall be responsible for properly disposing all materials removed. All materials resulting from cleaning operations shall be removed and conveyed by the Contractor in an environmentally safe manner in accordance with Federal, State, and local laws and regulations to a suitable waste disposal site approved by the Project Manager. Under no circumstances shall sewage or solids be dumped onto street, or into streams, ditches, catch basins, storm drains or the ocean.

- D. Where hydraulically propelled cleaning tools are utilized, precautions shall be taken to ensure that the water pressure created does not cause damage or flooding to public or private property.
- E. To attain the required degree of gravity sewer line, manhole and chamber cleaning, sewer flow controls as specified in SECTION 02731 "Sewer Flow Control" shall be provided.
- F. The gravity sewer lines shall be cleaned to a degree of cleanliness as specified and as necessary for subsequent television inspection and Cured-in-Place-Pipe (CIPP) gravity sewer line rehabilitation operations.
- G. If protruding laterals are grinded down, the laterals shall be grinded down sufficiently to ensure proper installation of the CIPP. If it is determined by the Project Manager that the defects in the CIPP liner are due to inadequate grinding of the protruding lateral, the Contractor shall repair the damage liner at no additional cost to DHHL.
- H. The Contractor shall comply with all applicable traffic control requirements.
- I. No open manholes shall be left unattended during the Contractor's operations.
- J. The Contractor is responsible for maintaining sewer service at all times during work.
- K. The Contractor shall be responsible for making all necessary arrangements for gaining access to work sites in private property. The Contractor shall be responsible for locating hidden or buried manholes.
- L. Damage to private property, gravity sewer lines and appurtenances caused by the Contractor's work shall be repaired by the Contractor at no additional cost to DHHL.

END SECTION

SECTION 02733 – TELEVISION INSPECTION

PART I – GENERAL

- 1.01 GENERAL: The closed circuit television (CCTV) inspection of the gravity sewer lines shall be required after the pipe cleaning has been completed, but prior to the pipe rehabilitation. Pre-installation inspection shall document the conditions of the existing 6 and 8-inch gravity sewer pipes and verify that cleaning has been performed as required by the Contract Documents for CIPP work. Upon completion of the sewer line rehabilitation, a post-installation CCTV inspection shall be performed to verify that the CIPP rehabilitation has been satisfactorily installed. Both pre-installation and post-installation video inspections shall be submitted on DVD, in MPEG format, as the primary source of documentation, with secondary field logs and written reports also being submitted to the owner.

National Association for Sewer Services Companies (NASSCO), Pipeline Assessment Certification Program (PACP) closed circuit television (CCTV) inspection of sewer lines shall be required. Television inspection of the pipes shall be internal inspection performed by insertion of a closed circuit camera, that records colored imagery, into the pipe line for the purpose of remote visual inspection to determine the condition of the pipe and joints, the location and extent of any breaks or obstructions, the estimated quantities of infiltration, the location of service connections (if any), and abnormal conditions of line and grade.

Pre-rehabilitation inspection of sewer main lines and laterals to be rehabilitated shall be required after the sewer line cleaning has been completed, as per SECTION 02732, "Sewer Line Cleaning". This pre-rehabilitation inspection shall document the conditions of the existing sewer lines and verify that cleaning has been performed as required by the Contract Documents. Upon completion of sewer line rehabilitation, a post-rehabilitation CCTV inspection shall also be performed to verify that rehabilitation has been satisfactorily performed and lateral and drop manhole connection openings satisfactorily reinstated. Both pre-rehabilitation and post-rehabilitation video inspections shall utilize digital video on Compact Digital Video Disk (DVD) as the primary source of documentation, with secondary field logs and written reports also being submitted to the Owner.

No sewage flows shall be allowed to enter any main line during Pre- and Post-CCTV inspections unless otherwise allowed by the Project Manager. To accomplish this, the Contractor shall use all appropriate means and methods, including those described in SECTION 02731, "Sewer Flow Control", to prevent all sewage flows from entering the sewer main line including flows from all lateral connections to the sewer line and upstream sewer main lines.

1.02 CONTRACTOR REQUIREMENTS:

- A. The Contractor shall have a documented, in place safety program which meets or exceeds all Federal and State OSHA regulations, with emphasis on hazard free operations in confined space.

- B. The Contractor shall have successfully performed a minimum of 5,000 linear feet of television inspection work in pipelines of 6-inch diameter or larger. The Contractor shall submit documentation of his meeting these requirements 15 calendar days after the project award date. Documentation shall include copies of inspection videos, DVDs or compact discs (CDs) and reports of prior successfully completed television inspection projects, name of the owner, location of the project, contact person, phone number, date, size, and length of pipe, critical project and environmental constraints and how constraints were addressed. The Contractor shall utilize NASSCO Pipeline Assessment and Certification Program (PACP) certified personnel to perform the CCTV inspection. The Contractor shall provide documentation acknowledging PACP certification. The Contractor shall have as a minimum three (3) years experience in sewer inspection.

1.03 SUBMITTALS:

- A. Video Picture Quality Assurance: Within 15 calendar days of the project award date, the Contractor shall furnish the Project Manager with a video on DVD or compact disc (CD) of actual prior sewer line inspection performed by the Contractor on another recent project for 6-inch or larger gravity sewer line which meets these job specifications and, upon approval, use this video throughout the Project as a standard which the Contractor's video picture quality must meet. This video shall become the property of the Owner.
- B. Video Software Compatibility: All video inspections shall be documented on DVD in an MPEG format. The DVD media and CCTV results shall be viewable using Windows Media Player. This documentation may be provided in another format provided that the viewing software is provided on each DVD (each DVD can work as a stand alone system). The Contractor shall submit a sample DVD to the Project Manager two weeks prior to the commencement of any video inspection work to demonstrate the playback capability of the DVD on the Owner's system.
- C. Work Procedure: Submit a description of the set up and work procedure to be followed to accomplish the work and the necessary equipment to be used for approval prior to start of closed circuit television inspection work.
- D. Documentation: Documentation shall consist of electronic video files provided in DVD quality MPEG-2 color video format, and written reports utilizing NASSCO PACP coding standards detailing the pre-rehabilitation and post-rehabilitation conditions of the gravity sewer lines, pipe grade, pipe joints, linings and pipe connections. The reports shall note the time and date of video inspection, sewer main, upstream and downstream manhole, direction of view, direction of flow, surface material, pipeline length, pipe section length, pipe size, pipe material, lateral connections, video DVD number, counter number, cable distance, and a detailed logging of defects encountered. A map shall be provided in the report showing the gravity sewer line with the connections points clearly labeled.

The sewer main "Sewer ID", as indicated in the City's GIS sewer feature layers, shall be used to identify the sewer pipes and manholes on the video and image data files.

The naming convention of the CCTV files shall conform to the format as follows:

XXXXXX_YYYYMMDD_hh{one space}mm_ddddd

Where:

XXXXXX is the City Pipe Sewer Identification Number of the pipe inspected.

YYYY is the year in four digits that the video was generated.

MM is the month in two digits that the video was generated.

DD is the day of the month in two digits that the video was generated.

hh is the number of full hours past midnight in two digits that the video creation was started.

mm is the number of minutes past the hour in two digits that the video creation was started.

dddddd is the direction that the CCTV inspection camera proceeded during the video inspection. The only allowable values are Upstream and Downstream.

This text will always have an uppercase first character with the remainder of the characters lowercase.

The following are correct filenames:

298389_20101123_13 41_Upstream.ptv

289611_20101123_1029_Downstream.mpg

The report shall be computer validated and exportable on a DVD in Excel format. When requested, the Contractor shall provide hard copy copies of these sheets to the Project Manager, preferably each day, but at a minimum, within 24 hours of inspection, together with a daily report on progress.

All records shall be available to the Project Manager for inspection during the performance of work and shall become the property of the Owner after completion of the Project.

- 1) Television Inspection Forms: (PACP Standard and Top View Report PDF files)
Computer generated location records shall be kept by the Contractor which clearly show the location in relation to an adjacent pipe connection point of each infiltration point observed during the inspection. Other points of significance such as unusual conditions, roots, broken pipe sections, presence of scaling and corrosion, pipe grade deficiencies, and other discernible features shall also be recorded and a copy of such records shall be submitted to the Owner. These records shall be recorded on the "Television Inspection Report."
- 2) Photographs: Digital photographs of the television picture of pipeline problems found shall be taken by the Contractor upon request by the Project Manager. The Contractor shall record, on still photograph, sources and potential sources of infiltration/inflow, structural defects, and abnormal conditions for subsequent review. For each still photograph, the Contractor shall record the date, pipe section, sources and potential sources of infiltration/inflow, structural defects, and abnormal conditions for subsequent review.

3) Video Recordings: (*.ptv file)

The purpose of video recordings shall be to supply a visual and audio record of all sewer lines and the project area.

Video recording playback shall be at the same speed that the DVD was recorded at. Slow motion and/or stop motion playback features may be supplied at the option of the Contractor. The Contractor shall have all video DVDs and necessary playback equipment readily available for review by the Owner throughout the Project. Recordings shall be taken and narrated by the operating technician during all phases of inspection and the work, and shall be submitted in Pipetech® format and capable of replay on a computer with DVD reader and Windows Media Player. All original videos DVD discs of the video inspections shall be submitted to the Owner upon completion of the video inspections. The video DVDs shall be of professional broadcast quality and shall provide vivid color, shall have a scratch-free surface, and shall be packaged in plastic cases for handling. The video DVDs and cases shall be clearly and consistently labeled, providing the project name, the gravity sewer line(s) inspected, date of inspection, and the type of inspection (pre-installation, or post-installation).

- 1.04 EQUIPMENT: Equipment used in the work of this Section shall be produced by manufacturers regularly engaged in the manufacture of equipment specifically designed for gravity sewer line inspection. CCTV equipment shall include television cameras, television monitor, cables, power sources, and other equipment required to meet the inspection and recording requirements as stated herein. The remote-reading footage counter shall be accurate to less than 1% error over the length of the section of gravity sewer line being inspected. Telephones, radios, or other suitable means of communication shall be set up to ensure that adequate communication exists between members of the CCTV crew. The CCTV inspection system to be utilized on the Project shall be approved by the Project Manager prior to the work being performed.

The video camera shall be mounted on a transporter based on the existing conditions of the sewer line to be televised. The camera and the transporter system shall be furnished with emergency pullback cables of sufficient strength for all retrieving situations.

Cameras shall be of the "articulating head" type to allow laterals, pipe joints, and pipe line defects to be viewed directly. The inspection will be done in one manhole section at a time, and the section being inspected shall be suitably isolated from the remainder of the gravity sewer line system and incoming sewer flows as required or as directed by the Project Manager.

The television cameras used for the inspection shall be of NTSC color format, and specifically designed and constructed for such inspections. It shall be operative in 100% humidity and underwater conditions. Lighting for the camera shall provide minimal relative glare. Lighting and camera quality shall be suitable to allow a clear, in-focus picture of the entire inside periphery of the pipe being inspected. The cameras shall have a minimum resolution capability of 350 lines. To ensure peak picture quality throughout all conditions encountered during the video survey, a variable intensity control of camera lighting and/or remote iris adjustment, and remote control adjustments for focus shall be located at the monitoring station. Focal distance shall be adjustable through a range from 6 inches to infinity.

Camera monitors shall be located within a temperature controlled studio which will allow seating for viewing by two DHHL personnel in addition to the Contractor's operating technician. There shall be available within the studio two or more viewing monitors operating simultaneously and of a proper size to allow all persons in the studio to have a satisfactory and comfortable view of the video presentation. Monitors shall have a resolution capability of no less than 650 lines. Continuously displayed on the monitors as part of the video presentation shall be the date of the survey, number designation of the manhole section being surveyed, and a continuous forward and reverse read-out of the camera distances from the manhole of reference.

Video equipment independent from the equipment used for monitoring of the gravity sewer line television inspections shall be made available to DHHL personnel for viewing of DVDs in the field. The video equipment may be mounted in the same truck as with the gravity sewer line television inspection equipment, located in the Contractor's field office, or located at a nearby site approved by the Project Manager.

The audio portion of the composite signal shall be sufficiently free from electrical interference and background noise to provide complete intelligibility of the oral report. Audio reports shall be recorded by the operating technician on the video tapes as they are being produced and shall include a description of the conditions in the line as they are encountered.

The videotaping and the monitoring equipment shall have the capability to instantly review both video and audio quality of the DVD productions at all times during the television survey. The purpose of video recording shall be to supply a permanent visual and audio record of the lines, and the original videotapes shall become the property of the Owner upon completion of the project.

Still photos shall be taken at the request of the Project Manager or the discretion of the operating technician to record conditions of interest during the survey.

The operating technician shall have full control of the movement of the television camera at all times. Manual winches, power winches, TV cables, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the gravity sewer line shall be used to move the camera. Any means of propelling the camera through the pipe which exceeds a speed of 20 feet per minute (fpm) or produces a non-uniform or jerky movement will not be acceptable. At no time shall the high velocity water cleaning machine hose substitute for a tow cable. Devices using elastic tow cables shall not be used. At the Contractor's discretion or at the discretion of the Project Manager, the camera shall be stopped and/or backed up to view and analyze in detail the conditions that appear unusual or uncommon to a good, sound gravity sewer line. The operating technician shall at all times be able to move the camera through the line in either direction without loss of quality in the video presentation on the monitor or accuracy in footage measurement. The picture shall provide a clear, stable image of the resolutions specified.

The Contractor shall have available on site camera location transmitters (sonde) and location receiver, which can be attached to the internal television camera and can transmit a signal from up to 16 feet in depth to an above ground receiver. The frequency of the sonde shall be 512 HZ to operate in all sanitary pipe materials. Variable speed powered, remote controlled winches shall be furnished for upstream and downstream manhole locations to control two-way movement of the camera. Footage meter for recording the location of defects shall be used.

Before DVD's and reports are turned over to the Project Manager, they shall be reviewed by a professional who has a minimum of one year documented experience in evaluating and prioritizing problems in pipe systems as a NASSCO PACP CERTIFIED evaluator.

PART 2 – PRODUCTS (NOT IN USE)

PART 3 – EXECUTION

- 3.01 The CCTV inspection of sewer lines shall be done in accordance with NASSCO PACP standards and performed only by NASSCO PACP-trained personnel meeting qualification requirements as specified in the SPO Form 21.

The Contractor shall comply with all applicable traffic control requirements.
No open manholes shall be left unattended during the Contractor's operations.

The Contractor is responsible for maintaining sewer service at all times during work.
The Contractor shall be responsible for making all necessary arrangements for gaining access to work sites and manholes in private property.

Damage to private property, sewer pipes, manholes and appurtenances caused by the Contractor's work shall be repaired by the Contractor at no additional cost to the Owner.

The camera shall be moved through the pipeline in a downstream direction at a uniform rate without loss of quality in the video presentation. In no case shall the television camera be pulled at a speed greater than 20 feet per minute. The picture at all times shall be free of electrical disturbances and provide a clear and stable image of the resolution specified.

The operating technician shall stop the camera as necessary to permit proper documentation of the conditions of the lines. Camera travel shall be stopped at locations where any of the following conditions are observed: infiltration or inflow; structural defects, including broken pipe, collapsed pipe, cracks, deterioration, punctures, etc.; and abnormal conditions, including horizontal and vertical misalignments, open joints, joints not fully seated, root intrusions, protruding pipes, material deposits, presence of scaling and corrosion, etc.

The operating technician shall pan the camera at all laterals. If flow is being discharged from the lateral, the camera shall be focused on the lateral for a minimum of 30 seconds to help determine if the flow is steady and due to infiltration.

Accurate distance measurements shall be required. Measurement for locations of defects shall be made above ground by means of a metering device unless otherwise directed by the Project Manager. The Contractor shall mark these locations as directed by the Project Manager. Marking on cables, or the like, which would require interpolation and adjustments for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of a walking meter, roll tape, or other suitable device and the accuracy shall be satisfactory to the Project Manager. The meter shall be accurate to 1% of the total distance as determined by a walking meter, roll tape, or other suitable device.

During any video inspection, if the television camera will not pass through the entire pipeline section, the Contractor shall reset the equipment at the downstream manhole and attempt to inspect the section from the opposite direction. If the camera again fails to pass through the entire section, it shall be assumed that an obstruction exists. Efforts to televise that section of line shall be temporarily suspended and the Contractor shall notify the Project Manager.

If the television camera lens becomes submerged during the inspection operation due to a sag in the pipeline, the Contractor shall record the conditions of the sag (i.e., length, maximum water depth noted) before continuing inspection on the remainder of the pipeline section.

After the pre-rehabilitation video inspection has been completed, should it be determined by the Project Manager that cleaning of the lines do not meet the requirements of the Contract Documents, the Contractor shall re-clean and re-inspect the lines at no additional cost to the Owner. Likewise, after the post-rehabilitation video inspection has been completed, should it be determined by the Project Manager that the CIPP rehabilitation work does not meet the requirements of the Contract Documents; the Contractor shall make the necessary repairs and re-inspect the lines at no additional cost to the Owner. This additional video inspection by the Contractor may be required by the Project Manager, at no additional cost to the Owner, as many times as it is necessary until it has been documented on video DVD that cleaning or rehabilitation work has been satisfactorily completed.

If the quality of any videotaping is deemed to be unacceptable by the Project Manager, the gravity sewer lines shall be re-televised at no additional cost to the Owner.

END OF SECTION

SECTION 02734 - CURED-IN-PLACE PIPE (CIPP)

PART 1 - GENERAL

- 1.01 **GENERAL DESCRIPTION:** It is the intent of this Section to provide for the rehabilitation of existing 6 and 8-inch sewer lines by the installation of cured-in-place pipe (CIPP). The CIPP shall be formed by inserting a resin-impregnated flexible felt tube into an existing gravity sewer line, expanding the tube to fit against the existing sewer line walls, and then curing the resin using heated water or steam. The finished product shall be a continuous, jointless structural pipe that is formed to the existing sewer lines and shall not reduce the existing sewer line's original design capacity.
- A. Basic procedure for the sewer rehabilitation shall include an access shaft which may involve the removal of the upper half of a sewer manhole, sewer flow control and bypassing, cleaning, pre- and post-rehabilitation television inspection, liner installation, testing, reconstruction, and restoration. After completion of the rehabilitation, the CIPP liner shall provide a continuous, watertight, corrosion resistant conduit within the existing sewer lines.
 - B. Prior to ordering the sewer line rehabilitation materials, the Contractor shall be responsible for inspecting and confirming the inside dimension, alignment, pipe material, pipe liner, and condition of the existing pipe segments to be lined with CIPP.
 - C. If there are periods exceeding fourteen (14) calendar days or as directed by the Project Manager, where there is no scheduled construction activities on the gravity sewer lines, the Contractor shall be responsible for any provisions required to make the lines ready to operate; to provide and install in place complete, temporary piping, fittings, couplings, concrete thrust blocks, supports and other appurtenances; to remove all traffic plates, backfill all excavations and to restore all ac pavement.
 - D. The Contractor shall be responsible for performing all CIPP and related work, including video inspection, excavations and cleaning in accordance with applicable Federal, State, and City safety regulations, including current OSHA safety standards. Prior to entering any access shafts or the pipelines to perform the rehabilitation work, the Contractor shall evaluate the atmosphere in and near the sewer pipe to determine the presence of toxic or flammable vapors and shall ventilate the rehabilitation work area as necessary to render it safe.
 - E. The Contractor shall be responsible for odor and noise mitigation on this Project in accordance with applicable Federal, State, and City regulations. The Contractor shall monitor the surrounding area and minimize any odors and noise that may occur due to his work activities.
 - F. Pipeline rehabilitation products that require bonding to the existing pipe wall for structural strength will not be allowed since the present structural conditions of the existing pipe walls are unknown and may vary considerably. No CIPP product shall be accepted unless vacuum resin impregnation techniques are used. The finished CIPP wall shall be homogenous throughout, except for the exterior coating (i.e., no intermediate impermeable layers).

- G. The Contractor shall test all materials for compliance with the Contract Documents prior to delivery. Materials shall not be more than six (6) months old from the date of manufacture to the time of installation. The tubes shall have been tested and have a 12-month suitability.
- H. CIPP inversion work will not be permitted on rainy days.
- 1.02 **REFERENCED DOCUMENTS:** The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. In the event there is a conflict between the aforementioned references and this Section, this Section shall govern.
- A. American Society for Testing and Materials (ASTM)
- ASTM D 638 (2010) Standard Test Method for Tensile Properties of Plastics
- ASTM D 790 (2010) Standard Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials
- ASTM D 2990 (2009) Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep Rupture of Plastics
- ASTM D 5813 (2012) Standard Practice for Cured In Place Thermosetting Resin Sewer Piping Systems
- ASTM F 1216 (2009) Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin Impregnated Tube
- ASTM F 1743 (2008) Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled In Place Installation of Cured in Place Thermosetting Resin Pipe (CIPP)
- B. National Association of Sewer Service Companies (NASSCO)
- (2011) Performance Specification Guideline for Installation of Cured-In-Place Pipe (CIPP)
- 1.03 **SUBMITTALS:** Provide sufficient detail to allow the Project Manager to judge whether or not the proposed materials, equipment, and procedures will meet the Contract requirements. All design calculations and shop drawings shall be prepared and stamped by a Civil Project Manager licensed in the State of Hawaii. No materials shall be manufactured prior to approval of the submittals by the Project Manager.
- The Contractor shall have the option of submitting electronic files of the submittals in Adobe pdf format. If hard copies are submitted, the Contractor shall submit three (3) sets of each submittal.

- A. Design Analysis: The CIPP shall be designed per ASTM F1216 or F1743. The design calculations used for the product shall be submitted for review and approval. Physical properties used in design equations shall be validated by independent testing.
- B. Product Data: Fabric tube, flexible membrane coating material, raw resin data, and MSDS sheets for all materials furnished for this project.
- C. Manufacturing and Quality Control:
1. Project Managering design guides and detailed quality control procedures for rehabilitation materials, manufacturing, wet-out, installation and curing shall be submitted for review. This shall include inspection requirements, testing procedures and allowable manufacturing tolerance levels.
 2. The Contractor shall submit certification provided by the product Manufacturer as to the country of manufacture of all major components to be used to produce the final installed work.
- D. Installation
1. The Contractor shall submit documentation provided by the Manufacturer that the Contractor is qualified to properly install the proposed product. The documentation shall consist of evidence of Contractor training, testing and/or certification of being trained to install the Manufacturer's product.

The above documentation of Contractor's training shall be submitted within 15 calendar days to the Owner after the project award date.
 2. An itemized list detailing the installation procedures to be used shall be submitted. This shall include estimated times for each task, the number of required excavations, and any other items unique to each process.
 3. All related ASTM standards or any nationally recognized standards for installation of the product shall be submitted.
 4. Detailed procedures shall be submitted for repairing the product in the event of failure or future damage. These procedures should not require specialized training and/or equipment for the Owner.
 5. Detailed description and physical properties of the lubricant to be used during installation shall be submitted for the Project Manager's approval.
 6. Detailed procedures for the construction of manhole transition sections along with the description and physical properties of the concrete bonding agent to be used shall be submitted for the Project Manager's approval.
 7. Detailed procedures shall be submitted for future tapping of service connections into the product. The procedures should not require specialized training and/or equipment.

8. Detailed procedures for correcting wrinkles in the finished CIPP lining that are higher than allowed as specified in paragraph 3.01.G of this section shall be submitted for Project Manager's approval.

1.04 QUALITY ASSURANCE:

A. Product Qualification: In order for a CIPP product (combination of tube and resin) to qualify for use in the Project, a history of successful commercial viability shall be shown. Products not meeting the minimum requirements established by the Owner for successful commercial viability shall be rejected. The Owner shall be the sole judge as to whether the requirements have been met. For a proposed CIPP product to qualify as a commercially acceptable product for the Project, the following requirements must be met:

1. A minimum of 50,000 linear feet of successful wastewater collection system installations in the U.S. shall be documented, for the proposed tube and resin used together as one product, to assure commercial viability of the materials and the process. In addition, the CIPP product shall have been in service within wastewater collection facilities in the United States for a minimum of three years, unless otherwise approved by the Project Manager. Installations of the proposed resin and tube used independently from each other shall not be used to qualify the product for the linear footage and years of service requirements.
2. The manufacturer(s) for both proposed resin and tube shall have successfully produced the material in the U.S. continuously for a minimum of three years, unless otherwise approved by the Project Manager.

The Contractor shall submit documentation that the proposed product meets the above minimum linear footage and years of service requirements. The documentation shall include for each project the name, address and reference telephone numbers of the owner of the pipe line system that was CIPP lined; date of owner acceptance of the completed product installation; length of CIPP installed; diameter of host pipe; and installer name, address and reference telephone numbers. In addition, the Contractor shall submit documentation in the form of a notarized letter(s) from the manufacturer(s) verifying that the proposed resin and tube materials have been manufactured for a minimum of three years or the project's linear footage does not exceed three percent (3%) of the total footage of the product (at time of bid) that has been successfully installed in the U.S. The Contractor shall also submit documentation certifying that the proposed tube, resin and outside layer of tube are compatible.

B. Work Force Qualifications

1. General: The Contractor's CIPP work force must be experienced in the cured-in-place pipe (CIPP) installation work specified for this project, using work force members who meet the minimum requirements established by the Owner.

At minimum, the Contractor's CIPP work force shall include a CIPP work supervisor and a work crew member experienced in liner wet-out and insertion and curing.

The Contractor shall complete and submit the "Contractor's Statement of Qualification for CIPP Work" form included in this section, properly executed and notarized, setting forth a complete statement of the experience of Contractor and his organization in performing similar work. If the subcontractor performing the CIPP work is not the CIPP tube manufacturer, the Contractor shall provide documentation demonstrating that the subcontractor is formally licensed by the manufacturer to install the product.

Should the Contractor's subcontractor not qualify to perform the CIPP work, an alternate subcontractor qualification package shall be submitted by the Contractor. The Owner will not be assessed additional cost for a qualified alternate CIPP subcontractor.

2. **Experience Requirements:** The Contractor shall demonstrate, through submittal of the "Contractor's Statement of Qualification for CIPP Work" form, that his CIPP work force possesses prior experience in cured-in-place pipe lining, meeting the minimum requirements established by the Owner. The Owner shall be the sole judge as to whether the Contractor's work force meets the said minimum requirements.

All CIPP lining work shall be performed by a work force that can be shown to possess experience in work similar in scope and technical requirements to the Project. The following minimum experience requirements shall be met by the CIPP work force to be qualified for the Project. The qualified CIPP work force shall include, but not be limited to, the CIPP Work Supervisor, one CIPP Work Crew Member, and Remote Cutter Operator. Qualified work force members must directly provide the specific work for which they have been qualified until such work has been completed and accepted by the Owner. All qualifying projects shall have been completed within the past fifteen (15) years of the deadline date.

- a. All phases of the CIPP work shall be performed under the direct supervision of an experienced supervisor who has field experience on at least three (3) successfully completed projects performed in the United States in which he had direct supervision over CIPP lining installation work on gravity sewer pipe applications. The three (3) qualifying projects shall each have involved the successful installation of a minimum of 1,000 linear feet of CIPP liner into host pipes of 6-inch or larger diameter.
- b. Besides the CIPP Work Supervisor, at least one other CIPP Work Crew member shall have direct experience installing CIPP liner. The work crew member shall have field experience on a minimum of three (3) successfully completed CIPP liner projects performed in the United States. The three (3) qualifying projects shall each have involved the successful installation of a minimum of 1,000 linear feet of CIPP liner into host pipes of 6-inch or larger diameter. The Work Crew Member shall have directly participated in liner wet-out and insertion on the 3 qualifying projects.

- c. The Remote Cutter Operator shall have directly performed a minimum of 50 successful lateral or drop manhole connection reinstatements by remote cutter on CIPP liner projects performed in the United States.

The Contractor shall submit documentation of meeting these requirements within 14 calendar days of contract execution.

- 3. Personnel Reassignment: If the Contractor desires to reassign or replace personnel who have been qualified by the Owner, a written request to the Owner naming replacement personnel shall be made. The request shall include documentation of replacement personnel work qualifications and experiences which demonstrates that the minimum qualifications of this special provisions are met. Written favorable review from the Owner of replacement personnel's qualifications shall be obtained prior to employing such personnel on the Project.

If qualified personnel leave the Contractor's or Specialty Subcontractor's employment during the Contract, the Contractor shall provide replacement personnel that meet the minimum qualifications established by the Owner.

No extension of Contract time will be allowed for the time required to find replacement personnel or to receive City approval for such personnel.

- 1.05 DELIVERY, STORAGE AND HANDLING: Inspect all materials delivered to site for damage; store with minimum handling. Store materials on site in enclosures or under protective coverings and provide protection from the weather, excessive humidity and excessive temperature variation; and dirt, dust, or other contaminants, and as specified by the Manufacturer recommendations. Do not store materials directly on the ground. All damaged materials shall be promptly replaced and removed from the project site at the Contractor's expense and disposed of in accordance with all applicable Federal, State and City safety regulations.
- 1.06 FIELD MEASUREMENTS: Prior to ordering rehabilitation materials, the Contractor shall be responsible for inspecting and confirming the inside diameter, pipe material, pipe liner, and alignment of the gravity sewer pipes. The Contractor shall use the data and information collected from this inspection to finalize the liner size, refine the liner design, and refine the installation techniques. If unknown physical conditions in the work area are encountered during the investigation that materially differ from those ordinarily encountered, the Contractor shall notify the Project Manager.

PART 2 - PRODUCTS

- 2.01 MATERIALS: All materials and components, including resin, tube, and outside layer of tube, shall be compatible and suitable for providing a finished CIPP product which meets the requirements of the Contract Documents. The Contractor shall submit documentation within 14 calendar days of the Notice to Proceed date that the resin, tube, and outside layer of tube are compatible.

The design thickness of the CIPP wall is a function of multiple factors including, but not limited to, product materials and the condition of the existing 6 and 8-inch gravity sewer lines. The materials used shall have the capability to vary wall thicknesses in order to address variations in existing pipe conditions (i.e., circumferences, deterioration, and alignment due to pipe bends) and design considerations for a fully deteriorated host pipe.

- A. Tube: The material shall meet the requirements of ASTM F1216, Section 5.1, or F1743, Section 5.2.1. The tube shall be compatible with the resin system used. The tube shall be fabricated to a size that, when installed, will fit the internal circumference and the length of the existing pipe. Allowance shall be made for circumferential and longitudinal stretch during installation. The tube shall have a uniform thickness that when compressed at installation pressures will meet or exceed the minimum required thickness specified. The minimum length of each section shall be determined by the Contractor. The Contractor shall verify the section lengths and inside dimensions of the existing 6 and 8-inch gravity sewer lines before tube fabrication.

The outside layer of the flexible tube (before inversion) shall be plastic coated with a transparent flexible material that is compatible with the resin system used. The plastic coating shall not delaminate after the flexible tube has cured.

The flexible tube shall contain no intermediate or encapsulated elastomeric layers. No material shall be included in the tube that can be subject to delamination in the cured flexible tube. The tube shall contain reinforcement (glass, woven fiber, or equal) in order to withstand the internal pressure design requirements.

- B. Resin: The resin system shall be a vinyl ester resin and meet the requirements of ASTM F1216, Section 5.2, F1743, Section 5.2.3, or these Specification Sections, whichever is more stringent. No polyester resins will be allowed on this project.

The resin shall be of suitable, visible color to show that the felt liner is completely and uniformly impregnated. The color used shall not interfere with visual and/ or closed circuit television (CCTV) inspection of the liner or its required properties.

- 2.02 DESIGN PARAMETERS: The installed CIPP liner design parameters shall meet or exceed the following requirements.

Minimum CIPP Resin Requirements:

Flexural Modulus (short term)	400,000 psi
Flexural Modulus (long term)*	200,000 psi
Flexural Strength	4,500 psi
Tensile Strength	6,500 psi

* The long term flexural modulus is defined as fifty years as determined by ASTM D790 Test Method

Minimum Finished CIPP Wall Thickness Requirements (regardless of calculated thicknesses based on ASTM standards identified in this Section.

For 6-inch Diameter Host Pipe	4.5 mm (0.18-inch)
For 8-inch Diameter Host Pipe	6.0 mm (0.24-inch)

Other design parameters and assumptions for determining minimum finished liner thickness:

Pipe Ovality:	3% (unless otherwise directed by the Project Manager)
Live Loads:	H20 Truck Live Load = 16,000 lbs. (Assume live load in non-paved are as for maintenance vehicles)
Groundwater Elevation:	Assumed to occur at ground surface elevation (to reflect saturated soil conditions after a heavy rain.)
Factor of Safety:	2.3 minimum
Soil Density:	120 lbs/cubic foot
Soil modulus:	500 psi

- 2.03 PRODUCT TEST DATA: No product shall be allowed to be installed without submittal of test data supporting the product performance requirements listed below. Materials tested in order to provide the required test data shall be similar to those proposed for use in the Project. Unless test data is required below to be obtained from field samples, all test samples shall be prepared so as to simulate the conditions and procedures the product will experience during the Project. All testing shall have been performed by an independent third party qualified to perform such testing.

- A. Chemical resistance: Tests shall be conducted for standard domestic sewage application in accordance with ASTM F1216, Appendix X2, or F1743, Section 7.2, and meet the minimum requirements listed therein.
- B. Hydraulic capacity: Calculations shall be submitted which support that the finished in-place flexible tube shall be able to provide a minimum of 100% of the existing pipeline's original design capacity. The original design capacity of the existing sewer line shall be calculated using a roughness coefficient "n" of 0.015. The typical roughness coefficient "n" to be used for the proposed flexible fabric tube shall be verified by an independent third party (hired by the Manufacturer) test data, but shall not be less than 0.011, unless otherwise approved the Project Manager. The hydraulic calculations shall consider the net increase or reduction in pipe diameter due to the installed liner thickness and the condition and actual dimensions of the pipe.

- C. Flexural modulus and strength: In order to verify the proposed product's past performance, the Contractor shall submit detailed test results from a minimum of five (5) previous successful installations of the proposed product. The test results of field samples from each of the five (5) previous installations shall verify that the minimum requirements for short-term flexural modulus and flexural strength specified in this specification had been achieved.

2.04 STRUCTURAL REQUIREMENTS: The flexible tube shall be designed as per ASTM F1216, Appendix X1, or F1743, Appendix X1, for fully deteriorated pressure pipe condition with the following additional requirements:

- A. The tube design shall assume no bonding to the existing pipe wall.
- B. With regards to external buckling and because the structural conditions of the existing sewer pressure pipe walls are unknown, the flexible tube shall be designed to act as a stand alone pipe within the existing pipe.

Acceptable third party testing and verification of the design analysis techniques (ASTM F1216, Appendix X1.2.2 for all installation methods) shall be submitted for the Owner's review prior to installation of the liner.

- C. The bond between the flexible tube layers shall be strong and uniform. All layers shall form one homogeneous structural pipe wall with no part of the flexible tube left unsaturated by the resin after curing.
- D. Minimum service life of 50 years.

PART 3 - EXECUTION

3.01 PRELIMINARY INVESTIGATION OF HOST SEWERPIPE: Prior to ordering rehabilitation materials, the Contractor shall be responsible for inspecting and confirming the inside diameter, pipe material, and alignment of the host sewer pipe, and determining the condition of each manhole-to-manhole segment to be lined. The Contractor shall use the data and information collected from this inspection to finalize the liner size, refine the liner design, and refine the installation techniques. If unknown physical conditions in the work area are encountered during the investigation that materially differ from those ordinarily encountered, the Contractor shall notify the Project Manager.

3.02 INSTALLATION OF LINER: Liner installation shall be in accordance with ASTM F1216, Section 7, or F1743, Section 6, and with the following requirements:

- A. Cleaning and Inspection: The gravity sewer lines shall be cleaned and CCTV inspected per Section 2732 "Television Inspection" and Section 2733 "Sewer Line Cleaning" prior to CIPP installation. Cleaning and video inspection shall be approved by the Project Manager before beginning the CIPP installation work. The Contractor shall be responsible for the removal of any protruding obstructions in the existing sewer line that may cause damage to the liner material.

B. Resin Impregnation

1. The tube shall be free of any tears and frayed sections prior to resin impregnation. The tube shall be impregnated with resin (wet-out) in accordance with ASTM F1216, Section 7.2, or F1743, Section 6.2. A vacuum impregnation process shall be used. A roller system shall be used to uniformly distribute the resin throughout the tube. All air in the tube shall be removed by vacuum allowing the resin to thoroughly impregnate the tube. All resin shall be contained to ensure no public property or persons are exposed to the liquid resin.
2. The Contractor shall arrange for and use at his own cost a location of his own choice where the liner will be vacuum-impregnated prior to installation. The Contractor shall allow the Project Manager to inspect the materials and procedures used to vacuum-impregnate the tube. The vacuum impregnation process shall be conducted in the presence of the Project Manager unless otherwise allowed by the Project Manager.
3. Should the liner material (fiberglass layers and interior plastic coating) be cut to pump/vacuum resin into the liner, all layers of the fiberglass shall be sewn closed and the plastic coating sealed watertight, per manufacturer's recommended procedures.

C. Temporary Bypassing: Bypassing of sewage flows is required for and around the existing gravity sewer lines in order to maintain continuous sewer service to all residents. The bypass shall be made in accordance with Section 02731 "Sewer Flow Control" and Section 01500 "Maintaining Existing Wastewater System".

Public advisory services shall be required to notify all parties whose service laterals will be affected and all connected residents to advise minimum water usage. The Contractor shall provide written notification of work activities to all local users 14 calendar days before interruption of service and provide interim sewer service. This notification shall include a description of the project, the method of construction, and the approximate date and duration that disruption of sewer service will occur. The notification shall also note the potential inconvenience from resin odor, noise, and lights. The Contractor shall maintain a notification log which will include the date and time of the notification, the contact person's name, and if no contact was made, a notation that the information was left at the person's door. The notification shall be submitted to the Project Manager for approval at least 14 calendar days prior to being mailed to affected parties.

D. Insertion of Liner

1. Insertion shall be in accordance with ASTM F1216, Section 7.4, or F1743, Section 6.4.
2. Tube insertion forces or pressures shall be limited so as not to stretch the tube longitudinally by more than 5% of the original length.

3. Before the insertion begins, the tube manufacturer shall provide values for the minimum pressure required to hold the tube tight against the existing conduit and the maximum allowable pressure so as not to damage the tube.

Once the insertion has started, the pressure shall be maintained between the minimum and maximum pressures until the insertion has been completed. Should the pressure deviate from the required, the installed tube shall be removed from the host conduit at the Contractor's expense.

The Contractor shall provide the Project Manager with a continuous log of pressure during cure.

4. The liner segments shall be sufficient length to fully span the pipe segment indicated in the Contract Documents. Segments of liner that have been resin impregnated and placed in the host conduit and then are found to be too short, shall be removed without curing and properly discarded at the Contractor's expense. Removal of the uncured, resin impregnated liner shall be accomplished in such a way as to minimize the amount of resin allowed to escape. The Contractor shall be responsible for cleanup of all escaped resin and any odors that may result. The Contractor shall submit a plan to remove any odors and resin impregnated, uncured liner from the host conduit including protection of the host system from escaping resin to the Project Manager for approval a minimum of three weeks prior to the first installation process.
5. The existing gravity sewer lines shall be dewatered for any liner insertion that does not use an inversion method to expand the tube against the pipe wall.
6. The use of a lubricant during inversion is recommended to reduce friction. This lubricant should be poured into the water in the downtube or applied directly to the tube or inflation bladder. Lubricant shall not be used in processes where impregnated coatings are performed prior to tube installation. The lubricant used shall be a non-toxic, oil-based product that has no detrimental effects on the tube or roller and pump system, and will not support bacterial growth or adversely affect sewage treatment processes.
7. The tube shall not be exposed to ultraviolet light.
8. The tube shall not experience excessive bubbling or wrinkling during insertion.

E. Curing

1. After insertion of the wetted out tube is complete, the Contractor shall use a suitable heat source and distribution equipment to circulate heated water or steam uniformly throughout the section for a consistent cure of the resin. The Contractor shall have a backup heat source, and distribution equipment that shall also be at the site during the curing process. The backup heat source and distribution equipment shall be of equal capacity as the primary heat source and distribution equipment. The curing temperatures shall comply with submittals and manufacturer's recommendations.

2. The heat source shall be fitted with suitable monitors to gauge the temperature of the incoming and outgoing water supply or steam. Another such gauge shall be placed between the impregnated liner tube and the invert of the host pipe at the termination access point to determine the temperatures during the resin cure process. The Contractor shall provide the Project Manager with a continuous log of temperatures at all gauges during curing.
3. Initial cure may be considered completed when the exposed portions of the felt tube appear to be hard and the termination access point temperature sensor indicates the temperature to be adequate to realize an exotherm or cure in the resin as recommended by the resin manufacturer and approved by the Project Manager. Curing temperatures and duration shall comply with approved submittals and Manufacturer's recommendations.
4. Curing shall be in accordance with ASTM F1216, Section 7.6, or F1743, Section 6.6. Any hot water or steam used during the curing process shall be free of any pollutants and shall be properly disposed of at ambient temperatures in an environmentally safe manner in accordance with applicable Federal, State, and City rules and regulations. Contractor shall be responsible for obtaining the applicable permits.

F. Cool-Down

The Contractor shall cool the hardened pipe to a temperature below 100 degrees F before relieving the water column (pressure) or 113 degrees F before relieving the internal air pressure. Cool-down may be accomplished by the introduction of cool water into the inversion standpipe to replace water or mixture of air and steam being drained from a small hole made at the downstream end. Care shall be taken in the release of the water column or air pressure so that a vacuum will not be developed that could damage the newly installed CIPP. Plate samples cured with CIPP shall be provided and tested by the Contractor in accordance with ASTM F1216.

Cool-down shall be in accordance with ASTM F1216, Section 7.7, or F1743, Section 6.7.

G. Workmanship

1. The finished CIPP shall be continuous over the entire length of each installation run and be free of such defects as holidays, foreign inclusions, dry spots, lifts, delamination, buckling, creases, and other deformities.

2. Wrinkles that are more than **2%** of the original inside diameter of the host pipe in height, that reduce the original design capacity of the existing gravity sewer line, that reduce the structural stability of the liner, that snag or cause debris to accumulate, or that create voids between the liner and host pipe wall shall be considered unacceptable. Should the liner be inadvertently perforated during the grinding procedure, the Contractor shall repair or replace the liner by a method approved by the Project Manager. If defects are present, the Contractor shall remove and replace the liner in these areas, using a method approved by the Project Manager, at the Contractor's sole expense.
3. If the liner does not fit tightly against the original pipe at its termination point(s), the space between the liner and the pipe shall be sealed by filling with a resin mixture compatible with both the CIPP and the original pipe.
4. A liner that is found to be too small or too large in circumference after curing is completed shall be considered a failed liner and shall be corrected, removed, or repaired by the Contractor at no extra cost to the Owner. Failed liner indicators shall include, but not limited to, gaps between the liner and the host conduit, cracks in the liner, wrinkles/folds in the liner, the visual defects discussed in the previous paragraph F.1. Acceptable method of correction, removal, or repair shall be to the sole discretion of the Project Manager and shall be approved in writing by the Project Manager and with prior field demonstration if required by the Project Manager.

3.02 TRANSITION SECTIONS:

- A. Transition sections shall be constructed to channelize the sewage flow and minimize entrance and exit losses as the flow passes through the existing manhole structures affected by the CIPP work. For the situation where a CIPP liner terminates at both upstream and downstream manhole pipe openings and the cured liner inside diameter is less than 18-inches, the transition grout shall be equal to the liner thickness at the manhole wall and taper towards the center of the manhole at a ratio of 1:10 (V:H).

When the pipe liner is placed through manholes, the Contractor shall cut away the top of the pipe liner to conform to the existing manhole walls.

Existing benches and channels shall be built up with grout as needed to match the CIPP liner elevations. Smooth transitions shall be formed between the existing surfaces and the CIPP.

- B. Prior to applying new concrete, the existing surfaces shall be adequately cleaned, scraped of loose concrete, and roughened. An approved concrete bonding agent shall be applied prior to the construction of the new channels, benches and/or transition sections. The bonding agent shall meet ASTM C-881 requirements for Type 1, Grade 3, epoxy resin adhesive. The bonding agent shall be Sikadur 31 Hi-Mod Gel or an approved equal.
- C. Any new channels, benches, and transition sections shall be formed using a quick setting, high strength Portland Cement based repair mortar. The mortar shall be SikaTop 122 Plus, Sauereisen Substrate Resurfacer No. F-121 or an approved equal.

The mortar shall have the following minimum properties:

	SikaTop 122 Plus	Sauereisen Substrate Resurfacer No. F-121
Flexural Strength:	2000 psi 28-days (ASTM C293)	1500 psi 7-days (ASTM C580)
Tensile Strength:	750 psi 28-days (ASTM C496)	822 psi 7-days (ASTM C307)
Bond Strength:	2200 psi 28-days (ASTM C882)	2200 psi 7-days (ASTM C882)
Compressive Strength:	7000 psi 28-days (ASTM C109)	7000 psi 28-days (ASTM C109)

- D. At all manholes apply Sikadur 31 Hi-Mod Gel or an approved equal between the CIPP liner and the existing pipe. The material shall be applied around the entire circumference of the pipe to fully seal the annular space to prevent infiltration of groundwater, root intrusion, and exfiltration of sewage and sewer gases. Where CIPP liner is placed through the manholes, the material shall be applied where the top of the liner has been cut away.

3.03 LATERAL AND MANHOLE DROP CONNECTIONS:

- A. Verification. The Contractor shall verify the exact location and number of lateral and manhole drop connections shown on the Work Order Request drawing during his pre-rehabilitation television inspection (Section 02733 – TELEVISION INSPECTION) or from other methods approved by the Project Manager.
- B. Reinstatement. After the CIPP liner has been cured in place, the existing lateral and manhole drop connections shall be reinstated using a remote cutter. The reinstated opening shall be cut neat, and its edges finished smooth, without any hanging fibers, or loose or abraded materials. The invert of the reinstated opening shall match the invert of the original connection. Additionally, the opening shall be reinstated to 90 – 95 percent of the original opening. The remote cutter shall be capable of traversing through pipe openings as small as 4- 1/2". The Contractor shall have a minimum of two operable remote cutters or one operable remote cutter and backup parts, including but not limited to a motor and cutting head, on site. In the event that the remote cutter malfunctions, the second unit shall be immediately available or the remote cutter shall be repaired promptly to complete the reinstatements and to prevent delays to the project.
- C. Chemical grouting or service connection lateral liners shall be used to seal the annulus between the CIPP rehabilitated main line and the host pipe around the reinstated lateral openings when specified on the Work Order.

- D. All services shall be reinstated within 24 hours after the liner has been cured to minimize disturbance to private residents. If connections cannot be reinstated within this period of time, the Contractor shall obtain approval from the Project Manager prior to any extension to allow additional bypass/diversion pumping.

3.04 **TESTING:** For each length of CIPP installed, the Contractor shall perform the tests listed below.

Where testing is performed on CIPP samples, the Contractor shall be responsible for providing the necessary samples and for hiring a qualified, independent third party to perform the required tests. Immediately upon completion of the sample testing, the Contractor shall submit two (2) copies of a detailed report on the testing to the Project Manager. The report shall outline test procedures, present data, provide diagrams as required, and summarize test results for each length of CIPP installed. The report shall provide all information labeled on the samples. Sample labeling requirements are provided in the following paragraphs.

Cured CIPP samples shall be taken and labeled in the presence of the Project Manager. The labeling on the sample shall consist of the sample number, Project Name, Job Number, Contractor company name, name(s) of Contractor's personnel that extracted the sample, the date/time that the sample was taken and the name of the Project Manager present during sampling. The labeling shall be made with a permanent marking device that will not smudge or fade on the sample. In addition, Contractor shall maintain a Cured Sample Testing Record. The Cured Sample Testing Record shall be current and shall be available for immediate review by the Project Manager upon the Project Manager's request. A copy of the Cured Sample Testing Record is provided at the end of this Section. The Contractor may obtain a copy of the Cured Sample Testing Record from the Project Manager.

The Project Manager may take possession of a sample or samples at any time prior to the samples being shipped to the third party testing laboratory. The number of samples taken are at the discretion of the Project Manager. If samples are taken, the Contractor is relieved of responsibility of testing the samples. Two copies of the test reports from the laboratory selected by the Project Manager will be sent to the Contractor. The Project Manager shall be responsible for filling out and maintaining a Cured Sample Testing Record for all samples which the Project Manager takes possession of. The Contractor shall not destroy any Cured Sample Testing Records and will transfer all Cured Sample Testing Records to the Project Manager immediately after final acceptance of the project.

Lengths of CIPP which fail any of the required tests may be required by the Project Manager to be removed and replaced at the Contractor's cost.

- A. **Samples:** For pipes with a diameter of 18-inches or less, the sample shall be cut from a section of cured CIPP at the termination point that has been inverted through a pipe with the same inside diameter as the existing pipe and has been held in place by a suitable heat sink, such as sandbags. The sample shall be large enough to provide for all of the tests indicated below.

If a length of CIPP is installed through intermediate manholes, samples shall be taken at each intermediate manhole as well as at the termination point. Samples at intermediate manholes shall be obtained similarly to the method used to obtain the sample at the termination point. The samples taken at intermediate manholes shall be large enough to provide for all of the tests indicated below.

Prior to obtaining any sample, the Contractor shall mark the limits of the sample on the CIPP and obtain the approval of the Project Manager. The Project Manager has the discretion to adjust the sample location.

- B. Short-term flexural (bending) properties: Testing shall be in accordance with ASTM F1216, Section 8.1.3.1, or F1743, Section 8.1.4. Five specimens shall be tested.
- C. CIPP wall thickness: Testing shall be in accordance with ASTM F1743, Section 8.1.6. A minimum of eight measurements at evenly spaced intervals around the circumference of the sample shall be taken to ensure that minimum and maximum thicknesses are determined. The average thickness shall be calculated using all measured values and shall meet or exceed the minimum finished thickness indicated in Section 2.02, Design Parameters, above. The minimum wall thickness at any point shall not be less than 87.5% of the minimum finished thickness indicated in Section 2.02, Design Parameters, above.
- D. Delamination: Testing shall be in accordance with ASTM F1216, Section 8.4, or F1743, Section 8.4. Five specimens shall be tested.
- E. Peel or stripping strength: Testing shall be in accordance with ASTM F1216, Section 8.5, or F1743, Section 8.5. The peel or stripping strength between any non-homogenous layers of CIPP laminate shall be a minimum of 10 lb/in. of width.
- F. Gravity Pipe Leaking Testing: Gravity pipe leakage testing – Testing shall be in accordance with ASTM F1216, F1743, and F2019. The cured liner material shall be impervious and not allow for any infiltration or exfiltration. As directed by the Project Manager, the Contractor shall conduct either an exfiltration, infiltration, or air test for each CIPP inversion pipe. The Contractor shall notify the Project Manager as to the type of testing to be conducted prior to the testing. It shall be noted that the allowable leakage amounts indicated in the following paragraphs are to allow for imperfections that may be associated with the leakage test setup (Ex. slight leakage at the plugs, seepage through the downtube material, volumetric changes in the water or air inside the liner due to temperature changes, etc.). Leakage as a result of a previous finished liner will not be accepted and will be considered defective requiring repair or replacement.

1) Exfiltration Test

An exfiltration test may be conducted after the CIPP has cooled to ambient temperature. Testing shall be in accordance with Section 18.3D.2, "Testing Gravity Sewers for Leakage", of the STANDARD SPECIFICATIONS. The maximum amount of leakage for any section of CIPP being tested shall not exceed 50 gallons per inch of internal diameter per mile per day of pipe. During the exfiltration testing, the maximum internal pipe pressure at the lowest end shall not exceed 10 feet of water and the water level inside the inversion standpipe shall be two feet higher than the top of the pipe or two feet higher than the groundwater level, whichever is greater. The test should be conducted for a minimum of one hour.

When water is used to cure the CIPP, the exfiltration test shall be conducted at the completion of the curing process while the CIPP is under hydrostatic pressure. If steam is used to cure the CIPP, water tight plugs shall be installed at both ends and the CIPP filled with water. Laterals shall be reinstated after the leakage test is completed.

2) Infiltration Test

An infiltration test may be conducted if the groundwater is more than 2 feet above top of pipe for the entire section of sewer line. Testing shall be in accordance with Section 18.3D.3, "Testing Gravity Sewers for Leakage", of the STANDARD SPECIFICATIONS. The maximum amount of infiltration for any CIPP section being tested shall not exceed the rate of 50 gallons per inch of internal diameter per mile per day of pipe.

3) Air Test

Low pressure air test shall be in accordance with ASTM F1417-11a. The Time-Pressure Drop Method, using 1.0 psig pressure drop, shall be used. Testing shall be conducted after the CIPP has cooled to ambient temperature and prior to reinstating any laterals.

The low pressure air test may be dangerous to personnel. It is extremely important that the various plugs be properly installed to prevent sudden expulsion of a poorly installed or partially inflated plug. The Contractor shall be responsible for providing all safety measures necessary to protect personnel from injury. No one shall be allowed in the manholes during testing.

For products in which the pipe wall is cured while not in direct contact with the pressurizing fluid (e.g. a removable inflation bladder is used), the pipe shall be leakage tested after the cure process is completed and the pressurizing fluid and apparatus have been removed.

- 3.05 INSPECTION AND ACCEPTANCE: The finished installation shall be inspected by the Contractor by closed-circuit television camera as specified in Section 02733 "Television Inspection", in the presence of the Project Manager, unless otherwise allowed by the Project Manager. Variations from true line and grade will only be acceptable if proven by the Contractor that the variations existed under the original conditions of the existing gravity sewer line. The CIPP work will be deemed unacceptable if infiltration of groundwater is detected.

If the Project Manager determines that, in his judgment, defects are present in the CIPP liner, test results do not comply with the requirements of the Contract Documents, or a liner is otherwise unacceptable, the Contractor shall remove, properly dispose of, and replace portions of the line or the entire liner, as directed by the Project Manager, using approved methods and at no additional cost to the Owner.

- 3.06 CLEAN-UP: Upon acceptance of the CIPP installation, the Contractor shall restore the work site area to original conditions or as directed by the Project Manager.

CONTRACTOR'S STATEMENT OF QUALIFICATION FOR CIPP WORK

The Contractor's CIPP Work Force must demonstrate prior work force experience in cure-in-place pipe (CIPP) work satisfying the minimum requirements of paragraph 1.04.B of this section.

Full and explicit replies to the inquiries are required. Attach additional sheets as required. Completed STATEMENTS and required resumes shall be submitted to the Project Manager.

Print or Type All Information

A. GENERAL INFORMATION

Contractor's Name and Mailing Address

Contractor's Street Address (if different from above)

Name of Contact Person _____

Telephone Number () _____

Fax Number () _____

Hawaii Contractor's License _____

B. GENERAL QUALIFICATION REQUIREMENTS

The minimum work force required for the Project CIPP work, for which each member must be deemed "qualified" by the Owner, shall include one CIPP WORK SUPERVISOR and one CIPP WORK CREW MEMBER (for liner wet-out, insertion, and curing).

Contractor is permitted to name more than 1 person in this STATEMENT for each position requiring qualifying experience. Attach additional sheets as required.

The Contractor and his subcontractor(s) must be licensed in accordance with Chapter 444 of the Hawaii Revised Statutes.

C. CIPP PRODUCT INFORMATION

CIPP Product Proposed to be Utilized on Project

Product Name _____

Manufacturer _____

Manufacturer's Address _____

Manufacturer's Telephone Number () _____

Manufacturer's Fax Number () _____

D. Information on Subcontractor Performing CIPP Work (Section D to be completed only if CIPP work not being performed by Bidder's own work force)

Name of CIPP Subcontractor _____

Mailing Address _____

Contact Person _____

Telephone Number () _____

Fax Number () _____

Subcontractor's Hawaii License and Specialty Numbers

E. CIPP WORK FORCE QUALIFICATION REQUIREMENTS

All CIPP work shall be performed by an experienced Contractor's or Subcontractor's work force. The CIPP work force shall include, but not be limited to, the CIPP work supervisor and one CIPP work crew member (other than the supervisor) who will be involved in liner wet-out and insertion.

1. **CIPP WORK SUPERVISOR** - The CIPP work supervisor shall have direct supervisory experience on at least 3 successfully completed CIPP projects of pipe diameter 6-inch or larger, which involved a minimum of 1,000 feet of CIPP liner for each project as specified in paragraph 1.04.B of this section.

Name of CIPP Work Supervisor

List Supervisor's 3 Qualifying Projects Below:

- a) PROJECT #1 _____
- Employer _____
- Employer Address _____
- _____
- Contact Person _____
- Employer Tel Number () _____
- Project Start Date _____
- Project Completion Date _____
- Owner _____
- Address _____
- _____
- Contact Person _____
- Telephone Number () _____
- Host Pipe Diameter (in inches) _____
- CIPP Product Name _____
- Manufacturer _____
- Total Length CIPP Lining Installed Under
Project (in Linear Feet) _____
- Total Length of CIPP Lining for Project that Supervisor Directly Performed in
Qualifying Supervisory Position (in Linear Feet)
- _____
- b) PROJECT #2 _____
- Employer _____
- Employer Address _____
- _____

Contact Person _____

Employer Tel Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Host Pipe Diameter (in inches) _____

CIPP Product Name _____

Manufacturer _____

Total Length CIPP Lining Installed Under
Project (in Linear Feet) _____

Total Length of CIPP Lining for Project that Supervisor Directly
Performed in Qualifying Supervisory Position (in Linear Feet):

c) PROJECT #3 _____

Employer _____

Employer Address _____

Contact Person _____

Employer Tel Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Host Pipe Diameter (in inches) _____

CIPP Product Name _____

Manufacturer _____

Total Length CIPP Lining Installed Under
Project (in Linear Feet) _____

Total Length of CIPP Lining for Project that Supervisor Directly
Performed in Qualifying Supervisory Position (in Linear Feet):

2. CIPP WORK CREW MEMBER - The CIPP work crew member shall have direct field experience, including participation in liner wet-out and insertion, on a minimum of 3 successfully completed CIPP liner projects of pipe diameter 6-inch or larger, which involved a minimum of 1,000 feet of CIPP liner for each project as specified in paragraph 1.04.B of this section.

Name of CIPP Work Crew Member

List CIPP Work Crew Member's 3 Qualifying Projects Below:

a) PROJECT #1 _____

Employer _____

Employer Address _____

Contact Person _____

Employer Tel Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Host Pipe Diameter (in inches) _____

CIPP Product Name _____

Manufacturer _____

Total Length CIPP Lining Installed Under
Project (in Linear Feet) _____

Total Length of CIPP Lining for Project that Work Crew Member Directly
Performed in Qualifying Position (in Linear Feet):

b) PROJECT #1 _____

Employer _____

Employer Address _____

Contact Person _____

Employer Tel Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Host Pipe Diameter (in inches) _____

CIPP Product Name _____

Manufacturer _____

Total Length CIPP Lining Installed Under
Project (in Linear Feet) _____

Total Length of CIPP Lining for Project that Work Crew Member Directly
Performed in Qualifying Position (in Linear Feet):

c) PROJECT #1 _____

Employer _____

Employer Address _____

Contact Person _____

Employer Tel Number () _____

Project Start Date _____

Project Completion Date _____

Owner _____

Address _____

Contact Person _____

Telephone Number () _____

Host Pipe Diameter (in inches) _____

CIPP Product Name _____

Manufacturer _____

Total Length CIPP Lining Installed Under
Project (in Linear Feet) _____

Total Length of CIPP Lining for Project that Work Crew Member Directly
Performed in Qualifying Position (in Linear Feet):

AFFIDAVIT

Affidavit for Individual

State of _____)

County of _____) ss dba _____

I, _____, being duly sworn depose and say that the foregoing statements and answers to the questions are correct and true as of the date of this affidavit.

(Applicant sign here)

Subscribed and sworn to before me this ____ day of _____, 20____

(NOTARY PUBLIC)

My commission expires _____

Affidavit for Co-Partnership

State of _____)

County of _____) ss dba _____

I, _____, being duly sworn depose and say that I am a partner in the firm of _____, that the foregoing statements and answers to the questions are correct and true as of the date of this affidavit.

(Member of firm sign here)

Subscribed and sworn to before me this ____ day of _____, 20____

(NOTARY PUBLIC)

My commission expires _____

Affidavit for Corporation

State of _____)

County of _____) ss dba _____

I, _____, being duly sworn depose and say that I am the _____ of the _____ Corporation described in and which executed the foregoing statements that the foregoing statements, and answers to the questions, are correct and true as of the date of this affidavit.

(Member of firm sign here)

Subscribed and sworn to before me this ____ day of _____, 20____

(NOTARY PUBLIC)

My commission expires _____

Project Name:

Job Number:

Contractor:

Tel.

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Notes:

- Job Number: Contractor company name, name(s) of person(s) that extracted the sample, the date/time when the sample was taken, and name of Project , or designated representative present during sampling.
2. Samples from flat plate shall not be used for determining installed thickness of CIPP.

SECTION 02736 – SEWER MANHOLE REHABILITATION

PART 1 – GENERAL

- 1.01 **GENERAL CONDITIONS:** The Contractor shall provide all labor, supervision, tools, materials and equipment necessary for the rehabilitation of 4-foot diameter standard precast concrete or brick manholes, as specified on the work order request sheet.

Sanitary sewer materials, methods of construction for this Contract will be in accordance with the "Standard Specifications for Public Works Construction" of the Department of Public Works, City and County of Honolulu, dated September 1986, as amended and referenced hereinafter as the "STANDARD SPECIFICATIONS" and the "Standard Details for Public Works Construction" of the Department of Public Works, City and County of Honolulu, dated September 1984, as amended and referenced hereinafter as the "STANDARD DETAILS". This section will supplement the above documents.

Rehabilitation of sewer manholes may include application of epoxy coating, which shall include removal of manhole rungs, pressure washing, patching holes, cracks, and spalls, resurfacing and repairing the surfaces to be coated, and application of a protective epoxy coating.

See end of this Section for details on manhole rehabilitation using Epoxy Coating.

- 1.02 **MANHOLE EPOXY COATING EXPERIENCE:** Installation of the epoxy coating must be performed by a work force that is experienced in such installation work. At minimum, the Contractor's applicator shall have successfully applied the proposed epoxy coating using the same application method (trowel or spray) on 10 manholes.

- 1.03 **SUBMITTALS:** The Contractor shall submit to the Project Manager for approval the following items within 30 days after the issuance of the Notice to Proceed:

A. **Product and Material Qualification**

Product and material descriptions, manufacturer's application, installation instructions, and written evidence that products have a minimum of 5 year history of being used successfully for rehabilitation of sewer manholes.

In addition, a list of at least 10 sewer manhole projects successfully rehabilitated in the United States using the same products during the past three (3) years with name of owner, location, contact person, phone and fax numbers, and date of type of rehabilitation shall be provided. All projects in Hawaii shall be included on this list.

B. **Epoxy Coating Installer Qualification**

For the epoxy coating manhole rehabilitation method, provide a certificate or written evidence that the applicator of coating system is factory trained. The Contractor shall provide a copy of certificate acknowledging training of each applicator by the manufacturer.

PART 2 – PRODUCTS

2.01 **MATERIALS:** The materials used shall be designed, manufactured, and intended for sewer manhole rehabilitation and particularly for the specific application for which these documents require. The materials shall have a proven history of performance in sewer manhole rehabilitation. The materials shall be compatible with existing sewer manhole materials, with each other, and with any other sewer rehabilitation method used in this Contract. The materials shall be delivered to the job site in original unopened packaging and clearly labeled with the manufacturer's identification and printed instructions. All materials shall be stored and handled in accordance with the recommendation of the manufacturer and the American Concrete Institute (ACI). All materials shall be mixed and applied in accordance with the manufacturer's written instructions.

- 1) Patching, repointing, filling, and repairing of large non-leaking holes, cracks, and spalls in concrete and masonry manholes:

A premixed, non-shrink cement based patching material consisting of hydraulic cement, special blend of powders and special plasticizing and accelerating agents that has been formulated for vertical or overhead use shall be used. It shall not contain chlorides, gypsums, plaster, iron particles, aluminum powder or gas forming agents, or any other agents and components that promote the corrosion of steel. Initial set time shall not exceed 90 seconds and final set time shall not exceed one hour. The ultimate compressive strengths (ASTM C109) shall be a minimum of 4,000 psi. Bond strength (ASTM C882-modified) shall be a minimum of 1,700 psi or until existing concrete failure. If the manhole is to be rehabilitated with epoxy coating, the compatibility of the product with the resurfacing and repair material and epoxy topcoat shall be verified.

- 2) Stopping active leaks in concrete and masonry manholes:

If active leaks are encountered, a rapid setting hydraulic water plug for sealing leaks shall be used. The compatibility of the product with the epoxy grout and topcoat shall be verified. The water plug shall be Sauereisen Instaplug No. F-180, Webac 151, or an approved equal.

- 3) For resurfacing and repairing irregularities in concrete and masonry manholes use:

A premixed, non-shrink fast setting Portland Cement based underlayment material that has been formulated for vertical or overhead use by trowel application as an underlayment for a protective coating. It shall not contain any agents and components that would promote the corrosion of steel. Initial set time at 70 degrees Fahrenheit shall not exceed 3 hours. Five-hour compressive strength (ASTM C109) shall be a minimum of 2,500 psi and 24-hour compressive strength shall be a minimum of 3,500 psi. Tensile strength (ASTM C307) shall be a minimum of 400 psi. Flexural strength (ASTM C580) shall be a minimum of 600 psi. Modulus of elasticity (ASTM C580) shall be a minimum of 1,200,000 psi. Bond strength (ASTM C882) shall be a minimum of 2,100 psi. The resurfacing and repair material shall be compatible with the epoxy topcoat used. The product shall be Sauereisen Underlayment F-121, or an approved equal.

As an alternative, a 100% solids, three component, fast setting, non-shrink, sewage resistant epoxy grout or filler system designed for trowel application to damp surfaces may be used. Physical characteristics shall be equivalent to or exceed those indicated above for the Portland cement based underlayment material. The epoxy grout or filler system shall be Sauereisen Filler Compound No. 209, or a trowelable approved equal.

- 4) Epoxy coating for corrosion protection of concrete and masonry manholes.

The epoxy coating shall be suitable for application over damp or dry concrete surfaces, and on vertical and overhead surfaces. When cured, the coating shall provide an impermeable, high strength, lining for manholes resistant to infiltration and attack from hydrogen sulfide and acid generated by microbiological sources. The epoxy coating shall be one of the following epoxy coating systems, or an approved equal:

Alternative 1 – Raven 405: A high strength, 100% solids, solventless two-component epoxy resin system for spray application. The coating material shall be thixotropic in nature and filled with select fillers to minimize permeability and provide sag resistance in conformance with these specifications. Flexural strength (ASTM D790) shall be a minimum of 12,000 psi. Compressive strength, yield (ASTM D695) shall be a minimum of 12,800 psi. Tensile strength (ASTM D638) shall be a minimum of 6,600 psi. Bond strength (ASTM D4541) shall be to concrete substrate failure.

Alternative 2 – Sauereisen Sewergard 210 (trowelable): An impermeable, high strength, three-component system consisting of a two-component epoxy resin and a fine silica sand filler for trowel application. Flexural strength (ASTM C580) shall be a minimum of 4,900 psi. Compressive strength (ASTM C579) shall be a minimum of 7,300 psi. Tensile strength (ASTM C307) shall be a minimum of 2,200 psi. Bond strength (ASTM D4541) shall be to concrete substrate failure.

Alternative 3 – Sauereisen Sewergard 210S: An impermeable, high strength, three-component system consisting of a two-component epoxy resin and a fiber filler for spray application. Flexural strength (ASTM C580) shall be a minimum of 4,600 psi. Compressive strength (ASTM C579) shall be a minimum of 6,800 psi. Tensile strength (ASTM C307) shall be a minimum of 2,500 psi. Bond strength (ASTM D4541) shall be to concrete substrate failure.

PART 3 – EXECUTION

3.01 EPOXY COATING REHABILITATION

- 1) **Sewer Flow Control:** When necessary, the Contractor shall bypass/divert existing sewage flows from the existing manholes to be rehabilitated in accordance with Section 02731, "Sewer Flow Control." Flow-through plugs may be inserted into the project manhole to temporarily divert flows so that work can be done on the manhole bench and/or channel. Where flow bypassing is required, bypassing capability shall not be removed or decreased before sewer rehabilitation is inspected and accepted by the Project Manager.
- 2) **Safety:** The Contractor shall perform all work in strict accordance with all applicable OSHA standards, especially with respect to those safety requirements regarding confined space entry. Precautions shall be taken to detour activity and traffic away from manhole work zones and to prevent falling debris from damaging the manhole through manhole openings.

- 3) **Cleaning:** All concrete and masonry surfaces to be rehabilitated with epoxy coatings must first be cleaned in accordance with Section 02732, "Sewer Line and Manhole Cleaning," the provisions in this section, and the recommendation of the manufacturer of the lining or coatings to be used. All grease, oil, laitance, old coatings, loose bricks, mortar, unsound concrete, and other foreign materials must be completely removed, until solid gray substrate is exposed. Cleaning shall be accomplished by pressure washing (hydro-blasting or sand-blasting) at a minimum pressure of 4,000 psi. Exposed reinforcing steel shall be ground or sandblasted to shiny metal. Debris from cleaning operations shall be collected in the manhole and disposed of in an environmentally safe manner. Where there are conflicts in the level of cleaning or procedures among these specifications and the lining/coating manufacturer, the more stringent shall apply unless otherwise approved by the Project Manager.
- 4) Remove manhole rungs and patch surface as shown on the details found at the end of this section.
- 5) **Infiltration:** After the surface has been prepared and prior to the application of mortars and/or coatings, all infiltration shall be stopped by either plugging, chemical grout sealing, or installation of channels through "bleed" pipes at the bottom of the manhole. After plugging the leaks, manhole walls shall be dry and ready for structural rehabilitation.
- 6) **Patching:** All large holes or voids around removed rungs, joints or pipes, all spalled areas, and all holes caused by missing or cracked bricks shall be patched and all missing mortar shall be repointed using a non-shrink patching mortar. All cracked or disintegrated material shall be removed from the area to be patched or repointed exposing the sound subbase. All cracks greater than 1/16-inch in width shall be patched with non-shrink patching mortar.
- 7) **Resurfacing and Repair of Surface Irregularities:** Portland cement underlayment material or epoxy grout/filler shall be used to fill smaller cracks, voids, pockmarks or bug holes and other surface irregularities to provide the epoxy topcoat with a suitable high-strength substrate. The manhole bench shall be resurfaced as required to eliminate surface irregularities. Surfaces shall be provided with a broom finish or other suitable finish recommended by the epoxy topcoat manufacturer. Maximum thickness shall be 1-inch unless otherwise approved by the Project Manager.
- 8) **Epoxy coatings for corrosion protection of concrete and/or masonry manholes:**

Epoxy Topcoat: The Contractor applying the epoxy coating shall inspect all surfaces specified to be coated prior to application of the coating. The Project Manager shall be notified of any concerns with the surface that may interfere with proper application of the coating.

The epoxy topcoat shall be applied with the manufacturer's recommendations. Surfaces to be coated shall include the manhole walls, benches, portions of the channels as indicated on the detail at the end of this section, and the interior of the manhole frame. The epoxy coating shall be applied to a minimum dry film thicknesses of 125 mils for trowel application and 90 mils for spray on. The minimum thickness is applicable to properly prepared smooth surfaces with a broom finish. Thicker coatings, as recommended by the coating manufacturer and as approved by the Project Manager, shall be provided if a smooth broom finish surface is not provided.

The edge of the epoxy coating around the sewer pipes shall be provided with an edge seal along the edge of the coating. The edge seal shall consist of an epoxy filled embedded thickened edge created by filling a minimum 1/8-inch wide by minimum 1/4-inch deep groove cut into concrete around the sewer pipe.

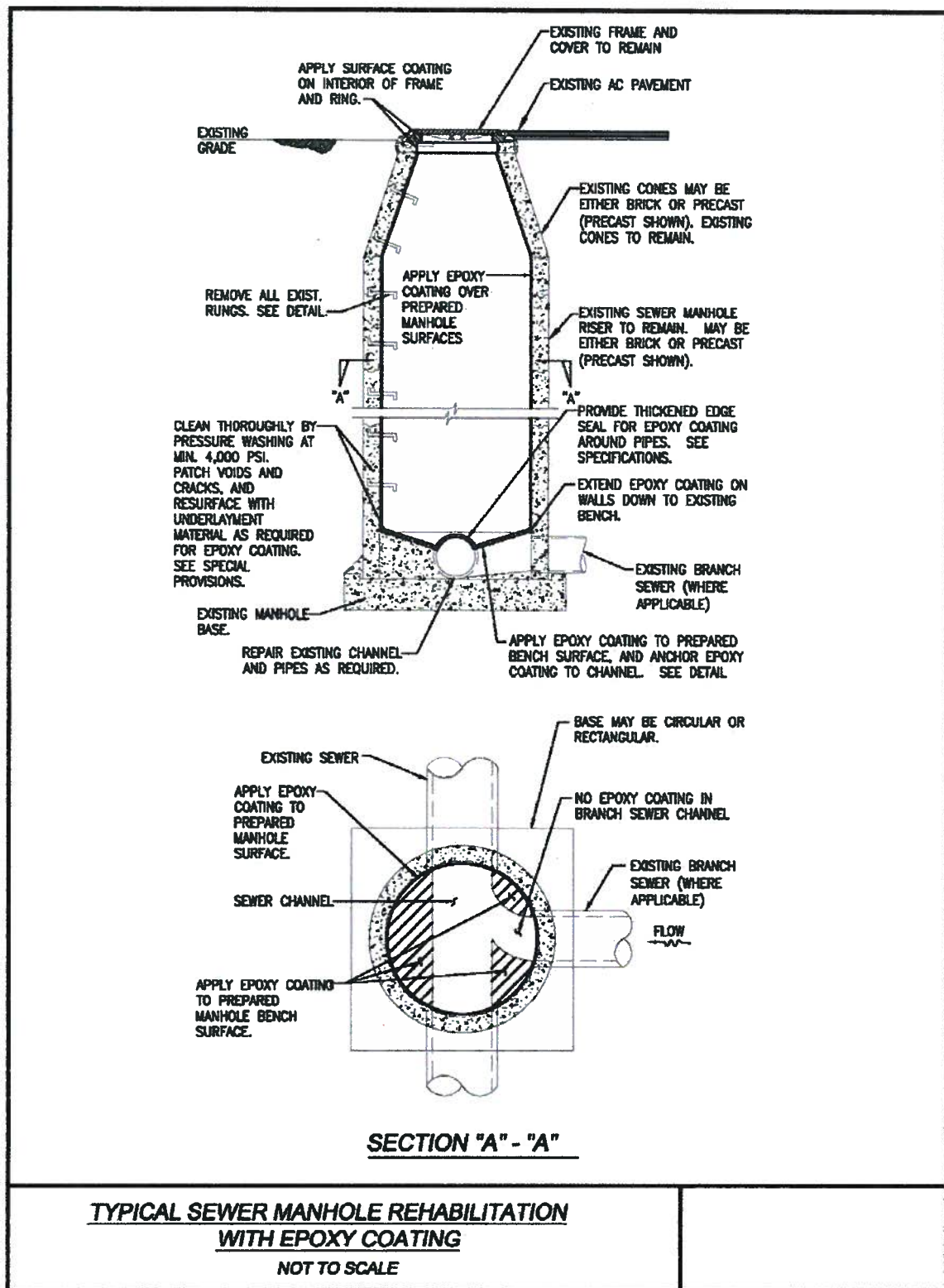
The coating shall be applied by workman trained and experienced with the product used and by equipment approved by the product supplier.

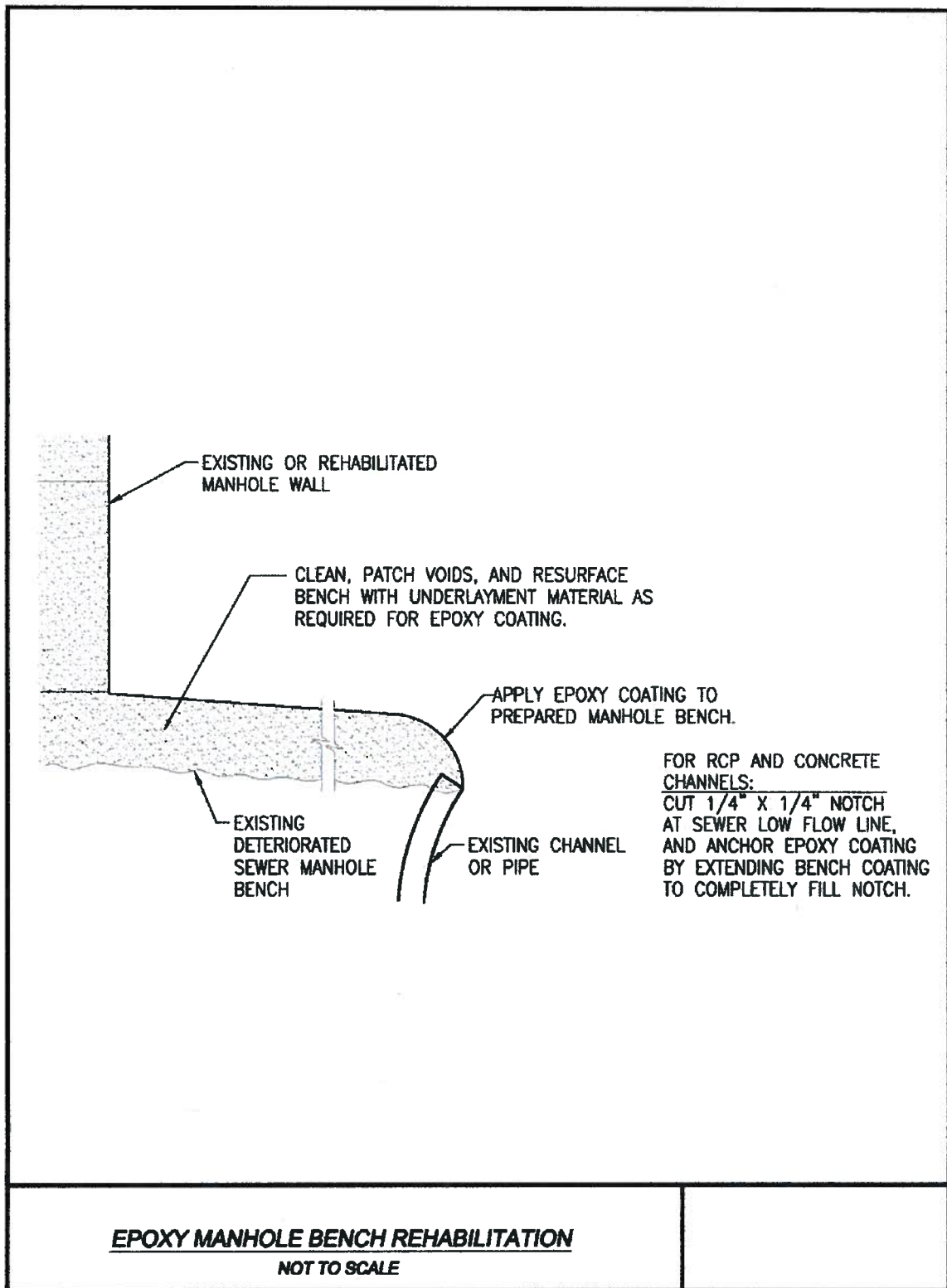
- 9) Manhole work shall be performed and completed without interruptions that may render previously cleaned, prepared or coated surfaces to be unacceptable. If interruptions should occur, the surfaces shall undergo additional cleaning or preparation as recommended by the manufacturer of the sewer rehabilitation products and approved by the Project Manager.
- 10) Testing: After the epoxy coating has set hard to the touch and completion of all project work affecting rehabilitated sewer manholes, the coatings on all manholes rehabilitated with epoxy coatings shall be tested for holidays with high-voltage holiday detection equipment. An induced holiday shall be made on to the coated concrete surface and shall serve to determine the minimum/maximum voltage to be used to test the coating for holidays at that particular area. The spark tester shall be initially set at 100 volts per 1 mil (25 micron) of film thickness applied but may be adjusted as necessary to detect the induced holiday. All detected holidays shall be marked and repaired by abrading the coating surface with grit disk paper or other hand tooling method. After abrading and cleaning, additional protective coating material shall be hand applied to the repair area. All touch-up/repair procedures shall follow the protective coating manufacturer's recommendations. The holidays and other defects shall be repaired by the Contractor at no additional cost to DHHL.

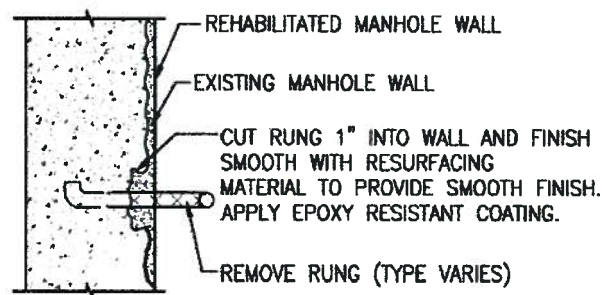
A minimum of two measurements of bond strength of the protective coating to the substrate shall be made on a representative manhole surface approved by the Project Manager for each manhole. Bond strength shall be measured in accordance with ASTM D4541. Bond strength of the protective coating to the concrete substrate shall be tested to a minimum 300 psi or until failure of concrete, whichever occurs first. Any area that does not meet the bond strength to concrete substrate testing requirement shall be removed and repaired by the Contractor in accordance with the protective coating manufacturer's recommendations at no additional cost to the DHHL.

- 3.02 **BENCH, CHANNEL AND TRANSITION SECTION RECONSTRUCTION:** New benches, channels, and transition sections shall be formed using a quick setting, high strength Portland cement based repair mortar. The mortar shall be SikaTop 122 Plus, Sauereisen SubstrateResurfacer No. F 121, or an approved equal. The mortar shall have the following minimum properties:

	<u>SikaTop 122 Plus</u>	<u>Sauereisen SubstrateResurfacer No. F-121</u>
Flexural Strength:	2000 psi 28-days (ASTM C-293)	1500 psi 7-days (ASTM C-580)
Tensile Strength:	750 psi 28-days ASTM C-496)	822 psi 7-days (ASTM C-307)
Bond Strength:	2200 psi 28-days (ASTM C-882)	2200 psi 7-days (ASTM C-882)
Compressive Strength:	7000 psi 28-days (ASTM C-109)	7000 psi 28-days (ASTM C-109)







MANHOLE RUNG REMOVAL
NOT TO SCALE

END OF SECTION

SECTION 02831 – CHAIN LINK FENCE

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 WORK INCLUDED: Furnish all labor, materials, tools, equipment and related items necessary to complete, in place, of the chain-link fence.
- 1.03 STANDARD SPECIFICATIONS: “Standard Specifications for Public Works,” 1986, Departments of Public Works, City and County of Honolulu, hereinafter referred to as the “Standard Specifications”.

PART 2 - PRODUCTS

- 2.01 MATERIALS: All materials shall conform to the Standard Specifications.

PART 3 - EXECUTION

- 3.01 INSTALLATION: Install the chain link fence in accordance with the sections of the Standard Specifications noted hereinbefore.

END OF SECTION

SECTION 02900 - PLANTING GRASS

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 SCOPE: Furnish all materials, labor and equipment required to accomplish the planting of grass as indicated on the drawings and specified herein.
- 1.03 STANDARD SPECIFICATIONS: The following specifications shall be made a part of this section:

"Standard Specifications for Public Works Construction," September 1986, Departments of Public Works County of Kauai, City and County of Honolulu, County of Maui, County of Hawaii of the State of Hawaii, hereinafter referred to as the "Standard Specifications."

PART 2 - PRODUCTS

- 2.01 MATERIALS: Materials for planting grass shall be in accordance with the following sections of the Standard Specifications as revised, except as amended on the drawings and/or in the specifications herewith:

Planting Trees, Shrubs, Ground Cover and Grass

Section 51

PART 3 - EXECUTION

- 3.01 LOCATION: Grass shall be installed on all soil surfaces exposed from grading and trenching operations.
- 3.02 PLANTING: The Contractor shall have the option of planting grass by seeding, sprigging or hydromulching. Grass shall be planted in accordance with the sections of the Standard Specifications noted hereinbefore.

END OF SECTION

DIVISION 4 - MASONRY

SECTION 04220 – CEMENT RUBBLE MASONRY

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 WORK INCLUDED: Furnish all labor, materials, tools, equipment and related items necessary to complete, in place, the rocks, stones and mortar to reconstruct rockwalls.
- 1.03 STANDARD SPECIFICATIONS: "Standard Specifications for Public Works," 1986, Departments of Public Works, City and County of Honolulu, hereinafter referred to as the "Standard Specifications".
- 1.04 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.
- A. American Society for Testing and materials (ASTM) Publications
- | | |
|---------|---|
| C33-80 | Concrete Aggregate |
| C127-80 | Specific Gravity and Absorption of Coarse Aggregate |
| C144-76 | Aggregate for Masonry Mortar |
| C150-80 | Portland Cement |

PART 2 - PRODUCTS

- 2.01 MATERIALS: All materials shall conform to the Standard Specifications, Section 44 – Cement Rubble Masonry.

PART 3 - EXECUTION

- 3.01 INSTALLATION: Install the rock wall in accordance with the sections of the Standard Specifications noted hereinbefore.

END OF SECTION

SECTION 04221 – CEMENT MASONRY UNITS

PART 1 - GENERAL

- 1.01 GENERAL CONDITIONS: The General Conditions, General Specifications and Special Provisions preceding these specifications shall govern this section of the work.
- 1.02 WORK INCLUDED: Furnish all labor, materials, tools, equipment and related items necessary to complete, in place, the rocks, stones and mortar to reconstruct cement masonry unit (CMU) walls.
- 1.03 STANDARD SPECIFICATIONS: "Standard Specifications for Public Works," 1986, Departments of Public Works, City and County of Honolulu, hereinafter referred to as the "Standard Specifications".
- 1.04 DELIVERY, STORAGE AND HANDLING:
- A. Masonry Units: Masonry units delivered to the jobsite shall conform to the moisture content requirements as specified under ASTM C90. Masonry units shall be stored off the ground and protected from inclement weather and physical damage. All units shall be handled with reasonable care to prevent marring or damaging of faces, edges and corners of units. In no case shall dumping of units from hand trucks or wheelbarrows be permitted.
- Where used in exposed construction, any unit with exposed face or faces having chips, cracks, or other imperfections more than 1-inch in dimension shall be rejected.
- B. Portland cement, masonry cement, mortar cement, lime and admixtures shall be stored in such a manner as to prevent deterioration or contamination with foreign matter. Cement which has become caked, partially set or otherwise deteriorated, or any material which becomes damaged or contaminated, shall be rejected.

PART 2 - PRODUCTS

- 2.01 MATERIALS: All materials shall conform to the Standard Specifications, Section 45 – Cement Masonry Units.

PART 3 - EXECUTION

- 3.01 INSTALLATION: Install the rock wall in accordance with the sections of the Standard Specifications noted hereinbefore.

END OF SECTION

PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS

SEWER LINES E, F, L, A, C, D, AND K-3

IFB-17-HHL-010

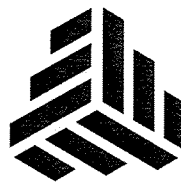
HONOLULU, OAHU, HAWAII

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T.M.K. (1ST DIVISION) 2-2-015, 2-4-039, 042,
2-4-040, 041, 2-5-021, 022

OWNER: DEPARTMENT OF HAWAIIAN HOME LANDS
ADDRESS: HALE KALANIANA'OLE
91-5420 KAPOLEI PARKWAY
KAPOLEI, HAWAII 96707

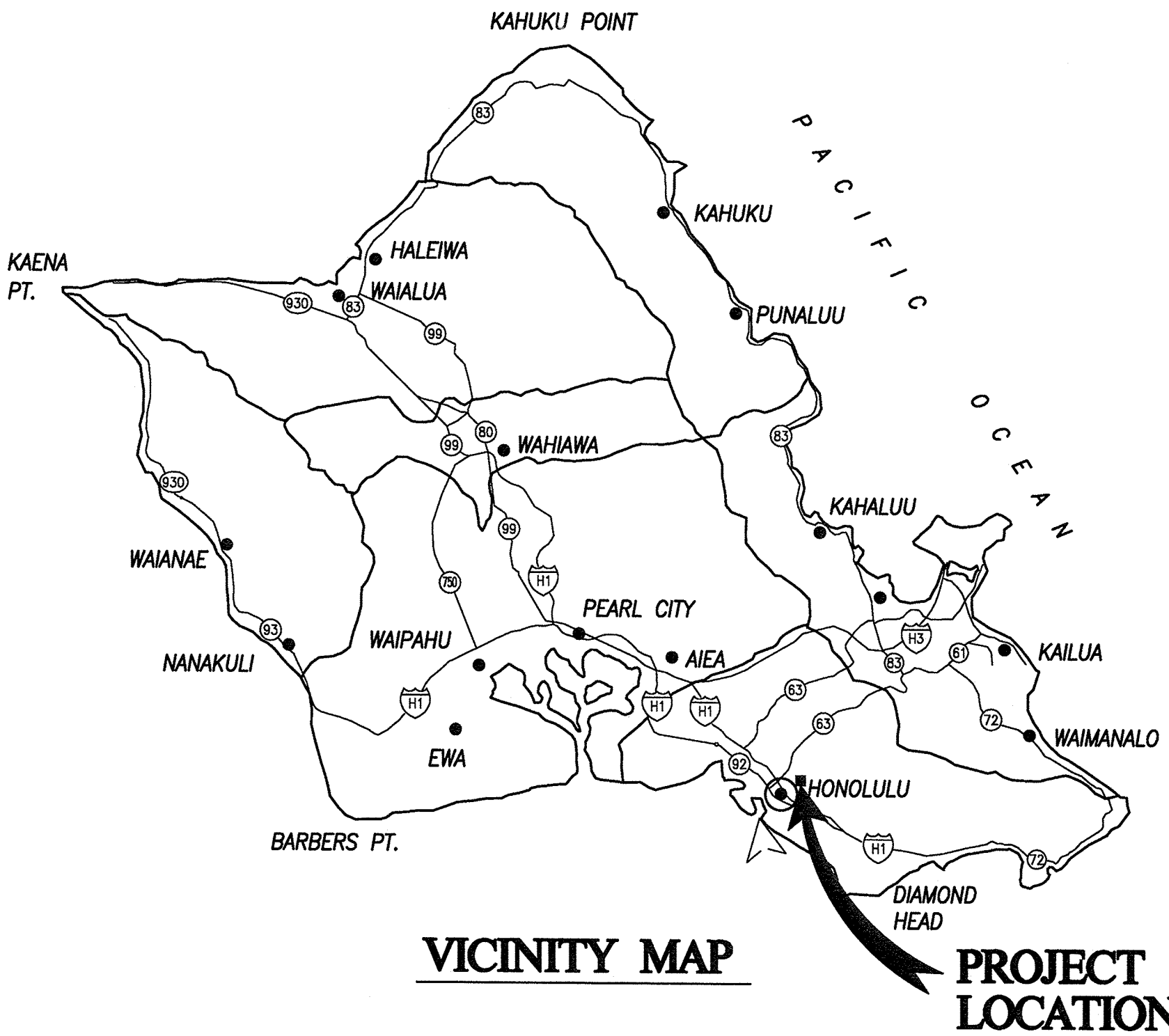
Prepared by:



R. M. TOWILL CORPORATION

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Planning • Engineering • Environmental Services • Photogrammetry • Surveying • Construction Management



GENERAL CONSTRUCTION NOTES

1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986, AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENTS OF PLANNING AND PERMITTING, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUAI, MAUI AND HAWAII.
2. 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 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.
3. 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 CITY 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.
4. THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL BE RESPONSIBLE FOR CONFORMANCE WITH APPLICABLE PROVISIONS OF THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS," AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL."

THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE(S) FOR THE FOLLOWING:

1. STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT DISTURB ONE (1) ACRE OR MORE, AND
2. DISCHARGES OF HYDROTESTING EFFLUENT, DEWATERING EFFLUENT, AND WELL DRILLING EFFLUENT TO STATE WATERS.

IN ACCORDANCE WITH STATE LAW, ALL DISCHARGES RELATED TO PROJECT CONSTRUCTION OR OPERATIONS ARE REQUIRED TO COMPLY WITH STATE WATER QUALITY STANDARDS (HAWAII ADMINISTRATIVE RULES, CHAPTER 11--54). BEST MANAGEMENT PRACTICES SHALL BE USED TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENT, DEBRIS, AND OTHER POLLUTANTS TO STATE WATERS. PERMIT COVERAGE IS AVAILABLE FROM THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH AT <http://health.hawaii.gov/cwb/>, THE OWNER/DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR OBTAINING OTHER FEDERAL, STATE, OR LOCAL AUTHORIZATIONS AS REQUIRED BY LAW.

5. FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING & PERMITTING AT 768-8084 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT TWO (2) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK. FOR CITY PROJECTS, THE CONTRACTOR SHALL COORDINATE INSPECTIONAL SERVICES WITH THE RESPONSIBLE CITY AGENCY.
6. CONFINED SPACE. FOR ENTRY BY 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:
- I. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:
- A. FULL BODY HARNESES FOR UP TO TWO PERSONNEL.
- B. LIFELINE AND ASSOCIATED CLIPS.
- C. INGRESS/EGRESS AND FALL PROTECTION EQUIPMENT.
- D. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT.
- E. EMERGENCY (ESCAPE) RESPIRATOR (10 MINUTE DURATION).
- F. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE.
- 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.
- II. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE ENTRY CONDITIONS.
- III. ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO, IF CONDITIONS WARRANT IT).
7. PURSUANT TO CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATION, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, AND THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION (692-8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING (768-8084); AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.
8. THE EXISTING UTILITIES HAVE BEEN SHOWN ON THESE PLANS INSOFAR AS IT IS POSSIBLE TO DO SO. THEIR LOCATIONS AS SHOWN ARE APPROXIMATE ONLY AND THE CONTRACTOR SHALL MAKE AN INDEPENDENT CHECK ON THE GROUND BY PROBING AND WITH THE VARIOUS UTILITY COMPANIES AND GOVERNMENTAL AGENCIES TO ASCERTAIN THEIR EXACT LOCATIONS.
9. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT. BEFORE DISRUPTING SERVICE OF ANY UTILITY, THE CONTRACTOR SHALL CONTACT THE CITY'S REPRESENTATIVE AND APPROPRIATE RESPONSIBLE UTILITY AUTHORITY. DAMAGE TO EXISTING UTILITIES AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST.
10. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR UTILITIES SUCH AS ELECTRICITY, ETC. REQUIRED FOR HIS OPERATIONS, AND ALL COSTS FOR THESE UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
11. ALL EXISTING UTILITIES TO REMAIN IN USE, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION UNLESS SPECIFIED ON THE PLANS TO BE ABANDONED. ANY DAMAGE TO THE EXISTING UTILITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.
12. UNLESS RELOCATION IS CALLED FOR ON THE PLANS, EXISTING UTILITIES SHALL REMAIN IN-SERVICE AND IN PLACE. IF RELOCATION OF EXISTING UTILITIES IS REQUIRED FOR THE CONTRACTOR'S CONVENIENCE, INTERRUPTION OF SERVICE SHALL BE KEPT TO A MINIMUM AND SHALL BE DONE AT THE CONTRACTOR'S EXPENSE, AND ONLY WITH THE APPROVAL OF THE ENGINEER.
13. UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH PROVISIONS OF CHAPTER 22, REVISED ORDINANCES, 1969, AS AMENDED (UNDERGROUND UTILITIES).
14. THE CONTRACTOR SHALL VERIFY AND CHECK 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 FOR CLARIFICATION.
15. THE CONTRACTOR SHALL APPLY FOR A PERMIT WITH A NOISE CONTROL PLAN AND OTHER REQUIRED POLLUTION CONTROL PLANS.
16. IF THERE ARE ANY FUEL SPILLAGES, EXISTING LEAKS, ETC. FOUND DURING CONSTRUCTION, REPORT THE FOREGOING TO THE HAZARD EVALUATION AND EMERGENCY RESPONSE UNIT (PH. NO. 586-4248) OF THE DEPARTMENT OF HEALTH. FOR NON-WORKING HOURS, CALL THE STATE HOSPITAL OPERATOR (PH. NO. 247-2191).
17. NO BLASTING SHALL BE PERMITTED ON THIS PROJECT.
18. THE CONTRACTOR, AT HIS EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCES. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.

GENERAL CONSTRUCTION NOTES (CON'T.):

19. THE EXISTING IMPROVEMENTS ON THE PREMISES AND IN THE ADJACENT AREA THAT ARE NOT TO BE REMOVED, SHALL BE PRESERVED AND PROTECTED. ANY AND ALL DAMAGES RESULTING FROM THE CONTRACTOR'S CONSTRUCTION OPERATION SHALL BE REPLACED AND REPAIRED TO ORIGINAL OR BETTER CONDITION, TO THE SATISFACTION OF THE OWNER.
20. FOR BENCHMARK, SEE SHEET C-3.

GRADING NOTES

1. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 13, 14, 15 AND 16, AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL, OF THE REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED.
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 CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
3. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 60.1, "AIR POLLUTION CONTROL."
4. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND 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 AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED.
7. FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEYED.
8. THE CITY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
9. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS, AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, D.P.P., PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL."
10. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
11. THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL BE RESPONSIBLE FOR ALL GRADING OPERATIONS TO BE PERFORMED IN CONFORMANCE WITH APPLICABLE PROVISIONS OF THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS", AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL", AS WELL AS CHAPTER 14 OF THE REVISED ORDINANCES OF HONOLULU, AS AMENDED. BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AT ALL TIMES DURING CONSTRUCTION.

THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL OBTAIN NATIONAL DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE(S) FOR THE FOLLOWING:

1. STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES THAT DISTURB ONE (1) ACRE OR MORE, AND
2. DISCHARGES OF HYDROTESTING EFFLUENT, DEWATERING EFFLUENT, AND WELL DRILLING EFFLUENT TO STATE WATERS.

IN ACCORDANCE WITH STATE LAW, ALL DISCHARGES RELATED TO PROJECT CONSTRUCTION OR OPERATIONS ARE REQUIRED TO COMPLY WITH STATE WATER QUALITY STANDARDS (HAWAII ADMINISTRATIVE RULES, CHAPTER 11--54). BEST MANAGEMENT PRACTICES SHALL BE USED TO MINIMIZE OR PREVENT THE DISCHARGE OF SEDIMENT, DEBRIS, AND OTHER POLLUTANTS TO STATE WATERS. PERMIT COVERAGE IS AVAILABLE FROM THE DEPARTMENT OF HEALTH, CLEAN WATER BRANCH AT <http://health.hawaii.gov/cwb/>

12. WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTH MOVING PHASE OF THE GRADING IS INITIATED.
13. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED
14. TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR GRADING PERMIT.
15. IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
16. BUILDING PERMIT FOR RETAINING WALLS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF GRADING WORK ON SITE.
17. FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING & PERMITTING AT 768-8084 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT TWO (2) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK. FOR CITY PROJECTS, THE CONTRACTOR SHALL COORDINATE INSPECTIONAL SERVICES WITH THE RESPONSIBLE CITY AGENCY.
18. PURSUANT TO CHAPTER 6E, HRS, IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATION, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, AND THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION (692-8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING (768-8084); AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.
19. FOR ALL PROJECTS WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM. ALSO, FOR NON-CITY AND OTHER NON-GOVERNMENTAL AGENCY PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NGPC TO THE PERMITTING AND INSPECTION SECTION, CIVIL ENGINEERING BRANCH, D.P.P., AT LEAST SEVEN (7) CALENDAR DAYS BEFORE THE START OF THE CONSTRUCTION. FOR CITY OR OTHER GOVERNMENTAL PROJECTS, THE CONTRACTOR SHOULD PROVIDE A WRITTEN COPY OF THE NGPC TO THE APPROPRIATE CITY DEPARTMENT OR GOVERNMENTAL AGENCY PER THEIR REQUIREMENTS.
20. ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF WATER QUALITY STANDARDS.
21. 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 VIOLATOR. FURTHERMORE, VIOLATORS SHALL BE SUBJECTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES
22. FOR BENCHMARK SEE SHEET C-3.

SEWER NOTES

1. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986, STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUAI, MAUI AND HAWAII, CURRENT CITY PRACTICES, THE REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED, AND THE DESIGN STANDARDS OF THE DEPARTMENT OF WASTEWATER MANAGEMENT, VOL. 1, JULY 1993.
2. IN THE EVENT THAT ANY CHANGE IN ALIGNMENT OR GRADE FOR THE PROPOSED SEWERS ARE REQUIRED DUE TO UNFORESEEN CONFLICT WITH OTHER UTILITIES, THE ENGINEER IN CHARGE OR THE MAKER OF THE PLANS SHALL BE RESPONSIBLE FOR THE REQUIRED CHANGES WHICH ARE TO BE PRESENTED TO THE DEPARTMENT OF PLANNING AND PERMITTING FOR APPROVAL.
3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGEMENT BRANCH, WASTEWATER DIVISION, DEPARTMENT OF DESIGN AND CONSTRUCTION (DDC), AT 768-8773 OR 768-8770 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT FOUR (4) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF SEWER WORK. THE CONTRACTOR SHALL PAY FOR ALL INSPECTION COSTS.
4. CRUSHED ROCK CRADLE IS PERMITTED WHERE SOIL IS STABLE. IN AREAS OF UNSTABLE SOIL, THE MAKER OF THE PLANS AND THE CONSTRUCTION ENGINEER WILL DETERMINE THE PIPE SUPPORT REQUIRED.
5. 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, INCLUDING AND AFFECTING SEWER LINES, IN THE PRESENCE OF THE DPP INSPECTOR AND EXERCISE PROPER CARE IN EXCAVATING THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGED UTILITIES.
6. SEWER LATERAL SHALL BE CLEAR OF AND NOT CONFLICTING WITH ANY OTHER UTILITY. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES SHALL BE STRICTLY OBSERVED AND FOLLOWED.
7. SLOPE FOR SEWER LATERALS SHALL BE NO LESS THAN 1.00% UNLESS OTHERWISE NOTED.
8. BUILDING PLUMBING FACILITIES SHALL BE CONTROLLED BY SEWER LATERAL INVERTS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SEWER SERVICE TO ALL AFFECTED AREAS DURING CONSTRUCTION.
10. PROPERTY OWNERS WITH LATERALS AFFECTED BY THE CONSTRUCTION SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF ANY WORK ON THE LATERALS.
11. THE CONTRACTOR SHALL VERIFY ALL EXISTING SEWER LATERAL LOCATIONS WHETHER SHOWN OR NOT SHOWN ON PLANS PRIOR TO COMMENCING WITH ANY OF THE WORK AND SHALL NOT ASSUME THAT WHERE NO LATERALS ARE SHOWN, NONE EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGED UTILITIES. THE LOCATION AND DEPTHS OF ALL EXISTING SEWER LATERALS ARE APPROXIMATE.
12. THE CONSULTING ENGINEER SHALL SUBMIT TO THE DEPARTMENT OF PLANNING AND PERMITTING MYLAR "AS-BUILT" TRACINGS OF THE CONSTRUCTION PLANS AS ACTUALLY CONSTRUCTED, SHOWING ALL CHANGES FROM THE ORIGINAL PLANS.
13. 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 NOTIFICATIONS AND PRESS RELEASES.
14. THE CONTRACTOR SHALL INSTALL "RAINSTOPPER" MANHOLE INSERTS IN ALL SEWER MANHOLES WITH TYPE "SA" FRAME AND COVER.
15. ALL DROP AND SHALLOW DROP SEWER MANHOLES SHALL BE LINED WITH EPOXY LINERS. ALSO IF THE VELOCITY EXCEEDS TEN (10) FEET PER SECOND (FPS), THE SEWER MANHOLE SHALL BE EPOXY LINED.
16. THE CONTRACTOR SHALL OBTAIN APPROVAL FOR ADVANCE SEWER RISER AGREEMENT AT THE DEPARTMENT OF PLANNING AND PERMITTING AND OBTAIN BUILDING PERMIT FOR PLUMBING WORK BEFORE ANY ADVANCE RISER IS MADE.
17. ALL SEWER PIPE JOINTS WITHIN EASEMENTS SHALL BE WRAPPED WITH GEOTEXTILE ROOT BARRIER.
18. SEWER PIPES THIRTY (30) INCHES AND LARGER SHALL BE OF CORROSION RESISTANT MATERIAL OR PROTECTED INTERNALLY WITH LINING.
19. S4C PIPE CRADLE SEALS SHALL BE INSTALLED TEN (10) FEET FROM ALL SEWER MANHOLES TO PREVENT SOIL MIGRATION. SEE DETAIL ON SHT. C-26.
20. GEOTEXTILE FABRIC TO ENVELOP THE PIPE CRADLE AND SELECT BACKFILL MATERIAL SHALL BE PROVIDED WHERE WATER OR UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED.
21. ALL NEW PVC SEWER MAINS SHALL PASS A MANDREL TEST AS A CONDITION OF ACCEPTANCE. THE MANDREL DIAMETER SHALL BE 95% OR MORE OF THE INSIDE DIAMETER OF THE PIPE BEING TESTED. SEWER MAIN MAY NOT BE VIBRATED IN ORDER TO PASS MANDREL TEST.
22. PRIOR TO FINAL ACCEPTANCE ALL SEWER LINES INSTALLED SHALL BE FLUSHED WITH WATER AND ANY ACCUMULATED CONSTRUCTION DEBRIS AND OTHER FOREIGN MATERIALS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
23. CONFINED SPACE. FOR ENTRY BY 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:
- I. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:
- A. FULL BODY HARNESES FOR UP TO TWO PERSONNEL.
- B. LIFELINE AND ASSOCIATED CLIPS.
- C. INGRESS/EGRESS AND FALL PROTECTION EQUIPMENT.
- D. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT.
- E. EMERGENCY (ESCAPE) RESPIRATOR (10 MINUTE DURATION).
- F. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE.
- 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.
- II. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE ENTRY CONDITIONS.
- III. ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO, IF CONDITIONS WARRANT IT).

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE

MANAGER & CHIEF ENGINEER, BWS
(FOR WORK AFFECTING BWS FACILITIES IN CITY/STATE R/W
& BWS EASEMENTS ONLY)

DATE

SEWER NOTES (CON'T.):


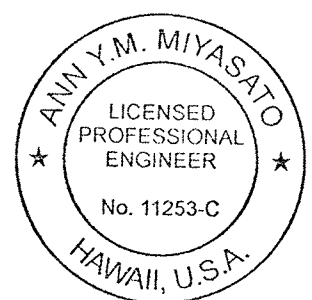
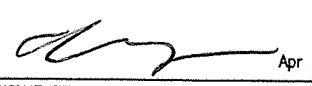
24. WHEN CONNECTING TO A LIVE SEWER LINE, THE CONTRACTOR SHALL ABIDE BY ALL CONDITIONS THAT THE STATE DEPARTMENT OF HEALTH SETS FORTH TO MITIGATE ANY WASTEWATER SPILL THAT MAY OCCUR. THE CONTRACTOR SHALL INFORM THE CITY INSPECTOR FIVE (5) WORKING DAYS PRIOR TO THE ACTUAL CONNECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES AND PENALTIES DUE TO ANY SPILLS RESULTING FROM THE CONNECTION.
25. NO RUNGS SHALL BE INSTALLED INSIDE NEW SEWER MANHOLES.
26. FOR SEWER MANHOLE ADJUSTMENTS UPWARD LESS THAN 3", SEE STD DETAIL S-25. FOR SMH ADJUSTMENTS UPWARD GREATER THAN 3" OR FOR ANY ADJUSTMENTS DOWNWARD, RECONSTRUCT SMH TOP FROM BELOW THE CONE SECTION.
27. CONTRACTOR SHALL MAINTAIN VISIBILITY AND MAINTENANCE ACCESS TO LIVE SEWER MANHOLE LOCATIONS AT ALL TIMES, INCLUDING DURING NON-WORK HOURS AND PAVING OPERATIONS.
28. CONTRACTOR SHALL USE MANHOLE DEBRIS CATCHING DEVICE WHEN PERFORMING MANHOLE HEIGHT ADJUSTMENT WORK AND REMOVE ANY CONSTRUCTION DEBRIS THAT HAS FALLEN INTO THE MANHOLE. DISPOSAL OF CONSTRUCTION DEBRIS IN THE SEWER SYSTEM IS STRICTLY PROHIBITED.
29. FOR PRECAST SEWER MANHOLES, THE CONSULTING ENGINEER SHALL SUBMIT FOUR (4) SETS OF SHOP DRAWINGS TO D.P.P. FOR APPROVAL. AFTER THE SHOP DRAWINGS ARE APPROVED, THE MANUFACTURER SHALL NOTIFY THE CONSTRUCTION MANAGEMENT BRANCH, WASTEWATER DIVISION, D.D.C., AT 768-8773 OR 768-8770 TO ARRANGE FOR INSPECTION SERVICES FOR CONCRETE POURS MADE AT ITS PLANT SEVEN (7) DAYS PRIOR TO POUR.

PUBLIC HEALTH, SAFETY AND CONVENIENCE

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 STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. THE CITY SHALL REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.
3. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL NECESSARY SIGNS, BARRICADES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE, AND SAFETY OF THE PUBLIC.

WATER NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY AND COUNTY OF HONOLULU BOARD OF WATER SUPPLY'S "WATER SYSTEM STANDARDS", DATED 2002, THE "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, DATED 1991, AND ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.
2. ALL PLANS APPROVED BY THE BOARD OF WATER SUPPLY ARE BASED SOLELY ON THE ADEQUACY OF THE WATER SUPPLY.
3. THE CONTRACTOR SHALL NOTIFY BWS CAPITAL PROJECTS DIVISION - ENGINEERING, CONSTRUCTION SECTION IN WRITING ONE WEEK PRIOR TO COMMENCING WORK ON THE WATER SYSTEM. (1)
4. 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 OF ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL DAMAGES TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOT ASSUME THAT WHERE NO UTILITIES ARE SHOWN, THAT NONE EXIST.
5. RE-APPROVAL SHALL BE REQUIRED IF THIS PROJECT IS NOT UNDER CONSTRUCTION WITHIN A PERIOD OF TWO YEARS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL WATER LINES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE ESPECIALLY CAREFUL WHEN EXCAVATING BEHIND WATER LINES, TEES, AND BENDS WHEREVER THERE IS A POSSIBILITY OF WATER LINE MOVEMENT DUE TO THE REMOVAL OF THE SUPPORTING EARTH BEYOND THE EXISTING REACTION BLOCKS. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES NECESSARY TO PROTECT THE WATER LINES, SUCH AS CONSTRUCTING SPECIAL REACTION BLOCKS (WITH BWS APPROVAL) AND/OR MODIFYING HIS CONSTRUCTION METHOD.
7. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL VERIFY IN THE FIELD THE LOCATION OF EXISTING WATER MAINS AND APPURTENANCES.

ENGINEER	AM/JB/SM				
DRAFTSMAN	SF				
CHECKED BY	AM/JN	REVISION	DATE	BRIEF	BY
		APPROVED			
		<div><div><div><div><div><div></div><div><div>Planning - Engineering - Environmental Services - Photogrammetry - Surveying - Construction Management</div></div></div><div><div>R. M. TOWILL CORPORATION</div><div>808 842 1133 2024 North King Street Suite 200 Honolulu, Hawaii 96819-3404</div></div><div><div>Department of Hawaiian Home Lands</div><div>PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS</div><div>SEWER LINES E, F, L, A, C, D, AND K-3</div><div>Papakolea, Honolulu, Oahu, Hawaii</div></div></div></div></div></div>			
		<div><div><div><div><div><div></div><div><div>AMY M. MIYASATO</div><div>LICENSED PROFESSIONAL ENGINEER</div><div>No. 11253-G</div><div>HAWAII, U.S.A.</div></div></div></div><div><div>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".</div><div>Apr 2018 SIGNATURELIC. EXP.</div></div></div></div></div>			

CONSTRUCTION NOTES - 1

Wed, 25 Jan 2017 - 4:51pm
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- TABLE 1 - PIPE DIMENSION (INCHES)

H. CHEMICAL RESISTANCE. THE PVC COMPOUND FOR CELL CLASSIFICATIONS NOT SPECIFICALLY IDENTIFIED IN ITEM D ABOVE SHALL BE PREQUALIFIED BY THE PIPE MANUFACTURER BY MEETING THE CHEMICAL RESISTANCE TESTS WHICH FOLLOW. COMPOUND SAMPLES AND MOLDED TEST SPECIMENS SHALL BE PREPARED IN ACCORDANCE WITH ASTM D543.

TABLE 2 - TEST SOLUTIONS

* VOLUMETRIC PERCENTAGES OF CONCENTRATED REAGENTS OF C.P. GRADE.

INITIAL AND PAST EXPOSURE SPECIMENS SHALL MEET THE FOLLOWING REQUIREMENTS WHEN TESTED AT 23' ±2°C:

IF ANY SPECIMEN FAILS TO MEET THE REQUIREMENTS AT ANY TIME DURING THE 112 DAY EXPOSURE PERIOD, THE MATERIAL WILL BE SUBJECT TO REJECTION.

IF ANY SPECIMEN FAILS TO MEET THE REQUIREMENTS AT ANY TIME DURING THE 112 DAY EXPOSURE PERIOD, THE MATERIAL WILL BE SUBJECT TO REJECTION.

I. TRENCH EXCAVATION. TRENCHES FOR PVC SEWER PIPE SHALL BE EXCAVATED AND PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 11 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION EXCEPT AS MODIFIED HEREIN.

- BEDDING MATERIAL SHALL CONSIST OF ONE OF THE FOLLOWING:**

- BEDDING MATERIAL SHALL FIRST BE PLACED SO THAT THE PIPE IS SUPPORTED FOR THE FULL LENGTH OF THE BARREL WITH FULL BEARING ON THE BOTTOM SEGMENT OF THE PIPE EQUAL TO A MINIMUM OF 0.4 TIMES THE OUTSIDE DIAMETER OF THE BARREL. IF THE PIPE IS TO BE LAID IN A ROCK EXCAVATION, THE ROCK SHALL BE REMOVED SUCH THAT NO RIBS, ROCKS, OR SOLID PROJECTIONS SHALL BE WITHIN 6 INCHES OF THE SEWER PIPE HORIZONTALLY AND THERE SHALL BE AT LEAST 4 INCHES OF BEDDING BELOW THE PIPE.

K. MANHOLE TEST OF PVC PIPE. A MANHOLE TEST SHALL BE PERFORMED NO SOONER THAN 30 DAYS AFTER THE TRENCH BACKFILL IS COMPLETED. IN ROADWAY AREAS THE 30-DAY PERIOD SHALL BEGIN AFTER INSTALLATION AND COMPACTION OF BEDDING BACKFILL AND SUBBASE TO WITHIN 2 FEET OF THE FINISHED PAVEMENT GRADE. A RIGID MANHOLE SHALL BE PULLED THROUGH THE PIPE BY HAND BETWEEN ADJACENT MANHOLES TO MEASURE FOR OBSTRUCTIONS (DEFLECTIONS, JOINT OFFSETS AND LATERAL PIPE INTRUSIONS). THE MANHOLE SHALL HAVE A CROSS SECTION EQUIVALENT TO A CIRCLE HAVING A DIAMETER AT LEAST 95 PERCENT OF THE SPECIFIED AVERAGE INSIDE DIAMETER OF THE PIPE. THE MINIMUM LENGTH OF THE CIRCULAR PORTION OF THE MANHOLE SHALL BE EQUAL TO THE NOMINAL DIAMETER OF THE PIPE. THIS TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE ENGINEER. ALL MATERIAL, EQUIPMENT AND LABOR REQUIRED TO PERFORM THE TEST SHALL BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE STATE. ANY SECTION OF PIPE THAT FAILS TO PERMIT PASSAGE OF THE MANHOLE WILL NOT BE ACCEPTED UNTIL PROPERLY REPAIRED OR REPLACED AND RETESTED.

6. PVC PIPE SHALL BE LIMITED TO USE IN AGRICULTURAL, RESIDENTIAL AND APARTMENT ZONED AREAS AND IN SIZES FROM 6 INCHES TO 12 INCHES IN DIAMETER.

1. CONTRACTOR WILL BE ALLOWED TO CLOSE PORTION OF TRAFFIC LANES AS ALLOWED IN APPROVED TRAFFIC CONTROL PLANS AND REGULATORY AGENCIES. THE CONTRACTOR SHALL CONSTRUCT BYPASS LINES AND PUMP INTAKE LINES BELOW GRADE IN INTERSECTIONS AND AS REQUIRED TO ACCOMMODATE TRAFFIC FLOW.

- TEMPORARY SEWER BYPASS NOTES:

7. BYPASS PUMPS SHALL BE MONITORED IN ACCORDANCE WITH SPECIFICATIONS.

PHASE 1 - CONSTRUCT/INSTALL UNDERGROUND AND ABOVEGROUND TEMPORARY BYPASS
PIPING AND INSTALL TEMPORARY SEWER LINE PLUGS

PHASE 2 – CLEAN SEWER LINES

PHASE 3 – CCTV SEWER LINES

PHASE 4 - INSTALL PRE-LINER

PHASE 5 - INSTALL CIPP SEWER LINE REHAB LINER/ REINSTATE LATERAL OR BRANCH SEWER LINES/INSPECT

PHASE 6 - REPLACE LATERAL OR BRANCH SEWER LINES AS REQUIRED

PHASE 7 - REPLACE/RECONSTRUCT EXISTING SEWER MANHOLES

QA = AVAILABLE FLOW; FULL FLOW CAPACITY OF THE 36" SEWER TRUNK AFTER CIPP

QR = REQUIRED FLOW, PEAKFLOW

$N = \text{MANNING'S } N$

$$S = \text{SLOPE}$$

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH. D.P.P.

DATE _____

C-2 SHEET 3 OF 39 SHEETS

FILE	POCKET	FOLDER	NO.

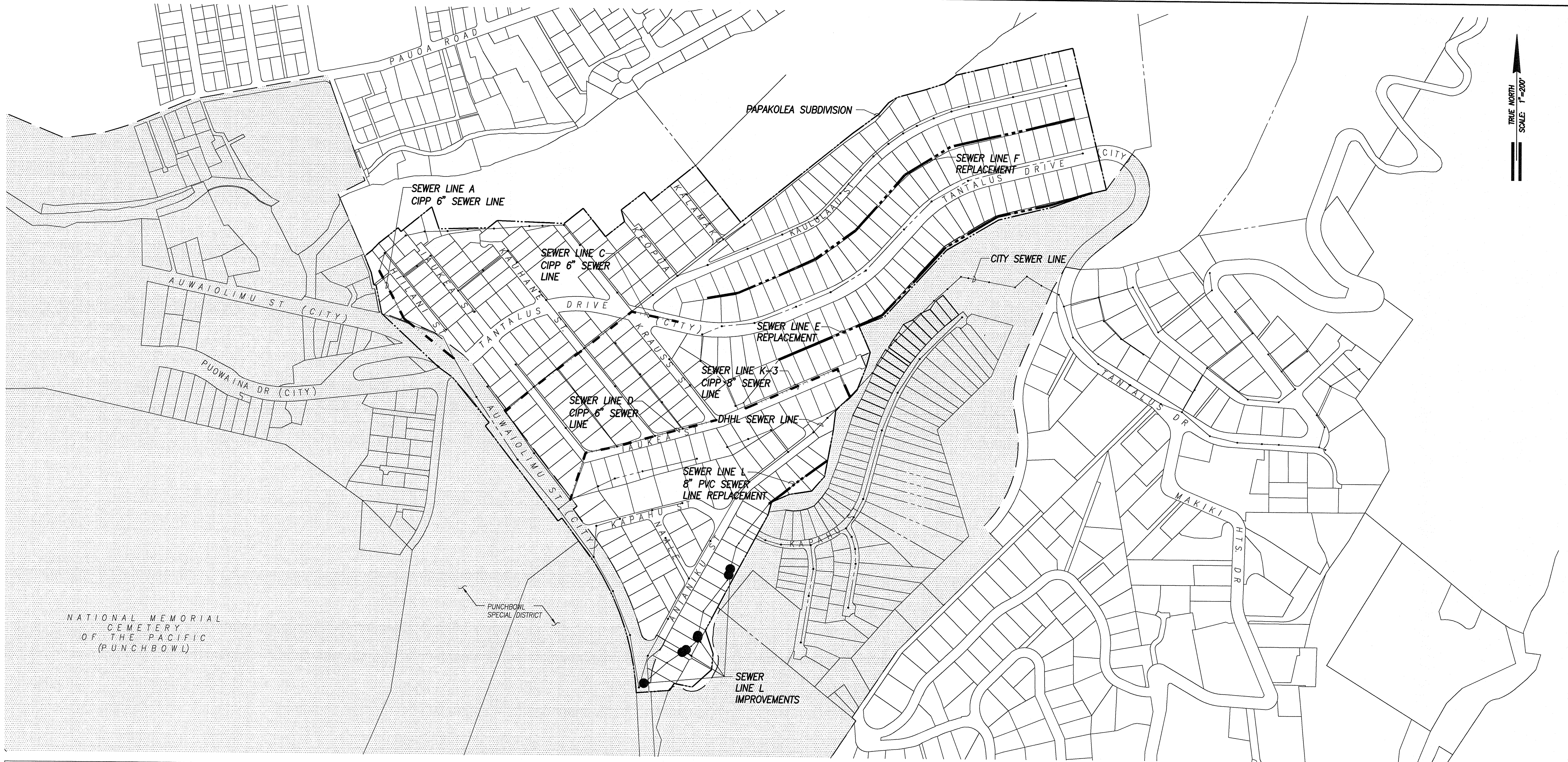
1. A PERMIT SHALL BE OBTAINED FROM THE DEPARTMENT OF TRANSPORTATION SERVICES BEFORE WORK ON ANY PORTION OF A PUBLIC STREET OR HIGHWAY MAY BEGIN. CONSTRUCTION TRAFFIC CONTROL PLANS APPROVED BY THE DEPARTMENT OF TRANSPORTATION SERVICES AND/OR THE DEPARTMENT OF PLANNING AND PERMITTING MUST BE PROVIDED WHEN APPLYING FOR THE PERMIT.
2. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN ALL NECESSARY SIGNS AND OTHER PROTECTIVE FACILITIES, WHICH SHALL CONFORM WITH THE "HAWAII ADMINISTRATION RULES GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS" ADOPTED BY THE DIRECTOR OF TRANSPORTATION, AND THE CURRENT U.S. FEDERAL HIGHWAYS ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI--TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS."
3. WORK ON ANY CITY STREET AREA MAY BE PERFORMED ONLY BETWEEN THE HOURS OF 8:30 A.M. TO 3:30 P.M., MONDAY THROUGH FRIDAY, UNLESS OTHERWISE PERMITTED BY THE DEPARTMENT OF TRANSPORTATION SERVICE.
4. DURING WORKING HOURS, THE CONTRACTOR SHALL PROVIDE FOR THROUGH TRAFFIC. DURING NON-WORKING HOURS, ALL TRENCHES SHALL BE COVERED WITH A SAFE NON-SKID BRIDGING MATERIAL AND ALL LANES SHALL BE OPEN TO TRAFFIC.
5. AS REQUIRED BY THE DEPARTMENT OF TRANSPORTATION SERVICES, THE CONTRACTOR SHALL PROVIDE OFF-DUTY POLICE OFFICERS TO CONTROL THE FLOW OF TRAFFIC.
6. 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.
7. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THESE RIGHTS-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY.
8. CONTRACTOR SHALL REFERENCE TO THE APPROVAL OF THE DEPARTMENT OF TRANSPORTATION SERVICES AND THE DEPARTMENT OF PLANNING AND PERMITTING, ALL EXISTING TRAFFIC SIGNS, POSTS AND PAVEMENT MARKINGS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNS, POSTS AND PAVEMENT MARKINGS DISTURBED BY HIS ACTIVITIES.
9. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PLANNING AND PERMITTING AT 768-8084 ONE (1) WEEK PRIOR TO ANY WORK TO BE DONE ON SIGNS, POSTS AND PAVEMENT MARKINGS.
10. NO EQUIPMENT SHALL BE STORED WITHIN STREET RIGHTS-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION SERVICES.
11. THE ENGINEER SHALL ENSURE THAT THE CONTRACTOR INSTALLS THE CONSTRUCTION TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE MUTCD AND THE HAWAII ADMINISTRATION RULES AS SPECIFIED IN TRAFFIC NOTE #2.

APPROX	APPROXIMATE
BB	BOTTOM OF BANK
BLK	BLOCK
BMP	BEST MANAGEMENT PRACTICES
BW	BOTTOM OF WALL
CIPP	CURED IN PLACE PIPE
CLF	CHAIN LINKED FENCE
¢	CENTER LINE
C&C / CITY	CITY AND COUNTY OF HONOLULU
CO	CLEAN OUT
CONC	CONCRETE
CY	CUBIC YARD
D/DIA	DIAMETER
DET	DETAIL
DHHL	DEPARTMENT OF HAWAIIAN HOME LANDS
DPP	DEPARTMENT OF PLANNING AND PERMITTING
DPIW	DEPARTMENT OF PUBLIC WORKS
EX	EXISTING
fps	FEET PER SECOND
FT	FEET
H	HEIGHT
I.D.	INNER DIAMETER
INV	INVERT
LF	LINEAR FEET
MAINT	MAINTAINED
mgd	MILLION GALLONS PER DAY
MIN	MINIMUM
N	MANNING'S N
OC	ON CENTER
¢	PROPERTY LINE
PERF	PERFORATED
PVC	POLYVINYL CHLORIDE
Qa	AVAILABLE FLOW
Gr	REQUIRED FLOW
S	SLOPE / SEWER / SPREAD
SHT	SHEET
SL	SLOPE / SEWER LINE
SMH	SEWER MANHOLE
STA	STATION
T	TOP
TB	TOP OF BANK
TP	TOP OF PIPE
TW	TOP OF WALL
TYP	TYPICAL
Va	AVAILABLE VELOCITY
Vr	REQUIRED VELOCITY

- THE PERMITEE SHALL MAKE MINOR ADJUSTMENTS AT INTERSECTIONS, DRIVEWAYS, BRIDGES, STRUCTURES, ETC., TO FIT FIELD CONDITIONS.
- CONES OR DELINEATORS SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
- TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SUCH THAT THE SIGN OR DEVICE FARTHEST FROM THE WORK AREA IS PLACED FIRST. THE OTHERS SHALL THEN BE PLACED PROGRESSIVELY TOWARD THE WORK AREA.
- REGULATORY AND WARNING SIGNS WITHIN THE CONSTRUCTION ZONE THAT ARE IN CONFLICT WITH THE TRAFFIC CONTROL PLANS SHALL BE REMOVED OR COVERED.
- FLAGGERS AND/OR POLICE OFFICERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
- WHEN REQUIRED BY THE ISSUING OFFICE, THE PERMITEE SHALL INSTALL A FLASHING ARROW SIGNAL AS SHOWN ON THE TRAFFIC CONTROL PLANS.
- ALL TRAFFIC LANES SHALL BE A MINIMUM OF 10 FEET WIDE.
- ALL CONSTRUCTION WARNING SIGNS SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE MESSAGE IS NOT APPLICABLE OR NOT IN USE.
- THE BACKS OF ALL SIGNS USED FOR TRAFFIC CONTROL SHALL BE APPROPRIATELY COVERED TO PRECLUDE THE DISPLAY OF INAPPLICABLE SIGN MESSAGES (I.E., WHEN SIGNS HAVE MESSAGES ON BOTH FACES).
- LANE CLOSURE SHALL BE LIMITED ONLY TO THE EXTENT OF ACCOMPLISHING EACH DAY'S WORK. AS SOON AS EACH DAY'S WORK IS COMPLETED, THE PERMITEE SHALL REMOVE ALL TRAFFIC CONTROL DEVICES NO LONGER NEEDED TO PERMIT FREE AND SAFE PASSAGE OF PUBLIC TRAFFIC. REMOVAL SHALL BE IN THE REVERSE ORDER OF INSTALLATION. EXISTING FADED OR OBLITERATED PAVEMENT MARKINGS THAT ARE NECESSARY FOR SAFE TRAFFIC FLOW IN THE CONSTRUCTION AREA SHALL BE REPLACED WITH TEMPORARY OR PERMANENT MARKINGS BEFORE OPENING THE ROADWAY TO PUBLIC TRAFFIC EACH DAY.
- PERMANENT PAVEMENT MARKINGS AND TRAFFIC SIGNS SHALL BE REPLACED UPON COMPLETION OF EACH PHASE OF WORK.
- CONES AND DELINEATORS SHALL BE SPACED AT A MAXIMUM DISTANCE OF 20 FEET APART. A MINIMUM OF SIX CHANNELIZING DEVICES SHALL BE USED FOR EACH TAPER LENGTH.
- DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THE RIGHT-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY. FURTHER, THE PERMITEE SHALL CONTROL TRAFFIC GOING IN AND OUT OF DRIVEWAYS.
- DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THE RIGHT-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY. FURTHER, THE PERMITEE SHALL CONTROL TRAFFIC GOING IN AND OUT OF DRIVEWAYS.
- A HIGH LEVEL WARNING DEVICE (FLAG TREE) SHALL BE INSTALLED ON APPROACH TO ALL WORK AREAS.
- "NO PARKING" SIGNS SHALL BE POSTED WITHIN ANY WORK AREA AND FOR THE BUFFER AND TAPER AREAS APPROACHING THE WORK AREA.
- TRAFFIC CONTROL PLANS ARE APPROVED FOR 24-HOUR WORK ON ANY CITY STREET AREA.
- FOR 24-HOUR ROAD CLOSURE, THE CONTRACTOR SHALL BE PRESENT AND ACTIVELY WORKING AT ALL TIMES ON THE CLOSED ROAD OR SECTION OF ROAD. NON-COMPLIANCE WILL RESULT IN THE IMMEDIATE REVOCATION OF THE STREET USAGE PERMIT. DDC WILL CAUSE ALL CONSTRUCTION ACTIVITIES TO CEASE. CONTRACTOR MAY APPLY FOR A NEW STREET USAGE PERMIT ONLY AFTER MEETING WITH THE DTS AND DDC. THERE WILL BE NO EXTENSION OF CONTRACT TIME OR COMPENSATION GRANTED DUE TO DELAYS IN THE APPLICATION AND THE OBTAINING OF A NEW STREET USAGE PERMIT.

CHIEF, TRAFFIC REVIEW BRANCH, D.P.P. DATE

C-3 SHEET 4 OF 39 SHEETS



TRUE NORTH
SCALE: 1"=200'

LEGEND:

- SEWER LINE REPLACEMENT BY TRENCHING
— SEWER LINE IMPROVEMENT BY CIPP

NOTE:

- UNLESS OTHERWISE NOTED, ROADS ARE DHHL OWNED - CITY MAINTAINED.
- CONTRACTOR TO COORDINATE WORK WITH DHHL PROJECT IFB-17-HHL-011, "PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS AUWAHIOLO SLOPE STABILIZATION & SEWER LINES C & C-1 IMPROVEMENTS".

GENERAL PLAN

SCALE: 1"=200'

GRAPHIC SCALE:



ENGINEER	AM/JB/SM	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM/JN					

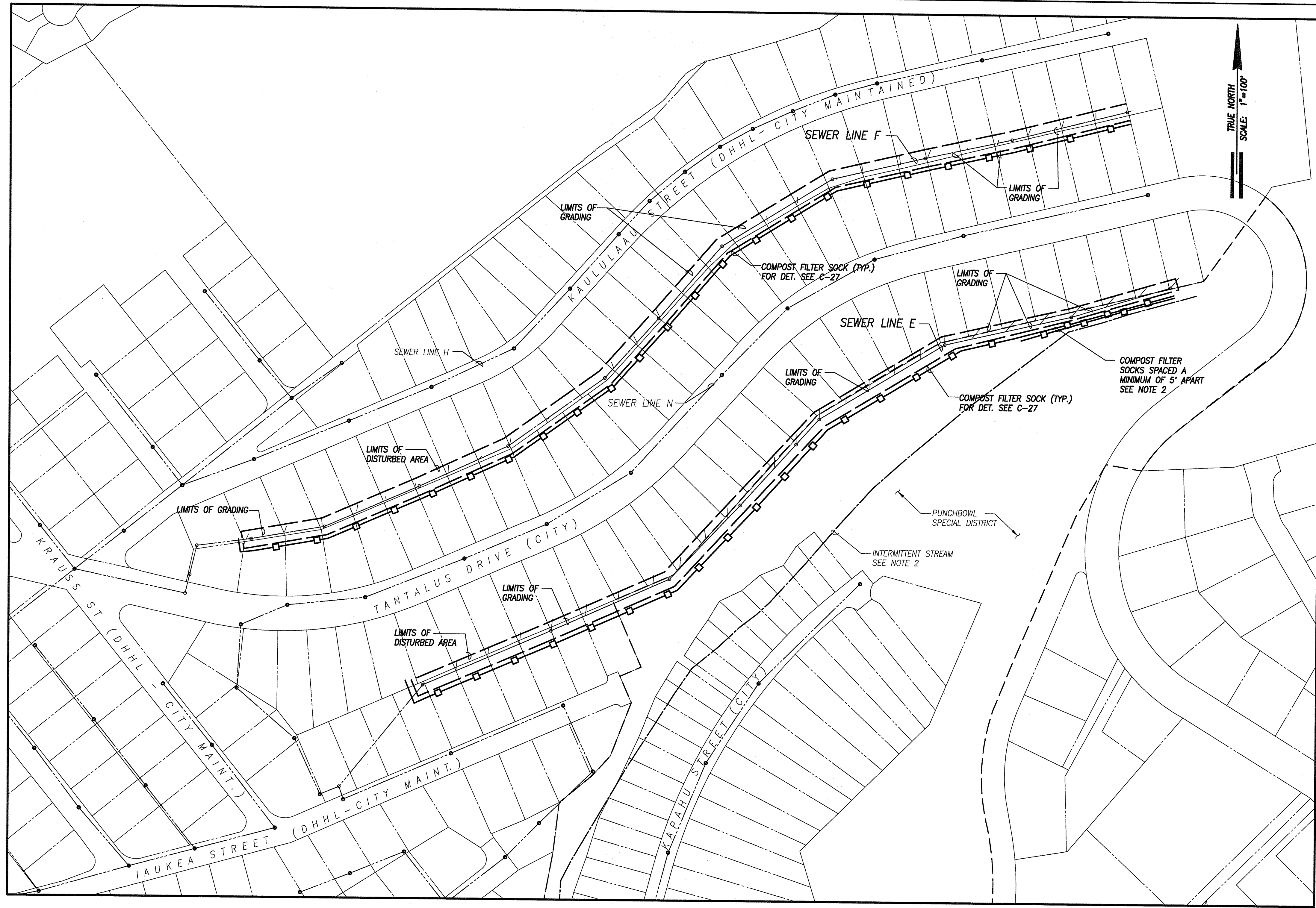
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SIGNATURE: DATE: Apr 2018
LIC. EXP.

R. M. TOWILL CORPORATION
Planning - Engineering - Environmental Services - Photogrammetry - Surveying - Construction Management
808 842 1133 2024 North King Street Suite 200 Honolulu, Hawaii 96819-3494
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

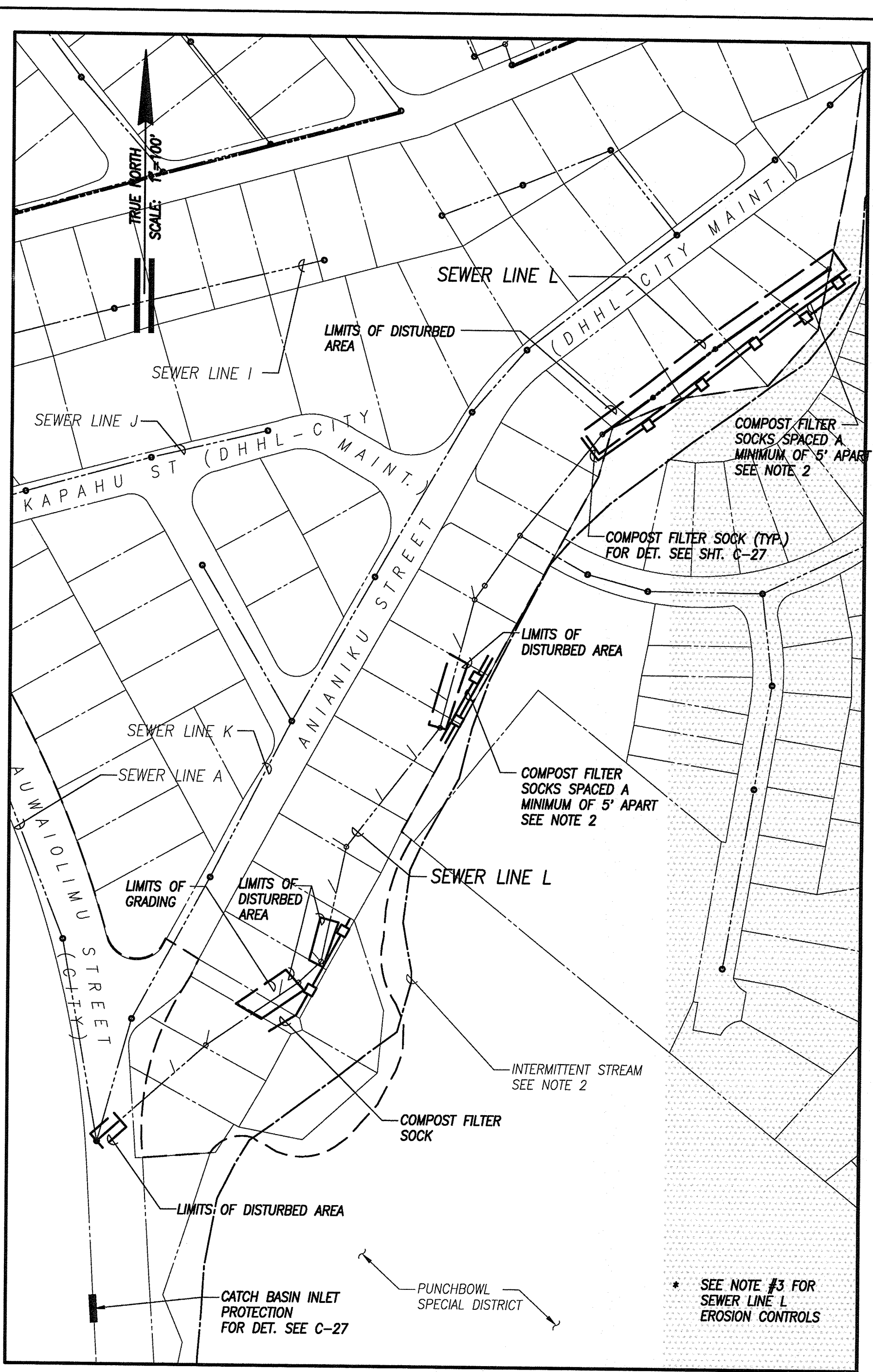
GENERAL PLAN

FILE	POCKET	FOLDER	NO.



EROSION CONTROL PLAN - 1

SCALE: 1"=100'



EROSION CONTROL PLAN - 2

SCALE: 1"=100'

LEGEND:

- LIMITS OF GRADING
- LIMITS OF DISTURBED AREA
- COMPOST FILTER SOCK/DUST FENCE
- PROPERTY LINE
- INLET PROTECTION
- SEWERLINE
- PUNCHBOWL SPECIAL DISTRICT

NOTE:

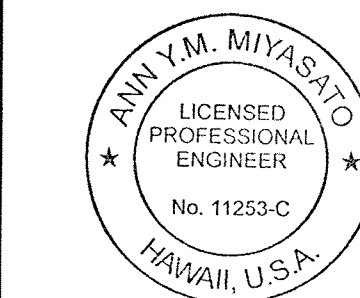
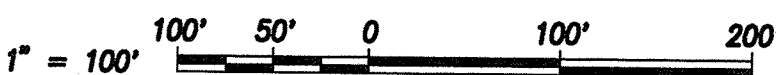
- SEE SHT. C-27 FOR EROSION CONTROL AND BMP NOTES.
 - SEDIMENT/PERIMETER CONTROLS FOR EARTH DISTURBANCES WITHIN 50' OF SURFACE WATERS SHALL BE DOUBLED AND SPACED A MINIMUM OF 5 FEET APART PROJECT'S EARTH DISTURBANCES.
- IF IT IS INFEASIBLE TO RETAIN ANY TYPE OF EXISTING UNDISTURBED NATURAL BUFFER, SEDIMENT CONTROLS SHALL BE DOUBLED, AND STABILIZATION SHALL BE COMPLETED WITHIN 7 CALENDAR DAYS OF THE TEMPORARY OR PERMANENT CESSATION OF EARTH-DISTURBING ACTIVITIES.

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE

GRAPHIC SCALE:

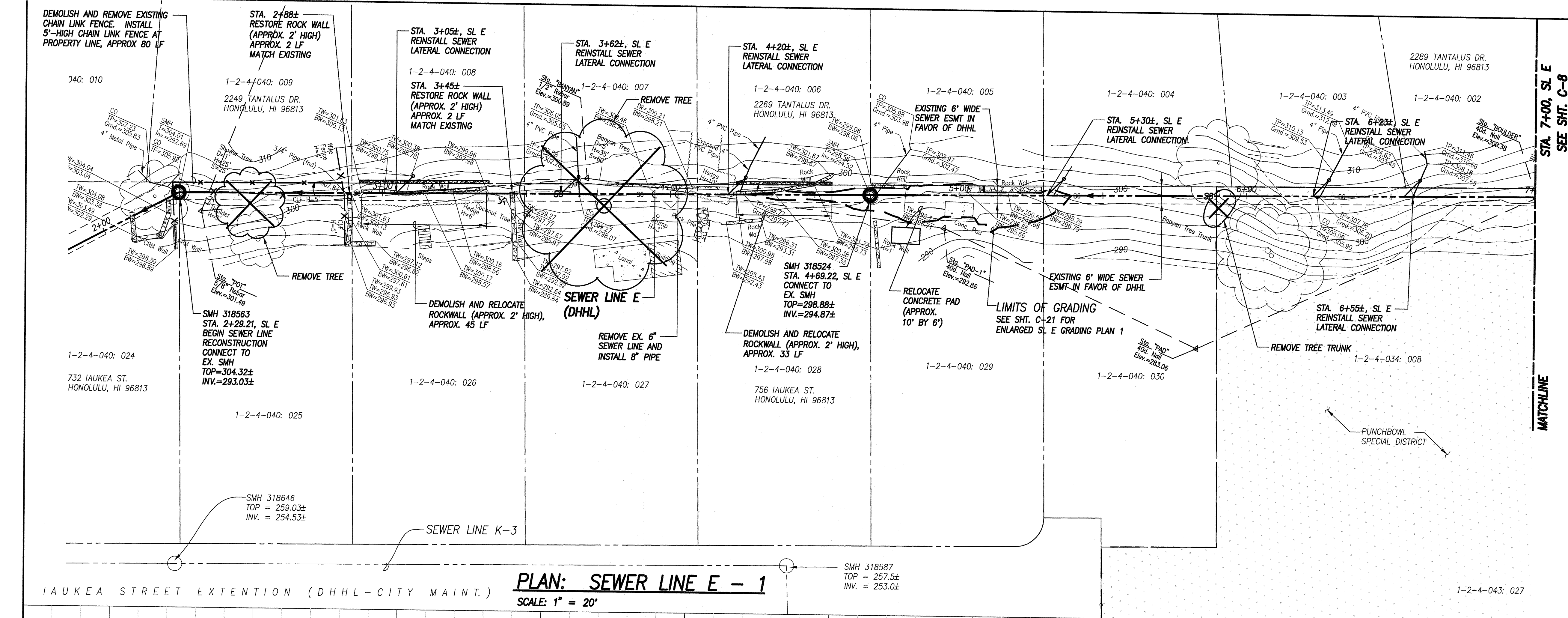


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SIGNATURE
APR 2018
LIC. EXP.

R. M. TOWILL CORPORATION
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

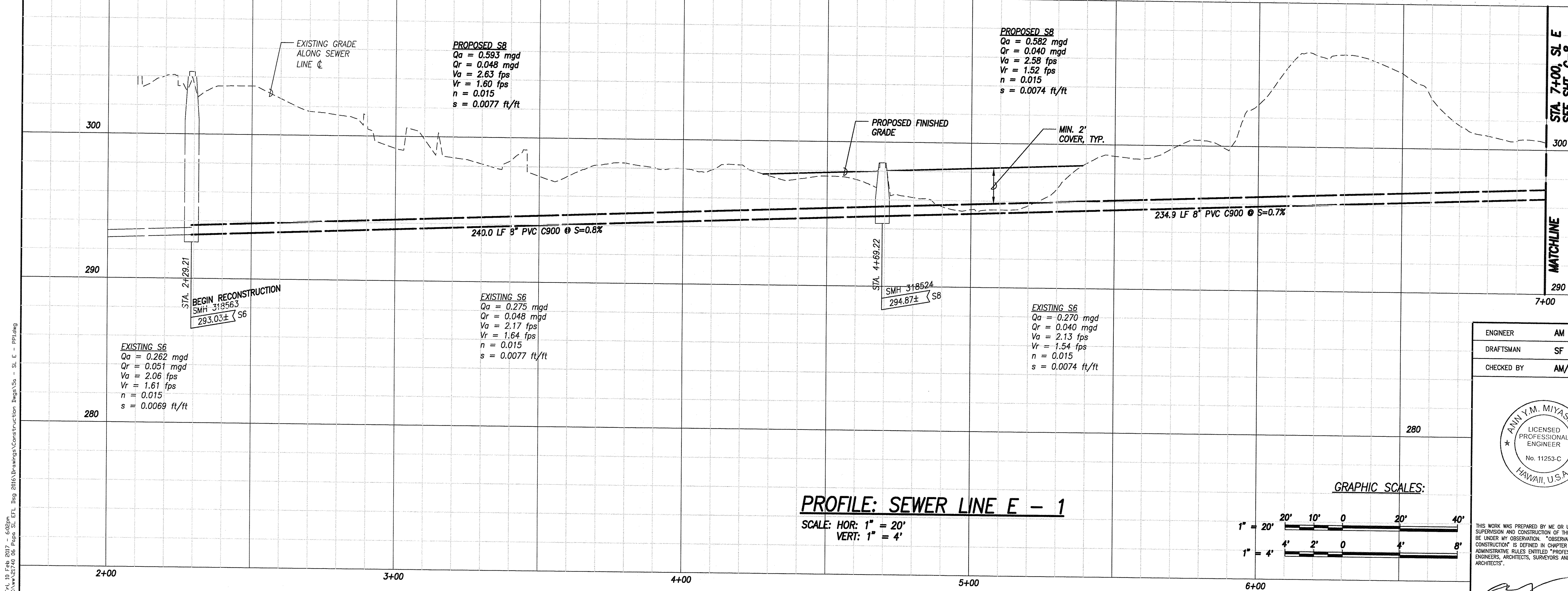
EROSION CONTROL PLANS 1 & 2



EARTHWORKS SUMMARY	
FOR PERMIT PURPOSES ONLY	
AREA TO BE GRADED - 0.246 ACRES	
CUT= 0 CY	
FILL= 437 CY	
TOTAL	
AREA TO BE DISTURBED - 0.455 ACRES	

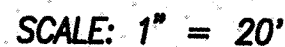
LEGEND:	
	PROPERTY LINE
	EX. SEWER EASEMENT
	LIMITS OF GRADING
	SEWER LINE (W/ SIZE & FLOW DIRECTION)
	EX SEWER LINE (W/ SIZE & FLOW DIRECTION)
	NEW SMH
	EX. SMH
	PUNCHBOWL SPECIAL DISTRICT
	TREE TO BE REMOVED

APPROVED:	
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.	DATE



- NOTE:
- CONTRACTOR TO PROVIDE CONTINUOUS SEWER SERVICE TO ALL RESIDENTS.
 - CONTRACTOR TO PROVIDE CONNECTION TO ALL EXISTING SEWER LATERALS.
 - CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS BACK TO ORIGINAL CONDITION OR BETTER.
 - ADDITIONAL WORK REQUIRED TO COMPLY WITH ALL CITY STANDARDS SHALL BE DONE IN A SEPARATE DHHL PROJECT PRIOR TO TURNING THE SEWER LINE OVER TO THE CITY.
 - FOR SEWER LATERAL CONNECTION DETAIL, SEE SHT. C-26.
 - FOR LIMITS OF DISTURBED AREA, SEE SHT. C-21.

ENGINEER	AM	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM/JN					
ANN Y.M. MIYASATO LICENSED PROFESSIONAL ENGINEER No. 11253-C HAWAII, U.S.A.		R. M. TOWILL CORPORATION 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3494 Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii				
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".		SEWER LINE E PLAN AND PROFILE - 1				
SIGNATURE		Apr 2018 LIC. EXP.				



CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE _____

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Planning -
R. A.
808, 84

M. T. C.

WIL
North King

CO

— Surveying —
RPOF
Hansel

ATC

N

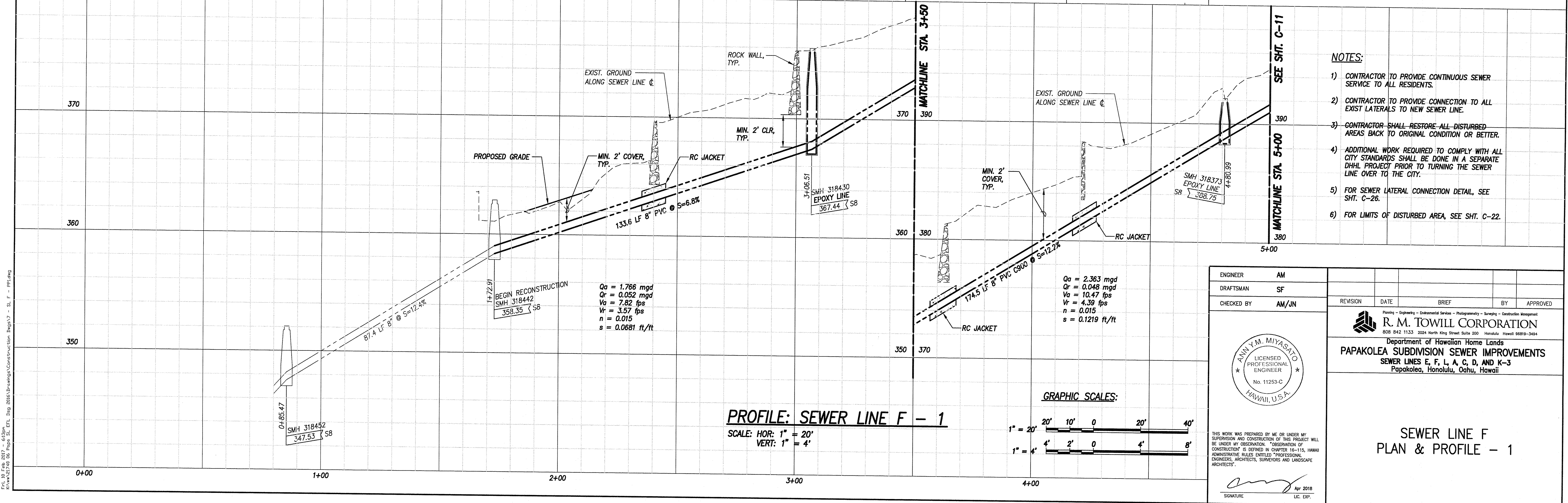
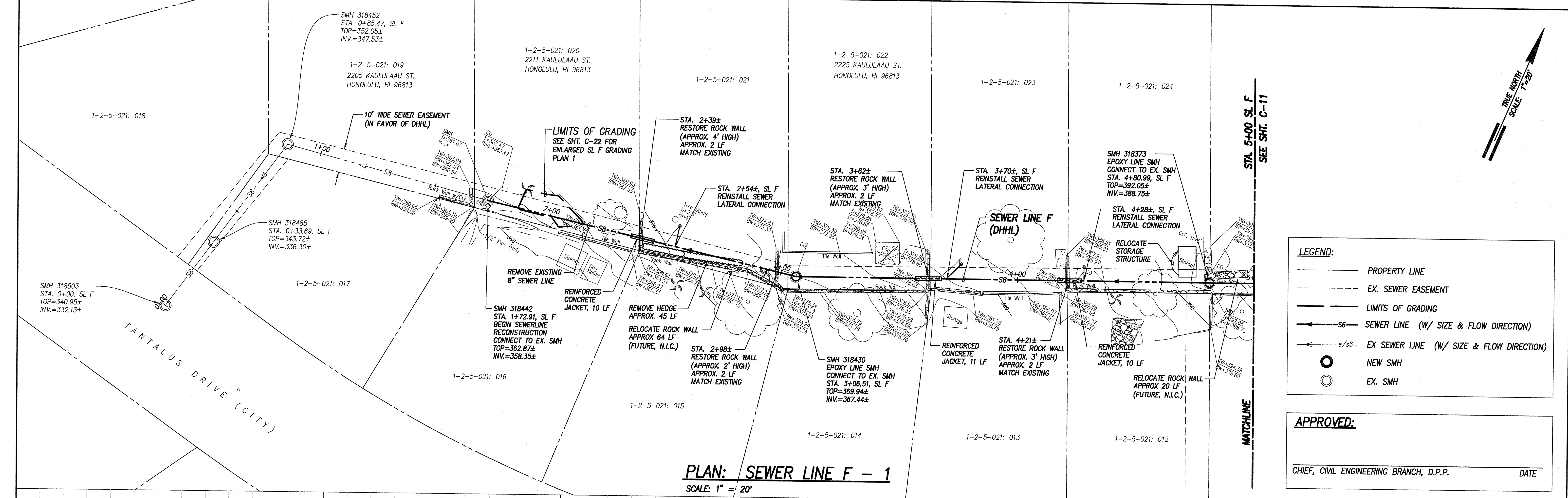
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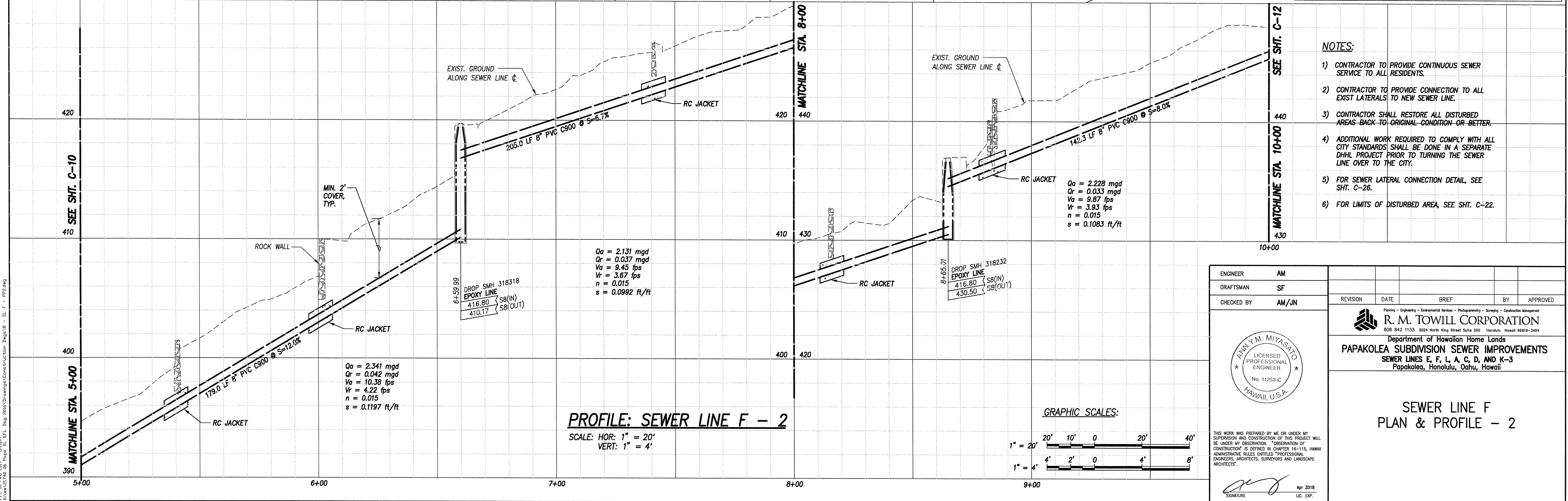
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

SEWER LINE E
PLAN AND PROFILE - 2

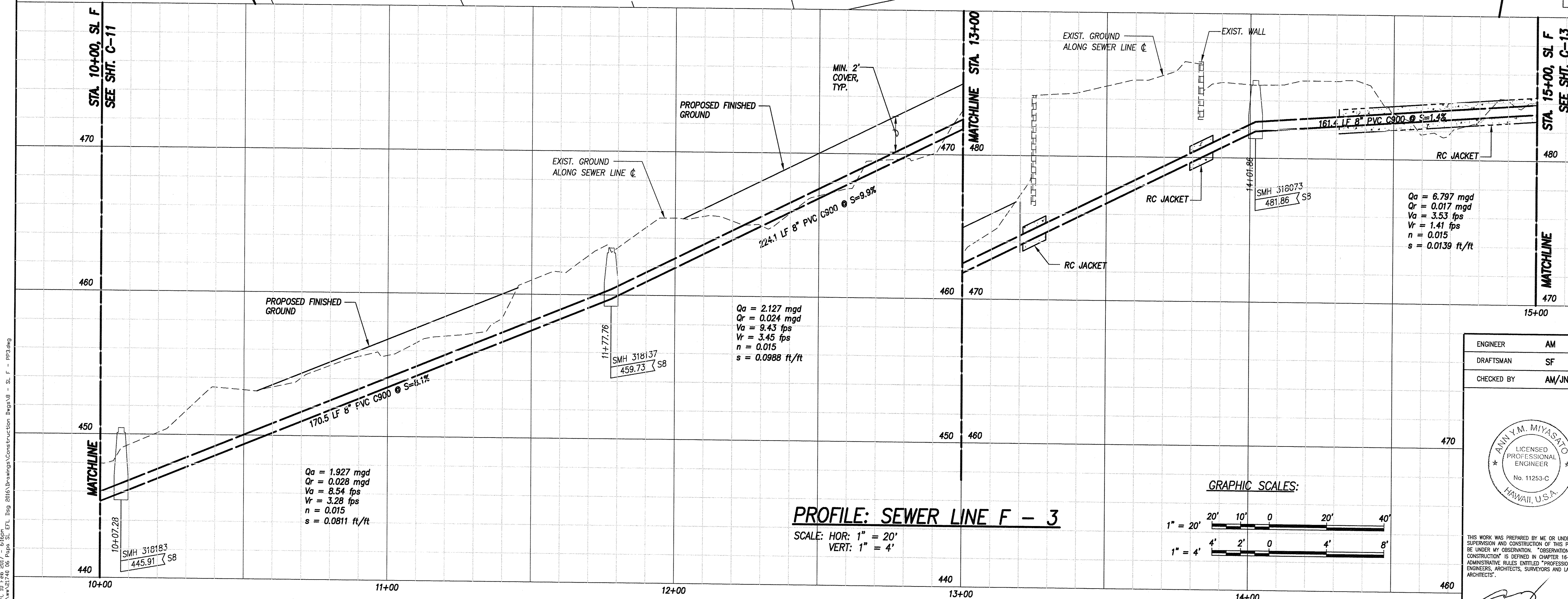
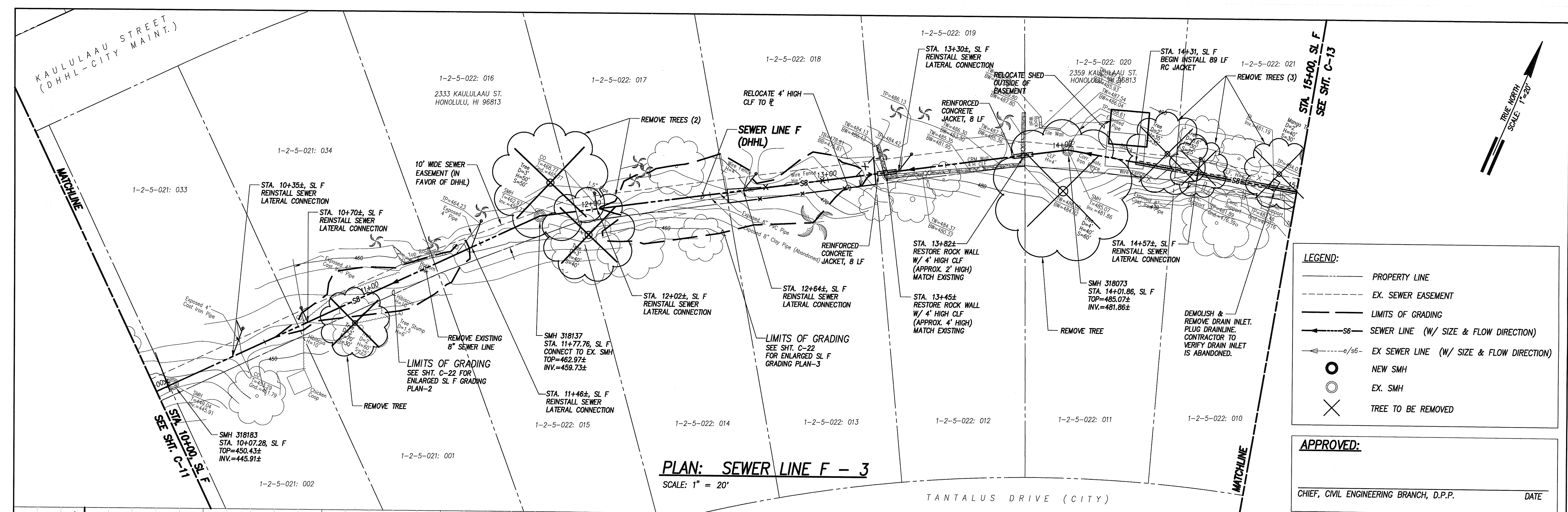
C-8 SHEET 9 OF 39 SHEETS

FILE	POCKET	FOLDER	NO.





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K:\A\2016\2016 Plans SL F.dwg
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PP3.dwg



NOTES:


- 1) CONTRACTOR TO PROVIDE CONTINUOUS SEWER SERVICE TO ALL RESIDENTS.
- 2) CONTRACTOR TO PROVIDE CONNECTION TO ALL EXIST LATERALS TO NEW SEWER LINE.
- 3) CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS BACK TO ORIGINAL CONDITION OR BETTER.
- 4) ADDITIONAL WORK REQUIRED TO COMPLY WITH ALL CITY STANDARDS SHALL BE DONE IN A SEPARATE DHL PROJECT PRIOR TO TURNING THE SEWER LINE OVER TO THE CITY.
- 5) FOR SEWER LATERAL CONNECTION DETAIL, SEE SHT. C-26.
- 6) FOR LIMITS OF DISTURBED AREA, SEE SHT. C-22.

ENGINEER	AM
DRAFTSMAN	SF
CHECKED BY	AM/JN

ANN Y.M. MIYASATO
LICENSED PROFESSIONAL ENGINEER
No. 11253-C
HAWAII, U.S.A.

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APR 2018
LIC. EXP.

REVISION	DATE	BRIEF	BY	APPROVED
 R. M. TOWILL CORPORATION 808 842 1133 2024 North King Street Suite 200 Honolulu, Hawaii 96819-3494 Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii				

SEWER LINE F
PLAN & PROFILE - 3

STA 15+00, SL F
SEE SHT. C-12

MATCHLINE

STA 15+00, SL F
SEE SHT. C-12

MATCHLINE

STA 15+00

1-2-5-022: 022
2373 KAULULAAU ST.
HONOLULU, HI 96813

1-2-5-022: 023

1-2-5-022: 024

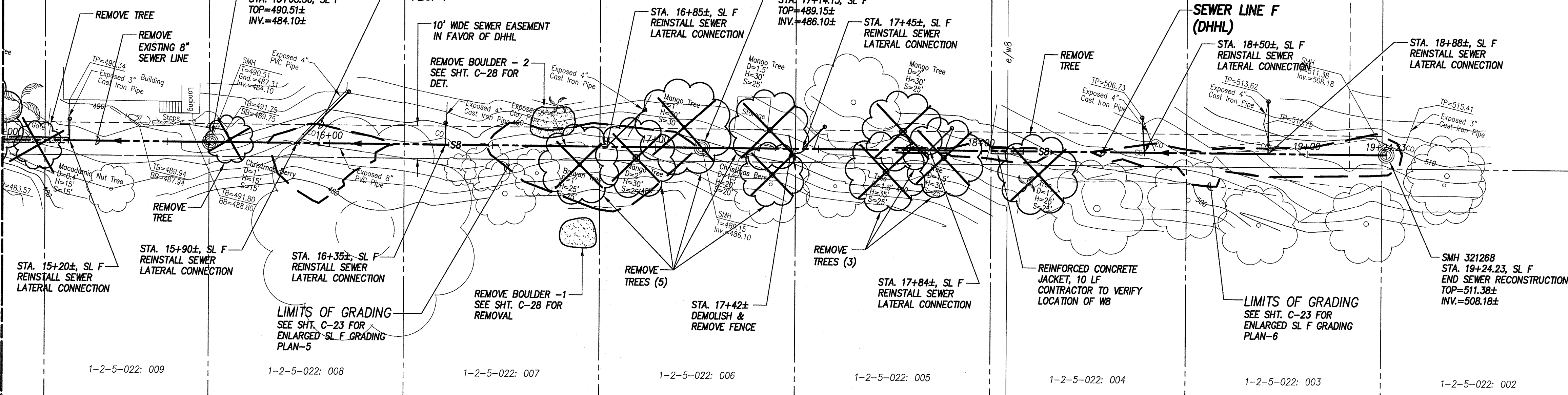
1-2-5-022: 025
2391 KAULULAAU ST.
HONOLULU, HI 96813

1-2-5-022: 026

1-2-5-022: 027

1-2-5-022: 028
2415 KAULULAAU ST.
HONOLULU, HI 96813

1-2-5-022: 029



PLAN: SEWER LINE F - 4
SCALE: 1" = 20'

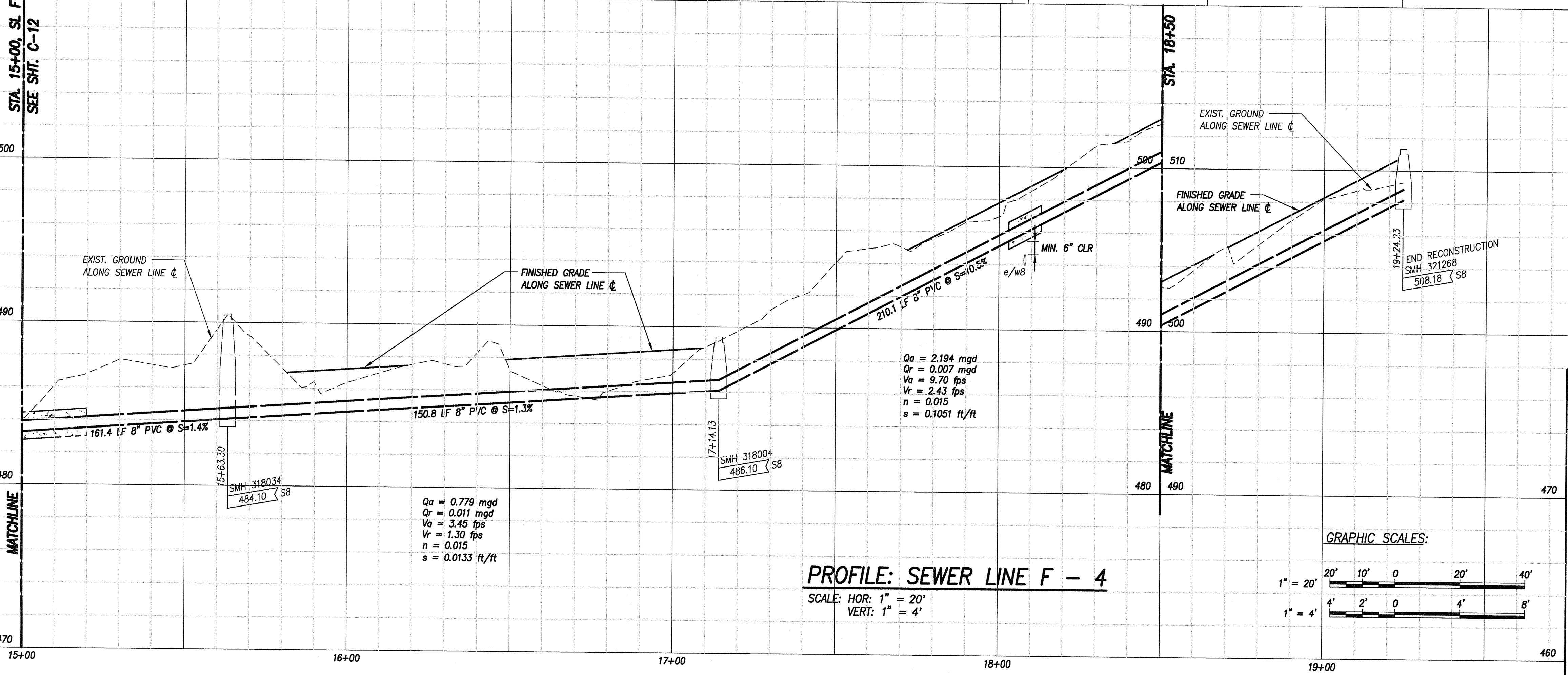
LEGEND:

- PROPERTY LINE
- LIMITS OF GRADING
- SEWER LINE (W/ SIZE & FLOW DIRECTION)
- EX SEWER LINE (W/ SIZE & FLOW DIRECTION)
- NEW SMH
- EX. SMH
- TREE TO BE REMOVED

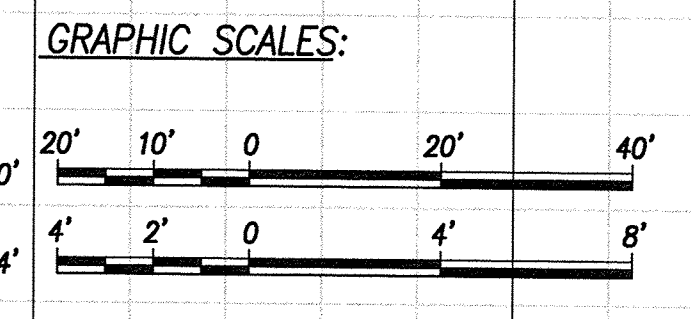
APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

- NOTES:**
- 1) CONTRACTOR TO PROVIDE CONTINUOUS SEWER SERVICE TO ALL RESIDENTS.
 - 2) CONTRACTOR TO PROVIDE CONNECTION TO ALL EXIST LATERALS TO NEW SEWER LINE.
 - 3) CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS BACK TO ORIGINAL CONDITION OR BETTER.
 - 4) ADDITIONAL WORK REQUIRED TO COMPLY WITH ALL CITY STANDARDS SHALL BE DONE IN A SEPARATE DHHL PROJECT PRIOR TO TURNING THE SEWER LINE OVER TO THE CITY.
 - 5) FOR SEWER LATERAL CONNECTION DETAIL, SEE SHT C-26.
 - 6) FOR LIMITS OF DISTURBED AREA, SEE SHT. C-22.



PROFILE: SEWER LINE F - 4
SCALE: HOR: 1" = 20'
VERT: 1" = 4'



ENGINEER	AM	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM/JN					

R. M. TOWILL CORPORATION
808 K42 1133 2024 North King Street Suite 200 Honolulu Hawaii 96813-3494
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

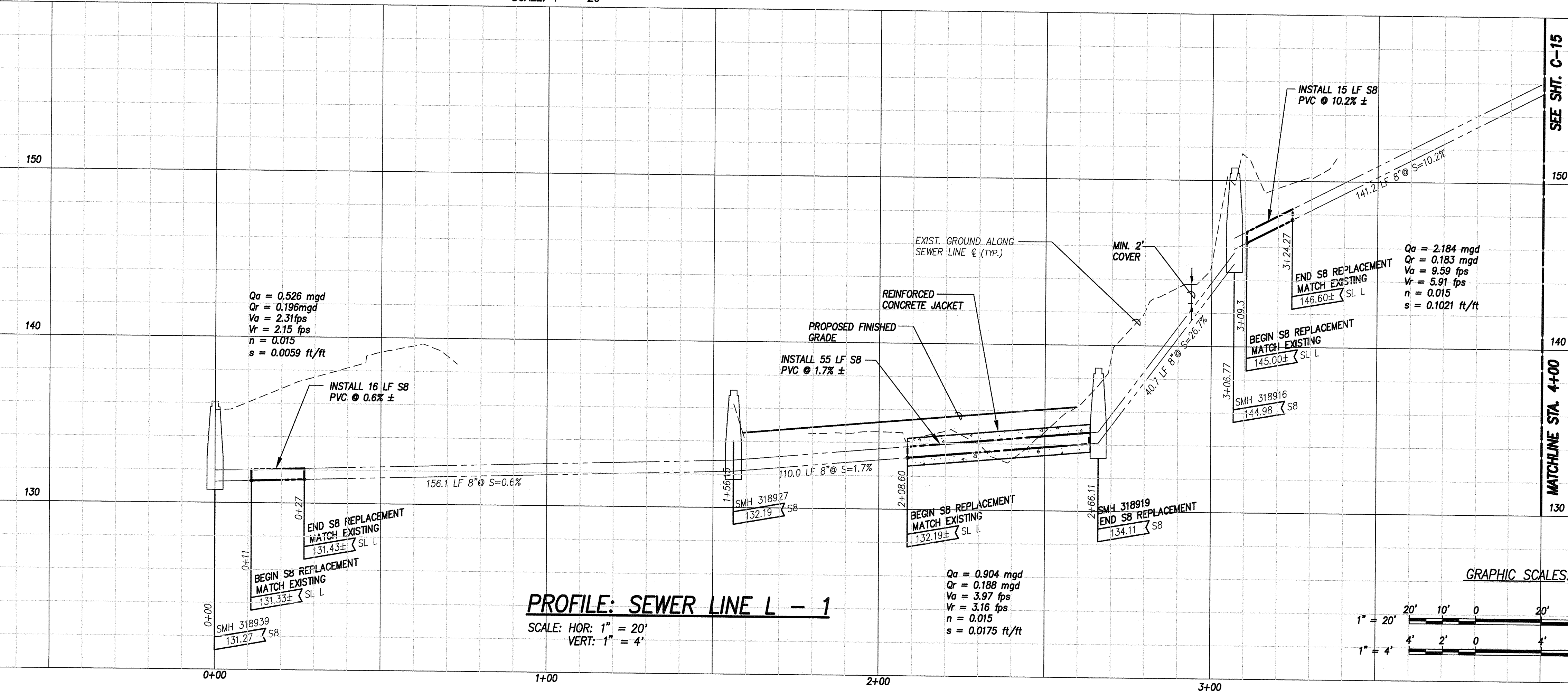
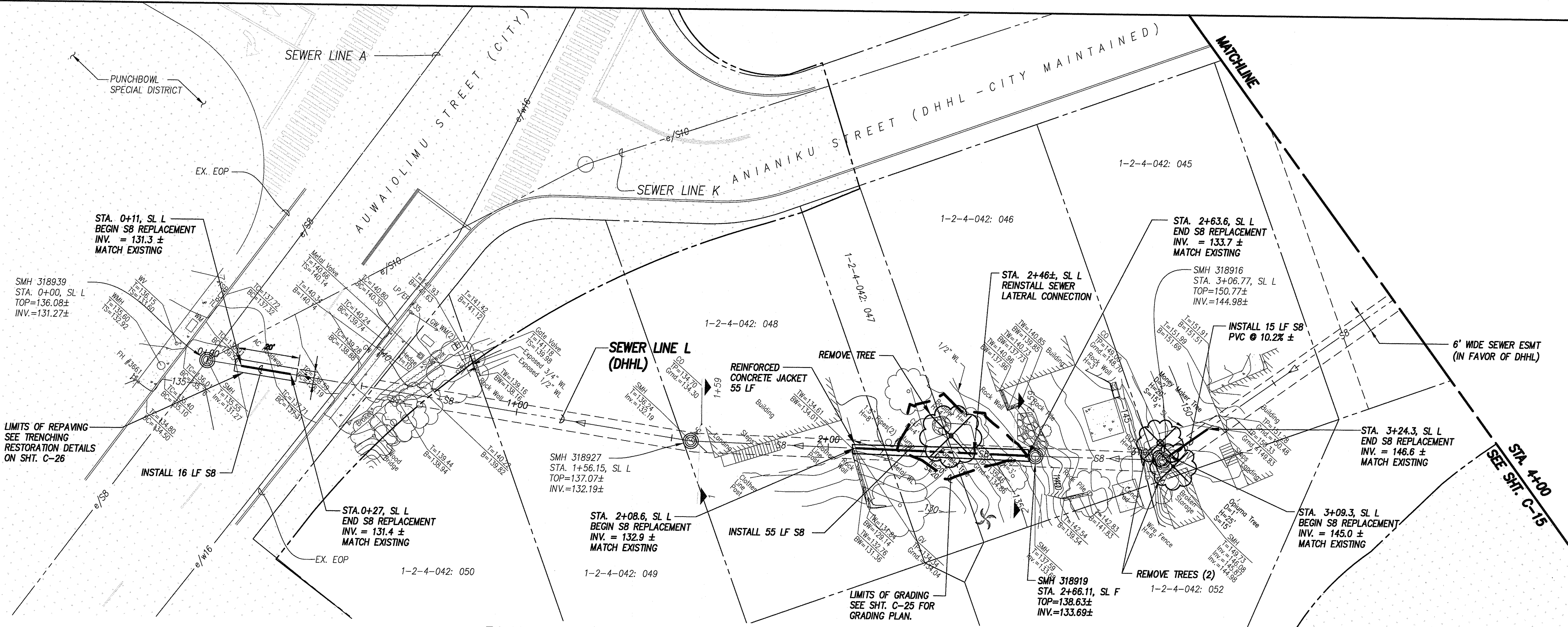
ANNI Y.M. MIYASATO
LICENSED PROFESSIONAL ENGINEER
No. 11253-C
HAWAII, U.S.A.

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Apr 2018
LIC. EXP.

**SEWER LINE F
PLAN & PROFILE - 4**

FILE	POCKET	FOLDER	NO.
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ENGINEER AM/JB
DRAFTSMAN SF
CHECKED BY AM/JN

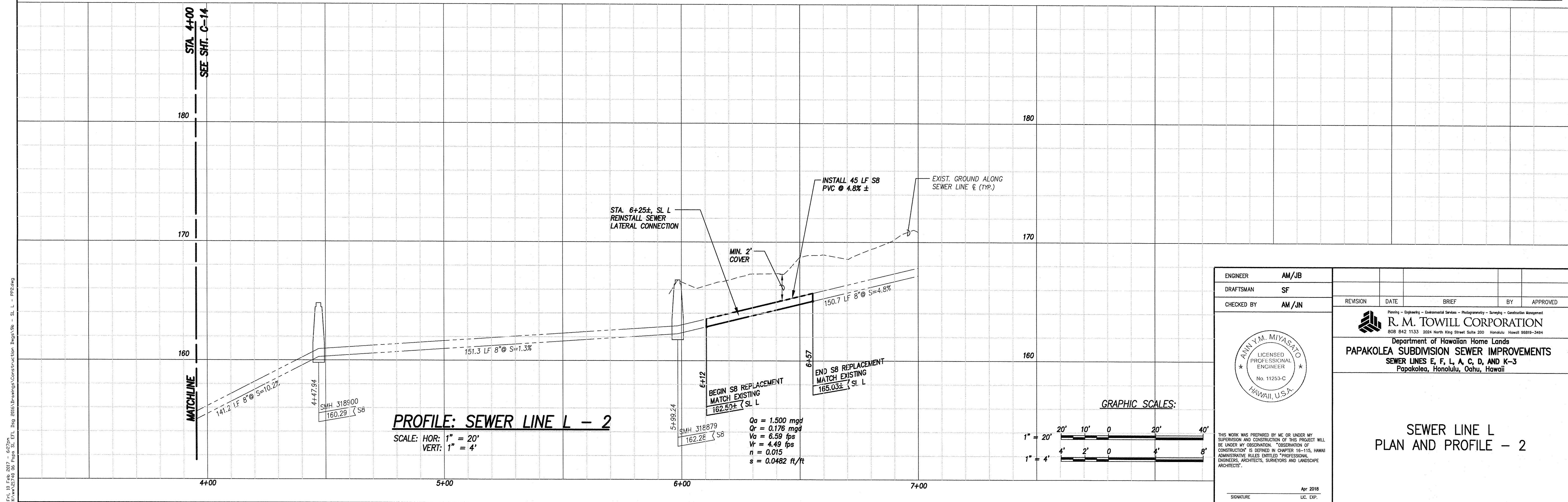
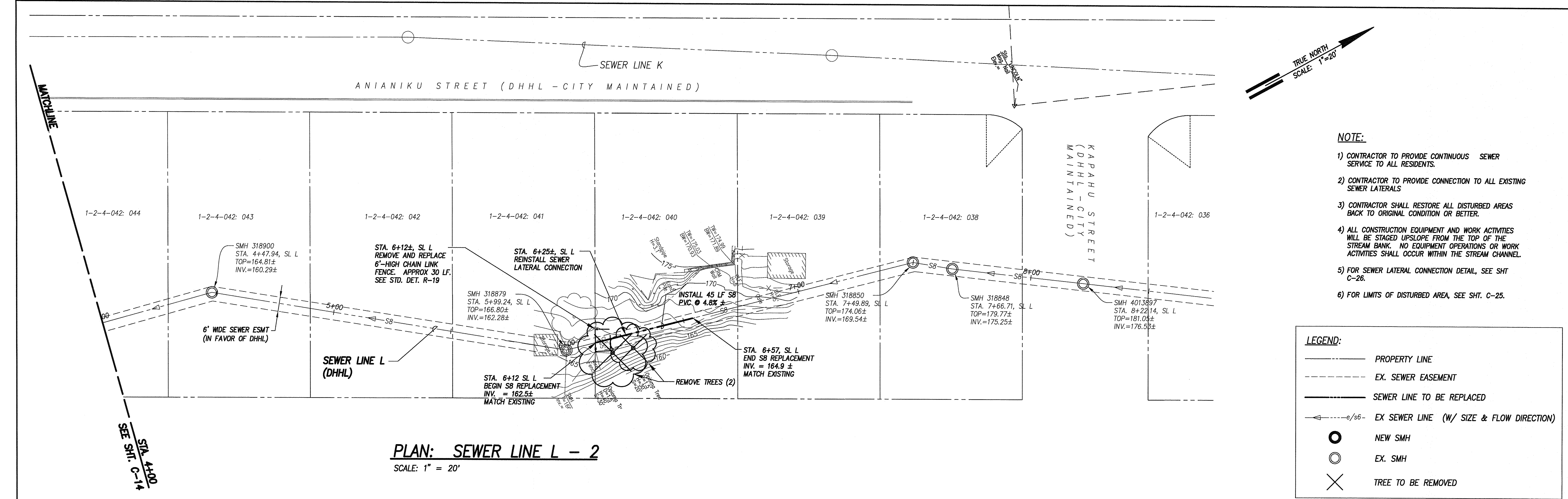
APR 11, 2018
LUC. EXP.

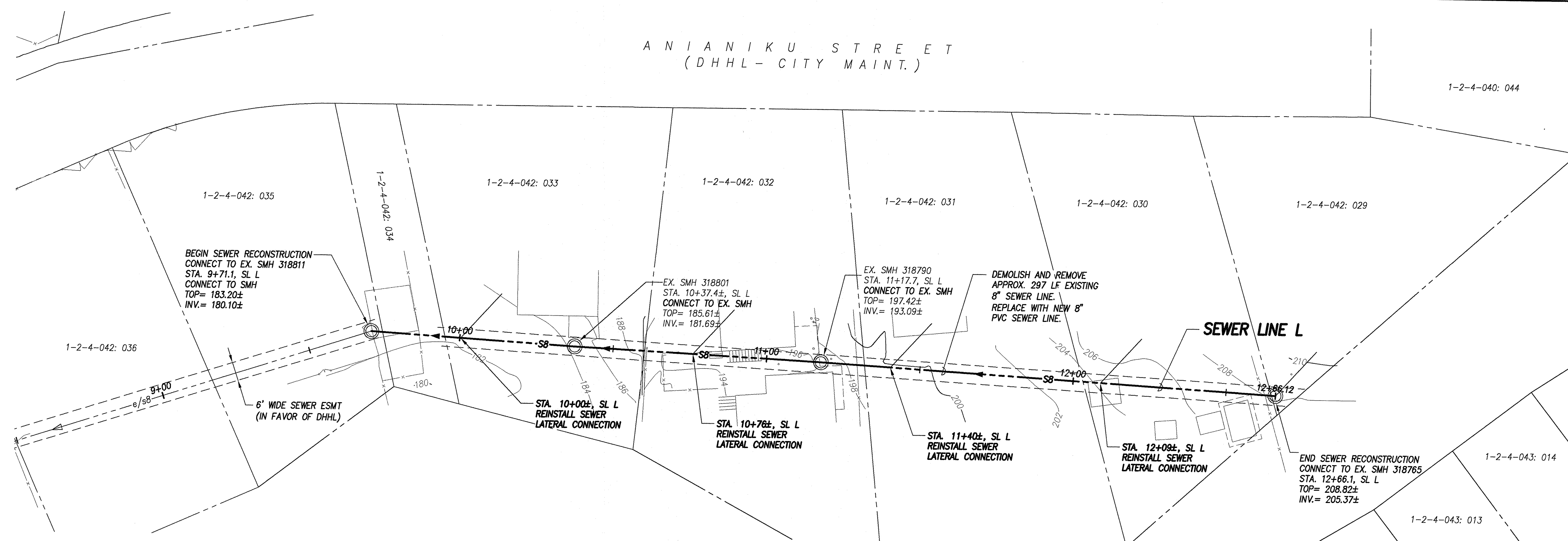
REVISION DATE BRIEF BY APPROVED

R. M. TOWILL CORPORATION
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3404

Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

SEWER LINE L
PLAN AND PROFILE - 1





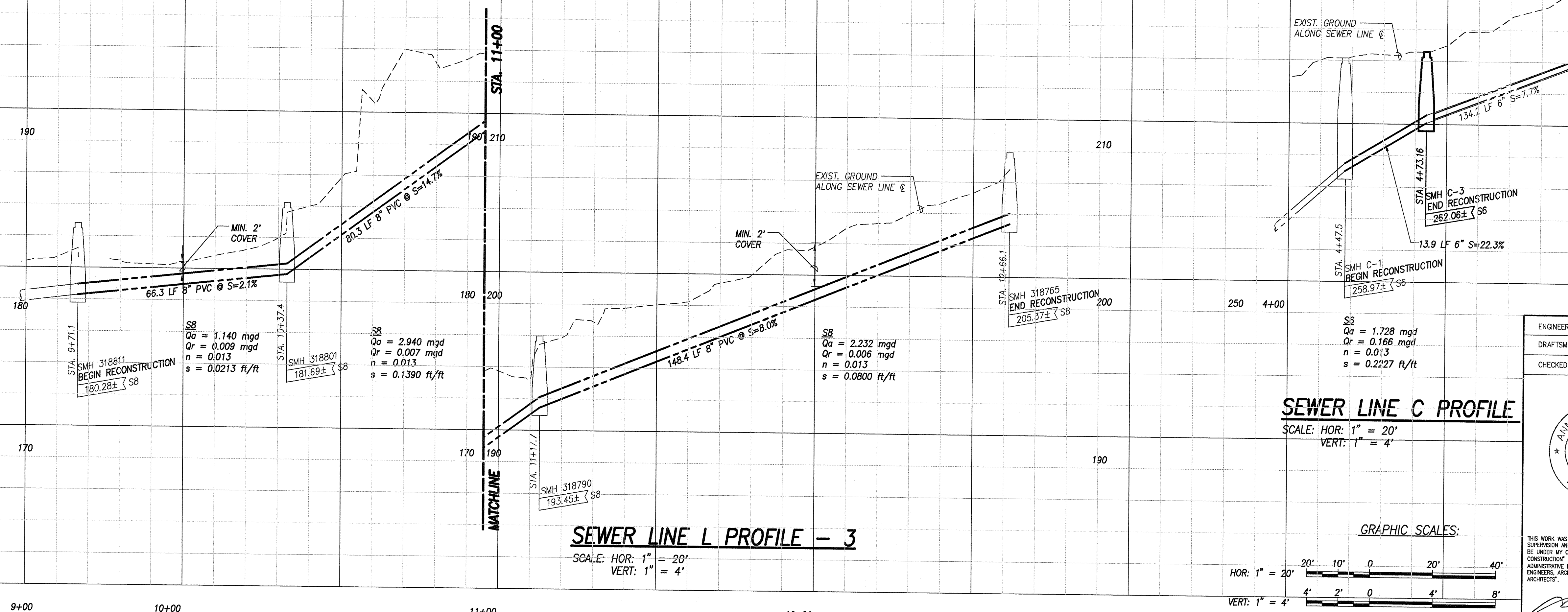
SEWER LINE L PLAN - 3
SCALE: 1" = 20'

NOTE:

- 1) CONTRACTOR TO PROVIDE CONTINUOUS SEWER SERVICE TO ALL RESIDENTS.
- 2) CONTRACTOR TO PROVIDE CONNECTION TO ALL EXISTING SEWER LATERALS
- 3) CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS BACK TO ORIGINAL CONDITION OR BETTER.
- 4) ALL CONSTRUCTION EQUIPMENT AND WORK ACTIVITIES WILL BE STAGED UPSLOPE FROM THE TOP OF THE STREAM BANK. NO EQUIPMENT OPERATIONS OR WORK ACTIVITIES SHALL OCCUR WITHIN THE STREAM CHANNEL.
- 5) FOR SEWER LATERAL CONNECTION DETAIL, SEE SHT C-26.
- 6) FOR LIMITS OF DISTURBED AREA, SEE SHT. C-25.

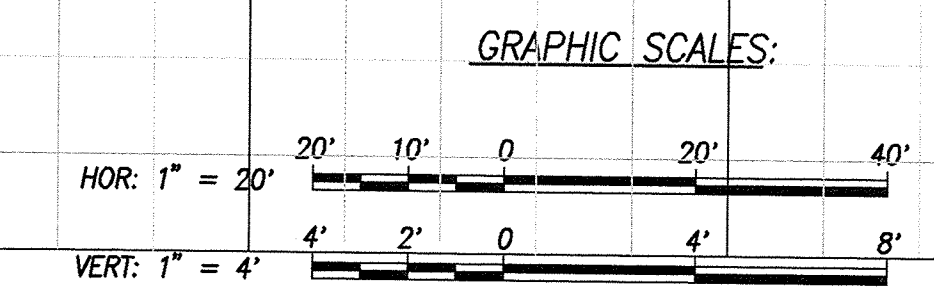
LEGEND:

- PROPERTY LINE
- EX. SEWER EASEMENT
- SEWER LINE (W/ SIZE & FLOW DIRECTION)
- EX SEWER LINE (W/ SIZE & FLOW DIRECTION)
- NEW SMH
- EX. SMH



SEWER LINE L PROFILE - 3
SCALE: HOR: 1" = 20'
VERT: 1" = 4'

SEWER LINE C PROFILE
SCALE: HOR: 1" = 20'
VERT: 1" = 4'



ENGINEER	JB
DRAFTSMAN	SF
CHECKED BY	AM

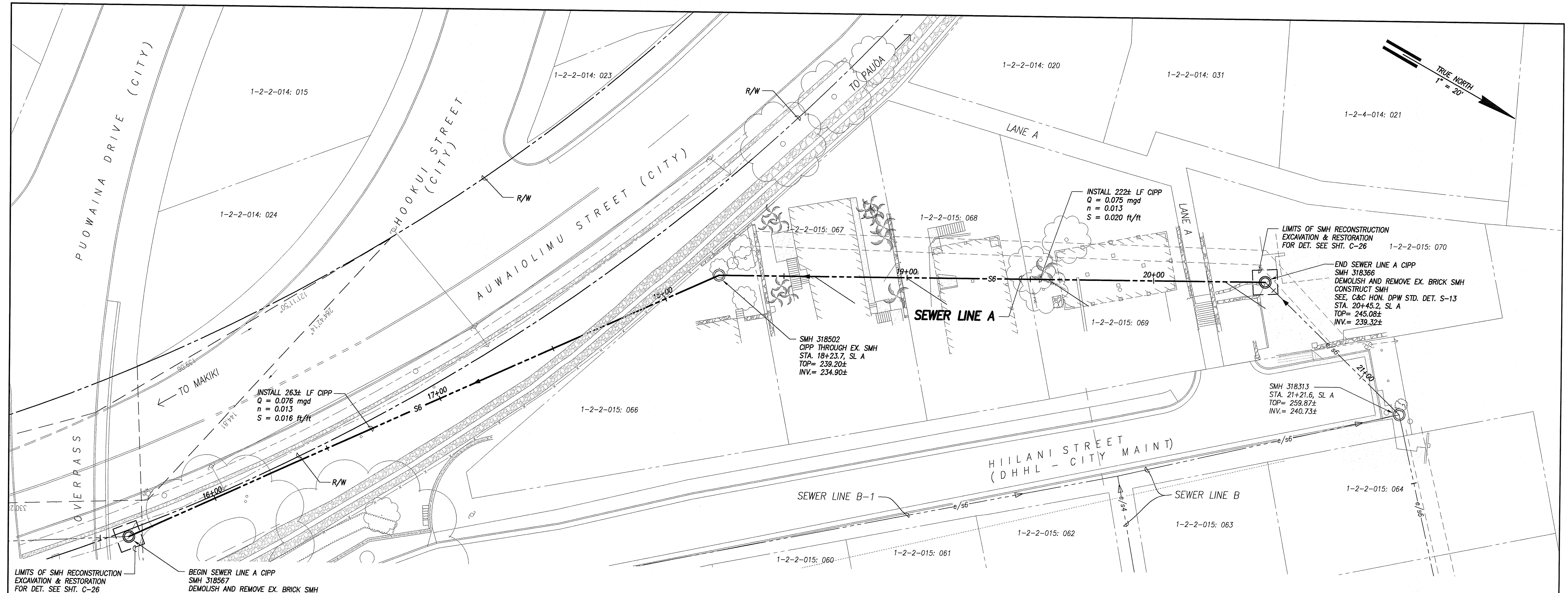
REVISION DATE BRIEF BY APPROVED

R. M. TOWILL CORPORATION
808 842 1133 2024 North King Street Suite 200 Honolulu, Hawaii 96819-3404
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

**SEWER LINE L
PLAN AND PROFILE - 3
& SEWER LINE C PROFILE**

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APR 2018
LIC. EXP.



SEWER LINE A CIPP PLAN
SCALE: 1" = 20'

LEGEND:

- PROPERTY LINE
- SEWER LINE (W/ SIZE & FLOW DIRECTION)
- EX SEWER LINE (W/ SIZE & FLOW DIR.)
- NEW SMH
- EX. SMH

- NOTES:**
- CONTRACTOR TO PROVIDE CONTINUOUS SEWER SERVICE TO ALL RESIDENTS.
 - CONTRACTOR SHALL COORDINATE WORK WITH DHHL'S "PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS PHASE 1 AUWAILIMU SLOPE STABILIZATION AND SEWER LINES C & C-1"

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. _____ DATE _____

ENGINEER	JB/SM				
DRAFTSMAN	SF				
CHECKED BY	AM				

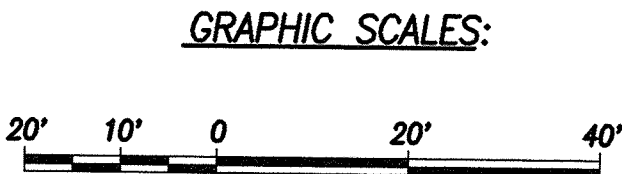
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SIGNATURE

Apr 2018
LIC. EXP.

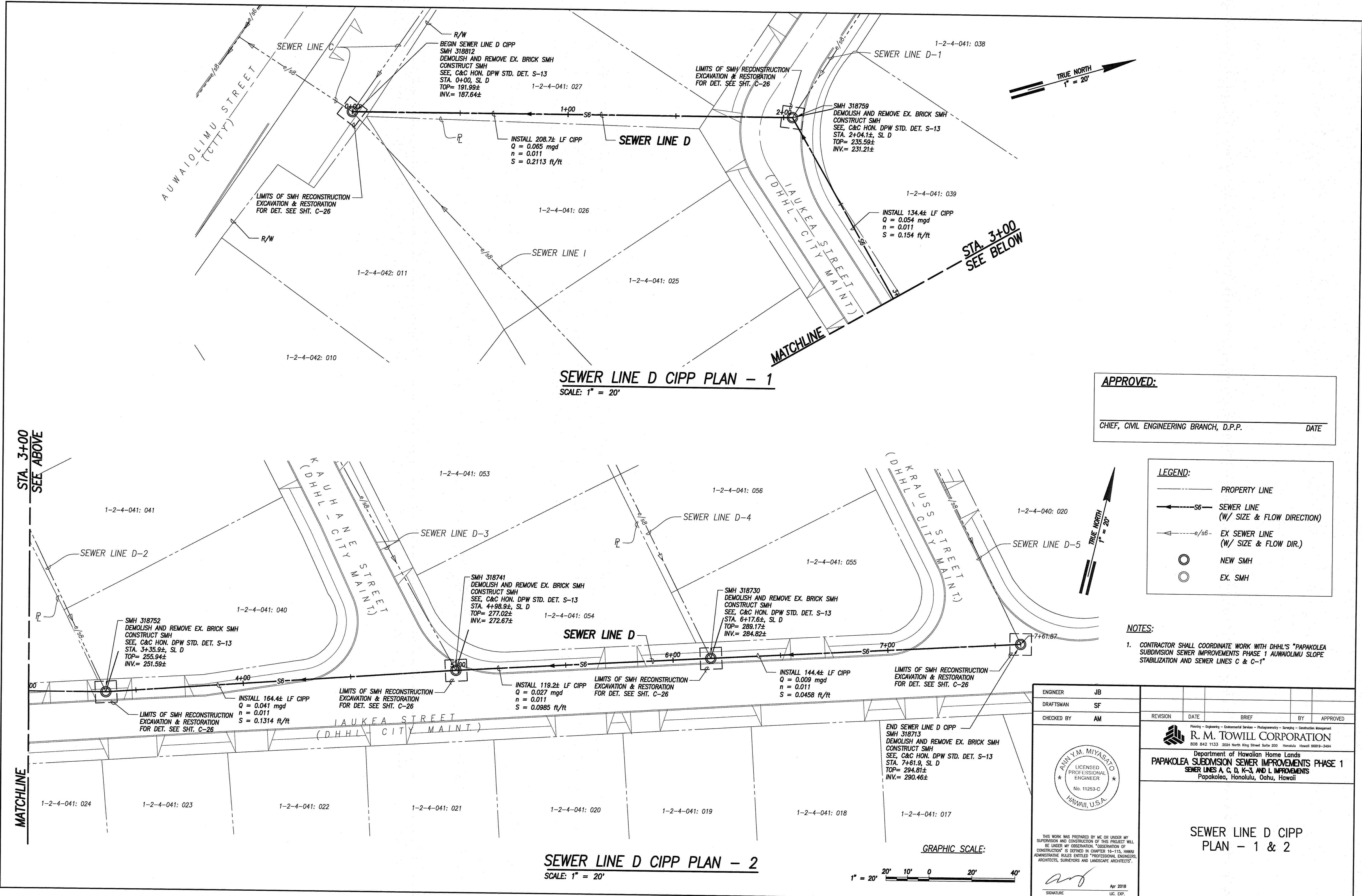
REVISION	DATE	BRIEF	BY	APPROVED
<p>R. M. TOWILL CORPORATION Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS PHASE 1 SEWER LINES A, C, D, K-3, AND L IMPROVEMENTS Papakolea, Honolulu, Oahu, Hawaii</p>				

SEWER LINE A CIPP PLAN



Mon, 13 Feb 2017 9:49am
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F:\10 Feb 2017 - 6:50pm
K:\w\21740 06 Papa SL EFL Dsg 2016\Drawings\Construction Dwg\12 - Sewer Line D Plan.dwg



Thu 09 Feb 2017 - 3:56pm
K:\ww\21740 06 Papa SL EPL Dsg 2016\Drawings\Construction Dwg\13 - Sewer Line K-3 PP.dwg

LEGEND:

----- PROPERTY LINE

-----S6----- SEWER LINE
(W/ SIZE & FLOW DIRECTION)

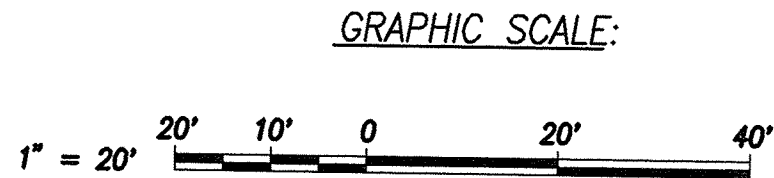
----- EX SEWER LINE
(W/ SIZE & FLOW DIR.)

○ NEW SMH

○ EX. SMH

- NOTES:**
1. CONTRACTOR TO PROVIDE CONTINUOUS SEWER SERVICE TO ALL RESIDENTS.
2. CONTRACTOR SHALL COORDINATE WORK WITH DHHL'S "PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS PHASE 1 AUWAIOLIMU SLOPE STABILIZATION AND SEWER LINES C & C-1"

SEWER LINE K-3 CIPP PLAN
SCALE: 1" = 20'



APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

ENGINEER	JB				
DRAFTSMAN	SF				
CHECKED BY	AM				

REVISION	DATE	BRIEF	BY	APPROVED

R. M. TOWILL CORPORATION
808 842 1133 2024 North King Street Suite 200 Honolulu, Hawaii 96819-3404

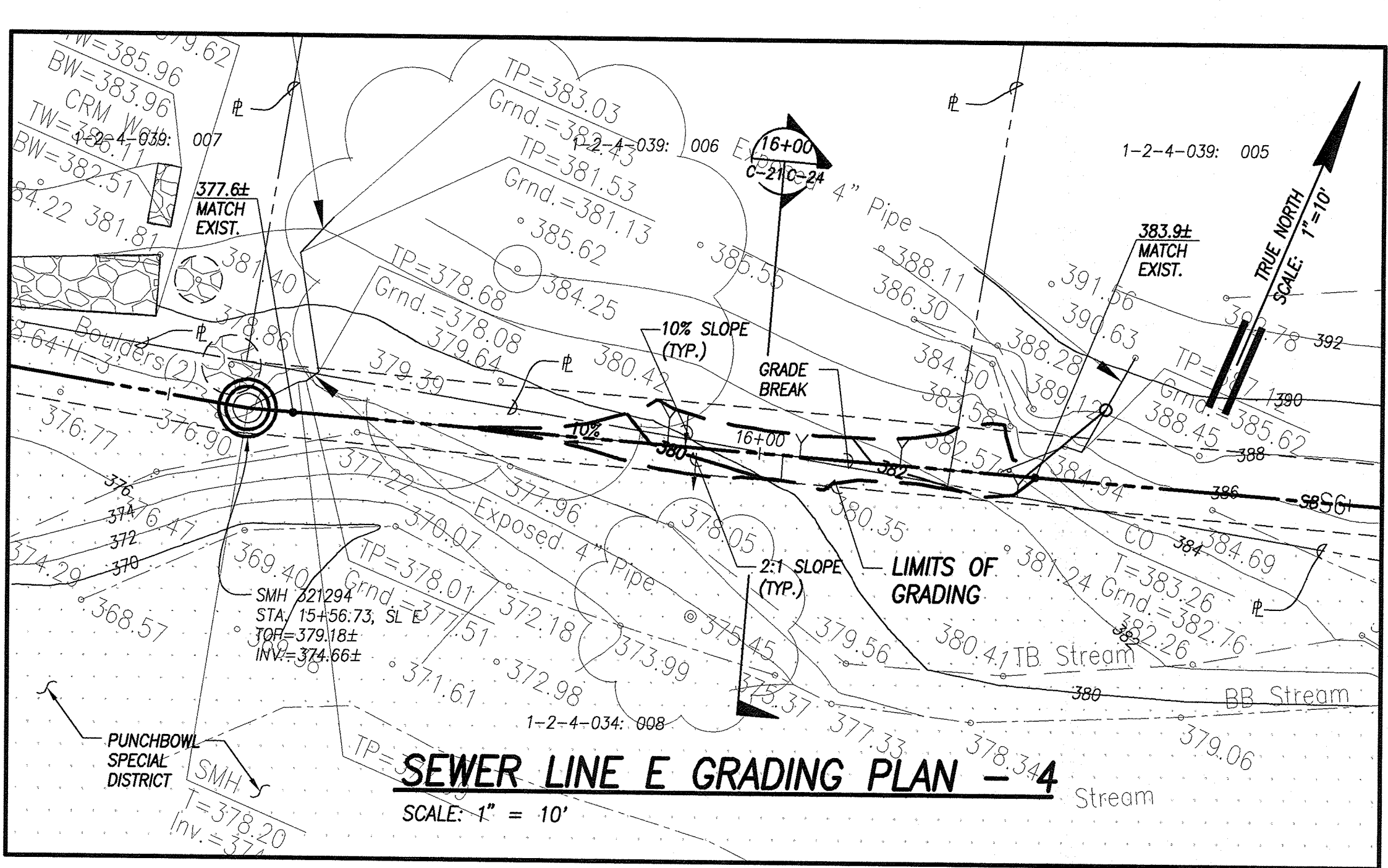
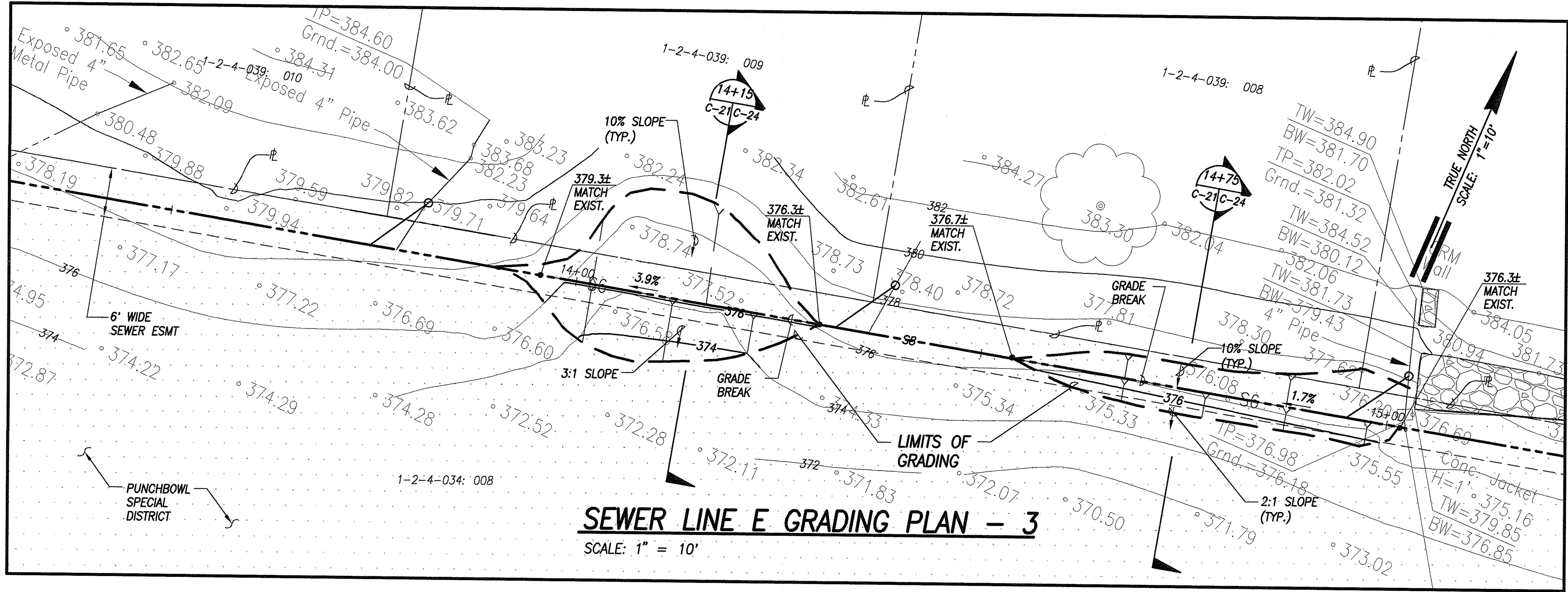
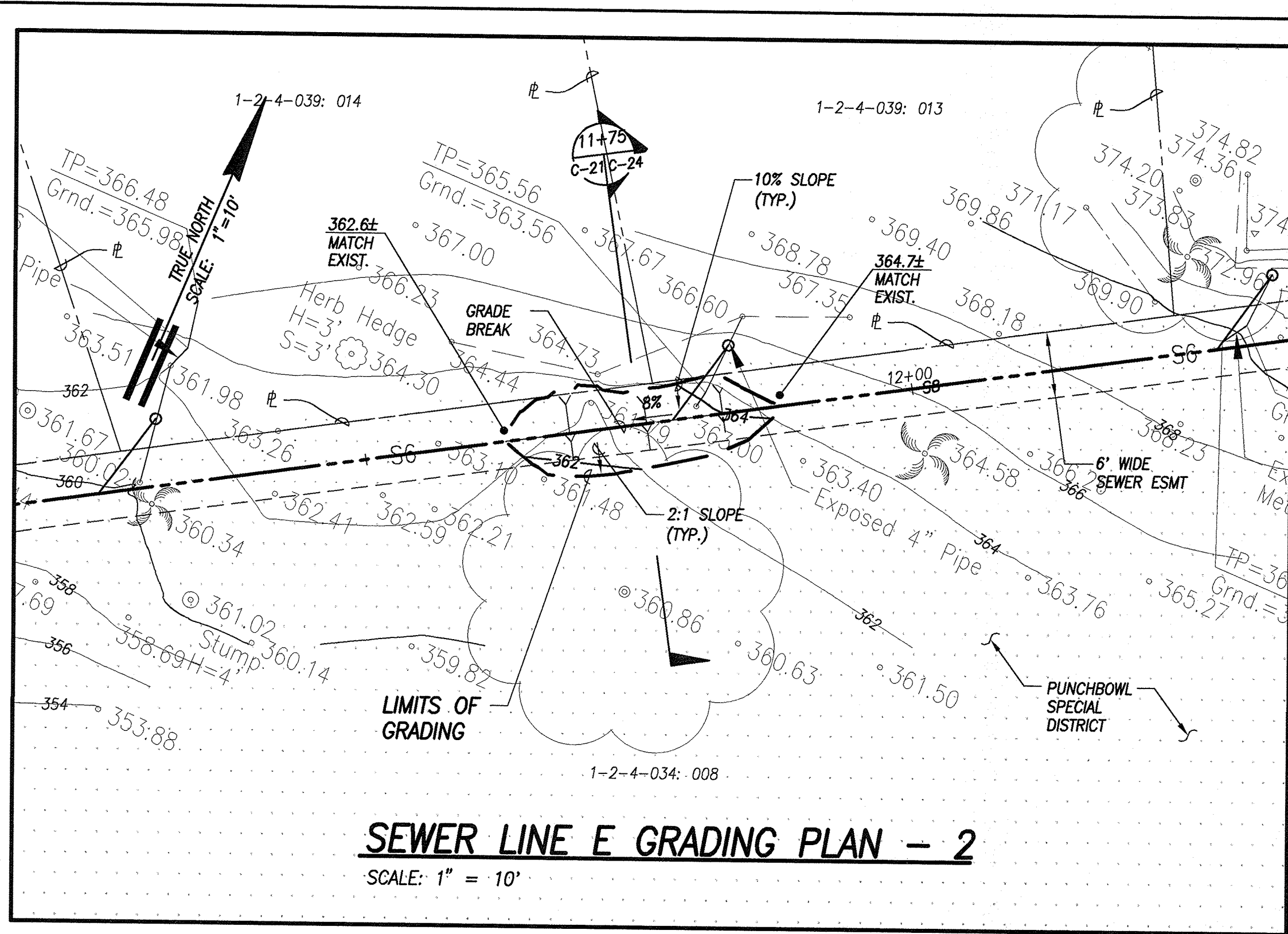
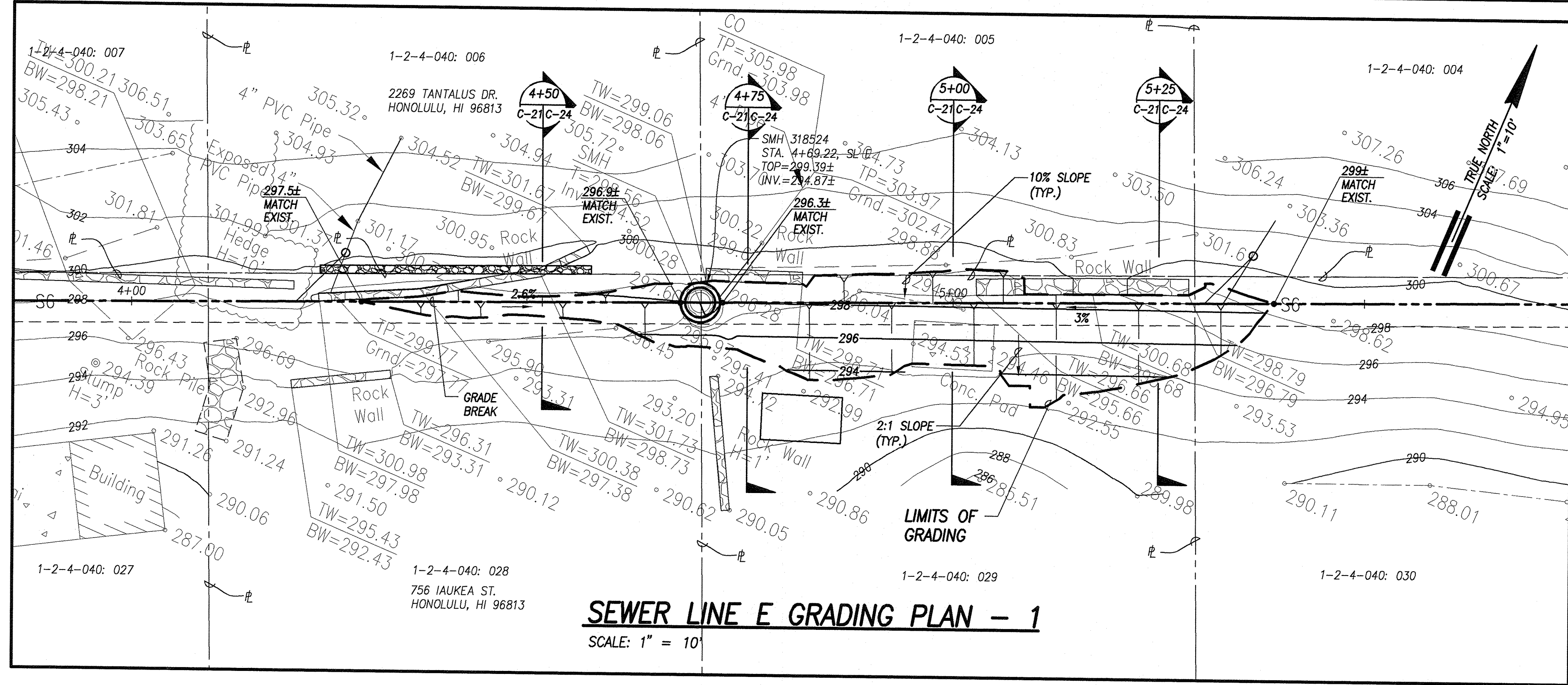
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS PHASE 1
SEWER LINES A, C, D, K-3, AND L IMPROVEMENTS
Papakoled, Honolulu, Oahu, Hawaii

SEWER LINE K-3 CIPP PLAN

ANN Y.M. MIYASATO
LICENSED PROFESSIONAL ENGINEER
No. 11253-C
HAWAII, U.S.A.

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SIGNATURE Apr 2018 LIC. EXP.



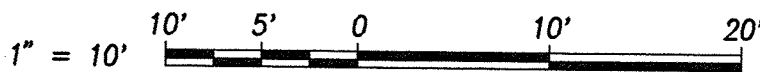
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— 6 —	EXIST. CONTOUR
9.68	EXIST. SPOT ELEVATION
— 6 —	PROPOSED CONTOUR
7.86	FINISHED SPOT ELEVATION
---	LIMITS OF GRADING AND DISTURBED AREA
---	EASEMENT
---	PROPERTY LINE
[Pattern]	PUNCHBOWL SPECIAL DISTRICT

APPROVED:

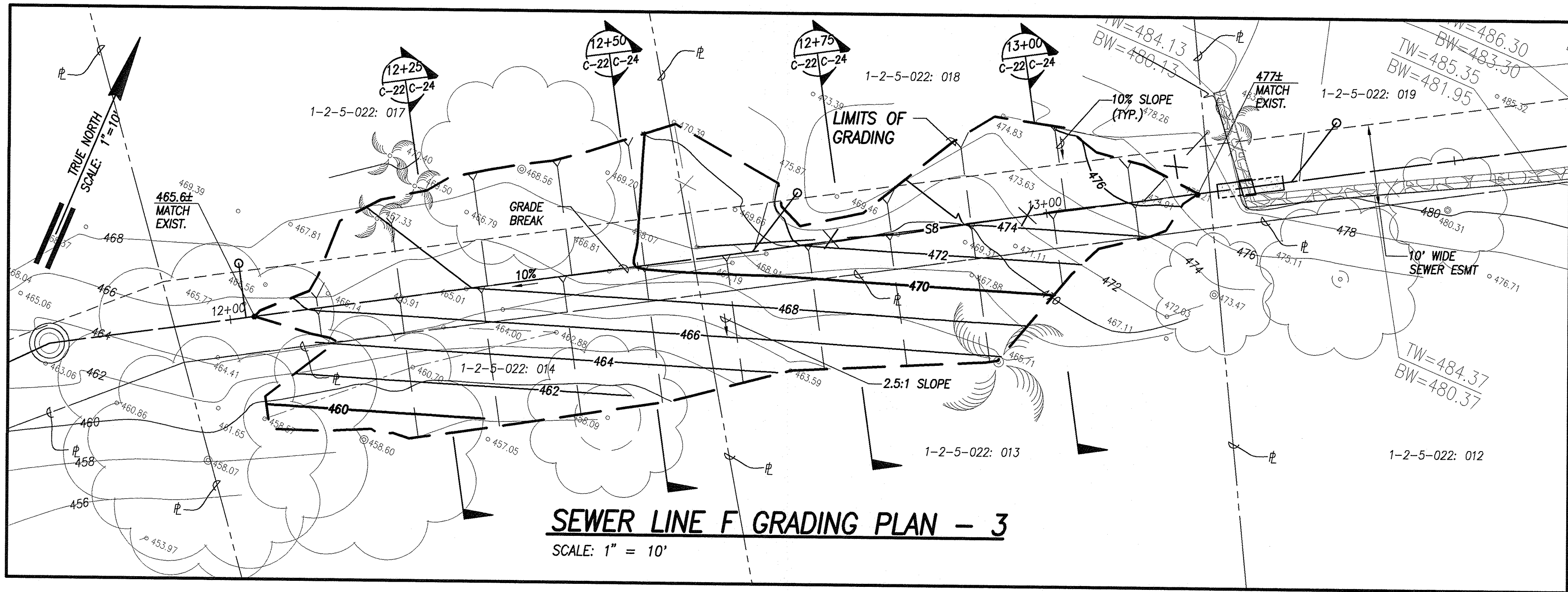
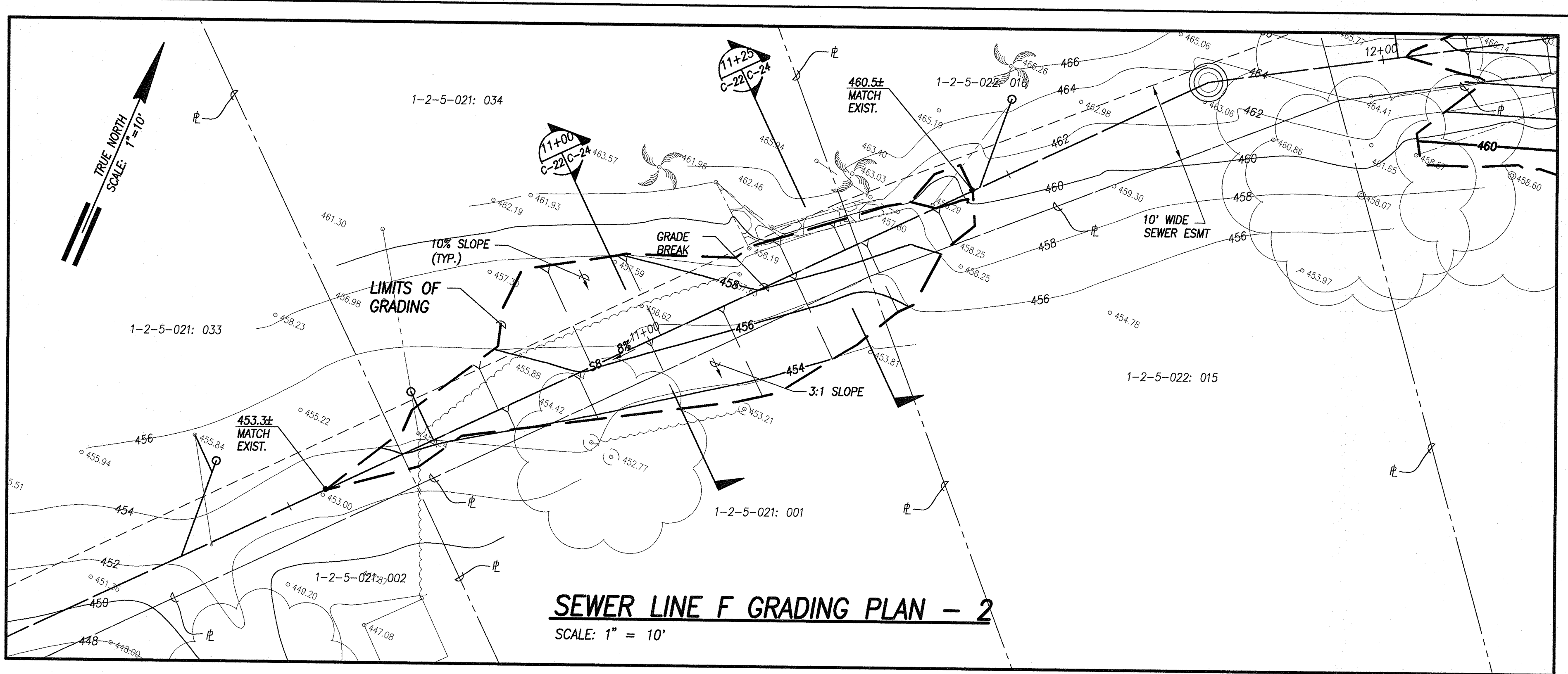
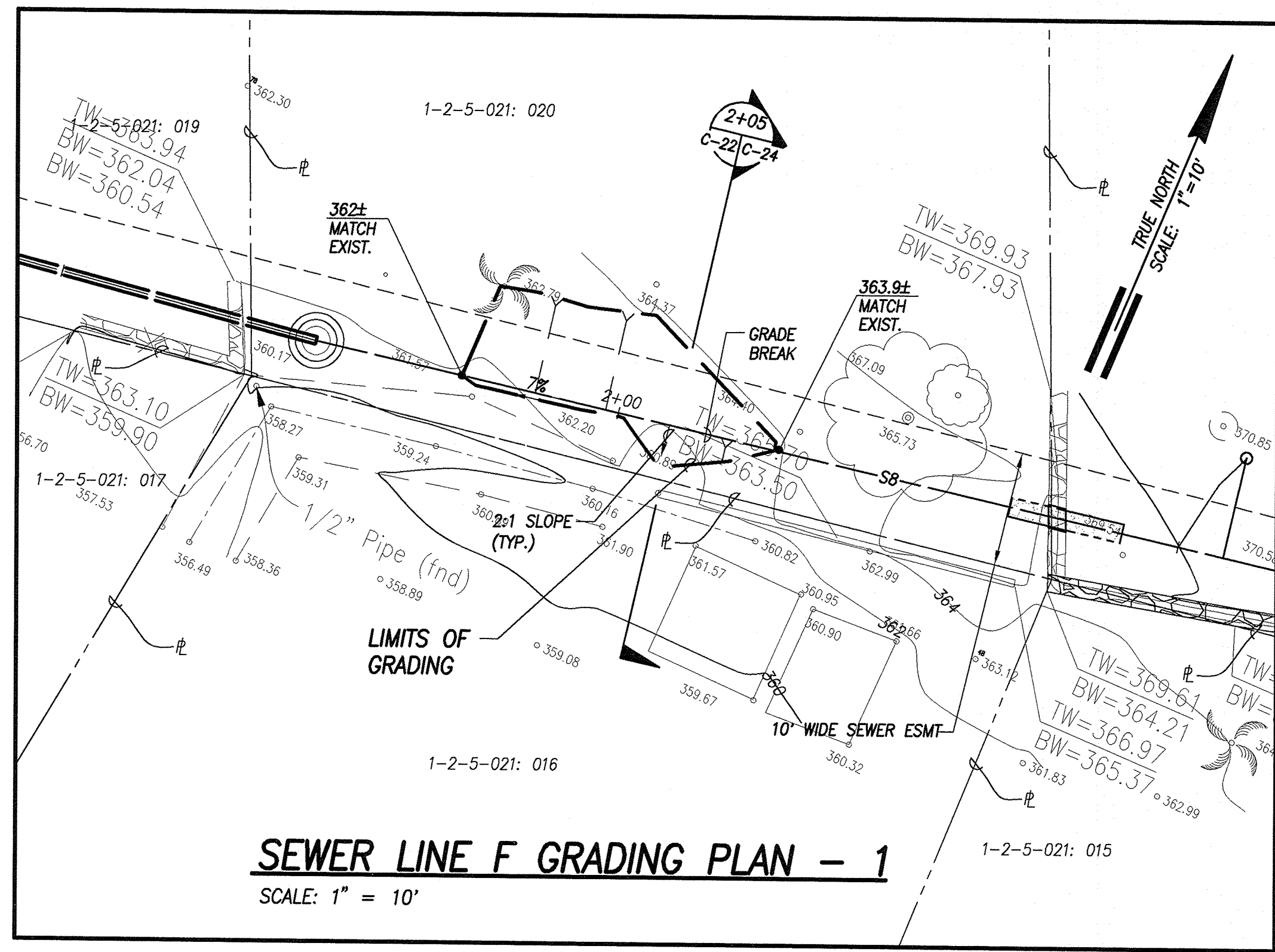
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE

GRAPHIC SCALE:



ENGINEER	AM	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM/JN					
		R. M. TOWILL CORPORATION 808 B42 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3494 Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii				
		SEWER LINE E ENLARGED GRADING PLAN				
		Apr 2018 LIC. EXP.				
		FILE	POCKET	FOLDER	NO.	



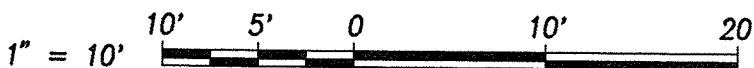
LEGEND	
—6—	EXIST. CONTOUR
9.68	EXIST. SPOT ELEVATION
—6—	PROPOSED CONTOUR
7.86	FINISHED SPOT ELEVATION
---	LIMITS OF GRADING AND DISTURBED AREA
---	EASEMENT
---	PROPERTY LINE
---	PUNCHBOWL SPECIAL DISTRICT

APPROVED:

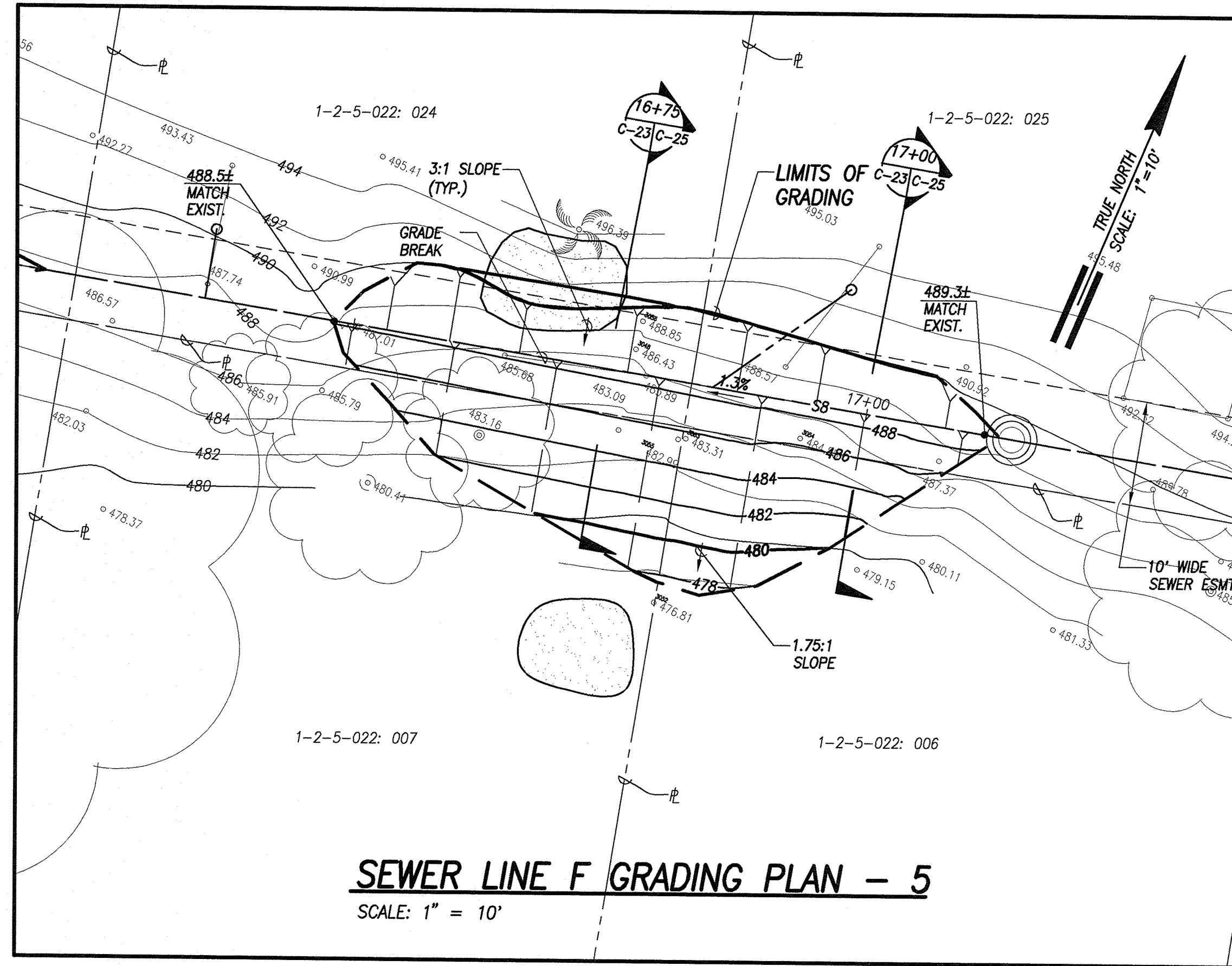
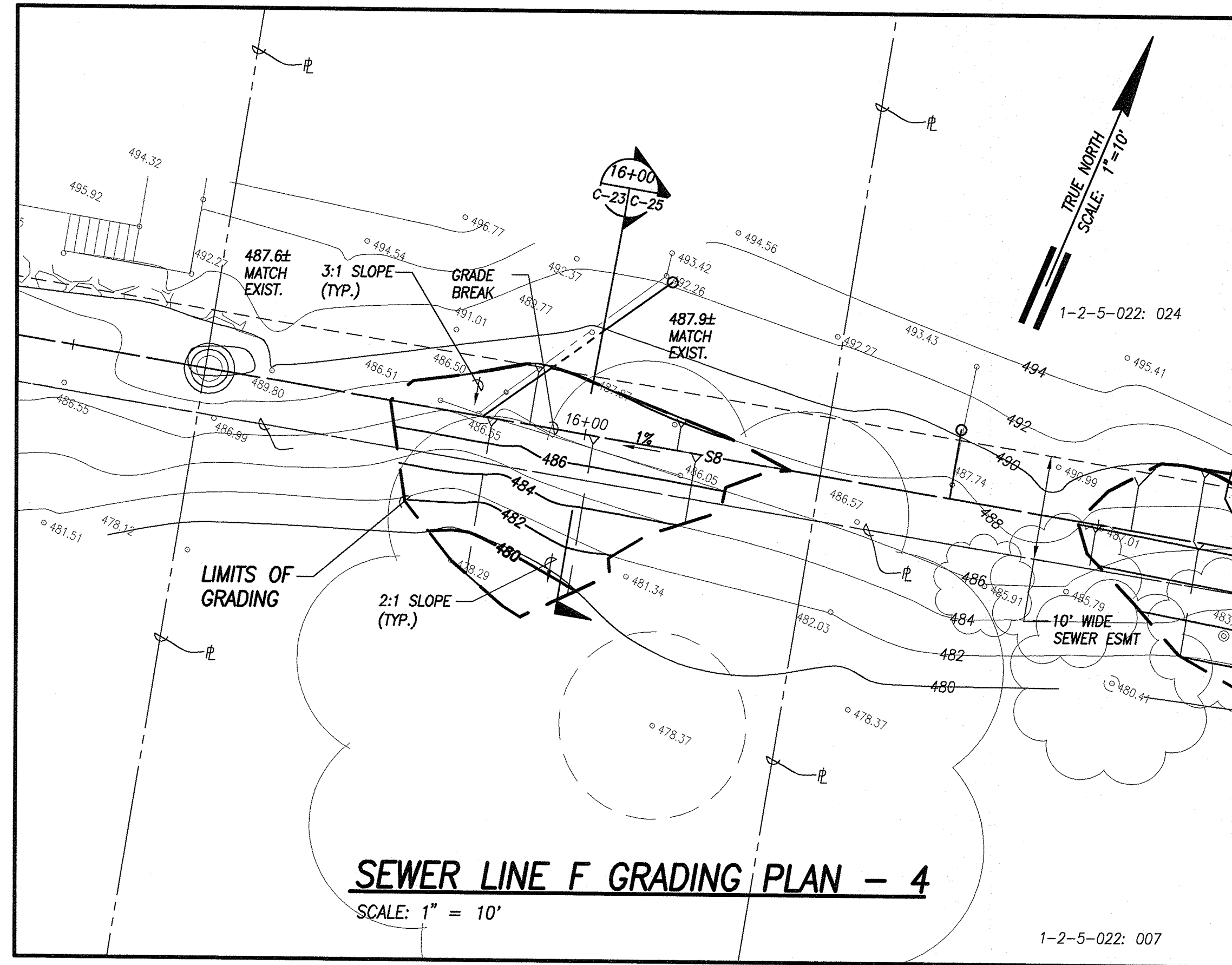
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE

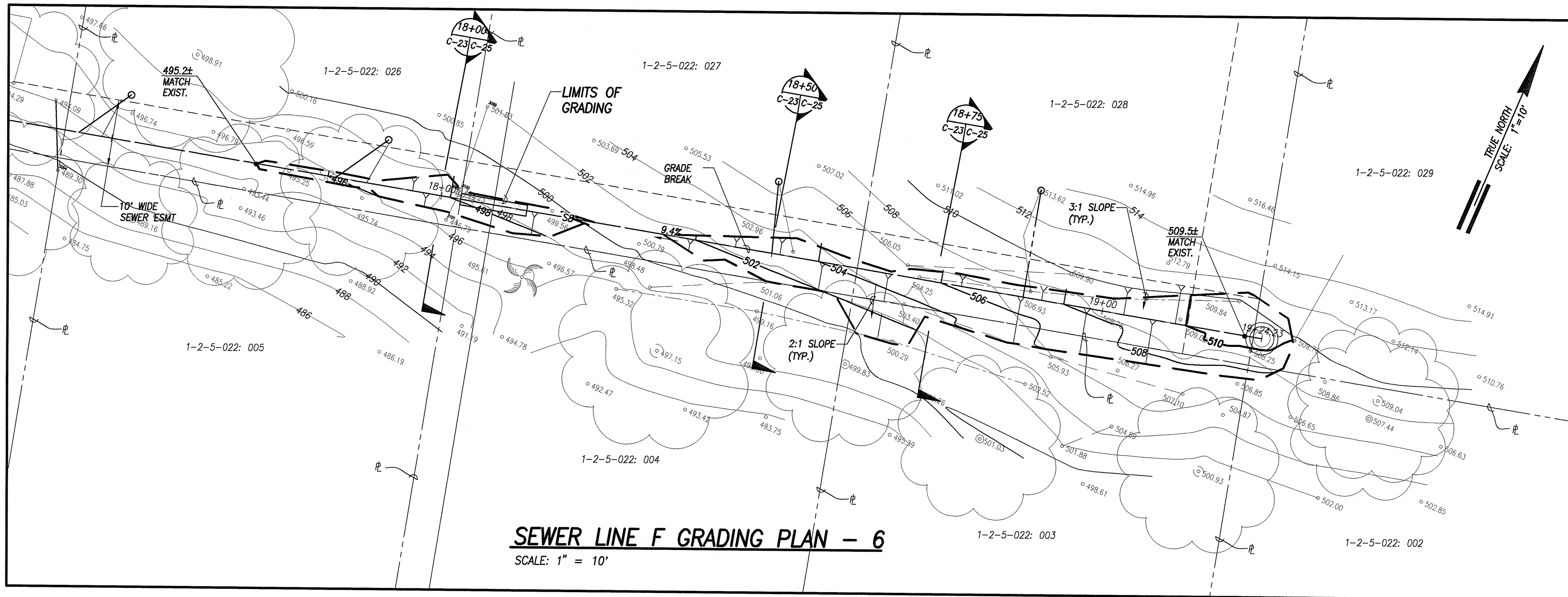
GRAPHIC SCALE:



ENGINEER	AM	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM/JN					
		R. M. TOWILL CORPORATION 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3494 Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii				
		SEWER LINE F ENLARGED GRADING PLAN - 1				
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		FILE	POCKET	FOLDER	NO.	



LEGEND	
	EXIST. CONTOUR
	EXIST. SPOT ELEVATION
	PROPOSED CONTOUR
	FINISHED SPOT ELEVATION
	LIMITS OF GRADING AND DISTURBED AREA
	EASEMENT
	PROPERTY LINE
	PUNCHBOWL SPECIAL DISTRICT



APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE

ENGINEER	AM	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM/JN					

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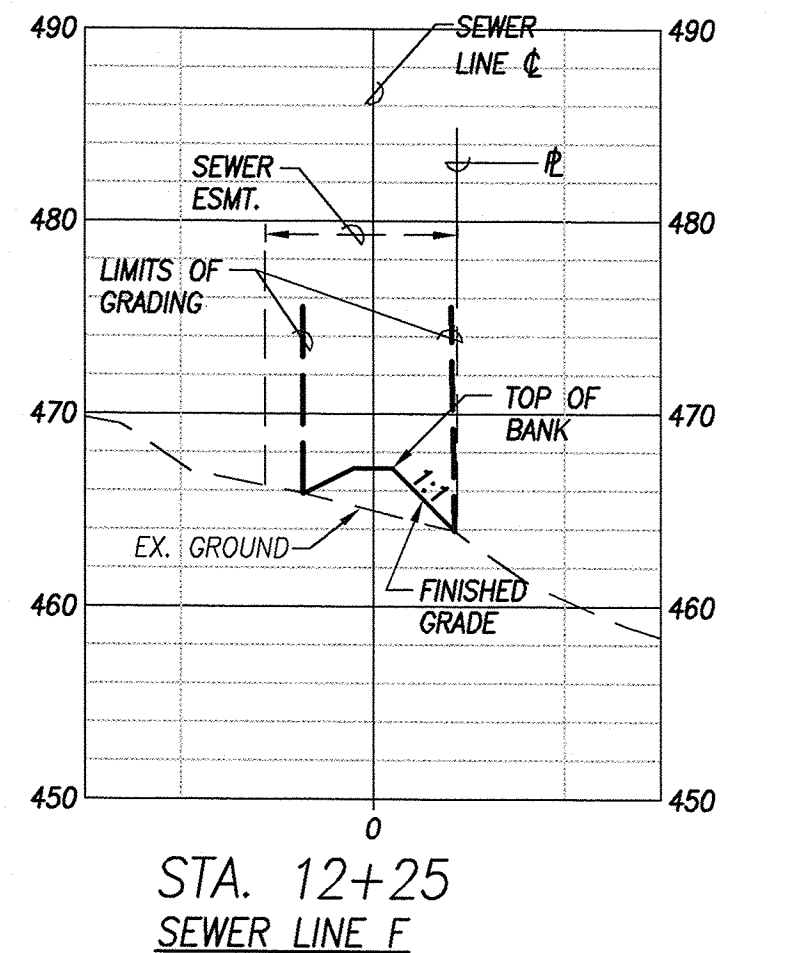
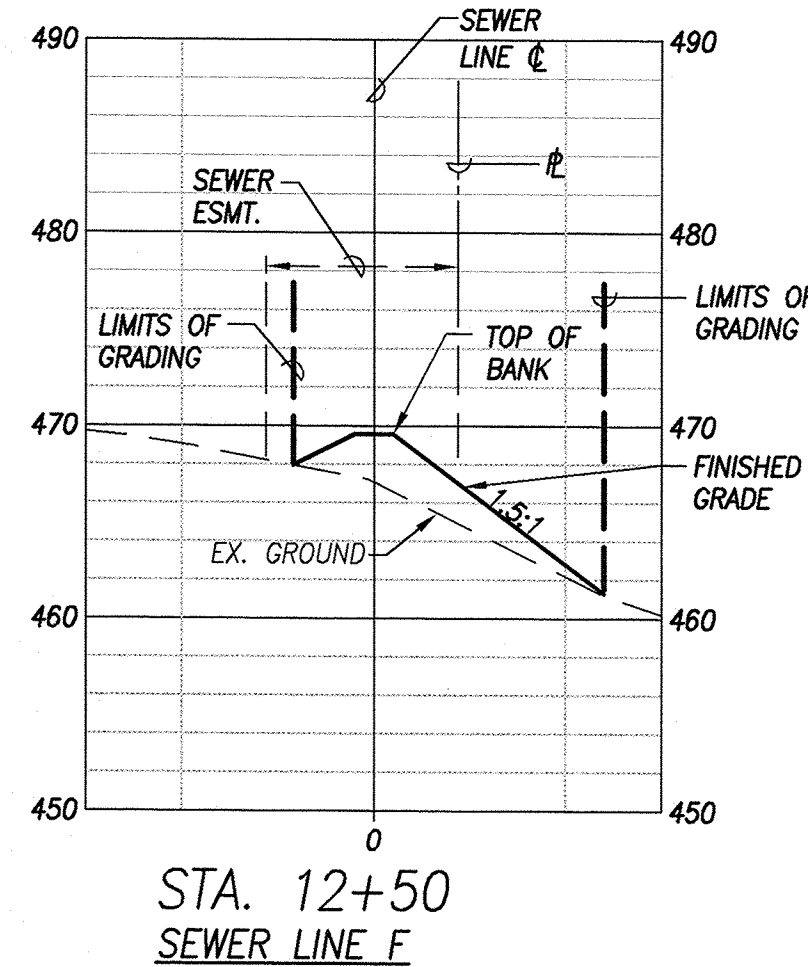
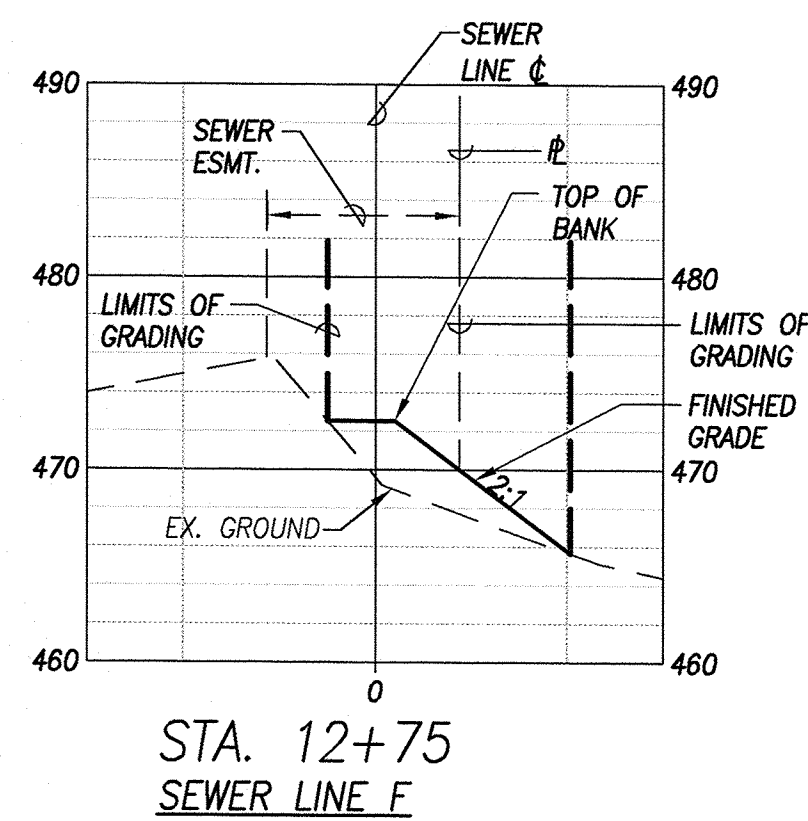
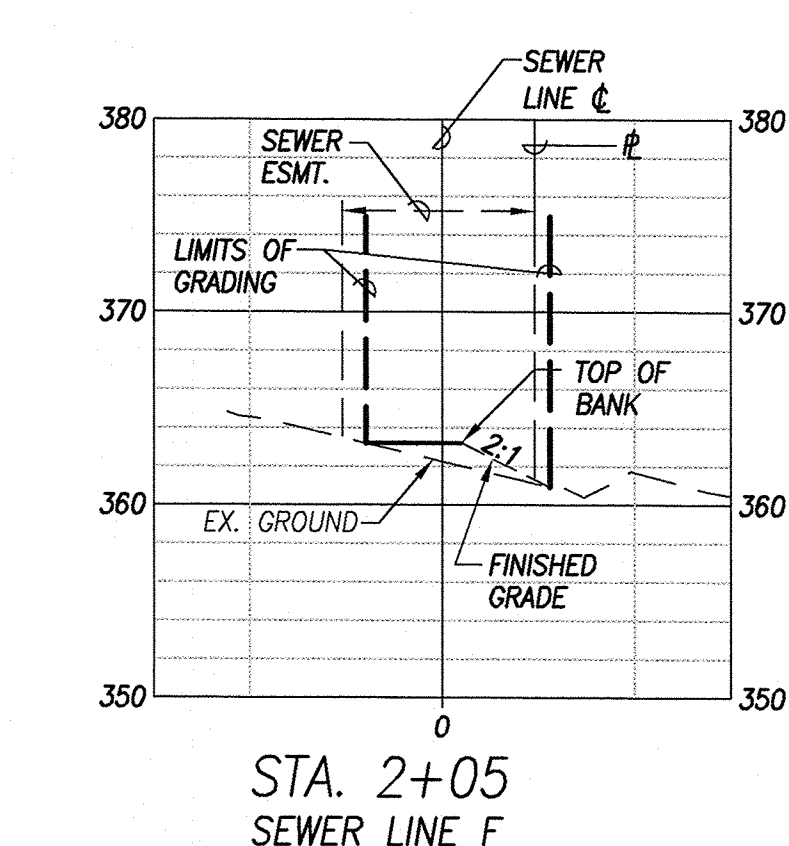
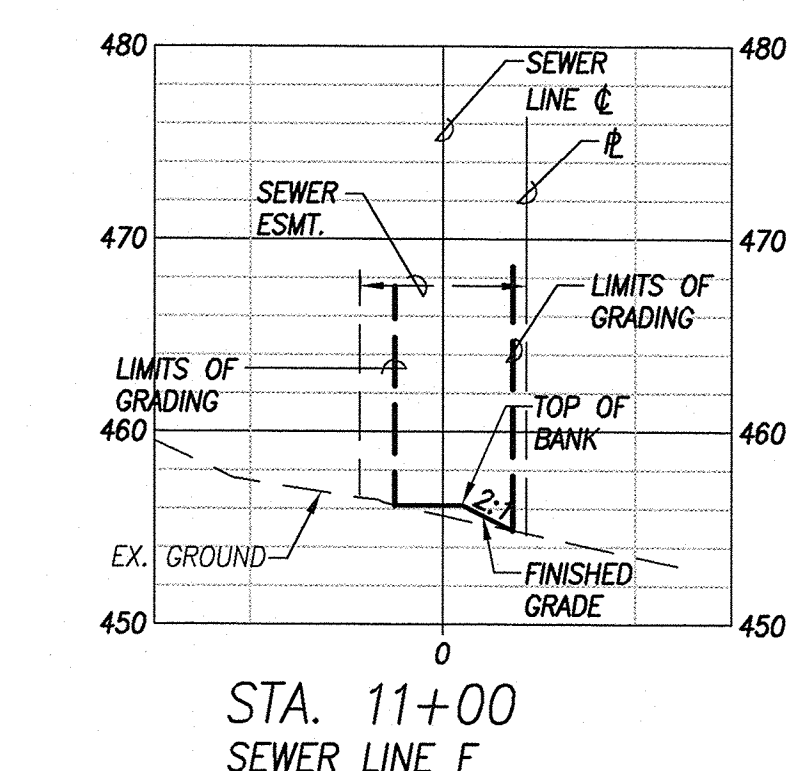
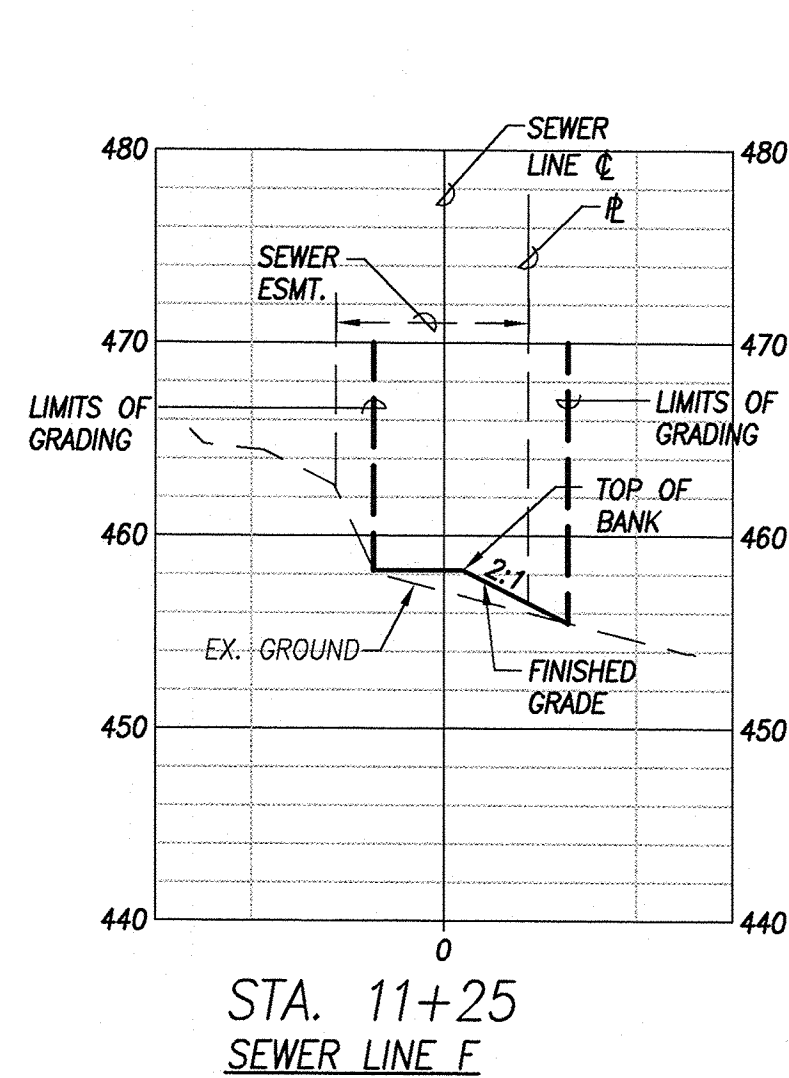
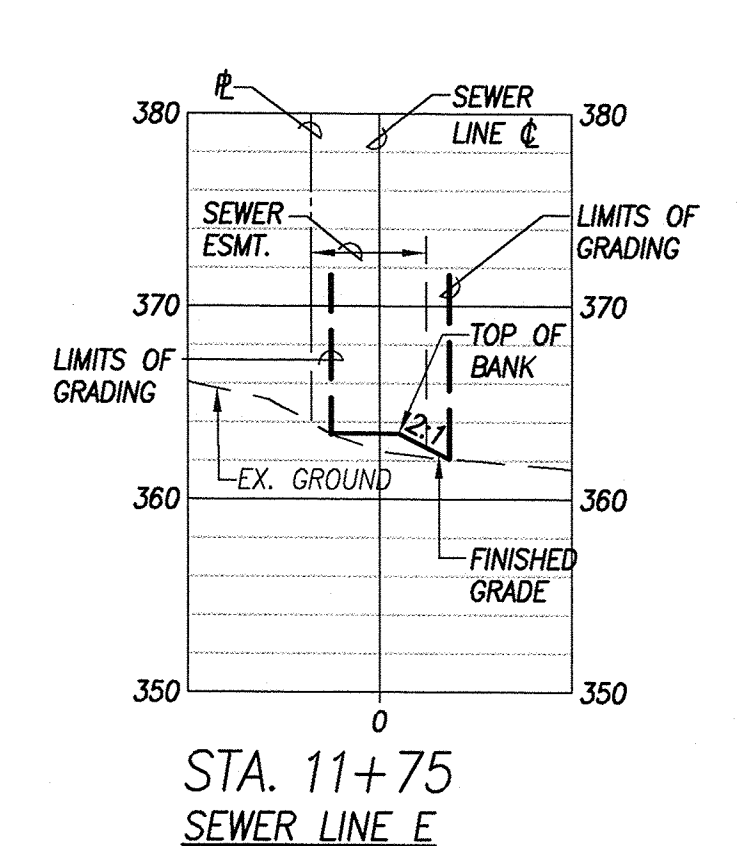
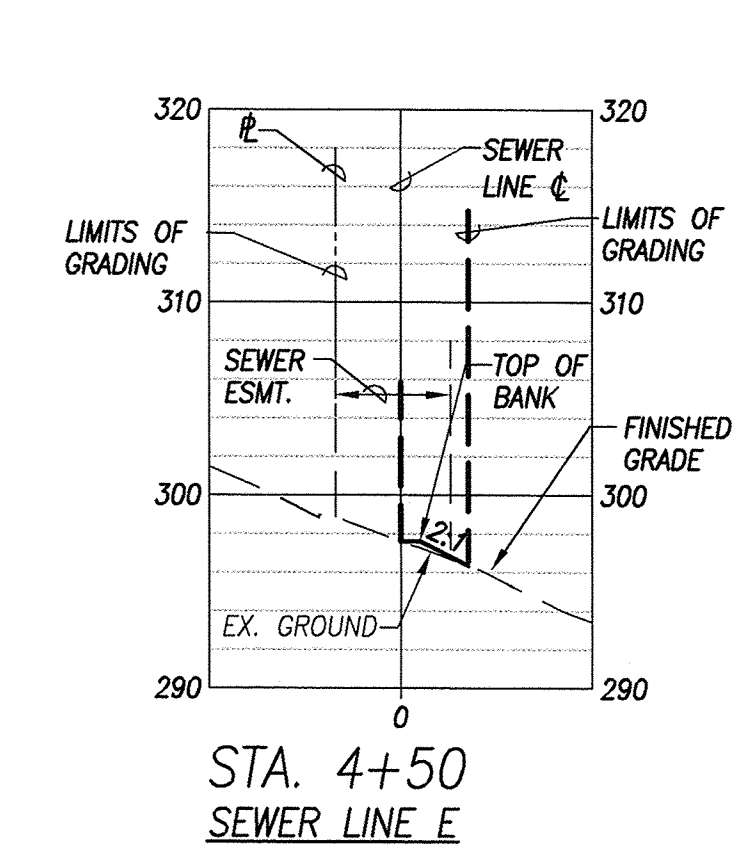
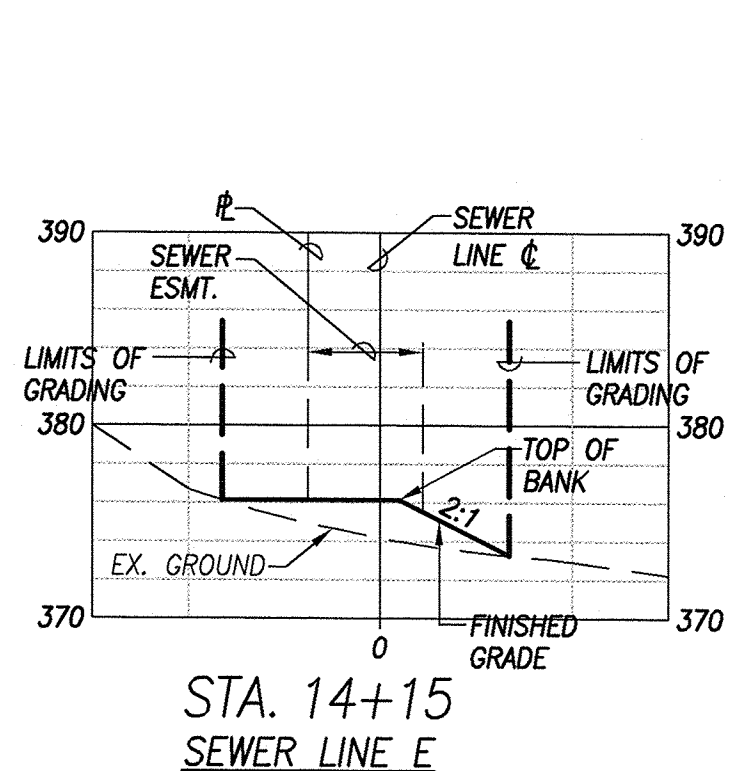
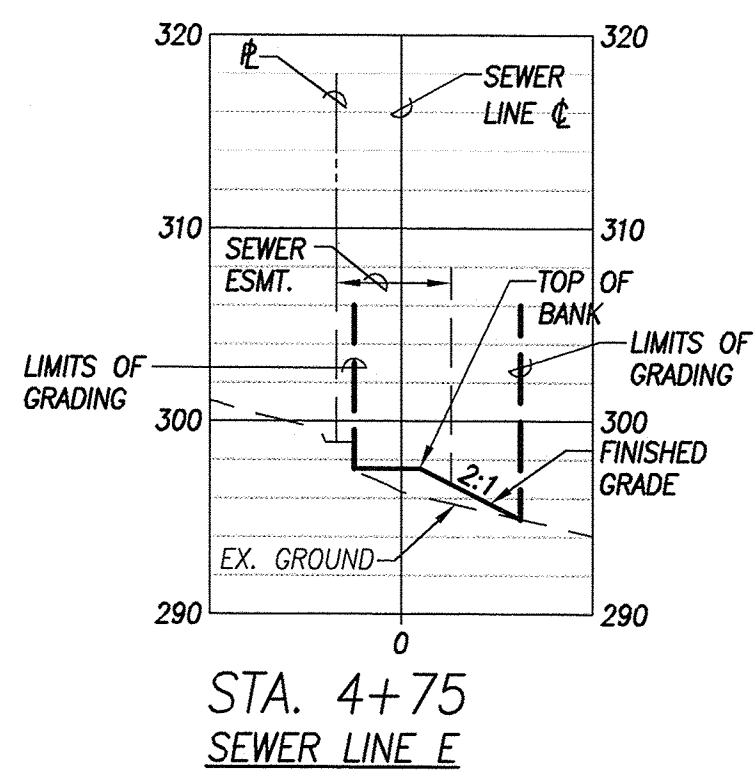
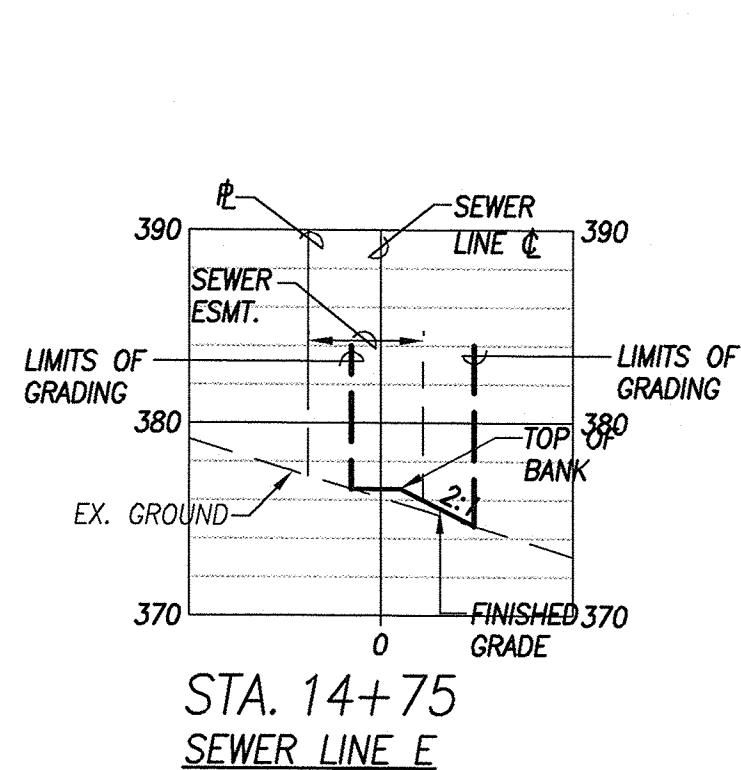
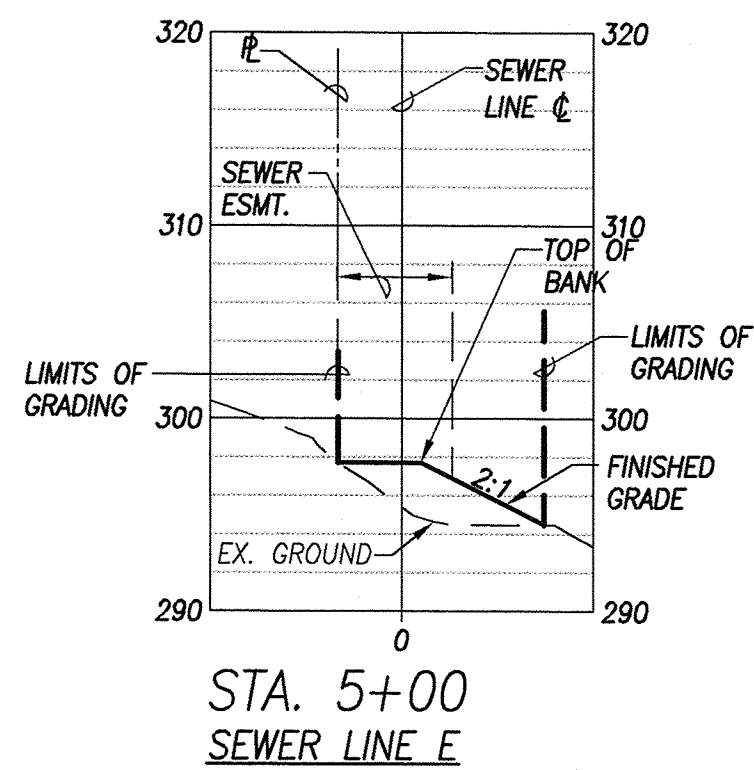
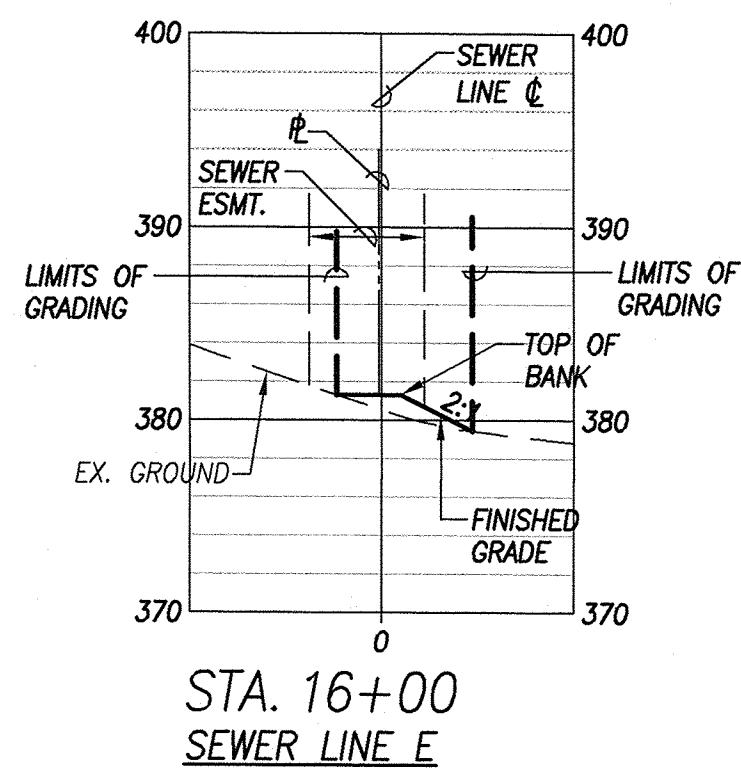
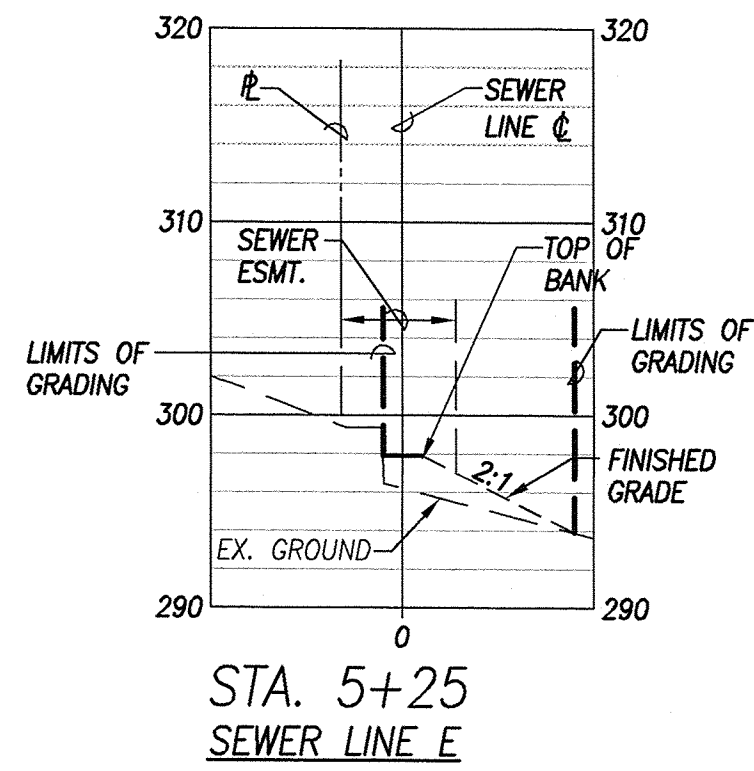
SIGNATURE
Apr 2018
LIC. EXP.

R. M. TOWILL CORPORATION
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3494
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

**SEWER LINE F
ENLARGED GRADING PLANS - 2**

Thu, 05 Jan 2017 - 4:08pm
K:\MVA\27426 06 Papea SL ETL Itp 2016 Drawings Construction Design - Grading SL Papea

FILE	POCKET	FOLDER	NO.

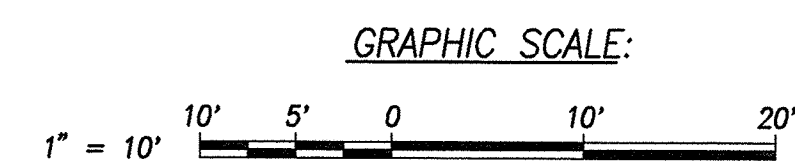


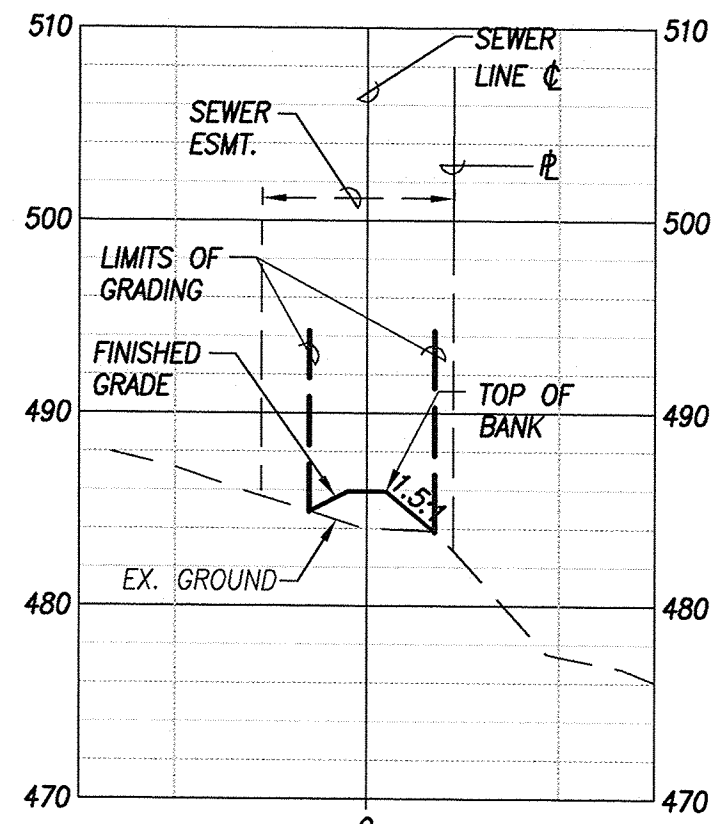
APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

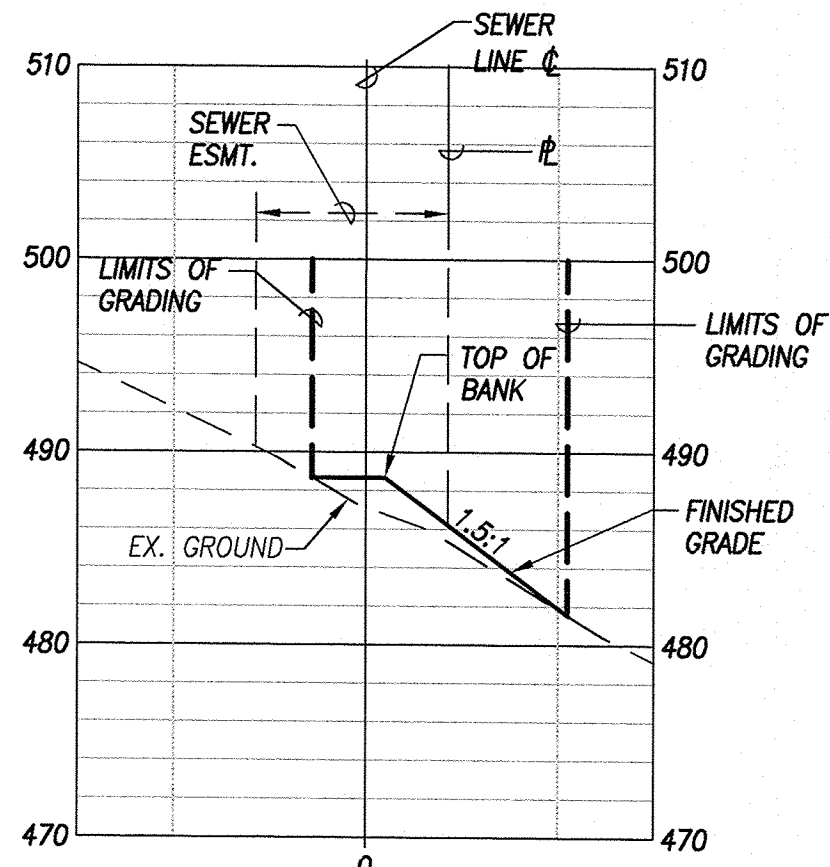
DATE

ENGINEER	AM/SM				
DRAFTSMAN	SF				
CHECKED BY	AM/JN	REVISION	DATE	BRIEF	BY
		Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii			
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS". SIGNATURE		Apr 2018 L.C. EXP.			
SECTIONS - 1		FILE POCKET FOLDER NO.			

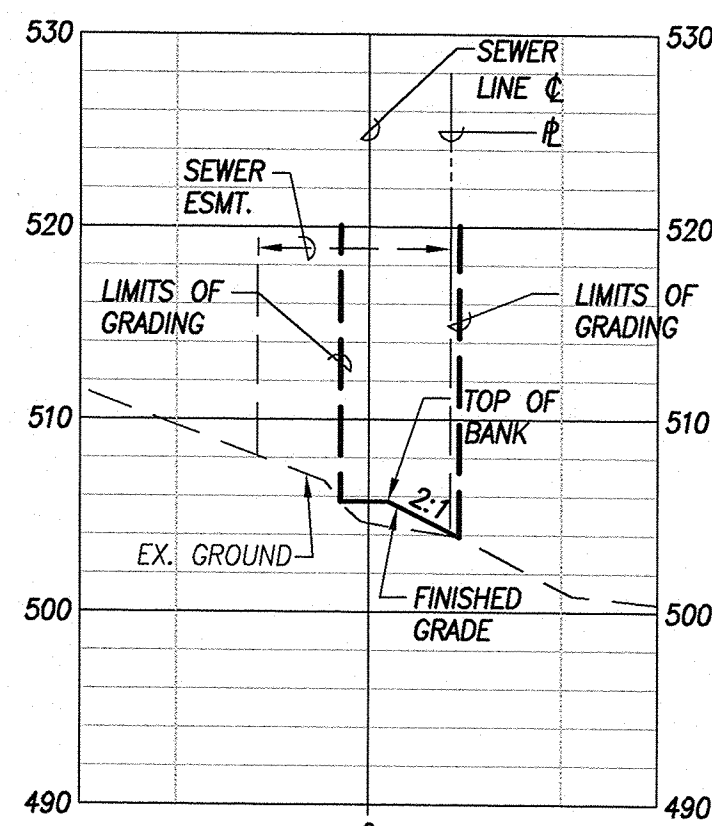




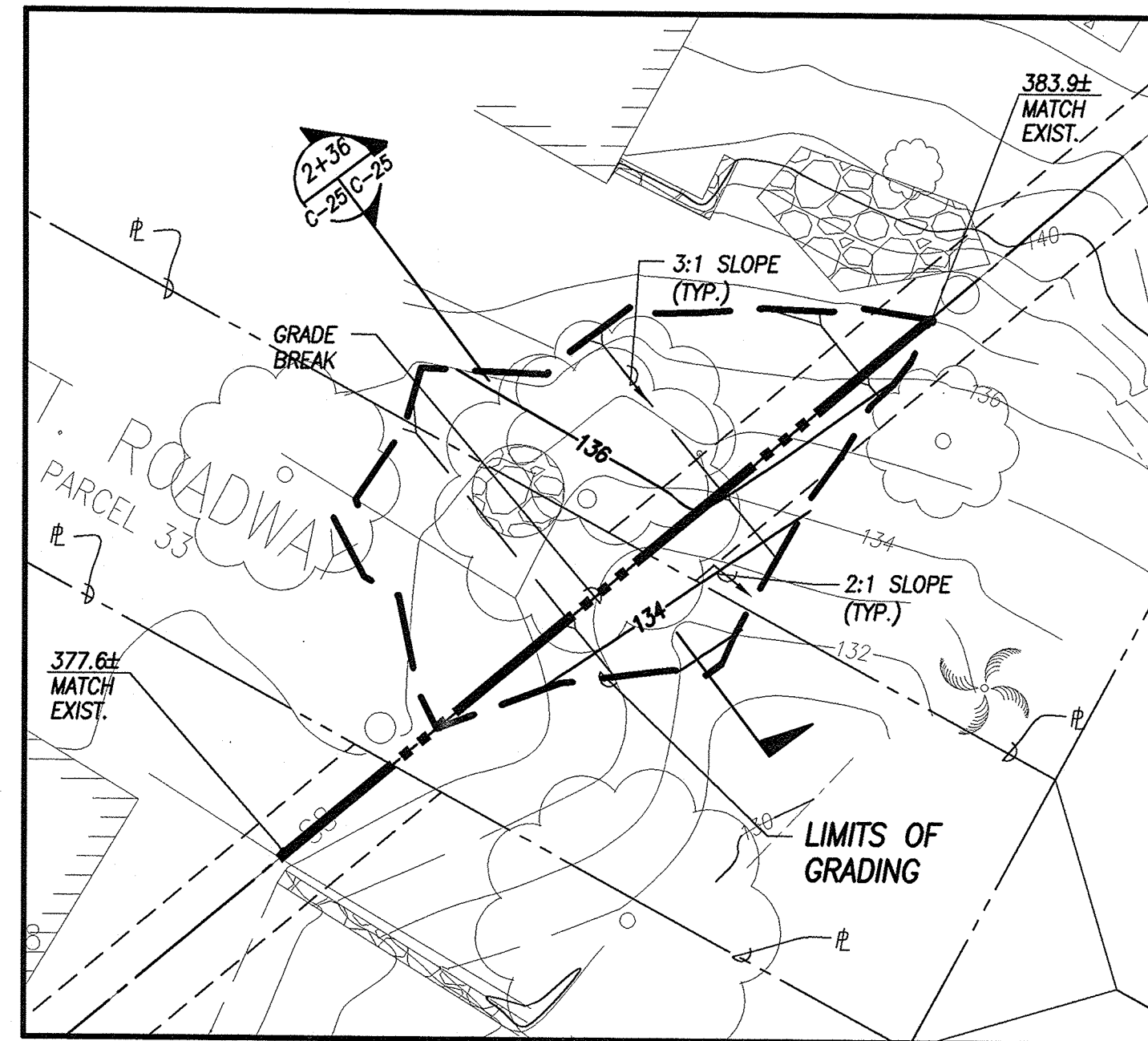
STA. 15+00
SEWER LINE F



STA. 17+00
SEWER LINE F



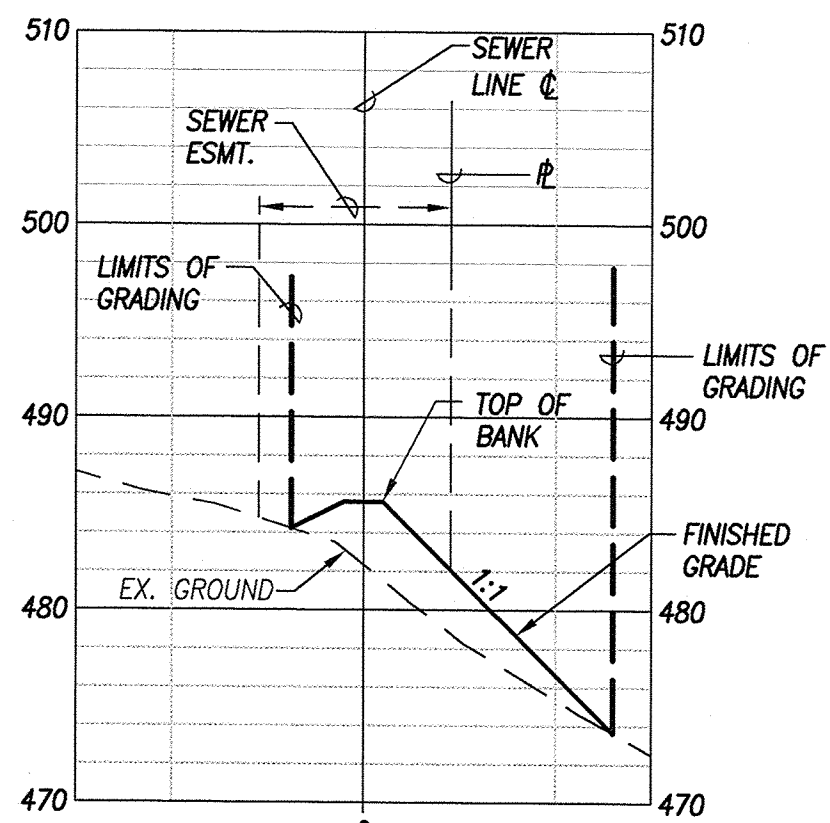
STA. 18+75
SEWER LINE F



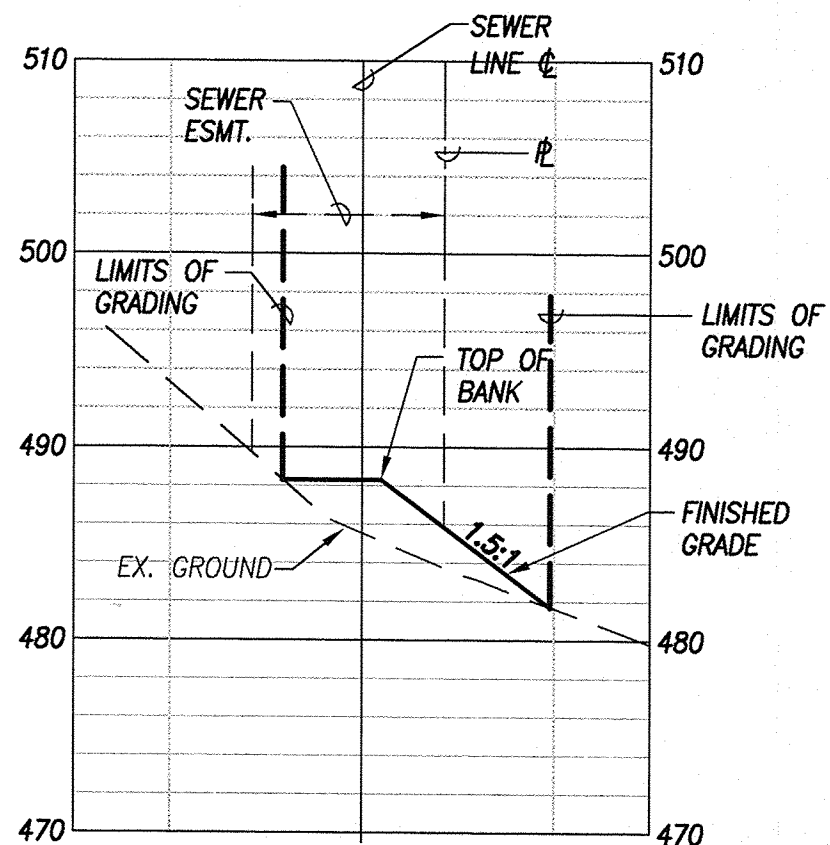
SEWER LINE L GRADING PLAN

SCALE: 1" = 10'

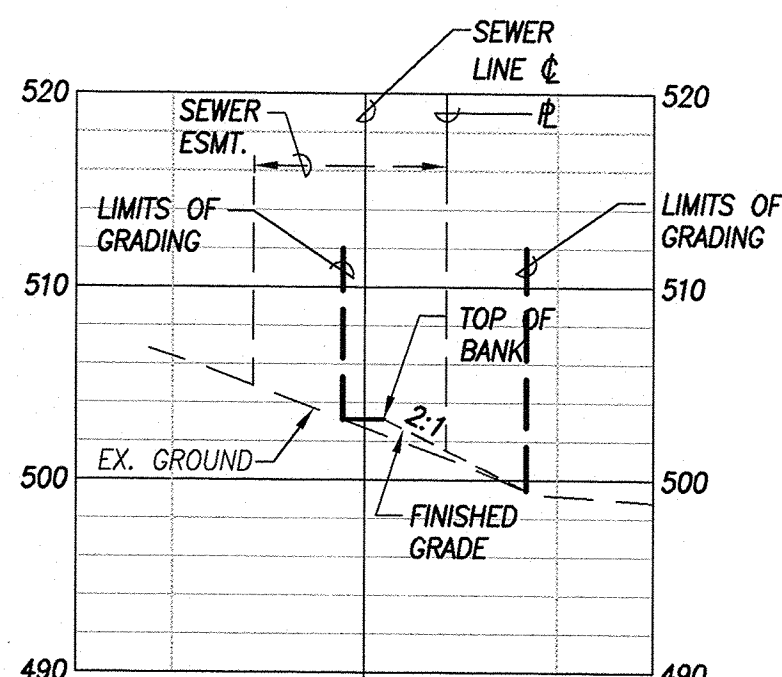
LEGEND	
6	EXIST. CONTOUR
9.68	EXIST. SPOT ELEVATION
7.86	FINISHED SPOT ELEVATION
---	LIMITS OF GRADING AND DISTURBED AREA
---	EASEMENT
---	PROPERTY LINE



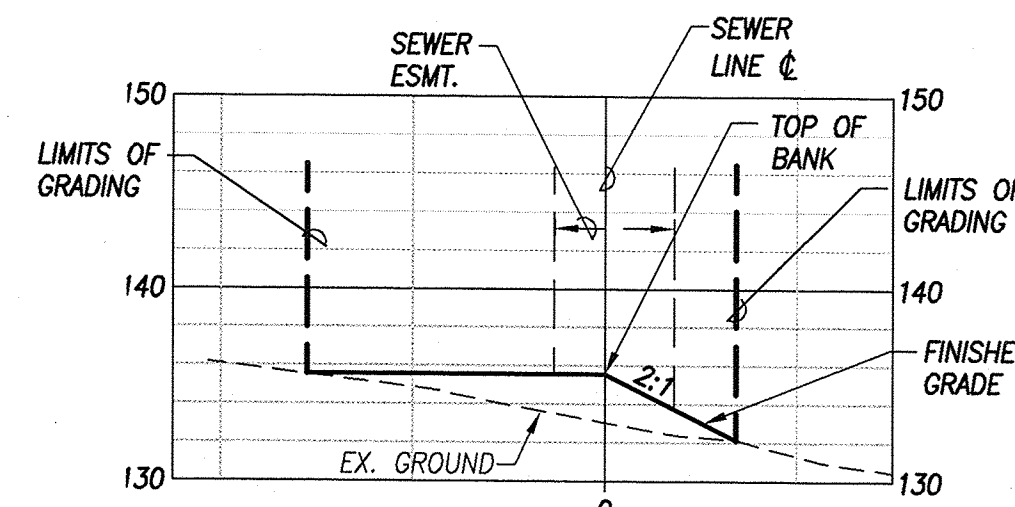
STA. 14+75
SEWER LINE F



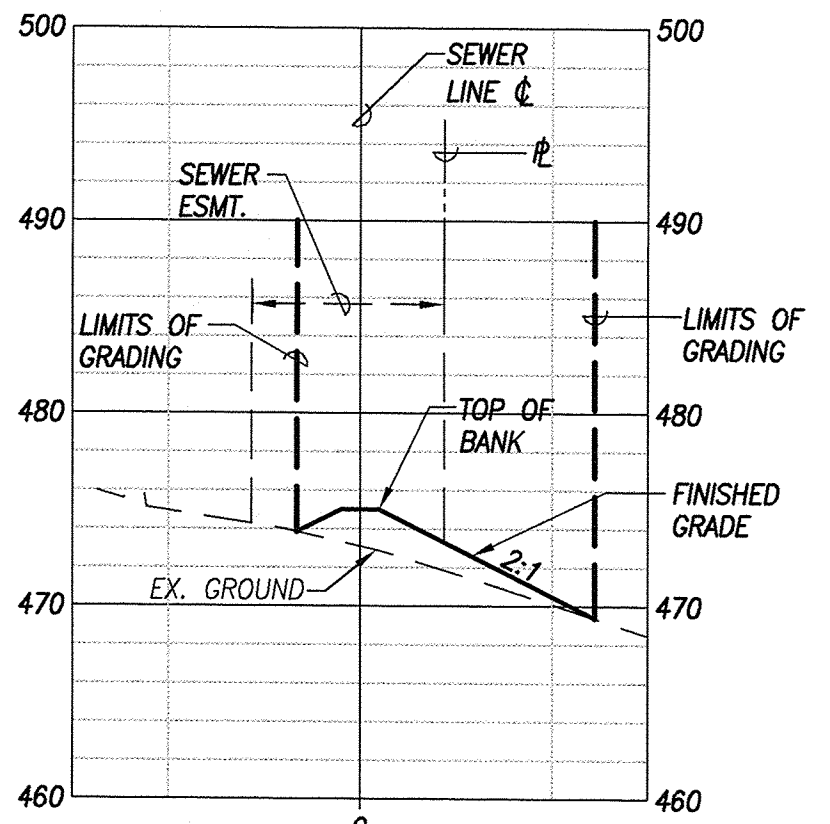
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SEWER LINE F



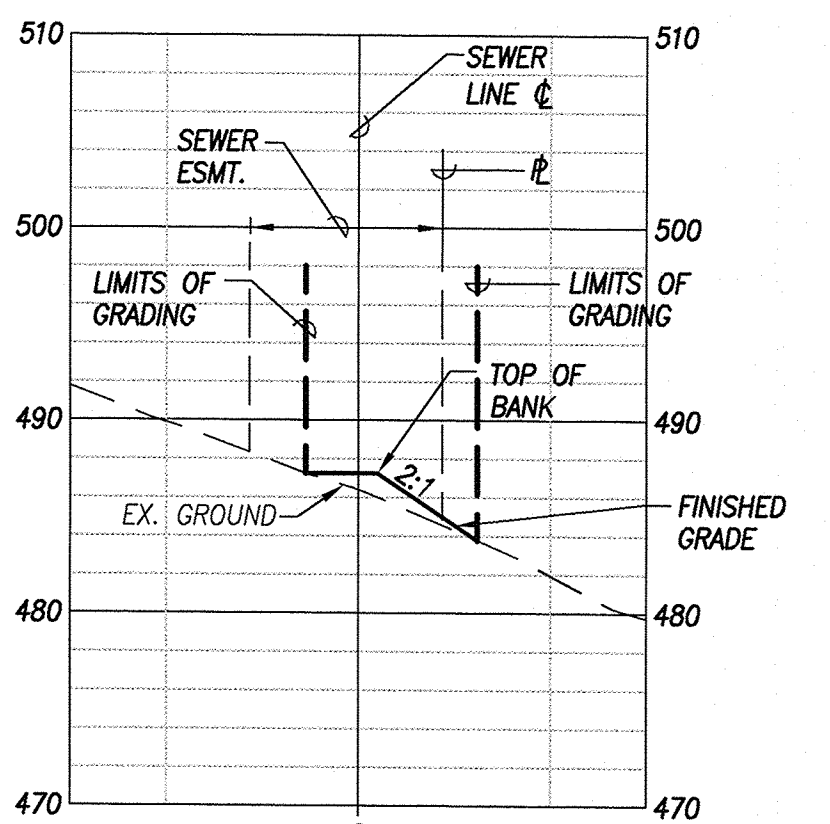
STA. 18+50
SEWER LINE F



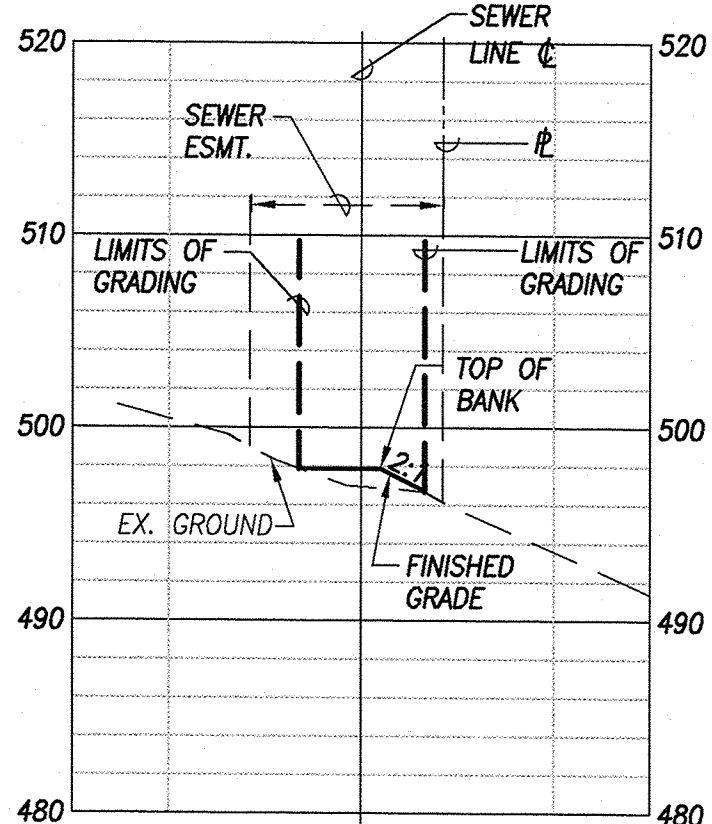
STA. 2+36
SEWER LINE L



STA. 13+00
SEWER LINE F



STA. 16+00
SEWER LINE F



STA. 18+00
SEWER LINE F

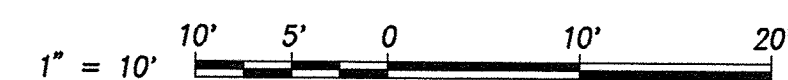
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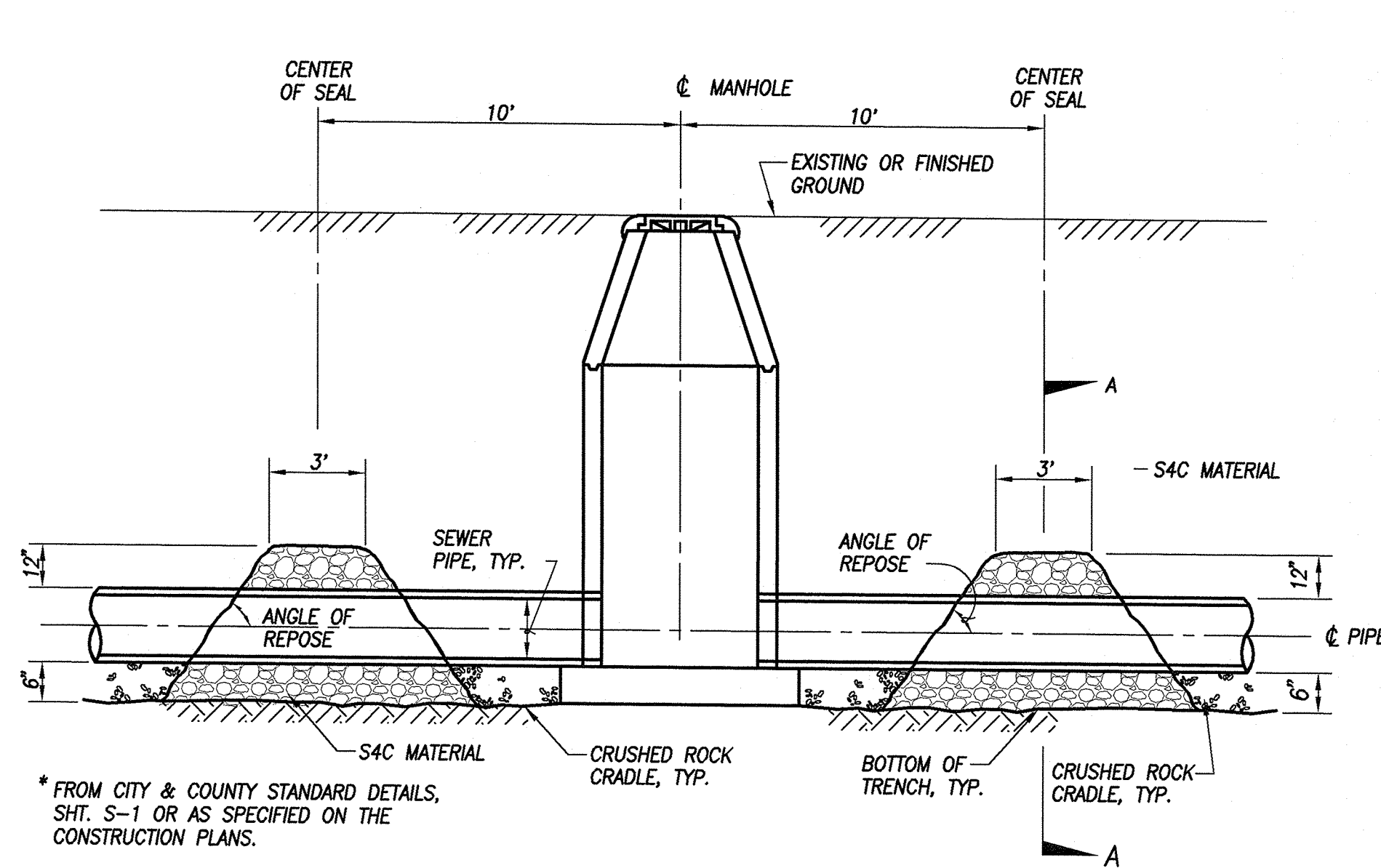
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE

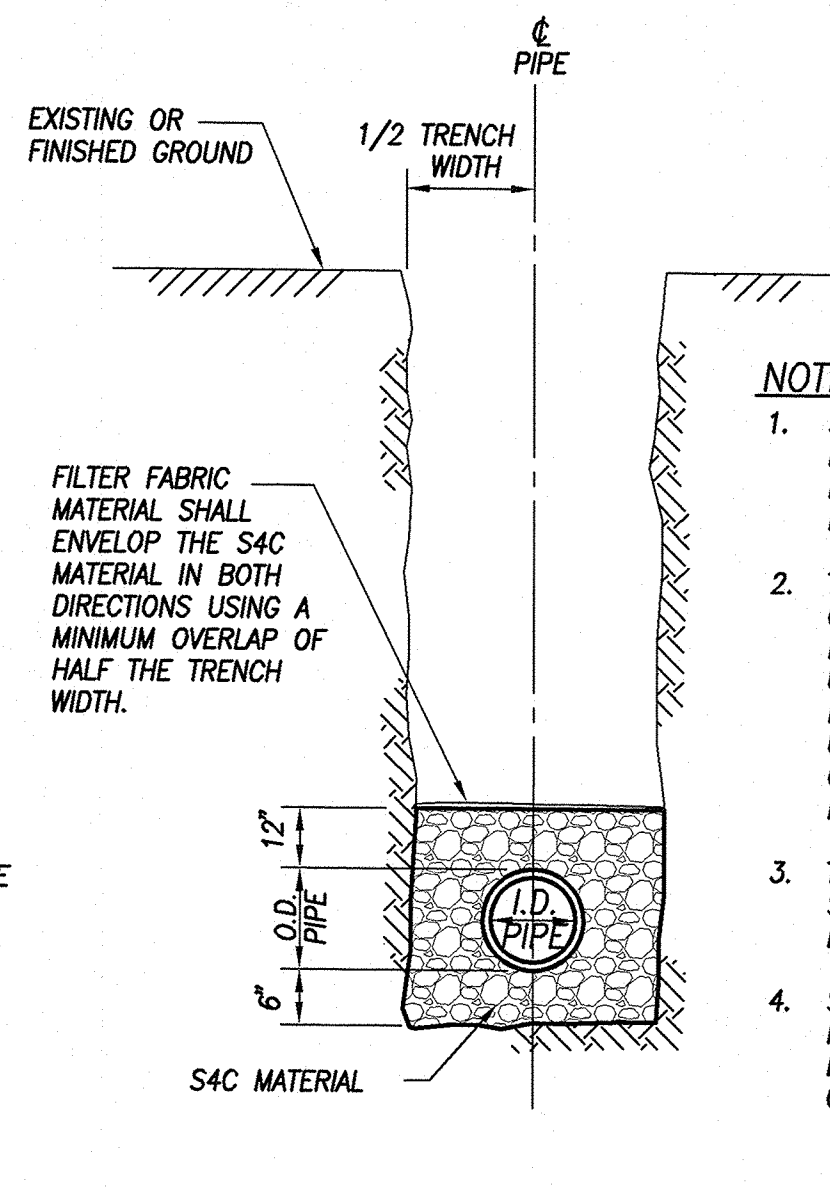
ENGINEER	AM/SM				
DRAFTSMAN	SF				
CHECKED BY	AM/JN				
		REVISION	DATE	BRIEF	BY
		APPROVED			
		R. M. TOWILL CORPORATION 808 B42 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3494 Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii			
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. *OBSERVATION OF CONSTRUCTION* IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".		SECTIONS - 2 & SEWER LINE L GRADING PLAN			
SIGNATURE		LIC. EXP.			

GRAPHIC SCALE:





ELEVATION



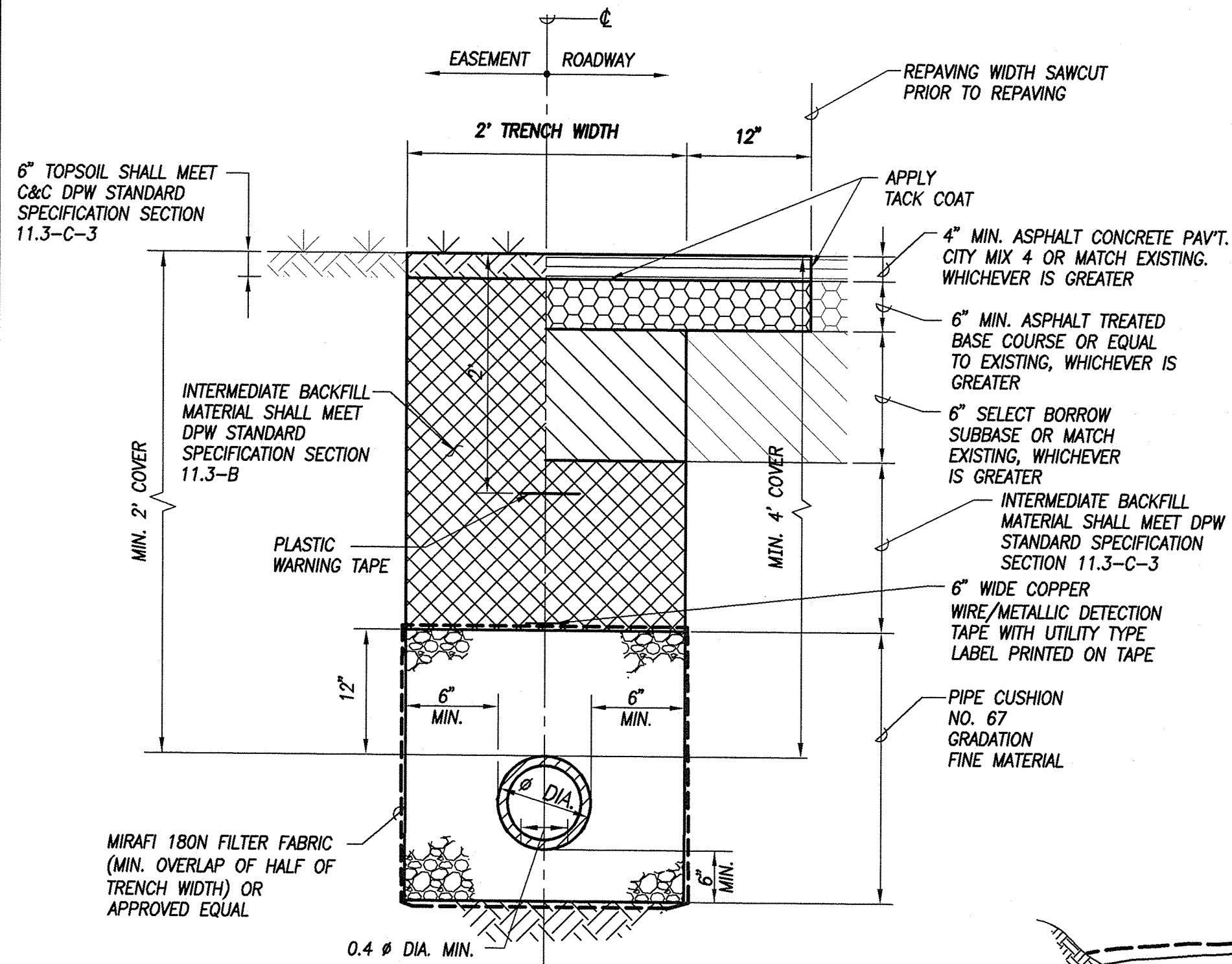
SECTION A-A

- NOTES:**
1. SEALS SHALL BE PLACED 10 FT. UPSTREAM AND DOWNSTREAM FROM EACH MANHOLE.
 2. THE CONTRACTOR SHALL COMPACT S4C MATERIAL BY POUNDING AND DRAINING. UPON DRAINING, A VIBRATORY MACHINE SHALL BE USED UNTIL NO VISIBLE EVIDENCE OF FURTHER CONSOLIDATION EXISTS.
 3. THE ENGINEER MAY ADJUST SEAL LOCATIONS AND DIMENSIONS AS REQUIRED.
 4. SEALS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO CRUSHED ROCK CRADLE.

* FROM CITY & COUNTY STANDARD DETAILS, SHT. S-1 OR AS SPECIFIED ON THE CONSTRUCTION PLANS.

SEWER LINE SEAL AT MANHOLE (FOR VCP)

NOT TO SCALE

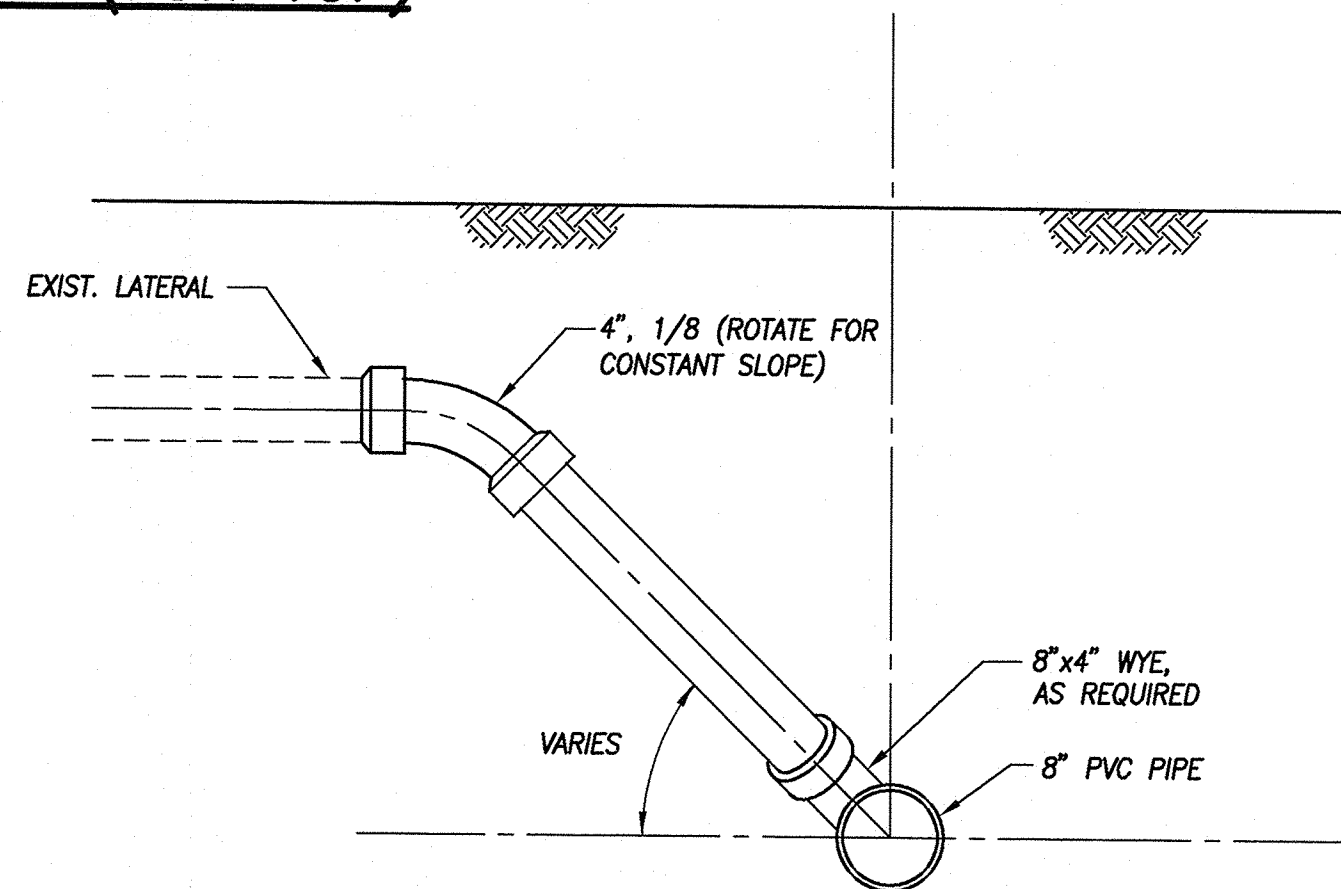


NOTES:

1. PAVEMENT STRUCTURE SHALL BE EQUAL OR BETTER THAN EXISTING PAVEMENT IN THICKNESS AND QUALITY
2. FOR GRASS AREAS, PROVIDE 6" LAYER OF TOPSOIL OR MATCH EXISTING, WHICHEVER IS GREATER, AND RE-GRASS TO MATCH EXIST.

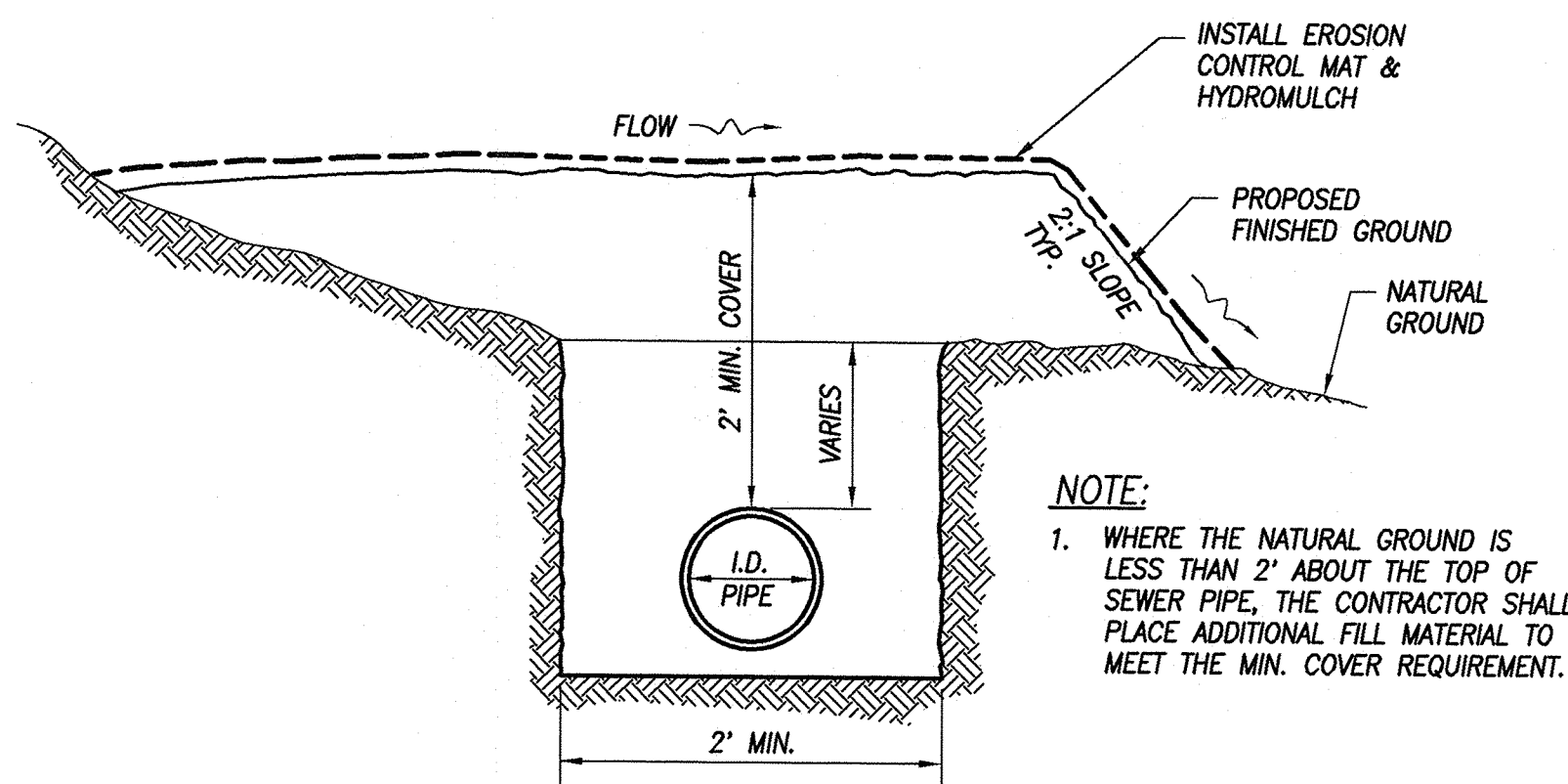
TYPICAL PVC SEWER TRENCH DETAIL

NOT TO SCALE



SEWER LATERAL CONNECTION DETAIL

NOT TO SCALE

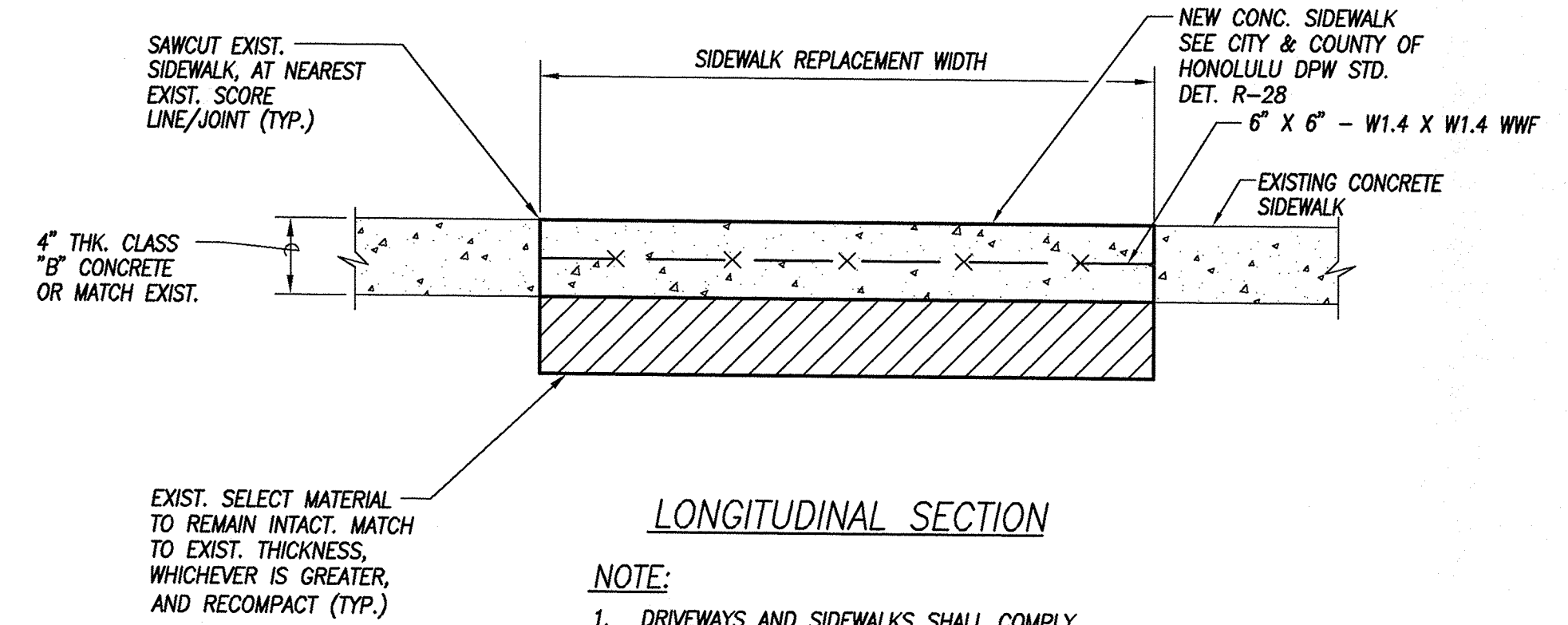


NOTE:

1. WHERE THE NATURAL GROUND IS LESS THAN 2' ABOUT THE TOP OF SEWER PIPE, THE CONTRACTOR SHALL PLACE ADDITIONAL FILL MATERIAL TO MEET THE MIN. COVER REQUIREMENT.

PIPE COVERAGE DETAIL

NOT TO SCALE



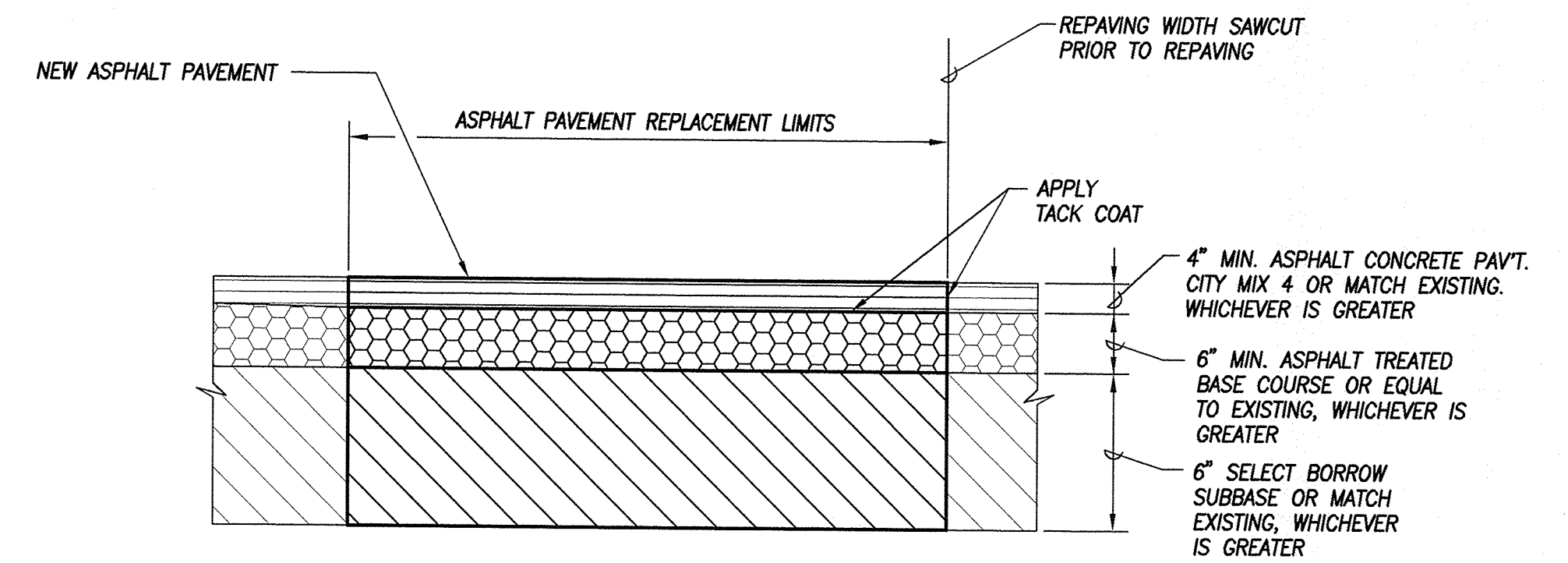
LONGITUDINAL SECTION

NOTE:

1. DRIVEWAYS AND SIDEWALKS SHALL COMPLY WITH THE DEPARTMENT OF PLANNING AND PERMITTING "JOINTING REQUIREMENTS FOR CONCRETE SIDEWALKS AND DRIVEWAYS" (ENGINEERING AND POLICY MEMORANDUM NO. CEB-1-09), DATED APRIL 6, 2009.

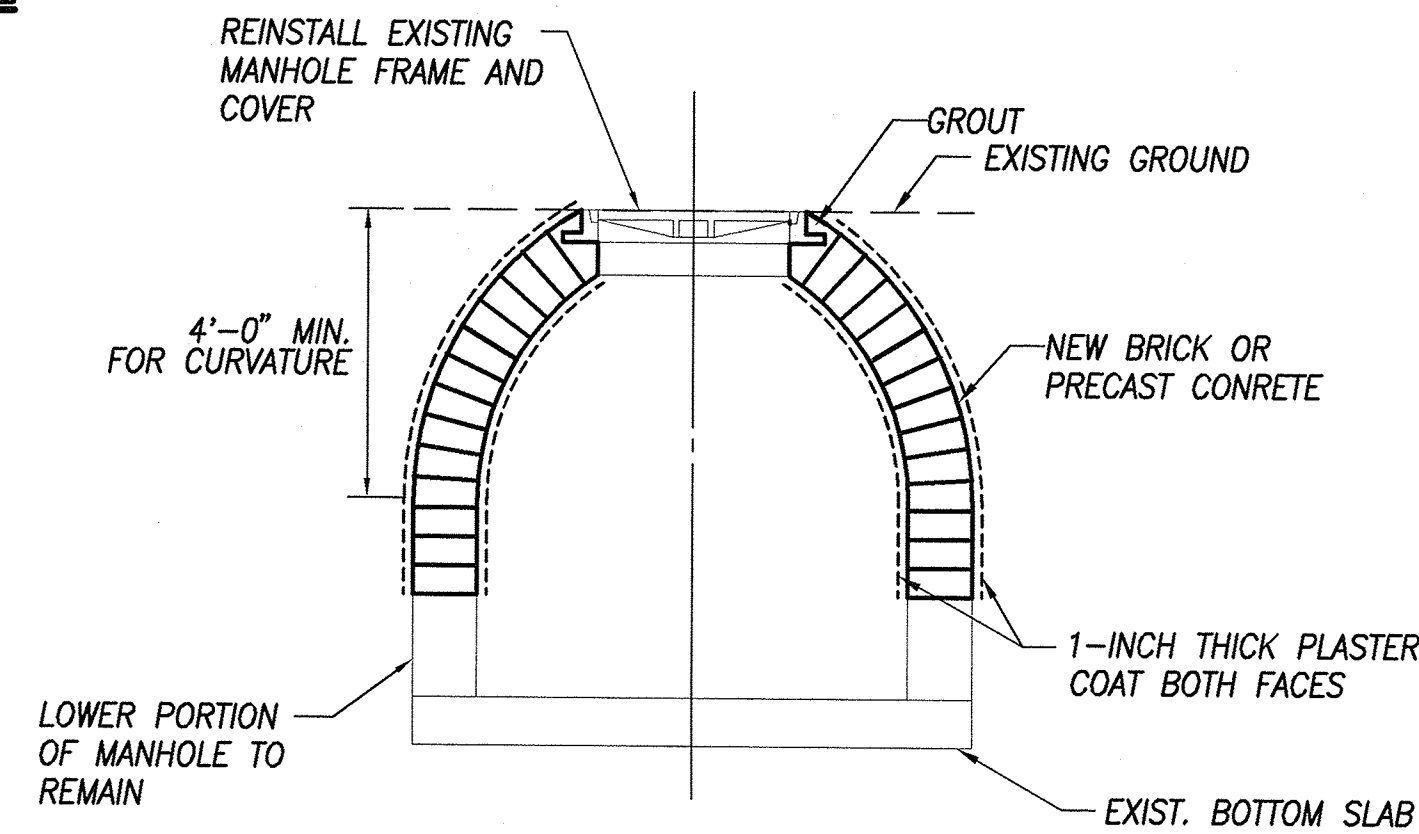
CONCRETE SIDEWALK RESTORATION

NOT TO SCALE



ASPHALT PAVEMENT RESTORATION

NOT TO SCALE



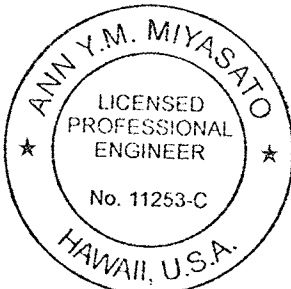


RECONSTRUCTION OF BRICK SEWER MANHOLE 318486

NOT TO SCALE

APPROVED:

CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE

ENGINEER	AM/SM								
DRAFTSMAN	SF								
CHECKED BY	AM								
<div></div>		REVISION	DATE	BRIEF	BY	APPROVED			
		<div><div><div>R. M. TOWILL CORPORATION</div><div>808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3494</div><div>Department of Hawaiian Home Lands</div><div>PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS</div><div>SEWER LINES E, F, L, A, C, D, AND K-3</div><div>Papakolea, Honolulu, Oahu, Hawaii</div></div></div>							
<div><p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. *OBSERVATION OF CONSTRUCTION* IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS"</p><div></div><div><div>Apr 2018</div><div>SIGNATURE LIC. EXP.</div></div></div>									

BMP NOTES:

TEMPORARY EROSION CONTROL MEASURES:

1. PRIOR TO GRADING, TEMPORARY EROSION CONTROL MEASURES, SUCH AS A COMPOST FILTER SOCK SHALL BE INSTALLED.
2. OPENING AND CLEARING OF LAND SHALL BE PERFORMED INCREMENTALLY TO MINIMIZE EROSION POTENTIAL.
3. WHEN CLEARED OR GRUBBED AREAS ARE NOT TO BE GRADED OR DISTURBED FOR 30 DAYS OR MORE, SEED, PLANT, OR HYDROSEED TEMPORARY VEGETATION, UNLESS REMAINING NATURAL VEGETATION PROVIDES ADEQUATE PROTECTION.
4. BIOSOCK COMPOST FILTER SOCK SHALL BE USED AT LOCATIONS SPECIFIED ON PLANS OR DESIGNATED BY THE CONSTRUCTION MANAGER.
5. SILT WHICH HAS ACCUMULATED ALONG THE FILTER SOCK SHALL BE REMOVED AND DISPOSED OF ON A BI-WEEKLY BASIS.
6. ALL SLOPES AND EXPOSED AREAS SHALL BE SODDED OR PLANTED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED.
7. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
8. ACCESS TO WORK AREAS SHALL BE BY FOOT. OFFSITE VEHICLE TRACKING IS NOT EXPECTED SINCE WORK VEHICLES SHALL NOT HAVE ACCESS TO WORK AREAS.

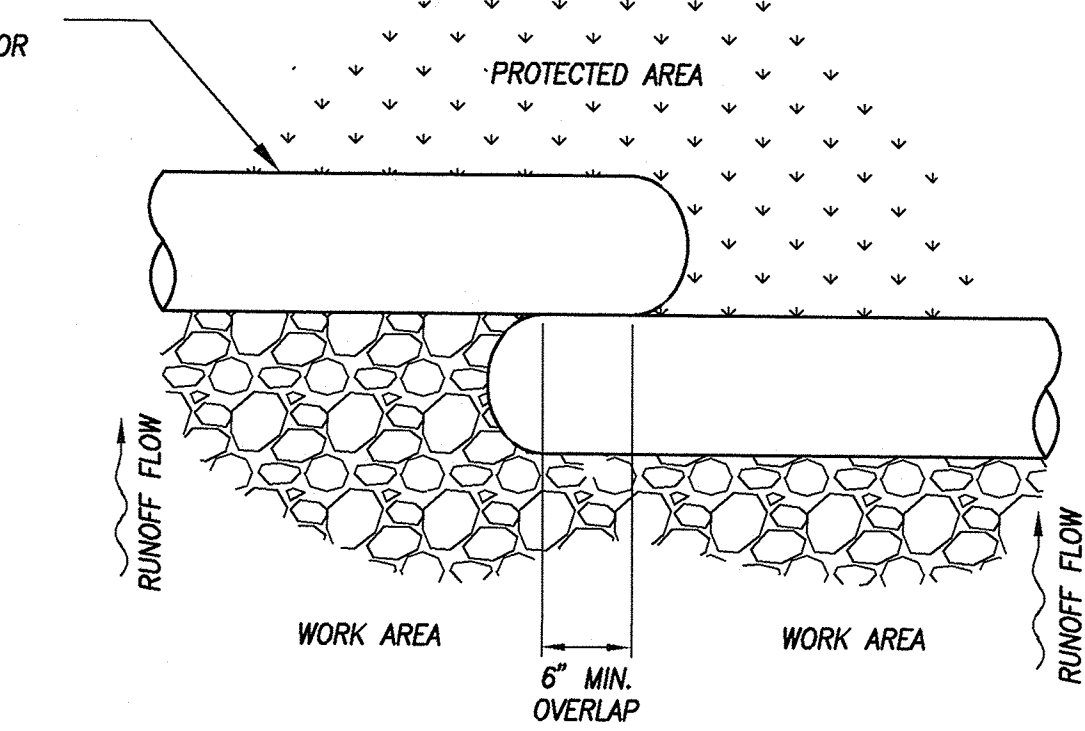
NOTES FOR ENVIRONMENTAL PROTECTION

1. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL PROVIDE EFFECTIVE MEASURES FOR THE CONTROL OF FUGITIVE DUST EMISSIONS FROM THE PROJECT AND SURROUNDING AREAS CAUSED BY HIS OPERATIONS. THESE MEASURES SHALL MEET THE REQUIREMENTS OF STATE ADMINISTRATIVE RULES, DEPARTMENT OF HEALTH, AIR POLLUTION CONTROL (11-60.1)
2. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE GRADING ORDINANCE TO PREVENT VIOLATION OF THE STATE ADMINISTRATIVE RULES, DEPARTMENT OF HEALTH, WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS. (11-54, 11-55) DUE TO EROSION AND RUN OFF TO STATE WATERS.
3. GRUB MATERIAL, DEMOLITION WASTES, AND CONSTRUCTION WASTES SHALL BE DISPOSED OF AT AN AUTHORIZED SITE HAVING A DEPARTMENT OF HEALTH SOLID WASTE MANAGEMENT PERMIT. OPEN BURNING IS PROHIBITED. THE CONTRACTOR SHALL INFORM THE COUNTY ENGINEER OF THE LOCATION OF THE DISPOSAL SITES. THE DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCES.
4. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE.
5. THE PROJECT SITE SHALL BE KEPT DAMP WITH WATER FOR SEVEN (7) DAYS A WEEK. AT THE END OF EACH DAY, THE SITE SHALL BE SUFFICIENTLY DAMPENED SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.
6. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO THAT EXCAVATION, EMBANKMENT AND IMPORTED MATERIAL SHALL BE DAMPENED WITH WATER DURING THE GRADING OPERATION.

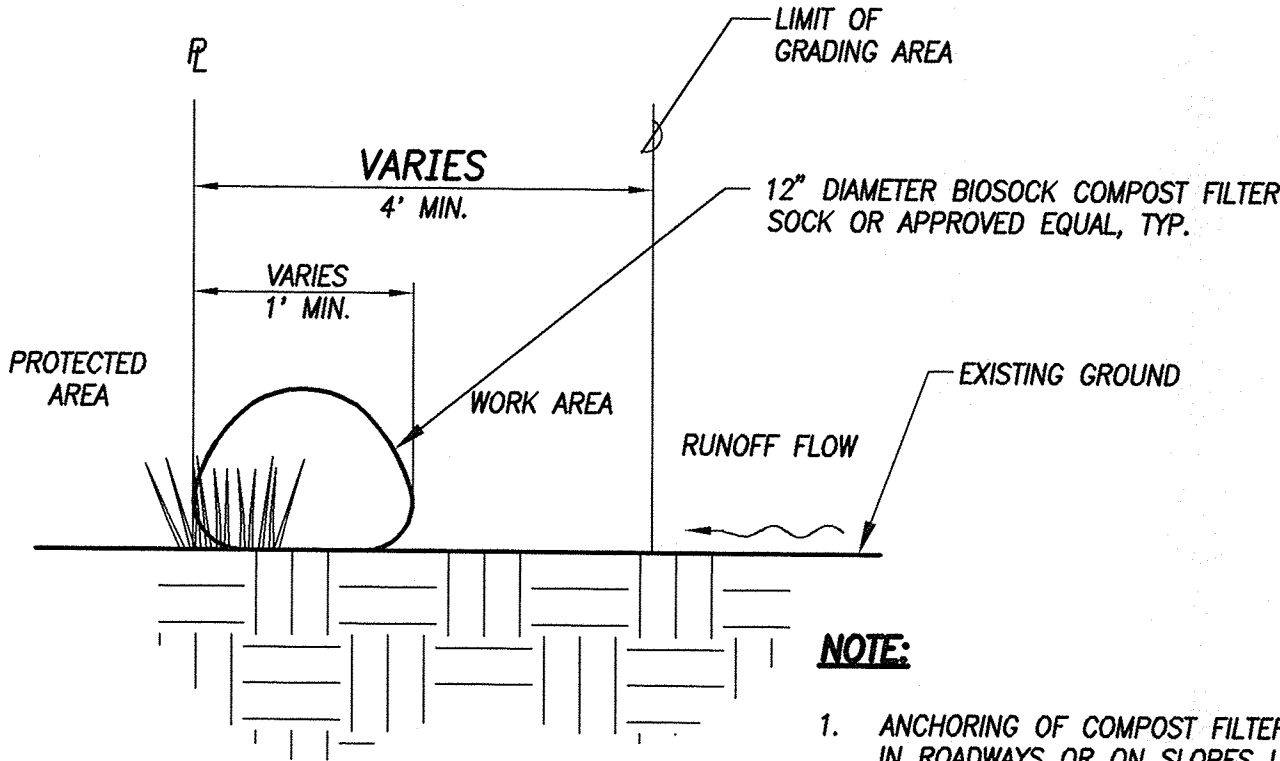
COMPOST FILTER SOCK NOTES:

1. COMPOST FILTER SOCK SHALL UTILIZE AN OUTER LAYER OF FILTRATION MESH, AND AN INNER LAYER OF CONTAINMENT NETTING. ALL LAYERS SHALL COLLECTIVELY ENCLOSE THE COMPOST FILTRATION MEDIA. COMPOST FILTER SOCK SHALL BE INSTALLED AS 12" NOMINAL DIAMETERS AS INDICATED ON THE PROJECT DRAWINGS, OR AS SPECIFIED BY THE PROJECT ENGINEER. COMPOST FILTER SOCKS SHALL BE BIOSOCK AS MANUFACTURED BY ENVIROTECH BIOSOLUTIONS, OR APPROVED EQUAL.
2. COMPOST FILTER SOCKS SHALL BE INSTALLED ONSITE USING A COMMERCIAL PNEUMATIC BARK BLOWER. ALTERNATIVELY, COMPOST FILTER SOCKS CAN BE PRE-FABRICATED OFFSITE IN PRE-DETERMINED LENGTHS AND THEN INSTALLED ONSITE. COMPOST FILTER SOCKS SHALL BE PLACED IN THE AREAS SHOWN ON THE PROJECT DRAWINGS OR AS DESIGNATED BY THE PROJECT ENGINEER.
3. WHERE MULTIPLE SECTIONS OF COMPOST FILTER SOCKS ARE REQUIRED TO FORM A CONTINUOUS RUN, THE SECTIONS SHALL BE INSTALLED ACCORDING TO THE ATTACHED DETAILED SPECIFICATIONS FOR PERIMETER PROTECTION AND SHALL HAVE A MINIMUM OVERLAP OF 6 INCHES.
4. INSPECT COMPOST FILTER SOCKS WHEN RAIN IS FORECAST, FOLLOWING RAINFALL EVENTS, AND DAILY DURING PROLONGED RAINFALL. REPAIR, MODIFY, OR SUPPLEMENT COMPOST FILTER SOCK INSTALLATIONS AS NEEDED OR AS REQUIRED BY THE PROJECT ENGINEER.
5. MAINTAIN COMPOST FILTER SOCKS TO PROVIDE ADEQUATE SEDIMENT HOLDING CAPACITY. SEDIMENT SHOULD BE REMOVED WHEN THE SEDIMENT ACCUMULATION REACHES THREE QUARTERS (3/4) OF THE BARRIER HEIGHT. REMOVED SEDIMENT SHOULD BE INCORPORATED IN THE PROJECT AT LOCATIONS DESIGNATED BY THE PROJECT ENGINEER OR DISPOSED OF PROPERLY.
6. UPON COMPLETION OF THE PROJECT AND AFTER PERMANENT BMPs SUCH AS GRASSING HAVE BEEN ESTABLISHED, THE COMPOST FILTER SOCK'S MESH AND NETTING SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY.

12" DIAMETER BIOSOCK COMPOST FILTER SOCK OR APPROVED EQUAL, TYP.



PLAN

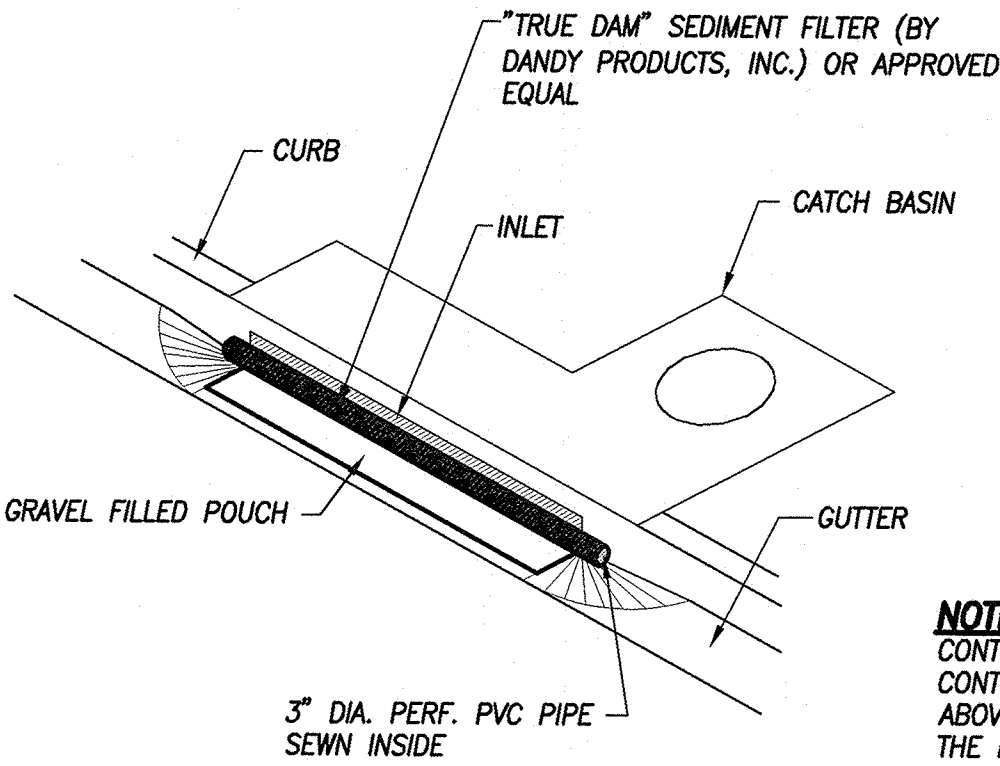


ELEVATION

BIOSOCK COMPOST FILTER SOCK (12" DIA.) NOT TO SCALE

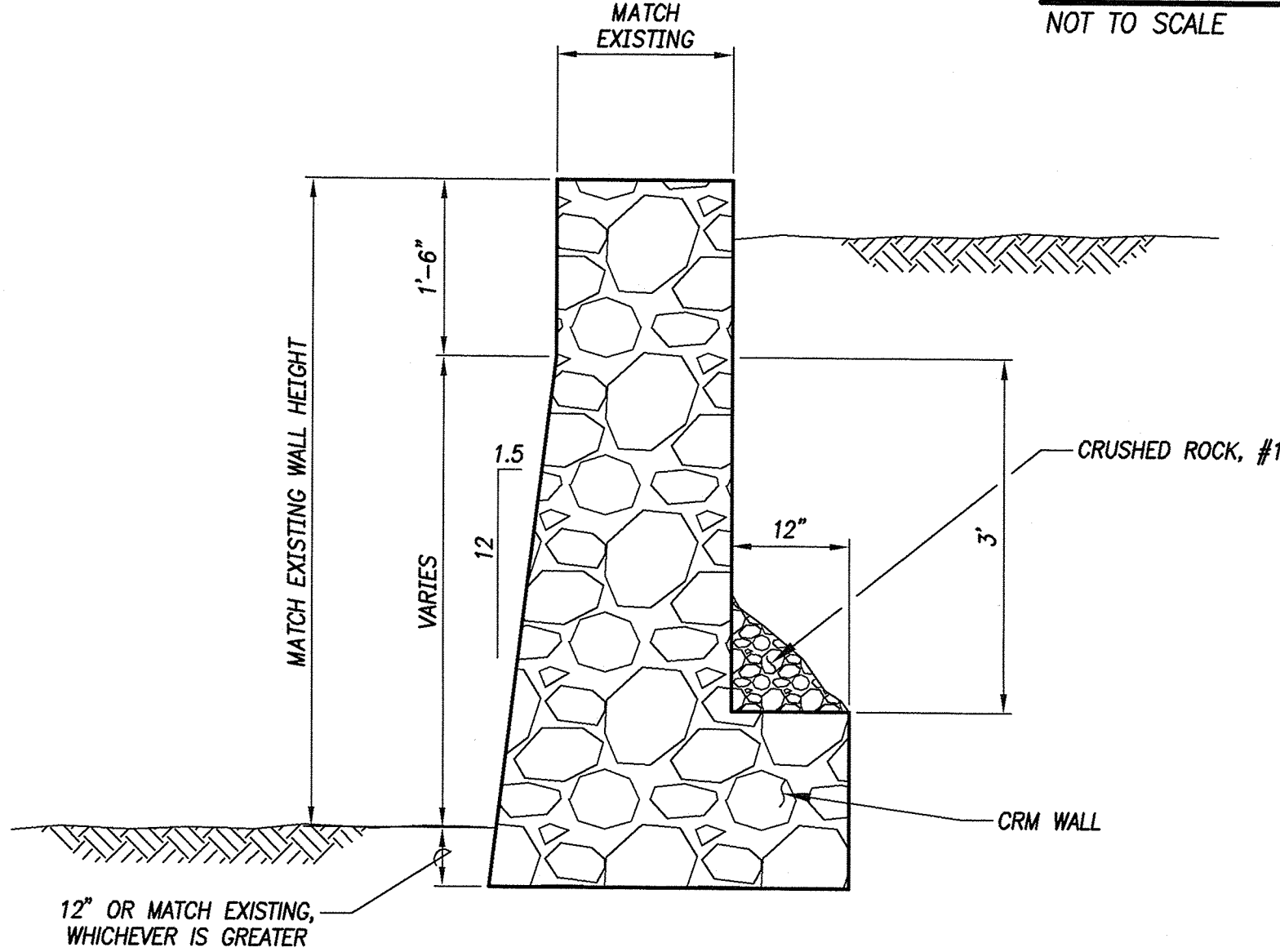
NOTE:

1. ANCHORING OF COMPOST FILTER SOCKS IS NOT REQUIRED IN ROADWAYS OR ON SLOPES LESS THAN 25%.
2. IF FILTER SOCK IS PLACED ON A SLOPE GREATER THAN 25%, INSTALL FILTER SOCK PER MANUFACTURERS REQUIREMENTS.
3. COMPOST SHALL NOT CONTAIN BIOSOLIDS AND SHOULD BE CONSISTENT WITH EPA GUIDELINES.

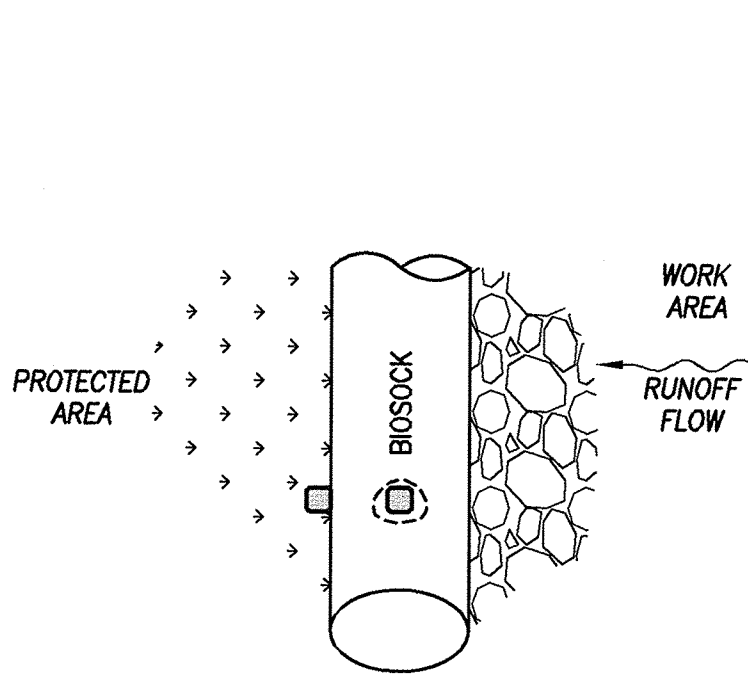


NOTE:
CONTRACTOR TO REMOVE SEDIMENT CONTROL FILTER IN THE EVENT OF AN ABOVE AVERAGE RAINFALL AND REPLACE THE FILTER AFTER THE STORM HAS PASSED.

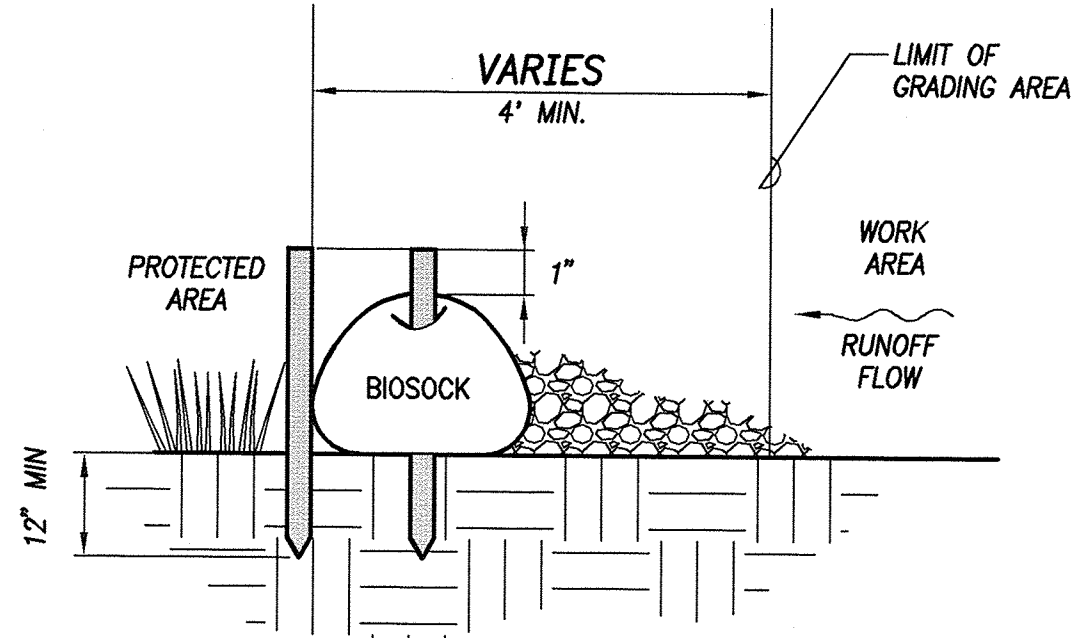
INLET PROTECTION AT CATCH BASIN NOT TO SCALE



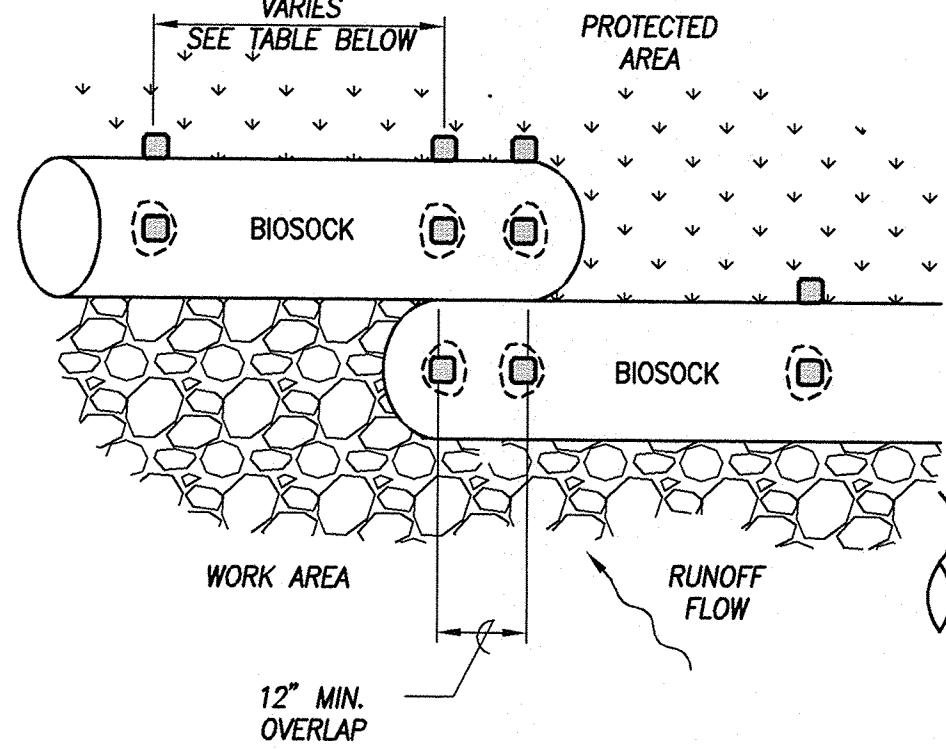
RECONSTRUCT ROCK WALL DETAIL NOT TO SCALE



PLAN



SECTION



OVERLAP

BIOSOCK ANCHOR DETAILS NOT TO SCALE

WOODEN STAKE ANCHOR SPACING

SLOPE GRADIENT	ANCHOR SPACING
<4:1	NOT REQUIRED
4:1 TO 3:1	10' ON CENTER
<3:1 TO 2:1	5' TO 10' ON CENTER
>2:1	5' ON CENTER

APPROVED:

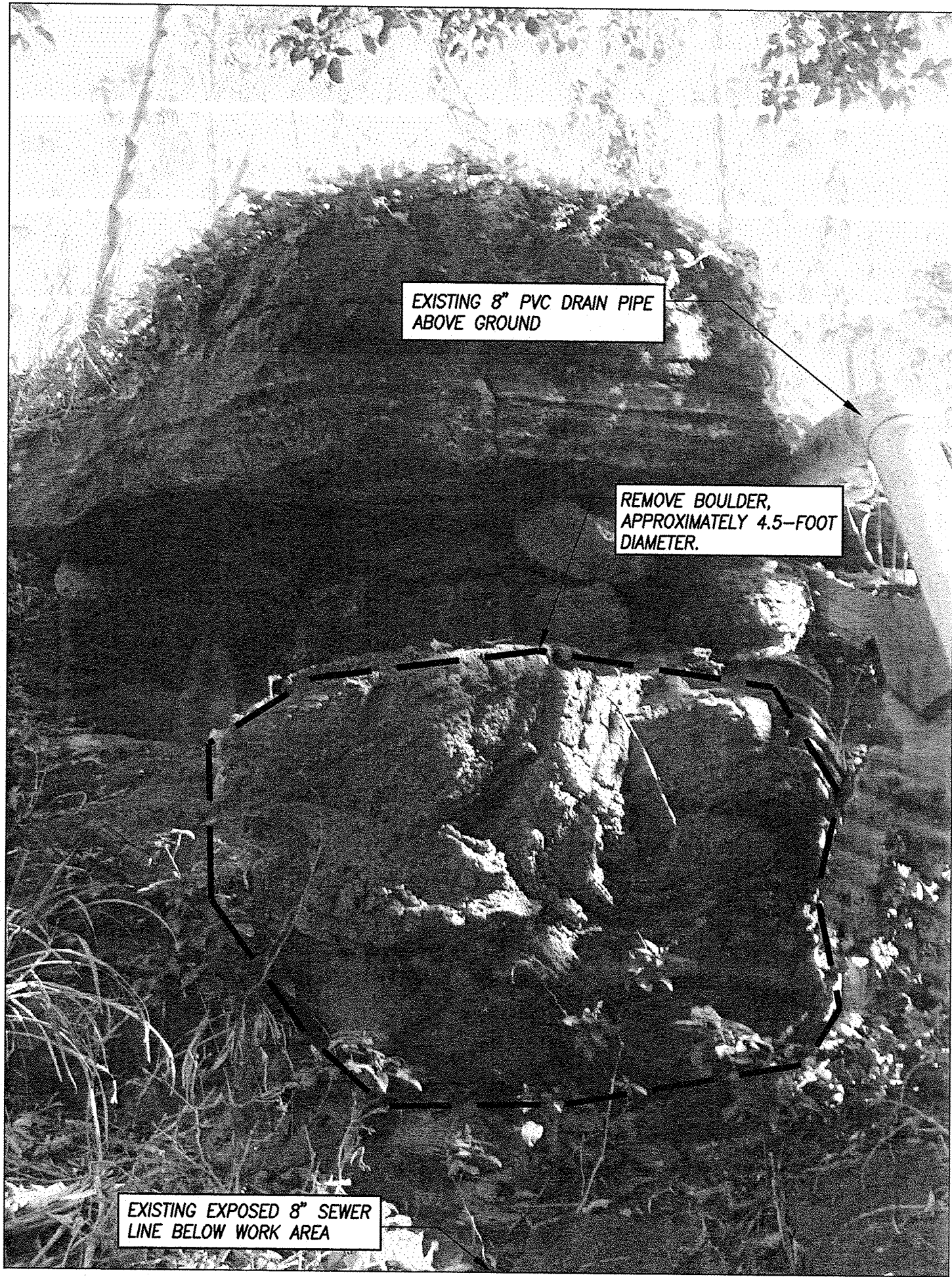
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

DATE

ENGINEER	AM/SM				
DRAFTSMAN	SF				
CHECKED BY	AM	REVISION	DATE	BRIEF	BY
		R. M. TOWILL CORPORATION 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3404 Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii			
		MISCELLANEOUS DETAILS - 1			



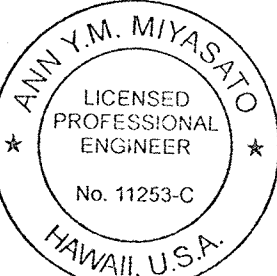


BOULDER REMOVAL – 1
NOT TO SCALE



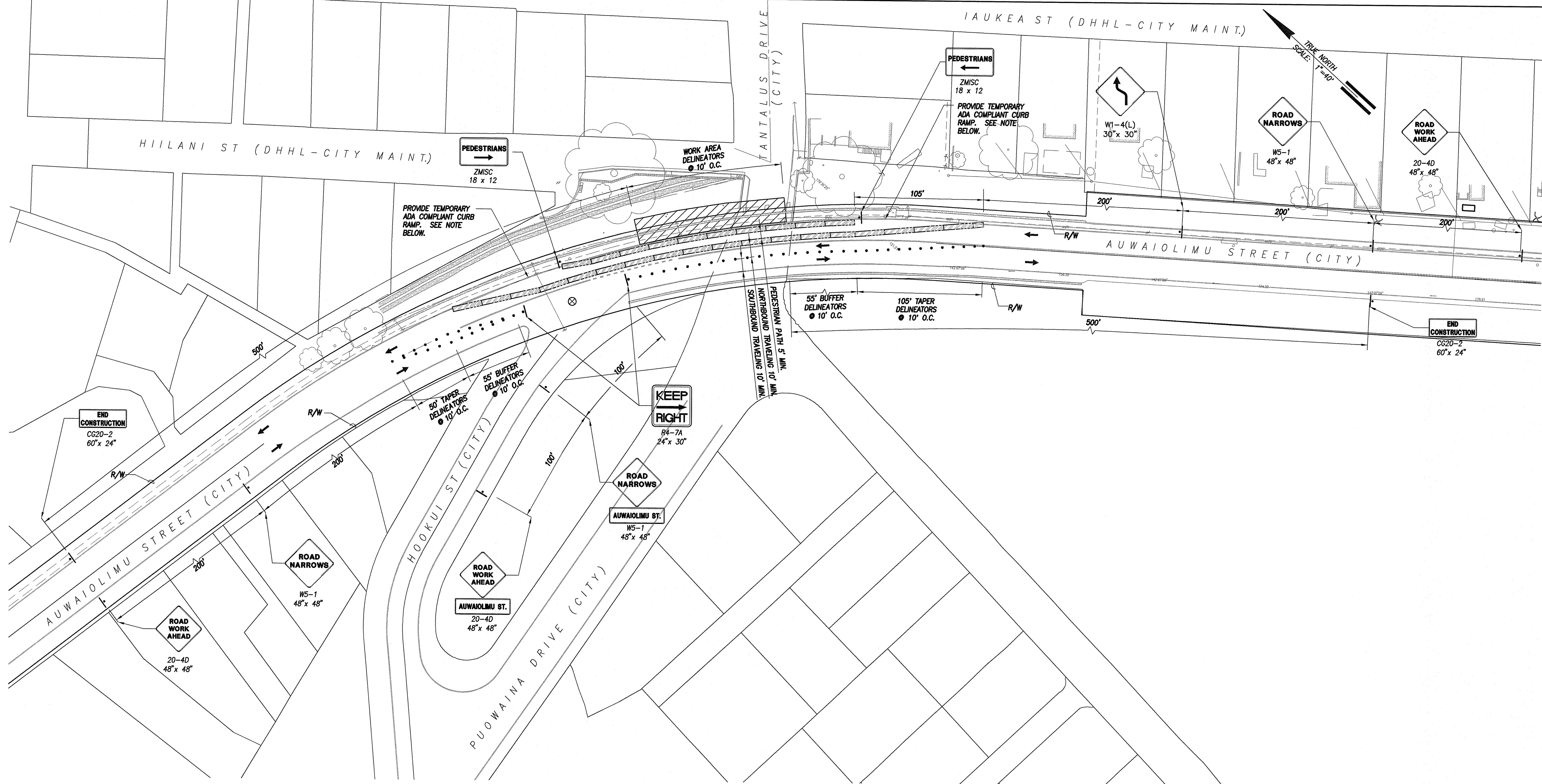
BOULDER REMOVAL – 2
NOT TO SCALE

BOULDER REMOVAL NOTES:

1. CONTRACTOR SHALL DEMOLISH BOULDERS BY JACK HAMMERING INTO SMALLER PIECES, APPROXIMATELY 6" IN DIAMETER.
2. CONTRACTOR SHALL PROVIDE PROTECTION TO ALL EXISTING UTILITIES AND STRUCTURES NEAR AND DOWNSLOPE OF THE WORK.
3. ROCK FRAGMENTS ARE TO REMAIN ON SITE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

ENGINEER	AM						
DRAFTSMAN	SF						
CHECKED BY	AM	REVISION	DATE	BRIEF	BY	APPROVED	
<div><p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".</p><p> Apr 2018 LIC. EXP.</p></div>		<div><p>R. M. TOWILL CORPORATION 808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3404 Department of Hawaiian Home Lands PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS SEWER LINES E, F, L, A, C, D, AND K-3 Papakolea, Honolulu, Oahu, Hawaii</p></div>					
		<div>MISCELLANEOUS DETAILS – 2</div>					

File: 06_Apr 2017 - 12:00pm
C:\Users\jgibbs\OneDrive\Documents\Drawings\19 - TSP - 1 St. Adv.dwg



TRAFFIC CONTROL PLAN – 1 SEWER LINE "A" SMH 318567 TO SMH 318502
SCALE: 1" = 40'

LEGEND

- • • DELINEATORS / CONES
- ⊕ FLAGMAN
- ⊕ SIGN
- ▨ WORK AREA
- DIRECTION OF TRAFFIC FLOW
- ⊗ POLICE OFFICER

NOTE:

1. CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) COMPLIANT WITH THE CURRENT AMERICANS WITH DISABILITIES ACT (ADA).
2. CONTRACTOR SHALL PROVIDE AN ADA COMPLIANT TEMPORARY CURB RAMP TO TRANSITION PEDESTRIANS FROM SIDEWALK TO TPAR. TEMPORARY CURB RAMP SHALL CONFORM TO ADA STANDARDS IN REGARDS, BUT NOT LIMITED, TO WIDTH, LENGTH, SLOPE, SURFACE MATERIAL, DETECTABLE EDGING, ETC.
3. BUFFER AND TAPE AREA ON APPROACH TO ANY WORK AREA SHALL BE KEPT CLEAR OF VEHICLES AND EQUIPMENT.

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH, DPP DATE

GRAPHIC SCALE:

1" = 40' 40' 20' 0 40' 80'

ENGINEER	AM/JB	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM					

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "CONSTRUCTION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".

Signature: *Amy M. Miyasato* Apr 2018 LIC. EXP.

R. M. TOWILL CORPORATION
808 842 1133 2024 North King Street Suite 200 Honolulu Hawaii 96819-3494
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS
SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

**TRAFFIC CONTROL PLAN – 1
SEWER LINE "A"
SMH 318567 TO SMH 318502**

FILE	POCKET	FOLDER	NO.

Tue, 03 Jan 2017 - 10:12am
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NOTE:

1. DRIVEWAYS SHALL BE KEPT OPEN UNLESS THE OWNERS OF THE PROPERTY USING THE RIGHT-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY. FURTHER, THE PERMITTEE SHALL CONTROL TRAFFIC GOING IN AND OUT OF DRIVEWAYS.

LEGEND

- • • DELINEATORS / CONES
- ⊕ FLAGMAN
- ⊕ SIGN
- ▨ WORK AREA
- DIRECTION OF TRAFFIC FLOW
- ⊗ POLICE OFFICER

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH, DPP _____ DATE _____

ENGINEER	AM/JB	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM					

ANN M. MIYASATO
LICENSED PROFESSIONAL ENGINEER
No. 11253-C
HAWAII, U.S.A.

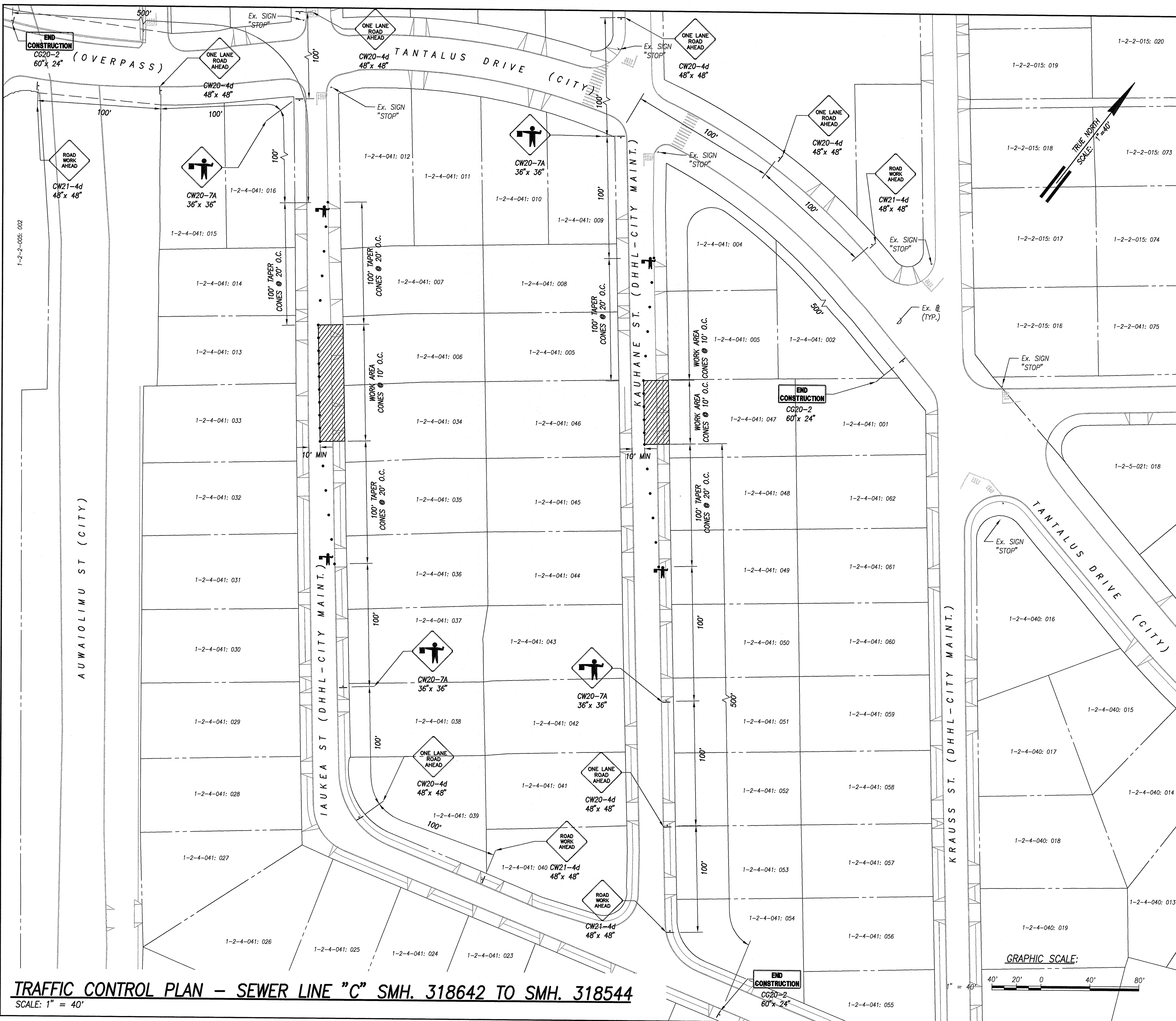
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808 842 1133 2024 North King Street Suite 200 Honolulu, Hawaii 96819-3404
Department of Hawaiian Home Lands
PAPAKOLEA SUBDIVISION SEWER IMPROVEMENTS PHASE 1
SEWER LINES A, C, D, K-3, AND L IMPROVEMENTS
Papakolea, Honolulu, Oahu, Hawaii

TRAFFIC CONTROL PLAN - 2
SEWER LINE "C"
SMH. C1 TO SMH. 318642

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Signature: Date: Apr 2018 Lic. Exp. _____

Tue 03 Jan 2017 - 11:09am
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NOTE:

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LEGEND

- • • DELINEATORS / CONES
- ✚ FLAGMAN
- ↓ SIGN
- ▨ WORK AREA
- DIRECTION OF TRAFFIC FLOW
- ⊗ POLICE OFFICER

APPROVED:

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ENGINEER	AM/JB	REVISION	DATE	BRIEF	BY	APPROVED
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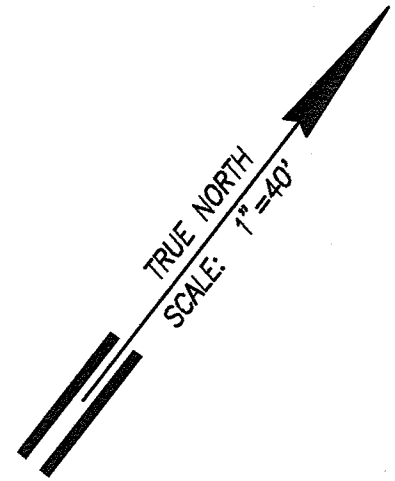
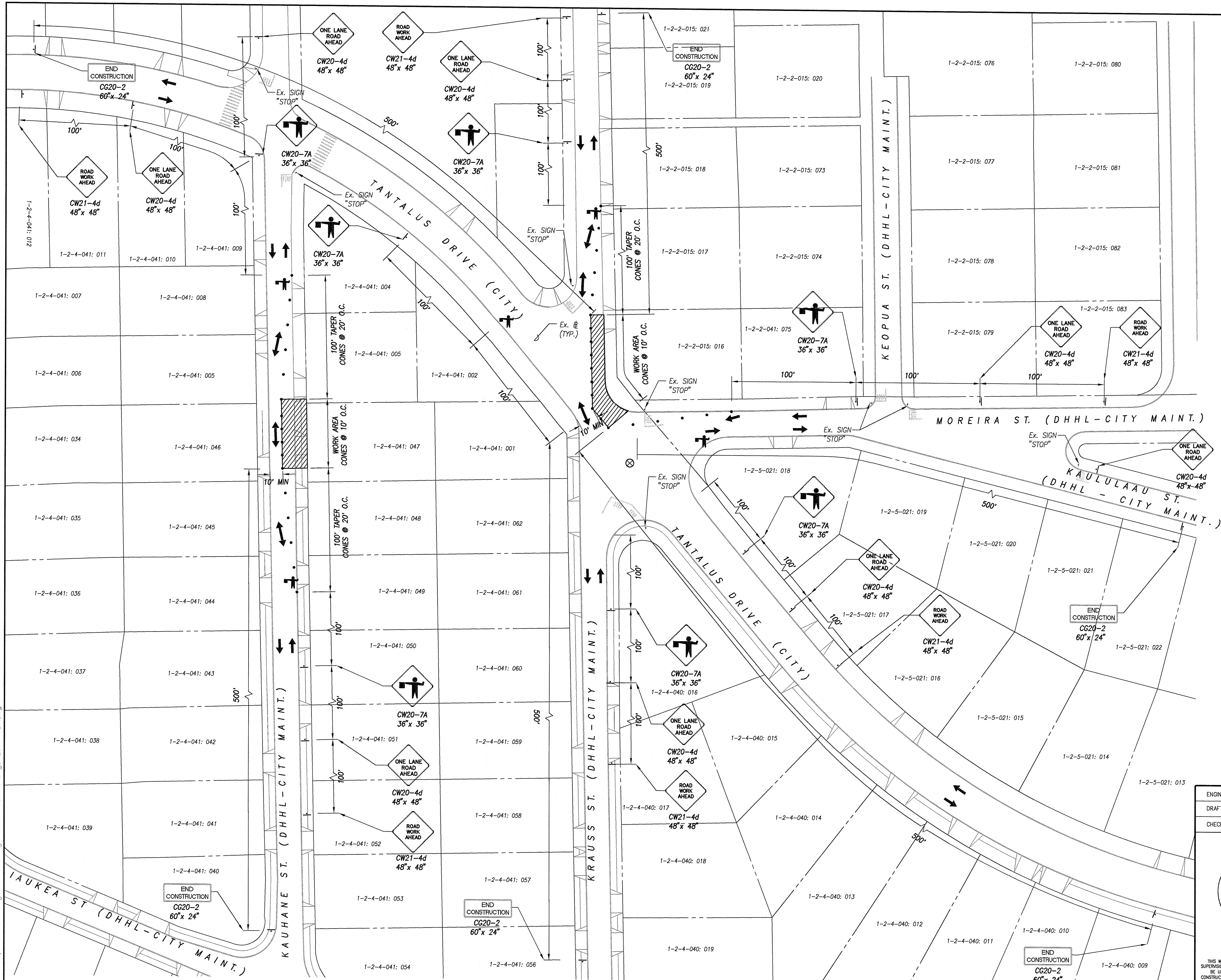
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Papakolea, Honolulu, Oahu, Hawaii

TRAFFIC CONTROL PLAN - 3
SEWER LINE "C"
SMH. 318642 TO SMH. 318544

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NOTE:

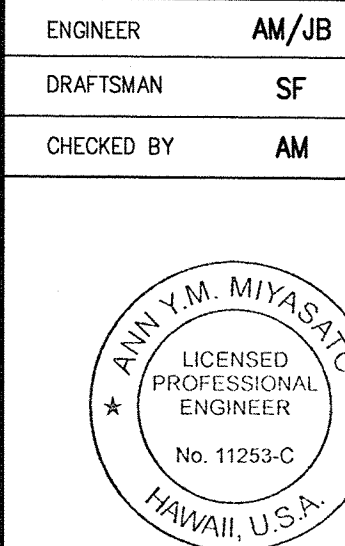
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LEGEND

- • • DELINEATORS / CONES
- ⚑ FLAGMAN
- ⚑ SIGN
- ▨ WORK AREA
- ➔ DIRECTION OF TRAFFIC FLOW
- ⊗ POLICE OFFICER

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Signature: _____
Date: Apr 2018
Lic. Exp. _____

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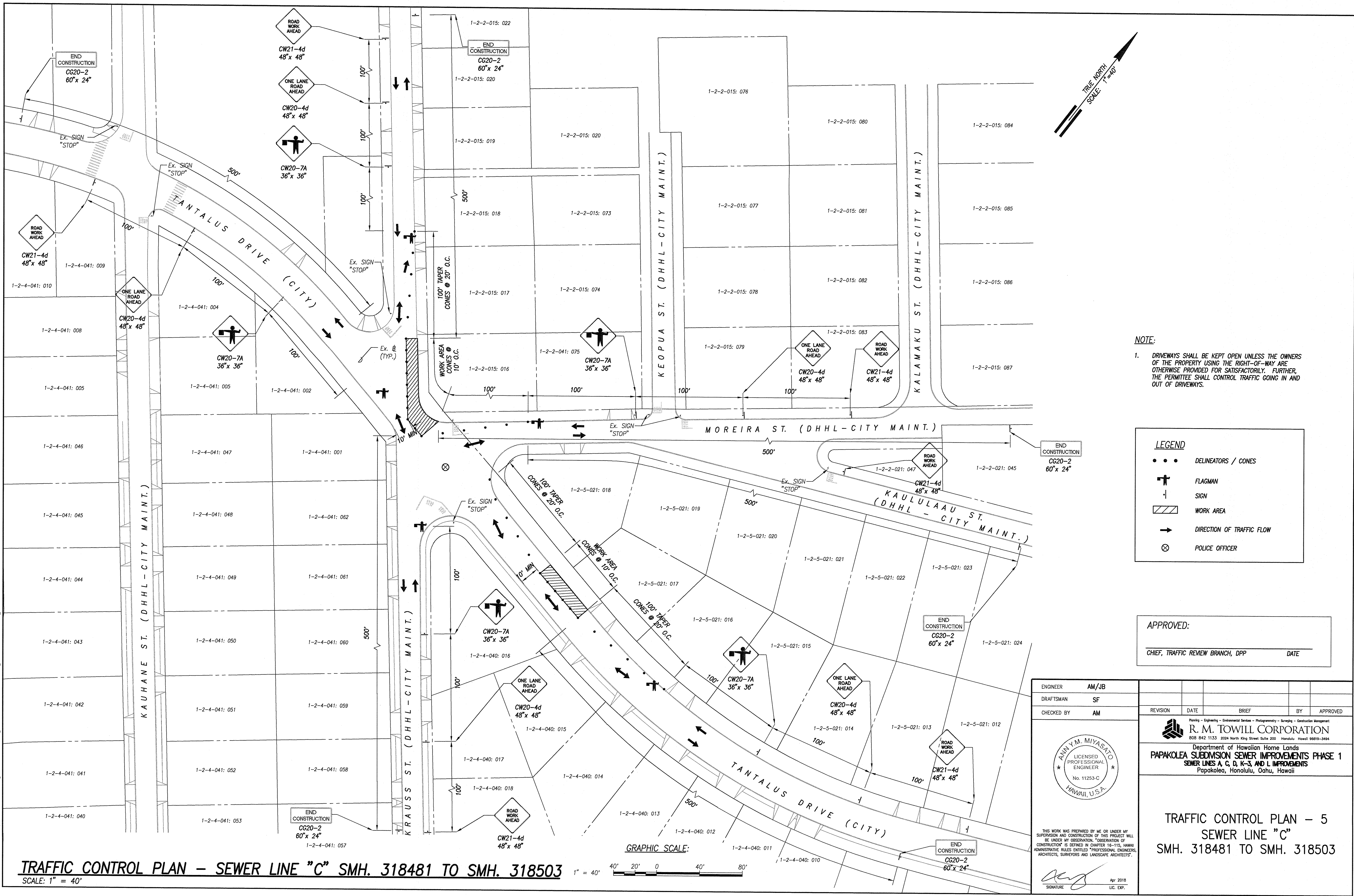
TRAFFIC CONTROL PLAN - 4
SEWER LINE "C"
SMH. 318544 TO SMH. 318481

TRAFFIC CONTROL PLAN - SEWER LINE "C" SMH. 318544 TO SMH. 318481
SCALE: 1" = 40'

GRAPHIC SCALE:
1" = 40' 0' 20' 40' 80'

1-2-4-041: 055

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NOTE:

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LEGEND

- • • DELINEATORS / CONES
- ⊕ FLAGMAN
- ⊖ SIGN
- ▨ WORK AREA
- DIRECTION OF TRAFFIC FLOW
- ⊗ POLICE OFFICER

TRAFFIC CONTROL PLAN - SEWER LINE "D" SMH. 318812 TO SMH. 318759

SCALE: 1" = 40'

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH, DPP DATE

GRAPHIC SCALE:

1" = 40' 40' 20' 0 40' 80'

ENGINEER	AM/JB	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM					

ANN Y.M. MIYASATO
LICENSED PROFESSIONAL ENGINEER
No. 11253-C
HAWAII, U.S.A.

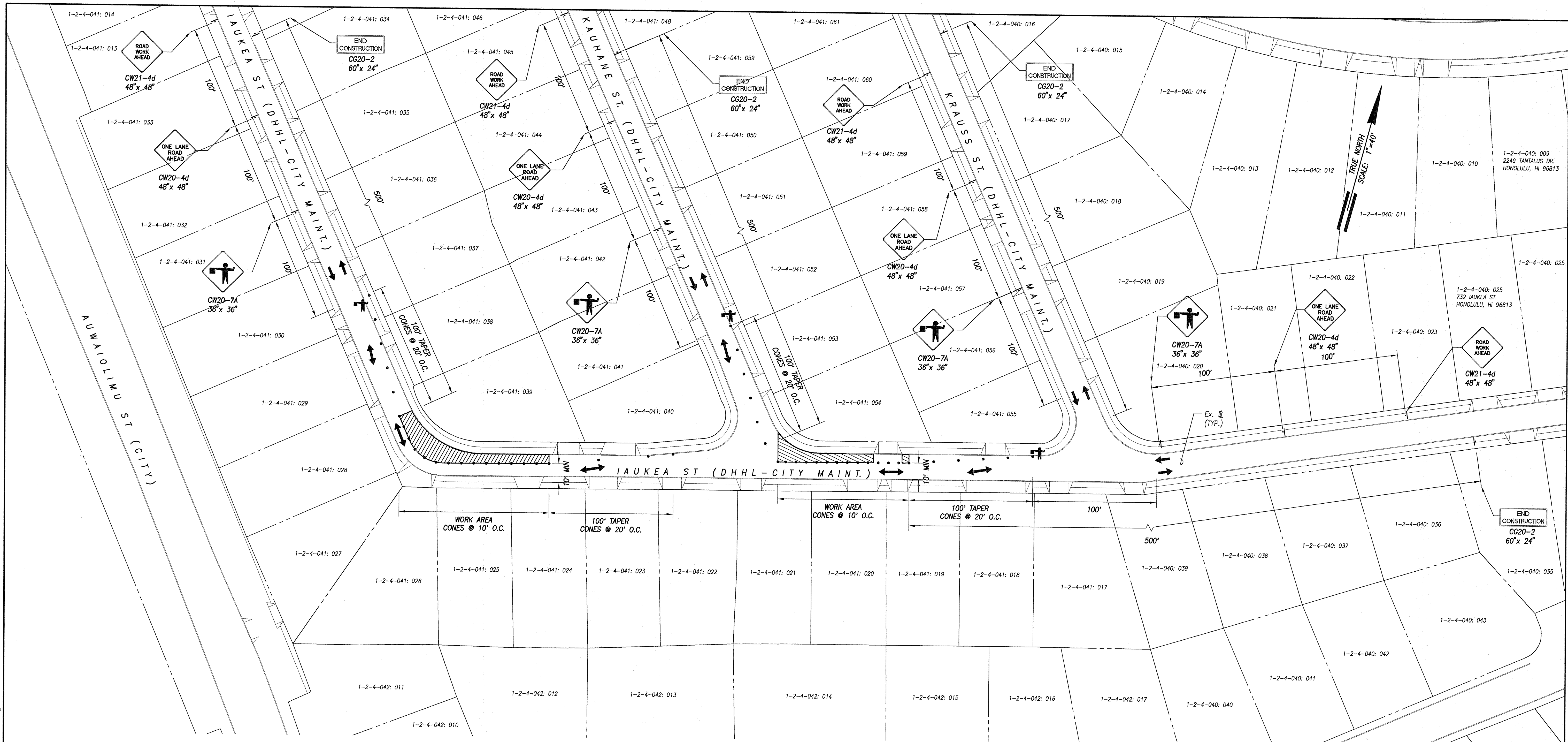
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TRAFFIC CONTROL PLAN - 6
SEWER LINE "D"
SMH. 318812 TO SMH. 318759

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NOTE:

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LEGEND

- • • DELINEATORS / CONES
- ⚑ FLAGMAN
- ⊥ SIGN
- ▨ WORK AREA
- ➔ DIRECTION OF TRAFFIC FLOW
- ⊗ POLICE OFFICER

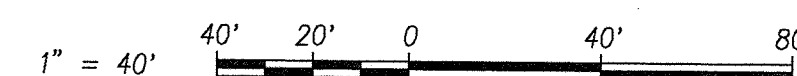
TRAFFIC CONTROL PLAN – SEWER LINE “D” – SMH. 318759 TO SMH. 318741

SCALE: 1" = 40'

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH, DPP DATE

GRAPHIC SCALE:



ENGINEER	AM/JB	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
CHECKED BY	AM					

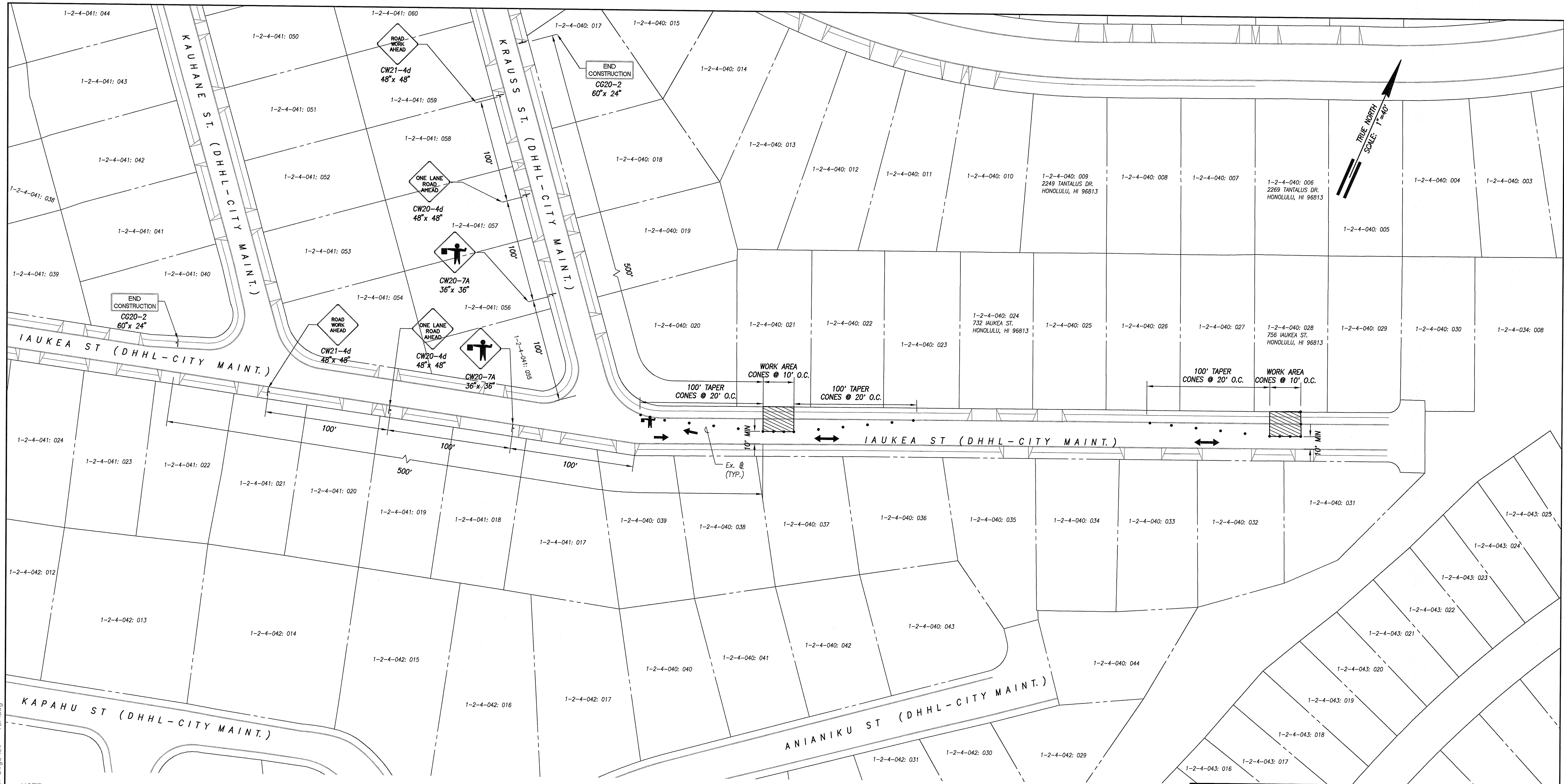
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TRAFFIC CONTROL PLAN – 7
SEWER LINE “D”
SMH. 318759 TO SMH. 318741

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NOTE:

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LEGEND

- • • DELINEATORS / CONES
- ⚑ FLAGMAN
- Ⓢ SIGN
- ▨ WORK AREA
- ➔ DIRECTION OF TRAFFIC FLOW
- Ⓜ POLICE OFFICER

TRAFFIC CONTROL PLAN - SEWER LINE "K-3"
SCALE: 1" = 40'

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH, DPP DATE

GRAPHIC SCALE:



ENGINEER	AM/JB	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
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ANN Y.M. MIYASATO
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HAWAII, U.S.A.

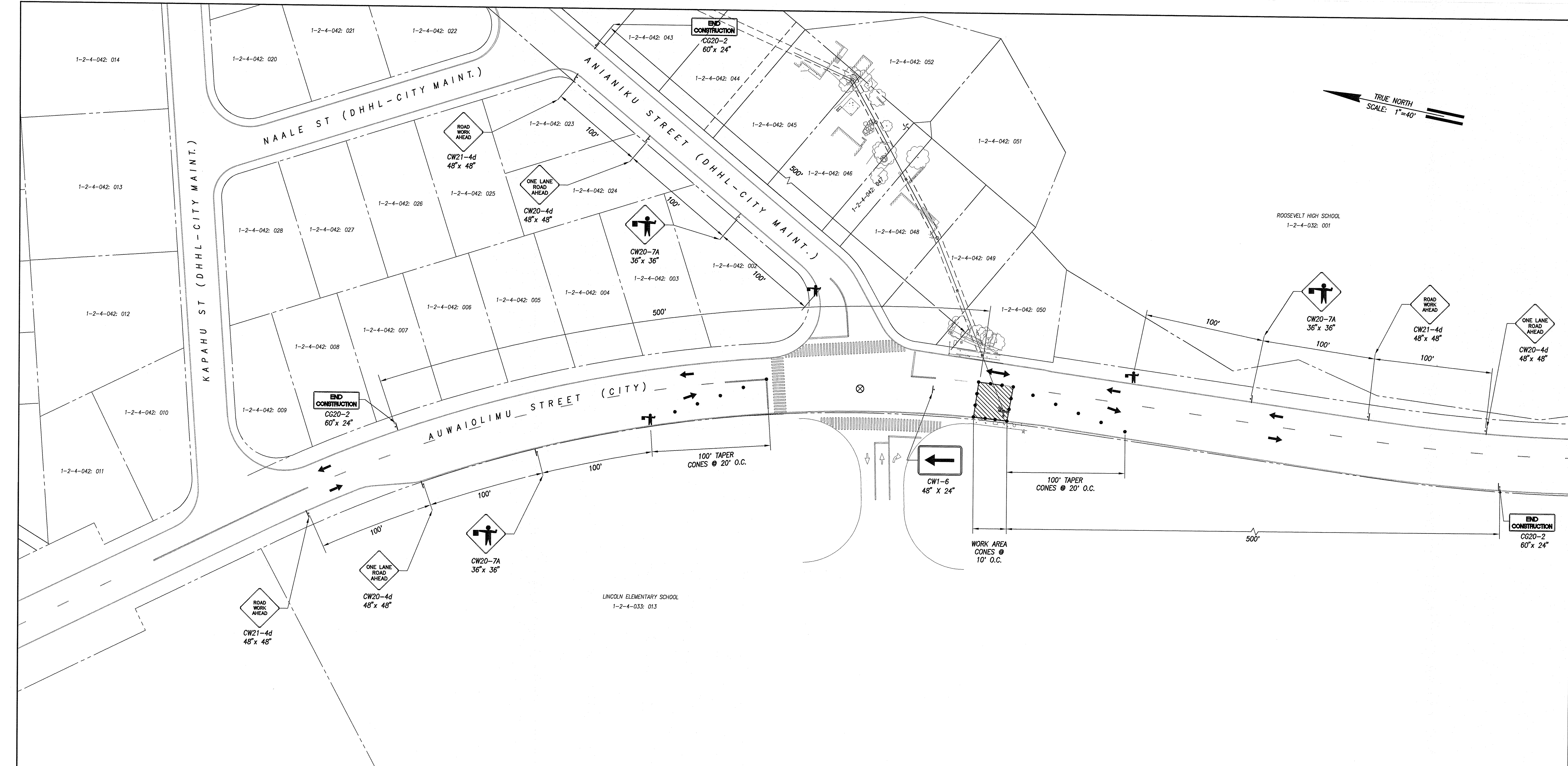
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TRAFFIC CONTROL PLAN - 9
SEWER LINE "K-3"

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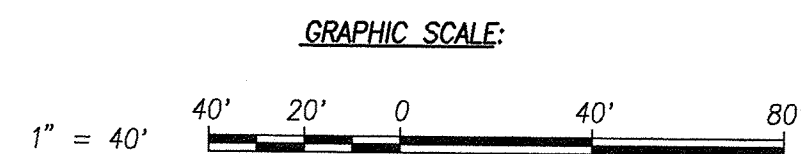
LEGEND

- • • DELINEATORS / CONES
- ⊠ FLAGMAN
- ⊠ SIGN
- ▨ WORK AREA
- DIRECTION OF TRAFFIC FLOW
- ⊗ POLICE OFFICER

TRAFFIC CONTROL PLAN
SCALE: 1" = 40'

APPROVED:

CHIEF, TRAFFIC REVIEW BRANCH, DPP DATE



ENGINEER	AM	REVISION	DATE	BRIEF	BY	APPROVED
DRAFTSMAN	SF					
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SEWER LINES E, F, L, A, C, D, AND K-3
Papakolea, Honolulu, Oahu, Hawaii

**TRAFFIC CONTROL PLAN - 10
SEWER LINE "L"**

FILE	POCKET	FOLDER	NO.