STATE OF HAWAII DEPARTMENT OF HAWAIIAN HOME LANDS

Signed: (Name)

Name of Firm/Company

Land Development Division
JAN 0 9 2015
Date
ADDENDUM NO. 1
TO
INVITATION FOR BIDS
IFB-15-HHL-005 GUARDRAIL AND DRAINAGE IMPROVEMENTS FOR VARIOUS MAUI SUBDIVISIONS
Notice to All Prospective Offerors
This addendum is hereby made a part of the contract documents for Guardrail and Drainage Improvements for Various Maui Subdivisions, IFB-15-HHL-005, and it shall amend the said contract documents as detailed within this Addendum document.
APPROVED: Norman L. Sakamoto, Acting Administrator Land Development Division Department of Hawaiian Home Lands
Please execute and immediately return the receipt below to the Department of Hawaiian Home Lands via facsimile to: (808) 620-9299, Mr. Stewart Matsunaga, Project Manager, Land Development Division.
Receipt of Addendum No. 1 for the Lower Kula Water System Improvements, Invitation for Bids No.: IFB-15-HHL-005, is hereby acknowledged.

Title

Date

ADDENDUM NO. 1

IFB NO.: IFB-15-HHL-005 Guardrail and Drainage Improvements for Various Maui Subdivisions

INCLUSIONS

This Addendum No. 1 shall incorporate the following amendments to IFB-15-HHL-005:

- 1. <u>Pre-bid Meeting Minutes</u>. The Minutes reflect discussions and amendments to the Pre-bid Meeting Agenda on January 6, 2015, including questions asked during the Pre-bid meeting;
- 2. Additional Questions (with Answers) Submitted to DHHL;
- 3. Revised Bid Proposal Form, Pages 3 to 6. (These revised pages replaces pages 3 to 6 in the Bid Proposal Form in the Invitation for Bids (IFB-15-HHL-005) published on the Department of Hawaiian Home Lands website on December 16, 2014).
- 4. Revised Construction Plans for:
 - a) Off-Site Drainage Improvements for Villages of Leialii; And,
 - b) Lot 238 (Kula) Guardrail and Lot 11 (Kula) Drainage Improvements.

(These revised Construction Plans replaces in their entirety the ones published in the Invitation for Bids (IFB-15-HHL-005) on the Department of Hawaiian Home Lands website on December 16, 2014).

MINUTES OF THE PRE-BID CONFERENCE

For Guardrail and Drainage Improvements at Various Maui Subdivisions

IFB-15-HHL-005

9:30 a.m., Tuesday, January 6, 2015 Waiohuli Community Center 881 Lauie Drive, Kula, Maui 96790

1. INTRODUCTIONS

Department of Hawaiian Home Lands (DHHL)

- Stewart Matsunaga, Project Manager
- Robert Ing, Land Agent

Austin Tsutsumi & Associates, Inc. (ATA)

- Paul Arita, P.E.
- Nikki Luong, P.E.

SSFM International, Inc.

• Brookes Aoki, Construction Manager

2. PURPOSE OF PRE-BID CONFERENCE

- Project overview and job site(s) visit
- Review procurement requirements
- Clarify bid documents.
- Submittal Schedule

3. SCOPE OF WORK

A) Lot 238 Guardrail (Kula Residence Lots)

- Installation of New W- Beam Guardrails on Lot 238, Kula Residence Lots Subdivision with End Treatments; and
- Installation, installation, maintenance, monitoring, and removal of BMP's.

B) Lot 11 Drainage (Kula Residence Lots)

- Clearing and grubbing (200 SY), and Handling and Removing Vegetation and Debris from off of DHHL Land, including the existing drain inlet;
- Demolishing and removing an existing concrete ditch on Lot 11;
- Reconstruct the portion of existing concrete ditch where it connected to the demolished ditch;
- Construct new concrete interceptor ditch, including excavation and embankment, reinforcement and connection to the existing ditch;
- Installation, installation, maintenance, monitoring, and removal of BMP's; And,
- Permanent erosion control, including hydro-mulch seeding and 90-Day Maintenance.

Minutes for Pre-Bid Conference Addendum No. 1; IFB-15-HHL-005 January 9, 2015

C) Off-Site Drainage Improvements For Villages of Leialii

- Clearing, grubbing and removing debris, including debris in the drainage inlets, and disposing it off-site from HHFDC and DHHL lands;
- Installation, maintenance, monitoring and removal of BMP's; And,
- Excavation for grassed swale and embankment for grassed berm. Permanent Erosion Control with hydro-mulch seeding with North American Green C350 Composite Turf Reinforcement or approved equivalent.
- Contractor to provide any additional ground material required for this work.

General

- All work must be performed in accordance with the Technical Specifications and Plans included in this IFB. *Revisions to the Plans and Bid Proposal Form will be issued by addendum shortly hereafter.
- All work and responsibilities listed in the Plan's 'General Construction Notes' are incidental to the bid proposal and are made part of this contract.

4. PROCUREMENT REMINDERS

- This project is not General Excise Tax (GET) exempt;
- This project is subject to Chapter 104 Hawaii Revised Statues (HRS), Department of Labor and Industrial Relations (DLIR) prevailing wages and salaries;
- After bid opening and prior to award of the contract, DHHL shall verify compliance with Sections 103D-310 and 103D-328 HRS. Bidders and all subcontractors may register with Hawaii Compliance Express (HCE). Instructions for HCE registration can be obtained at: http://vendors.ehawaii.gov;
- Failure by the bidder and/or any subcontractor to rectify a non-compliant status within ten business days of notification will be considered sufficient grounds for disqualification of the bidder and rejection of its proposal; And,
- In accordance with the provisions of Chapter 104-25, HRS, there are contractors who have been suspended from doing any work on State or County public work construction project. An updated list can be found at this web link: http://labor.hawaii.gov/wsd/prevailing-wages-on-public-works/contractors-suspended-under-chapter-104-hawaii-revised-statutues/

5. COMPLETION SCHEDULE AND LIQUIDATED DAMAGES

- Time to complete: Nine (9) months from Notice to Proceed
- Liquidated damages: \$500 per calendar day

Minutes for Pre-Bid Conference Addendum No. 1; IFB-15-HHL-005 January 9, 2015

6. QUESTIONS/ANSWERS ISSUED BY LAST ADDENDA

- A written summary of this pre-bid conference will be issued as an Addendum.
- Requests for clarifications and any questions after this meeting shall be made in writing and faxed to (808) 620-9299, no later than 4:30 p.m., January 9, 2015.
- Written answers to questions will be provided to all potential bidders via addenda on the DHHL website; any verbal responses by DHHL and Consultant shall not be binding.
- Interested bidders are responsible to check the DHHL website up until the date of bid opening for the issuance of any addenda.

7. **DEADLINES**

• The Submittals and Deadlines Table in the Pre-Bid Meeting Agenda has been revised as follows:

SUBMITTALS AND DEADLINES TABLE (rev. 1.8.15)

SUBMITTAL	DEADLINE
Hawaii Products Preference Request	2:30 P.M., January 9, 2015
Request for Substitutions	4:30 P.M, January 9, 2015
Notice of Intention to Bid	4:30 P.M, January 9, 2015
Standard Qualification Questionnaire	4:30 P.M, January 9, 2015
 SQQ submittals for previous projects are NOT valid 	
Written questions (Requests for Clarification)	4:30 P.M, January 9, 2015
Issuance of Last Addendum (If necessary)	4:30 P.M, January 13, 2015
 Interested bidders are required to check the DHHL 	·
procurement website for any Addenda issued.	
Bid Opening	2:00 P.M, January 21, 2015
• Sealed bids due by 2:00 P.M., January 21, 2015 at the	
DHHL Maui District Office, at 655 Kaumualii Street,	,
Suite 1, Wailuku, Hawaii 96793, according to its time	
clock.	·
 Bids <u>WILL NOT</u> be accepted at the DHHL's Main 	·
Office in Kapolei, Oahu.	
 Bids will be opened shortly after 2:00 P.M. and read 	
aloud in a conference room to be determined.	
(Bidders are welcome to attend).	
• Bids submitted after 2:00 P.M., January 21, 2015 will	
be time-stamped, but not accepted or opened.	
 Bid Forms are included in the IFB package. 	

Award of contract will be made to the responsible and responsive bidder with the lowest "Total Sum Bid", approximately within two weeks following bid opening and after certification of the bid tabulation, subject to change.

8. QUESTIONS AND ANSWERS

1. Can projects be closed separately?

Response: Yes, and contractor may work on all three sites simultaneously.

2. Is a water source available at each site?

Response: Allowance is provided for water requirements at each site.

3. Are easements required for the contracted work?

Response: No easements in favor of contractor is required. DHHL will secure

a Right-of-Entry from Hawaii Housing Finance and Development

Corporation (State of Hawaii) for Leialii Drainage work.

4. Are grading permits required?

Response: County of Maui Grading Permit is required for Leialii Drainage

work. Contractor is responsible to secure the grading permit.

9. SITE INSPECTIONS FOLLOWING PRE-BID CONFERENCE-

- Lot 11 Drainage- 105 Kauila'aha Street, Kula (Corner of Kauila'aha Street & Keanuhea Street).
- Lot 238 Guardrail- 420 Lauie Drive, Kula
- Villages of Leialii Drainage- End of Leialii Parkway, Lahaina (Turn Mauka at the Lahaina Civic Center on Leialii Parkway and drive to the end of the road)

Guardrail and Drainage Improvements at Various Maui Subdivisions IFB-15-HHL-005

ADDITIONAL QUESTIONS SUBMITTED TO DHHL:

QUESTION #1

On drawing C-4 of the Villages of Leialii site plan, there appears to be callouts for the removal and replacement of the existing drain inlet frames and grates. This work does not appear on the bid offer form for the Off-Site Drainage Improvements for Villages of Leialii project. Under which item on the bid offer form will this work be included and paid for?

ANSWER: Revisions were made to the Construction Plans and Bid Proposal Form in this IFB to address this matter and are included in this Addendum No. 1.

QUESTION #2

The plans provided with the electronic bid documents are currently in 11" x 8.5" format making the notes and callouts very difficult to read and the scales inaccurate. Could you provide the PDF files for these plans in a 36" x 24" format?

ANSWER: Yes. The Revised Construction Plans in this addendum are formatted for 36" x 24" printing.

The following bid is hereby submitted for IFB No.: IFB-15-HHL-005 for the Department of Hawaiian Home Lands.

The prices herein for the following items shall include all materials, labor, tools, equipment, machinery and all incidentals necessary, including excavation and backfill, to install or to construct these items in place complete and in accordance with the plans and specifications.

A. OFF-SITE DRAINAGE IMPROVEMENTS FOR VILLAGES OF LEIALII

	No. of Units	The prices herein for the following items shall include all materials, labor, tools, equipment, machinery and all incidentals necessary, including excavation and backfill, to install or to construct these items in place complete and in accordance with the plans and specifications.		Price/Unit	Total Price
		SITE WORK			
1.	L.S.	Clearing and Grubbing (1425 SY), Including Removal of Debris From Drain Inlets and Handling and Removal of Vegetation and Debris From HHFDC and DHHL Lands; In Place Complete		L.S.	\$
2.	670 L.F.	Installation, Maintenance, Monitoring, and Removal of Dust Screen with Silt Fence; In Place complete	i		\$
3.	170 S.Y.	Installation, Maintenance, Monitoring, and Removal 8" Thick Ingress/Egress Gravel Access; In place complete			\$
4.	2 EA	Installation, Maintenance, Monitoring, and Removal of Temporary Storm Grate Filtration; In Place Complete			\$
5.	1,425 S.Y.	Permanent Erosion Control Measures for All Graded Areas, Including Hydro-Mulch Seeding and 90 Day Maintenance; In Place Complete			\$
6.	1,425 S.Y.	Install North American Green C350 Composite Turf Reinforcement or Approved Equal; In Place Complete			\$

7.	17	Excavation for Grassed Swale; In place			
	C.Y.	complete		\$	
8.	750 C.Y.	Embankment for Grassed Berm; In place		\$	
	C. Y.	complete		Ф	
9.	2 EA	Replace Frame and Grate of Existing Drain Inlet; In Place Complete		\$	
		SUBTOTAL (Items 1 - 9)	\$		

B. GUARDRAIL (LOT NO. 238, KULA RESIDENCE LOTS- UNIT 1 SUBDIVISION)

	No. of Units	The prices herein for the following items shall include all materials, labor, tools, equipment, machinery and all incidentals necessary, including excavation and backfill, to install or to construct these items in place complete and in accordance with the plans and specifications.	Price/Unit		Total Price
		SITE WORK			
1.	75 L.F.	Installation, Maintenance, Monitoring, and Removal of Silt Fence; In Place Complete		\$	
2.	66 L.F.	New W-Beam Guardrails; In Place Complete		\$	
3.	2 EA	New Guardrail End Treatments (Terminal Section Type Rounded RWE03a); In Place Complete		\$	
		SUBTOTAL (Items 1 - 3)	\$ -	!	

C. DRAINAGE DITCH (LOT NO. 11, WAIOHULI-HIKINA SUBDIVISION)

			 		, -
	No. of Units	The prices herein for the following items shall include all materials, labor, tools, equipment, machinery and all incidentals necessary, including excavation and backfill, to install or to construct these items in place complete and in accordance with the plans and specifications.	Price/Unit		Total Price
		SITE WORK			
1.	L.S.	Clearing and Grubbing (200 SY), Including Removal of Debris From Drain Inlet and Handling and Removal of Vegetation and Debris From DHHL Lands; In Place Complete	L.S.	\$	
		•			
2.	175 L.F.	Installation, Maintenance, Monitoring, and Removal of Dust Screen with Silt Fence; In Place complete			
3.	56	Installation, Maintenance, Monitoring, and			
	S.Y.	Removal 8" Thick Ingress/Egress Gravel Access; In place complete		\$	
4.	1 EA	Installation, Maintenance, Monitoring, and Removal of Temporary Storm Grate Filtration; In Place Complete	The state of the s	\$	
5.	200 S.Y.	Permanent Erosion Control Measures for All Graded Areas, Including Hydro-Mulch Seeding and 90 Day Maintenance; In Place Complete			·
6.	97 L.F.	Demolition and Removal of Portion of Existing Concrete Ditch; In Place Complete		\$	
7.	L.S.	Reconstruct Portion of Existing Concrete Ditch; In Place Complete	L.S.	\$	
			 	1	
8.	115 L.F.	New 4' Wide Concrete Interceptor Ditch Including Reinforcing and Connections (2) to Existing Ditch; In Place Complete		\$	
				1	
9.	34 C.Y.	12" Select Borrow for Concrete Ditch; In Place Complete		\$	

10.	80	Excavation for Concrete Ditch; In Place		
	C.Y.	Complete		\$
11.	9	Embankment for Concrete Ditch; In Place		
	C.Y.	Complete	 	\$
		,	,	
		SUBTOTAL (Items 1 - 11)		\$

D. OTHER

1.	General Excise Tax (4.166%), based on Items	Price/ Unit	Total Price
	A, B, C (Above).	L.S.	\$
2.	Allowance for Archaeological Monitoring, Geotechnical Services, Surveying, Drainage Inlet Variables, Mitigating Varying Site Conditions, and Other Emergency Services as Needed and Approved by DHHL.	Allowance	\$ 55,000.00
	SUBTOTAL (Items 1-2)		\$

		SU	BTOTAL (Items 1-2)		\$
		SUBTOTALS:	A) \$		
			B) \$		
			C) \$		
			D) \$		
		TOTAL SUM BID:	\$		
TOT.	AL SUM	I BID =			
	ı		D	ollars(\$	

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.

DEPARTMENT OF HAWAIIAN HOME LANDS STATE OF HAWAII

CONSTRUCTION PLANS FOR:

OFFSITE DRAINAGE IMPROVEMENTS FOR VILLAGES OF LEIALI'I LAHAINA, MAUI, HAWAII

LOCATION	MAP			INDEX TO DRAWINGS
		SHEET	DRAWING	DESCRIPTION
PROJECT		1	T-1	TITLE SHEET AND INDEX
KAPALUA BEACH KAHULUI KAHULUI HAIKU	PROJECT	2	C-1	CONSTRUCTION NOTES
KAANAPALI WAILUKU KAHULUU PAIA MAKAWAO	LEIALI'I PKWY	3	C-2	GENERAL SITE PLAN
OLINDA KULA	AIPUNI ST KANIAU RD	4	C-3	PLAN AND PROFILE
HANA HANA HALEAKALA NATIONAL PARK	SE SILLANI HWA	5	C-4	GRADING PLAN
WAILEA MAKENA	MALANA. WAHIKULI RD WAHIKULI RD	6	C-5	CROSS SECTIONS-1
	HAMAU PL	7	C-6	CROSS SECTIONS-2
ISLAND OF MAUI	TIS THOUGH IT IS THOUGH IT IN IT IS THOUGH IT IN IN IT IS THOUGH IT IS THOUGH IT IS THOUGH IT IN IN IT IS THOUGH IT IS THOUGH IT IN IN IT IS THOUGH IT IS THOUGH IT IN IT IN IT IS THOUGH IT I	8	C-7	CROSS SECTIONS-3
5 0 5 10 15		9	C-8	CROSS SECTIONS-4
SCALE IN MILES		10	C-9	CROSS SECTIONS-5
<u>VICINITY PLAN</u>	LOCATION PLAN NOT TO SCALE	11	C-10	CROSS SECTIONS-6
		12	C-11	EROSION CONTROL DETAILS

JOB NO. 11-514.A2

T-1

SHEET 1 OF 12

GENERAL CONSTRUCTION NOTES

- 1. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION 2005" AS AMENDED, AND THE "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTIES OF THE STATE OF HAWAII, THE "STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION STANDARD PLANS" 2008, THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE FOR STREETS AND HIGHWAYS", 2009, AND THE CONSTRUCTION DRAWINGS, DETAILS & SPECIFICATIONS PREPARED FOR THIS PROJECT.
- 2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, AND SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF SAME IN THE EVENT OF DAMAGES DUE TO HIS CONSTRUCTION PRACTICES.
- 3. WHEREVER CROSSINGS OR CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGES TO THE FACILITIES WHETHER SHOWN OR NOT ON THE PLANS.
- 4. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA, BUT ARE NOT GUARANTEED AS TO THE ACCURACY OF THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF LOCATION OF UNCHARTED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE, AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
- 5. NO CONSTRUCTION EQUIPMENT SHALL BE PARKED WITHIN THE ROAD RIGHT—OF—WAY IN SUCH A MANNER THAT THE EQUIPMENT WILL OBSTRUCT THE NORMAL MOVEMENT AND SIGHT DISTANCE OF THE DRIVING MOTORIST, EXCEPT DURING ACTUAL WORKING HOURS.
- 6. EXCEPT DURING ACTUAL WORKING HOURS, ALL SIGNS WHICH DO NOT PERTAIN TO THE CONSTRUCTION ACTIVITY, SUCH AS "MEN WORKING" AND "FLAGMEN AHEAD" SHALL BE COVERED OR LAID DOWN. HOWEVER, ALL SIGNS NECESSARY FOR THE SAFETY OF THE PUBLIC SHALL BE MAINTAINED.
- 7. THE CONTRACTOR SHALL EMPLOY A HAWAII REGISTERED PROFESSIONAL SURVEYOR TO PERFORM ALL CONSTRUCTION STAKEOUTS, THE COST OF WHICH SHALL BE BORNE BY THE CONTRACTOR.
- 8. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR, AND PAY FOR ALL TEMPORARY UTILITIES REQUIRED FOR HIS WORK.
- 9. THE CONTRACTOR SHALL HAVE AN ARCHAEOLOGICAL MONITOR PRESENT DURING GROUND DISTURBING ACTIVITIES. THE ARCHAEOLOGICAL MONITOR SHALL INSPECT THE EXPOSED SOIL AND THE STRATIGRAPHIC PROFILE OF ANY EXCAVATED TRENCHES IN AN EFFORT TO IDENTIFY ANY PREVIOUSLY UNDISCOVERED AND UNDISTURBED HISTORIC SITES OR REMAINS. 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, WORK SHALL CEASE IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION ((808) 692–8015), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY. A 3-METER / 10-FOOT WIDE BUFFER ZONE EXISTS AROUND ALL SITES IN PRESERVATION DURING CONSTRUCTION. IT IS HIGHLY IMPORTANT THAT THE PRESERVED SITES REMAIN UNDISTURBED.
- 10. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.
- 11. THE CONTRACTOR SHALL RESTORE ALL EXISTING FACILITIES INCLUDING BUT NOT LIMITED TO PAVEMENT, DRAINAGE FACILITIES, CURBS, GUTTERS, SIGNS, LANDSCAPING, IRRIGATION SYSTEMS, ETC., REMOVED OR DAMAGED AS A RESULT OF HIS OPERATION USING MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION", 2005 AS AMENDED, "STANDARD DETAILS", SEPTEMBER 1984 FOR PUBLIC WORKS CONSTRUCTION OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI, AS AMENDED.
- 12. CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION, SAFETY AND CONVENIENCE OF THE PUBLIC ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", 2009 AND THE "RULES AND REGULATIONS GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON/OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS", ADOPTED BY THE HIGHWAY SAFETY COORDINATOR AND THE U.S. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS", DATED 2005.
- 13. THE DIRECTOR OF PUBLIC WORKS HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLAN OR DETRIMENTAL TO THE PUBLIC'S INTEREST.
- 14. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH, AND COUNTY GRADING ORDINANCE.
- 15. THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL SILT AND DEBRIS DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS RESULTING FROM HIS WORK. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION ORDERED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE PAID BY THE CONTRACTOR.
- 16. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE DIRECTOR OF PUBLIC WORKS OF THE LOCATION OF THE DISPOSAL SITES. THE DISPOSAL SITE MUST FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE. THE CONTRACTOR SHALL MINIMIZE ITS CONSTRUCTION DEBRIS AND SOLID WASTES
- 17. CONTRACTOR SHALL PROVIDE VEHICULAR AND PEDESTRIAN ACCESS ROUTES AT ALL TIMES TO ALL EXISTING FACILITIES.

18. ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS SHALL BE CHECKED AND VERIFIED PRIOR TO THE START OF CONSTRUCTION, AND ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

CONTRACTOR'S RESPONSIBILITY FOR EXISTING LINES, PIPES AND SERVICES

- 1. INFORMATION REGARDING THE SITE OF THE WORK GIVEN ON THE DRAWINGS OR SPECIFICATIONS HAS BEEN OBTAINED BY THE ENGINEER AND IS BELIEVED TO BE REASONABLY CORRECT; HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SUCH INFORMATION. THE CONTRACTOR SHALL TONE THE AREA TO BE EXCAVATED TO ASCERTAIN THE LOCATION OF UNCHARTED UTILITIES.
- 2. ANY UTILITIES THAT THE CONTRACTOR ENCOUNTERS DURING THE PROGRESS OF THE WORK, SUCH AS BUT NOT LIMITED TO 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.
- 3. IN THE EVENT THE UTILITIES ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD LIABLE FOR THE DAMAGED OR DISTURBED UTILITIES.
- 4. THE CONTRACTOR SHALL REPAIR THE DAMAGED OR DISTURBED UTILITIES TO THE EXISTING CONDITION AT NO COST TO THE OWNER. ANY DAMAGE CLAIMS DUE TO THE DISRUPTION OF SERVICE CAUSED BY THE UTILITIES BEING DAMAGED SHALL BE PAID BY THE CONTRACTOR, WHO SHALL SAVE HARMLESS THE OWNER AND ENGINEER FROM ALL SUITS, ACTIONS OR CLAIMS OF ANY CHARACTER BROUGHT ON ACCOUNT OF SUCH DAMAGES.
- 5. IN THE EVENT UTILITIES WHICH WERE NOT SHOWN ON THE PLANS AND SPECIFICATIONS ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD LIABLE. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND EXPOSE ALL UTILITY LINES PRIOR TO ANY EXCAVATION AND/OR INSTALLATION OF LINES.

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, SAFETY AND ENVIRONMENTAL QUALITY.
- 2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND 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 COUNTY OF MAUI MAY REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND REMOVAL OF ALL SILT AND DEBRIS DEPOSITED AND ACCUMULATED WITHIN DOWNSTREAM WATERWAYS, DITCHES AND DRAIN PIPES AND ON PUBLIC AND PRIVATE ROADWAYS GENERATED BY HIS WORK. THE CONTRACTOR AGREES TO REIMBURSE THE COUNTY OF MAUI FOR ALL COSTS EXPENDED IN PERFORMANCE OF THE ABOVE WORK IF REQUIRED FOR PUBLIC HEALTH AND SAFETY, OR MADE NECESSARY BY NON-PERFORMANCE BY THE CONTRACTOR.
- 4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.
- 5. THE CONTRACTOR SHALL PROVIDE A NOISE POLLUTION CONTROL PLAN WHEN APPLYING FOR A CONSTRUCTION PERMIT.
- 6. TEMPORARY PEDESTRIAN ROUTES SHALL BE MAINTAINED IN SAFE, PASSABLE AND ACCESSIBLE CONDITION COMPLYING WITH ADAAG 402.1.

GRADING NOTES

- 1. ALL GRADING AND STOCKPILING WORK SHALL BE IN ACCORDANCE WITH MAUI COUNTY CODE, TITLE 20, CHAPTER 8.
- 2. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND PREMISES LEFT IN A "RAKE CLEAN" CONDITION.
- 3. THE CONTRACTOR, AT HIS EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST NUISANCE.
- 4. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF CHAPTER 54, WATER QUALITY STANDARDS, AND CHAPTER 55, WATER POLLUTION CONTROL, OF TITLE 11, ADMINISTRATIVE RULES OF THE STATE DEPARTMENT OF HEALTH, AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
- 5. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES, UNLESS NOTED OTHERWISE.
- 6. ALL PLANTER 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. PLANTING SHALL BE MAINTAINED TO MINIMIZE EROSION.
- 7. THE CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE DEVELOPMENT SERVICES ADMINISTRATION TWO WEEKS PRIOR TO COMMENCEMENT OF ANY CLEARING AND GRUBBING WORK. A SITE SPECIFIC EROSION CONTROL PLAN SHOWING STRUCTURAL & NON-STRUCTURAL BEST MANAGEMENT PRACTICES MUST BE SUBMITTED TO AND APPROVED BY LUCA PRIOR TO ISSUANCE OF A GRADING PERMIT. COMMENCEMENT OF ANY CLEARING AND GRUBBING WORK.
- 8. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.

- 9. THE COUNTY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
- 10. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE CHIEF ENGINEER.
- 11. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.

SOLID WASTE CONSTRUCTION NOTES

UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER HANDLING, STORAGE AND/OR DISPOSAL OF ALL WASTE GENERATED BY THE CONSTRUCTION INCLUDING GRUBBING AND EXCESS EXCAVATED MATERIAL. ANY MATERIAL BROUGHT TO THE COUNTY LANDFILLS WILL BE SUBJECTED TO THE INSTITUTED TIPPING FEE SYSTEM, WITH NO EXCEPTIONS OR EXEMPTIONS.

TEMPORARY DUST CONTROL MEASURES

- 1. EXCAVATION, EMBANKMENT AND IMPORTED MATERIALS SHALL BE KEPT DAMPENED WITH WATER DURING THE GRADING OPERATIONS.
- 2. THE CONTRACTOR SHALL MAINTAIN A SUITABLE WATER SYSTEM AND DAMPEN THE GRADED OR GRUBBED SITE WITH WATER.
- 3. AT THE END OF EACH DAY, SEVEN (7) DAYS A WEEK, THE PROJECT SITE SHALL BE KEPT DAMP WITH WATER. THE SITE SHALL BE SUFFICIENTLY DAMPENED SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.

TEMPORARY EROSION CONTROL MEASURES

- 1. TEMPORARY GROUND COVER SHALL BE APPLIED WITHIN A PERIOD OF 30 CALENDAR DAYS AFTER THE SITE HAS BEEN GRADED, OR BARED OF VEGETATION, OR IF FINAL GRADING OF THE SITE WILL BE SUSPENDED FOR MORE THAN 30 CALENDAR DAYS. ALL COST FOR MAINTAINING IRRIGATING AND REMOVING TEMPORARY EROSION CONTROL MEASURES WILL BE BORNE BY THE CONTRACTOR.
- 2. THE CONTRACTOR MAY USE HYDRO-MULCH TO APPLY THE TEMPORARY GROUND COVER.
- 3. TEMPORARY GROUND COVER SHALL CONSIST OF 2,000 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH AND 65 LBS. PER ACRE TACKIFIER.

PERMANENT EROSION CONTROL MEASURES

- 1. THE CONTRACTOR SHALL GRASS ALL EXPOSED AREAS THAT HAVE BEEN CONSTRUCTED TO FINAL GRADES WITHIN A PERIOD OF 30 CALENDAR DAYS. ALL COSTS FOR MAINTAINING AND WATERING PERMANENT EROSION CONTROL MEASURES WILL BE BORNE BY THE CONTRACTOR.
- 2. THE CONTRACTOR MAY USE HYDRO-MULCH TO APPLY THE PERMANENT GROUND COVER.
- 3. PERMANENT GROUND COVER SHALL CONSIST OF 30 LBS. PER ACRE UNHULLED AMERICAN BUFFELGRASS SEED, 50 LBS. PER ACRE ANNUAL RYE GRASS, 6,000 LBS. PER ACRE GYPSUM BASED GEOBINDER, 2,000 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH, AND 400 LBS. PER ACRE 10-30-10 FERTILIZER.

NOTES FOR ENVIRONMENTAL PROTECTION

- 1. ENVIRONMENTAL PROTECTION NOTES PERTAINING TO AIR AND WATER POLLUTION SHALL BE ADMINISTERED AND MONITORED BY THE DEPARTMENT OF HEALTH.
- 2. 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).
- 3. 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 RUNOFF TO STATE WATERS.
- 4. 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.
- 5. PERMITS REQUIRED:
- A. A NPDES PERMIT MAY BE REQUIRED FROM THE CLEAN WATER BRANCH OF THE DEPARTMENT OF HEALTH FOR STORM WATER DISCHARGE AND HYDROTESTING.
- B. A DEWATERING PERMIT MAY BE REQUIRED TO BE OBTAINED FROM THE CLEAN WATER BRANCH OF THE DEPARTMENT OF HEALTH IF DISCHARGING INTO STATE WATERS.
- C. PERMIT MUST BE OBTAINED PRIOR TO START OF CONSTRUCTION.
- 6. ENVIRONMENTAL PROTECTION NOTES PERTAINING TO AIR AND WATER POLLUTION SHALL BE ADMINISTERED AND MONITORED BY THE DEPARTMENT OF HEALTH.

NOTES FOR CONSTRUCTION WITHIN COUNTY RIGHT-OF-WAY

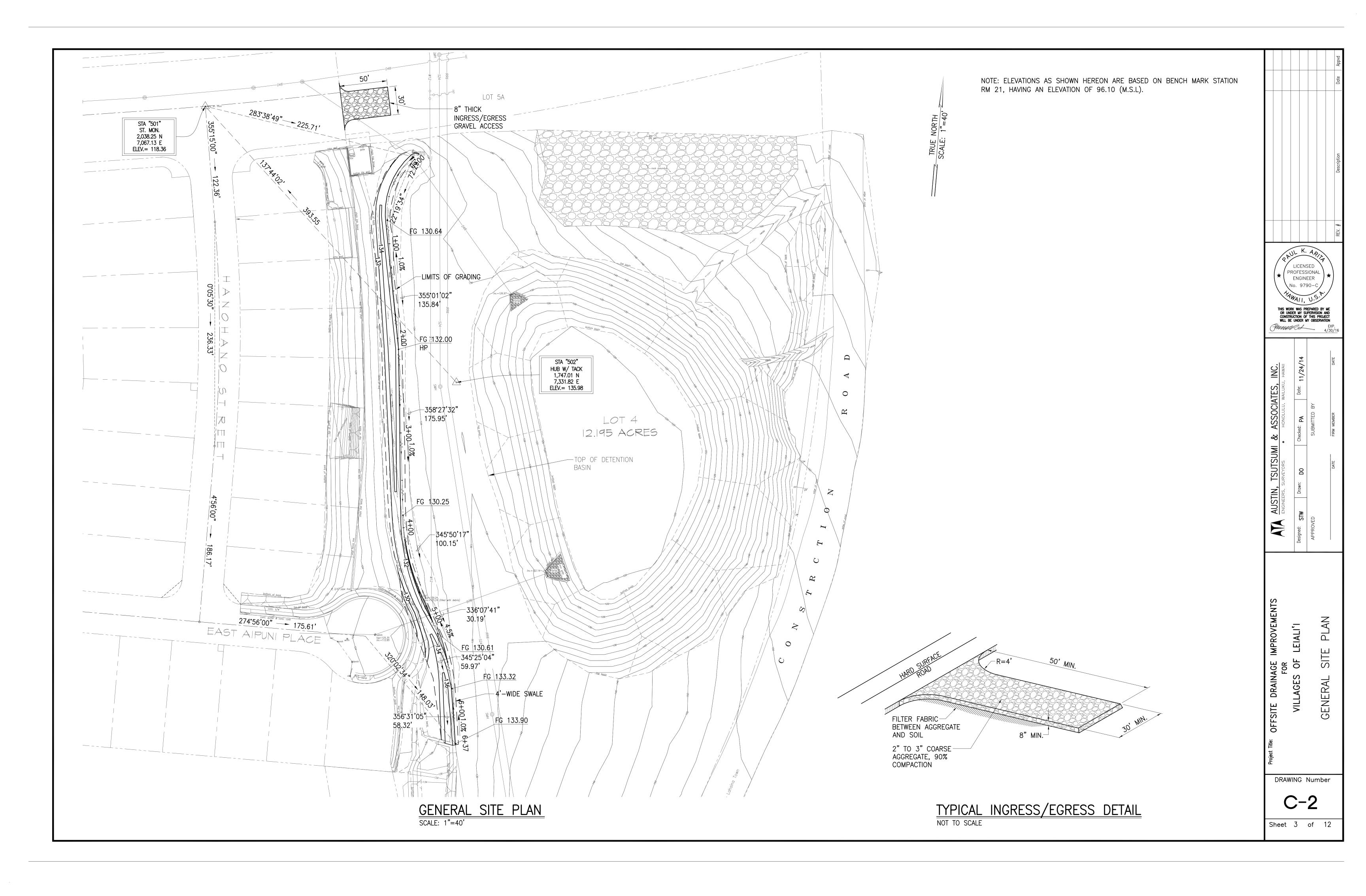
- 1. CONTRACTOR SHALL OBTAIN A "WORK TO BE PERFORMED ON COUNTY ROADS PERMIT" FROM THE DIVISION OF DEVELOPMENT SERVICES ADMINISTRATION TWO WEEKS PRIOR TO COMMENCEMENT OF WORK.
- 2. STANDARD DETAIL DRAWINGS AND STANDARD SPECIFICATIONS OF THE DEPARTMENT OF PUBLIC WORKS SHALL BE INCLUDED AS PART OF THE CONSTRUCTION PLANS.
- 3. ALL CONSTRUCTION WORK SHALL CONFORM STRICTLY TO THE APPLICABLE SECTIONS OF THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION", DATED 2005, THE "STANDARD DETAILS", SEPT., 1984, FOR PUBLIC WORKS CONSTRUCTION, OF THE DEPARTMENT OF PUBLIC WORKS, AS AMENDED, AND THE "STATE OF HAWAII DEPARTMENT OF TRANSPORTATION STANDARD PLANS", 2008 AS AMENDED.
- 4. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON PLANS, IF DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, SHALL BE REQUIRED TO REPAIR SUCH UTILITIES AT HIS OWN EXPENSE.
- 5. CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION, SAFETY AND CONVENIENCE OF THE PUBLIC, ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE FOR STREETS AND HIGHWAYS", 2009, AND TO THE RULES AND REGULATIONS.
- 6. THE DIRECTOR OF PUBLIC WORKS AND/OR THE DIRECTOR OF THE DEPARTMENT OF WATER SUPPLY HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLAN OR DETRIMENTAL TO THE PUBLIC'S INTEREST.
- 7. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH DEVELOPMENT SERVICES ADMINISTRATION FIVE (5) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 8. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND THE COUNTY GRADING ORDINANCE.
- 9. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION ORDERED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE PAID BY THE CONTRACTOR.
- 10. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE WORK SITE. THE CONTRACTOR SHALL INFORM THE DIRECTOR OF PUBLIC WORKS OF THE LOCATION OF THE DISPOSAL SITES. THE THE DISPOSAL SITE MUST FULFILL THE REQUIREMENTS OF THE MAUI COUNTY CODE
- 11. THE CONTRACTOR SHALL SUBMIT A TIF COPY AND SIX (6) COPIES OF THE "AS-BUILT" DRAWINGS PRIOR TO THE FINAL APPROVAL OF THE IMPROVEMENTS.
- 12. IF THE VERTICAL CLEARANCE BETWEEN A WASTEWATER LINE AND A NEW OR EXISTING WATERLINE IS EIGHTEEN INCHES (18") OR LESS, THE WASTEWATER LINE SHALL BE CONCRETE—JACKETED IN ACCORDANCE WITH THE STANDARD DETAILS OF PUBLIC WORKS CONSTRUCTION DATED SEPTEMBER 1984.
- 13. SHOULD HISTORIC SITES SUCH AS WALLS, PLATFORMS, PAVEMENTS, OR MOUNDS, OR REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF SHELL OR CHARCOAL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR AND/OR LANDOWNER SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION (692-8015), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY.
- 14. PURSUANT OF MAUI COUNTY CODE SECTION 3.44.015(C), THE COUNTY OF MAUI IS NOT RESPONSIBLE FOR ANY PARK, ROADWAY, EASEMENT (INCLUDING BUT NOT LIMITED TO DRAINAGE, SEWER, ACCESS, RECLAIMED WATER OR AVIGATION EASEMENT), OR ANY OTHER INTEREST IN REAL PROPERTY SHOWN ON THIS MAP OR SHOWN ON THESE PLANS, UNLESS THE MAUI COUNTY COUNCIL HAS ACCEPTED ITS DEDICATION BY A RESOLUTION APPROVED BY A MAJORITY OF COUNCIL'S MEMBERS AT A REGULAR OR SPECIAL MEETING OF THE MAUI COUNTY COUNCIL.
- 15. STEEL PLATE WARNING SIGNS ARE REQUIRED FOR ALL STEEL PLATES IN THE RIGHT-OF-WAY.
- 16. WHEELCHAIR RAMP INSPECTION/CERTIFICATION FORMS SHALL BE REQUIRED FOR ALL NEWLY CONSTRUCTED RAMPS.
- 17. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE OF THERMOPLASTIC MATERAL.

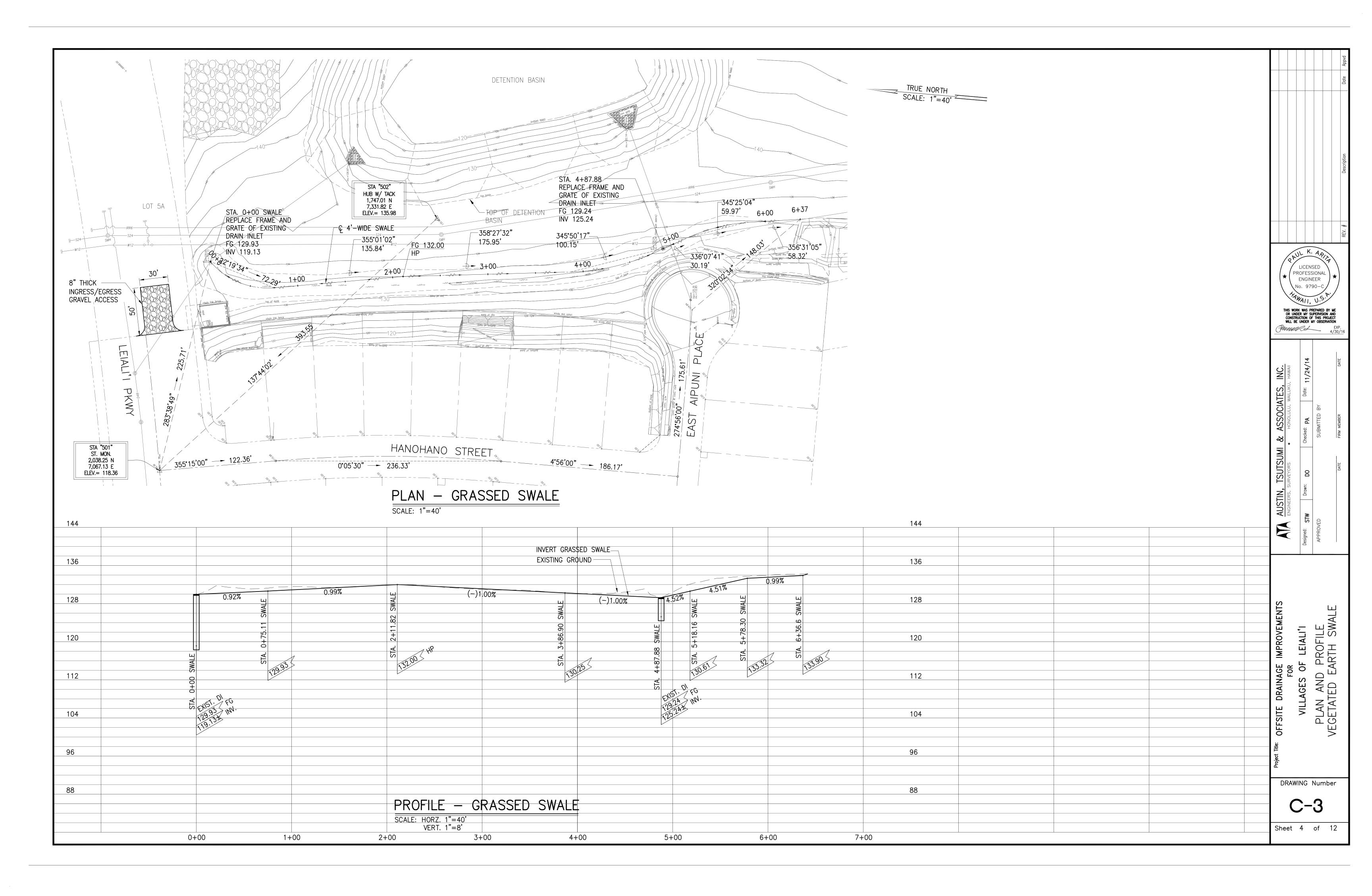
18. COMPACTION REQUIREMENTS

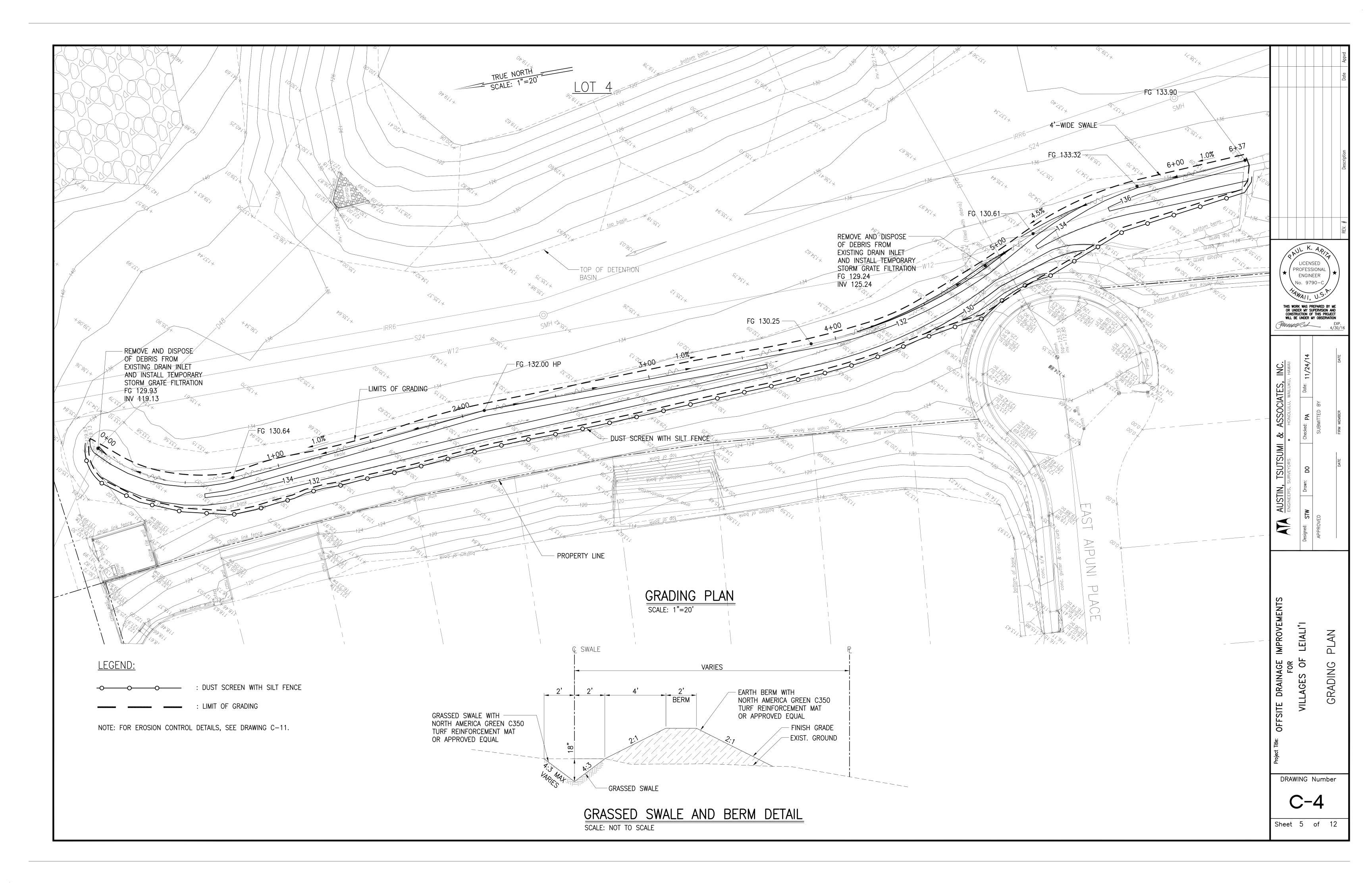
- A. TESTING OF MATERIALS SHALL BE CONDUCTED BY AN APPROVED INDEPENDENT TESTING AGENCY IN ACCORDANCE WITH ASTM STANDARD METHODS OR AS SPECIFIED BY THE DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION, AS FOLLOWS:
 - I. EMBANKMENT/SELECT BORROW AND SUBGRADE MATERIALS: ONE (1) COMPACTION TEST PER 600 SQUARE YARDS PER LIFT;
 - II. AGGREGATE SUBBASE COURSE: ONE (1) COMPACTION TEST PER 400 SQUARE YARDS; ONE (1) GRADATION AND SAND EQUIVALENT TEST PER LIFT PER PROJECT;
 - III. AGGREGATE BASE COURSE: ONE (1) COMPACTION TEST PER 300 SQUARE YARDS; ONE (1) GRADATION AND SAND EQUIVALENT TEST PER LIFT PER PROJECT;
 - IV. ASPHALT CONCRETE PAVEMENT OR ASPHALT TREATED BASE COURSE: THREE (3) A.C. CORES FOR THICKNESS AND DENSITY TESTS PER PROJECT;

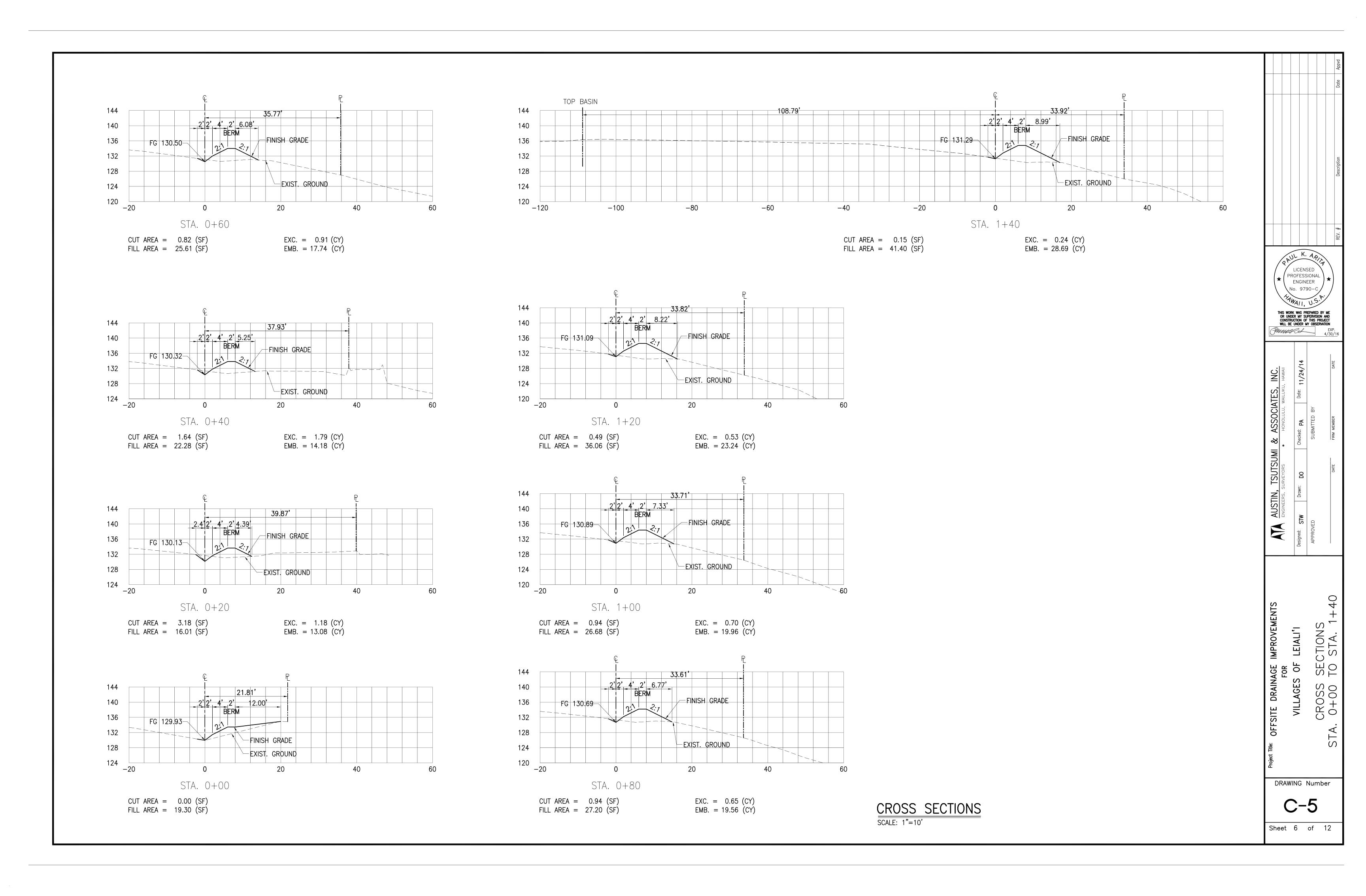
- V. TRENCH BACKFILL MATERIAL: ONE (1) TEST FOR EACH 300 LINEAL FEET OF TRENCH PER LIFT OF MATERIAL.
- B. CONTRACTOR SHALL SUBMIT ALL TESTING REPORTS, INCLUDING RESULTS TO THE COUNTY'S INSPECTION AGENCY FOR REVIEW AND APPROVAL PRIOR TO COUNTY'S ACCEPTANCE OF WORK.
- C. THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE COUNTY OF ANY TESTING FAILURES AND CORRECT EACH FAILURE PRIOR TO PROCEEDING TO THE NEXT PHASE OF CONSTRUCTION.

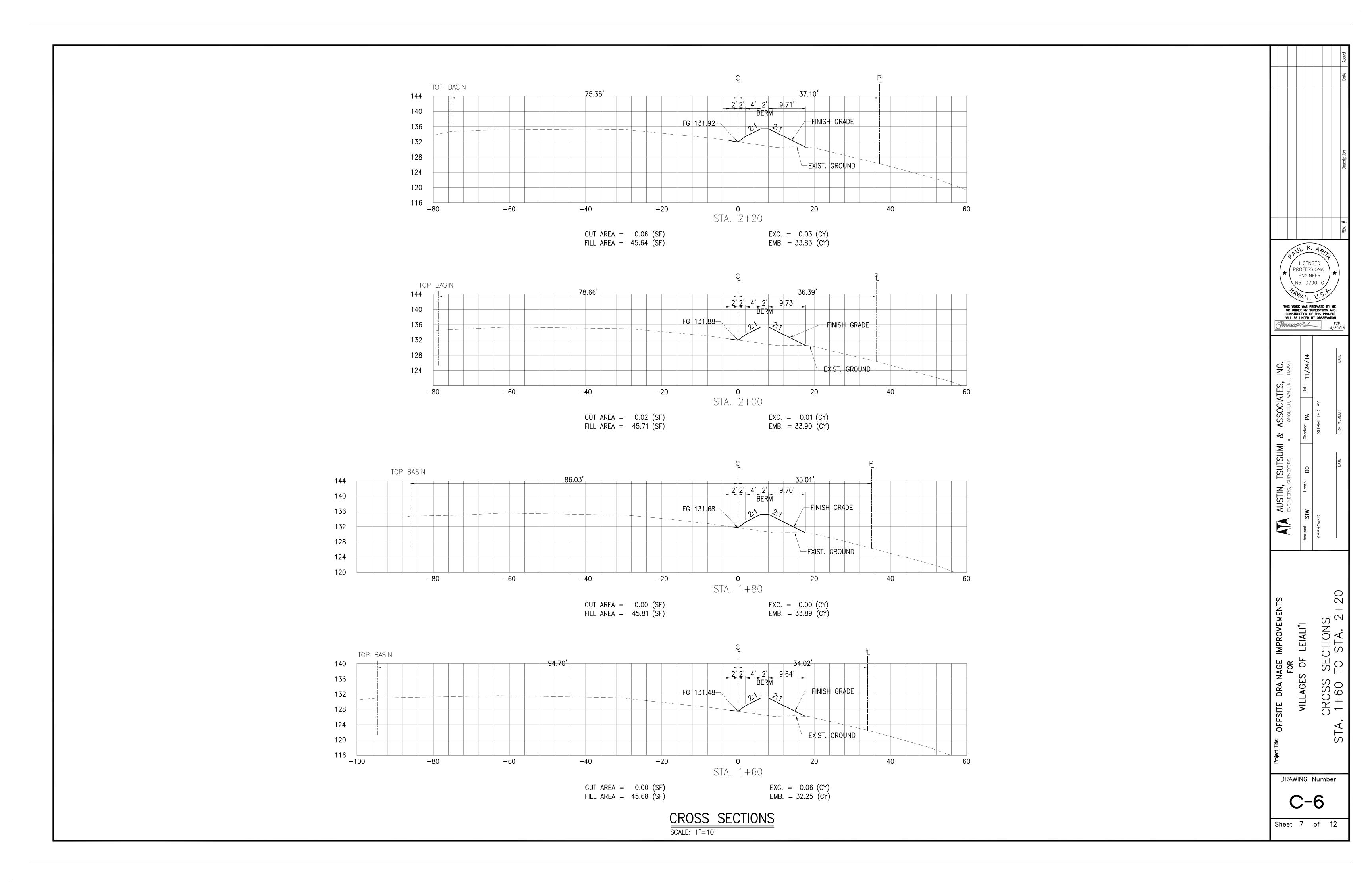
LICENSED PROFESSIONAL **ENGINEER** No. 9790-C THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION Januar J NEWALL STATES ঋ TSU AUSTIN, OTE Z $\frac{1}{2}$ \mathcal{O} TRU \mathcal{C} DRAWING Number Sheet 2 of 12

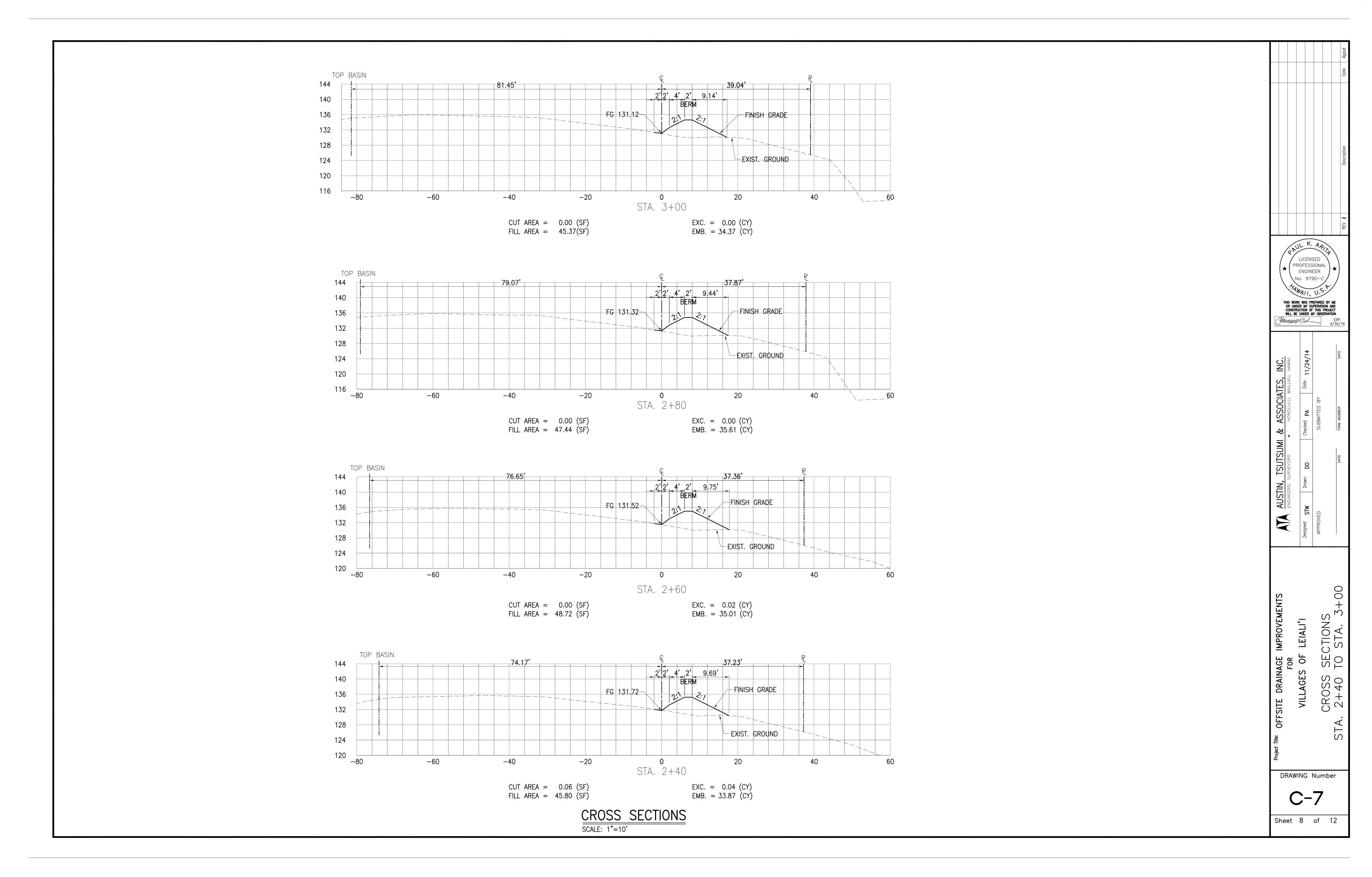


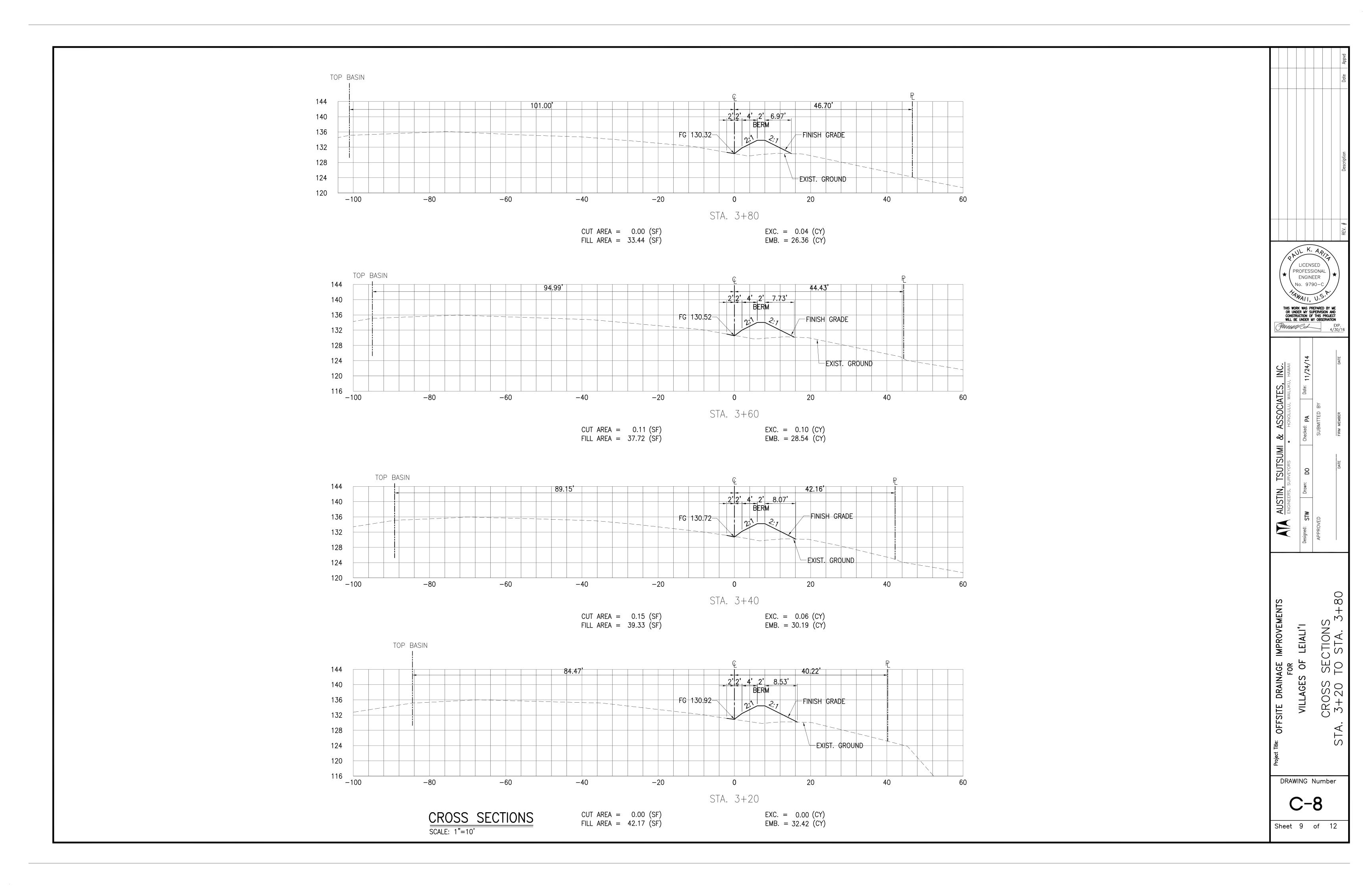


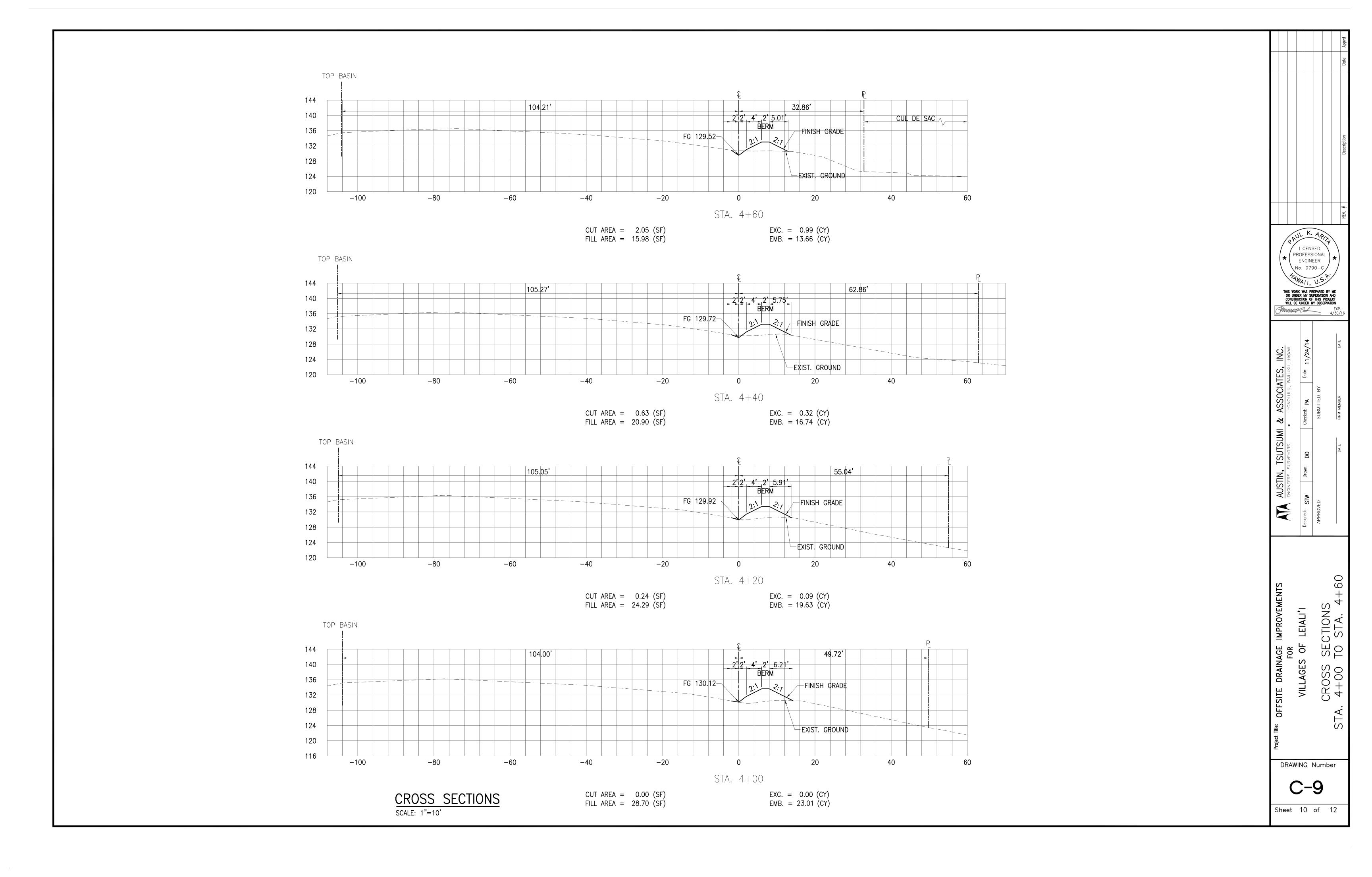


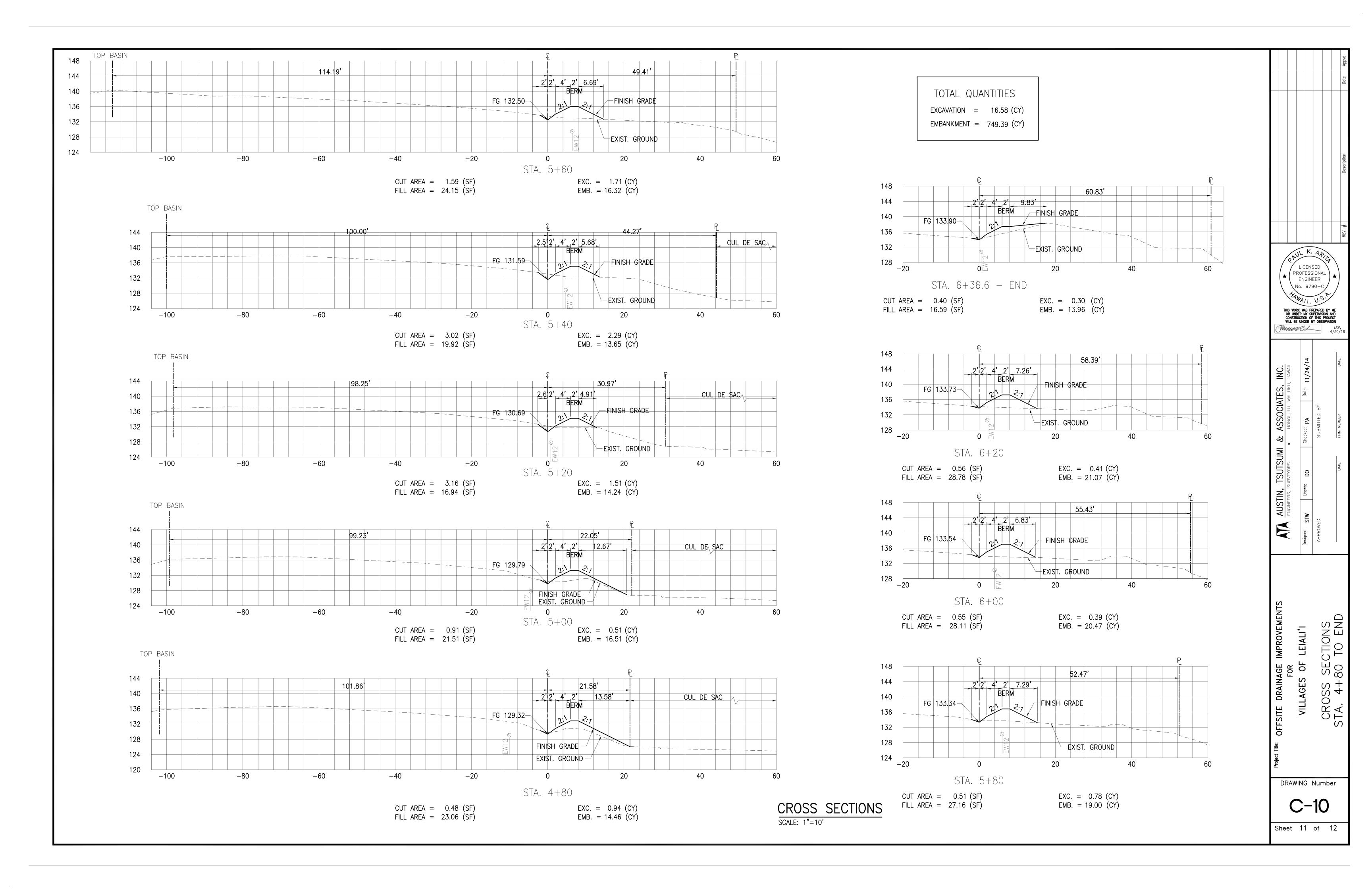


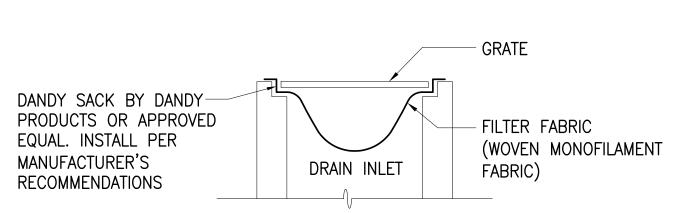










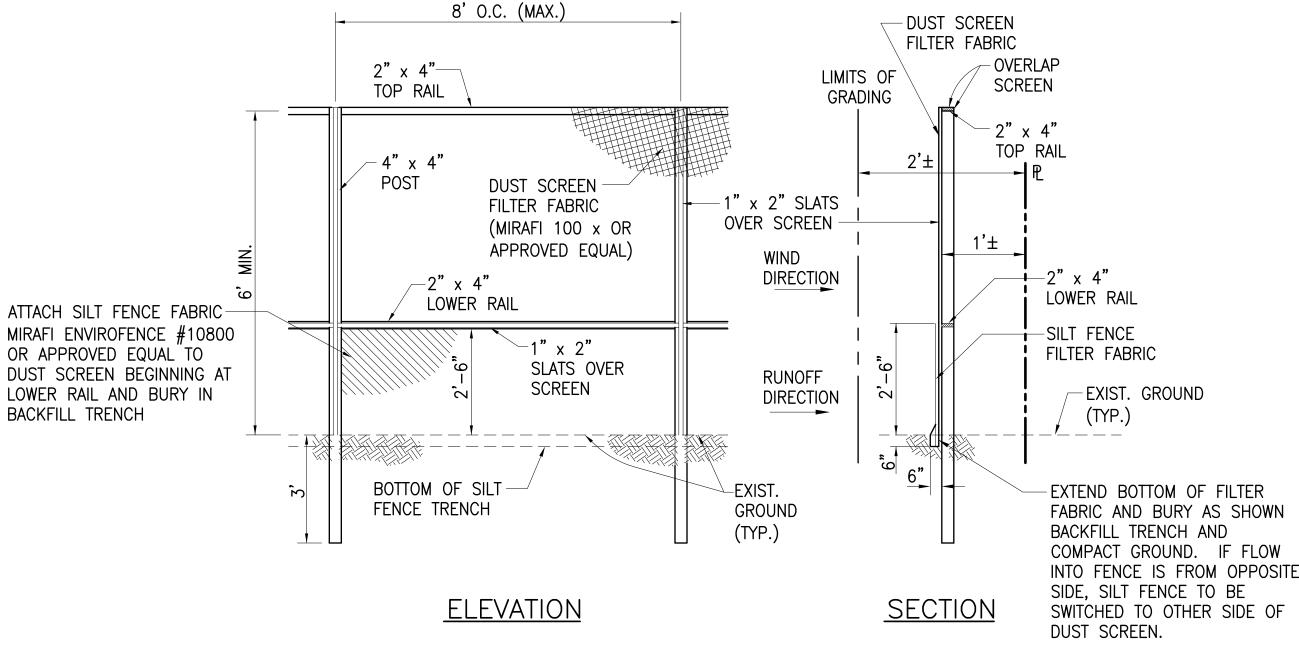


NOTES:

- 1. FILTER FABRIC SHALL BE DANDY SACK BY DANDY PRODUCTS OR APPROVED EQUAL.
- 2. CONTRACTOR SHALL CHECK THE CONDITION OF THE FILTER AT THE BEGINNING AND ENDING OF EACH WORK DAY AND REPAIR/CLEAN AS NECESSARY.
- 3. THE CONTRACTOR SHALL REMOVE INLET FILTERS DURING TIMES OF ABOVE NORMAL RAINFALL EVENTS AND REPLACE THEM WHEN THE EVENT HAS PASSED.

TEMPORARY STORM GRATE FILTRATION

AT DRAIN INLET



DUST SCREEN WITH SILT FENCE

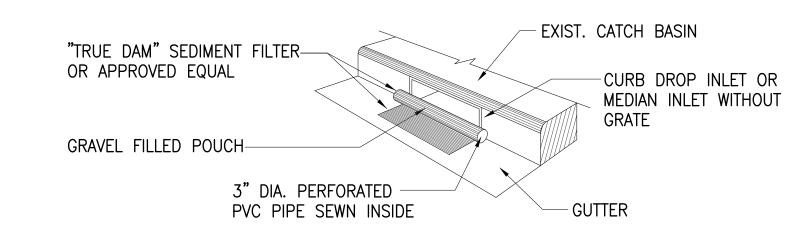
BEST MANAGEMENT PRACTICES (BMP) NOTES MINIMUM:

DURING CONSTRUCTION

- 1. ALL AFFECTED STORM DRAIN INLETS ALONG THE PROJECT SITE SHALL USE AN INLET PROTECTION DEVICE. SEE DETAIL THIS SHEET.
- 2. DURING CONSTRUCTION, DUST POLLUTION SHALL BE KEPT TO A MINIMUM.
- 3. THE CONTRACTOR SHALL ENSURE THAT ALL TIRES OF CONSTRUCTION VEHICLES ARE SUFFICIENTLY CLEANED OFF SO THAT DIRT OR DEBRIS IS NOT TRACKED OFF THE CONSTRUCTION SITE. WASHING OFF TIRES WITH WATER WILL NOT NOT BE ACCEPTABLE UNLESS THE RUNOFF IS CONTAINED AND DOES NOT ENTER THE STORM DRAIN SYSTEM.
- 4. THE CONTRACTOR SHALL REMOVE FILTERS DURING TIMES OF ABOVE NORMAL RAINFALL EVENTS AND REPLACE THEM WHEN EVENT HAS PASSED.
- 5. THE CONTRACTOR SHALL CHECK THE CONDITION OF THE FILTER AT THE BEGINNING AND ENDING OF EACH WORK DAY AND REPAIR/CLEAN AS NECESSARY.
- 6. 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).
- 7. THE PROJECT SITE THAT IS CLEARED OF VEGETATION SHALL BE KEPT DAMP 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.
- 8. IF REQUIRED, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO THAT EXCAVATION, EMBANKMENT, AND IMPORTED MATERIAL SHALL BE DAMPENED TO PREVENT DUST PROBLEMS.
- 9. THE CONTRACTOR SHALL MAINTAIN A SUITABLE WATER SYSTEM AND DAMPEN THE GRUBBED SITE WITH WATER.
- 10. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION SHALL BE PAYABLE BY THE CONTRACTOR.

POST CONSTRUCTION

- 1. THE CONSTRUCTION AREA AND SURROUNDING AREAS AND ADJOINING STREETS SHALL BE CLEARED OF ALL TRASH AND DEBRIS.
- 2. ALL MOBILIZED EQUIPMENT SHALL BE REMOVED.
- 3. EXCESS EXCAVATED MATERIAL NOT UTILIZED FOR BACKFILL SHALL BE REMOVED. ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE HAULED FROM THE JOBSITE.
- 4. HAULING OF WET, DRIPPING MATERIAL OVER PUBLIC STREETS WILL NOT BE PERMITTED.



NOTE:

TRUE DAM IS MANUFACTURED BY DANDY PRODUCTS, INC., GROVE CITY, OHIO. CONTRACTOR SHALL PROVIDE INLET PROTECTION.

SEDIMENT CONTROL FILTER DETAIL

NOT TO SCALE

LICENSED
PROFESSIONAL
ENGINEER
No. 9790-C

HAVAII, U.S.

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION

EXP.
4/30/-

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

ENGINEERS, SURVEYORS

Designed: STW

APPROVED

DATE

DATE

HONOLULU, WAILUKU, HAWAII

Checked: PA

Date: 11/24/14

SUBMITTED BY

FIRM MEMBER

DATE

FIRM MEMBER

DATE

FIRM MEMBER

DATE

FIRM MEMBER

DATE

FOR VILLAGES OF LEIALI'I
EROSION CONTROL DETAILS

DRAWING Number

C-11

Sheet 12 of 12

DEPARTMENT OF HAWAIIAN HOME LANDS STATE OF HAWAII

T-1

SHEET 1 OF 9

CONSTRUCTION PLANS FOR:

VARIOUS LOT IMPROVEMENTS (LOT 238 GUARDRAILS AND LOT 11 DRAINAGE IMPROVEMENTS) KULA, MAUI, HAWAII

TAX MAP KEY: VARIOUS

LOCATION	1 MAP	INDEX TO DRAWINGS					
		SHEET	DRAWING	DESCRIPTION			
	HIIPALLOOD	1	T—1	TITLE SHEET AND INDEX			
KAPALUA BEACH KAHULUI RAY HAIKU	NOR HE NORTH TO THE NORTH TO TH	2	C-1	CONSTRUCTION NOTES			
KAANAPALI WAILUKU KAHULUI PAIA MAKAWAO	S S S S S S S S S S S S S S S S S S S	3	C-2	GENERAL SITE PLAN — LOT 11			
OLINDA KULA		4	C-3	SITE, GRADING AND DRAINAGE PLAN — LOT 11			
HANA HANA HALEAKALA NATIONAL PARK	PUUALA ST	5	C-4	PLAN AND PROFILE - LOT 11			
WAILEA MAKENA	NIE DRIVE	6	C-5	CROSS SECTIONS — LOT 11			
PROJECT		7	C-6	MISCELLANEOUS DETAILS - LOT 11			
ISLAND OF MAUI		8	C-7	PROPOSED GUARDRAIL — LOT 238			
5 0 5 10 15 SCALE IN MILES	PROJECT	9	C-8	EROSION CONTROL DETAILS			
	SITE						
VICINITY PLAN	LOCATION PLAN						
1/6/12 	NOT TO SCALE						
DATE: 1,							

JOB NO. 11-514.02

GENERAL CONSTRUCTION NOTES

- 1. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION 2005" AS AMENDED, AND THE "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTIES OF THE STATE OF HAWAII, THE "STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION STANDARD PLANS" 2008, THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE FOR STREETS AND HIGHWAYS", 2009, AND THE CONSTRUCTION DRAWINGS, DETAILS & SPECIFICATIONS PREPARED FOR THIS
- 2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, AND SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF SAME IN THE EVENT OF DAMAGES DUE TO HIS CONSTRUCTION PRACTICES.
- 3. WHEREVER CROSSINGS OR CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGES TO THE FACILITIES WHETHER SHOWN OR NOT ON THE PLANS.
- 4. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA, BUT ARE NOT GUARANTEED AS TO THE ACCURACY OF THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF LOCATION OF UNCHARTED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE, AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
- 5. NO CONSTRUCTION EQUIPMENT SHALL BE PARKED WITHIN THE ROAD RIGHT-OF-WAY IN SUCH A MANNER THAT THE EQUIPMENT WILL OBSTRUCT THE NORMAL MOVEMENT AND SIGHT DISTANCE OF THE DRIVING MOTORIST, EXCEPT DURING ACTUAL WORKING HOURS.
- EXCEPT DURING ACTUAL WORKING HOURS, ALL SIGNS WHICH DO NOT PERTAIN TO THE CONSTRUCTION ACTIVITY, SUCH AS "MEN WORKING" AND "FLAGMEN AHEAD" SHALL BE COVERED OR LAID DOWN. HOWEVER, ALL SIGNS NECESSARY FOR THE SAFETY OF THE PUBLIC SHALL BE MAINTAINED.
- 7. THE CONTRACTOR SHALL EMPLOY A HAWAII REGISTERED PROFESSIONAL SURVEYOR TO PERFORM ALL CONSTRUCTION STAKEOUTS, THE COST OF WHICH SHALL BE BORNE BY THE CONTRACTOR.
- 8. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR, AND PAY FOR ALL TEMPORARY UTILITIES REQUIRED FOR HIS WORK.
- g. THE CONTRACTOR SHALL HAVE AN ARCHAEOLOGICAL MONITOR PRESENT DURING GROUND DISTURBING ACTIVITIES. THE ARCHAEOLOGICAL MONITOR SHALL INSPECT THE EXPOSED SOIL AND THE STRATIGRAPHIC PROFILE OF ANY EXCAVATED TRENCHES IN AN EFFORT TO IDENTIFY ANY PREVIOUSLY UNDISCOVERED AND UNDISTURBED HISTORIC SITES OR REMAINS. 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, WORK SHALL CEASE IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION ((808) 692-8015), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY. A 3-METER / 10-FOOT WIDE BUFFER ZONE EXISTS AROUND ALL SITES IN PRESERVATION DURING CONSTRUCTION. IT IS HIGHLY IMPORTANT THAT THE PRESERVED SITES REMAIN UNDISTURBED.
- 10. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.
- 11. THE CONTRACTOR SHALL RESTORE ALL EXISTING FACILITIES INCLUDING BUT NOT LIMITED TO PAVEMENT, DRAINAGE FACILITIES, CURBS, GUTTERS, SIGNS, LANDSCAPING, IRRIGATION SYSTEMS, ETC., REMOVED OR DAMAGED AS A RESULT OF HIS OPERATION USING MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH "HAWAII STANDARD SPECIFICATIONS FOR ROAD. BRIDGE. AND PUBLIC WORKS CONSTRUCTION", 2005 AS AMENDED, "STANDARD DETAILS", SEPTEMBER 1984 FOR PUBLIC WORKS CONSTRUCTION OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI, AS AMENDED.
- 12. CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION, SAFETY AND CONVENIENCE OF THE PUBLIC ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", 2009 AND THE "RULES AND REGULATIONS GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON/OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS", ADOPTED BY THE HIGHWAY SAFETY COORDINATOR AND THE U.S. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS", DATED 2005.
- 13. THE DIRECTOR OF PUBLIC WORKS HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLAN OR DETRIMENTAL TO THE PUBLIC'S INTEREST.
- 14. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH, AND COUNTY GRADING ORDINANCE.
- 15. THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL SILT AND DEBRIS DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS RESULTING FROM HIS WORK. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION ORDERED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE PAID BY THE CONTRACTOR.
- 16. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE DIRECTOR OF PUBLIC WORKS OF THE LOCATION OF THE DISPOSAL SITES. THE DISPOSAL SITE MUST FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE. THE CONTRACTOR SHALL MINIMIZE ITS CONSTRUCTION DEBRIS AND SOLID WASTES.

- 17. CONTRACTOR SHALL PROVIDE VEHICULAR AND PEDESTRIAN ACCESS ROUTES AT ALL TIMES TO ALL EXISTING FACILITIES.
- 18. ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS SHALL BE CHECKED AND VERIFIED PRIOR TO THE START OF CONSTRUCTION, AND ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

CONTRACTOR'S RESPONSIBILITY FOR EXISTING LINES, PIPES AND SERVICES

- 1. INFORMATION REGARDING THE SITE OF THE WORK GIVEN ON THE DRAWINGS OR SPECIFICATIONS HAS BEEN OBTAINED BY THE ENGINEER AND IS BELIEVED TO BE REASONABLY CORRECT; HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SUCH INFORMATION. THE CONTRACTOR SHALL TONE THE AREA TO BE EXCAVATED TO ASCERTAIN THE LOCATION OF UNCHARTED UTILITIES.
- 2. ANY UTILITIES THAT THE CONTRACTOR ENCOUNTERS DURING THE PROGRESS OF THE WORK, SUCH AS BUT NOT LIMITED TO 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.
- 3. IN THE EVENT THE UTILITIES ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD LIABLE FOR THE DAMAGED OR DISTURBED UTILITIES.
- 4. THE CONTRACTOR SHALL REPAIR THE DAMAGED OR DISTURBED UTILITIES TO THE EXISTING CONDITION AT NO COST TO THE OWNER. ANY DAMAGE CLAIMS DUE TO THE DISRUPTION OF SERVICE CAUSED BY THE UTILITIES BEING DAMAGED SHALL BE PAID BY THE CONTRACTOR, WHO SHALL SAVE HARMLESS THE OWNER AND ENGINEER FROM ALL SUITS, ACTIONS OR CLAIMS OF ANY CHARACTER BROUGHT ON ACCOUNT OF SUCH DAMAGES.
- 5. IN THE EVENT UTILITIES WHICH WERE NOT SHOWN ON THE PLANS AND SPECIFICATIONS ARE DAMAGED OR DISTURBED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE HELD LIABLE. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND EXPOSE ALL UTILITY LINES PRIOR TO ANY EXCAVATION AND/OR INSTALLATION OF LINES.

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, SAFETY AND ENVIRONMENTAL QUALITY.
- 2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND 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 COUNTY OF MAUI MAY REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.
- . THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND REMOVAL OF ALL SILT AND DEBRIS DEPOSITED AND ACCUMULATED WITHIN DOWNSTREAM WATERWAYS, DITCHES AND DRAIN PIPES AND ON PUBLIC AND PRIVATE ROADWAYS GENERATED BY HIS WORK. THE CONTRACTOR AGREES TO REIMBURSE THE COUNTY OF MAUI FOR ALL COSTS EXPENDED IN PERFORMANCE OF THE ABOVE WORK IF REQUIRED FOR PUBLIC HEALTH AND SAFETY, OR MADE NECESSARY BY NON-PERFORMANCE BY THE CONTRACTOR.
- 4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.
- 5. THE CONTRACTOR SHALL PROVIDE A NOISE POLLUTION CONTROL PLAN WHEN APPLYING FOR A CONSTRUCTION PERMIT.
- 6. TEMPORARY PEDESTRIAN ROUTES SHALL BE MAINTAINED IN SAFE, PASSABLE AND ACCESSIBLE CONDITION COMPLYING WITH ADAAG 402.1.

GRADING NOTES

- 1. ALL GRADING AND STOCKPILING WORK SHALL BE IN ACCORDANCE WITH MAUI COUNTY CODE, TITLE 20, CHAPTER 8.
- 2. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND PREMISES LEFT IN A "RAKE CLEAN" CONDITION.
- 3. THE CONTRACTOR, AT HIS EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST NUISANCE.
- 4. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF CHAPTER 54, WATER QUALITY STANDARDS, AND CHAPTER 55, WATER POLLUTION CONTROL, OF TITLE 11, ADMINISTRATIVE RULES OF THE STATE DEPARTMENT OF HEALTH, AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
- 5. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES, UNLESS NOTED OTHERWISE.
- 6. ALL PLANTER 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. PLANTING SHALL BE MAINTAINED TO MINIMIZE EROSION.
- 7. THE CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE DEVELOPMENT SERVICES ADMINISTRATION TWO WEEKS PRIOR TO COMMENCEMENT OF ANY CLEARING AND GRUBBING WORK. A SITE SPECIFIC EROSION CONTROL PLAN SHOWING STRUCTURAL & NON-STRUCTURAL BEST MANAGEMENT PRACTICES MUST BE SUBMITTED TO AND APPROVED BY LUCA PRIOR TO ISSUANCE OF A GRADING PERMIT. COMMENCEMENT OF ANY CLEARING AND GRUBBING WORK.

- 8. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
- 9. THE COUNTY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
- 10. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE CHIEF ENGINEER.
- 11. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE

SOLID WASTE CONSTRUCTION NOTES

COMMENCEMENT OF THE GRADING WORK.

UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER HANDLING, STORAGE AND/OR DISPOSAL OF ALL WASTE GENERATED BY THE CONSTRUCTION INCLUDING GRUBBING AND EXCESS EXCAVATED MATERIAL. ANY MATERIAL BROUGHT TO THE COUNTY LANDFILLS WILL BE SUBJECTED TO THE INSTITUTED TIPPING FEE SYSTEM, WITH NO EXCEPTIONS OR EXEMPTIONS.

TEMPORARY DUST CONTROL MEASURES

- 1. EXCAVATION, EMBANKMENT AND IMPORTED MATERIALS SHALL BE KEPT DAMPENED WITH WATER DURING THE GRADING OPERATIONS.
- 2. THE CONTRACTOR SHALL MAINTAIN A SUITABLE WATER SYSTEM AND DAMPEN THE GRADED OR GRUBBED SITE WITH WATER.
- 3. AT THE END OF EACH DAY, SEVEN (7) DAYS A WEEK, THE PROJECT SITE SHALL BE KEPT DAMP WITH WATER. THE SITE SHALL BE SUFFICIENTLY DAMPENED SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.

TEMPORARY EROSION CONTROL MEASURES

- TEMPORARY GROUND COVER SHALL BE APPLIED WITHIN A PERIOD OF 30 CALENDAR DAYS AFTER THE SITE HAS BEEN GRADED, OR BARED OF VEGETATION, OR IF FINAL GRADING OF THE SITE WILL BE SUSPENDED FOR MORE THAN 30 CALENDAR DAYS. ALL COST FOR MAINTAINING IRRIGATING AND REMOVING TEMPORARY EROSION CONTROL MEASURES WILL BE BORNE BY THE CONTRACTOR.
- 2. THE CONTRACTOR MAY USE HYDRO-MULCH TO APPLY THE TEMPORARY GROUND COVER.
- 3. TEMPORARY GROUND COVER SHALL CONSIST OF 2,000 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH AND 65 LBS. PER ACRE TACKIFIER.

PERMANENT EROSION CONTROL MEASURES

- 1. THE CONTRACTOR SHALL GRASS ALL EXPOSED AREAS THAT HAVE BEEN CONSTRUCTED TO FINAL GRADES WITHIN A PERIOD OF 30 CALENDAR DAYS. ALL COSTS FOR MAINTAINING AND WATERING PERMANENT EROSION CONTROL MEASURES WILL BE BORNE BY THE CONTRACTOR.
- 2. THE CONTRACTOR MAY USE HYDRO-MULCH TO APPLY THE PERMANENT GROUND COVER.
- 3. PERMANENT GROUND COVER SHALL CONSIST OF 30 LBS. PER ACRE UNHULLED AMERICAN BUFFELGRASS SEED, 50 LBS. PER ACRE ANNUAL RYE GRASS, 6,000 LBS. PER ACRE GYPSUM BASED GEOBINDER, 2,000 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH, AND 400 LBS. PER ACRE 10-30-10 FERTILIZER.

NOTES FOR ENVIRONMENTAL PROTECTION

- 1. ENVIRONMENTAL PROTECTION NOTES PERTAINING TO AIR AND WATER POLLUTION SHALL BE ADMINISTERED AND MONITORED BY THE DEPARTMENT OF HEALTH.
- 2. 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).
- 3. 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 RUNOFF TO STATE WATERS.
- 4. 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.

5. PERMITS REQUIRED:

- A. A NPDES PERMIT MAY BE REQUIRED FROM THE CLEAN WATER BRANCH OF THE DEPARTMENT OF HEALTH FOR STORM WATER DISCHARGE AND
- B. A DEWATERING PERMIT MAY BE REQUIRED TO BE OBTAINED FROM THE CLEAN WATER BRANCH OF THE DEPARTMENT OF HEALTH IF DISCHARGING INTO STATE WATERS.
- C. PERMIT MUST BE OBTAINED PRIOR TO START OF CONSTRUCTION.
- 6. ENVIRONMENTAL PROTECTION NOTES PERTAINING TO AIR AND WATER POLLUTION SHALL BE ADMINISTERED AND MONITORED BY THE DEPARTMENT OF HEALTH.

NOTES FOR CONSTRUCTION WITHIN COUNTY RIGHT-OF-WAY

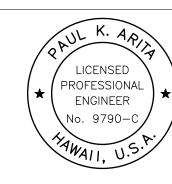
- 1. CONTRACTOR SHALL OBTAIN A "WORK TO BE PERFORMED ON COUNTY ROADS PERMIT" FROM THE DIVISION OF DEVELOPMENT SERVICES ADMINISTRATION TWO WEEKS PRIOR TO COMMENCEMENT OF WORK.
- 2. STANDARD DETAIL DRAWINGS AND STANDARD SPECIFICATIONS OF THE DEPARTMENT OF PUBLIC WORKS SHALL BE INCLUDED AS PART OF THE CONSTRUCTION PLANS.
- 3. ALL CONSTRUCTION WORK SHALL CONFORM STRICTLY TO THE APPLICABLE SECTIONS OF THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION", DATED 2005, THE "STANDARD DETAILS", SEPT., 1984, FOR PUBLIC WORKS CONSTRUCTION, OF THE DEPARTMENT OF PUBLIC WORKS, AS AMENDED, AND THE "STATE OF HAWAII DEPARTMENT OF TRANSPORTATION STANDARD PLANS", 2008 AS AMENDED.
- 4. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON PLANS, IF DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, SHALL BE REQUIRED TO REPAIR SUCH UTILITIES AT HIS OWN EXPENSE.
- 5. CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION, SAFETY AND CONVENIENCE OF THE PUBLIC, ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE FOR STREETS AND HIGHWAYS", 2009, AND TO THE RULES AND REGULATIONS.
- 6. THE DIRECTOR OF PUBLIC WORKS AND/OR THE DIRECTOR OF THE DEPARTMENT OF WATER SUPPLY HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLAN OR DETRIMENTAL TO THE PUBLIC'S INTEREST.
- 7. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH DEVELOPMENT SERVICES ADMINISTRATION FIVE (5) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 8. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND THE COUNTY GRADING ORDINANCE.
- 9. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES. ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION ORDERED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE PAID BY THE CONTRACTOR.
- 10. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPRO-PRIATE WORK SITE. THE CONTRACTOR SHALL INFORM THE DIRECTOR OF PUBLIC WORKS OF THE LOCATION OF THE DISPOSAL SITES. THE THE DISPOSAL SITE MUST FULFILL THE REQUIREMENTS OF THE MAUI COUNTY
- 11. THE CONTRACTOR SHALL SUBMIT A TIF COPY AND SIX (6) COPIES OF THE "AS-BUILT" DRAWINGS PRIOR TO THE FINAL APPROVAL OF THE
- 12. IF THE VERTICAL CLEARANCE BETWEEN A WASTEWATER LINE AND A NEW OR EXISTING WATERLINE IS EIGHTEEN INCHES (18") OR LESS, THE WASTEWATER LINE SHALL BE CONCRETE-JACKÈTED IN ACCORDANCE WITH THE STANDARD DETAILS OF PUBLIC WORKS CONSTRUCTION DATED SEPTEMBER 1984.
- 13. SHOULD HISTORIC SITES SUCH AS WALLS, PLATFORMS, PAVEMENTS. OR MOUNDS, OR REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF SHELL OR CHARCOAL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IMMEDIATELY IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR AND/OR LANDOWNER SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION (692-8015), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY.
- 14. PURSUANT OF MAUI COUNTY CODE SECTION 3.44.015(C), THE COUNTY OF MAULIS NOT RESPONSIBLE FOR ANY PARK, ROADWAY, EASEMENT (INCLUDING BUT NOT LIMITED TO DRAINAGE, SEWER, ACCESS, RECLAIMED WATER OR AVIATION EASEMENT), OR ANY OTHER INTEREST IN REAL PROPERTY SHOWN ON THIS MAP OR SHOWN ON THESE PLANS, UNLESS THE MAUI COUNTY COUNCIL HAS ACCEPTED ITS DEDICATION BY A RESOLUTION APPROVED BY A MAJORITY OF COUNCIL'S MEMBERS AT A REGULAR OR SPECIAL MEETING OF THE MAUI COUNTY COUNCIL.
- 15. STEEL PLATE WARNING SIGNS ARE REQUIRED FOR ALL STEEL PLATES IN THE RIGHT-OF-WAY.
- 16. WHEELCHAIR RAMP INSPECTION/CERTIFICATION FORMS SHALL BE REQUIRED FOR ALL NEWLY CONSTRUCTED RAMPS.

LINE IS 2 INCHES AT FULL SIZE (If NOT 2-inches : Scale Accordingly)

17. ALL STRIPING AND PAVEMENT MARKINGS SHALL BE OF THERMOPLASTIC MATERAL.

18. COMPACTION REQUIREMENTS

- A. TESTING OF MATERIALS SHALL BE CONDUCTED BY AN APPROVED INDEPENDENT TESTING AGENCY IN ACCORDANCE WITH ASTM STANDARD METHODS OR AS SPECIFIED BY THE DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION, AS FOLLOWS:
 - I. EMBANKMENT/SELECT BORROW AND SUBGRADE MATERIALS: ONE (1) COMPACTION TEST PER 600 SQUARE YARDS PER LIFT;
 - II. AGGREGATE SUBBASE COURSE: ONE (1) COMPACTION TEST PER 400 SQUARE YARDS; ONE (1) GRADATION AND SAND EQUIVALENT TEST PER LIFT PER PROJECT;
 - III. AGGREGATE BASE COURSE: ONE (1) COMPACTION TEST PER 300 SQUARE YARDS; ONE (1) GRADATION AND SAND EQUIVALENT TEST PER LIFT PER PROJECT;
- IV. ASPHALT CONCRETE PAVEMENT OR ASPHALT TREATED BASE COURSE: THREE (3) A.C. CORES FOR THICKNESS AND DENSITY TESTS PER PROJECT;
- V. TRENCH BACKFILL MATERIAL: ONE (1) TEST FOR EACH 300 LINEAL FEET OF TRENCH PER LIFT OF MATERIAL.
- B. CONTRACTOR SHALL SUBMIT ALL TESTING REPORTS, INCLUDING RESULTS TO THE COUNTY'S INSPECTION AGENCY FOR REVIEW AND APPROVAL PRIOR TO COUNTY'S ACCEPTANCE OF WORK.
- C. THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE COUNTY OF ANY TESTING FAILURES AND CORRECT EACH FAILURE PRIOR TO PROCEEDING TO THE NEXT PHASE OF CONSTRUCTION.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

REVISION DATE MADE BY APPROVED AUSTIN, TSUTSUMI & ASSOCIATES, INC. ENGINEERS, SURVEYORS HONOLULU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

VARIOUS LOT IMPROVEMENTS (LOT 238 GUARDRAILS AND LOT 11 DRAINAGE IMPROVEMENTS) KULA, MAUI, HAWAII

CONSTRUCTION NOTES



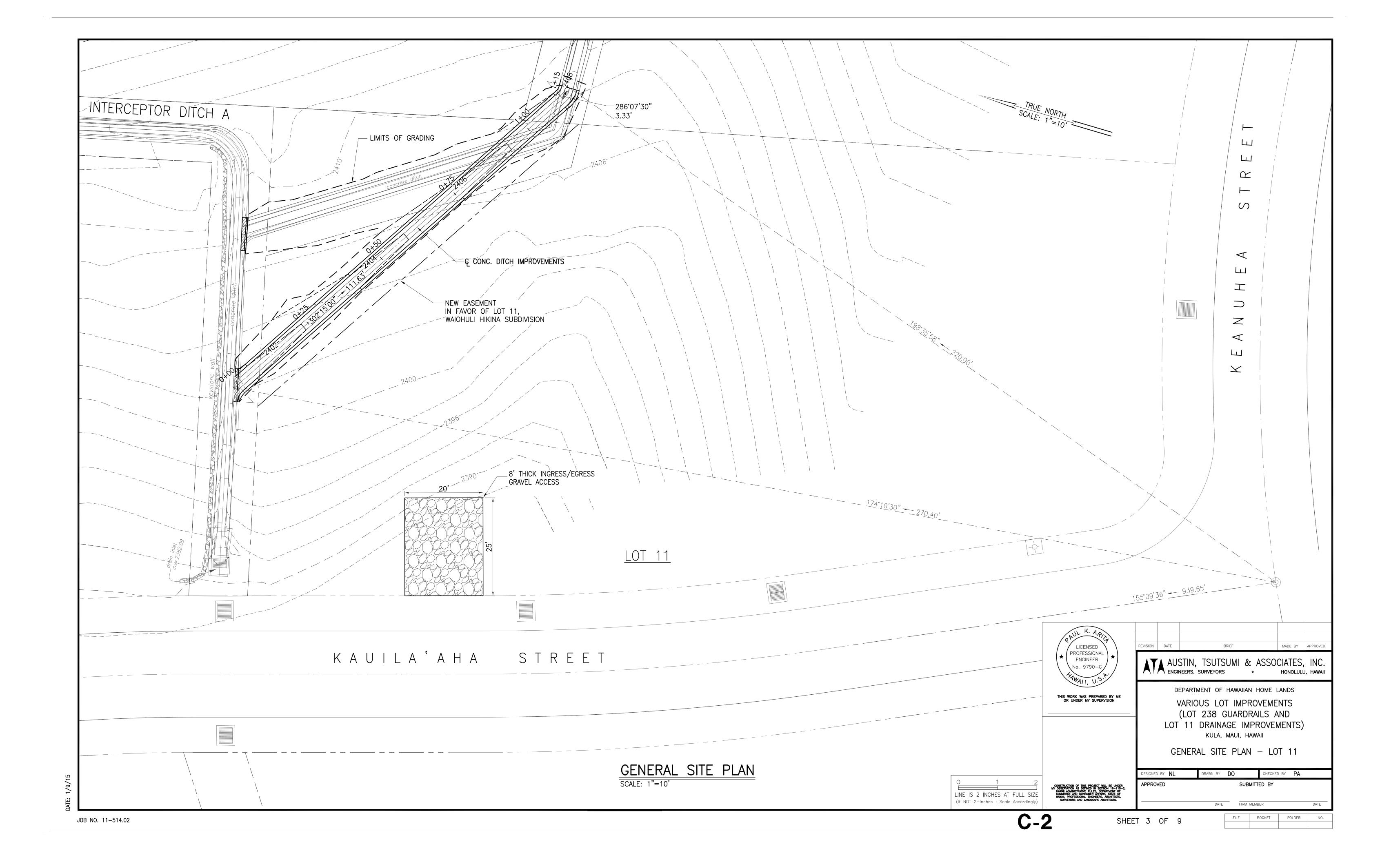
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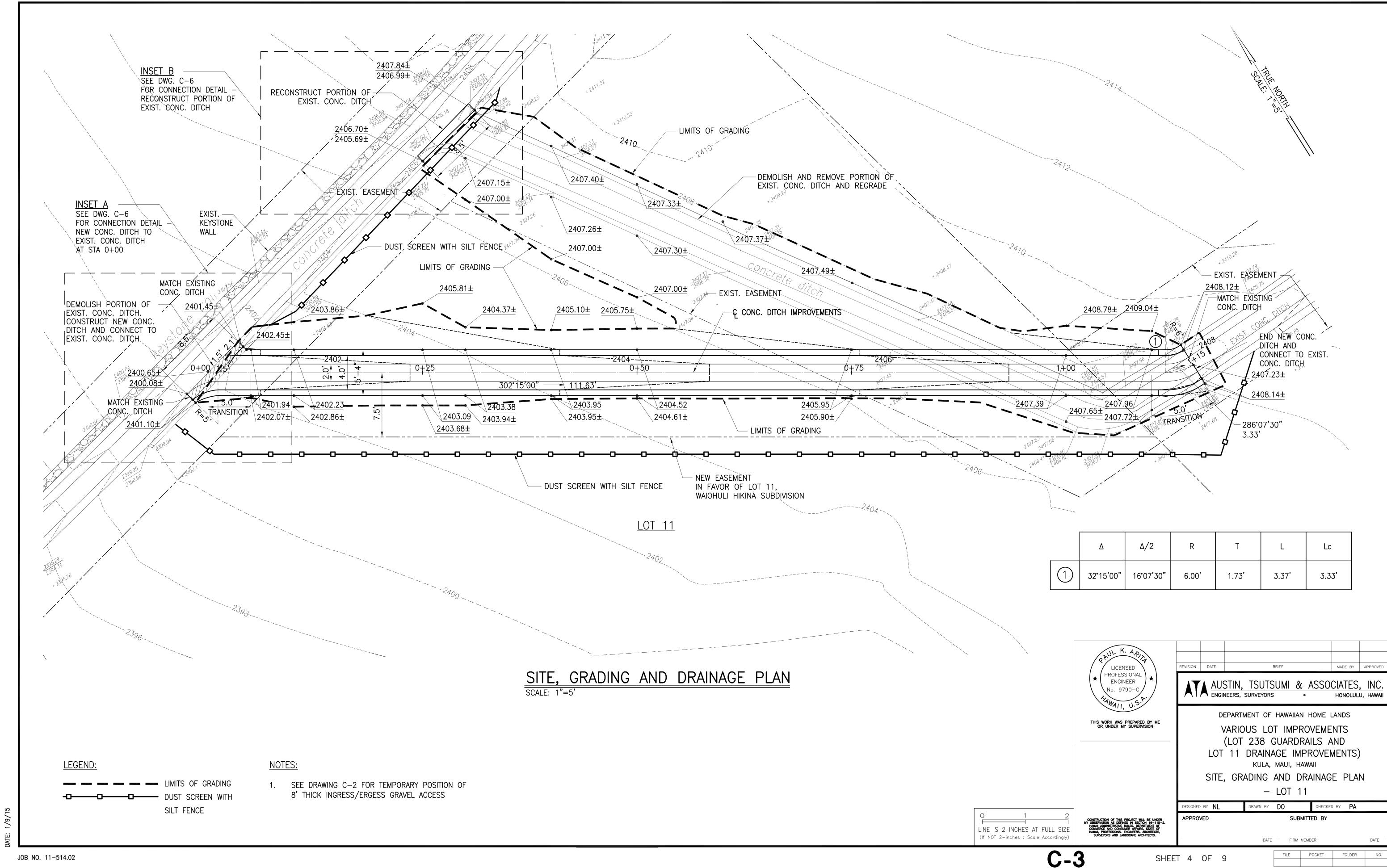
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FIRM MEMBER

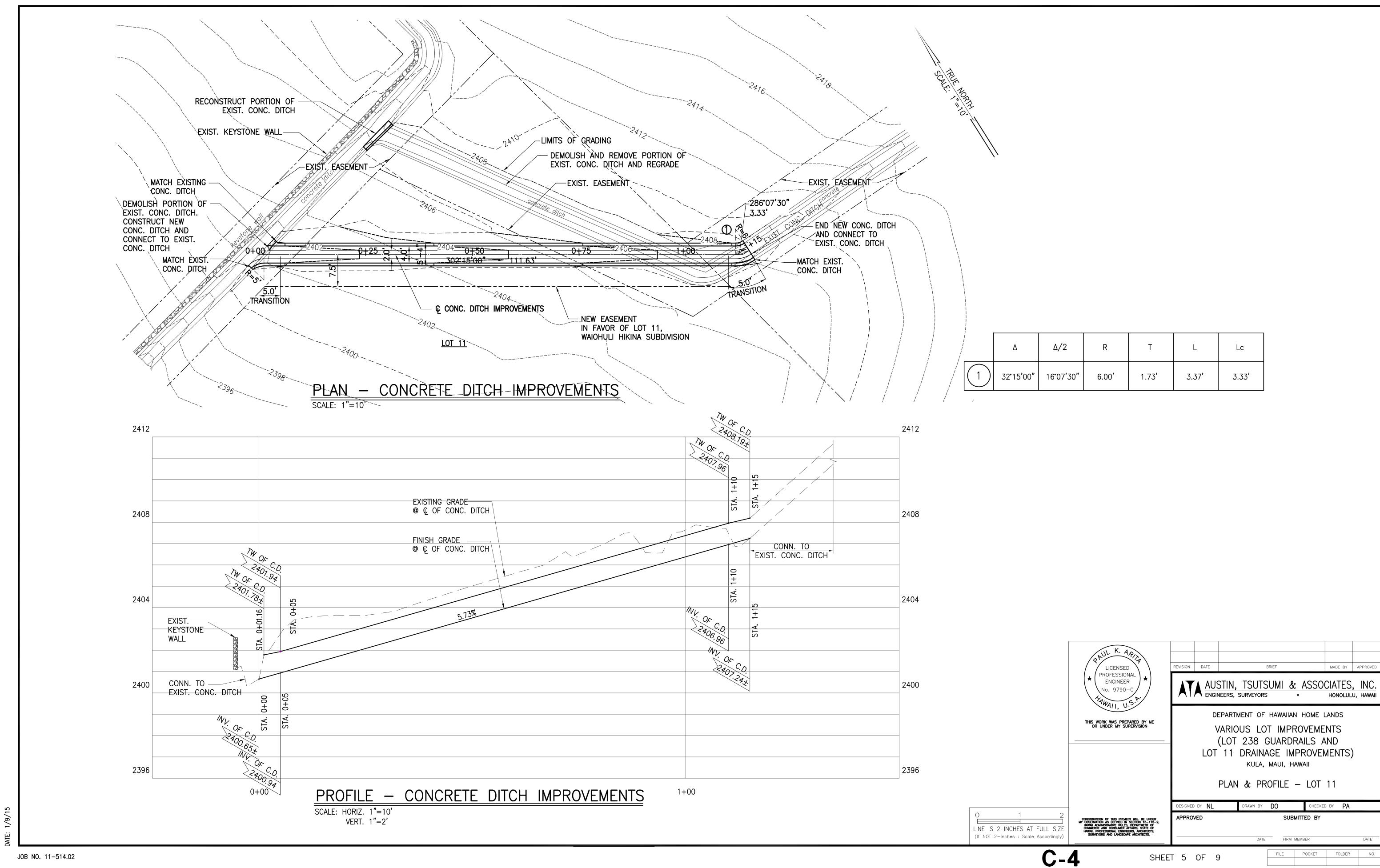
SHEET 2 OF 9

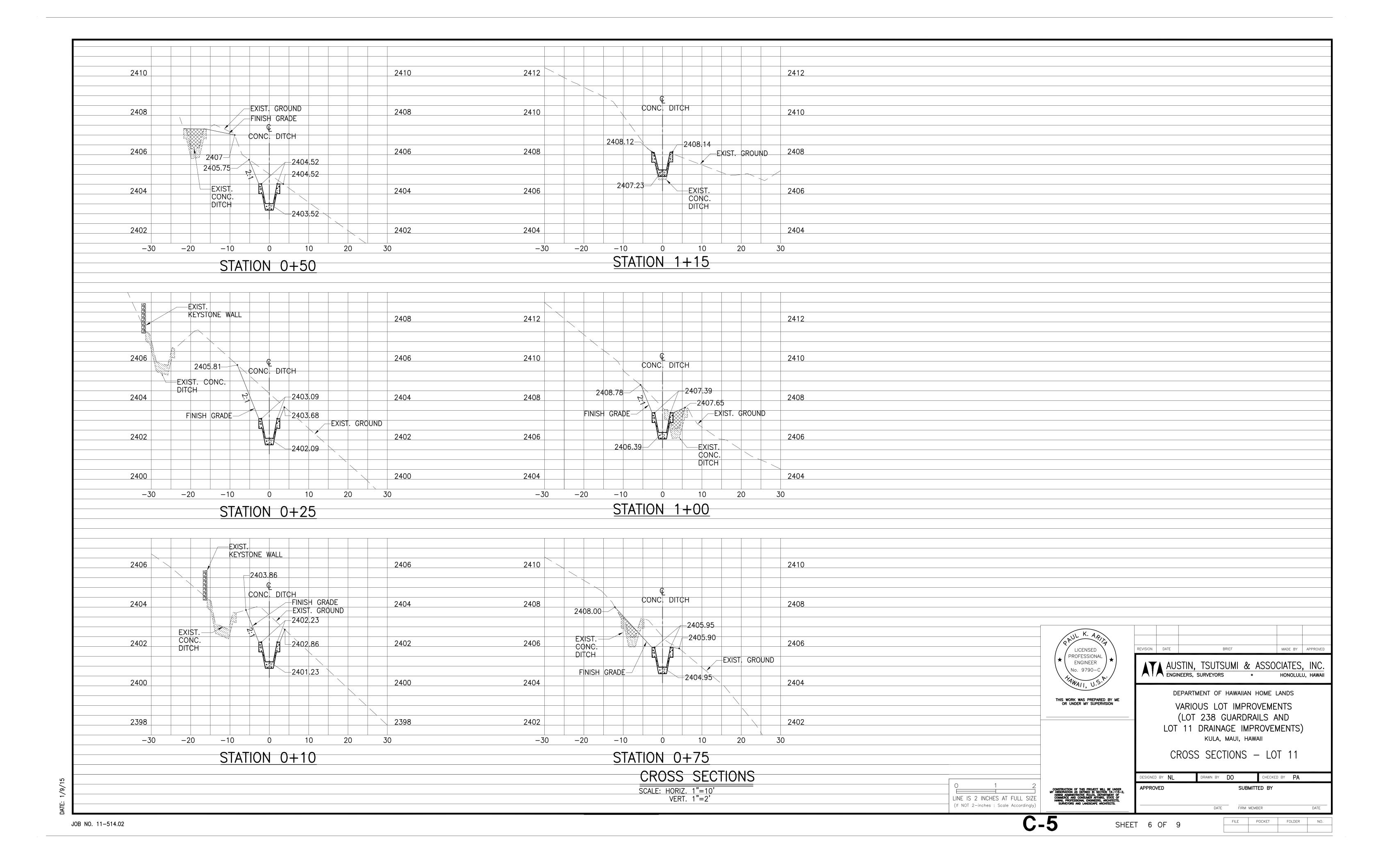
FOLDER POCKET

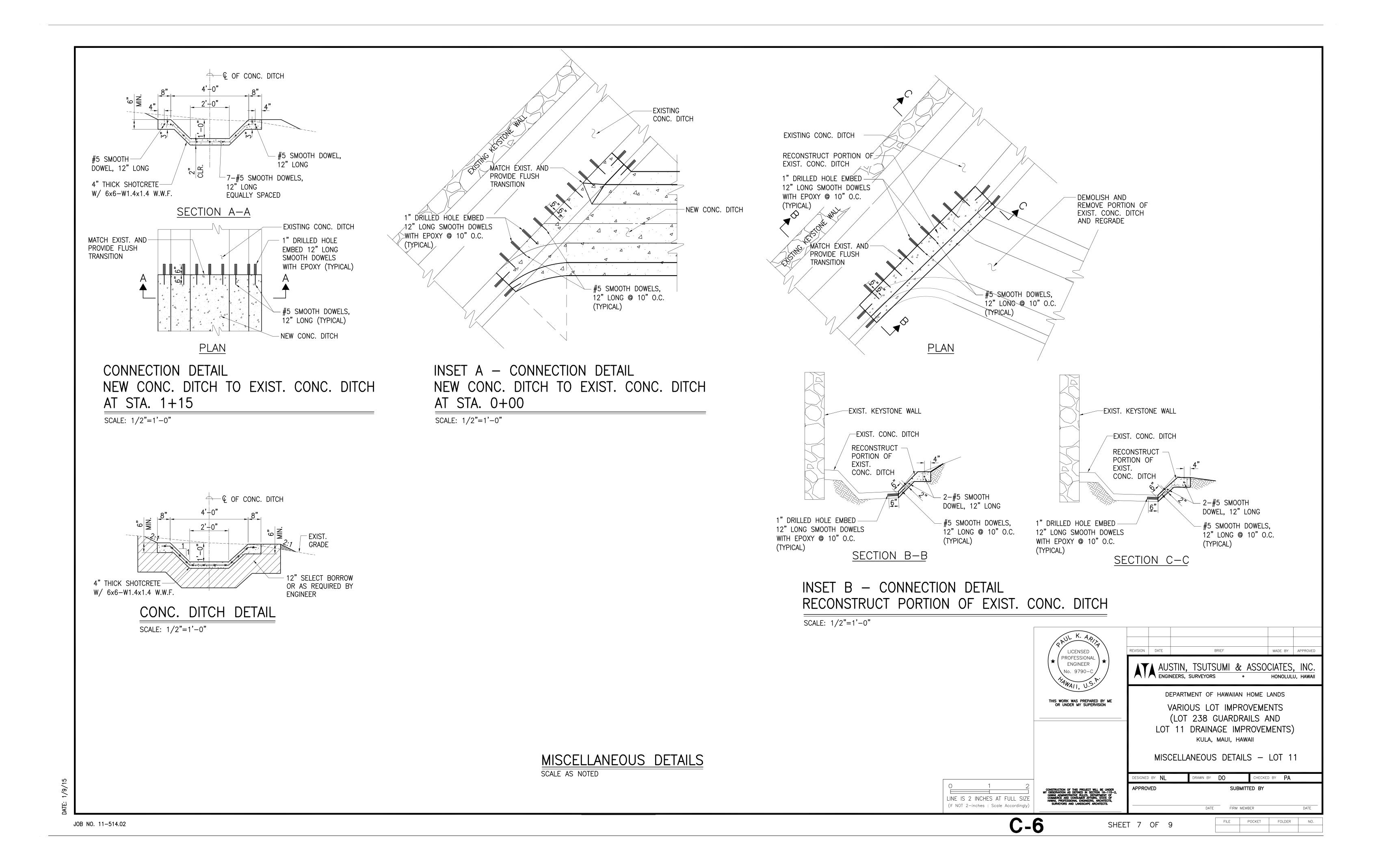


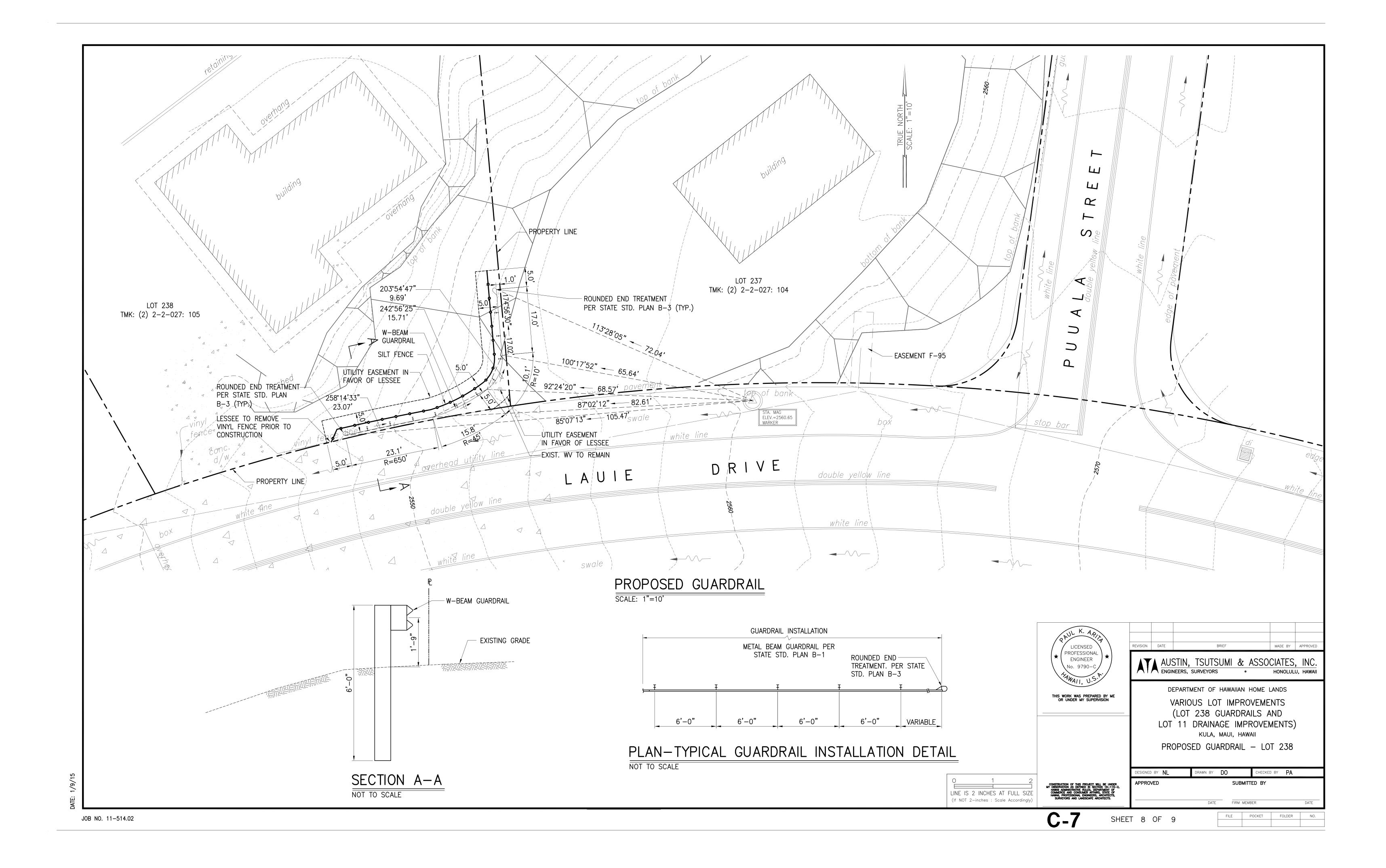


JOB NO. 11-514.02









BEST MANAGEMENT PRACTICES (BMP) NOTES MINIMUM:

DURING CONSTRUCTION

- 1. ALL AFFECTED STORM DRAIN INLETS ALONG THE PROJECT SITE SHALL USE AN INLET PROTECTION DEVICE. SEE DETAIL THIS SHEET.
- 2. DURING CONSTRUCTION, DUST POLLUTION SHALL BE KEPT TO A MINIMUM.
- 3. THE CONTRACTOR SHALL ENSURE THAT ALL TIRES OF CONSTRUCTION VEHICLES ARE SUFFICIENTLY CLEANED OFF SO THAT DIRT OR DEBRIS IS NOT TRACKED OFF THE CONSTRUCTION SITE. WASHING OFF TIRES WITH WATER WILL NOT NOT BE ACCEPTABLE UNLESS THE RUNOFF IS CONTAINED AND DOES NOT ENTER THE STORM DRAIN SYSTEM.
- 4. THE CONTRACTOR SHALL REMOVE FILTERS DURING TIMES OF ABOVE NORMAL RAINFALL EVENTS AND REPLACE THEM WHEN EVENT HAS PASSED.
- 5. THE CONTRACTOR SHALL CHECK THE CONDITION OF THE FILTER AT THE BEGINNING AND ENDING OF EACH WORK DAY AND REPAIR/CLEAN AS NECESSARY.
- 6. 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).
- 7. THE PROJECT SITE THAT IS CLEARED OF VEGETATION SHALL BE KEPT DAMP FOR SEVEN (7) DAYS A WEEK. AT THE END OF EACH DAY, THE SITE SHALL BE SUFFICIÈNTLY DAMPENED SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.
- 8. IF REQUIRED, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO THAT EXCAVATION, EMBANKMENT, AND IMPORTED MATERIAL SHALL BE DAMPENED TO PREVENT DUST PROBLEMS.
- 9. THE CONTRACTOR SHALL MAINTAIN A SUITABLE WATER SYSTEM AND DAMPEN THE GRUBBED SITE WITH WATER.
- 10. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES. ROADWAYS AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION SHALL BE PAYABLE BY THE CONTRACTOR.

POST CONSTRUCTION

- 1. THE CONSTRUCTION AREA AND SURROUNDING AREAS AND ADJOINING STREETS SHALL BE CLEARED OF ALL TRASH AND DEBRIS.
- 2. ALL MOBILIZED EQUIPMENT SHALL BE REMOVED.

3" DIA. PERFORATED

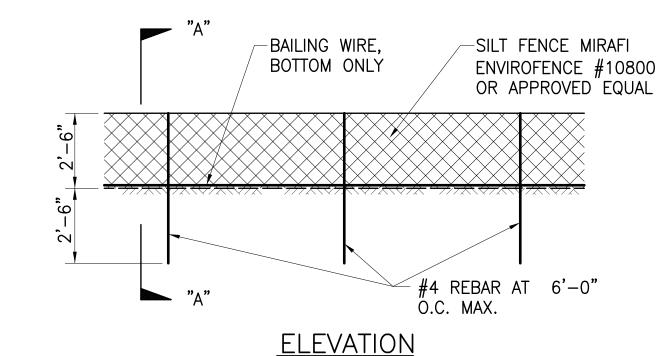
PVC PIPE SEWN INSIDE

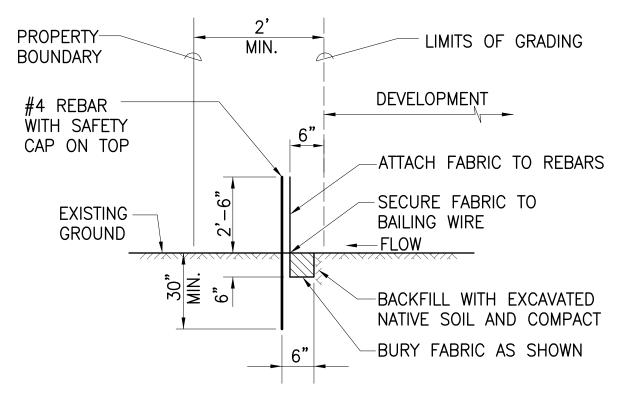
- 3. EXCESS EXCAVATED MATERIAL NOT UTILIZED FOR BACKFILL SHALL BE REMOVED. ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE HAULED FROM THE JOBSITE.
- 4. HAULING OF WET, DRIPPING MATERIAL OVER PUBLIC STREETS WILL NOT BE PERMITTED.
 "TRUE DAM" SEDIMENT FILTER— OR APPROVED EQUAL CURB DROP INLET OR MEDIAN INLET WITHOUT GRAVEL FILLED POUCH-

NOTE:

TRUE DAM IS MANUFACTURED BY DANDY PRODUCTS, INC., GROVE CITY, OHIO. CONTRACTOR SHALL PROVIDE INLET PROTECTION.

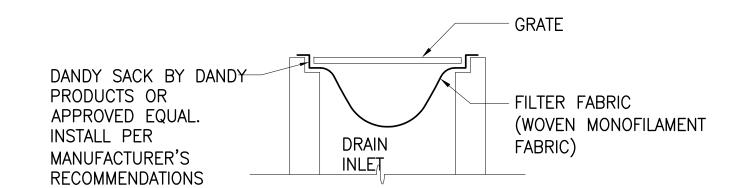
SEDIMENT CONTROL FILTER DETAIL NOT TO SCALE





SECTION "A"-"A"

SILT FENCE DETAIL NOT TO SCALE



NOTES:

- 1. FILTER FABRIC SHALL BE DANDY SACK BY DANDY PRODUCTS OR APPROVED EQUAL.
- 2. CONTRACTOR SHALL CHECK THE CONDITION OF THE FILTER AT THE BEGINNING AND ENDING OF EACH WORK DAY AND REPAIR/CLEAN AS NECESSARY.
- 3. THE CONTRACTOR SHALL REMOVE INLET FILTERS DURING TIMES OF ABOVE NORMAL RAINFALL EVENTS AND REPLACE THEM WHEN THE EVENT HAS PASSED.

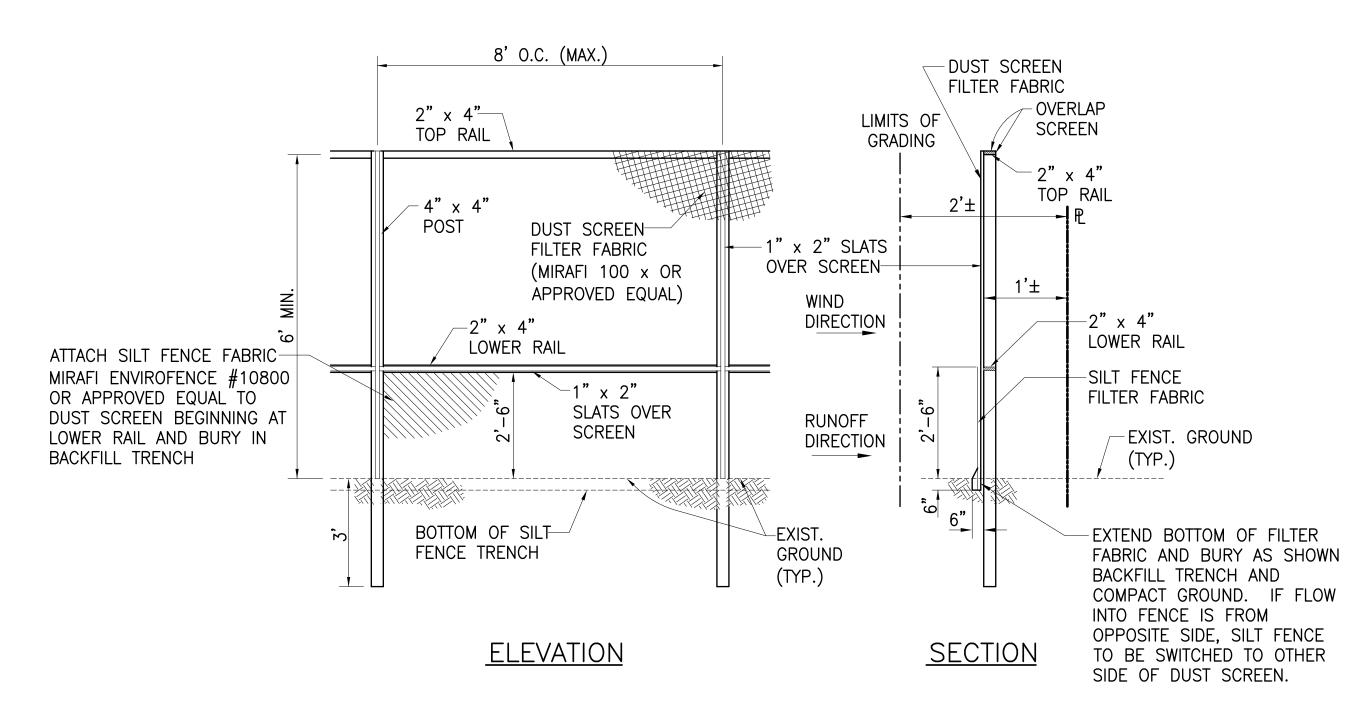
TEMPORARY STORM GRATE FILTRATION

AT DRAIN INLET

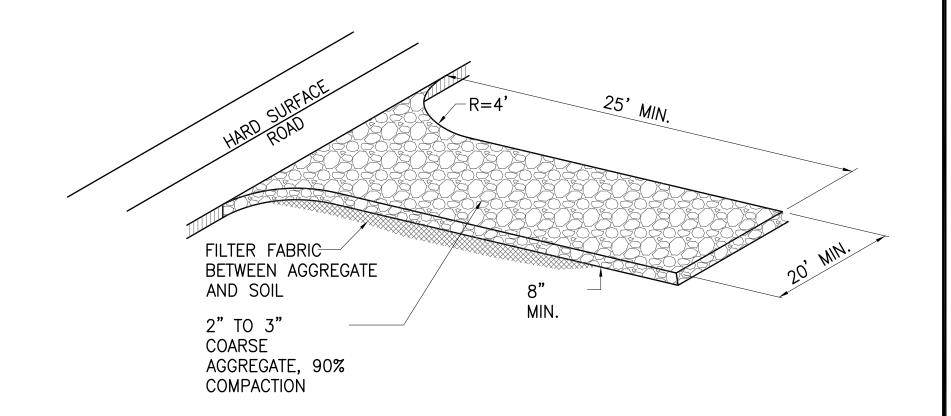
NOT TO SCALE

EROSION CONTROL DETAILS

SCALE AS NOTED



DUST SCREEN WITH SILT FENCE NOT TO SCALE



TYPICAL INGRESS/EGRESS DETAIL NOT TO SCALE

