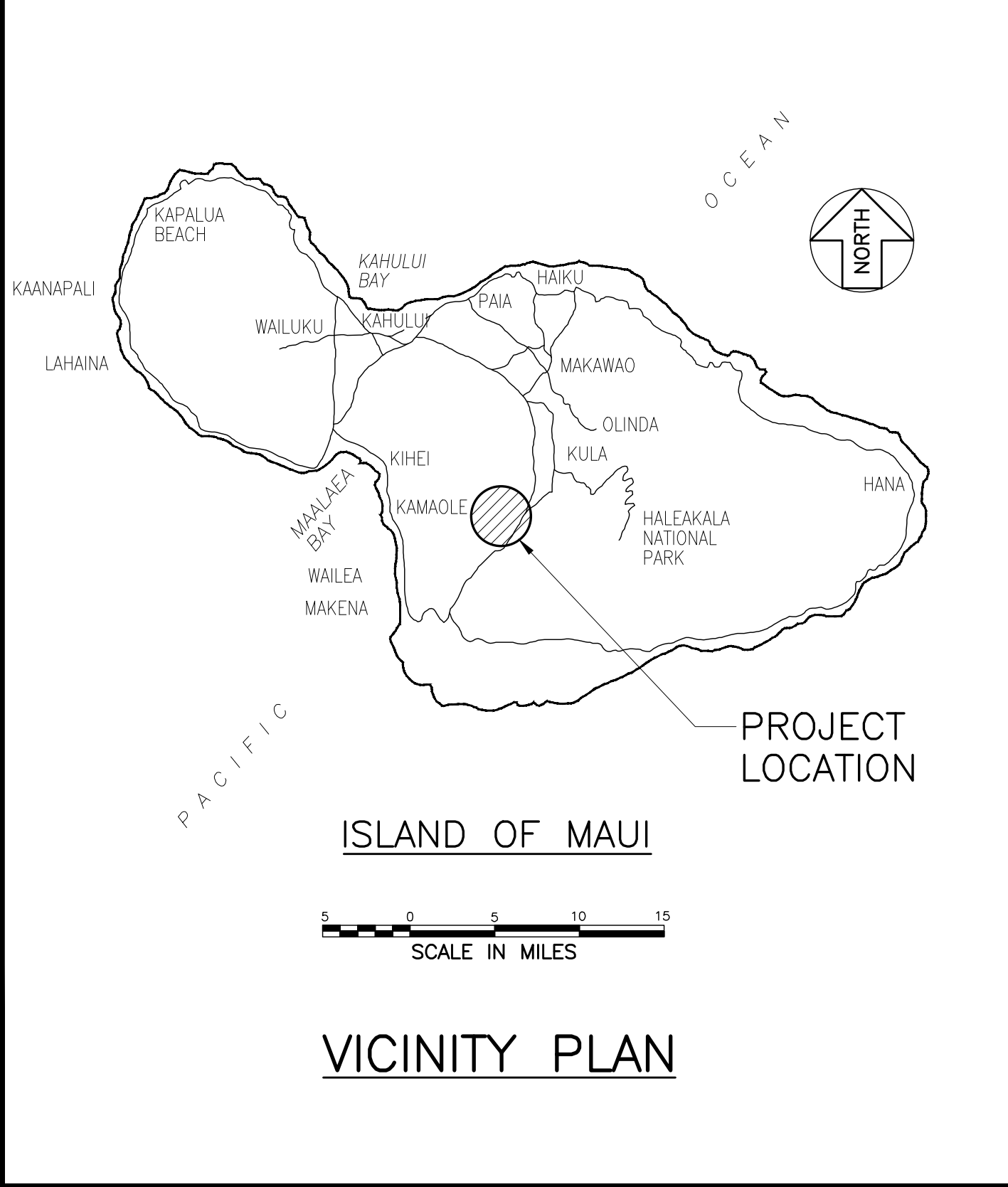
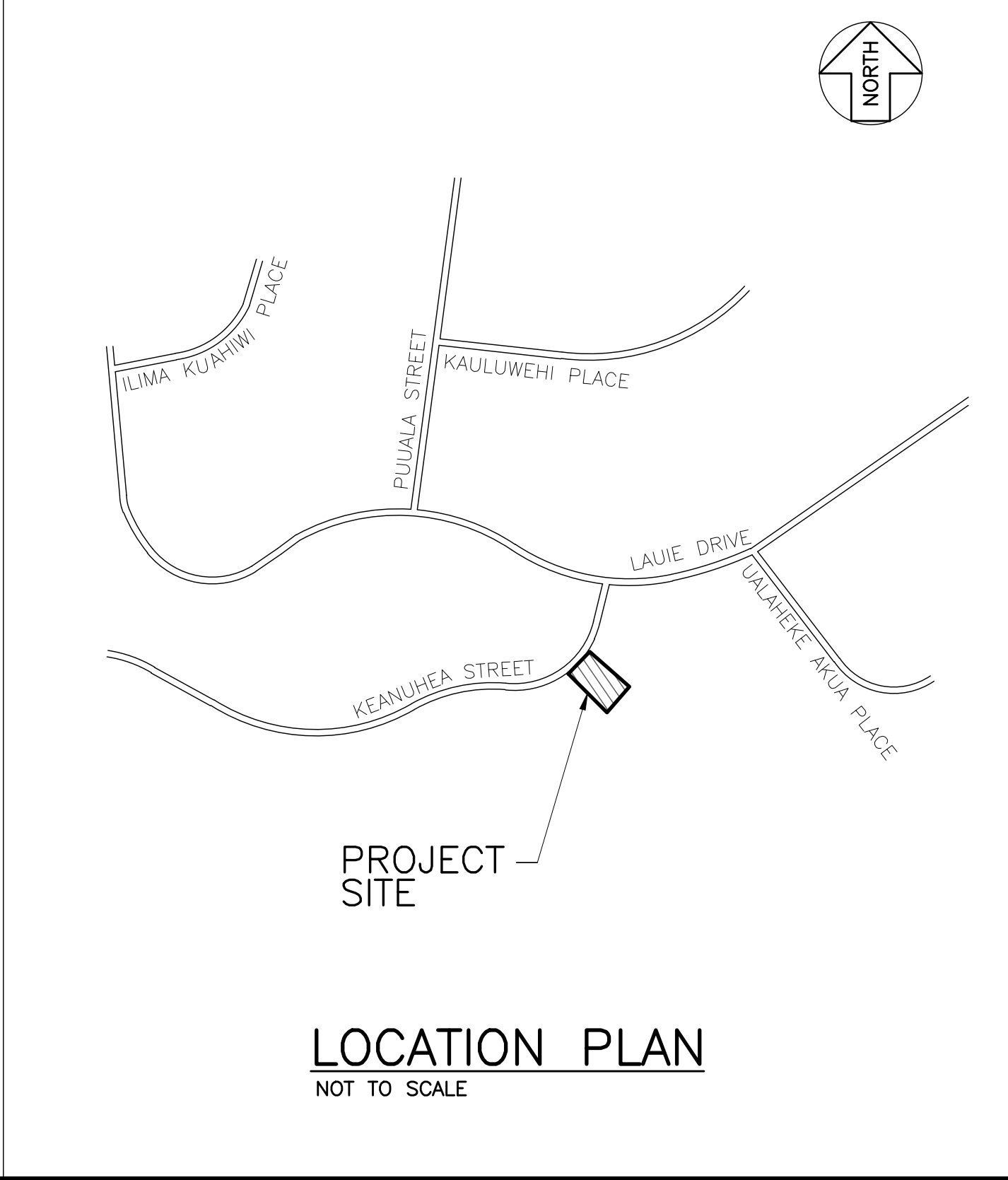



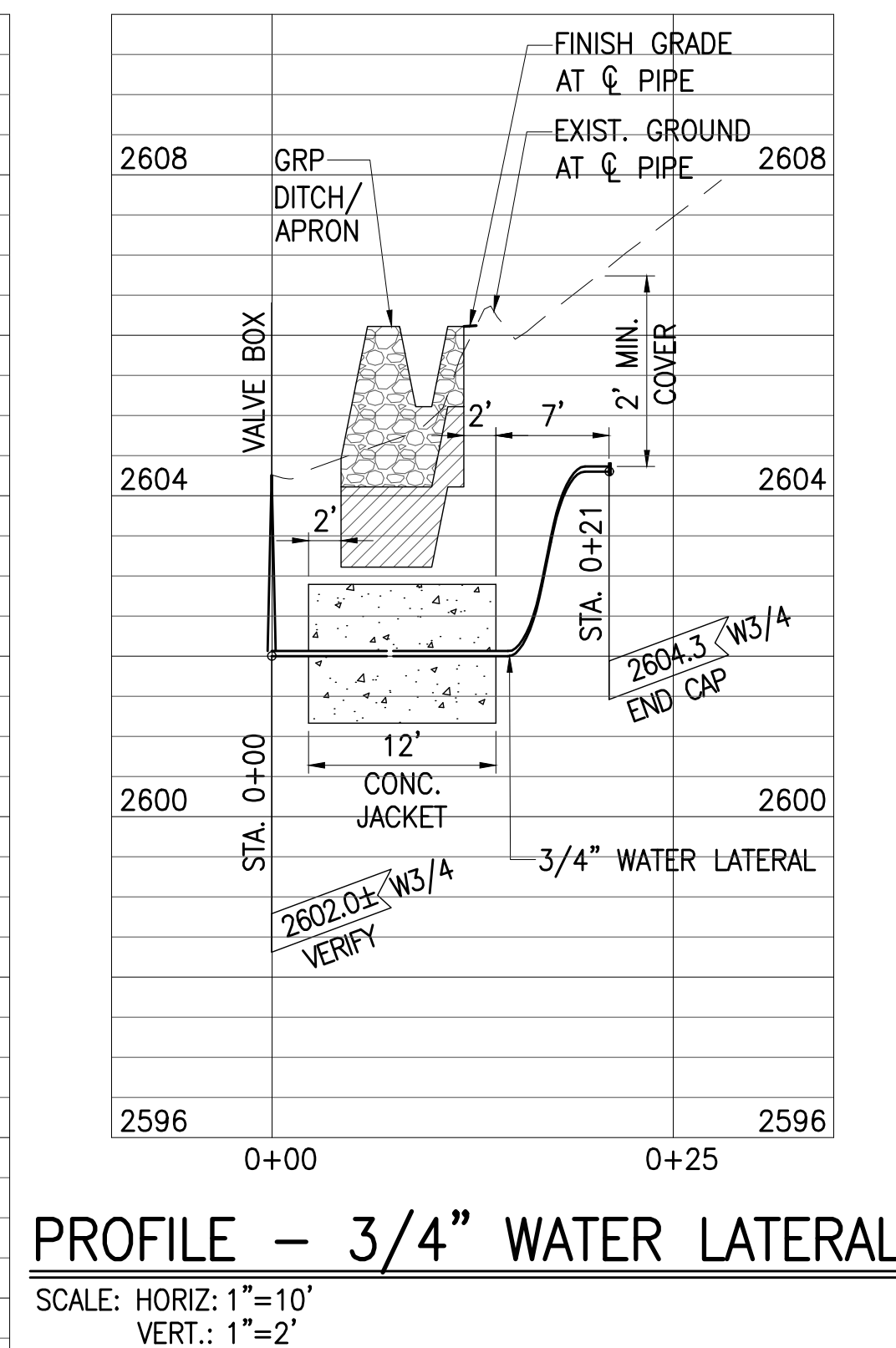
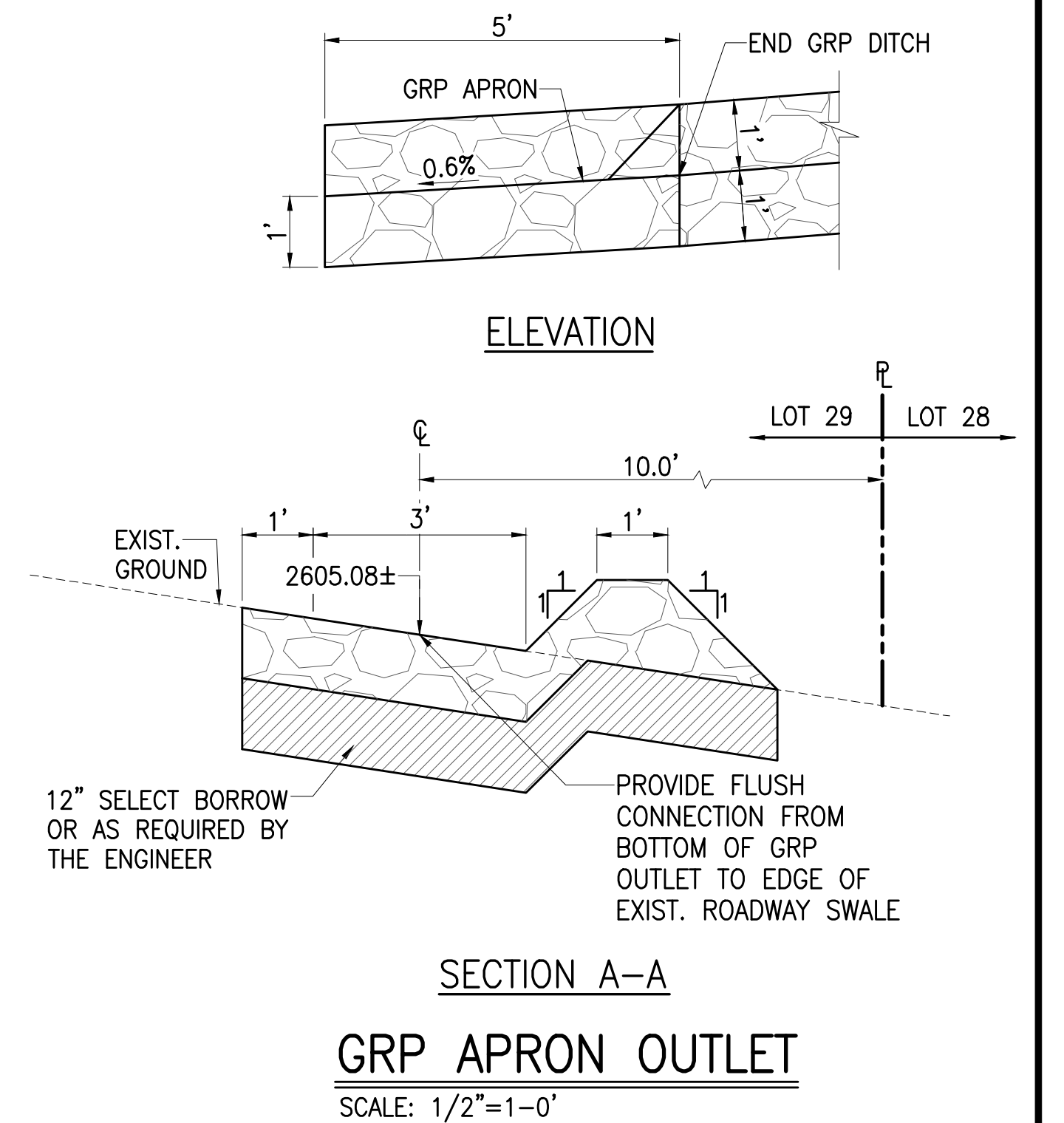
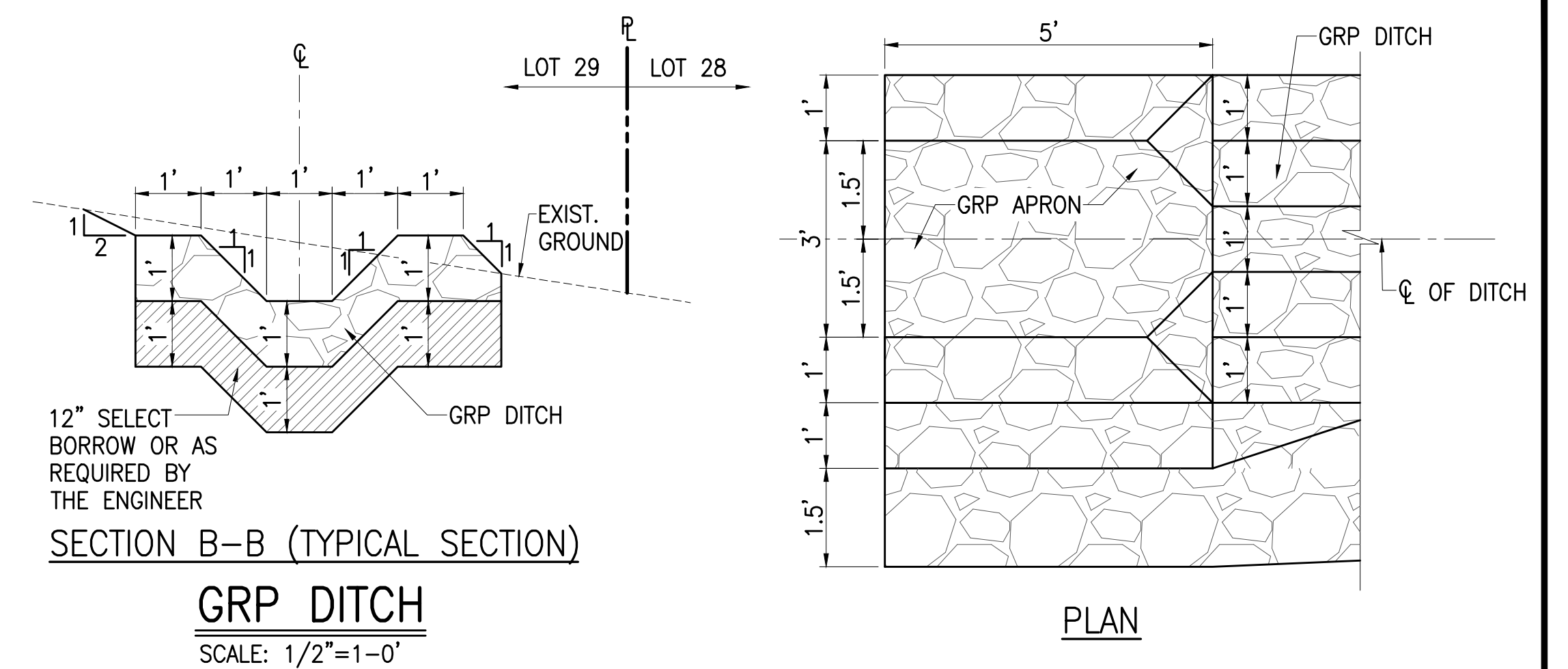
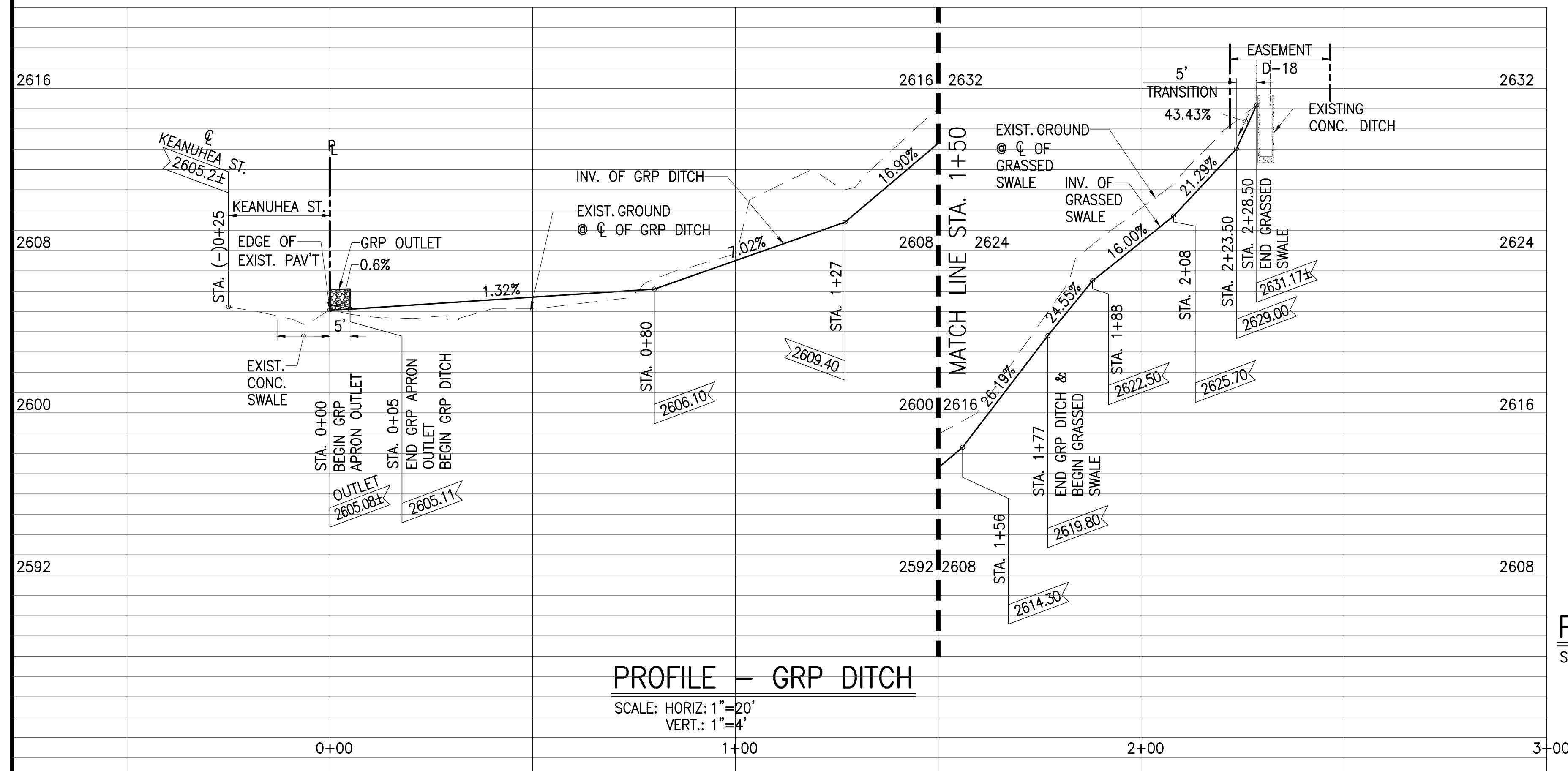
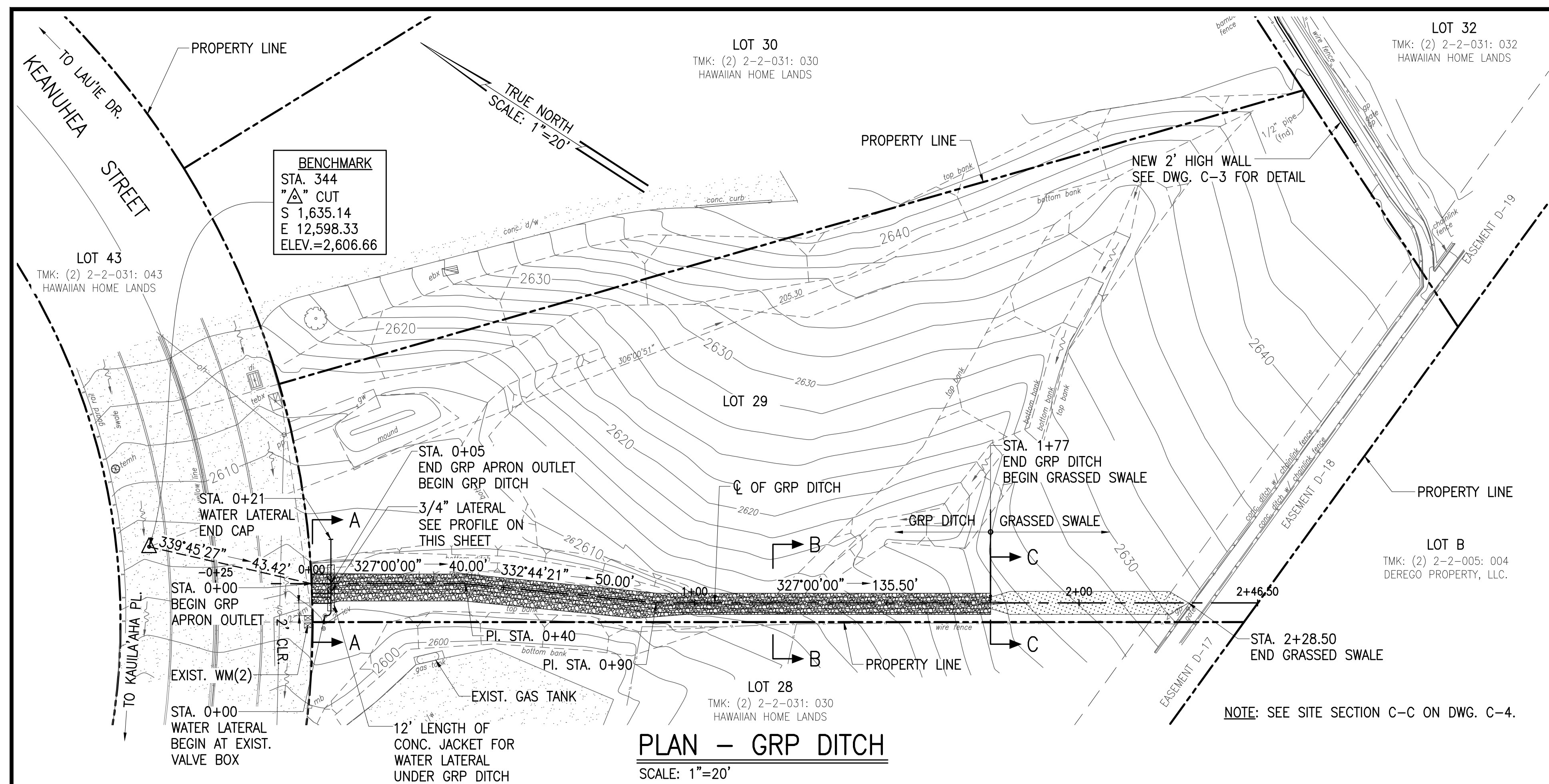
DEPARTMENT OF HAWAIIAN HOME LANDS  
STATE OF HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

LOT 29 DRAINAGE IMPROVEMENTS  
KULA, MAUI, HAWAII

LOCATION MAP		INDEX TO DRAWINGS		
 <p>ISLAND OF MAUI</p> <p>SCALE IN MILES</p> <p>VICINITY PLAN</p>	 <p>LOCATION PLAN</p> <p>NOT TO SCALE</p>	SHEET	DRAWING	DESCRIPTION
		1	T-1	TITLE SHEET AND INDEX
		2	C-1	CONSTRUCTION NOTES
		3	C-2	PLAN AND PROFILE – GRP DITCH AND 3/4” WATER LATERAL
		4	C-3	PLAN AND PROFILE – NEW WALL
		5	C-4	GRADING PLAN
		6	C-5	EROSION CONTROL PLAN
		7	C-6	CROSS SECTIONS





PAUL K. ARITA  
 LICENSED  
 PROFESSIONAL  
 ENGINEER  
 No. 9790-C  
 HAWAII, U.S.A.


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

*James C. ...* 4/30/  
 signature expiration of the fee

**ATA AUSTIN, TSUTSUMI & ASSOCIATES,**  
 ENGINEERS, SURVEYORS • HONOLULU

REVISION	DATE	BRIEF		MADE BY	APPROVED

	<b>AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC.</b>	
	ENGINEERS, SURVEYORS	• HONOLULU, HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS LOT 29 DRAINAGE IMPROVEMENTS KULA, MAUI, HAWAII
---

PLAN AND PROFILE GRP DITCH AND 3/4" WATER LATERAL
---

DESIGNED BY: <b>DO</b>	DRAWN BY: <b>DO</b>	CHECKED BY: <b>PA</b>
------------------------	---------------------	-----------------------

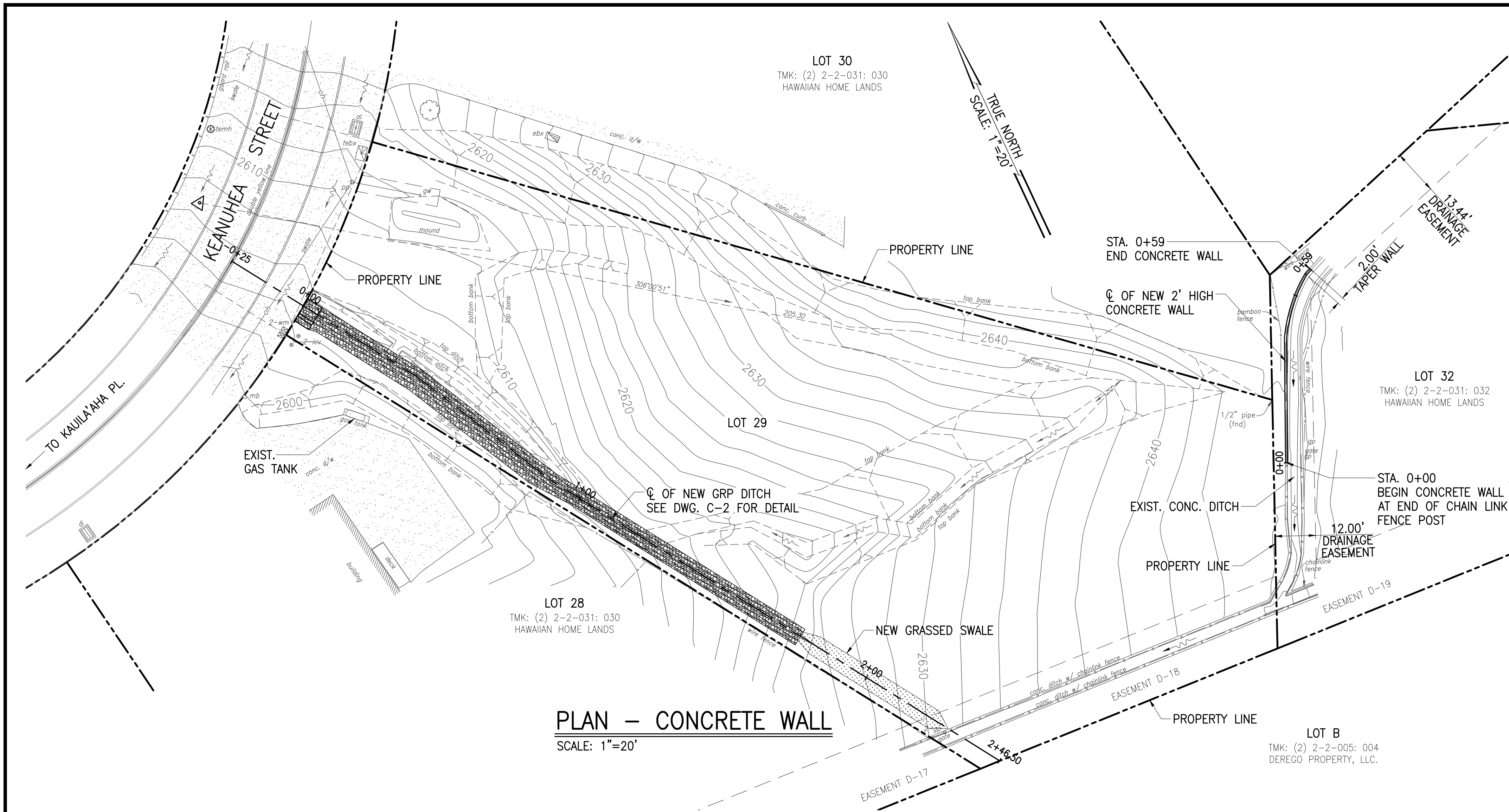
  

<b>APPROVED</b>	<b>SUBMITTED BY</b>
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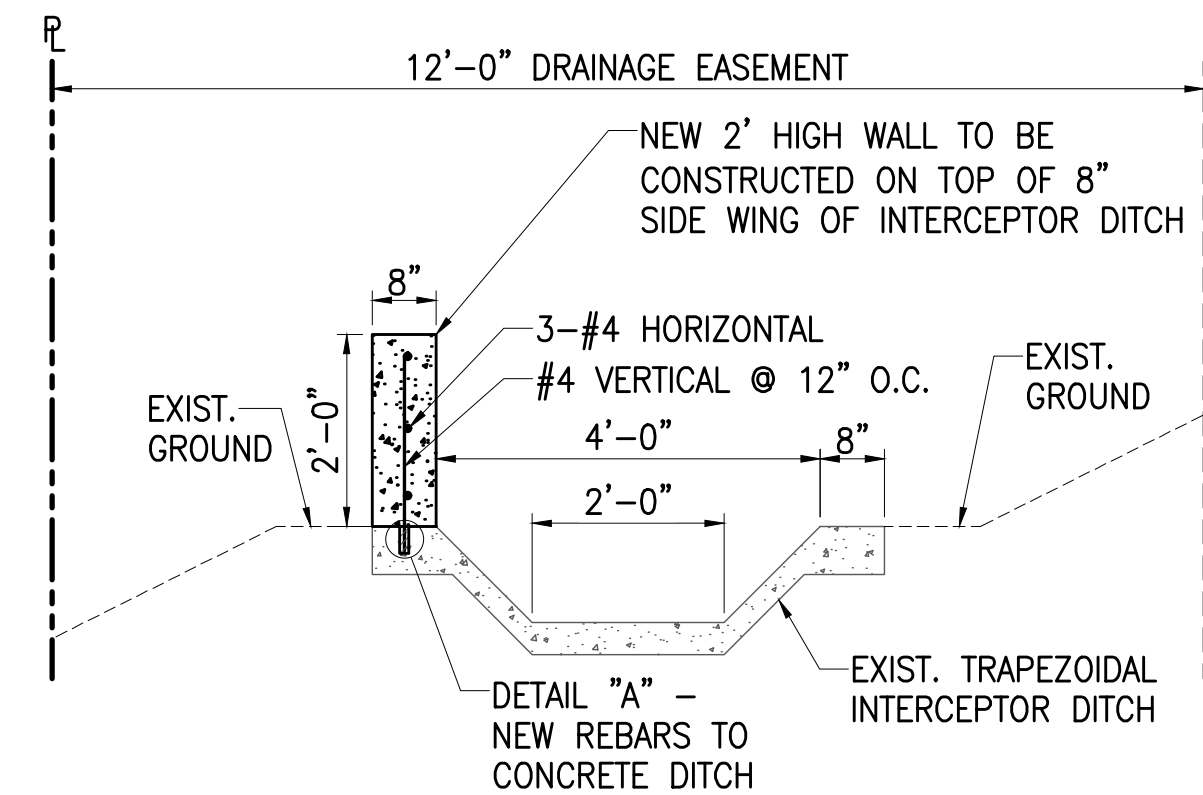
  

DATE	FIRM MEMBER	DATE
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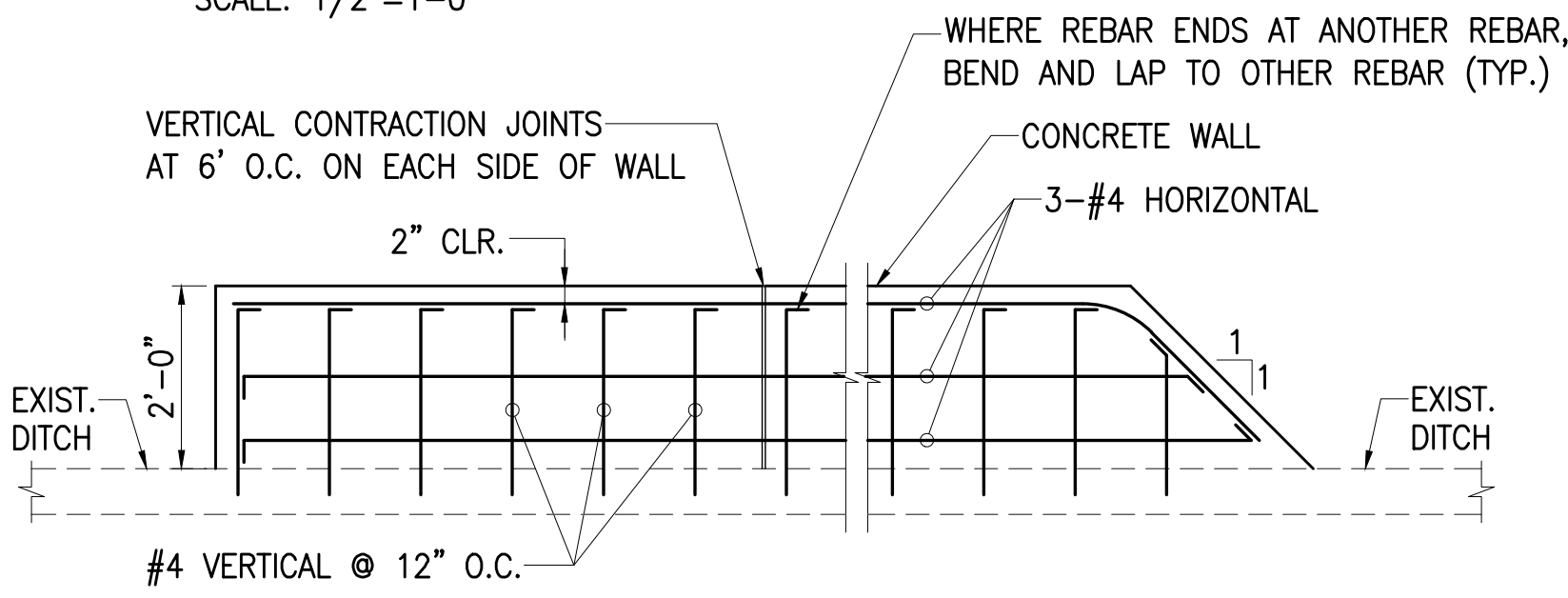




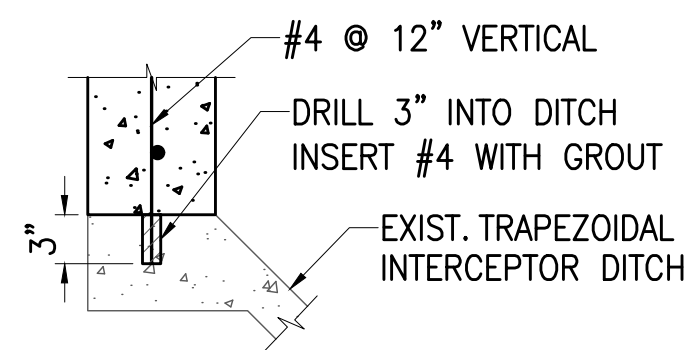
PLAN - CONCRETE WALL  
SCALE: 1"=20'



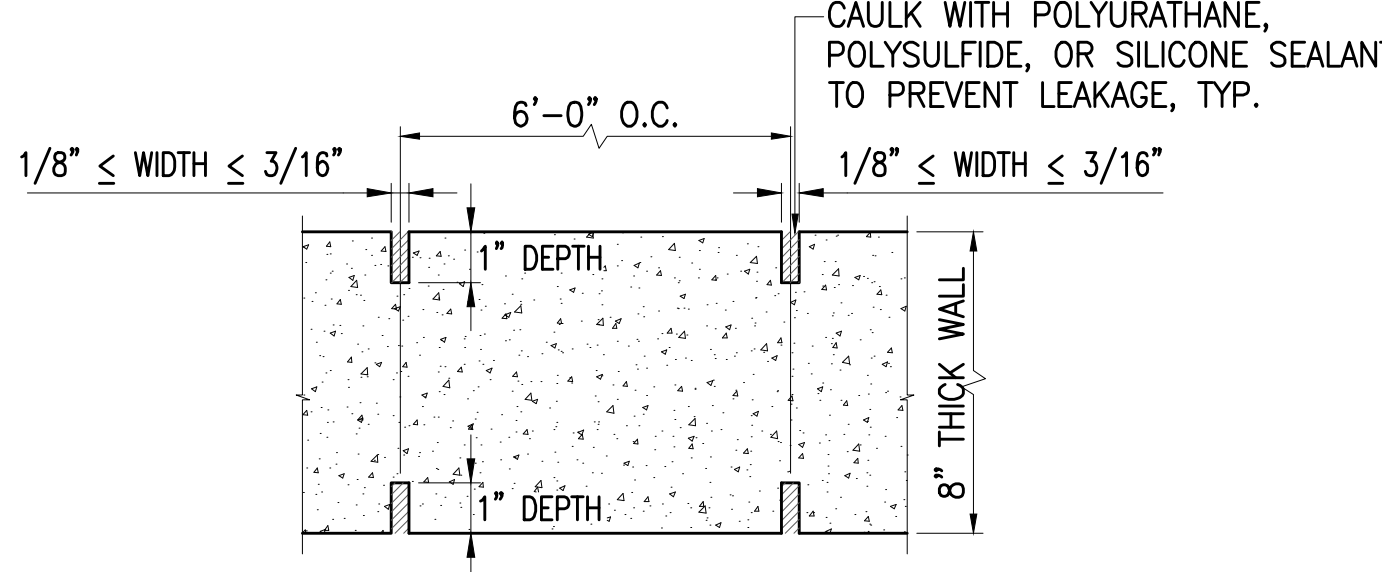
EIXST. TRAPEZOIDAL INTERCEPTOR DITCH  
WITH CONCRETE WALL  
SCALE: 1/2"=1-0'



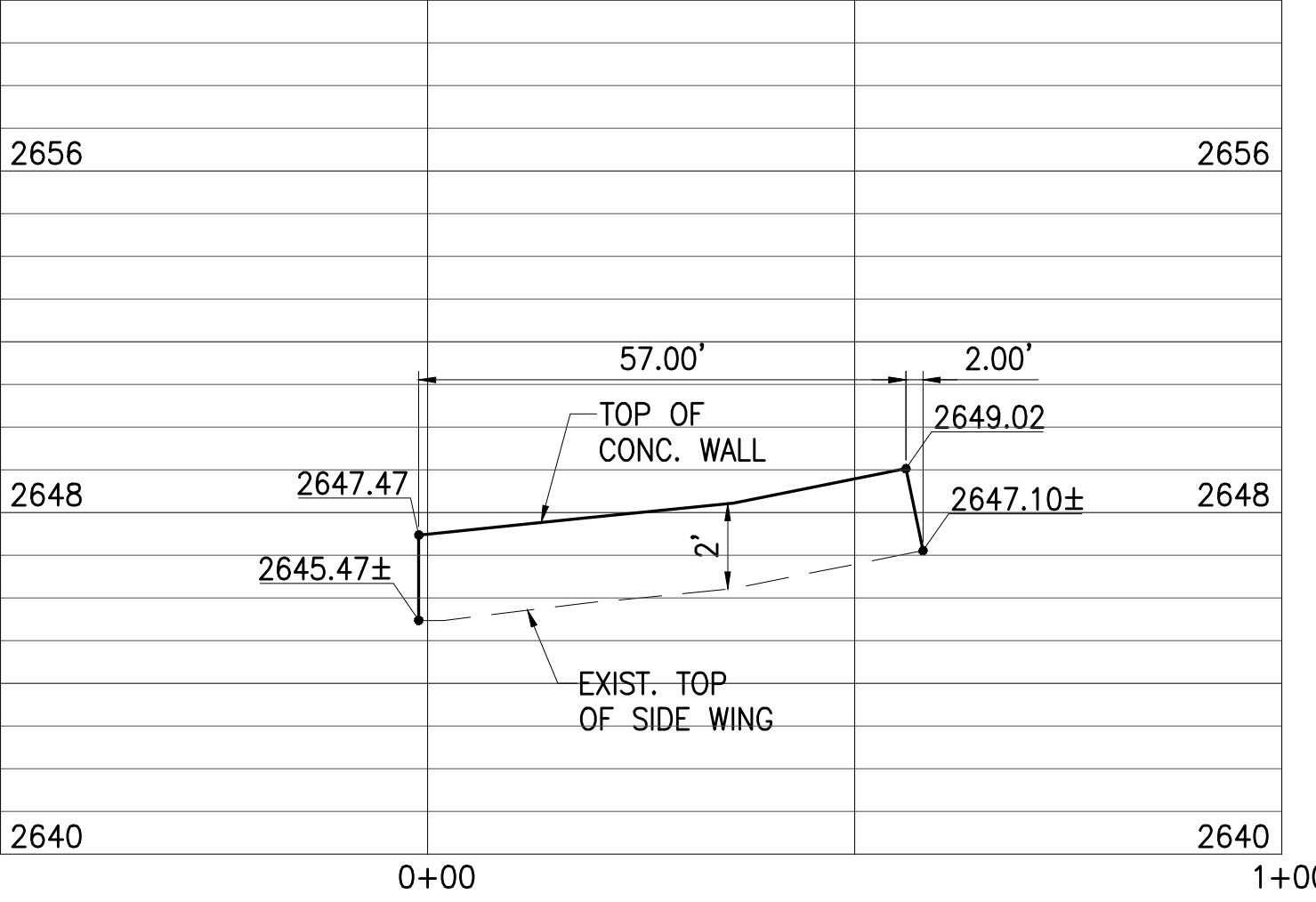
CONCRETE WALL  
SCALE: 1/2"=1-0'



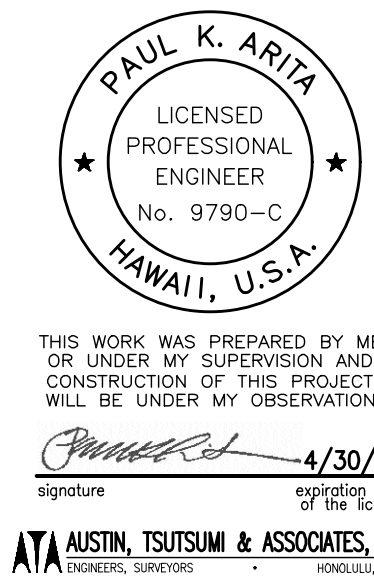
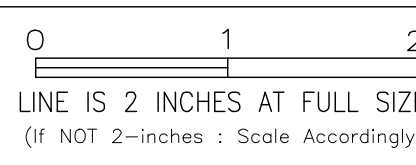
DETAIL "A"  
SCALE: 1"=1-0'



CONTRACTION JOINT DETAIL  
NOT TO SCALE



PROFILE - CONCRETE WALL  
SCALE: HORIZ: 1"=20'  
VERT.: 1"=4'




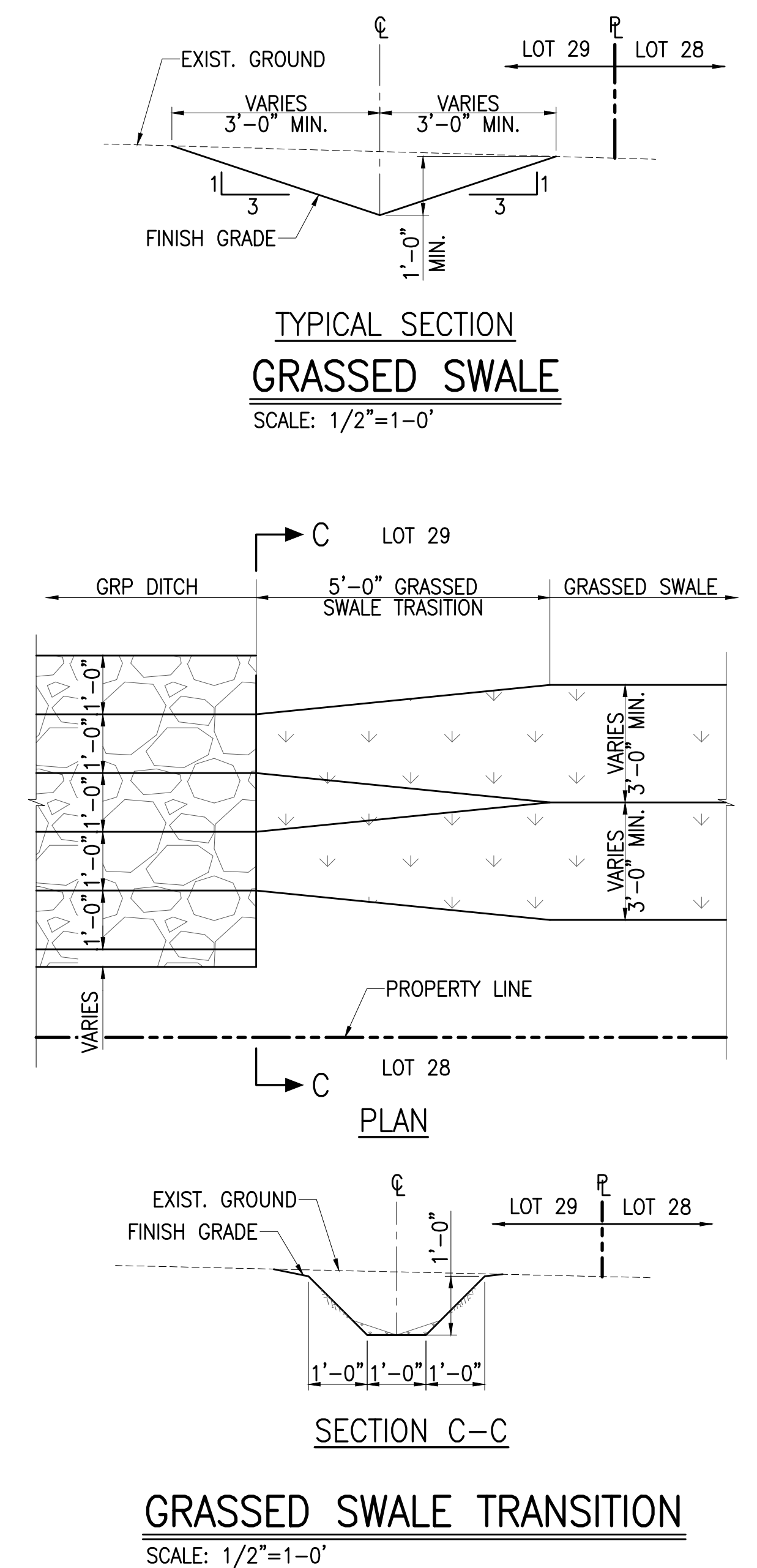
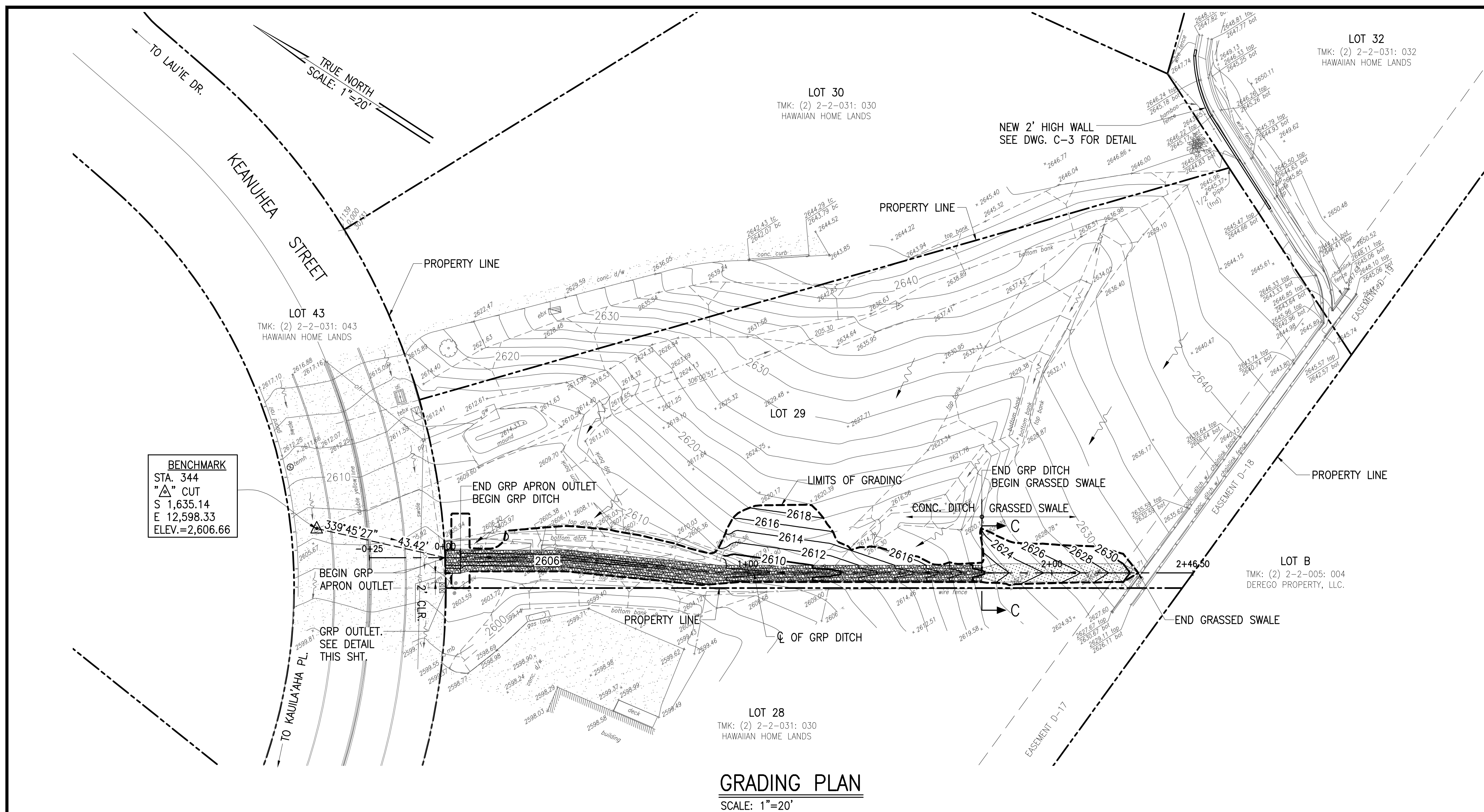
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

*[Signature]* 4/30/20

signature expiration date of the license

AUSTIN, TSUTSUMI & ASSOCIATES, INC.  
ENGINEERS, SURVEYORS

REVISION	DATE	BRIEF	MADE BY	APPROVED
<div>AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII</div>				
DEPARTMENT OF HAWAIIAN HOME LANDS LOT 29 DRAINAGE IMPROVEMENTS KULA, MAUI, HAWAII				
PLAN AND PROFILE NEW WALL				
DESIGNED BY DO		DRAWN BY DO		CHECKED BY PA
APPROVED			SUBMITTED BY	
DATE		FIRM MEMBER		DATE





ESTIMATED EARTHWORK SUMMARY:

GRADED AREA:	0.07 ACRE
EXCAVATION VOL.:	140 CU.YD.
EMBANKMENT VOL.:	17 CU.YD.
NET VOL.:	123 CU.YD. (CUT)

**LEGEND:**

 FLOW ARROW  
 LIMITS OF GRADING



	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">REVISION</td> <td style="width: 25%;">DATE</td> <td style="width: 25%;">BRIEF</td> <td style="width: 25%;">MADE BY</td> <td style="width: 25%;">APPROVED</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> <div style="text-align: center; margin-top: 20px;">  <span style="font-size: 24px; font-weight: bold; margin: 0 10px;">AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC.</span> <span style="font-size: 18px; font-weight: bold;">ENGINEERS, SURVEYORS</span> <span style="font-size: 18px; font-weight: bold; margin-left: 20px;">HONOLULU, HAWAII</span> </div> <div style="text-align: center; margin-top: 30px;"> DEPARTMENT OF HAWAIIAN HOME LANDS  <span style="font-size: 24px; font-weight: bold;">LOT 29 DRAINAGE IMPROVEMENTS</span>  <span style="font-size: 18px; font-weight: bold;">KULA, MAUI, HAWAII</span> </div> <div style="text-align: center; margin-top: 50px;"> <span style="font-size: 36px; font-weight: bold;">GRADING PLAN</span> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <tr> <td style="width: 33%;">DESIGNED BY <b>DO</b></td> <td style="width: 33%;">DRAWN BY <b>DO</b></td> <td style="width: 33%;">CHECKED BY <b>PA</b></td> </tr> </table> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;"> <p style="font-size: 12px; font-weight: bold;">APPROVED</p> <div style="border: 1px solid black; height: 40px; margin-top: 10px;"></div> </div> <div style="width: 45%;"> <p style="font-size: 12px; font-weight: bold;">SUBMITTED BY</p> <div style="border: 1px solid black; height: 40px; margin-top: 10px;"></div> </div> </div> <div style="font-size: 10px; margin-top: 20px;"> <p>CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION AS SHOWN IN DETAILMENT OF THE SAME. I HAVE COMPLETED THE DESIGN AND I AM A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, SURVEYOR AND LANDSCAPE ARCHITECT.</p> </div>	REVISION	DATE	BRIEF	MADE BY	APPROVED						DESIGNED BY <b>DO</b>	DRAWN BY <b>DO</b>	CHECKED BY <b>PA</b>
REVISION	DATE	BRIEF	MADE BY	APPROVED										
DESIGNED BY <b>DO</b>	DRAWN BY <b>DO</b>	CHECKED BY <b>PA</b>												

FILE	POCKET	FOLDER	NO.



**BEST MANAGEMENT PARCTICES (BMP)**

**NOTES MINIMUM:**

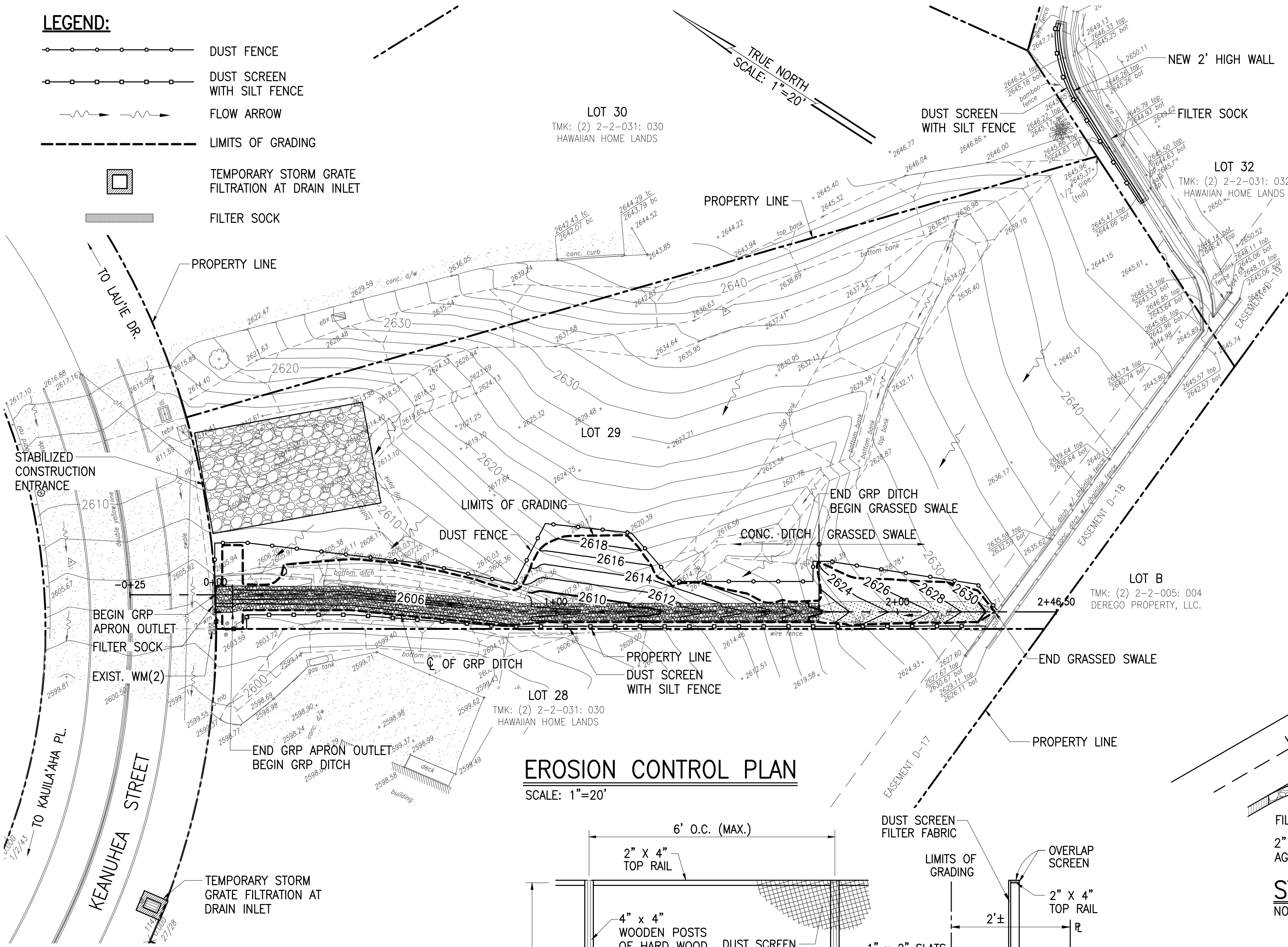
1. ALL AFFECTED STORM DRAIN INLETS ALONG THE PROJECT SITE SHALL USE AN INLET PROTECTION DEVICE. SEE DETAIL THIS SHEET.
2. DURING CONSTRUCTION, DUST POLLUTION SHALL BE KEPT TO A MINIMUM.
3. THE CONTRACTOR SHALL ENSURE THAT ALL TIRES OF CONSTRUCTION VEHICLES ARE SUFFICIENTLY CLEANED OFF SO THAT DIRT OR DEBRIS IS NOT TRACKED OFF THE CONSTRUCTION SITE. WASHING OFF TIRES WITH WATER WILL NOT 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 THIS 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 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 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 SHAIL 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.

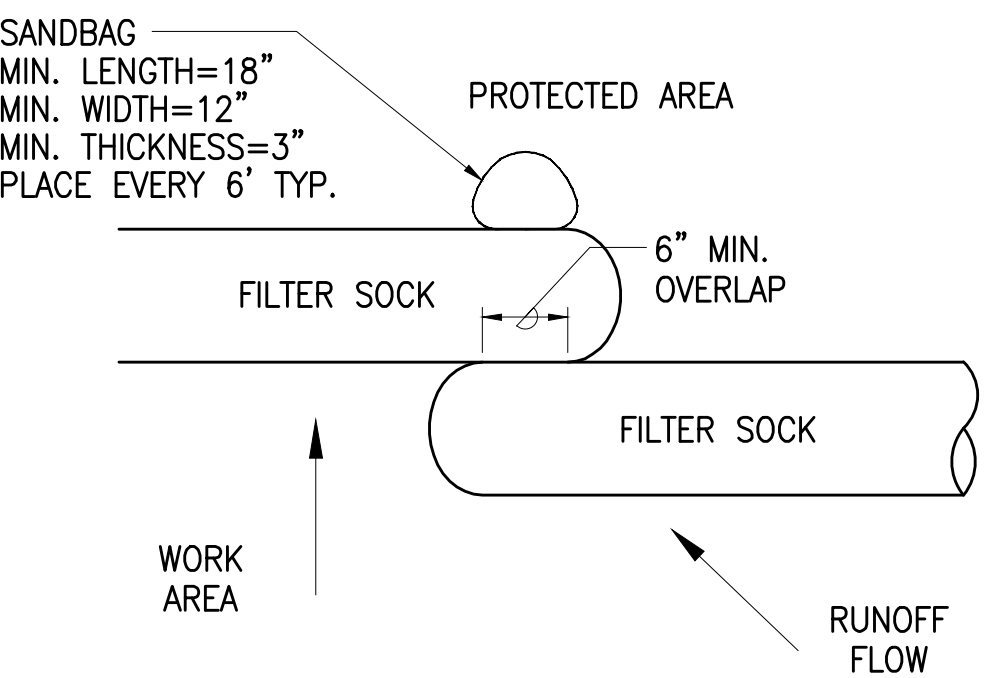
**LEGEND:**

- DUST FENCE
- DUST SCREEN WITH SILT FENCE
- FLOW ARROW
- LIMITS OF GRADING
- TEMPORARY STORM GRATE FILTRATION AT DRAIN INLET
- FILTER SOCK



**EROSION CONTROL PLAN**

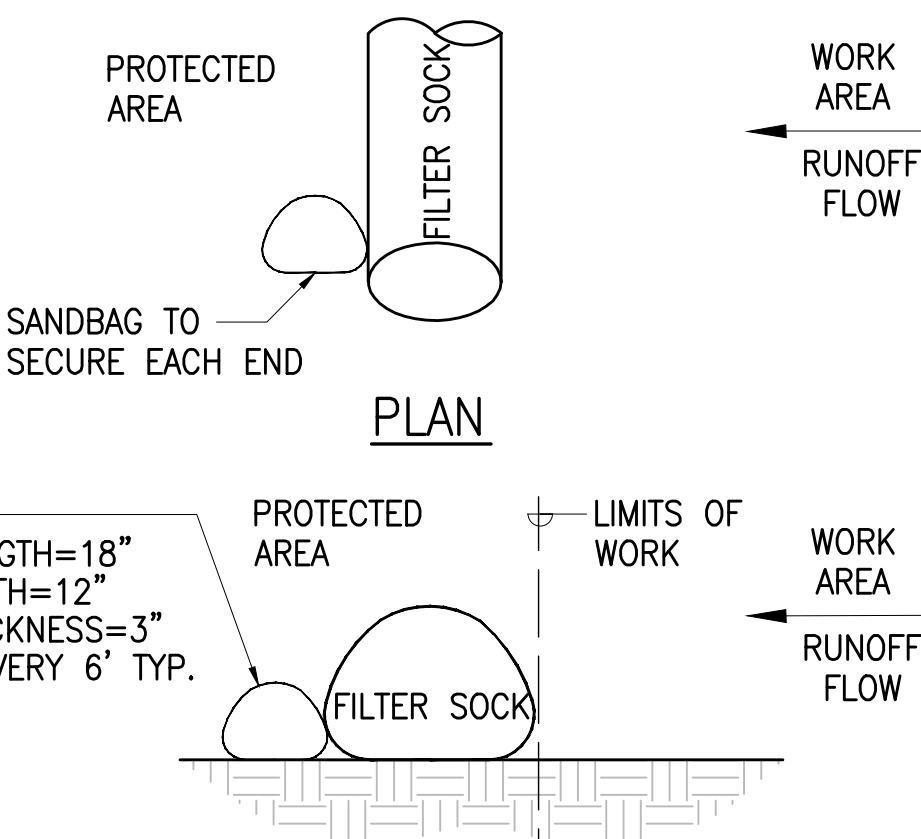
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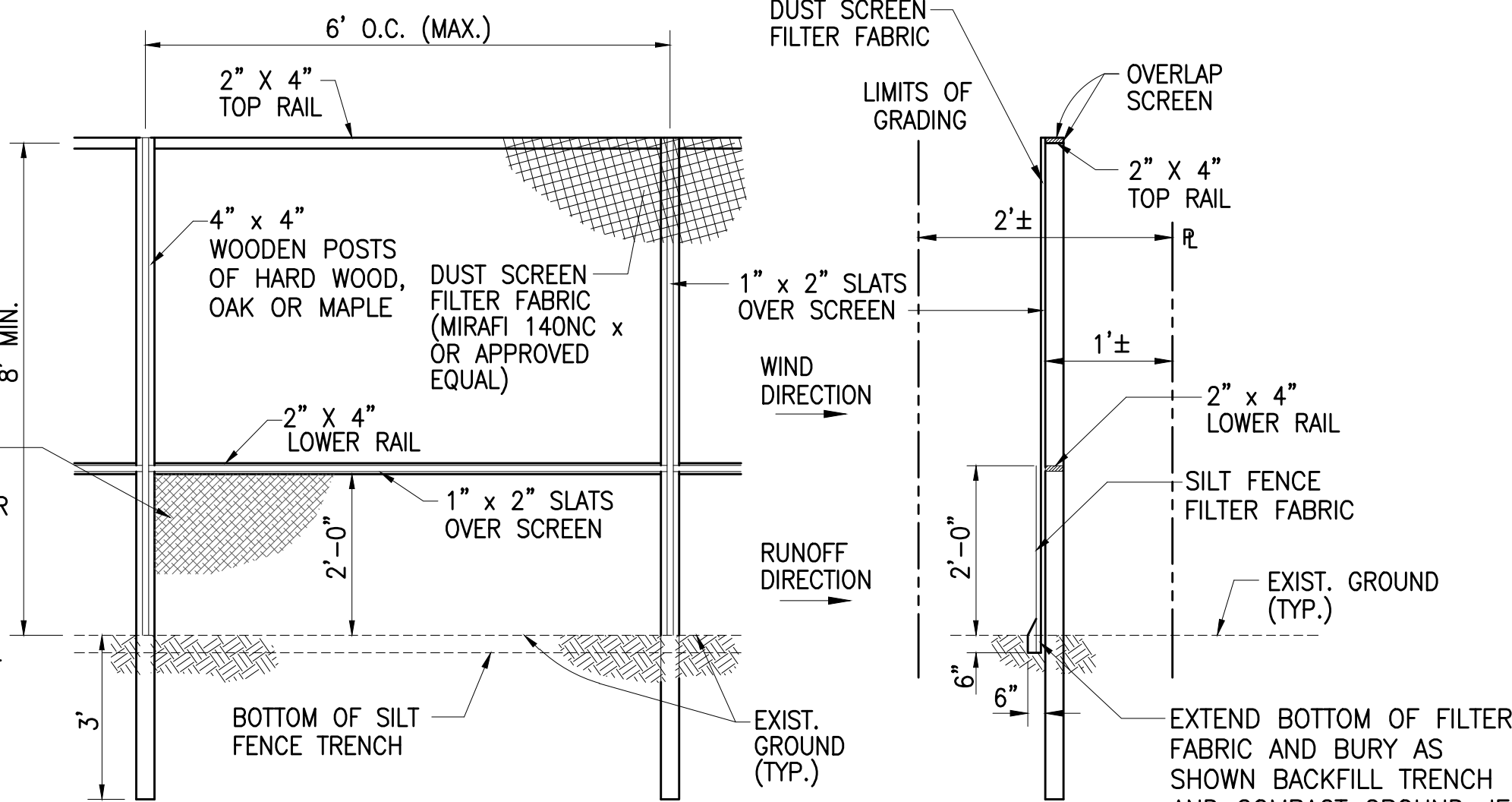
**OVERLAP**

**FILTER SOCK**

NOT TO SCALE



**SECTION**

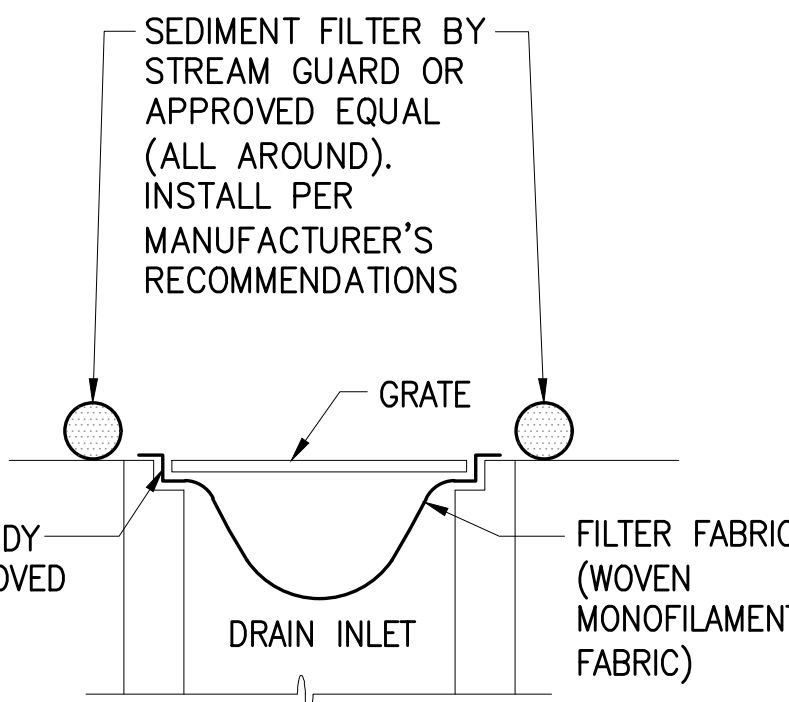


**ELEVATION**

**SECTION**

**DUST SCREEN WITH SILT FENCE DETAIL**

NOT TO SCALE



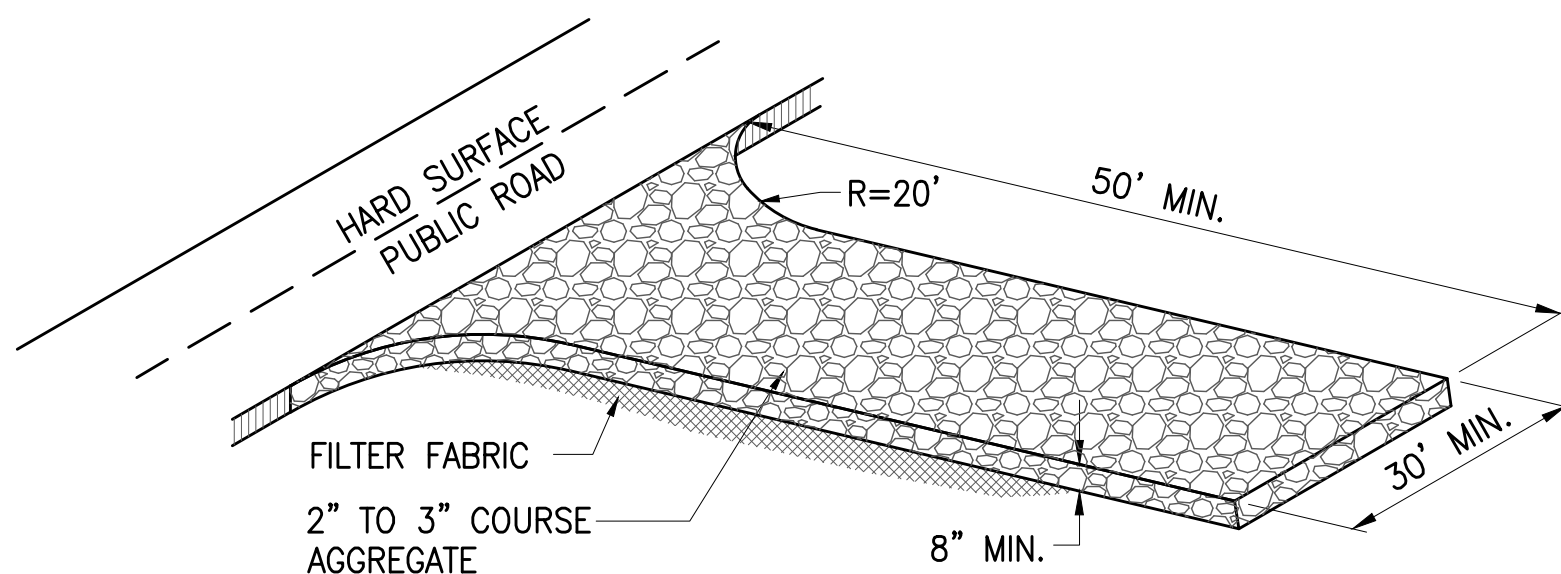
**NOTES:**

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**

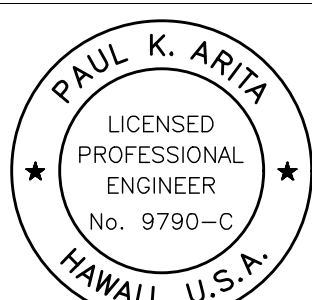
**AT DRAIN INLET**

NOT TO SCALE



**STABILIZED CONSTRUCTION ENTRANCE**

NOT TO SCALE

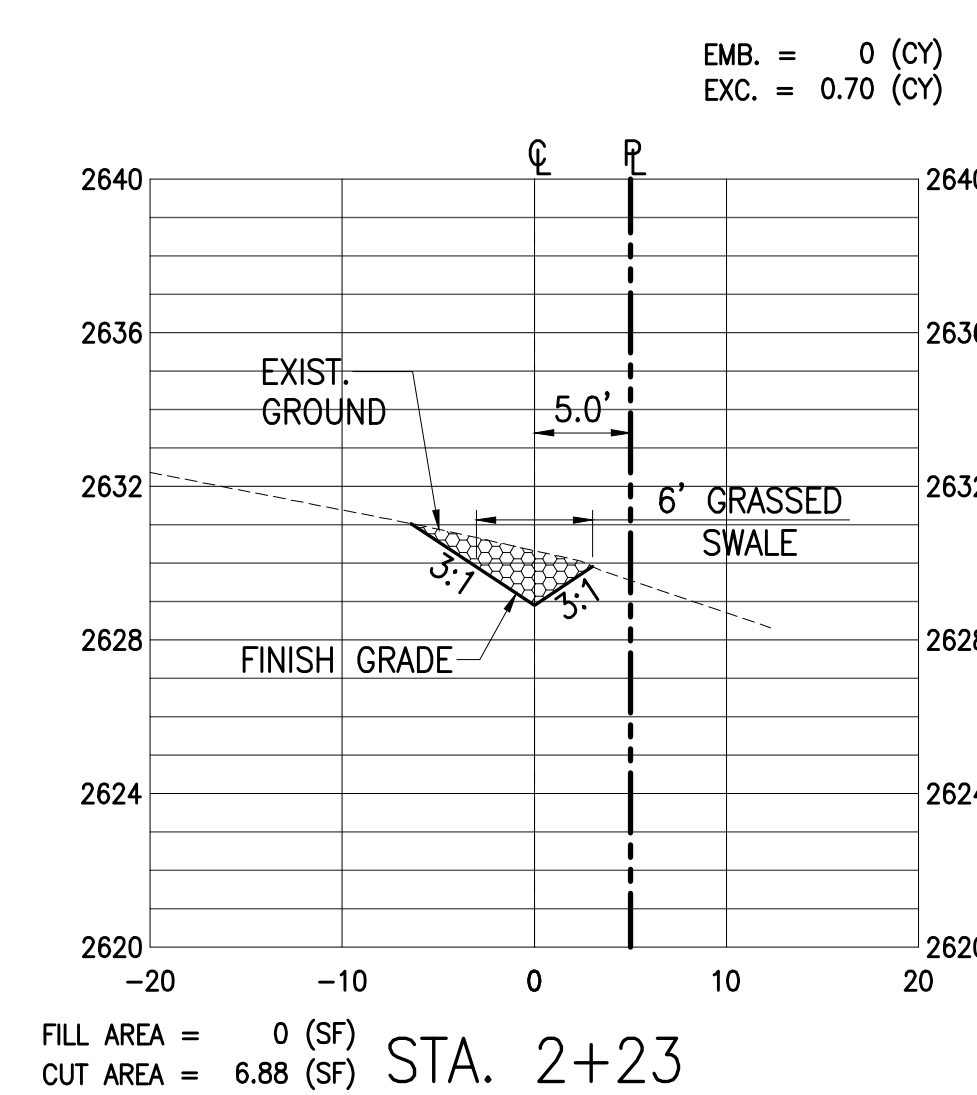
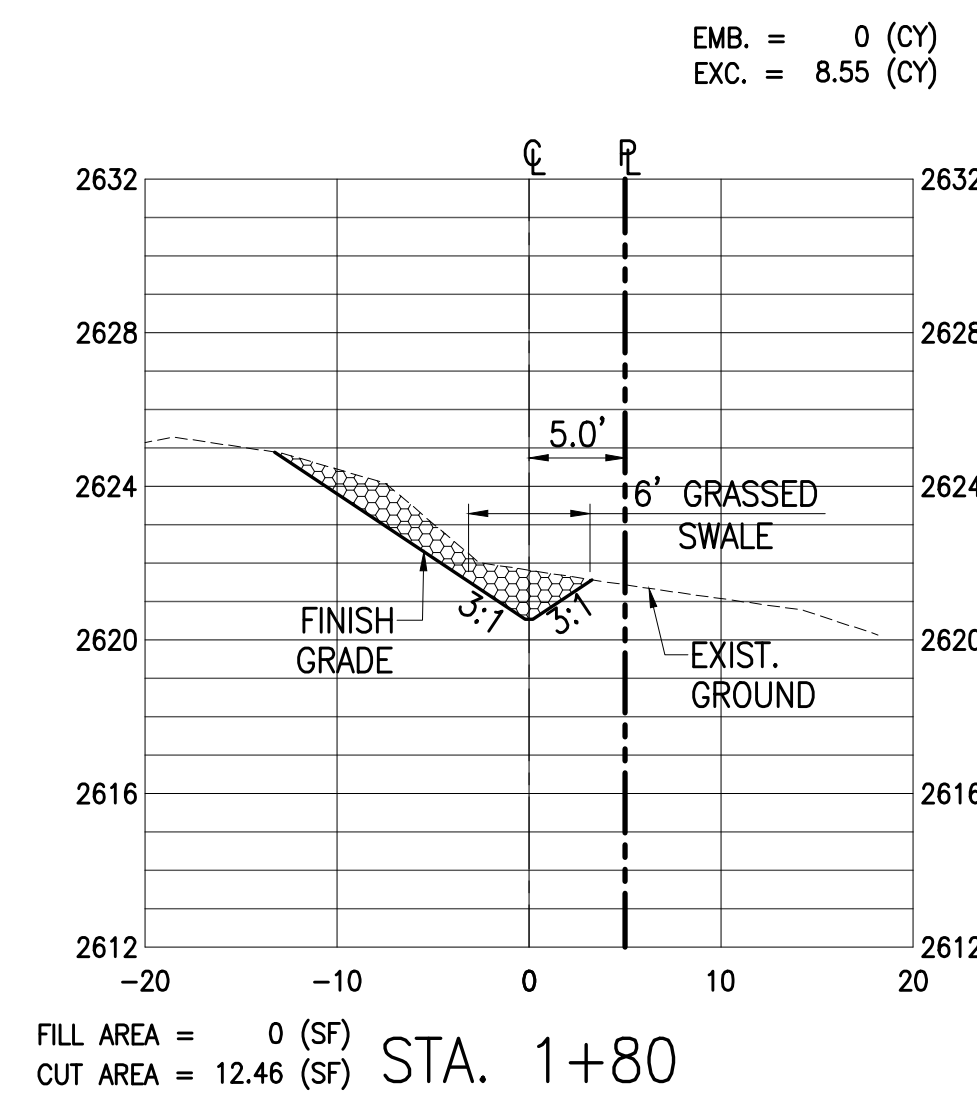
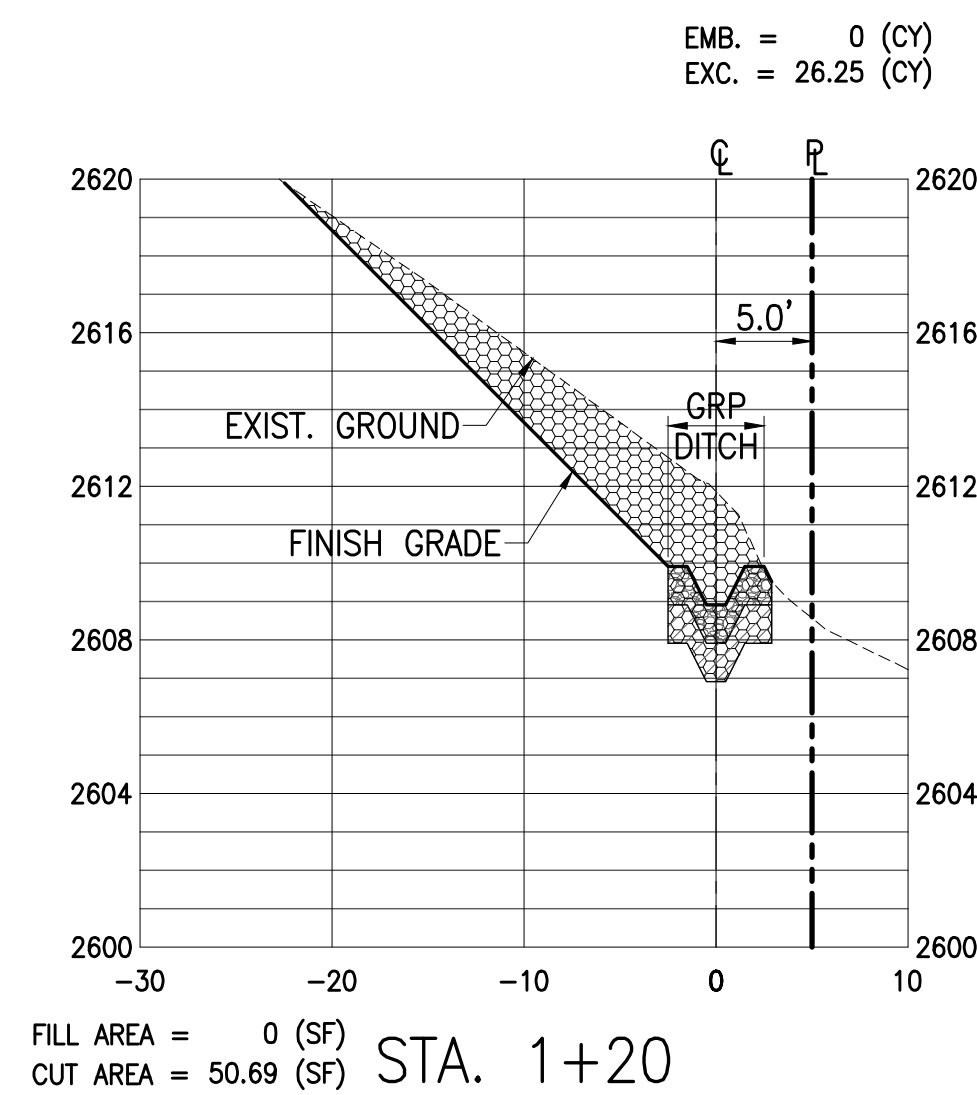
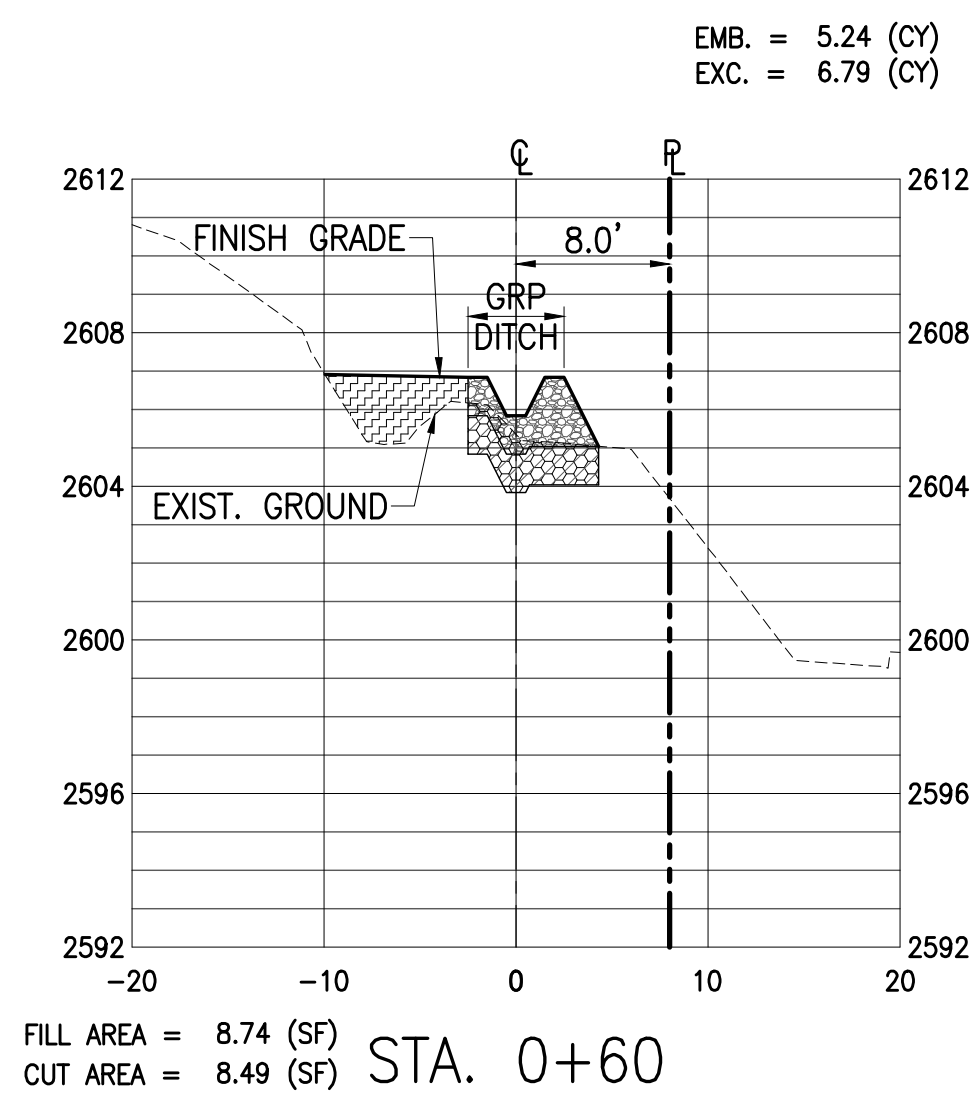
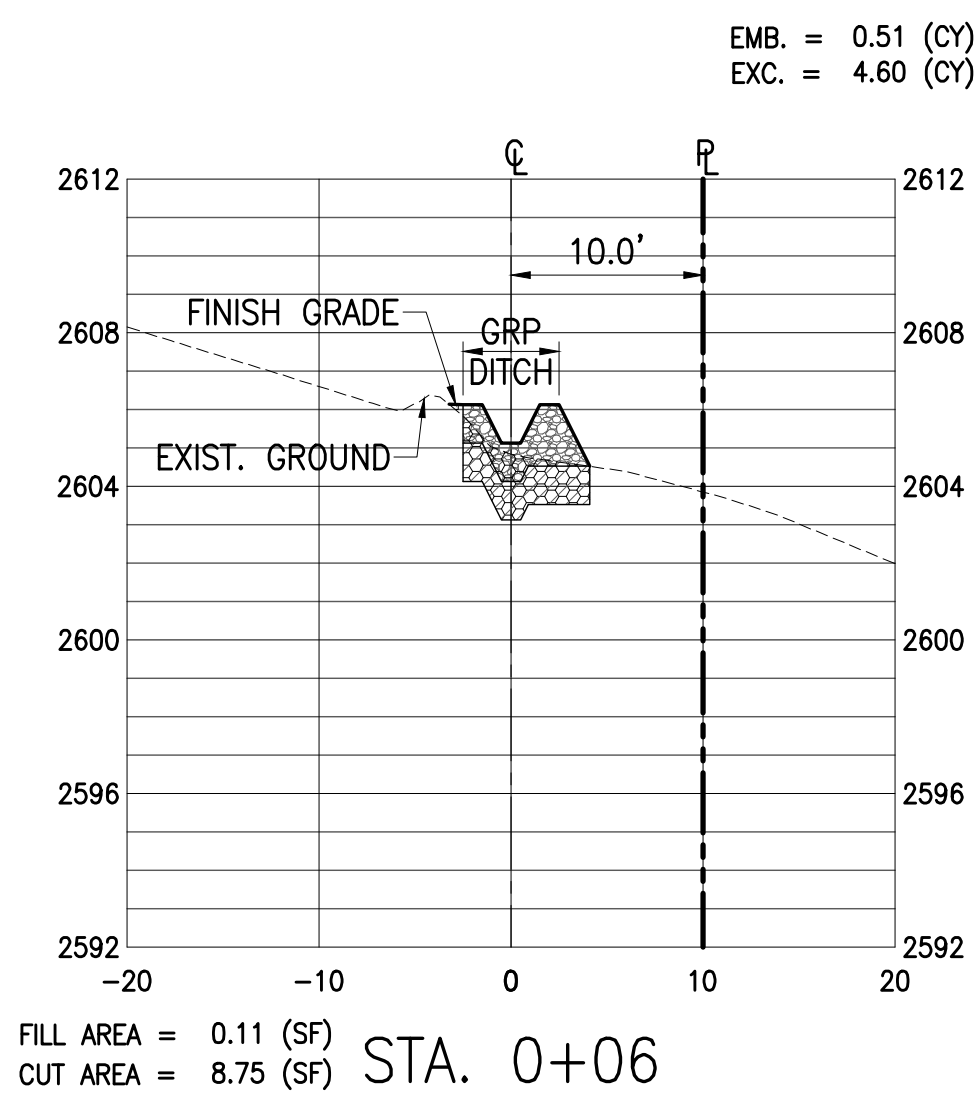
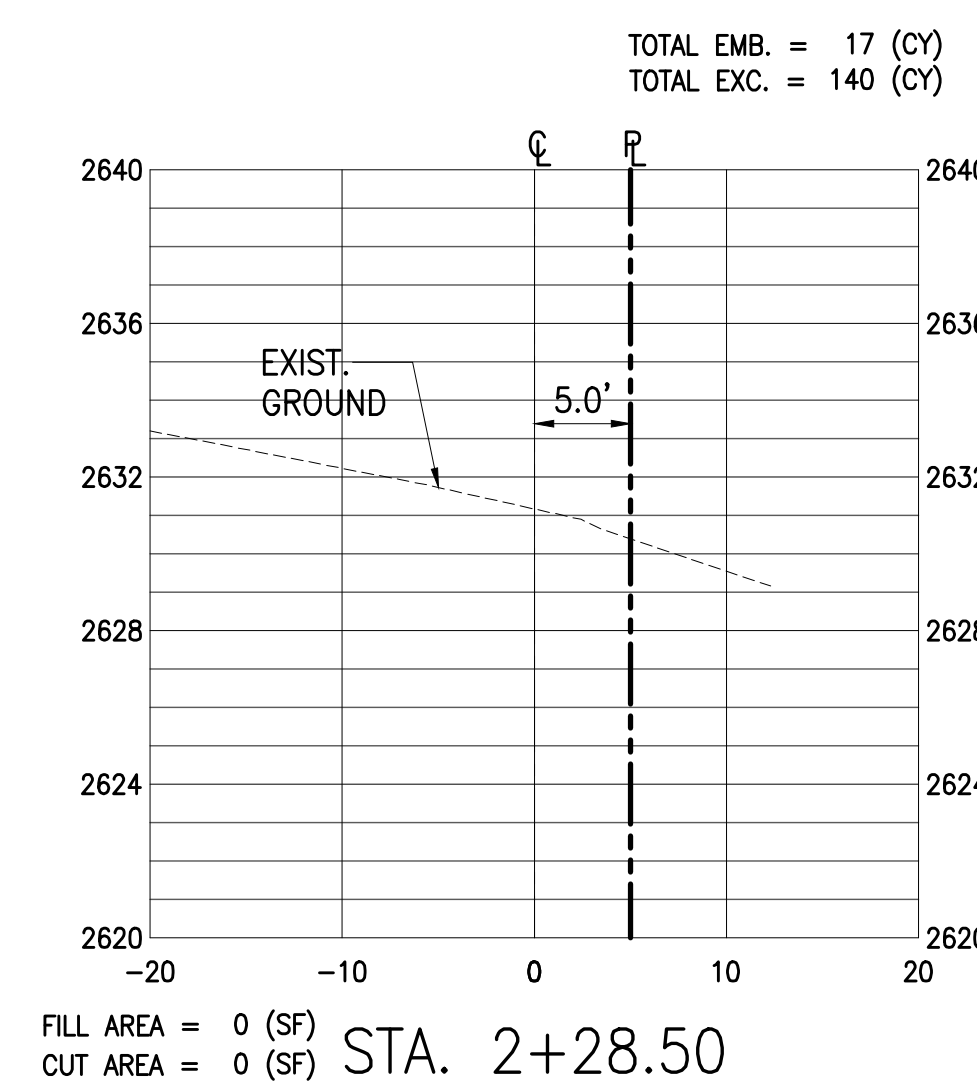
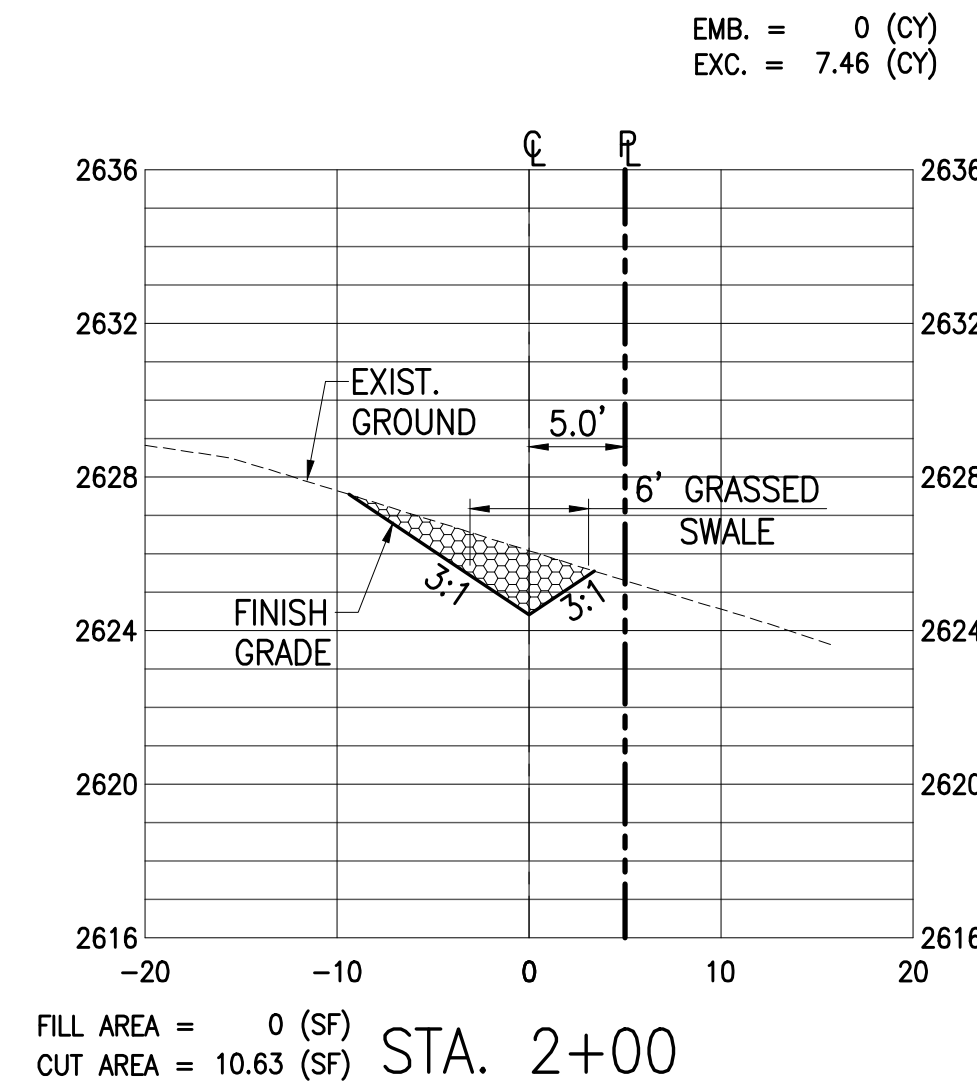
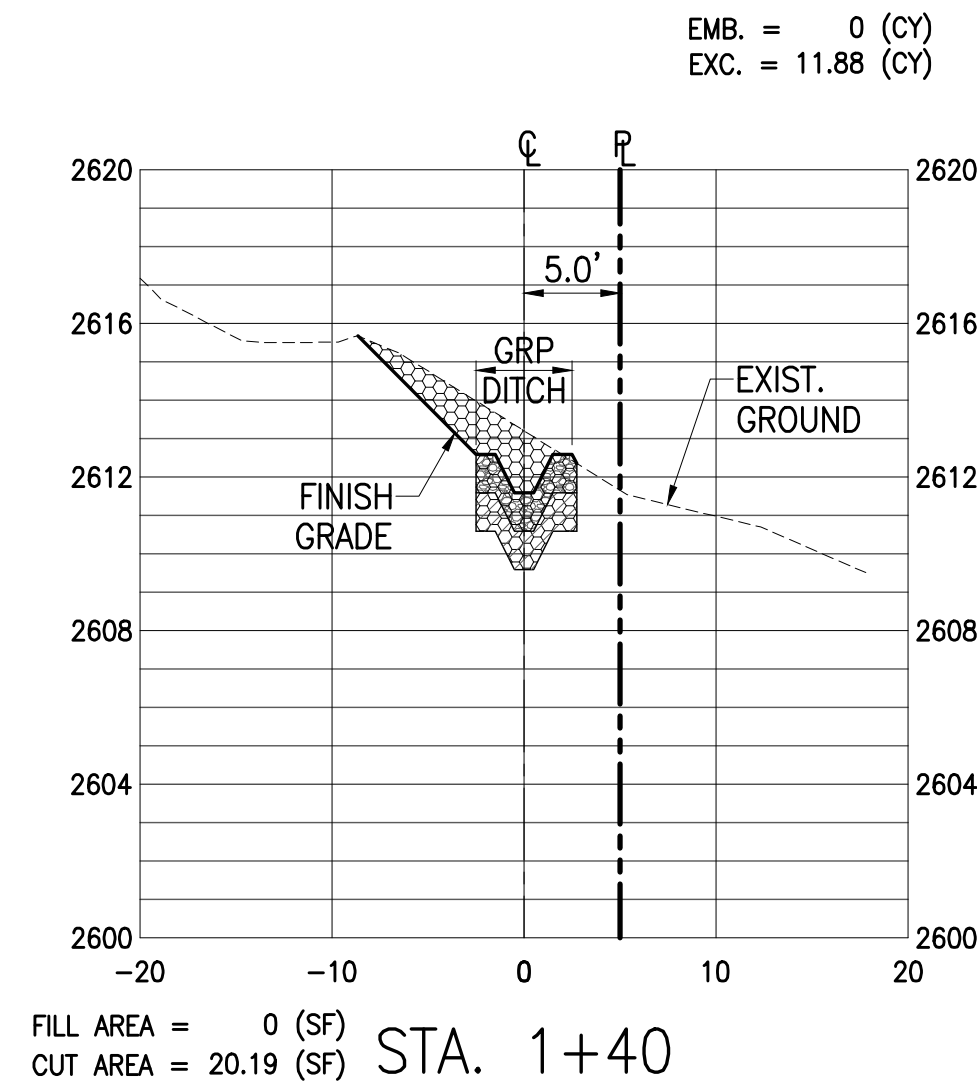
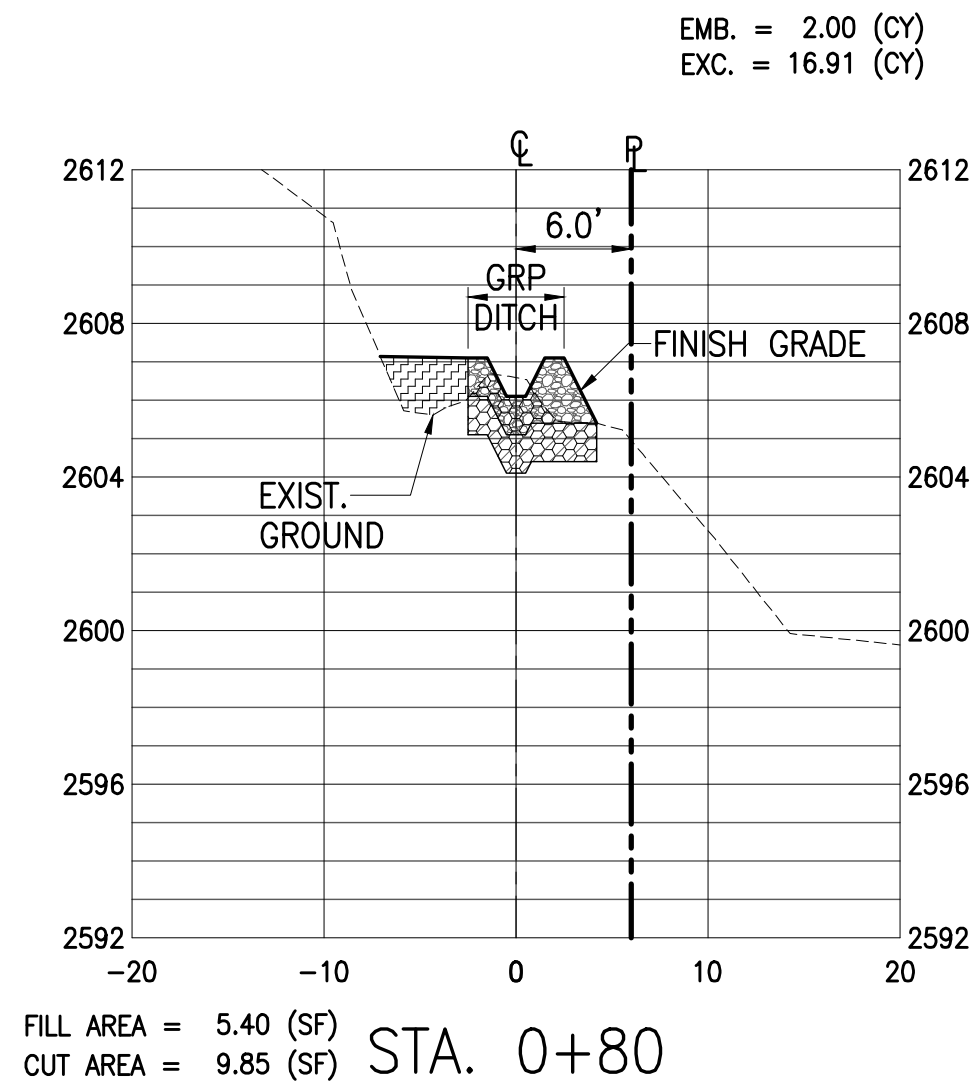
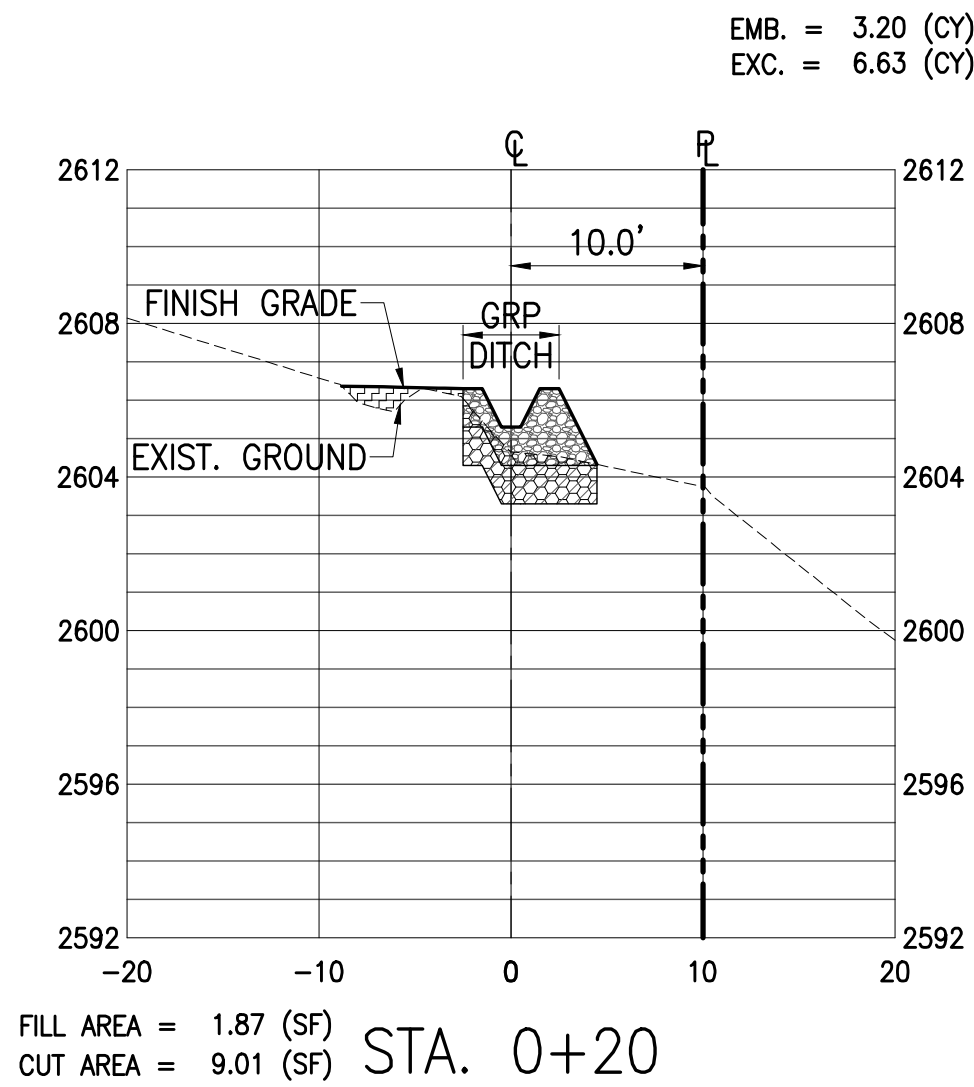


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signature 4/30/20 expiration date of the license

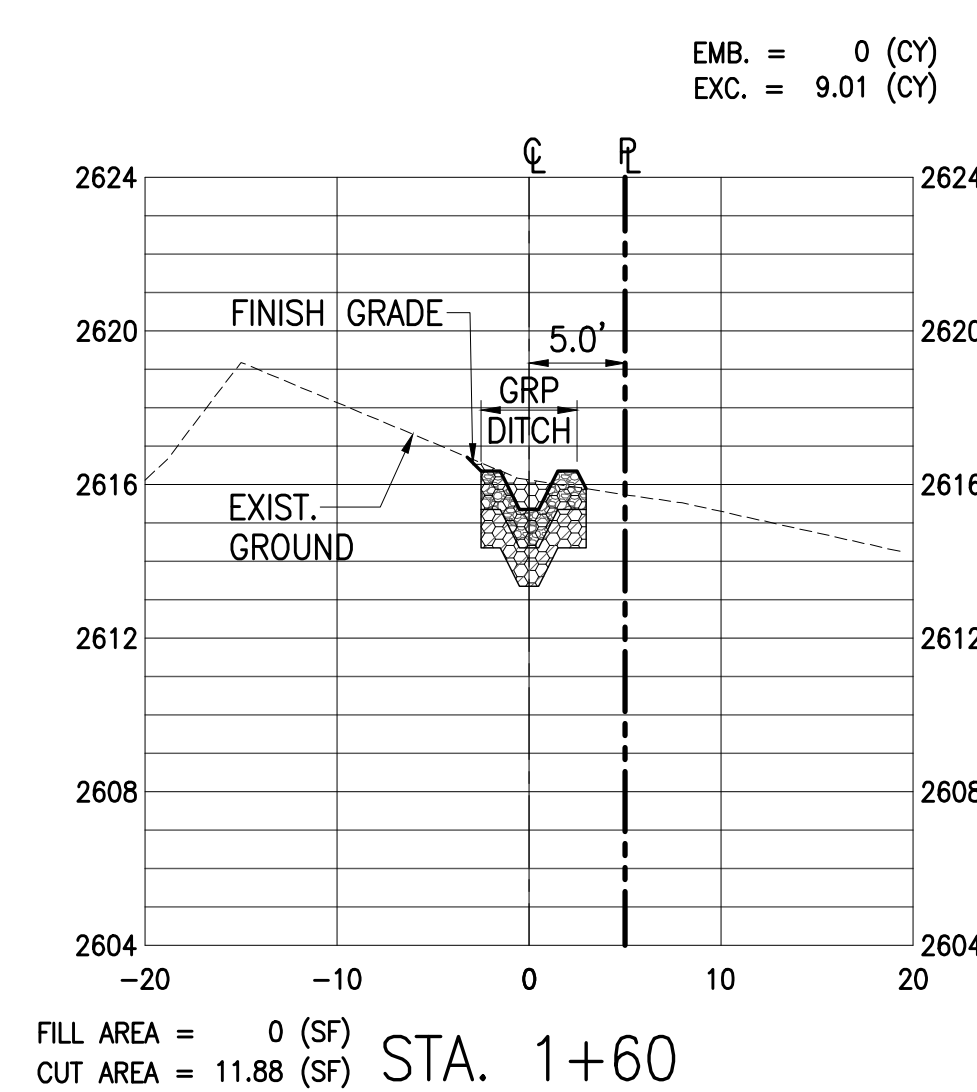
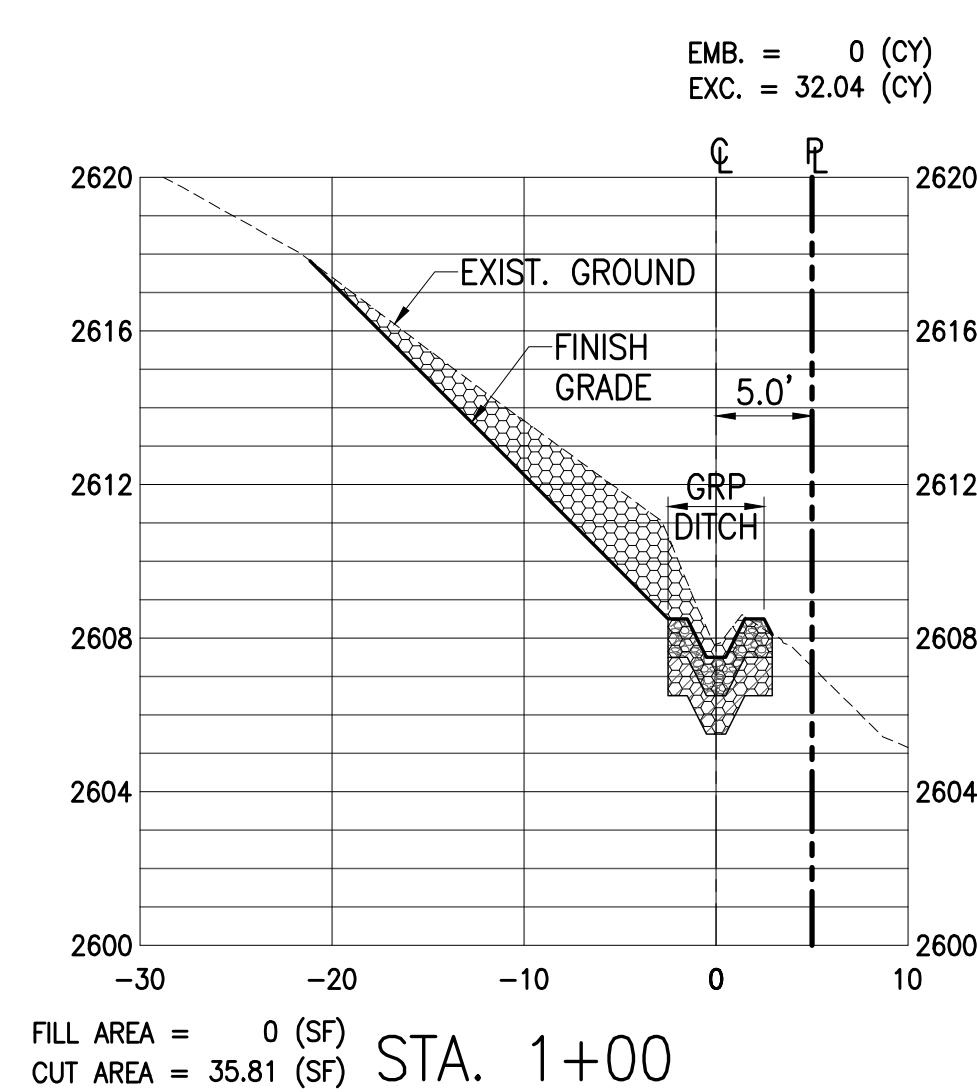
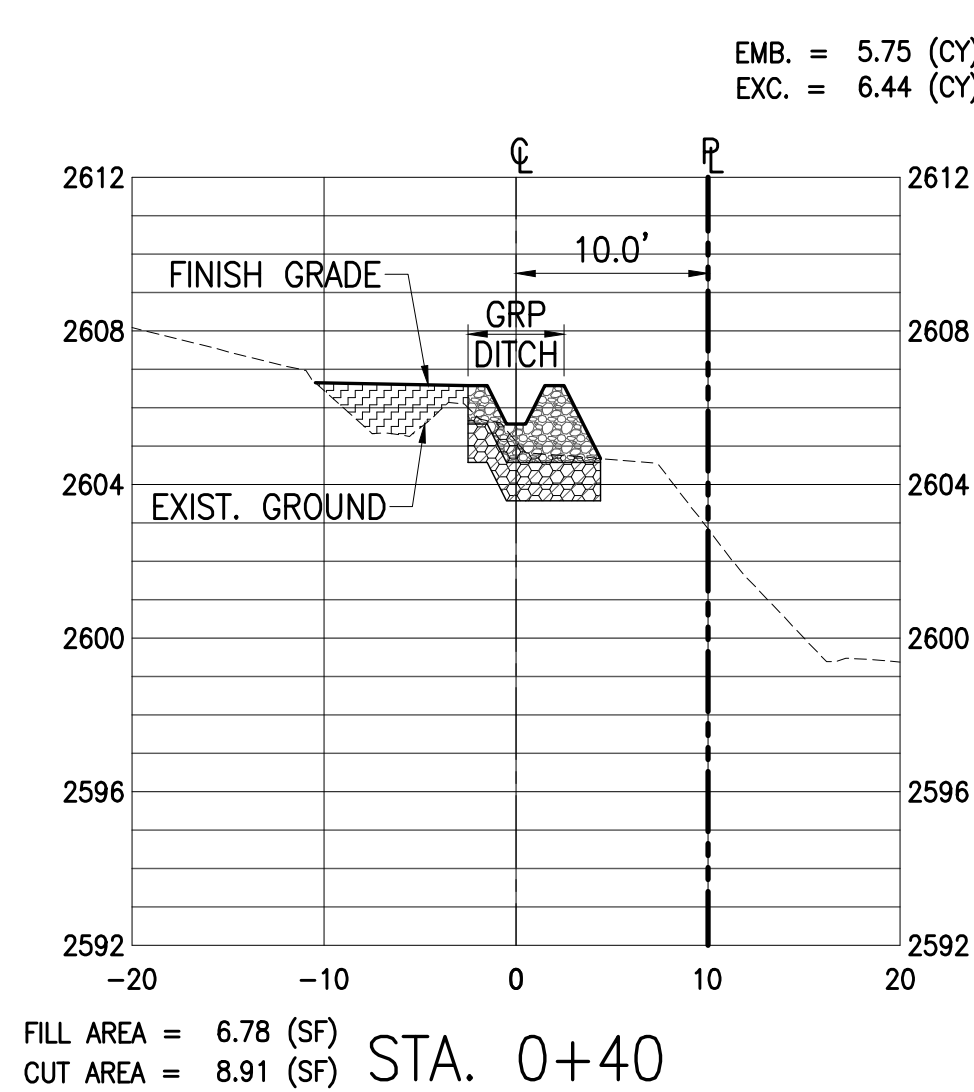
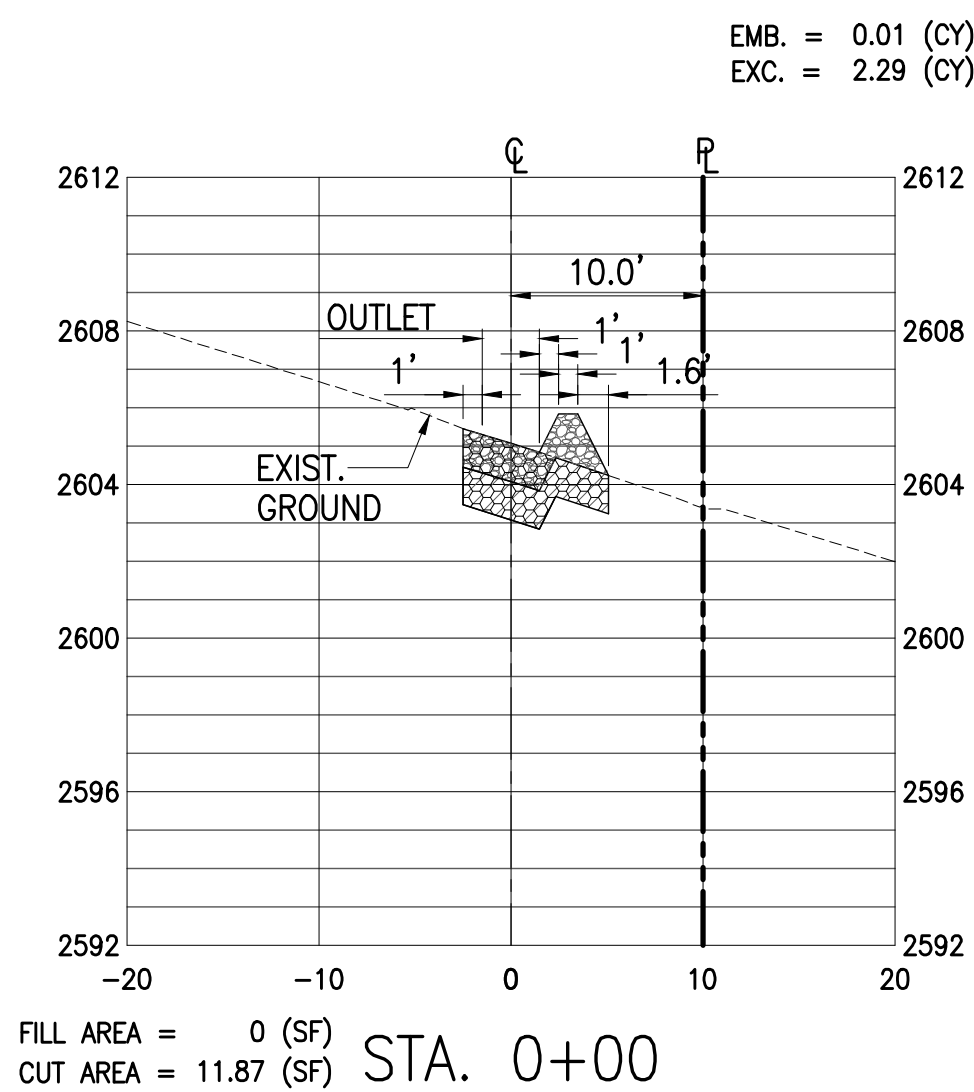
ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC. ENGINEERS, SURVEYORS

REVISION	DATE	BRIEF	MADE BY	APPROVED
<div><div>ATA</div><div>AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC. ENGINEERS, SURVEYORS</div></div> <div></div> <div>HONOLULU, HAWAII</div>				
DEPARTMENT OF HAWAIIAN HOME LANDS LOT 29 DRAINAGE IMPROVEMENTS KULA, MAUI, HAWAII				
EROSION CONTROL PLAN				
DESIGNED BY DO		DRAWN BY DO		CHECKED BY PA
APPROVED		SUBMITTED BY		
DATE		FIRM MEMBER		DATE



### LEGEND:

- GRP DITCH
- SELECT BORR
- CUT AREA
- FILL AREA



### SITE CROSS SECTIONS

SCALE: HORIZ: 1"=10'  
VERT.: 1"=5'

<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION</p> <p><i>Signature</i> 4/30/20 signature expiration date of the license</p> <p>AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC. ENGINEERS, SURVEYORS</p>	REVISION	DATE	BRIEF	MADE BY	APPROVED
	<p>AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC. ENGINEERS, SURVEYORS HONOLULU, HAWAII</p>				
	DEPARTMENT OF HAWAIIAN HOME LANDS LOT 29 DRAINAGE IMPROVEMENTS KULA, MAUI, HAWAII				
	CROSS SECTIONS				
DESIGNED BY DO		DRAWN BY DO		CHECKED BY PA	
APPROVED		SUBMITTED BY			
DATE		FIRM MEMBER		DATE	

0 1 2  
LINE IS 2 INCHES AT FULL SIZE  
(If NOT 2-inches : Scale Accordingly)

C-6

SHEET 7 OF 7

FILE	POCKET	FOLDER	NO.