



DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET \* HONOLULU, HAWAII 96813  
Phone: (808) 768-8220 \* Fax: (808) 768-6111

BP # 865462  
1 permit  
15 pg.

# BUILDING PERMIT

FOR THE PERFORMANCE OF WORK UNDER THE BUILDING ELECTRICAL, PLUMBING, AND SIDEWALK CODES CHAPTERS 16, 17, 19, AND 20, RESPECTIVELY, AND UNDER CHAPTER 18 (FEES AND PERMITS) OF THE REVISED ORDINANCES OF THE CITY AND COUNTY OF HONOLULU

**LOCATION**

Zone	Section	Plat	Parcel
2	2	047	007

**3160 PUU PAKA DR HONOLULU / KAPALAMA 968**  
**272,860 Sq. Ft.**

**\$1,596.00**

**PERMIT FEE**

Type of Payment(s)

- Cash
- Check  X
- Charge  X

Site Address (if other than primary): **3160 PUU PAKA DR HONOLULU / KAPALAMA 96817**

Accepted Value of Work: **\$25,000**

**PROJECT:**

**(BP #865462) [TMK: 22047007] 3160 PUU PAKA DR. // Dowsett Estates Unit 1 - New Retaining Wall.**

**TYPE OF WORK**

Fence Y	Other Grading	Retaining Wall Y
RIGHT OF WAY WORK	Driveway: New: Existing: Private:	
Sidewalk Types:	Curbing Types:	Driveway Types:
Linear Ft. of Sidewalk:	Linear Ft. of Curbing:	Linear Ft. of Driveway:

Please notify the Building Inspector listed below at least 24 hours before starting work in the Right-Of-Way.

**GENERAL CONTRACTOR**

**JCON GENERAL LLC**  
Contact Info: (808) 551-4768  
Lic. No.: CT37310

**NOTES**

**Fence Clauses**

For the work under this building permit, the City shall not be responsible, or liable for any potential drainage problems resulting from the flow of surface waters, or the alteration or concentration of surface water run-off on any property. It is a civil matter between affected parties. All footings shall rest on firm, stable, undisturbed soil and built entirely within property. For the work under this building permit, the City shall not be responsible, or liable for any potential drainage problems resulting from the flow of surface waters, or the alteration or concentration of surface water run-off on any property. It is a civil matter between affected parties. Gates to swing into property.

**DATE ISSUED 06/14/2021**

Location Permit Issued **FMB**

Location Application Created: **FMB**

Permission is hereby given to do above work according to conditions hereon and according to approved plans and specifications pertaining thereto, subject to compliance with ordinances and laws of the City and County of Honolulu and State of Hawaii.

FOR DIRECTOR OF DEPARTMENT OF PLANNING AND PERMITTING

**THIS PERMIT MUST BE POSTED IN A CONSPICUOUS PLACE ON THE SITE DURING THE PROGRESS OF WORK. THIS PERMIT MAY BE REVOKED IF WORK IS NOT STARTED WITHIN 180 DAYS OF DATE OF ISSUANCE OR IF WORK IS SUSPENDED OR ABANDONED FOR 120 DAYS.**

ELECTRICAL AND PLUMBING WORK TO BE DONE BY LICENSED PERSONS AS REQUIRED UNDER CHAPTER 448 E, HAWAII REVISED STATUTES.

NOTICE TO HOMEOWNERS: This is to inform all homeowners that improvements to your home may require approval by your Homeowners Association or authorized representative prior to the commencement of construction.

Approval by the Department of Planning and Permitting does not certify compliance with the Covenants, Conditions and Restrictions or other design restrictions administered and enforced by your Homeowners Association.

ALL CONSTRUCTION UNDER THIS BUILDING PERMIT IS SUBJECT TO INSPECTION BY THE BUILDING OFFICIAL. IT SHALL BE THE DUTY OF THE PERSON DOING THE WORK AUTHORIZED BY THIS PERMIT TO NOTIFY THE BUILDING OFFICIAL THAT THE WORK IS READY FOR INSPECTION.

THE FOLLOWING ARE THE INSPECTORS ASSIGNED TO INSPECT THE CONSTRUCTION UNDER THIS PERMIT AND THEIR TELEPHONE NUMBERS:

	<u>Building Inspector</u>	<u>Electrical Inspector</u>	<u>Plumbing Inspector</u>	<u>Storm Water Quality Inspector</u>
Name	IRINEO PAGAT			
Phone No.	(808) 768-8131			

APPLICATION NO.: **A2020-11-1167**

JobID: **87227882**

PERMIT NO.: **865462**

Tax Map Key: 2-2-047:007  
Application Index No: A2020-11-1167  
Project Name: Dowsett Estates Unit #1  
Building Permit No.: 805462

BUILDING DIVISION  
DEPARTMENT OF PLANNING AND PERMITTING

**SUPPLEMENTAL INFORMATION FOR BUILDING OWNER**

The following information should prove helpful in determining whether additional information should be obtained before starting your project

1.  A Phone Call May Save Your Life -- if you have underground utilities investigate before you start work

Call: Hawaii One-Call Center 1-866-423-7287 or 811

According to the Hawaii One Call Law (Call Before You Dig) effective January 1, 2006, an excavator is required to call for utility toning at least 5 working days (excluding holidays and weekends) before starting excavation. One call does it all, as all the utility operators who have underground utilities will be notified. You will be required to pre-mark your proposed area of excavation with white paint.

**Be Aware of the Sign, Asbestos, Lead-based Paint, Noise, and OSH Regulations**

Sign Regulations – Building Division	768-8220
Asbestos and Lead-Based Paint Regulations – Department of Health	586-5800
Noise Regulations - Department of Health	586-4700
Occupational Safety and Health - DOSH	586-9100
Department of Labor	

2.  Owners will be responsible to notify the Federal Aviation Administration (FAA) for structures which exceed 200 feet in height above ground line and certain structures within 4 miles from the nearest point of the nearest runway of each airport. (Single-family dwellings exempted.) FAA telephone is 541-1243.
3.  Owners are required to verify their deeds, lease agreements, and/or association by-laws for any building / zoning restrictions.
4.  HOUSE NUMBERING REQUIREMENTS - All main entrances to buildings shall be numbered with numbers at least two inches in height. Address signs shall not exceed one square foot. Emergency service agencies such as fire, police, ambulance, etc., can respond more readily with minimum delays when buildings are properly numbered.
5.  To prevent termite entry, the building code requires openings around pipes or other penetrations in concrete slab-on-grade to be filled with non-shrink grout.
6.  Plumbing and / or Electrical plans not checked. Project subject to inspection for code compliance.
7.  Plumbing and / or Electrical work shall be inspected and approved prior to concealment.
8.  PROTECTION OF ADJOINING PROPERTY - The owner and contractor doing the excavation or fill shall be responsible to implement safety measures to protect adjoining properties, streets or natural watercourses from falling rocks, boulders, soil, debris and other dangerous objects.
9.  EROSION AND SEDIMENT CONTROL -- Since it is unlawful to discharge pollutants from the construction site, the owner and the contractor shall check the criteria for handling drainage discharges and ensure compliance with all appropriate regulations including Best Management Practices (BMP) requirements for construction sites. Call 768-8218 or 768-8219, or go to [www.honoluluapp.org](http://www.honoluluapp.org) for more information.

  
\_\_\_\_\_  
Signature of Owner

5/24/21  
\_\_\_\_\_  
Date

Tax Map Key: 2-2-047:007  
Application Index No: A2020-11-1167  
Project Name: Dowsett Estates Unit #1  
Building Permit No.: \_\_\_\_\_

BUILDING DIVISION  
DEPARTMENT OF PLANNING AND PERMITTING

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BS

5/24/21

# INDEX TO DRAWINGS

SHT NO.	DWG NO.	DESCRIPTION
1	001	TITLE SHEET
CIVIL SHEETS		
2	C100	CONSTRUCTION NOTES
3	C101	EROSION SEDIMENT CONTROL NOTES
4	C102	KEYSTONE WALL NOTES
5	C200	OVERALL SITE PLAN
6	C300	GRADING PLAN
7	C400	EROSION SEDIMENT CONTROL PLAN
8	C401	EROSION SEDIMENT CONTROL DETAILS
9	C600	SITE SECTIONS
10	C701	SITE DETAILS
STRUCTURAL SHEETS		
11	S001	GENERAL NOTES AND TYPICAL DETAILS
12	S201	RETAINING WALL PLAN
13	S301	RETAINING WALL PROFILES

# DOWSETT ESTATES - UNIT 1 GRADING AND RETAINING WALL IMPROVEMENTS

3160 PUU PAKA DRIVE  
HONOLULU, OAHU, HAWAII  
TAX MAP KEY: (1) 2-2-047:007

BUILDING DIVISION  
FILE COPY

CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PLANNING AND PERMITTING

**APPROVED**

*Cher H. A. [Signature]*  
DIRECTOR, DEPARTMENT OF PLANNING AND PERMITTING

PERMIT NUMBER: 2020-047-007  
APPROVED DATE: 04/20/21

The licensee hereby certifies that the drawings, specifications, and other data submitted for this permit are true and correct to the best of their knowledge and belief, and that they are not in violation of any applicable laws, rules, or regulations of the State of Hawaii. The licensee also certifies that the drawings, specifications, and other data submitted for this permit are not in violation of any applicable laws, rules, or regulations of the State of Hawaii. The licensee further certifies that the drawings, specifications, and other data submitted for this permit are not in violation of any applicable laws, rules, or regulations of the State of Hawaii.

PLANS PREPARED IN RESPONSE TO NOTICE OF VIOLATION 2020NOV-10-138  
WORK APPROXIMATELY OCCURRED FROM NOVEMBER 4 TO NOVEMBER 6, 2020

CONSULTANTS	VICINITY MAP	PROJECT LOCATION	APPROVALS
<p>CIVIL ENGINEER      MITSUNAGA &amp; ASSOCIATES, INC.</p> <p>STRUCTURAL ENGINEER      MITSUNAGA &amp; ASSOCIATES, INC.</p> <p>LAND SURVEYOR      WALTER P. THOMPSON, INC.</p> <p>GEOTECHNICAL      KOKUA GEOTECH, LLC</p>	<p>PROJECT LOCATION</p> <p>VICINITY MAP SCALE: NOT TO SCALE</p>	<p>PROJECT LOCATION CPR UNIT 1</p> <p>LOCATION MAP SCALE: NOT TO SCALE</p>	<p><i>Walter P. Thompson</i>      1/20/2021 DIRECTOR, DEPARTMENT OF PLANNING &amp; PERMITTING (FOR GRADING ONLY)      DATE</p> <p>DOWSETT ESTATES UNIT 1 GRADING &amp; RETAINING WALL HONOLULU, OAHU TAX MAP KEY: (1) 2-2-047:007</p> <p>TITLE SHEET</p> <p>Date: NOV 2020 Title: AS NOTED Design By: CB Drawn By: AY Sheet No.: 001</p> <p>Sheet 1 of 13</p>

REVISIONS  
 BUILDING DIVISION  
 2020/11/20  
 2020/11/20

**CONSTRUCTION NOTES**

1. ALL PROJECT CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SET FORTH IN LAW AND REGULATORY DETAILS FOR PUBLIC WORKS CONSTRUCTION, SECTION 100, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE CODES OF HAWAII, LOCAL AND STATE.
2. THE UNDERGROUND PIPES, CHASES OR DUCTS ARE TO BE LOCATED AS SHOWN FROM THE RESEARCH OF RECORDS ARE SHOWN ON THE PLAN. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES INCLUDING AND VERIFYING THE DEPTH OF THE EXISTING FACILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES.
3. NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATIONS SO AS TO CAUSE FLOODING, SOIL EROSION, OR EXCESSIVE VIBRATIONS, OR OTHER ADVERSE EFFECTS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVENTIVE MEASURES TO PREVENT SUCH OCCURRENCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVENTIVE MEASURES TO PREVENT SUCH OCCURRENCES.
4. THE GENERAL CONTRACTOR/DEVELOPER/OWNER OF THE PROJECT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVENTIVE MEASURES TO PREVENT SUCH OCCURRENCES.

**GRADING NOTES**

1. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 14.14.15 AND 14.14.16 RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL OF THE REVED ORDINANCES OF HONOLULU, 1991, AS AMENDED, AND GEOTECHNICAL REPORT BY KOKA CONSULTING, LLC DATED 1994. 24.2004.
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ABBREVIATIONS	DESCRIPTIONS
AC	ASBESTOS
AD	ASBESTOS
ADMS	ASBESTOS
AF	ASBESTOS
AG	ASBESTOS
AK	ASBESTOS
AL	ASBESTOS
AM	ASBESTOS
AN	ASBESTOS
AO	ASBESTOS
AP	ASBESTOS
AQ	ASBESTOS
AR	ASBESTOS
AS	ASBESTOS
AT	ASBESTOS
AV	ASBESTOS
AW	ASBESTOS
AX	ASBESTOS
AY	ASBESTOS
AZ	ASBESTOS
BA	ASBESTOS
BB	ASBESTOS
BC	ASBESTOS
BD	ASBESTOS
BE	ASBESTOS
BF	ASBESTOS
BG	ASBESTOS
BH	ASBESTOS
BI	ASBESTOS
BJ	ASBESTOS
BK	ASBESTOS
BL	ASBESTOS
BM	ASBESTOS
BN	ASBESTOS
BO	ASBESTOS
BP	ASBESTOS
BQ	ASBESTOS
BR	ASBESTOS
BS	ASBESTOS
BT	ASBESTOS
BV	ASBESTOS
BW	ASBESTOS
BX	ASBESTOS
BY	ASBESTOS
BZ	ASBESTOS
CA	ASBESTOS
CB	ASBESTOS
CC	ASBESTOS
CD	ASBESTOS
CE	ASBESTOS
CF	ASBESTOS
CG	ASBESTOS
CH	ASBESTOS
CI	ASBESTOS
CJ	ASBESTOS
CK	ASBESTOS
CL	ASBESTOS
CM	ASBESTOS
CN	ASBESTOS
CO	ASBESTOS
CP	ASBESTOS
CQ	ASBESTOS
CR	ASBESTOS
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CU	ASBESTOS
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GS	ASBESTOS
GT	ASBESTOS
GU	ASBESTOS
GV	ASBESTOS
GW	ASBESTOS
GX	ASBESTOS
GY	ASBESTOS

APPROVED:  
 \_\_\_\_\_  
 DATE: 12/14/14

**DEPARTMENT OF CITY AND COUNTY OF HONOLULU**

**APPROVED**

I hereby certify that the above is a true and correct copy of the original as shown to me by the contractor.

\_\_\_\_\_  
 CITY ENGINEER

\_\_\_\_\_  
 DATE: 12/14/14

**CONSTRUCTION NOTES**

NOV 2010

REVISED 03

DESIGNED BY AV

CHECKED BY AV

DATE: 12/14/14

C100

**DOWSETT ESTATES UNIT 1 GRADING & RETAINING WALL**

3160 PUU PAKA DRIVE HONOLULU OAHU HAWAII

TAX MAP KEY: (1)-2-2-047-007

THIS WORK WAS PROVIDED BY THE CLIENT FOR THE USE OF THE CONTRACTOR AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE CLIENT.

DATE: 12/14/14



RETAINING WALL NOTES (ALTERS)

PART 1: GENERAL

1.00 FINAL RETAINING WALL DESIGN SHALL BE PROVIDED BY MANUFACTURER

- 1.01 DESCRIPTION
  - A. WORK INCLUDES FURNISHING AND INSTALLING A KEYSTONE RETAINING WALL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS AND AS SPECIFIED HEREIN.
  - B. WORK INCLUDES PREPARING FOUNDATION SOIL, FINISHING AND INSTALLING LEVELING PAD, UNIT FILL AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.
  - C. WORKER SHALL FURNISH AND INSTALL ALL RELATED MATERIALS NECESSARY FOR CONSTRUCTION OF THE RETAINING WALL AS SHOWN ON THE CONSTRUCTION DRAWINGS.

- 1.02 REFERENCE STANDARDS
  - A. ASTM C192 SPECIFICATION FOR SEGMENTAL RETAINING WALL UNITS
  - B. ASTM D 422 PARTICLE SIZE ANALYSIS
  - C. ASTM D 669 LABORATORY COMPACTION CHARACTERISTICS USING STANDARD EFFORT
  - D. ASTM D 418 LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX OF SOILS
  - E. ASTM D 4569 TENSILE PROPERTIES OF GEOTEXTILES - WIDE WIDTH STRIP
  - F. ASTM D 5882 UNCONFINED TENSION CREEP BEHAVIOR OF GEOTEXTILES
  - G. NCSA SPM 1.1 TEST METHOD FOR DETERMINING CONNECTION STRENGTH OF SRW
- 1.03 QUALITY ASSURANCE
  - A. OWNER WILL BE RESPONSIBLE FOR SOIL TESTING AND INSPECTION QUALITY CONTROL DURING WALL CONSTRUCTION AND EARTHWORK OPERATIONS.

PART 2: MATERIALS

- 2.01 DESCRIPTIONS
  - A. CONCRETE UNITS - A KEYSTONE MODULAR CONCRETE FACING UNIT MACHINE MADE FROM PORTLAND CEMENT, WATER AND MINERAL AGGREGATE.
  - B. STRUCTURAL GEORGED - A STRUCTURAL GEORGED FORMED BY A REGULAR NETWORK OF INTERSITELY CONNECTED TENSILE ELEMENTS WITH SPACERS OF SUFFICIENT SIZE TO ALLOW INTERLOCKING WITH SURROUNDING SOIL, ROCK, OR EARTH AND FUNCTION PRIMARILY AS REINFORCEMENT.
  - C. UNIT DRAINAGE FILL - DRAINAGE AGGREGATE WHICH IS PLACED WITHIN AND IMMEDIATELY BEHIND THE MODULAR CONCRETE UNITS.
  - D. REINFORCED BACKFILL - COMPACTED SOIL WHICH IS WITHIN THE REINFORCED SOIL VOLUME AS SHOWN ON THE PLANS.

- 2.02 KEYSTONE UNITS
  - A. KEYSTONE WALL UNITS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. STANDARD WEIGHT CONCRETE SHALL HAVE A MAXIMUM MOISTURE ABSORPTION OF 6% (9% IN NORTHERN CLIMATES).
- 2.03 FIBERGLASS CONNECTING PINS
  - A. CONNECTING PINS SHALL BE 1/2" DIAMETER THERMOSET ISOPHTHALIC POLYESTER RESIN FIBERGLASS REINFORCEMENT RODS SUPPLIED BY THE UNIT MANUFACTURER.
- 2.04 KEYSTONE CAPSUL CONSTRUCTION ADHESIVE
  - A. MATERIAL SHALL CONFORM TO ASTM 2239 AND SHALL BE SUPPLIED BY THE KEYSTONE UNIT SUPPLIER.
- 2.05 GEORGED REINFORCEMENT
  - A. GEORGED SHALL BE THE TYPE AS SHOWN ON THE DRAWINGS HAVING THE PROPERTY REQUIREMENTS DESCRIBED WITHIN THE MANUFACTURER'S SPECIFICATIONS.
- 2.06 BASE LEVELING PAD MATERIAL
  - A. MATERIAL SHALL CONSIST OF COMPACTED CRUSHED STONE OR UNREINFORCED CONCRETE AS SHOWN ON THE CONSTRUCTION DRAWINGS.

2.07 UNIT DRAINAGE FILL  
UNIT FILL SHALL CONSIST OF CLEAN 1" OR LESS CORDED SAND OR EQUIVALENT GRAIN SIZES WITH THE FOLLOWING GRADATION:

SIZE	PERCENT PASSING
NO. 10	50
NO. 20	75-100
NO. 40	90-100
NO. 60	95-100
NO. 100	100

- 2.08 REINFORCED BACKFILL SHALL BE FREE OF WEBS OR ORGANIC MATERIAL HAVING THE FOLLOWING CHARACTERISTICS TESTED IN ACCORDANCE WITH ASTM D 422:
  - LIQUID LIMIT - 15
  - PLASTICITY INDEX - 5
  - PERCENT FINER THAN NO. 20 - 75-100
  - NO. 40 - 90-100
  - NO. 60 - 95-100
  - NO. 100 - 100
- B. THE MAXIMUM AGGREGATE SIZE SHALL BE LIMITED TO SIX TIMES THE MINIMUM SIZE OF THE UNITS. TO EVALUATE TENSILE TENSION REDUCTION DUE TO INSTALLATION DAMAGE TO EVALUATE TENSILE TENSION REDUCTION DUE TO MATERIAL, ONE SET OF TESTS FOR BACKFILL FROM PLASTIC CLAYS OR ORGANIC WEETS. UNSATURABLE SOILS FOR BACKFILL FROM PLASTIC CLAYS OR ORGANIC MATERIAL SHALL BE TESTED IN ACCORDANCE WITH ASTM D 422. CONTRACTOR SHALL SUBMIT REINFORCEMENT SAMPLES AND TEST RESULTS TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

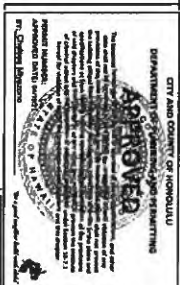
PART 3: EXECUTION

- 3.01 EXECUTION
  - A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL BE CAREFUL NOT TO DISTURB EXISTING UTILITIES AND FOUNDATION MATERIALS BEHIND LINES SHOWN.
- 3.02 FOUNDATION SOIL PREPARATION
  - A. FOUNDATION SOIL SHALL BE EXCAVATED AS REQUIRED FOR LEVELING AND COMPACTED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, OR AS DIRECTED BY THE ENGINEER. SOILS SHALL BE REMOVED AND REPLACED WITH APPROVED COMPACTED MATERIAL AS DIRECTED BY THE ENGINEER.
  - B. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH APPROVED COMPACTED BACKFILL MATERIAL.
- 3.03 BASE LEVELING PAD
  - A. LEVELING PAD MATERIALS SHALL BE PLACED UPON AN APPROVED FOUNDATION AS SHOWN ON THE CONSTRUCTION DRAWINGS TO A MINIMUM THICKNESS OF 4" UNLESS OTHERWISE SPECIFIED. MATERIAL SHALL BE COMPACTED TO PROVIDE A LEVEL, LEVEL SURFACE. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE PROPER GRADE FOR COMPACTED ROCK MATERIAL. SHALL BE DENSELY COMPACTED AS DIRECTED BY VISUAL OBSERVATION.

- 3.04 UNIT INSTALLATION
  - A. THE FIRST COURSE OF CONCRETE MODULAR WALL UNITS SHALL BE CHECKED BY THE ENGINEER FOR SIZE, EXTENSION, AND LOCATION. UNITS SHALL BE CHECKED FOR TILT, ALIGNMENT AND ADJUSTMENT.
  - B. UNITS ARE PLACED SIDE BY SIDE FOR FULL LENGTH OF WALL ALIGNMENT. ALIGNMENT MAY BE DONE BY MEANS OF A STROBE LINE OR OFFSET FROM A BASE INITIAL REFERENCE CONCERNING PINS AND FILL. ALL WORK IS DONE AROUND THE MODULAR UNITS WITH UNIT FILL MATERIAL. TAMP OR BOLD UNIT FILL TO BRIDGE THAT ALL WORK IS COMPLETED.
  - C. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL.
  - D. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL.
  - E. PLACE EACH SUBSEQUENT COURSE ENSURING THAT PINS PROTRUDE UNIT FILL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL.
  - F. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL. BRIDGE THE MODULAR UNITS WITH UNIT FILL MATERIAL.

- 3.05 GEORGED INSTALLATION
  - A. GEORGED SHALL BE LAID AT THE PROPER SLOPINGS AND ORIENTATIONS AS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE ENGINEER.
  - B. CORRECT ORIENTATION SHALL BE DETERMINED BY THE GEORGED SHALL BE REVERSED BY THE CONTRACTOR WITH THE STRONGEST DIRECTION PLACED PERPENDICULAR TO THE GEORGED SOIL. REINFORCEMENT SHALL BE CONNECTED TO THE KEYSTONE WALL UNITS BY PLACING THE GEORGED OVER REBAR AND PINS AND LINKING THE GRID BACK ON COMPACTED FILL. PLACE THE NEXT COURSE OF UNITS OVER THE GEORGED SOIL.
  - C. THE GEORGED SHALL BE FIELDED THAT TO ELIMINATE LARGE HOLES AND PENETRATION THE REINFORCEMENT STRIKE OR SECURE BACK EDGE OF GEORGED FROM TOP AND DURING BACKFILL AND COMPACTION. GEORGED SHALL BE PLACED SIDE BY SIDE WITH NO GAPS.

- 3.06 FILL PLACEMENT
  - A. BACKFILL MATERIAL SHALL BE PLACED IN 4' LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D 1557. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE PROPER GRADE FOR COMPACTED ROCK MATERIAL. SHALL BE DENSELY COMPACTED AS DIRECTED BY VISUAL OBSERVATION.
  - B. BACKFILL SHALL BE PLACED BEHIND AND COMPACTED IN SUCH A MANNER THAT GEORGED THE DEVELOPMENT OF SLACK OR LOSS OF PRESSION OF THE GEORGED.
  - C. ONLY HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 4' OF THE BACK SURFACE OF THE KEYSTONE UNITS.
  - D. TO THE FRONT SURFACE OF THE KEYSTONE UNITS.
  - E. THROUGH CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEORGED. A MINIMUM BACKFILL THICKNESS OF 6" IS REQUIRED BEHIND TO OPERATE OR TRUCKS OVER THE GEORGED. TRUCKS OR TRACTORS OPERATING ON THE GEORGED SHALL BE LIMITED TO THE GEORGED. TRUCKS OR TRACTORS OPERATING ON THE GEORGED SHALL BE LIMITED TO THE GEORGED.
  - F. REBAR-TYPED EQUIPMENT MAY PASS OVER THE GEORGED REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH, AVOID SLOTTED BRAKES AND SWAY.
  - G. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL GRACE THE BACKFILL AWAY FROM THE WALL AND DIRECT WATER AWAY FROM THE WALL. FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO DRIVE THE WALL CONSTRUCTION SITE.
- 3.07 CAP INSTALLATION
  - A. PLACE KEYSTONE CAP UNITS OVER PROTECTIVE PINS FROM UNITS BELOW. APPLY CAP ADHESIVE TO TOP SURFACE OF UNIT BELOW AND PLACE CAP UNIT INTO POSITION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE PROPER GRADE FOR COMPACTED ROCK MATERIAL. SHALL BE DENSELY COMPACTED AS DIRECTED BY VISUAL OBSERVATION.



**DOWSETT ESTATES UNIT 1 GRADING & RETAINING WALL**  
 3180 PUU PAKA DRIVE HONOLULU OAHU TAX MAP KEY: (1) 2-2-047-007 HAWAII

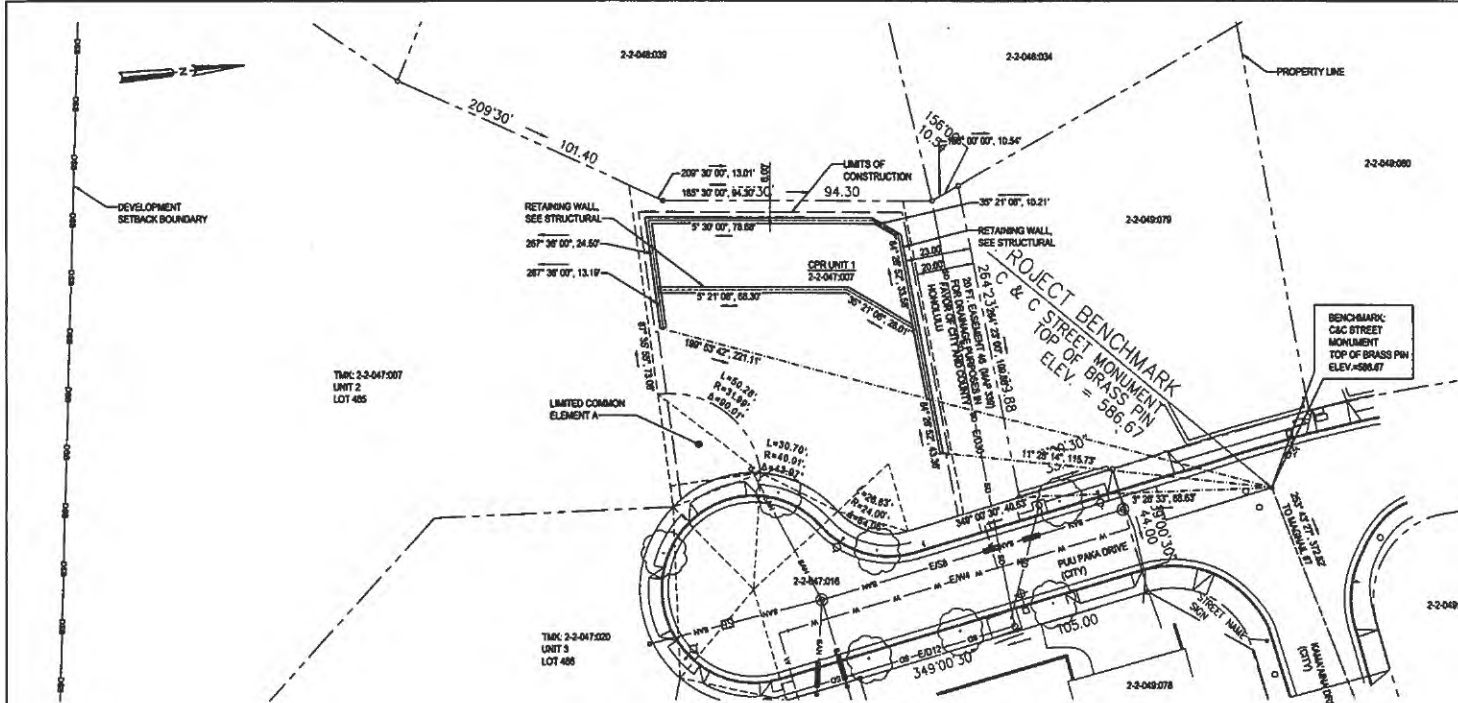
NOV 2020  
 AS NOTED  
 Drawn by: AV  
 Checked by: AV  
 C102  
 Sheet 4 of 13

CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PLANNING AND PERMITTING

**APPROVED**

The licensee hereby certifies that the information provided in this application is true and correct to the best of their knowledge and belief, and that they shall not be held liable for any errors or omissions in this application. The licensee shall be held responsible for any errors or omissions in this application. The licensee shall be held responsible for any errors or omissions in this application.

PERMIT NUMBER: 2020-000000  
APPROVED DATE: 11/11/2020  
BY: CHONGS CHONGS



**OVERALL SITE PLAN**  
SCALE 1" = 20'-0"

**LEGEND**

--- PROPERTY LINE  
--- LIMITS OF CONSTRUCTION  
--- DEVELOPMENT SETBACK BOUNDARY

REVISIONS	BY

**DOWSETT ESTATES UNIT 1  
GRADING & RETAINING WALL**  
3180 PULU PAKA DRIVE  
HONOLULU OAHU HAWAII  
TAX MAP KEY: (1)2-2-047-007

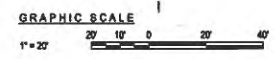
**ARCHITECTURE**  
KIMBERLY L. ANDERSON, INC.  
1010 KALANIANA'OLUHIA DRIVE  
HONOLULU, HI 96813  
TEL: 808-955-1111  
WWW.KIMBERLYLANDERSON.COM

**OVERALL SITE PLAN**

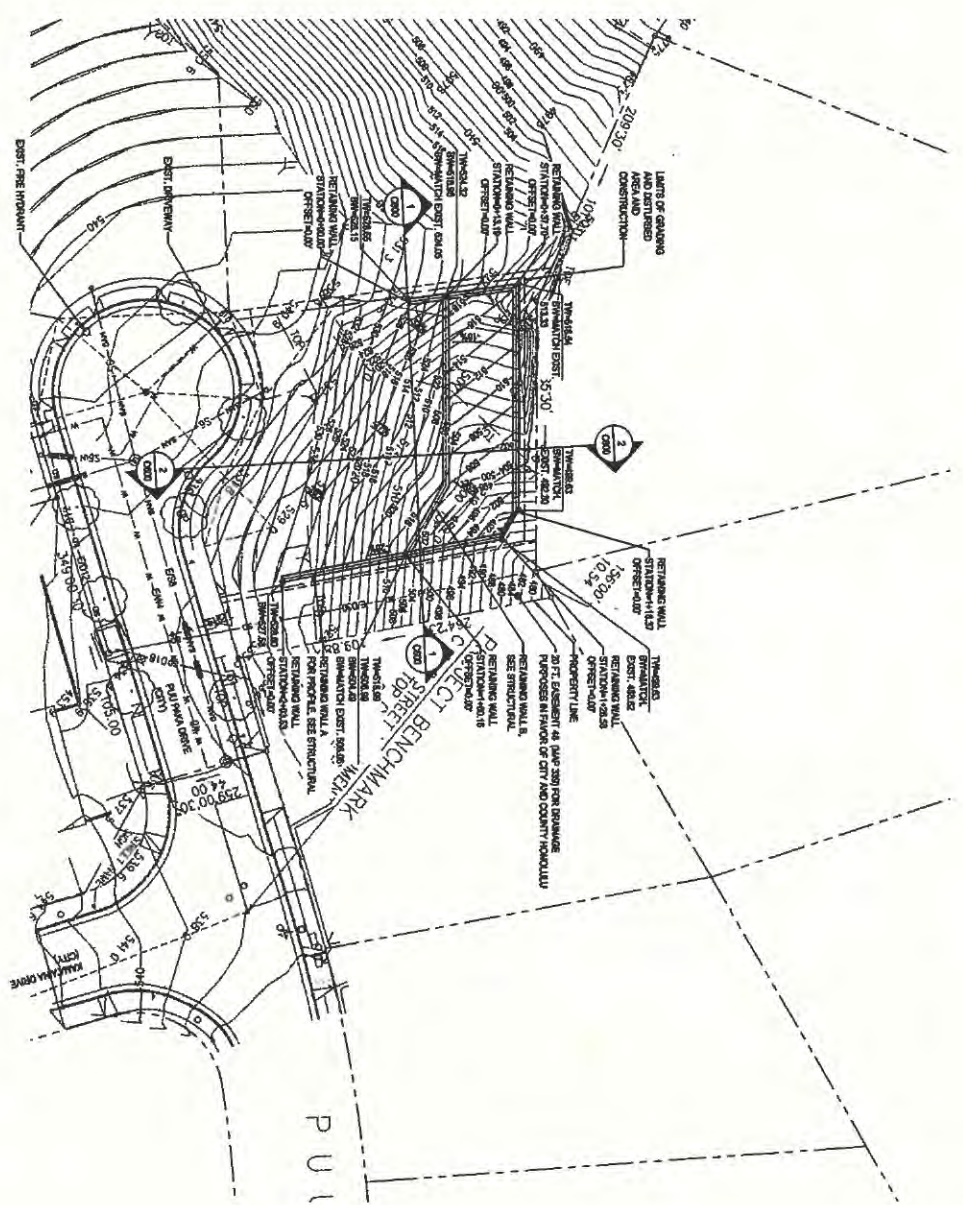
Date: NOV 2020  
Scale: AS NOTED  
Design By: CB  
Drawn By: AY  
Sheet No.:

C200

Sheet 1 of 13







1 GRADING PLAN  
SCALE: 1" = 20'



APPROVED: *Michael J. DeBenedictis*  
CHIEF, CIVIL ENGINEERING BRANCH, DEPT. OF PUBLIC WORKS  
DATE: 11/14/12

LEGEND  
PROPERTY LINE  
LIMITS OF GRADING AND CONSTRUCTION  
EAST GRADE CONTOUR  
PROPOSED GRADE CONTOUR

EARTHWORK QUANTITIES  
(FOR GRADING REPORT PURPOSES ONLY)  
DISTURBED AREA 122 ACRES  
GRADED AREA 122 ACRES  
EXCAVATION 85 CY  
EMBANKMENT 180 CY

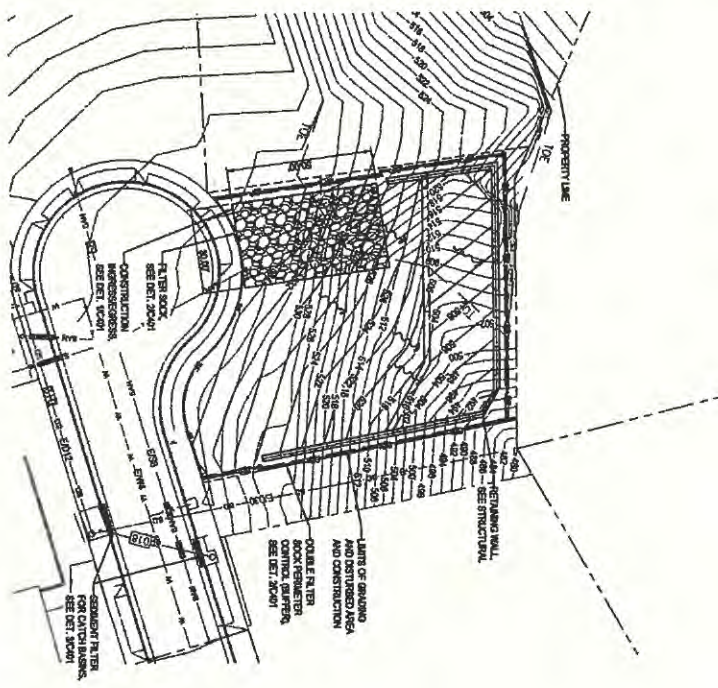


**DOWSETT ESTATES UNIT 1**  
**GRADING & RETAINING WALL**  
3180 PIU PAKA DRIVE  
HONOLULU, HAWAII  
TAX MAP KEY: (1) 2-2-047-007



DESIGNED BY: *Michael J. DeBenedictis*  
CHECKED BY: *Michael J. DeBenedictis*  
DATE: 11/14/12

NOV 2012  
AS NOTED  
CIB  
NY  
C300  
1 of 13



1  
 C400  
 SCALE 1" = 20'

**EROSION AND SEDIMENT CONTROL PLAN (CATEGORY 4)**

**Flood Hazard Assessment Report**

**PROJECT LOCATION:**  
 3180 PAKA DRIVE  
 CLASS 2 ZONING  
 27° 28' 17" N  
 157° 28' 22" W

**PROPERTY INFORMATION:**  
 Address: 3180 PAKA DRIVE  
 Parcel ID: 151-001-0010  
 Area: 0.11 Acres  
 Owner: DOWSETT ESTATES UNIT 1  
 Flood Hazard Information: Flood Hazard Zone: A-1 (Special Flood Hazard Area)

**NOTES:**  
 This report was prepared for the purpose of determining the flood hazard potential of the subject property. The information contained herein is based on the best available data and is not a guarantee of accuracy. The user of this report is responsible for verifying the information and for obtaining any necessary permits. This report is not to be used for any purpose other than that for which it was prepared. The user of this report is responsible for obtaining any necessary permits. This report is not to be used for any purpose other than that for which it was prepared.



**APPROVER:**

*Theresa S. Williams*  
 Owner, DOWSETT ESTATES UNIT 1

**DATE:**  
 11/15/20



**CITY AND COUNTY OF HONOLULU**  
 DEPARTMENT OF PERMITS AND PLANNING

**APPROVED:**  
 [Signature]

**DATE:**  
 11/15/20

**PROJECT:**  
 DOWSETT ESTATES UNIT 1 GRADING & RETAINING WALL

**DOWSETT ESTATES UNIT 1 GRADING & RETAINING WALL**  
 3180 PAKA DRIVE  
 HONOLULU, OAHU HAWAII  
 TAX MAP KEY: (1) 2-2-047-007

**DATE:** NOV 2020  
**SCALE:** AS NOTED  
**PROJECT NO.:** C400  
**DATE:** 11/15/20

**EROSION AND SEDIMENT CONTROL PLAN**

**APPROVED:**  
 [Signature]

**DATE:**  
 11/15/20

**PERSONS BY**

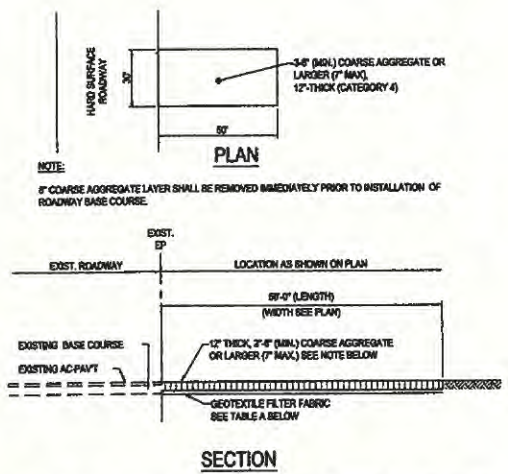
**DESIGNED BY:**  
 [Signature]

**CHECKED BY:**  
 [Signature]

**DATE:**  
 11/15/20

**REVISIONS:**

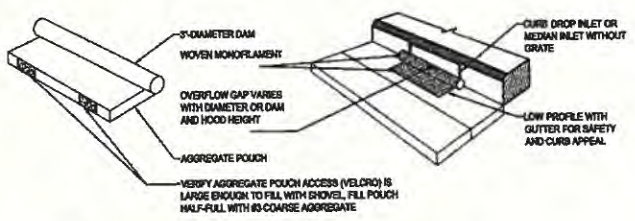
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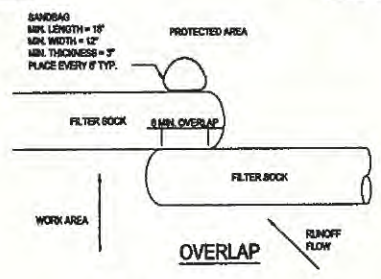
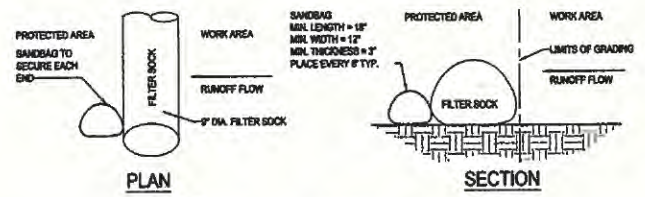
**TABLE A GEOTEXTILE REQUIREMENTS**

PHYSICAL PROPERTY	REQUIREMENTS
GRAB TENSILE STRENGTH	220 LB (ASTM D1682)
ELONGATION FAILURE	60% (ASTM D1682)
MULLEN BURST STRENGTH	430 LB (ASTM D3768)
PUNCTURE STRENGTH	125 LB (ASTM D751, MODIFIED)
EQUIVALENT OPENING	SIZE 40-80 (U.S. STD SIEVE, CMM-02215)

1 CONSTRUCTION INGRESS/EGRESS DETAIL  
 C401 NOT TO SCALE



3 SEDIMENT FILTER FOR CATCH BASINS  
 C401 NOT TO SCALE



2 FILTER SOCK DETAIL  
 C401 NOT TO SCALE

REVISIONS	BY

THIS PROJECT FINANCED BY THE STATE OF HAWAII  
 UNDER THE DEPARTMENT OF TRANSPORTATION  
 AND CONSTRUCTION FUNDING PROGRAM  
 PROJECT NO. 2019-001  
 PROJECT LOCATION: MAUNALOA, HAWAII  
 PROJECT DESCRIPTION: GRADING & RETAINING WALL  
 PROJECT CONTRACT NO. 2019-001  
 PROJECT CONTRACT VALUE: \$1,000,000.00  
 PROJECT CONTRACT DATE: 12/14/20



**EROSION AND SEDIMENT CONTROL DETAILS**

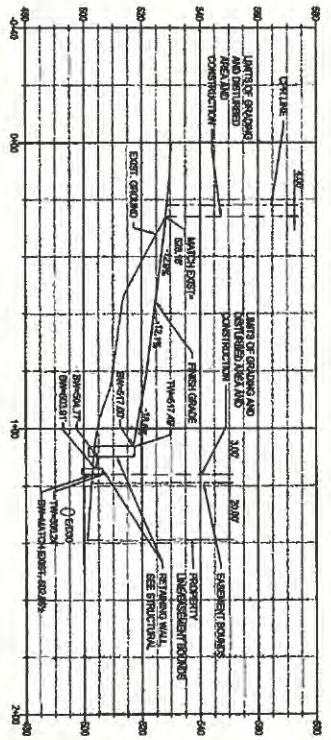
Date: NOV 2020  
 Sheet: AS NOTED  
 Design By: CB  
 Drawn By: AY  
 Sheet No.:

C401

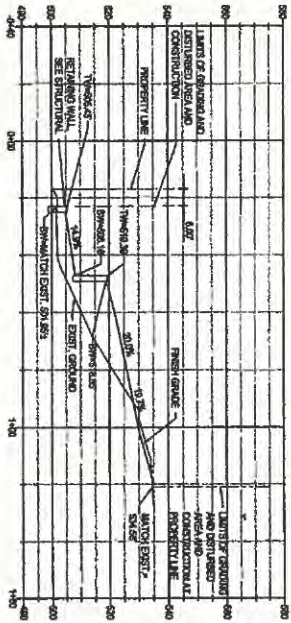
APPROVED:

for Melissa J. DeBora  
 CHIEF, CIVIL ENGINEERING BRANCH, OPP

12/14/20  
 DATE



1 SECTION 1  
 CS600 SCALE: 1" = 40'



2 SECTION 2  
 CS600 SCALE: 1" = 40'

**APPROVED**

SEAL OF THE CITY AND COUNTY OF HONOLULU

DEPARTMENT OF PERMITS

APPROVED FOR THE CITY AND COUNTY OF HONOLULU

DATE: \_\_\_\_\_

BY: \_\_\_\_\_



THIS DRAWING PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY DIRECTOR CONSTRUCTION OF CONSTRUCTION AS DEFINED IN CHAPTER 91A, SUBCHAPTER 1, HAWAIIAN, OF THE HAWAIIAN CONSTITUTION. I, THE ENGINEER, PROFESSIONAL ARCHITECT, SURVEYOR, AND LANDSCAPE ARCHITECT, AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF HAWAII.

*Chad N. Ho* EXP. DATE: 12/31/2022

**DOWSETT ESTATES UNIT 1 GRADING & RETAINING WALL**

3160 PUU PAKA DRIVE HONOLULU OAHU HAWAII

TAX MAP KEY: (1) 2-2-047:007

**APPROVED**

*Melvin J. Bellus*

CHIEF, CIVIL ENGINEERING DIVISION, DEPT. OF PERMITS

DATE: \_\_\_\_\_

**GRAPHIC SCALE**

1" = 20'

0 20 40

**CS600**

DATE: NOV 2020

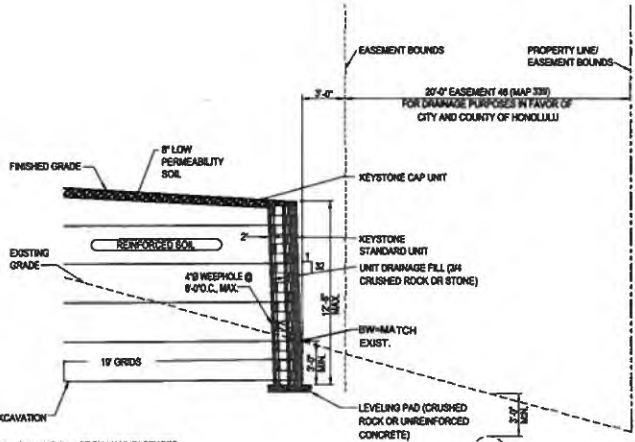
SCALE: AS NOTED

DESIGNED BY: AN

CHECKED BY: AN

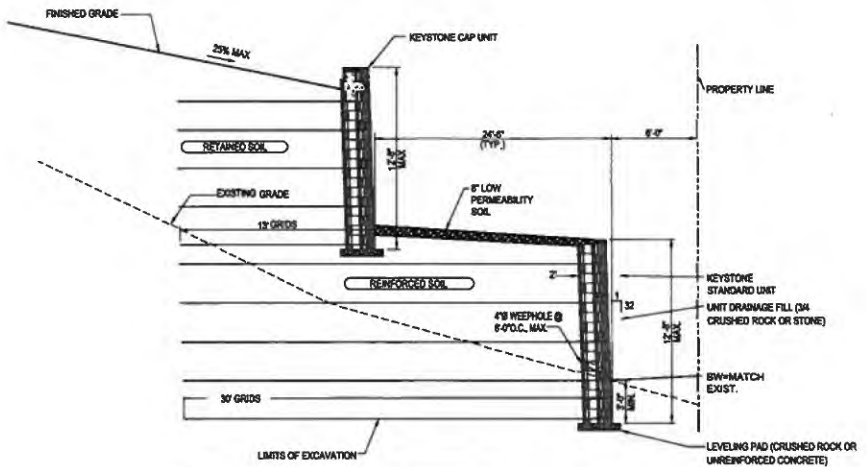
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DATE: \_\_\_\_\_



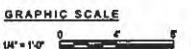
NOTE: FINAL DESIGN OF KEYSTONE WALL SHALL BE BY MANUFACTURER

1 TYPICAL KEYSTONE WALL SECTION 1  
SCALE: 1/4" = 1'-0"



NOTE: FINAL DESIGN OF KEYSTONE WALL SHALL BE BY MANUFACTURER

2 TYPICAL KEYSTONE WALL SECTION 2  
SCALE: 1/4" = 1'-0"



REVISIONS	BY

DOWSETT ESTATES UNIT 1  
GRADING & RETAINING WALL  
3180 PULI PAKA DRIVE  
HONOLULU OAHU HAWAII  
TAX MAP KEY: (1) 2-2-007.007



SITE DETAILS

Date: NOV 2020  
Scale: AS NOTED  
Design By: CB  
Drawn By: AY  
Sheet No.:

C701

**GENERAL NOTES**

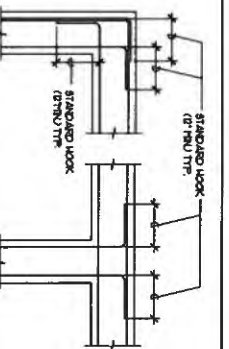
1. ALL WORK SHALL CONFORM TO THE 2007 INTERNATIONAL BUILDING CODE AS AMENDED BY CHAPTER 9 OF THE REPEALED ORDINANCE OF HONOLULU.
2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
3. THE GENERAL NOTES AND TYPICAL DETAILS SHALL APPLY UNLESS OTHERWISE NOTED.
4. DIMENSIONS SHALL HAVE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS.
5. FINISHES, SURFACE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION, WHERE CONDITIONS ARE NOT SPECIFICALLY NOTICED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN IN THE DRAWINGS OR SPECIFICATIONS SHALL BE USED, SUBJECT TO THE APPROVAL OF THE ARCHITECT.
6. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT AND THE CONTRACTOR SHALL VERIFY THE EXISTING AND CONDITIONS PRIOR TO THE START OF THE JOB AND NOTIFY ALL DISCREPANCIES TO THE ARCHITECT.
7. ALL CHANGES OR CONFLICT BETWEEN THE VARIOUS ELEMENTS OF THE WORKSHOWN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH ANY WORK TO BE DONE.
8. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING AND THE PROTECTION FROM DAMAGE FROM THE CONSTRUCTION AND PROVIDE ADEQUATE PROTECTIVE DECKING AND GUARDS IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL, SAFETY STANDARDS. ANY DEVIATION MUST BE APPROVED BY ORMA.
9. THE CONTRACTOR SHALL NOTIFY INSURERS OF ANY CHANGES TO THE PROJECT, AND SHALL MAINTAIN ALL POLICY NUMBERS AND COVERAGE INFORMATION ON FILE AND BEING AVAILABLE FOR REVIEW AT ALL TIMES (INCLUDING HOLD DOWN ANCHORS).

**REINFORCING CONCRETES**

1. ALL CONCRETE WORK SHALL CONFORM TO ACI 308-11.
  2. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF) WITH A MAXIMUM FREE WATER TO CEMENT RATIO OF 0.45. THE COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS AND PLACEMENT ADJUSTING MIXES SHALL BE AS FOLLOWS:
- | MEMBER     | MINIMUM 28 DAY FC | MINIMUM COMPRESSIVE STRENGTH |
|------------|-------------------|------------------------------|
| ROOFING    | 3,000 PSI         | 34'                          |
| FLOORING   | 2,800 PSI         | 34'                          |
| FOUNDATION | 2,800 PSI         | 54'                          |
3. MAXIMUM WATER-CEMENT RATIO SHALL NOT EXCEED 0.55.
  4. ALL REINFORCING STEEL, EXCEPT TIE AND STIRRUPS SHALL CONFORM TO ASTM A630 GRADE 60, TIE STIRRUPS AND REBAR TO BE BELD SHALL BE ASTM A630 GRADE 40.
  5. UNLESS OTHERWISE NOTED, REINFORCING BARS SHALL BE 40 BAR DIAMETERS AND SPACINGS SHALL BE 12" ON CENTER, BUT NOT LESS THAN 24" MINIMUM.
  6. ALL REINFORCING BARS HAVING CONTINUOUS (CONT.) OR WELDED END CONNECTIONS SHALL BE PROTECTED FROM CORROSION BY AN INERT COATING OF CONCRETE SHALL BE ACI 308 (LITERATURE).
  7. HATCH IN PLACE CONCRETE SHALL BE 4" MINIMUM.
  8. MINIMUM COVER IN INCHES FOR REBAR FOR CAST-IN-PLACE CONCRETE:
- | CONCRETE CAST AGAINST EARTH                 | 3"   |
|---|------|
| FORMED CONCRETE EXPOSED TO EARTH OR WEATHER | 2"   |
| BEAMS AND COLUMNS                           | 1.5" |

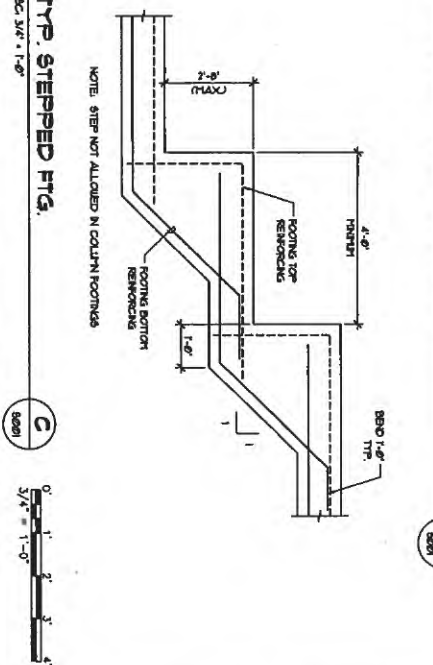
**GENERAL NOTES**

1. THE SOILING, SPECIAL INSULATION, REINFORCING STEEL, PROTECTIVE CONCRETE (SEE SEC 7.04.1) SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING AND THE PROTECTION FROM DAMAGE FROM THE CONSTRUCTION AND PROVIDE ADEQUATE PROTECTIVE DECKING AND GUARDS IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL, SAFETY STANDARDS. ANY DEVIATION MUST BE APPROVED BY ORMA.
3. THE CONTRACTOR SHALL NOTIFY INSURERS OF ANY CHANGES TO THE PROJECT, AND SHALL MAINTAIN ALL POLICY NUMBERS AND COVERAGE INFORMATION ON FILE AND BEING AVAILABLE FOR REVIEW AT ALL TIMES (INCLUDING HOLD DOWN ANCHORS).



1. RETAINING WALL AND FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT BY GEOTECHNICAL REPORT NUMBER 1999-1001-01-01-01, APRIL 14, 2009 PROJECT NUMBER 1999-1001-01-01-01.
2. ALL FOUNDATION SHALL BEAR ON A MINIMUM 24" MINIMUM LAYER OF STRUCTURAL FILL MATERIAL PLACED OVER A MINIMUM 12" MINIMUM LAYER OF STRUCTURAL FILL MATERIAL. THE STRUCTURAL FILL LAYER SHALL BE 12" MINIMUM THICK AND SHALL BE EXTENDED A MINIMUM OF 24" MINIMUM BEYOND THE PERIPHERY OF THE RETAINING WALL. THE STRUCTURAL FILL SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
3. STRUCTURAL FILL MATERIAL SHALL CONSIST OF A MINIMUM 24" MINIMUM THICK, STRUCTURAL GRADE OR EQUIVALENT, STRUCTURAL FILL MATERIAL. STRUCTURAL FILL MATERIAL SHALL BE EXTENDED FROM THE BOTTOM OF THE RETAINING WALL TO THE TOP OF THE RETAINING WALL AND SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
4. THE FOUNDATION SHALL BE EXTENDED A MINIMUM OF 36" BEYOND THE PERIPHERY OF THE RETAINING WALL. THE FOUNDATION SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
5. DIAPHRAGM WALL RETAINING WALLS SHALL BE STRUCTURAL GRADE OR EQUIVALENT, STRUCTURAL FILL MATERIAL. STRUCTURAL FILL MATERIAL SHALL BE EXTENDED FROM THE BOTTOM OF THE RETAINING WALL TO THE TOP OF THE RETAINING WALL AND SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
6. COMPACT THE BOTTOM OF ALL FOOTING EXCAVATIONS TO 95% RELATIVE COMPACTION AS DETERMINED BY ASTM D1557, BEFORE ANY FOOT OR LOWER MATERIALS ARE PLACED IN THE FOOTING. ALL FOUNDATION SHALL CONFORM TO SPECIFICATIONS AND SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
7. STRUCTURAL FILL SHALL BE PLACED IN 6" MAXIMUM LIFT, MINIMUM COMPACTED TO 95% RELATIVE COMPACTION BY PROPERLY EQUIPPED MEANS. ALL MATERIALS SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
8. ALL MATERIALS SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
9. ALL MATERIALS SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
10. ALL MATERIALS SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.

1. REINFORCING STEEL SHALL BE PLACED IN A MINIMUM OF 36" BEYOND THE PERIPHERY OF THE RETAINING WALL. THE REINFORCING STEEL SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
2. ALL REBAR SHALL BE PLACED IN A MINIMUM OF 36" BEYOND THE PERIPHERY OF THE RETAINING WALL. THE REINFORCING STEEL SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.
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10. ALL REBAR SHALL BE PLACED IN A MINIMUM OF 36" BEYOND THE PERIPHERY OF THE RETAINING WALL. THE REINFORCING STEEL SHALL BE EXTENDED UP ALONG THE SLOPE OF THE FOUNDATION.



OFFICE AND COUNTY OF HONOLULU

DEPARTMENT OF PERMITS AND PLANNING

**PROFESSIONAL SEAL**

**ARCHITECT**

**Adrian Lee**

No. 10436

STATE OF HAWAII

EXPIRES: 12/31/2023

REVISIONS

NO.	DATE	DESCRIPTION

**PROFESSIONAL SEAL**

**ENGINEER**

**Adrian Lee**

No. 10436

STATE OF HAWAII

EXPIRES: 12/31/2023

**DOWSETT ESTATES UNIT 1**

**GRADING & RETAINING WALL**

3188 PUKA DRIVE

HONOLULU, HAWAII

TAX MAP KEY: (1) 2-2-047-007

DATE: 11/11/11

11/11/11

**GENERAL NOTES**

**AND TYPICAL DETAILS**

DATE: DEC 2009

SCALE: AS NOTED

DRAWN BY: AL

CHECKED BY: MA

NO. 10436

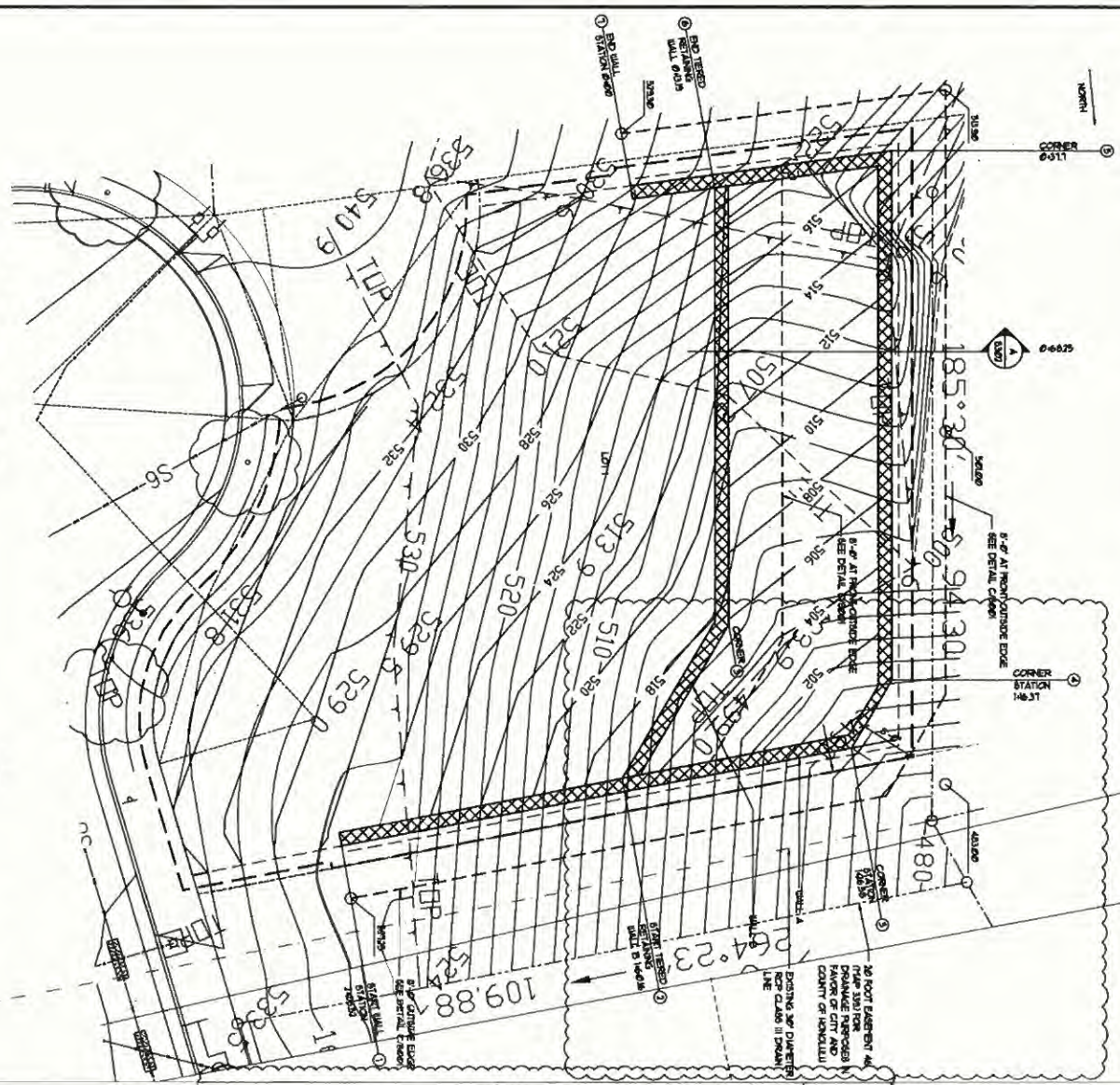


TYP. STEPPED FTG.

**RETAINING WALL PLAN**  
 SC 10/11/10

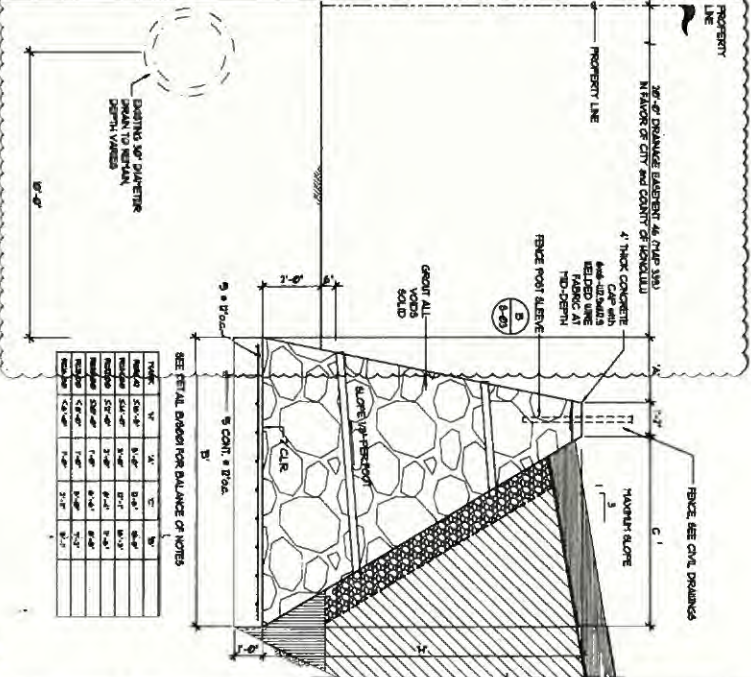
A  
 1/8" = 1'-0"

1/8" = 1'-0"



**CRM RETAINING WALL**  
 SC 10/11/10

B  
 1/2" = 1'-0"



**APPROVED**

DEPARTMENT OF HONOLULU  
 CITY ENGINEER

PROJECT NUMBER: 100-100-0000  
 APPROVED DATE: 10/11/10  
 M. CHERRY ENGINEER

Professional Engineer  
 License No. 100-100-0000  
 Exp. 10/11/10

**DOWSETT-ESTATES UNIT 1 GRADING & RETAINING WALL**  
 3160 PUU PAKA DRIVE  
 HONOLULU OAHU  
 TAX MAP KEY: (1) 2-2-047-007

**WILLIS C. FONG, INC.**  
 LICENSED PROFESSIONAL ENGINEER  
 No. 9184-C  
 EXPIRES 10/31/11  
 CORPORATION DATE 08/09/00  
 4555 KALANIANA'OHU BLVD.  
 SUITE 200  
 HONOLULU, HI 96825  
 (808) 943-8888  
 www.williscfong.com

NO.	DATE	BY	REVISIONS

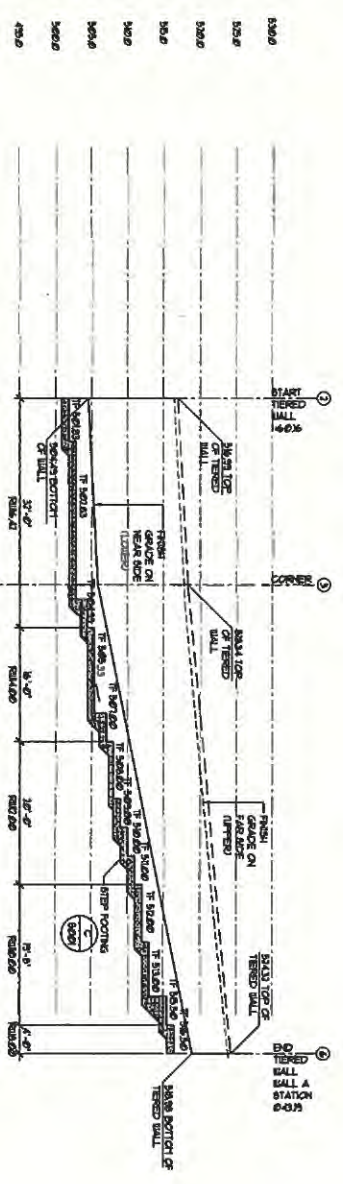
**WME**  
 WILLIS C. FONG, INC.

DATE: 08/03/2010  
 DRAWN BY: AS NOTED  
 CHECKED BY: ALA  
 DESIGNED BY: MAA

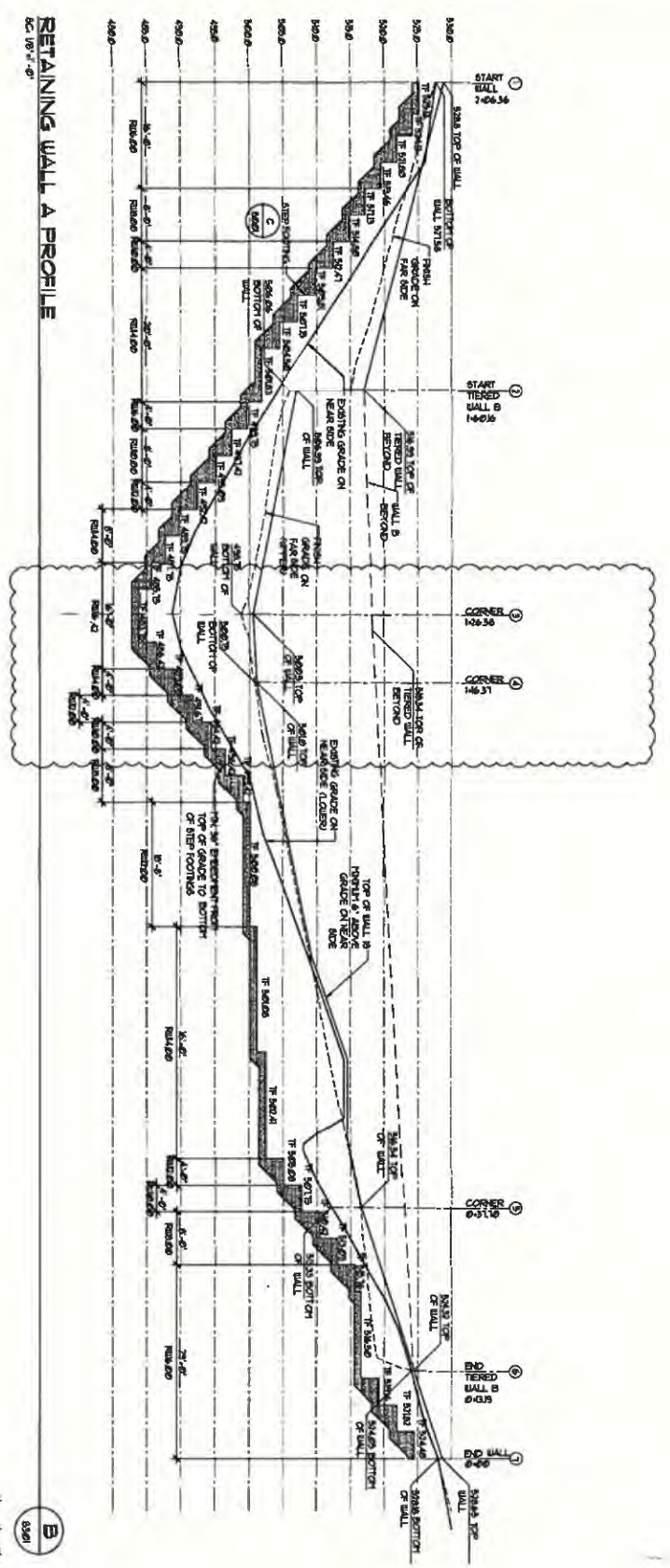
PROJECT: RETAINING WALL PLAN

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

SHEET: 12 OF 13



RETAINING WALL B PROFILE  
Scale: 1/8" = 1'-0"



RETAINING WALL A PROFILE  
Scale: 1/8" = 1'-0"



CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PUBLIC WORKS  
PERMITTING DIVISION

**APPROVED**

PROJECT: RETAINING WALL PROFILES  
APPROVED DATE: 11/13/2020  
BY: [Signature]

ADRIAN K. LEE  
LICENSED PROFESSIONAL ENGINEER  
No. 9144  
EXPIRES 12/31/2022

**DOWSETT ESTATES UNIT 1 GRADING & RETAINING WALL**  
3180 PUI PAKA DRIVE  
HONOLULU OAHU HAWAII  
TAX MAP KEY: (1) 2-2-047-007

DATE: DEC 2020  
SCALE: AS NOTED  
DRAWN BY: AL  
CHECKED BY: WA  
PROJECT: RETAINING WALL PROFILES  
SHEET NO. 13 OF 13  
3301