

# **Appendix K - WCF Due Diligence Report**

**FINAL**



# **Waiawa Correctional Facility (WCF) Due Diligence Report**

May 2017

Plan Review Use and Special Use Permit

DAGS Job No. 16-27-5683

Prepared for: Austin Tsutsumi & Associates, Inc.



Prepared by



**FOR OFFICIAL USE ONLY**

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**Waiawa Correctional Facility (WCF)**

**Due Diligence Scope**

- 1) Establish an inventory of site plans and building drawings and identify gaps needed to be filled to meet permit application requirements.
- 2) Conduct background research to identify building and land use permit, and relevant studies and reports.
- 3) Conduct a brief site visit of the facility for general orientation purposes.
- 4) Consult with DPS and DAGS staff about the history of the facility and future development plans.
- 5) Consult with LUC, OP and DPP staff regarding application content requirements and expectations.
- 6) Prepare a summary report documenting the findings of the due diligence investigation, including the need for additional information or technical studies. Report to include meeting records and summary inventory of data collected.

## 1. BACKGROUND

The Hawai'i Department of Public Safety (DSP) has been notified by the Honolulu Department of Planning and Permitting it must comply with the Plan Review Use (PRU) and State Special Use Permit (SUP) requirements to bring its Waiawa Correctional Facility (WCF) into compliance. The objective of the report is to identify existing resources needed to support scoping the application process and identify additional information or studies that will need to be prepared or obtained (if any).

## 2. SUMMARY OF FINDINGS / ADDITIONAL INFORMATION NEEDED

Previous reports, drawings and other available documentation were reviewed and indexed, see appendices. Scans of building permit drawings are provided in pdf format (Appendix D). The following section summarizes major concerns that are also discussed further in the meeting records and interviews (Appendix A).

### 2.1 Hydrologic Zone of Contribution (HZC)

Boundary of the HZC restricts land uses and activities within the HZC. The 1998 FEA stated that agriculture was limited to areas outside of the HZC to prevent leaching of pesticides into the water supply. However, the location of the HZC may not have been accurately represented in the 1998 FEA (Figure 1). Per a 1990 DOH, Safe Drinking Water Branch report,<sup>1</sup> the HZC is located further east. As WCF wants to expand agricultural operations, the Authority Having Jurisdiction (AHJ) should be consulted to verify the boundary of the HZC relative to WCF. This will assist with properly locating suitable areas for agriculture and avoid percolation pollutants from agriculture and R-2 water, into the water supply.

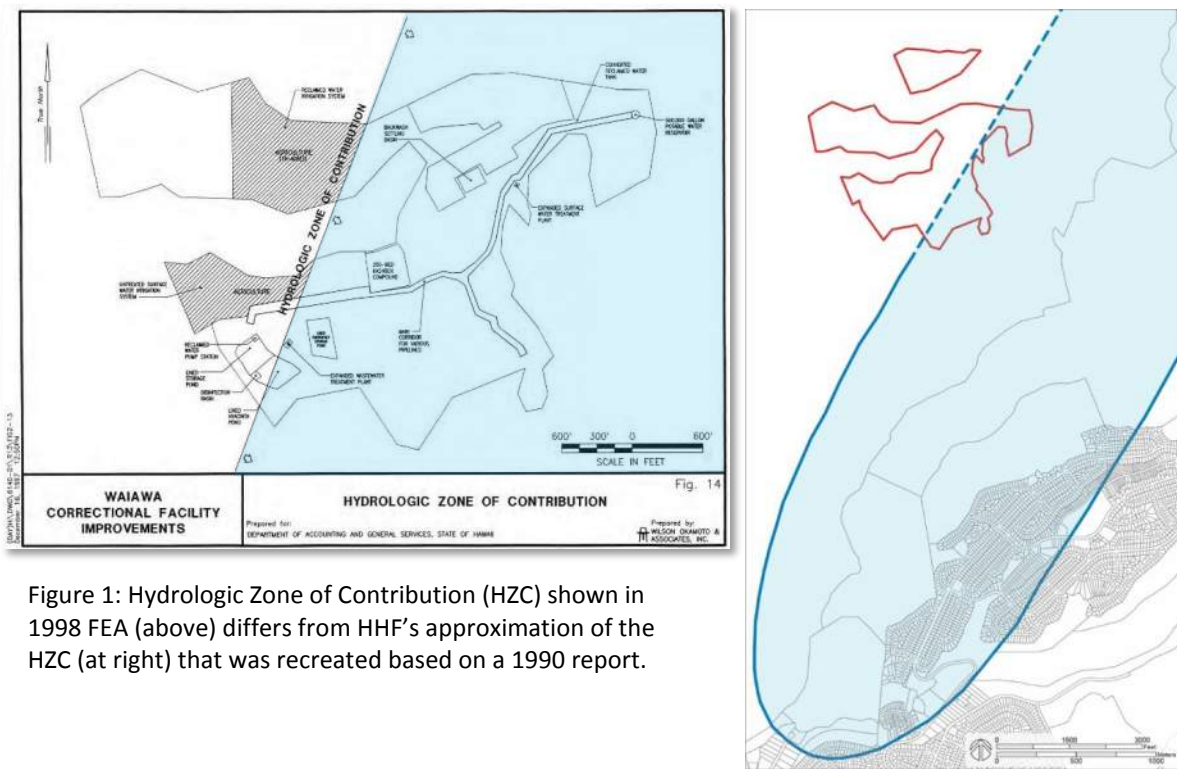


Figure 1: Hydrologic Zone of Contribution (HZC) shown in 1998 FEA (above) differs from HHF's approximation of the HZC (at right) that was recreated based on a 1990 report.

<sup>1</sup> DOH Safe Drinking Water Branch report to the Office of State Planning, *Delineation of the Hydrologic Zone of Contribution for the U.S. Navy Waiawa Shaft*, revised 1990.

## 2.2 Chapter 343 HRS, Environmental Review

Previous EA's for the site include: a 1985 EA covering the initial acquisition of the property, a 1998 FEA covering a 200-bed expansion project and other improvements, and a 2008 FEA for two Sprung Structures (metal frame with polymer/fabric skin) funded by US Dept. of Justice. As long as no major new projects are added, these EAs should satisfy the application's Chapter 343 HRS requirements. OEQC would be accepting authority if a system-wide (DPS) master plan was involved or DPP if only WCF SUP/PRU applications were involved.

All DPS projects covered under DAGS Environmental Review exemptions (i.e., construction and repair work on the CIP list) should be disclosed and included in the PRU/SUP applications to provide maximum flexibility and mitigate need to amend permit and LUC conditions for approval.

The recent OP (State of Hawai'i Office of Planning) staff interview challenged the assertion that the project need not prepare another Chapter 343 HRS document because it had already been done, including a comprehensive EA completed in 1998 (19 years ago). The rationale being that the applications will need to address resources at the level of a Chapter 343 HRS document anyway, and going through the EA process inoculates the applicant from a potential procedural claim that it improperly avoided Chapter 343 HRS. LUC staff noted that the public nature of the Chapter 343 HRS process is a good way to ferret out issues and address them in advance of a public hearing where there is less room to negotiate and maneuver. The cons are that the decision to prepare the EA rests with DPP, and during their briefing they did not object to the initial position that there was no need to produce another EA (one of the DPP planners noted that their decision would weigh heavily on the content of the 5+ year master plan). Other factors include the added expense and time, and the difficulty in identifying a 343 HRS trigger. The issue should be revisited with DPP in the early stages of the project.

## 2.3 Infrastructure

For summaries of what is currently known about water, power and wastewater, see meeting records (Electech, GMP, AECOM – Appendix A). Need to verify that all utilities (i.e. water/power/wastewater/gas tanks/electrical) are functioning adequately and have required licenses, permits and approvals to operate (i.e., wastewater system, water withdrawal permit, fuel storage tank permit, pressure vessel and boiler permit, UIC permit).

### 2.3.1 Wastewater

Most recent report is the 2005 M&E Pacific Prelim Engineering Report for the Wastewater System Improvements. The wastewater irrigation field required to absorb reclaimed R-2 water, appears undersized. Per WCF staff, reclaimed water was only used to irrigate the northern area, not including pine trees. If R-2 is used to irrigate agriculture fields located next to the guard shack/main entry, need to verify conditions/limitations associated with use of R-2 water on food crops.<sup>2</sup> Building permits show a new sewage disposal system, lift station and seepage ponds installed in 1994, a new 1,500 gal grease interceptor installed in 2010, and new lagoon pond liner installed in 2015.

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<sup>2</sup> Information on DOH requirements related to use of R-2 water was found online; need to verify.  
<http://health.hawaii.gov/wastewater/files/2013/06/reuse-final.pdf>



### 2.3.2 Water

A 2003 Commission on Water Resources Management report indicates that the WCF water system is state owned and operated, classified as DOH public water system no. 348. Water supply for WCF is pumped from Waiāhole Ditch up to the site by Pump House #6 – located off site in an adjacent property (Figure 2). The WRM report states: WCF's design diversion capacity is 37.50 gpm (0.05 mgd); permitted water allocation from the Waiāhole Ditch system is 0.15 mgd. The WRM report states the inmate population is 334 and 167 staff. Average day demand was estimated to be 0.075 mgd, with a maximum day demand of 0.11 mgd. Irrigation water usage was not provided.<sup>3</sup> Building permits show that water pumps 6 and 7 were replaced in 1988 and a new surface water treatment plant building (and emergency generator) was installed in 1997. A Water System Study for WCF is available, but contains dated information from 1989.

### 2.3.3 Electric

Most recent report is by Electech Hawai'i in 2005. According to building permit records, a new backup generator, accessory equipment and retaining wall were installed in 2016.

### 2.4 Future Site Survey Considerations

Pump Station #6 is located outside the WCF boundary (Figure 2). Plat maps are available (Appendix F) to locate easements and help locate utility connections servicing WCF (HECO, telephone, internet), as needed. Permit application will need to provide building setbacks for structures close to the property line (i.e. guard shack, entry signage, Bldg 01, 08 CH, and T1). Need to verify boundary and identify any encroachments. Cannot encroach into abutting property without an encroachment agreement.

### 2.5 Building Permits

Review of building permit history (Appendix D) shows that only about 5 of 42 buildings were established under a building permit. Need to get access to all buildings' interior to measure/draft floor plans and access to grounds surrounding buildings to take photos of all facilities, provide a Landscape plan, and Parking & Pavement plan.

### 2.6 Missing Documentation

Missing documents are noted as "Not in File" in Appendix B, C and F.

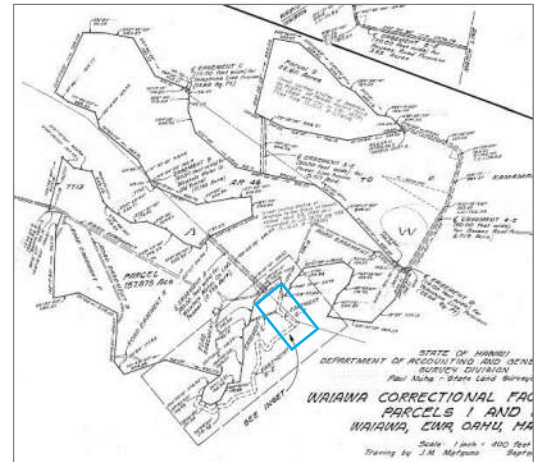


Figure 2: Blue box highlights approx. location of Pump Station #6, located outside WCF boundaries, but appears to be located within an easement. See Appendix F – Plat 2192 for a hi-res image of this map.

<sup>3</sup> State Water Projects Plan, SWPP for Island of O'ahu Vol 5, prepared by Fukunaga and Assoc for the Commission on Water Resource Mgmt, DLNR, 2003 [http://files.hawaii.gov/dlnr/cwrm/planning/swpp2003\\_vol5\\_oahu.pdf](http://files.hawaii.gov/dlnr/cwrm/planning/swpp2003_vol5_oahu.pdf)

### 3. CONCLUSION

This due diligence study has been very helpful in scoping the SUP and PRU application requirements and understanding agency review standards. The upshot of the review is that the SUP needs to be processed before the PRU can be submitted to DPP and the SUP application will be closely scrutinized by the Land Use Commissioners. The LUC doesn't have authority to modify the application transmitted by the City and County of Honolulu – therefore the application and associated record needs to be carefully crafted to provide the complete record the LUC needs to approve the application.

Based on the findings and information gathered in this report, HHF Planners has prepared a scope of work, schedule and fees (Appendix H) required to move this project forward.

### 4. APPENDICES

#### 4.1 Appendix A: Meetings Records

Note that all meeting records are draft versions. With the exception of DPP (Jan 30, 2017) and GMP Assoc (Jan 24, 2017), records have not been sent to attendees for their review. The DPP meeting was sent to attendees; only Katia Balassiano responded with comments, which have been incorporated into the record. Kathleen Orłowski of GMP also responded with comments, which have been incorporated into the record.

- 4.1.1 Conceptual Site Plan (11x17, 2 pgs)
- 4.1.2 Email re: Formerly Used Defense Site (FUDS)
- 4.1.3 12/12/2016 Meeting: DAGS/DPS
- 4.1.4 1/24/2017 Interview: Eletech Hawai'i
- 4.1.5 1/24/2017 Interview: GMP Associates
- 4.1.6 1/25/2017 Interview: AECOM
- 4.1.7 1/30/2016 Meeting: DPP
- 4.1.8 2/1/2017 Meeting: WCF site visit
- 4.1.9 2/13/2017 Meeting: LUC
- 4.1.10 2/15/2017 Meeting: OP Land Use Development

#### 4.2 Appendix B: Correspondence Documents

- 4.2.1 5/5/2008 DLNR SHPD to DPS
- 4.2.2 12/12/2008 DLNR SHPD to DPS
- 4.2.3 6/5/2009 DPP to DAGS
- 4.2.4 7/14/2009 DAGS to DPP
- 4.2.5 3/4/2015 DPP to DPS
- 4.2.6 4/20/2015 DOH Safe Drinking Water to WCF
- 4.2.7 7/7/2015 USDOE to DPS
- 4.2.8 10/21/2015 DOH Safe Drinking Water to WCF
- 4.2.9 1/18/2016 DLNR SHPD to DPP
- 4.2.10 5/24/2016 DPS to DPP

#### 4.3 Appendix C: Engineering Reports & Studies (chronological)

#### 4.4 Appendix D: Building Permits + Approved Plans (available in a separate pdf)

#### 4.5 Appendix E: Aerial Photos (historic and current)

- 4.5.1 Photo 1968
- 4.5.2 Photo 1977

4.5.3 Photo 2016

**4.6 Appendix F: Plat Maps and Property Description**

4.6.1 Land Court Application 1000 Map 0030

4.6.2 Land Court Application 1000 Map 0348

4.6.3 Land Court Application 1000 Map 0513

4.6.4 Quitclaim Deed (not in file)

4.6.5 DAGS Metes and Bounds description

4.6.6 H.S.S. Plat 2192

4.6.7 Tax Map 9-6-5

4.6.8 Governor's Executive Order 3414

**4.7 Appendix G: Index of drawings available in DAGS vault**

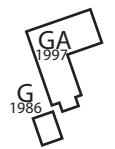
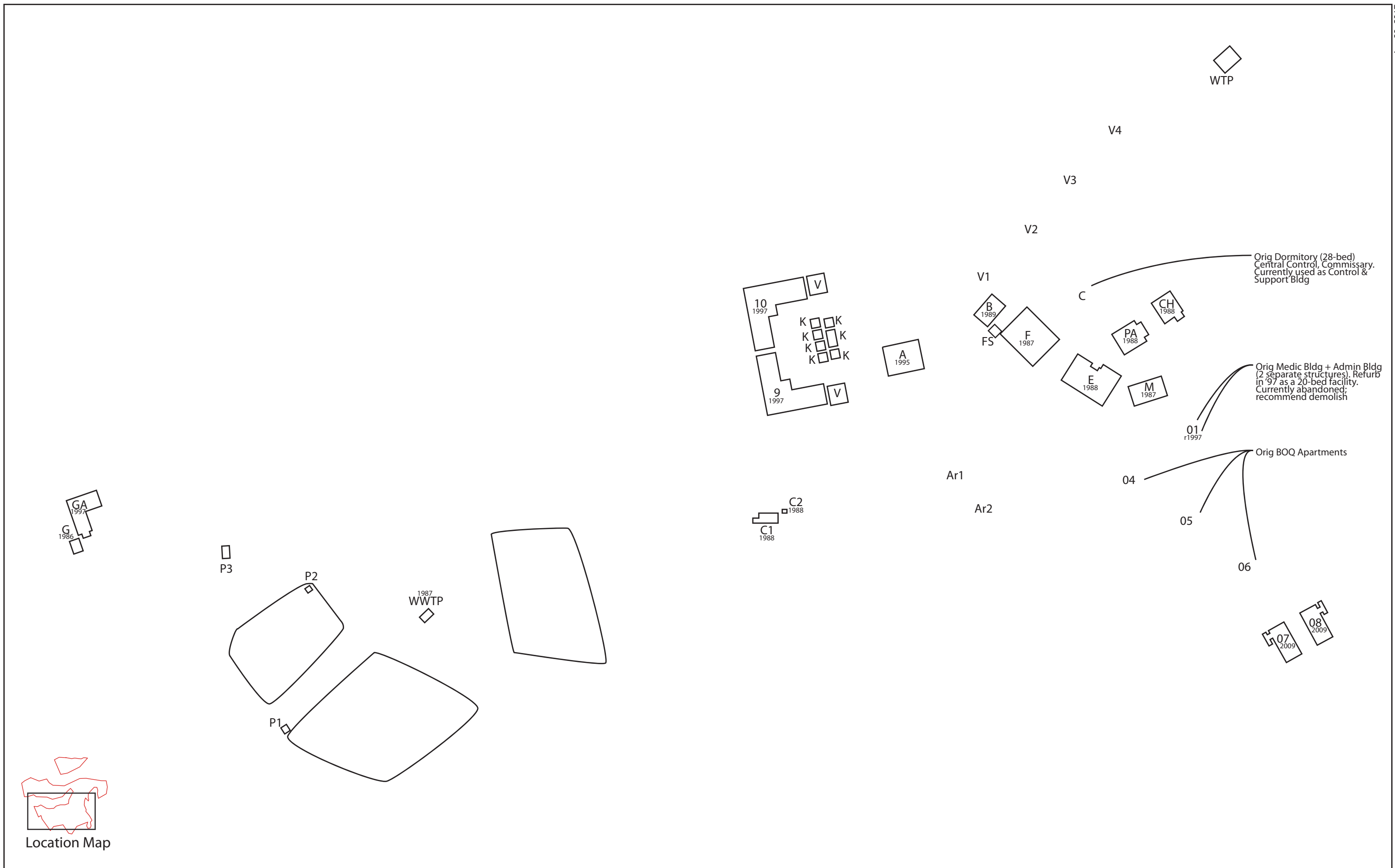
**4.8 Appendix H: HHF Proposal**

**Appendix A**  
**Meeting Records**

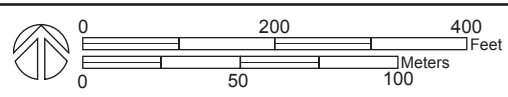
Date	Description
n/a	Conceptual Site Plan (11x17, 2 pgs)
12/12/2016	Email re: Formerly Used Defense Site (FUDS)
1/10/2017	Meeting: DAGS/DPS
1/24/2017	Interview: Electech Hawai'i
1/24/2017	Interview: GMP Associates
1/25/2017	Interview: AECOM
1/30/2016	Meeting: DPP
2/1/2017	Meeting: WCF site visit
2/13/2017	Meeting: LUC
2/15/2017	Meeting: OP Land Use Development

The attached Conceptual Site Plan (11x17, 2 pages) was shared and discussed with the following agencies: DAGS/DPS, DPP, WCF (site visit), LUC, and OP Land Use Development, as stated in the respective meeting records.

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Location Map

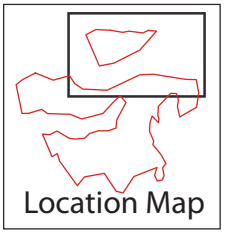


**LEGEND** FOR OFFICIAL USE ONLY

- Structure not in 1998 FEA (to be verified)
- 1998 FEA approved (includes year built)
- Original Military Structure (pre 1985)
- WCF boundary
- Zone of Hydrologic Contribution (approximate)
- Hydrological Feature (i.e. stream, Waiahole tunnel)

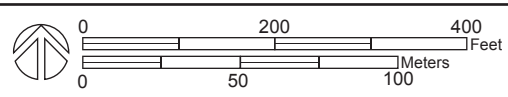


**CONCEPTUAL SITE PLAN**  
**(DRAFT - Not for Public Release)**  
 All facilities subject to field verification



Location Map

T2  
O  
P4  
□  
T1



**LEGEND**

- Structure not in 1998 FEA (to be verified)
- 1998 FEA approved (includes year built)
- WCF boundary
- A-4
- Original Military Structure (pre 1985)
- Zone of Hydrologic Contribution (approximate)
- Hydrological Feature (i.e. stream, Waiahole tunnel)

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## Questor Lau

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**From:** Takemoto, Helene CIV USARMY CEPOH (US) <Helene.Y.Takemoto@usace.army.mil>  
**Sent:** Monday, December 12, 2016 4:09 PM  
**To:** Questor Lau  
**Subject:** RE: Waiawa FUDS site

Questor,

The site was cleaned up many years ago under the FUDS program for PCBs in the tunnel. No further work is planned for the site.

Helene

-----Original Message-----

From: Questor Lau [mailto:qlau@hhf.com]  
Sent: Friday, December 09, 2016 5:32 PM  
To: Takemoto, Helene CIV USARMY CEPOH (US) <Helene.Y.Takemoto@usace.army.mil>  
Subject: [EXTERNAL] Waiawa FUDS site

Helene,

FUDS no. H09HI0353 is the current site of the state Waiawa Correctional Facility. I am gathering info/due diligence to see if the existing FUDS condition will affect a proposed state Special Use Permit (and subsequent county permits) for the Correctional Facility.

FUDS viewer states PCB contaminated debris (concrete and soil) exist on the site. Is there any cleanup work currently planned for that site? Are there any FUDS related restrictions that should be observed or limitations in the amount of work or new construction?

Attached is a map of the site showing that the entire property is within a FUDS site.

Respectfully submitted,

-Q  
Questor Lau, AIA  
Associate Planner & Architect



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<b>Date:</b>	Jan 10, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	8:30-10:00am	<b>Project Name:</b> Waiawa CF Entitlements
<b>Location:</b>	Kalanimoku Bldg, Rm 430	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Lance Maja (DAGS), Harold Alejandro (DPS) ATA: Kimo Unten, Proj Manager HHF: Tom Fee, Glenn Tadaki, Questor Lau (HHF PM)	

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Introductions were made and T. Fee circulated a copy of the tasks associated with the HHF's due diligence effort. L. Maja and H. Alejandro provided an overview of the facility and the need for the PRU and SUP permits. Notes from the discussion follow below.

1. Drawings of Existing Conditions

- 1.1. DAGS does not have plans of original military buildings. Records limited; plans of recent structures after site acquisition from the military avail as hardcopies. DAGS able to scan, if needed.
- 1.2. DPS does not have surveyed plot plans avail for WCF; ATA under contract to provide.
- 1.3. ATA has completed aerial photos; will be preparing site plans and inventorying buildings (including a facility count). Building corners will be site verified. ATA's site plan not avail until June/July 2017; facility inventory to follow at later date. Meanwhile, the 2014 DPS Strategic Development Plan by DLR Group (figure 1) is most recent building condition assessment avail.
- 1.4. Discussion that aerial photos show multiple buildings, some may be tear-down condition; which ones to keep? DPS said WCF Warden would make that determination.



2. Environmental/HRS 343

- 2.1. Infrastructure work that was issued building permits is exempt from EA/EIS, per DAGS HAR environmental review exemptions. All permitted work is repair and/or maintenance.
- 2.2. DAGS' position is that a new/supplemental EA/EIS is not required as there is no proposed change in capacity/use at this time.
- 2.3. Tom mentioned the City permit application process contemplates agencies asserting this and requires documentation to justify the finding.

3. DAGS Library

- 3.1. L. Maja noted that DAGS has a library of documents for each DPS facility; appointment to review docs must be made in advance.

4. Future Development Plans

- 4.1. Governor is funding additional prison capacity for DPS; to address overcrowding and return inmates from mainland. However, this should not impact WCF. DPS stated that no new inmate capacity is planned for WCF for the next 4 years.
- 4.2. DPS is considering several site relocation alternatives for OCCC and one of them is on land adjacent to Waiawa CF, however decision to select a new site for OCCC is at least a year away. If a Waiawa site is chosen, intent would be to consolidate back of house operations (inmate populations would remain separate) which would affect WCF and would require a separate new PRU/SUP for the new OCCC and perhaps a modification the WCF permits. It was decided that DPS would proceed with its PRU/SUP applications based on what it is current foreseeable and would deal with the OCCC issue if, and when, it arises under a mod or separate entitlement action.
- 4.3. DPS is budgeting for a corrections master plan update next FY. HHF was directed to reference the 2003 version (avail online) for this entitlement effort (figure 2).
- 4.4. Inmate count varies. DPS Statistician is George King. Can provide inmate population projections (through Harold).
- 4.5. DPS stated current planned work at WCF consists of repair/maintenance and infrastructure/new water tank.



5. Infrastructure

- 5.1. Wastewater: AECOM designed waste treatment lagoons.
- 5.2. Water: currently working on a new water tank. Contact: GMP, Kai Andrade. They would know details about tank sizing, domestic and fire demand and capacity requirements. Source of water is Waiāhole/Waiawa stream, surface water, treated onsite.
- 5.3. Infrastructure information is in a number of sources, prepared over a broad time period and needs to be a compiled/synthesized/updated to support permitting needs.

6. Relationship with Neighbors

- 6.1. Arson is a concern. Motorcycles are a nuisance.
- 6.2. T. Fee suggested that WCF's presence may be perceived as benefit to the community by discouraging mischief from occurring and helping to monitor the area.
- 6.3. Narrow roadway access is a concern. DPS said Kamehameha Schools or other private entity owns the road access and is responsible to maintain roadway. Road is poorly maintained.
- 6.4. WCF inmate escapes are rare.
- 6.5. T. Fee noted that DPS would need to brief the local Neighborhood Board on its PRU/SUP applications; will need to engage DPS/DAGS PIO to start laying the groundwork for that briefing.

7. Traffic

- 7.1. Traffic Study has never been done for the facility.
- 7.2. Discussion that DPP may require a baseline Traffic Study. Typically, it provides a reference for future traffic and construction management plans. If traffic is very light and not a concern, then a memo from a traffic engineer might suffice. T. Fee suggested the approach of having ATA traffic engineer liaise with DPP Traffic Review Branch (Mel Hirayama), to clarify what is required at the appropriate time.
- 7.3. Ka Uka Blvd Intersection is used by Kamehameha Schools, federal gov't, Mililani Memorial Park and WCF.

## 8. Cultural/Natural Resources

- 8.1. SHPD will review application. Discussion that they are becoming stricter and can require more information/surveys.
- 8.2. DPS stated there have been issues with gathering rights in the past (Cultural Surveys Hawai'i has knowledge of the area).
- 8.3. Potential for sensitive biological resources to be present exists until botanist survey the site and concludes otherwise. Need to review previous environmental studies to see what has already been done

## 9. Site Visit

- 9.1. Visitors will need to submit paperwork to Vernon Tanaka (onsite institutional facilities supervisor) requesting entry 1 to 1.5 weeks ahead of scheduled visit, to request clearance. Onsite escort is required.
- 9.2. Cell phones prohibited (lock in car). Cameras allowed. No photos of inmates or workers.
- 9.3. Beware of wild pigs.

## 10. DPP Status Update

- 10.1. DPS executed a consent decree with DPP to obtain PRU/SUP in 2009 and extended in 2014 till 2019. DPS needs to provide DPP with yearly status updates of progress. DPP (Tim Hiu) has warned that all building permits for all sites on O'ahu can be withheld if DPS does not comply.
- 10.2. T. Fee has contacted Acting Director Kathy Sokugawa to request a meeting.
- 10.3. New DPP Director will presumably take office in Feb 2017.
- 10.4. DPS requested HHF provide a timeline as part of due diligence effort.

## 11. Points of Contact (POC)

- 11.1. Vernon Tanaka – Institutions Facilities Superintendent
- 11.2. Scott Swift – Building Maintenance Manager
- 11.3. Sean Ornelas (?) – WCF Warden. Will be transferring to Halawa in next couple of months.
- 11.4. Toni Schwartz – Public Information Officer. T. Schwartz and L. Maja need to be involved in all public engagements.
- 11.5. ElecTech, Michael Magaoay – electrical engineering
- 11.6. GMP, Kai Andrade – water tank project

## 12. Action Items

- 12.1. HHF to confirm meeting with DPP.
- 12.2. DPP cannot meet on 1/18 or 1/20, alternatives dates are: Mon. 1/30 at 9:00 or 10:00 AM or Tue. 1/31 at 9:00 AM or 3:00 PM.
- 12.3. Kimo to check with ATA (Eric Kaneshiro) re: road ownership from site to Ka Uka Blvd – to clarify if there are any easement or right of way/access issues.



**HHF PLANNERS**  
places for people

**Project:** Waiawa CF Entitlements

**Date:** Jan 10, 2017

**Meeting with:** DAGS/DPS

**Time:** 8:30 to

**Location:** Kalanimoku Bldg, Rm 430

Name (First and Last)	Organization	Job Title	Phone	Email
Tom Fee	HHF	HHF Principal	808-457-3159	TFee@HHF.com
Questor Lau	HHF	Associate/Architect	808-457-3178	QLau@HHF.com
Glenn Tadaki	HHF	Planner	808-457-3179	GTadaki@HHF.com
<i>Kimio Unten</i>	<i>Austro, Tsutsumi &amp; Assoc.</i>	<i>Project Manager</i>	<i>808-533-3646</i>	<i>munten@atahawaii.com</i>
<i>Lance Mesh</i>	<i>DAGS - PB</i>	<i>Project Coordinator</i>	<i>808-586-0483</i>	<i>lance.y.mesh@hawaii.gov</i>
<i>Harold Alejandro</i>	<i>PSP/ASO</i>	<i>CIP Coordinator</i>	<i>808-587-1239</i>	<i>harold.b.alejandro@hawaii.gov</i>

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A-9

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<b>Date:</b>	Jan 24, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	~1:15-1:30pm	<b>Project Name:</b> Waiawa CF Entitlements
<b>Location:</b>	Phone call	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Michael Magaoay, Electric Engineer, Electech Hawai'i Questor Lau, HHF	

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Purpose is to gain a general understanding of work currently planned on the electrical system at Waiawa Correctional Facility (WCF) and any relevant background information available –drawings/reports.

1. Scope of Work at WCF
  - 1.1. Electech Hawai'i (ETH) provided a Basis of Design (see "Elec System Improvements" 1 pg description). Work generally includes replacement of the existing 200KW generator (manual power transfer switch) with a new 400KW, with automatic transfer switch.
  - 1.2. Construction is currently on going by Paul's Electric (construction should be done by the end of the 1<sup>st</sup> quarter of 2017).
2. 2005 Electric System Improvements Report by ETH
  - 2.1. ETH's 2005 report offered two recommendations to be reviewed by DPS (Dept. of Public Safety). DPS selected option #2 – replacement of the existing generator only.
  - 2.2. ETH estimated cost for this project was \$1,047,145 and the low bidder – Paul's Electric submitted their bid at \$917,700.00
3. Existing HECO Meter
  - 3.1. It is located on the property. Need to enter the front entrance security gate and the meter and pole is located near the abandoned storage facility (see attached pictures) on site.



Figure 1: Existing HECO meter is located on site, next to the abandoned storage bldg

WAIAWA CORRECTIONAL FACILITY- ELECTRICAL SYSTEM  
IMPROVEMENTS  
Waiawa, Oahu, Hawaii

**ELECTRICAL BASES OF DESIGN**

**REFERENCES**

Codes

- NFPA 70 National Electrical Code – 2011 Edition

**EXISTING CONDITIONS:**

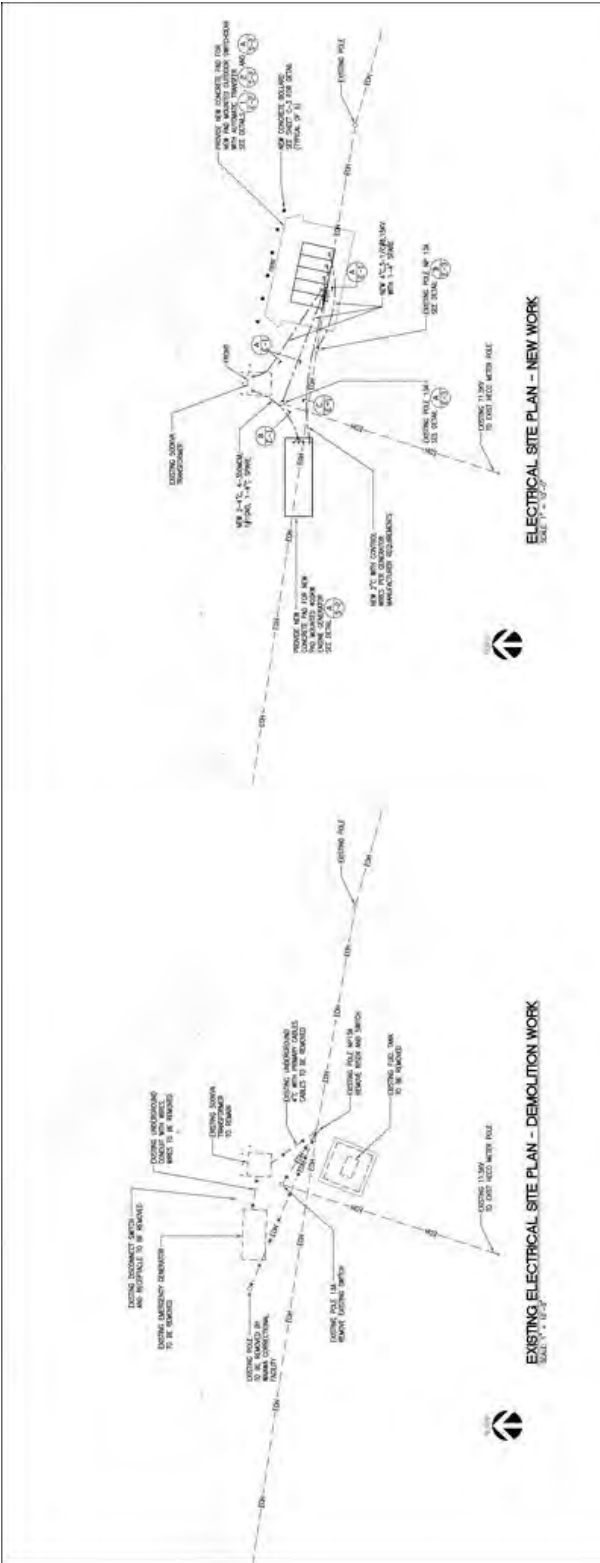
- There are two overhead switches on existing utility Poles 13A and NP13A that is Kirk key interlocked. These switches provide a manual transfer scheme that allows the system to be switched from HECO power to generator power and vice versa.
- There is an existing outdoor standby 200KW diesel engine-generator 480 volts, three phase, four wires & a 200 gallon diesel fuel tank located in a hollow tile containment enclosure adjacent to the generator. Also, an existing outdoor 500KVA pad mounted transformer 11.5KV primary & 480V secondary.

**DEMOLITION WORK**

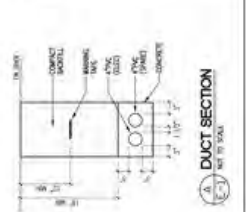
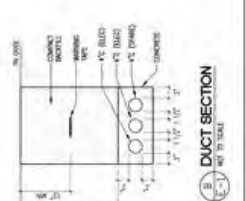
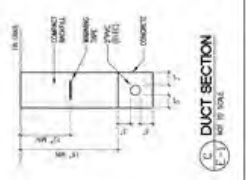
- Project to remove all existing electrical items including conduit, wiring and overhead items as required to accommodate the propose new construction.

**PROPOSED NEW WORK**

- Provide new 11.5KV outdoor primary switchgear with auto transfer switch with weatherproof enclosure. Mounted on a concrete pad with pipe stanchions around the enclosure.
- Replace existing 200KW and provide new 400KW diesel engine-generator with 72 hour fuel tank with weatherproof enclosure. Mounted on a concrete pad.
- Provide new primary and secondary feeders.
- Modify existing overhead lines at utility poles 13A and NP13A.



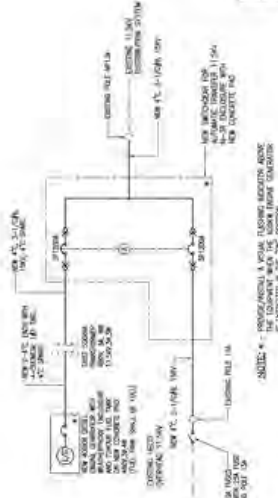
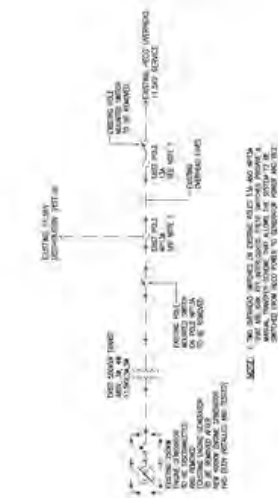
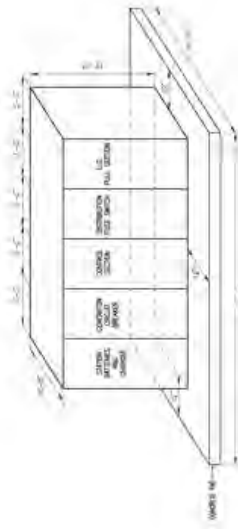
- #### ELECTRICAL SYMBOLS
- NEW ELECTRICAL SYMBOL TO BE REMOVED
  - NEW ELECTRICAL SYMBOL TO BE REMOVED
  - EXISTING SYMBOL TO REMAIN
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  - EXISTING SYMBOL TO BE REMOVED



PROJECT NO.	DATE	SCALE
DESIGNED BY	APPROVED BY	CHECKED BY
DRAWN BY		
DATE	SCALE	SHEET NO.
11-27-2024	AS SHOWN	E-1

### PHASING NOTES:

1. VERIFY ALL DATA CORRECT AND COMPLETE WITH APPROVED PROJECT AND APPROVED BY THE CONTRACTOR. VERIFY ALL DATA WITH THE CONTRACTOR AND THE OWNER.
  2. VERIFY ALL DATA CORRECT AND COMPLETE WITH APPROVED PROJECT AND APPROVED BY THE CONTRACTOR. VERIFY ALL DATA WITH THE CONTRACTOR AND THE OWNER.
  3. VERIFY ALL DATA CORRECT AND COMPLETE WITH APPROVED PROJECT AND APPROVED BY THE CONTRACTOR. VERIFY ALL DATA WITH THE CONTRACTOR AND THE OWNER.
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  3. VERIFY ALL DATA CORRECT AND COMPLETE WITH APPROVED PROJECT AND APPROVED BY THE CONTRACTOR. VERIFY ALL DATA WITH THE CONTRACTOR AND THE OWNER.



### SINGLE LINE DIAGRAM - NEW WORK

### SINGLE LINE DIAGRAM - DEMOLITION WORK

NO.	REVISION	DATE	BY	CHK'D BY
1	ISSUED FOR PERMIT	11/20/2014	LM	LM
2	REVISED PER 11/20/2014 MEETING	11/20/2014	LM	LM
3	REVISED PER 11/20/2014 MEETING	11/20/2014	LM	LM
4	REVISED PER 11/20/2014 MEETING	11/20/2014	LM	LM

PROJECT: WASHINGTON STATE UNIVERSITY, WASHINGTON STATE UNIVERSITY  
 FACILITY: WASHINGTON STATE UNIVERSITY, WASHINGTON STATE UNIVERSITY  
 ELECTRICAL SYSTEM APPROVALS  
 WASHINGTON STATE UNIVERSITY, WASHINGTON STATE UNIVERSITY  
 11/20/2014  
 E2  
 11/20/2014



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<b>Date:</b>	Jan 24, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	4:15-4:45pm	<b>Project Name:</b> Waiawa CF Entitlements
<b>Location:</b>	Phone call	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Kathleen Ganiko-Orlowski, GMP Associates, Inc. Questor Lau, HHF	

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Purpose is to gain a general understanding of work currently planned on the water system at Waiawa Correctional Facility (WCF) and any relevant background information available – Waiawa drawings/reports.

1. GMP's Scope of Work at WCF

- 1.1. GMP is awaiting DAGS/DPS approval of their design fee proposal (see also item 5.1).
- 1.2. Scope currently includes 3 areas: pump #6, water treatment building, and the existing 500,000 gallon above ground tank.
  - 1.2.1. **Pump #6** withdraws raw water from the Waiāhole Ditch. While the pump itself appeared to be in good condition, it is short-cycling and risks burn-out because the receiving tank (~2,000 gallons) is too small. GMP is recommending it be replaced with a larger tank. In discussions with WCF, they are considering repurposing an existing underground tank with about 92,000 gallon capacity to serve as the receiving tank<sup>1</sup>. See Figure 1.
  - 1.2.2. **Water Treatment Bldg** scope includes electrical upgrades to meet code, enclosing the structure to prevent ironwood pine leaves from damaging equipment, and adding a loading dock to assist with deliveries of chemicals used to treat raw water.
  - 1.2.3. **Water Tank** scope includes providing a new water tank and demolishing-in-place, the 500,000 gallon existing tank. Water supply must be maintained at all times. Tanks size is to be determined. According to GMP's calculations, tank size of 500,000 gallons should be adequate to provide domestic and fire water, adequate to service the most remote areas of the facility based on hazard classifications. During site investigation meetings, GMP was asked to consider upsizing the existing tank to 750,000 gallons. To date, GMP has not been able to identify a reference standard to confirm the size; the Honolulu Fire Department has not responded to GMP's request for information. GMP is not aware of fire sprinkler requirements at existing facility buildings and whether or not buildings are currently protected with a fire sprinkler system. According to GMP's preliminary calculations, there seems to be adequate capacity in a 500,000 gallon water tank to provide fire protection for the existing campus. The existing tank was relocated from a different site. The top 1/3 of the tank leaks. Pural Water Specialty Co., Inc. is under contract to maintain water quality, related equipment and to fill the tank.

<sup>1</sup> HHF: According to a 1989 Water System Study, "An underground storage tank and inoperative fire pump station are located across the road near Pump Station 7. The estimated capacity of the underground tank is 92,000 gallons and was used in the past for agricultural water storage."

2. Water quality
  - 2.1. GMP states they were not aware of any water quality issues at this time; Pural has not identified it as an issue.
3. Unused Facilities
  - 3.1. Q.Lau noted that the backwash basin/pond was previously used by the water treatment facility. GMP stated the backwash basin was no longer in use.
4. Water Allocation and Design Diversion Capacity
  - 4.1. A 2003 BWS report<sup>2</sup> stated the water design diversion capacity is 37.50 gpm (0.05mgd) with a permitted water allocation from the Waiāhole Ditch system of 0.15 mgd. At this time, GMP is not able to confirm accuracy of those amounts.
5. Status of Licenses and Permits (to operate the WCF Water System)
  - 5.1. GMP is not aware of the status of required permits or licenses for water usage from the Waiāhole Ditch.
6. GMP 2014 Preliminary Engineering Report (on water infrastructure)
  - 6.1. GMP's scope of work and fee has yet to be approved by the State. GMP was asked to provide a fee proposal for this work in 2014 -- that work did not get further than a kick-off meeting with end users to scope the work. GMP was asked to stop work on the project shortly thereafter, unfortunately no engineering report was generated.
7. Action Items
  - 7.1. GMP to send HHF: DOH correspondence re: tank sizing, including DOH water tank citation.
    - 7.1.1. **Complete:** HHF received two letters from DOH to DPS, dated 4/20/2015 re: Transmittal of Sanitary Survey Report (which included the 3/19/2015 Sanitary Survey) and letter dated 10/21/2015 re: Existing 0.5 MG Water Storage Tank.
  - 7.2. GMP to send a copy of their 2014 Preliminary Engineering Report on the water system.
    - 7.2.1. **Complete:** Report not available – see item 5.1.

<sup>2</sup> [http://files.hawaii.gov/dlnr/cwrm/planning/swpp2003\\_vol5\\_oahu.pdf](http://files.hawaii.gov/dlnr/cwrm/planning/swpp2003_vol5_oahu.pdf)

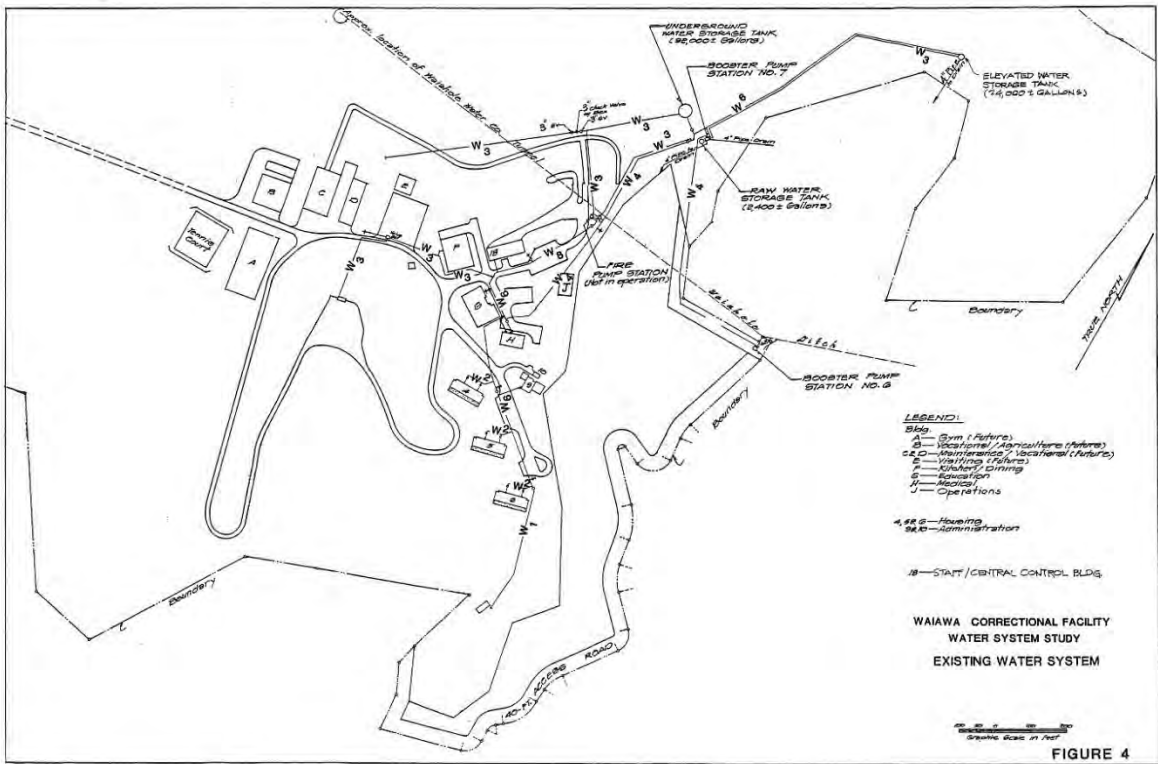


Figure 1: Water system circa 1989. “Boundary” shown on this map is not consistent with TMK boundary (Figure 2).

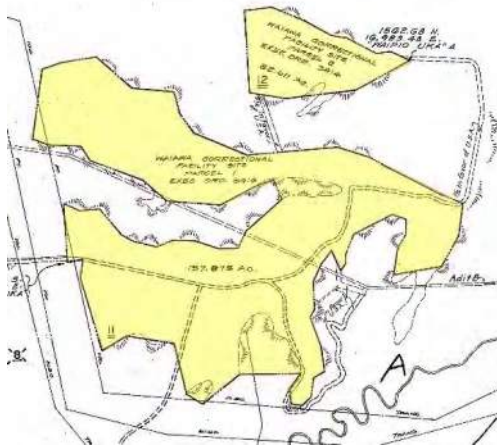


Figure 2: TMK boundary of site.



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
SAFE DRINKING WATER BRANCH  
919 ALA MOANA BLVD., ROOM 308  
HONOLULU, HI 96814-4920

In reply, please refer to:  
File: SDWB  
348G0415.docx

April 20, 2015

Mr. Scott Harrington  
Warden  
Waiawa Correctional Facility  
P.O. Box 1839  
Pearl City, Hawaii 96782

Dear Mr. Harrington:

SUBJECT: PUBLIC WATER SYSTEM NO. 348  
WAIAWA CORRECTIONAL FACILITY  
TRANSMITTAL OF SANITARY SURVEY REPORT

Thank you for the assistance and information provided during the sanitary survey inspection of the Waiawa Correctional Facility water system conducted on March 19, 2015.

My staff appreciated the assistance provided by Messrs. Walter Zaharevitz and Vernon Tanaka.

Enclosed is a copy of the Waiawa Correctional Facility sanitary survey report. A sanitary survey of a public water system is a periodic review of the system's facilities, operation and maintenance practices, and records to assure that proper conditions, policies, and practices are in effect for that water system. Maintaining of minimum standards of operation and maintenance is the responsibility of the operator.

Under the Hawaii Administrative Rules (HAR), Section 11-20-46.1(g), water systems with a "significant deficiency" are required to correct the deficiency or provide a written corrective plan of action and a completion schedule within 45 days of receiving written notice of the significant deficiency from the State.

Photo documentation of all corrected significant deficiencies is required as of January 1, 2014. The Safe Drinking Water Branch (SDWB) reserves the right to conduct follow up inspections as necessary.

Mr. Scott Harrington  
April 20, 2015  
Page 2

The Department of Health (DOH) also requests that the system review the "recommendations" (non-significant deficiencies) noted in the report, and provide written acknowledgement that they will address them in a timely manner, to the extent that resources and operations will allow. We strongly encourage the system to address "recommendations" as you would significant deficiencies to avoid related problems in the future. The DOH will be using this report's list of significant deficiencies and recommendations as a reference and benchmark for measuring system progress in future sanitary surveys.

If there are any questions, please call Ms. Joan Corrigan of the SDWB Engineering Section at 586-4258.

Sincerely,



JOANNA L. SETO, P.E., CHIEF  
Safe Drinking Water Branch

JC:cw

Enclosure

- c: Mr. Walter Zaharevitz, Waiawa Correctional Facility [via email: [Walter.B.Zaharevitz@hawaii.gov](mailto:Walter.B.Zaharevitz@hawaii.gov)]
- Mr. Vernon Tanaka, Waiawa Correctional Facility [via email: [Vernon.M.Tanaka@hawaii.gov](mailto:Vernon.M.Tanaka@hawaii.gov)]
- Ms. Maleeya Machado, Pural Water Specialty Co. [via email: [maleeyah.machado@puralwater.com](mailto:maleeyah.machado@puralwater.com)]
- Mr. Kaipo Fukumoto, Pural Water Specialty Co. [via email: [kaipo.fukumoto@puralwater.com](mailto:kaipo.fukumoto@puralwater.com)]
- Mr. Ian Ichimura, Pural Water Specialty Co. [via email: [ian.ichimura@puralwater.com](mailto:ian.ichimura@puralwater.com)]

SANITARY SURVEY OF THE  
WAIAWA CORRECTIONAL FACILITY WATER SYSTEM (PWS 348)

The Safe Drinking Water Branch (SDWB) conducted a sanitary survey of the Waiawa Correctional Facility (WCF) system on March 19, 2015. The system is owned by the State of Hawaii Department of Public Safety.

The inspection was conducted by SDWB staff Ms. Joan Corrigan, and Messrs. Michael Miyahira and Zhaohui Wang. The water system was represented by Ms. Maleeyah Machado, and Messrs. Kaipo Fukumoto and Ian Ichimura of Pural Water Specialty Company, Inc. and Messrs. Walter Zaharevitz and Vernon Tanaka of the WCF operations staff.

The survey took approximately 1.5 hours.

SYSTEM DESCRIPTION AND FLOW

The Waiawa Correctional Facility water system is a community public water system with a total of 12 service connections and a service population of 334 (SDWB System Information Inventory). System infrastructure consists of a piped intake off Waiahole Ditch to a raw head tank; three 30 gpm Memcor microfiltration water treatment units; 500,000 gallon riveted steel finished water tank; and distribution system with pipe sizes ranging from 1-inch to 8-inches in diameter. Average finished water demand is estimated at 40,000 gpd.

Waiahole Ditch Intake and Booster Station

The Waiahole Ditch is the sole drinking water source for the WCF system. The ditch's source is derived from a combination of high level dike water and surface water from localized channels on the windward side of Oahu, primarily in the Waiahole, Waikane and Kahana areas. A smaller volume of flow is obtained from various surface water and tunnel sources on the upper leeward side of the Koolau mountain range. The total contributing area of these windward and leeward sources is estimated to be 6 square miles, or approximately 3,800 acres. Gaging stations along Waiahole Ditch have recorded historical high and low flows of 75 mgd and 15 mgd in past years.

A large pipe has been installed in the last month or so to direct the water from the source.

The intake location (~185' elevation) diverts ditch water using two 4-inch pipes which feed dual 160 gpm SHIPCO booster pumps housed in a nearby pump station structure. The Waiahole Ditch at the intake consists of an aged, open, concrete channel that passes across a heavily forested ravine. Runoff from rainfall flows down the ravine and crosses the Waiahole Ditch channel structure. A worn sheet metal flume carries the runoff over the Waiahole Ditch and discharges the runoff just past the concrete channel. PVC intake pipes draw the water out of the channel.

The pump station consists of a CMU building that has recently been repainted and cleaned out. The gulch in front of the station has been deepened to compensate for the sediment and other vegetation that builds up and may cause the gulch to overflow and possibly flood the pump house. The pump motors are particularly vulnerable to water damage since they are mounted on the concrete floor slab. The small wood bridge to cross the ravine was rotten so it has been removed.

Raw ditch water is pumped uphill to a 2,400 gallon head tank (~365' elevation) located just north of the WCF main building complex. Three 40 gpm booster pumps provide the necessary inlet feed pressure for the nearby microfiltration membranes.

### Microfiltration Plant

The treatment plant site consists of simple overhead structure with no walls to house the microfiltration units, air backwash system, emergency generator, chlorination system, membrane cleaning chemicals, control panels and regulatory monitoring equipment and alarms. The entire site is secured with chain link fencing topped with three strand barbed wire. Entry is through a locked, double swing gate. "Keep Out" and "Water Treatment Plant" signs are posted on the outside of the chain link fence. Unauthorized entry does not appear to be an issue at the plant since it is located within a secured State correctional facility.

The existing Memcor continuous microfiltration (CMF) plant (3 units @ 30 gpm Memcor 40M10C polypropylene membranes) was originally installed in November 1997. Its membranes have last been replaced in 2014. The three units are run two at a time at a rate of 20 gpm each, rotating weekly. An Allen Bradley programmable logic controller (PLC) unit is provided for each CMF unit to control the electrical and pneumatic systems needed to operate the filters.

The 40M10C modules utilize 0.2 micron hollow fine fiber technology made of polypropylene to treat raw water. The individual lumens work from an outside-in, dead-end mode at a normal feed pressure of 30 psi. The lumens are backwashed with compressed air from the inside-out every 45 minutes or when the pressure drops to 15 psi, depending on the quality of water. Pressure decay tests are performed automatically every day, while a CIP is done quarterly. CIPs utilize a 2% Memclean (NaOH) solution. The finished water is conveyed up the hill to the 500,000 gallon clearwell/storage tank.

Disinfection is achieved using sodium hypochlorite (Hypochlor NaOCl). A Unichlor feed pump injects the chlorine solution directly into the line downstream of the finished water booster pumps. Chlorine injection levels are manually set by the operator on a daily basis with the purpose of achieving a residual of about 0.5 ppm at the entry point (EP) to the distribution system. The monitoring point for Cl<sub>2</sub> Analyzer #1 is after the chlorine feed line from the booster pump to the 500,000 gallon finish water tank and for Cl<sub>2</sub> Analyzer #2 the monitoring point is at the treatment plant in the main distribution line

coming down from the finish water tank.

At the time of the sanitary survey the raw water turbidity was 0.21 NTU. The water turbidity for Filter No. 1 was 0.037 NTU, for Filter No. 2, 0.054 and for Filter No. 3, 0.063 NTU. These values are well below the 0.3 NTU upper limit for 95% of the turbidity values reported for CT. Turbidity was measured using Hach continuous monitoring turbidimeters.

Although the Memcor units are protected with removable plastic panels, it would be advisable to house these units in a fully enclosed building. Wet areas on the concrete slab were observed which indicated that there was some minor leaking occurring in the piping.

There was a copy of the Emergency Response Plan, MSDS sheets and operations logbook at the treatment plant

A 35 kW emergency generator is available to run the water system during power outages. It is tested weekly.

#### 500,000 Gallon Finished Water Tank

This tank serves two main purposes in the system: storage for domestic and fire demands and contact time volume for CT inactivation. The 500,000 gallon storage volume is more than adequate to handle the expected daily demand of 40,000 gpd and to continuously maintain a minimum 300,000 gallons of fire protection storage. The tank also serves as a clearwell to achieve the required chlorine contact time under the Surface Water Treatment Rule. Monthly CT calculations submitted by the system are usually satisfactory. A SDWB-approved baffle factor of 0.3 is included in the calculations.

There is no security fence visible around the tank site but security does not appear to be an issue due to its location at a State correctional facility. Access to the top of the tank is via extension ladder.

The top of the roof shows a lot of rust and some areas have formed rust blisters.

As noted in previous surveys, the tank hatch is severely rusted. The lock connection and hinges have rusted off so full removal of the hatch cover can be achieved without opening the lock. There is inadequate gasket protection and the curb has large holes from rusting all the way through. The ladder is also rusting. The rust is causing the paint to peel off and some pieces end up falling into the clearwell. There are rust spots throughout the interior of the tank at the riveted joints.

The air vent is significantly rusted and in need of a cover over the insect screen to prevent rainwater from entering the tank.



There were numerous water stains on the outside of the tank from leaking at the joints.

There are plans to construct a new finished water tank near the existing tank. It has yet to be determined whether or not the existing tank will remain in service for fire protection.

Because the treatment plant is only operated on weekdays and shut down over the weekend, tank operating levels fluctuate between 16'-18' (low water level on Monday morning) and 23' (high water level on Friday afternoon). The treatment plant may operate on the weekends if a rain storm is anticipated or if a fire occurs in the area. The treatment plant is operated so that end-of-day tank levels rise approximately one foot every weekday in order to reach the Friday high water level. A Magnetrol 341 ultrasonic, non-contact tank level sensing system was operating but does not control the tank level or treatment plant operation. It is used instead by the operators to read morning tank levels and to determine whether the WTP output needs to be adjusted.

A covered monitoring station adjacent to the tank was reading compliance parameters (flow, tank level, pH, temperature, chlorine residual and turbidity) off the outlet line. Instrumentation is calibrated monthly. The instrumentation is housed in a steel box enclosure. There is a rubber gasket around the doors for the enclosure and the doors appear to close fairly tightly. The instrumentation consisted of a Controlotron System 1010 Multifunction Ultrasonic Flowmeter, Aquatrec Multiflex Control Automation datalogger, Hach 1720D turbidimeter, Hach Aquatrend SOM, Hach Power Supply network Connection Module, Capital Controls Model 1770 Chlorine Residual Analyzer and temperature and pH displays. At the time of the sanitary survey the flow was 35.09 gpm, pH 7.5, temperature 75.9 degrees F, chlorine residual 0.22 mg/l, and turbidity 0.027 NTU. Data is logged every 2 seconds and stored on a memory card. The information is downloaded every 2 weeks to a laptop by Pural.

### Distribution System

Main sizes in the distribution system vary from 1-inch to 8-inches in diameter and may be on the small side during fire flows, but appear to be adequate under normal max/min system demands. Pipe materials are unknown.

### MONITORING:

Coliform Monitoring Program: *Satisfactory.*

Lead and Copper Monitoring Program: *Satisfactory.*

Chemical Monitoring: *Satisfactory.*

Phase II and Phase V Monitoring Program: *Satisfactory.*

Microbiological Water Quality: *Satisfactory.*

Consumer Confidence Reports: Satisfactory.

Surface Water Treatment Rule: Satisfactory.

## CAPACITY ASSESSMENT

This section compiles data for SDWB use.

### TECHNICAL

1. OPERATOR CERTIFICATION. Each public water system (except transient, non-community) shall be under the responsible charge of an operator(s) holding a valid certification equal to or greater than the classification of the WTP or DS. Check whether the water system operators are certified. Assess as satisfactory or unsatisfactory.

*Satisfactory*

2. ADEQUATE WATER SOURCES. Discuss with manager whether the present water sources are adequate for the future (next 5 years). Assess as satisfactory or unsatisfactory.

*Satisfactory*

3. POTENTIAL FOR CONTAMINATION OF THE WATER. Inspect for pathways that could contaminate the finished water at the well site, storage tanks, or distribution system. Assess as satisfactory or unsatisfactory.

*Unsatisfactory. The existing access hatch should be repaired / replaced. All holes and rusting should be remedied to prevent contaminants from entering the tank. The air vent should have a cover over the insect screen to prevent rainwater from entering the tank.*

4. MONITORING PROGRAMS. Check water quality monitoring performance. This evaluation is reported in the Monitoring section of the Sanitary Survey Report. Assess as satisfactory or unsatisfactory.

*Satisfactory*

5. BACKFLOW AND CROSS-CONNECTIONS. Check whether backflow prevention devices are used if the water system serves hospitals, farms, golf courses, sewage treatment plants, or other activities that could cause a backflow of contamination into the drinking water. Look for cross-connections with the drinking water system. Assess as satisfactory or unsatisfactory.

*Satisfactory*

## MANAGERIAL

1. CAPITAL IMPROVEMENT PROJECTS. Identify improvements to the water system and include the month and year the improvement was installed. The facility improvements indicates management support of the water system needs. If no improvements are noted indicate whether the existing system is adequate.

*Satisfactory*

2. SYSTEM MAINTENANCE. The overall condition of the water system's infrastructure should be assessed. Is the present maintenance level adequate for the water system? Assess as satisfactory or unsatisfactory.

*Satisfactory*

3. EMERGENCY PLANS. Check whether the water system has an emergency plan. The plan should include obtaining backup sources of water in drought situations, loss of a well pump or extended loss of electrical power. Assess as satisfactory or unsatisfactory.

*Satisfactory*

4. CORRECTION OF PROBLEMS. The water system should have plans to correct obvious significant problems noted during the survey. The water system should also have corrected earlier identified significant problem(s) in a timely fashion. Assess as satisfactory or unsatisfactory.

*Unsatisfactory. The problem of the deteriorated roof hatch at the finish water tank was identified since the 2006 sanitary survey and has still not been corrected.*

## FINANCIAL

1. ADEQUATE FINANCIAL BUDGETS. Discuss whether funding levels for operation and maintenance are sufficient. Is there funding for capital improvement projects? Assess as satisfactory or unsatisfactory.

*Satisfactory.*

2. Normal operation and maintenance

*Satisfactory.*

3. Capital improvement projects.  
*Satisfactory.*

SIGNIFICANT DEFICIENCY:

**Surface Water or Subpart H systems:**

Under the Hawaii Administrative Rules, Title 11, Chapter 20, Section 11-20-46.1(g), water systems with a “**significant deficiency**” are required to correct the deficiency or provide a written corrective plan of action and a completion schedule within 45 days of receiving written notice of the significant deficiency from the State. Failure to correct the deficiency or provide a timely plan of action and schedule within 45 days of receiving written notice of the significant deficiency from the State, will subject the water system to penalties of not more than \$25,000 per violation per day under HRS 340E-8.

**Clearwell/Storage Tank**

1. **The deteriorated roof hatch curb, doors and hinges should be repaired/refurbished or replaced. The door should include a rubber gasket and lock to provide a seal against the entry of insects and contaminants.**
2. **The air vent should have a cover installed over the insect screen to prevent rainwater from entering the tank.**

RECOMMENDATIONS:

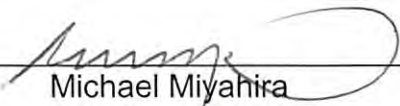
1. Provide a fully enclosed building structure for the water treatment plant. This will better shield the water treatment plant and instrumentation from the weather and extend the longevity of the infrastructure.
2. Recommend tying the tank level control system to the on-off operation of the WTP in order to maintain a more consistent tank level. If not done, the tank volume used in daily CT calculations must be derived from a daily, manual tank level reading at peak hourly flow.
3. There is significant leaking at the tank seams and the gravel foundations seems unstable, causing the tank to slightly lean and bulge towards one side. Recommend fixing the leaks, obtaining a structural analysis and possibly strengthening the foundation support, especially if this tank will continue to be in use after the new tank is constructed.
4. The top of the tank is rusted and rust blisters have formed in various areas. Recommend cleaning off rust and repainting to prevent the blisters from rusting all the way through and creating holes into the tank.

OTHER COMMENTS:

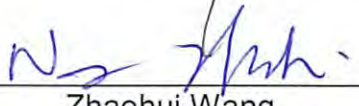
Membrane replacement occurred in 2014: the SDWB requires documentation of these replacement actions including: who did the replacement work, membrane manufacturer, model, membrane specifications, and number of modules replaced.

  
\_\_\_\_\_  
Joan Corrigan

4/20/15  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Michael Miyahira

4/20/15  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Zhaohui Wang

4/20/15  
\_\_\_\_\_  
Date



Metal flume diverting water from Waiahole Ditch to the intake.



Metal flume diverting water from Waiahole Ditch to the intake.



Water system intake.



Pump station.



Pumps that boost water to the head tank.



Head tank next to the water treatment plant.





Access hatch on the raw water head tank, properly sealed with gasket and overhang.



Air vent on head tank properly screened and downturned.



Influent line to the raw water tank.



Three booster pumps to run water from the head tank to the water treatment plant.



Water treatment plant.



35kW generator for backup power.



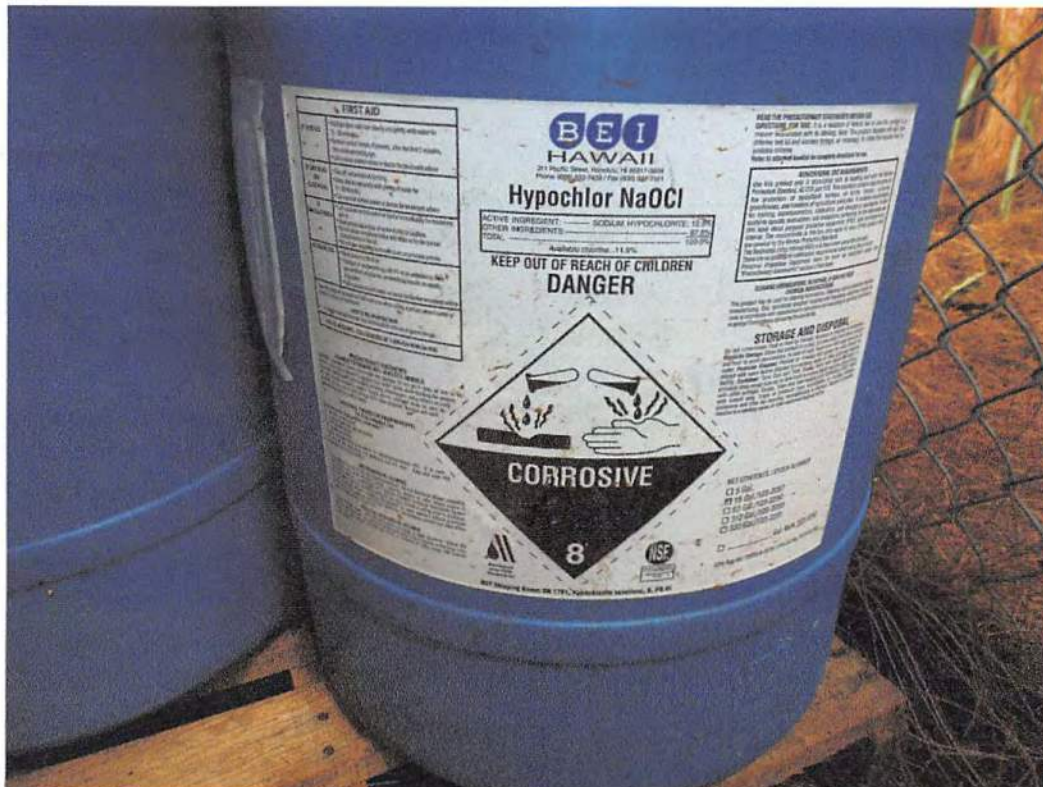
Three Memcor microfiltration units, exposed to the elements without proper enclosure.



Sodium Hydroxide solution used to clean microfiltration units (performed quarterly).



Hypochlor barrel for on-site disinfection.



Label for disinfection chemical.



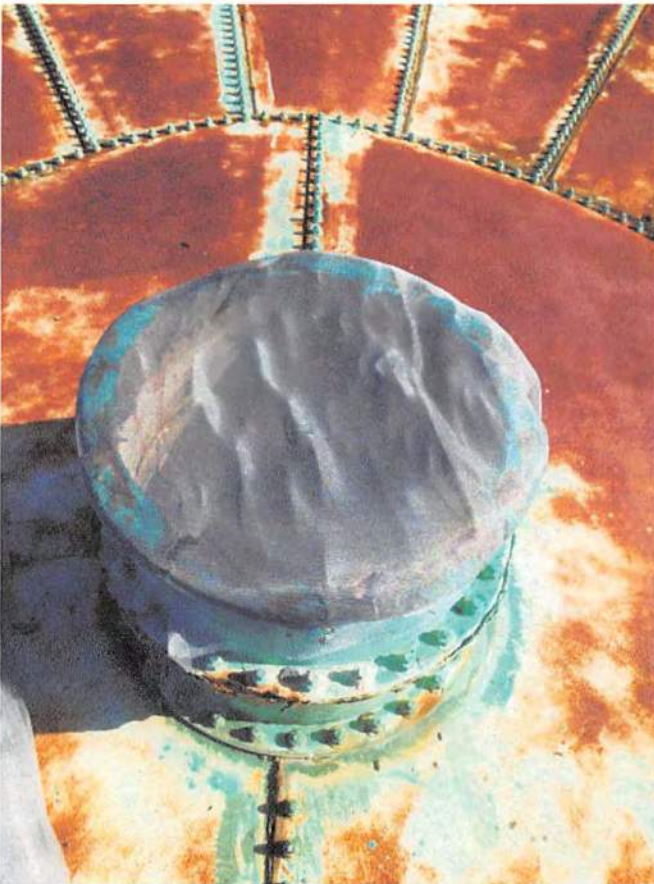
Turbidity monitors at water treatment plant.



Monitors in an enclosure at the clearwell site.



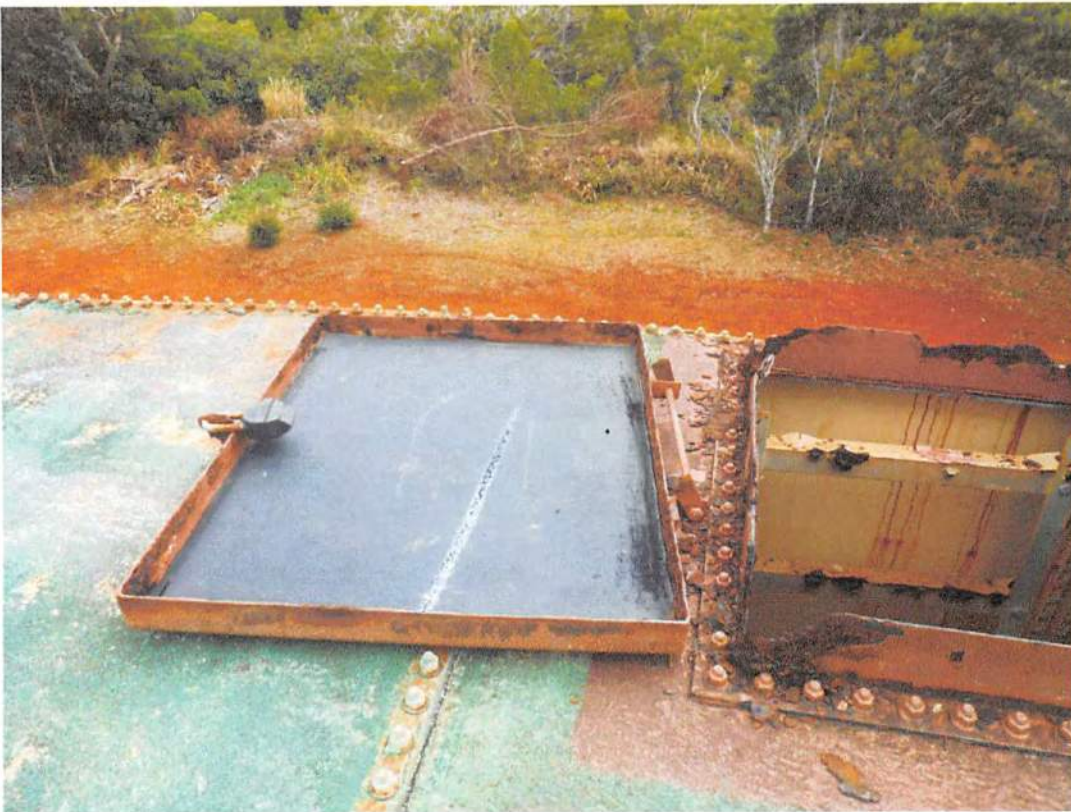
The clearwell is leaking significantly at the joints.



Air vent has a new screen but needs a cover to prevent rainwater from entering the tank.



The clearwell roof is very rusty and blisters have begun to form.



The access hatch needs to be replaced / repaired / refurbished to fix the deficiencies caused by excessive rusting (holes in the curb, hinges and lock that have rusted off, and inadequate gasket)

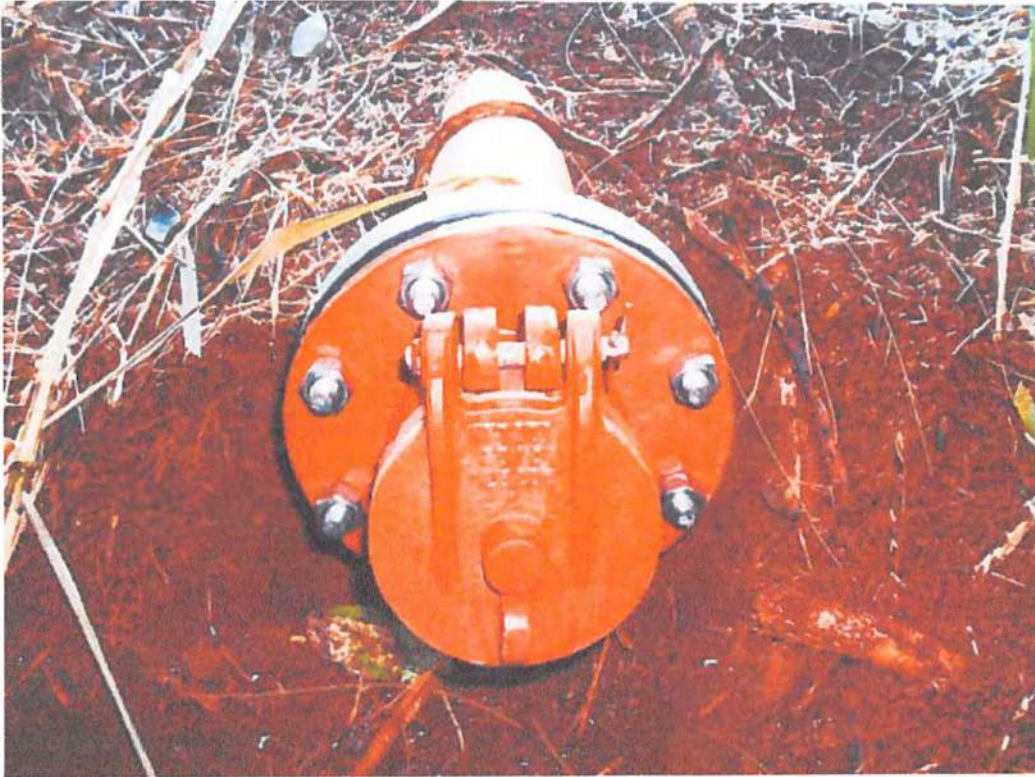




The ladder leading into the tank from the access hatch is rusty and peeling paint has been falling into the water.



There is particulate in the water, most likely the paint that has been falling off the ladder and access hatch due to rust.



The clearwell overflow / drain line is in good condition.



**STATE OF HAWAII  
DEPARTMENT OF HEALTH  
SAFE DRINKING WATER BRANCH  
919 ALA MOANA BLVD., ROOM 308  
HONOLULU, HI 96814-4920**

In reply, please refer to:  
File: SDWB  
34811015.docx

October 21, 2015

Mr. Vernon Tanaka  
Facility Superintendent  
Waiawa Correctional Facility  
P.O. Box 1839  
Pearl City, HI 96782

Dear Mr. Tanaka:

**SUBJECT: PUBLIC WATER SYSTEM NO. 348  
WAIAWA CORRECTIONAL FACILITY (WCF)  
EXISTING 0.5 MG WATER STORAGE TANK**

Thank you for the May 28, 2015 WCF response to our April 20, 2015 Safe Drinking Water Branch (SDWB) Sanitary Survey Report. We appreciate the quick WCF action in addressing the significant deficiencies in our report. However, we wish to reiterate our concerns for the short and long term structural integrity of the sole storage tank serving the WCF system, and its potential impacts to both the supply and quality of drinking water to your consumers.

In our report, we mention that, "There is significant leaking at the tank seams and the gravel foundations seems unstable, causing the tank to slightly lean and bulge towards one side." This problem has been observed by the SDWB since the 2006 sanitary survey and the tank has deteriorated significantly since then.

Since there has been no known structural analysis of the tank and its foundation, it can only be assumed that it is only a matter of time until the tank fails and breaks down completely, posing a significant health and safety hazard to staff and inmates. If the existing tank continues to be in service, the extreme deterioration may allow pathways for contaminants to enter the tank and cause illness. There is also concern that since the tank is leaning and bulging to one side, the tank support is greatly compromised and could give way. This could result in dire consequences should such a catastrophic failure occur while the existing tank is in service. Therefore, the SDWB strongly recommends that the tank be replaced immediately.

Mr. Vernon Tanaka  
October 21, 2015  
Page 2

If there are any questions, please call me at 586-4258.

Sincerely,



JOANNA L. SETO, P.E., CHIEF  
Safe Drinking Water Branch

JC:cw

---

<b>Date:</b>	Jan 25, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	1:30-2:00pm	<b>Project Name:</b> Waiawa CF Entitlements
<b>Location:</b>	Phone call	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Lambert Yamashita, Senior Project Manager, AECOM Questor Lau, HHF	

---

Purpose is to gain a general understanding of the wastewater system at Waiawa Correctional Facility (WCF) and any relevant background information available.

1. AECOM's Scope of Work at WCF

- 1.1. AECOM's involvement with PSD and DAGS for this facility was limited to the replacement of the liners for the two lagoons that currently serves this facility. Other items on the punch list from DOH were handled by either WCF staff or the IWS operator – Aqua Engineers – i.e. grease trap and chlorinator upgrades, repairs to the “Green Monster” (the existing package waste treatment system).
- 1.2. In 2005, wastewater engineers were told that WCF was going to be shut down and relocated and to focus on short term solutions. Around that time, DOH had issued several deficiency notices to WCF related to the wastewater system. State funding has been piecemeal over the years, which has delayed design and implementation.
- 1.3. Several wastewater configurations were discussed in a 2005 report,<sup>1</sup> including replacing the package plant, getting rid of the lagoons, and upgrading the system to R-1, which would have allowed WCF to use reclaimed water on a wider variety of crops, i.e., leafy green-type vegetables for human consumption. Currently R-2 water is used only at the northern portion of the main site, to irrigate pine trees used by the City and orange trees (Figure 1 – information needs to be verified by WCF staff). Ultimately the decision was made to forego system upgrades and simply replace the pond liner.
- 1.4. In 2005 there was discussion about primary power being unreliable (frequent power outages) and the need to have consistent power via an operational backup generator on site. Electric upgrades were not in AECOM's scope. (See ElecTech 1/24/2017 Meeting Record re: generator).

2. Current Status of IWS

- 2.1. The pond liner was completed and final inspection occurred about 9 months ago.
- 2.2. For information about effluent monitoring, status of current licenses and permits and how other items on the DOH deficiency list were addressed (i.e., grease-interceptor upgrade), L. Yamashita suggested this writer speak with WCF staff and the contractor hired to maintain the system – Aqua Engineers.

<sup>1</sup> Preliminary Engineering Report for WCF Facility Wastewater System Improvements (Final) by M&E Pacific for the State of Hawai'i DAGS, 2005.

- 2.3. The 2005 report is the latest wastewater report and accurately reflects the current wastewater system. Wastewater from WCF flows to the green monster (which is basically acting as filtration unit), then to the hyacinth pond to remove nutrients and then it gets chlorinated. The adjacent lagoon is used to store R-2 water. R-2 water is also pumped up to a 24,000 gal tank and is used to irrigate trees/crops at the northern portion of the site (figure 1). There is a backup generator (may not be operational) located in the vicinity of the Green Monster. The crops grown at the southern portion, next to the guard house, are supplied with potable water (figure 1).
- 2.4. The current IWS has sufficient capacity to accommodate the existing population at WCF.

3. Hydrologic Zone of Contribution (HZC)

- 3.1. Map delineating the HZC was created decades ago. AECOM referenced topography and benchmarks shown on that map to approximate the location of the HZC “cone” and superimpose the outline over WCF. According to this method, AECOM says some WCF structures and most of the areas under agricultural cultivation were not within the HZC. DOH – Clean Water Branch monitors and regulates the HZC but did not express concerns during permit processing. DOH did not impose any special requirements during the 2015 pond liner replacement project or require any decontamination/clean-up activities related to known leaks in the previous liner or previous/abandoned unlined lagoon (west of the existing lagoons).

Action Items

- 3.2. As a follow-up to the meeting, HHF noted that the Hydrologic Zone of Contribution (HZC) shown in the 1997 FEA (figure 2) overlaps a substantial part of WCF, including a portion of the new hyacinth lagoon and agricultural areas. HHF requested AECOM’s assistance to help identify correct source document that defines HZC and approximate location of HZC, relative to Waiawa Correctional Facility (WCF) boundary.
  - 3.2.1. Update 1/27/2017: Lambert provided a copy of the original document defining the HZC: *Report to the Office of State Planning by the Dept of Health Safe Drinking Water Branch on the Delineation of the Hydrologic Zone of Contribution for the U.S. Navy Waiawa Shaft, revised September 1990*, which consists of 14 pages, including maps. However, confirmation of the location of the Hydrologic Zone of Contribution was not included as a part of AECOM’s scope of work, so this topic of discussion cannot be confirmed or rejected by AECOM. Based on the original document, HHF generated Figure 3, which shows the HZC further east than the 1998 FEA (figure 2). **The location of the HZC should be confirmed by the Authority Having Jurisdiction to verify its position relative to WCF.**

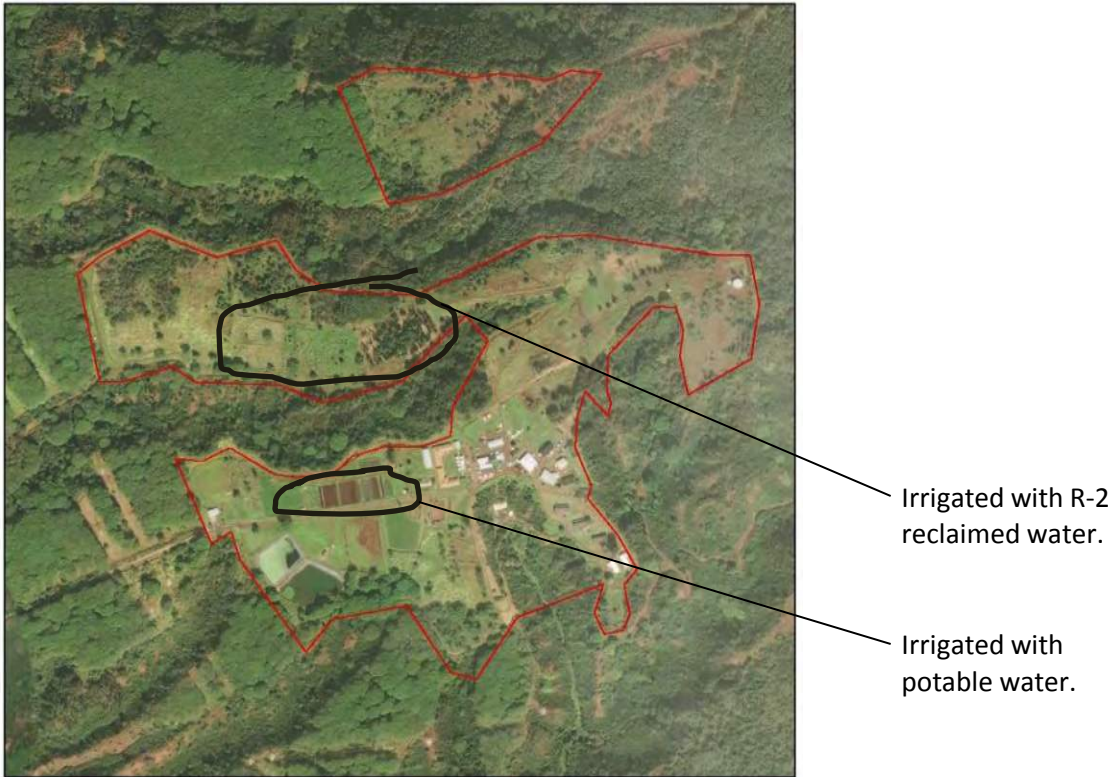


Figure 1: Crops have different sources of irrigation, as noted in callouts. Information needs to be verified by WCF staff.

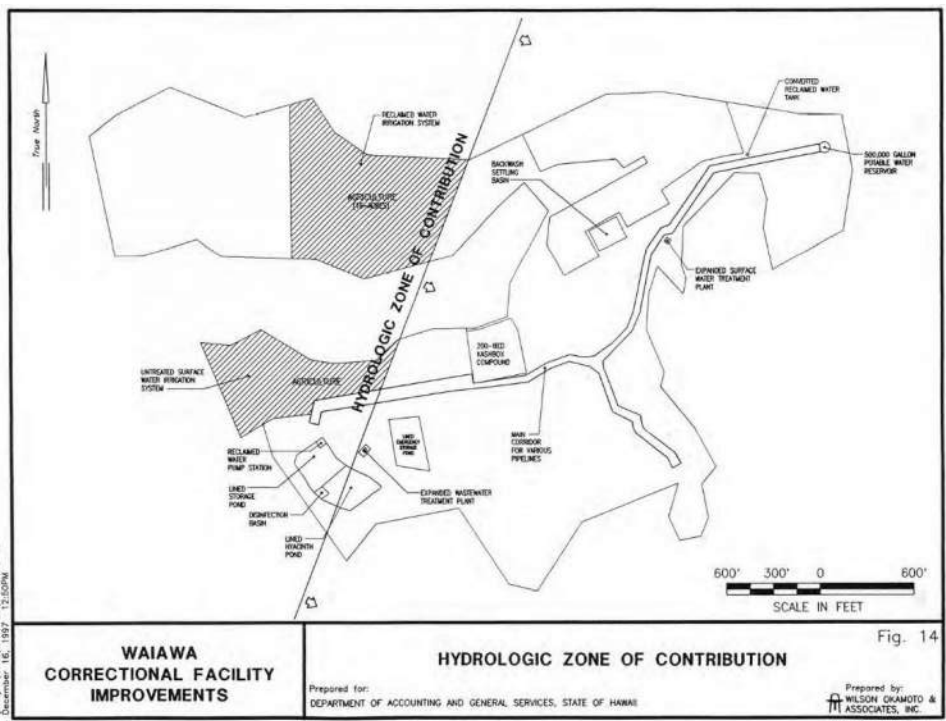


Figure 2: The 2007 FEA for Waiawa Correctional Facility shows the Hydrologic Zone of Contribution overlaps a substantial portion of WCF.

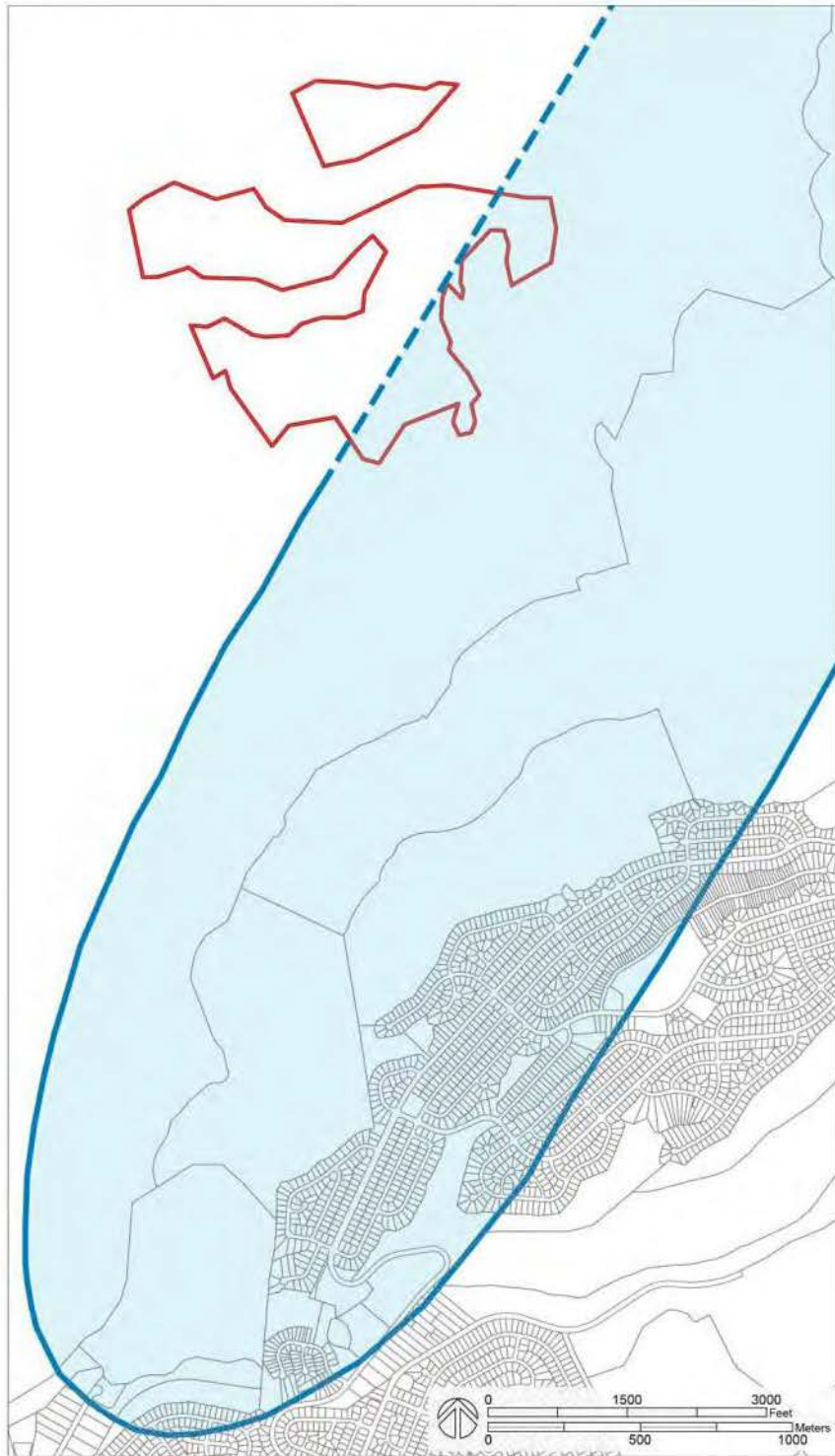


Figure 3: Estimated Hydrologic Zone of Contribution, located by HHF based on maps contained in: *Report to the Office of State Planning by the Department of Health Safe Drinking Water Branch on the Delineation of the Hydrologic Zone of Contribution for the U.S. Navy Waiawa Shaft, revised September 1990*. HHF superimposed the H2C over regulatory parcels. Overlap of H2C and the WCF boundary was not shown on the original map and is approximated with a dashed line.



**REPORT TO THE OFFICE OF STATE PLANNING**

**BY THE**

**THE DEPARTMENT OF HEALTH  
SAFE DRINKING WATER BRANCH**

**ON THE**

**DELINEATION OF THE HYDROLOGIC ZONE OF CONTRIBUTION  
FOR THE U. S. NAVY WAIAWA SHAFT**

**REVISED SEPTEMBER 1990**

FOR OFFICIAL USE ONLY

A-46

0290 A-5

STUDY TO DELINEATE THE ZONE OF CONTRIBUTION OF THE WAIAWA SHAFT  
BY THE DEPARTMENT OF HEALTH SAFE DRINKING WATER BRANCH

Mr. Tom Gentry and Gentry-Pacific Ltd. have petitioned the State Land Use Commission (Docket No. A87-610) to reclassify the designation of approximately 1,395 acres of land, situated at Waiawa, Ewa, Oahu from Agriculture to Urban District. The property is identified as Oahu Tax Map Key No. 9-4-06: portion of 26; 9-6-4: portions of 1 and 16; and 9-6-05: portions of 1, 7, and 14.

The petitioner proposes to develop the site into a multi-faceted, master planned, residential community. In addition to residential dwelling, commercial and commercial/industrial mixed uses are also proposed along with a golf course, open space, parks and schools.

Description of the Area

The petition area is located in the Central Oahu Development Plan Area. Located in south-central Oahu, south of the Schofield Plateau, the property is bounded on the east by Waiawa Stream, Agricultural District land, military reservation lands, and an industrial park; on the south by Waiawa Stream and the Waiawa Interchange of the H-1 Freeway; on the west by other Agricultural District lands, Panakauahi Gulch, and the H-2 Freeway; and to the north by Agricultural District lands, military reservation lands, and the 180-acre Waiawa Correctional Facility. The residential communities of Crestview and Waipio Gentry are located further to the west of the petition area. Formerly under sugarcane cultivation, the petition area currently lies fallow with elevations ranging from 100 to 600 feet above mean sea level. The area is relatively flat with occasional steeper

slopes occurring through the site. The average annual rainfall ranges from about 26 inches in the southern portions of the site to about 43 inches in the northern or mauka portions of the site.

"The Flood Insurance Study for the City and County of Honolulu" conducted by the Federal Insurance Administration designated the area in Zone C, an area of minimal flooding, and Zone D, an area of undetermined, but possible, flood hazards.

#### Concern Over Groundwater Contamination

The U. S. Navy's Waiawa Water Shaft is located at the southeastern boundary of the project site. The Shaft supplies approximately 15 million gallons per day (mgd) of potable water to the Pearl Harbor Shipyard, Hickam Air Force Base, the Moanalua Shopping Center and various military housing installations. Concern over fluctuations in chloride levels caused the Navy to co-fund a study with the U. S. Geological Survey to examine the effects of sugarcane irrigation practices on the Waiawa Water Shaft. The resulting report entitled "The Effects of Pumpage, Irrigation Return and Regional Groundwater Flow on the Water Quality at Waiawa Water Shaft, Oahu, Hawaii," demonstrates that the Navy's Shaft is vulnerable to contamination from the activities on the proposed site. The Department of Health (DOH), in its special surveillance for nematicides, discovered trace levels of dibromochloropropane (DBCP) and trichloropropane (TCP) in the Shaft. While the levels found do not appear to pose a significant health threat, the presence of these chemicals also demonstrates the Shaft's vulnerability to contamination.

As a result of concerns over groundwater contamination, the Department of Health commented to the Office of State Planning that caution should be exercised in redesignating the site. The Office of State Planning testified before the Land Use Commission of the Department's concerns and recommended that the petitioner conduct

studies that would verify their contention that the use of urban biocides would not contaminate the Navy's Shaft.

The State Land Use Commission, acting on the advice of testimony provided by the Office of State Planning and the State Department of Health (DOH), specified conditions in its granting of redesignation from Agriculture to Urban of the project site. The conditions included that a study that is funded by the U. S. Department of the Navy to review the potential for groundwater contamination resulting from urbanization of the project site shall be completed prior to any development or construction of the site unless the Department of Health defines an area on the project site which does not contribute to the hydrologic zone of contribution of water which is withdrawn by the Waiawa Shaft. Conditions further state that the petitioner shall not proceed with the project until the study shows to the satisfaction of the DOH that groundwater contamination will not occur. The urban development within the property is subject to further review by the Department and the Department may require further appropriate mitigative measures in order to further protect groundwater resources. It is under these conditions that the Department has undertaken a study to identify the zone of contribution of the Waiawa Shaft. In order to gather all the relevant information to support this study, an Ad Hoc Committee was formed. This committee consisted of technical experts from the U. S. Geological Survey (USGS), the University of Hawaii, the Honolulu Board of Water Supply, and the State Department of Land and Natural Resources and Department of Health. The committee met several times to discuss the purpose of the study and identify the data that would be required to support the study itself.

#### Defining the Hydrologic Zone of Contribution

At its first meeting, the committee discussed the various theories and methods used to delineate the zone of contribution. The U. S. Environmental Protection Agency's

Wellhead Area Delineation and other methods developed by the USGS, were studied for their appropriateness and possible application to this effort. With the assistance of the USGS geologists, Paul Eyre and Kiyoshi Takasaki, the Department utilized a variety of publications in order to obtain the necessary data and bibliography to support this study. The committee found the study by Eyre entitled "The Effects of Pumpage, Irrigation Return, and Region of Groundwater Flow on the Water Quality at Waiawa, Oahu, Hawaii," to be particularly helpful in delineating the zone of contribution. The committee also identified field measurements necessary to validate their efforts.

A significant conclusion of the Ad Hoc Committee, based on recent simulations of groundwater flow, is that the direction of groundwater flow in the region is not necessarily perpendicular to the hydraulic gradient. Aquifer permeability is likely to be highest in a direction parallel to the lava flows, northeast to southwest, and less in a direction transverse to the flows. This anisotropic permeability causes groundwater to flow to the southwest rather than to the south-southeast as indicated by water level contours. Considering the locations of aquifer recharge and discharge, a northeast to southwest direction of groundwater flow would be expected. This fact is significant because the zone of contribution for the Waiawa Shaft must be oriented according to the actual groundwater flow direction for the project area in order to define the recharge area that may contribute to contamination of the Waiawa Shaft.

There are two studies which attempt to predict the direction of groundwater flow in the Pearl Harbor aquifer. These include the University of Hawaii's Technical Report #129 entitled "Underground Residence Times and Chemical Quality of Basal Ground Water in Pearl Harbor and Honolulu, Oahu, Hawaii," and the U. S. Geological Survey's ground water AQUIFEM-SALT modeling effort. The latter report is still in its agency internal review phase, and therefore still subject to revision.

Technical report #129 describes the direction of ground water flow at the Waiawa Shaft at approximately from north 50 degrees east. On the other hand, the USGS AQUIFEM-SALT modeling project estimates the direction of ground water flow at the Waiawa Shaft to be approximately from north 25 degrees east. The difference in the direction of ground water flow between the two studies is attributable to the fact that the AQUIFEM-SALT model considers the effect of the ground water flow from the Schofield high water aquifer boundary in central Oahu.

Calculating the Hydrologic Zone of Contribution

Established theories provide the equations needed to construct the parabola which bounds the zone of groundwater contribution to Waiawa Shaft. These equations are:

Distance Downgradient from Wells\*

Maximum Width of Zone of Contribution

$$r = \frac{Q_w \times 5280}{2 \pi (b/41h) Q/L}$$

$$W = 2\pi r$$

where: b = depth of flow at the shaft. (S ~ mixing cell model below.)  
 h = freshwater head at the shaft in feet = 18'  
 Q<sub>w</sub> = pumping rate = 15 mgd  
 Q/L = lens flux per width of aquifer, in mgd/mi = 47 mgd/1.5 mile  
 (Hufen et. al. 1980, WRRC Technical Report 129)

\*Derived from: Bear, Jacob, Hydraulics of Groundwater, McGraw-Hill, 1979.

$$\text{original model} = x_s = \frac{Q_w}{2 \pi b q_0}$$

where x<sub>s</sub> = r, is the distance to the stagnation point downgradient from the pumping well

The model is written for continental aquifers and had to be revised to account for Hawaii's Ghyben-Herzberg lens. The following changes were made.

" $q_0$ " in Bear's model was substituted with  $\frac{Q}{L \times 41h}$ .

A mixing cell model was used to determine the depth of flow  $b$ . The model mixes the thickness and concentration of upper level degraded water with the thickness of deeper pristine water. This mixture yields the observed concentration of chlorides at Waiawa Shaft.

$$b = \text{Thick}_{\text{deg}} + \text{Thick}_{\text{pris}}$$

$$b = 200' + 215' = 415'$$

The perimeter of the zone of contribution was plotted using the following equation:

$$y/x = \pm \text{Tan (rad)} \frac{2\pi q_0 b}{Q_w}$$

The proposed zone of contribution is plotted in Exhibit A and is based on USGS ground water flow model, therefore, the direction of ground water flow is at approximately from north 25 degrees east. While a variety of theories may be applied in this study, the study was based primarily upon best available information and demonstrated principles of theory. It should be recognized that as with any study, a margin of error is inherent with the final decision. As a result, we recommend that at least a 10% tolerance be added to the zone of contribution to account for any margin of error that might be inherent from the study. Further, it is strongly recommended that this zone of contribution be constantly evaluated and reassessed based on new or additional information concerning the scope of this study.

The points used to plot the zone of contribution are as follows:

<u>x</u>	<u>y = (1/2W)</u>
-1,048	50
-710	1,000
+84	1,700
+697	2,000
2,636	2,500
+16,376	3,100
+34,767	3,200

The zone of contribution approximates the maximum y of 3,200 feet (W = 6,400 feet) at about +34,800 feet. The width of the zone of contribution is estimated to be 6,400 feet.

#### Conclusion

The Department of Health's Safe Drinking Water Branch, in conjunction with the U. S. Geological Survey, University of Hawaii, Department of Land and Natural Resources, and Honolulu Board of Water Supply have attempted to delineate the zone of contribution of the U. S. Navy's Waiawa Shaft. Using available information, this group has worked to identify this zone of contribution (identified as Exhibit A). It is believed that this area probably represents the area through which contamination of the Waiawa Shaft could occur. The Department respectfully submits this information to the Office of State Planning for its use pursuant to petition Docket No. A87-610.



Acknowledgments

The Department of Health acknowledges the valuable contributions of the following persons:

William Meyer, U. S. Geological Survey

Paul Eyre, U. S. Geological Survey

Kiyoshi Takasaki, U. S. Geological Survey

Thomas Giambelluca, Ph.D., University of Hawaii

Daniel Lum, Department of Land and Natural Resources

Edwin Sakoda, Department of Land and Natural Resources

Glenn Bauer, Honolulu Board of Water Supply

Thomas Arizumi, P.E., Safe Drinking Water Branch, Department of Health

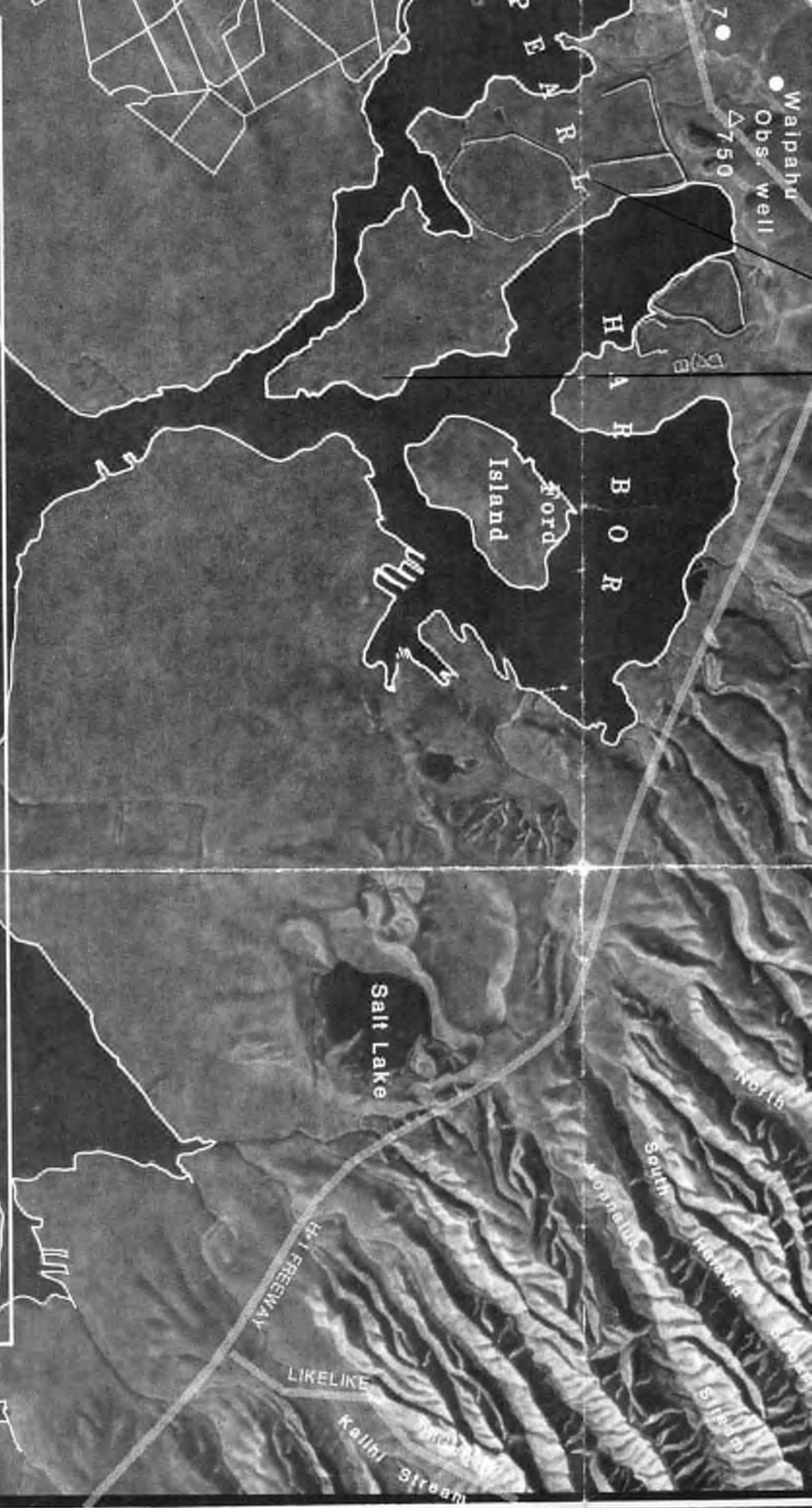
Chauncey Hew, Safe Drinking Water Branch, Department of Health

David Higa, Safe Drinking Water Branch, Department of Health





- ▲882 Rain gage at Well and num
- 273 Country Club
- CC well Ewa pump ar
- EP 10-13 Honouliuli Ex
- Exp. well Milliani well a
- MW 1 Pearl City we
- FC1 Walpahu pum
- WP7 Punanani Mor
- PMW



- △882
- 273
- CC well
- EP 10-13
- Exp. well
- MW1
- PC1
- WP7
- P/MW

- Rain gage and number
- Well and number
- Country Club
- Ewa pump and number
- Honouliuli Exploratory wells
- Milliani well and number
- Pearl City well and number
- Waipahu pump and number
- Punanani Monitor well

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- Sugarcane fields
- Fields irrigated by Ewa pumps 10-12
- Fields irrigated by Ewa pumps 15 and 16
- Fields irrigated by Waipahu pump 5
- Fields installed from 1961 to 1963 and abandoned in 1982 and irrigated by Walahole ditch.
- Waipahu pumps 5, 7, 2, and 4
- Fields irrigated by Walahole ditch

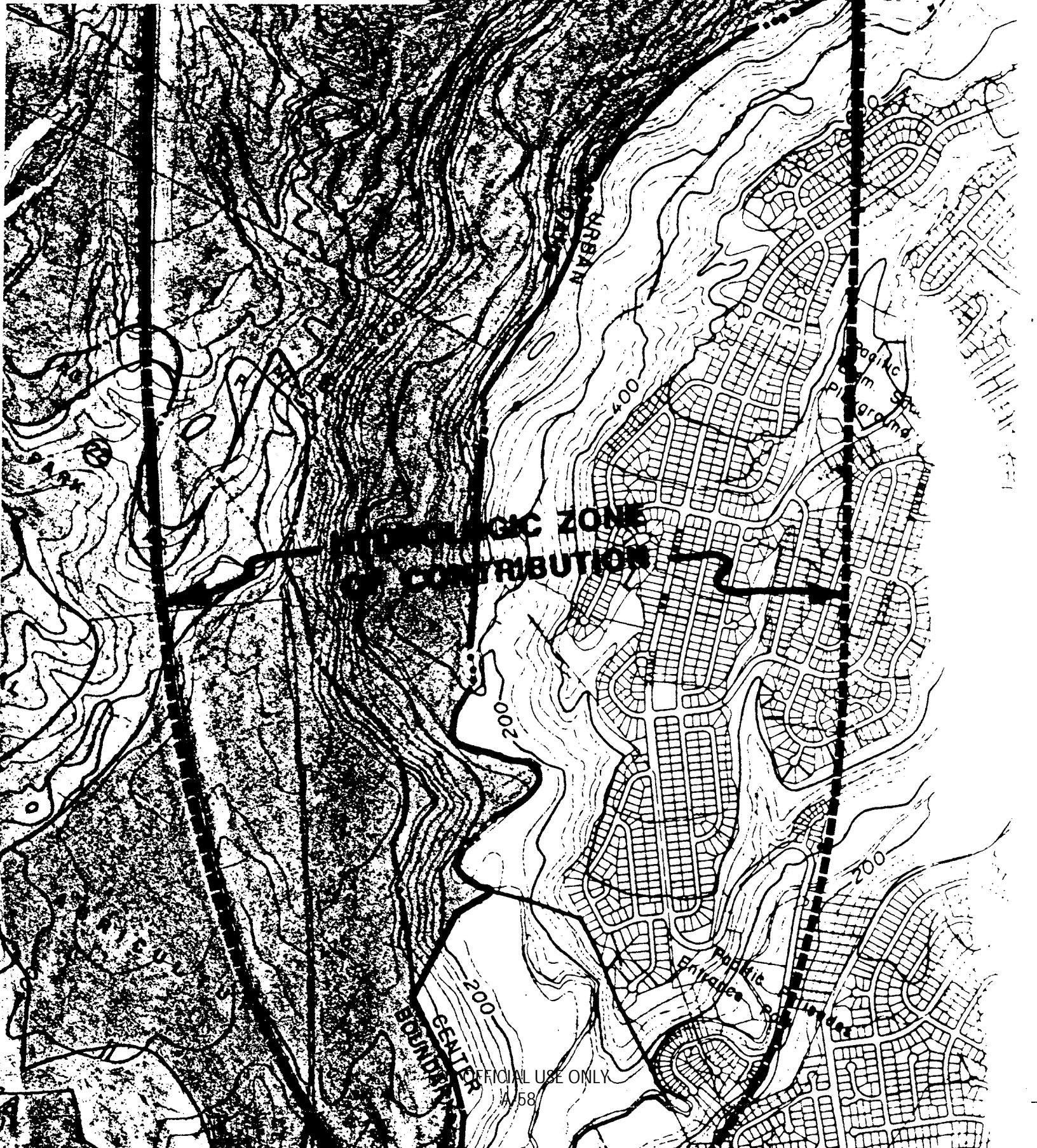


11412  
11412

**BRIAN SUZUKI**  
PLANNER, PLANS REVISION BRANCH 11412

DEPARTMENT OF GENERAL PLANNING  
CITY AND COUNTY OF HONOLULU  
HONOLULU MUNICIPAL BUILDING  
650 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813-3017

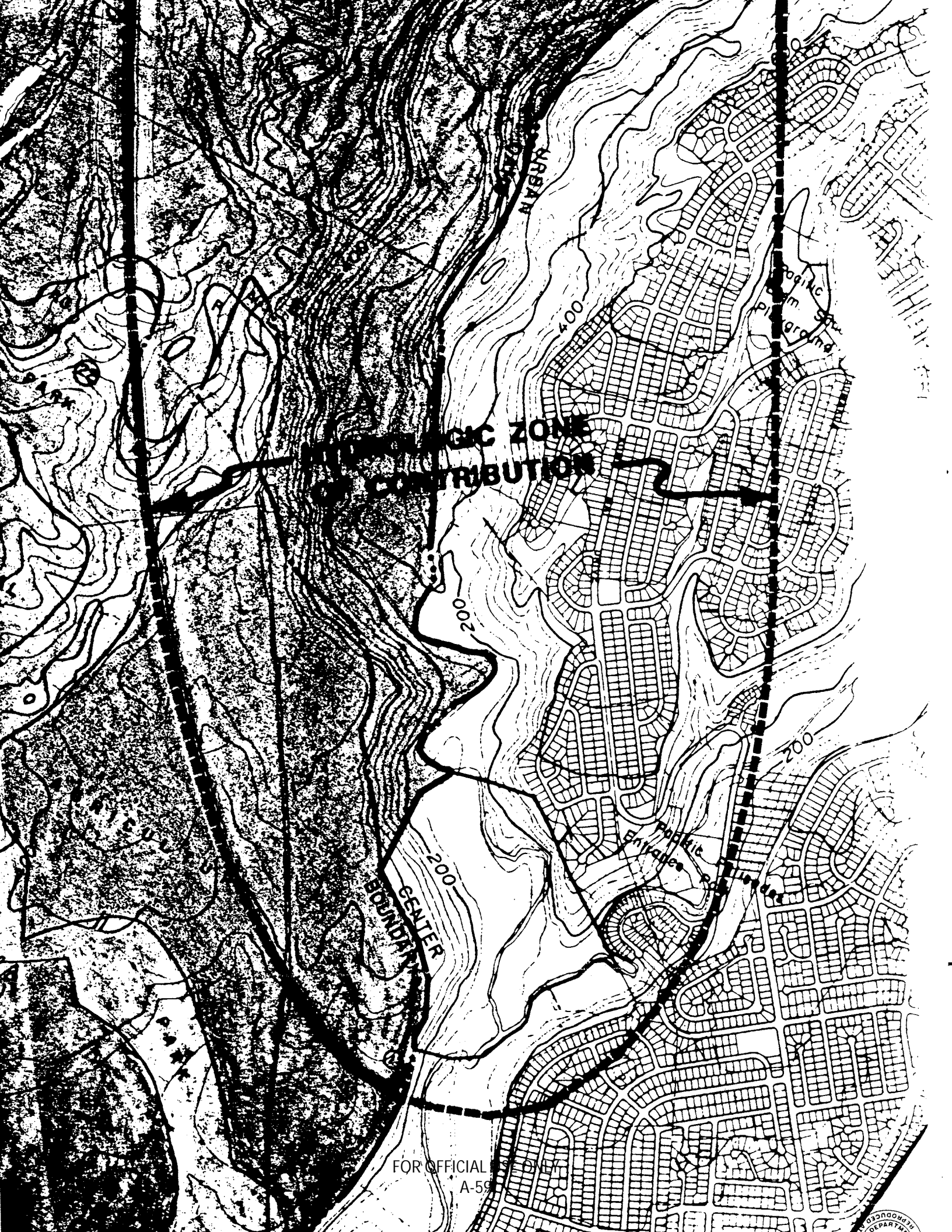
PHONE: (808) 527-6051  
FAX: (808) 523-4950



**CONTRIBUTION ZONE**

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CONTRIBUTION**

GENERAL  
BOUNDARY

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A-59

REPRODUCED FROM THE  
DEPARTMENT OF THE ARMY

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<b>Date:</b>	Jan 30, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	10:00am – 11:30am	<b>Project Name:</b> Waiawa CF PRU/SUP applications
<b>Location:</b>	DPP, 7 <sup>th</sup> floor conference room	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Raymond Young, Katia Balassiano, Anthony Ching, Eugene Takahashi (DPP) Lance Maja (DAGS), Harold Alejandro (DPS) ATA: Kimo Unten, Project Manager HHF: Tom Fee, Glenn Tadaki, Questor Lau	
<b>Subject:</b>	<b>Waiawa Correctional Facility (WCF) PRU/SUP Early Consultation</b>	

---

**Objective:** Brief DPP staff and receive initial feedback on processing approach/coordination matters.

**Attachment:** 11x17 site maps (2 pgs)

## 1. General Overview/Background

- 1.1. Waiawa Correctional Facility (WCF) was previously a federally-owned military reservation that was quitclaimed to the State of Hawaii in April 1985. The quitclaim deed had several restrictions which were released in June 2015. Dept of Public Safety (DPS) has legislative funding to proceed with the surveying and planning work needed to obtain PRU/SUP permits. DPS has a Memorandum of Agreement with DPP that permits construction activity limited to health and safety matters, no intensification of use.
- 1.2. WCF is a minimum security facility; perimeter is not fenced. Inmates range from about 200 to 300. DPS' current policy is to rehabilitate, not incarcerate. WCF incorporates agricultural activities into inmates' rehabilitation program and would like to expand their aquaculture program further with a new accessory structure.
- 1.3. Currently, the DPS does not have a comprehensive site plan. Austin Tsutsumi & Assoc (ATA) has been retained to provide statewide mapping and site plans for all DPS facilities – including WCF. Work to be completed summer of 2017.
- 1.4. Recent/ongoing work to utilities: wastewater, electrical and water infrastructure to meet code requirements. Waste treatment lagoon generates R-2 water that is used to irrigate crops and partially discharges to a nearby field.
- 1.5. The property is comprised of two TMKs: Parcel 12 is identified as 22.611 acres and is completely separated from Parcel 11 by an adjoining owner (Parcel 1). There are no uses planned for Parcel 12. The DPS facilities are all located in Parcel 11 (identified as 157.875 acres). Most of the facilities are within an approx. 80-acre central portion of this parcel – still too large an area to be processed as a SUP under the County's authority (>15 ac).
- 1.6. Infrastructure. WCF has its own internal water and wastewater systems and receives power from HECO. There are a number of infrastructure/utility system upgrade projects underway and planned to maintain adequate levels of service (i.e., not to expand capacity).

## 2. Procedural Issues

### 2.1. Chapter 343 HRS, Environmental Review

- 2.1.1. Previous EA's for the site include: a 1985 EA covering the initial acquisition of the property, a 1998 FEA covering a 200-bed expansion project and other improvements, and a 2008 FEA for two Sprung Structures (metal frame with polymer/fabric skin) funded by US Dept. of Justice. Tom noted that as long as no major new projects are added, these EAs should satisfy the application's Chapter 343 HRS requirements. Discussed: who is authority and whether an EA is required. OEQC would be accepting authority if a system-wide (DPS) master plan was involved or DPP if only WCF SUP/PRU applications were involved.
- 2.1.2. Current development plans are limited to maintenance and repair of existing facilities and infrastructure to meet current code requirements. New accessory structures to support current programs or to expand the agricultural/aquaculture output (and meet DOH requirements for vegetable preparation/packaging) of the site are possible. No expansion of inmate capacity is proposed at this time (i.e., beds).
- 2.1.3. DPS and PRU Master Plan. The most recent DPS Master Plan update was in 2003 which indicated the facility was significantly undersized for its population. DPP staff noted the PRU "Master Plan" requirement covering future expansions, new uses and other physical development plans (min 5-year projection). Ray noted that LUC conditions of approval are tied to plans and representations made by the Applicant so it's important to think carefully about what the applicant envisions over the next 5+ years to prevent the need to come back in for time consuming permit modifications. Substantive changes made in the future (that depart from the Applicant's approved plans and representations) will likely require amending the original LUC and PRU permits. DPS noted they expect to initiate a system-wide master planning project in the next several years (beyond timeframe of this SUP/PRU). Waiawa area is also being considered as one of a number of alternative sites for the OCCC relocation – but that decision is over a year away as well. The application will summarize these pending events/projects but there is no way to tell at this point whether they will result in any changes at WCF.

### 2.2. Community Growth Boundary (CGB)

- 2.2.1. CGB Boundary. DPP's shapefile of the CGB shows WCF is almost completely outside the CGB presented in the adopted Sustainable Communities Plan (which encompasses approximately half of the facility using a simple overlay). It was explained that the shapefile represents the intended policy that WCF be considered outside the UGB. It is still considered a pre-existing use and compatible with the Sustainable Communities Plan – (i.e. a change to residential or industrial use may not be compatible). DPS requested this explanation in writing from DPP.

### 2.3. Combined Technical Document for PRU/SUP

- 2.3.1. DPP concurred with HHF to use a single technical document for both PRU and SUP, but strongly recommended sequential submittals. SUP first – as the LUC may impose conditions (or public comments may need to be addressed) that would impact the PRU.
- 2.3.2. Accordingly, DPP would prepare two Director's Reports: SUP first, followed by the PRU (once the LUC has approved the SUP).



## **2.4. Drawings & Level of Detail**

- 2.4.1. As part of the application submittal, DPP requested a location map, site plan (identifying every facility with its permit history), floor plans to show configuration of the space (not that detailed) and floor area tabulations.
- 2.4.2. Offsite parking ratios are not specified in the LUO for correctional facilities. Tony said DPP would work with DPS to identify appropriate ratios.

## **2.5. Other technical/environmental studies**

- 2.5.1. DPP recommended DPS document all planned activities in the application submittal (i.e. expanding agriculture use/new vegetable processing building; planned fence location; impacts to traffic/infrastructure; any demolition planned; any repairs planned; acknowledge that OCCC may be relocated near WCF and doing so would affect WCF; that a statewide master planning effort is possible but not known for certain if it will occur at this point; alarm system is present on-site (need to determine if alarm is considered a nuisance to distant residential communities)).

### 2.5.2. Traffic Study

- 2.5.2.1. Discussion that OMPO is doing a regional traffic study, but not specific to this site. Also, DPP does not like to require traffic studies when not warranted. Tom indicated that a traffic engineer would review the situation and provide a traffic memo as part of the application package.

### 2.5.3. Historic Buildings consultation

- 2.5.3.1. Original Army barracks (now used as inmate dorms) are older than 50 years and could be considered historic – as might the Army’s abandoned underground tunnel system. There are no plans to demolish any of these facilities – so it is hoped that SHPD would not object to status quo uses. DPP noted that SHPD assumes any ground disturbance deeper than 18” requires testing.
- 2.5.3.2. The 1998 EA included an archeological/architectural assessment that was reviewed by SHPD and no concerns were raised.

### 2.5.4. Hydrologic Zone of Contribution

- 2.5.4.1. DPP had no comment.

### 2.5.5. Building Permit Status

- 2.5.5.1. DPP requested an inventory of buildings listing permits for each.
- 2.5.5.2. Discussion that approval could include conditional approval.
- 2.5.5.3. HFD typically inserts language requiring compliance with fire flow standards and hydrant spacing at the building permit stage (i.e., not as part of the initial land use approval process).

## **2.6. Stakeholders/others to be consulted**

- 2.6.1. DPP suggested consultations: neighborhood boards, groups interested in the environment and culture, politicians (City Council members appreciate notification), State Dept of Agriculture (to verify IAL status), US Fish and Wildlife (may be concerned re: endangered bats (‘ōpe‘ape‘a) and activities that require clearing its habitat) and DLNR Forestry.

## **2.7. Other matters**

- 2.7.1. Outdoor lighting New outdoor light fixtures need to be downward facing and shielded, not to exceed 3,000 degree kelvin temperature.
- 2.7.2. Evacuation Plan DPP said they typically request a Fire Evacuation Plan. DPS said evacuation plan is pretty basic and can be described in the application.

- 2.7.3. Arborist DPP said if work does not involve clearing any trees, then an arborist would not be required. Protected trees are typically the ones visible from a public right-of-way. That does not apply to WCF.
- 2.7.4. Drones DPS noted that drones have been spotted flying over WCF and dropping contraband. DPS is not legally permitted to shoot down drones or scrambling the signal.
- 2.7.5. Alarm WCF has an alarm system that is used to signal lockdown conditions, when a prisoner has escaped but also used for civil defense and testing.
- 2.7.6. Barbed Wire US Fish and Wildlife discourages barbed wire as it can entrap endangered bats. DPS said there is no perimeter fencing at WCF now. Future fencing may include security cameras and motion sensing capability. But not likely barbed wire.
- 2.7.7. Energy Efficiency Future projects may include energy efficiency, but not included in current project. DPP said that if DPS plans future solar facilities, it would require a separate PRU if power is sold back to the utility (i.e., beyond net metering).
- 2.7.8. Applications Fees
  - 2.7.8.1. For the PRU, application fees are not waived for a state agency. DPP to verify if application fees would apply for the SUP.

### **3. Action items**

- 3.1. DPP to confirm if state will be assessed application/permit fees for the PRU/SUP.
- 3.2. DPS/HHF will clarify w/ WCF staff:
  - 3.2.1. Expansion of agriculture/aquaculture and related changes to staffing/traffic.
  - 3.2.2. Clarify alarm frequency and volume.
  - 3.2.3. Location/height of proposed fencing.
  - 3.2.4. Structures to be demolished/refurbished.
  - 3.2.5. Access to the old Army tunnel – is it used now? What was it originally used for? Vents?
- 3.3. HHF to coordinate a meeting with the LUC. DPP recommended Burt Saruwatari as the point of contact; invite Ray as an attendee.
- 3.4. HHF to prepare a punchlist of items discussed for DPS to followup.



**Project:** Waiawa Correctional Facility PRU/SUP

**Date:** Jan 30, 2017

**Meeting with:** DPP

**Time:** 10:00 to

**Location:** DPP, 7<sup>th</sup> floor conf room

Name (First and Last)	Organization	Job Title	Phone	Email
Tom Fee	HHF	HHF Principal	808-457-3159	TFee@HHF.com
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Eugene Takahashi	DPP / Planning	PPB Branch Chief Acting Division Chief	768-8035	etakahashi@honolulu.gov

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<b>Date:</b>	Feb 01, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	10:15am – 12:00am	<b>Project Name:</b> Waiawa CF PRU/SUP applications
<b>Location:</b>	WCF site	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Acting Warden Sean Ornellas, Scott Swift, facilities department HHF: Tom Fee, Glenn Tadaki, Questor Lau	
<b>Subject:</b>	<b>Waiawa Correctional Facility (WCF) Site Visit</b>	

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**Objective:** Introduce the team to WCF staff and gain familiarity with facilities, operations and history to identify any major impacts to PRU/SUP timeline or scope.

**Attachment:** Press kit provided by WCF (24 pgs).

## 1. General Overview/Background

- 1.1. Tom introduced the HHF team and explained purpose of our visit.
- 1.2. Warden Ornellas explained that a 3,000 bed facility was being considered for this site and questioned the timing of the PRU/SUP work. Tom explained the current effort is essentially to bring the facility into compliance with state and county land use regulations. Future changes would be addressed as a modifications to the initial permits.
- 1.3. Average length of stay for inmates is 12-24 months, based on inmates' behavior/performance in rehabilitation programs offered at WCF. When inmates are transferred to WCF, they are at the community custody level and not high-risk. WCF prepares inmates for furlough work, although furloughs are not offered at WCF. Selected WCF inmates are involved in community service projects (e.g., school facility repair projects, when school is not in session). Inmates at WCF follow a highly structured schedule starting at 5:30am and ending at 10:30pm, 7 days a week. Educational support and classes are held in Bldg E and PA and computer courses can be selected to provide 1:1 instruction, based on individual needs. WCF is an all-male facility. Failure rate is 10% (i.e., 1 in 10 inmates are sent back to prison).
- 1.4. WCF operates almost like an independent city, off the grid (except for power). It currently produces enough food to supply all prison facilities. Food is sold to Hawai'i Correctional Industries (HCI), which resells to other prisons. DOE has asked to purchase food from HCI. WCF estimates DOE would save \$3-6M annually, while providing inmates vocational training and prepare them for future furlough work. To sell food to DOE and presumably any non-prison agencies, DOE regulations require a commercial-grade food prep/packaging building. Starting next month, the agriculture area (banana and orange trees) will be expanded to the approx. eight acres east of the basketball court (previously cultivated but fallowed).

## 2. Facilities

### 2.1. Historic Use

- 2.1.1. WCF said the Army tunnel is sealed and not used by WCF, although they can access it. Tunnel contains asbestos, lead-based paint and perhaps other hazardous building

materials consistent with a 70+ yr old facility). Tunnel include a 3-story generator, capable of powering the entire military reservation back in the 1940s. It was used as the communications center of the Pacific. Four concrete surface vents have been welded shut.

2.1.2. Year Built (per Mr. Orenellas): Tunnel: 1941; 3-story bldg: 1940; (3) 2-story barracks: 1941; admin/ofc: ~1945.

## 2.2. Infrastructure

2.2.1. Wastewater. WCF staff said lack of wastewater infrastructure capacity prevents them from expanding the number of beds. Replacing sewage pond liner did not affect inmate bed capacity (currently at 334). All reclaimed wastewater is treated to the R-2 level and pumped to a tank at the upper portion of the site (see Figure 1, next page), from there, the water is gravity fed to underground drip lines within the farm area and to drip lines in a grassed field on the north side of the campus. DOH rules prohibit distribution of R-2 water via sprinklers – has to be limited to underground drip lines. Pine trees on the north side are not irrigated. At the time of the site visit, the hyacinth (eastern) lagoon was not in service. Water and wastewater licensing, permits, maintenance, and monitoring are outsourced: Pural Water Specialty Co. Ltd. for potable water (area of responsibility being at WTP —i.e. Pural does not monitor/provide service water withdrawals from Pump #6 at Waiāhole Ditch) and Aqua Engineers for the wastewater system.

2.2.2. Potable water is drawn from Pump Station #6 in Waiāhole Ditch which passes under the facility in a tunnel. Ditch water is pumped to a water treatment plant (WTP) where it is microfiltered and chlorinated and then pumped to a 500,000 gal tank near the top of property (needs to be repaired) and then to distribution lines that serve the buildings and hydrants. There is a backup emergency generator at the WTP. A portion of ditch water is diverted directly to an underground storage tank, which serves the lower agriculture fields. There is no backup generator for Pump #6. WCF wants to add a secondary power line from the the WTP to Pump #6.

2.2.3. Underground piping/wiring. A lot of infrastructure is old/abandoned. WCF still uses some underground piping from the 1940s. Locations of pipes and status: active or abandoned is difficult to determine. In Nov 2016, a federal leak detector visited the site but encountered too much interference and could not locate WWII underground pipes. WCF does not have maps of underground utilities. WCF personnel frequently intercept “soft, easily bent wires” in the ground that are “possibly lead.” May need further evaluation.

2.2.4. Old Firing Ranges. Abandoned berms are located north of the guard house and east of the potable water tank (Figure 1).

2.2.5. Fire Spinklers: Kashbox buildings are the only ones with fire sprinklers.

2.2.6. Electricity. At the time of our site visit, the new generator and accessory electrical equipment and retaining wall appeared complete. HECO installed a meter on the WCF premises about two years ago and no longer needs to be escorted through the premises to read the meter. Service enters WCF from the south, near the old Army tunnel entrance.

2.2.7. Lighting. WCF reports that a homeowner in Pearl City previously filed a complaint about a spotlight visible from his house. Per WCF, investigation determined that it was a light fixture located at the rear of a building and needed to remain illuminated at night for security reasons. WCF verified the light was aimed towards the ground and the complaint was resolved.

2.2.8. Alarm System/Noise. WCF has a Civil Defense/alarm. The WTP (water treatment plant) and WWTP (wastewater treatment plant) – green monster — at the lagoon also have alarms to signal malfunction. WCF reports no known complaints from neighboring residential areas.

2.2.9. Drainage. No known drainage issues.

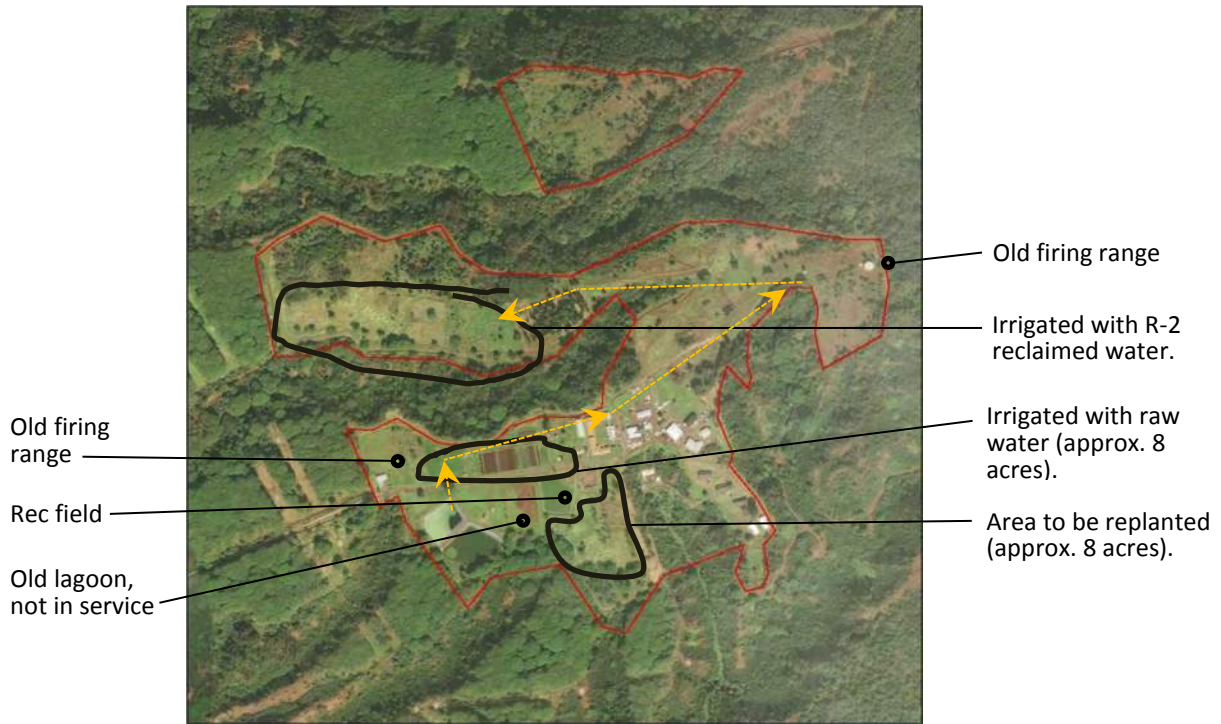


Figure 1: Dashed orange line is approx. location of R-2 force main from lagoon to original potable water tank that has been converted into R-2 storage.

### 2.3. CIP Projects

- 2.3.1. Planned: Kitchen reroofing, electrical upgrades. HHF to request full list from DPS.
- 2.3.2. Fencing: WCF said they don't have funds for fencing; prefer safety/sanitation projects.
- 2.3.3. New 3,000 bed facility to replace WCF has been introduced into the legislature, 2016.
- 2.3.4. Demolition: WCF does not plan to demolish any buildings.

### 2.4. Site Plan

- 2.4.1. Bldg 01 – Built in 1940; currently being used as an office for 7 staff. No plans to demolish.
- 2.4.2. Bldg 04 – approx. 500 gal liquid gas tank nearby.
- 2.4.3. Bldg 7 and 8 – will be used for programs that support WCF's mission. Buildings currently appear to be vacant. WCF reports the wood flooring had termite issues that the Warden said were addressed; the flooring issue appears to have been resolved.
- 2.4.4. Bldg 9 – approx. 5,000 gal liquid gas tank nearby.
- 2.4.5. Bldg A1 – Veggie prep/packaging, required by DOH. Has power and water.
- 2.4.6. Bldg A2 – tractor/tool storage and parking. Has power and water.
- 2.4.7. Bldg A3 – Ag Office, 2 bathrooms. Has power and water.
- 2.4.8. Bldg Ar2 – Roofed tractor parking structure.
- 2.4.9. Bldg B – Operations.
- 2.4.10. Bldg CP – Building Maintenance.
- 2.4.11. Bldg CS – Laundry.
- 2.4.12. Bldg GA – Weight room and administrative storage.
- 2.4.13. Bldg I – Parking, tool storage, automotive repair.
- 2.4.14. Bldg K – Staff offices.
- 2.4.15. Bldg S1 – Fuel storage.
- 2.4.16. Bldg T2 – original water tank structure was used for potable water, now stores R-2.
- 2.4.17. Bldg V – Classrooms.

### 3. Operations

#### 3.1. Parcel 12 (detached, at the north)

3.1.1. Not for WCF operations; no future plans.

#### 3.2. Agriculture

3.2.1. Approx. 8 acres are currently being used for agriculture and another 8 acres will soon be put into productive agricultural use, while four acres (possibly Rec Area and abandoned lagoon) are set aside for future cultivation.

3.2.2. Pine trees on the north side are grown in partnership with DLNR. Policy is 2:1 – every one cut down must be replaced by two new trees.

#### 3.3. Cultural Impacts/Gathering Rights

3.3.1. WCF staff reported there are no known cultural gathering activities on site and no backlog of requests to visit the facility or transit through it for cultural practices. Pig hunting is a known activity on land surrounding WCF. Motor cyclists and hikers are occasionally spotted. The public does not use WCF as a thoroughfare; there is no known public use/facility above WCF. WCF does not have a perimeter fence and has the right to refuse entry to the general public for safety reasons.

#### 3.4. Neighborhood Relations

3.4.1. WCF states they have a good relationship with the Mililani-Waipio neighborhood. WCF helps maintain local public schools in the area. WCF participates in the Mililani-Waipio Neighborhood Board, not the Pearl City NB, which is on a different ridge (Figure 2). Future hearings/NB presentation will be coordinated with DPS's Public Affairs Office.

3.4.2. WCF maintains vigilance for area surrounding their remote location, helping to discourage vandalism, petty crime, and unlawful trespassing. WCF staff mentioned DPS has a 300' sight and sound buffer agreement with the adjacent landowner, Kamehameha Schools. If WCF observes trespassing or nuisance within 300' of the property boundary, they call HPD.



Figure 2: WCF is located in Pearl City NB Boundary, but participates in Mililani/Waipio NB meetings.

#### 3.5. Evacuation Plan

3.5.1. WCF has an evacuation plan for each building. Staff are equipped with radio communications. WCF also has an emergency plan if the roads are closed.

#### 3.6. Traffic

3.6.1.3 Staffing at WCF: Three shifts: 6am-2pm, 2pm-10pm, 10pm-6am

3.6.2. Sources of traffic: deliveries (only during daylight hours), prison transfers, staff (approx. 30 cars/shift), visitors on weekends and holidays. Increased agricultural production; not expected to significantly impact traffic volume as there are already truck deliveries.

### **3.7. Roadway**

- 3.7.1. A portion of the WCF access route is designated as a private road. WCF staff reports rare incidence of road closure, several lasting more than one day, requiring staff to remain overnight on site. The longest road closure incident lasted seven days. During those times, the facility received emergency relief assistance.
- 3.7.2. A tour bus was observed travelling along the private road to WCF; clearance appears adequate.

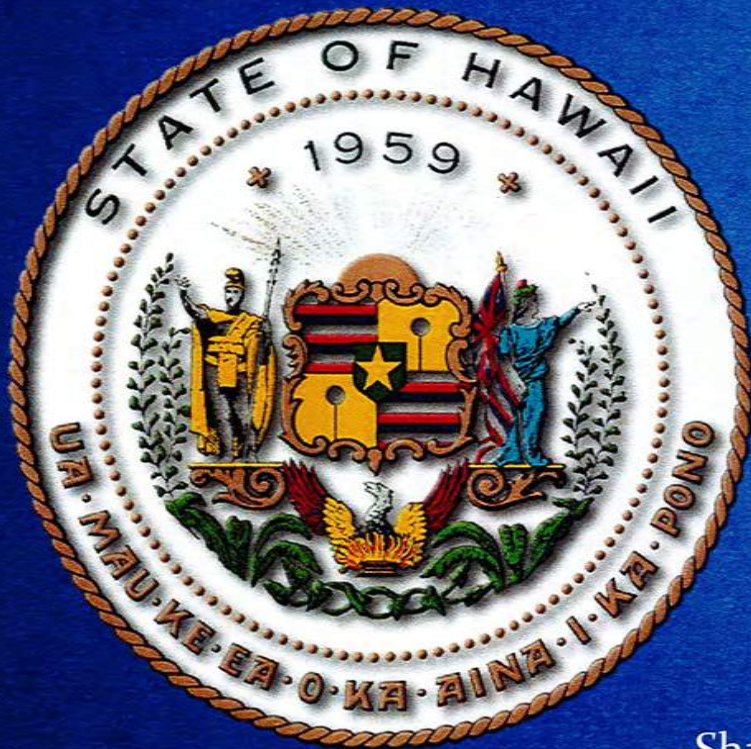
### **4. Action Items**

- 4.1. DPS to send HHF WCF's CIP list.
- 4.2. DPS to provide HHF documentation on Kamehameha Schools' 300' sight and sound buffer (easement?) granted in favor of DPS.



# Waiawa Correctional Facility

State of Hawaii  
Department of Public Safety



Nolan P. Espinda, Director of Public Safety  
Jodie Maesaka-Hirata, Deputy Director of Corrections  
Shari Kimoto, Acting Institutions Division Administrator  
Sean Ornellas, Acting Warden



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- The Waiawa Correctional Facility (WCF) is a minimum security facility that houses 334 adult male sentenced felons.
- The Facility, located between the Ko'olau and Wai'anae Mountain Ranges in Central O'ahu, was formally a military installation that was activated in 1941 after the attack on Pearl Harbor.
- In 1985, the State of Hawai'i initiated the process to acquire this 192-acre parcel from the federal government through a Quit Claim Deed for a period of thirty (30) years. As of July 7, 2015 the state has assumed full ownership of the property.
- As part of the deed, the state was required to have all offenders housed at WCF to actively participate in educational programs and worklines. Educational programs and worklines are still mandatory.



  
John D. Cogdill, Director  
Logistics Services Division

THIS  
**CERTIFICATE OF  
COMPLETION**

IS PRESENTED BY  
**U.S. DEPARTMENT OF EDUCATION  
OFFICE OF MANAGEMENT  
FEDERAL REAL PROPERTY ASSISTANCE PROGRAM**



*The State of Hawaii*

FOR SUCCESSFUL COMPLETION OF THE TERMS  
AND CONDITIONS OF THE APRIL 25, 1985  
QUITCLAIM DEED FOR THE FORMER WAIAWA  
MILITARY RESERVATION

AWARDED THIS 7<sup>TH</sup> DAY OF JULY, 2015

# Population & Capacity

- As of January 4, 2017 WCF's population is 295
- There are six inmate housing units:
  - Building 4 – 38 inmates (44-max)
  - Building 5 – 41 inmates (43-max)
  - Building 6 – 23 inmates (43-max)
  - Building 9 – 98 inmates (102-max)
  - Building 10 – 93 inmates (102 max)
  - Holding Unit – 2 inmate (4 max)



# Treatment Programs

- WCF's Substance Abuse Treatment consists of five different programs.
- KASHBOX Therapeutic Community. This is a very intensive 12-15 month long program.
- Intensive Out Patient (IOP) is 8 months.
- Out Patient (OP) programming is 4 months.
- Continuing Care is 4 months.
- Relapse Intervention Program is 4 months.





# Education Programs



- G.E.D.
- Adult Basic Education
- Life Skills
- Restorative Justice
- Interactive Parenting Skills
- Tutor Practicum Training
- Self Improvement
- Communication
- Building Maintenance
- Makahiki
- Hatha Yoga
- Keyboarding
- Test Strategies
- Introduction to Information Technology
- Health Management
- Cognitive Skills
- Toastmasters
- Forklift Certification
- Choir

Inside and outside of the classroom learning provides an excellent opportunity for social learning and modeling of good work ethics and interpersonal skills.

# Vocational and Worklines

- Food Services
- Education
- Administration
- Landscaping
- Grounds Keeping
- Carpentry
- Farming
- Hydroponics
- Aquaponics
- Auto Mechanics
- Barber
- Chapel
- Library
- Electrical
- Horticulture
- Small Engine Repair
- Facility Operations
- Inmate Commissary
- Support Services
- Roofing
- Culinary Arts
- Painting
- Plumbing
- Building Maintenance Repair and Construction,
- Hawaii Correctional Industries
- Community Service Worklines.





# Community Service

- Those who have the opportunity to participate in the Community Service Workline have a chance to actually work in the community.
- In the last year the Community Service Workline has done work for various agencies such as the Department of Education, Department of Health, the Attorney General's Office, Divisions of Public Safety, Department of Hawaiian Home Lands, Community Cultural Centers, Honolulu City and County Refuse and Sewer Divisions, protected areas and wetlands for endangered plants, wildlife and species and the State Capitol
- WCF creates a learning working environment for the offenders that provide them with a sense of ownership, accomplishment and pride.



# Farm

- Two Supervisors and 37 inmates operate the 8 acre Facility Farm, Aquaponics and Hydroponic Plants.
- They cultivate 2,000 to 3,000+ Pounds of produce per week.
- The farm routinely harvests over 10,000+ pounds per month!

# Hydroponics

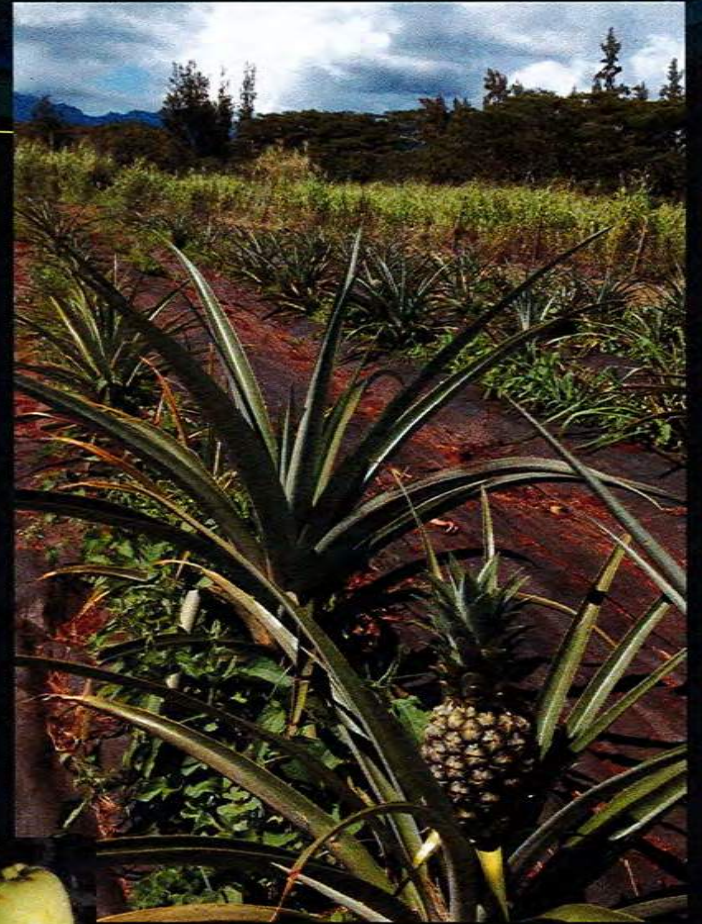
- Three Hydroponic plants average 1,800 pounds of produce every month.
- Currently constructing one more Hydroponics plant.

# Aquaponics

- Waiawa has three Aquaponics plants and in the process of completing a fourth.
- This year the Aquaponics produced 1,012 pounds of sunfish.
- The Aquaponic plants operate in harmony with the Hydroponic plants.
- The water from the fish tanks run through the Hydroponic plants.



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# Farm & Hydroponic Harvest

## Fruits

- Pineapple
- Papaya
- Watermelon
- Orange
- Strawberry
- Cherry Tomatoes
- Grape Tomatoes
- Lemons
- Mango
- Jackfruit
- Guava
- Lime
- Passion Fruit
- Banana

## Herbs

- Bay Leaves
- Basil
- Lemon Grass
- Rosemary
- Oregano
- Spearmint
- Peppermint
- Chocolate mint
- Garlic
- Parsley



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# Vegetables

- Asparagus
- Whole Beans
- Long Beans
- Bush Beans
- Wax Beans
- Beets
- Broccoli
- Head Cabbage
- Chinese Cabbage/Won Bok
- Pak Choi white stem
- Pak Choi shanghai
- Mustard cabbage/Kai Choi
- Red Cabbage
- Celery
- American Cucumber
- Asian Cumber
- Radish/Daikon
- Red Radish
- Eggplant
- Tapioca
- Jicama yam
- Okra
- Kale
- Mizuna
- Green Onion
- Pigeon pees
- Pumpkin
- Taro
- Taro Leaf
- Watercress
- American Spinach
- Malabar Spanish
- Long Squash
- Sweet Potato
- Chili Peppers
- Bell Peppers
- Head Lettuce
- Romaine Lettuce
- Manoa Lettuce
- Green leaf lettuce
- Bib lettuce
- Corn

# GOT FISH?



# Recruit Training

- Recruits at Waiawa Correctional Facility conducting training in Pressure Point Control Techniques, Spontaneous Knife Defense and Ground Avoidance Ground Escape.



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Everyone's most requested  
**Waiawa Band & Choir**



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<b>Date:</b>	Feb 13, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	10:00am – 11:00am	<b>Project Name:</b> Waiawa CF PRU/SUP applications
<b>Location:</b>	State Office Tower Leiopapa A Kamehameha Building 235 South Beretania St, Room 406	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Daniel Orodenker, Bert Saruwatari (LUC) Lance Maja (DAGS), Harold (“Hal”) Alejandro (DPS) Austin Tsutsumi & Assoc: Kimo Unten, Project Manager HHF: Tom Fee, Glenn Tadaki, Questor Lau	
<b>Subject:</b>	<b>Waiawa Correctional Facility (WCF) PRU/SUP Early Consultation</b>	

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**Objective:** Brief LUC staff and receive initial feedback on processing approach/coordination matters.

**Attachment:** 11x17 site maps (2 pgs)

## 1. General Overview/Background

- 1.1. Waiawa Correctional Facility (WCF) was previously a federally-owned military reservation that was quitclaimed to the State of Hawaii in April 1985
- 1.2. WCF is a minimum security facility; perimeter is not fenced. Inmates range from about 200 to 300. WCF incorporates agricultural activities into inmates’ rehabilitation program.
- 1.3. The property is comprised of two TMKs: Parcel 12 is identified as 22.611 acres and is completely separated from Parcel 11 by an adjoining owner (Parcel 1). There are no uses planned for Parcel 12. DPS facilities are all located in Parcel 11 (identified as 157.875 acres). Most of the facilities are within an approx. 80-acre central portion of this parcel – still too large an area (>15 ac) to be processed as a SUP under the County’s authority.
- 1.4. Infrastructure. WCF has its own off-grid water and wastewater systems; water is from the Waiāhole tunnel and power is from HECO. There are a number of infrastructure/utility system upgrade projects underway and planned to maintain adequate levels of service (i.e., not to expand inmate capacity).

## 2. Procedural Issues

### 2.1. Chapter 343 HRS, Environmental Review

- 2.1.1. Previous EA’s for the site include: a 1985 EA covering the initial acquisition of the property, a 1998 FEA covering a 200-bed expansion project and other improvements, and a 2008 FEA for two Sprung Structures (metal frame with polymer/fabric skin) funded by US Dept. of Justice. Tom noted that as long as no major new projects are added, these EAs should satisfy the application’s Chapter 343 HRS requirements. Dan clarified that the county, not the LUC, is the authority to determine if 343 HRS requirements have been satisfied.
- 2.1.2. Current development plans are limited to maintenance and repair of existing facilities and infrastructure to meet current code requirements. New accessory structures to support



current programs or to expand the agricultural/aquaculture output (and meet DOH requirements for vegetable preparation/packaging) of the site are possible. No expansion of inmate capacity is proposed at this time (i.e., beds).

## **2.2. LUC Main Concerns**

- 2.2.1. One of the Land Use Commissioners – Jonathan Likeke Scheuer, Ph.D.<sup>1</sup> has an extensive background in water rights management and litigation involved in the Waiāhole Ditch. Impacts on water will be closely examined. The commission will also look closely at the proposal's impact on the surrounding environment.
- 2.2.2. Traffic is typically a county-level concern; the LUC will be more concerned that ingress/egress doesn't impact cultural resources.
- 2.2.3. Dan recommended DPS verify that there are no cultural/archaeological resources or gathering rights present, or if so, must have a plan to address it.

## **2.3. LUC Cannot Add New Information to the application documents it receives from the County**

- 2.3.1. Dan said the LUC will take public testimony but will not hold an evidentiary hearing. Meaning that it is important to be as thorough as possible in the county-level application, because the LUC doesn't have the ability to add new information to the record. Missing information will require that the LUC send the application back to the county. If information is lacking, LUC Commissioners consider it is their obligation to return the application.
- 2.3.2. Important to document all issues (evidence) for the record.

## **2.4. Cultural Gathering Rights**

- 2.4.1. Dan clarified that similar to an EIS, gathering rights need to be identified and addressed in a way that allows it to continue. If this matter is not addressed in the SUP and is challenged during proceedings, the SUP could be challenged in court and the application process would have to start anew.
- 2.4.2. Hal expressed concern that the discovery process could go on indefinitely. In the past, he said people who allegedly wanted to pass inmates contraband have demanded access to the facility, claiming it was to exercise their "gathering rights." Dan recommended DPS consult with a specialist and an attorney to establish activities considered a legitimate "gathering right" and identify a list of practitioners. Dan said DPS is allowed to impose reasonable restrictions on gathering activities (i.e. no drones, motorcycles, etc.). There are established legal criteria for establishing gathering rights; an attorney typically drafts the language.

## **2.5. Legal Representation**

- 2.5.1. Dan suggested DPS or DAGS attorney general consult with LUC planning staff and involve the AG from the very beginning of the permitting process.

## **2.6. Other technical/environmental studies**

- 2.6.1. The LUC may interpret requirements differently than the counties. The LUC may require additional information or studies that the county did not require. The LUC also recommended that DPS do a thorough job preparing the application and not rely strictly on the county for determining level of required detail.
- 2.6.2. The LUC does not require an archaeological inventory survey but SHPD may require one.
- 2.6.3. Historic Buildings
  - 2.6.3.1. Original Army barracks (now used as inmate dorms) are older than 50 years and could be considered historic – as might the Army's abandoned underground tunnel system.

<sup>1</sup> <https://www.law.hawaii.edu/person/jonathan-likeke-scheuer>)

2.6.3.2. The 1998 EA included an archeological/architectural assessment that was reviewed by SHPD and no concerns were raised. However, Tom notes the report is dated and because SHPD's review standards have changed since that time; he recommends DPS conduct an updated assessment.

## **2.7. Stakeholders/others to be consulted**

- 2.7.1. Dan suggested to also involve the Office of Planning (OP) from the very beginning of the permitting process. OP represents all state departments at LUC proceedings.
- 2.7.2. LUC staff suggested consulting nearby businesses (i.e., Costco, business association), elected officials, and the general public.
- 2.7.3. Tom suggested DPS' Public Affairs Officer support this project by gathering public testimony/letters of support of WCF's community support efforts.
- 2.7.4. Hal said in the past, WCF's water rights have been contested.

## **3. Action Items**

- 3.1. HHF to schedule an initial meeting with Office of Planning (Rodney Funakoshi, OP LUD Administrator).
- 3.2. DPS to engage Public Affairs Officer to begin soliciting letters of support for WCF, from the community, (i.e., public schools, DLNR).
- 3.3. DPS/DAGs to look into AG representation before the LUC.



**Project:** Waiawa Correctional Facility PRU/SUP

**Date:** Feb 13, 2017

**Meeting with:** LUC

**Time:** 10:00 to

**Location:** State Office Tower, Leiopapa A Kamehameha Building

Name (First and Last)	Organization	Job Title	Phone	Email
Tom Fee	HHF	HHF Principal	457-3159	<a href="mailto:TFee@HHF.com">TFee@HHF.com</a>
Questor Lau	HHF	Associate/Architect	457-3178	<a href="mailto:QLau@HHF.com">QLau@HHF.com</a>
Glenn Tadaki	HHF	Planner	457-3179	<a href="mailto:GTadaki@HHF.com">GTadaki@HHF.com</a>
Lance Masa	DASg	Project Coordinator	586-0483	<a href="mailto:Lmasa@hawaii.gov">Lmasa@hawaii.gov</a>
Kimo Untan	ATA	Project Manager	533-3646	<a href="mailto:muntan@atc.hawaii.com">muntan@atc.hawaii.com</a>
Harold Alejandro	PSD/ASO	CIP Coordinator	587-1239	<a href="mailto:harold.b.alexandro@hawaii.gov">harold.b.alexandro@hawaii.gov</a>
BERT SARINATARI	LUC	PLANNER	587-3825	<a href="mailto:bert.k.sarinatari@hawaii.gov">bert.k.sarinatari@hawaii.gov</a>
Daniel Orodanler	LUC	EXEC O	587-3822	

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<b>Date:</b>	Feb 15, 2017	<b>Project No.</b> 2016-125
<b>Time:</b>	2:00pm – 3:00pm	<b>Project Name:</b> Waiawa CF PRU/SUP applications
<b>Location:</b>	State Office Tower Leiopapa A Kamehameha Building 235 South Beretania St, 6 <sup>th</sup> floor	<b>Recorded by:</b> QLau
<b>Attendees:</b>	Rodney Funakoshi, Planning Program Administrator; Nicola Szibbo, Senior Planner (OP LUD) Dawn Apuna, Deputy Attorney General Lance Maja (DAGS) Austin Tsutsumi & Assoc: Kimo Unten, Project Manager HHF: Tom Fee, Glenn Tadaki, Questor Lau	
<b>Subject:</b>	<b>Waiawa Correctional Facility (WCF) PRU/SUP Early Consultation</b>	

---

**Objective:** Brief OP LUD staff and receive initial feedback on processing approach/coordination matters.

**Attachment:** 11x17 site maps (2 pgs)

## 1. General Overview/Background

- 1.1. Waiawa Correctional Facility (WCF) was previously a federally-owned military reservation that was quitclaimed to the State of Hawaii in April 1985
- 1.2. WCF is a minimum security facility; perimeter is not fenced. Inmates range from about 200 to 300. WCF incorporates agricultural activities into inmates' rehabilitation program.
- 1.3. The property is comprised of two TMKs: Parcel 12 is identified as 22.611 acres and is completely separated from Parcel 11 by an adjoining owner (Parcel 1). There are no uses planned for Parcel 12. DPS facilities are all located in Parcel 11 (identified as 157.875 acres). Most of the facilities are within an approx. 80-acre central portion of this parcel – still too large an area (>15 ac) to be processed as a SUP under the County's authority.
- 1.4. Infrastructure. WCF has its own off-grid water and wastewater systems; water is from the Waiāhole tunnel and power is from HECO. There are a number of infrastructure/utility system upgrade projects underway and planned to maintain adequate levels of service (i.e., not to expand inmate capacity).
- 1.5. OP staff expressed surprise that WCF existed all this time without ever receiving a PRU/SUP. Per DAGS staff, most recent new buildings at WCF are the tent structures, used for supportive program activities, and received building permits in 2009. At that time, DPP (Dept of Planning and Permitting) insisted on a PRU/SUP permits.

## 2. Procedural Issues

### 2.1. Chapter 343 HRS, Environmental Review

- 2.1.1. Previous EA's for the site include: a 1985 EA covering the initial acquisition of the property, a 1998 FEA covering a 200-bed expansion project and other improvements, and a 2008 FEA for two Sprung Structures (metal frame with polymer/fabric skin) funded by US Dept.

of Justice. Tom noted that as long as no major new projects are added, these EAs should satisfy the application's Chapter 343 HRS requirements.

- 2.1.2. New EA required? OP staff challenged the assertion that the project need not prepare another Chapter 343 HRS because it had already been done, including a comprehensive EA completed in 1998. The rationale being that the applications will need to address resources at the level of a Chapter 343 HRS document anyway, and it leaves the applicant open to a potential procedural claim that it improperly avoided Chapter 343 HRS. The public nature of the Chapter 343 HRS process is a way to ferret out issues and address them in advance of a public hearing where there is less room to negotiate and maneuver. The cons are the added expense and time, and the difficulty in identifying a 343 HRS trigger. Tom said updates of technical studies would include: archaeology, historic architecture, traffic, utility systems, cultural impact assessment, and biological. Rodney agreed that DPP is the accepting agency, but noted that if DPS offered them a 343 document, DPP probably wouldn't refuse.
- 2.1.3. LUC Commissioners are also sensitive to water, access and gathering rights; Commissioners are not limited to topics within Commission guidelines.
- 2.1.4. Current development plans are limited to maintenance and repair of existing facilities and infrastructure to meet current code requirements. New accessory structures to support current programs or to expand the agricultural/aquaculture output (and meet DOH requirements for vegetable preparation/packaging) of the site are possible. No expansion of inmate capacity is proposed at this time (i.e., beds).
- 2.1.5. 15 acres. OP staff clarified that the entire land area of a subject parcel does not necessarily define the SUP project area. The applicant has the right to determine the project size (e.g., the area proposed to be covered by a SUP covers only 10 acres out of a 25-acre parcel). This means that likely new projects would be handled by the County which is authorized to approve SUP's <15 acres.

## 2.2. Rezone from Ag to Urban

- 2.2.1. LUD staff noted that a District Boundary Amendment (DBA) to the State Urban District would obviate the need to periodically file amendments through the SUP process. This is similar to an action initiated by UH through the County to redistrict the land under Kaua'i Community College to the Urban District. A DBA is problematic for WCF because it is not contiguous to the Urban District (unlike the KCC example) and a DBA might be considered spot zoning. LUD staff said they preferred to avoid a DBA for the reasons stated.
- 2.2.2. Tom indicated the PRU has a requirement to include a minimum of a five-year master plan. Could the LUC approve a five-ten year plan to minimize the need for future individual SUPs? Rodney indicated the LUC does not have much flexibility (we will include all foreseeable projects in the SUP, it's possible that DPP and LUC will determine that foreseeable projects will need to be processed through individual SUPs or approved all at one time).

## 2.3. "Unusual and Reasonable Uses"

- 2.3.1. OP staff suggested DPS focus on HAR 15-15-95 thru -96.1 (LUC Rules) that describe five Special Use Permit guidelines to demonstrate certain "unusual and reasonable uses" that can be allowed within agricultural and rural districts. Rodney said projects are not required to meet all five criteria. Tom noted that the "unusual and reasonable" criteria applied to SUPs fits the WCF in that it is an unusual use that requires a remote location away from existing urban-type uses, it is an existing use not a proposed use, and the original military reservation predated the State Land Use Law.

2.3.2. Tom said the underlying use would remain associated with agriculture. OP staff suggested DPS provide a good analysis of technical soil characteristics (including past and present); soil sampling is not required. Clarify water availability and source(s). OP staff found is particularly helpful that there were plans to expand agricultural use of the site (albeit as ancillary to the primary use). That should be explained further in the SUP.

**2.4. LUC Cannot Add New Information to the application documents it receives from the County**

2.4.1. OP staff confirmed: For projects greater than 15 acres, LUC (Land Use Commission) review is required. Record and evidence is developed at the Planning Commission. The LUC does not accept new evidence; they act based on the existing record.

2.4.2. Important to document all issues (evidence) for the record or risk having permit sent back to the county.

**2.5. Stakeholders/others to be consulted**

2.5.1. OP staff suggested consultations with the Dept of Agriculture, SHPD for cultural issues, ADC (Agribusiness Development Corp) for the Waiāhole Ditch, Dept of Health, and potentially the Navy (owner of the Waiawa Shaft) as they might be affected by WCF-related discharges into the hydrologic zone of contribution and may have issues providing a clearance letter. OP staff said Kamehameha Schools (KS) took leased lands back from Gentry and A&B as plans for the Waiawa by Gentry project faded in the mid-late 2000s, and it has a deadline of 5 years to complete a master plan for Waiawa Ridge; it's been about 3 or 4 years now. An adjacent photovoltaic project near WCF was recently approved that uses the Mililani Memorial Park access road for its entry road.

2.5.2. Tom said Ka Uka Blvd is scheduled to be redeveloped as part of the Koa Ridge residential project. Would obviate the need for WCF to provide a TIAR? OP staff said it was possible as WCF is not a large traffic generator.

**2.6. Counsel Needed for PC LUC hearings?**

2.6.1. Dawn said the DPS or DAGS attorneys are welcomed to contact her supervisor. She does not anticipate attorneys will be needed unless someone intervenes/this becomes a contested case. Would not require an attorney at the PC. The LUC hearing may also not need an attorney; she reiterated the decision is largely based on the county record, which would have been established by the time the LUC reviews. The state would not be a party at the LUC hearing.

**3. Action Items**

3.1. None at this time.



**Project:** Waiawa Correctional Facility PRU/SUP

**Date:** Feb 15, 2017

**Meeting with:** Office of Planning

**Time:** 2:00 to 3pm

**Location:** State Office Tower, Leiopapa A Kamehameha Building

Name (First and Last)	Organization	Job Title	Phone	Email
Tom Fee	HHF	HHF Principal	457-3159	<a href="mailto:TFee@HHF.com">TFee@HHF.com</a>
Questor Lau	HHF	Associate/Architect	457-3178	<a href="mailto:QLau@HHF.com">QLau@HHF.com</a>
Glenn Tadaki	HHF	Planner	457-3179	<a href="mailto:GTadaki@HHF.com">GTadaki@HHF.com</a>
Nicola Szibbo	OP	Planner	808-388-1135	<a href="mailto:nicola.szibbo@hawaii.gov">nicola.szibbo@hawaii.gov</a>
Dawn Apuna	DAG	Deputy	586-1195	<a href="mailto:dawn.f.apuna@hawaii.gov">dawn.f.apuna@hawaii.gov</a>
Lance Maja	DAGS - PB	Project Coord	596-0483	<a href="mailto:lance.y.maja@hawaii.gov">lance.y.maja@hawaii.gov</a>
KIMO UNTEN	ATA	Project Manager	533-3646	<a href="mailto:muntene@ata.hawaii.com">muntene@ata.hawaii.com</a>
Rodney Furukoshi	OP			

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**Appendix B**

**Correspondence Documents (chronological)**

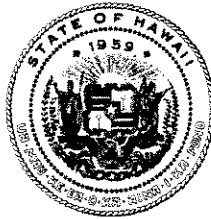
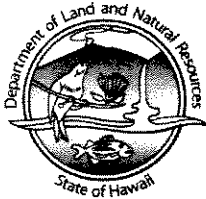
Date	From	To	Description	Copy In File?
5/5/2008	DLNR SHPD	DPS	DEA for Temporary Program Structures.	Y
12/12/2008	DLNR SHPD	DPS	Revised Archaeological Assessment for Temporary Program Structures.	Y
6/5/2009	Honolulu DPP	DAGS	(DPP defers SUP and PRU applic requirements) Referenced in 7/14/2009 letter	Y
7/14/2009	DAGS	Honolulu DPP <sup>1</sup>	Temporary Structures at WCF Deferral of SUP and PRU	Y
3/4/2015	Honolulu DPP	DPS	Continuation of Deferral of SUP and PRU until Dec 2019.	Y
4/20/2015	DOH: Safe Drinking Water	WCF	Transmittal of Sanitary Survey Report, includes 3/19/2015 Sanitary Survey (photos included)	Y
7/7/2015	USDOE	DPS	Completion of terms and conditions of 4/25/1985 Quitclaim Deed	Y
10/21/2015	DOH: Safe Drinking Water	WCF	Re: Existing 0.5 MG Water Storage Tank	Y
1/18/2016	DLNR SHPD	Honolulu DPP	Historic Preservation Review Bldg Permit Applic A2014-04-0628, Elec System Improvements.	Y
5/24/2016	DPS	Honolulu DPP	SUP/PRU Applic, Bldg Applic No: A-2009-04-0378. DPS requests continuation of deferral from 2015 to 2019.	Y
Unknown			Sight and Sound 300' buffer (Warden Ornellas said a buffer extended onto surrounding KS land)	<b>Not in File</b>
Current			CIP List for WCF	<b>Not in File</b>

<sup>1</sup> Honolulu Dept of Planning & Permitting



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LINDA LINGLE  
GOVERNOR OF HAWAII



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MAY 7 2 03 PM '08

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI  
FIRST DEPUTY

KEN C. KAWAHARA  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF FORESTRY AND WILDLIFE  
1151 PUNCHBOWL ST., ROOM 325  
HONOLULU, HAWAII 96813  
TEL (808) 587-0166 FAX (808) 587-0160

DIRECTOR'S OFFICE  
DEPARTMENT OF  
PUBLIC SAFETY

May 5, 2008

2008 MAY -7 P 3:41

RECEIVED  
PUBLIC SAFETY

PSD VOI/TIS Incentive Grant Coordinator  
Hawaii Department of Public Safety  
919 Ala Moana Boulevard, Suite 400  
Honolulu, Hawaii 96814

Dear Sir/Madam:

Subject: Draft Environmental Assessments for Proposed Temporary Housing and Program Structures, Islands of Hawaii (HI CCC, Hale Nani Annex, Kulani CF), Maui (MA CCC), Oahu (OCCC, Halawa CF, Waiawa CF, Women's CCF) and Kauai (KA CCC).

DLNR, Division of Forestry and Wildlife has received and reviewed your subject request and provide the following comments for your consideration. The projects proposed have been developed and are within the confines of the Correctional Facilities. After reviewing the biological data required for the Draft Environmental Assessments, we have no objections to your proposed temporary housing and program structures on Oahu, Maui, Kauai and Hawaii Island. Thank you for allowing us to review your projects.

Sincerely yours,

Paul J. Conry  
Administrator

C: DOFAW Oahu, Maui, Kauai, Hawaii Branches

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

LAURA H. THIELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI  
FIRST DEPUTY

KEN C. KAWAHARA  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
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CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

December 12, 2008

Clayton A. Frank  
Department of Public Safety  
919 Ala Moana Boulevard, 4<sup>th</sup> Floor  
Honolulu, Hawai'i 96814

LOG NO: 2008.5516  
DOC NO: 0812LM25  
Archaeology

Dear Mr. Frank:

**SUBJECT: Chapter 6E-8 Historic Preservation Review –  
Revised-Archaeological Assessment for the Proposed Temporary  
Program Structures at the Waiawa Correctional Facility  
Waiawa Ahupua'a, `Ewa District, Island of O`ahu TMK: (1) 9-6-5:12**

Thank you for the opportunity to review the aforementioned revised archaeological assessment (Cleghorn and Kahahane 2008), which we received on December 5, 2008. We apologize for the delay in our review. The archaeological assessment was conducted of the property proposed for the construction of a storage structure and two temporary structures with mobile restrooms within the existing Waiawa Correctional Facility (Waiawa CF) campus in Waiawa, `Ewa. Based on submitted plans we believe this project will have no adverse affects on significant historic properties.

We accept this report as satisfying the requirements of Hawai'i Administrative Rules (HAR) Chapter 13-276. We have received the final hard copy and CD of the report for our SHPD library.

Please contact Lauren Morawski (O`ahu Archaeologist) at (808) 692-8015 if you have any questions or concerns regarding this letter.

Aloha,

A handwritten signature in black ink, appearing to read "Puaa", written over a circular stamp.

Puaaokalani Aiu, Ph.D.  
Administrator  
State Historic Preservation Division

LM

✓ Cc: Paul Cleghorn-cleghorn@pacificlegacy.com

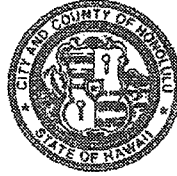
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DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 768-8000 • FAX: (808) 768-8041  
DEPT. WEB SITE: [www.honolulu.gov](http://www.honolulu.gov) • CITY WEB SITE: [www.honolulu.gov](http://www.honolulu.gov)

MUFI HANNEMANN  
MAYOR



DAVID K. TANCUE  
DIRECTOR  
ROBERT M. SUMITOMO  
DEPUTY DIRECTOR

2009/ELOG-951 (RY)

June 5, 2009

The Honorable Russ K. Saito, State Comptroller  
Department of Accounting and General Services  
State of Hawaii  
P. O. Box 119  
Honolulu, Hawaii 96810

The Honorable Clayton A. Frank, Director  
Department of Public Safety  
State of Hawaii  
919 Ala Moana Boulevard, 4<sup>th</sup> Floor  
Honolulu, Hawaii 96814

Dear Messrs. Saito and Frank:

Subject: Temporary Program Structures at the State of Hawaii,  
Department of Public Safety, Waiawa Correctional Facility  
94-670 Kamehameha Highway, Waiawa, Ewa, Oahu  
Tax Map Key 9-6-5:11 and 12

Thank you for your April 9, 2009 letter regarding the proposal to establish two temporary structures at the Waiawa Correctional Facility. You indicate that the proposed structures would not increase the inmate bed count and would be used for inmate substance abuse treatment programs, which are a prerequisite for inmates nearing their scheduled release date. The temporary structures would also facilitate and expedite the return of inmates from mainland correctional facilities. Ordinarily, the correctional facility would be subject to a State Special Use Permit (SUP) and a Plan Review Use Permit (PRU). However, you request that the land use requirements be deferred until such time that funds become available to establish the next permanent development at Waiawa Correctional Facility.

We will **DEFER** the requirement for submitting the required SUP and PRU applications, provided your respective agencies commit to submitting the applications no later than December 2014. We note that the structures are not permanent, and do not expand the inmate capacity of the facility, and farming will continue to be part of the facility

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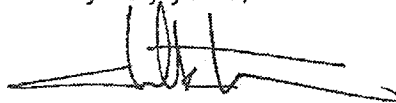
The Honorable Russ K. Saito, State Comptroller  
Department of Accounting and General Services  
The Honorable Clayton A. Frank, Director  
Department of Public Safety  
June 5, 2009  
Page 2

operations. In addition, there is a public interest in timely implementation of substance abuse programs, which is essential for the inmates. You indicate you will apply for the SUP and PRU permits when the next permanent development at Waiawa Correctional Facility is proposed, and that after termination of the quitclaim deed in 2014, or in five years, the federally owned parcels could be transferred to the State of Hawaii.

We request that during this five-year period, the State Department of Public Safety and the State Department of Accounting and General Services inform the Department of Planning and Permitting as to the status of your progress in preparing and submitting the SUP and PRU applications on an annual basis beginning December 31, 2009, and on each anniversary date thereafter until the required land use approvals have been granted.

If you have any questions on the SUP application requirements, please contact Raymond Young of our staff at 768-8049. Questions relating to the PRU application requirement may be directed to Sharon Nishiura at 768-8031.

Very truly yours,



David K. Tanoue, Director  
Department of Planning and Permitting

DKT:lh  
Doc. 696457

LINDA LINGLE  
GOVERNOR



RUSS K. SAITO  
COMPTROLLER

SANDI YAHIRO  
DEPUTY COMPTROLLER

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1208.9

JUL 14 2009

Mr. David K. Tanoue, Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Dear Mr. Tanoue:

Subject: Department of Public Safety  
Temporary Structures at Waiawa Correctional Facility  
Deferral of SUP and PRU

Thank you for your June 5, 2009 letter which defers the Special Use Permit (SUP) and Plan Review Use (PRU) application requirements for the subject project.

The Department of Public Safety (PSD) will comply with the conditions cited in your letter with your assurance that all land use and zoning requirements noted in our building permit application (File No. A2009-04-0378, copy attached for your reference) for the building permit approval process are also deferred. The land use and zoning requirements would be best addressed during the SUP and PRU application process. PSD will submit annual reports on SUP and PRU preparation progress to your department. Because the PSD will need to request funding to hire consultants to process the SUP and PRU applications, completion of these applications by December 2014 will be contingent upon timely Legislative appropriations and release of the funding.

Subject to the availability of project funding for these purposes, the Department of Accounting and General Services, Public Works Division will assist the PSD in the preparation of the SUP and PRU applications.

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B-7

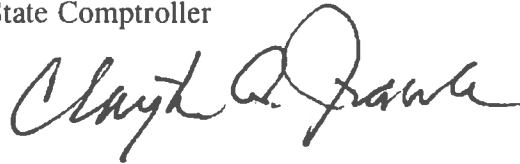
Mr. David K. Tanoue  
(P)1208.9  
Page 2

Thank you for your cooperation and attention to this matter. If you have any questions, please call Mr. Russ Saito at 586-0400 or have your staff call Mr. John Borders of the PSD at 587-3463.

Sincerely,



RUSS K. SAITO  
State Comptroller



CLAYTON A. FRANK, Director  
Department of Public Safety

Attachment

Department of Planning and Permitting  
Building Division  
**REVIEW OF PLANS AND SPECIFICATIONS**  
**Zoning Code Comment Sheet**

Comments

Follow Up

6. Please remind the project manager for the State that required PRU and SUP has only been deferred and of their December 2014 commitment to comply. See copy of DPP's letter, attached. These types of discretionary permits unfortunately do take a long time to process and if not done in a timely manner, may result in delay of future building permits.

\*\*\*\*\*

All hand corrections to the plans shall be done LEGIBLY to all affected sheets AND sets of plans so that the drawings are consistent, in black ink, then signed and dated.

If the plans become illegible/confusing, new prints may be required. Subject to the information resubmitted, additional concerns may arise.

If inserting revised sheet(s), remove the superceded sheet(s), VOID it and bundle separately. Include this comment sheet with your responses and any voided sheet(s) in your resubmittal.

RESUBMIT plans and documents DIRECTLY to ZONING PLANS REVIEW BRANCH by DEPOSITING in the BLUE "Zoning Review" drop-box located ON the LEFT portion of the entry area INFORMATION counter. Thanks!



Department of Planning and Permitting  
Building Division  
**REVIEW OF PLANS AND SPECIFICATIONS**  
**Zoning Code Comment Sheet**

File No.: **A2009-04-0378**

Date: **June 12, 2009**

Plans Examiner: **KEITH TAMURA** Phone: **7688246**  
Job Description: **[TMK: 96005011] 94-560 KAM HWY - WAIAWA TEMPORARY PROGRAM FACILITIES - NEW STRESSED MEMBRANE STRUCTURE. \*\*\*\*\*DAGS JOB #: 22-27-5609 \*\*\*\*\* [THIRD PARTY REVIEW]**  
TMK: **9-6-005: 011**  
Plans By: **YASUMOTO STANLEY**

Zoning District: **F-1 MILITARY & FEDERAL PRESERVATION**  
Flood District: **FIRM ZONE D**  
Occupancy Group: **A-3 Assembly building or auditorium <300**  
Type of Construction: Minimum: Actual:  
Story Height:  
Floor Area:  
Auto.Spr. Syst.:

Comments

Follow Up

2008/ADV-667

Please:

1. I have updated your application process to include getting approval from the State Dept. of Health - Clean Drinking Water Branch as required by Planning Division, Raymond Young.

The application forms have been re-printed to include a sign-off line for them.

Discard the superseded application forms and use these now.

2. Sht. G-2:

a. Doesn't this project include parcel :011? If so, amend the information on your plans to include it. If not, explain discrepancy.

b. Add a note to the Land Use Designation that although the parcel information on the computer is showing a F-1 zoning, that building permit review of this site shall follow LUO P-2 development standards.

c. On this sheet provide a complete Zoning Project Data table. I have red penciled most of the missing information. Trace over the red pencil with a black ink pen, filling in all the missing information.

3. Sht. A-1, if possible, draw in, label and dimension all the parking and loading stalls.

IF there are parking and loading stalls located elsewhere on the site, include a Site Plan drawing showing their location and sizes.

4. Sht. A-2, provide dimensions to the outer wall face of the proposed structures.

Use this outer face dimension to calculate the LUO floor area and lot coverage.

Amend your project data on sht. G-2 as needed.

5. Sht. A-4, first label which line represents the existing and/or finish grade, whichever is LOWER.

Next, dimension the height of the proposed structures measured from the above lower grade to it highest point.

---

Project:	Zoning ID:	Sheet 1 of 2 Sheet(s)
Review No.: 1		
Processid: 32368936	Jobld. 32018713	Externalld: 032008113-004
		File No.: A2009-04-0378

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

650 SOUTH KING STREET, 7<sup>TH</sup> FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 768-8000 • FAX: (808) 768-8041  
DEPT. WEB SITE: [www.honolulu.gov](http://www.honolulu.gov) • CITY WEB SITE: [www.honolulu.gov](http://www.honolulu.gov)

KIRK CALDWELL  
MAYOR



GEORGE I. ATTA, FAICP  
DIRECTOR

ARTHUR D. CHALLACOMBE  
DEPUTY DIRECTOR

2015/ELOG-136  
2009/ELOG-951 (RY)

March 4, 2015

Mr. Nolan P. Espinda, Director  
Department of Public Safety  
State of Hawaii  
919 Ala Moana Boulevard, 4<sup>th</sup> Floor  
Honolulu, Hawaii 96814

Dear Mr. Espinda:

**SUBJECT:** Continuation of Deferral of State Special Use Permit  
and Plan Review Use Permit Applications  
State Department of Public Safety, Waiawa Correctional Facility  
94-670 Kamehameha Highway, Waiawa, Ewa, Oahu  
Tax Map Keys 9-6-005: 011 and 012

Thank you for your letter dated January 15, 2015, requesting an extension of our June 5, 2009 deferral for submitting the required State Special Use Permit (SUP) and Plan Review Use Permit (PRU) applications beyond December 2014. We will **DEFER** the requirement for submitting the required SUP and PRU applications to December 2019, as requested, provided that all improvements are for health and safety purposes, or to satisfy compliance with federal requirements. Consistent with our original deferral in 2009, buildings must be temporary structures, there will be no expansion of the inmate capacity in the facility, and farming must continue as part of the facility operations.

We are granting this extension based on your commitment to use FY 2015 CIP funds to contract a consultant and initiate the planning process, including the preparation of an Environmental Impact Statement study for the facility complex, subsequently submitting applications for the required and overdue SUP and PRU permits.

We request that during this extension period, the State Department of Public Safety and the State Department of Accounting and General Services continue to inform the Department of Planning and Permitting as to the status of your progress in preparing and submitting the SUP and PRU applications on an annual basis beginning December 31, 2015, and on each anniversary date thereafter until the required land use approvals have been granted.

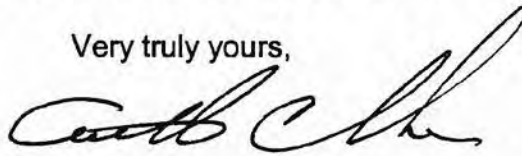
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B-11

Mr. Nolan P. Espinda  
March 4, 2015  
Page 2

Should you have any questions on the SUP application requirements, please contact Raymond Young of our staff at 768-8049. Questions relating to the PRU application requirement may be directed to Jamie Peirson at 768-8011.

Very truly yours,

A handwritten signature in black ink, appearing to read "George I. Atta". The signature is fluid and cursive, with a prominent initial "G" and a long, sweeping tail.

✓ George I. Atta, FAICP  
Director

GIA:kh



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
SAFE DRINKING WATER BRANCH  
919 ALA MOANA BLVD., ROOM 308  
HONOLULU, HI 96814-4920

In reply, please refer to:  
File: SDWB  
348G0415.docx

April 20, 2015

Mr. Scott Harrington  
Warden  
Waiawa Correctional Facility  
P.O. Box 1839  
Pearl City, Hawaii 96782

Dear Mr. Harrington:

SUBJECT: PUBLIC WATER SYSTEM NO. 348  
WAIAWA CORRECTIONAL FACILITY  
TRANSMITTAL OF SANITARY SURVEY REPORT

Thank you for the assistance and information provided during the sanitary survey inspection of the Waiawa Correctional Facility water system conducted on March 19, 2015.

My staff appreciated the assistance provided by Messrs. Walter Zaharevitz and Vernon Tanaka.

Enclosed is a copy of the Waiawa Correctional Facility sanitary survey report. A sanitary survey of a public water system is a periodic review of the system's facilities, operation and maintenance practices, and records to assure that proper conditions, policies, and practices are in effect for that water system. Maintaining of minimum standards of operation and maintenance is the responsibility of the operator.

Under the Hawaii Administrative Rules (HAR), Section 11-20-46.1(g), water systems with a "significant deficiency" are required to correct the deficiency or provide a written corrective plan of action and a completion schedule within 45 days of receiving written notice of the significant deficiency from the State.

Photo documentation of all corrected significant deficiencies is required as of January 1, 2014. The Safe Drinking Water Branch (SDWB) reserves the right to conduct follow up inspections as necessary.

Mr. Scott Harrington  
April 20, 2015  
Page 2

The Department of Health (DOH) also requests that the system review the "recommendations" (non-significant deficiencies) noted in the report, and provide written acknowledgement that they will address them in a timely manner, to the extent that resources and operations will allow. We strongly encourage the system to address "recommendations" as you would significant deficiencies to avoid related problems in the future. The DOH will be using this report's list of significant deficiencies and recommendations as a reference and benchmark for measuring system progress in future sanitary surveys.

If there are any questions, please call Ms. Joan Corrigan of the SDWB Engineering Section at 586-4258.

Sincerely,



JOANNA L. SETO, P.E., CHIEF  
Safe Drinking Water Branch

JC:cw

Enclosure

- c: Mr. Walter Zaharevitz, Waiawa Correctional Facility [via email:  
[Walter.B.Zaharevitz@hawaii.gov](mailto:Walter.B.Zaharevitz@hawaii.gov)]  
Mr. Vernon Tanaka, Waiawa Correctional Facility [via email:  
[Vernon.M.Tanaka@hawaii.gov](mailto:Vernon.M.Tanaka@hawaii.gov)]  
Ms. Maleeya Machado, Pural Water Specialty Co. [via email:  
[maleeyah.machado@puralwater.com](mailto:maleeyah.machado@puralwater.com)]  
Mr. Kaipo Fukumoto, Pural Water Specialty Co. [via email:  
[kaipo.fukumoto@puralwater.com](mailto:kaipo.fukumoto@puralwater.com)]  
Mr. Ian Ichimura, Pural Water Specialty Co. [via email:  
[ian.ichimura@puralwater.com](mailto:ian.ichimura@puralwater.com)]

SANITARY SURVEY OF THE  
WAIAWA CORRECTIONAL FACILITY WATER SYSTEM (PWS 348)

The Safe Drinking Water Branch (SDWB) conducted a sanitary survey of the Waiawa Correctional Facility (WCF) system on March 19, 2015. The system is owned by the State of Hawaii Department of Public Safety.

The inspection was conducted by SDWB staff Ms. Joan Corrigan, and Messrs. Michael Miyahira and Zhaohui Wang. The water system was represented by Ms. Maleeyah Machado, and Messrs. Kaipo Fukumoto and Ian Ichimura of Pural Water Specialty Company, Inc. and Messrs. Walter Zaharevitz and Vernon Tanaka of the WCF operations staff.

The survey took approximately 1.5 hours.

SYSTEM DESCRIPTION AND FLOW

The Waiawa Correctional Facility water system is a community public water system with a total of 12 service connections and a service population of 334 (SDWB System Information Inventory). System infrastructure consists of a piped intake off Waiahole Ditch to a raw head tank; three 30 gpm Memcor microfiltration water treatment units; 500,000 gallon riveted steel finished water tank; and distribution system with pipe sizes ranging from 1-inch to 8-inches in diameter. Average finished water demand is estimated at 40,000 gpd.

Waiahole Ditch Intake and Booster Station

The Waiahole Ditch is the sole drinking water source for the WCF system. The ditch's source is derived from a combination of high level dike water and surface water from localized channels on the windward side of Oahu, primarily in the Waiahole, Waikane and Kahana areas. A smaller volume of flow is obtained from various surface water and tunnel sources on the upper leeward side of the Koolau mountain range. The total contributing area of these windward and leeward sources is estimated to be 6 square miles, or approximately 3,800 acres. Gaging stations along Waiahole Ditch have recorded historical high and low flows of 75 mgd and 15 mgd in past years.

A large pipe has been installed in the last month or so to direct the water from the source.

The intake location (~185' elevation) diverts ditch water using two 4-inch pipes which feed dual 160 gpm SHIPCO booster pumps housed in a nearby pump station structure. The Waiahole Ditch at the intake consists of an aged, open, concrete channel that passes across a heavily forested ravine. Runoff from rainfall flows down the ravine and crosses the Waiahole Ditch channel structure. A worn sheet metal flume carries the runoff over the Waiahole Ditch and discharges the runoff just past the concrete channel. PVC intake pipes draw the water out of the channel.

The pump station consists of a CMU building that has recently been repainted and cleaned out. The gulch in front of the station has been deepened to compensate for the sediment and other vegetation that builds up and may cause the gulch to overflow and possibly flood the pump house. The pump motors are particularly vulnerable to water damage since they are mounted on the concrete floor slab. The small wood bridge to cross the ravine was rotten so it has been removed.

Raw ditch water is pumped uphill to a 2,400 gallon head tank (~365' elevation) located just north of the WCF main building complex. Three 40 gpm booster pumps provide the necessary inlet feed pressure for the nearby microfiltration membranes.

### Microfiltration Plant

The treatment plant site consists of simple overhead structure with no walls to house the microfiltration units, air backwash system, emergency generator, chlorination system, membrane cleaning chemicals, control panels and regulatory monitoring equipment and alarms. The entire site is secured with chain link fencing topped with three strand barbed wire. Entry is through a locked, double swing gate. "Keep Out" and "Water Treatment Plant" signs are posted on the outside of the chain link fence. Unauthorized entry does not appear to be an issue at the plant since it is located within a secured State correctional facility.

The existing Memcor continuous microfiltration (CMF) plant (3 units @ 30 gpm Memcor 40M10C polypropylene membranes) was originally installed in November 1997. Its membranes have last been replaced in 2014. The three units are run two at a time at a rate of 20 gpm each, rotating weekly. An Allen Bradley programmable logic controller (PLC) unit is provided for each CMF unit to control the electrical and pneumatic systems needed to operate the filters.

The 40M10C modules utilize 0.2 micron hollow fine fiber technology made of polypropylene to treat raw water. The individual lumens work from an outside-in, dead-end mode at a normal feed pressure of 30 psi. The lumens are backwashed with compressed air from the inside-out every 45 minutes or when the pressure drops to 15 psi, depending on the quality of water. Pressure decay tests are performed automatically every day, while a CIP is done quarterly. CIPs utilize a 2% Memclean (NaOH) solution. The finished water is conveyed up the hill to the 500,000 gallon clearwell/storage tank.

Disinfection is achieved using sodium hypochlorite (Hypochlor NaOCl). A Unichlor feed pump injects the chlorine solution directly into the line downstream of the finished water booster pumps. Chlorine injection levels are manually set by the operator on a daily basis with the purpose of achieving a residual of about 0.5 ppm at the entry point (EP) to the distribution system. The monitoring point for Cl<sub>2</sub> Analyzer #1 is after the chlorine feed line from the booster pump to the 500,000 gallon finish water tank and for Cl<sub>2</sub> Analyzer #2 the monitoring point is at the treatment plant in the main distribution line

coming down from the finish water tank.

At the time of the sanitary survey the raw water turbidity was 0.21 NTU. The water turbidity for Filter No. 1 was 0.037 NTU, for Filter No. 2, 0.054 and for Filter No. 3, 0.063 NTU. These values are well below the 0.3 NTU upper limit for 95% of the turbidity values reported for CT. Turbidity was measured using Hach continuous monitoring turbidimeters.

Although the Memcor units are protected with removable plastic panels, it would be advisable to house these units in a fully enclosed building. Wet areas on the concrete slab were observed which indicated that there was some minor leaking occurring in the piping.

There was a copy of the Emergency Response Plan, MSDS sheets and operations logbook at the treatment plant

A 35 kW emergency generator is available to run the water system during power outages. It is tested weekly.

#### 500,000 Gallon Finished Water Tank

This tank serves two main purposes in the system: storage for domestic and fire demands and contact time volume for CT inactivation. The 500,000 gallon storage volume is more than adequate to handle the expected daily demand of 40,000 gpd and to continuously maintain a minimum 300,000 gallons of fire protection storage. The tank also serves as a clearwell to achieve the required chlorine contact time under the Surface Water Treatment Rule. Monthly CT calculations submitted by the system are usually satisfactory. A SDWB-approved baffle factor of 0.3 is included in the calculations.

There is no security fence visible around the tank site but security does not appear to be an issue due to its location at a State correctional facility. Access to the top of the tank is via extension ladder.

The top of the roof shows a lot of rust and some areas have formed rust blisters.

As noted in previous surveys, the tank hatch is severely rusted. The lock connection and hinges have rusted off so full removal of the hatch cover can be achieved without opening the lock. There is inadequate gasket protection and the curb has large holes from rusting all the way through. The ladder is also rusting. The rust is causing the paint to peel off and some pieces end up falling into the clearwell. There are rust spots throughout the interior of the tank at the riveted joints.

The air vent is significantly rusted and in need of a cover over the insect screen to prevent rainwater from entering the tank.



There were numerous water stains on the outside of the tank from leaking at the joints.

There are plans to construct a new finished water tank near the existing tank. It has yet to be determined whether or not the existing tank will remain in service for fire protection.

Because the treatment plant is only operated on weekdays and shut down over the weekend, tank operating levels fluctuate between 16'-18' (low water level on Monday morning) and 23' (high water level on Friday afternoon). The treatment plant may operate on the weekends if a rain storm is anticipated or if a fire occurs in the area. The treatment plant is operated so that end-of-day tank levels rise approximately one foot every weekday in order to reach the Friday high water level. A Magnetrol 341 ultrasonic, non-contact tank level sensing system was operating but does not control the tank level or treatment plant operation. It is used instead by the operators to read morning tank levels and to determine whether the WTP output needs to be adjusted.

A covered monitoring station adjacent to the tank was reading compliance parameters (flow, tank level, pH, temperature, chlorine residual and turbidity) off the outlet line. Instrumentation is calibrated monthly. The instrumentation is housed in a steel box enclosure. There is a rubber gasket around the doors for the enclosure and the doors appear to close fairly tightly. The instrumentation consisted of a Controlotron System 1010 Multifunction Ultrasonic Flowmeter, Aquatrec Multiflex Control Automation datalogger, Hach 1720D turbidimeter, Hach Aquatrend SOM, Hach Power Supply network Connection Module, Capital Controls Model 1770 Chlorine Residual Analyzer and temperature and pH displays. At the time of the sanitary survey the flow was 35.09 gpm, pH 7.5, temperature 75.9 degrees F, chlorine residual 0.22 mg/l, and turbidity 0.027 NTU. Data is logged every 2 seconds and stored on a memory card. The information is downloaded every 2 weeks to a laptop by Pural.

### Distribution System

Main sizes in the distribution system vary from 1-inch to 8-inches in diameter and may be on the small side during fire flows, but appear to be adequate under normal max/min system demands. Pipe materials are unknown.

### MONITORING:

Coliform Monitoring Program: *Satisfactory.*

Lead and Copper Monitoring Program: *Satisfactory.*

Chemical Monitoring: *Satisfactory.*

Phase II and Phase V Monitoring Program: *Satisfactory.*

Microbiological Water Quality: *Satisfactory.*

Consumer Confidence Reports: Satisfactory.

Surface Water Treatment Rule: Satisfactory.

## CAPACITY ASSESSMENT

This section compiles data for SDWB use.

### TECHNICAL

1. OPERATOR CERTIFICATION. Each public water system (except transient, non-community) shall be under the responsible charge of an operator(s) holding a valid certification equal to or greater than the classification of the WTP or DS. Check whether the water system operators are certified. Assess as satisfactory or unsatisfactory.

*Satisfactory*

2. ADEQUATE WATER SOURCES. Discuss with manager whether the present water sources are adequate for the future (next 5 years). Assess as satisfactory or unsatisfactory.

*Satisfactory*

3. POTENTIAL FOR CONTAMINATION OF THE WATER. Inspect for pathways that could contaminate the finished water at the well site, storage tanks, or distribution system. Assess as satisfactory or unsatisfactory.

*Unsatisfactory. The existing access hatch should be repaired / replaced. All holes and rusting should be remedied to prevent contaminants from entering the tank. The air vent should have a cover over the insect screen to prevent rainwater from entering the tank.*

4. MONITORING PROGRAMS. Check water quality monitoring performance. This evaluation is reported in the Monitoring section of the Sanitary Survey Report. Assess as satisfactory or unsatisfactory.

*Satisfactory*

5. BACKFLOW AND CROSS-CONNECTIONS. Check whether backflow prevention devices are used if the water system serves hospitals, farms, golf courses, sewage treatment plants, or other activities that could cause a backflow of contamination into the drinking water. Look for cross-connections with the drinking water system. Assess as satisfactory or unsatisfactory.

*Satisfactory*

## MANAGERIAL

1. CAPITAL IMPROVEMENT PROJECTS. Identify improvements to the water system and include the month and year the improvement was installed. The facility improvements indicates management support of the water system needs. If no improvements are noted indicate whether the existing system is adequate.

*Satisfactory*

2. SYSTEM MAINTENANCE. The overall condition of the water system's infrastructure should be assessed. Is the present maintenance level adequate for the water system? Assess as satisfactory or unsatisfactory.

*Satisfactory*

3. EMERGENCY PLANS. Check whether the water system has an emergency plan. The plan should include obtaining backup sources of water in drought situations, loss of a well pump or extended loss of electrical power. Assess as satisfactory or unsatisfactory.

*Satisfactory*

4. CORRECTION OF PROBLEMS. The water system should have plans to correct obvious significant problems noted during the survey. The water system should also have corrected earlier identified significant problem(s) in a timely fashion. Assess as satisfactory or unsatisfactory.

*Unsatisfactory. The problem of the deteriorated roof hatch at the finish water tank was identified since the 2006 sanitary survey and has still not been corrected.*

## FINANCIAL

1. ADEQUATE FINANCIAL BUDGETS. Discuss whether funding levels for operation and maintenance are sufficient. Is there funding for capital improvement projects? Assess as satisfactory or unsatisfactory.

*Satisfactory.*

2. Normal operation and maintenance

*Satisfactory.*

3. Capital improvement projects.  
*Satisfactory.*

**SIGNIFICANT DEFICIENCY:**

**Surface Water or Subpart H systems:**

Under the Hawaii Administrative Rules, Title 11, Chapter 20, Section 11-20-46.1(g), water systems with a “**significant deficiency**” are required to correct the deficiency or provide a written corrective plan of action and a completion schedule within 45 days of receiving written notice of the significant deficiency from the State. Failure to correct the deficiency or provide a timely plan of action and schedule within 45 days of receiving written notice of the significant deficiency from the State, will subject the water system to penalties of not more than \$25,000 per violation per day under HRS 340E-8.

**Clearwell/Storage Tank**

1. **The deteriorated roof hatch curb, doors and hinges should be repaired/refurbished or replaced. The door should include a rubber gasket and lock to provide a seal against the entry of insects and contaminants.**
2. **The air vent should have a cover installed over the insect screen to prevent rainwater from entering the tank.**

**RECOMMENDATIONS:**

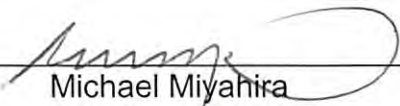
1. Provide a fully enclosed building structure for the water treatment plant. This will better shield the water treatment plant and instrumentation from the weather and extend the longevity of the infrastructure.
2. Recommend tying the tank level control system to the on-off operation of the WTP in order to maintain a more consistent tank level. If not done, the tank volume used in daily CT calculations must be derived from a daily, manual tank level reading at peak hourly flow.
3. There is significant leaking at the tank seams and the gravel foundations seems unstable, causing the tank to slightly lean and bulge towards one side. Recommend fixing the leaks, obtaining a structural analysis and possibly strengthening the foundation support, especially if this tank will continue to be in use after the new tank is constructed.
4. The top of the tank is rusted and rust blisters have formed in various areas. Recommend cleaning off rust and repainting to prevent the blisters from rusting all the way through and creating holes into the tank.

OTHER COMMENTS:

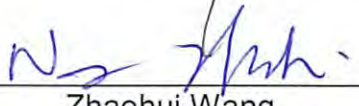
Membrane replacement occurred in 2014: the SDWB requires documentation of these replacement actions including: who did the replacement work, membrane manufacturer, model, membrane specifications, and number of modules replaced.

  
\_\_\_\_\_  
Joan Corrigan

4/20/15  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Michael Miyahira

4/20/15  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Zhaohui Wang

4/20/15  
\_\_\_\_\_  
Date



Metal flume diverting water from Waiahole Ditch to the intake.



Metal flume diverting water from Waiahole Ditch to the intake.



Water system intake.



Pump station.



Pumps that boost water to the head tank.



Head tank next to the water treatment plant.





Access hatch on the raw water head tank, properly sealed with gasket and overhang.



Air vent on head tank properly screened and downturned.



Influent line to the raw water tank.



Three booster pumps to run water from the head tank to the water treatment plant.



Water treatment plant.



35kW generator for backup power.



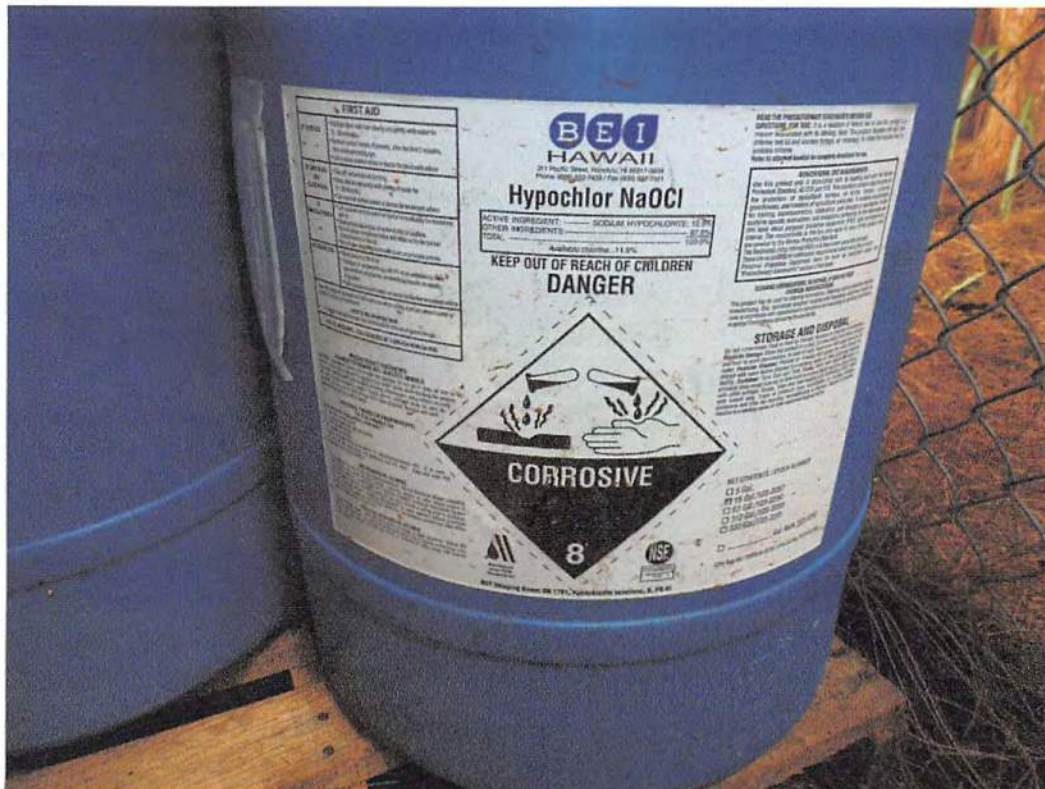
Three Memcor microfiltration units, exposed to the elements without proper enclosure.



Sodium Hydroxide solution used to clean microfiltration units (performed quarterly).



Hypochlor barrel for on-site disinfection.



Label for disinfection chemical.



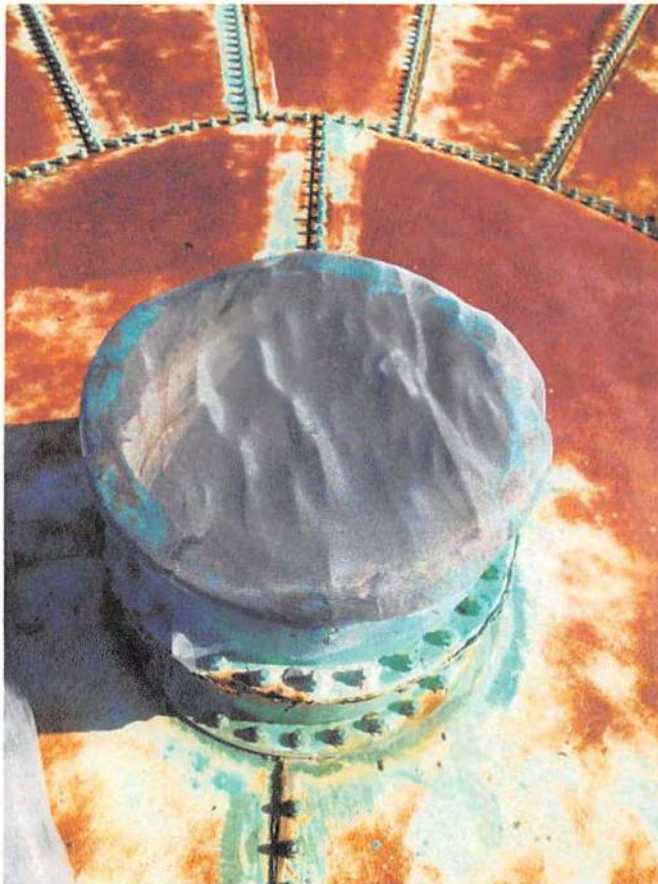
Turbidity monitors at water treatment plant.



Monitors in an enclosure at the clearwell site.



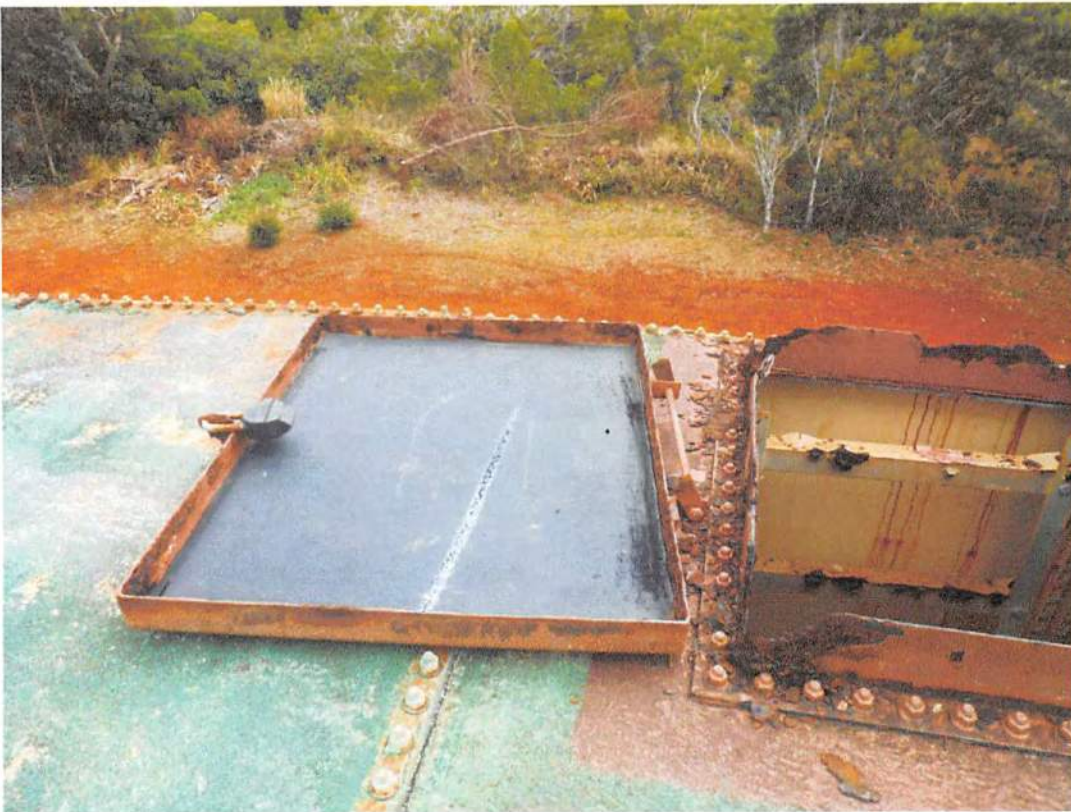
The clearwell is leaking significantly at the joints.



Air vent has a new screen but needs a cover to prevent rainwater from entering the tank.



The clearwell roof is very rusty and blisters have begun to form.



The access hatch needs to be replaced / repaired / refurbished to fix the deficiencies caused by excessive rusting (holes in the curb, hinges and lock that have rusted off, and inadequate gasket)

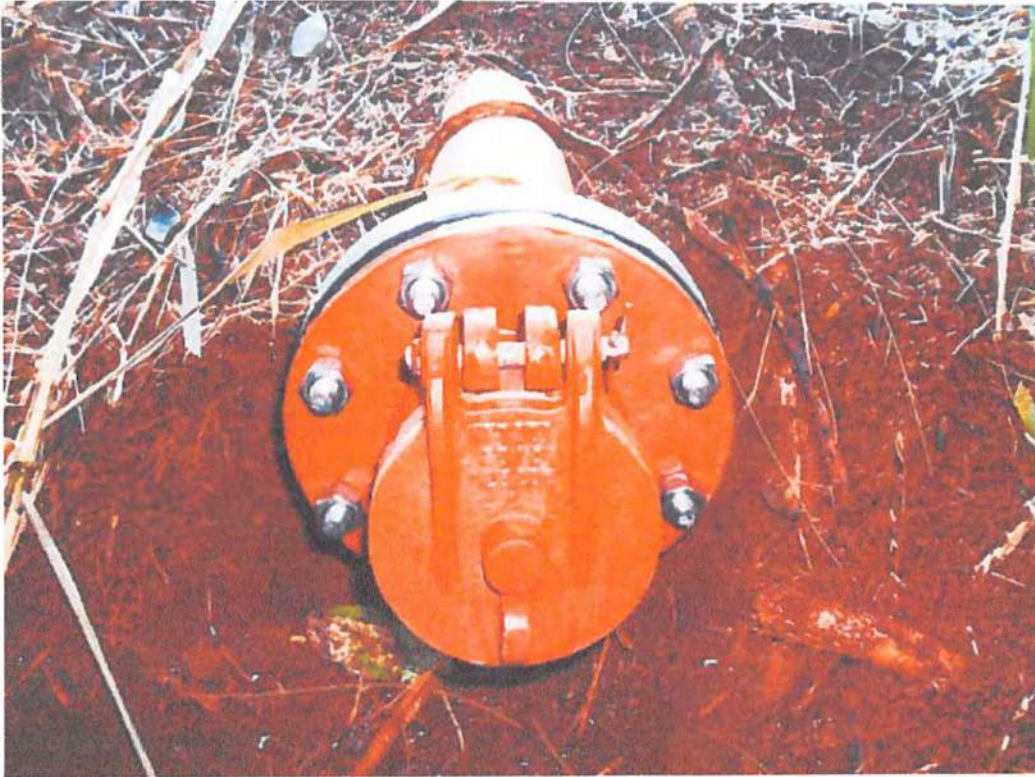




The ladder leading into the tank from the access hatch is rusty and peeling paint has been falling into the water.



There is particulate in the water, most likely the paint that has been falling off the ladder and access hatch due to rust.



The clearwell overflow / drain line is in good condition.

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UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF MANAGEMENT

2015 JUL -8 P 1:05

E-mail: Barbara.Shawyer@ed.gov

July 7, 2015

Mr. Nolan P. Espinda  
 Director, Department of Public Safety  
 State of Hawaii  
 919 Ala Moana Boulevard, 4<sup>th</sup> Floor  
 Honolulu, HI 96814

Dear Mr. Espinda:

Thank you for providing the State of Hawaii's June 25, 2015 final utilization report to the U.S. Department of Education (Department).

The Department is pleased to confirm that the State of Hawaii has satisfactorily completed the thirty (30) year period of restrictions set forth in the April 25, 1985 deed, which conveyed the Waiawa Military Reservation at substantial Public Benefit Allowance discount. The State and the property are no longer bound by the first four conditions subsequent in that deed or the covenants that are directly related to those conditions.

Please understand that the non-discrimination condition and covenant in the 1985 deed will continue to run with the land but will only be binding upon educational titleholders or successors to the State of Hawaii if the property is sold or otherwise transferred to other parties at some time in the future.

The Department congratulates the State on its accomplishments in satisfactorily fulfilling the obligations that were undertaken in the acquisition of this property. Please find enclosed a certificate of completion for your use. We sincerely hope that we may be able to assist you again in the future.

Sincerely,

Barbara L. Shawyer  
 Federal Real Property Assistance Program

Enclosure

400 MARYLAND AVE. S.W., WASHINGTON, DC 20202-4500  
[www.ed.gov](http://www.ed.gov)

*The Department of Education's mission is to promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.*

FOR OFFICIAL USE ONLY

THIS  
**CERTIFICATE OF  
COMPLETION**

IS PRESENTED BY

U.S. DEPARTMENT OF EDUCATION  
OFFICE OF MANAGEMENT

FEDERAL REAL PROPERTY ASSISTANCE PROGRAM

To



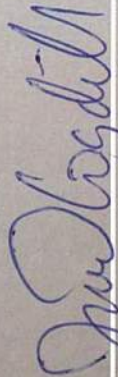
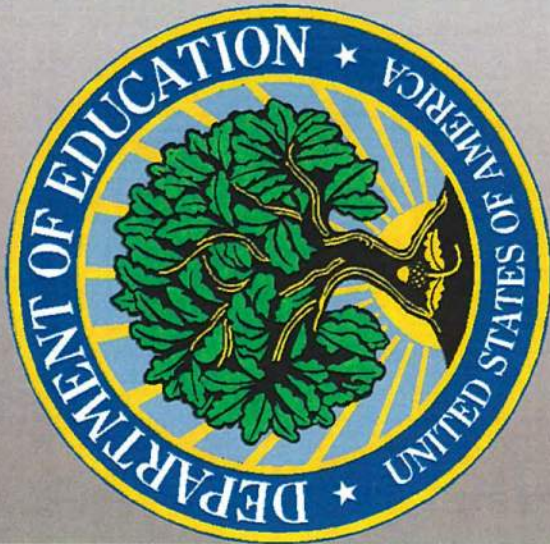
*The State of Hawaii*

FOR SUCCESSFUL COMPLETION OF THE TERMS  
AND CONDITIONS OF THE APRIL 25, 1985  
QUITCLAIM DEED FOR THE FORMER WAIAWA  
MILITARY RESERVATION

AWARDED THIS 7<sup>TH</sup> DAY OF JULY, 2015

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B-38

A handwritten signature in blue ink, appearing to read "John R. Cogdill".

John R. Cogdill, Director  
Logistics Services Division



**STATE OF HAWAII**  
**DEPARTMENT OF HEALTH**  
**SAFE DRINKING WATER BRANCH**  
919 ALA MOANA BLVD., ROOM 308  
HONOLULU, HI 96814-4920

In reply, please refer to:  
File: SDWB  
34811015.docx

October 21, 2015

Mr. Vernon Tanaka  
Facility Superintendent  
Waiawa Correctional Facility  
P.O. Box 1839  
Pearl City, HI 96782

Dear Mr. Tanaka:

**SUBJECT: PUBLIC WATER SYSTEM NO. 348  
WAIAWA CORRECTIONAL FACILITY (WCF)  
EXISTING 0.5 MG WATER STORAGE TANK**

Thank you for the May 28, 2015 WCF response to our April 20, 2015 Safe Drinking Water Branch (SDWB) Sanitary Survey Report. We appreciate the quick WCF action in addressing the significant deficiencies in our report. However, we wish to reiterate our concerns for the short and long term structural integrity of the sole storage tank serving the WCF system, and its potential impacts to both the supply and quality of drinking water to your consumers.

In our report, we mention that, "There is significant leaking at the tank seams and the gravel foundations seems unstable, causing the tank to slightly lean and bulge towards one side." This problem has been observed by the SDWB since the 2006 sanitary survey and the tank has deteriorated significantly since then.

Since there has been no known structural analysis of the tank and its foundation, it can only be assumed that it is only a matter of time until the tank fails and breaks down completely, posing a significant health and safety hazard to staff and inmates. If the existing tank continues to be in service, the extreme deterioration may allow pathways for contaminants to enter the tank and cause illness. There is also concern that since the tank is leaning and bulging to one side, the tank support is greatly compromised and could give way. This could result in dire consequences should such a catastrophic failure occur while the existing tank is in service. Therefore, the SDWB strongly recommends that the tank be replaced immediately.

Mr. Vernon Tanaka  
October 21, 2015  
Page 2

If there are any questions, please call me at 586-4258.

Sincerely,



JOANNA L. SETO, P.E., CHIEF  
Safe Drinking Water Branch

JC:cw

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA  
FIRST DEPUTY

JEFFREY T. PEARSON  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAILOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

January 18, 2016

Department of Planning and Permitting  
City and County of Honolulu  
One Main Plaza Building  
650 South King Street  
Honolulu, Hawaii 96813

Log No. 2015.04126  
Doc. No. 1601LS07  
Archaeology

Dear Mr. or Ms:

SUBJECT: Chapter 6E-8 Historic Preservation Review –  
Building Permit Application, A2014-04-0628  
94-670 Kam Hwy, Waipahu – Electrical System Improvements  
Owner Name: State of Hawaii, Dept. of Accounting & General Svcs.  
Waiawa Ahupua'a, 'Ewa District, Island of O'ahu  
TMK: (1) 9-6-005:011

Thank you for the opportunity to review this permit application to complete electrical system improvements at the Waiawa Correctional Facility, 94-670 Kam Highway. We received this submittal on November 24, 2015, and the corrected building permit on January 18, 2016. The property totals 6,877,035 square feet. The project will involve grading and filling of a sloped portion of the new expanded 3,650 square feet project area. In addition, excavation for a new 8 ft. high, 128 linear ft. retaining wall will extend a maximum of 3 ft. below grade. All other work will involve removing and replacing existing generators, tanks, conduits, wiring, switches, concrete pads, feeders, and overhead lines that will involve minimal ground disturbance.

A review of our records shows that no archaeological inventory survey has been conducted, and that no archaeological historic properties have been identified within the project parcel. The USDA identifies the soils in this area as Leilehua silty clay, 2-6% slopes (LeB) (Foote et al. 1972).

Based on the above information, SHPD's determination is **no historic properties affected**. Issuance of the permit may proceed.

Please attach to the permit: In the unlikely event that subsurface historic resources, including human skeletal remains, structural remains, cultural deposits, artifacts, sand deposits, or sink holes are identified during the demolition and/or construction work, cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division, at (808) 692-8015.

Please contact me at [Susan.A.Lebo@hawaii.gov](mailto:Susan.A.Lebo@hawaii.gov) or at (808) 692-8019 if you have any questions regarding this letter.

Aloha,

*Susan A. Lebo*

Susan A. Lebo, PhD  
Archaeology Branch Chief

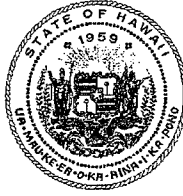
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BPF ~~748079~~  
5/2/14

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B-41



DAVID Y. IGE  
GOVERNOR



STATE OF HAWAII  
**DEPARTMENT OF PUBLIC SAFETY**

919 Ala Moana Boulevard, 4th Floor  
Honolulu, Hawaii 96814

**NOLAN P. ESPINDA**  
DIRECTOR

**Cathy Ross**  
Deputy Director  
Administration

**Jodie F. Maesaka-Hirata**  
Deputy Director  
Corrections

**Shawn H. Tsuha**  
Deputy Director  
Law Enforcement

No. 2016-1452

May 24, 2016

George Atta, Director  
City and County of Honolulu  
Department of Planning and Permitting  
650 South King Street, 7<sup>th</sup> Floor  
Honolulu, HI 96813

RE: SUP/PRU Applications for TMK: 1-9-6-005:011 and 012  
Building Application No.: A-2009-04-0378  
Waiawa Correctional Facility, Oahu, Hawaii  
DPP Director Letter to DAGS Comptroller and PSD Director, dated 6/5/2009  
(Letter No. 2009/ELOG-951 RY)  
DAGS Comptroller Letter to DPP Director, dated 7/14/2009 (Letter No. P1208.9)

Dear Mr. Atta:

The Department of Public Safety (PSD) requests a continuation of the 6/5/2009 deferral in the processing and reporting of the status for the required State Special Use Permit (SUP) and Plan Review Use (PRU) permit as they apply to the Waiawa Correctional Facility, Oahu (WCF). This deferral period covers a five-year period from January 2015 to December 2019.

As part of the deferral agreement, the PSD has disclosed herein the status of current ongoing projects at the facility. The Department of Accounting and General Services (DAGS), being the expending agency for the PSD, has filed a Declaration of Exemption for the preparation of an environmental assessment in accordance with Chapter 343 HRS and Chapter 11-200 HAR for the projects listed below. Also included are the associated building permit application numbers as they apply to the project. It should be noted that none of the listed projects have, will, and/or resulted in an increase to land use and/or building facilities at the property site.

- (1) WCF – Electrical System Improvements  
DAGS Job No: 12-27-5564  
Current Status: Under Construction  
Declaration of Exemption Filed: Yes  
DPP File No: A2014-04-0628 / Building Permit No: 786079

- (2) WCF – Wastewater System Improvements  
DAGS Job No: 12-27-5563  
Current Status: Under Construction (Awaiting Final Punch list and Closure)  
Declaration of Exemption Filed: Yes  
DPP File No: A2014-05-1025 / Building Permit No: 763468
- (3) WCF – Food Service Building Roofing Repairs  
DAGS Job No: 12-27-5658  
Current Status: Awaiting Bid Opening  
Declaration of Exemption Filed: Yes  
DPP File No: A2016-05-0101 / Building Permit No: In Process
- (4) WCF – Security Lighting  
DAGS Job No: 12-27-5682  
Current Status: Awaiting Design Contract  
Declaration of Exemption Filed: Yes  
DPP File No: Not Available / Building Permit No: Not Available

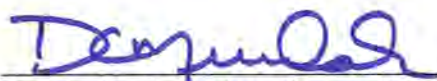
As an update to the PSD's SUP and PRU filing, DAGS and the PSD are currently working on securing funding as well as the appropriate consultant services to proceed with the application filing. During the deferral period, PSD in collaboration with DAGS, will notify the DPP when the official Notice to Proceed has been issued to the assigned consultant. We will provide updates to its progress as it occurs.

Should you have any questions please contact, Harold Alejandro, Capital Improvements Project Coordinator, by email at [harold.b.alejandro@hawaii.gov](mailto:harold.b.alejandro@hawaii.gov) or phone at (808) 587-1239. We appreciate your time and cooperation concerning this matter.

Sincerely,



Nolan P. Espinda  
Director



Douglas Murdock, State Comptroller  
Department of Accounting and General Services

Attachments: 2009/ELOG-951 (RY) C&C of Hon. Letter Dated June 5, 2009  
(P) 1208.9 DAGS Letter Dated Jul 14, 2009  
DPP Comment Sheet File No. A2009-04-0378

c: PSD/IDA – Shari Kimoto  
PSD/ASO – Chief Planner Clayton Shimazu  
DAGS/PWD/Planning Branch – Lance Maja, Planner  
DAGS/PWD/PMB – Daniel Jandoc, Section Head  
C&C/DPP/Raymond Young (SUP Application Review)  
C&C/DPP/Sharon Nishiura (PRU Application Review)

**Appendix C**

**Engineering Reports & Studies (chronological)**

Date	Title	Author	Comment	Partial Doc <sup>2</sup>	Full Doc <sup>3</sup>
1985	Environmental Assessment	DAGS	For Conversion of former military facilities into a 120-bed Minimum Security Correction Facility (Negative impact). Mentioned in 1998 FEA, but copy not available from DAGS; not found on OEQC website.	<b>Not in File</b>	
1986	Program and Space Requirements Report	WFML, P.S.	This planning document describes transition from Army to state corrections facility. Floorplans of several original structures are included.		X
1986	Preliminary Pavement Evaluation	Ernest K. Hirata & Assoc	Extent of roadway evaluated does not extend to Ka Uka Blvd. Includes map. See also DAGS drawing files.	X	
1986	Foundation Investigation: Medical Building	Ernest K. Hirata & Assoc		X	
1986	Foundation Investigation: Education/Library, Staff/Intake, & Kitchen/Dining Buildings	Ernest K. Hirata & Assoc		X	
1989	Hawai'i State Governor's Exec Order 3414	DAGS Survey Division	Includes metes and bounds and legal description or boundaries and easements.		X
1989	Water System Study	Kwock Assoc			X
Rev. 1990	Delineation of the Hydrologic Zone of Contribution for the U.S. Navy Waiawa Shaft	DOH, Safe Drinking Water Branch	Report to the Office of State Planning		
1993	Subsurface Investigation Report: Water Distrib and Leachate Disposal Fields	Fewell Geotechnical Engineering		X	
1997	Prelim Engineering Report: Interim Infrastructure Improvements	M&E Pacific			X
1997	Foundation Investigation: KASHBOX Compound	Architects Hawai'i		X	
1997	Structural Calculations for KASHBOX Compound	Ken Kazuo Hayashida, P.E.		X	

<sup>2</sup> Exec Summary and select portions photographed, avail as a digital file.

<sup>3</sup> Full document avail as a digital file.

## Engineering Reports &amp; Studies (chronological) – continued

Date	Title	Author	Comment	Partial Doc <sup>2</sup>	Full Doc <sup>3</sup>
1998	Waiawa CF Improvements (FEA and FONSI)	Wilson Okimoto & Assoc	Identified several new bldgs constructed without permits since state assumed ctrl of facility.		X
1998	Asbestos Investigative Survey Report	Edward K. Noda & Assoc	Inspected 15 bldgs total (ACBM identified in following bldgs underlined): <u>Building 1 thru 6, Tunnel, Medical Bldg, and Operations.</u> Other bldgs evaluated, ACB not found: Education Bldg, Gate House, Ops Storage #1 & 2, Food Service, and Food Service Storage. Site Plan not avail.	X	
2003	10-Year Corrections master Plan Update	Carter Goble Assoc			X
2003	State Water Projects Plan: Hawai'i Water Plan (Vol 5 SWPP for Island of O'ahu)	Fukunaga & Assoc	For the Commission on Water Resource Management, DLNR, State of Hawai'i		X
2005	Electrical System Improvements	Electech Hawai'i			X
2005	Wastewater System Improvements	M&E Pacific	Per DAGS, this report should reflect existing conditions of wastewater system.		X
2008	Proposed Temporary Program Structures (FEA)	Louis Berger Group	FONSI.		X
2008	Archaeological Assessment	Louis Berger Group and Pacific Legacy	Revised Archaeological Assessment for the Temp Program Structures. "Based on submitted plans we believe this project will have no adverse affects on significant historic properties."		X
2011	Condition Assessment, Prof Maintenance Services for DPS	(not stated)	Describes operations of maint staff and facilities.		X
2014	Strategic Development Plan, Phase 1: Existing Conditions Report (Final)	DLR Group	Includes facility, functional, and operation assessments as well as strategic master planning.		X
2014	Geotechnical Investigation, New Retaining Wall for Electrical System Improvements	Hirata & Assoc for Electech Hawaii			X
2015	Investigation of Roof and Roof Structure, Food Service Building	Wiss, Janney, Elstner Assoc			X

**Engineering Reports & Studies (chronological) - continued**

Date	Title	Author	Comment	Partial Doc <sup>2</sup>	Full Doc <sup>3</sup>
2016	Final Facility Assessment Reports and Preventive Maintenance Program Manuals	CGL, a Hunt Company	Docs on CD		X

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**Appendix D**

**Building Permits + Approved Plans**

Date	Bldg Permit No.	Plans Avail	Description	Value (\$)⁴
1940's	--	NO	Waiawa military communications camp. Bldg 04, 05, 06 were BOQ⁵ apartments. (DPS 2014) Info on other structures not available. See 1986 report for plans.	
1985	--	Partial	WCF opens as a minimum security facility.	
1/19/1987	234656	Y	New Transformer, Addition to Exist Power Pole	5,400
2/13/1987	234655	Y	New Dining/Kitchen Building NB, EL, PL. Total 7,260 SF 1-story. Occ: A-3	993,884
~2/24/1988	88-5054	--	Certificate of Occupancy (7,262 SF, Type V-N) Occ: A-3 Dining Room, B-2 Kitchen, Offices	
11/07/1988	261854	Y	Fresh Water Pumps at exist booster pump station (no. 7)	62,085
11/07/1988	261853	Y	Fresh Water Pumps at exist booster pump station (no. 6)	62,085
8/15/1994	356732	Y	New sewage disposal system, lift station, seepage ponds and stairway to exist wwtp DAGS Job No 12-27-6172	897,474
	362874-C	Y	Revision to 356732	
10/25/1997	359249	Y	New surface water treatment plant bldg (688 SF), emergency generator and ww line to exist wwtp. DAGS Job No 12-27-6659	777,039
12/18/1997	411812	Y excerpts	Two New 100 Bed Minimum Security Bldgs KASHBOX L-shaped buildings (total 16,808 SF) DAGS Job No 12-27-5522	1,849,750
10/19/2009	648142	NONE	Demolish existing (tent) structure Temporary Program Facilities. DAGS Job No 22-27-5609	7,900
10/19/2009	648143	NONE	Demo existing (restroom) structure Temporary Program Facilities. DAGS Job No 22-27-5609.	7,900
10/27/2009	648500	Y	New Stressed Membrane Structure. Temporary Facilities. New 3,100 SF. Occ: B. DAGS Job No 22-27-5609.	1,103,600
10/27/2009	648501	Y	New Stressed Membrane Structure. Temporary Facilities. New 3,100 SF. Occ: B. DAGS Job No 22-27-5609.	1,103,600
12/1/2010	664633	Y	New 1,500 gal Grease Interceptor, exterior freezer unit and flooring. Existing 7,257 SF, New 207 SF, Total 7,464 SF	329,000
10/18/2013	735209	Y	Remove Existing Roofing and Provide New roofing, flashings, and replace deteriorated fascia and soffit. DAGS Job No 12-27-5645	235,800
6/26/2014	749789	Y	KASHBOX Buildings Boiler Sys Replacement. DAGS Job No 12-27-5650	223,462

⁴ As reported on building permit

⁵ Bachelor Office Quarters



**Building Permits + Approved Plans (continued)**

Date	Bldg Permit No.	Plans Avail	Description	Value (\$) <sup>4</sup>
8/27/2014	753038	Y	Education Building, Replace AC System & Upgrade Electrical. DAGS Job No 12-27-5646	575,500
3/30/2015	763468	Y	Wastewater System Improvements - Replace Pond Liner. DAGS Job No 12-27-5563	1,936,580
5/2/2016	786079	Y	Elec System Improvements to include 6'-0" max height chainlink fence and 10'-0" max height CMU retaining wall. DAGS Job No 12-27-5567	917,700
BPA 2016-05-0101	Plan review in progress	NO	Alteration to Food Service Facility, Roofing and Related Improvements. DAGS Job No 12-27-5658	

Approved plans available in a separate pdf.

BP 234655

& 234656

# WALAWA CORRECTIONAL FACILITY : KITCHEN / DINING BUILDING

ARCHITECT: **GERALD LUM & COMPANY**

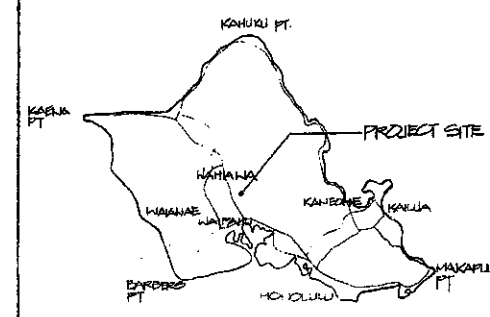
STRUCTURAL ENGINEER: **GERALD LUM & COMPANY**

MECHANICAL ENGINEER: **PREPOSE ENGINEERING SYSTEMS**

ELECTRICAL ENGINEER: **ALBERT CHONG ASSOCIATES, INC.**

KITCHEN CONSULTANT: **GEORGE MATSUMOTO & ASSOCIATES**

CONSTRUCTION OR INSTALLATION APPROVED BY:  
Hawaii Fire Department  
City and County of Honolulu  
Approved for cross-connection control requirements.  
Board of Water Supply  
Date: 12/3/16



ISLAND OF OAHU  
NOT TO SCALE

DIRECTOR  
DEPT. OF SOCIAL SERVICES AND HOUSING  
STATE OF HAWAII

COMPTROLLER  
DEPT. OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

STATE PUBLIC WORKS ENGINEER  
DEPT. OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

CHIEF ENVIRONMENTAL PROTECTION AND HEALTH SERVICES DIVISION  
DEPT. OF HEALTH  
STATE OF HAWAII

BUILDING DEPARTMENT  
FILE COPY

BUILDINGS DEPARTMENT  
CITY & COUNTY OF HONOLULU

APPROVED BY: [Signature] DATE: 12/16/16

BLDG. DEPT. COMMENTS: [Blank]

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

WALAWA CORRECTIONAL FACILITY  
KITCHEN / DINING BUILDING

TITLE SHEET

GERALD LUM & CO.  
DESIGNED BY: [Signature] DATE: 02-21-2016  
CHECKED BY: [Signature] DATE: [Blank]  
APPROVED BY: [Signature] DATE: [Blank]

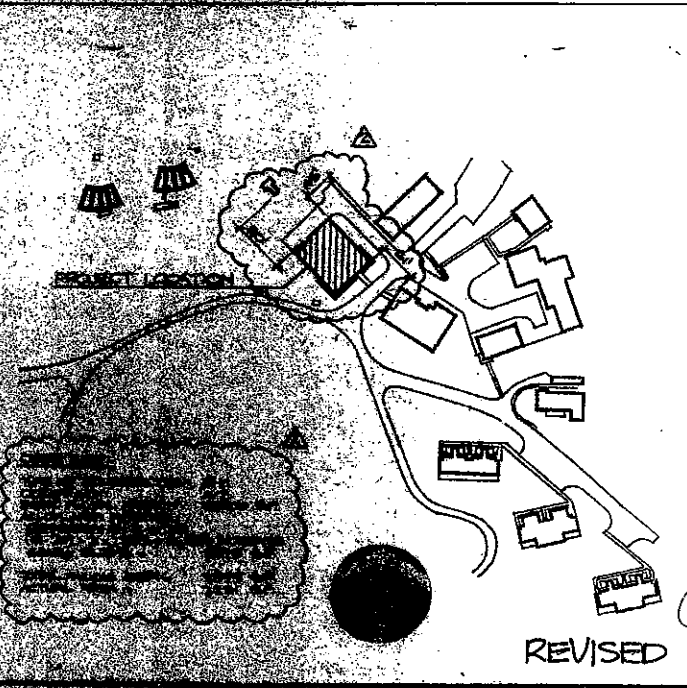
THIS WORK WAS PREPARED BY [Signature] FOR THE ARCHITECT

- SUPPLEMENTAL INFORMATION FOR BUILDING OWNER, PERMIT APPLICANT AND CONTRACTOR
- The following information should prove helpful in determining whether additional information should be obtained before starting your project:
- A Phone Call May Save Your Life - If you have underground utilities, investigate before you dig. Call:
    - Hawaiian Telephone Company: 548-5214
    - Hawaiian Electric Company: 548-7701
    - CS&CO: 547-2823
    - Board of Water Supply: 527-6189
  - Be Aware Of The Sign, Noise and OSH Regulations
    - Sign Regulations - Building Department: 523-8026
    - Noise Regulations - Department of Health: 548-2073
    - Occupational Safety & Health - DOSH: 548-7510
    - Department of Labor: [Blank]
  - Where building or structure is to be constructed under or near an existing electrical service line, the safety of the operation must be planned with Hawaiian Electric Co. telephone 548-5623 or County Building Department at 523-4381 before the project commences. Hawaii OSH Standards also apply. Call 548-7510.
  - Electric water heaters shall be protected from weather. A roof which extends to a point which intersects a 20 degree angle from the vertical from any exposure point of the water heater shall be provided to provide adequate weather protection.
  - Plumbing and/or Electrical plans not checked. Project subject to inspection for code compliance.
  - The approval of the project is conditional on the correction of the deficiencies noted on the attached Inspection For House Moving reports.
  - Foundation slabs or walls on a concrete slab, which is in direct contact with earth, shall be wood treated in accordance with UBC Standard No. 28-12 or foundation, exterior, all marked or branded, as approved agency.
  - FOUNDATION ONLY - Superstructure shown on plans are shown for informational purpose only.
  - Owners will be responsible to notify the Federal Aviation Administration (FAA) for structures which exceed 200 feet in height above ground line and contain structures within 4 miles from the nearest point of the nearest runway of each airport. (Single-family dwellings exempted) FAA telephone number is 548-6041.
  - REMINDER - Owners should check their deeds, lease agreements, and/or association by-laws for any building restrictions.
  - WINDOW WASHING EXTERIOR - When windows must be cleaned by means of a suspension scaffold or battman chair means must be provided to prevent swaying. Hawaii OSH Standards Chapter 394.
  - HOUSE NUMBERING REQUIREMENTS - All rear 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 visitors more readily with minimum delay when buildings are properly numbered.

## INDEX TO DRAWINGS

SHT. NO.	DESCRIPTION	SHT. NO.	DESCRIPTION
T-1	TITLE SHEET	E-1	ELECTRICAL SITE PLAN, SYMBOLS AND DETAILS
		E-2	LIGHTING, POWER AND SIGNAL PLANS
A-1	FLOOR PLAN ROOM FINISH SCHEDULE	E-3	KITCHEN POWER & SIGNAL PLANS
A-2	REFLECTED CEILING & ROOF PLANS	E-4	SINGLE-LINE DIAGRAM, ELEV. & MISC. DIAGRAMS
A-3	EXTERIOR ELEVATIONS & DETAILS	E-5	DETAILS
A-4	DETAIL FLOOR PLANS & INTERIOR ELEVATIONS	E-6	PANEL SCHEDULES
A-5	INTERIOR ELEVATIONS	E-7	HANDHOLE AND PULL BOX DETAILS
A-6	SECTIONS	E-8	LUMINAIRE DETAILS
A-7	WALL SECTIONS		
A-8	DETAILS		
A-9	DOOR AND WINDOW SCHEDULE & DETAILS	K-1	FOOD SERVICE EQUIPMENT PLAN & SCHEDULE
		K-2	FOOD SERVICE EQUIPMENT MECHANICAL PLAN
		K-3	FOOD SERVICE EQUIPMENT ELECTRICAL PLAN
S-1	FOUNDATION AND ROOF FRAMING PLAN	K-4	FOOD SERVICE EQUIPMENT CURBING AND REF. PLAN
S-2	SECTIONS AND DETAILS	K-5	FOOD SERVICE EQUIPMENT DETAILS
S-3	SECTIONS AND DETAILS	K-6	FOOD SERVICE EQUIPMENT DETAILS
S-4	GENERAL NOTES AND TYPICAL DETAILS	K-7	FOOD SERVICE EQUIPMENT DETAILS
		K-8	FOOD SERVICE EQUIPMENT DETAILS
		K-9	FOOD SERVICE EQUIPMENT TYPICAL DETAILS
M-1	VENTILATION FLOOR PLAN		
M-2	PLUMBING FLOOR PLAN		
M-3	WATER AND GAS PIPING DIAGRAM		
M-4	SANITARY PIPING DIAGRAM		
M-5	MISCELLANEOUS DETAILS & DIAGRAM		

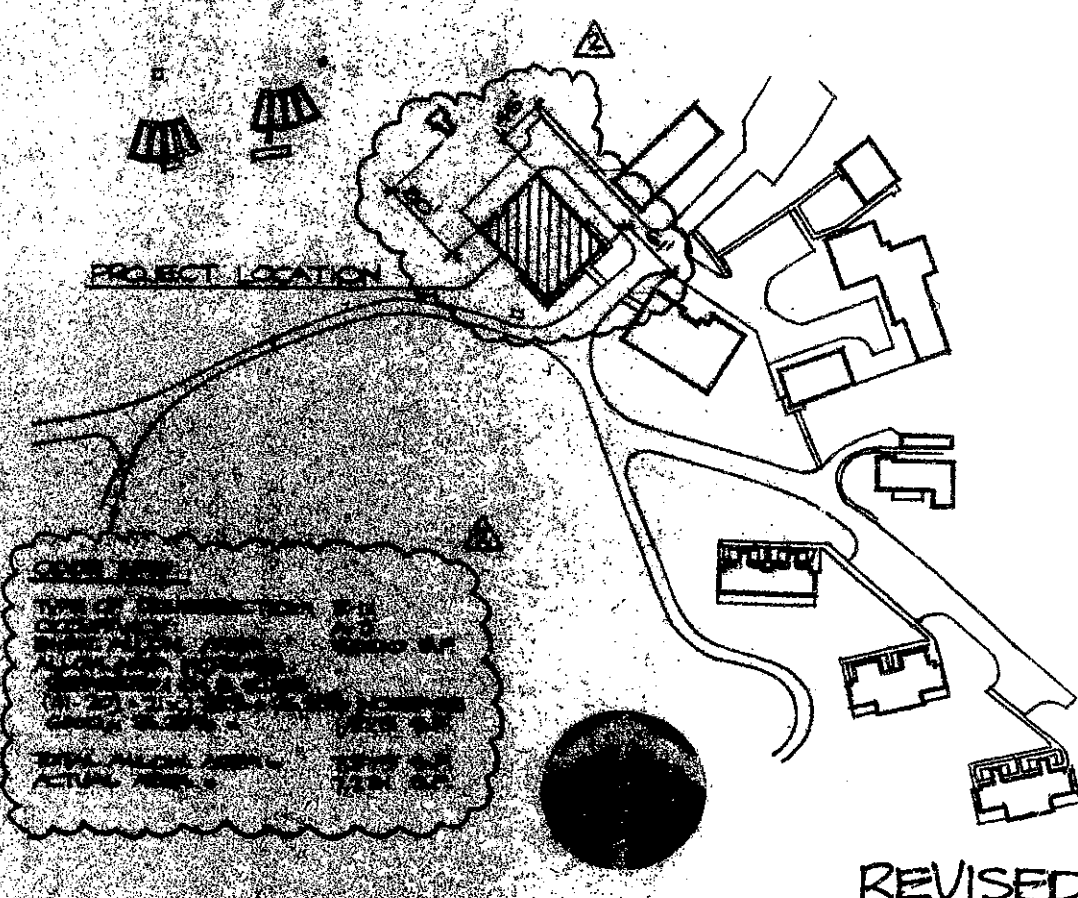
## PROJECT LOCATION PLAN



QC notes 12/20/2016:  
BP 234655 + 234656  
1 of 38

← Code info:  
type of construction: V-N  
Occupancy: A-3  
Basic Allowable Area: 6,000 SF  
Allow. Area Increase  
30% on 2 sides (41-20) = 21 x 1.25% =  
26.25% increase x 6000 = 1,575 SF  
Total Allow. Area = 7,575 SF  
Actual Area = 7,231 SF

# LOCATION PLAN



ALL WORK SHALL BE IN ACCORDANCE WITH THE HAWAIIAN ARCHITECTURE ACT AND THE HAWAIIAN ENGINEERING ACT. THE ARCHITECT SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE WORK. THE ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE STRUCTURAL PORTION OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE WORK. THE ARCHITECT AND ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE WORK.

STATE PUBLIC WORKS ENGINEER  
 DEPT. OF ACCOUNTING AND GENERAL SERVICES  
 STATE OF HAWAII

*Shing An* 1/14/87  
 CHIEF ENVIRONMENTAL PROTECTION AND  
 HEALTH SERVICES DIVISION

DEPT. OF HEALTH  
 STATE OF HAWAII

DIVISION OF ENGINEERING  
 REG. NO. 88

**BUILDING DEPARTMENT**  
**FILE COPY**



BUILDING DEPARTMENT CITY & COUNTY OF HONOLULU	
PRELIM. EXAM. BY: <i>G. Kumamoto</i>	DATE: <i>2/3/86</i>
ZONING DISTRICT: <i>K1</i>	
ELECTRICAL APPROVED BY: <i>T. Kawabata</i>	DATE: <i>1/21/87</i>
Mechanical APPROVED BY: <i>D. J. Jorg</i>	DATE: <i>1-22-87</i>
PLUMBING APPROVED BY: <i>(Signature)</i>	DATE: <i>1/21/87</i>
APPROVED FOR ISSUANCE BY: <i>(Signature)</i>	DATE: <i>1/21/87</i>
NAME OF PROJECT: <i>Waiawa Corr. Fac.</i>	
BLDG. PERMIT NO. <i>294655-56</i>	

PCD NO. 1	2	BLDG. DEPT COMMENTS	1 OF 15	1/16/87	
REVISION NO.	STAL	DESCRIPTION	SHT. OF	DATE	APPROVED: STATE PUBLIC WORKS ENGINEER

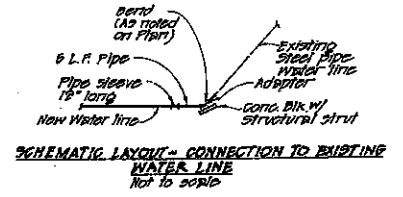
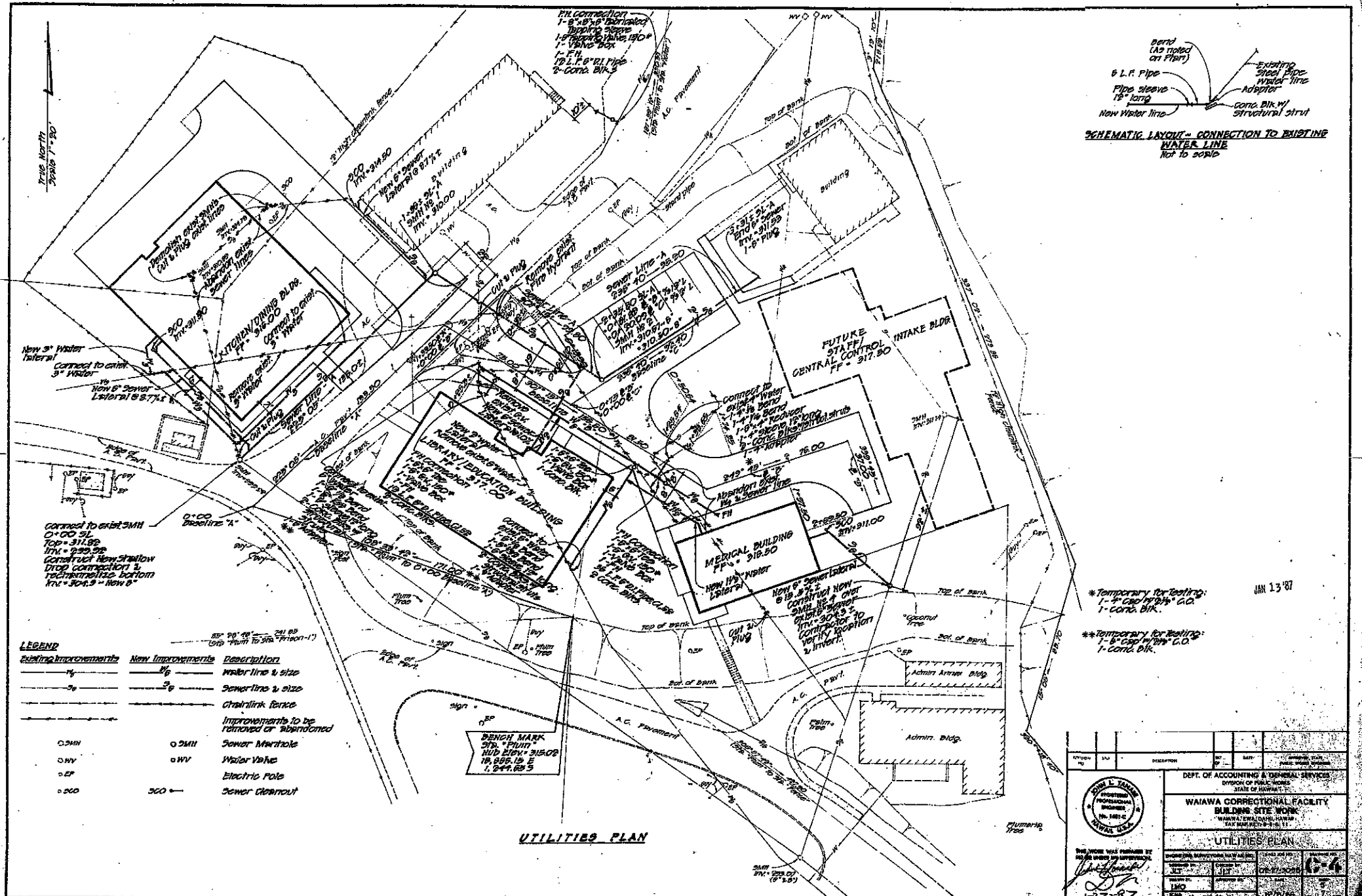


DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII  
**WAIAWA CORRECTIONAL FACILITY  
 KITCHEN / DINING BUILDING**

TITLE SHEET

GERALD LIM & CO.		SACS JOB NO.	DRAWING NO.
DESIGNED BY: <i>GK</i>	CHECKED BY: <i>GL</i>	<i>02-27-306A</i>	<b>T-1</b>
DRAWN BY: <i>AH</i>	APPROVED BY:	DATE	SHEET
SCALE: NONE		<i>DEC 1986</i>	1 OF 36 SHTS

THIS WORK WAS PREPARED BY  
 ME OR UNDER MY SUPERVISION



**LEGEND**

Existing Improvements	New Improvements	Description
1/4" solid line	1/4" dashed line	Water line & size
3/8" solid line	3/8" dashed line	Sewer line & size
--- ---	--- ---	Chainlink fence
--- ---	--- ---	Improvements to be removed or abandoned
○ SMH	○ SMH	Sewer Manhole
○ HW	○ HW	Water Valve
○ EP		Electric Pole
○ SCO	SCO	Sewer Cleanout

\*Temporary for Testing:  
1-4" CSD 15' B.C.O.  
1-Cond. Bk.

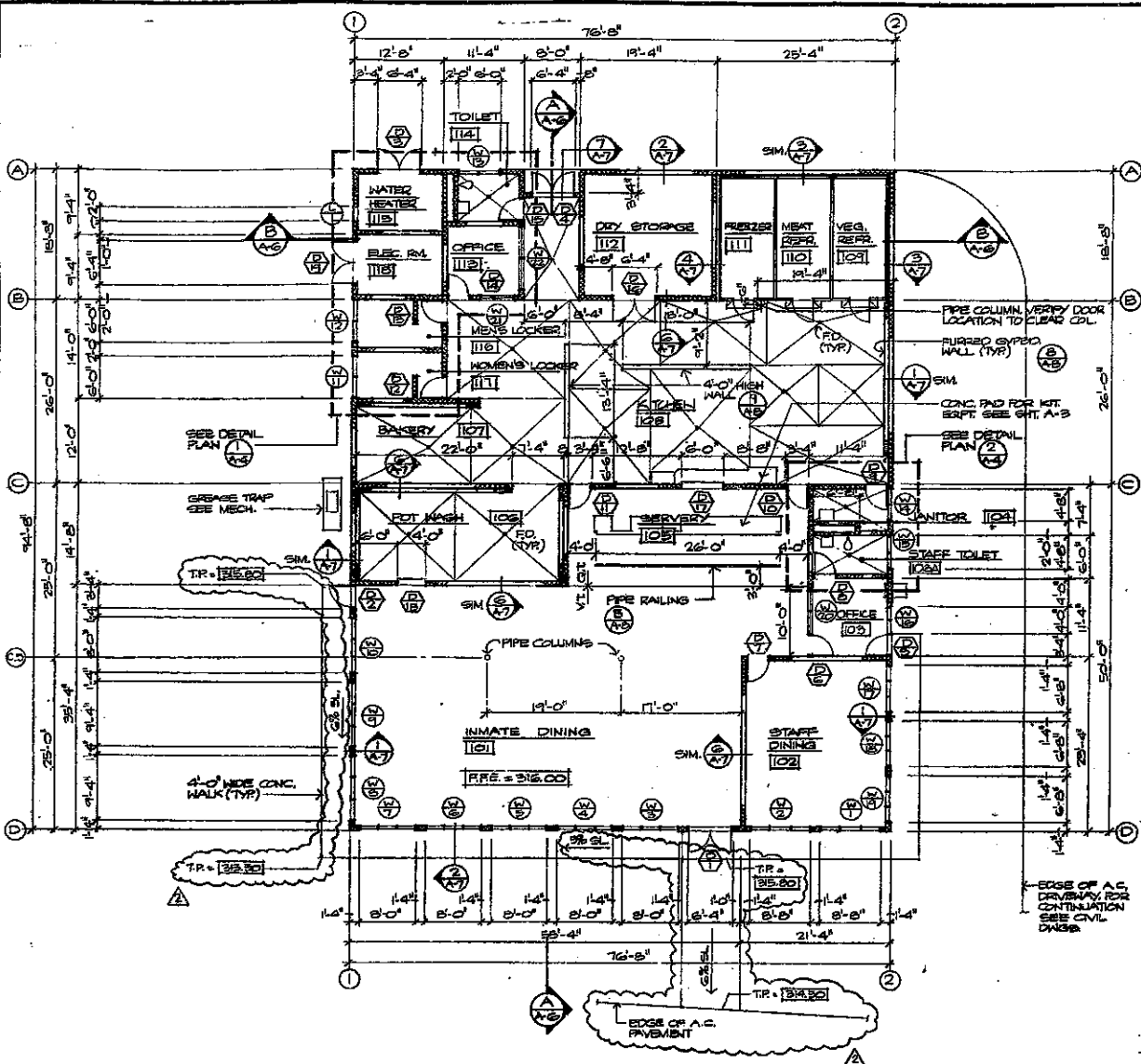
\*\*Temporary for Testing:  
1-6" CSD 15' B.C.O.  
1-Cond. Bk.

JAN 13 '67

**UTILITIES PLAN**

FOR OFFICIAL USE ONLY

	<p>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII</p> <p><b>WAIANA CORRECTIONAL FACILITY BUILDING SITE WORK</b></p> <p>WAIANA, HAWAII, DANIEL HANAU TAX MAP SHEET NO. 11</p> <p><b>UTILITIES PLAN</b></p>								
<p>THIS WORK WAS PREPARED BY ME IN ACCORDANCE WITH HAWAIIAN ENGINEERING LAW</p> <p><i>Don L. Jansen</i> 1/13/67</p>	<table border="1"> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> <tr> <td>1/13/67</td> <td>UTILITIES PLAN</td> <td>D.L.J.</td> <td></td> </tr> </table>	DATE	DESCRIPTION	BY	DATE	1/13/67	UTILITIES PLAN	D.L.J.	
DATE	DESCRIPTION	BY	DATE						
1/13/67	UTILITIES PLAN	D.L.J.							



FLOOR PLAN  
1/8" = 1'-0"



ROOM FINISH SCHEDULE

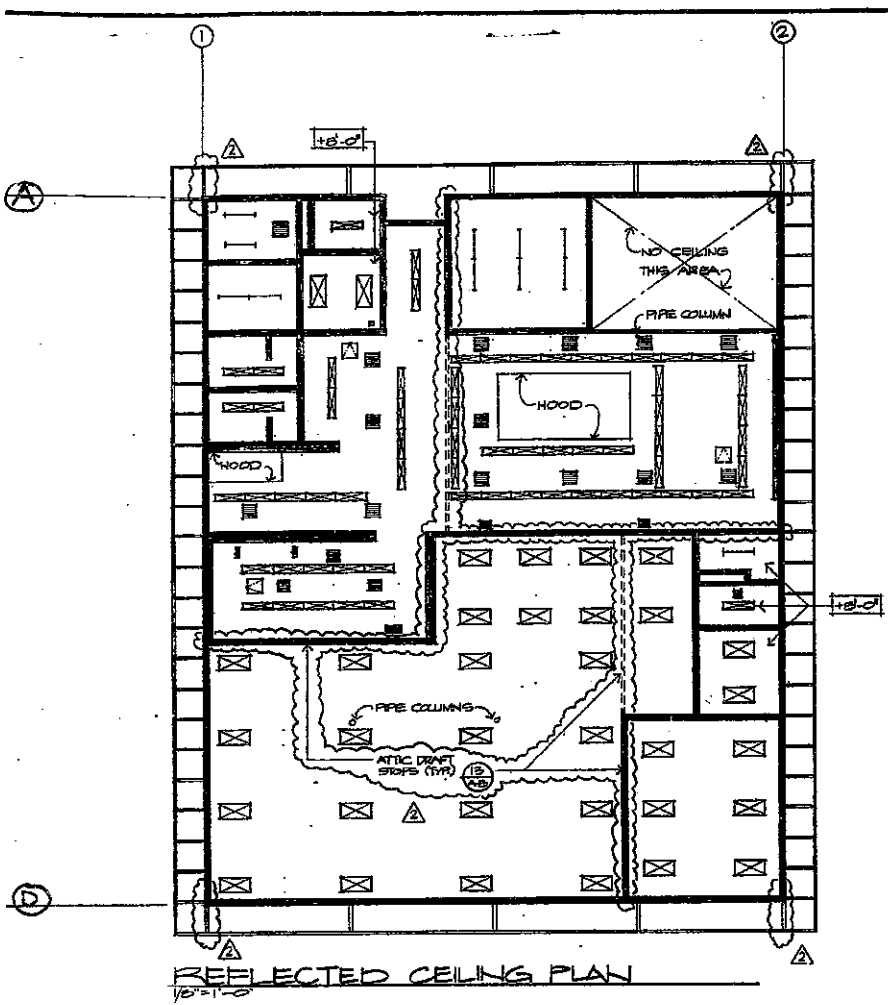
NO.	ROOM NAME	FLOOR	BASE	WALLS/WAINSCOT				CEILING	REMARK
				A	B	C	D		
101	INMATE DINING	V.T.	RESIL	CMU	CMU	CMU	CMU	GYPED	
102	STAFF DINING								
103	OFFICE								
103A	STAFF TOILET	C.T.	C.T.	CMU/C.T.	CMU/C.T.	CMU/C.T.	CMU/C.T.		
104	JANITOR	G.T.	G.T.	CMU	CMU	CMU	CMU		
105	SERVERY								
106	POT WASH			GYPED/C.T.	GYPED/C.T.	CMU/C.T.	GYPED/C.T.		
107	BAKERY							CMU/C.T.	
108	KITCHEN			CMU	GYPED/C.T.		CMU		
109	VEGETABLE REPR			NSUL PANEL	NSUL PANEL	NSUL PANEL	NSUL PANEL	NSUL PANEL	
110	MEAT REPR								
111	FREEZER								
112	DRY STORAGE	CONC	-	CMU	CMU	CMU	CMU	GYPED	
113	OFFICE	V.T.	RESIL						
114	TOILET	C.T.	C.T.	CMU/C.T.	CMU/C.T.	CMU/C.T.	CMU/C.T.		
115	WATER HEATER	CONC	-						
116	MEN'S LOCKER	V.T.	RESIL						
117	WOMEN'S LOCKER								
118	ELECTRICAL ROOM	CONC	-						

GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.
2. SEE KITCHEN DRAWINGS FOR KITCHEN EQUIPMENT LOCATION.

PCD NO. 1	BUILDG. DEPT. COMMENTS	2 OF 6	1/14/87
DATE	DATE	DATE	DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES STATE OF HAWAII			
HAWAIIA CORRECTIONAL FACILITY KITCHEN/DINING BUILDING			
FLOOR PLAN; ROOM FINISH SCHEDULE			
DESIGNED BY G.K.	CHECKED BY G.K.	DATE FOR P.L. 02-27-2069	DESIGNED NO. A-1
THIS WORK WAS PREPARED BY ME UNDER MY SUPERVISION			

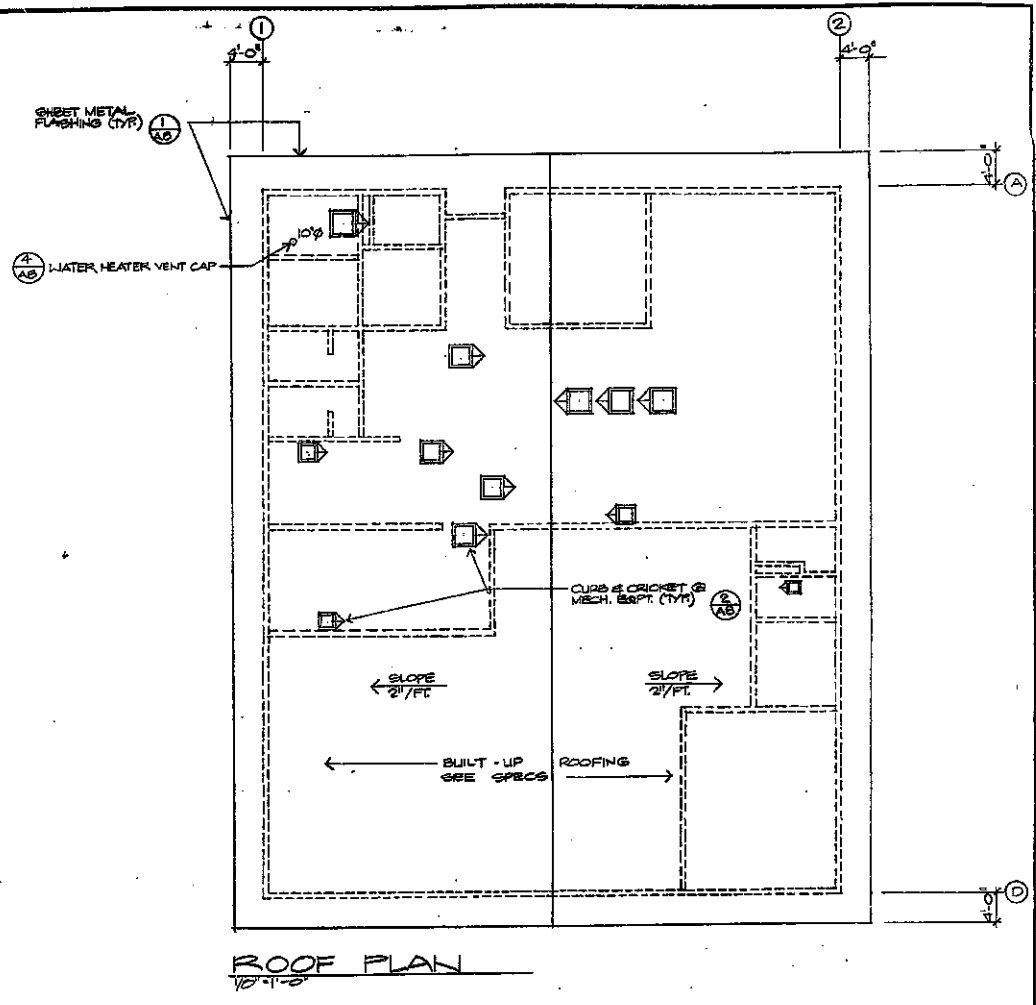
REVISED



1. ALL CEILINGS SHALL BE GYPSUM BOARD UNLESS OTHERWISE NOTED. DET. (A)
2. CEILING HEIGHTS SHALL BE 9'-6" UNLESS OTHERWISE NOTED.

**LEGEND**

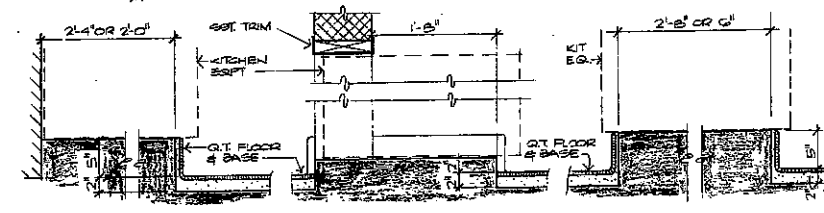
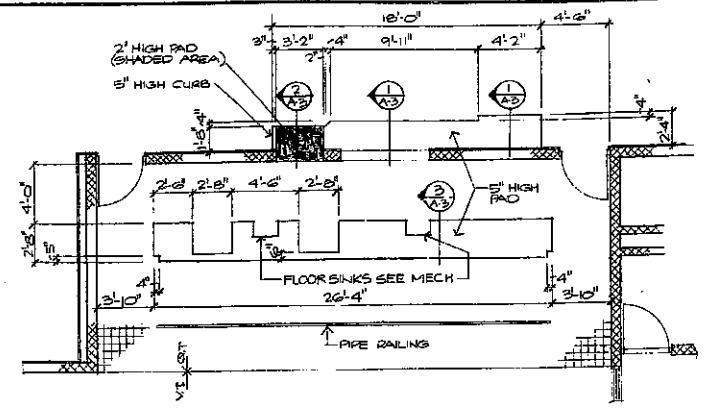
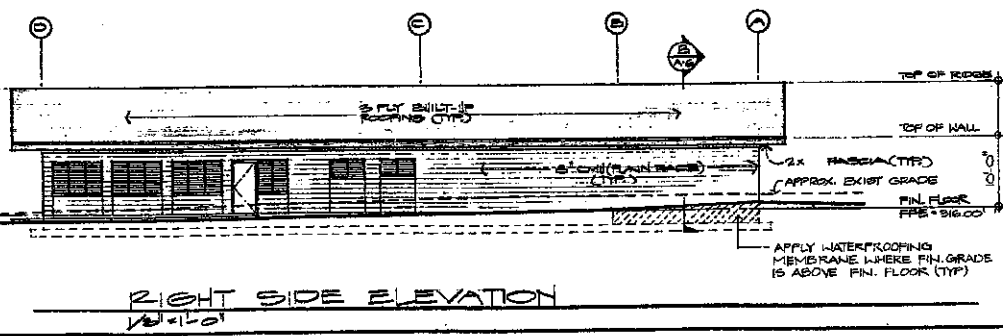
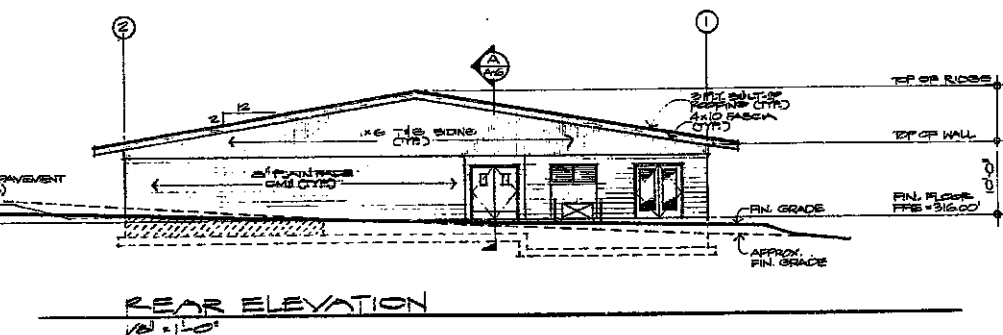
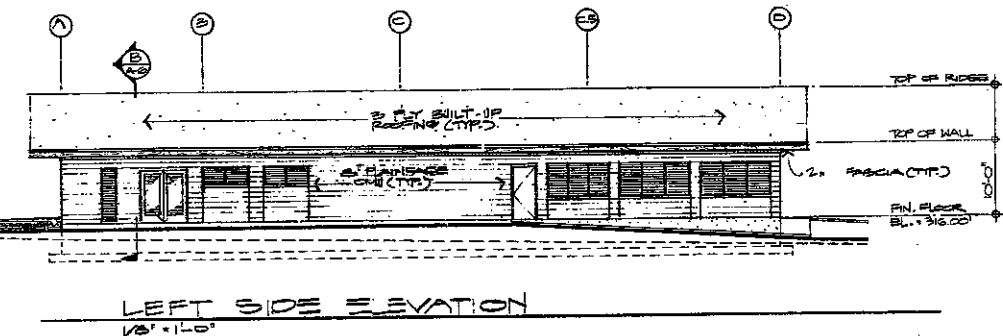
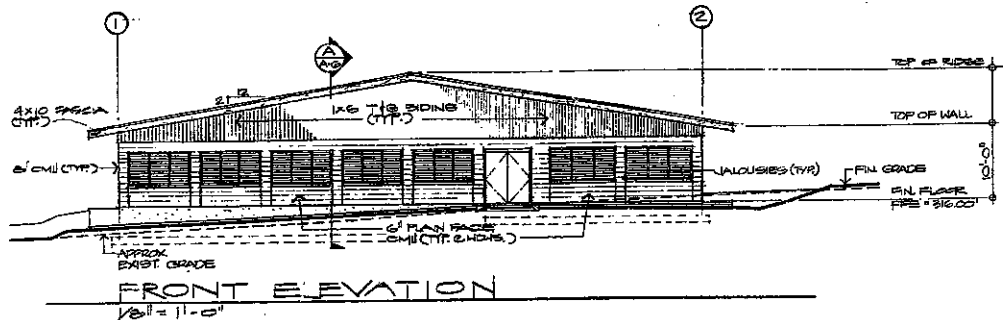
- ☒ LIGHT FIXTURES
- ☒ A/C REGISTER OR DIFFUSER
- ☒ CEILING ACCESS DR. DET. (A)



1. SEE MECH. Dwg. FOR VENT PIPE LOCATIONS. DET. (A)

PCD No. 1	BLDG. DEPT. COMMENTS	3	1/16/07
VERSION NO.	DATE	ADDITION	DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
HAWAIIAN CORRECTIONAL FACILITY KITCHEN/DINING BUILDING			
REFLECTED CEILING AND ROOF PLANS			
SEAL AND SIGNATURE		DATE	SCALE
<i>Crean Dr.</i>		02-21-2007	A-2
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION			
DATE AND NOTED		DATE	SCALE
02-21-2007		02-21-2007	3/8"

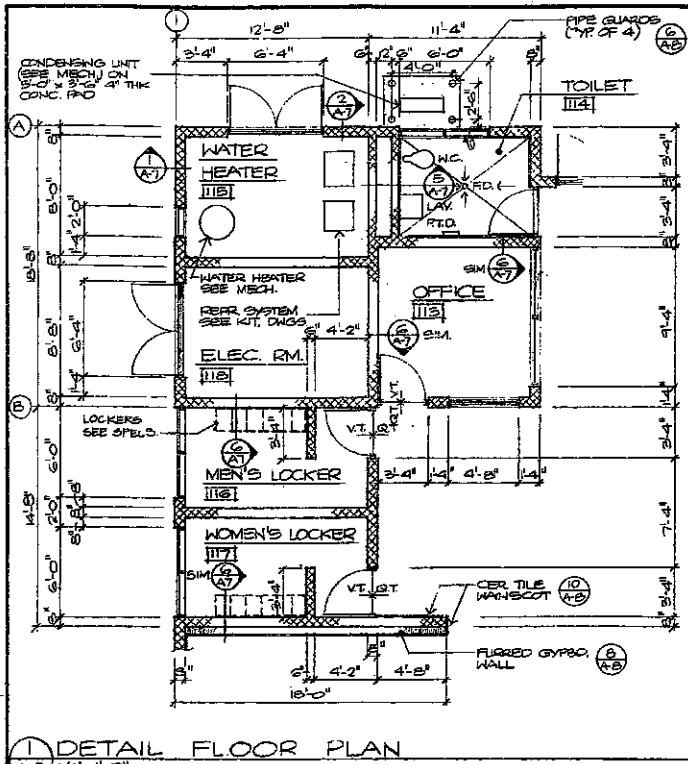
REVISED



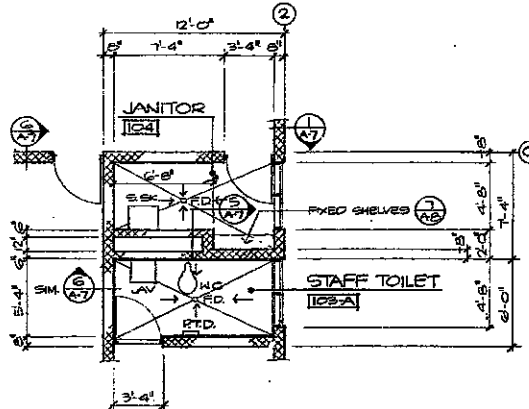
① PAD DETAIL 1/2" = 1'-0"  
② PAD DETAIL 1/2" = 1'-0"  
③ PAD DETAIL 1/2" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	CHKD	APPROVED STATE BOARD WORKS DIVISION
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>MAIWAIA CORRECTIONAL FACILITY            KITCHEN/DINING BUILDING</b>					
<b>EXTERIOR ELEVATIONS, DETAILS</b>					
DESIGNED BY GR		DRAWN BY BL		DATE 02-27-2009	
CHECKED BY IC/CK		APPROVED BY GR		DATE 03-04-09	
SCALE AS NOTED		SHEET NO. A-3		TOTAL SHEETS 4	

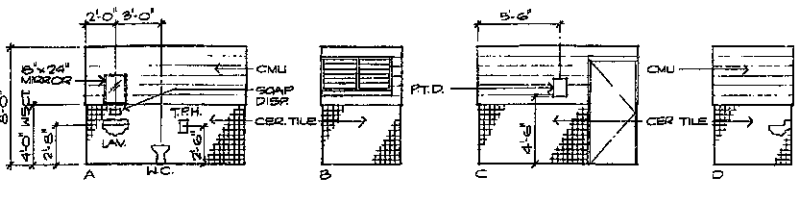




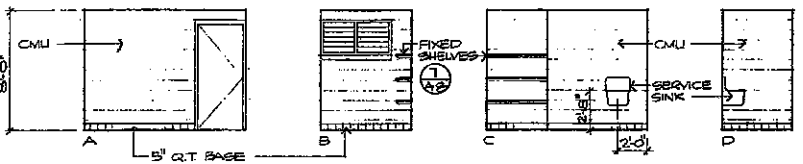
① DETAIL FLOOR PLAN  
A-2 1/4" = 1'-0"



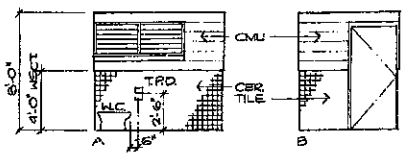
② DETAIL FLOOR PLAN  
A-2 1/4" = 1'-0"



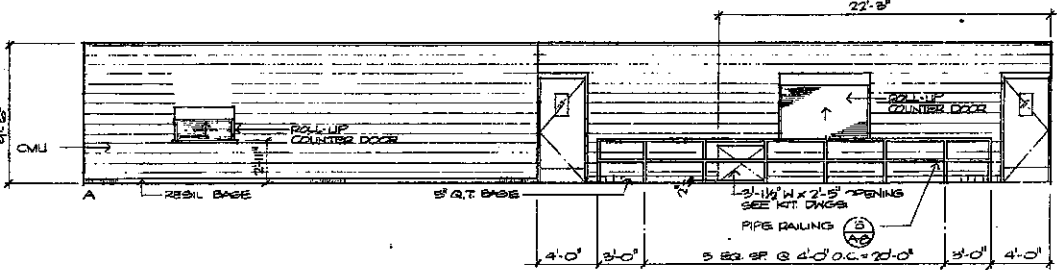
STAFF TOILET IJC-A



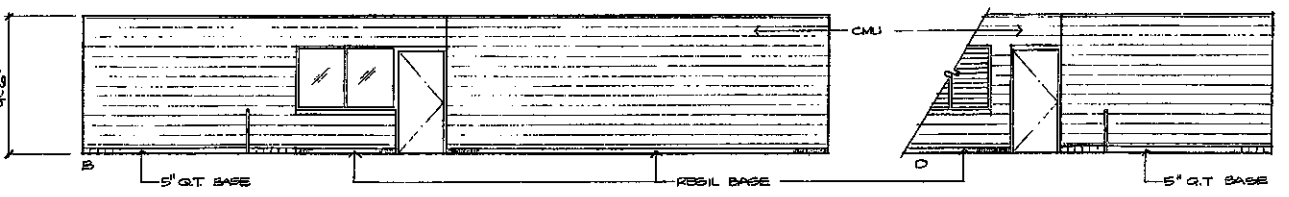
JANITOR IJD



TOILET IIE



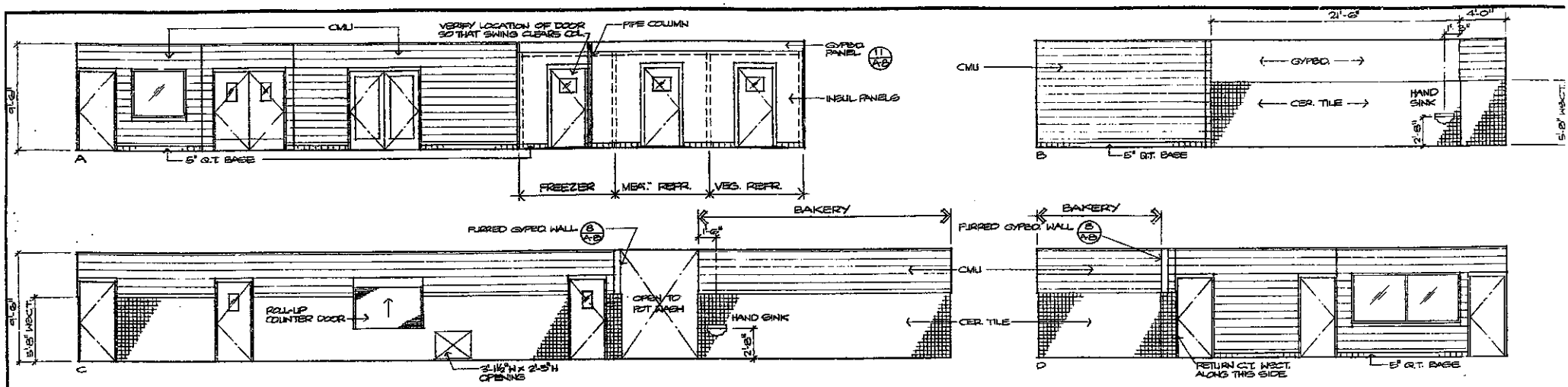
INMATE DINING IOI / SUNDRY IOE



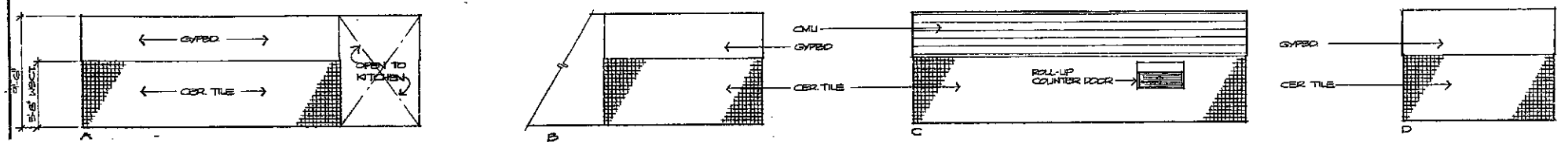
OFFICE IOB

OFFICE IIC

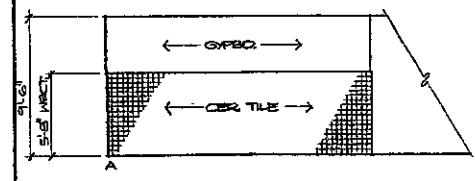
REVISION NO.	DATE	APPROVED DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF PENNSYLVANIA		
PENNSYLVANIA PROFESSIONAL ARCHITECT NO. 12334A SERIAL 11		
WAHANA CORRECTIONAL FACILITY KITCHEN / DINING BUILDING		
DETAIL FLOOR PLANS; INTERIOR ELEVATIONS		
DESIGNED BY GRL	DATE FOR NO. 02-27-2009	
DRAWN BY GRL	SCALE AS NOTED	
CHECKED BY GRL	DATE 02-27-2009	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION		



KITCHEN 1106 / BAKERY 1107



POT WASH 1106



BAKERY 1107

GENERAL NOTE:  
SEE KITCHEN DWGS FOR EQUIPMENT  
LOCATION

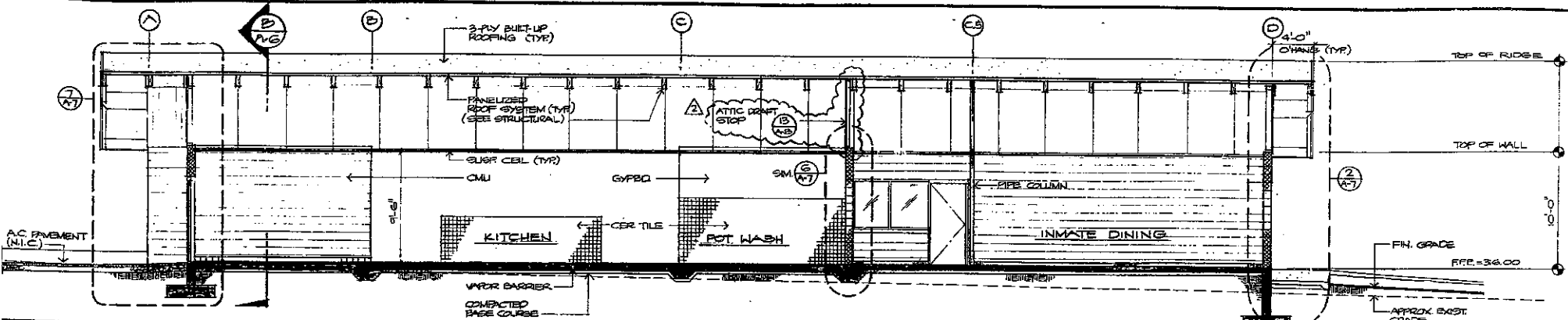
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED CLERK

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII  
WAIANA CORRECTIONAL FACILITY  
KITCHEN/DINING BUILDING

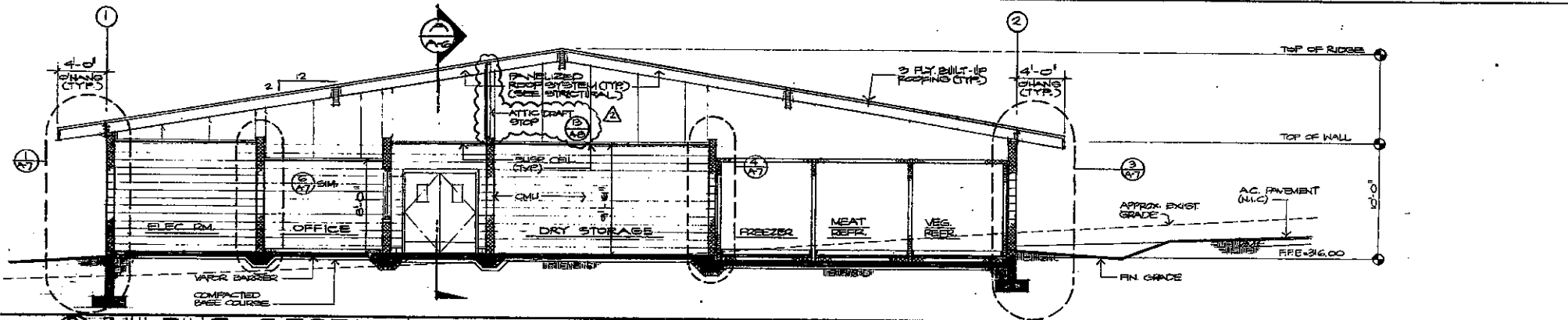
INTERIOR ELEVATIONS

GERALD LUM & CO.  
REGISTERED PROFESSIONAL ARCHITECT  
NO. 3558-A  
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

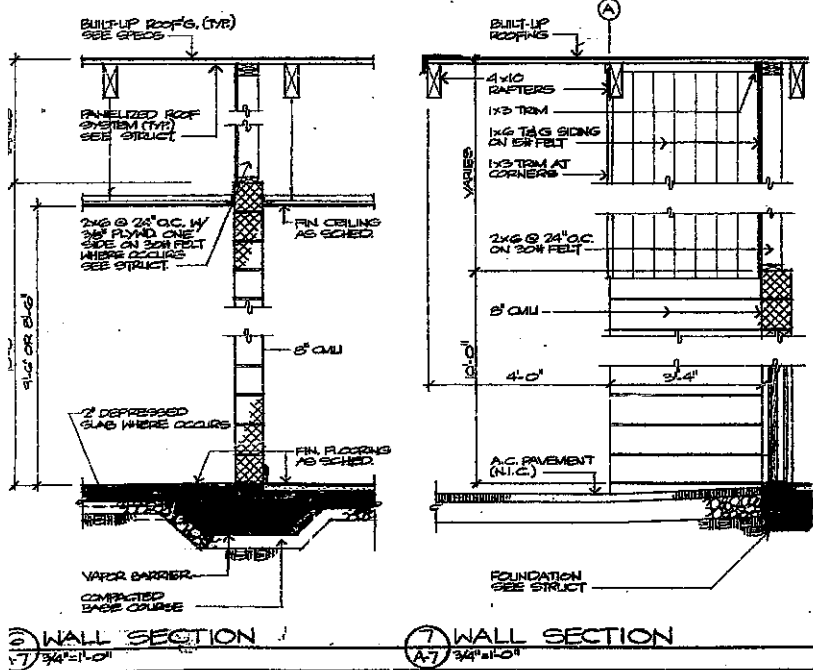
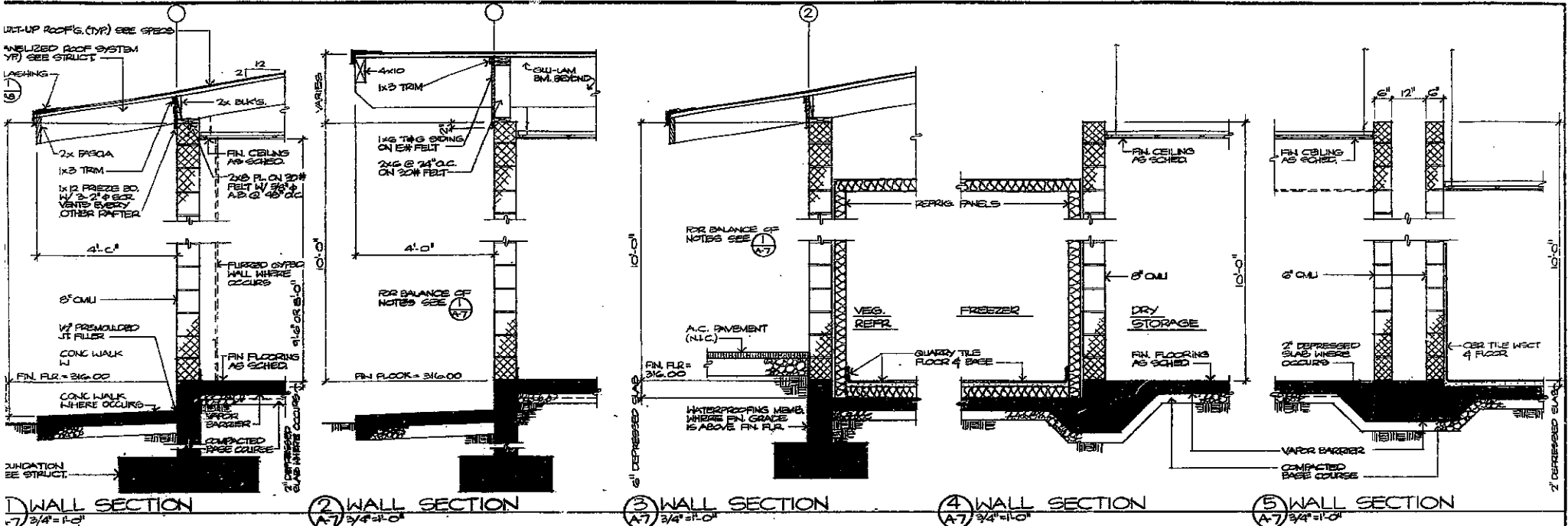


**(A) BUILDING SECTION**  
1/4" = 1'-0"

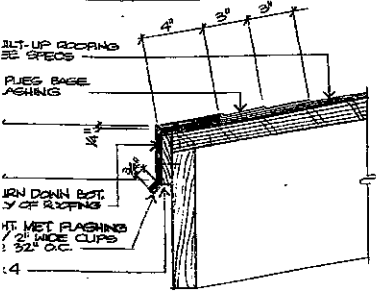


**(B) BUILDING SECTION**  
1/4" = 1'-0"

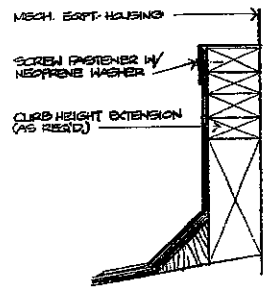
PCD NO. 1	BLDG-DEPT COMMENTS	4	1/14/87
REVISION NO.	DESCRIPTION	DATE	DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>HAWAII CORRECTIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b>			
SECTIONS			
		GERALD LUM & CO. DRAWN BY: GJK CHECKED BY: GJK DATE: 02-27-86	SHEET NO: A-6 TOTAL SHEETS: 7 DATE: 2/26/86
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION SIGNATURE: <i>Combs</i>			
REVISED			



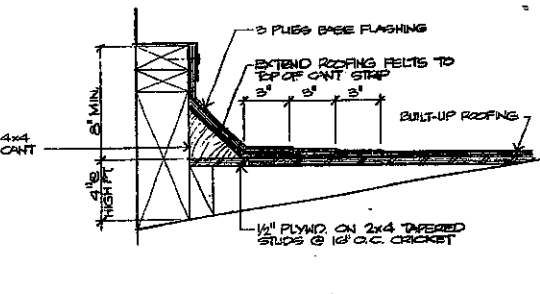
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED THIS PROJECT
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>HAWAIIA CORRECTIONAL FACILITY          KITCHEN / DINING BUILDING</b>					
<b>WALL SECTIONS</b>					
GERALD D. DIM & CO. ARCHITECTS 27-27-2009		SHEET NO. <b>A-7</b>			
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION		DATE: 08/16/09 SCALE: 1/8" = 1'-0"			



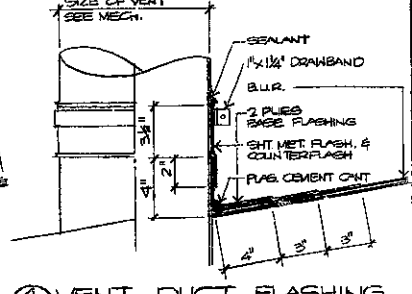
1) EDGE FLASHING  
A-B 3/4" x 1'-0"



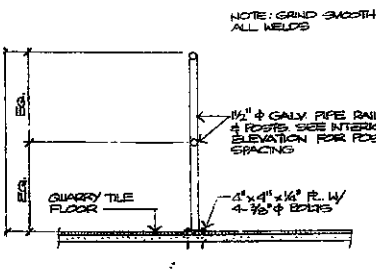
2) CURB FLASHING  
A-B 3/4" x 1'-0"



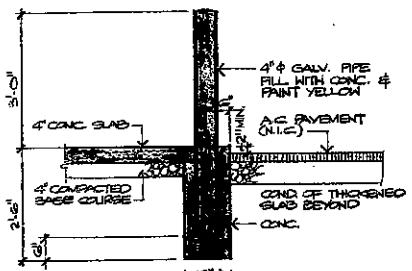
3) VENT PIPE FLASHING  
A-B 3/4" x 1'-0"



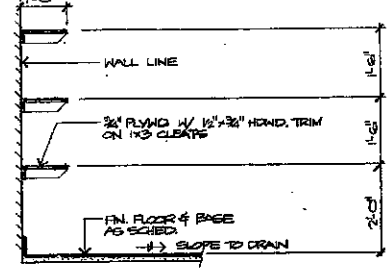
4) VENT DUCT FLASHING  
A-B 3/4" x 1'-0"



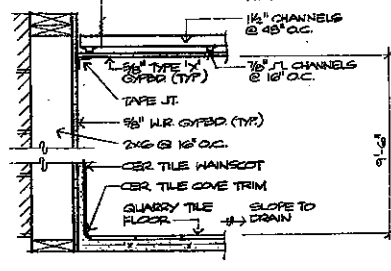
5) PIPE RAILING  
A-B 1'-0" x 1'-0"



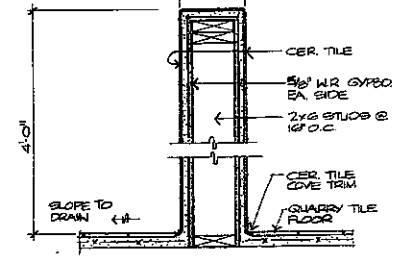
6) PIPE GUARD / CONC. PAD  
A-B 3/4" x 1'-0"



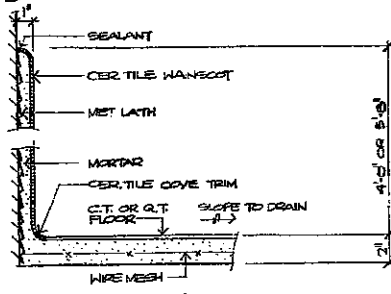
7) FIXED SHELVES  
A-B 3/4" x 1'-0"



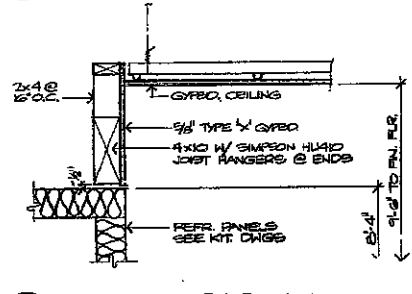
8) GYPBD. WALL AND CEIL.  
A-B 1 1/2" x 1'-0"



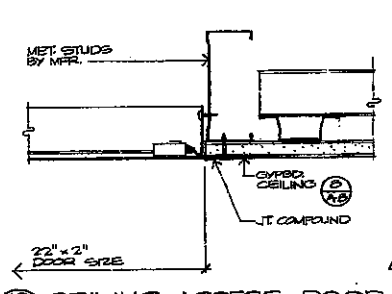
9) 4'-0" HIGH WALL  
A-B 1 1/2" x 1'-0"



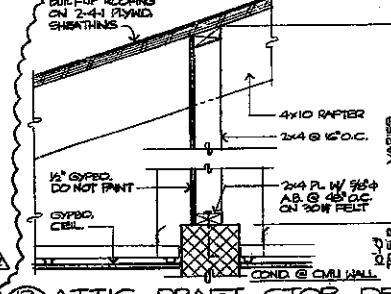
10) CERAMIC/QUARRY TILE  
A-B 3/4" x 1'-0"



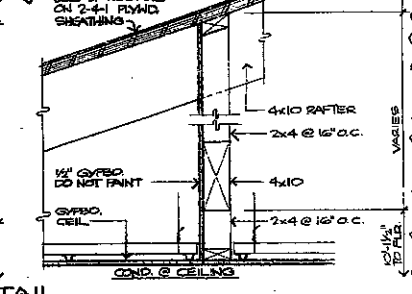
11) GYPBOARD PANEL  
A-B 1 1/2" x 1'-0"



12) CEILING ACCESS DOOR  
A-B HALF SIZE



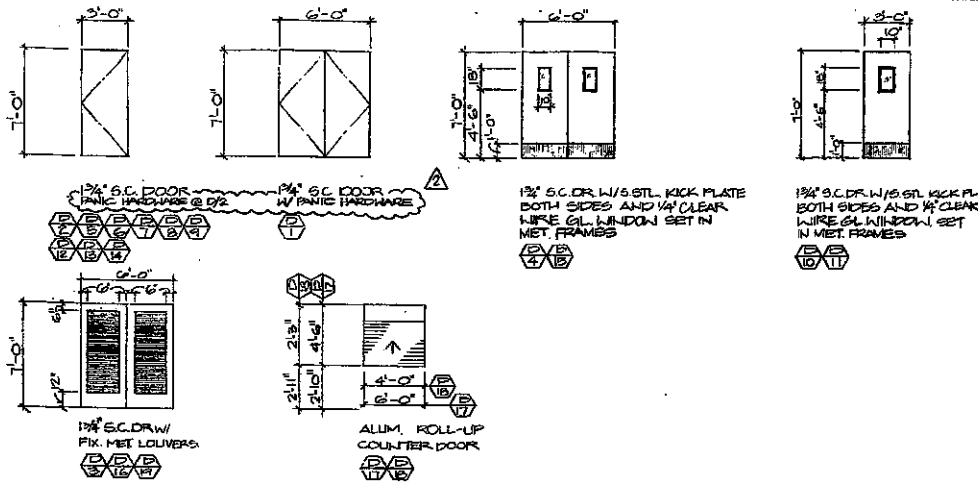
13) ATTIC DRAFT STOP DETAIL  
A-B 1 1/2" x 1'-0"



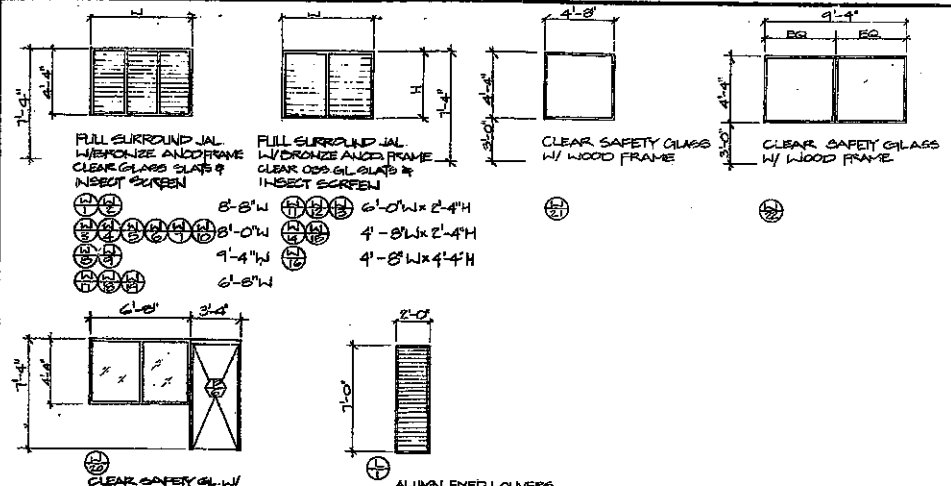
14) 4'-0" HIGH WALL  
A-B 1 1/2" x 1'-0"

CD NO. 1	BLDG. DEPT. COMMENTS	5	1/16/57
REVISION NO.	DESCRIPTION	DATE	APPROVED DATE
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>HAWAII CORRECTIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b>	
DETAILS			
GERALD LUM & CO. ENGINEERS 22-27-306A	DATE FOR NO. 22-27-306A	DRAWING NO. <b>A-13</b>	THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION DEC. 1956

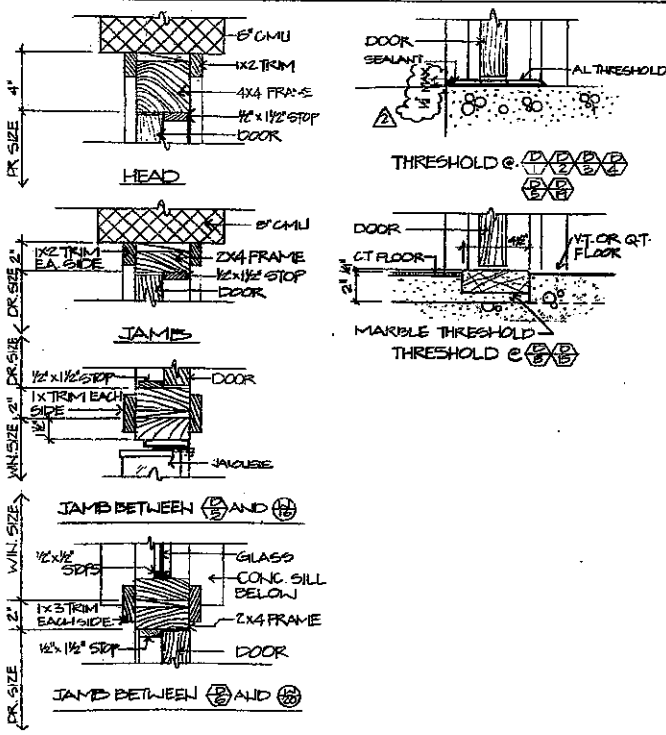
REVISED



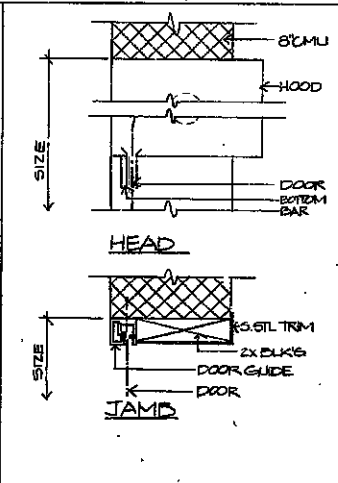
**DOOR SCHEDULE**



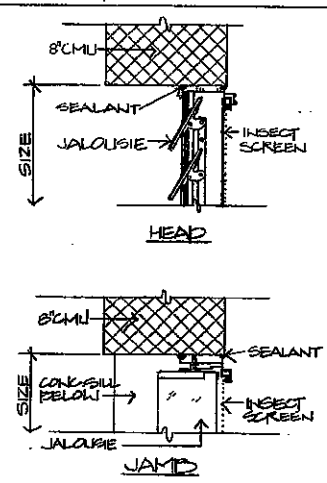
**WINDOW SCHEDULE**



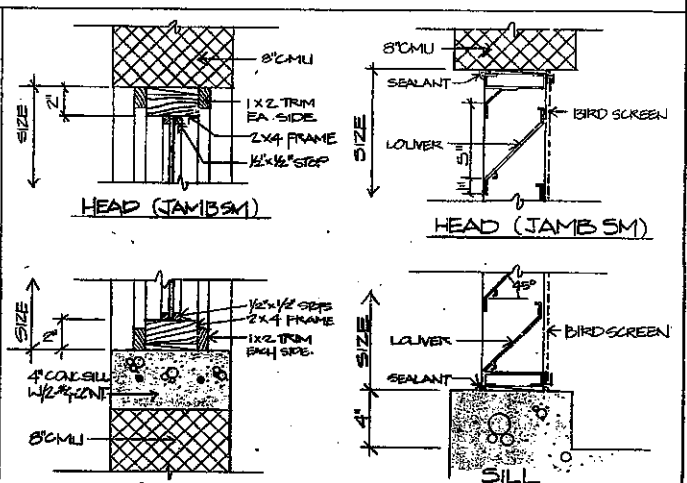
**1) DOOR FRAME DETAIL**  
3\"/>



**2) DOOR FRAME DETAIL**  
3\"/>



**3) JALOUSIE FRAME DETAIL**

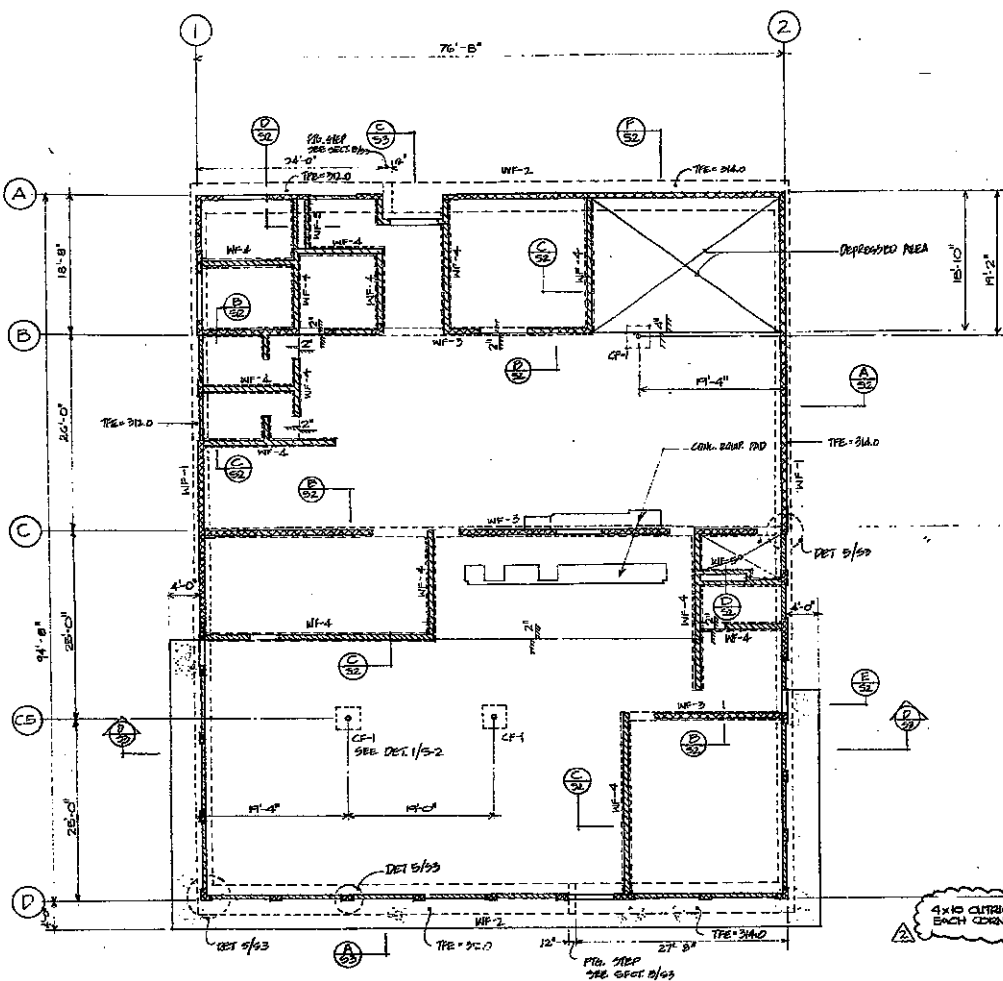


**4) WINDOW FRAME DETAIL**      **5) LOUVER DETAIL**  
3\"/>

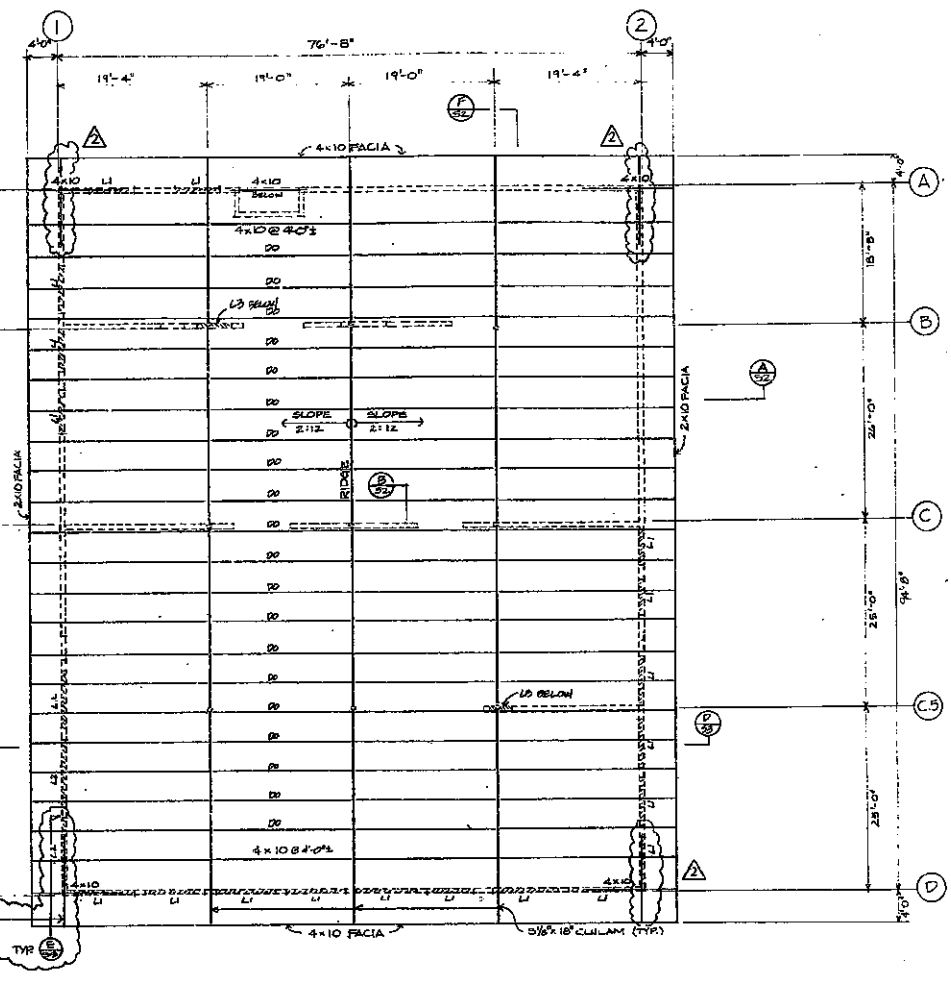
FOR OFFICIAL USE ONLY

REVISED

	BLDG. DEPT. COMMENTS DATE DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>HAWAII CORRECTIONAL FACILITY          KITCHEN/ DINING BUILDING</b> DOOR AND WINDOW SCHEDULE, DETAILS GERALD LUM & CO. DRAWN BY: GRL CHECKED BY: GRL DATE: 02/27/89 SCALE: AS NOTED THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION REC-206
--	---



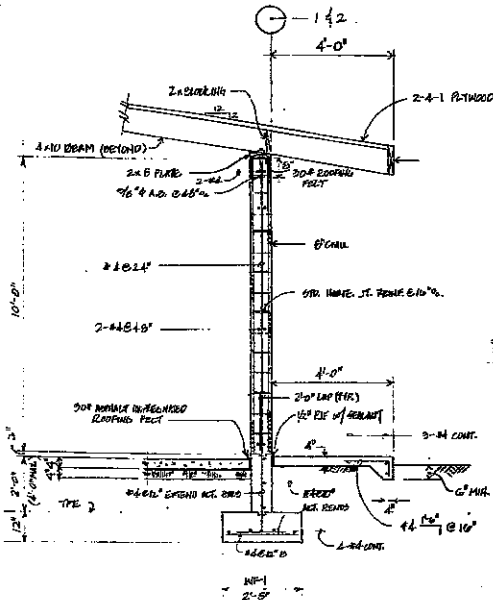
FOUNDATION AND FLOOR PLAN



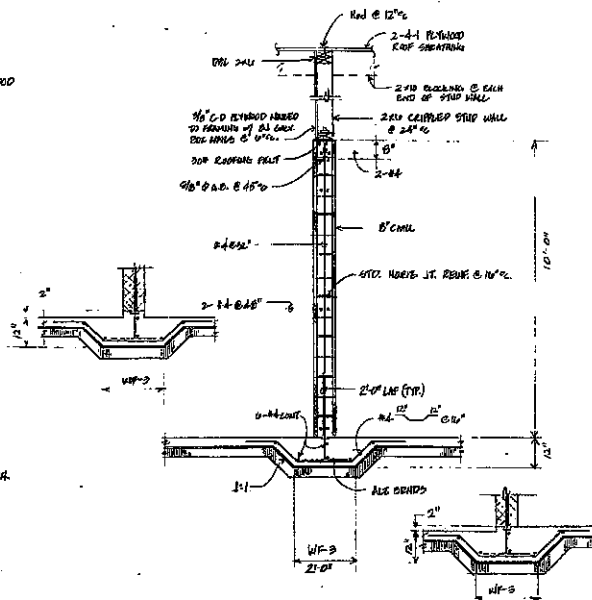
ROOF FRAMING PLAN

LEGEND:  
TPE = TOP FINISH ELEVATION

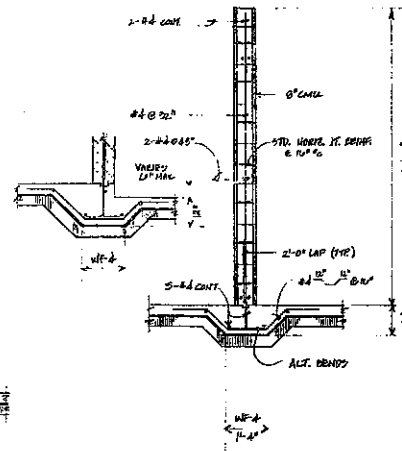
REQ NO: 1	BLDG DEPT COMMENTS	17	1/16/87
REVISION NO.	DESCRIPTION	DATE	APPROVED SIGNATURE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>HAWAII CORRECTIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b> FOUNDATION AND ROOF FRAMING PLANS			
GERALD LIM & CO. ARCHITECTS 1001 KALANOAUE AVENUE HONOLULU, HAWAII 96813		DRAWN BY D.O.	CHECKED BY G.S.
REVISED: THIS DRAWING WAS PREPARED BY ME OR UNDER MY SUPERVISION		DATE DEC 86	SHEET NO. <b>5-1</b> OF 26



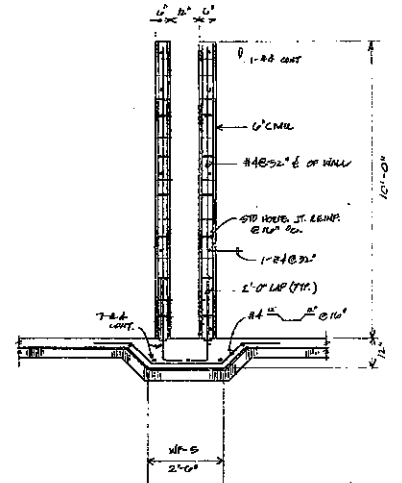
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S2



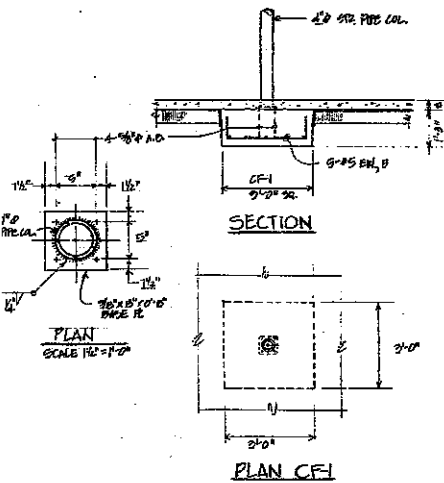
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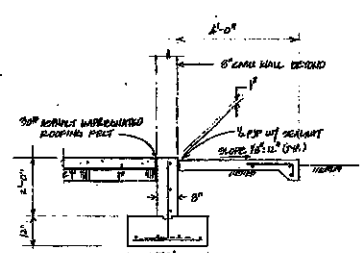
SECTION C  
S2



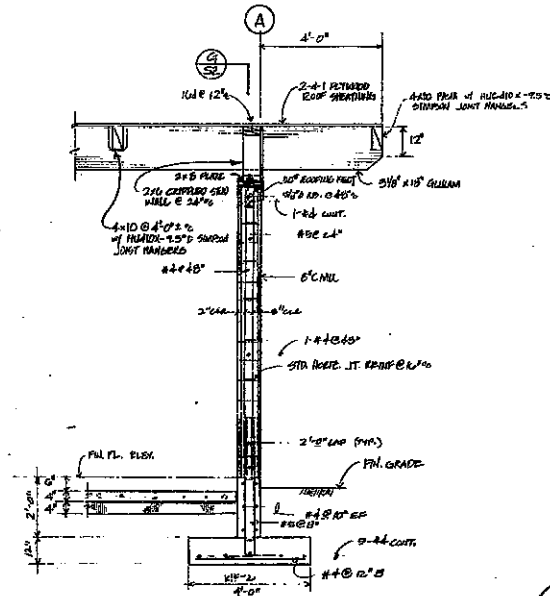
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S2



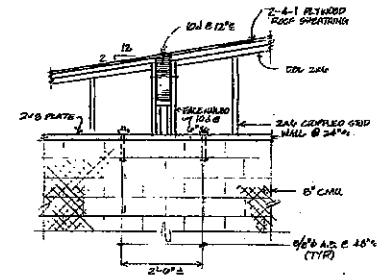
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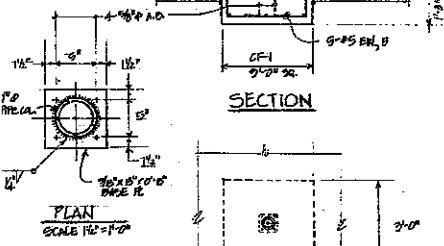
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S2



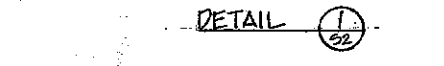
SECTION G  
S2



SECTION H  
S2



PLAN  
SCALE 1/2\"/>



DETAIL 1  
S2

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REVISION NO.	DATE	DESCRIPTION	APPROVED STATE PUBLIC WORKS ENGINEER

		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII	
		HAWAII CORRECTIONAL FACILITY KITCHEN/DINING BUILDING	
SECTIONS AND DETAILS			
SECTION 1 - 1/2 1/2 1/2 1/2	SECTION 2 - 1/2 1/2 1/2 1/2	SECTION 3 - 1/2 1/2 1/2 1/2	SECTION 4 - 1/2 1/2 1/2 1/2
SECTION 5 - 1/2 1/2 1/2 1/2		SECTION 6 - 1/2 1/2 1/2 1/2	
SECTION 7 - 1/2 1/2 1/2 1/2			
SECTION 8 - 1/2 1/2 1/2 1/2			
SECTION 9 - 1/2 1/2 1/2 1/2			
SECTION 10 - 1/2 1/2 1/2 1/2			
SECTION 11 - 1/2 1/2 1/2 1/2			
SECTION 12 - 1/2 1/2 1/2 1/2			
SECTION 13 - 1/2 1/2 1/2 1/2			
SECTION 14 - 1/2 1/2 1/2 1/2			
SECTION 15 - 1/2 1/2 1/2 1/2			
SECTION 16 - 1/2 1/2 1/2 1/2			
SECTION 17 - 1/2 1/2 1/2 1/2			
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SECTION 19 - 1/2 1/2 1/2 1/2			
SECTION 20 - 1/2 1/2 1/2 1/2			



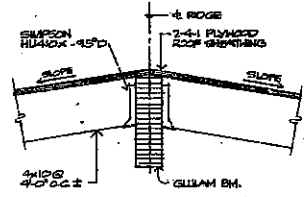
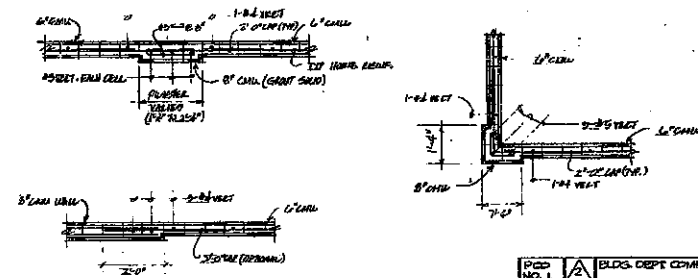
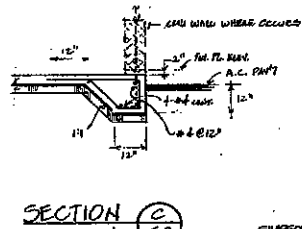
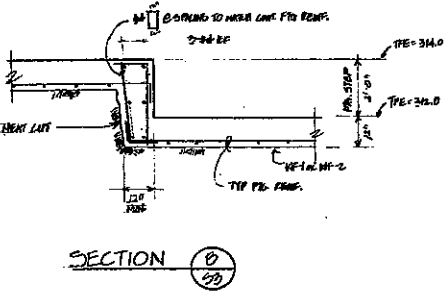
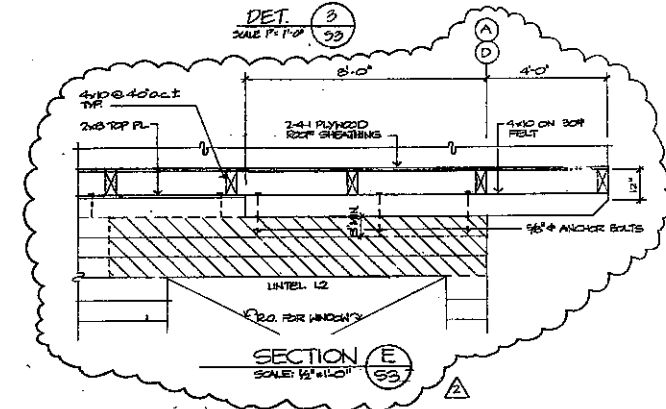
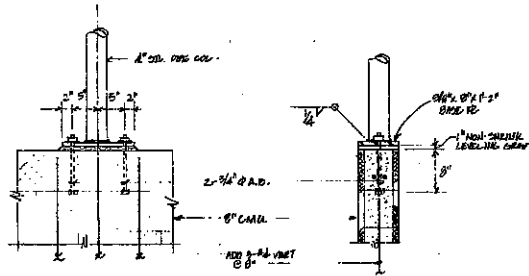
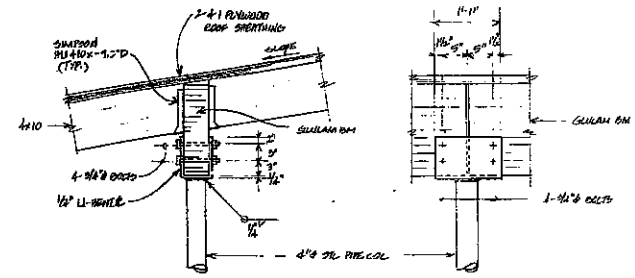
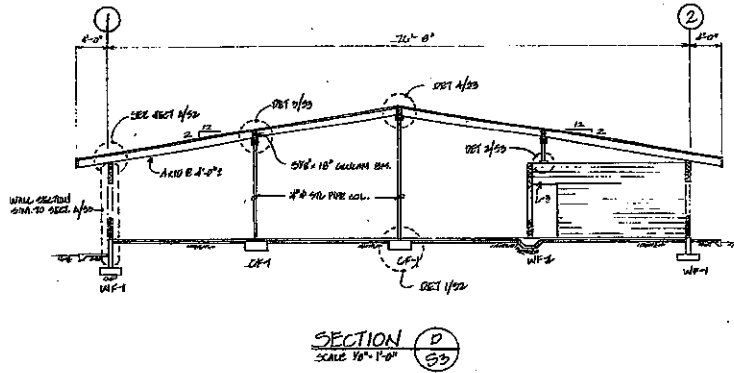
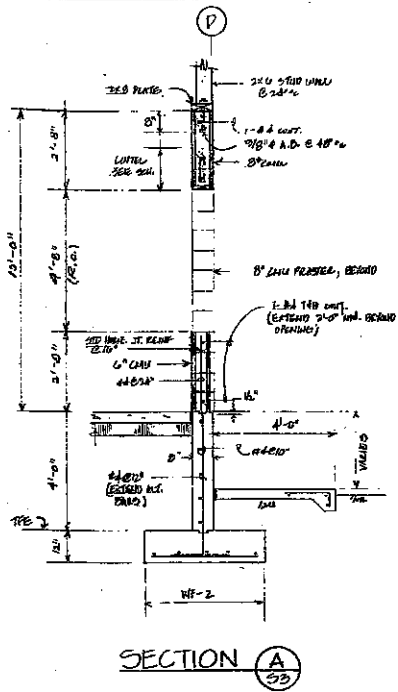


FIG. NO.	DATE	DESCRIPTION	BY	CHKD.	DATE	REVISIONS
1						
2						
3						
4						
5						

BLDG. DEPT COMMENTS

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

MANAWA CORRECTIONAL FACILITY  
KITCHEN/DINING BUILDING

SECTIONS AND DETAILS

GERALD LUM & CO.  
ARCHITECTS  
1001 KALANOAUE AVENUE  
HONOLULU, HAWAII

THIS WORK HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION

REVISED

DATE: 10-11-57  
SCALE: 1/2" = 1'-0"

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FOLLOWING CODES AND SPECIFICATIONS:

A. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE METHOD OF CONSTRUCTION, INCLUDING THE SAFETY OF THE WORKERS AND THE PROTECTION OF THE PUBLIC.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

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G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

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U. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

V. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

W. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

X. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

Y. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

Z. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

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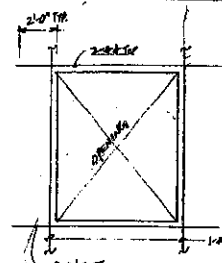
V. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

W. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

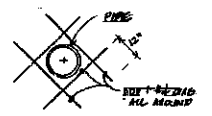
X. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

Y. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AND UTILITIES.

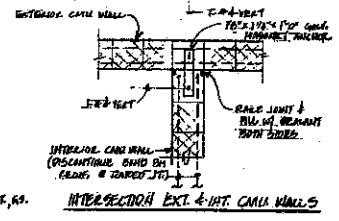
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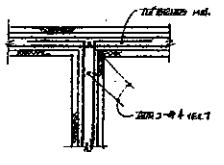
**TYPICAL ADDED REBAR AROUND BENDING IN CMU WALL (UNLESS OTHERWISE SHOWN)**  
(NTS)



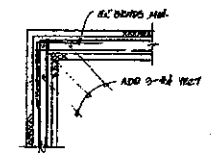
**ADDED REBAR AROUND PIPE PENETRATION IN CONCRETE FOUNDATION WALL**  
(NTS)



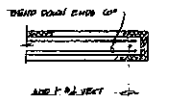
**INTERSECTION EXT. & INT. CMU WALLS**



**INTERSECTION**

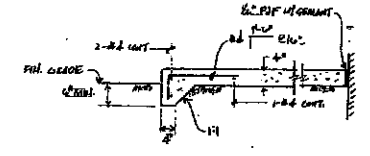


**CORNER**

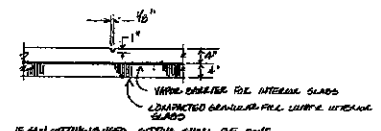


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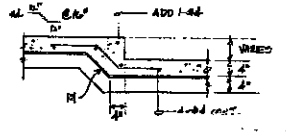
**TYPICAL DETAILS FOR CMU WALL REINFORCING**  
(NTS)



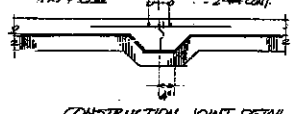
**TYP. EXTERIOR SLAB ON GRADE**



**CONTROL JOINT DETAIL**

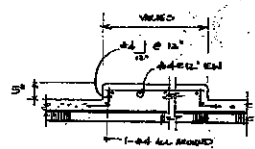


**DEPRESSED SLAB**

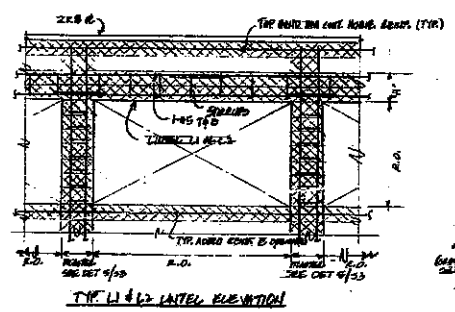


**CONSTRUCTION JOINT DETAIL**

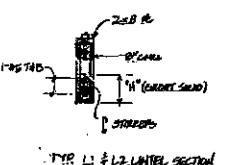
**TYPICAL SLAB ON GRADE DETAILS**  
(NTS)



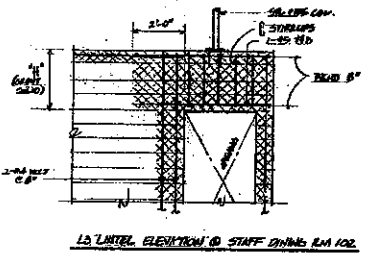
**CONC. EQUIP PAD DET**  
(NTS)



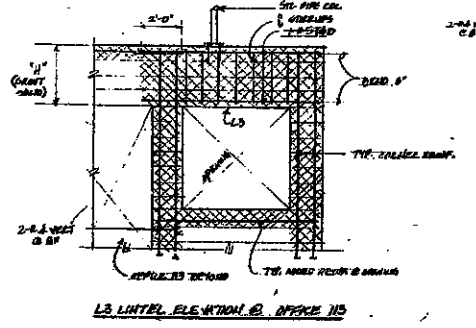
**TYP. L1 & L2 LINTEL ELEVATION**



**TYP. L1 & L2 LINTEL SECTION**



**L3 LINTEL ELEVATION @ STAFF DINING RM 102**



**L3 LINTEL ELEVATION @ OFFICE 115**

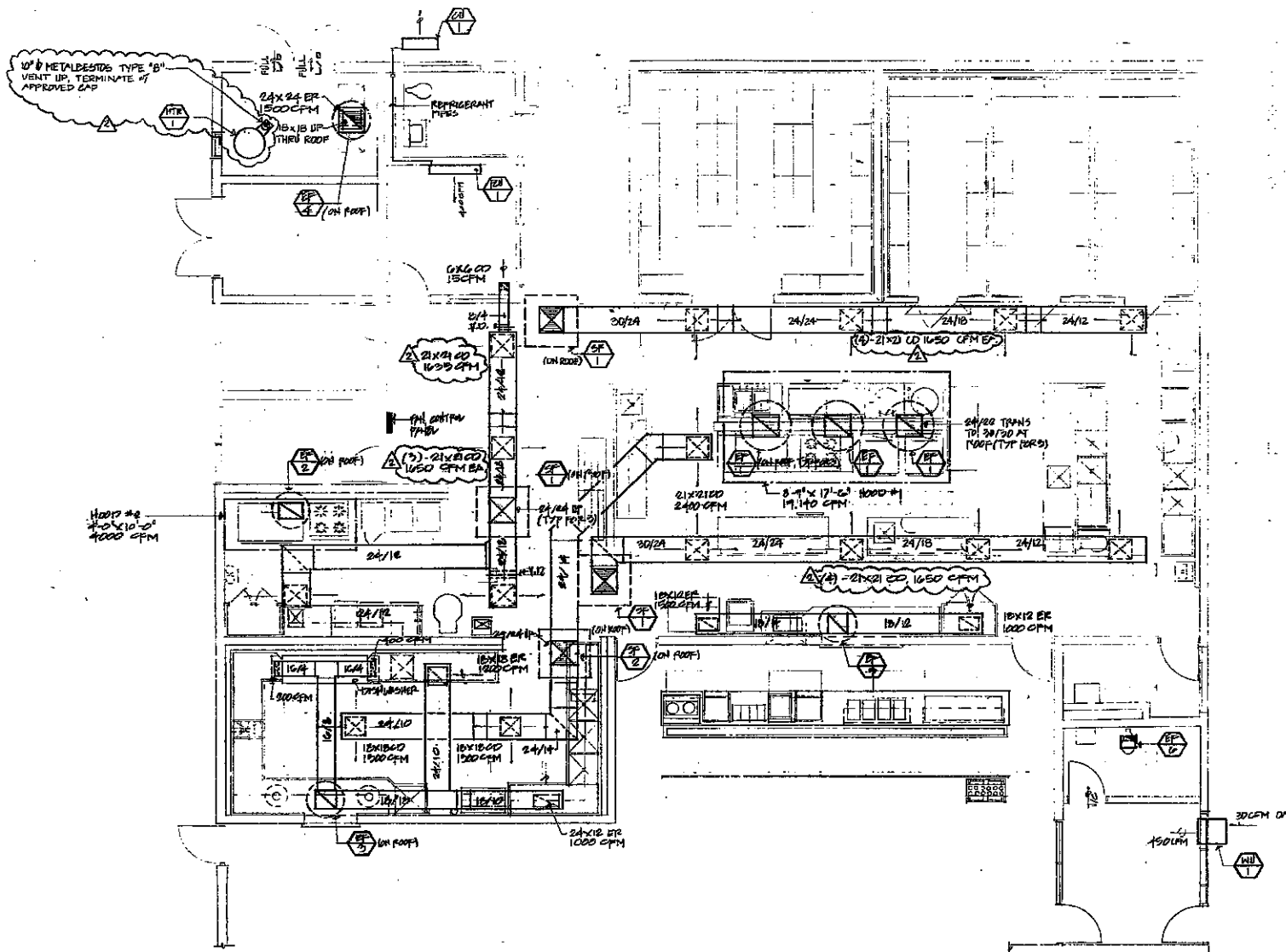
LINTEL SCHEDULE			
NO.	"H"	STRENGTH	REMARKS
L1	16"	4-#4 BARS	
L2	24"	4-#4 BARS	
L3	32"	4-#4 BARS	

**CMU LINTEL BEAM DETAILS (L1, L2 & L3)**  
(NTS)

REVISIONS

NO.	DATE	DESCRIPTION
1	11/15/87	REVISED BATHROOM NOTES

ADD. NO. 2	REVISED BATHROOM NOTES	DATE	11/15/87
NO.	NO.	DATE	
NO.	NO.	DATE	
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>HAWAII CORRECTIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b>			
GENERAL NOTES AND TYPICAL DETAILS			
CONTRACT NO.	DATE	REVISED BY	NO.
11-81-3048	11/15/87	COLLECTOR	3-4
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.
NO.	NO.	NO.	NO.



**EQUIPMENT SCHEDULE:**

Upblast Exhaust Fan: Split driven exhaust fan with centrifugal fan wheel isolated motor in ventilated compartment, adjustable pallets, spun aluminum housing, bladescreen, disconnect switch, spark resistant wheel, U.L. listed. Designed for kitchen exhaust, motor starter.

EF-1: 4380 CFM at 1 1/2" sp. 749 RPM, 3 Hp, 208/3/60, Greenheck Cube - 50.

EF-2: 4000 CFM at 1 1/2" sp. 1188 RPM, 2 Hp, 208/3/60, Greenheck Cube - 21.

EF-3: 3800 CFM at 1 1/2" sp. 1180 RPM, 1 Hp, 208/3/60, Greenheck Cube - 14.

Power Roof Ventilator: Belt driven power roof ventilator with centrifugal fan. Motor in ventilated compartment adjustable pallet. spun aluminum housing, bladescreen, disconnect switch, and motor starter.

EF-4: 1500 CFM at 1 1/2" sp. 1060 RPM, 1/2 Hp, 120/1/60, Greenheck CB-14.

EF-5: 2500 CFM at 1 1/2" sp. 833 RPM, 1/2 Hp, 120/1/60, Greenheck CB-18.

Supply Fan: Belt driven supply fan with forward curved centrifugal fan, isolated blower and motor assembly, heavy gauge galvanized steel housing, latched access cover, 1-inch throwaway filters, motor and drive, disconnect switch and motor starter.

SF-1: 8800 CFM at 1/2" sp. 715 RPM, 3 Hp, 208/3/60, Greenheck ESP-18.

SF-2: 5000 CFM at 1/2" sp. 616 RPM, 2 Hp, 208/3/60, Greenheck ESP-18.

Control Panel: Panel shall be fully recessed. Exhaust and Supply Fans shall have cutoff switch, mounted on front cover of panel with green pilot lights to indicate fans are activated.

Window Units  
Factory assembled AMI partitioned air conditioning unit with weather-proof enamel finish galvanized steel housing, cooling coil, fans, hermetically sealed compressor, controls, thermostat, motors, wiring, control panel, and wiring. Provide minimum 10% efficiency filters.

WU - 1: 14880 BTUH, 450 CFM, 8.5 amp, 1720 watts, 208/1/60, 4.5 EER. Carrier Genie RTA 1153.

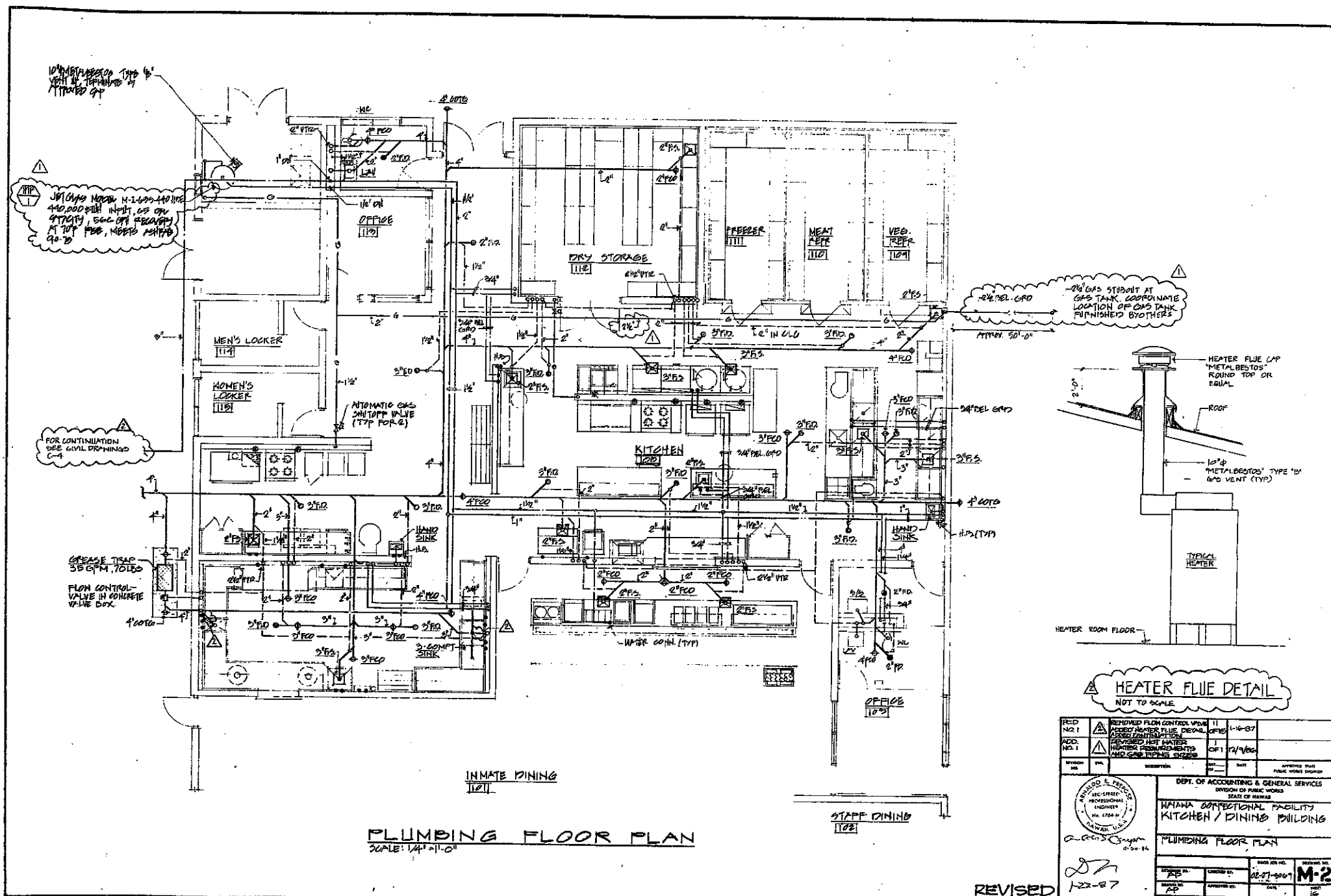
Fan Coil & Condensing Unit No. 1:  
Mitsubishi Model FC-1240, 12800 BTUH, 400 CFM; compressor - 8.0 HPA, 22 IMA; condenser fan - 0.3 FPA; evaporator fan - 0.5 FPA; Fan coil unit w/ 116/1/60; condensing unit at 208/1/60. 10.5 EER.

**EXHAUST FAN NO. 6:**  
CEILING EXHAUST FAN WITH DIRECT DRIVEN CENTRIFUGAL FAN, ISOLATED MOTOR, WHITE WALDED PLASTIC GRILLE, INTERLOCKED W/ LIGHT SWITCH, PENN 21-1 CAPACITY: 150 CFM AT 1/4" SP, 105 WATTS, 119/1/60

**VENTILATION FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

REVISED

PCD NO. 1	FORMED BY MEASUREMENTS ADDED NTR NO. 1	IC FFB	1-14-67
REVISION NO.	DATE	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS HAWAII CORRECTIONAL FACILITY KITCHEN/PINING BUILDING	
VENTILATION FLOOR PLAN			
Prepared by AT	Checked by AT	DATE 08-27-2001	REVISION NO. M-1
Approved by M. J. B. B.	Approved by M. J. B. B.	DATE 15	SCALE 1/4" = 1'-0"



**PLUMBING FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

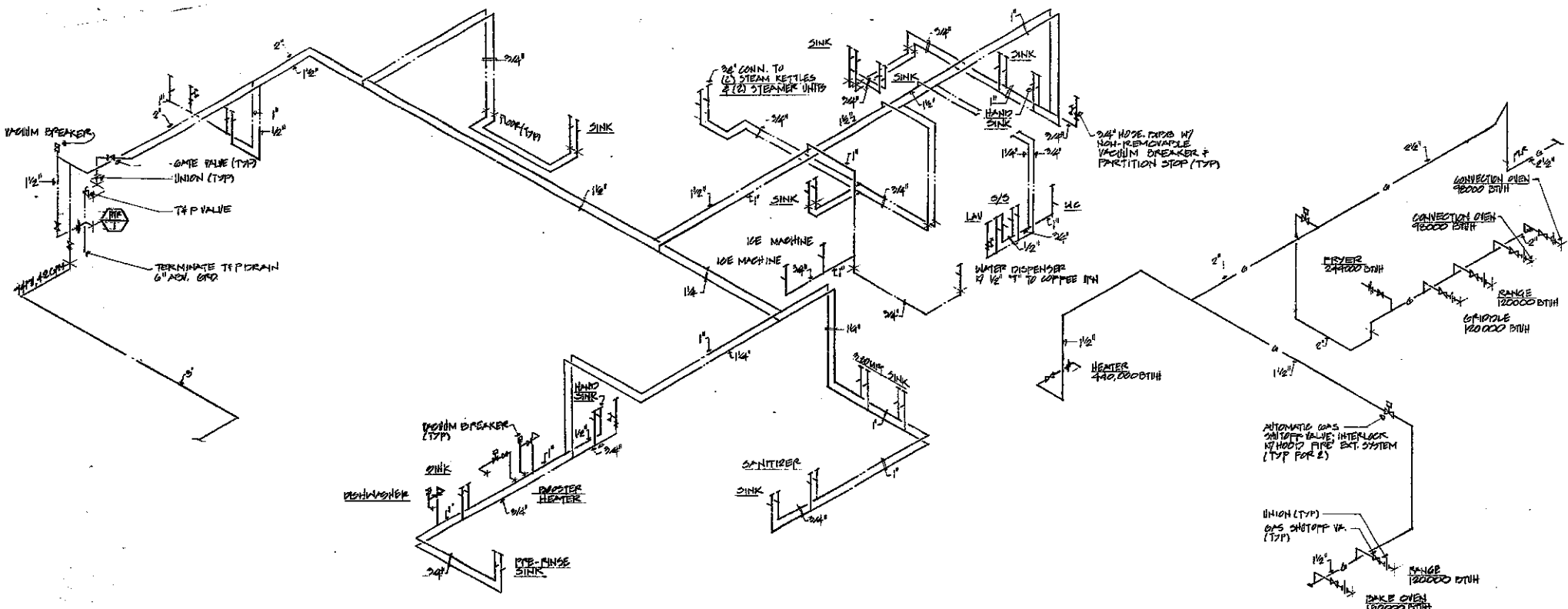
**HEATER FLUE DETAIL**  
NOT TO SCALE

REV. NO. 1	REMOVED FLOW CONTROL VALVE	11	1-16-87
ADD. NO. 1	ADDED HEATER FLUE DETAIL	OFFICE	
REVISED	REMOVED HOT WATER	1	12/1/86
REVISED	HIGHER REQUIREMENTS		
REVISED	ADDED DRAINING		
REVISED	ADDED DRAINING		

		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII	
HAWAII CORRECTIONAL FACILITY KITCHEN / DINING BUILDING			
PLUMBING FLOOR PLAN			
DESIGNED BY: AB	CHECKED BY: AB	DRAWN NO. NO.: 02-01-0007	SHEET NO.: <b>M-2</b>
APPROVED BY: AB	DATE: 1-23-87	DATE: 12/1/86	OF 260 SHEETS

REVISED



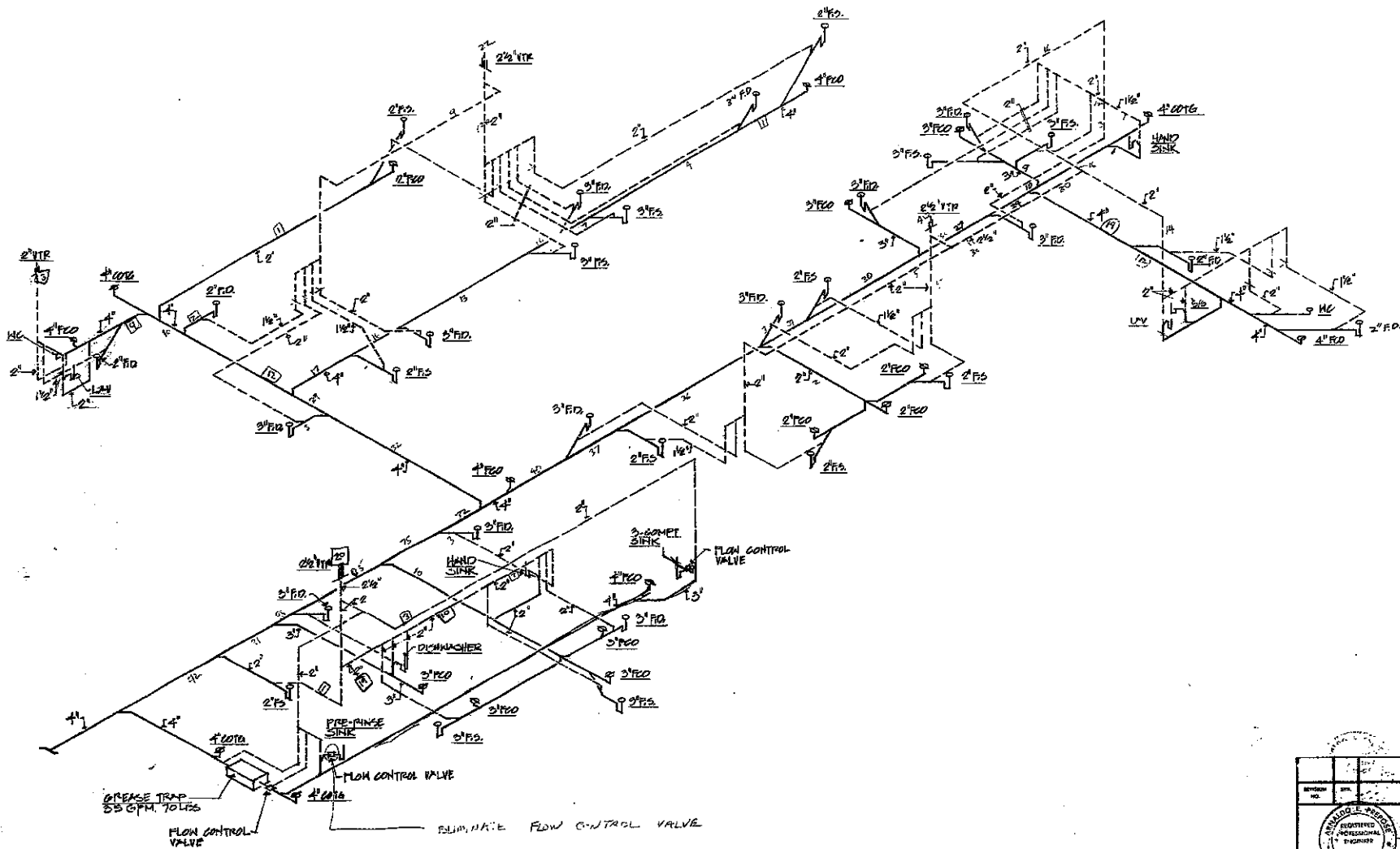
**WATER PIPING DIAGRAM**  
NOT TO SCALE

**GAS PIPING DIAGRAM**  
NOT TO SCALE

- NOTE:
1. ALL PIPING FIXTURES SHALL COMPLY W/ ITS SECTION 100 "WATER CONNECTIONS"
  2. WATER DEMAND:  
FLOW RATE - 94 MG. 42 GPM  
DAILY DEMAND - 3000 GPD

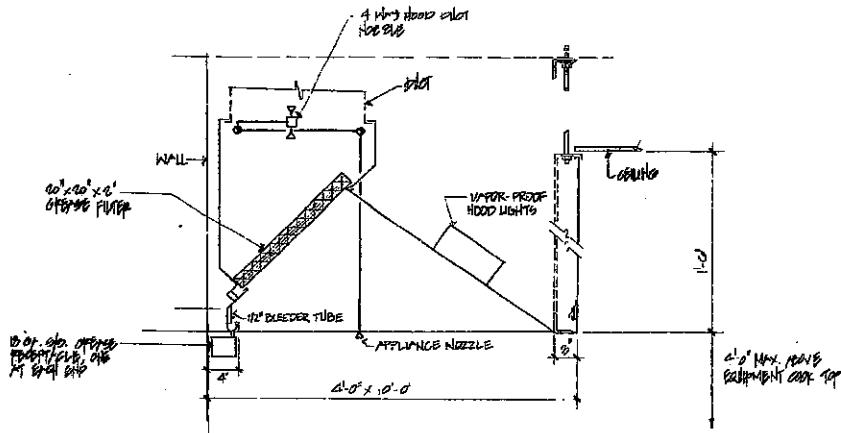
FOR OFFICIAL USE ONLY

DESIGN NO.	REV.	DESCRIPTION	DATE	BY	APPROVED DATE
			DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>HAWAII INSPECTIONAL FACILITY</b> <b>KITCHEN/PISINING BUILDING</b> <b>WATER AND GAS PIPING DIAGRAM</b>		
A. Ross Simpson 			7-22-87		



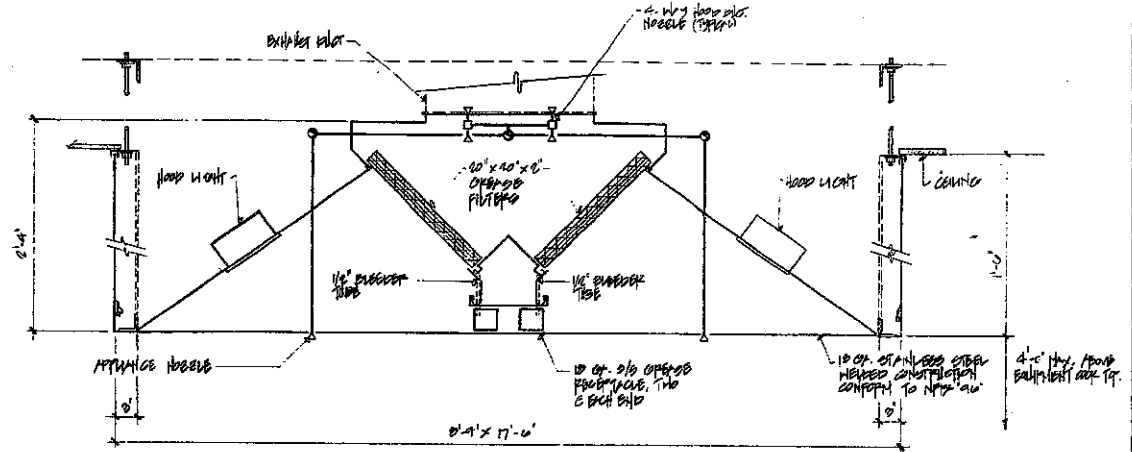
**SANITARY PIPING DIAGRAM**  
NOT TO SCALE

PROJECT NO.	DATE	DESCRIPTION	APPROVED DATE
			PUBLIC WORKS DIVISION
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>HAWAII CONVENTIONAL FACILITY KITCHEN / DINING BUILDING</b>			
<b>SANITARY PIPING DIAGRAM</b>			
DESIGNED BY	DATE	CHECKED BY	DATE
102-87			



**KITCHEN HOOD EXHAUST DETAIL**

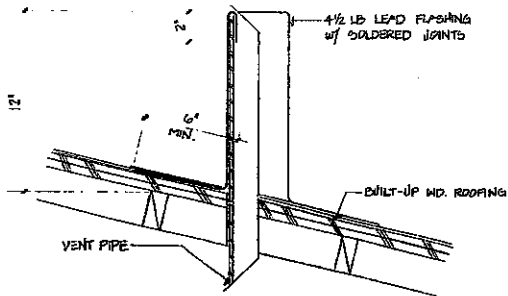
SCALE: 1/8"=1'-0"



**KITCHEN EXHAUST HOOD DETAIL**

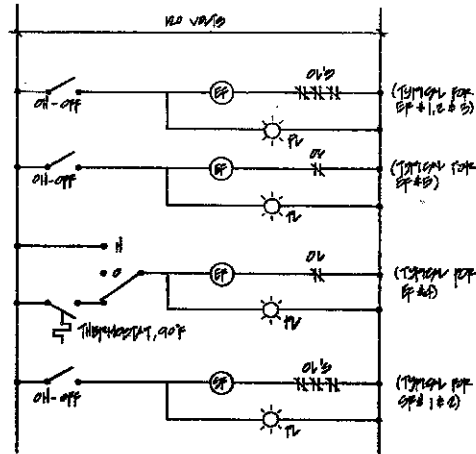
SCALE: 1/8"=1'-0"

- NOTES:
1. PROVIDE AUTOMATIC HOOD PIPE EXTINGUISHING SYSTEM CONFORM TO UL 164C SAFETY FIRST TYPE OF APPROVED EQUIP.
  2. COORDINATE HOOD REQUIREMENTS WITH KITCHEN CONTRACTOR.



**VENT THRU ROOF DETAIL**

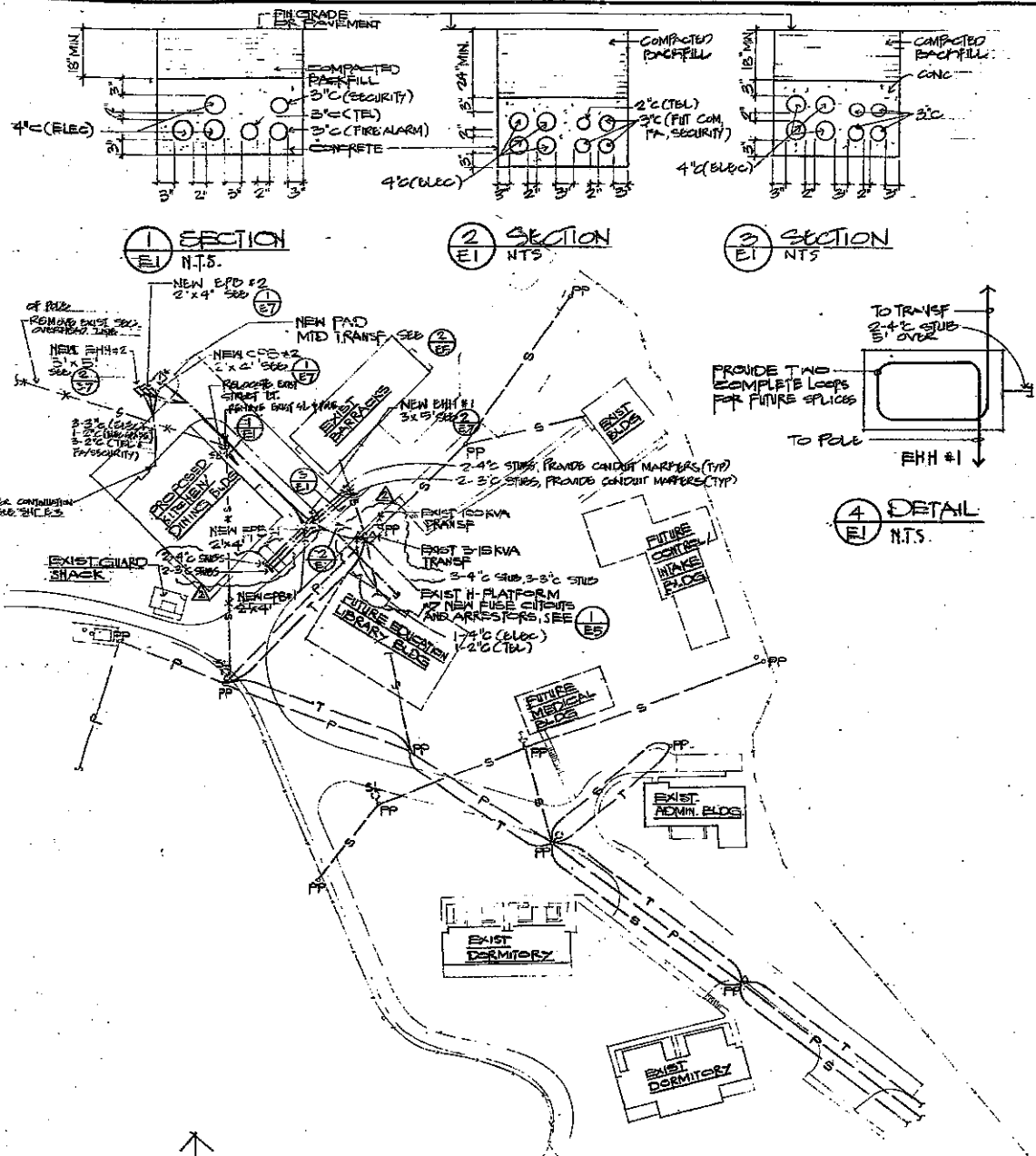
NOT TO SCALE



**CONTROL SCHEMATIC DIAGRAM**

NO SCALE

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED BY PUBLIC WORKS ENGINEER
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIANA OBSERVATIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b>					
<b>NO. 100-100-100-100-100-100</b>					
APPROVED BY: <i>[Signature]</i> DATE: 11-21-87					
ISSUED BY: <i>[Signature]</i>	DATE: 11-21-87	<b>M-5</b>			
REVISED BY: <i>[Signature]</i>	DATE: 11-21-87				
DATE: 11-21-87					



1 SECTION  
E1 N.T.S.

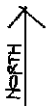
2 SECTION  
E1 N.T.S.

3 SECTION  
E1 N.T.S.

4 DETAIL  
E1 N.T.S.

- ELECTRICAL SYMBOLS**
- CEILING LUMINAIRE
  - WALL LUMINAIRE
  - WALL LUMINAIRE, NITE LIGHT
  - CEILING FLUORESCENT LUMINAIRE
  - WALL FLUORESCENT STRIP LUMINAIRE
  - MOOD LIGHT BY OTHERS
  - ⊕ EXIT LIGHT, WALL, BLACKENED SEGMENT INDICATES ILLUMINATED SIDES AND ARROWS INDICATE DIRECTIONAL ARROWS
  - EXISTING POLE AND STREET LIGHT SWITCH, 1P2DA, +4'
  - SWITCH, 3P2DA, +4'
  - SWITCH, 1P2DA WITH PILOT LIGHT, +4', BY OTHER
  - EXISTING POWER POLE
  - DUPLEX CONVENIENCE OUTLET, 3W15A GROUNDING TYPE, +12" UNLESS OTHERWISE NOTED
  - SPECIAL OUTLET, RATING AS INDICATED, +12"
  - SECURITY TOUR STATION
  - EQUIPMENT CONNECTION
  - CLOCK OUTLET, +7'-6"
  - TELEVISION OUTLET
  - JUNCTION BOX, WALL, 4-11/16" SQUARE MINIMUM
  - JUNCTION BOX, CEILING, 4-11/16" SQUARE MINIMUM
  - TIME SWITCH
  - PANELBOARD
  - TELEPHONE CABINET
  - TELEPHONE OUTLET, +12"
  - TRANSFORMER
  - MOTOR OUTLET
  - MOTOR CONTROLLER
  - SAFETY SWITCH
  - FIRE ALARM MANUAL STATION, +5'-6"
  - FIRE ALARM SMOKE DETECTOR
  - FIRE ALARM HORN
  - FIRE ALARM FLASHING LIGHT
  - WEATHERPROOF
  - OVERHEAD STREET LIGHT LINE
  - EXISTING OVERHEAD COMMUNICATION LINE
  - EXISTING OVERHEAD PRIMARY LINE
  - EXISTING OVERHEAD SECONDARY LINE
  - WIRING IN RACEWAY CONCEALED IN WALL OR CEILING
  - WIRING IN RACEWAY CONCEALED IN FLOOR OR BELOW GRADE
  - WIRING IN EXPOSED RACEWAY

**NOTES:** ANY CIRCUIT WITH NO FURTHER DESIGNATION INDICATES A T.O. JUMP CIRCUIT. CIRCUITS WITH ADDITIONAL WIRES ARE INDICATED AS FOLLOWS: 3 WIRES: —P—, 4 WIRES, ETC. —> INDICATES GROUNDING CONDUCTOR SIZED PER NATIONAL ELECTRICAL CODE ARTICLE 250.



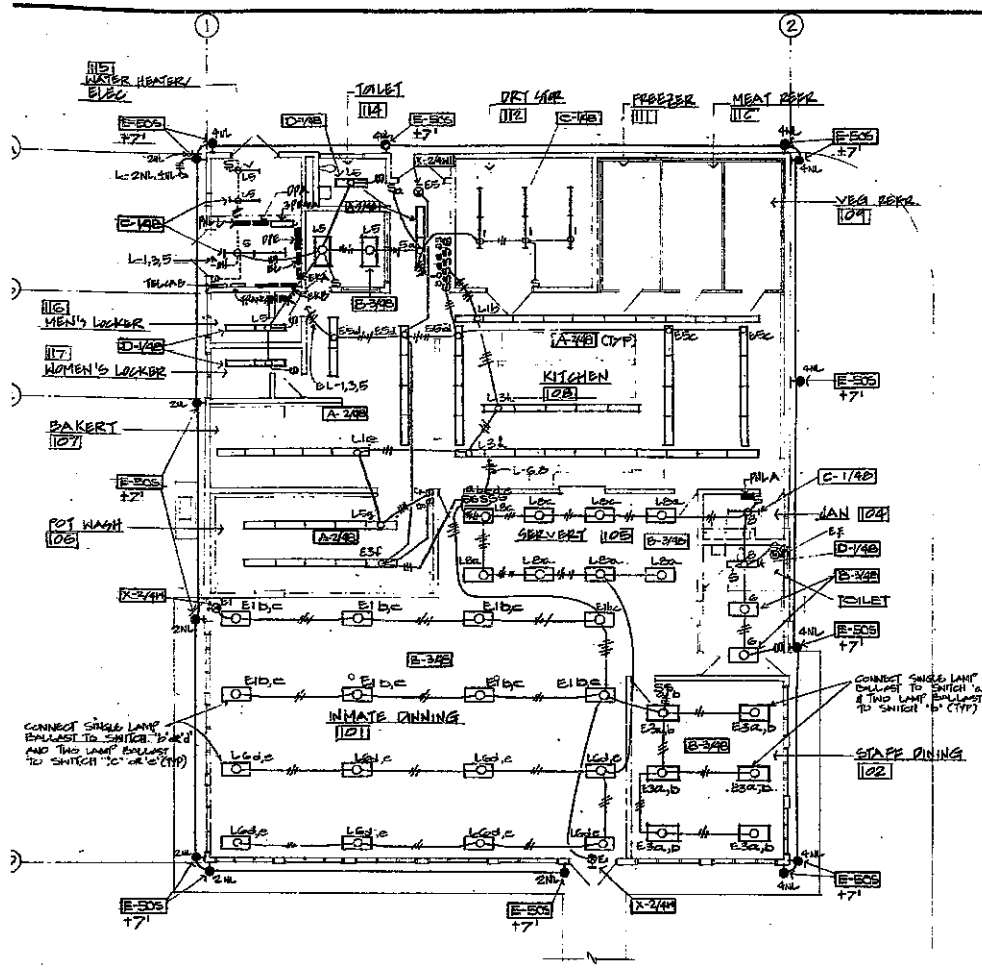
**ELECTRICAL SITE PLAN**  
SCALE: 1"=40'

FOR OFFICIAL USE ONLY

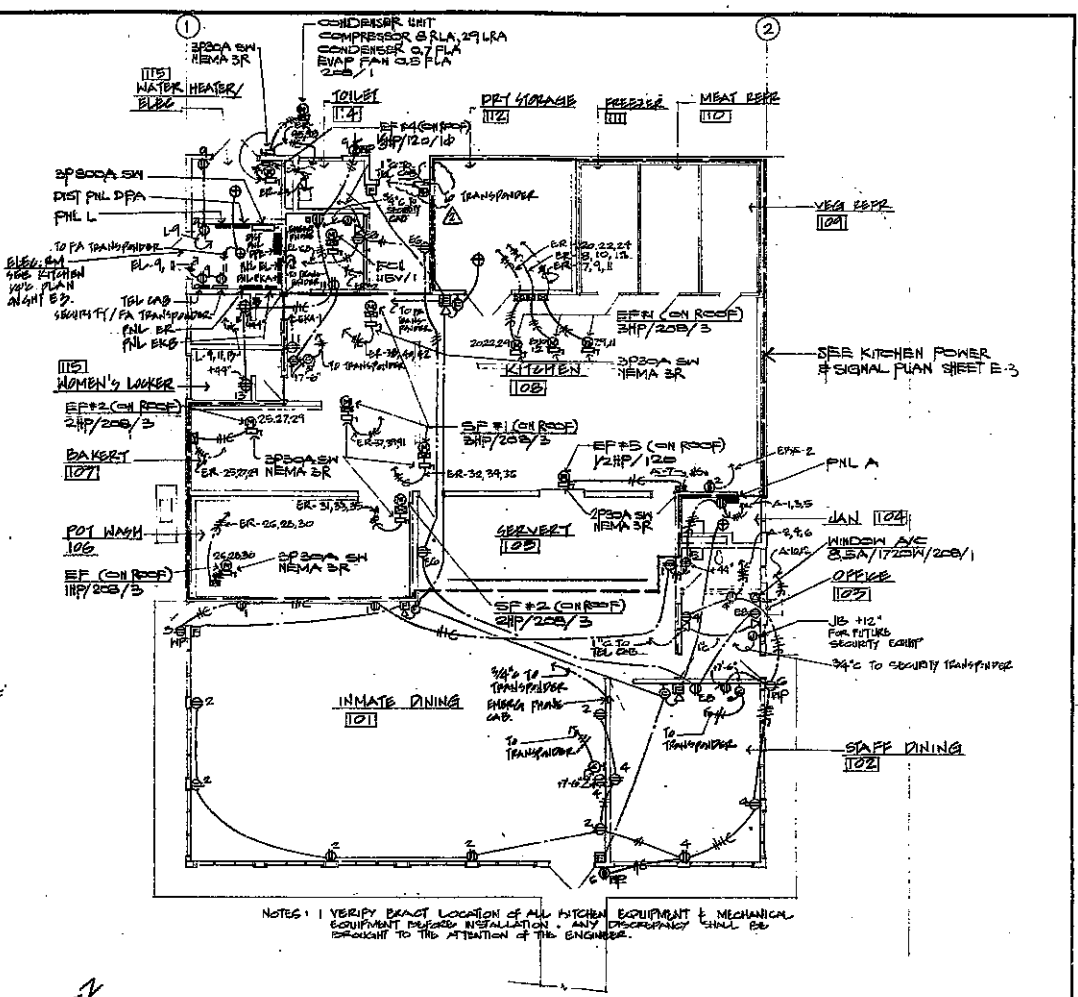
REVISED

REVISED ELECTRICAL SITE PLAN	DATE: 12/15/87	APPROVED DATE: 12/15/87
DESCRIPTION: ELECTRICAL SITE PLAN, SYMBOLS AND DETAILS	DATE: 12/15/87	PREPARED BY: [Signature]
DEPT. OF ACCOUNTING & GENERAL SERVICES STATE OF HAWAII		
HAWAIIAN CORRECTIONAL FACILITY KITCHEN/DINING BUILDINGS		
ELECTRICAL SITE PLAN, SYMBOLS AND DETAILS		
DESIGNED BY: [Signature]	DRAWN BY: [Signature]	CHECKED BY: [Signature]
DATE: 12/15/87	DATE: 12/15/87	DATE: 12/15/87
SCALE: AS NOTED	SCALE: AS NOTED	SCALE: AS NOTED





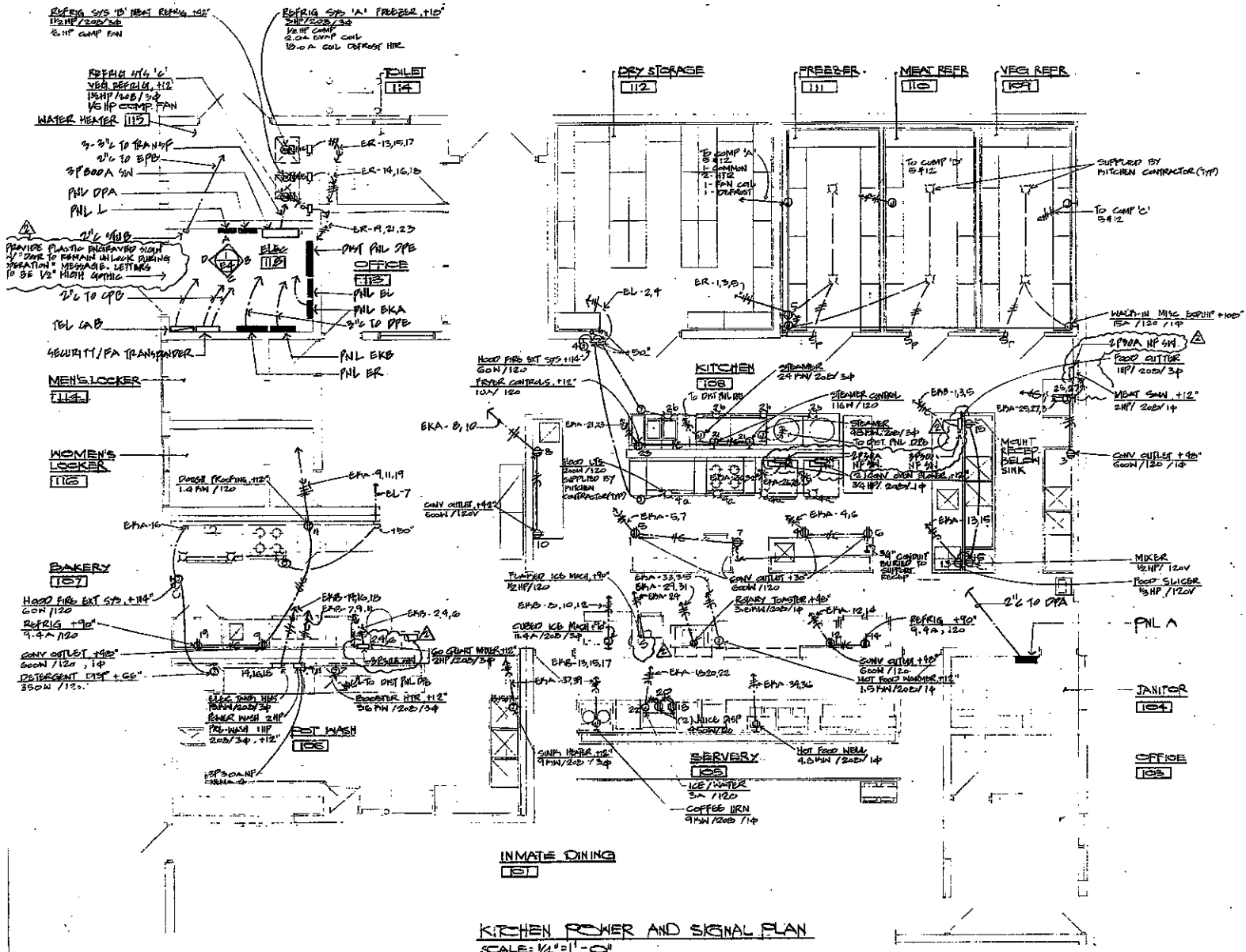
**LIGHTING PLAN**  
SCALE = 1/8" = 1'-0"



**POWER & SIGNAL PLAN**  
SCALE = 1/8" = 1'-0"

NOTES: 1. VERIFY EXACT LOCATION OF ALL KITCHEN EQUIPMENT & MECHANICAL EQUIPMENT BEFORE INSTALLATION. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

REV. NO. 1	REVISION	DATE	BY	APPROVED
	REVISED POWER & SIGNAL PLAN	1/16/87		
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII				
<b>MAIANA CORRECTIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b>				
<b>LIGHTING, POWER &amp; SIGNAL PLANS</b>				
		DRAWN BY: <i>Robert A. Young</i> CHECKED BY: <i>[Signature]</i> DATE: 1/16/87 SCALE: AS NOTED		

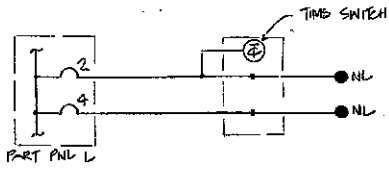


**KITCHEN POWER AND SIGNAL PLAN**  
 SCALE: 1/4" = 1'-0"

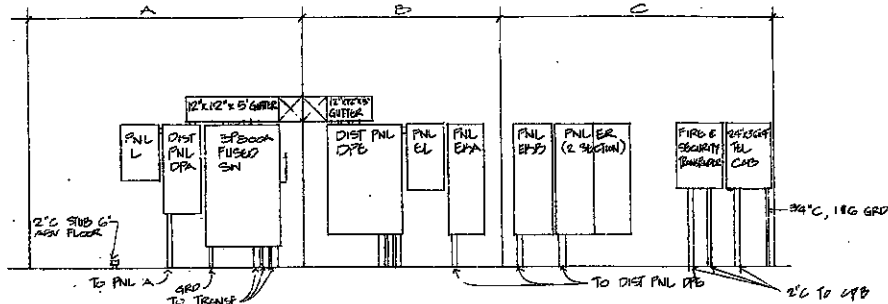
REV. NO. 1	DESCRIPTION	DATE	BY	APPROVED DATE	APPROVED BY
1	REVISED KITCHEN POWER AND SIGNAL PLAN	11/10/87	AE		
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>NAAMA CORRECTIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b> <b>KITCHEN POWER &amp; SIGNAL PLAN</b>					
THIS DRAWING SHALL BE USED ONLY AS SHOWN ON THESE PLANS.		DRAWN BY AE	CHECKED BY AE	DATE 02-27-2008	SCALE AS NOTED
PROJECT NO. 198		SHEET NO. 18 OF 20	DATE 11/10/87		

REVISED

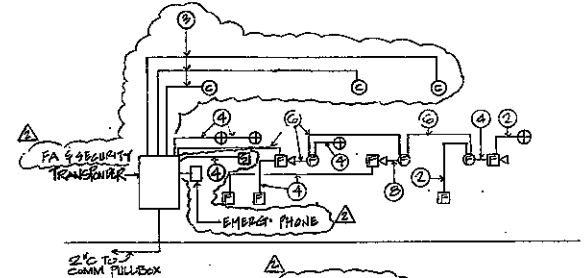
FOR OFFICIAL USE ONLY



NIGHT LIGHT DIAGRAM

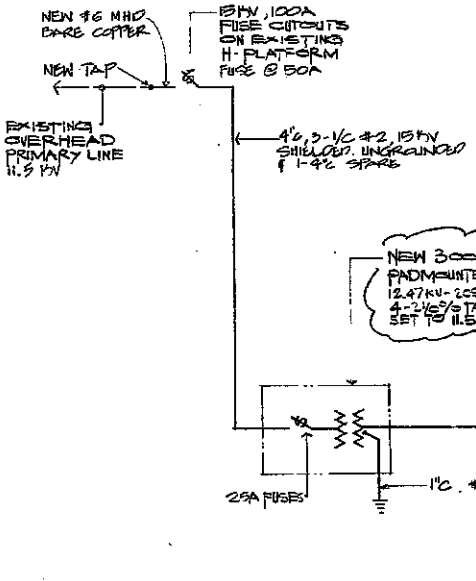


ELEVATION  
SCALE: 3/8" = 1'-0"



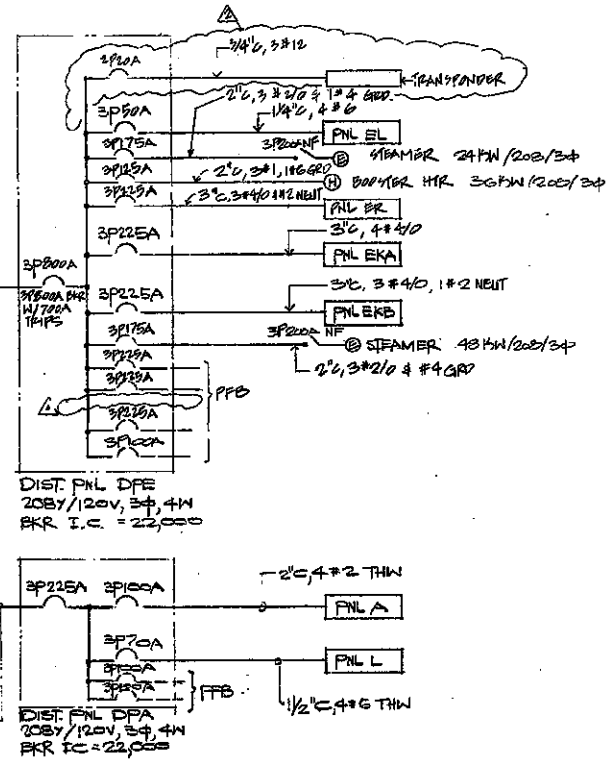
FIRE ALARM & SECURITY DIAGRAM

- FIRE ALARM NOTES:
1. VERIFY WIRING AND JB SIZES WITH EQUIPMENT SUPPLIER.
  2. ALL WIRE NO. 14 THIN.
  3. NUMBER IN CIRCLE INDICATES NUMBER OF WIRES.
  4. ALL EQUIPMENT TO BE U.L. APPROVED.
  5. FIRE ALARM SYSTEM SHALL BE ELECTRICALLY SUPERVISED.



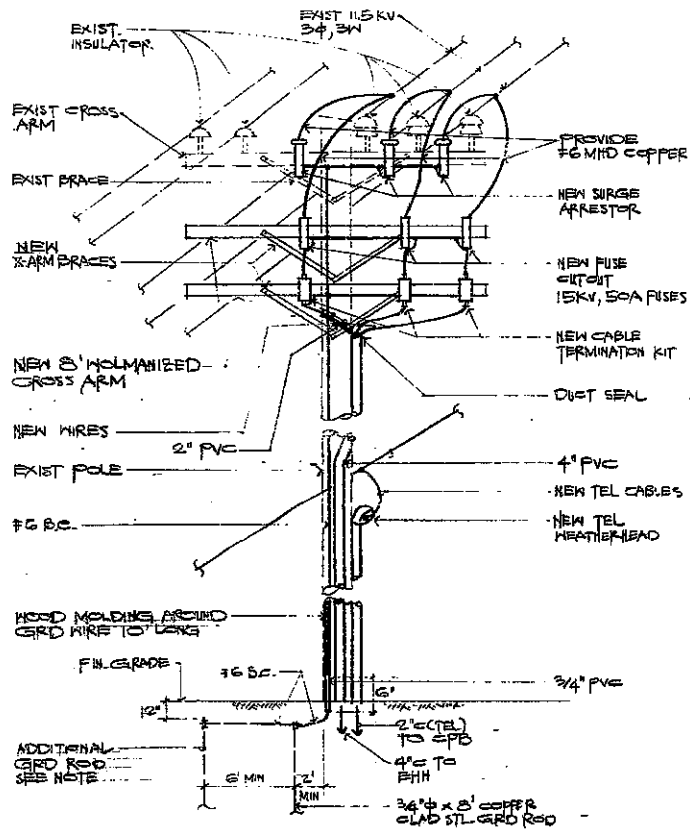
SINGLE-LINE DIAGRAM

NOTE: ALL EQUIPMENT NEW UNLESS OTHERWISE NOTED.  
ALL INTERIOR WIRES #6 OR LARGER TYPE THW



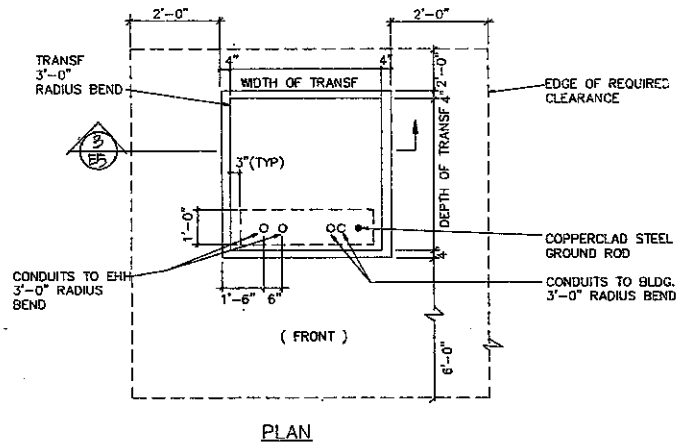
REV NO 1	REVISED SINGLE-LINE AND FIRE ALARM DIAGRAM	15 DEC 1987
DATE	DATE	APPROVED DATE
BY	BY	BY
DEPARTMENT	DEPARTMENT	DEPARTMENT
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII		
WAIANA CORRECTIONAL FACILITY KITCHEN/DINING BUILDING		
SINGLE-LINE DIAGRAM, ELEVATION AND MISC. DIAGRAMS		
DESIGNED BY	CHECKED BY	DATE
DRAWN BY	APPROVED BY	DATE
SCALE	SCALE	SCALE
DATE	DATE	DATE
BY	BY	BY
DATE	DATE	DATE

REVISED

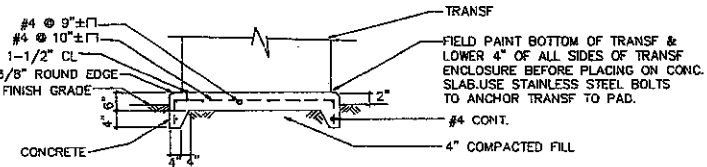


NOTE: USE ADDITIONAL RODS WHERE EARTH RESISTANCE IS HIGH TO OBTAIN 25 OHMS TO GROUND

1 DETAIL  
ES N.T.S.



PLAN



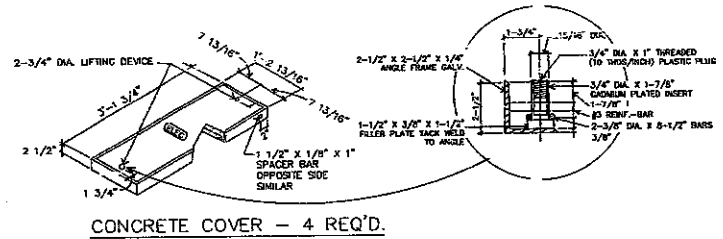
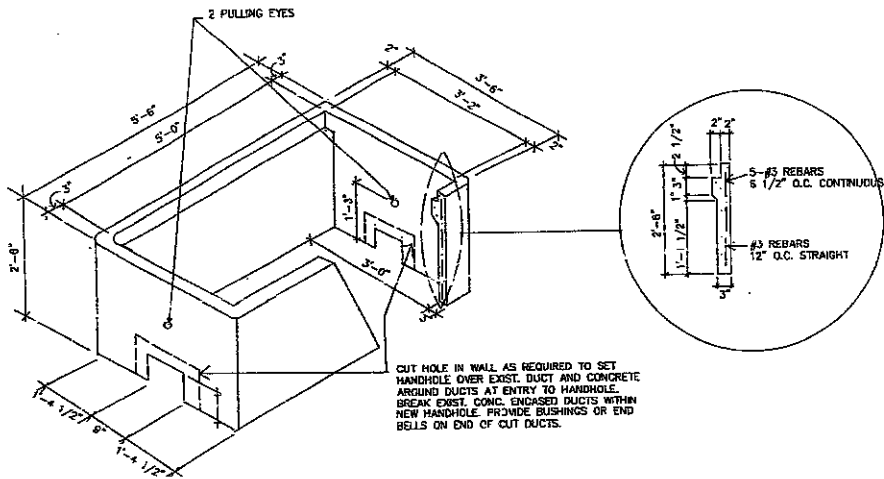
2 SECTION  
ES

NOTE: ADJUST DIMENSIONS OF PAD TO SUIT TRANSF FURNISHED.

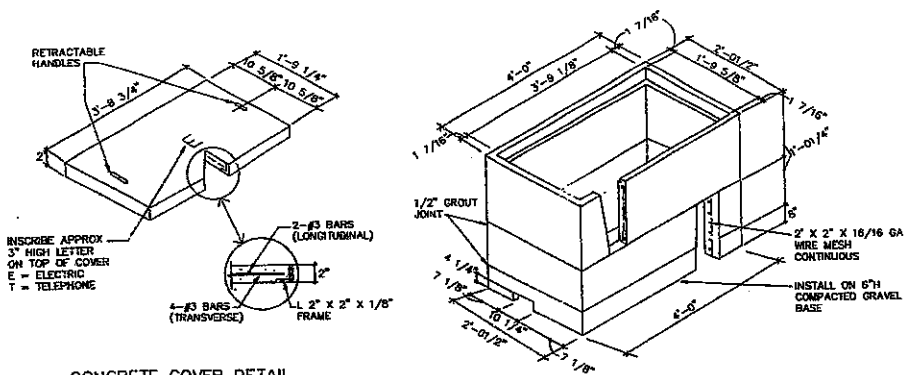
2 TRANSFORMER PAD  
ES N.T.S.

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>HAWAII OPERATIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b>					
<b>DETAILS</b>					
DRAWN BY <i>Robert Clancy</i>		CHECKED BY _____		DATE FOR SET _____	
THIS WORK WAS PREPARED OR UNDER MY SUPERVISION <i>Robert Clancy</i>		I AM A LICENSED PROFESSIONAL ENGINEER No. 1900-B HAWAII, U.S.A.		DRAWING NO. <b>125</b>	





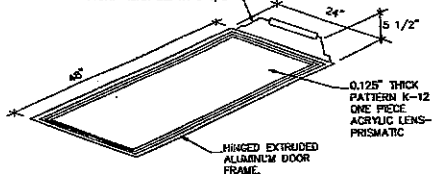
2 3' X 5' PRECAST HANDHOLE  
EG NOT TO SCALE



1 2' X 4' PULL BOX DETAIL  
EG N.T.S.

REVISION NO.	DATE	DESCRIPTION	APPROVED BY	DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII				
<b>WAIANA CORRECTIONAL FACILITY</b> <b>KITCHEN/DINING BUILDING</b>				
<b>HANDHOLE AND PULL BOX DETAILS</b>				
REGISTERED PROFESSIONAL ENGINEER HAWAII, U.S.A. 		DRAWN BY: <b>AC</b> CHECKED BY: <b>AC</b> DATE: <b>11/27/77</b>		
THIS DRAWING WAS PREPARED BY ME OR UNDER MY SUPERVISION <i>Robert S. G. Ching</i>				

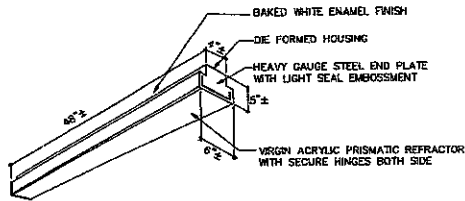
ONE PIECE DIE FORMED AND EMBOSSED 20 GA CRS WITH BAKED WHITE ENAMEL FINISH WITH 0.68 REFLECTON FACTOR. MAX DEPTH 5 1/2"



- NOTES:
1. VERIFY CEILING TYPES FOR RECESSED LIGHT FIXTURES AND PROVIDE PROPER FRAMES AND ACCESSORIES.
  2. UNPAINTED PARTS ZINC PLATED OR STAINLESS STEEL. CUT EDGES OR METAL TO BE PRIMED & PAINTED SIMILAR TO BODY PAINTING.
  3. BODY TO BE EMBOSSED TOP & ENDS TO ASSURE RIGIDITY. CORNER TO BE FOLDED & WRAPPED TO ELIMINATE OPEN SEAMS.
  4. ALL ELECTRICAL COMPONENTS TO BE EASILY ACCESSIBLE WITHOUT REMOVAL OF TRIGGER FROM CEILING. BALLASTS TO BE BOLTED TO CHASSIS WITH BOLTS & SELF-LOCKING NUTS.
  5. PROVIDE GASKETS TO PREVENT LIGHTING LEAKS.

LAMPS : 3-34W CW FLUORESCENT LAMPS

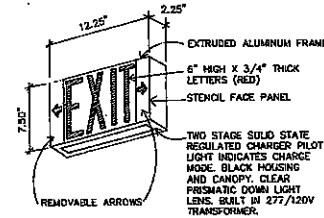
TYPE B  
N.T.S.



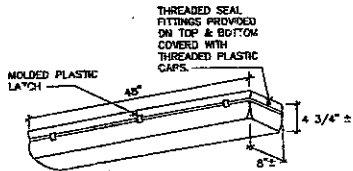
- NOTES: 1) ALL STEEL SURFACES, OTHER THAN PLATED PARTS, ANTI-RUST PROTECTED WITH 5 STAGE PHOSPHATE TREATMENT. ALL METAL SURFACES EXCEPT PLATED PARTS SPRAYED WITH BAKED-ON WITH ENAMEL. REFLECTOR REFLECTANCES 65% MIN.  
2) ENERGY SAVING BALLAST WITH FULL LUMEN OUTPUT

LAMP : 1-34W CW FLUORESCENT LAMP

TYPE D  
N.T.S.



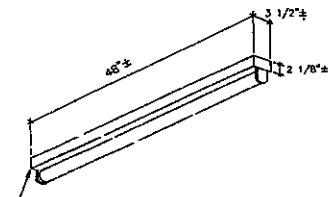
TYPE X  
N.T.S.



HIGH IMPACT 0.125" CLEAR ACRYLIC ENCLOSURE. ONE PIECE NEOPRENE GASKET. HIGH IMPACT PLASTIC BODY SUITABLE FOR WET LOCATIONS PER NEC. GASKET TO BE 0.125" CONTINUOUS COMPRESSIBLE NEOPRENE. INTERNAL METAL WIRING COMPARTMENT TREATED WITH 5 STAGE ZINC PHOSPHATE AND HOT BONDED ENAMEL PAINT. REFLECTING SURFACES FINISHED WITH HIGH-REFLECTANCE WHITE ENAMEL. FIXTURE SHALL BE SUITABLE FOR WET LOCATIONS.

LAMP: 2-34W CW FLUORESCENT LAMP

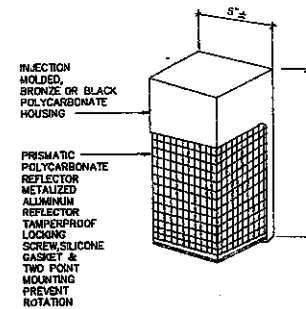
TYPE A  
N.T.S.



20 GA. DIE FORMED COLD ROLL STEEL. TREAT ALL METAL WITH PHOSPHATE BONDING PROCESS BEFORE PAINTING. FINISH WITH HIGH TEMPERATURE BAKED ENAMEL OF MIN. 65% REFLECTIVITY.

LAMP: 1-34W CW FLUORESCENT LAMP

TYPE C  
N.T.S.



LAMP : 1-50W HPS LAMP

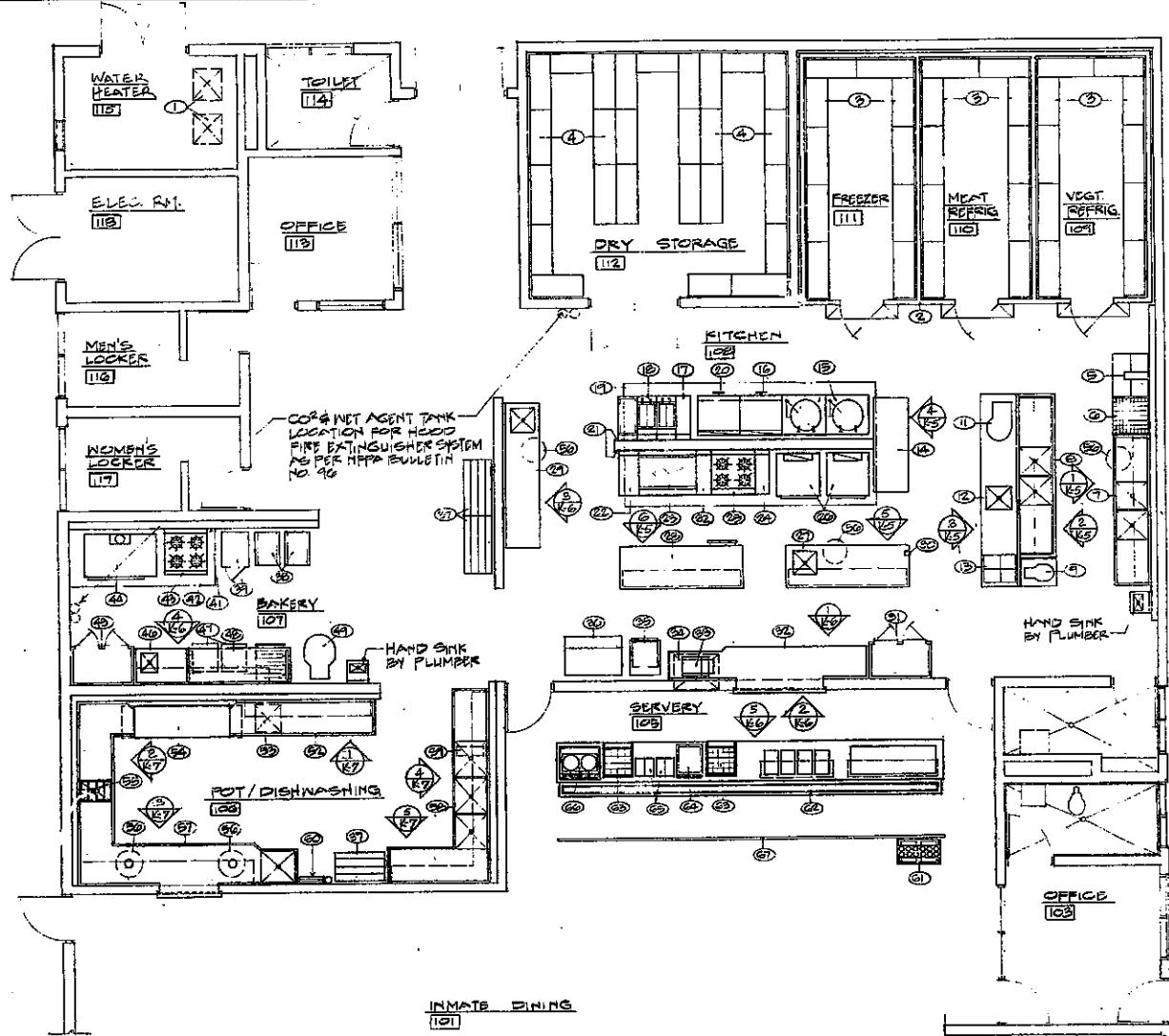
TYPE E  
N.T.S.

FOR OFFICIAL USE ONLY

REVISION NO.	DATE	DESCRIPTION	APPROVED DATE	APPROVED BY
<p>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII</p> <p><b>WAIKIA CORRECTIONAL FACILITY KITCHEN/DINING BUILDING</b></p> <p>LUMINAIRE DETAILS</p>				
<p>REGISTERED PROFESSIONAL ENGINEER No. 10084 HAWAII, U.S.A.</p>		<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</p> <p><i>William C. Long</i></p>		
DATE OF ISSUE	DATE OF REVISION	REVISION NO.	REVISION BY	REVISION DATE


# FOOD SERVICE EQUIPMENT SCHEDULE

ITEM NO.	DESCRIPTION
1	REFRIGERATION SYSTEMS
2	COLD STORAGE ROOMS
3	COLD STORAGE ROOM SHELVING
4	SHELVING
5	MEAT SAN
6	BUTCHER BLOCK
7	WORK SINKS
8	PREP SINKS
9	MIXER - 20 QUARTS N/ MOBILE STAND
10	SPARE NUMBER
11	FOOD CUTTER
12	WORK TABLE
13	FOOD SLICER
14	WORK TABLE
15	STEAM KETTLES - 40 GALLONS
16	STEAMER UNIT
17	SPREADER
18	FRYER UNIT N/ FILTER SYSTEM
19	HOOD
20	STEAMER UNIT
21	WALL FLASHING
22	SPREADERS
23	MODULE GRIDDLE
24	SPREADER
25	OPEN BURNER RANGE
26	CONVECTION OVENS
27	WORK TABLE
28	WORK TABLE
29	WORK TABLE
30	CAN OPENER
31	REFRIGERATOR
32	WORK COUNTER
33	ROTARY TOASTER
34	HEAT FOOD WARMER
35	FLAKED ICE MACHINE
36	CUBED ICE MACHINE
37	POT RACKS
38	PORTABLE RACKS
39	DOUGH PROOFING CABINET
40	SPARE NUMBER
41	WALL FLASHING
42	HOOD
43	OPEN BURNER RANGE
44	BAKE OVEN
45	REFRIGERATOR
46	WORK TABLE
47	INGREDIENT BINS
48	BAKERS TABLE
49	MIXER - 60 QUARTS
50	SPARE NUMBER
51	SPARE NUMBER
52	CLEAN DISHTABLE
53	BOOSTER HEATER
54	DISHWASHER
55	PRE-RINSE UNIT
56	GARBAGE RECEPTACLE
57	SOILED DISHTABLE
58	POT SINKS
59	SINK HEATER
60	SANITIZER
61	UTENSIL/TRAY DISPENSER
62	SERVING COUNTER
63	CUP/GLASS DISPENSER
64	ICE/WATER DISPENSER
65	JUICE DISPENSER
66	COFFEE URN
67	RATINGS



**FOOD SERVICE EQUIPMENT PLAN**  
SCALE: 1/4" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED: STATE ENGINEER


**DEPT. OF ACCOUNTING & GENERAL SERVICES**  
 DIVISION OF PUBLIC WORKS  
 STATE OF INDIANA  
**INDIANA CORRECTIONAL FACILITY**  
**KITCHEN / DINING BUILDING**  
**FOOD SERVICE EQUIPMENT PLAN**  
**& SCHEDULE**  
 GERALD LUNN AND CO.  
 201-277-8264  
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
 DATE PREPARED: 01-27-2014  
 DRAWING NO.: K-1  
 SHEET NO.: 25  
 OF: 30

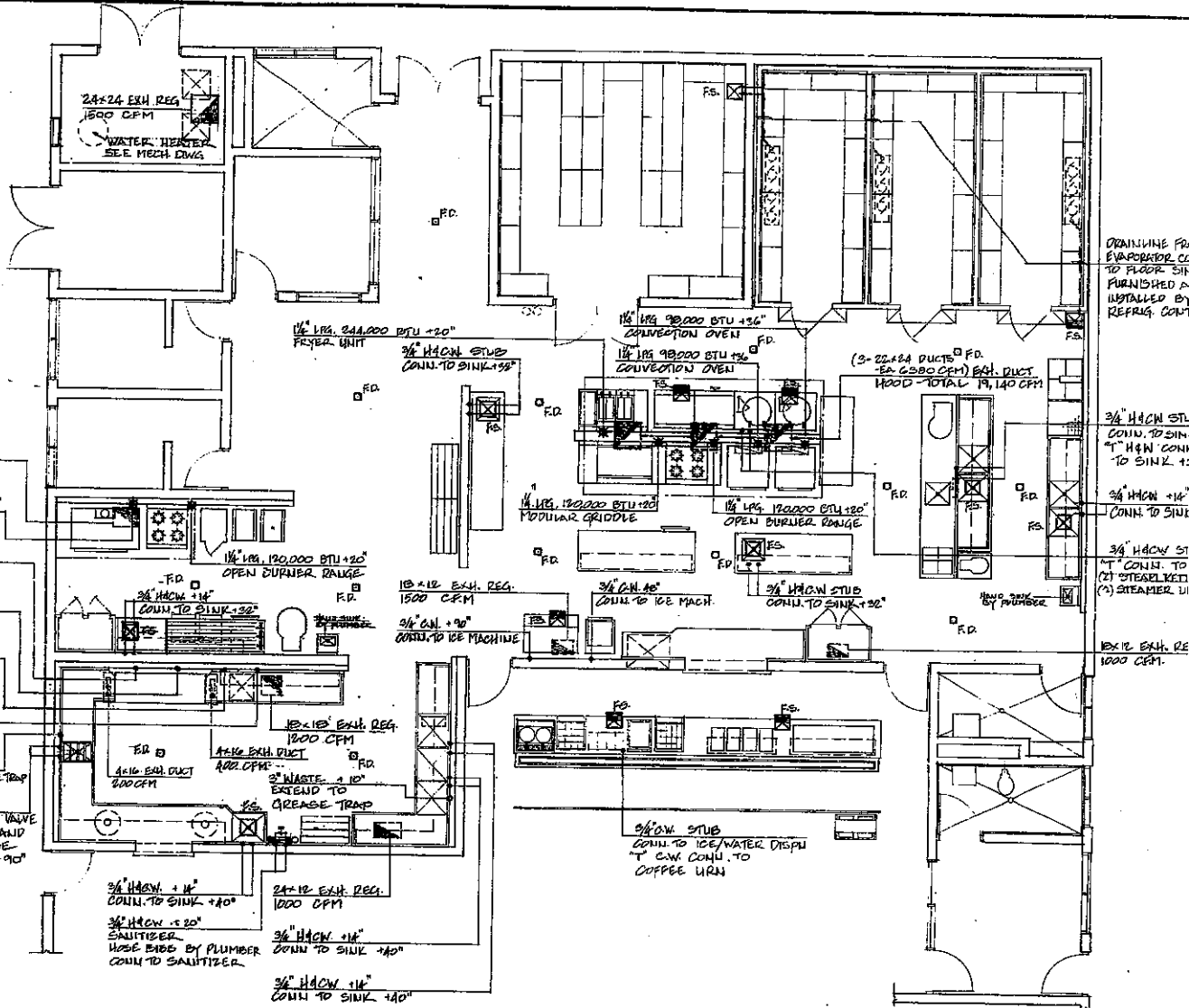


**MECHANICAL NOTES**

- ALL EQUIPMENT SHALL BE FULLY CONNECTED PLUMBER TO FURNISH ALL FINAL CONNECTIONS.
- PLUMBER SHALL FURNISH AND INSTALL ALL REQUIRED TRAPS.
- GREASE TRAPS ARE TO BE PROVIDED WHERE REQUIRED AND SHALL BE LOCATED BELOW OR SET FLUSH WITH FLOORING. NO GREASE TRAPS SHALL BE PROVIDED FOR DISPOSER UNITS.
- PLUMBER SHALL FURNISH AND INSTALL STOPS ON ALL HOT AND COLD WATER LINES AT EQUIPMENT, IN AN ACCESSIBLE POSITION, INCLUDE LINES TO KETTLE AND RANGE SWING FAUCETS.
- KITCHEN EQUIPMENT CONTRACTOR WILL FURNISH DISPOSER UNITS COMPLETE WITH VACUUM BREAKER AND FULL PORTED SOLENOID VALVES. PLUMBER SHALL FURNISH TRAPS AND SHUT-OFF VALVES AND MAKE FINAL CONNECTIONS.
- GENERAL WATER PRESSURE IN KITCHEN AREA NOT TO EXCEED 50 LBS. P.S.I. AS REQUIRED BY PLUMBER. (WATER PRESSURE FOR DISHWASHER AND GLASSWASHER TO BE 95 LBS. MAXIMUM. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH AND INSTALL REDUCING VALVES AS REQUIRED.)
- PLUMBER SHALL FURNISH AND INSTALL HAND SINKS AS INDICATED ON EQUIPMENT PLAN.
- INDIRECT WASTE LINES REQUIRED FOR STANDARD OR FABRICATED ITEMS OF KITCHEN EQUIPMENT SHALL BE FURNISHED, INSTALLED AND EXTENDED TO FLOOR SINKS BY THE KITCHEN EQUIPMENT CONTRACTOR, INDIRECT WASTE LINES FOR SINKS BY PLUMBER.
- FURNISH AND INSTALL VACUUM BREAKER AND INSTALL ON WATER LINES TO EQUIPMENT WHICH HAVE WATER BOILERS OR HEATING TANKS. COFFEE URNS AND STEAMER COOKERS ARE EXAMPLES.
- PROVIDE ALL NATURAL OR MIXED FUEL GAS SUPPLY LINES WITH STRAINERS OR APPROVED TYPE FILTERS, AT ALL EQUIPMENT WITH THERMOSTATIC CONTROLS.
- THE KITCHEN EQUIPMENT CONTRACTOR WILL PROVIDE ALL EQUIPMENT TRIM INCLUDING FAUCETS AND SINK WASTES AND SWING FAUCETS AT KETTLES AND RANGES, ALL TO BE INSTALLED BY PLUMBER.
- ALL HORIZONTAL PIPING LINES CONNECTED TO EQUIPMENT SHALL BE RUN AT THE HIGHEST POSSIBLE ELEVATION NOT LESS THAN 6" ABOVE FLOOR. PIPING ROUGH-IN SHALL BE STUBBED IN WALLS WHEREVER POSSIBLE.
- VENT PIPING FOR WASTE LINES SHALL BE CONCEALED WHEREVER POSSIBLE AND VERTICAL VENTS FOR ISLAND OR FREE-STANDING EQUIPMENT SHALL BE AWAY. ANY REQUIRED EXPOSED VENTS SHALL BE SUBMITTED TO THE ARCHITECT OR AUTHORIZED REPRESENTATIVE FOR APPROVAL.
- KITCHEN FIRE PROTECTION CONTRACTOR SHALL PROVIDE TO THE PLUMBING CONTRACTOR NECESSARY GAS SHUT-OFF VALVES.
- PROVIDE INSULATION FOR ONE-HOUR FIRE RATING AT KITCHEN HOOD EXHAUST DUCTS. (VERIFY CODE.)
- COMPRESSOR ROOM SHALL BE PROVIDED WITH AN AIR SUPPLY IN EXCESS OF EXHAUSTED AIR TO MAINTAIN THE AREA UNDER PRESSURE.
- ALL HORIZONTAL DUCT WORK PROVIDED FOR DISHWASHER SHALL HAVE WATERTIGHT JOINTS AND BE GRADED BACK TO MACHINE.
- SELECT AND PROVIDE FRESH AIR CEILING GRILLES OF TYPE ACCESSIBLE FOR CLEANING TO PRECLUDE SOILED MARKING OF CEILING OR WALLS.
- KITCHEN EQUIPMENT CONTRACTOR WILL FURNISH AND INSTALL EXPOSED STAINLESS STEEL VENTS AND STACKS TO CEILING FROM HOODS AND OVENS, AND FOR APPLIANCES AS REQUIRED BY CODE OR AS DIRECTED BY SPECIFICATIONS.
- KITCHEN EQUIPMENT CONTRACTOR WILL VERIFY SIZE AND LOCATION OF DUCT CONNECTIONS IN CEILING PROVIDED BY THE VENTILATION CONTRACTOR AND SHALL PROVIDE ALL EXPOSED EQUIPMENT DUCT WORK TO SUSPENDED CEILING.
- IN GENERAL, ALL COOKING AREAS SHALL BE PROVIDED WITH A FORCED AIR SUPPLY. SUPPLY AND EXHAUST AIR AT KITCHEN AREA SHALL BE BALANCED.

**MECHANICAL SYMBOLS**

- FLOOR SINK
- FLOOR SINK W/HALF GRATE
- FLOOR DRAIN
- HOT WATER, COLD WATER OR WASTE STUB AS NOTED ON PLAN
- ☼ FUEL GAS - SIZE AND BTU AS NOTED ON PLAN
- ☼ EXHAUST DUCT OR CEILING REGISTER - AS NOTED ON PLAN



**FOOD SERVICE EQUIPMENT MECHANICAL PLAN**  
SCALE: 1/4" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	APP. BY

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII  
**WAIAWA CORRECTIONAL FACILITY**  
**KITCHEN / DINING BUILDING**  
**FOOD SERVICE EQUIPMENT MECHANICAL PLAN**  
 GERALD LUM AND CO.  
 REGISTERED PROFESSIONAL ARCHITECT  
 NO. 3334  
 HAWAII, U.S.A.

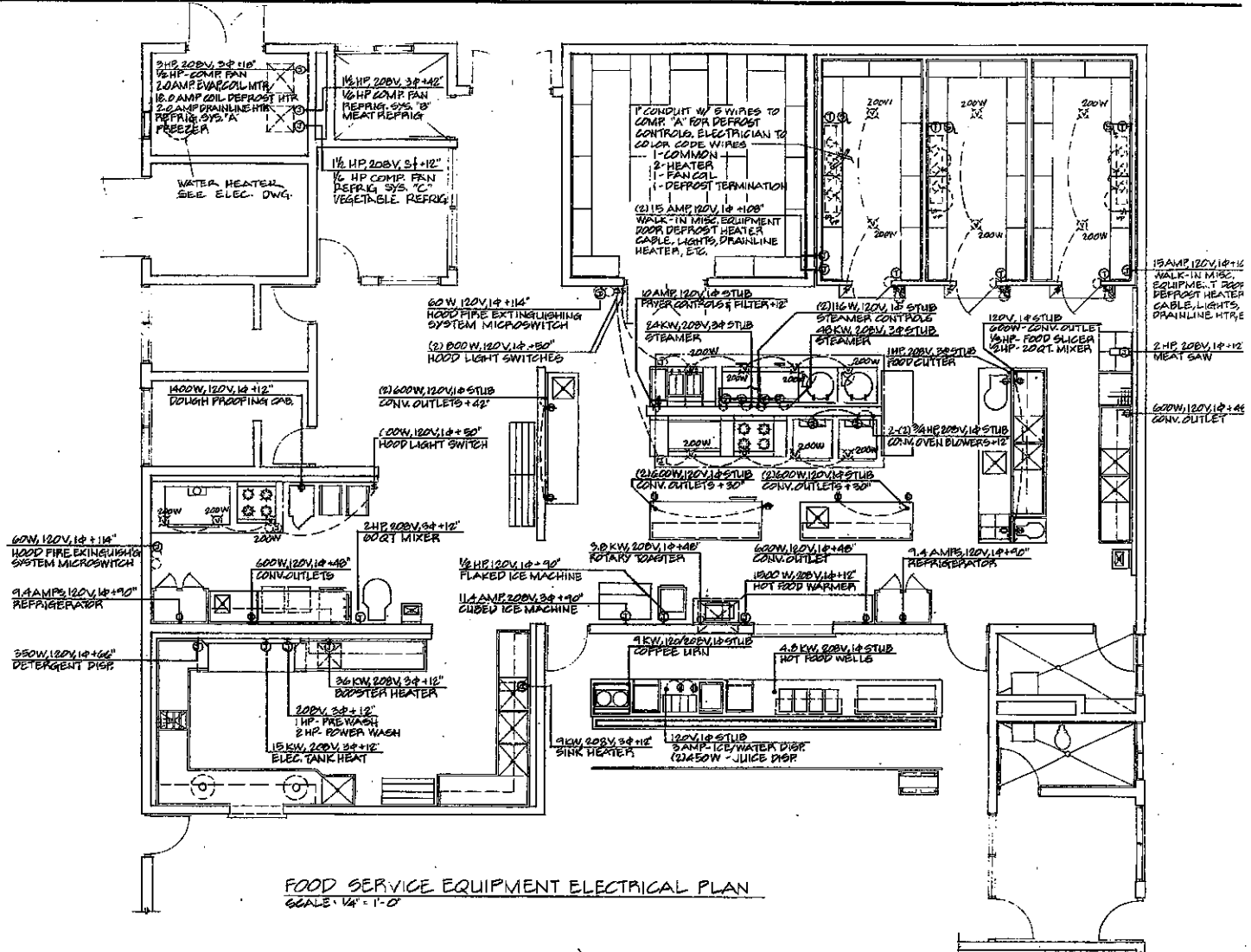
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
 AS NOTED

**ELECTRICAL NOTES**

1. ALL EQUIPMENT AND RECEPTACLES ARE TO BE FULLY CONNECTED TO ELECTRICIAN TO FURNISH FINAL CONNECTIONS.
2. ALL EQUIPMENT RECEPTACLES TO BE POLARIZED PROVIDE STANDARD LI-SLOT DUPLEX 3-WIRE GROUNDING-TYPE RECEPTACLES FOR 120 VOLT OUTLETS.
3. SERVICE FITTINGS WILL BE PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR AND CONNECTED BY ELECTRICAL CONTRACTOR. FITTINGS SHALL BE T-88 BRASS AND BRONZE WORKS, INC. NO. B-1502 WITH SATIN CHROME FINISH.
4. THE KITCHEN EQUIPMENT CONTRACTOR WILL FURNISH AND INSTALL HOOD LIGHT FIXTURES, WITH LAMPS WIRED COMPLETE WITHIN HOOD TO ONE JUNCTION BOX, FOR FINAL CONNECTION BY THE ELECTRICAL CONTRACTOR.
5. PROVIDE SERVICE AND MAKE CONNECTIONS TO REFRIGERATION COMPRESSORS.
6. PROVIDE REMOTE DISCONNECT SWITCH FOR COMPRESSOR ROOM AND WITHIN 10 FEET OF ROOM DOOR.
7. THE KITCHEN EQUIPMENT CONTRACTOR SHALL SUPPLY ON EACH MOTOR DRIVEN APPLIANCE OR ELECTRICAL HEATING UNIT SUITABLE CONTROL SWITCH OF PROPER TYPE AND IN ACCORD WITH UNDERWRITER'S CODE WHEREVER SUCH EQUIPMENT IS NOT SO BUILT.
8. DISCONNECT SWITCH FOR DISHWASHER IMMERSION TANK HEATER SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
9. SOUP OR HOT FOOD RECEPTACLES AND STRIP HEATERS WILL BE PROVIDED AND WIRED COMPLETE WITHIN THE FIXTURE SWITCHES WITH SIGNAL LIGHTS BY THE KITCHEN EQUIPMENT CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE SERVICE AND MAKE THE CONNECTION.
10. CONDUIT ROUGH-IN SHALL BE STUBBED IN WALLS WHEREVER POSSIBLE.
11. ALL SWITCHES, EXCEPT FOR THOSE REQUIRED FOR SPECIAL APPLICATION, SHALL BE CIRCUIT BREAKER TYPE.
12. KITCHEN FIRE PROTECTION CONTRACTOR SHALL PROVIDE TO THE ELECTRICAL CONTRACTOR NECESSARY CONTACTORS FOR EQUIPMENT POWER SHUT-OFF AND ADDITIONAL MICROSWITCH AND CONTACTORS TO SIGNAL ALARM TO CENTRAL MONITOR.

**ELECTRICAL SYMBOLS**

- ⊕ SINGLE CONVENIENCE OUTLET
- ⊕ DUPLEX CONVENIENCE OUTLET
- ⊕ SERVICE FITTING
- ⊕ JUNCTION BOX
- WATERPROOF CONDUIT STUB
- CONDUIT STUB FOR REFRIGERATION, CO2 LINES ETC.
- ⊕ TEMPERATURE ALARM SYSTEM W/ WARNING BELL, LIGHT AND SWITCH
- ⊕ THERMOSTAT
- ⊕ LIQUID LINE SOLENOID
- ⊕ ELECTRICAL MOTOR
- ⊕ VAPOR-PROOF LIGHT
- ⊕ SWITCH
- ⊕ VAPOR-PROOF LIGHT



FOOD SERVICE EQUIPMENT ELECTRICAL PLAN  
SCALE: 1/4" = 1'-0"

REVISION NO.	DATE	APPROVED: [Signature]
<p>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES DESIGNER OF PUBLIC WORKS STATE OF HAWAII</p>		
<p>HAWAII CORRECTIONAL FACILITY KITCHEN/DINING BUILDING</p>		
<p>FOOD SERVICE EQUIPMENT ELECTRICAL PLAN</p>		
	<p>GERALD LIM AND CO. 22-27-3018 22-27-3018</p>	<p>DATE: 11/25/2023 SCALE: AS NOTED DEC. REG. [Signature]</p>
<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</p>		

**GENERAL NOTES**

1. PLUMBING AND ELECTRICAL REQUIREMENTS ARE INDICATED FOR INDIVIDUAL EQUIPMENT ITEMS. COMBINING OF LINES FOR SIMPLIFICATION OF INSTALLATION IS ACCEPTABLE.
2. IT IS THE INTENTION OF THE OUTLET PLANS TO SHOW UTILITY REQUIREMENTS AND CONNECTION POINTS ONLY. DO NOT USE FOR ACTUAL ROUGHING-IN, FOR FINAL ROUGHING-IN LOCATIONS SEE DIMENSIONED DRAWINGS PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR.
3. SEE UTILITY OUTLET PLANS FOR NOTES PERTAINING TO SPECIFIC EQUIPMENT ITEMS AND CONDITIONS.

**GENERAL CONTRACTOR NOTES**

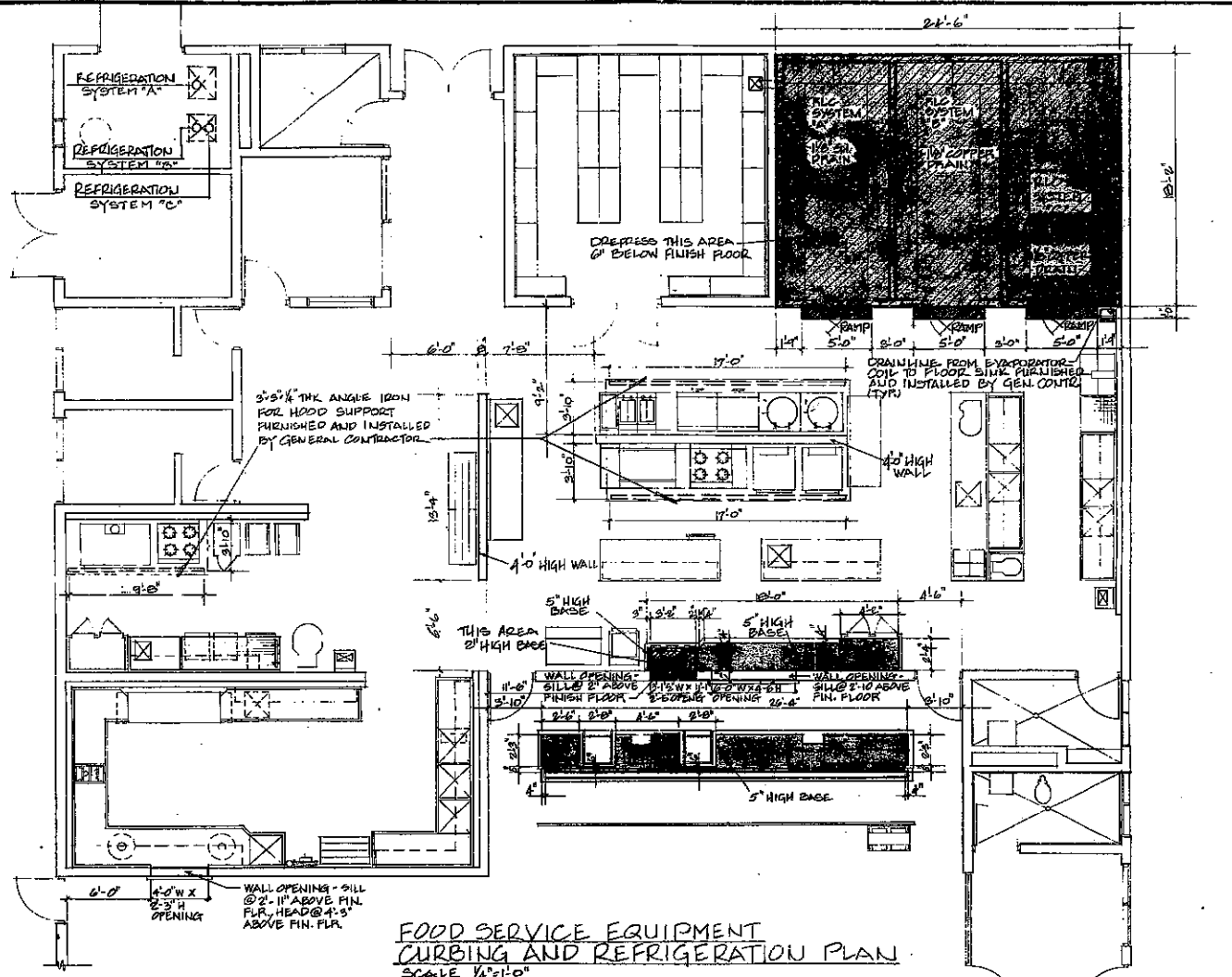
1. PROVIDE EQUIPMENT MASONRY PADS AND DEPRESSIONS. DIMENSIONS SHOWN ON GEORGE M. MATSUMOTO AND ASSOCIATES, INC. DRAWINGS ARE FINISHED AND INCLUDE ANY TILE, ETC.
2. FURNISH AND INSTALL 3" x 3" x 1/4" ANGLE IRON OR 2" BAR IN POSITION AS SHOWN ON BASE PLAN FOR INSTALLATION OF HOOD HANGERS BY KITCHEN EQUIPMENT CONTRACTOR.
3. ALL WALLS IN CONTACT WITH OR WITHIN 6" OF RANGES, PLYERS, BROTILERS AND/OR OVENS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE HEATPROOF MATERIALS. VERIFY FIRE MARSHALS SPECIAL FILLINGS.
4. PROVIDE 6" FLOOR DEPRESSION FOR ENTIRE AREA OF COLD STORAGE ROOMS, OR AS INDICATED ON GEORGE M. MATSUMOTO AND ASSOCIATES, INC. DRAWINGS.
5. ALL EXPOSED WALL CORNERS IN KITCHEN AND SERVING AREAS, NOT PROTECTED BY FIXED EQUIPMENT, SHALL BE PROVIDED WITH 1/4 GAUGE STAINLESS STEEL VERTICAL BULLNOSE BUMPER GUARDS, 4'-0" HIGH.
6. FURNISH AND INSTALL WALL AND/OR FLOOR SLEEVES AS REQUESTED ON KITCHEN EQUIPMENT BASE PLAN.

**REFRIGERATION NOTES**

1. CONTRACTOR FOR REFRIGERATION EQUIPMENT WORK WILL FURNISH AND INSTALL ALL REQUIRED REFRIGERATION ITEMS, FURNISH MAGNETIC STARTERS WHERE REQUIRED AND AN "AS BUILT" DIAGRAM OF VARIOUS SYSTEMS FOR THE OWNER.
2. REFRIGERATION CONTRACTOR WILL FURNISH AND INSTALL DRAIN LINES FROM COLD STORAGE ROOM EVAPORATORS TO DRAIN LOCATIONS.
3. REFRIGERATION CONTRACTOR WILL VERIFY CONDITIONS BEFORE INSTALLATION AND MAKE ALL RUINS IN A NEAT AND ORDERLY MANNER.

**SYMBOLS**

- FLOOR DEPRESSION
- ROUGH SLAB
- RIG REFRIGERANT LINE CONNECTION
- ELECTRICAL MOTOR



**FOOD SERVICE EQUIPMENT CURBING AND REFRIGERATION PLAN**  
SCALE 1/4"=1'-0"

**REFRIGERATION SCHEDULE**

SYSTEM	DESCRIPTION	OPER TEMP °F	SUCTION TEMP °F	ROOM BTU/LH	COMPRESSOR				DEFROST METHOD	COMPRESSOR LOCATION	REMARKS		
					H.P.	VOLTS	PHASE	AMBAIR				REFRIG.	COOLING
A	FREEZER	-5/0	-15	16,500	3	208	3	100	R502	AIR	DEFROST TIMER	WATER HEATER/ELECTRIC RM.	
B	MEAT REFRIGERATOR	+35/40	+25	13,500	1 1/2	208	3	100	R12	AIR	OFFCYCLE	WATER HEATER/ELECTRIC RM.	
C	VEGETABLE REFRIGERATOR	+35/40	+25	13,500	1 1/2	208	3	100	R12	AIR	OFFCYCLE	WATER HEATER/ELECTRIC RM.	

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

WAIKAWA CORRECTIONAL FACILITY  
KITCHEN/DINING BUILDING

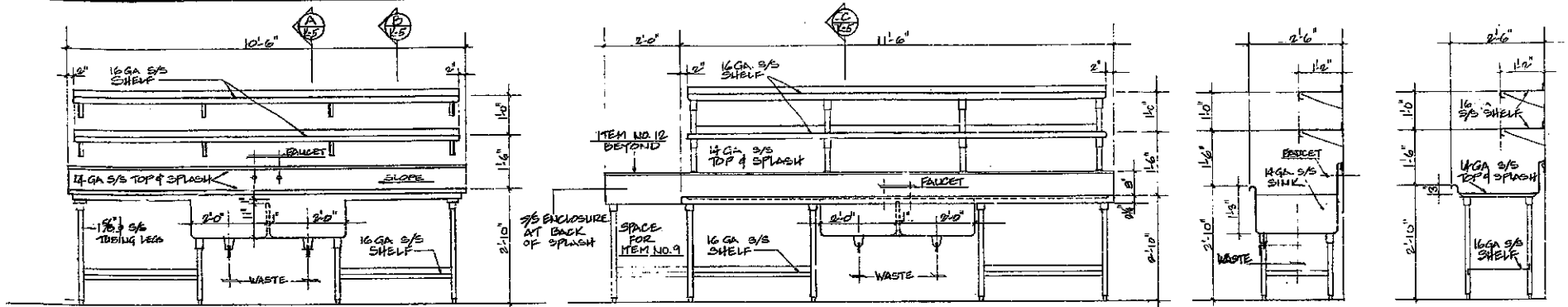
FOOD SERVICE EQUIPMENT CURBING AND REFRIGERATION PLAN

GERALD LUNA AND CO. ARCHITECTS  
1605 KALANANAKU AVE., SUITE 200, HONOLULU, HI 96813

DESIGNED BY: GERALD LUNA AND CO.  
CHECKED BY: [Signature]  
DATE: 08-27-2013

APPROVED BY: [Signature]  
DATE: 08-27-2013

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

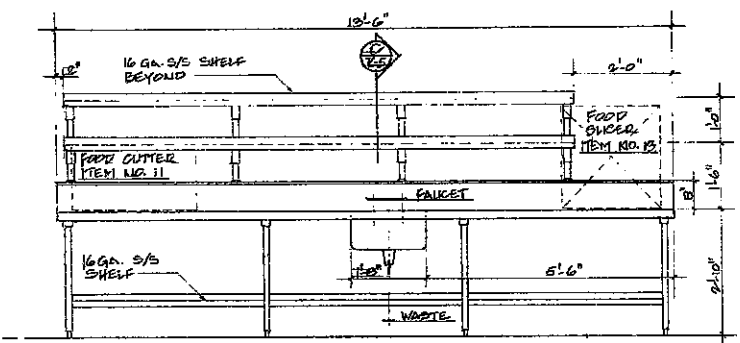


ELEVATION 1 ITEM NO. 7 SCALE 3/8"=1'-0"

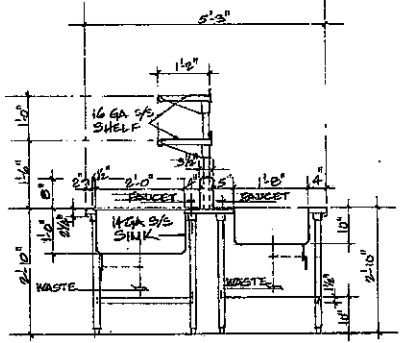
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SECTION A ITEM NO. 7 SCALE 3/8"=1'-0"

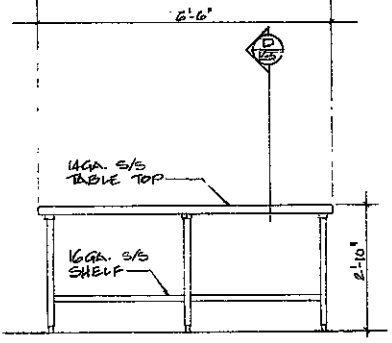
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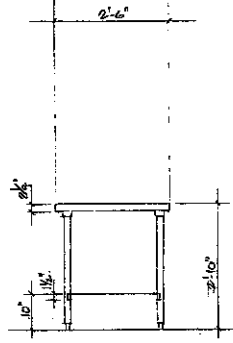
ELEVATION 3 ITEM NO. 12 SCALE 3/8"=1'-0"



SECTION C ITEM NO. 12 SCALE 3/8"=1'-0"

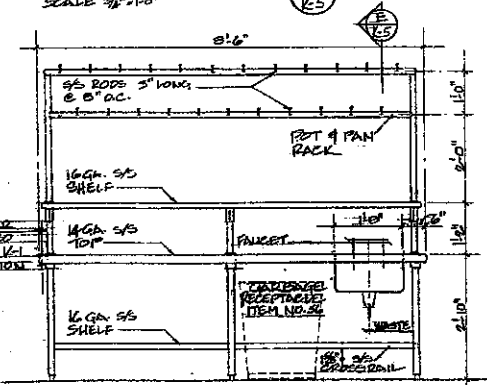


ELEVATION 4 ITEM NO. 14 SCALE 3/8"=1'-0"

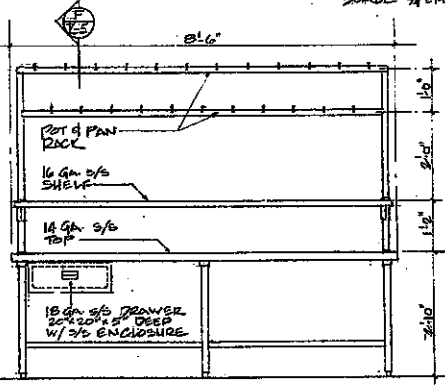


SECTION D ITEM NO. 14 SCALE 3/8"=1'-0"

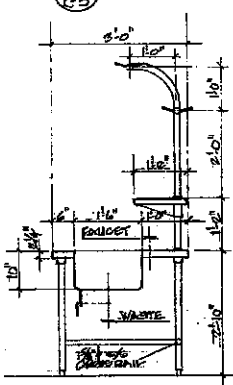
CALL OPIELER ITEM NO. 33 SEE SHEET 161 FOR LOCATION



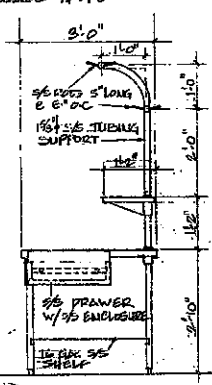
ELEVATION 5 ITEM NO. 27 SCALE 3/8"=1'-0"



ELEVATION 6 ITEM NO. 28 SCALE 3/8"=1'-0"

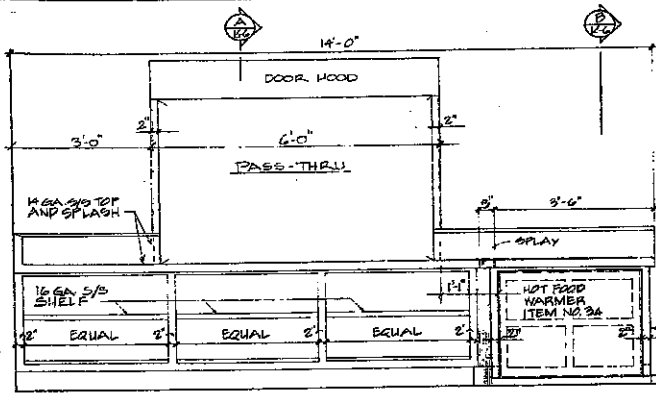


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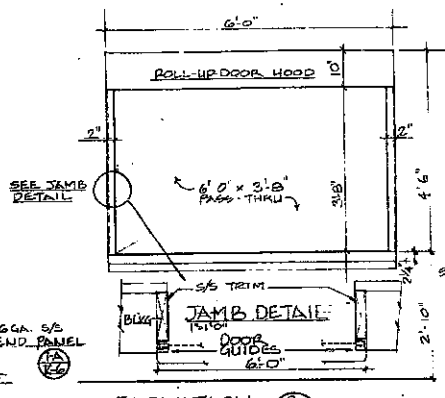


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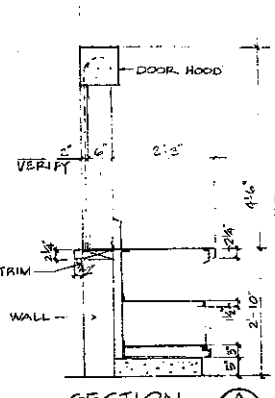
	<p>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII</p> <p>WAIANA'A CORRECTIONAL FACILITY KITCHEN/DINING BUILDING</p> <p>FOOD SERVICE EQUIPMENT DETAILS</p> <p>GENERAL LUM. ANNOT.</p>
<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</p>	<p>DATE: 10/20/2010</p> <p>SCALE: 3/8"=1'-0"</p> <p>PROJECT NO. 10-00000000</p> <p>DATE: 10/20/2010</p>



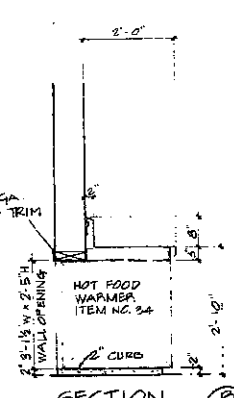
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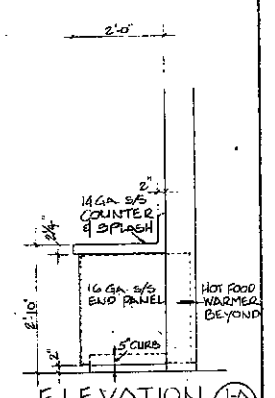
ELEVATION 2 ITEM NO. 32 SCALE: 3/4" = 1'-0"



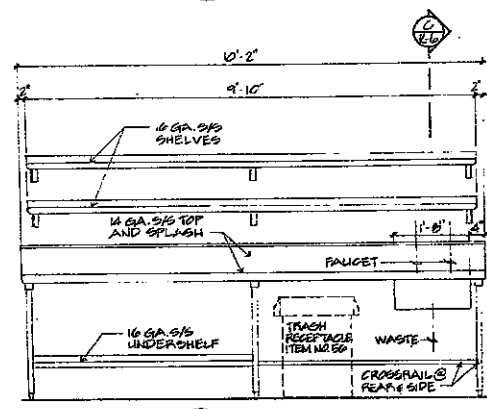
SECTION A SCALE: 3/4" = 1'-0"



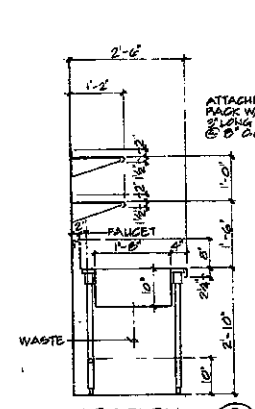
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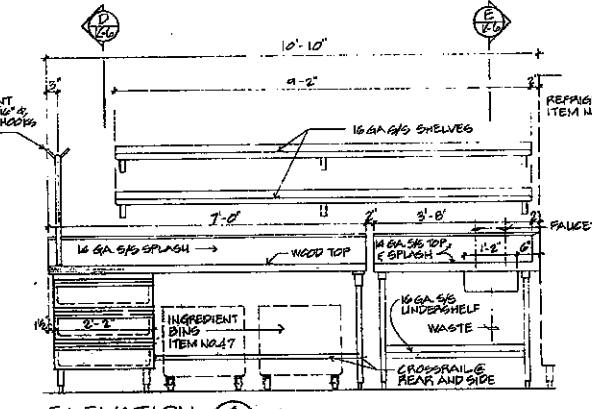
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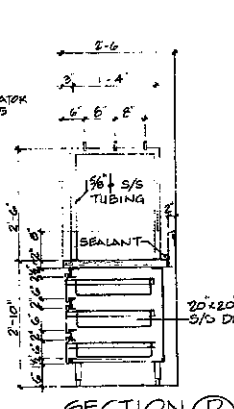
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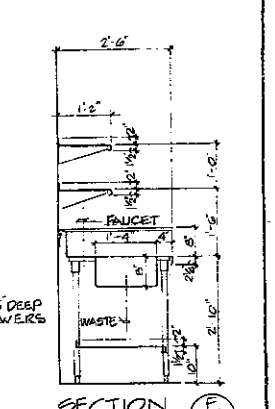
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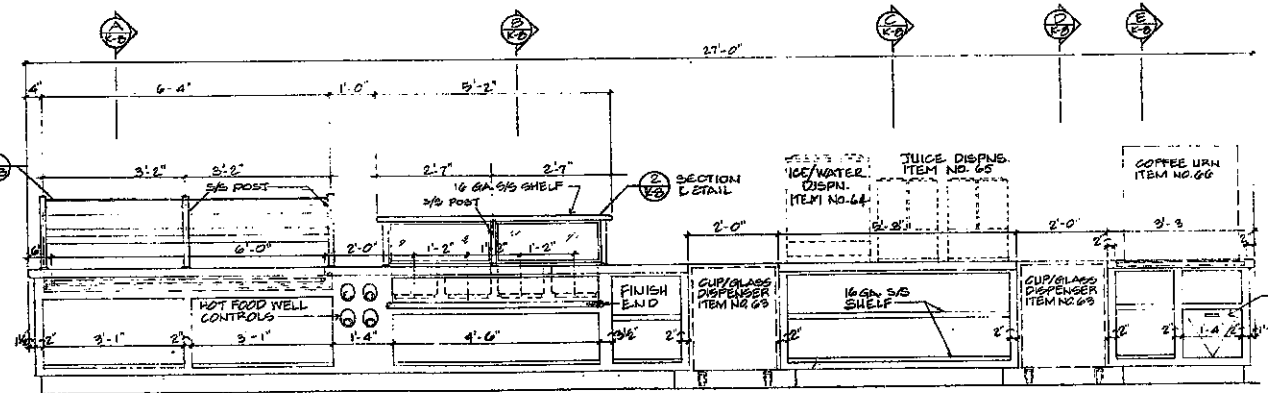
ELEVATION 4 ITEMS NO. 45 & 47 SCALE: 3/4" = 1'-0"



SECTION D SCALE: 3/4" = 1'-0"



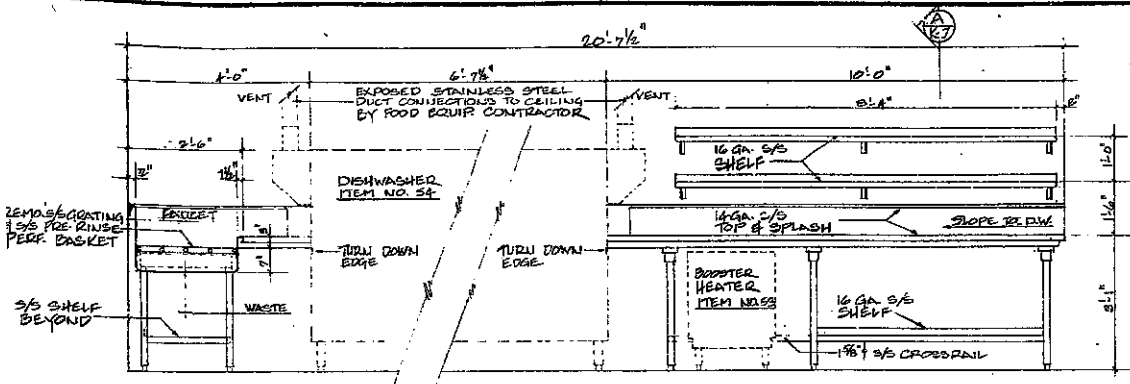
SECTION E SCALE: 3/4" = 1'-0"



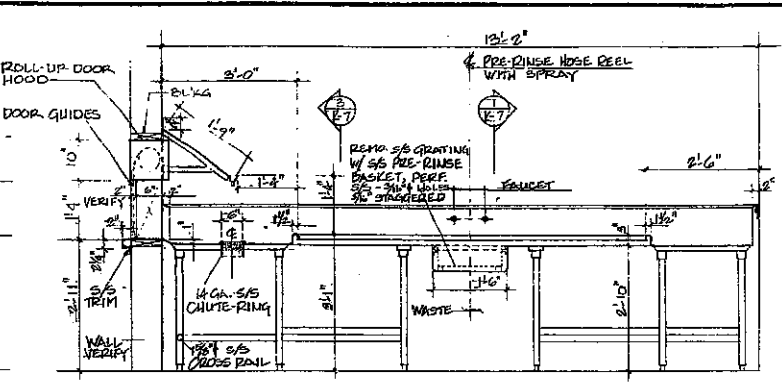
ELEVATION 5 ITEM NO. 62 SCALE: 3/4" = 1'-0"

FOR OFFICIAL USE ONLY

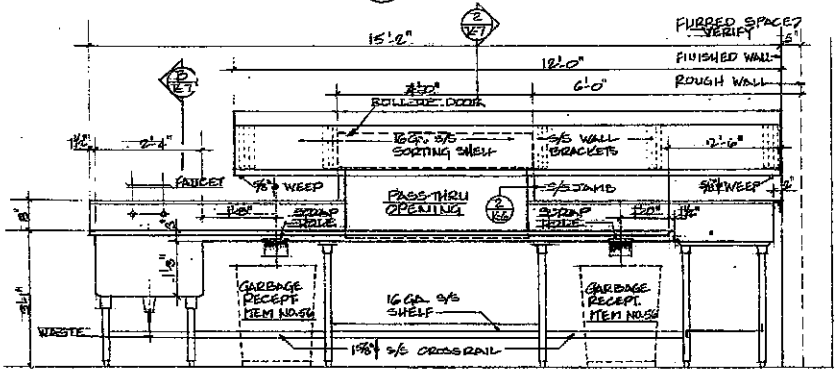
REVISION NO.	DATE	DESCRIPTION	APPROVED BY
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF BUREAU WORKS STATE OF HAWAII			
<b>WAIANA CORRECTIONAL FACILITY          KITCHEN/DINING BUILDING</b>			
<b>FOOD SERVICE EQUIPMENT          DETAILS</b>			
PREPARED BY GERALD LIM AND CO.		DRAWN BY GERALD LIM AND CO.	
CHECKED BY GERALD LIM AND CO.		DATE 02-27-2004	
SCALE AS NOTED		SHEET NO. 20 OF 20	



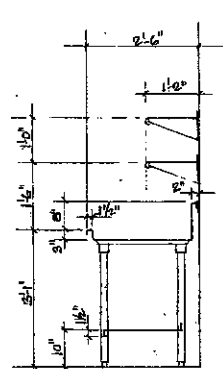
ELEVATION ① ITEM NO. 57 & NO. 52 SCALE 3/4" = 1'-0"



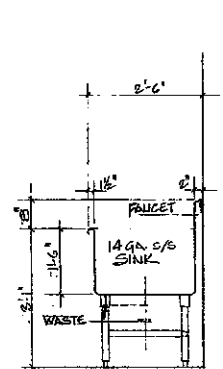
ELEVATION ② ITEM NO. 57 SCALE 3/4" = 1'-0"



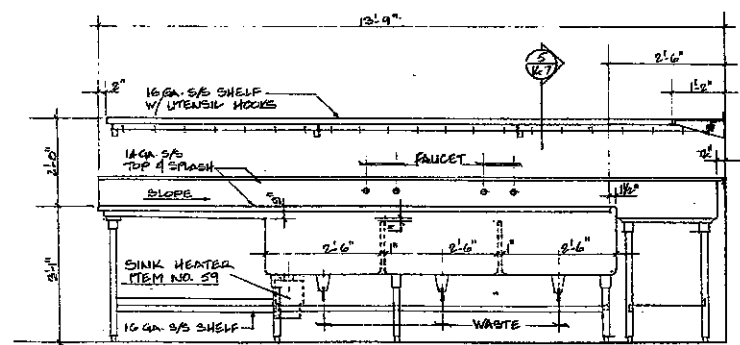
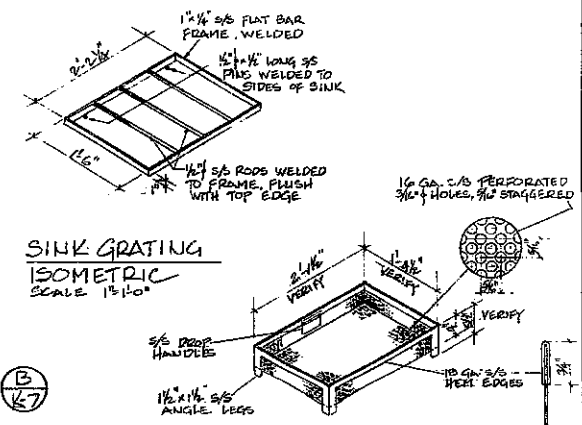
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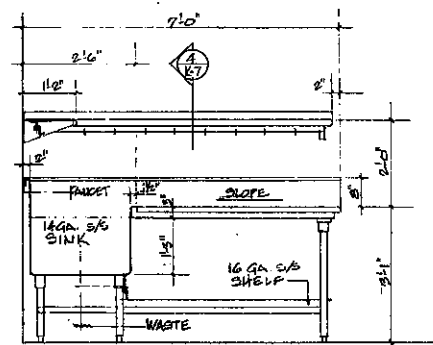
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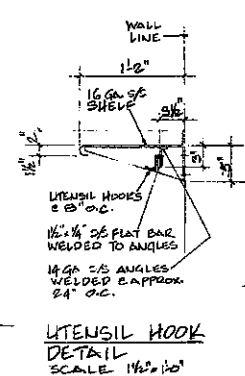
SECTION B ITEM NO. 57 SCALE 3/4" = 1'-0"



ELEVATION ④ ITEM NO. 53 SCALE 3/4" = 1'-0"



ELEVATION ⑤ ITEM NO. 58 SCALE 3/4" = 1'-0"



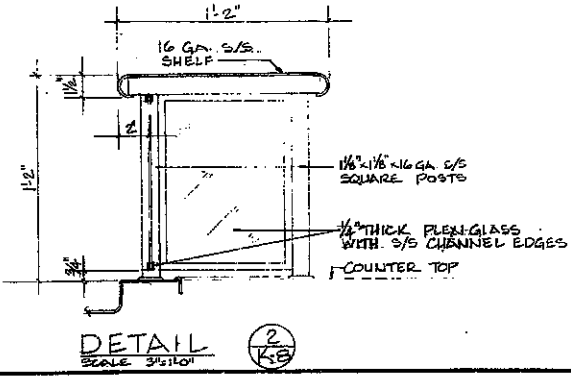
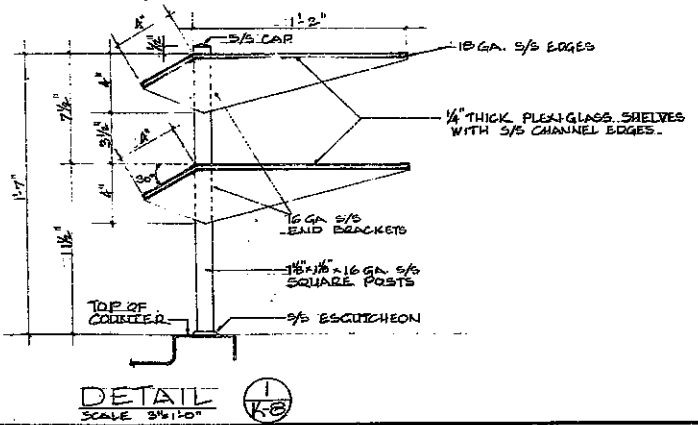
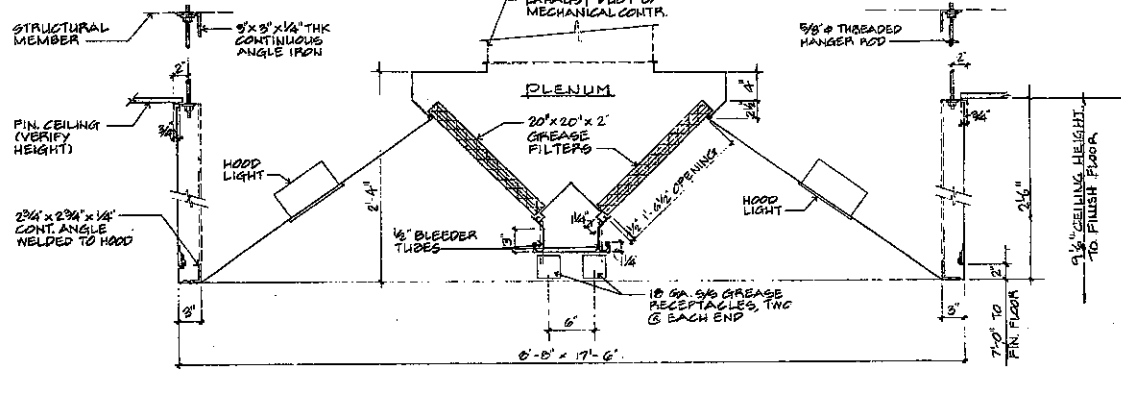
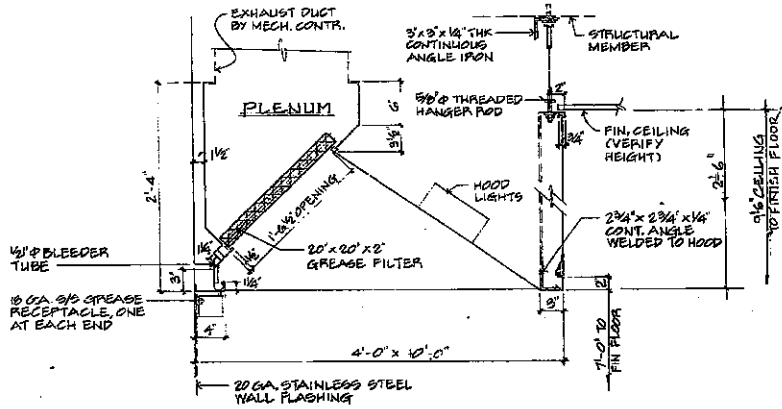
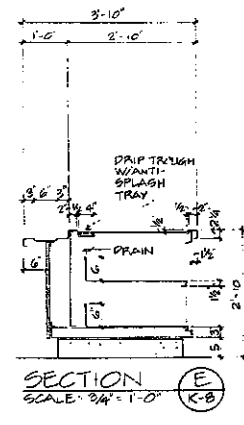
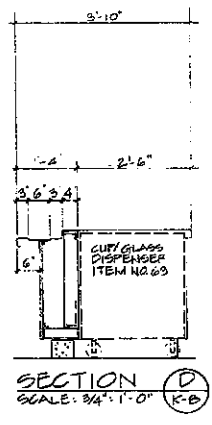
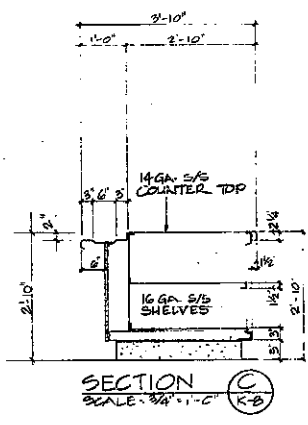
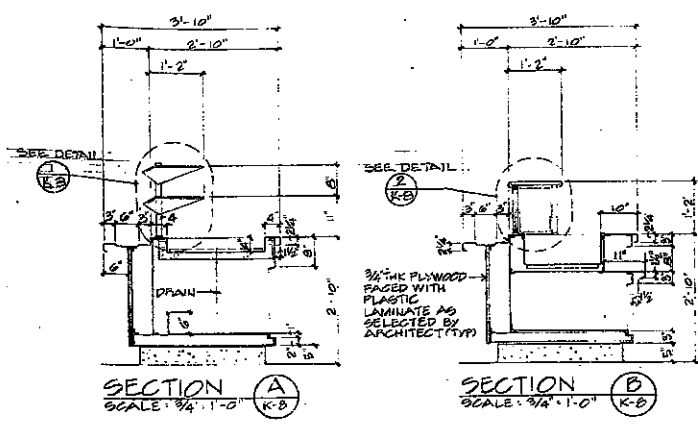
UTENSIL HOOK DETAIL SCALE 1 1/2\"/>

PRE-RINSE BASKET ISOMETRIC SCALE 1 1/2" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	CHECKED BY	APPROVED BY

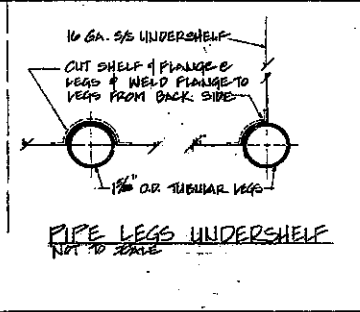
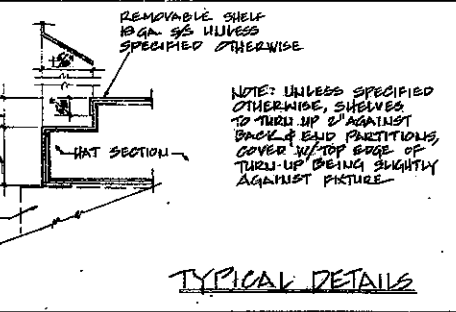
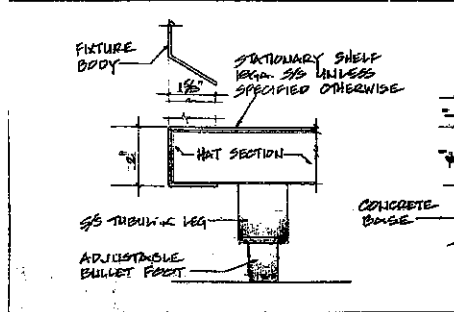
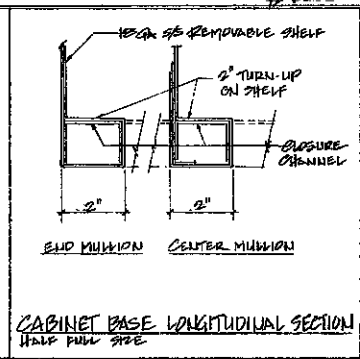
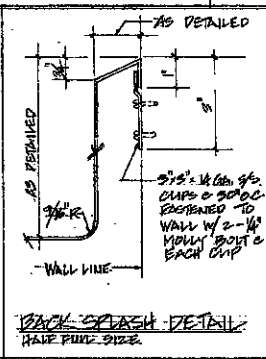
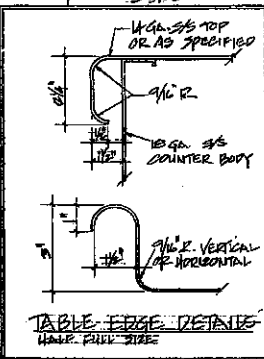
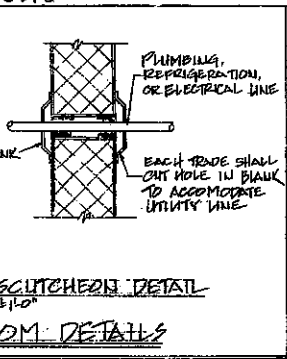
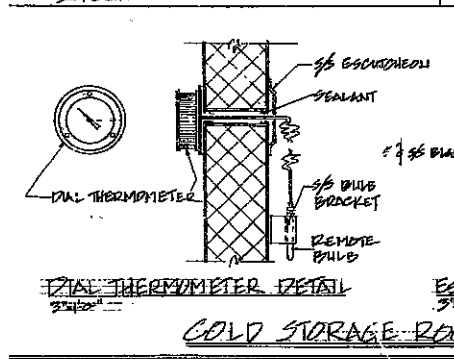
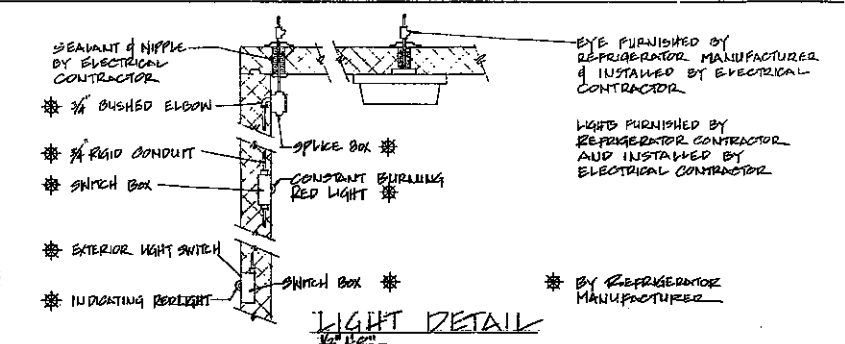
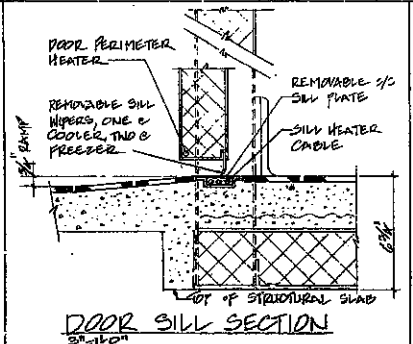
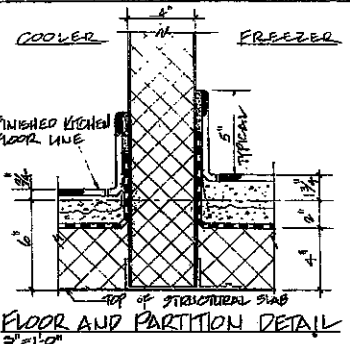
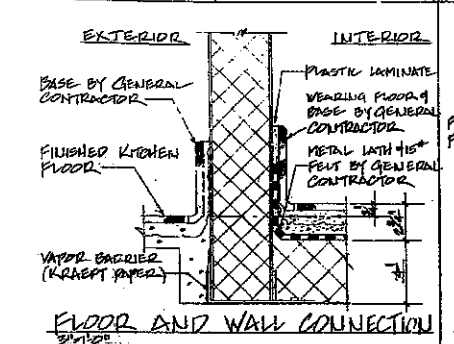
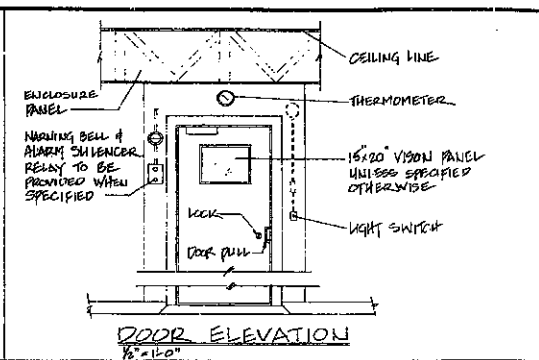
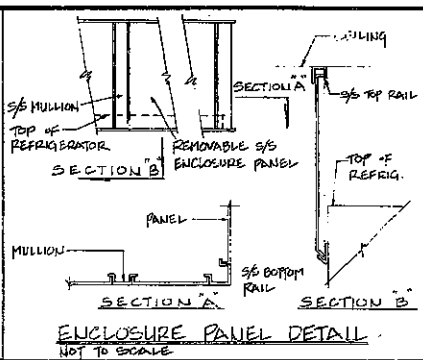
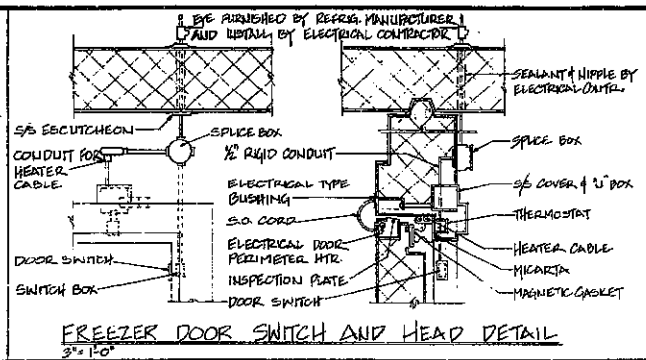
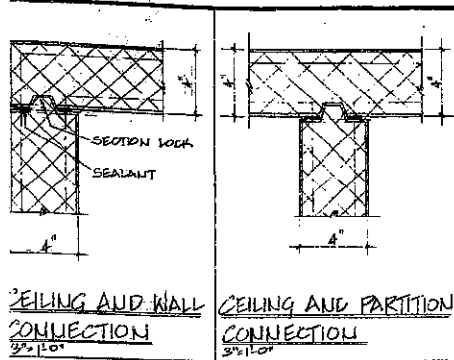
DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII  
WAIANA CORRECTIONAL FACILITY  
KITCHEN/DINING BUILDING  
FOOD SERVICE EQUIPMENT DETAILS  
GERALD HUNT AND CO. ARCHITECTS  
NO. 2228 S. KALEIA AVE. HONOLULU, HAWAII 96815  
DATE: 02-27-2014  
SCALE: AS NOTED

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



APPROVED DATE	APPROVED BY	DATE	SCALE
DEPT. OF ACCOUNTING & GENERAL SERVICES	DIVISION OF PUBLIC WORKS	STATE OF HAWAII	
<b>WAIANA CORRECTIONAL FACILITY</b>			
<b>KITCHEN/DINING BUILDING</b>			
<b>FOOD SERVICE EQUIPMENT</b>			
<b>DETAILS</b>			
DESIGNED BY	GENERAL LUM AND CO.	PAGE NO. NO.	02-27-3068
DRAWN BY	ARCHITECT	NO.	35
SCALE	AS NOTED	DATE	DEC. 1960

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVAL STATE

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII  
**WAIANAUA CORRECTIONAL FACILITY**  
**KITCHEN / DINING BUILDING**  
**FOOD SERVICE EQUIPMENT**  
**TYPICAL DETAILS**  
**GERALD L. HINES CO.**  
 4500 KALANANAKUI BLVD., SUITE 200  
 HONOLULU, HAWAII 96815  
 TEL: 832-3300  
 FAX: 832-3300  
 THIS DRAWING PREPARED BY ME OR UNDER MY SUPERVISION  
 AS NOTED



BP 261853

& 261854

**SUPPLEMENTAL INFORMATION FOR BUILDING OWNER,  
PERMIT APPLICANT AND CONTRACTOR**

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

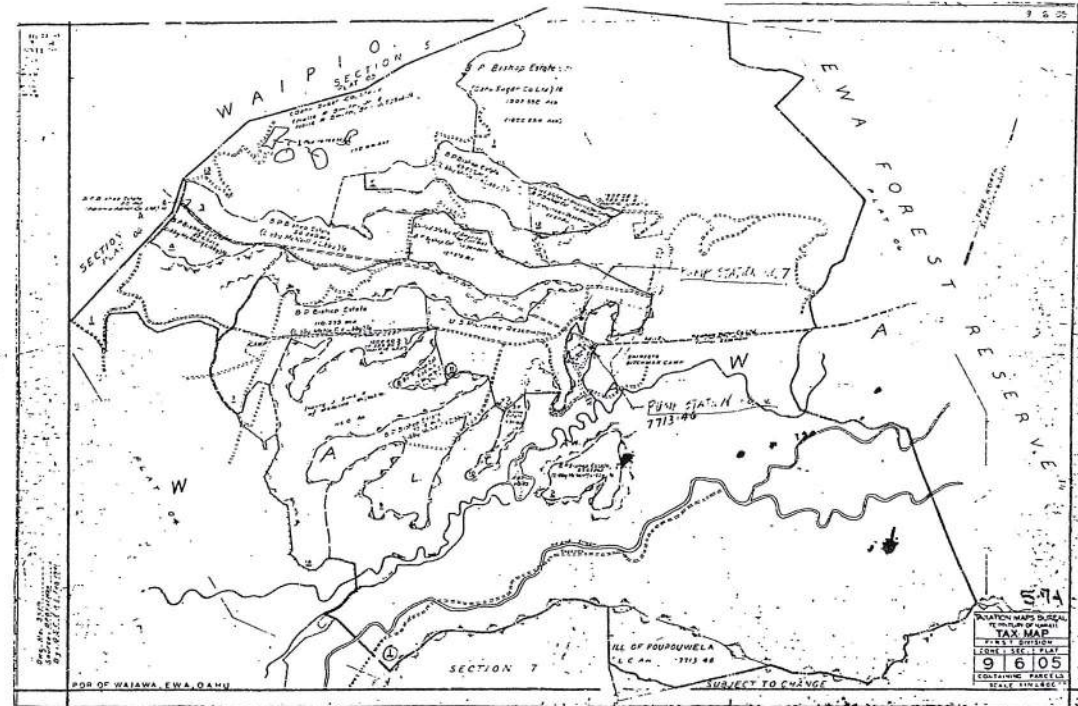
1.  **A Phone Call May Save Your Life** - If you have underground utilities, investigate before you dig. Call
- |                            | WORKING HOURS | AFTER HOURS |
|----------------------------|---------------|-------------|
| Hawaiian Telephone Company | 834-8216      |             |
| Hawaiian Electric Company  | 548-7701      | 548-7908    |
| GASCO                      | 547-3575      | 526-0066    |
| Board of Water Supply      | 527-6189      | 527-5200    |

**Be Aware Of The Sign, Noise and OSH Regulations**  
 Sign Regulations - Building Department 522-4509  
 Noise Regulations - Department of Health 548-3075  
 Occupational Safety & Health - DOSH 548-7510  
 Department of Labor

2.  Where building or structure is to be constructed under or near an existing electrical service line, the safety of the operation must be planned with Hawaiian Electric Co. telephone 548-5523 or County Building Department at 523-4391 before the project commences. Hawaii OSH Standards also apply. Call 548-7510
3.  Electric water heaters shall be protected from weather. A rod which extends to a point which intersects a 30-degree angle from the vertical from any exposed portion of the water heater shall be deemed to provide adequate weather protection.
4.  Plumbing and/or Electrical plans not checked. Project subject to inspection for code compliance.
5.  The approval of this project is conditioned on the acceptance of the deficiencies noted on the attached Inspection For House Moving reports.
6.  Foundation plates or piers on a concrete slab which is in direct contact with earth, shall be wood treated in accordance with UBC Standard No. 25-12 or foundation redwood, all marked or branded by an approved agency.
7.  FOUNDATION ONLY - Superstructure items shown on plans are shown for informational purpose only.
8.  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 assumed) FAA telephone at 568-8841.
9.  REMINDER - Owners should check their deeds, lease agreements, and/or easement by laws for any building restrictions.
10.  WINDOW WASHING EXTERIOR - When windows must be cleaned by means of a suspension scaffold or comparable chair means must be provided to prevent swaying. Hawaii OSH Standards Chapter 394.
11.  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, ambulances, etc., can respond more readily with minimum delays when buildings are properly numbered.
12.  UPLIFT TIES - Rafters shall be tied to the exterior plate with an approved galvanized steel connector having a minimum thickness of 0.047 inch and shall be toe nailed to the plate with three 8d common or box nails. Each connector shall be nailed with four 8d face nails to each member. (Sec. 2517(b)(1))

*Philip Chan*  
 Engineer of Record  
 6.11.05

Building Permit No. 261853-261854



**BP 261853-261854**  
**SHT 1 OF 7**

# WAIAWA CORRECTIONAL FACILITY SUPPORT FACILITY FRESH WATER PUMPS

WAIAWA, OAHU, HAWAII

FOR THE  
DEPARTMENT OF  
CORRECTIONS  
STATE OF HAWAII

BY THE  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

12 1887  
JAGS JOB NO 08-27-3048

PERMIT NO. 2412  
Interior Alteration  
By                       
Date JUN 21 1988

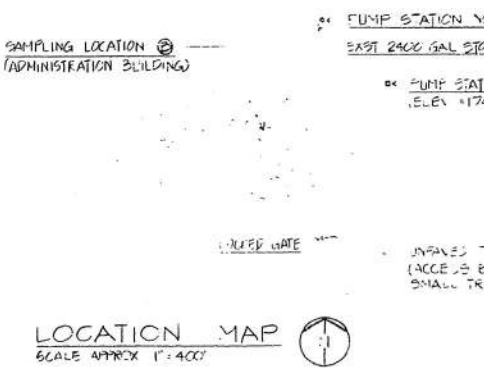
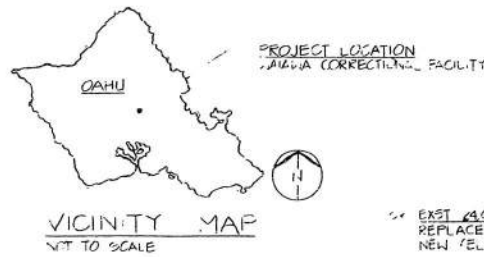
DIVISION OF ENGINEERING  
JUN 21 1988

BUILDING DEPARTMENT  
FILE COPY

Pump Station No. 6-7-1887  
4-6-05/17/11

TANK 9-6-05-17/11  
Approved for use as connection control requirements  
of the State of Hawaii  
Blair for Water Supply

REVISION NO.	DATE	DESCRIPTION	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
WAIAWA CORRECTIONAL FACILITY SUPPORT FACILITY FRESH WATER PUMPS			
WAIAWA OAHU HAWAII			
TITLE, VICINITY & LOCATION MAPS, NOTES, MECH LEGEND, MECH DEMOLITION PLANS			
MECH CORPORATION		DATE	DRAWING NO.
DESIGNED BY: KA		CHECKED BY: LC	12-27-1987
DRAWN BY: KA		APPROVED BY: LC	DATE
SCALE: AS SHOWN		MAY 1988	SHEET 1 OF 6



### GENERAL NOTES

- 1 EXISTING CONDITIONS AND DIMENSIONS SHOWN ON THESE DRAWINGS REPRESENT THE BEST AVAILABLE INFORMATION OBTAINED FROM AS-BUILT DRAWINGS AND FIELD INVESTIGATION. PROSPECTIVE BIDDERS SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL WORK DETAILS AND CONDITIONS BEFORE SUBMITTING BID. REASONABLE MODIFICATIONS TO INDICATED DIMENSIONS AND ARRANGEMENTS TO SUIT ACTUAL JOB CONDITIONS SHALL NOT CONSTITUTE BASIS FOR REQUESTING OF ADDITIONAL FUNDS FROM THE GOVERNMENT.
- 2 ALL WORK SHOWN ON THESE DRAWINGS ARE MECH UNLESS OTHERWISE NOTED.
- 3 ALL HB SHALL HAVE WANDAL-PROOF VACUUM BREAKER & ROSE THREAD 1/2" ILET.
- 4 GAS CHLORINATOR SYSTEM SHALL BE SAFETY CONTROL'S ADVANCE MODEL 201CS OR APPROVED EQUAL W/ MODEL BM-1116 EJECTOR CORPORATION COCK/DIFFUSER ASSEMBLY SYSTEM SHALL HAVE AUTOMATIC TANK SWITCHOVER AFTER INSTALLATION. CONTRACTOR SHALL TAKE WATER SAMPLES TWICE (ONE WEEK APART) AT LOCATIONS (1) & (2) (SEE PLAN 1/1-2 & LOCATION MAP), AND ADJUST CHLORINE FEED RATE TO PRODUCE 0.2 PPM CHLORINE RESIDUAL AT LOCATION (3). SUBMIT WRITTEN REPORT TO ENGINEER FOR REVIEW & APPROVAL.

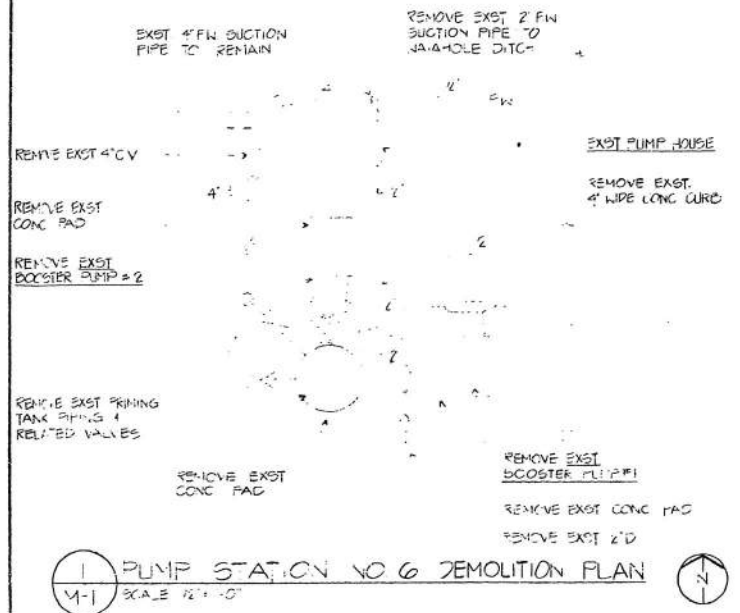
### APPROVALS:

*[Signature]* 5-16-88  
DIRECTOR, DEPT. OF CORRECTIONS  
STATE OF HAWAII DATE

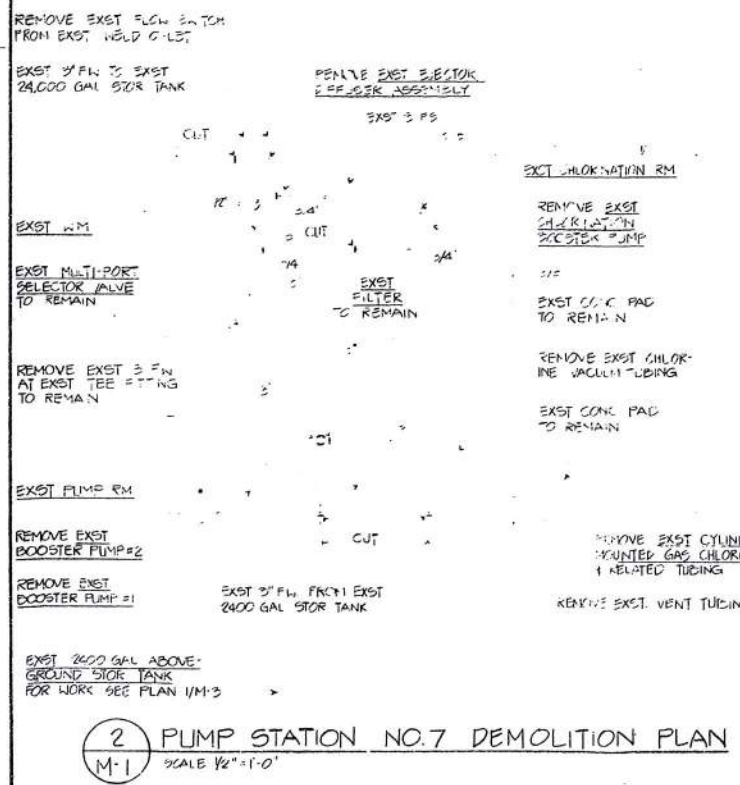
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COMPTROLLER, DEPT. OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII DATE

*[Signature]* 5-18-88  
STATE PUBLIC WORKS ENGINEER, DEPT. OF ACCOUNTING AND  
GENERAL SERVICES, STATE OF HAWAII DATE

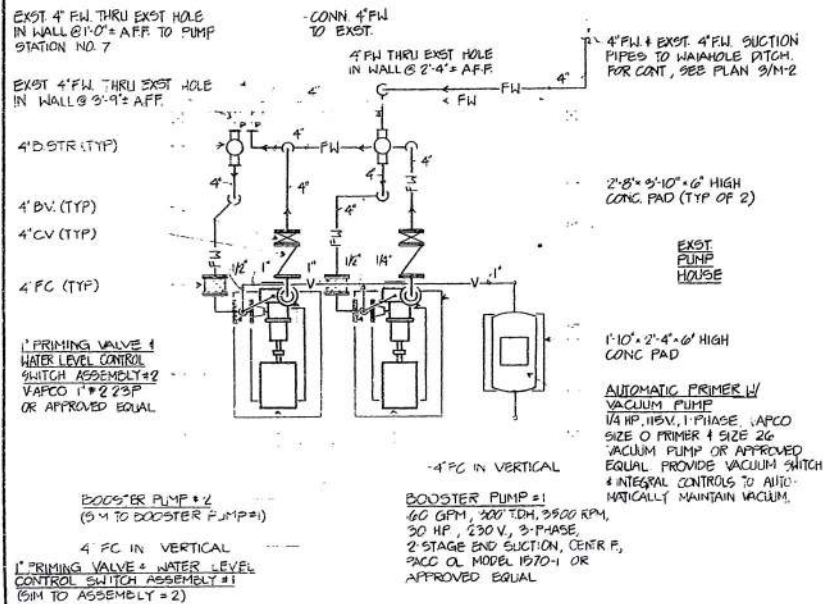
*[Signature]* 7/18/88  
DEPARTMENT OF HEALTH, CHIEF ENVIRONMENTAL PROTECTION  
AND HEALTH SERVICE DIVISION, STATE OF HAWAII DATE



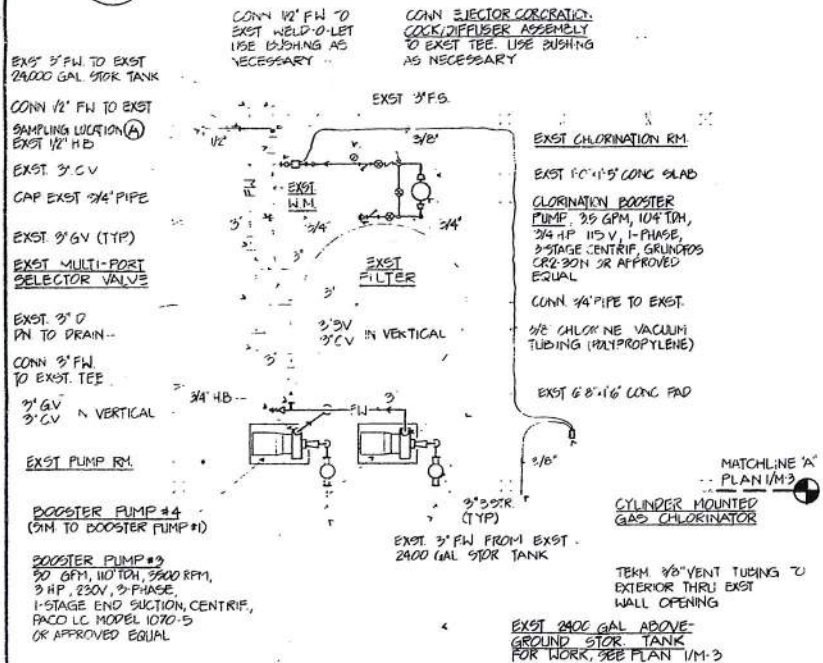
(1) PUMP STATION NO. 6 DEMOLITION PLAN  
SCALE 1/2"=1'-0"



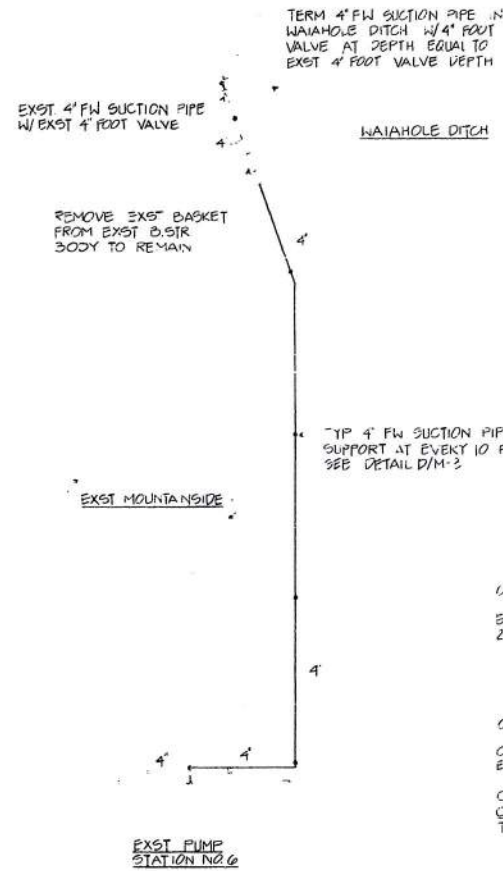
(2) PUMP STATION NO. 7 DEMOLITION PLAN  
SCALE 1/2"=1'-0"



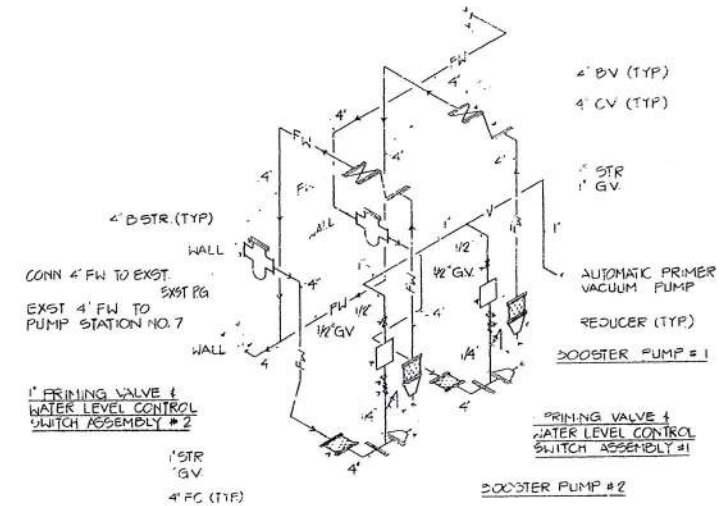
1 PUMP STATION NO. 6 RENOVATION PLAN  
SCALE 1/2"=1'-0"



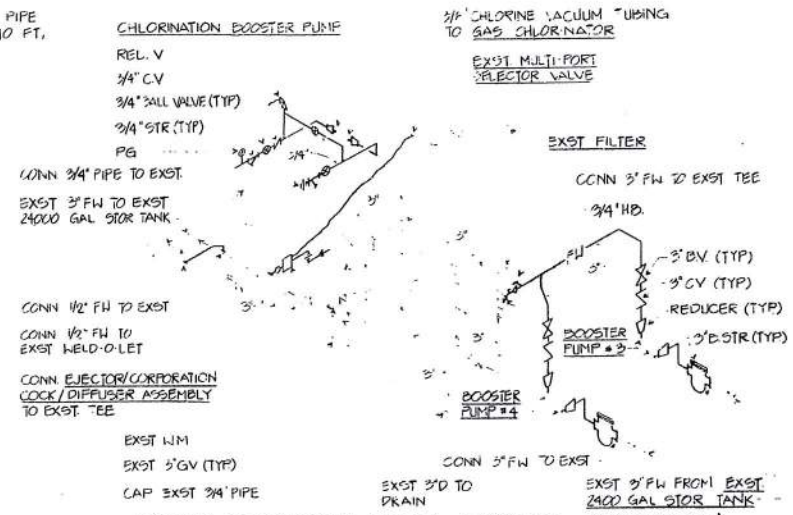
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SCALE 1/2"=1'-0"



3 PUMP STATION NO. 6 SITE PLAN  
SCALE 1/4"=1'-0"

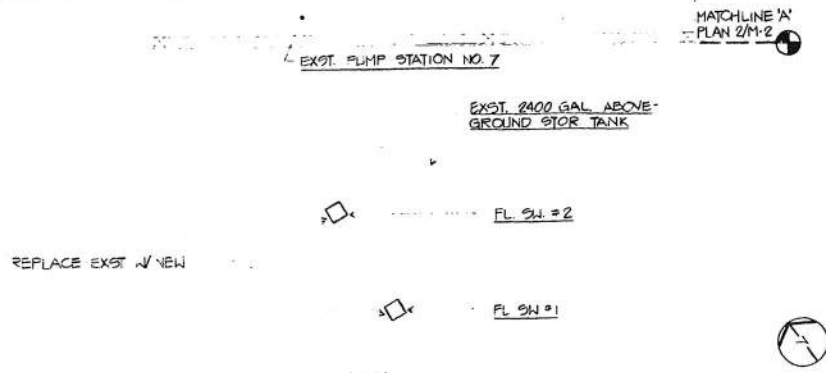


PUMP STATION NO. 6 PIPING DIAGRAM  
1/2" SCALE

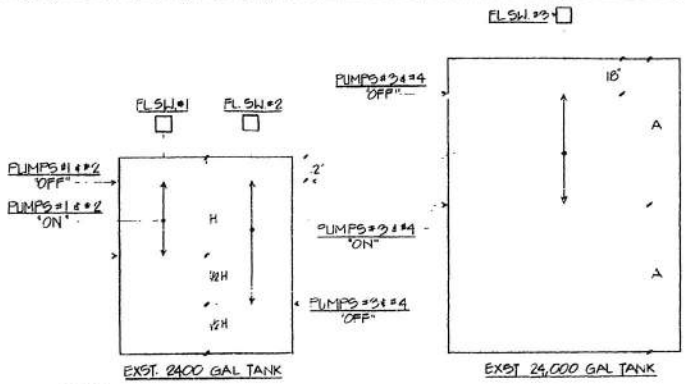


PUMP STATION NO. 7 PIPING DIAGRAM  
1/2" SCALE

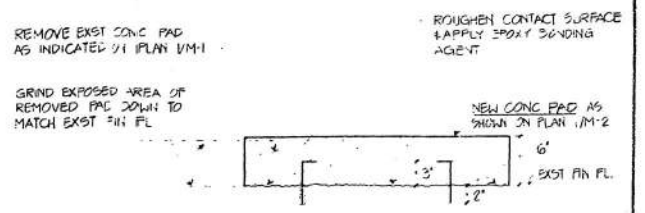
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIKAWA CORRECTIONAL FACILITY SUPPORT FACILITY FRESH WATER PUMPS OAHU HAWAII					
RENOVATION PLANS, PIPING DIAGRAMS					
MEH. CORPORATION		BASE JOB NO.		DRAWING NO.	
DESIGNED BY KA	CHECKED BY LC	12-27-1887		M-2	
DRAWN BY KA	APPROVED BY L.C.	DATE MAY 1988		SHEET 2 OF 6	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION					



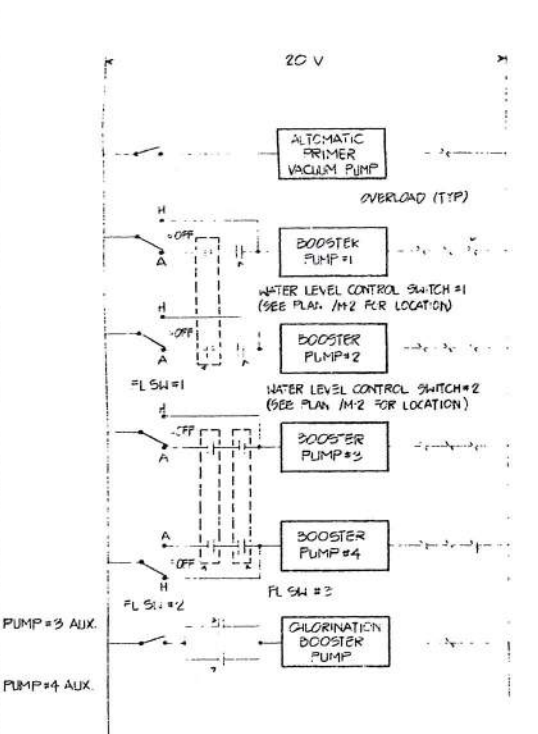
**1** PUMP STATION NO. 7 STORAGE TANK RENOVATION PLAN  
**M-3** SCALE 1/2" = 1'-0"



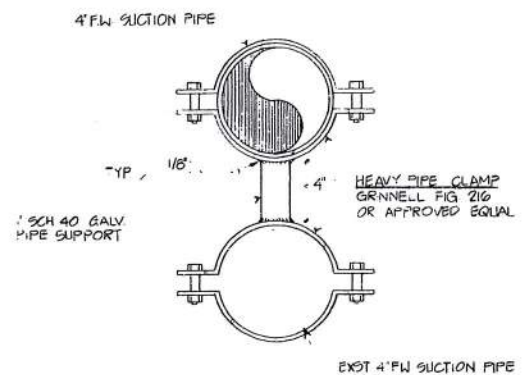
**A** SCHEMATIC LEVEL CONTROL DIAGRAM  
**M-3** NO SCALE



**B** EQUIPMENT PAD DETAIL  
**M-3** NOT TO SCALE



**C** SCHEMATIC CONTROL DIAGRAM  
**M-3** NO SCALE  
 NOTE SEE DIAGRAM A/M-3 FOR WATER TANK LEVEL CONTROL



**D** SUCTION PIPE SUPPORT DETAIL  
**M-3** NOT TO SCALE

**MECHANICAL LEGEND**

- FW— FW FRESH WATER
- D— D DRAIN
- X— GV GATE VALVE
- M— BV BUTTERFLY VALVE
- Z— CV CHECK VALVE
- S— BSTR BASKET STRAINER
- S— STR STRAINER
- FC— FC FLEXIBLE CONNECTION
- REL V— REL V RELIEF VALVE
- PG— PG PRESSURE GAGE
- FS— FS FLOOR SINK
- FL SW— FL SW FLOAT SWITCH
- TDH— TDH TOTAL DYNAMIC HEAD
- WM— WM WATER METER

**ADDITIVE BID ITEM NO. 1**

THE CONTRACTOR SHALL FURNISH 800 LINEAR FEET OF 6" DUCTILE IRON PIPE FOR FUTURE CONSTRUCTION WORK TO BE ACCOMPLISHED BY THE WAIANA CORRECTIONAL FACILITY IN ADDITION PROVIDE ONE MECHANICAL JOINT COUPLING PER LENGTH OF PIPING, SIX 6" 90° ELBOWS, SIX 6" 45° ELBOWS, AND TWO 6" TEES. PIPE & FITTINGS SHALL CONFORM TO AWWA C151 & C110, THICKNESS CLASS 300 MINIMUM FOR 30 PSI WORKING PRESSURE, WITH CEMENT-MORTAR LINING (AWWA C104/A21 & STANDARD THICKNESS). DELIVER MATERIAL TO LOCATION WITHIN THE WAIANA CORRECTIONAL FACILITY AS DIRECTED BY THE ENGINEER.

REVISION NO.	DATE	DESCRIPTION	DATE	APPROVED STATE

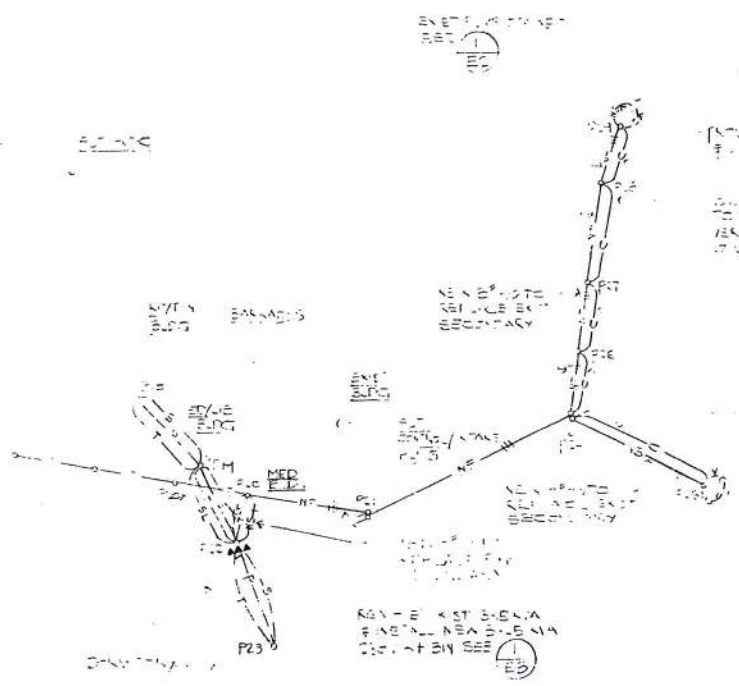
DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

WAIANA CORRECTIONAL FACILITY  
 SUPPORT FACILITY  
 FRESH WATER PUMPS  
 WAIANA OAHU HAWAII  
 STORAGE TANK RENOVATION PLAN, DETAILS

MEH CORPORATION  
 DESIGNED BY LE/KA  
 CHECKED BY LC  
 DRAWN BY KA  
 APPROVED BY LC  
 SCALE AS SHOWN

SHEET NO. M-3  
 DATE 12-27-1807  
 SHEET 3 OF 6

ELECTRICAL SITE PLAN  
SCALE 1"=100'



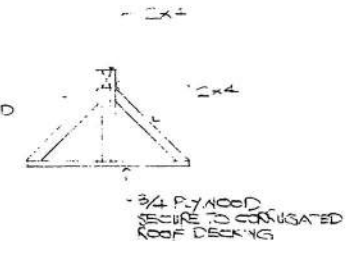
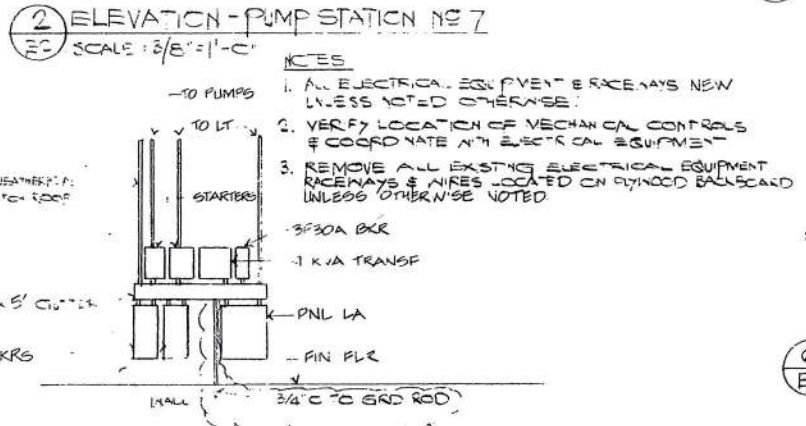
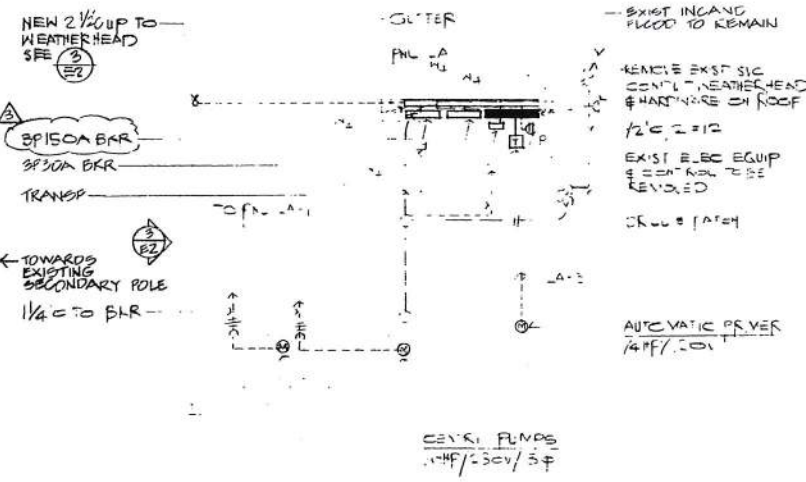
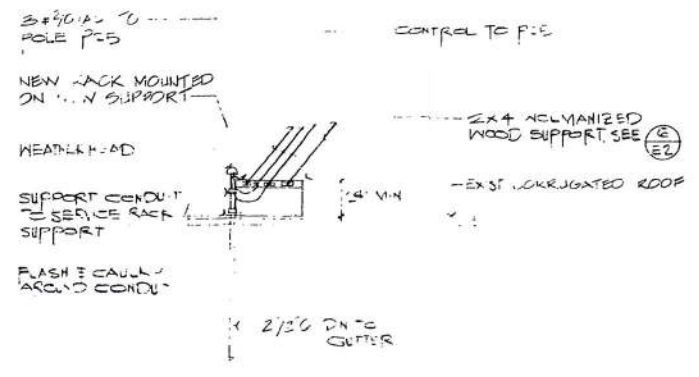
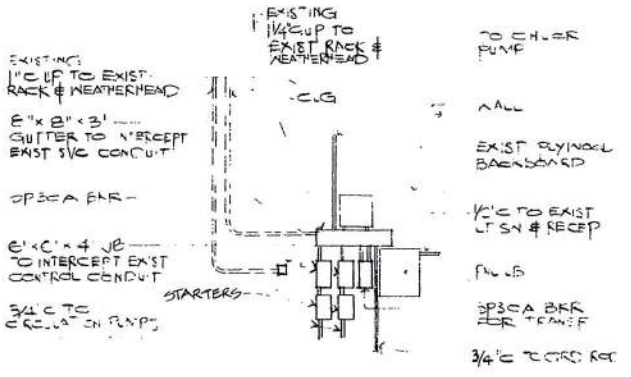
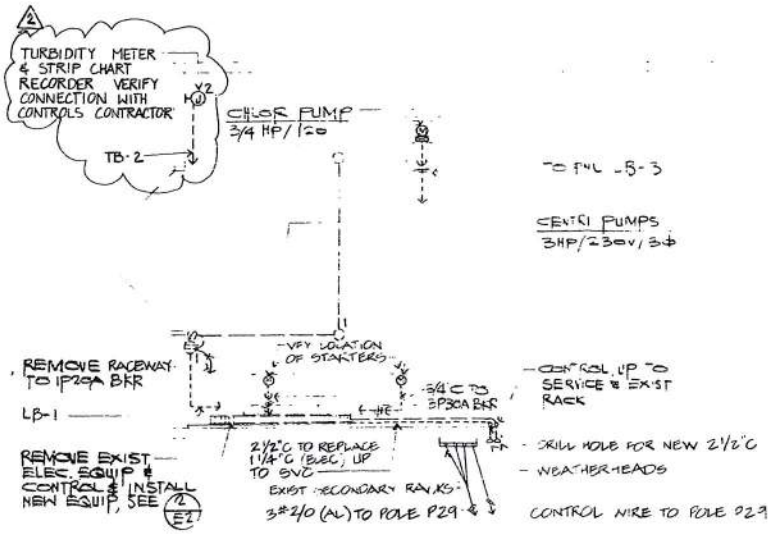
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STATE NEW BOUNDARY  
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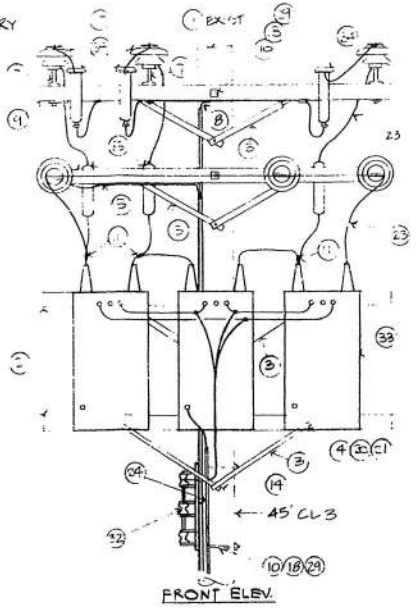
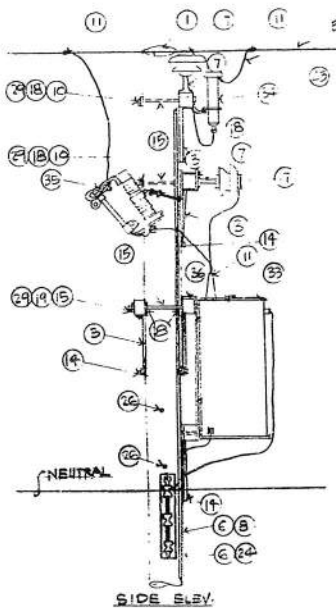
STATE NEW BOUNDARY  
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REVISION NO.	DATE	DESCRIPTION	APPROVED STATE PUBLIC WORKS ENGINEER
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>FRESH WATER PUMPS</b>			
DESIGNED BY		DATE	DRAWING NO.
CHECKED BY		12-27-007	
DRAWN BY		DATE	SHEET
APPROVED BY		MAY 1-2	OF 6 SHEETS
SCALE: UNIFORMED			

TRK 9-6-05: 1 A 11



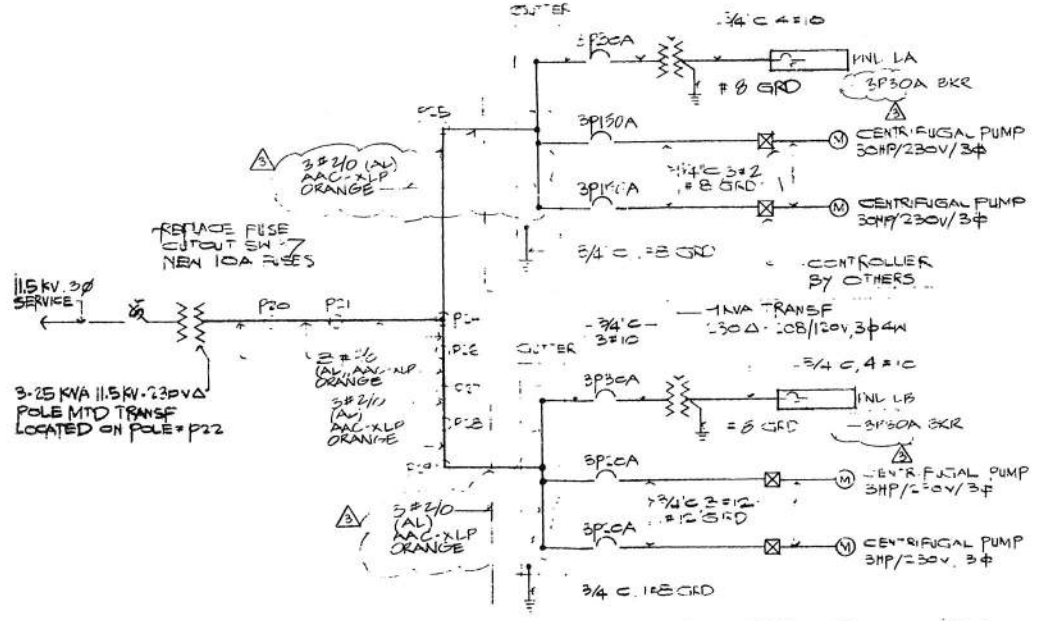
ADD#3	ELDS DEPT COMMENT	2/1/88	
ADD#2	ADDED JUNCTION BOX	2/16/88	
REVISION NO	DESCRIPTION	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
WAIANA CORRECTIONAL FACILITY SUPPORT FACILITY FRESH WATER PUMPS WAIANA OAHU HAWAII ELECTRICAL PLANS AND DETAILS			
M.E.H. CORPORATION		DATE ON NO	DRAWING NO
DESIGNED BY ARC	CHECKED BY ARC	12-27-1987	10249
SCALE AS NOTED	APPROVED BY AC	DATE MAY 1988	SHEET 5 OF 6



1 POLE 22  
E3 N.T.S.

PUMP STA #2

3/4 C. 3-10-1 1-KVA TRANSF 300A-108/120V, 3Φ, 4W

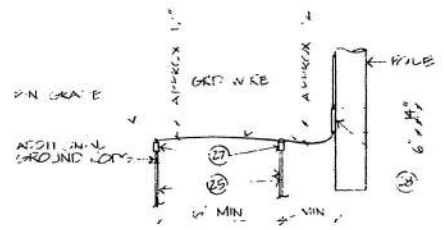


SINGLE-LINE DIAGRAM

PUMP STA #7

PART NO.	DESCRIPTION
1	WOOD POLE, HEIGHT AND CLASS AS NOTED
2	EXISTING CROSSARM TO REPLACE W/ NEW CROSSARM, DIMENSIONS 3-1/2" X 4-1/2" X 8'-0"
3	BRACE, "1A" CROSSARM, 1-1/4" X 1/4" X 84" STRUCTURAL SPACE STEEL, 10,000 LBS BREAKING STRENGTH
4	CARRIAGE BOLT, 5/8" X 4-1/2", EEI SPEC TO-1
5	#5 MHD COPPER, BOND TO INSULATOR PIN
6	WOOD MOULDING, HALF ROUND, STAPLE EVERY 12" WITH COPPER CLAD STAPLES
7	INSULATOR PIN, FORGED STEEL, HIGH TENSION, 1/4" B LEAG THREADED, EEI SPEC TO 71
8	#4 SOFT DRAWN COPPER, ARRESTER GROUND WIRE
9	CROSSARM
10	MACHINE BOLT, 5/8" X 1-1/2", EEI SPEC TO-1
11	CONNECTOR, SPLIT BOLT, COPPER ALLOY
12	NOT USED
13	NOT USED
14	LAG SCREW, 1/2" X 4", FETTER DRIVE, EEI SPEC TO-1
15	DOUBLE ARMING BOLT, 5/8" X 18", EEI SPEC TO-
16	NOT USED
17	PIN TYPE INSULATOR, 1-3/8" DIAMETER, PINHOLE, EEI-NEMA CLASS 94-2
18	SQUARE WASHER, 2-1/4" X 2-1/4" X 3/16", 13/16" HOLE
19	SQUARE WASHER, 2-1/4" X 2-1/4" X 3/16", 13/16" HOLE
20	ROUND WASHER, 1" DIAMETER, 1/16" HOLE
21	ROUND WASHER, 1-1/4" DIAMETER, 3/16" HOLE, USE UNDER HEAD OF CARRIAGE BOLT
22	NOT USED
23	#5 MHD COPPER
24	#5 SOFT DRAWN COPPER
25	5/8" X 10'-0" COPPER ENCASED STEEL SECTIONAL GROUND ROD
26	POLE STEPS, 5/8" X 13", FETTER DRIVE, EEI STANDARD
27	5/8" GROUND ROD CLAMP
28	CONDUIT, 1" RIGID GALVANIZED STEEL
29	NUT LOCKWAL, SQUARE, 5/8" BOLT SIZE
30	NOT USED
31	NOT USED
32	SECONDARY RACK, 3 SPOOL
33	TRANSFORMER, 100-POB OIL FILLED, SEE SPECS (NEW)
34	SURGE ARRESTER, ENCASED VALVE TYPE, 9KV
35	EXIST FUSE COUTOUT TO REPLACE W/ NEW FUSE COUTOUT, OPEN TYPE, LOAD BREAK, HOOP STICK OPERATED (10A FUSES)
36	HANGER, TRANSFORMER

NOTE: ALL ELECTRICAL EQUIPMENT # IN CAG W/ EXIST'G, UNLESS NOTED OTHERWISE



NOTE: USE ADDITIONAL RODS TO OBTAIN 25 OHMS TO GROUND

1 GROUNDING DETAIL  
E3 N.T.S.

PANEL NO.	DESCRIPTION	QTY	UNIT	REMARKS
1	3P30A MAIN BREAKER	1	BK	
2	INDUSTRIAL BOLTED	1	20" WIDE CABINET	
3	BRACE	1	3/4" X 1/4" X 84"	
4	CARRIAGE BOLT	1	5/8" X 4-1/2"	
5	#5 MHD COPPER	1		
6	WOOD MOULDING	1		
7	INSULATOR PIN	1		
8	#4 SOFT DRAWN COPPER	1		
9	CROSSARM	1		
10	MACHINE BOLT	1		
11	CONNECTOR	1		
12	LAG SCREW	1		
13	DOUBLE ARMING BOLT	1		
14	PIN TYPE INSULATOR	1		
15	SQUARE WASHER	1		
16	SQUARE WASHER	1		
17	ROUND WASHER	1		
18	ROUND WASHER	1		
19	HANGER	1		

DETAILS	QTY	UNIT	REMARKS
1	1	20" WIDE CABINET	
2	1	3P30A MAIN BREAKER	
3	1	BRACE	
4	1	CARRIAGE BOLT	
5	1	#5 MHD COPPER	
6	1	WOOD MOULDING	
7	1	INSULATOR PIN	
8	1	#4 SOFT DRAWN COPPER	
9	1	CROSSARM	
10	1	MACHINE BOLT	
11	1	CONNECTOR	
12	1	LAG SCREW	
13	1	DOUBLE ARMING BOLT	
14	1	PIN TYPE INSULATOR	
15	1	SQUARE WASHER	
16	1	SQUARE WASHER	
17	1	ROUND WASHER	
18	1	ROUND WASHER	
19	1	HANGER	

REV'D	BY	DATE	DESCRIPTION
1	ARE	8/9/88	ELOS DEPT COMMENT
2	ARE	8/16/88	REVISED PNL LB

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

HAWAII CORRECTIONAL FACILITY  
SUPPORT FACILITY  
FRESH WATER PUMPS  
HAWAII, OAHU

SINGLE LINE DIAGRAM, PANEL SCHEDULES

M.E.H. CORPORATION  
DESIGNED BY: ARE  
CHECKED BY: ARE  
DATE: 12-27-1987

APPROVED BY: DMW  
DATE: MAY 1988

SCALE: AS NOTED

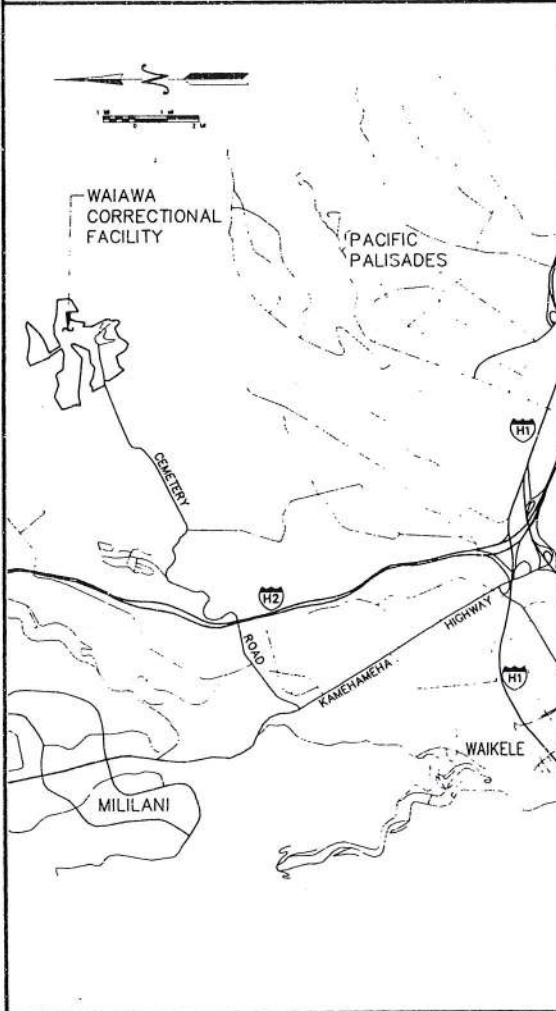
1 E3 DRAWN 2 FROM 5



BP 356732



VICINITY MAP (NTS)



LOCATION MAP

# WAIAWA CORRECTIONAL FACILITY SEWAGE DISPOSAL SYSTEM

WAIAWA, OAHU, HAWAII

TMK NO: 9-6-5:11

FOR THE  
DEPARTMENT OF PUBLIC SAFETY

STATE OF HAWAII

BY THE  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

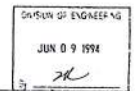
DIVISION OF PUBLIC WORKS

STATE OF HAWAII

DAGS JOB NO. 12-27-6172



RECORDING DEPARTMENT  
FILE COPY



GRADING PERMIT NO. 0457

NO.	DATE	BY	DESCRIPTION
1	6/15/94	[Signature]	RECEIVED
2	6/15/94	[Signature]	RECEIVED
3	6/15/94	[Signature]	RECEIVED
4	6/15/94	[Signature]	RECEIVED
5	6/15/94	[Signature]	RECEIVED
6	6/15/94	[Signature]	RECEIVED
7	6/15/94	[Signature]	RECEIVED
8	6/15/94	[Signature]	RECEIVED
9	6/15/94	[Signature]	RECEIVED
10	6/15/94	[Signature]	RECEIVED
11	6/15/94	[Signature]	RECEIVED

INDEX OF DRAWINGS		
SHT NO.	DWG NO.	DESCRIPTION
1	T-1	TITLE SHEET
2	T-2	PLOT PLAN
3	C-1	KEYPLAN, NOTES, ABBREVIATIONS AND LEGEND
4	C-2	SEWAGE POND A
5	C-3	SEWAGE POND B AND GRADING NOTES
6	C-4	SEWAGE POND B
7	C-5	DISTRIBUTION LINE PROFILES AND DETAILS
8	C-6	SECTIONS
9	Q-1	EROSION CONTROL PLAN
10	M-1	SEWAGE LIFT STATION PLAN, SECTIONS AND DETAILS
11	M-2	TREATMENT PLANT STAIRWAY AND PLATFORM

APPROVED	
 DIRECTOR DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII	 COMPTROLLER DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII
 STATE PUBLIC WORKS ENGINEER DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII	 CHIEF ENVIRONMENTAL MANAGEMENT DIVISION DEPARTMENT OF HEALTH STATE OF HAWAII

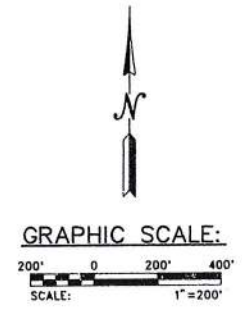
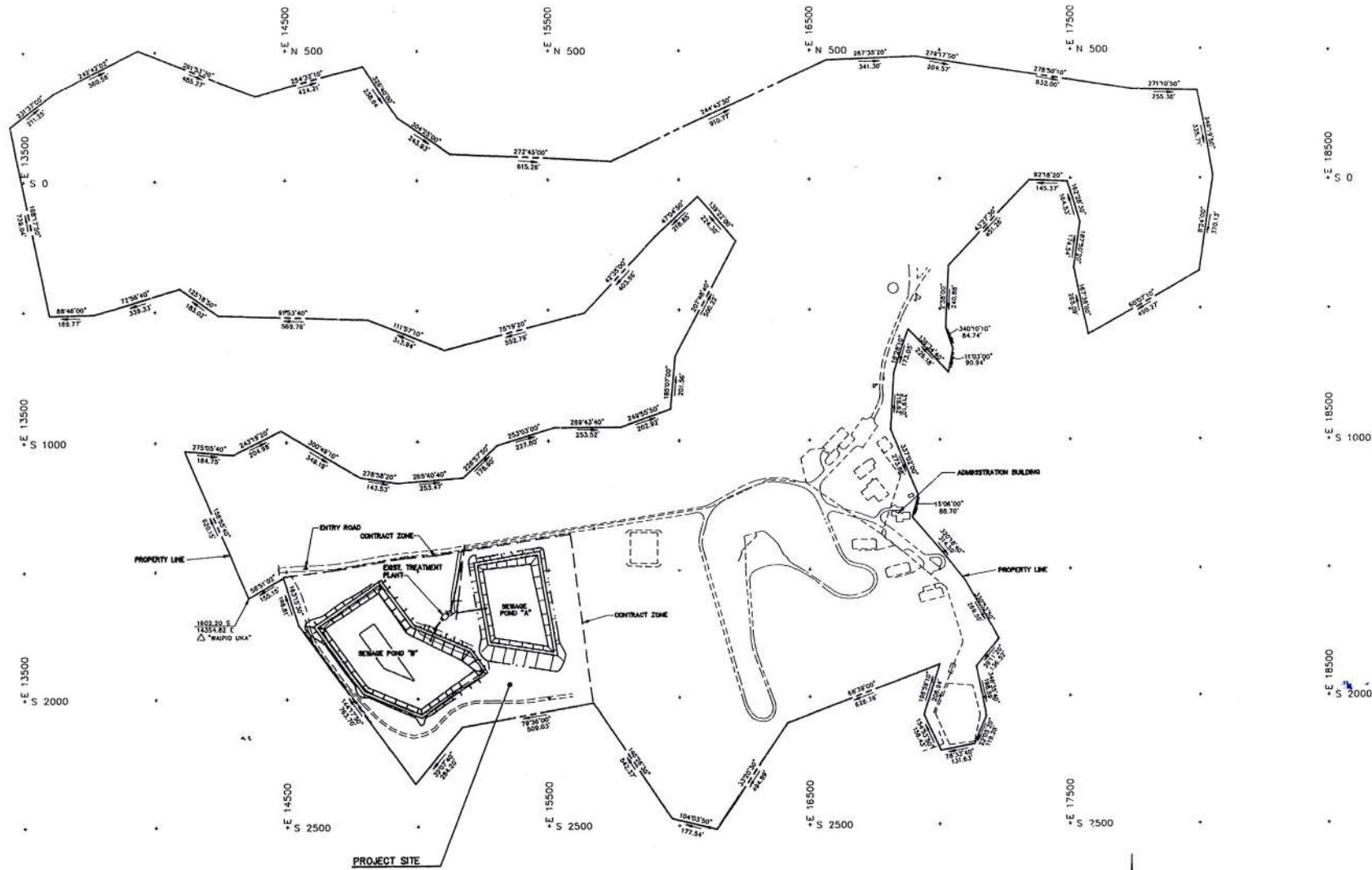
Prepared by:

**GMP ASSOCIATES, INC.**  
Engineers/Architects  
841 BISHOP STREET, #1501  
HONOLULU, HAWAII 96813  
TEL: 521-4711  
FAX: 538-3269

REV.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER

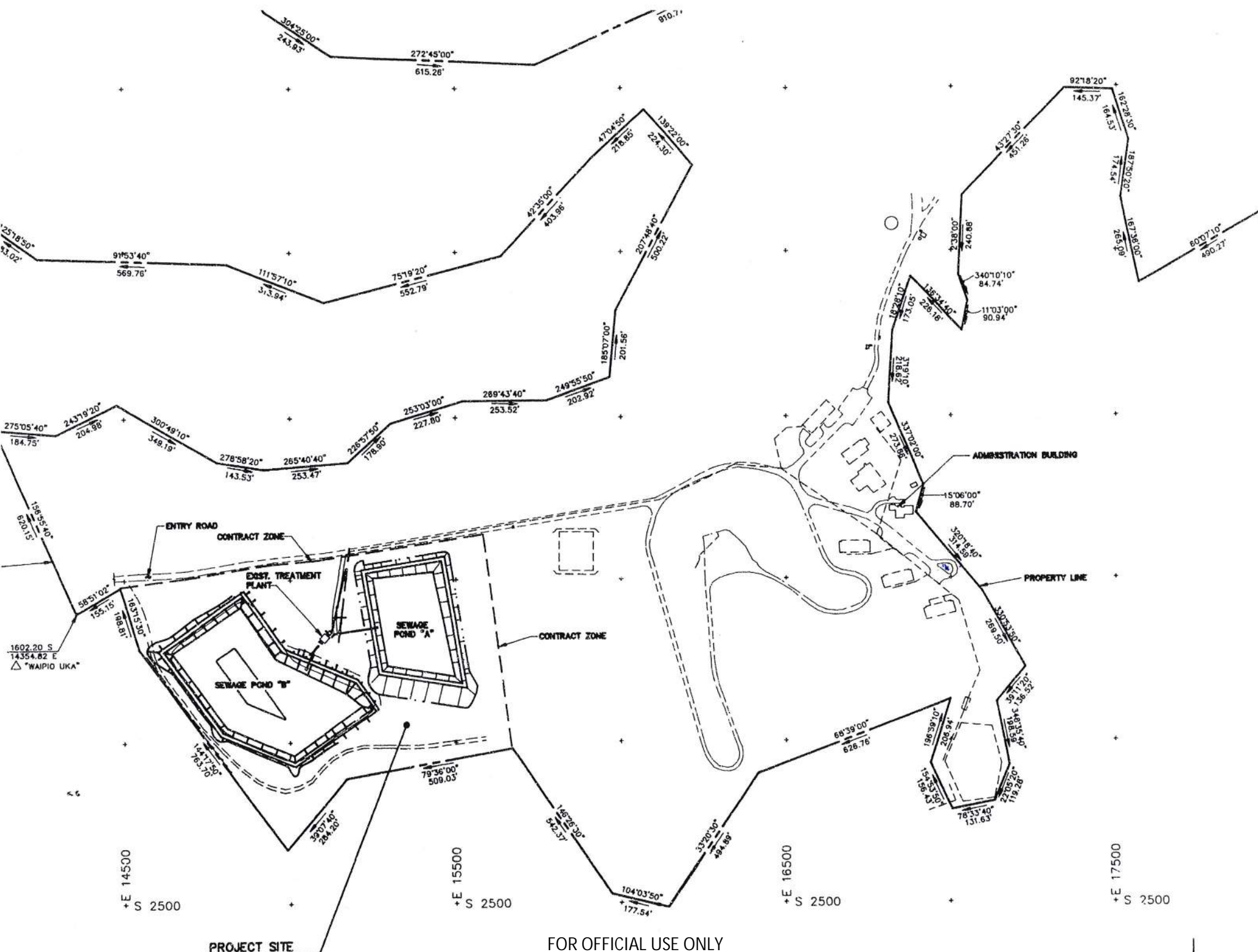
DEPT. OF ACCOUNTING & GENERAL SERVICES  
DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII  
WAIAWA CORRECTIONAL FACILITY  
SEWAGE DISPOSAL SYSTEM  
WAIAWA OAHU HAWAII  
TITLE SHEET

GMP ASSOCIATES, INC. DATE JOB NO. DRAWING NO.  
DESIGNED BY: [unclear] 12-27-6172 T-1  
CHECKED BY: [unclear] DATE: [unclear]  
ISSUED BY: [unclear] TAC: [unclear] SHEET: [unclear]  
SCALE: AS NOTED 02/10/94 OF 11 SHEETS



REVISION NO.	SYMBOL	DESCRIPTION	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> <b>SEWAGE DISPOSAL SYSTEM</b>				
WAIAWA		OAHU		HAWAII
PLOT PLAN				
GMP ASSOCIATES, INC.			DATE JOB NO.	DRAWING NO.
DESIGNED BY: DIBH	DRAWN BY: LAU	12-27-6172	T-2	
CHECKED BY: JML	APPROVED BY: TAC	DATE	SHEET	
SCALE: AS NOTED	02/10/94	2	of 11 SHEETS	

2279E(1)3 03/21/94 13:54 FINAL (100%)



**GENERAL NOTES**

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS, ALL REQUIREMENTS OF THE DIVISION OF PUBLIC WORKS, DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES (DAGS), STATE OF HAWAII AND APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.
2. NO CONTRACTOR SHALL PERFORM ANY CLEARING/GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE COSTS INCURRED FOR ANY REMEDIAL ACTION BY THE CHIEF ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL VERIFY DIMENSIONS, LOCATIONS, ELEVATIONS, ETC., AND INFORM THE ENGINEER IN WRITING OF FINDINGS PRIOR TO INSTALLATION OF NEW FACILITIES.
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 OR THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL TONE THE AREA TO BE EXCAVATED TO ASCERTAIN THE LOCATION OF UNCHARTED UTILITIES. ALL DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF DAGS AND/OR OWNER OF THE UTILITY. THE TOTAL COST OF REPAIRS TO ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
5. 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 ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGES TO THESE FACILITIES.
6. NO WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME, WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
7. WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT, ALTHOUGH NOT SPECIFICALLY REFERRED TO IN THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND PERFORMED BY THE CONTRACTOR. PAYMENT FOR INCIDENTAL WORK WILL NOT BE MADE SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACTOR'S TOTAL BID FOR THIS PROJECT.
8. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBISH, DUST, NOISE, EROSION, ETC. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND CITY AND COUNTY OF HONOLULU NOISE CONTROL REGULATIONS.
9. NO MATERIALS AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN THE TRAFFIC LANES, SIDEWALKS, AND PARKING LOTS, EXCEPT AT LOCATIONS DESIGNATED BY THE ENGINEER.

**GENERAL NOTES CONTINUED**

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF TOPS, TRUNKS, AND ROOTS OF EXISTING TREES. PROTECT EXISTING TREES FROM CONSTRUCTION DAMAGE BEFORE ANY WORK IS STARTED. THE CONTRACTOR SHALL REMOVE PROTECTION WHEN DIRECTED. THE CONTRACTOR SHALL REMOVE INTERFERING BRANCHES WITHOUT INJURY TO TRUNKS AND COVER SCARS WITH TREE PAINT. ONLY THOSE PORTIONS OF THE BRANCHES WHICH WILL CLEARLY BE IN THE WAY OF CONSTRUCTION EQUIPMENT SHALL BE REMOVED IN ACCORDANCE WITH STANDARD NURSERY PRACTICES.
11. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986, AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU.
12. THE CONTRACTOR SHALL NOTIFY THE ENGINEER THREE (3) CONSECUTIVE WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
13. BENCH MARKS: SEE DWG. C-2 & C-4. FOUND RAILROAD SPIKE, CONTROL POINT "SPIKE" PER DAGS JOB NO. 02-27-3098 (DWG NO. C-2) ASSUMED ELEVATION 310.74, 1190.1782 S, 16503.9942 E REFERENCED TO STATION "WAIPIU UKA".
14. NO BLASTING SHALL BE PERMITTED ON THIS PROJECT.
15. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO, FROM AND THROUGH ALL DRIVEWAYS AND STREETS. CONTRACTOR SHALL NOT OBSTRUCT ANY EXISTING WATER RUNOFF.
16. THE CONTRACTOR SHALL NOTIFY THE ENGINEER UPON UNCOVERING ANY POTENTIAL HISTORICAL ARTIFACTS OR ITEMS OF ARCHAEOLOGICAL SIGNIFICANCE.
17. ALL EXISTING UTILITIES TO REMAIN IN USE, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION UNLESS SPECIFIED ON THE PLANS TO BE ABANDONED OR DEMOLISHED.
18. THERE MAY BE OTHER CONTRACTOR(S) WORKING WITHIN THE SAME SITE AT THE SAME TIME. EACH CONTRACTOR IS RESPONSIBLE FOR SECURITY OF HIS OWN EQUIPMENT AND MATERIALS.
19. ALL UTILITIES SHALL BE ASSUMED TO BE ACTIVE UNLESS NOTED.

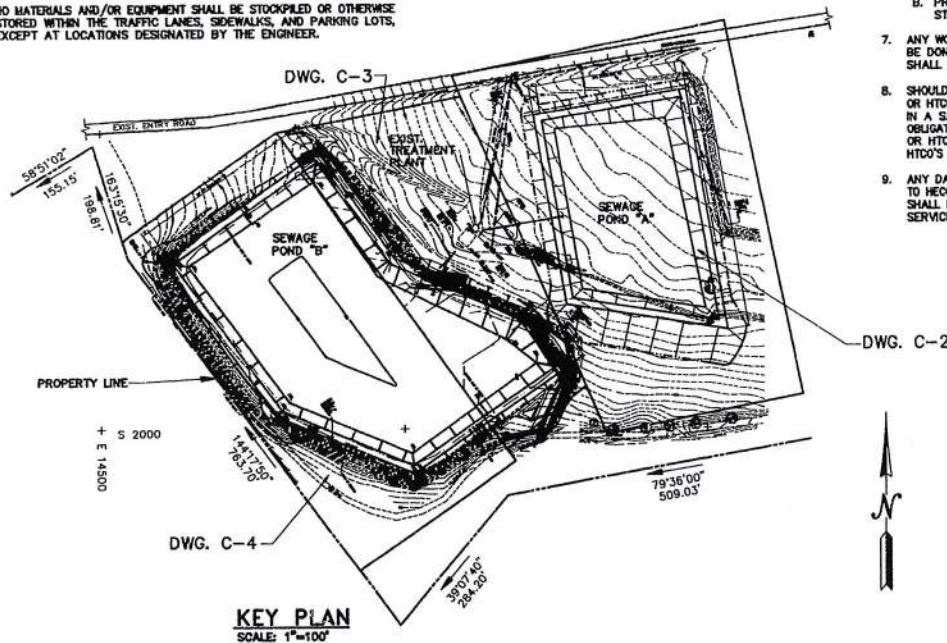
**GENERAL NOTES CONTINUED**

20. THE CONTRACTOR SHALL CONSTRUCT SEWAGE POND "A", DISTRIBUTION LINE TO POND "A", HEADWALL, LIFT STATION, VALVE AND SEWAGE BOXES, PIPING, VALVES, PUMPS, CONTROL, ELECTRICAL SYSTEM, BYPASS, CONNECTION TO EXISTING TREATMENT PLANT AND ALL RELATED WORK COMPLETE IN PLACE, TESTED AND ACCEPTED PRIOR TO ANY WORK ON SEWAGE POND "B". WITH THE ENGINEER'S APPROVAL, THE CONTRACTOR MAY BE ALLOWED TO ONLY REMOVE ALL FISH AND THE EXISTING POND LINER AT THE START OF THE PROJECT AND COMPLETE THE REMAINING WORK ON SEWAGE POND "B" AFTER COMPLETION, TESTING AND ACCEPTANCE OF SEWAGE POND "A" AND ALL RELATED WORK TO SEWAGE POND'S "A" OPERATIONS AS INDICATED ABOVE.

21. REFER TO DRAWING C-3 FOR GRADING NOTES.

**POWER & TELEPHONE UTILITIES NOTES**

1. THE LOCATION OF HAWAIIAN ELECTRIC COMPANY (HECO) AND HAWAIIAN TELEPHONE COMPANY (HTCO) UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND LINES AND SHALL MAINTAIN ADEQUATE CLEARANCE WHEN OPERATING EQUIPMENT WITHIN OR UNDER ANY OVERHEAD LINES.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.
3. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM HECO'S MAPPING AND RECORDS DIVISION LOCATED AT 820 WARD AVENUE, 4TH FLOOR, AT LEAST TWO WEEKS PRIOR TO STARTING CONSTRUCTION.
4. FOR VERIFICATION OF HECO'S UNDERGROUND LINES OR FOR ASSISTANCE IN SUPPORTING AND PROTECTING THESE LINES, THE CONTRACTOR SHALL CALL HECO'S UNDERGROUND DIVISION AT 543-7345 A MINIMUM OF 72 HOURS IN ADVANCE.
5. THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM HTCO'S OUTSIDE PLANT PERMIT SECTION LOCATED AT 3239 UALEHA STREET AT LEAST THREE WORKING DAYS PRIOR TO START OF EXCAVATION.
6. WHEN TRENCH EXCAVATION IS ADJACENT TO OR BENEATH EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR, BUT NOT LIMITED TO THE FOLLOWING:
  - A. SHEETING AND BRACING THE EXCAVATION TO PREVENT SLIDES, CAVE-INS AND SETTLEMENTS.
  - B. PROTECTING EXISTING STRUCTURES OR FACILITIES WITH BEAMS, STRUTS, OR UNDERPINNING.
7. ANY WORK REQUIRED TO RELOCATE HECO AND HTCO FACILITIES SHALL BE DONE BY HECO AND HTCO, RESPECTIVELY, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION.
8. SHOULD IT BECOME NECESSARY TO TEMPORARILY RELOCATE ANY HECO OR HTCO FACILITIES TO ENABLE THE CONTRACTOR TO PERFORM HIS CONTRACT IN A SAFE AND EXPEDITIOUS MANNER IN FULFILLING HIS CONTRACT OBLIGATIONS, THESE TEMPORARY RELOCATIONS SHALL BE DONE BY HECO OR HTCO, RESPECTIVELY, OR BY THE CONTRACTOR UNDER HECO'S OR HTCO'S SUPERVISION, WITH ALL COSTS BEING BORNE BY THE CONTRACTOR.
9. ANY DAMAGE TO HECO'S FACILITIES SHALL BE REPORTED IMMEDIATELY TO HECO'S TROUBLE DISPATCHER AT PHONE 543-7874. THE CONTRACTOR SHALL REPORT ANY DAMAGES TO HTCO'S FACILITIES TO HTCO'S REPAIR SERVICE AT PHONE NUMBER 546-4955.



**KEY PLAN**  
SCALE: 1"=100'

**LEGEND**

SYMBOLS	DESCRIPTION
--- (dashed line)	PROPERTY LINE
--- (solid line)	EXISTING STRUCTURES
--- (line with 'T')	EDGE OF ROAD (TYPE AS SHOWN)
⊠	BENCHMARK
○	CONTROL POINT
--- (line with 'W')	NEW WATER LINE (SIZE AS SHOWN)
--- (line with 'W')	EXIST. WATER LINE
--- (line with 'W')	EXIST. ABANDONED WATER LINE
--- (line with 'W')	NEW WATER LINE VALVE
--- (line with 'W')	EXIST. WATER LINE VALVE
○	NEW AIR RELIEF VALVE
○	EXIST. FIRE HYDRANT
○	NEW FIRE HYDRANT
○	INVERT ELEVATION = 100.00'(U.O.N.)
--- (line with 'SD')	EXISTING 18" STORM DRAIN
--- (line with 'S')	EXISTING 8" SANITARY SEWER
--- (line with 'S')	EXISTING SANITARY SEWER MANHOLE
○	EXISTING POWER POLE
○	EXISTING POWER POLE ANCHOR
○	EXISTING TREE
--- (line with 'X')	EXISTING BARBED WIRE FENCE
○	EXISTING CHAIN LINK FENCE

**ABBREVIATIONS**

AC	ASPHALT CONCRETE	R/A	NOT APPLICABLE
AS	ASSEMBLY	N	NORTH
BLK	BLOCK	NC	NOT IN CONTRACT
BLDG	BUILDING	NO	NO. NUMBER
BW	BARBED WIRE	NTS	NOT TO SCALE
CHK	CHECKERED	OD	OUTSIDE DIAMETER
CI	CAST IRON	ON	ON CENTER
CL	CLEAR LINK, CLEAR	O.H.	OVERHEAD
CO	CLEANOUT	P/L	PROPERTY LINE
CONC.	CONCRETE	PAV	PAVEMENT
CONT.	CONTINUED	PP	POWER POLE
CONST.	CONSTRUCTION	PSF	POUNDS PER SQUARE FOOT
COOP	COOPERATION	PS	POUNDS PER SQUARE INCH
CU	CONCRETE CURB	PWT	POWER POLYETHYLENE TEREPHTHALATE
CU	CURB	PCV	POLYVINYL CHLORIDE
D	DIAMETER	R	RADIUS
DA	DUCTILE IRON	RED.	REQUIRED REDUCER
DI	DUCTILE IRON PIPE	RE	REDUCER
DP	DUCTILE IRON PIPE	S	SLOPE
DP	DUCTILE IRON PIPE	S.S.	STAINLESS STEEL
E	EAST	S/S	SANITARY SEWER
EA	EACH	SFM	SEWER FORCE MAIN
EL	ELEVATION	SFM	SEWER MANHOLE
EXST.	EXISTING	SFM	SEWER MANHOLE
FB	FLUE BAR	SPK	SEWER MANHOLE
FD	FOUR	STA	STATION
FG	FRESH GRADE	STN	STANDARD
FLS	FINISHED SURFACE	SD	STORM DRAIN
FT	FOOT FEET	SW	SIDEWALK
GAL	GALLONS	S/S	SANITARY SEWER (8" DIA.)
GALV	GALVANIZED	T	TELEPHONE, TANGENT
GV	GATE VALVE	TRK	TRACK
H	HEIGHT	TEMP.	TEMPORARY
HECO	HAWAIIAN ELECTRIC COMPANY	U.O.N.	UNLESS OTHERWISE NOTED
HEX	HEXAGONAL	VERT.	VERTICAL
HOR	HORIZONTAL	VF	VERIFY IN FIELD
HP	HIGH POINT	VF	VALVE BOX
HTCO	HAWAIIAN TELEPHONE COMPANY	W	WEST
IN	INCH	W	WEST
INCH	INCH DIAMETER	W/V	WATER VALVE
INT	INTERNATIONAL PIPE THREAD	W/W	WATER LINE
L	LENGTH	W6	WATER LINE (6" DIA.)
LF	LINEAR FOOT	YD	YARD
L	LINEAR FOOT	Ø	PIPE DIAMETER
MAX.	MAXIMUM		
MIN	MINIMUM		
MJ	MECHANICAL JOINT		

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII

**WAIAWA CORRECTIONAL FACILITY**  
SEWAGE DISPOSAL SYSTEM

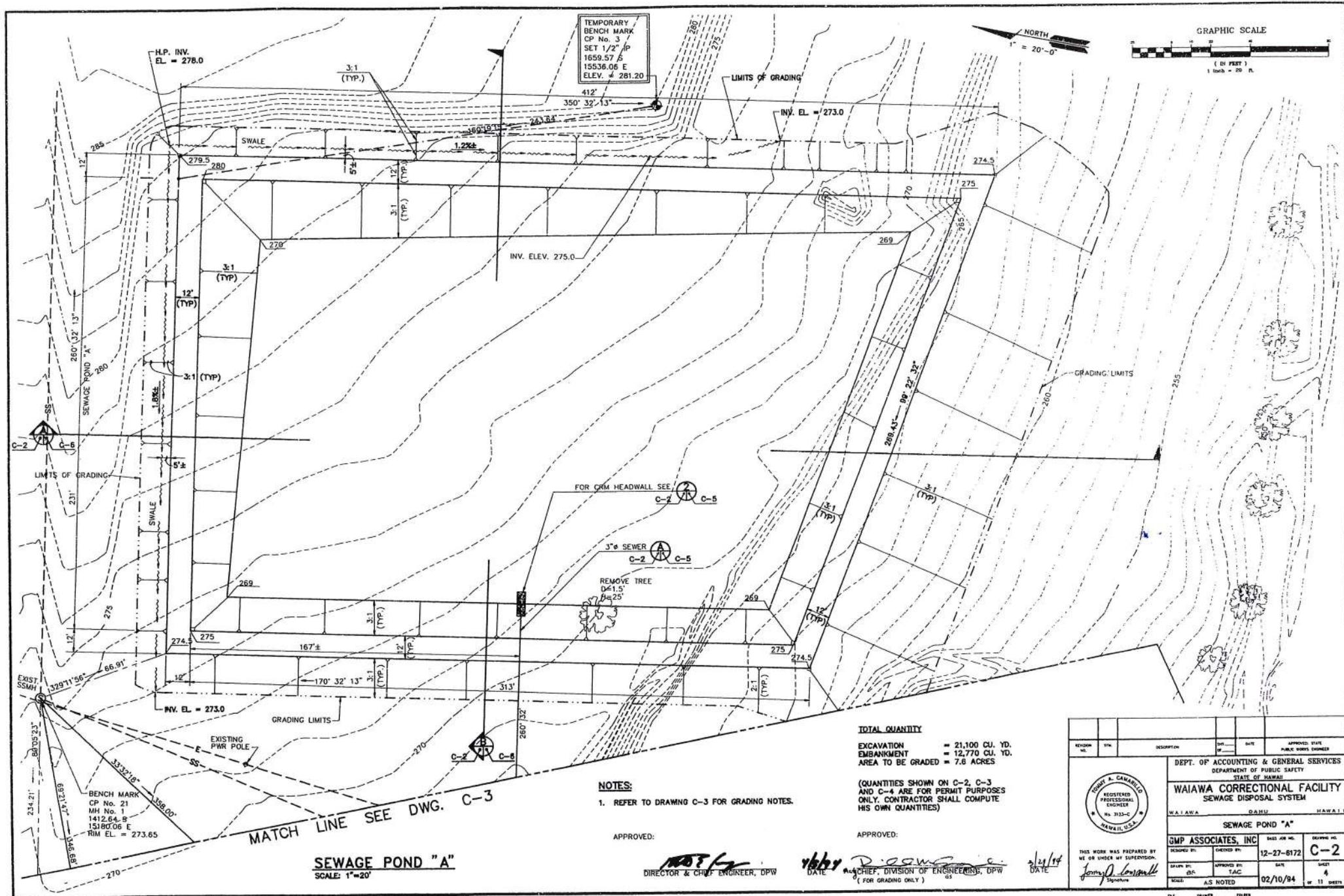
W.A.I.A.W.A. O.A.H.I.U. HAWAII

**KEY PLAN, NOTES, ABBREVIATIONS & LEGEND**

DESIGNED BY: JACA	DRAWN BY: JACA	DATE JOB NO.: 12-27-8172	DRAWING NO.: C-1
CHECKED BY: JACA	APPROVED BY: TAC	DATE: 02/10/94	OF 11 SHEETS: 3

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
*Joseph O. ...*  
Signature

DATE: 02/10/94  
SCALE: AS NOTED



**NOTES:**

1. REFER TO DRAWING C-3 FOR GRADING NOTES.

**TOTAL QUANTITY**  
 EXCAVATION = 21,100 CU. YD.  
 EMBANKMENT = 12,770 CU. YD.  
 AREA TO BE GRADED = 7.6 ACRES

(QUANTITIES SHOWN ON C-2, C-3 AND C-4 ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR SHALL COMPUTE HIS OWN QUANTITIES)

APPROVED:

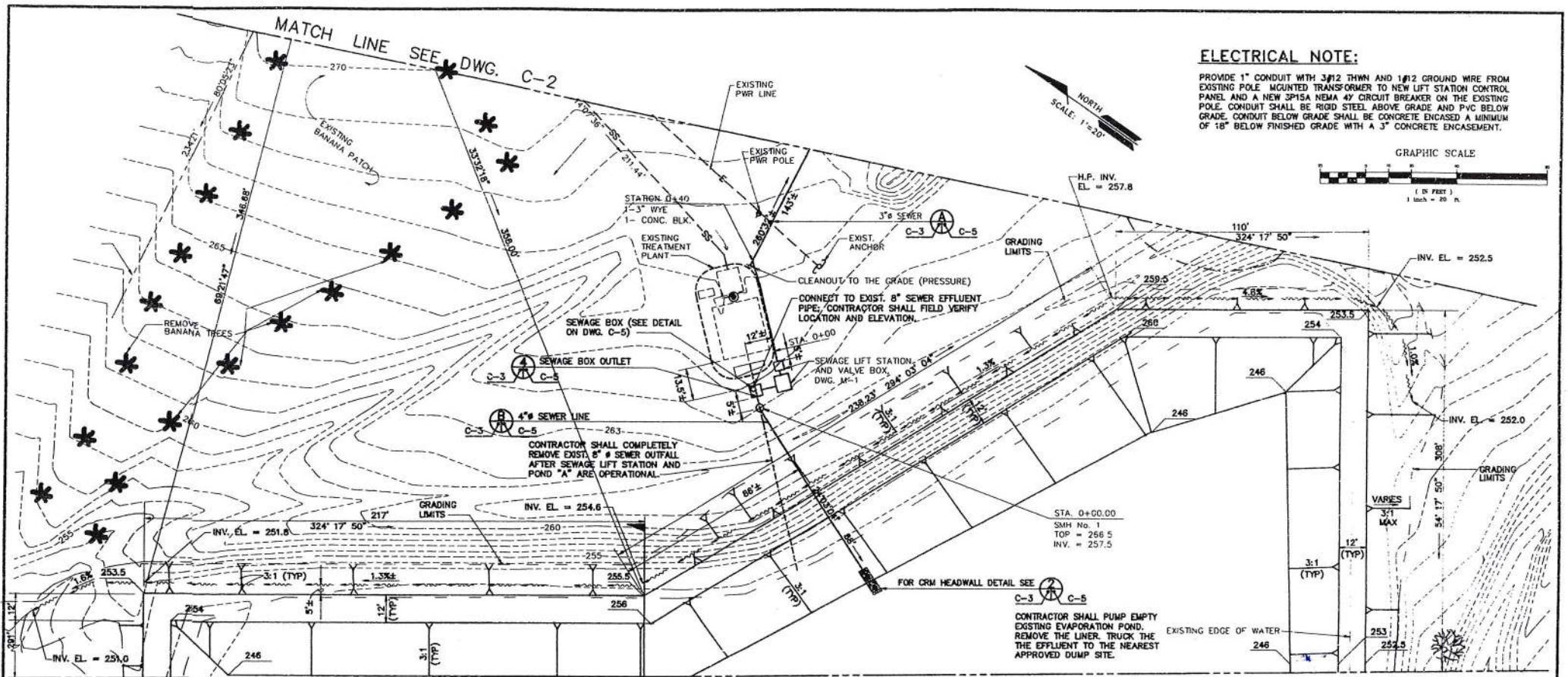
*[Signature]*  
 DIRECTOR & CHIEF ENGINEER, DPW

APPROVED:

*[Signature]*  
 DATE: 02/10/94  
 CHIEF, DIVISION OF ENGINEERING, DPW  
 (FOR GRADING ONLY)

**SEWAGE POND "A"**  
 SCALE: 1"=20'

REVISION NO.	DATE	DESCRIPTION	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SEWAGE DISPOSAL SYSTEM W.A.I.A.W.A. OAHU HAWAII			
<b>SEWAGE POND "A"</b>			
<b>GMP ASSOCIATES, INC.</b> REGISTERED PROFESSIONAL ENGINEER No. 3123-C HAWAII, U.S.A.		SHEET NO. <b>C-2</b> OF 11 SHEETS	
DESIGNED BY: <i>[Signature]</i> CHECKED BY: <i>[Signature]</i> DATE: 02/10/94	DRAWING NO. 12-27-6172 SHEET 4 DATE 02/10/94	THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>[Signature]</i> ENGINEER	



**ELECTRICAL NOTE:**

PROVIDE 1" CONDUIT WITH 3/12 THWN AND 1#12 GROUND WIRE FROM EXISTING POLE MOUNTED TRANSFORMER TO NEW LIFT STATION CONTROL PANEL AND A NEW 3P15A NEMA 4Y CIRCUIT BREAKER ON THE EXISTING POLE. CONDUIT SHALL BE RIGID STEEL ABOVE GRADE AND PVC BELOW GRADE. CONDUIT BELOW GRADE SHALL BE CONCRETE ENCASED A MINIMUM OF 18" BELOW FINISHED GRADE WITH A 3" CONCRETE ENCASEMENT.

GRAPHIC SCALE



**SEWAGE POND "B"**  
SCALE: 1"=20'

**GRADING NOTES**

- ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 13,14,15 AND 16, AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL, OF THE REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED, AND SOILS REPORT BY FEWELL, GEOTECHNICAL ENGINEERING, LTD. DATED MARCH 24, 1993.
- NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATER COURSES. SHOULD SUCH VIOLATIONS OCCUR THE COSTS INCURRED FOR ANY REMEDIAL ACTION BY THE CHIEF ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN CHAPTER 111-80, "AIR POLLUTION CONTROL".
- THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
- ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LOADED RUNOFF FROM LEAVING THE SITE.

- ALL SLOPES AND EXPOSED AREAS SHALL BE SOODED OR PLANTED WITH GRASS 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. AREAS BELOW THE THE WATER OPERATION LEVELS WITHING PONDS A AND B NEED NOT BE GRASSED.
- FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEYED.
- THE CITY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
- NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE CHIEF ENGINEER, PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH HAWAII ADMINISTRATIVE RULES, CHAPTER 11-43, "COMMUNITY NOISE CONTROL FOR OAHU".
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF CHAPTER 11-55, "WATER POLLUTION CONTROL" AND CHAPTER 11-54, "WATER QUALITY STANDARDS" AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
- WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTH MOVING PHASE OF THE GRADING IS INITIATED.

- TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR A GRADING PERMIT.
- IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
- NON-COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK, AND REMEDIAL WORK SHOULD COMMENCE IMMEDIATELY. ALL COST INCURRED SHALL BE BILLED TO THE PERMITTEE. FURTHERMORE, VIOLATORS SHALL BE SUBJECT TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.
- BUILDING PERMIT FOR RETAINING WALLS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF GRADING WORK ON SITE.
- FOR BENCH MARK, SEE DRAWINGS C-2 AND C-4.

**TOTAL QUANTITY**

EXCAVATION = 21,100 CU. YD.  
EMBANKMENT = 12,770 CU. YD.  
AREA TO BE GRADED = 7.6 ACRES

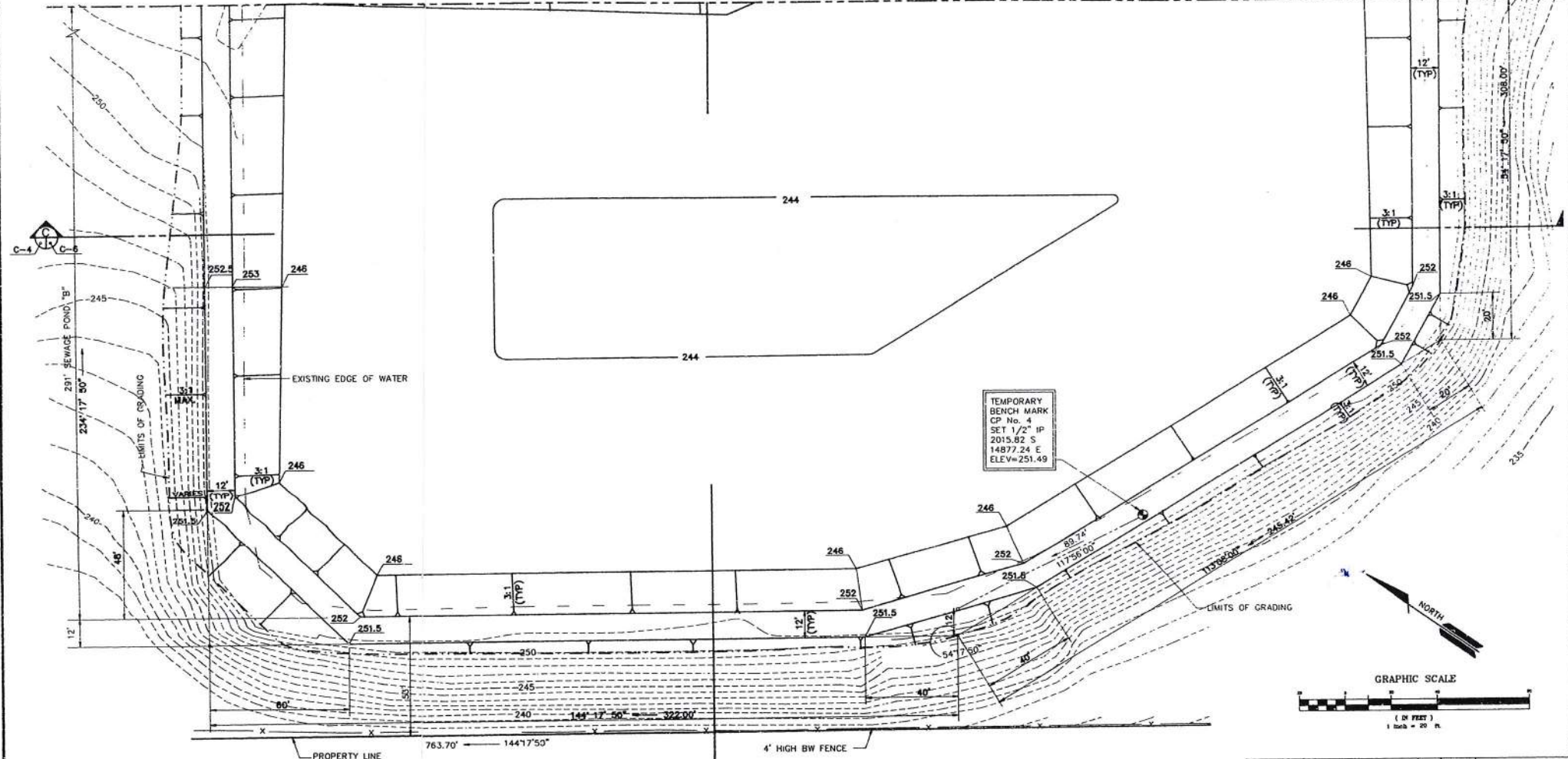
APPROVED:

*A. J. [Signature]*  
A.J. CHIEF, DIVISION OF ENGINEERING, DWP  
(FOR GRADING ONLY)

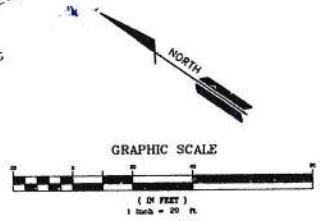
3/27/94  
DATE

REVISION NO.	DATE	DESCRIPTION	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> <b>SEWAGE DISPOSAL SYSTEM</b>			
WAIAWA OAHU HAWAII		HAWAII	
<b>SEWAGE POND "B"</b> <b>AND GRADING NOTES</b>			
DESIGNED BY:	CHECKED BY:	DATE:	SCALE:
EB	TAC	12-27-8172	AS NOTED
GMP ASSOCIATES, INC.		NO. 12-27-8172	DATE 02/10/94
12-27-8172		DATE 02/10/94	SCALE AS NOTED
C-3		DATE 02/10/94	SCALE AS NOTED
C-3		DATE 02/10/94	SCALE AS NOTED
C-3		DATE 02/10/94	SCALE AS NOTED

MATCH LINE, SEE DWG. C-3



TEMPORARY BENCH MARK  
 CP No. 4  
 SET 1/2" IP  
 2015.92 S  
 14877.24 E  
 ELEV=251.49



**SEWAGE POND "B"**  
 SCALE: 1"=20'

**TOTAL QUANTITY**  
 EXCAVATION = 21,100 CU. YD.  
 EMBANKMENT = 12,770 CU. YD.  
 AREA TO BE GRADED = 7.6 ACRES

APPROVED:

*W. J. ...*  
 Acty CHIEF, DIVISION OF ENGINEERING, DPW  
 ( FOR GRADING ONLY )

02/10/94  
 DATE

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS NUMBER

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DEPARTMENT OF PUBLIC SAFETY  
 STATE OF HAWAII  
**WAIAWA CORRECTIONAL FACILITY**  
 SEWAGE DISPOSAL SYSTEM  
 WAIAWA OAHU HAWAII

**SEWAGE POND "B"**

GMP ASSOCIATES, INC. DRAWING NO. 12-27-8172 SHEET NO. 6 OF 11 SHEETS

DESIGNED BY: TAC  
 CHECKED BY: TAC  
 DATE: 02/10/94

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
*Joseph B. ...*  
 Signature

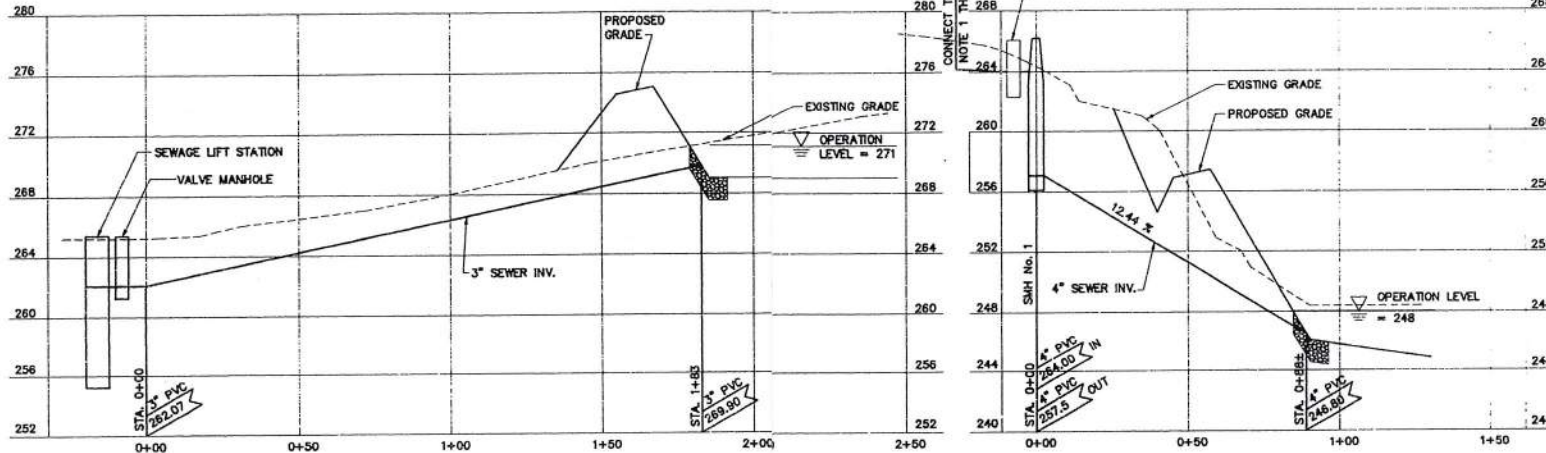
2279522 02/27/94 16:53 FINAL (100%)





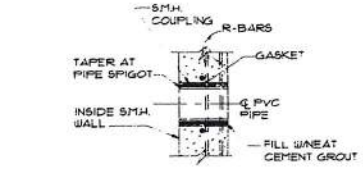
**NOTES:**

1. CONTRACTOR SHALL DETERMINE EXISTING PIPE INVERT AT CONNECTION TO EXIST. TREATMENT PLANT AND INFORM ENGINEER IN WRITING PRIOR TO ANY WORK ON THE SEWAGE BOX, PIPING, LIFT STATION AND VALVE BOX. PROVIDE TEMPORARY BYPASS OF EXIST. 8" EFFLUENT PRIOR TO WORK ON SEWAGE BOX.

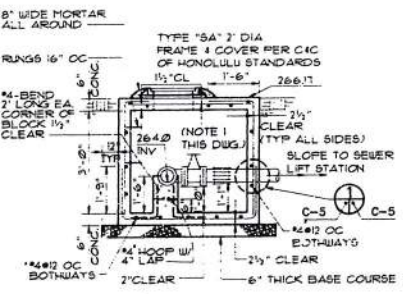


**A PROFILE - DISTRIBUTION LINE TO POND "A"**  
SCALE: HOR. 1"=20' : VERT. 1"=4'  
C-2 C-3 C-5

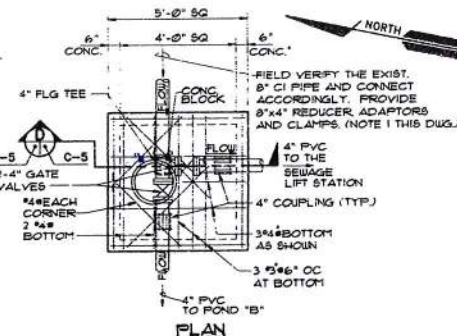
**B PROFILE - DISTRIBUTION LINE TO POND "B"**  
SCALE: HOR. 1"=20' : VERT. 1"=4'  
C-3 C-5



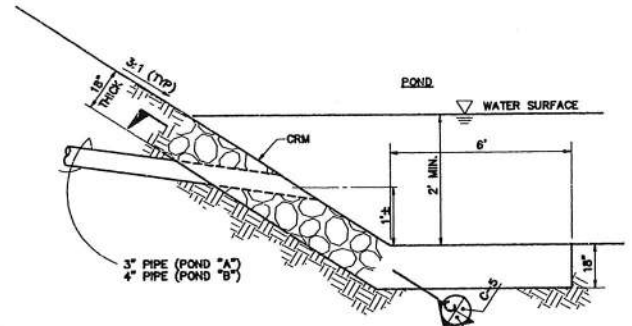
**1 DETAIL THRU WALL**  
SCALE: NONE  
C-5



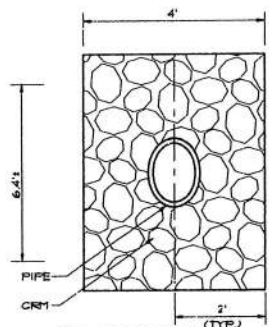
**D SECTION**  
SCALE: NONE  
C-5



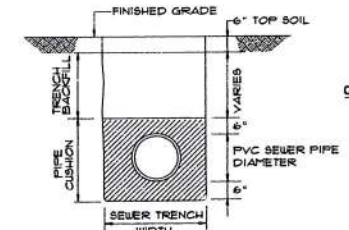
**4 DETAIL - SEWAGE BOX (MH)**  
SCALE: NONE  
C-3 C-5



**2 DETAIL - HEAD WALL**  
SCALE: NONE  
C-2 C-3 C-5

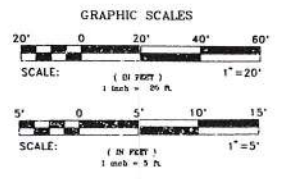
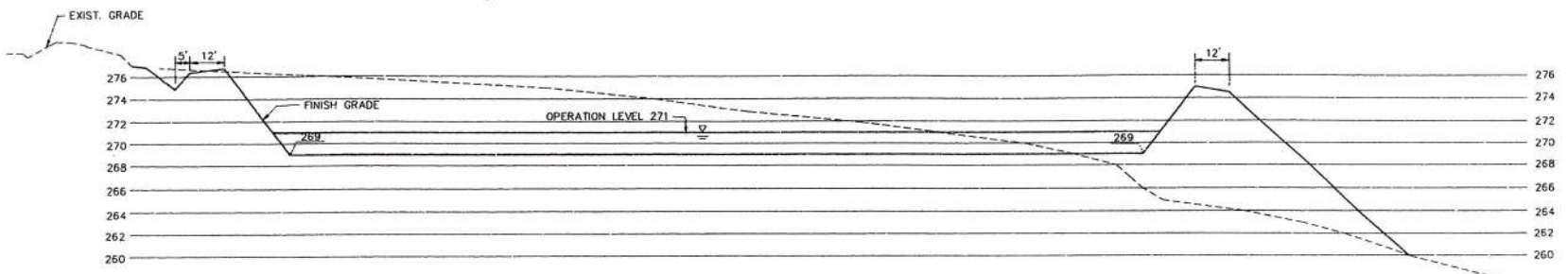


**C SECTION**  
SCALE: NONE  
C-5

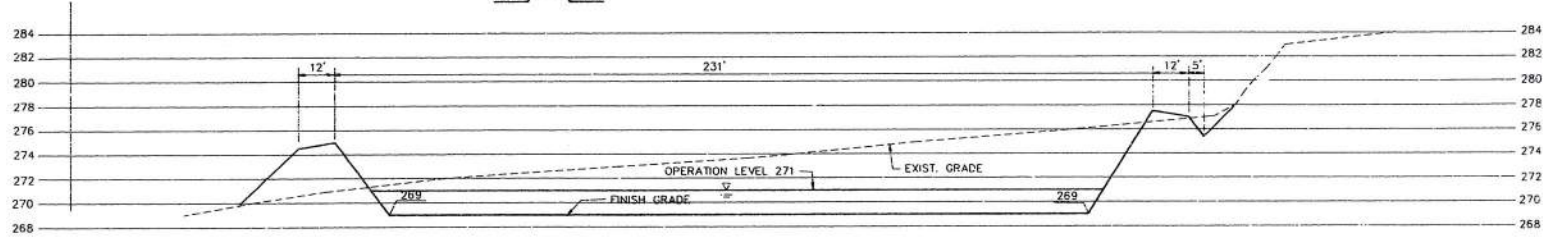


**3 DETAIL - BEDDING AND BACKFILL**  
SCALE: NONE  
C-2, C-3 C-4 C-5

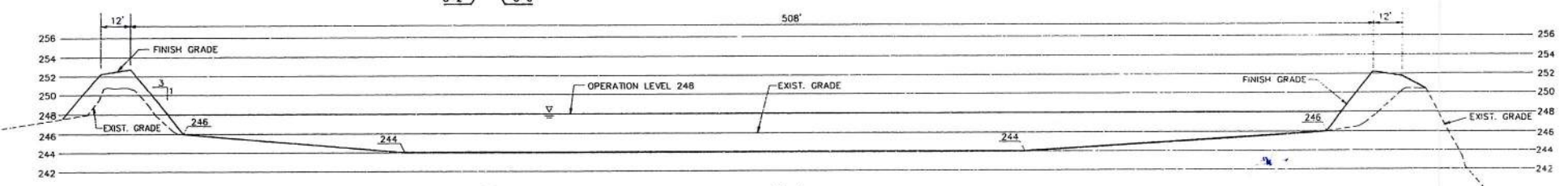
REVISION NO.	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SEWAGE DISPOSAL SYSTEM		
WAIAWA OAHU HAWAII		
<b>DISTRIBUTION LINE PROFILES AND DETAILS</b>		
DESIGNED BY: GMP	DRAWN BY: AKA	SCALE: NONE
CHECKED BY: JAC	DATE: 12-27-97	SHEET NO.: 7
APPROVED BY: JAC	DATE: 02/10/98	SHEET TOTAL: 11
DATE: AS NOTED	02/10/98	



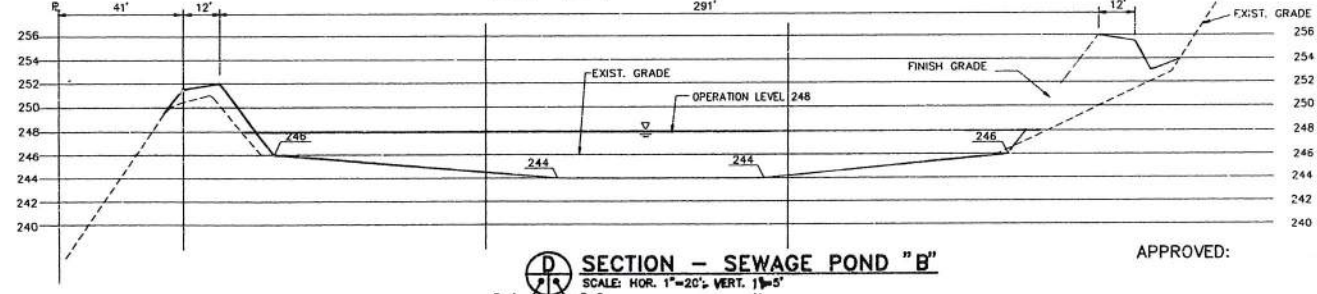
**A SECTION - SEWAGE POND "A"**  
SCALE: HOR. 1"=20'; VERT. 1"=5'  
C-2 C-6



**B SECTION - SEWAGE POND "A"**  
SCALE: HOR. 1"=20'; VERT. 1"=5'  
C-2 C-6



**C SECTION - SEWAGE POND "B"**  
SCALE: HOR. 1"=20'; VERT. 1"=5'  
C-4 C-6



**D SECTION - SEWAGE POND "B"**  
SCALE: HOR. 1"=20'; VERT. 1"=5'  
C-4 C-6

APPROVED:

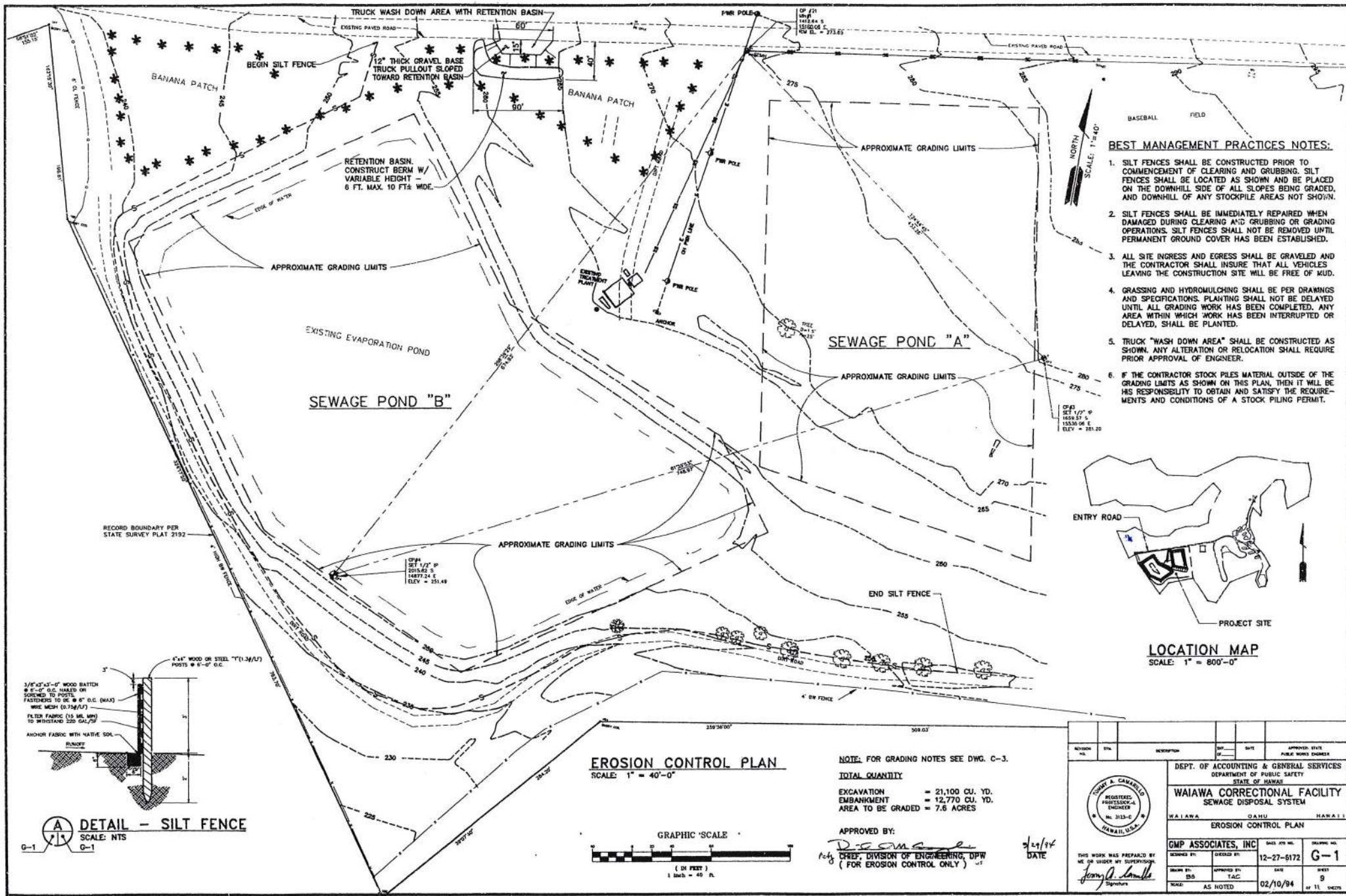
*D. Adams* 3/21/94  
Acty CHIEF, DIVISION OF ENGINEERING, DPW DATE  
(FOR GRADING ONLY)

REVISION NO.	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DBPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SEWAGE DISPOSAL SYSTEM HAWAII OAHU HAWAII		
SECTIONS		
DESIGNED BY:	DRAWN NO.:	CHANGED NO.:
CHECKED BY:	DATE:	SHEET:
APPROVED BY:	DATE:	OF 11 SHEETS
SCALE:		
AS NOTED	02/10/94	8

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
*Jerry A. Lomanto*  
Signature

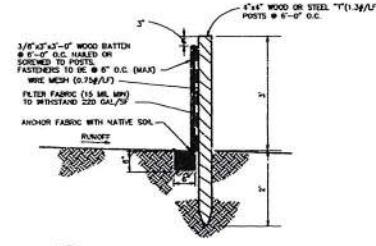
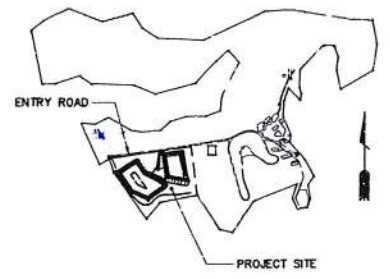
2279525 03/21/94 17:06 FINAL (100%)





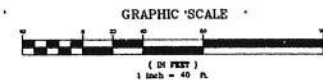
**BEST MANAGEMENT PRACTICES NOTES:**

1. SILT FENCES SHALL BE CONSTRUCTED PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING. SILT FENCES SHALL BE LOCATED AS SHOWN AND BE PLACED ON THE DOWNHILL SIDE OF ALL SLOPES BEING GRADED, AND DOWNHILL OF ANY STOCKPILE AREAS NOT SHOWN.
2. SILT FENCES SHALL BE IMMEDIATELY REPAIRED WHEN DAMAGED DURING CLEARING AND GRUBBING OR GRADING OPERATIONS. SILT FENCES SHALL NOT BE REMOVED UNTIL PERMANENT GROUND COVER HAS BEEN ESTABLISHED.
3. ALL SITE INGRESS AND EGRESS SHALL BE GRAVELED AND THE CONTRACTOR SHALL INSURE THAT ALL VEHICLES LEAVING THE CONSTRUCTION SITE WILL BE FREE OF MUD.
4. GRASSING AND HYDROMULCHING SHALL BE PER DRAWINGS AND SPECIFICATIONS. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED, ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED, SHALL BE PLANTED.
5. TRUCK "WASH DOWN AREA" SHALL BE CONSTRUCTED AS SHOWN. ANY ALTERATION OR RELOCATION SHALL REQUIRE PRIOR APPROVAL OF ENGINEER.
6. IF THE CONTRACTOR STOCK PILES MATERIAL OUTSIDE OF THE GRADING LIMITS AS SHOWN ON THIS PLAN, THEN IT WILL BE HIS RESPONSIBILITY TO OBTAIN AND SATISFY THE REQUIREMENTS AND CONDITIONS OF A STOCK PILING PERMIT.



**DETAIL - SILT FENCE**  
SCALE: NTS  
G-1

**EROSION CONTROL PLAN**  
SCALE: 1" = 40'-0"



NOTE: FOR GRADING NOTES SEE DWG. C-3.

**TOTAL QUANTITY**

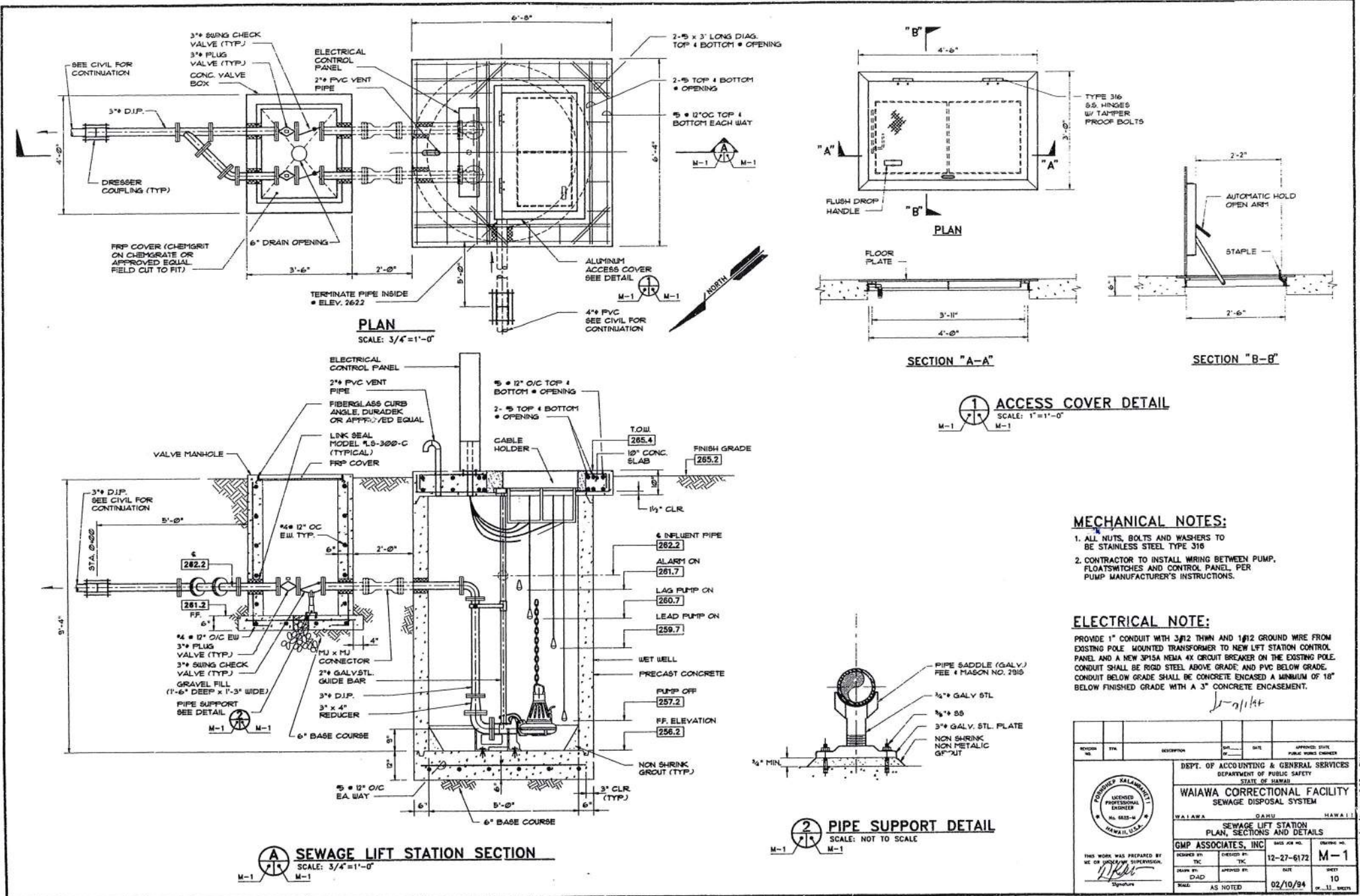
EXCAVATION	= 21,100 CU. YD.
EMBANKMENT	= 12,770 CU. YD.
AREA TO BE GRADED	= 7.6 ACRES

APPROVED BY:  
*[Signature]*  
CHIEF, DIVISION OF ENGINEERING, DPW  
(FOR EROSION CONTROL ONLY)

3/29/94  
DATE

NO.	DATE	DESCRIPTION	APPROVED STATE
			PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SEWAGE DISPOSAL SYSTEM WAIAWA OAHU HAWAII			
<b>EROSION CONTROL PLAN</b>			
<b>GMP ASSOCIATES, INC.</b> DRAWN BY: [Signature] DESIGNED BY: [Signature] SCALE: AS NOTED		SHEET NO. 12-27-9172 DATE 02/10/94 SHEET 9 OF 11 SHEETS	DRAWING NO. G-1
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>[Signature]</i> REGISTERED PROFESSIONAL ENGINEER HAWAII, U.S.A.			

2279ES18 03/21/94 17:22 FINAL (100%)



**PLAN**  
SCALE: 3/4"=1'-0"

**SECTION "A-A"**

**SECTION "B-B"**

**ACCESS COVER DETAIL**  
SCALE: 1"=1'-0"

**PIPE SUPPORT DETAIL**  
SCALE: NOT TO SCALE

**SEWAGE LIFT STATION SECTION**  
SCALE: 3/4"=1'-0"

**MECHANICAL NOTES:**

1. ALL NUTS, BOLTS AND WASHERS TO BE STAINLESS STEEL TYPE 316
2. CONTRACTOR TO INSTALL WIRING BETWEEN PUMP, FLOATSWITCHES AND CONTROL PANEL PER PUMP MANUFACTURER'S INSTRUCTIONS.

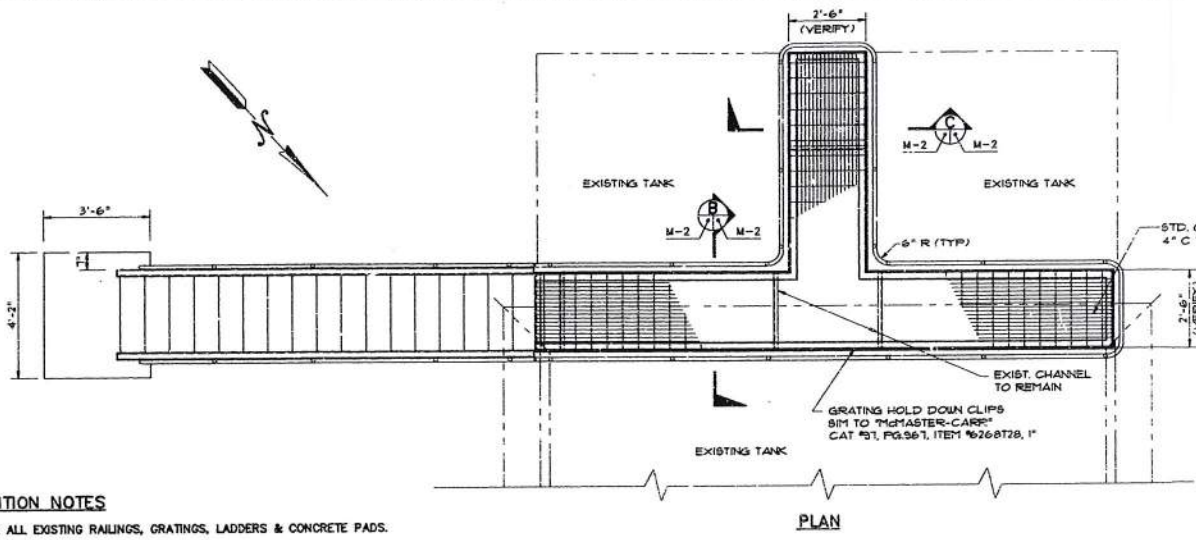
**ELECTRICAL NOTE:**

PROVIDE 1" CONDUIT WITH 3/12 THIN AND 1/12 GROUND WIRE FROM EXISTING POLE MOUNTED TRANSFORMER TO NEW LIFT STATION CONTROL PANEL AND A NEW 3P15A NEMA 4X CIRCUIT BREAKER ON THE EXISTING POLE. CONDUIT SHALL BE RIGID STEEL ABOVE GRADE, AND PVC BELOW GRADE. CONDUIT BELOW GRADE SHALL BE CONCRETE ENCASED A MINIMUM OF 18" BELOW FINISHED GRADE WITH A 3" CONCRETE ENCASEMENT.

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE

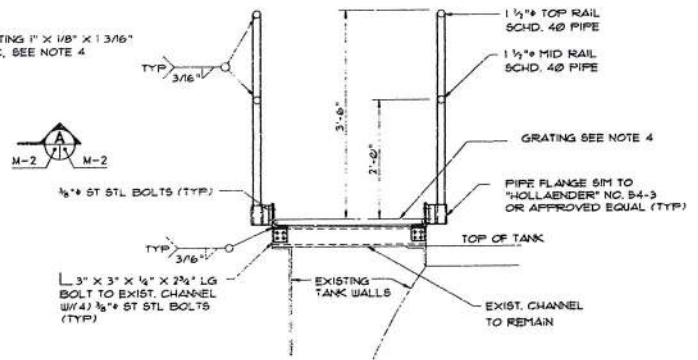
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII	
<b>WAIAWA CORRECTIONAL FACILITY SEWAGE DISPOSAL SYSTEM</b>	
WAIAWA	HAWAII
<b>SEWAGE LIFT STATION PLAN, SECTIONS AND DETAILS</b>	
GMP ASSOCIATES, INC.	DATE: 02/10/94
SCALE: AS NOTED	SHEET: 10 OF 11 SHEETS



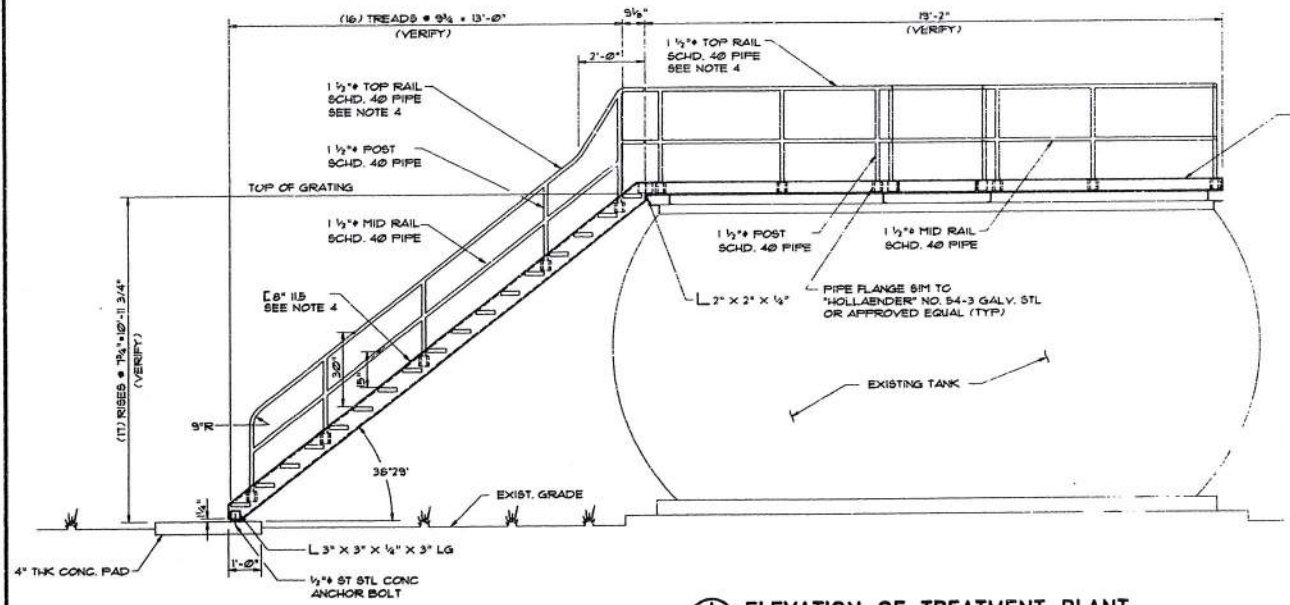
**DEMOLITION NOTES**

1. REMOVE ALL EXISTING RAILINGS, GRATINGS, LADDERS & CONCRETE PADS.
2. CONTRACTOR IS TO DISPOSE OF THE DEMOLISHED MATERIAL.

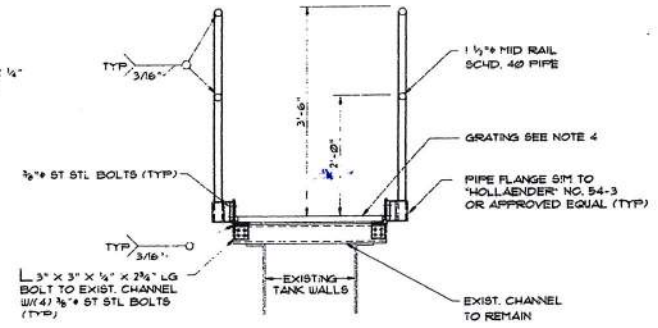
- NOTES:**
1. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW CATWALK AS SHOWN. ALL MATERIAL TO BE HOT DIPPED GALV. STEEL. PAINT ALL METAL SURFACES.
  2. TOP RAIL TO BE SMOOTH ALONG ITS ENTIRE LENGTH BEFORE APPLYING A ZINC COATING.
  3. THE CONTRACTOR SHALL SUBMIT EVIDENCE OF QUALIFICATIONS OF ALL WELDERS TO BE EMPLOYED.
  4. DESIGN LIVE LOAD OF PLATFORM = 50 PSF. STAIRWAY DESIGN TO CARRY A MIN. OF 100 PSF. RAILING SHALL WITHSTAND 200 POUNDS APPLIED IN ANY DIRECTION AGAINST THE TOP RAILING. MIN. UNIFORM LOAD FOR GRATINGS SHALL BE 100 PSF.
  5. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING FOR APPROVAL BEFORE PURCHASE OF MATERIAL AND CONSTRUCTION.



**B SECTION**  
SCALE: 1" = 1'-0"



**A ELEVATION OF TREATMENT PLANT**  
SCALE: 1/2" = 1'-0"



**C SECTION**  
SCALE: 1" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SEWAGE DISPOSAL SYSTEM WAIAWA OAHU HAWAII					
<b>TREATMENT PLANT STAIRWAY AND PLATFORM</b>					
GMP ASSOCIATES, INC.		DATE FOR NO.	DRAWING NO.		
DESIGNED BY: J.C.	CHECKED BY: T.C.	12-27-8172	M-2		
DRAWN BY: J.C.	APPROVED BY: T.C.	DATE: 02/10/84	SHEET: 11		
SCALE: AS NOTED			OF 11 SHEETS		



Tax Map Key \_\_\_\_\_  
 Application Under No. \_\_\_\_\_  
 Project Name \_\_\_\_\_  
 Building Permit No. \_\_\_\_\_

BUILDING DEPARTMENT  
 CITY AND COUNTY OF HONOLULU

**SUPPLEMENTAL INFORMATION FOR BUILDING OWNER,  
 PERMIT APPLICANT AND CONTRACTOR**

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 or if your work is under or near an electrical service line, investigate before you start work. Call:

	WORKING HOURS	AFTER HOURS
Hawaiian Telephone Company	943-9214	_____
Hawaiian Electric Company	543-5654	543-7961
CS&CO	547-3575	525-0096
Board of Water Supply	527-6169	527-5200

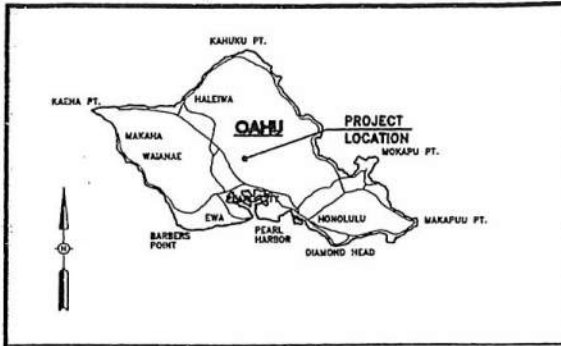
**Be Aware Of the Signs, Notices and OSHA Regulations**

- Sign Regulations - Building Department 523-4305
- Notice Regulations - Department of Health 596-4700
- Occupational Safety & Health (OSHA) Department of Labor 596-3100

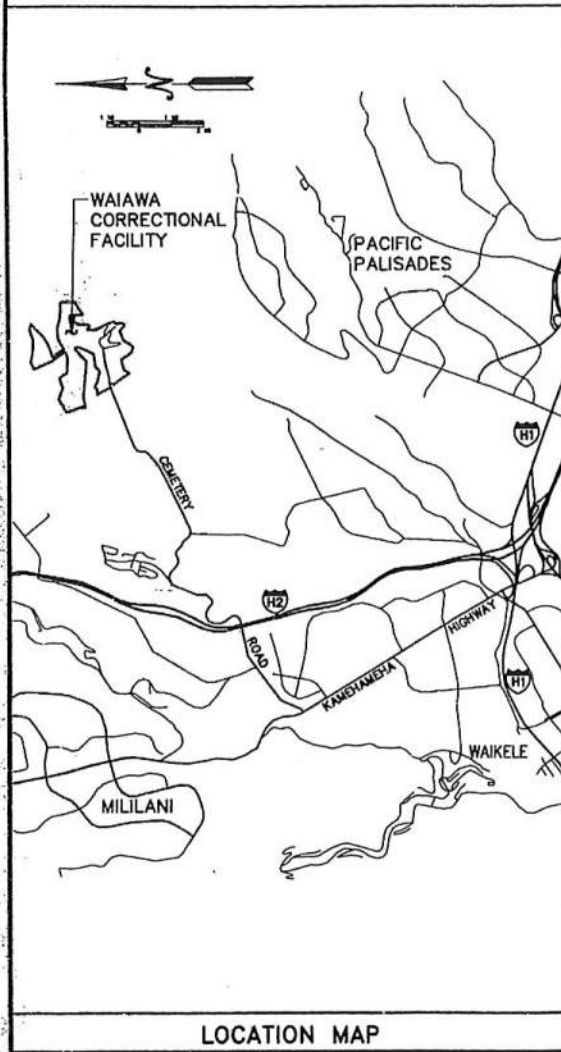
- 2.  Owners will be responsible to notify the Federal Aviation Administration (FAA) for structures which exceed 200 feet in height above ground level and certain structures within 4 miles from the nearest point of the nearest runway of each airport. (Single-family dwellings exempted.) FAA telephone is 541-1243.
- 3.  **REMINDER** - Owners should check their deeds, lease agreements, and/or association by-laws for any building restrictions.
- 4.  **HOUSE NUMBERING REQUIREMENTS** - All new 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.

\_\_\_\_\_  
 Signature of Applicant Date \_\_\_\_\_

BP 359249



VICINITY MAP (NTS)



LOCATION MAP

# WAIAWA CORRECTIONAL FACILITY SURFACE WATER TREATMENT SYSTEM

WAIAWA, OAHU, HAWAII  
TMK NO: 9-6-5:11

FOR THE  
**DEPARTMENT OF PUBLIC SAFETY**

STATE OF HAWAII

BY THE  
**DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES**

DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

DAGS JOB NO. 12-27-6659

CONSTRUCTION OF INSTALLATION  
APPROVED BY  
Honolulu Fire Department  
City and County of Honolulu  
*Richard R. Schrafer*  
Fire Chief  
*William Lamb*  
Fire Captain  
SEP 20 1994



**DING DEPARTMENT  
FILE COPY**

DIVISION OF ENGINEERING  
JUN 09 1994  
By *JR*

GRADING PERMIT NO. 0458

INDEX OF DRAWINGS		
SHT NO.	DWG NO.	DESCRIPTION
1	T-1	TITLE SHEET
2	T-2	PLOT PLAN
3	C-1	KEY PLAN, NOTES, ABBREVIATIONS & LEGEND
4	C-2	CIVIL SITE PLAN
5	C-3	DISPOSAL LINE PLAN AND PROFILE
6	M-1	ABBREVIATION, LEGEND AND TYPICAL DETAILS
7	M-2	WATER TREATMENT FACILITY PLAN, PUMP PAD SITE AND EQUIPMENT SCHEDULE
8	E-1	SINGLE LINE DIAGRAM & DETAILS
9	E-2	ELECTRICAL PLANS & DETAILS
10	E-3	ELECTRICAL SITE PLAN
11	S-1	FOUNDATION PLAN, ROOF PLAN AND SECTIONS
12	S-2	ELEVATIONS & SECTIONS

**APPROVED**

*[Signature]*  
DIRECTOR  
DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII

*[Signature]*  
COMPTROLLER  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

*[Signature]* 4/25/94  
STATE PUBLIC WORKS ENGINEER  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

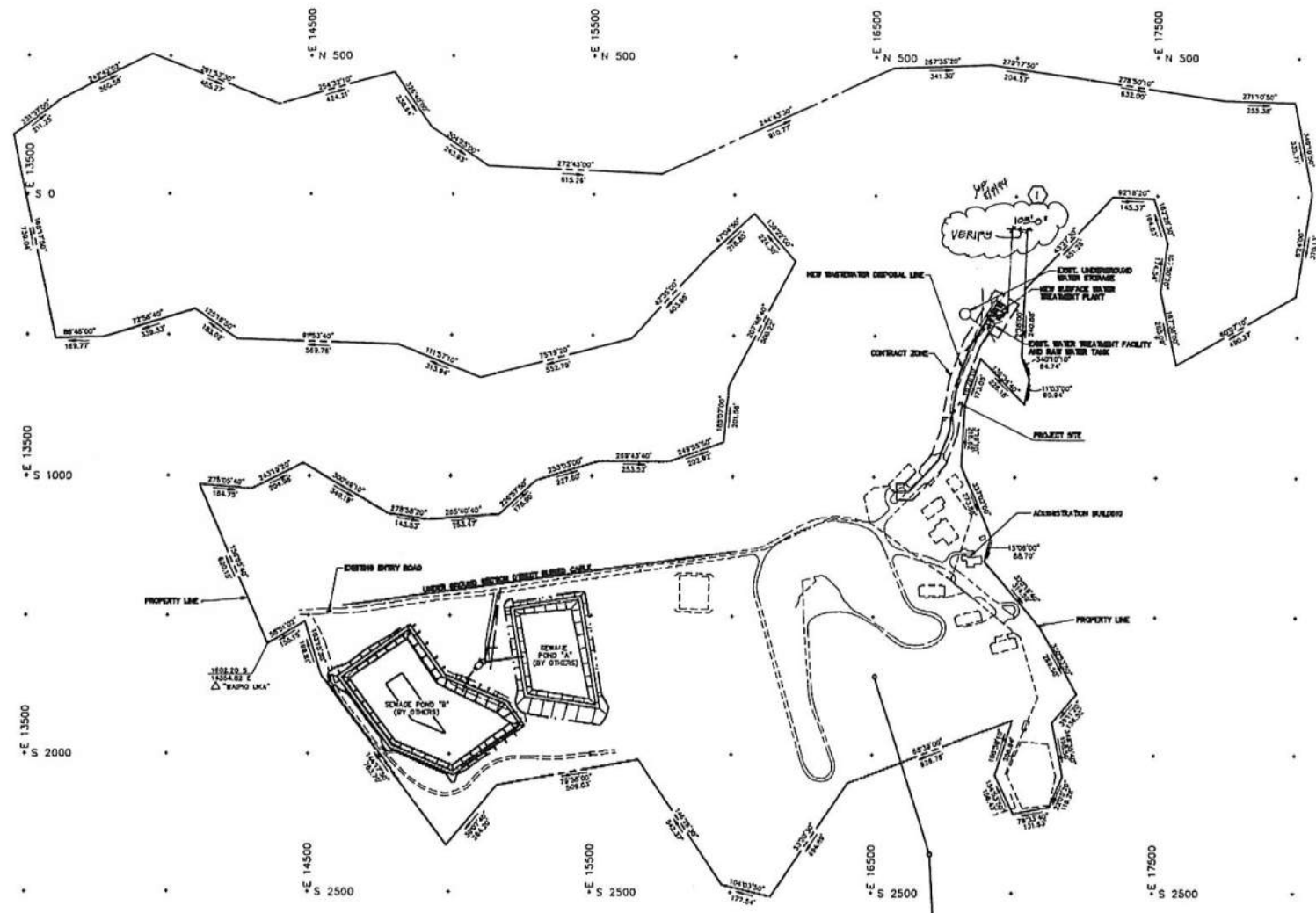
CHIEF  
ENVIRONMENTAL PROTECTION AND HEALTH SERVICES DIVISION  
DEPARTMENT OF HEALTH  
STATE OF HAWAII

Prepared by:

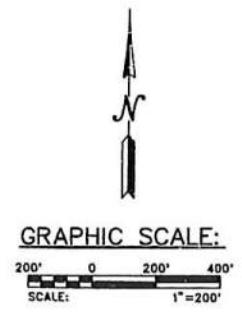
**GMP ASSOCIATES, INC.**  
Engineers/Architects  
841 BISHOP STREET, #1501  
HONOLULU, HAWAII 96813  
TEL: 521-4711  
FAX: 538-3269

REVISION NO.	DATE	DESCRIPTION	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY          SURFACE WATER TREATMENT SYSTEM</b> WAIAWA OAHU HAWAII TITLE SHEET			
GMP ASSOCIATES, INC.	DWG NO. 12-27-6659	SHEET NO. 1	TOTAL SHEETS 1
DESIGNED BY: APL	CHECKED BY: TAC	DATE: 02/14/94	SCALE: AS NOTED





**PLOT PLAN**  
SCALE: 1"=200'



1	(1)	ADDED SETBACK DIMENSION	2 OF 12	8/9/99	
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED (SIGNATURE)
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SURFACE WATER TREATMENT SYSTEM WAIALAIA OAHU HAWAII					
PLOT PLAN					
		<b>GMP ASSOCIATES, INC.</b> REGISTERED PROFESSIONAL ENGINEER HAWAII, U.S.A.			
THESE WORKS WERE PREPARED BY ME OR UNDER MY SUPERVISION <i>Joseph J. Gault</i> Signature					
DESIGNED BY	CHC	CHECKED BY	ALJ	DATE	12-27-88
DRAWN BY	APL	APPROVED BY	TAC	SCALE	AS NOTED
				SHEET	2
				NO. OF SHEETS	2

2279E902 04/20/94 15:23 FINAL (1005)

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THESE PLANS, ALL REQUIREMENTS OF THE DIVISION OF PUBLIC WORKS, DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES (DAGS), STATE OF HAWAII AND ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.
- NO CONTRACTOR SHALL PERFORM ANY CLEARING/GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE COSTS INCURRED FOR ANY REMEDIAL ACTION BY THE CHIEF ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL VERIFY DIMENSIONS, LOCATIONS, ELEVATIONS, ETC., AND INFORM THE ENGINEER IN WRITING OF FINDINGS PRIOR TO INSTALLATION OF NEW FACILITIES.
- 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 OR THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL TONE THE AREA TO BE EXCAVATED TO ASCERTAIN THE LOCATION OF UNCHARTED UTILITIES. ALL DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF DAGS AND/OR OWNER OF THE UTILITY. THE TOTAL COST OF REPAIRS TO ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE BORNE ENTIRELY BY THE CONTRACTOR.
- 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 ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGES TO THESE FACILITIES.
- NO WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME, WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT, ALTHOUGH NOT SPECIFICALLY REFERRED TO IN THE CONTRACT DOCUMENTS, SHALL BE FURNISHED AND PERFORMED BY THE CONTRACTOR. PAYMENT FOR INCIDENTAL WORK WILL NOT BE MADE SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACTOR'S TOTAL BID FOR THIS PROJECT.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBISH, DUST, NOISE, EROSION, ETC. THE WORK SHALL BE DONE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND CITY AND COUNTY OF HONOLULU NOISE CONTROL REGULATIONS.
- NO MATERIALS AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN THE TRAFFIC LANES, SIDEWALKS, AND PARKING LOTS, EXCEPT AT LOCATIONS DESIGNATED BY THE ENGINEER.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF TOPS, TRUNKS, AND ROOTS OF EXISTING TREES. PROTECT EXISTING TREES FROM CONSTRUCTION DAMAGE BEFORE ANY WORK IS STARTED. THE CONTRACTOR SHALL REMOVE PROTECTION WHEN DIRECTED. THE CONTRACTOR SHALL REMOVE INTERFERING BRANCHES WITHOUT INJURY TO TRUNKS AND COVER SCARS WITH TREE PAINT. ONLY THOSE PORTIONS OF THE BRANCHES WHICH WILL CLEARLY BE IN THE WAY OF CONSTRUCTION EQUIPMENT SHALL BE REMOVED IN ACCORDANCE WITH STANDARD NURSERY PRACTICES.
- ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986, AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FIVE (5) CONSECUTIVE WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- BENCH MARKS: SEE DWG. C-1, C-2 & C-3. FOUND RAILROAD SPIKE, CONTROL POINT "SPIKE" PER DAGS JOB NO. 02-27-3098 (DWG NO. C-2) ASSUMED ELEVATION 310.74, 1190.1782 S, 16503.9942 E REFERENCED TO STATION "WAIPIU UKA".
- NO BLASTING SHALL BE PERMITTED ON THIS PROJECT.
- THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO, FROM AND THROUGH ALL DRIVEWAYS AND STREETS. CONTRACTOR SHALL NOT OBSTRUCT ANY EXISTING WATER RUNOFF.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER UPON UNCOVERING ANY POTENTIAL HISTORICAL ARTIFACTS OR ITEMS OF ARCHAEOLOGICAL SIGNIFICANCE.
- ALL EXISTING UTILITIES TO REMAIN IN USE, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION UNLESS SPECIFIED ON THE PLANS TO BE ABANDONED OR DEMOLISHED.
- THERE MAY BE OTHER CONTRACTOR(S) WORKING WITHIN THE SAME SITE AT THE SAME TIME. EACH CONTRACTOR IS RESPONSIBLE FOR SECURITY OF HIS OWN EQUIPMENT AND MATERIALS.
- ALL UTILITIES SHALL BE ASSUMED TO BE ACTIVE UNLESS NOTED.
- THE CONTRACTOR SHALL CONSTRUCT THE WASTEWATER DISPOSAL LINE PRIOR TO THE INSTALLATION OF THE NEW SURFACE WATER TREATMENT PLANT. THE NEW SURFACE WATER TREATMENT PLANT SHALL BE INSTALLED, TESTED AND ACCEPTED BEFORE THE ENGINEER WILL DIRECT THE DEMOLITION AND REMOVAL OF THE EXISTING WATER TREATMENT FACILITY.

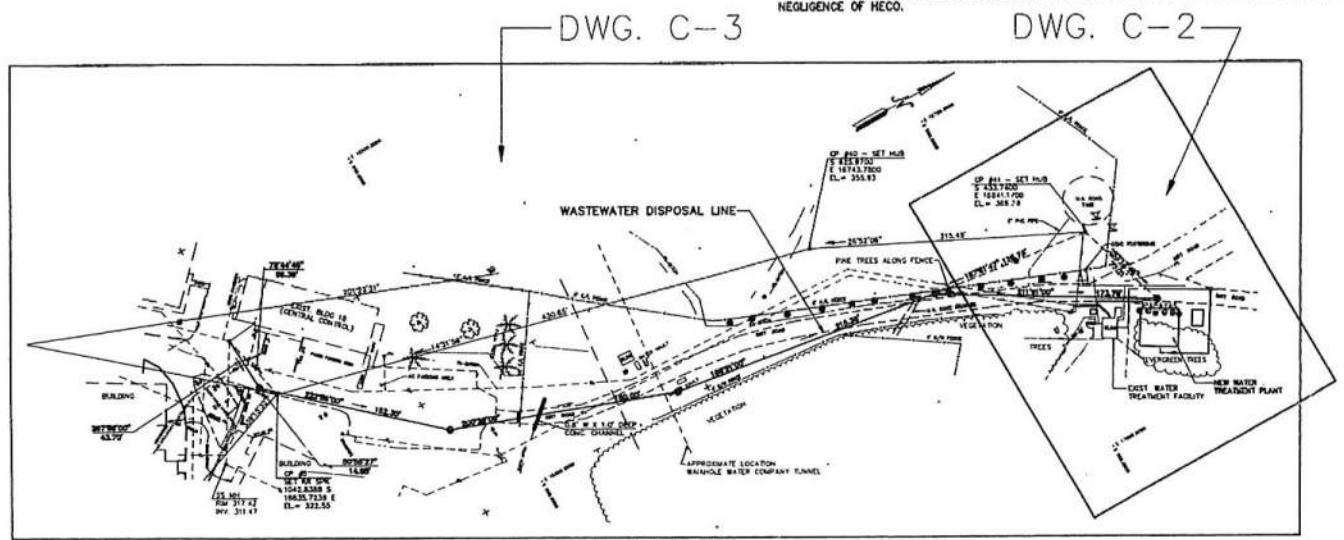
- THE LOCATION OF HAWAIIAN ELECTRIC COMPANY (HECO) AND HAWAIIAN TELEPHONE COMPANY (HTCO) OVERHEAD AND UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND LINES AND SHALL MAINTAIN ADEQUATE CLEARANCE WHEN OPERATING EQUIPMENT WITHIN OR UNDER ANY OVERHEAD LINES.
- THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY. THE CONTRACTOR SHALL ALSO COMPLY WITH THE STATE OF HAWAII'S OCCUPATIONAL SAFETY AND HEALTH LAW (DOHS).
- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM HECO'S MAPPING AND RECORDS DIVISION LOCATED AT 820 WARD AVENUE, 4TH FLOOR, TWO WEEKS PRIOR TO STARTING CONSTRUCTION. REFER TO HECO'S REQUEST NUMBER AT THAT TIME.
- FOR VERIFICATION OF HECO'S UNDERGROUND LINES OR FOR ASSISTANCE IN SUPPORTING AND PROTECTING THESE LINES, THE CONTRACTOR SHALL CALL HECO'S UNDERGROUND DIVISION AT 543-7345 A MINIMUM OF 72 HOURS IN ADVANCE.
- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM HTCO'S OUTSIDE PLANT PERMIT SECTION LOCATED AT 3239 UALENA STREET AT LEAST THREE WORKING DAYS PRIOR TO START OF EXCAVATION.
- WHEN TRENCH EXCAVATION IS ADJACENT TO OR BENEATH EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR, BUT NOT LIMITED TO THE FOLLOWING:
  - SHEETING AND BRACING THE EXCAVATION TO PREVENT SLIDES, CAVE-INS, AND SETTLEMENTS.
  - PROTECTING EXISTING STRUCTURES OR FACILITIES WITH BEAMS, STRUTS, OR UNDERPINNING.
- FOR POLE BRACING INSTRUCTIONS, THE CONTRACTOR SHALL CALL THE HECO DISTRICT SUPERINTENDENT AT (KOO LAU) 261-6085, (WAI'AU) 543-4223, (WARD) 543-7745) A MINIMUM OF 72 HOURS IN ADVANCE.
- ANY WORK REQUIRED TO RELOCATE HECO AND HTCO FACILITIES SHALL BE DONE BY HECO AND HTCO, RESPECTIVELY, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION, AND FOR POSSIBLE COSTS IF APPLICABLE.
- SHOULD IT BECOME NECESSARY TO TEMPORARILY RELOCATE ANY HECO OR HTCO FACILITIES TO ENABLE THE CONTRACTOR TO PERFORM HIS WORK IN A SAFE AND EXPEDITIOUS MANNER IN FULFILLING HIS CONTRACT OBLIGATIONS, THESE TEMPORARY RELOCATIONS SHALL BE DONE BY HECO OR HTCO, RESPECTIVELY, OR BY THE CONTRACTOR UNDER HECO'S OR HTCO'S SUPERVISION, WITH ALL COSTS BEING BORNE BY THE CONTRACTOR.
- ANY UNFORESEEN CONFLICT THAT WOULD RESULT IN THE REDESIGN OR RELOCATION (EITHER TEMPORARY OR PERMANENT) OF HECO'S ELECTRICAL FACILITIES MAY BE CAUSED BY LENGTHY DELAYS. TO AVOID SUCH DELAYS, THE CONTRACTOR MUST NOTIFY HECO OF THE CONFLICT A MINIMUM OF 30 DAYS PRIOR TO THE START OF CONSTRUCTION.
- ANY DAMAGE TO HECO'S FACILITIES SHALL BE REPORTED IMMEDIATELY TO HECO'S TROUBLE DISPATCHER AT PHONE 543-7874. THE CONTRACTOR SHALL REPORT ANY DAMAGES TO HTCO'S FACILITIES TO HTCO'S REPAIR SERVICE AT PHONE NUMBER 548-4955.
- ALL OF HECO OVERHEAD AND UNDERGROUND FACILITIES SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION. COSTS FOR DAMAGES TO HECO FACILITIES SHALL BE BORNE BY THE CONTRACTOR. THIS REPAIR WORK SHALL BE DONE BY HECO, OR BY THE CONTRACTOR UNDER HECO'S SUPERVISION.
- THE CONTRACTOR SHALL INDEMNIFY, DEFEND AND HOLD HARMLESS HECO FROM AND AGAINST ALL LOSSES, DAMAGES, CLAIMS AND ACTIONS, ALL EXPENSES INCIDENTAL TO SUCH LOSSES, DAMAGES, CLAIMS OR ACTION, BASED UPON OR ARISING OUT OF DAMAGE TO PROPERTY OR INJURIES TO PERSONS, OR OTHER TORTIOUS ACTS CAUSED OR CONTRIBUTED TO BY CONTRACTOR OR ANYONE ACTING UNDER ITS DIRECTION OR CONTROL OR ON ITS BEHALF; PROVIDED CONTRACTOR'S INDEMNITY SHALL NOT BE APPLICABLE TO ANY LIABILITY UPON THE SOLE NEGLIGENCE OF HECO.

**LEGEND**

SYMBOLS	DESCRIPTION
[---]	PROPERTY LINE
[---]	EXISTING STRUCTURES
[---]	EDGE OF ROAD (TYPE AS SHOWN)
[---]	BENCHMARK
[•]	CONTROL POINT
[---]	NEW WATER LINE (SIZE AS SHOWN)
[---]	EXIST. WATER LINE
[---]	EXIST. ABANDONED WATER LINE
[---]	NEW WATER LINE VALVE
[---]	EXIST WATER LINE VALVE
[---]	NEW AIR RELIEF VALVE
[---]	EXIST FIRE HYDRANT
[---]	NEW FIRE HYDRANT
[---]	INVERT ELEVATION = 100.00'(U.O.N.)
[---]	EXISTING 18" STORM DRAIN
[---]	EXISTING 8" SANITARY SEWER
[---]	EXISTING SANITARY SEWER MANHOLE
[---]	EXISTING POWER POLE
[---]	EXISTING POWER POLE ANCHOR
[---]	EXISTING TREE
[---]	EXISTING BARBED WIRE FENCE
[---]	EXISTING CHAIN LINK FENCE

**ABBREVIATIONS**

AC	ASPHALT CONCRETE	OD	OUTSIDE DIAMETER
BLK	BLIND	OC	ON CENTER
BUILD	BUILDING	OV	OVERHEAD
BW	BARBED WIRE	PA	PROPERTY LINE
CA	COMPRESSED AIR	PAVT	PAVEMENT
CL	CAST IRON	PP	POWER POLE
CL	CHALK LINE	PSF	POUNDS PER SQUARE FOOT
CL	CLEAROUT	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	PR	POWER
CONSTR.	CONSTRUCTION	PWF	POLYETHYLENE FIBERGLASS
CONSTR.	CONSTRUCTION	PC	PIPE
CMU	CONCRETE MASONRY UNIT	R	RADIUS
CP	CONTROL POINT	REQD.	REQUIRED
CJ	CLUB	RCP	RADIUM PRESSURE
CORP	CORPORATION	RK	RAILROAD
DI	DUCTILE IRON	RW	RAILROAD
DI	DUCTILE IRON PIPE	RS	RAMP SOUTH
DWL	DRAINAGE	SS	SANITARY SEWER
E	EAST	SS	STAINLESS STEEL
ELEV.	ELEVATION	SSM	STAINLESS STEEL MESH
EL	ELEVATION	SH	SEWER MANHOLE
EN	FIRE HYDRANT	SH	SHOULDER
FO	FRESH GRADE	SPK	SPRINKLER
FS	FRESH SURFACE	ST	STATION
FL	FLOW LINE	STD	STANDARD
GALV	GALVANIZED	STO	STORM DRAIN
GV	GATE VALVE	SW	SWALE
Q	GRAY RICH	SW	SANITARY SEWER (6" DIA.)
H	HIGH HEIGHT	SQFT	SQUARE FEET
HBL	HOLLOW BLOCK	T	TELEPHONE TANGENT
HECO	HAWAIIAN ELECTRIC COMPANY	TR	TRUCK
HEX	HEXAGONAL	TR	TYPICAL
HORIZ	HORIZONTAL	TR	TREATMENT
HTCO	HAWAIIAN TELEPHONE COMPANY	U.O.N.	UNLESS OTHERWISE NOTED UNDERGROUND
INVT	INVERT	VERT.	VERTICAL
ID	INSIDE DIAMETER	VF	VERT. IN FIELD
IP	INTERNATIONAL PIPE THREAD	VB	VALVE BOX
KV	KILOVOLTS	W	WITH
L	LENGTH	W/M	WEST, WEST, WATER
L	LINEAR FOOT	W/V	WATER VALVE
MAX.	MAXIMUM	W/W	WATER LINE
MR	MANHOLE	WF	WEST FLANGE
MW	MINIMUM	W	WATER LINE (6" DIA.)
MJ	MECHANICAL JOINT	#	PIPE DIAMETER
N/A	NOT APPLICABLE	YD	YARD
N	NORTH		
N/C	NOT IN CONTRACT		
NO.	NUMBER		
HTS	NOT TO SCALE		



**KEY PLAN**  
SCALE: 1"=50'-0"



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED DATE

CONSULTING & GENERAL SERVICES  
DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII

**WAI'AWA CORRECTIONAL FACILITY**  
SURFACE WATER TREATMENT SYSTEM

KEY PLAN, NOTES, ABBREVIATIONS & LEGEND

GMP ASSOCIATES, INC. DATE OF WORK: 12-27-95 SHEET NO: C-1

DESIGNED BY: JACA DATE: 12-27-95  
CHECKED BY: JACA DATE: 12-27-95  
DRAWN BY: JACA DATE: 12-27-95  
SCALE: AS NOTED DATE: 02/14/94 SHEET 3 OF 12

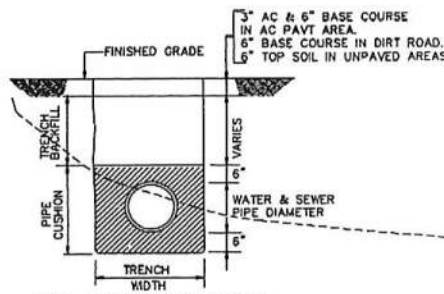
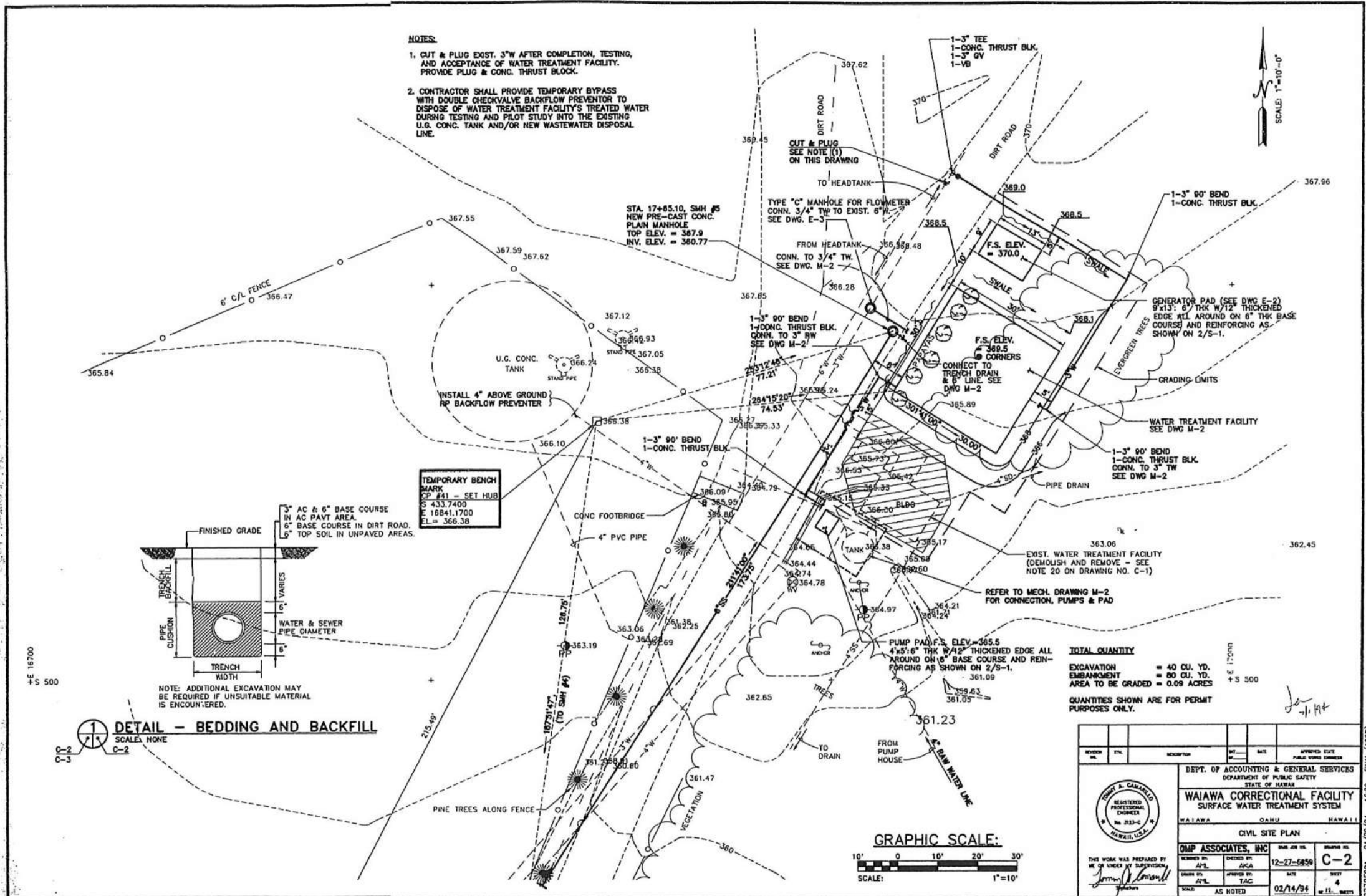
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

*James D. ...*  
REGISTERED PROFESSIONAL ENGINEER  
NO. 3123-C  
HAWAII, U.S.A.

2279631 04/20/94 18:27 FINAL (1002)

**NOTES:**

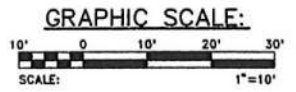
- CUT & PLUG EXIST. 3" W AFTER COMPLETION, TESTING, AND ACCEPTANCE OF WATER TREATMENT FACILITY. PROVIDE PLUG & CONC. THRUST BLOCK.
- CONTRACTOR SHALL PROVIDE TEMPORARY BYPASS WITH DOUBLE CHECKVALVE BACKFLOW PREVENTOR TO DISPOSE OF WATER TREATMENT FACILITY'S TREATED WATER DURING TESTING AND PILOT STUDY INTO THE EXISTING U.G. CONC. TANK AND/OR NEW WASTEWATER DISPOSAL LINE.



**DETAIL - BEDDING AND BACKFILL**  
SCALE: NONE

**TEMPORARY BENCH MARK**  
CP #41 - SET HUB  
S = 433.7400  
E = 16841.1700  
EL = 366.38

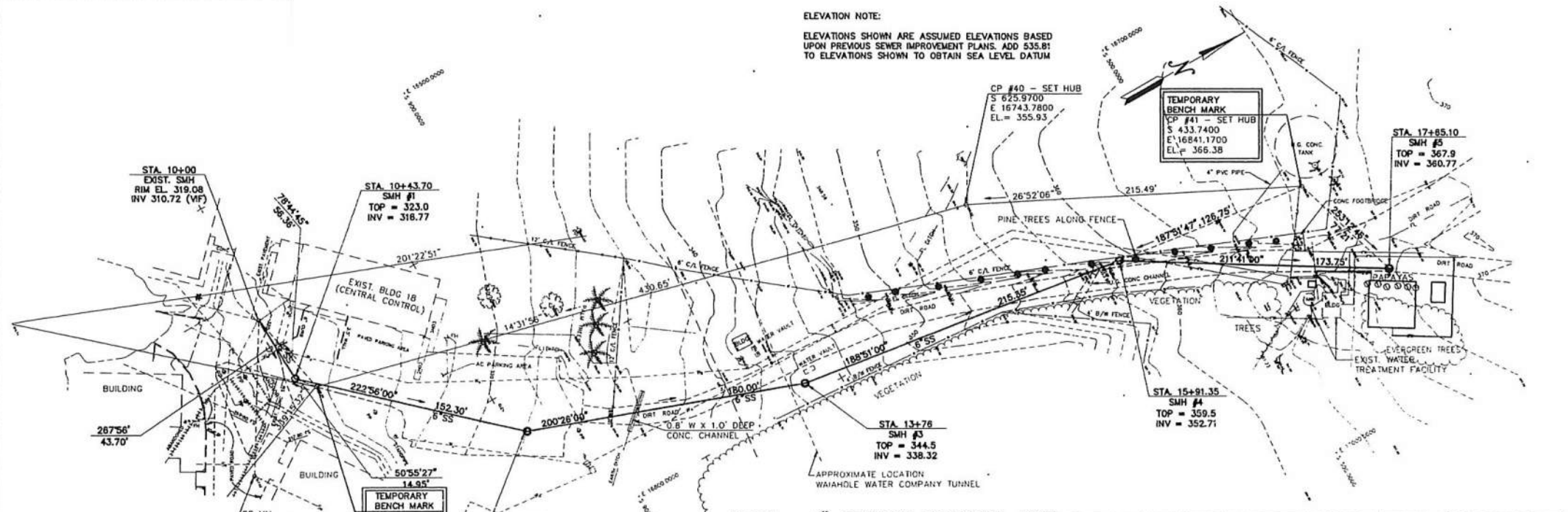
**TOTAL QUANTITY**  
EXCAVATION = 40 CU. YD.  
EMBANKMENT = 80 CU. YD.  
AREA TO BE GRADED = 0.09 ACRES  
QUANTITIES SHOWN ARE FOR PERMIT PURPOSES ONLY.



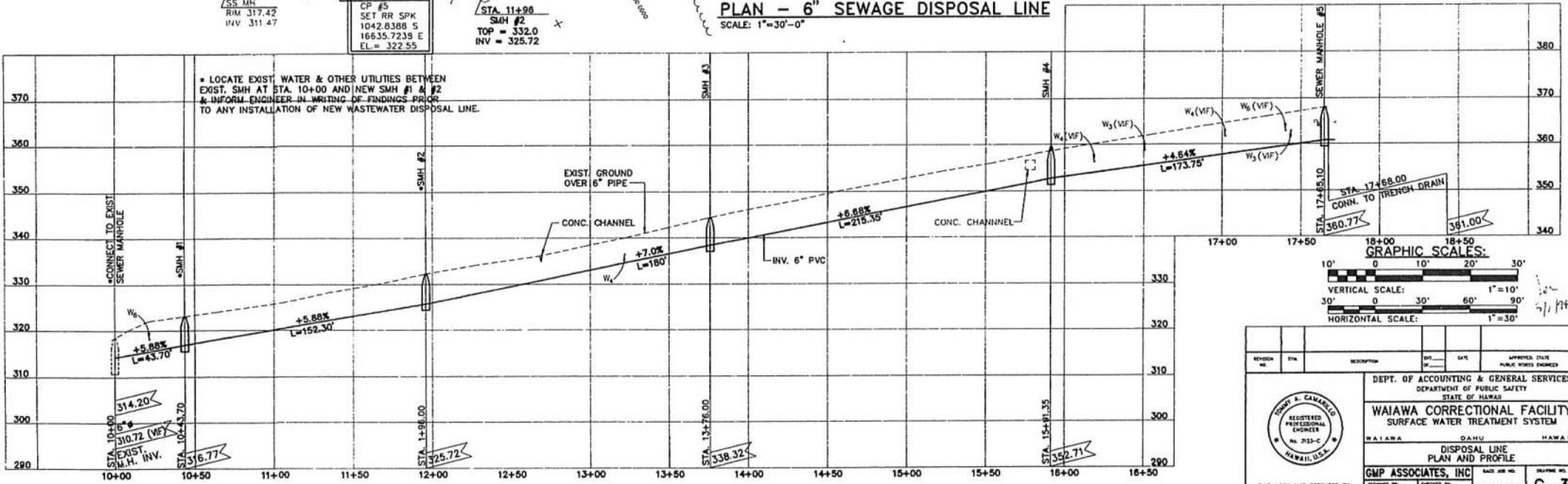
NO.	REV.	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIJAWA CORRECTIONAL FACILITY</b> SURFACE WATER TREATMENT SYSTEM WAIJAWA OAHU HAWAII					
CIVIL SITE PLAN					
REGISTERED PROFESSIONAL ENGINEER HAWAII, U.S.A. THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION <i>James J. [Signature]</i>		OMP ASSOCIATES, INC. MEMBER BY: AP-1 DESIGNED BY: AKCA DRAWN BY: TAC APPROVED BY: [Signature] DATE: 02/14/94 SHEET: 4 TOTAL SHEETS: 11			
12-27-6859 C-2		DATE JOB NO. 02/14/94			

ELEVATION NOTE:

ELEVATIONS SHOWN ARE ASSUMED ELEVATIONS BASED UPON PREVIOUS SEWER IMPROVEMENT PLANS. ADD 535.81 TO ELEVATIONS SHOWN TO OBTAIN SEA LEVEL DATUM



PLAN - 6" SEWAGE DISPOSAL LINE  
SCALE: 1"=30'-0"



PROFILE - 6" SEWAGE DISPOSAL LINE  
SCALE: HORIZ. 1"=30'-0", VERT. 1"=10'-0"

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED DATE

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII

WAIAWA CORRECTIONAL FACILITY  
SURFACE WATER TREATMENT SYSTEM

WAIAWA OAHU HAWAII

DISPOSAL LINE  
PLAN AND PROFILE

GMP ASSOCIATES, INC. SHEET NO. 12-27-6659 DRAWING NO. C-3

DESIGNED BY: ALC  
CHECKED BY: ALC  
APPROVED BY: ALC  
DATE: 02/14/94  
SCALE: AS NOTED

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
Signature: [Signature]

**LIST OF ABBREVIATIONS**

<b>A</b>	APPROX	APPROXIMATE	<b>P</b>	PSI	POUNDS PER SQUARE INCH
<b>B</b>	BLDG	BUILDING	<b>R</b>	RED	REDUCER
<b>BO</b>	BOTM	BOTTOM	<b>REQ'D</b>		REQUIRED
<b>BV</b>		BUTTERFLY VALVE	<b>RPM</b>		REVOLUTIONS PER MINUTE
<b>C</b>			<b>S</b>		
<b>C</b>	CENTER	CENTER	<b>SCH</b>	SCHEDULE	STAND-BY
<b>CL</b>	CAT	CATALOG	<b>SHT</b>	SHEET	SCREWED
<b>CL</b>	CONC	CONCRETE	<b>SH</b>	SIM	SIMILAR
<b>CONT</b>		CONTINUATION	<b>SPEC</b>	SPECIFICATION	SQUARE
<b>D</b>			<b>SQ</b>	SQUARE	STAINLESS STEEL
<b>D</b>	DRAIN	DRAIN	<b>SS</b>	STAINLESS STEEL	STANDARD
<b>DI</b>	DET	DETAIL	<b>ST</b>	STAINLESS STEEL	STEEL
<b>DI</b>	DIA	DIAMETER	<b>STD</b>	STANDARD	STRUCTURAL
<b>DIS</b>	DIS	DISCHARGE	<b>STL</b>	STEEL	
<b>DISCH</b>		DISCHARGE	<b>STRUCT</b>	STRUCTURAL	
<b>DIST</b>		DISTRIBUTION	<b>T</b>		
<b>DN</b>	DN	DOWN	<b>TDH</b>	TOTAL DYNAMIC HEAD	TOTALLY ENCLOSED
<b>DWG</b>		DRAWING	<b>TEFC</b>	FAN COOLED	THICK
<b>E</b>			<b>THK</b>	THICK	TYPICAL
<b>EA</b>	EACH	EACH	<b>TYP</b>	TYPICAL	
<b>EL</b>	ELEV	ELEVATION	<b>V</b>	VENT	
<b>ELEV</b>		ELEVATION	<b>VT</b>	VENT	
<b>EQUIP</b>		EQUIPMENT	<b>VTR</b>	VENT THRU ROOF	
<b>EST</b>	EST	ESTIMATE	<b>W</b>		
<b>EXIST</b>		EXISTING	<b>W/W/O</b>	WITH	WITHOUT
<b>F</b>			<b>W</b>	WITH	WITHOUT
<b>FAC</b>	FACILITY	FACILITY	<b>W/O</b>	WITHOUT	
<b>FCO</b>	FLOOR CLEANOUT	FLOOR CLEANOUT			
<b>FLEX</b>	FLEXIBLE	FLEXIBLE			
<b>FLG</b>	FLANGE	FLANGE			
<b>FLR</b>	FLOOR	FLOOR			
<b>FT</b>	FEET	FEET			
<b>G</b>					
<b>GALV</b>	GALVANIZED	GALVANIZED			
<b>GPM</b>	GALLONS PER MINUTE	GALLONS PER MINUTE			
<b>GV</b>	GATE VALVE	GATE VALVE			
<b>H</b>					
<b>HP</b>	HORSEPOWER	HORSEPOWER			
<b>HT</b>	HEIGHT	HEIGHT			
<b>I</b>					
<b>ID</b>	IDENTIFICATION	IDENTIFICATION			
<b>ID</b>	INSIDE DIAMETER	INSIDE DIAMETER			
<b>INV</b>	INVERT	INVERT			
<b>L</b>					
<b>LBS</b>	POUND	POUND			
<b>LG</b>	LONG	LONG			
<b>M</b>					
<b>MAX</b>	MAXIMUM	MAXIMUM			
<b>MJ</b>	MECHANICAL JOINT	MECHANICAL JOINT			
<b>N</b>					
<b>NO</b>	NUMBER	NUMBER			
<b>NPT</b>	NATIONAL PIPE THREAD	NATIONAL PIPE THREAD			
<b>O</b>					
<b>O</b>	OPERATING	OPERATING			
<b>OD</b>	OUTSIDE DIAMETER	OUTSIDE DIAMETER			

**LEGEND**

	BUTTERFLY VALVE
	PLUG VALVE
	BALL VALVE
	GATE VALVE
	PRESSURE REDUCING VALVE (PRV)
	CHECK VALVE
	UNION
	CONCENTRIC REDUCER
	STRAINER
	PIPE SLOPE
	DIRECTION OF FLOW
	EXISTING EQUIPMENT
	NEW EQUIPMENT
	PRESSURE GAGE W/ GAGE COCK
	THERMOMETER
	PUMP
	HOSE BIBB
	CLEANOUT
	VENT THRU ROOF
	POINT OF DEMOLITION
	POINT OF CONNECTION
	ELBOW
	45° ELBOW
	ELBOW UP
	ELBOW DOWN
	TEE
	TEE UP
	TEE DOWN
	PIPE SUPPORT FLOOR MOUNTED

**PIPING DESIGNATIONS**

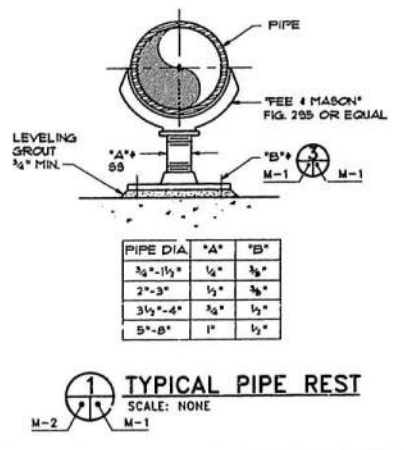
SYMBOL	SERVICE
— CA —	COMPRESSED AIR
— VT —	VENT PIPING
— RW —	RAW WATER
— TW —	TREATED WATER
— D —	DRAIN LINE
— BW —	BACKWASH LINE
— SAM —	SAMPLE LINE

**LEGEND**

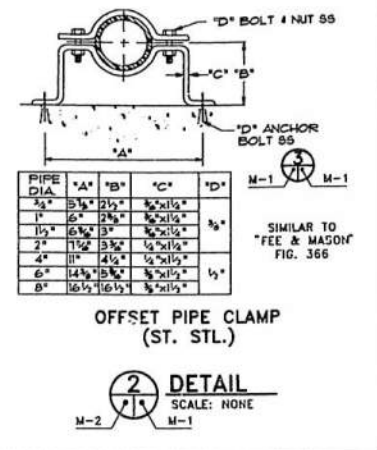
	BUTTERFLY VALVE
	PLUG VALVE
	BALL VALVE
	GATE VALVE
	PRESSURE REDUCING VALVE (PRV)
	CHECK VALVE
	UNION
	CONCENTRIC REDUCER
	STRAINER
	PIPE SLOPE
	DIRECTION OF FLOW
	EXISTING EQUIPMENT
	NEW EQUIPMENT
	PRESSURE GAGE W/ GAGE COCK
	THERMOMETER
	PUMP
	HOSE BIBB
	CLEANOUT
	VENT THRU ROOF
	POINT OF DEMOLITION
	POINT OF CONNECTION
	ELBOW
	45° ELBOW
	ELBOW UP
	ELBOW DOWN
	TEE
	TEE UP
	TEE DOWN
	PIPE SUPPORT FLOOR MOUNTED

**PIPING DESIGNATIONS**

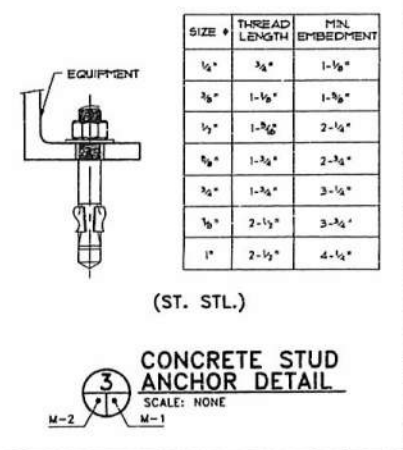
SYMBOL	SERVICE
— CA —	COMPRESSED AIR
— VT —	VENT PIPING
— RW —	RAW WATER
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— D —	DRAIN LINE
— BW —	BACKWASH LINE
— SAM —	SAMPLE LINE



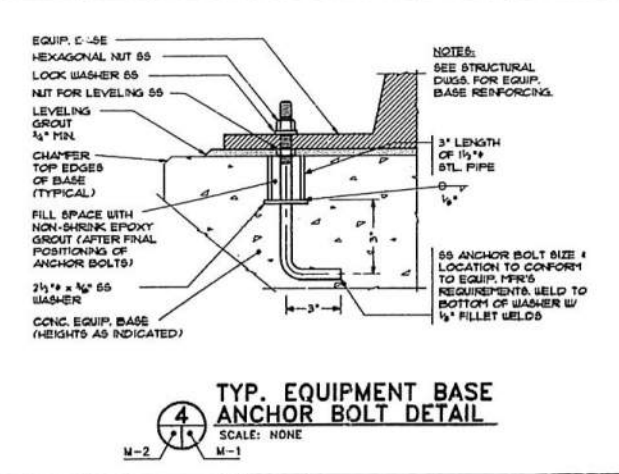
**1 TYPICAL PIPE REST**  
SCALE: NONE



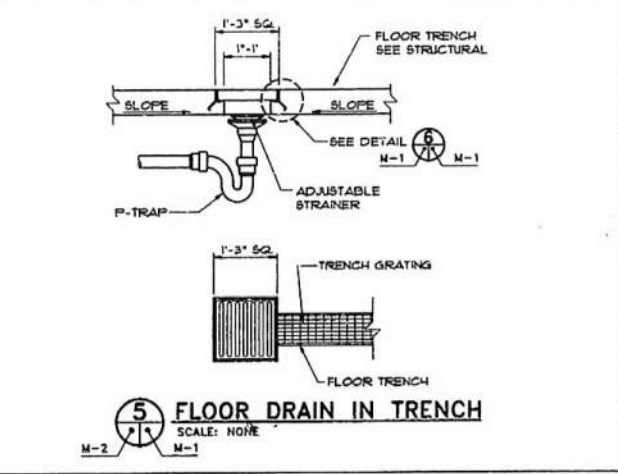
**2 OFFSET PIPE CLAMP (ST. STL.)**  
SCALE: NONE



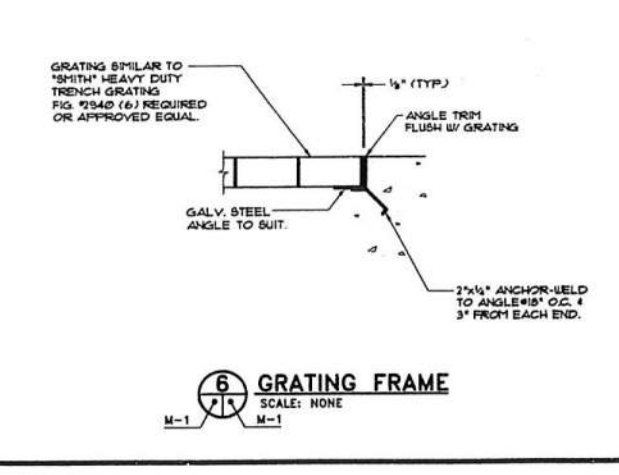
**3 CONCRETE STUD ANCHOR DETAIL**  
SCALE: NONE



**4 TYP. EQUIPMENT BASE ANCHOR BOLT DETAIL**  
SCALE: NONE



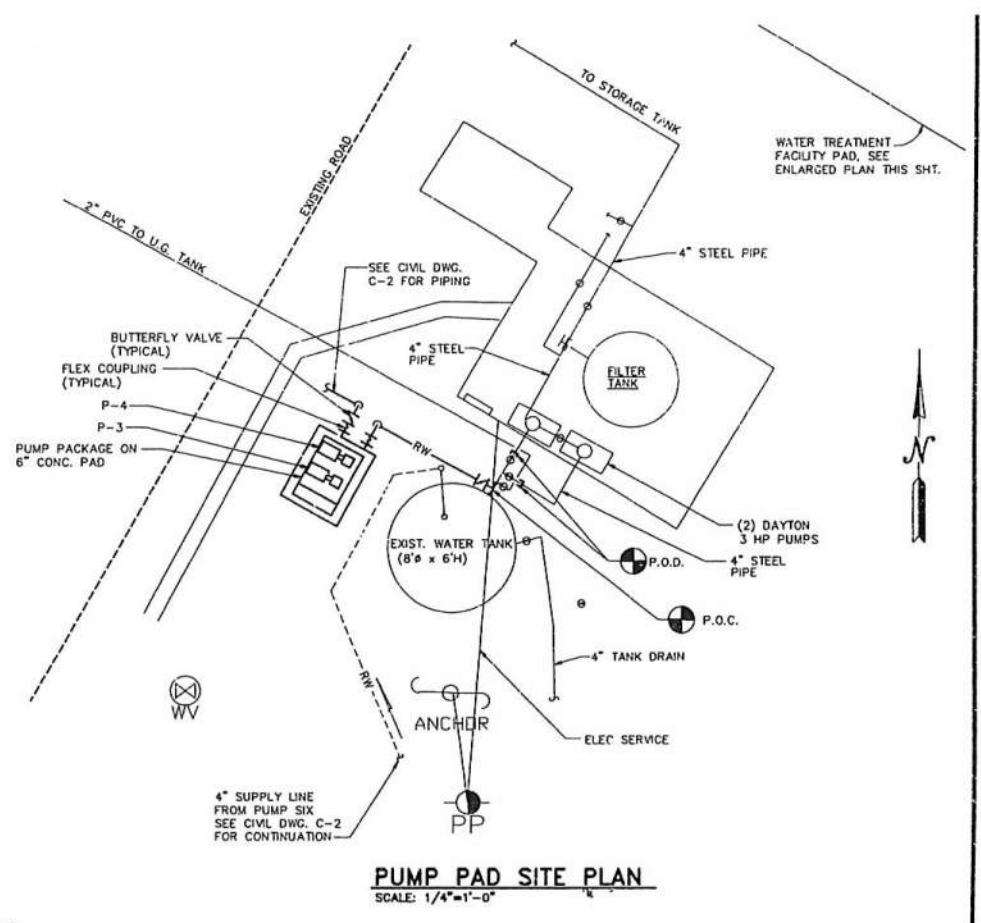
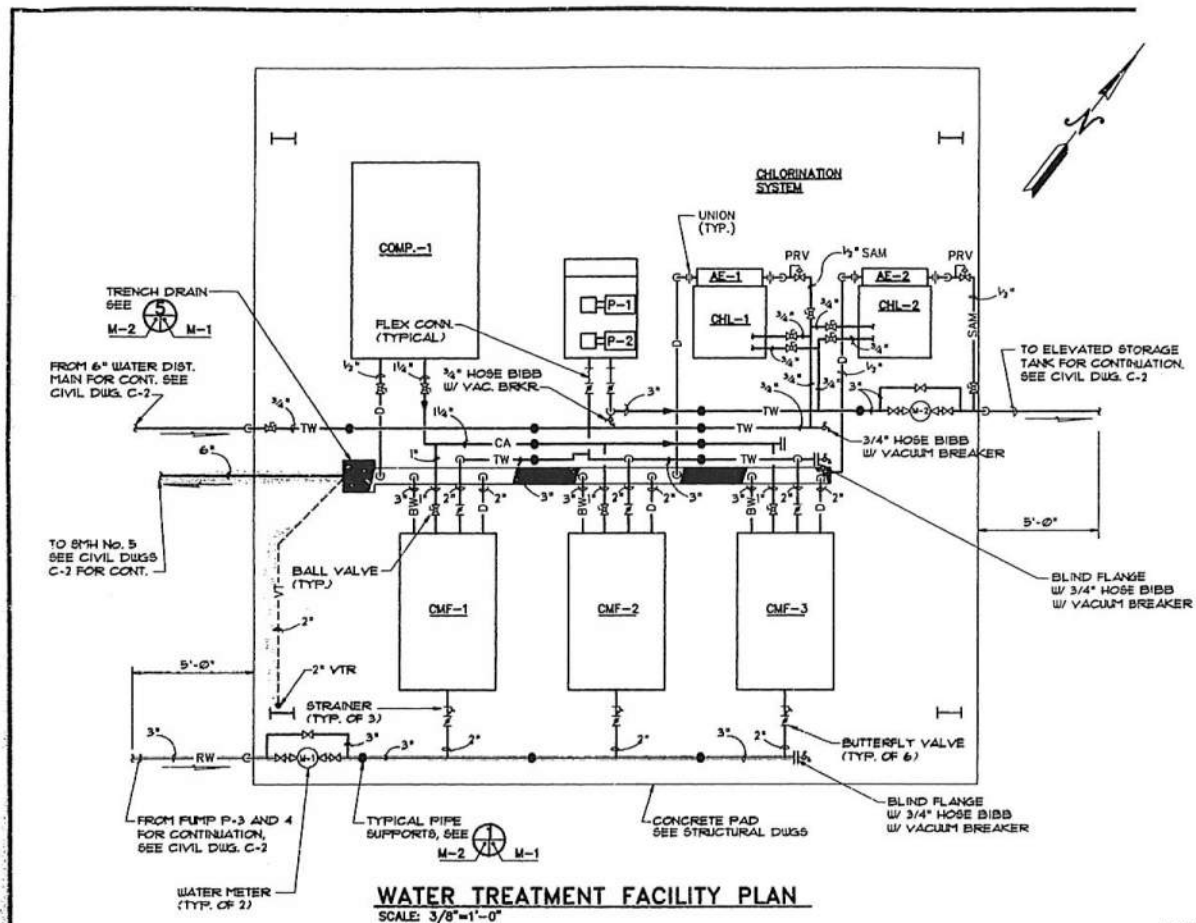
**5 FLOOR DRAIN IN TRENCH**  
SCALE: NONE



**6 GRATING FRAME**  
SCALE: NONE

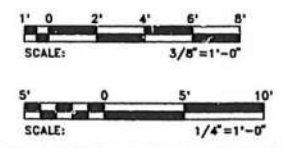
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SURFACE WATER TREATMENT SYSTEM WAIAWA OAHU HAWAII					
ABBREVIATION, LEGEND AND TYPICAL DETAILS					
GMP ASSOCIATES, INC. LICENSED PROFESSIONAL ENGINEER No. 9228-96 HAWAII, U.S.A.		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. Signature: <i>[Signature]</i> Date: 12-27-66			
DRAWN BY: DAD CHECKED BY: <i>[Signature]</i> SCALE: AS NOTED	SHEET NO.: 12-27-66-50 SHEET: M-1 SHEET 6 OF 12 SHEETS	22795249 04/20/94 18-45 FINAL			



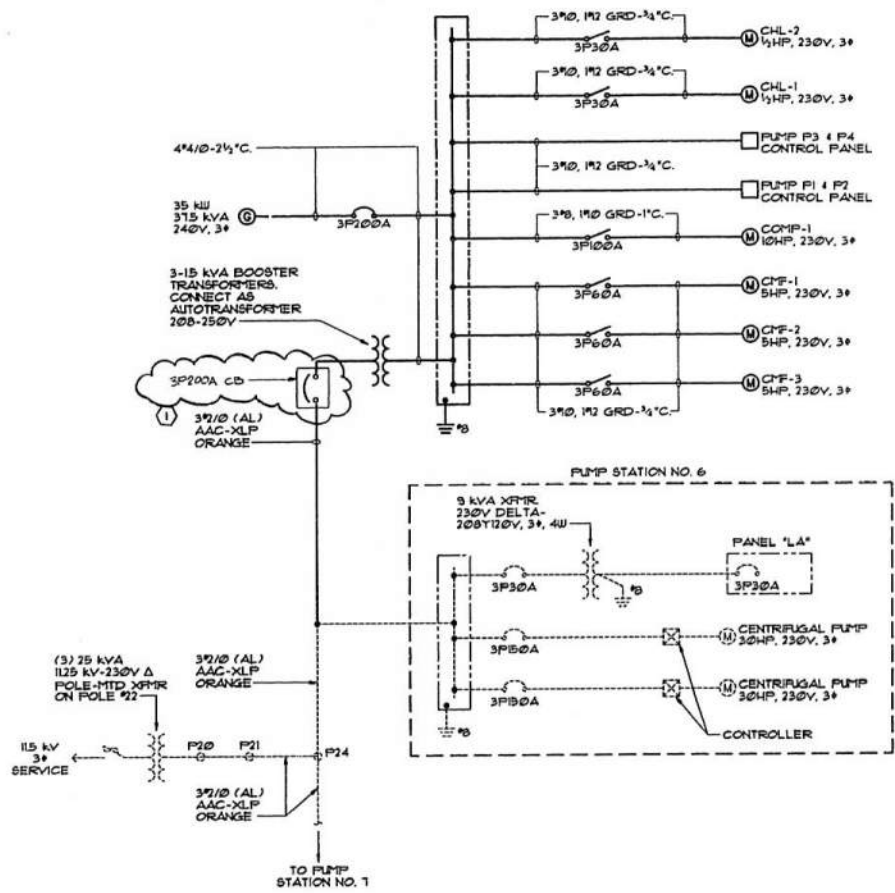


EQUIPMENT SCHEDULE					
EQUIPMENT IDENTIFICATION	DESCRIPTION	BASIS OF DESIGN (OR APPROVED EQUAL)	CAPACITY	ELECTRICAL REQUIREMENTS	REMARKS
CMF-1 CMF-2 CMF-3 (S)	CONTINUOUS MICROFILTRATION UNIT Nos. 1, 2, 3	MEMCOR 40M10	20 GPM	5 HP, 230V, 3ø	PACKAGE COMPLETE WITH BREAK TANK, SKID, VALVES, GAGES, PIPING AND CONTROLS
COMP-1	AIR COMPRESSOR No. 1	QUINCY QR075200X3	32.5 CFM AT 125 PSIG	10 HP, 230V, 3ø	AIR-COOLED, INTAKE/FILTER SILENCER DUPLEX PACKAGE WITH 240 GALS. TANK, (3) COALESCER FILTER, SYSTEM WITH GAGES BY HANSON, AUTO DRAIN AND CONTROLS
P-1 P-2 (S)	BOOSTER PUMPS 1 AND 2	AURORA MODEL 782	40 GPM AT 160 FT. HD.	5 HP, 230V, 3ø	PACKAGED DUPLEX, COMPLETE WITH VALVES, GAGES, PIPING AND CONTROLS, 3500 RPM
P-3 P-4 (S)	BOOSTER FEED PUMPS 3 AND 4	AURORA MODEL 782	40 GPM AT 80 FT. HD.	3 HP, 230V, 3ø	PACKAGED DUPLEX, COMPLETE WITH VALVES, GAGES, PIPING AND CONTROLS, 3500 RPM
CHL-1 CHL-2 (S)	CHLORINATION SYS. No. 1 & 2	CHEMICAL SERVICES Co.	AS REQ'D	1/2 HP, 230V, 3ø	PACKAGED SYSTEM COMPLETE WITH VALVES, GAGES, PIPING, PUMP, VENTURI INJECTOR, CL <sub>2</sub> GENERATOR AND CONTROLS
AE-1	CHLORINATION RESIDUAL ANALYZER No. 1	CAPITAL CONTROLS Co. MODEL 1871	AS REQ'D	25W, 115V, 1ø	FURNISHED WITH CHLORINATION SYSTEM AS PART OF LOOP FEEDBACK CONTROLS FOR EITHER CHL-1 OR CHL-2. COMPLETE WITH RECORDER AND REMOTE ALARM.
AE-2	CHLORINATION RESIDUAL ANALYZER No. 2	CAPITAL CONTROLS Co. MODEL 1871	AS REQ'D	25W, 115V, 1ø	SAME AS AE-1 EXCEPT FOR CONTINUOUS MONITORING AND RECORDING ONLY
FT-1	FLOW TRANSMITTER	OMEGA FP-5801	AS REQ'D	4-20 mA OUTPUT	PADDLEWHEEL TYPE, COMPLETE WITH SADDLE FITTING TO BE INSTALLED ON EXIST. 6" PIPE FURNISHED W/ CHLORINATION SYS.
M-1 M-2	WATER METER	OMEGA MODEL FTB6115	2-100 GPM RANGE	N/A	BRONZE BODY, SELF-LUBRICATING POSITIVE DISPLACEMENT TYPE, FOR WATER RATE INDICATION AND TOTALIZATION.

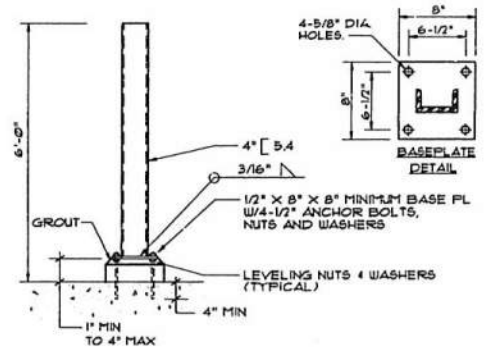
- NOTES:**
- FIELD VERIFY EXACT LOCATIONS OF EXISTING EQUIPMENT AND PIPING.
  - TERMINATE ALL DRAIN AND BACKWASH LINES IN TRENCH DRAIN.
  - OPERATING NOISE LEVEL FOR ANY EQUIPMENT SHALL NOT EXCEED 85 db AT 3 ft.
  - SEE CIVIL DRAWING C-2 FOR LIMIT OF DEMOLITION, CUT PIPES AND PROVIDE BLIND FLANGE AS NECESSARY. RETURN SALVAGABLE EQUIPMENT TO THE OWNER.
  - PROVIDE DIELECTRIC COUPLINGS AS REQUIRED BETWEEN TWO DISSIMILAR METALS.
  - FURNISH AND INSTALL MOUNTING STANDS FOR EQUIPMENT PANELS AS REQUIRED. SEE DRAWING E-1 FOR DETAILS.
  - AIR COMPRESSOR MAY BE FURNISHED WITH THE WATER TREATMENT SYSTEMS AS PART OF A PACKAGE. IT MAY BE OMITTED SHOULD ANOTHER BACKWASH SYSTEM IS PROVIDED.



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
<b>WAIAWA CORRECTIONAL FACILITY SURFACE WATER TREATMENT SYSTEM</b>					
<b>PUMP PAD SITE AND EQUIPMENT SCHEDULE</b>					
DESIGNED BY: DAD	CHECKED BY: DAD	DATE: 12-27-66	PROJECT NO.: M-2	SHEET 7 OF 12 SHEETS	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.					
SIGNATURE: <i>[Signature]</i>					



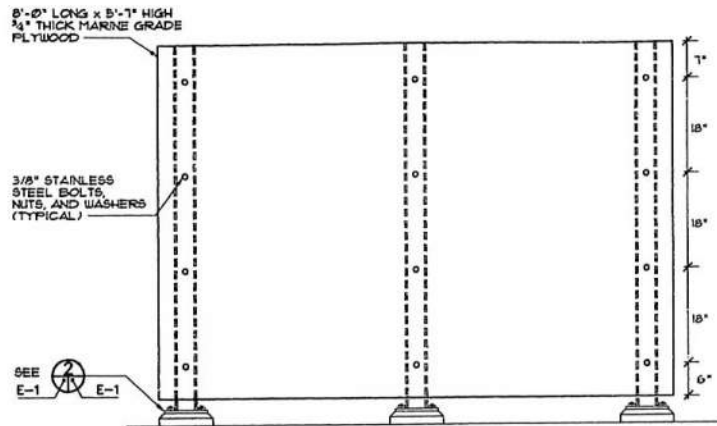
**1 SINGLE LINE DIAGRAM**  
SCALE: NONE  
E-1



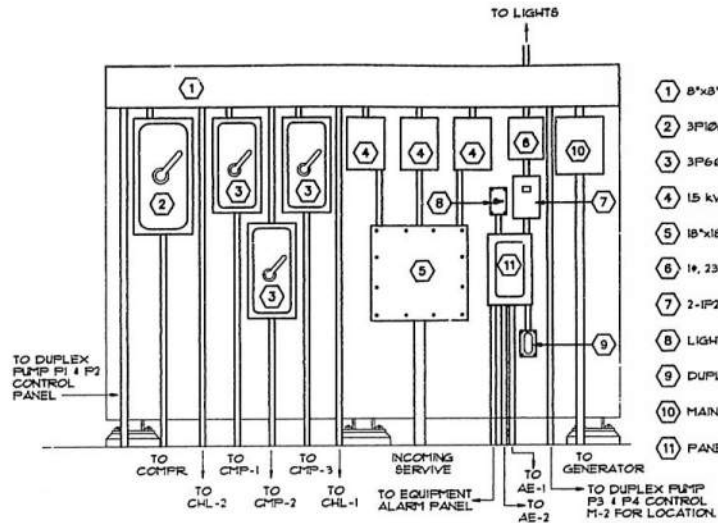
**2 EQUIPMENT BACKBOARD MOUNTING STAND**  
SCALE: NONE  
E-1

1	1	ADDED CIRCUIT BREAKER	B	8	8/4/14
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED DATE
					PUBLIC WORKS DIVISION
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SURFACE WATER TREATMENT SYSTEM WAIAWA OAHU HAWAII					
<b>SINGLE LINE DIAGRAM &amp; DETAILS</b>					
<b>GMP ASSOCIATES, INC</b>					
DESIGNED BY	CHECKED BY	DATE	12-27-6659	PROJECT NO.	E-1
DRAWN BY	APPROVED BY	DATE		SHEET	8
SIGN: AS NOTED					W/ I.C. SHEETS

E-1-3

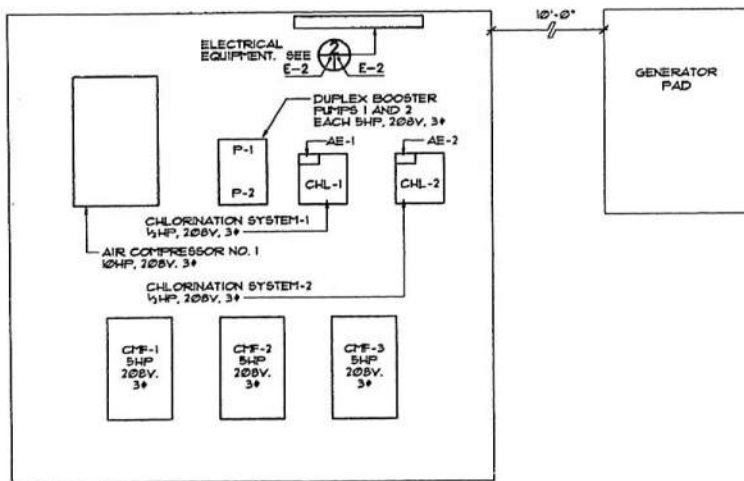


**1 BACKBOARD MOUNTING DETAIL**  
SCALE: 1"=1'-0"  
E-2

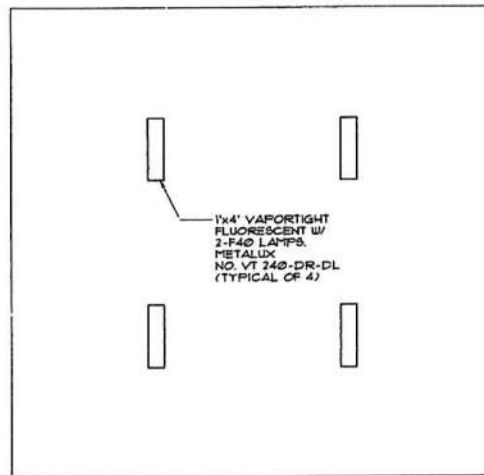


- ① 8"x8" RAINLIGHT WIREWAY
- ② 3P100A NEMA 3R FUSED DISC SW
- ③ 3P60A NEMA 3R FUSED DISC SW
- ④ 15 kVA SINGLE PHASE BOOSTING XFMR
- ⑤ 18"x18"x6"D NEMA 3R JUNCTION BOX
- ⑥ 1P, 230V-230/120V 10kVA TRANSFORMER
- ⑦ 2-1P20A CIRCUIT BREAKERS
- ⑧ LIGHT SWITCH
- ⑨ DUPLEX RECEPTACLE
- ⑩ MAIN CB FOR GENERATOR
- ⑪ PANEL "A"; 1P, 3W, 12 CIRCUIT, NEMA 3R

**2 EQUIPMENT ELEVATION**  
SCALE: 1"=1'-0"  
E-2



**POWER PLAN**  
SCALE: 1/4"=1'-0"



**LIGHTING PLAN**  
SCALE: 1/4"=1'-0"

**PANEL SCHEDULE**

JOB: NAMEPLATE: PANEL "A" VOLTAGE: 230/120V, 1PH-C, 3W  
 LOCATION: WATER TREATMENT FACILITY PAD MAIN DEVICE: MLO  
 MOUNTING: SURFACE BUS SIZE: 100A  
 FEEDER ENTRY: TOP SHORT CIRCUIT RATING: 10,000 AIC

DESCRIPTION	WIRE	K V A	BKR. AMP/ POLE	CIRCUIT AND PHASE	BKR. AMP/ POLE	K V A	WIRE	DESCRIPTION
LIGHTS	12	0.5	20/1	1 A 2	20/1	0.3	12	RECEPTACLE
EQUIPMENT ALARM	8	0.3	20/1	3 B 4	20/1	0.1	12	AE-1
AE-2	12	0.1	20/1	5 A 6	-	-	-	PROVISION FOR BRKR.
PROVISION FOR BRKL	-	-	-	7 B 8	-	-	-	
	-	-	-	9 A 10	-	-	-	
	-	-	-	11 B 12	-	-	-	
<b>CONNECTED LOAD</b>		<b>DEMAND FACTOR</b>		<b>CALCULATED LOAD</b>				
LIGHTING & MISC. CONTINUOUS		0.7 kVA		NEC 220-10(b)		0.9 kVA		
RECEPTACLES		0.6 kVA		NEC 220-13		0.6 kVA		
MOTORS		kVA		NEC 220-14		kVA		
<b>TOTAL CALCULATED LOAD =</b>		<b>1.5 kVA</b>		<b>6.5 AMPERES</b>				

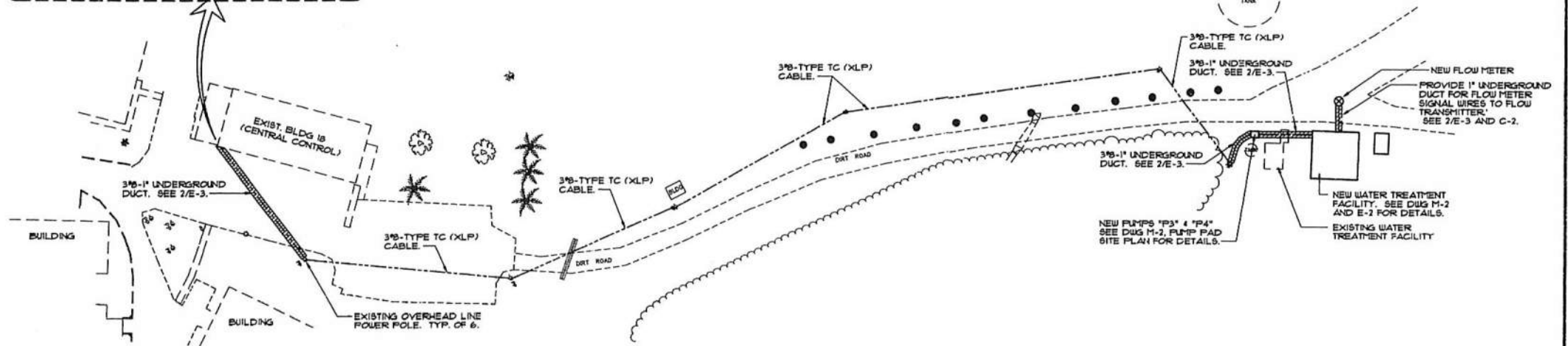
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED FOR PUBLIC WORKS DIVISION
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAI'AWA CORRECTIONAL FACILITY</b> SURFACE WATER TREATMENT SYSTEM WAI'AWA OAHU HAWAII					
<b>ELECTRICAL PLANS &amp; DETAILS</b>					
DESIGNED BY		CHECKED BY		DRAWN BY	
12-27-0559		E-2		SHEET 9	
SCALE AS NOTED		NO. 12		SHEET	

22796092 04/20/94 18:26 FINAL

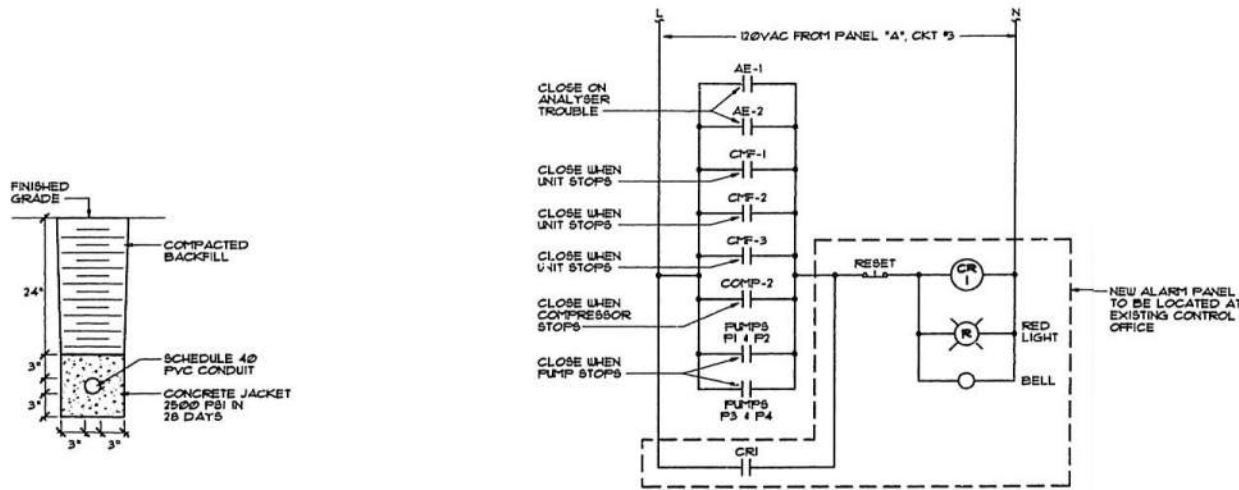


EXISTING 3RD FLOOR CONTROL OFFICE

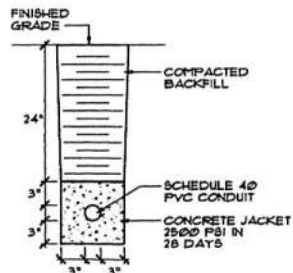
NEW ALARM PANEL TO BE WALL MOUNTED ADJACENT TO THE EXISTING FIRE PANEL. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH FACILITY STAFF.



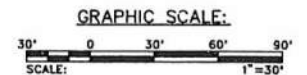
1 ELECTRICAL SITE PLAN  
E-3 SCALE: 1"=30'



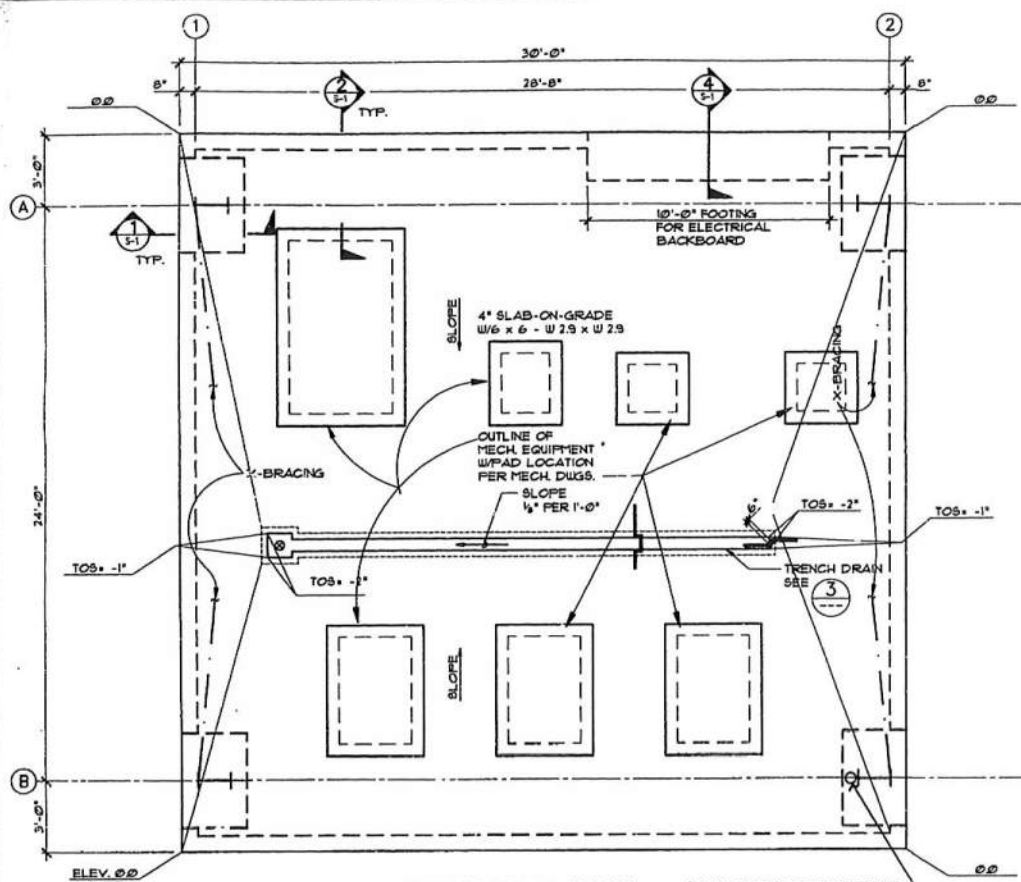
3 ALARM CONTROL DIAGRAM  
E-3 NO SCALE



2 DUCT DETAIL  
E-3 NOT TO SCALE

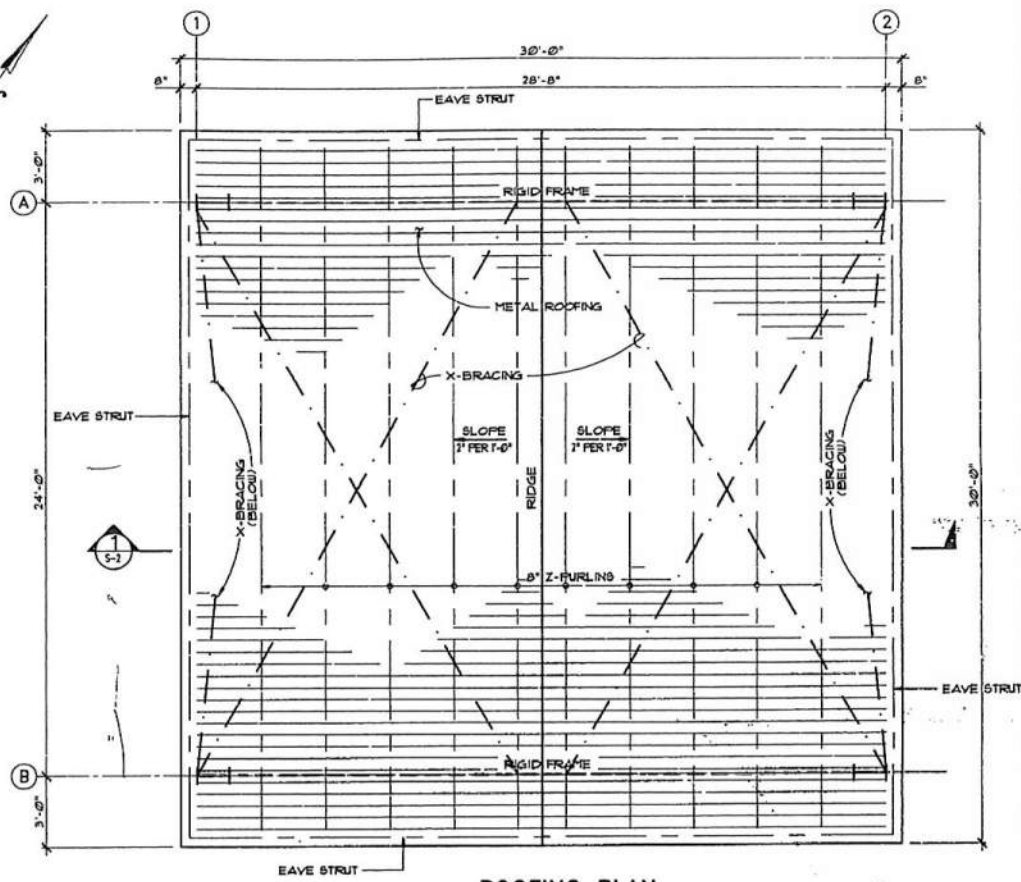


REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> SURFACE WATER TREATMENT SYSTEM					
WAIAWA OAHU HAWAII			ELECTRICAL SITE PLAN		
GMP ASSOCIATES, INC.		DATE FOR NO.	ISSUE NO.		
DESIGNED BY: SSVL	CHECKED BY: SSVL	12-27-88	12-27-88	E-3	
DRAWN BY: M.L.T.	APPROVED BY: D.Y.T.	DATE	SHEET	10	
SCALE: 1"=30'	G.L. WEST				

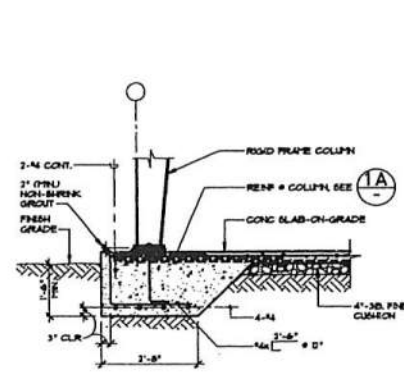


**FOUNDATION PLAN**  
SCALE: 3/8" = 1'-0"

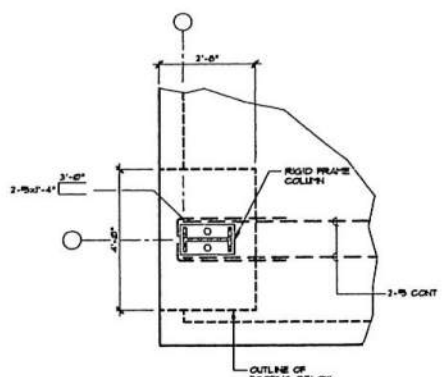
\* CONTRACTOR TO COORDINATE MECH. PAD SIZE W/ EQUIPMENT SUPPLIER.



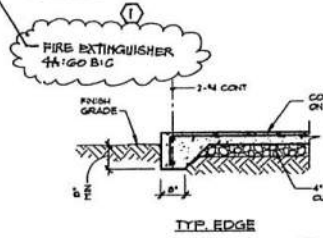
**ROOFING PLAN**  
SCALE: 3/8" = 1'-0"



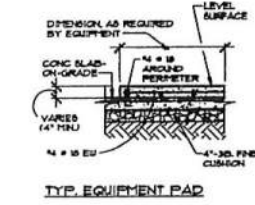
**SECTION 1**  
SCALE: NONE



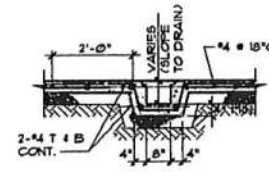
**1A DETAIL**  
SCALE: NONE



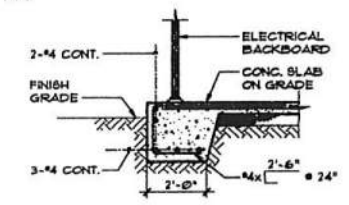
TYP. EDGE



TYP. EQUIPMENT PAD

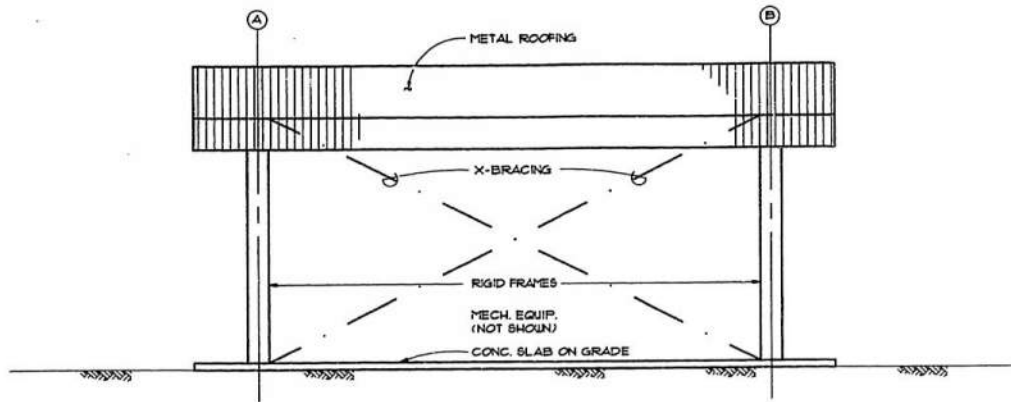


**3 TYP. TRENCH DRAIN SECTION**  
SCALE: NONE

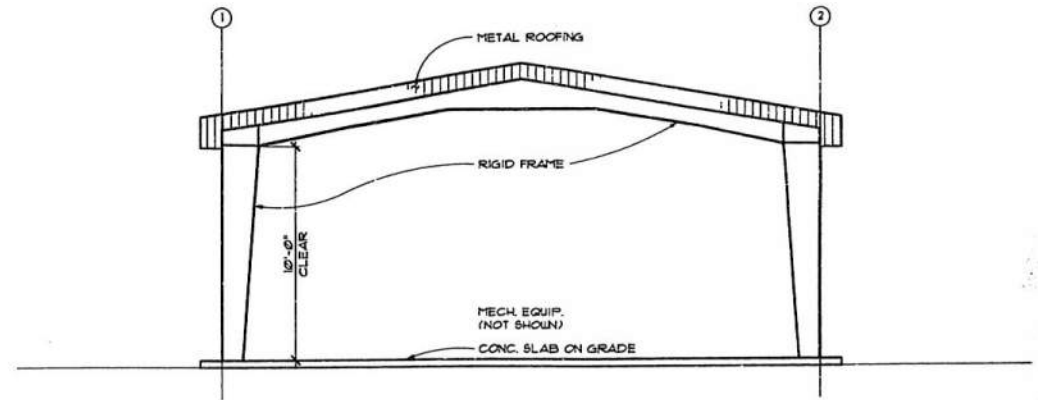


**SECTION 4**  
SCALE: NONE

1	ADD TO FIRE EXTINGUISHER FOR BLDG. DEPT. COMMENTS	11 OF 11	8/17/94	APPROVER STATE PUBLIC WORKS ENGINEER
REVISION NO.	DESCRIPTION	DATE		
<b>WAIAWA CORRECTIONAL FACILITY</b> SURFACE WATER TREATMENT SYSTEM				
FOUNDATION PLAN, ROOF PLAN AND SECTIONS				
GMP ASSOCIATES, INC.		DATE AND NO.	12-27-8859	NUMBER NO.
DESIGNED BY	PROJECT	ISSUED BY	DATE	SHEET
SALES BY	APPROVED BY	DATE	11	11
TITLE	AS NOTED	DATE	02/16/84	OF 12 SHEETS



**A WEST ELEVATION (EAST SIMILAR)**  
SCALE: N.T.S.



**B NORTH ELEVATION (SOUTH SIMILAR)**  
SCALE: N.T.S.

**GENERAL:**

1. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE BUILDING CODE OF THE CITY & COUNTY OF HONOLULU (AMENDED UBC, 1991 EDITION), HOWEVER, WHERE REFERENCE IS MADE TO PERFORMANCE CONFORMING TO OTHER STANDARDS THE MORE STRINGENT SHALL APPLY.
2. THE CONTRACTOR SHALL COMPARE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS WITH EACH OTHER AND REPORT IN WRITING TO THE ENGINEER ALL ERRORS, INCONSISTENCIES OR OMISSIONS.
3. THE CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AND VERIFY FIELD CONDITIONS AND SHALL COMPARE SUCH FIELD MEASUREMENTS AND CONDITIONS WITH THE DRAWINGS BEFORE COMMENCING THE WORK. REPORT IN WRITING TO THE ENGINEER ALL ERRORS, INCONSISTENCIES OR OMISSIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR METHODS OF CONSTRUCTION, WORKMANSHIP AND JOB SAFETY. THE CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING AS REQUIRED OR STABILITY OF STRUCTURAL MEMBERS AND SYSTEMS.

**FOUNDATION:**

1. FOUNDATION DESIGN IS BASED UPON GEOTECHNICAL INVESTIGATION BY FEWELL GEOTECHNICAL ENGINEERS, LTD.
2. EXCAVATIONS FOR FOOTINGS, SHALL BE APPROVED BY THE SOILS ENGINEER PRIOR TO PLACING THE CONCRETE AND REINFORCING. CONTRACTOR SHALL NOTIFY SOILS ENGINEER WHEN EXCAVATION IS READY FOR INSPECTION. SOILS ENGINEER SHALL SUBMIT LETTER OF COMPLIANCE TO THE STATE.
3. THE TOP 12 INCHES OF THE SUBGRADE BENEATH THE FLOOR SLAB AREAS SHALL BE SCARIFIED AND COMPACTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY BASED ON ASTM D1557 TEST METHOD. ANY SOFT OR WET AREAS REVEALED DURING THE SUBGRADE COMPACTION SHALL BE EXCAVATED TO FIRM MATERIAL AND REPLACED WITH STRUCTURAL FILL.

**CONCRETE:**

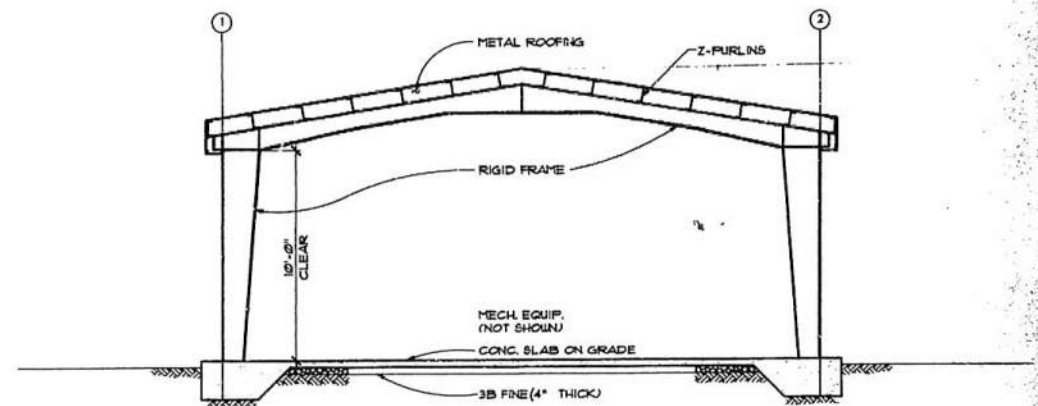
1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
2. ALL INSERTS, ANCHOR BOLTS, PLATES, ETC. EMBEDDED IN CONCRETE SHALL BE HOT-DIPPED GALVANIZED UNLESS OTHERWISE NOTED.

**REINFORCING STEEL:**

1. REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN CONFORMANCE WITH THE ACI "DETAILING MANUAL - 1988" AND THE CRSI "MANUAL OF STANDARD PRACTICE".
2. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 EXCEPT TIES AND STIRRUPS WHICH SHALL BE GRADE 40. ALL REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A708, GRADE 50.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185, GALVANIZED.

**PRE-ENGINEERED BUILDING:**

1. DESIGN OF THE PRE-ENGINEERED BUILDING SHALL CONFORM TO THE BUILDING CODE OF THE CITY AND COUNTY OF HONOLULU (AMENDED UBC 1991.)
2. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF FOUR (4) WEEKS PRIOR TO FABRICATION. THESE DRAWINGS AND CALCULATIONS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER.
3. BASIC DESIGN LOADS:
  - A. DEAD LOADS INCLUDES STRUCTURAL FRAMING, CEILING, MECHANICAL, ELECTRICAL AND PLUMBING LOADS.
  - B. ROOF LIVE LOAD . . . . . 20 PSF
  - C. WIND LOADS . . . . . BASIC WIND SPEED 80 MPH, EXPOSURE C
  - D. SEISMIC LOADS . . . . . ZONE 2A



**1 SECTION**  
SCALE: N.T.S.

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED BY PUBLIC WORKS DIVISION
DEPT. OF ACCOUNTING & GENERAL SERVICES DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> <b>SURFACE WATER TREATMENT SYSTEM</b> WAIAWA GAHU HAWAII					
ELEVATIONS AND SECTIONS					
		<b>GMP ASSOCIATES, INC.</b>			
DESIGNED BY KOGA	CHECKED BY KOGA	DATE 12-27-85	SHEET NO. <b>S-2</b> OF 12 SHEETS		
DRAWN BY A.P.L.	APPROVED BY TAC	DATE 02/14/84	SHEET NO. 12		
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.					
SIGNATURE: <i>[Signature]</i>					
SCALE: AS NOTED					

Tax Map Key: C1-1, 2, 11  
 Application Index No: GU-1-  
 Project Name: WILSON CIVIL - H. P.  
 Building Permits No: 391249

BUILDING DEPARTMENT  
 CITY AND COUNTY OF HONOLULU

**SUPPLEMENTAL INFORMATION FOR BUILDING OWNER,  
 PERMIT APPLICANT AND CONTRACTOR**

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 or if your work is under or near an electrical service line, investigate before you start work. Call:

	WORKING HOURS	AFTER HOURS
Hawaiian Telephone Company	843-8214	---
Hawaiian Electric Company	543-5664	545-7961
GAECO	547-3575	526-0066
Board of Water Supply	527-6189	527-5200
Be Aware Of the Sign, Notice and OSH Regulations		
Sign Regulations - Building Department	523-4505	
Notice Regulations - Department of Health	595-4700	
Occupational Safety & Health - OOSH	595-9100	
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 7 miles from the nearest point of the nearest runway of each airport. (Single-family dwellings exempted.) FAA telephone is 541-1243.
- 3  **REMNINDER** - Owners should check their deeds, lease agreements, and/or association by-laws for any building 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.

[Signature] Date 01-09

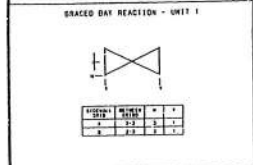
**BP 362874-C**

**revision to 359249**

UNIT 1 - FRAME AT SIDEWALL GRIDS 2 & 3

MEMBER	TYPE	SECTION	START	END	MARKING
1	W	W1	1	2	W1
2	W	W2	1	2	W2
3	W	W3	1	2	W3
4	W	W4	1	2	W4
5	W	W5	1	2	W5
6	W	W6	1	2	W6
7	W	W7	1	2	W7
8	W	W8	1	2	W8
9	W	W9	1	2	W9
10	W	W10	1	2	W10
11	W	W11	1	2	W11
12	W	W12	1	2	W12
13	W	W13	1	2	W13
14	W	W14	1	2	W14
15	W	W15	1	2	W15
16	W	W16	1	2	W16
17	W	W17	1	2	W17
18	W	W18	1	2	W18
19	W	W19	1	2	W19
20	W	W20	1	2	W20
21	W	W21	1	2	W21
22	W	W22	1	2	W22
23	W	W23	1	2	W23
24	W	W24	1	2	W24
25	W	W25	1	2	W25
26	W	W26	1	2	W26
27	W	W27	1	2	W27
28	W	W28	1	2	W28
29	W	W29	1	2	W29
30	W	W30	1	2	W30
31	W	W31	1	2	W31
32	W	W32	1	2	W32
33	W	W33	1	2	W33
34	W	W34	1	2	W34
35	W	W35	1	2	W35
36	W	W36	1	2	W36
37	W	W37	1	2	W37
38	W	W38	1	2	W38
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40	W	W40	1	2	W40
41	W	W41	1	2	W41
42	W	W42	1	2	W42
43	W	W43	1	2	W43
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45	W	W45	1	2	W45
46	W	W46	1	2	W46
47	W	W47	1	2	W47
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97	W	W97	1	2	W97
98	W	W98	1	2	W98
99	W	W99	1	2	W99
100	W	W100	1	2	W100

NOTE:  
ROOF SLOPE REQUIRES THE USE OF TWO DIFFERENT C<sub>9</sub> VALUES FOR THE WINDWARD ROOF SLOPE PER METHOD 1 IN TABLE 23-2 IN THE 1991 UBC. REACTIONS FOR THE C<sub>9</sub> INWARD CASE ARE OBTAINED BY ADDING '1P' VALUES TO WLL, AND BY ADDING 'IS' VALUES TO WLR.

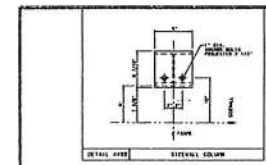


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

*Ken Hayashida*

DESIGN NOTES:  
1. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH THE SPECIFIC REACTION DRAWING.  
2. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.  
3. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.  
4. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.  
5. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE NOTED.

REVISION NO. 1	REVISION NO. 2	PROJECT OF THE	CLIENT	PROJECT	DESIGNER'S ONLY DESCRIPTION	DRAWING TITLE	DATE	BY
		BUTLER	BUTLER MANUFACTURING COMPANY	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	SPECIFIC REACTION DRAWING		
		DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
		CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
		DATE	DATE	DATE	DATE	DATE	DATE	DATE
		NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.
		D94-059452-01A	D94-059452-01A	D94-059452-01A	D94-059452-01A	D94-059452-01A	D94-059452-01A	D94-059452-01A



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

*Ken Hayashida*

REVISION NO. 1	REVISION NO. 2	PROJECT OF THE	CLIENT	PROJECT	DESIGNER'S ONLY DESCRIPTION	DRAWING TITLE	DATE	BY
		BUTLER	BUTLER MANUFACTURING COMPANY	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	ANCHOR BOLT DETAIL SHEET		
		DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
		CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
		DATE	DATE	DATE	DATE	DATE	DATE	DATE
		NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.	NO. FILE NO.
		D94-059452-01B	D94-059452-01B	D94-059452-01B	D94-059452-01B	D94-059452-01B	D94-059452-01B	D94-059452-01B

**SPECIFIC ERECTION DRAWING LIST**

THE DRAWING LIST BELOW HAS BEEN CREATED BY COMPUTER... (text continues)

PROJECT NO.	PROJECT NAME	DATE	STATUS
093-123456-05L	02		

**TITLE**

**DRAWING SEQUENCE NUMBER**

UNIT 1

KEY PLAN

**COVER DRAWING NOTES**

1. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.  
2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.  
3. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.  
4. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE NOTED.

6-4670

**BUILDING DEPARTMENT FILE COPY**

**SHOP DRAWINGS**

359249

5/14/11

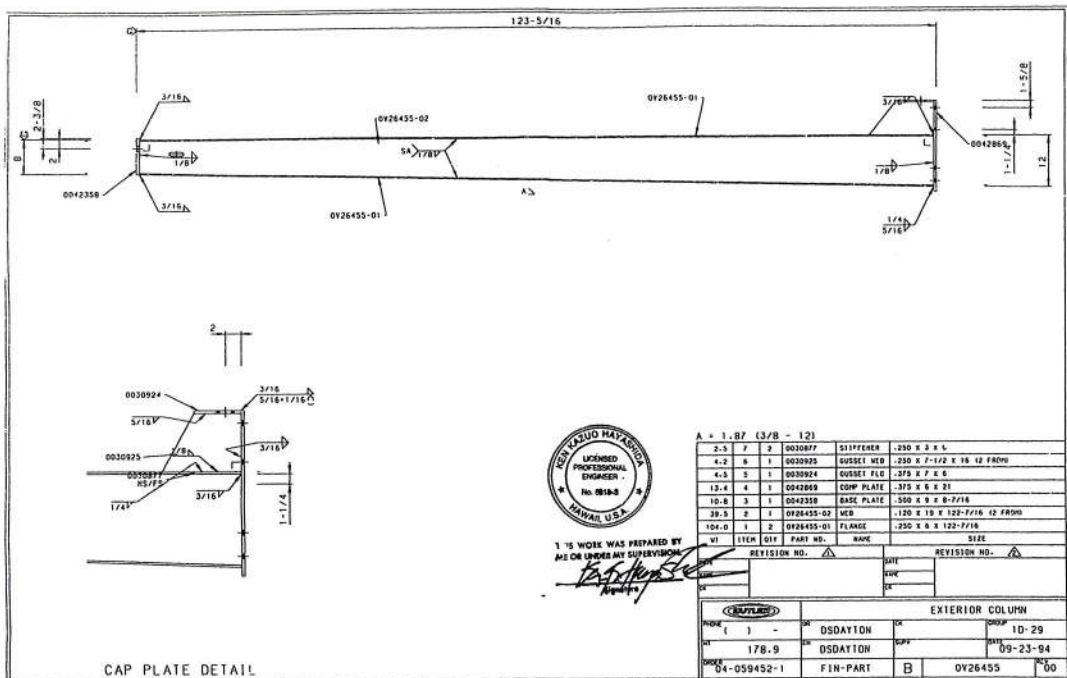
**DESIGN DRAWINGS FOR APPROVAL**

REVISION NO. 1	REVISION NO. 2	PROJECT OF THE	CLIENT	PROJECT	DESIGNER'S ONLY DESCRIPTION	DRAWING TITLE	DATE	BY
		BUTLER	BUTLER MANUFACTURING COMPANY	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	COVER DRAWING		
		DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
		CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
		DATE	DATE	DATE	DATE	DATE	DATE	DATE
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		D94-059452-00	D94-059452-00	D94-059452-00	D94-059452-00	D94-059452-00	D94-059452-00	D94-059452-00

UNIT 1 ANCHOR BOLT PLAN

REVISION NO. 1	REVISION NO. 2	PROJECT OF THE	CLIENT	PROJECT	DESIGNER'S ONLY DESCRIPTION	DRAWING TITLE	DATE	BY
		BUTLER	BUTLER MANUFACTURING COMPANY	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	3032012 LRF 80 PPH ESP C USC 91 SEISMIC ZONE 2A	SPECIFIC ANCHOR BOLT DRAWING		
		DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY	DESIGNED BY
		CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY	CHECKED BY
		DATE	DATE	DATE	DATE	DATE	DATE	DATE
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BP 362874-C  
1 of 4  
revisions to  
BP 359249

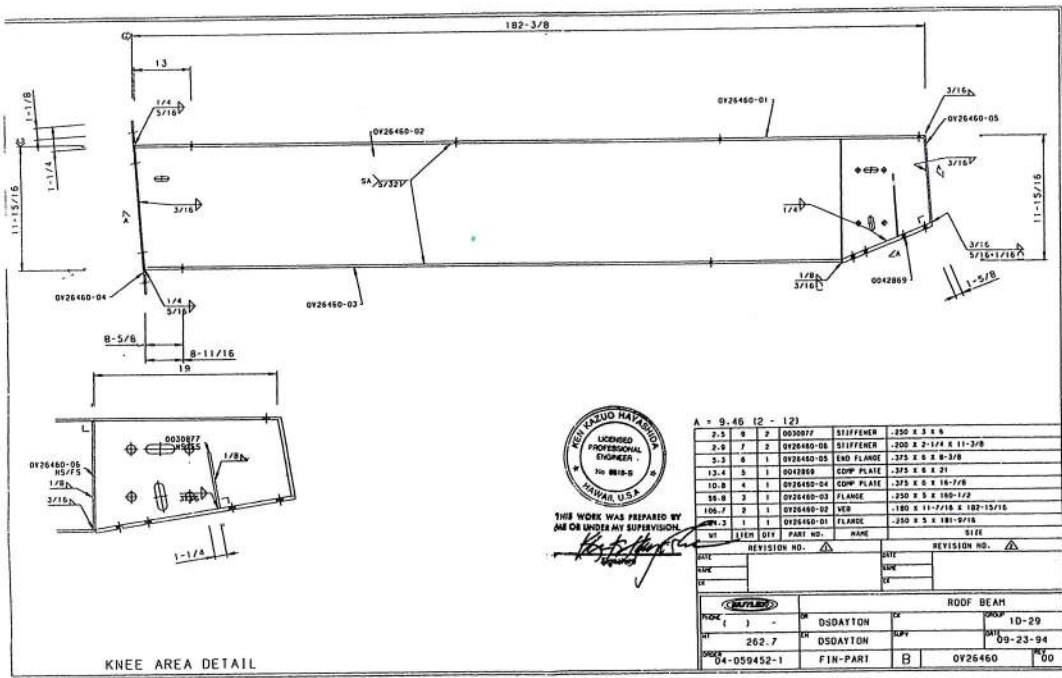


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
*Kent Kazuo Hatayama*  
 Licensed Professional Engineer

REVISION NO. 1		REVISION NO. 2		REVISION NO. 3	
DATE	BY	DATE	BY	DATE	BY

EXTERIOR COLUMN					
NO.	1	DATE	DSDAYTON	REV.	1D-29
BY	178.9	DATE	DSDAYTON	REV.	09-23-94
CHKD	04-059452-1	FIN-PART	B	0926455	00

CAP PLATE DETAIL

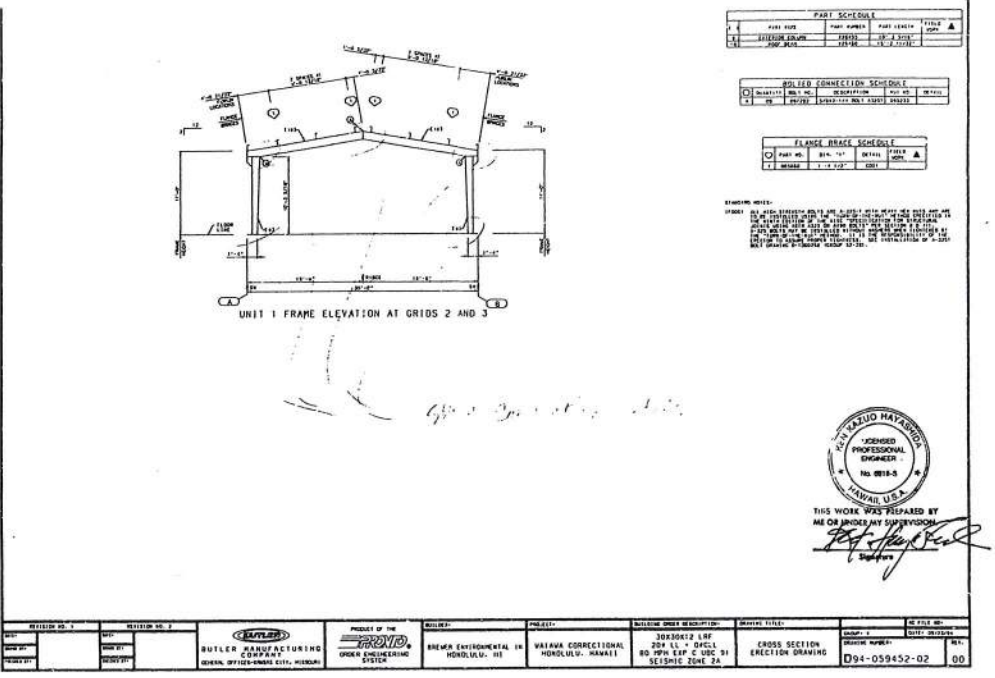


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*Kent Kazuo Hatayama*  
 Licensed Professional Engineer

REVISION NO. 1		REVISION NO. 2		REVISION NO. 3	
DATE	BY	DATE	BY	DATE	BY

ROOF BEAM					
NO.	1	DATE	DSDAYTON	REV.	1D-29
BY	262.7	DATE	DSDAYTON	REV.	09-23-94
CHKD	04-059452-1	FIN-PART	B	0926460	00

KNEE AREA DETAIL



PART SCHEDULE				
NO.	QTY	PART NO.	NAME	SIZE
1	1	0042359	BASE PLATE	.500 X 9 X 8-7/16
2	2	0926455-02	WEB	.180 X 18 X 122-7/16 12 FROM
3	1	0926455-01	FLANGE	.250 X 6 X 122-7/16

WELDED CONNECTION SCHEDULE				
NO.	QTY	PART NO.	NAME	SIZE
1	1	0042359	BASE PLATE	.500 X 9 X 8-7/16
2	2	0926455-02	WEB	.180 X 18 X 122-7/16 12 FROM
3	1	0926455-01	FLANGE	.250 X 6 X 122-7/16

FLANGE BRACE SCHEDULE				
NO.	QTY	PART NO.	NAME	SIZE
1	1	0042359	BASE PLATE	.500 X 9 X 8-7/16
2	2	0926455-02	WEB	.180 X 18 X 122-7/16 12 FROM
3	1	0926455-01	FLANGE	.250 X 6 X 122-7/16

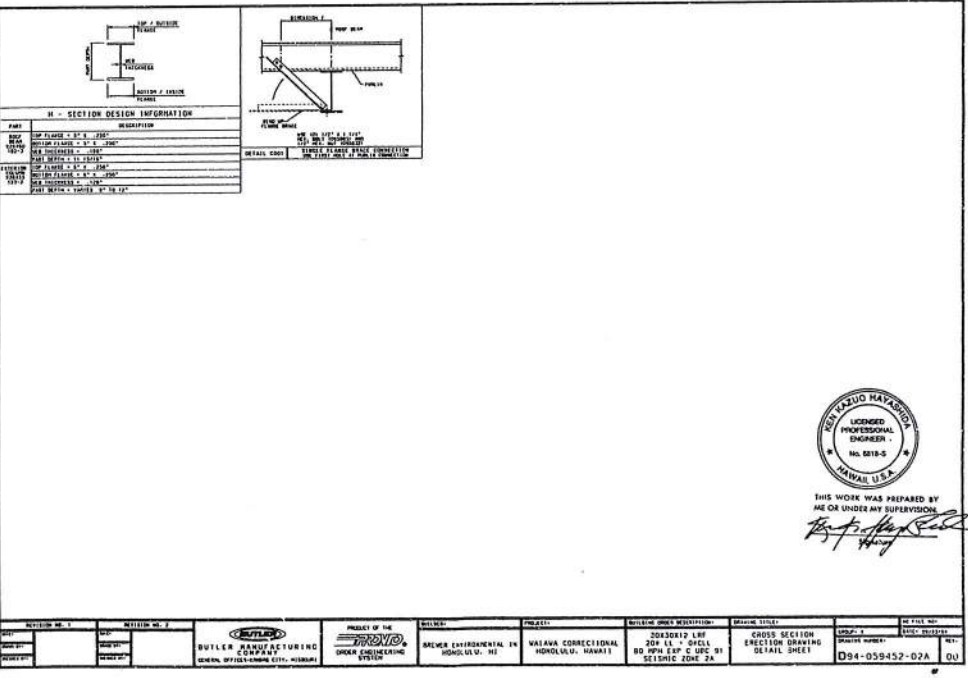
STANDARD NOTES:  
 1. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.  
 2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 3. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 4. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE SPECIFIED.  
 5. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 6. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE SPECIFIED.  
 7. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.  
 8. ALL DIMENSIONS ARE TO SURFACE UNLESS OTHERWISE SPECIFIED.



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*Kent Kazuo Hatayama*  
 Licensed Professional Engineer

REVISION NO. 1		REVISION NO. 2		REVISION NO. 3	
DATE	BY	DATE	BY	DATE	BY

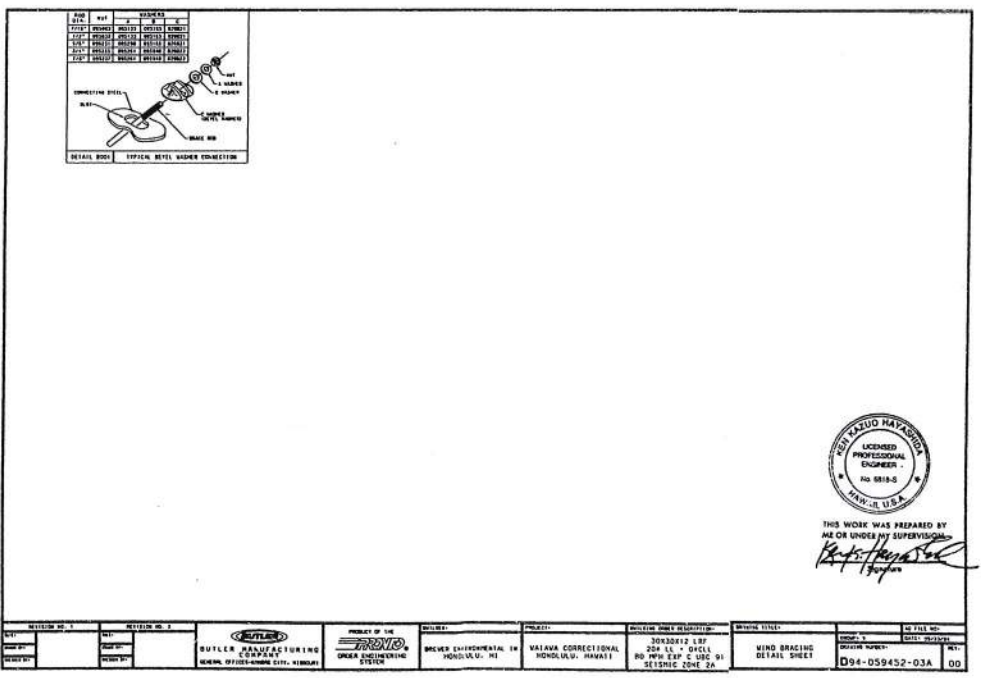
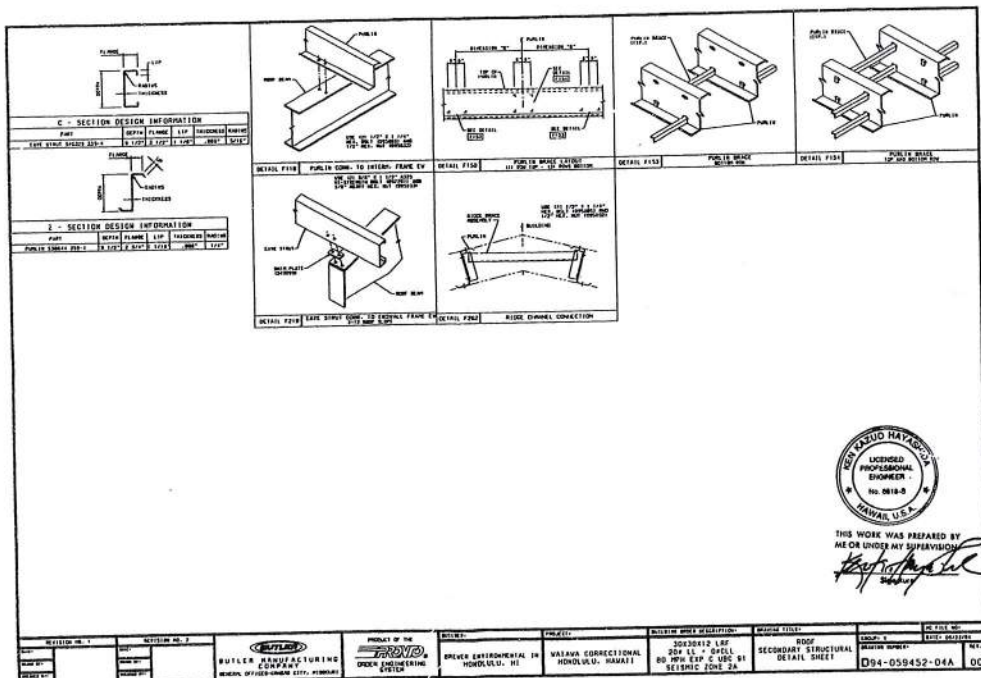
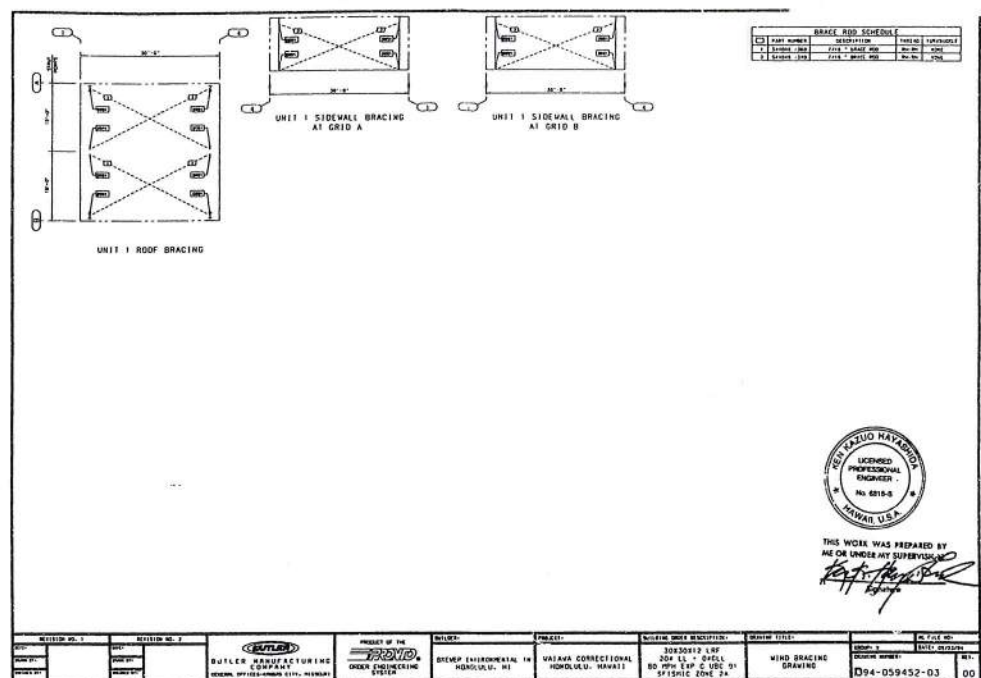
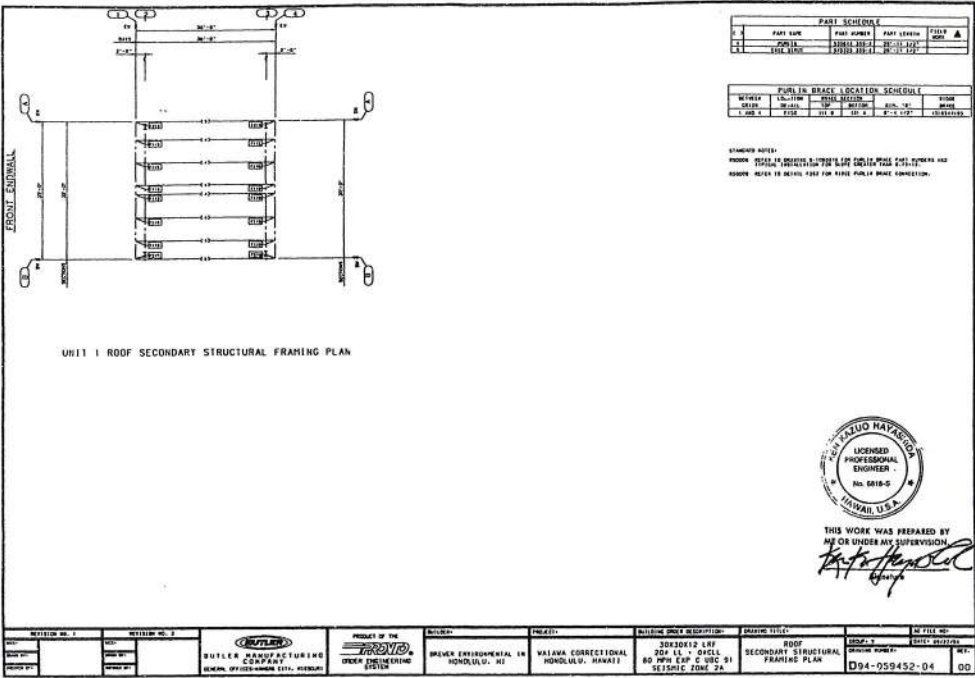
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NO.	1	DATE	DSDAYTON	REV.	1D-29
BY	178.9	DATE	DSDAYTON	REV.	09-23-94
CHKD	04-059452-1	FIN-PART	B	0926455	00



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*Kent Kazuo Hatayama*  
 Licensed Professional Engineer

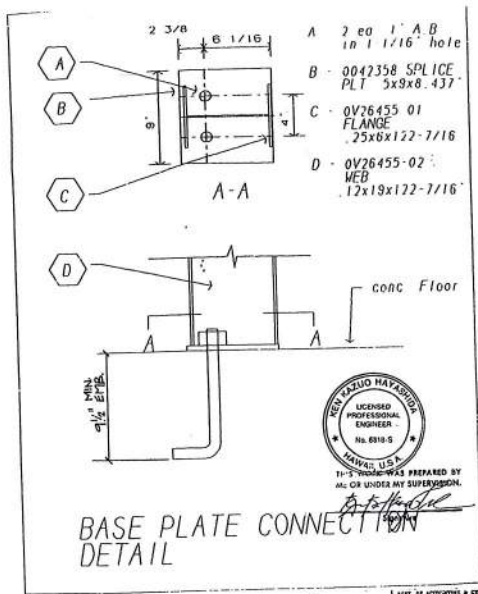
REVISION NO. 1		REVISION NO. 2		REVISION NO. 3	
DATE	BY	DATE	BY	DATE	BY

H-SECTION DESIGN INFORMATION					
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BY	262.7	DATE	DSDAYTON	REV.	09-23-94
CHKD	04-059452-1	FIN-PART	B	0926460	00



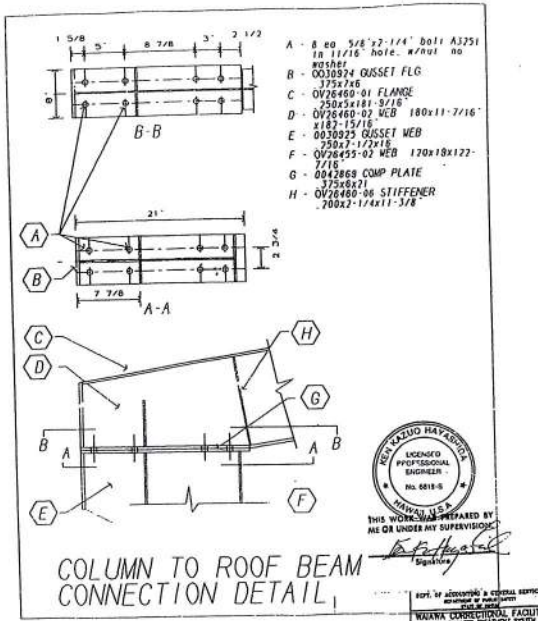
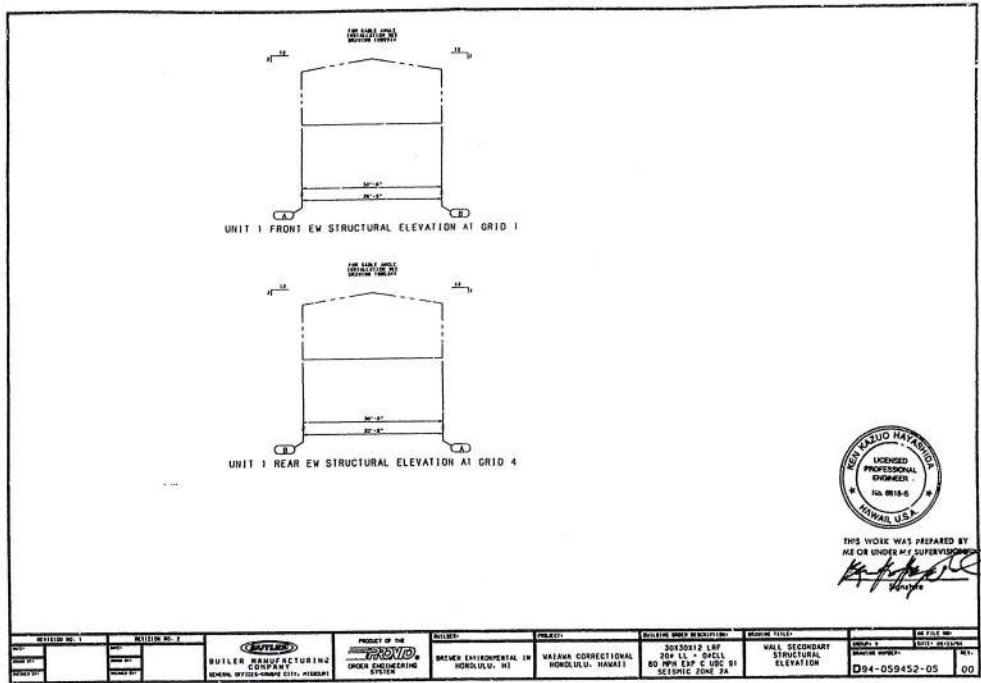
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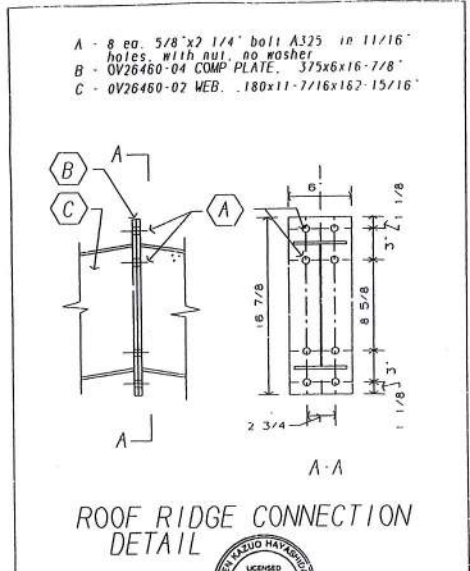
REF. BY APPROVING & OFFICIAL SERVICE  
DIVISION OF LAND & NATURAL RESOURCES  
HAWAIIAN CORRECTIONAL FACILITY  
SURFACE WATER TREATMENT SYSTEM

DATE ASSOCIATED WITH 10-27-2018



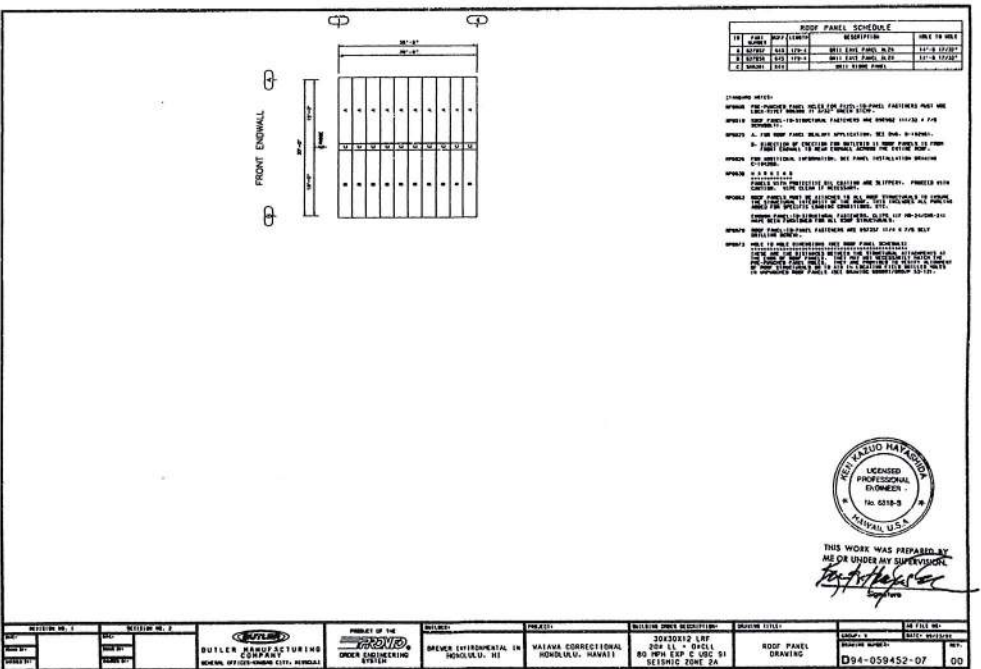
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DIVISION OF LAND & NATURAL RESOURCES  
HAWAIIAN CORRECTIONAL FACILITY  
SURFACE WATER TREATMENT SYSTEM

DATE ASSOCIATED WITH 10-27-2018



REF. BY APPROVING & OFFICIAL SERVICE  
DIVISION OF LAND & NATURAL RESOURCES  
HAWAIIAN CORRECTIONAL FACILITY  
SURFACE WATER TREATMENT SYSTEM

DATE ASSOCIATED WITH 10-27-2018



**BP 411812**

**Excerpts only**

BP 411812  
1 of 58 excerpts.

# WAIAWA CORRECTIONAL FACILITY "KASHBOX" COMPOUND

NOTE: Fire Alarm System approval applies to design and specifications as submitted. Installation and suitability subject to field inspection, testing & acceptance.  
For Fire Chief Approval & License, J. J. ...  
Date: 12/27/97



**BUILDING DEPARTMENT  
FILE COPY**

FOR THE  
DEPARTMENT OF PUBLIC SAFETY

BY THE  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

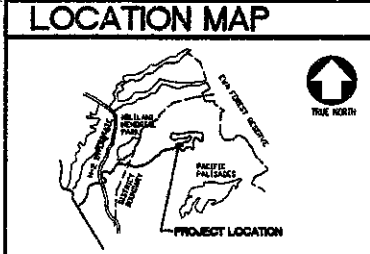
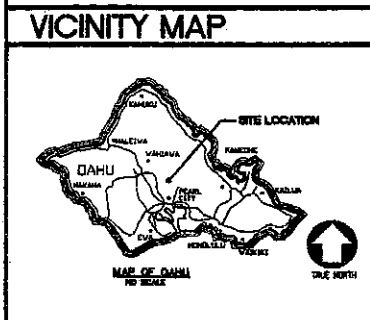
AHL JOB NO. 4638  
TMK NO. 9-6-0511

DAGS JOB NO. 12-27-5522

CONSTRUCTION INSTALLATION APPROVED BY:  
Honorable Fire Department Chief and County of Honolulu  
For Fire Chief Approval & License, J. J. ...  
Date: 12/27/97

**CONDITIONAL APPROVAL ONLY**  
Submitted of three (3) sets of Fire Sprinkler Working Drawings for approval prior to installation.  
 **APPROVED FOR CONSTRUCTION**  
Date: 12/27/97  
Not to be used for building construction City & County of Honolulu

BUILDING DEPARTMENT CITY & COUNTY OF HONOLULU	
A 97-10-1073	DATE
ACCEPTANCE: <i>L. ...</i>	DATE
ZONING: <i>E-1</i>	DATE
ELECTRICAL: <i>...</i>	DATE
PLUMBING: <i>...</i>	DATE
BUILDING: <i>...</i>	DATE
PROJECT: <i>Waiawa Correctional Facility</i>	
TMK 9-6-0511 PERMIT 4-11812	



### CODE INFORMATION

OCCUPANCY	: R-1 (DORMITORY)
TYPE CONSTRUCTION	: TYPE V-N
NO. OF STORIES (PER BUILDING)	: 1
FLOOR AREA (PER BUILDING)	: 5,000 SF (ALLOWABLE) 8,404 SF (PROVIDED)
FLOOR AREA INCREASES	:
SEPARATION ON 2 SIDES	: 6,000 SF x 1.5 = 3,000 SF
AUTOMATIC FIRE SPRINKLER	: 6,000 SF x 3 = 18,000 SF 6,000 SF + 3,000 SF + 18,000 SF = 27,000 SF
	: 27,000 SF > 8,404 SF
EXT. BEARING WALLS	: 1 HR. LESS THAN 5 FT. NOT REQ'D. ELSEWHERE
EXT. NON-BEARING WALLS	: 1 HR. LESS THAN 5 FT.
OPENINGS	: NOT PERMITTED LESS THAN 5 FT

### SYMBOLS

<b>DRAWING NUMBERS</b>	<b>DOOR NUMBERS</b>
A-1 DISCIPLINE	DOOR
A-1 SHEET NUMBER	DOOR NUMBER
<b>INTERIOR KEY</b>	<b>WINDOW NUMBERS</b>
1-1 DIRECTION OF VIEW	WINDOW
2-1 INTERIOR ELEVATION REFERENCE	WINDOW NUMBER
<b>NORTH ARROW</b>	<b>LOUVER NUMBERS</b>
NORTH DIRECTION OF PLAN/NORTH	LOUVER
	LOUVER NUMBER
<b>DRAWING TARGET</b>	<b>PARTITION TYPES</b>
1-1 REFERENCE	1-1 PARTITION TYPE SEE EXT. J-2
A-1 SHEET NUMBER	
<b>ROOM NUMBERS</b>	<b>SIGN NUMBERS</b>
101	1-1 SIGN NUMBER
<b>BUILDING SECTION</b>	<b>COLOR NUMBERS</b>
A-1 REFERENCE	1-1 COLOR NUMBER
A-1 SHEET NUMBER	
<b>WALL SECTION/DETAIL SECTION</b>	
1-1 REFERENCE	
1-1 SHEET NUMBER	
<b>DETAIL SYMBOL</b>	
1-1 REFERENCE	
1-1 SHEET NUMBER	

### ABBREVIATIONS

<b>A</b>	ANCHOR BOLT	<b>E</b>	EAST	<b>L</b>	LENGTH LONG	<b>S</b>	SOUTH
<b>B</b>	BLOCK	<b>F</b>	FRESH AIR	<b>M</b>	MATERIAL	<b>T</b>	TYPICAL
<b>C</b>	CABINET	<b>G</b>	GALVANIZED	<b>N</b>	NOT TO SCALE	<b>U</b>	UNFINISHED
<b>D</b>	DIAPHRAGM	<b>H</b>	HOLLOW METAL	<b>P</b>	PRIORITY LINE	<b>V</b>	VERTICAL
<b>E</b>	ELEVATION	<b>I</b>	INSULATION	<b>Q</b>	QUANTITY TILE	<b>W</b>	WOOD
<b>F</b>	FLOOR	<b>J</b>	JOINT	<b>R</b>	RADIUS	<b>X</b>	CROSS SECTION
<b>G</b>	GROOVE	<b>K</b>	KITCHEN	<b>S</b>	SHOULDER	<b>Y</b>	YIELD POINT
<b>H</b>	HOLLOW METAL			<b>Z</b>	ZONING		
<b>I</b>	INSULATION						
<b>J</b>	JOINT						
<b>K</b>	KITCHEN						

### PROJECT TEAM

<b>ARCHITECT:</b>	ARCHITECTS HAWAII LIMITED	523-9636
<b>CIVIL ENGINEERS:</b>	MATA AND ASSOCIATES, INC.	948-6588
<b>STRUCTURAL ENGINEERS:</b>	KAI HAWAII, INC.	533-2270
<b>MECHANICAL ENGINEERS:</b>	THERMAL ENGINEERING CORPORATION	648-6966
<b>ELECTRICAL ENGINEERS:</b>	EOS, INC.	561-8181

### APPROVALS

<i>Walter K...</i>	9/15/97
DIRECTOR, DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII	DATE
<i>J. ...</i>	9-7-97
COMPTROLLER DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII	DATE
<i>...</i>	DATE
STATE PUBLIC WORKS ENGINEER DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII	DATE
<i>...</i>	DATE
CHIEF ENVIRONMENTAL PROTECTION AND HEALTH SERVICES STATE OF HAWAII	DATE

NO.	STA.	DESCRIPTION	BY	DATE	APPROVED DATE

DEPT. OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

WAIAWA CORRECTIONAL FACILITY  
"KASHBOX" COMPOUND  
OAHU COG  
WAIAWA, OAHU, HAWAII


TITLE SHEET, VICINITY/LOCATION MAPS,  
CODE INFO, 5THED, ASBREV, APPROVA

ARCHITECTS HAWAII LIMITED  
3444 ALI DR  
HONOLULU, HI 96815

THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION  
DATE: 12-27-97  
BY: [Signature]  
DATE: 12-27-97  
BY: [Signature]  
DATE: 12-27-97  
BY: [Signature]  
DATE: 12-27-97

# INDEX TO DRAWINGS

DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION
T-1	TITLE SHEET, VICINITY/LOCATION MAPS, CODE INFORMATION, SYMBOLS, ABBREVIATIONS, APPROVALS	S-1	GENERAL NOTES				
T-2	INDEX TO DRAWINGS	S-2	TYPICAL DETAILS				
		S-3	FOUNDATION PLAN				
		S-4	ROOF FRAMING PLAN				
C-1	NOTES	S-5	SECTIONS AND DETAILS				
C-2	LEGEND, ABBREVIATIONS, VICINITY MAP AND LOCATION MAP	S-6	TRUSS ELEVATIONS				
		S-7	SECTIONS AND DETAILS				
C-3	BORING LOG AND NOTES						
C-4	EXISTING CONDITIONS AND DEMOLITION PLAN						
C-5	SITE LAYOUT AND UTILITY PLAN	M-1	PARTIAL BUILDING "A" MECHANICAL FLOOR PLAN, NOTES, SYMBOLS AND ABBREVIATIONS				
C-6	SITE GRADING AND DRAINAGE PLAN						
C-7	PROFILES	M-2	EXHAUST FAN SCHEDULE, SECTION AND DETAILS				
C-8	PROFILES						
C-9	DETAILS	P-1	PLUMBING SITE PLAN AND NOTES				
C-10	DETAILS	P-2	PLUMBING PLANS, FIXTURE SCHEDULE, SYMBOLS AND ABBREVIATIONS				
C-11	DETAILS						
C-12	DETAILS	P-3	PARTIAL BUILDING "A" PLUMBING PLAN				
C-13	DETAILS	P-4	BUILDING "A" SANITARY PIPING DIAGRAM, GAS PIPING DIAGRAM				
C-14	DETAILS						
C-15	DETAILS	P-5	BUILDING "A" WATER PIPING DIAGRAM AND EQUIPMENT SCHEDULE				
C-16	DETAILS	P-6	DETAILS				
A-1	SITE PLAN	FS-1	FIRE PROTECTION PLANS, DETAILS AND NOTES				
A-2	BUILDING "A" FLOOR PLAN, DETAILED FLOOR PLANS, SIGN TYPES						
A-3	BUILDING "A" REFLECTED CEILING PLAN, CEILING DETAILS	E-1	ELECTRICAL SYMBOL LIST, MOUNTING HEIGHT SCHEDULE AND GENERAL NOTES				
A-4	BUILDING "A" ROOF PLAN, GAS WATER HEATER FLUE DETAIL, DRAFT STOP DETAIL	E-2	SITE - ELECTRICAL PLAN				
		E-3	MISCELLANEOUS EXTERIOR DETAILS				
A-5	BUILDING "A" SECTIONS, TYPICAL WALL SECTIONS	E-4	BUILDING "A" - POWER PLAN				
A-6	BUILDING "A" EXTERIOR ELEVATIONS, COLOR SCHEDULE	E-5	BUILDING "A" - SIGNAL PLAN				
A-7	BUILDING "A" INTERIOR ELEVATIONS	E-6	BUILDING "A" - LIGHTING PLAN				
A-8	BUILDING "A" INTERIOR ELEVATIONS	E-7	ONE-LINE DIAGRAM				
A-9	BUILDING "A" INTERIOR ELEVATIONS	E-8	MISCELLANEOUS DIAGRAMS				
A-10	FINISH SCHEDULE, DOOR SCHEDULE AND TYPES, WINDOW SCHEDULE AND TYPES	E-9	FIRE ALARM RISER DIAGRAM				
A-11	DOOR AND WINDOW DETAILS						
A-12	ROOF DETAILS						
A-13	PARTITION TYPES, MISCELLANEOUS DETAILS						
A-14	MISCELLANEOUS DETAILS						
A-15	MISCELLANEOUS DETAILS						

<small>REVISION NO.</small>	<small>DATE</small>	<small>DESCRIPTION</small>	<small>BY</small>	<small>CHKD</small>	<small>APPROVED DATE</small>
					<small>PUBLIC WORKS DIVISION</small>
					
<b>DEPT. OF ACCOUNTING AND GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIKAWA CORRECTIONAL FACILITY</b> <b>"KABUKU" CAMP</b> OAHU CCC WAIKAWA, EWA, OAHU, HAWAII <b>INDEX TO DRAWINGS</b>					
<small>ARCHITECT: HAWAII LIMITED</small>			<small>SCALE: 1/8" = 1'-0"</small>	<small>DRAWING NO.</small>	<small>SHEET NO.</small>
<small>DESIGNED BY: SY/SU</small>	<small>CHECKED BY: OU</small>	<small>DATE: 12-27-82</small>	<small>BY: GYS</small>	<small>T-2</small>	<small>2</small>
<small>DATE: AS NOTED</small>	<small>BY: SY</small>	<small>10-1-82</small>	<small>2</small>	<small>2</small>	<small>2</small>

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", SEPTEMBER 1986, AND "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION", SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU.
2. UNLESS OTHERWISE NOTED, ALL EXISTING PAVEMENT, CONCRETE WALKS, UTILITY LINES, AND OTHER IMPROVEMENTS DAMAGED OR UNDERMINED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE RECONSTRUCTED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE TO MATCH EXISTING CONDITIONS.
3. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD. HOWEVER, CONNECTION TO UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. 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. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES. NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY FOR ALL DAMAGED UTILITIES. TONE TRENCHING ROUTES FOR EXISTING UTILITY PRIOR TO EXCAVATION.
6. TOPOGRAPHIC DATA TAKEN FROM TOPOGRAPHIC MAP PREPARED BY D.A.G.S. - SURVEY DIVISION AND ENTITLED, "WAIANA CORRECTIONAL FACILITY", (PROPOSED 200 BEDS) "WAIANA, EWA, OAHU, HAWAII" DATED FEBRUARY 21, 1996.
7. FOR BENCHMARK, SEE SHEET C-6.

DEMOLITION NOTES:

1. ALL EXISTING IMPROVEMENTS TO REMAIN UNLESS NOTED OTHERWISE.
2. SEE ELECTRICAL PLAN FOR DISPOSITION OF EXISTING ELECTRICAL AND TELEPHONE FACILITIES.
3. SEE SHEET C-4 FOR DISPOSITION OF EXISTING TREES, SHRUBBERY, GROUNDCOVER AND OTHER PLANT MATERIAL. TREE REMOVAL SHALL INCLUDE TRUNK, ROOTS AND ROOT BALL.
4. ALL EXISTING IMPROVEMENTS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED TO MATCH CONDITIONS PRIOR TO COMMENCING CONSTRUCTION.

SEWER NOTES:

1. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY'S STANDARD SPECIFICATIONS, SEPTEMBER 1986, THE DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS, SEPTEMBER 1984, CURRENT CITY PRACTICES AND REVISED ORDINANCES OF HONOLULU, 1980, AS AMENDED, AND THE DESIGN STANDARDS OF THE DEPARTMENT OF WASTEWATER MANAGEMENT, VOLUME 1, JULY 1993.
2. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS RESEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING THE AREA.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SEWER SERVICE TO ALL AFFECTED AREAS DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SEWAGE SPILLS CAUSED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE STATE DEPARTMENT OF HEALTH AND UTILIZE APPROPRIATE SAMPLING AND ANALYZING PROCEDURES.

CONFINED SPACE SEWER NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING:


1. ALL SAFETY EQUIPMENT REQUIRED BY THE CONFINED SPACE REGULATIONS APPLICABLE TO ALL PARTIES OTHER THAN THE CONSTRUCTION INDUSTRY, TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING:
  - a. FULL BODY HARNESSES FOR UP TO TWO PERSONNEL.
  - b. LIFELINE AND ASSOCIATED CLIPS.
  - c. HORN/ROGERS AND FALL PROTECTION EQUIPMENT.
  - d. TWO-WAY RADIOS (WALKIE-TALKIES) IF OUT OF LINE-OF-SIGHT.
  - e. EMERGENCY (ESCAPE) RESPIRATOR (10-MINUTE DURATION).
  - f. CELLULAR TELEPHONE TO CALL FOR EMERGENCY ASSISTANCE.
  - g. CONTINUOUS GAS DETECTOR (CALIBRATED) TO MEASURE OXYGEN, HYDROGEN SULFIDE, CARBON MONOXIDE AND FLAMMABLES (CAPABLE OF MONITORING AT A DISTANCE AT LEAST 20 FEET AWAY).
  - h. PERSONAL MULTI-GAS DETECTOR TO BE CARRIED BY INSPECTOR.
2. CONTINUOUS FORCED AIR VENTILATION ADEQUATE TO PROVIDE SAFE ENTRY CONDITIONS.
3. ONE ATTENDANT/RESCUE PERSONNEL TOPSIDE (TWO, IF CONDITIONS WARRANT IT).

WATER NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY AND COUNTY OF HONOLULU, BOARD OF WATER SUPPLY'S "WATER SYSTEM STANDARDS," VOLUME 1, DATED 1985, AND THE "APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION," VOLUME 2, DATED 1985, "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS," VOLUME 3, DATED 1991, AND ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL WATER LINES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE ESPECIALLY CAREFUL WHEN EXCAVATING BEHIND WATER LINE TEES, AND BENDS WHEREVER THERE IS POSSIBILITY OF WATER LINE MOVEMENT DUE TO REMOVAL OF THE SUPPORTING EARTH BEYOND THE EXISTING REACTION BLOCKS. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES NECESSARY TO PROTECT THE WATER LINES, SUCH AS CONSTRUCTING SPECIAL REACTION BLOCKS (WITH ENGINEERS APPROVAL) AND/OR MODIFYING HIS CONSTRUCTION METHOD.
3. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA BUT IS NOT GUARANTEED AS TO THE ACCURACY OF THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
4. THE INSTALLATION, CHLORINATION, AND TESTING OF THE WATER MAIN AND FACILITIES AFTER THE METER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. CHLORINATED HYDROTESTING WATER SHALL BE DISCHARGED INTO TEMPORARY RETENTION BASINS CONSTRUCTED BY THE CONTRACTOR. SHOULD THE CONTRACTOR DISCHARGE THE HYDROTESTING WATER INTO STATE WATERWAYS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A NPDES PERMIT TO ALLOW SUCH DISCHARGE. UPON COMPLETION OF TESTING, THE RETENTION BASIN SHALL BE RESTORED TO ORIGINAL CONDITIONS.
6. THE CONTRACTOR, IN THE PRESENCE OF THE ENGINEER, WILL FLOW TEST THE MOST CRITICAL HYDRANTS (HYDRANTS WITH LEAST FLOW EXPECTED). THE CONSULTING ENGINEER WILL FURNISH TO THE HONOLULU FIRE DEPARTMENT, THE FOLLOWING FLOW DATA: STATIC AND RESIDUAL PRESSURES IN PSI, PILOT AND FLOW IN GPM, GENERAL LAYOUT DRAWING SHOWING LOCATIONS OF HYDRANTS AND MANUFACTURER OF HYDRANTS.
7. TEST PRESSURE SHALL BE 200 PSI. (1)
8. THE CONTRACTOR SHALL CHLORINATE THE ENTIRE INSIDE SURFACE OF EACH PIPE AND FITTING WITH DISINFECTION SOLUTION OF 5 OUNCES OF SODIUM HYPOCHLORITE MIXED WITH 10 GALLONS OF WATER. (FOR CONNECTION ONLY).
9. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, THE MANUFACTURER'S CERTIFICATION THAT ALL CAST IRON (GRAY OR DUCTILE) FITTINGS FOR THE PROJECT CONFORM IN ALL RESPECTS TO THE WATER SYSTEM STANDARDS, DATED 1985.
10. POLYGON SHAPE FOR MECHANICAL JOINT GLANDS AS DESCRIBED IN AWWA STANDARD C111 SHALL BE "STRAIGHT-SIDED".

GRADING NOTES:

1. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 13, 14, 15 AND 16 AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL, OF THE REVISED ORDINANCES OF HONOLULU, 1993 AS AMENDED AND SOILS REPORT BY GEOLABS-HAWAII, DATED MAY 29, 1991.
2. NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM, TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE COSTS INCURRED FOR ANY REMEDIAL ACTION BY THE STATE SHALL BE PAYABLE BY THE CONTRACTOR.
3. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN CHAPTER 11-60, "AIR POLLUTION CONTROL".
4. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXISTING BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
5. ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE.
6. ALL SLOPES AND EXPOSED AREAS SHALL BE SODED OR PLANTED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED.
7. FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEVED.
8. THE STATE SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
9. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS, AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE ENGINEER, PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH HAWAII ADMINISTRATIVE RULES, CHAPTER 11-45, "COMMUNITY NOISE CONTROL FOR OAHU".
10. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
11. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, CHAPTER 11-85, "WATER POLLUTION CONTROL" AND CHAPTER 11-84, "WATER QUALITY STANDARDS".
12. WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTHMOVING PHASE OF THE GRADING IS INITIATED.
13. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED.
14. IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
15. NON-COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK, AND REMEDIAL WORK SHOULD COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE PERMITTEE. FURTHERMORE, VIOLATORS SHALL BE SUBJECTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.
16. FOR BENCH MARK, SEE THE SITE GRADING AND DRAINAGE PLAN.

ADD-1	REVISE WATER NOTES NO. 7 FROM 150 PSI TO 200 PSI	1 OF 15	10-24-97
REVISION NO.	DATE	DESCRIPTION	APPROVED STATE PUBLIC WORKS ENGINEER
DEPT. OF ACCOUNTING AND GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIANA CORRECTIONAL FACILITY</b> <b>"KASHBOX" COMPOUND</b> <b>OAHU CCC</b> <b>WAIANA, EWA, OAHU, HAWAII</b>			
NOTES			
		ARCHITECTS HAWAII LIMITED DESIGNED BY: AMR DRAWN BY: AMR SCALE: NONE	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>Gordon Y. Lim</i>		DATE: 12-27-85 SHEET: 3 OF 3	

LEGEND

—W—	EXISTING WATERLINE
—S—	EXISTING SEWERLINE
-B-	EXISTING GROUND CONTOUR
9.25	EXISTING SPOT ELEVATION
—W—	NEW WATERLINE
—S—	NEW SEWERLINE
-G-	FINISHED GRADE CONTOUR
9.25	FINISHED SPOT ELEVATION
→	EXISTING FLOW DIRECTION
→	FLOWLINE DIRECTION
⊙	TEST BORING LOCATION

ABBREVIATIONS FOR CIVIL SHEETS

AC	ASPHALTIC CONCRETE	FL	FLOWLINE
AD	AREA DRAIN	GI	GRATED INLET
AZ	AZIMUTH	GRD	GROUND
BC	BOTTOM OF CURB	GV	GATE VALVE
BLDG	BUILDING	H	HEIGHT
BLK	BLOCK	HP	HIGHPOINT
BW	BOTTOM OF WALL	HW	INVERT
C.L.	CHAIN LINK	LF	LINEAR FEET
CL	CLASS	NIC	NOT IN CONTRACT
CLR	CLEAR	RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE	REMF	REINFORCED
CO	CLEANOUT	S	SLOPE
COHC	CONCRETE	SL	SEWERLINE
COTG	CLEANOUT TO GRADE	SDMH	STORM DRAIN MANHOLE
CU	COPPER	SMH	SEWER MANHOLE
D, DIA	DIAMETER	S/W	SIDEWALK
DI	DUCTILE IRON	TC	TOP OF CURB
DIM	DIMENSION	TH	TOP OF WALL
DL	DRAINLINE	TYP	TYPICAL
DWY	DRIVEWAY	VB	VALVE BOX
ELEV	ELEVATION	WL	WATERLINE
EX., EXIST.	EXISTING	WM	WATER METER
EX. GR.	EXISTING GRADE	WMH	WATER MANHOLE
FB, FLR.	FINISHED FLOOR	W/W	WALKWAY
FI	FIRE HYDRANT		

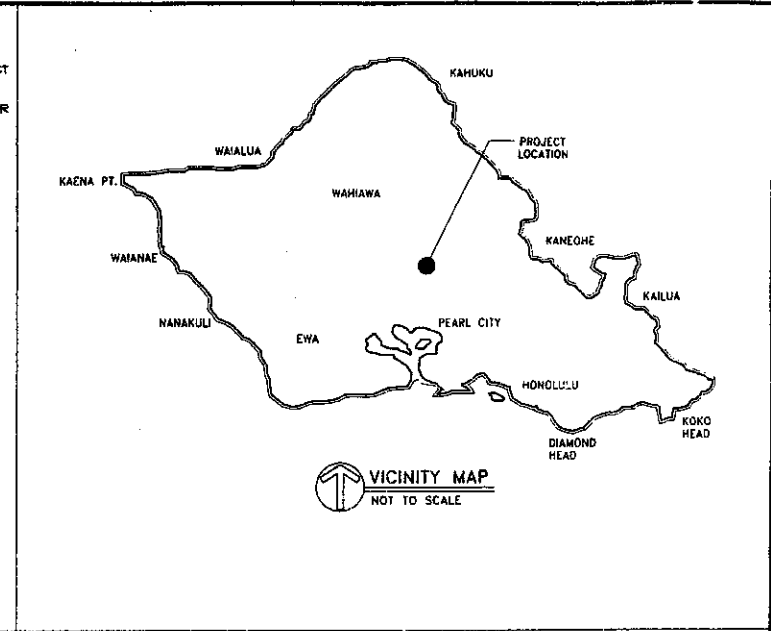
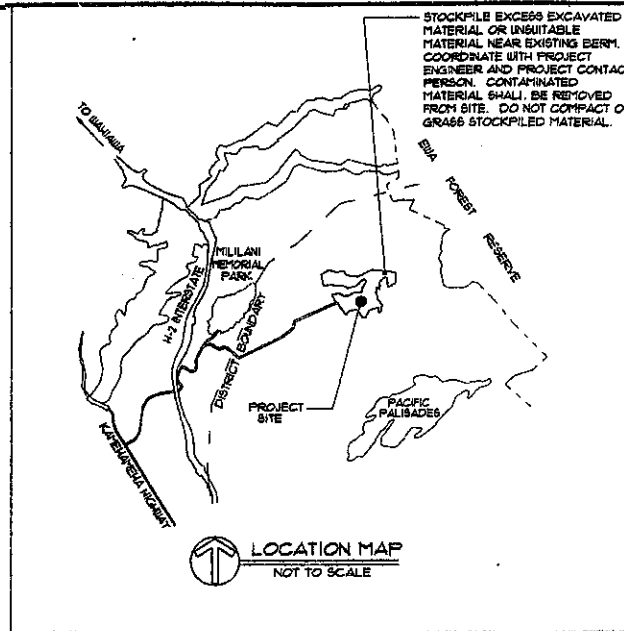
ESTIMATED EARTHWORK SUMMARY

TOTAL EXCAVATION = 4,006 C.Y.

TOTAL EMBANKMENT = 492 C.Y.

TOTAL AREA TO BE GRADED = 2.7 AC.

1. THE QUANTITIES SHOWN SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE EXACT QUANTITIES FOR BIDDING.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE THE GRADING WORK TO THE GRADES AND DIMENSIONS SHOWN ON THE PLANS. IF IMPORTED MATERIALS ARE REQUIRED TO OBTAIN FINISHED GRADES, THE CONTRACTOR IS REQUIRED TO IMPORT SUITABLE MATERIALS AS SPECIFIED AT THE CONTRACTOR'S EXPENSE. IF EXCAVATED MATERIAL IS IN EXCESS, THE CONTRACTOR SHALL BE REQUIRED TO DISPOSE OF THE MATERIAL AWAY FROM THE PROJECT AT THE CONTRACTOR'S EXPENSE.
3. EARTHWORK QUANTITIES ARE TAKEN FROM FINISHED GRADE TO EXISTING GROUND.



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED DATE
<b>DEPT. OF ACCOUNTING AND GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIJAWA CORRECTIONAL FACILITY</b> <b>"KASHBOX" COMPOUND</b> <b>OHAI COC</b> <b>WAIJAWA, EWA, OAHU, HAWAII</b> <b>LEGEND, ABBREVIATIONS, VICINITY MAP</b> <b>AND LOCATION MAP</b>					
ARCHITECTS HAWAII LIMITED DESIGNED BY: AMR DRAWN BY: AMR			CHECKED BY: DTH DATE: 12-27-92 APPROVED BY: EYE DATE: OCT. 1, 1997		
SCALE: NONE			SHEET NO: C-2 OF 56 SHEETS		

BORING LOG W.O. 97-2925

BORING NO. 81 DRIVING WT. 140 lb. DATE OF DRILLING 7/29/97  
 SURFACE ELEV. 3034' DROP 30 in. WATER LEVEL None

DEPTH (ft)	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
1			15	84	36	Silty CLAY (MH) - Reddish brown, moist, medium stiff to stiff. Stiff from 2.0 feet. Mottled reddish brown color from 3.5 feet. Brown color from 7 feet.
2			45	83	43	
3			43	78	54	
4						End boring at 9.5 feet.
5						
10						
15						
20						
25						
30						

Plate B1

BORING LOG W.O. 97-2925

BORING NO. 82 DRIVING WT. 140 lb. DATE OF DRILLING 7/29/97  
 SURFACE ELEV. 3028' DROP 30 in. WATER LEVEL None

DEPTH (ft)	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
1			32	81	40	Silty CLAY (MH) - Reddish brown, moist, stiff. Mottled reddish brown color from 4.5 feet. Brown color from 8 feet.
2			36	76	48	
3			49	72	50	
4						End boring at 10.5 feet.
5						
10						
15						
20						
25						
30						

Plate B2

BORING LOG W.O. 97-2925

BORING NO. 83 DRIVING WT. 140 lb. DATE OF DRILLING 7/29/97  
 SURFACE ELEV. 3038' DROP 30 in. WATER LEVEL None

DEPTH (ft)	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
1			28	85	40	Silty CLAY (MH) - Reddish brown, moist, stiff. Mottled reddish brown color from 3.5 feet. Brown color from 7.5 feet.
2			30	86	37	
3			48	79	43	
4						End boring at 10.5 feet.
5						
10						
15						
20						
25						
30						

Plate B3

BORING LOG W.O. 97-2925

BORING NO. 84 DRIVING WT. 140 lb. DATE OF DRILLING 7/29/97  
 SURFACE ELEV. 3034' DROP 30 in. WATER LEVEL None

DEPTH (ft)	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
1			30	82	38	Silty CLAY (MH) - Reddish brown, moist, stiff. Mottled reddish brown color from 4 feet. Brown color from 8 feet.
2			55	81	43	
3			58	84	39	
4						End boring at 9.5 feet.
5						
10						
15						
20						
25						
30						


Plate B4

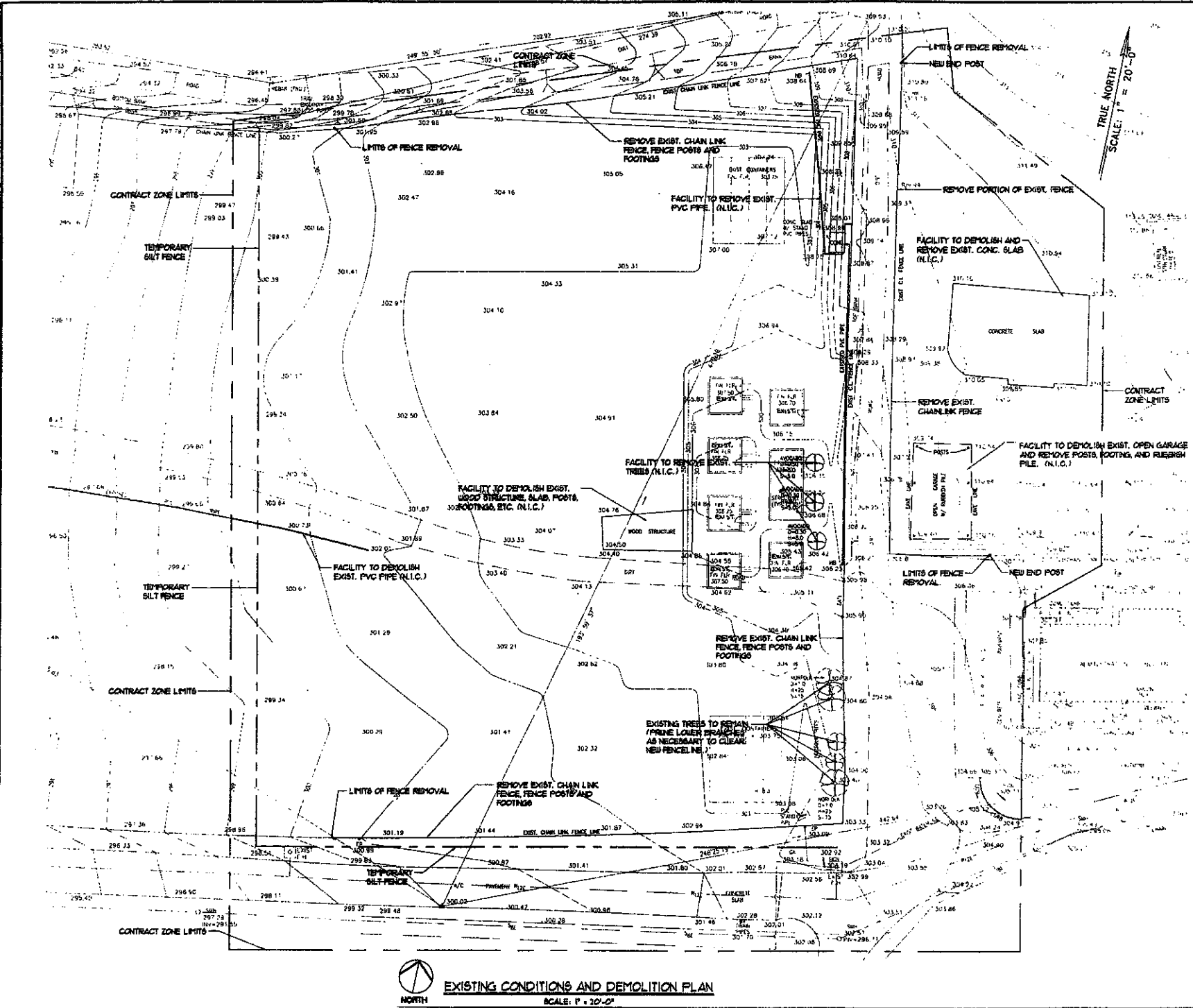
BORING LOG W.O. 97-2925

BORING NO. 85 DRIVING WT. 140 lb. DATE OF DRILLING 7/29/97  
 SURFACE ELEV. 3025' DROP 30 in. WATER LEVEL None

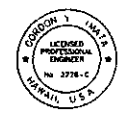
DEPTH (ft)	GRAPEL	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						
1			29	75	42	Silty CLAY (MH) - Reddish brown, moist, stiff. Mottled reddish brown color from 7.5 feet. Brown color from 9.5 feet.
2			25	85	39	
3			34	78	39	
4						End boring at 10.5 feet.
5						
10						
15						
20						
25						
30						

Plate B5

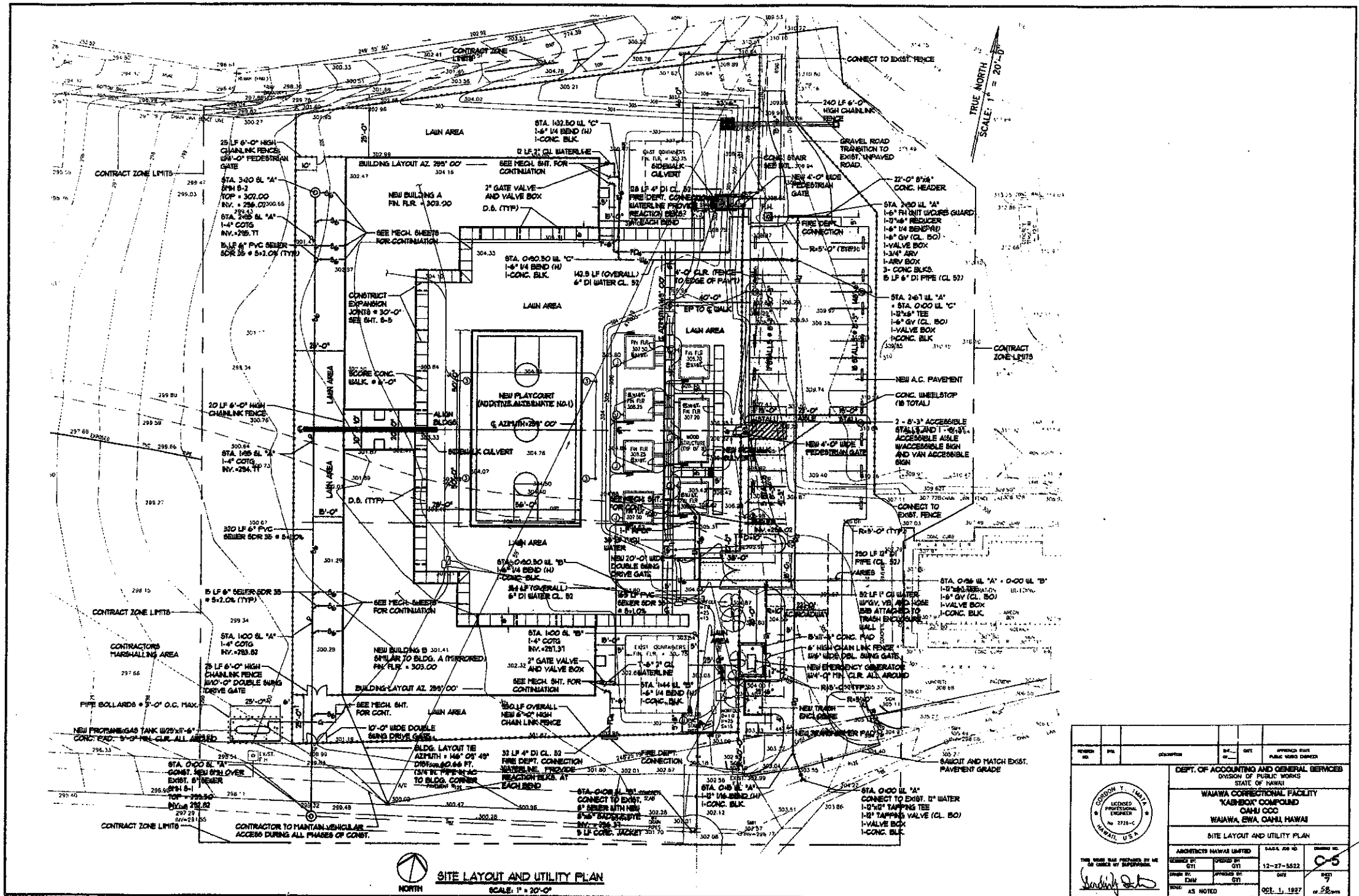
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED STATE PUBLIC WORKS ENGINEER
					
DEPT. OF ACCOUNTING AND GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII WAI'ANA CORRECTIONAL FACILITY "KASHBOX" COMPOUND OAHU CCC WAI'ANA, EWA, OAHU, HAWAII					
BORING LOGS					
ARCHITECTS HAWAII LIMITED DESIGNED BY: AMR DRAWN BY: AMR SCALE: AS SHOWN		CHECKED BY: GYI APPROVED BY: GYI DATE:		SHEET NO: C-3 OF 58 SHEETS DATE: OCT. 1, 1997	




**EXISTING CONDITIONS AND DEMOLITION PLAN**  
 SCALE: 1" = 20'-0"

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED DATE
					
<b>DEPT. OF ACCOUNTING AND GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> <b>'KAHIKO' COMPOUND</b> <b>OAHU, OAHU, HAWAII</b>					
<b>EXISTING CONDITIONS AND DEMOLITION PLAN</b>					
ARCHITECTS HAWAII LIMITED DESIGNED BY: GYI DRAWN BY: EJM SCALE: AS NOTED	CHECKED BY: GYI APPROVED BY: GYI	A.A.S. JOB NO. 12-27-5522	DRAWING NO. <b>C-4</b>	DATE OCT. 1, 1997	BY: <i>Handwritten Signature</i> OF: 58





**SITE LAYOUT AND UTILITY PLAN**  
 SCALE: 1" = 20'-0"

REVISION NO.	DATE	DESCRIPTION	BY	CHKD	APPROVED DATE

THIS SEAL WAS PREPARED BY ME OR UNDER MY SUPERVISION

*Gordon Y. Lim*

**DEPT. OF ACCOUNTING AND GENERAL SERVICES**  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

**WAIAWA CORRECTIONAL FACILITY**  
**'KAB-BOX' COMPOUND**  
**CAHU CCC**  
**WAIAWA, EWA, CAHU, HAWAII**

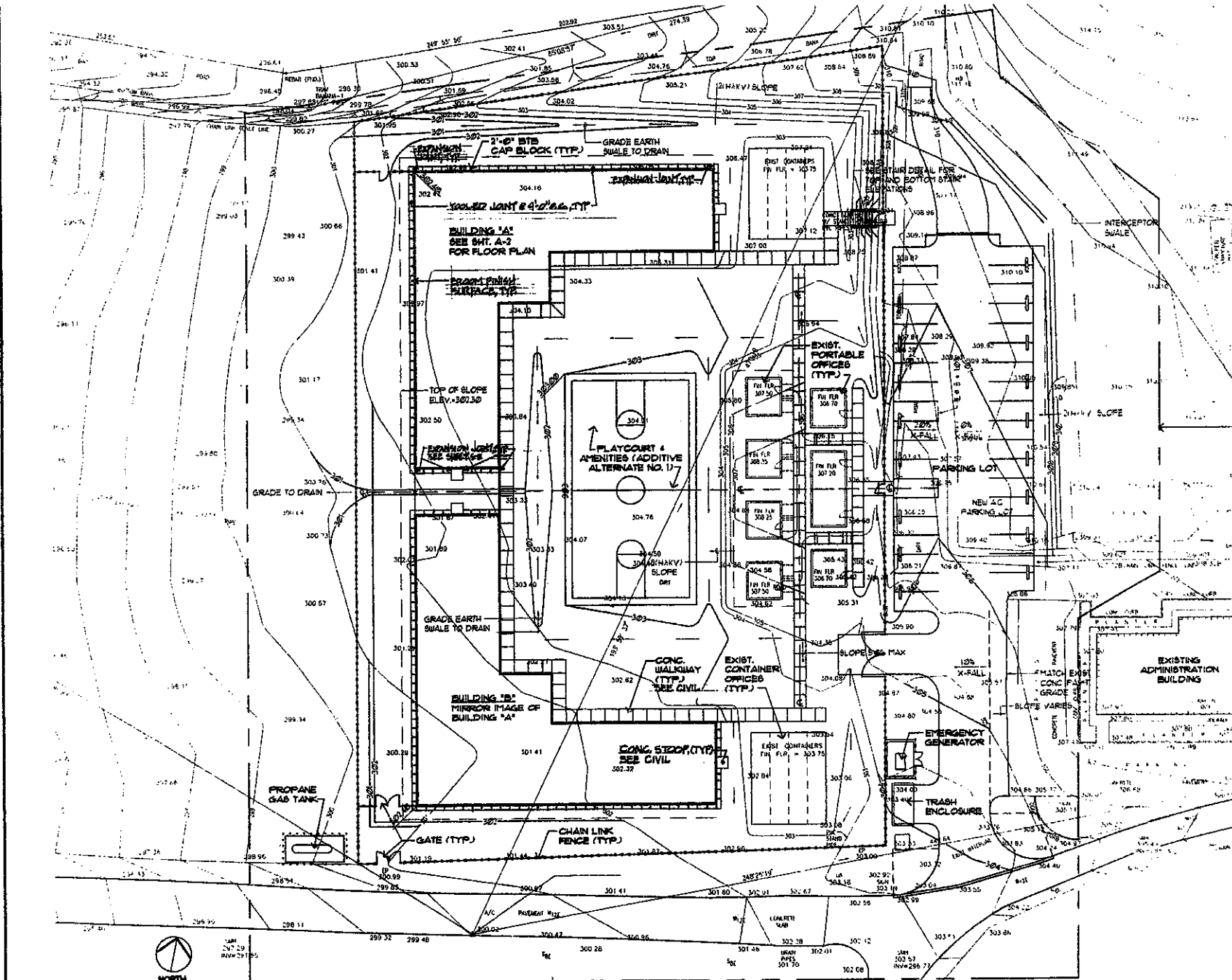
**SITE LAYOUT AND UTILITY PLAN**

ARCHITECT: HAWAII LIMITED      DRAWING NO. 05

DESIGNED BY: GYL      CHECKED BY: GYL      12-27-8522      **05**

DRAWN BY: CHM      APPROVED BY: GYL      DATE:      REV:

SCALE: AS NOTED      OCT. 1, 1987      BY: *CHM*

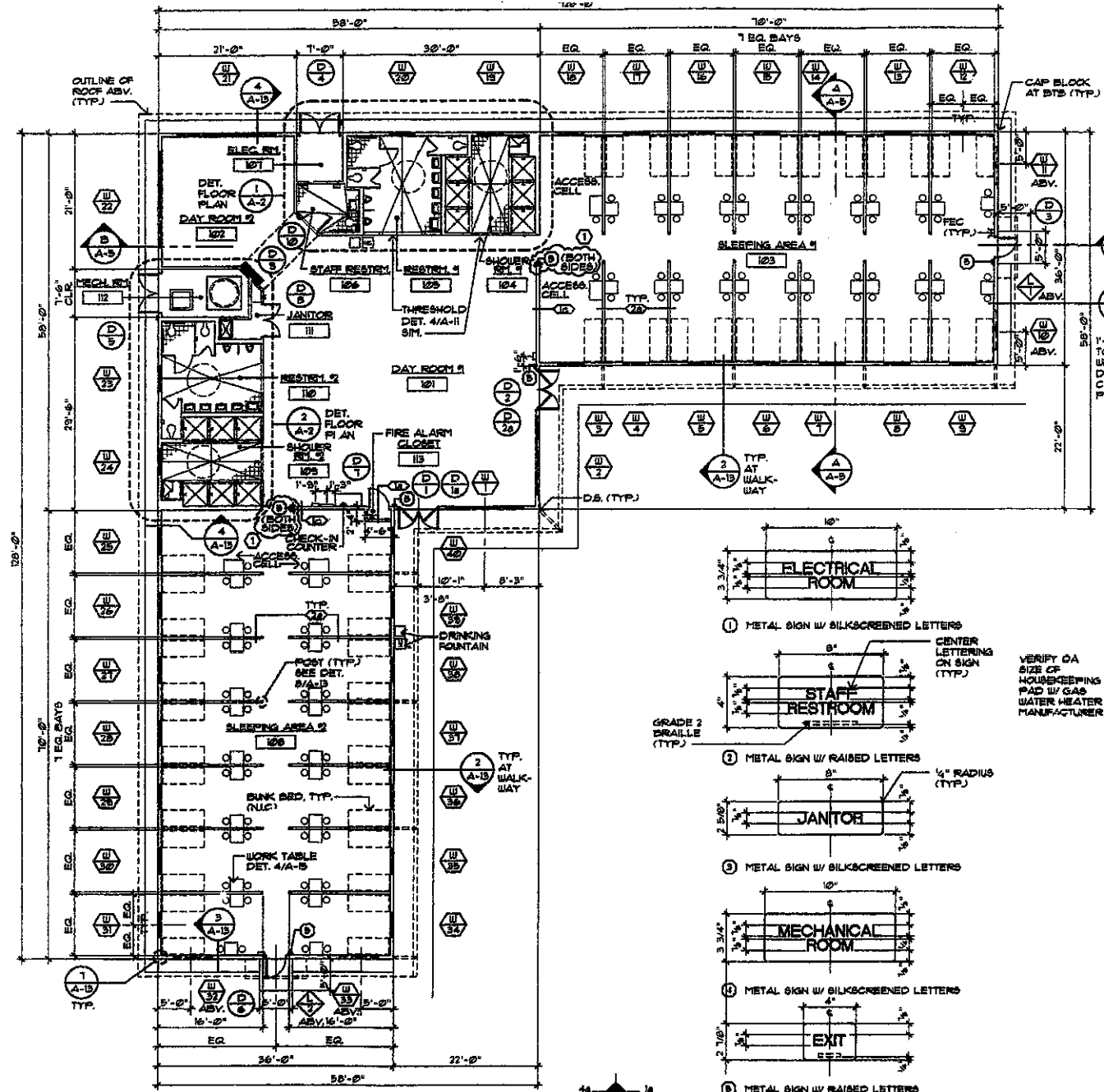


**SITE PLAN**  
SCALE: 1" = 20'-0"

NOTE: ALL WORK IS PART OF THE LUMP SUM BASE BID, UNLESS OTHERWISE NOTED

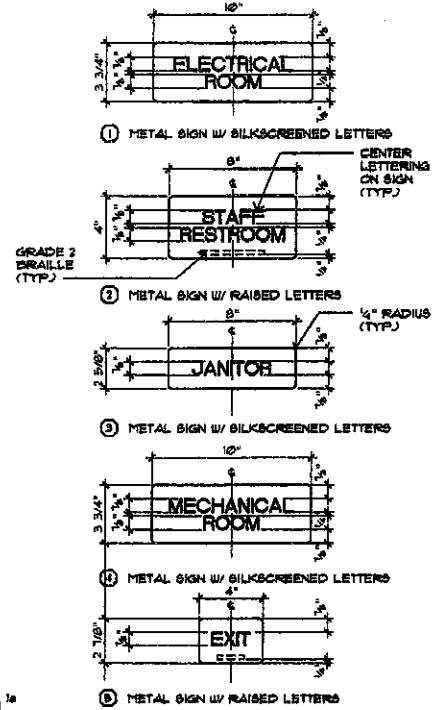
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED (NOTE PLACE SIGNATURE)
<b>DEPT. OF ACCOUNTING AND GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIAHA CORRECTIONAL FACILITY</b> <b>'KABIBOX' COMPOUND</b> <b>CAHU CCC</b> WAIAHA, EWA, OAHU, HAWAII					
<b>SITE PLAN</b>					
ARCHITECT: HAWAII LIMITED 2155 KALANANAKU AVE., SUITE 200 HONOLULU, HAWAII 96815		DATE: 12-27-82		DRAWING NO.: <b>A-1</b>	
DESIGNED BY: [Signature] CHECKED BY: [Signature]		ORDER NO.: 12-27-82		SHEET NO.: 19	
SCALE: AS NOTED		DATE: 12-1-82		BY: [Signature]	



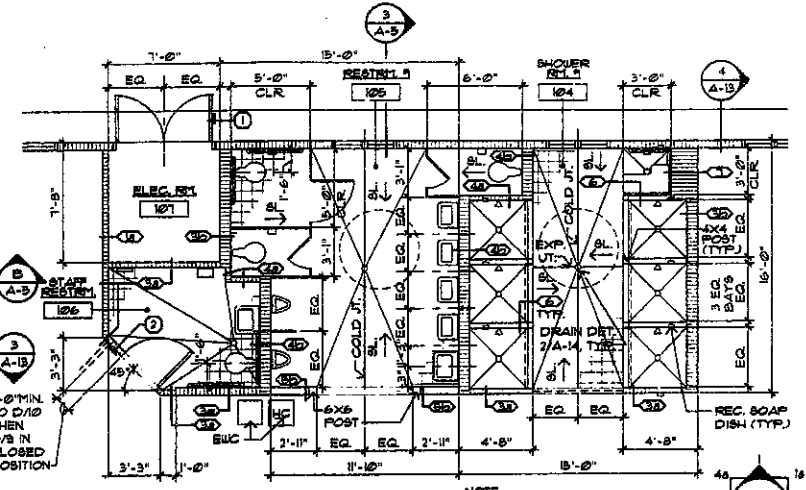


**FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

NOTE: PLANS DRAWN FOR BUILDING "A"  
BUILDING "B" SIMILAR, MIRROR

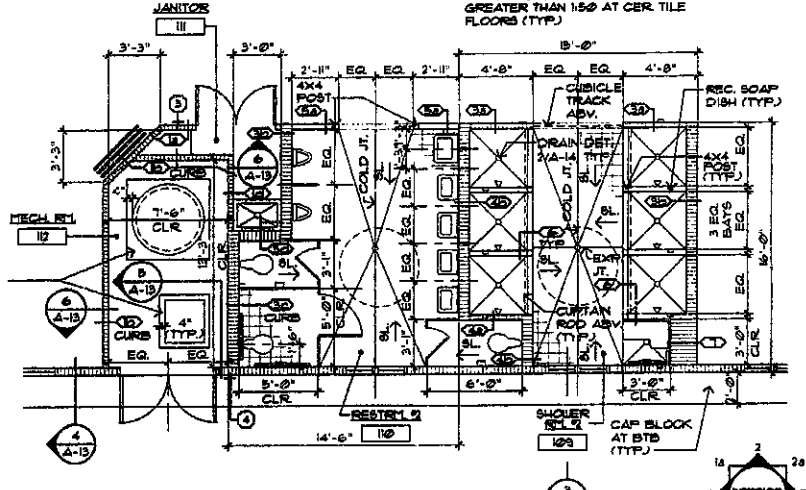


**SIGN TYPES**  
SCALE: 3" = 1'-0"

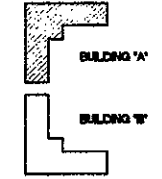


**1 DETAILED FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

NOTE:  
1. FOR CER. TILE COLD JOINTS, SEE DET. 4/A-14. FOR CER. TILE EXP. JOINTS, SEE DET. 3/A-14 (TYP.)  
2. RAINING SLOPES NO GREATER THAN 1/32. CROSS SLOPES NO GREATER THAN 1/50 AT CER. TILE FLOORS (TYP.)



**2 DETAILED FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



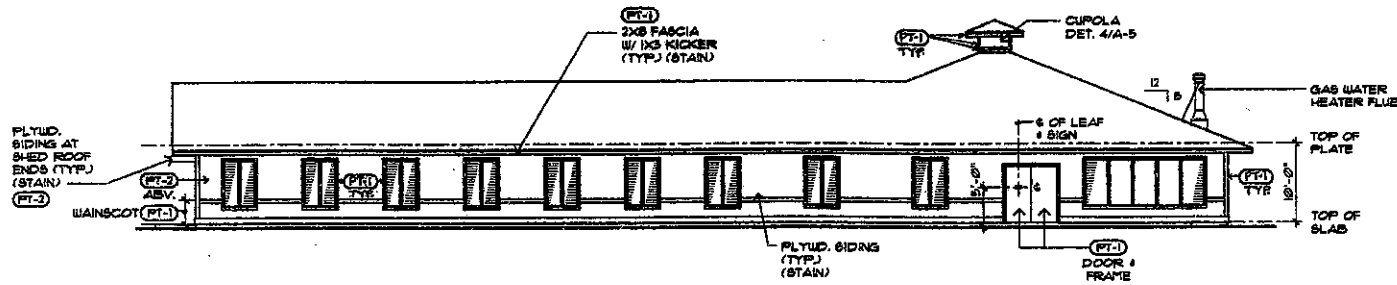
**KEY PLAN**  
NOT TO SCALE

ADD-1	(1)	ADD DET. SIGNAGE	DATE: 10-15-91	APPROVED: [Signature]
NO. 10	STA.	DESCRIPTION	BY: [Signature]	DATE: 12-27-83
<b>DEPT. OF ACCOUNTING AND GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAWAUA CONVENTIONAL FACILITY</b> <b>"KARIBOX" COMPOUND</b> OAHU COC WAWAUA, EWA, OAHU, HAWAII				
<b>BUILDING "A" FLOOR PLAN &amp; DETAILED FLOOR PLANS, SIGN TYPES</b>				
ARCHITECT: HAWAII LIMITED	DATE: 08-80	PROJECT NO.:	DRAWING NO. <b>A-2</b>	
DESIGNED BY: [Signature]	CHECKED BY: [Signature]	PROJECT BY: [Signature]	DATE: 12-27-83	SCALE: 1/8" = 1'-0"
NO. 10	STA.	DESCRIPTION	BY: [Signature]	DATE: 10-11-1987
MADE AS NOTED 10-11-1987 OF 55				

**COLOR SCHEDULE**

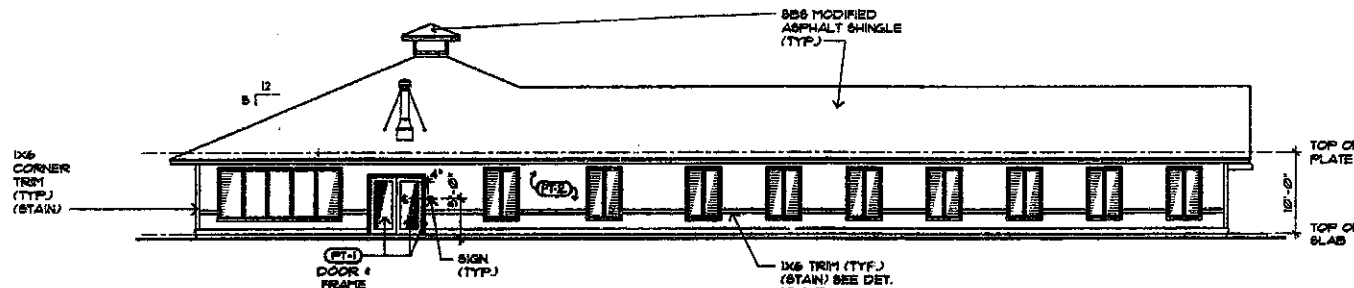
COLOR NAMES AND NUMBERS LISTED BELOW ARE TAKEN FROM FULLER O'BRIEN FOR COLOR REFERENCE ONLY.

- (PT-1) BROWNSTONE (G-134) EXTERIOR WAINSCOTS, TRIMS, FASCIA, GUTTER, PORTION OF DOWNSPOUTS AT WAINSCOT LEVEL, MECH. & ELEC. ROOF DOORS AND DOOR FRAMES
- (PT-2) TROPIC TAN (G-31) EXTERIOR FIELD COLOR, END PANELS AT SHED ROOFS, PORTION OF DOWNSPOUTS ABOVE WAINSCOT LEVEL
- (PT-3) VENETIAN ORANGE (B-64) EXTERIOR ENTRY AND EXIT DOORS AND DOOR FRAMES, EXTERIOR FACE OF SCREEN DOORS
- (PT-4) SEED PEARL (H-12) ALL INTERIOR SURFACES TO BE PAINTED



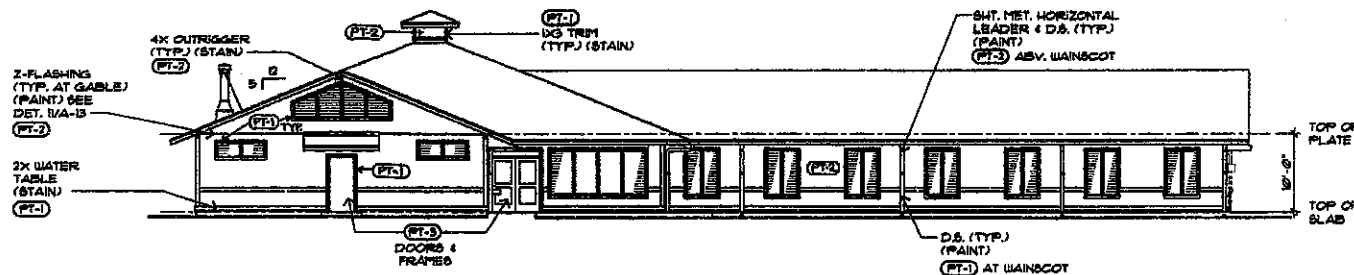
**NORTH ELEVATION**

SCALE: 1/8" = 1'-0"



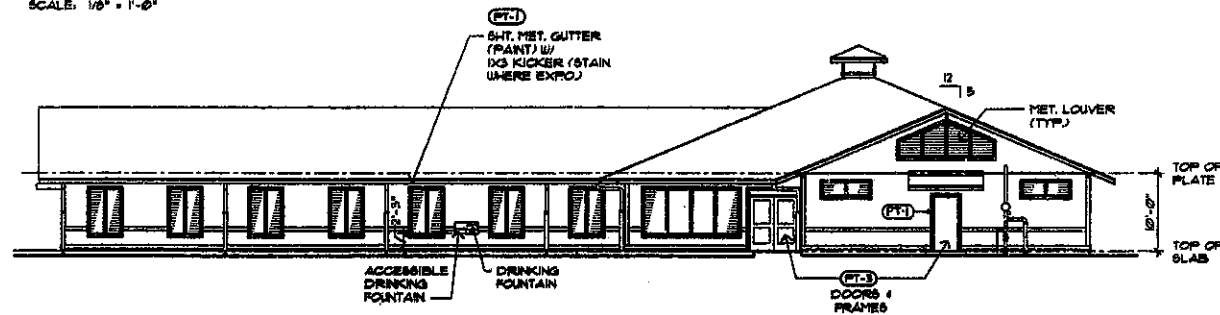
**WEST ELEVATION**

SCALE: 1/8" = 1'-0"



**SOUTH ELEVATION**

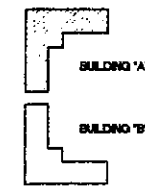
SCALE: 1/8" = 1'-0"



**EAST ELEVATION**

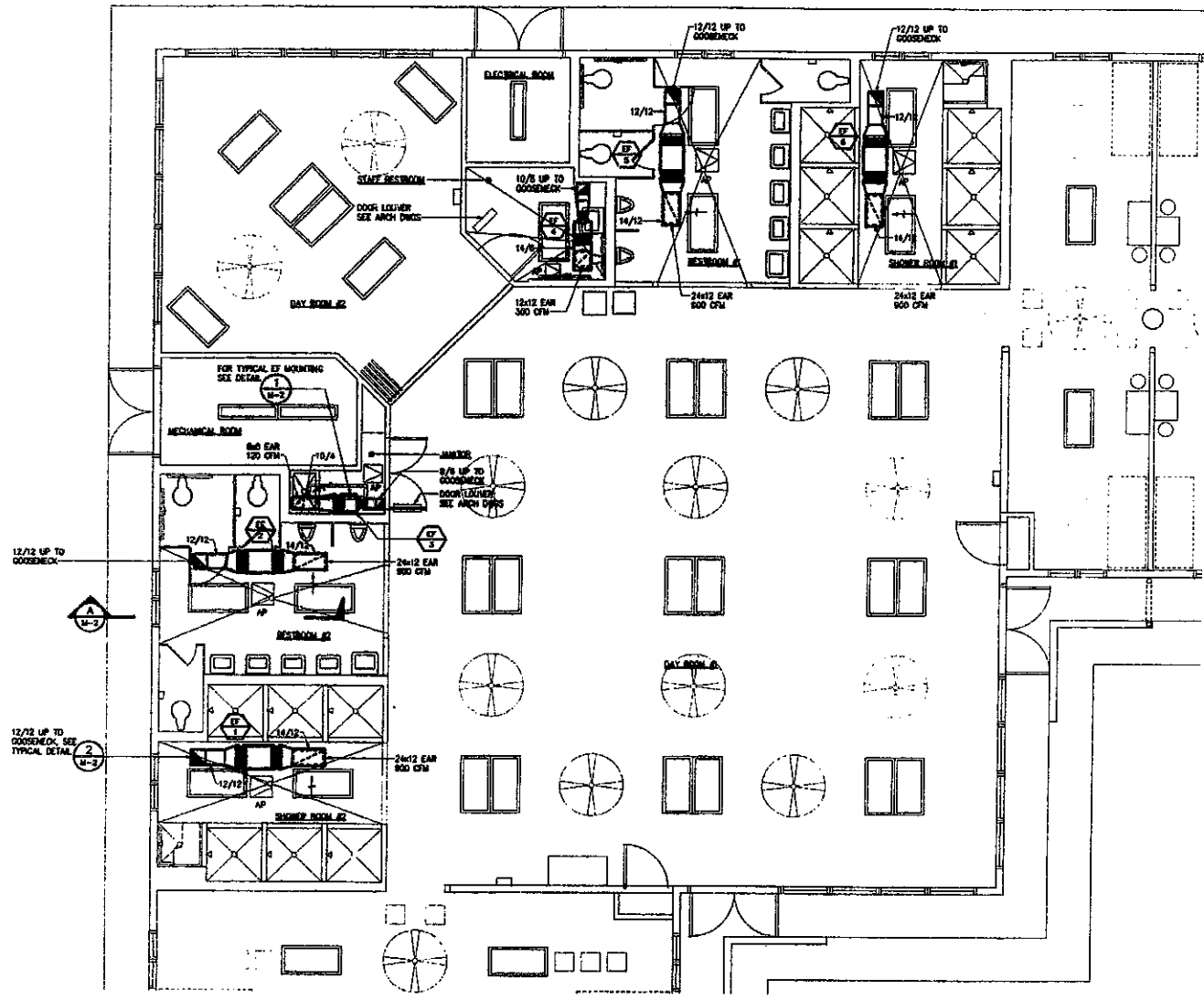
SCALE: 1/8" = 1'-0"

NOTE: EXTERIOR ELEVATIONS DRAIN FOR BUILDING "A" BUILDING "B" SIMILAR, MIRRORRED



**KEY PLAN**  
NOT TO SCALE

SEARCH NO.	REV.	DESCRIPTION	BY	DATE	APPROVED BY
					PUBLIC WORKS DIVISION
DEPT. OF ACCOUNTING AND GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIANA CORRECTIONAL FACILITY "KAS'BOX" COMPOUND OAHU CDC WAIANA, EWA, OAHU, HAWAII					
BUILDING "A" EXTERIOR ELEVATIONS, COLOR SCHEDULE					
ARCHITECTS HAWAII LIMITED			DATE: 08-80	DRAWING NO.	
DESIGNED BY: DU			12-27-8222		<b>A-6</b>
CHECKED BY: JEB			DATE		
SCALE: AS NOTED			10-1-1982		



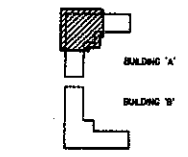
VENTILATION LEGEND AND ABBREVIATIONS LIST		
SYMBOLS	ABBREVIATIONS	DESCRIPTION
	AFF	ABOVE FRESHED FLOOR
	AP	ACCESS PANEL (SEE ARCHITECTURAL DWGS)
	CONC	CONCRETE
	CONT	CONTINUATION
	CFM	CUBIC FEET PER MINUTE
	DN	DOWN
	EXH	EXHAUST
	EAR	EXHAUST AIR REGISTER
	EF	EXHAUST FAN
	EXST	DUCTING
	ESP	EXTERNAL STATIC PRESSURE
	FC	FLEXIBLE CONNECTION
	FLR	FLOOR
	HP	HORSEPOWER
	M	MOTOR
	NC	NORMALLY CLOSED
	NO	NORMALLY OPEN
	OA	OUTSIDE AIR
	TYP	TYPICAL
	WG	WATER GAUGE
	W	WATTS

**MECHANICAL NOTES:**

- MECHANICAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION, INSTALLATION AND COMMENCEMENT OF ALL WORK TO BE DONE. COORDINATE ALL WORK TO BE DONE WITH OTHER TRADES.
- ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE MECHANICAL ENGINEER.
- UNLESS OTHERWISE INDICATED, ALL ITEMS SHOWN ARE NEW.
- CFM'S SPECIFIED SHALL BE ATTAINED BY ADJUSTING THE FAN SPEED. THE CFM'S AT THE AIR DEVICES SHALL BE USED FOR FINAL FINE ADJUSTMENT TO MINIMIZE THE NOISE GENERATED BY AIR PASSING THROUGH SEVERELY THROTTLED DAMPERS AT THE AIR DEVICES.

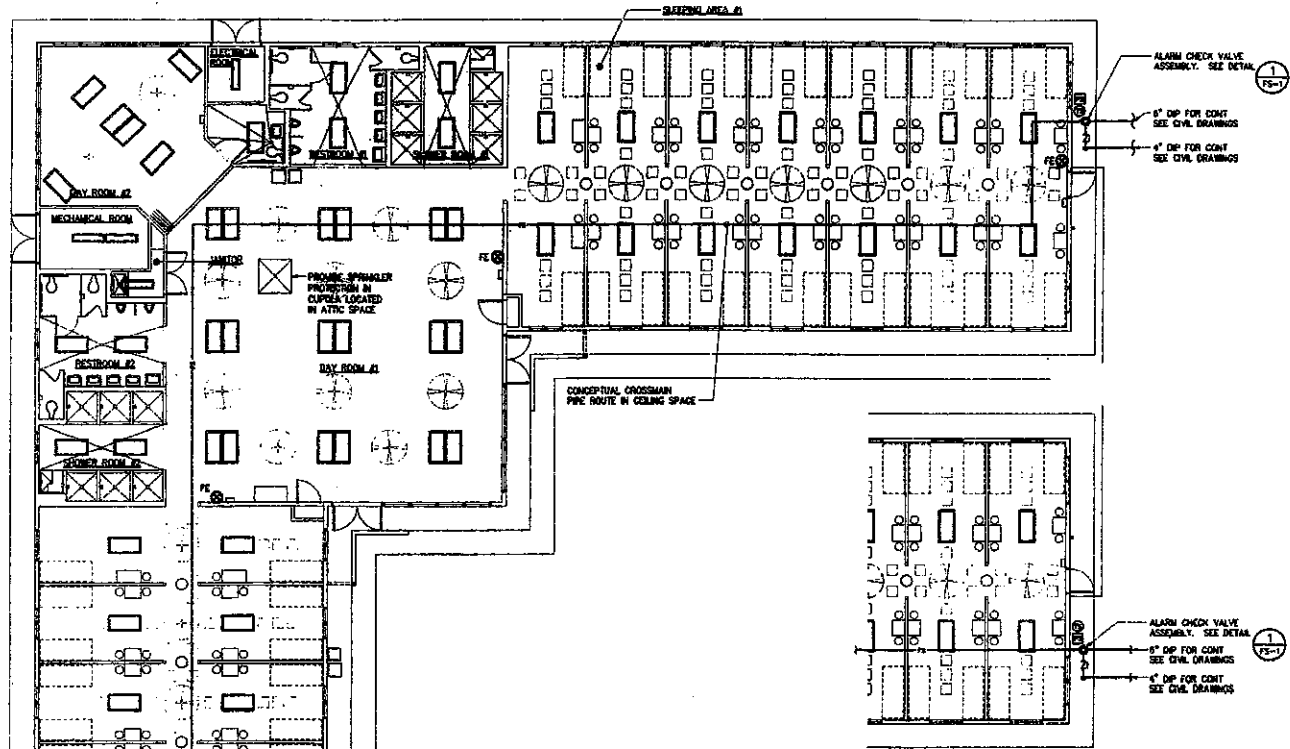
NOTE: BUILDING 'B' IS SIMILAR UNLESS NOTED

**PARTIAL BUILDING 'A' MECHANICAL FLOOR PLAN**  
SCALE: 1/4" = 1'-0"



**KEY PLAN**  
SCALE: NONE

	DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII	
	WAI'ANA CORRECTIONAL FACILITY "KASHBOX" COMPOUND OAHU CCC WAI'ANA, OAHU, HAWAII	
PARTIAL BUILDING 'A' MECHANICAL FLOOR PLAN, NOTES, SYMBOLS & ABBREVIATIONS		
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION <i>Ken L. Masuhara</i>	ARCHITECTS HAWAII LIMITED 12-27-5522 16/01/97	SHEET NO. <b>M-1</b> OF <b>30</b>



**PARTIAL BUILDING 'B' FIRE PROTECTION PLAN**  
SCALE: 1/8" = 1'-0"

**FIRE SPRINKLER SYMBOLS & ABBREVIATIONS**

- CHECK VALVE
- DRAIN PIPE
- DIP DOCTILE IRON PIPE
- DFC FIRE DEPARTMENT CONNECTION
 $\text{FE}$  FIRE EXTINGUISHER IN CABINET
 $\text{GV}$  GATE VALVE
 $\text{OSV}$  OSBY VALVE
 $\text{PS}$  PRESSURE SWITCH
 $\text{TS}$  TAMPER SWITCH
UP/DN UP/DOWN
 $\text{FR}$  NET PIPE SPRINKLER PIPE CONCEPTUAL ROUTING

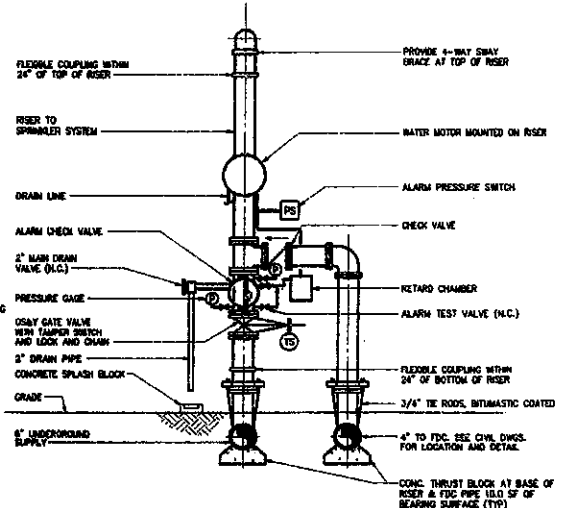
**FIRE SPRINKLER NOTES:**

1. THESE FIRE SPRINKLER PLANS ARE CONCEPTUAL AND ARE SUBMITTED FOR CONCEPTUAL APPROVAL OF THE FIRE AND BUILDING DEPARTMENTS. TWO (2) SETS OF COMPLETE WORKING PLANS (SHOP DRAWINGS), HYDRAULIC CALCULATIONS, AND MANUFACTURER'S DATA, PREPARED IN ACCORDANCE WITH NFPA 13, REVIEWED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE FIRE AND BUILDING DEPARTMENTS FOR APPROVAL PRIOR TO INSTALLATION.
2. A MINIMUM OF SIX (6) SETS OF COMPLETE WORKING PLANS (SHOP DRAWINGS), HYDRAULIC CALCULATIONS AND MANUFACTURER'S DATA, PREPARED IN ACCORDANCE WITH NFPA 13, REVIEWED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER AND THE HAWAII INSURANCE RATING BUREAU FOR APPROVAL PRIOR TO SUBMITTING TO THE FIRE AND BUILDING DEPARTMENTS.
3. THE SPRINKLER SYSTEM DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 13-1998 AND SPECIFICATION SECTION 1533. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL SPRINKLER SYSTEM COMPONENTS AND COORDINATE WITH THE VARIOUS TRADES.
4. ALL DEVICES AND EQUIPMENT SHALL BE UL LISTED OR FM APPROVED.
5. AUTOMATIC NET PIPE SPRINKLER PROTECTION SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDING INCLUDING UTILITY CLOSETS, MECHANICAL ROOMS, ELECTRICAL ROOMS, AND ATTIC SPACES.
6. CLASSIFICATION OF HAZARD:
 

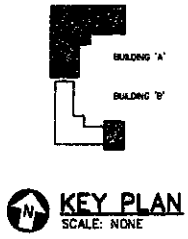
OFFICES, DAIRROOM	LIGHT HAZARD
MECHANICAL ROOM, ELECTRICAL ROOM	ORDINARY HAZARD GROUP 1
7. WATER SUPPLY INFORMATION  
LOCATION - CONNECTION TO THE WATER MAIN (SEE CIVIL DWGS)  
STATIC PRESSURE 50 PSIG  
RESIDUAL PRESSURE 20 PSIG  
FLOW AT RESIDUAL PRESSURE 2000 GPM
8. THE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY DESIGNED IN ACCORDANCE WITH NFPA 13. THE HYDRAULIC CALCULATIONS SHALL INCLUDE A 10 PSF SAFETY FACTOR BETWEEN THE AVAILABLE WATER SUPPLY AND THE SPRINKLER DEMAND INCLUDING THE PIPE STREAM ALLOWANCE.
9. THE MINIMUM DESIGN DENSITIES SHALL BE AS FOLLOWS:  
LIGHT HAZARD 0.10 GPM/FT<sup>2</sup>  
ORDINARY HAZARD GROUP 1 0.15 GPM/FT<sup>2</sup>  
THE MINIMUM HOSE STREAM ALLOWANCE SHALL BE AS FOLLOWS:  
LIGHT HAZARD 100 GPM  
ORDINARY HAZARD 250 GPM  
THE MINIMUM DESIGN AREA SHALL BE 1,500 SF.
10. PIPE AND FITTINGS SHALL COMPLY WITH NFPA 13, EXCEPT THAT COPPER PIPING AND PLASTIC PIPING WILL NOT BE PERMITTED. ALL PIPING SHALL BE STEEL - PIPE SIZES LESS THAN 2 1/2" SHALL BE SCHEDULE 40.
11. PIPING SHALL BE PROVIDED WITH EARTHQUAKE PROTECTION IN ACCORDANCE WITH NFPA 13.
12. ALL SPRINKLER PIPING IN FINISHED AREAS SHALL BE CONCEALED FROM VIEW.
13. ALL INTERIOR PENDENT SPRINKLERS IN FINISHED AREAS WITH CEILING SHALL BE THE CONCEALED TYPE WITH BLACK RESPONSE AND ORDINARY TEMPERATURE RATING. PROVIDE QUICK RESPONSE WITH INTERMEDIATE TEMPERATURE RATING FOR SPRINKLERS IN THE ATTIC SPACE.
14. PROVIDE INSPECTION AND HYDROSTATIC TESTS IN ACCORDANCE WITH NFPA 13. PRIOR TO HYDROSTATIC TESTS THE CONTRACTOR SHALL PERFORM AN AIR PRESSURE TEST TO LOCATE POTENTIAL LEAKAGE POINTS.
15. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR CEILING TYPES, CEILING HEIGHTS AND TRUSS LOCATIONS IN THE CEILING SPACES.
16. SEE ELECTRICAL DRAWINGS FOR CONNECTION OF TAMPER AND PRESSURE SWITCHES TO THE ALARM SYSTEM.
17. CENTRAL OMEGA HEAD FS TYPE WILL NOT BE PERMITTED.

SPRINKLER HEADS	1 TO 300 HEADS	4 SPARE HEADS
SPRINKLER HEADS	301 TO 1000 HEADS	12 SPARE HEADS
SPRINKLER HEADS	1001 OR MORE HEADS	24 SPARE HEADS
SPRINKLER STOPPERS		2 SPARE STOPPERS

**BUILDING 'A' FIRE SPRINKLER PLAN**  
SCALE: 1/8" = 1'-0"



**FIRE SPRINKLER RISER DETAIL**  
SCALE: NONE



**KEY PLAN**  
SCALE: NONE

NO.	REV.	DATE	DESCRIPTION
DEPT. OF ACCOUNTING & GENERAL SERVICES OFFICE OF PUBLIC WORKS STATE OF HAWAII <b>WAIANA CORRECTIONAL FACILITY</b> <b>"KASHBOX" COMPOUND</b> OAHU CCC WAIANA, EWA, OAHU, HAWAII FIRE SPRINKLER PLANS & NOTES			
PREPARED BY ARCHITECTS HAWAII LIMITED 12-27-0522		DRAWN BY AS SHOWN 10/01/07	
CHECKED BY DATE		SCALE FS-1	

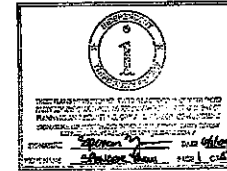
**BP 648500**

**& 648501**

# DEPARTMENT OF PUBLIC SAFETY

## WAIAWA TEMPORARY PROGRAM FACILITIES

DAGS JOB NO. 22-27-5609  
FINAL DESIGN PHASE - APRIL 3, 2009



**BUILDING DIVISION  
FILE COPY**

UNLESS TO VERIFY FOR DEP.  
APPROVAL - NOT TO BE USED AS A COPY

RECEIVED BY: [Signature] DATE: 4/13/09

DEPARTMENT OF PUBLIC SAFETY  
DIVISION OF BUILDING AND PERMITTING

CITY AND COUNTY OF HONOLULU  
ADDRESS: 225 - 2275 101 DATE: 4/13/09

ACCEPTANCE: [Signature] DATE: 4/13/09

ISSUING CODE: [Blank]

EXPIRES: [Blank]

REVISIONS: [Blank]

PROJECT: WAIAWA TEMPORARY PROGRAM FACILITIES

DATE: 4/13/09

DEPT. OF PLANNING AND PERMITTING  
DIVISION OF BUILDING AND PERMITTING  
CITY AND COUNTY OF HONOLULU

BY: [Signature] DATE: 4/13/09

04/2009 - 02-0048

DEPARTMENT OF HEALTH  
Environmental Management Division  
Wastewater Branch  
Re: Individual Wastewater Systems (IWS)

EXISTING IWS APPROVED FOR USE

Date: 6-18-09

Approved by: [Signature]

### CONSULTANTS

**ARCHITECT**  
Architects Hawaii, Ltd.  
ASB TOWER  
1001 Bishop Street, Suite 200  
Honolulu, HI 96813  
TEL: (808) 523-9636  
FAX: (808) 521-3280  
E-Mail: ah@ahkdesign.com

**CIVIL ENGINEER**  
Okahara & Associates  
677 Ala Moana Blvd, Suite 703  
Honolulu, HI 96814  
TEL: (808) 524-5480  
E-Mail: h2@okahara.com

**STRUCTURAL ENGINEER**  
Englekirk Companies  
238 Merchant Street, Suite 200  
Honolulu, HI 96813  
TEL: (808) 521-6958  
FAX: (808) 533-8701  
E-Mail: E@englekirk.com

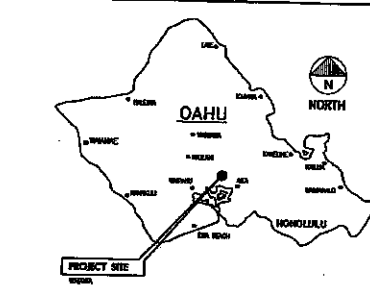
**MECHANICAL ENGINEER**  
Okahara & Associates  
677 Ala Moana Blvd, Suite 703  
Honolulu, HI 96814  
TEL: (808) 524-5480  
E-Mail: h2@okahara.com

**ELECTRICAL ENGINEER**  
Eco Inc.  
515 Piikoi Street, Suite 207  
Honolulu, HI 96814  
(808) 591-8161  
FAX: 591-8288  
E-Mail: me@ecoinc.com

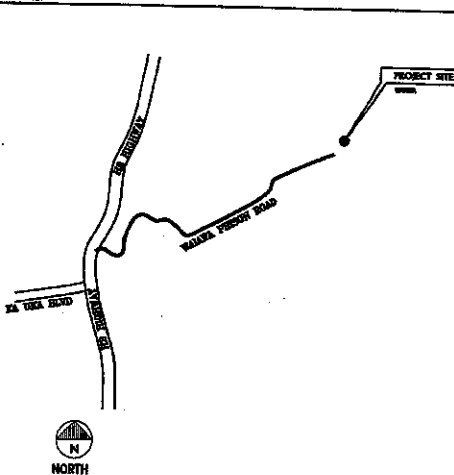
**ACCESSIBILITY**  
Accessibility Planning & Consulting, Inc.  
1184 Bishop Street, Suite 1202  
Honolulu, HI 96813  
(808) 545-1141  
FAX: 531-7173  
E-Mail: odesper@hawaii.net

**LANDSCAPE**  
Brownie & Lee  
231 Merchant Street, Suite 1030  
Honolulu, HI 96813  
(808) 520-4943  
FAX: 531-9131  
E-Mail: richard@bhowell.com

### LOCATION MAP



### VICINITY MAP



### PROJECT SUMMARY

CONSTRUCTION OF TWO STRESSED MEMBRANE STRUCTURES APPROXIMATELY 3,200 SF EACH. THE STRUCTURE SHALL BE FINISHED OUT AS OPEN LOFT SPACE AND USED FOR TREATMENT PROGRAMS DEVELOPED BY THE PUBLIC SAFETY DEPARTMENT. THE INTERIOR UTILITIES ARE DESIGNED TO PROVIDE FLEXIBLE INTERIOR ARRANGEMENTS FOR A VARIETY OF PROGRAMS.

THE STRESSED MEMBRANE STRUCTURES SHALL BE PRE-MANUFACTURED AND DELIVERED TO THE SITE FOR ERECTION. THE STRUCTURES WILL BE ERECTED ON A PERIMETER GRADE BEAM WITH AN ALUMINUM FRAMED PLYWOOD DECK FLOOR SET INTO THE OPEN LOFT SPACE. AN ENCLOSED PASSAGE SHALL CONNECT TO AN ADJOINING TOILET FACILITY.

THE ADJOINING TOILET FACILITY SHALL BE CONSTRUCTED IN A STANDARD, METAL SHIPPING CONTAINER WITH DETENTION GRADE INTERIOR FINISHES. THE TOILET FACILITY SHALL SIT ON A CONCRETE SLAB ON GRADE FOUNDATION WITH MINIMAL UTILITY CONNECTIONS TO ALLOW FOR FUTURE RELOCATION.

THE FACILITIES SHALL BE FULLY ACCESSIBLE AND MEET CURRENT ADA REQUIREMENTS

THE STRUCTURES ARE DESIGNED TO BE ABLE TO BE DISASSEMBLED AND RELOCATED WITH MINIMAL DE-CONSTRUCTION.

### APPROVALS

[Signature] DATE: 4/13/09  
DIRECTOR  
DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII

[Signature] DATE: 4/13/09  
COMPTROLLER  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

[Signature] DATE: 4/13/09  
PUBLIC WORKS ADMINISTRATOR  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

CONSTRUCTION OR INSTALLATION APPROVED BY: [Signature] DATE: 7-1-09

NOTE: Fire Alarm System approval applies to design and specifications as submitted. Installation and testing subject to final inspection, testing & acceptance.

FOR REVIEW: [Signature] DATE: 7-1-09

NOTE: Fire Alarm System approval applies to design and specifications as submitted. Installation and testing subject to final inspection, testing & acceptance.

### APPLICABLE CODES

- INTERNATIONAL BUILDING CODE, 2003 EDITION WITH LOCAL AMENDMENTS
- UNIFORM PLUMBING CODE, 1997 EDITION WITH LOCAL AMENDMENTS
- NATIONAL ELECTRIC CODE, 2005 EDITION
- UNIFORM FIRE CODE, 1997 EDITION WITH 1998 AND 1999 SUPPLEMENTS
- LAND USE ORDINANCE, APRIL 2003

REVISION NO.	DATE	DESCRIPTION	DATE	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

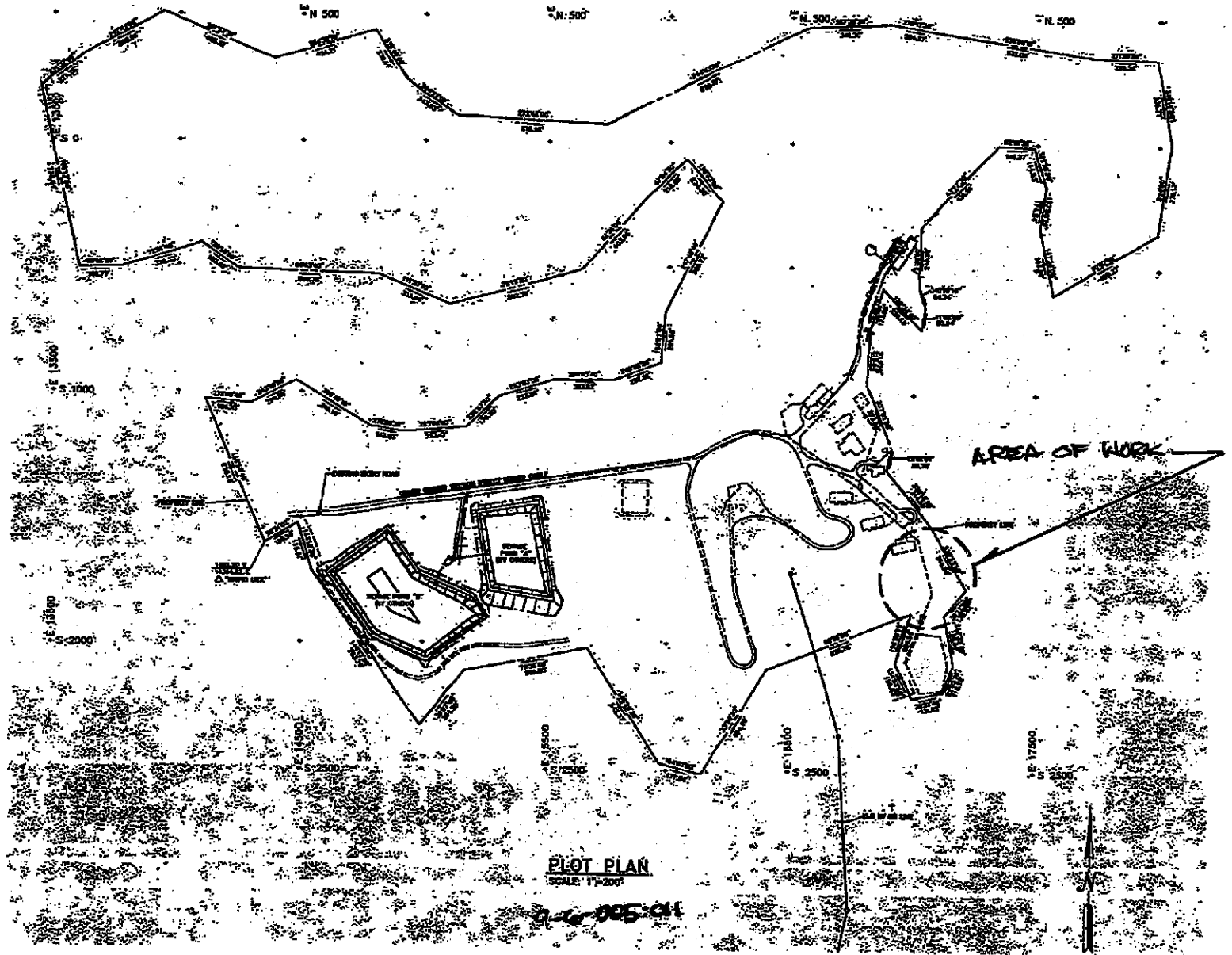
DEPARTMENT OF PUBLIC SAFETY  
WAIAWA TEMPORARY PROGRAM FACILITIES  
WAIAWA, HAWAII

TITLE SHEET

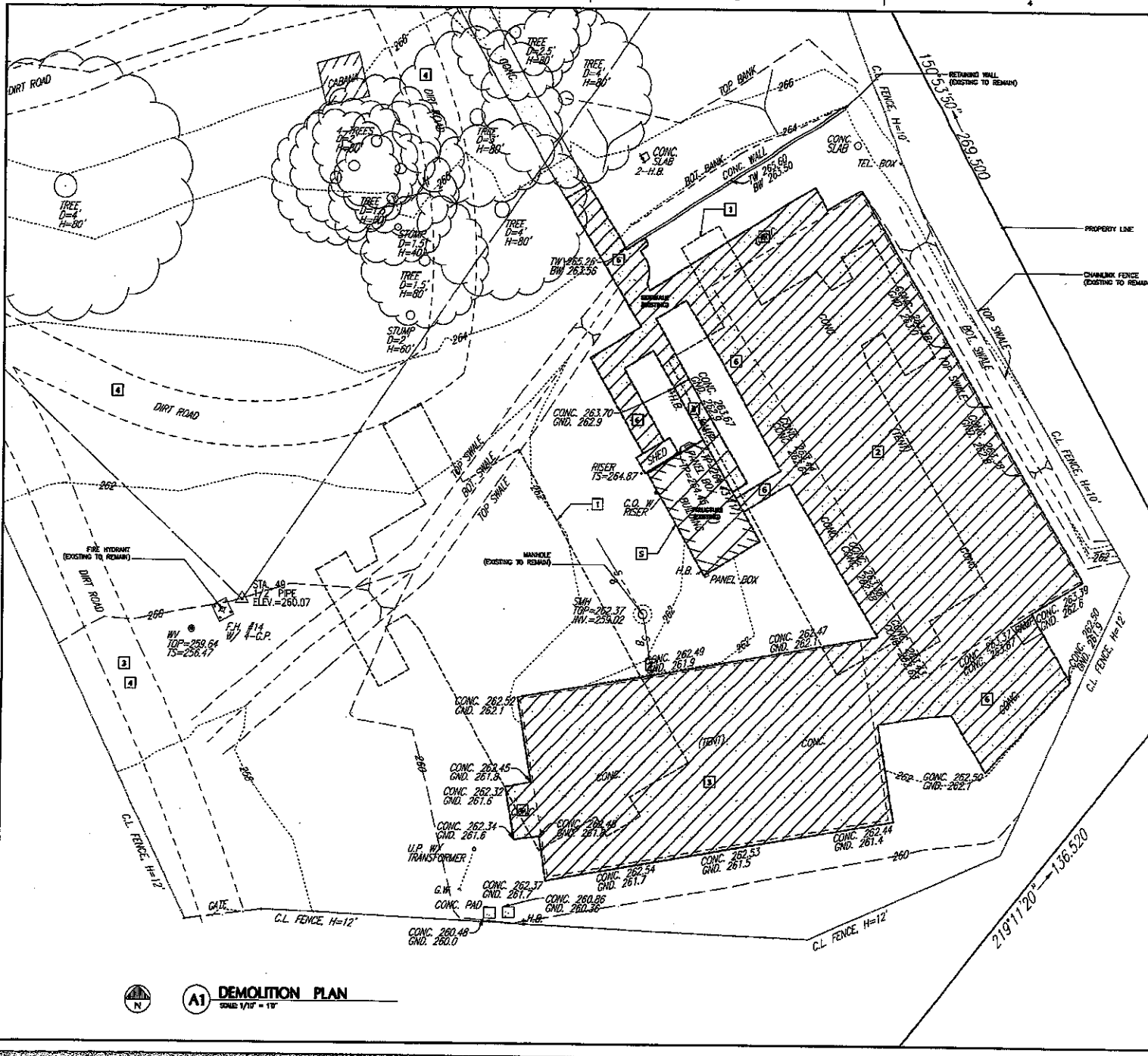
ARCHITECTS HAWAII, LTD.  
NO. 2245  
HONOLULU, HAWAII

DATE: APRIL 3, 2009









**GENERAL NOTES**

1. SEE CIVIL, MECH, ELED DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS
2. CONTRACTOR SHALL TAKE CAUTION IN REMOVING EXISTING CONSTRUCTION TO AVOID DAMAGING HIDDEN UTILITIES OR OTHER CONSTRUCTION TO REMAIN.
3. DEMOLITION WORK SHOWN DOES NOT INCLUDE TRIMMING, GRADING AND OTHER EARTHWORK REQUIRED FOR THE CONSTRUCTION OF THE NEW BUILDINGS BUT SHALL BE INCLUDED IN THE SCOPE OF WORK BY THE CONTRACTOR.

**SHEET NOTES**

1. OUTLINE OF NEW CONSTRUCTION SHOWN FOR REFERENCE SEE CIVIL DRAWINGS FOR SITES
2. DEMOLISH EXISTING TEMP. STRUCTURE AND RELATED FOUNDATION. COORDINATE RE-USE OR STORAGE OF MATERIAL WITH OWNERS REPRESENTATIVE. RE-INSTALLATION IS NOT PART OF THIS CONTRACT
3. DEMOLISH EXISTING SLAB ON GRADE, RELATED FOUNDATION AND STRUCTURAL FRAMEWORK. COORDINATE RE-USE STORAGE OF MATERIAL WITH OWNERS REPRESENTATIVE. RE-INSTALLATION IS NOT PART OF THIS CONTRACT.
4. EXISTING ACCESS DRIVE. CONTRACTOR TO MINIMIZE DAMAGE, WEAR TO ROAD AND MAINTAIN VEHICULAR ACCESS TO FACILITIES AS REQUIRED BY OWNERS REPRESENTATIVE
5. DEMOLISH EXISTING TYPE V WOODEN TOILET STRUCTURE AND RELATED CONSTRUCTION
6. DEMOLISH EXISTING SIDEWALKS AND PATHS
7. CONTRACTOR SHALL TAKE NOTE OF SITE UTILITY SHOWN. CARE SHALL BE TAKEN FOR REMOVAL OF CONSTRUCTION DIRECTLY ABOVE UTILITY

**LEGEND**



**A1 DEMOLITION PLAN**  
SCALE 1/16" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED
			DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII DEMOLITION PLAN		
ARCHITECTS HAWAII, LTD. 22-27-5400 2191120 - 136.520			SHEET NO. G-2 DATE: APRIL 3, 2009		

**SEWER NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE, INSPECTION AND VERIFICATION OF ALL EXISTING UTILITIES, SUPPLEMENTED BY ACTUAL DIGGING IN THE FIELD IF NECESSARY, TO DETERMINE THE ACTUAL LOCATION OF SUCH UTILITIES WITH THEIR BRANCH AND SERVICE LINES, WHETHER INDICATED ON THE PLANS OR NOT.
2. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY'S STANDARD SPECIFICATIONS, SEPT. 1986, THE DEPARTMENT OF PUBLIC WORKS STANDARD DETAILS, SEPT. 1984, CURRENT CITY PRACTICES AND REVISED ORDINANCES OF HONOLULU, 1994, AS AMENDED, AND THE DESIGN STANDARDS OF THE DEPARTMENT OF WASTEWATER MANAGEMENT, VOL. 1, JULY 1983.
3. THE CONTRACTOR WILL BE REQUIRED TO TAKE OUT AND PAY FOR ALL NECESSARY PERMITS AND LICENSES WHICH ARE REQUIRED BY LOCAL ORDINANCES FOR THE PROSECUTION OF THIS WORK.
4. WORKMANSHIP SHALL BE FIRST CLASS. ALL WORK SHALL BE PERFORMED BY THE RESPECTIVE TRADE PERSON IN ACCORDANCE WITH APPLICABLE COUNTY ORDINANCE AND STATE REGULATION.
5. THE CONTRACTOR SHALL REPAIR, AT THEIR EXPENSE, ALL DAMAGES SUSCEPTED DURING THE COURSE OF HIS WORK AND LEAVE COMPLETED WORK IN ITS ORIGINAL OR BETTER CONDITION.
6. ALL RUBBER COUPLINGS UTILIZED SHALL HAVE PURE STAINLESS STEEL STRAPS, INCLUDING THE TIGHTENING SCREW.
7. THE CONTRACTOR SHALL STAKE OUT THE PROPOSED SEWER LINES AND APPURTENANCES PRIOR TO ANY EXCAVATION WORK.
8. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, ADAPTERS, PLUGS, CAPS, CONNECTIONS AND NECESSARY APPURTENANCES FOR A COMPLETE INSTALLATION.

**CONSTRUCTION NOTES**

1. ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986 AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF MAUI AND MOLOKAI.
2. THE CONTRACTOR SHALL TAKE THE CARE TO BE EXHAUSTIVE TO ASCERTAIN THE LOCATION OF UNDOCUMENTED UTILITIES AND STRUCTURES AND VERIFY THE LOCATIONS OF THOSE IMPROVEMENTS SHOWN. THE COST OF WORKING SHALL BE INCIDENTAL TO THE COST OF THE CONTRACT.
3. ANY UTILITIES OR STRUCTURES THAT ARE DAMAGED BY THE CONTRACTOR DURING PROGRESS OF THE WORK SUCH AS TELEPHONE DUCTS, ELECTRICAL DUCTS, POWER LINES, SEWER LINES, DRAINAGE PIPES AND STRUCTURES, RESTER SHOWN OR NOT IN THE CONTRACT DOCUMENTS SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE STATE.
4. THE CONTRACTOR SHALL CONDUCT ALL TESTS AS REQUIRED FOR THE PROJECT AND BE RESPONSIBLE FOR ALL EXPENSES INCURRED IN CONDUCTING THESE TESTS.
5. THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL EXISTING CONCRETE SLABS OR REINFORCED AC PAVEMENT, ETC. SCHEDULED FOR REMOVAL AND/OR INTERFERING WITH CONSTRUCTION OR PROPOSED IMPROVEMENTS.
6. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL PROVIDE PLANT ESTABLISHMENT (MAINTENANCE) OF GRASSED AREAS FOR A PERIOD OF 90 DAYS FROM THE APPROVAL OF ALL PLANNING.
7. ALL WORK SHALL BE COORDINATED WITH THE VARIOUS GOVERNMENT AGENCIES AND UTILITY COMPANIES BEFORE WORK BEGINS.
8. ALL DISTURBED AREAS SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER.
9. ALL WORK NOT CALLED FOR ON THE PLANS BUT REQUIRED FOR THE PROSECUTION OF THIS PROJECT SHALL BE CONSIDERED INCIDENTAL TO OTHER CONTRACT ITEMS.
10. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS TO ENSURE PROPER ACCEPTANCE OF THE WORK. IF AT ANY TIME DURING CONSTRUCTION A DISCREPANCY OR CONFLICT IS DISCOVERED, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE CONTRACTING OFFICER IMMEDIATELY. THE CONTRACTOR SHALL NOT PROCEED WITH THE CONSTRUCTION UNTIL THE DISCREPANCY OR CONFLICT HAS BEEN RESOLVED, AS DETERMINED BY THE CONTRACTING OFFICER.
11. WHEN THE PLANS CALL FOR CONNECTION OF NEW UTILITIES TO EXISTING UTILITIES, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINE AT THE PROPOSED CONNECTION POINT TO VERIFY LOCATION AND INVERT ELEVATION PRIOR TO EXCAVATION FOR THE NEW UTILITIES.
12. PURSUANT TO CHAPTER 66, HRS. IN THE EVENT ANY ARTIFICALS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION (662-8015). IN ADDITION, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, DEPARTMENT OF PLANNING AND PERMITTING (768-8084).

**SPECIAL NOTES**

1. PROJECT SITE IS LOCATED WITHIN T.M.K. (1) 9-5-008011.
2. TEMPORARY BARRIERS FOR TRAFFIC CONTROL MUST CONFORM WITH MCHSP 350 STANDARDS.
3. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE DEPARTMENT OF PUBLIC SAFETY AND THE WARDEN OF THE WARDEN CORRECTIONAL FACILITY. ACCESS TO THE PROJECT SITE BY THE CONTRACTOR, HIS EMPLOYEES, SUB-CONTRACTORS AND VENDORS SHALL BE COORDINATED WITH THE WARDEN OF THE WARDEN CORRECTIONAL FACILITY. THE CONTRACTOR SHALL SECURE PERMISSION FROM THE WARDEN PRIOR TO ANY ENTRY INTO THE CORRECTIONAL FACILITY.
4. IN ORDER TO GAIN ACCESS TO THE WARDEN SITE, THE INSPECTOR SHALL CALL VERNON DAVIA, INSTITUTION FACILITIES SUPERINTENDENT, AT 677-6161 TO SCHEDULE AN APPOINTMENT AT LEAST ONE DAY PRIOR TO SITE VISIT.
5. THE CONTRACTOR SHALL PROVIDE PUBLIC NOTICES OF CONSTRUCTION ACTIVITIES AS REQUIRED AND SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY CONSTRUCTION PERMITS.
6. IN THE EVENT OF A MAJOR HAZARDOUS MATERIAL SPILL OCCURRING WITHIN THE PROJECT LIMITS DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR'S CLEAN UP EFFORTS WILL BE COORDINATED THROUGH THE HAWAII COUNTY FIRE DEPARTMENT AND THE STATE OF HAWAII DEPARTMENT OF HEALTH.
7. THE USE OF CONSTRUCTION OR UNSHIELDED EQUIPMENT MAINTENANCE LIGHTING WILL NOT BE PERMITTED AFTER DARK.
8. THE CONTRACTOR SHALL CLOSELY COORDINATE ALL WORK WITH AFFECTED UTILITY COMPANIES, FACILITY OCCUPANTS, POLICE, ETC. THE CONTRACTOR SHALL NOT CLAIM ANY ADDITIONAL COMPENSATION AS A RESULT OF ANY DELAYS IN COMPLETING THE WORK DUE TO A LACK OF COORDINATION.
9. THE CONTRACTOR IS ADVISED THAT THE DEPTH TO THE EXISTING SEWER AND WATER PIPING, ELECTRICAL LINES AND POSSIBLY OTHER UTILITIES ARE UNKNOWN, AND MAY BE SHALLOW. THE CONTRACTOR IS RESPONSIBLE FOR WORKING AROUND THE UTILITIES CAREFULLY.
10. UNLIT SHUT OFF TO FACILITY OCCUPANTS, IF NECESSARY, SHALL BE MINIMIZED AND SHALL BE COORDINATED BY THE CONTRACTOR. ANY CLAIMS FOR LOSS OF REVENUE SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
11. THE CONTRACTOR SHALL ENSURE CONTROL OF PETROLEUM PRODUCTS FROM SPILLAGE.
12. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER HANDLING, STORAGE AND/OR DISPOSAL OF ALL WASTE GENERATED BY THIS CONSTRUCTION, INCLUDING EXCESS EXCAVATED MATERIAL. ANY MATERIAL BROUGHT TO THE COUNTY LANDFILLS WILL BE SUBJECT TO THE INSTITUTED TIPPING FEE SYSTEM, WITH NO EXCEPTION OR EXEMPTIONS.

**WASTE DISPOSAL NOTES**

1. WASTE MATERIALS:
  - ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN A SECURELY LOCKED DUMPSTER. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER SHALL BE EMPLOYED A MINIMUM OF TWICE PER WEEK OR AS OFTEN AS DEEMED NECESSARY. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON-SITE. THE CONTRACTOR'S SUPERVISORY PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STORING THESE PROCEDURES SHALL BE READILY AVAILABLE TO THE CONTRACTOR'S EMPLOYEES AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
2. HAZARDOUS WASTE:
  - ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATIONS OR BY THE MANUFACTURER. THE CONTRACTOR'S SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND SHALL BE RESPONSIBLE FOR ENSURING THAT THESE PRACTICES ARE FOLLOWED.
3. SANITARY WASTE:
  - THE CONTRACTOR MAY CHOOSE TO PROVIDE PORTABLE SANITARY UNITS FOR THE USE OF HIS OWNERS AND SUBCONTRACTORS. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK, OR AS REQUIRED.

**EROSION AND SEDIMENT CONTROL NOTES**

- CONSTRUCTION MANAGEMENT TECHNIQUES:
1. CLEARING AND GRUBBING SHALL BE HELD TO THE MINIMUM NECESSARY FOR TRENCHING, EXCAVATING AND EQUIPMENT OPERATIONAL LIMITS OF THE CLEARING AND THE GRUBBING SHALL BE STAGED PRIOR TO THE START OF CONSTRUCTION.
  2. CONSTRUCTION SHALL BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF THE CLEARED SURFACE AREA.
  3. CONSTRUCTION SHALL BE STAGED OR PHASED FOR LARGE AREAS. AREAS OF ONE PHASE SHALL BE STABILIZED BEFORE ANOTHER PHASE IS INITIATED. STABILIZATION SHALL BE ACCOMPANIED BY TEMPORARILY OR PERMANENTLY PROTECTING THE DISTURBED SOIL SURFACE FROM RAINFALL IMPACTS AND RUNOFF.
  4. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN. THESE MEASURES SHALL BE PROPERLY CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. SILT FENCES SHALL BE INSTALLED ALONG THE ENTIRE DOWN-SLOPE SIDE OF ACTIVE CONSTRUCTION ZONE IN AREAS WHERE ON-SITE RUNOFF FLOWS OFF THE PROJECT SITE.
  5. ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND FOLLOWING ANY RAINFALL EVENT OF 0.5 INCHES OR GREATER WITHIN A 24-HOUR PERIOD. DURING PROLONGED RAINFALL, DAILY CHECKING IS NECESSARY.
  6. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS AFTER THE INSPECTION.
  7. SILT SCREENS OR FENCES SHALL BE INSPECTED FOR DEPTH OF SEDIMENT AND TEMPS. TO VERIFY THAT THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO VERIFY THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
  8. THE CONTRACTOR SHALL SOO OR PLANT ALL SLOPES AND EXPOSED AREAS IMMEDIATELY AFTER GRUBBING WORK HAS BEEN COMPLETED.
  9. THE CONTRACTOR SHALL SELECT A SPECIFIC BIOMATERIAL WHO SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON THE PROJECT SITES.

**GRADING NOTES**

1. ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 13, 14, 15 AND 16, AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL OF THE REVISED ORDINANCES OF HONOLULU, 1994, AS AMENDED.
2. NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW INTO ADJOINING PROPERTIES, STREETS OR NATURAL WATER COURSES. SHOULD VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY HAVE ALL REMEDIAL ACTIONS NECESSARY.
3. THE CONTRACTOR AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST AND MUD. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 61.1, "AIR POLLUTION CONTROL".
4. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
5. ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LOADED RUNOFF FROM LEAVING THE SITE.
6. ALL SLOPES AND EXPOSED AREAS SHALL BE SOOED OR PLANTED AS SOON AS FINAL GRADING HAS BEEN ESTABLISHED. PLANTING SHALL NOT BE DEFERRED UNTIL ALL GRUBBING HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED.
7. FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE MOVED.
8. THE CITY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/INSPECTION SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
9. NO GRADING WORK SHALL BE DONE ON SLOPES, SWINDERS AND HOLDUPS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR, D.P.P. PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY USES CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 66, "COMMUNITY USES CONTROL".
10. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
11. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 24, "WATER QUALITY STANDARDS" AND TITLE 11, CHAPTER 26, "WATER POLLUTION CONTROL", AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.

**GRADING NOTES (CONTINUED)**

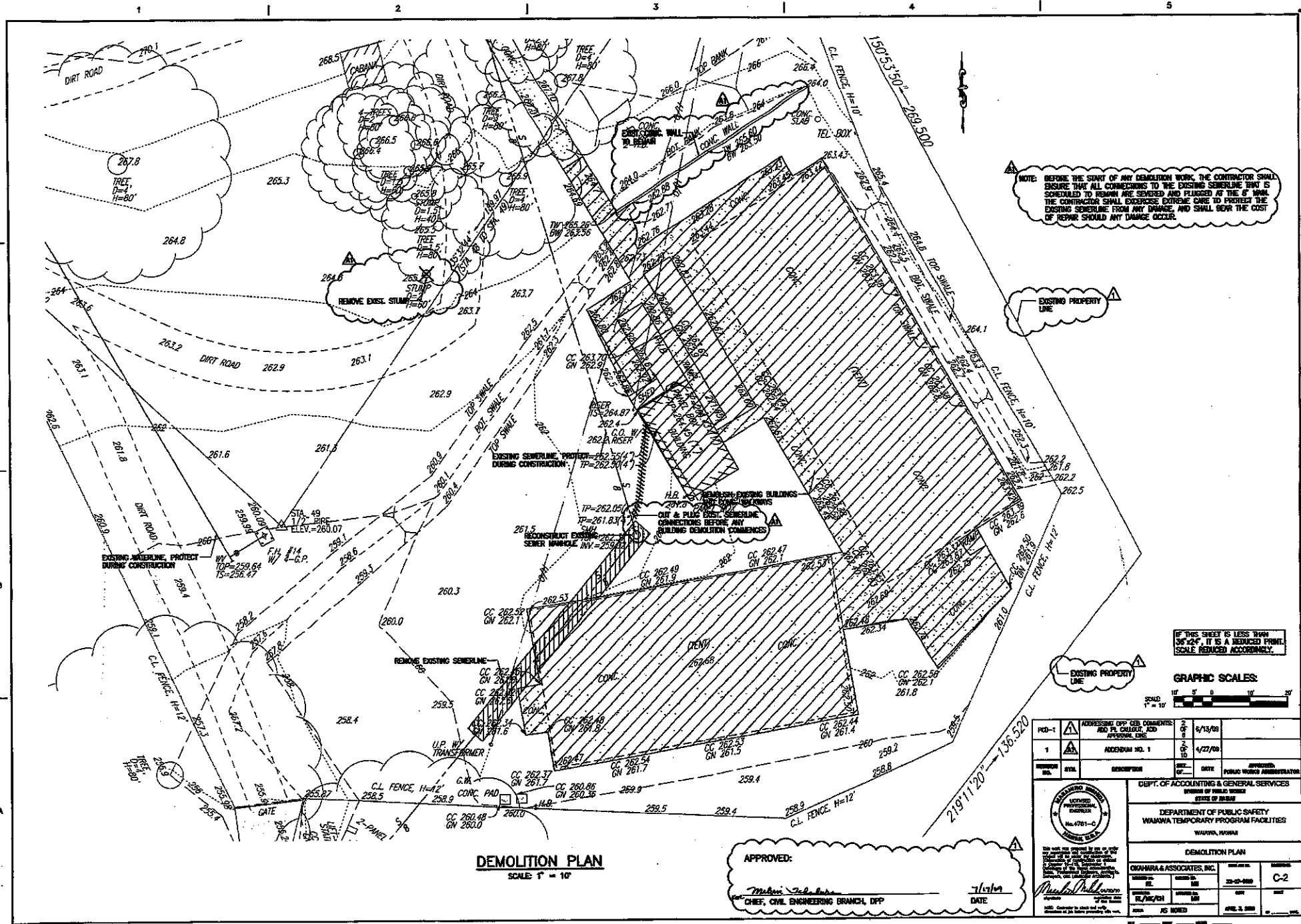
12. WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTH MOVING PHASE OF THE GRADING IS INITIATED.
13. TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED.
14. TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR GRADING PERMIT.
15. IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS.
16. FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, D.P.P. AT 768-8084 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT THREE (3) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK. FOR CITY PROJECTS, THE CONTRACTOR SHALL COORDINATE INSPECTIONAL SERVICES WITH THE RESPONSIBLE CITY AGENCY.
17. PURSUANT TO CHAPTER 66, HRS. IN THE EVENT ANY ARTIFICALS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE HONOLULU POLICE DEPARTMENT, THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION (662-8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, D.P.P. (768-8084); AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.
18. FOR ALL PROJECTS, WHICH WILL OBTAIN ONE (1) ACRES OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL IN NOTICE OF GENERAL PERMIT COVERAGE (GPCO) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM. ALSO, FOR NON-CITY AND OTHER NON-GOVERNMENTAL AGENCY PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NSPC TO THE PERMITTING AND INSPECTION SECTION, CIVIL ENGINEERING BRANCH, D.P.P. AT LEAST SEVEN (7) CALENDAR DAYS BEFORE THE START OF THE CONSTRUCTION. FOR CITY OR OTHER GOVERNMENTAL PROJECTS, THE CONTRACTOR SHOULD PROVIDE A WRITTEN COPY OF THE NSPC TO THE APPROPRIATE CITY DEPARTMENT OR GOVERNMENTAL AGENCY PER THEIR REQUIREMENTS.
19. ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCESSIVE OF WATER QUALITY STANDARDS.
20. NON-COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK, AND REMEDIAL WORK SHALL COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE VIOLATOR. FURTHERMORE, VIOLATIONS SHALL BE SUBMITTED TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL JURISDICTIONS.
21. FOR BENCH MARK, SEE SHEET C-3.

APPROVED:

*M. J. [Signature]* 7/20/09  
 DIRECTOR, DEPARTMENT OF PLANNING AND PERMITTING  
 CITY AND COUNTY OF HONOLULU  
 DATE

*Melinda [Signature]* 7/16/09  
 CHIEF, CIVIL ENGINEERING BRANCH, DPP  
 DATE

PCD-1	ADDRESSING OF CSO COMMENTS (SHEET AND NOTES, AND APPROVAL LINES, MORE DETAILS & CITY)	1 OF 6	6/15/09	
REVISION	DATE	DATE	DATE	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII				
NOTES AND DETAILS				
OWHARRA & ASSOCIATES, INC.	PROJECT NO.	DATE	SCALE	NO.
REVISION	DATE	DATE	DATE	DATE
REVISION	DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE	DATE



NOTE: BEFORE THE START OF ANY DEMOLITION WORK, THE CONTRACTOR SHALL ENSURE THAT ALL CONNECTIONS TO THE EXISTING SEWERLINE THAT IS SCHEDULED TO REMAIN ARE SEVERED AND FLAGGED AT THE 6" MAIN. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PROTECT THE EXISTING SEWERLINE FROM ANY DAMAGE AND SHALL BEAR THE COST OF REPAIR SHOULD ANY DAMAGE OCCUR.

EXISTING PROPERTY LINE

EXISTING PROPERTY LINE

IF THIS SHEET IS LESS THAN 36" x 48", IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.

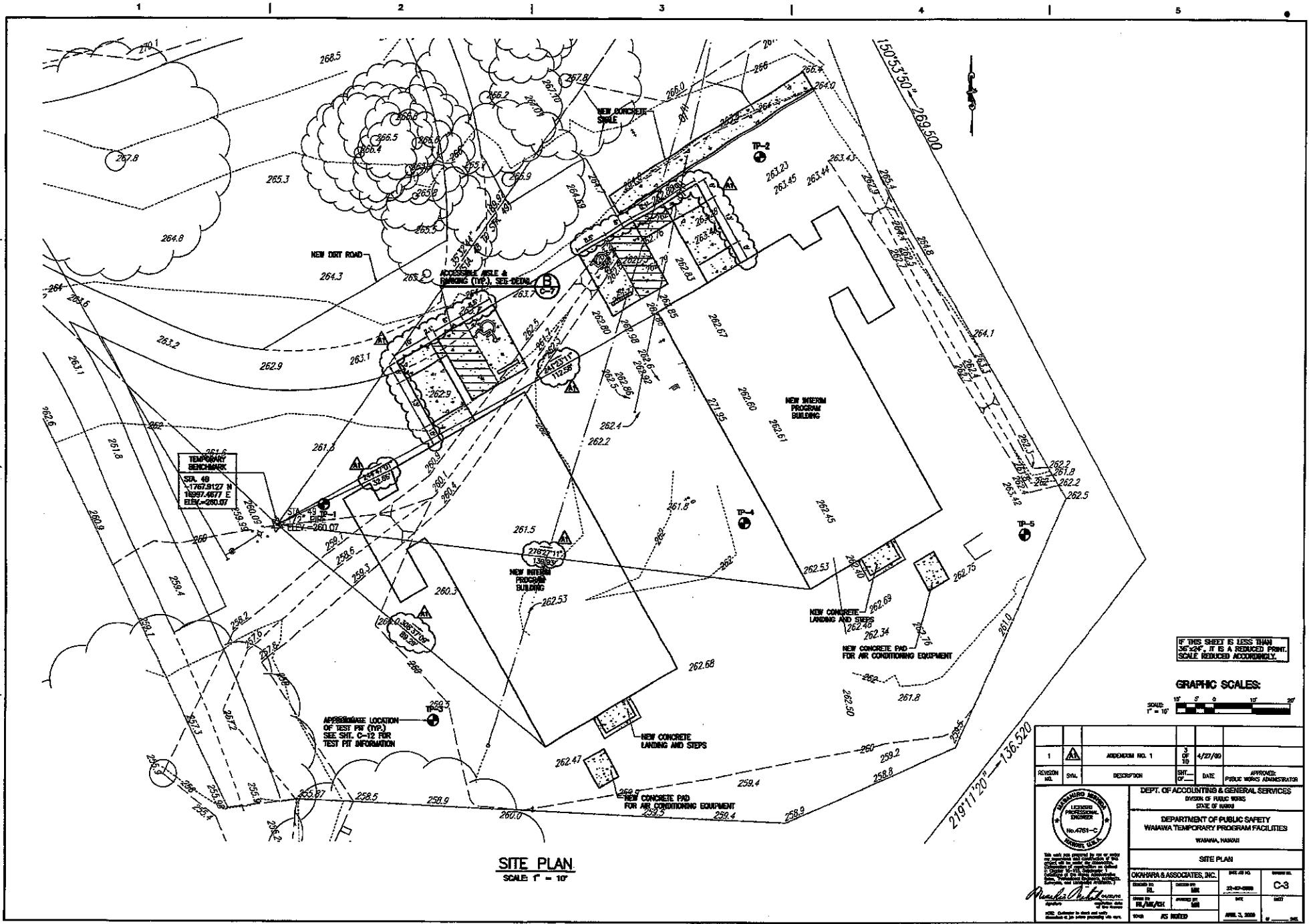
GRAPHIC SCALES



**DEMOLITION PLAN**  
SCALE 1" = 10'

APPROVED: *Melvin J. ...*  
CHIEF, CIVIL ENGINEERING BRANCH, DPP  
DATE: 7/1/78

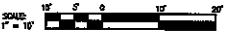
	<p>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII</p> <p>DEPARTMENT OF PUBLIC SAFETY WAIANA WAREHOUSE PROGRAM FACILITIES WAIANA, HAWAII</p> <p>DEMOLITION PLAN</p>
<p>PROJECT: 1</p> <p>DESCRIPTION: ADJACENT CIVIL COMMENTS AND PL. CALCUL. AND APPROVAL SHE.</p> <p>DATE: 6/13/78</p> <p>APPROVED: [Signature]</p>	<p>DEPT. OF PUBLIC SAFETY</p> <p>DATE: 4/27/78</p> <p>APPROVED: [Signature]</p>
<p>CONTRACTOR: OOHARA &amp; ASSOCIATES, INC.</p> <p>DATE: 22-07-2000</p> <p>SCALE: C-2</p>	<p>DATE: APRIL 3, 2000</p>



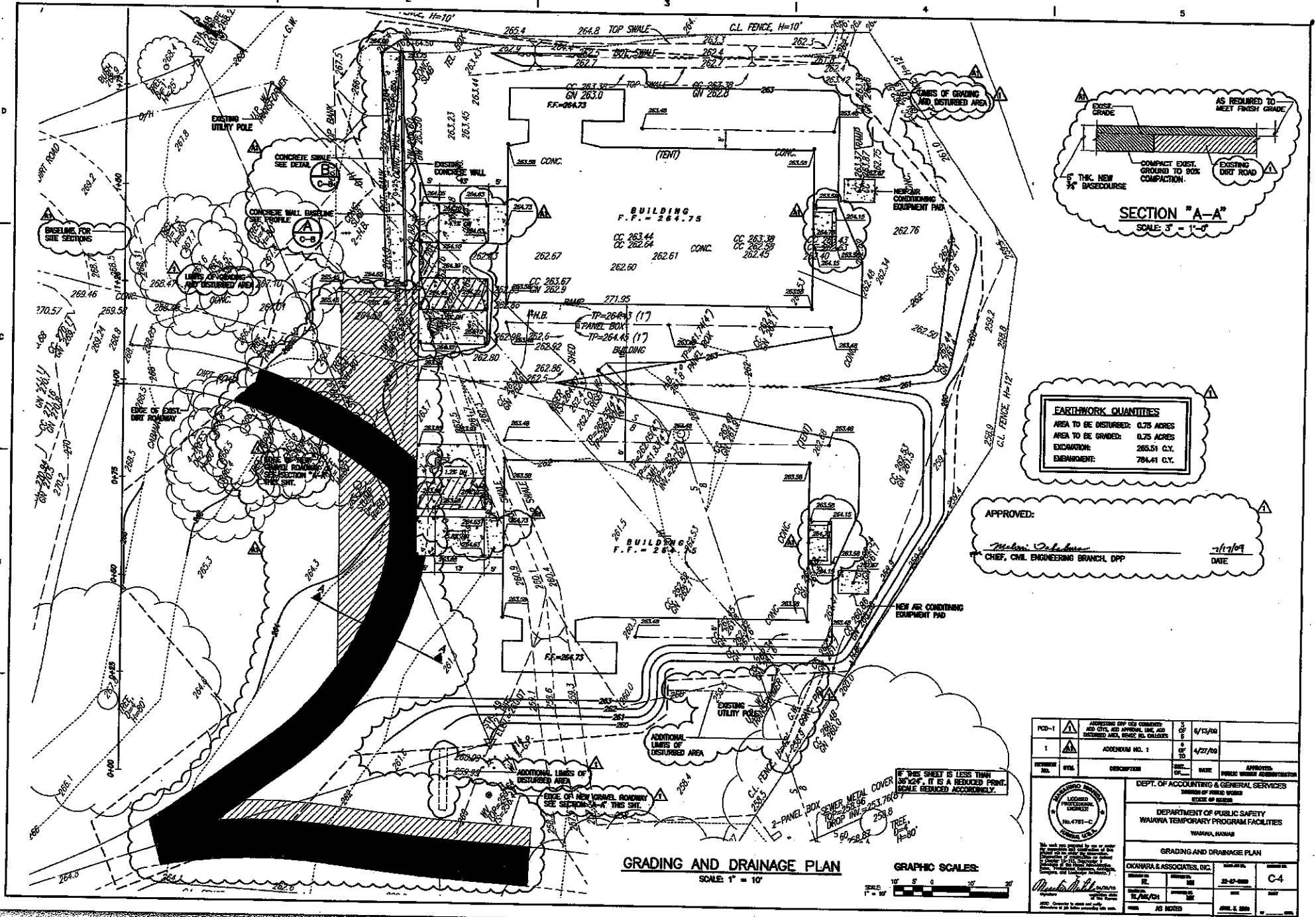
**SITE PLAN**  
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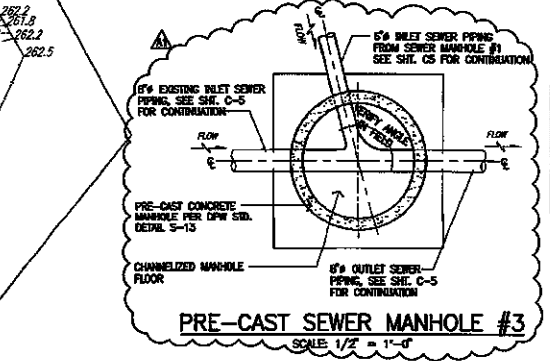
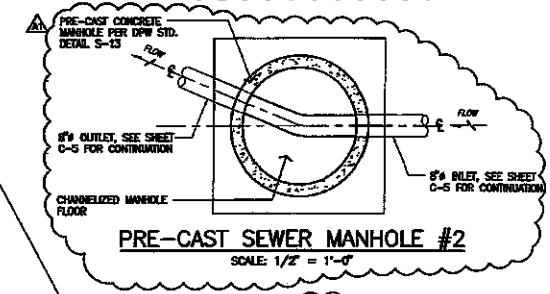
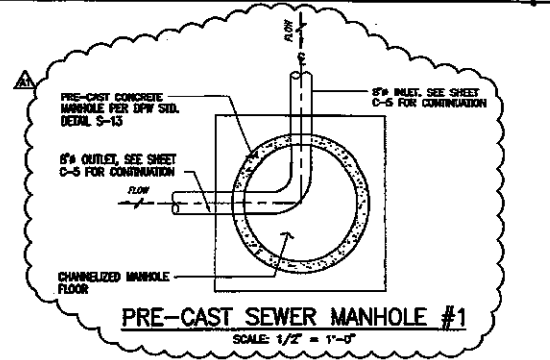
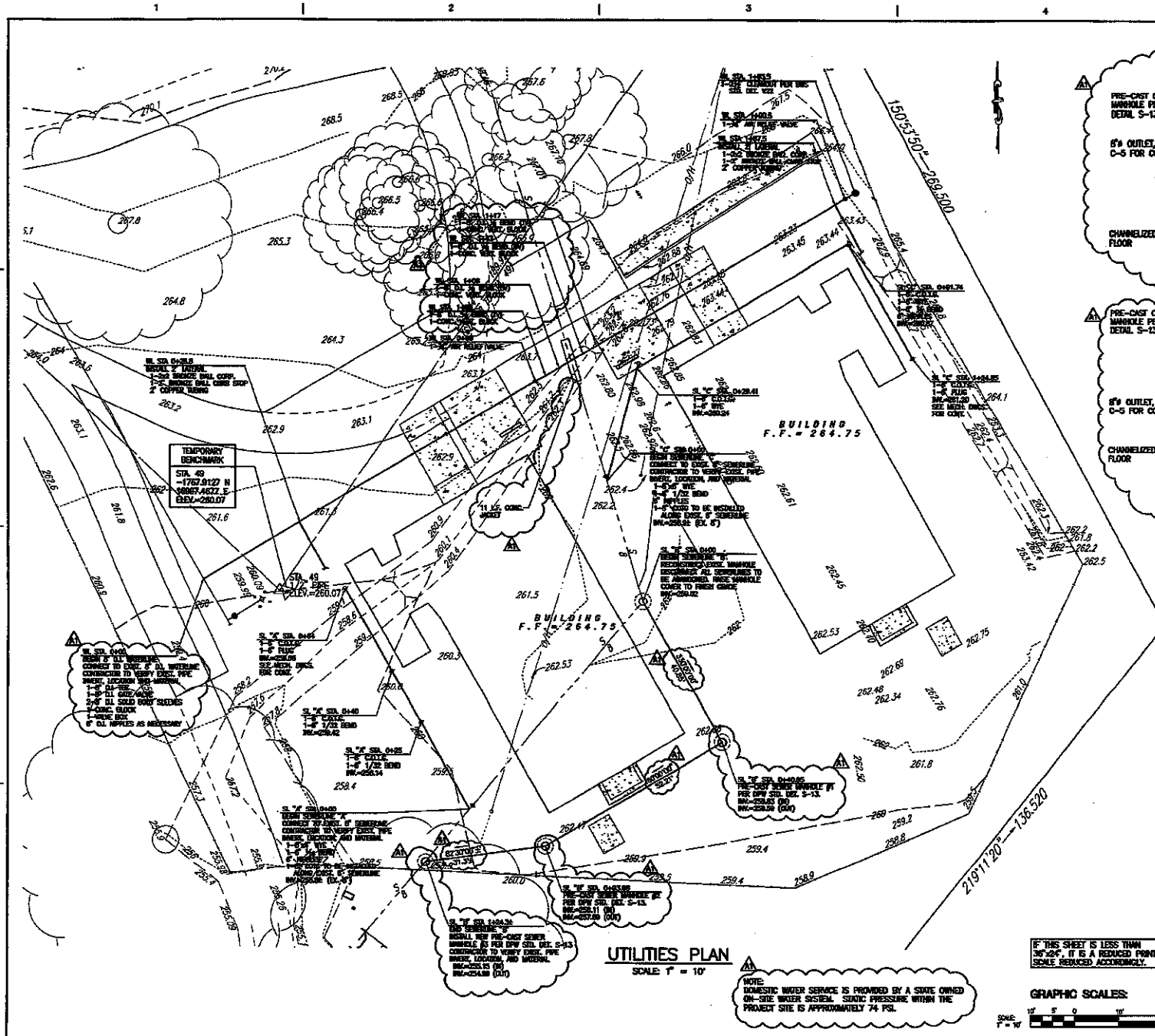
**GRAPHIC SCALES:**



1	▲	AMENDMENT NO. 1	3 OF 10	4/21/80	
REVISION NO.	SYMBOL	DESCRIPTION	DATE	DATE	APPROVED
					PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
DEPARTMENT OF PUBLIC SAFETY WAIAIANA TEMPORARY PROGRAM FACILITIES WAIAIANA, HAWAII					
SITE PLAN					
		OKAWAHA & ASSOCIATES, INC. DATE: 04/21/80 DRAWN BY: RL CHECKED BY: RL, JAL, PSL PROJECT NO.: 101-08 SHEET NO.: 101-08-001		SHEET NO.: C-3 DATE: APRIL 23, 1980	



FOI-1	APPROVED FOR USE, EXEMPTED AND CIVIL, AND APPROVAL, USE AND DISTURBED AREA, BASIC IN CHARGE	5/15/09	
1	ADDENDUM NO. 1	4/27/09	
REVISION NO.	DESCRIPTION	DATE	APPROVED
			DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS OFFICE OF RECORDS
			DEPARTMENT OF PUBLIC SAFETY WAIAHA TEMPORARY PROGRAM FACILITIES WAIAHA, HAWAII
			GRADING AND DRAINAGE PLAN
			OKAWA & ASSOCIATES, INC.
			PROJECT NO. 09-01-000 C-4
			DATE: JUL 2, 2009



**UTILITIES PLAN**  
SCALE: 1" = 10'

NOTE:  
DOMESTIC WATER SERVICE IS PROVIDED BY A STATE OWNED ON-SITE WATER SYSTEM. STATIC PRESSURE WITHIN THE PROJECT SITE IS APPROXIMATELY 74 PSF.

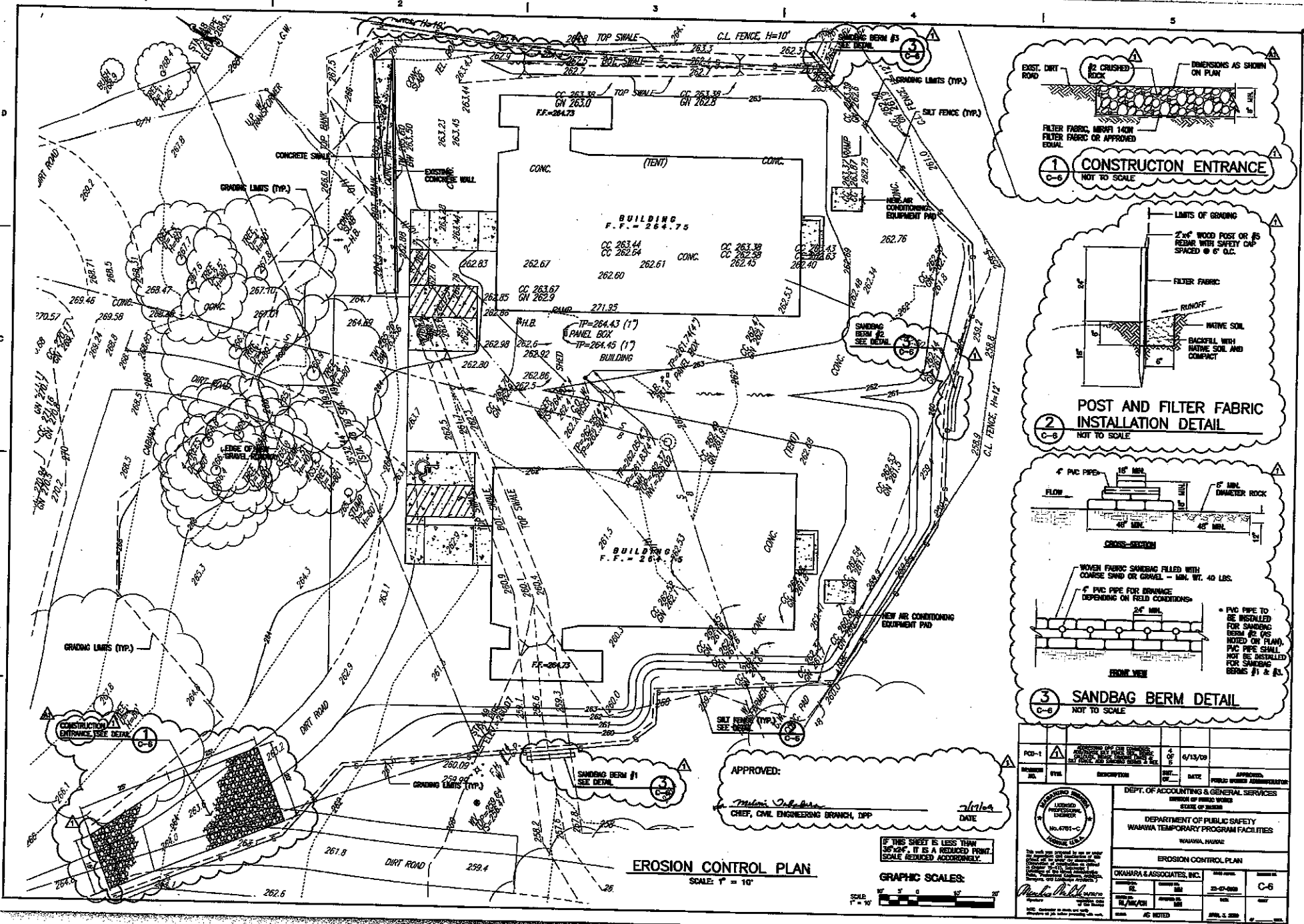
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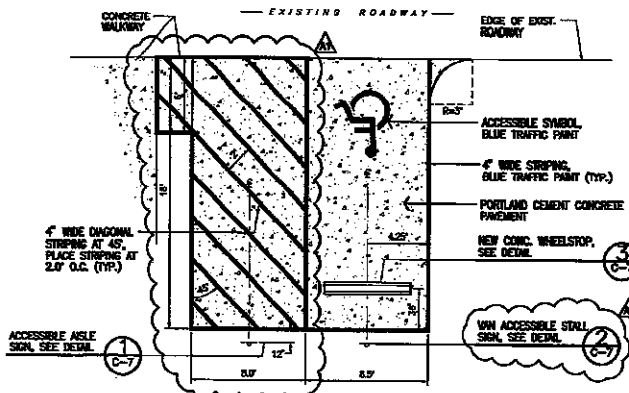
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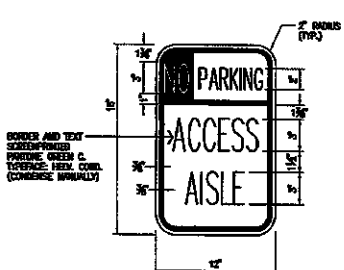
1	ADDENDUM NO. 1	5 OF 10	4/22/09	APPROVED:
REVISION NO.	SYMBOL	DESCRIPTION	DATE	PUBLIC WORKS ADMINISTRATION
				DEPT. OF ACCOUNTING & GENERAL SERVICES
				DIVISION OF PUBLIC WORKS
				STATE OF HAWAII
				DEPARTMENT OF PUBLIC SAFETY
				WAIHANA TEMPORARY PROGRAM FACILITIES
				WAIHANA, HAWAII
UTILITIES PLAN				
OKAPPALA & ASSOCIATES, INC.		NO. 4781-C	NO. 4781-C	
DESIGNED BY	DATE	NO.	NO.	C-5
DR./CHECKED BY	DATE	NO.	NO.	
SCALE	AS NOTED	DATE	NO.	



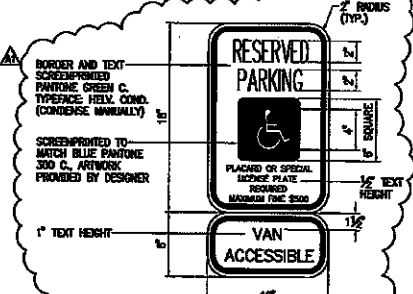




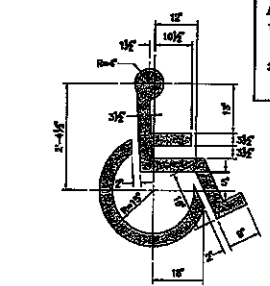
**(B) ACCESSIBLE PARKING PLAN**  
NOT TO SCALE



**(1) ACCESSIBLE AISLE SIGN DETAIL**  
NOT TO SCALE

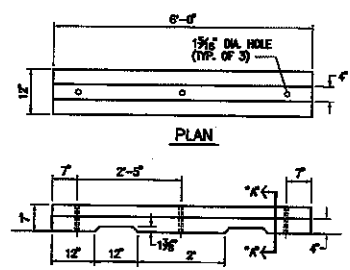


**(2) VAN ACCESSIBLE STALL SIGN DETAIL**  
NOT TO SCALE

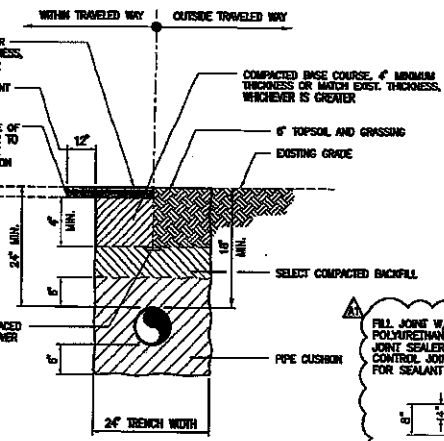


**ACCESSIBLE SYMBOL**  
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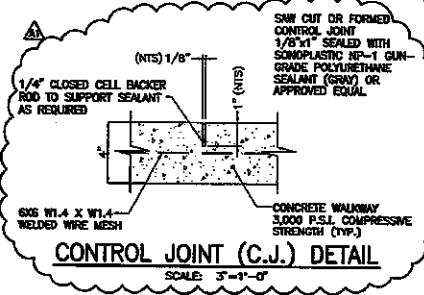
**ACCESSIBLE SIGN NOTES:**



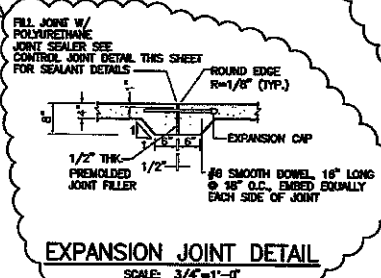
**(3) CONCRETE WHEELSTOP DETAIL**  
NOT TO SCALE



**WATERLINE TRENCH DETAIL**  
NOT TO SCALE



**CONTROL JOINT (C.J.) DETAIL**  
SCALE: 3'-1'-0"



**EXPANSION JOINT DETAIL**  
SCALE: 3/4'-1'-0"

**CONSTRUCTION JOINT (C.J.) DETAIL**  
NOT TO SCALE

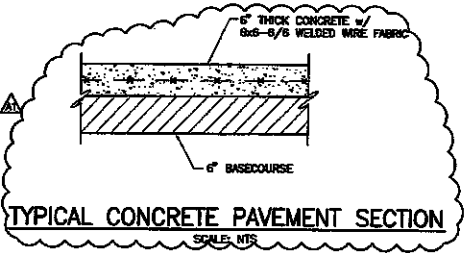
SEE CONTROL JOINT DETAIL THIS SHEET FOR JOINT SEALANT DETAILS.

JOINT EDGES TO BE FINISHED OFF  $R = 1/8"$  (TYP.)

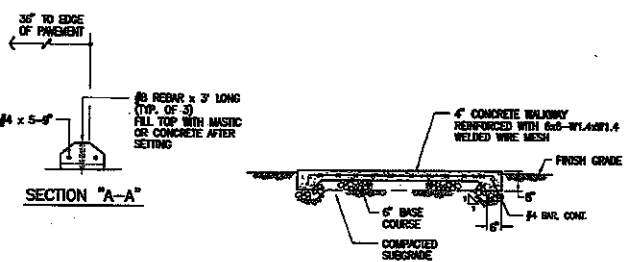
NOTE: SEE EXPANSION JOINT DETAILS FOR REINFORCEMENT

**NOTES:**

- MAXIMUM SPACING BETWEEN ANY TWO CONSECUTIVE CONTROL JOINTS OR CONSTRUCTION JOINTS SHALL BE 25 FEET. JOINTS MAY BE CONSTRUCTION OR CONTROL JOINTS AT THE CONTRACTORS OPTION.
- ALL CONTROL JOINTS SHALL BE SAW CUT WITHIN 24 HRS. OF PLACEMENT OF SEALANT.
- ALL SAW CUT JOINTS SHALL BE CLEAN AND FREE OF DIRT, DUST AND WATER PRIOR TO PLACEMENTS OF SEALANT.
- ALL CONTROL JOINTS SHALL BE STRAIGHT AND PERPENDICULAR TO CENTERLINE OF WALK WAY.
- ALL PROPOSED WALKWAYS SHALL BE BROOM FINISHED. THE FINISHED SURFACE SHALL BE SCORED INTO SQUARES WITH SIDES EQUAL TO THE SIDEWALK WIDTH, IN 4'-FOOT SQUARES, OR AS OTHERWISE SHOWN ON THE PLANS.



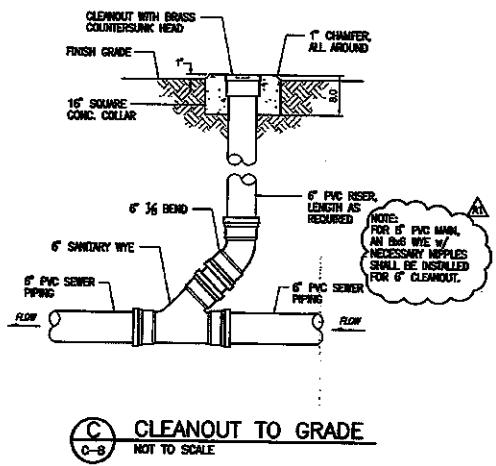
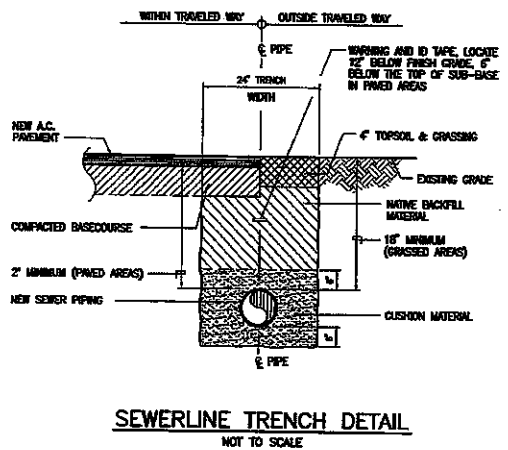
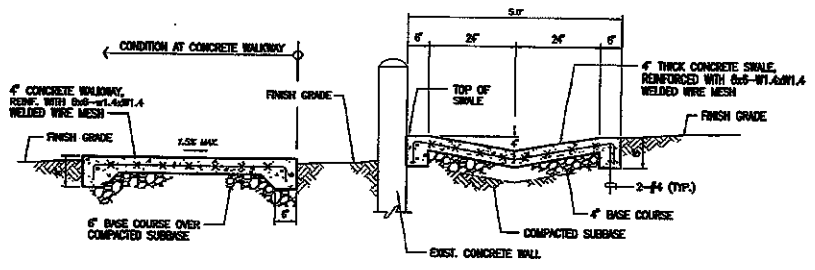
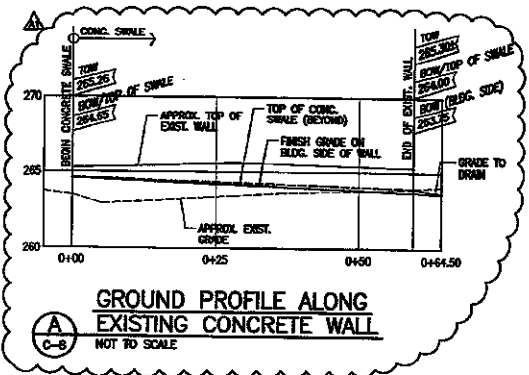
**TYPICAL CONCRETE PAVEMENT SECTION**  
SCALE: NTS



**(A) SECTION AT CONCRETE WALKWAY**  
NOT TO SCALE

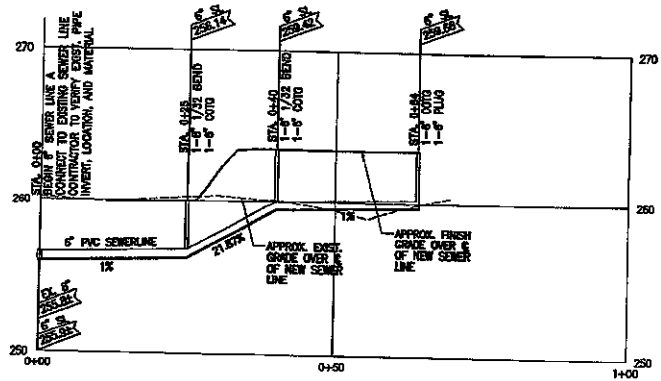
IF THIS SHEET IS LESS THAN 36" x 24", IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY.

1	ADDENDUM NO. 1	6 OF 17	4/22/09	APPROVED:
REVISION	DATE	DESCRIPTION	DATE	APPROVED:
				DEPT. OF ACCOUNTING & GENERAL SERVICES
				DIVISION OF PUBLIC WORKS
				SECTION OF BRIDGE
				DEPARTMENT OF PUBLIC SAFETY
				WAUWATA TEMPORARY PROGRAM FACILITIES
				WAUWATA, WISCONSIN
MISCELLANEOUS DETAILS				
OKAHMRA & ASSOCIATES, INC.				
DATE	BY	CHK'D BY	DATE	NO.
04/20/09	MM	MM	04-07-09	C-7
DATE	BY	CHK'D BY	DATE	NO.
04/15/09	MM	MM	APRIL 15, 2009	
SCALE	AS NOTED			

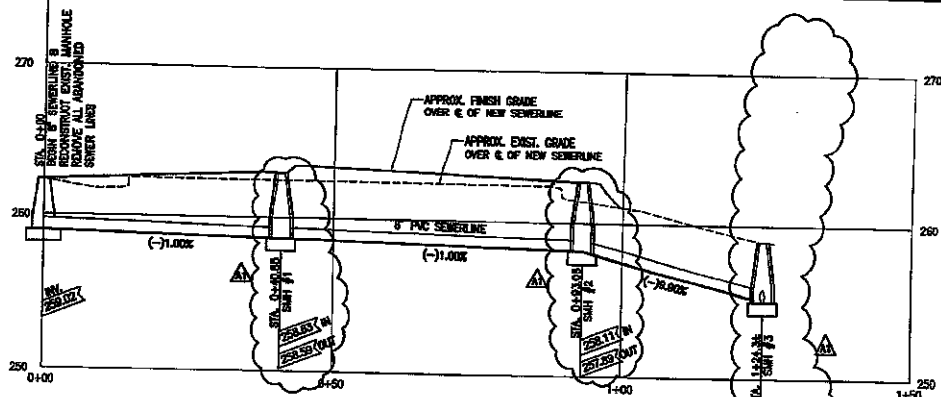


1	ADDENDUM NO. 1	2 OF 10	4/27/10	
REVISION NO.	DATE	DESCRIPTION	BY	APPROVED
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANAHA TEMPORARY PROGRAM FACILITIES WAIANAHA, HAWAII		
MISCELLANEOUS DETAILS				
O'HARA & ASSOCIATES, INC. LICENSED PROFESSIONAL ENGINEER No. 4781-C STATE OF HAWAII		PROJECT NO. 23-07-0000 SHEET NO. C-8 DATE: APR. 2, 2010		

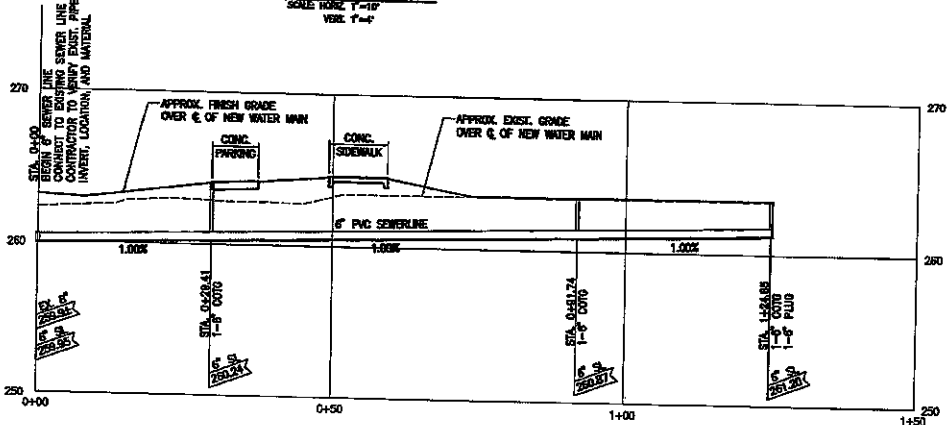
IF THIS SHEET IS LESS THAN 30" x 42", IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.



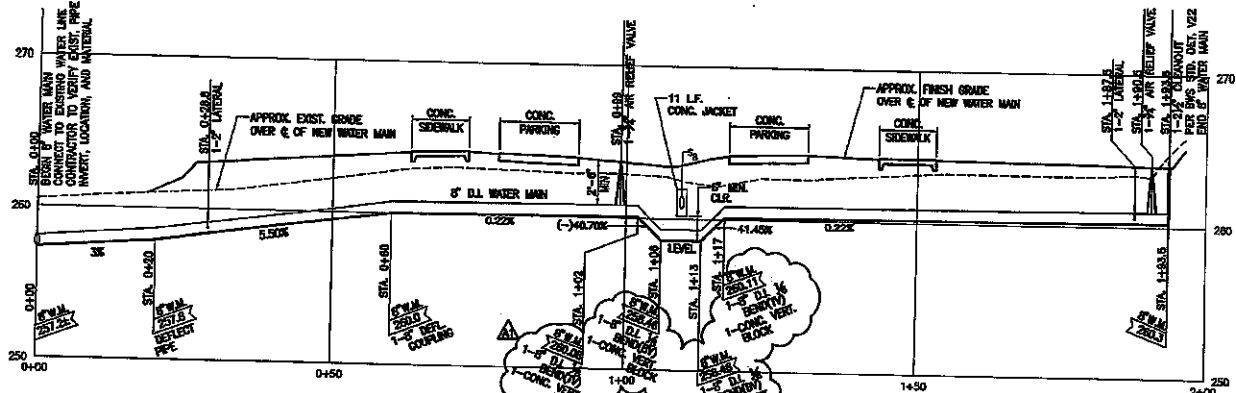
**SEWER "A" PROFILE**  
SCALE: HORIZ. 1"=40'  
VERT. 1"=4'



**SEWER "B" PROFILE**  
SCALE: HORIZ. 1"=40'  
VERT. 1"=4'



**SEWER "C" PROFILE**  
SCALE: HORIZ. 1"=40'  
VERT. 1"=4'

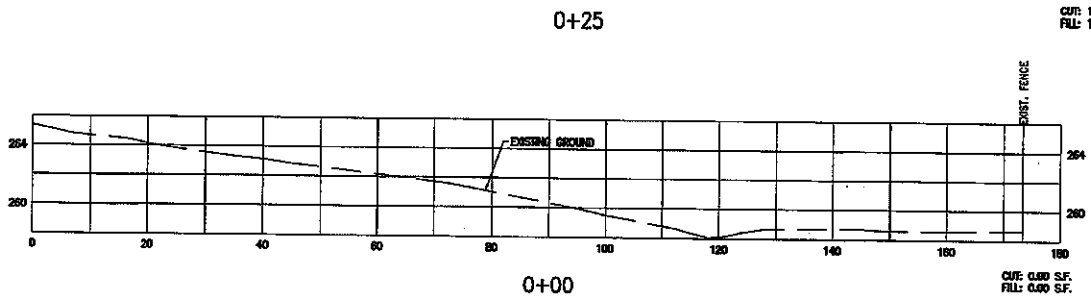
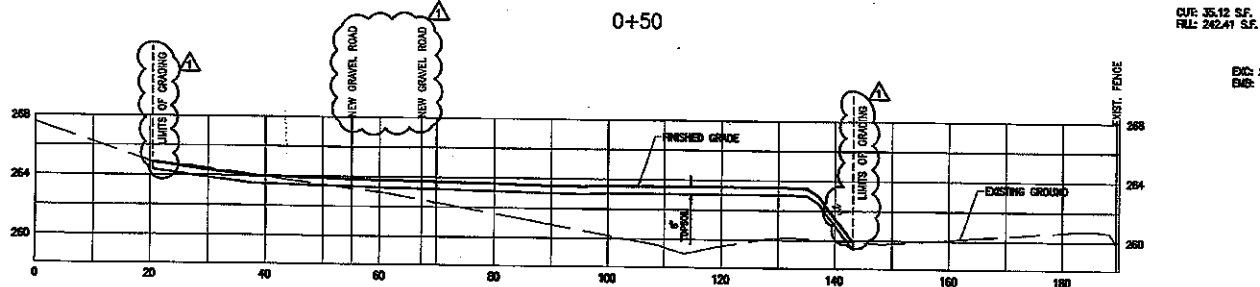
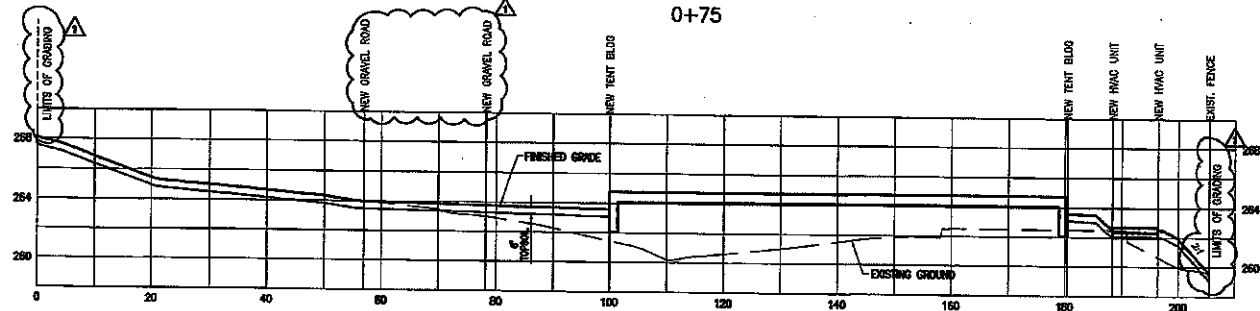
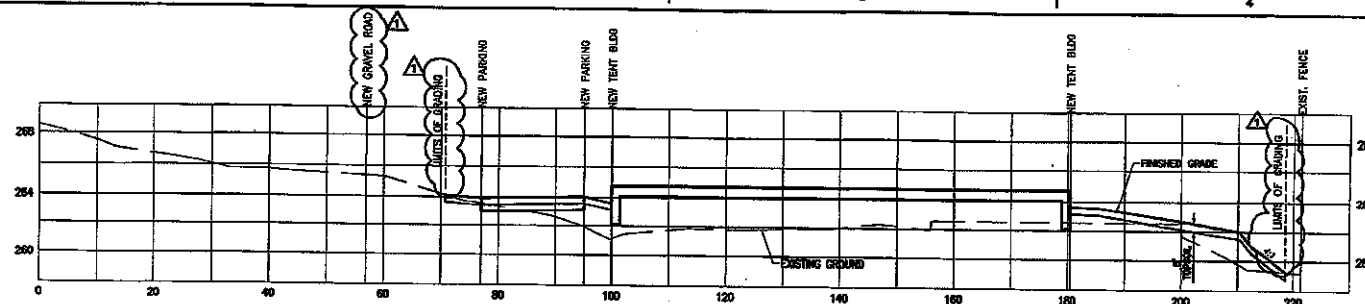


**WATERLINE PROFILE**  
SCALE: HORIZ. 1"=40'  
VERT. 1"=4'



IF THIS SHEET IS LESS THAN 36"x24", IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.

1	ADDITIONAL NO. 1	4/22/09	APPROVED
REVISION	DATE	DESCRIPTION	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS BUREAU OF UTILITIES DEPARTMENT OF PUBLIC SAFETY WAIKANA TEMPORARY PROGRAM FACILITIES WAIKANA, HAWAII			LICENSED PROFESSIONAL ENGINEER No. 4761-C CIVIL HAWAII
PROFILE - SEWERLINE & WATERLINE			OKHARA & ASSOCIATES, INC. 25-07-000 C-8
PREPARED BY: [Signature] CHECKED BY: [Signature] DATE: APRIL 2, 2009			AS NOTED

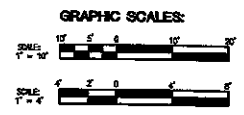


**SITE CROSS-SECTIONS**  
SCALE: HORIZ. 1" = 10'  
VERT. 1" = 4'

APPROVED: *[Signature]*  
DATE: 7/13/08  
CHIEF, CIVIL ENGINEERING BRANCH, DPP

NOTE:  
QUANTITIES ARE BASED UPON A 1:1 RATIO IN PLACE  
CONCRETE THAT IS 1 CUBIC YARD OF EXCAVATION TO  
1 CUBIC YARD OF EMBARMENT. QUANTITIES ARE  
APPROXIMATE AND NO SWELL OR SHRINKAGE FACTOR  
HAS BEEN APPLIED. QUANTITIES ARE BASED UPON THE  
BEST AVAILABLE INFORMATION TO DATE.

IF THIS SHEET IS LESS THAN  
36" X 48", IT IS A REDUCED PRINT.  
SCALE REDUCED ACCORDINGLY.

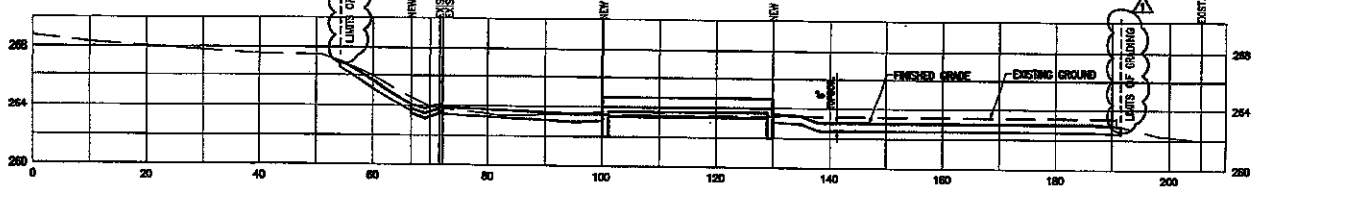


POD-1	ADDRESSING DPP CEN DRAWINGS AND APPROVAL AND GRD. LIMITS SLOPES, FENCE NO. CALLOUT	DATE	6/13/08
DESIGNED BY	DATE	APPROVED	PUBLIC WORKS ADMINISTRATION
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS OFFICE OF PUBLIC SAFETY WAIKAWA TEMPORARY PROGRAM FACILITIES WAIKAWA, HAWAII	
SITE CROSS-SECTION			
DESIGNED BY	DATE	20-02-008	C-10
DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE

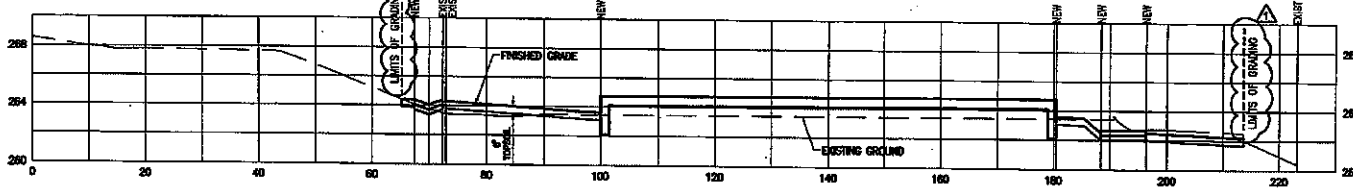
STATION 2400 CUT: 0.00 S.F.  
 STATION 2400 FILL: 0.00 S.F.

TOTAL EXC: 285.51 C.Y.  
 TOTAL FILL: 784.41 C.Y.

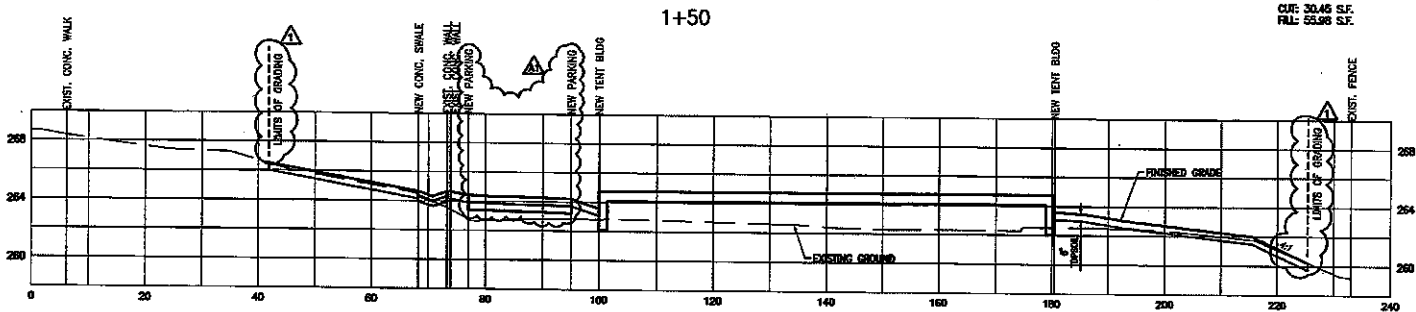
EXC: 35.30 C.Y.  
 FILL: 0.00 C.Y.



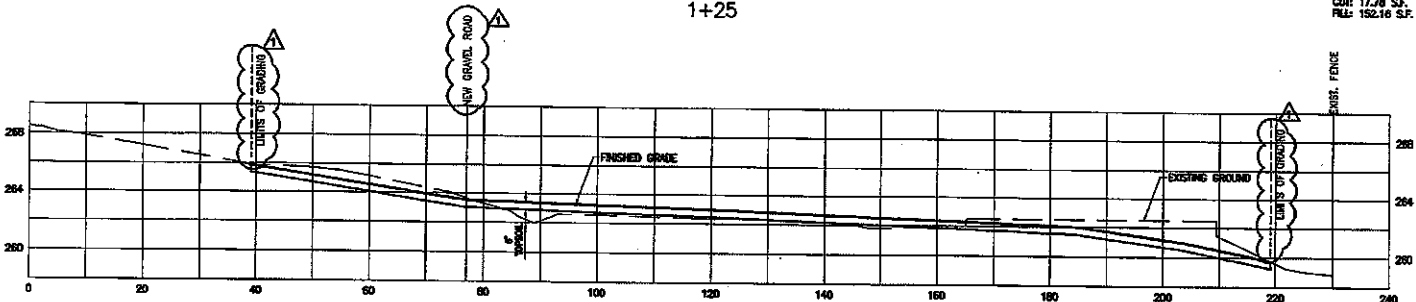
EXC: 49.39 C.Y.  
 FILL: 25.92 C.Y.



EXC: 23.33 C.Y.  
 FILL: 98.36 C.Y.



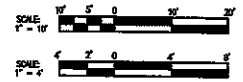
EXC: 57.76 C.Y.  
 FILL: 76.81 C.Y.



NOTE:  
 QUANTITIES ARE BASED UPON A 1:1 RATIO IN PLACE COMPLETE. THAT IS 1 CUBIC YARD OF EXCAVATION TO 1 CUBIC YARD OF EMPLACEMENT. QUANTITIES ARE APPROXIMATE AND NO SWELL OR SHRINKAGE FACTOR HAS BEEN APPLIED. QUANTITIES ARE BASED UPON THE BEST AVAILABLE INFORMATION TO DATE.

IF THIS SHEET IS LESS THAN 56" X 24", IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.

GRAPHIC SCALES:



**SITE CROSS-SECTIONS**

SCALE: HORIZ. 1" = 10'  
 VERT. 1" = 4'

APPROVED:  
*Mehmet Sahin*  
 CHIEF, CIVIL ENGINEERING BRANCH, DPP  
 DATE: 5/13/09

POD-1	ADDRESSING BY: CEB COMMENTS: 6	5/13/09
1	ADDENDUM NO. 1	4/22/09
REVISION NO.	DESCRIPTION	DATE
NO. 4781-C	DEPT. OF ACCOUNTING & GENERAL SERVICES DEPT. OF PUBLIC SAFETY WAWAIA TEMPORARY PROGRAM FACILITIES WAWAIA, HAWAII	APPROVED: PUBLIC WORKS SUPERVISOR
SITE CROSS-SECTIONS		
OKAHARA & ASSOCIATES, INC.	PROJECT NO. 100	DATE: 05-13-09
SCALE: AS NOTED	DATE: 05/13/09	C-11

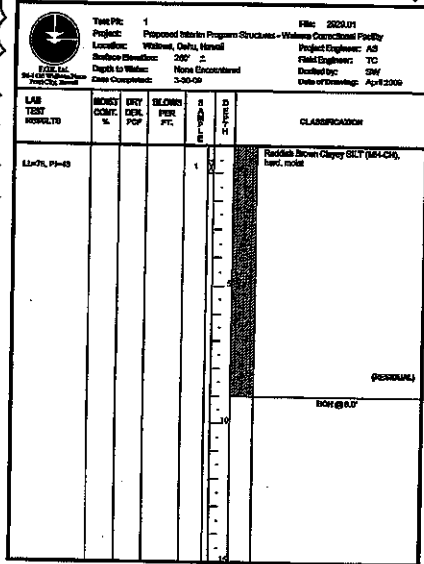


Figure 3

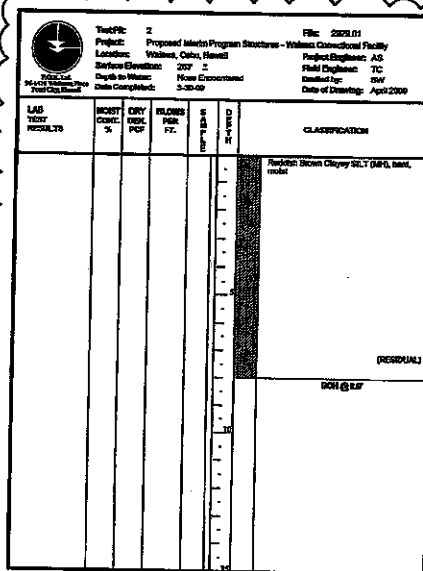


Figure 4

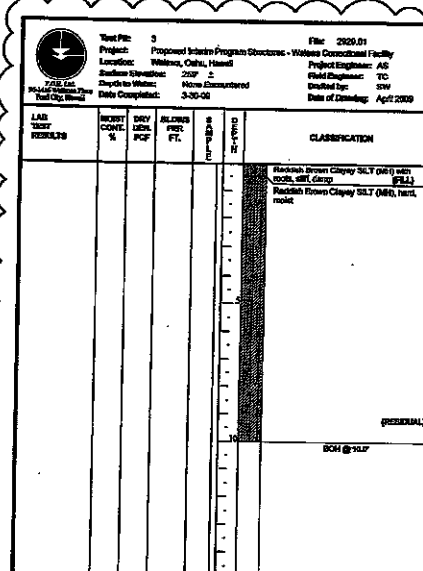


Figure 5

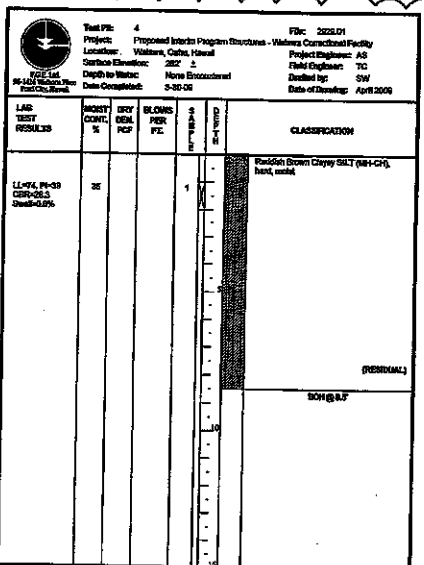


Figure 6

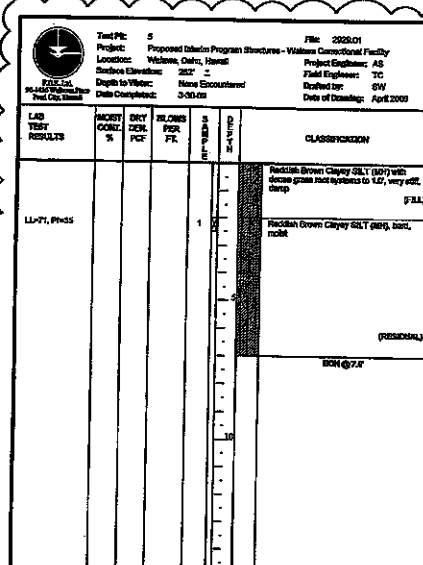
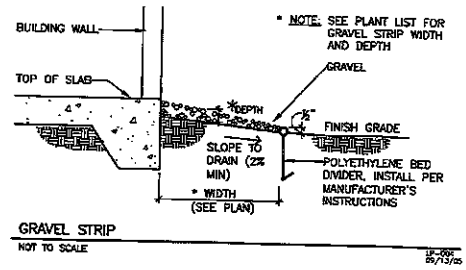
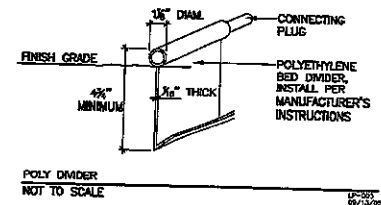
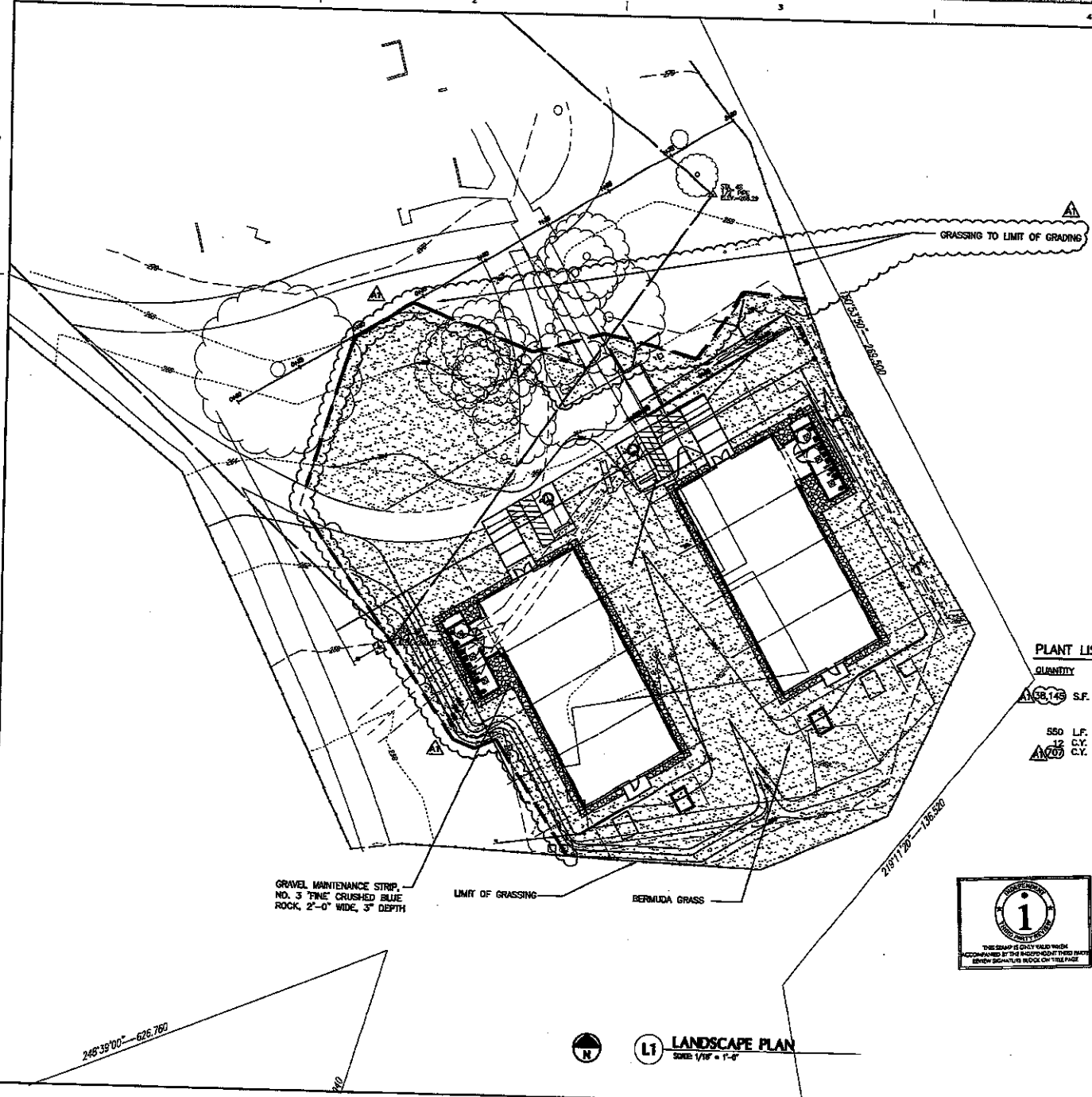


Figure 7

IF THIS SHEET IS LESS THAN 35" X 22", IT IS A REDUCED PRINT. SCALE REDUCED ACCORDINGLY.

1	ADDENDUM NO. 1	10 OF 13	4/27/09	APPROVED
REVISION NO.	DESCRIPTION	DATE	PUBLIC WORKS ADMINISTRATOR	
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII				
DEPARTMENT OF PUBLIC SAFETY WAIALUA TEMPORARY PROGRAM FACILITIES WAIALUA, HAWAII				
TEST PIT INFORMATION				
OKAHARA & ASSOCIATES, INC.				
DATE	ISSUED	BY	DATE	BY
04-27-09	04-27-09	SW	04-27-09	SW
C-12				
AS NOTED				



**PLANT LIST & MISCELLANEOUS**

QUANTITY	COMMON / BOTANICAL NAME	SIZE & REMARKS
158,149 S.F.	BERMUDA GRASS, COMMON / CYNODON DACTYLON	HYDROMULCH / SEED (SEE APPLICATION RATES BELOW)
550 L.F.	POLY DIVIDER	INSTALL PER MANUFACTURER'S INSTRUCTIONS
12 C.Y.	GRAVEL MAINTENANCE STRIP, 2'-0" WIDE	INSTALL PER MANUFACTURER'S INSTRUCTIONS NO. 3 FINE CRUSH BLUE ROCK, 3" DEPTH 6" DEPTH
170 C.Y.	SCREENED TOP SOIL	

**NOTE:**

- CONTRACTOR SHALL INSTALL 6" DEEP LAYER SCREENED TOPSOIL IN ALL PLANTING AREAS.
- CONTRACTOR SHALL PROVIDE AUTOMATIC TEMPORARY IRRIGATION SYSTEM FOR DURATION OF LANDSCAPE MAINTENANCE PERIOD. TEMPORARY IRRIGATION SYSTEM SHALL BE REMOVED AT COMPLETION OF LANDSCAPE MAINTENANCE PERIOD



**LANDSCAPE PLAN**  
SCALE 1/8" = 1'-0"

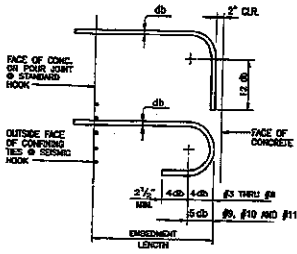
REVISED GRASSING LIMITS 1/5 4/14/8		APPROVED:
REVISION NO.	DATE	PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII		
DEPARTMENT OF PUBLIC SAFETY WAAHAWA TEMPORARY PROGRAM FACILITIES WAAHAWA, HAWAII		
LANDSCAPE PLAN		
BROWNLEE & LEE		PROJECT NO.
DESIGNED BY	CHECKED BY	28-27-0807
DRAWN BY	APPROVED BY	DATE
NO. 45	APR. 3, 2008	5





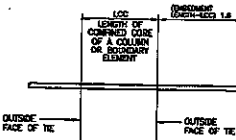
**REINFORCING EMBEDMENT NOTES**

- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE COVER BELOW THE BARS.
- BOTTOM BARS ARE ALL VERTICAL BARS AND HORIZONTAL BARS WITH LESS THAN 12" OF CONCRETE CAST BELOW HORIZONTAL BARS.
- FOR LIGHTWEIGHT CONCRETE MULTIPLY THE LENGTHS IN THE SCHEDULE BY 1.3.
- FOR GRADE 75 REINFORCING MULTIPLY THE LENGTHS IN THE SCHEDULE BY 1.25.
- FOR 3 BAR BUNDLE MULTIPLY THE LENGTHS IN THE SCHEDULE BY 1.25. FOR 4 BAR BUNDLE MULTIPLY THE LENGTHS IN THE SCHEDULE BY 1.33.
- FOR BUNDLE BARS AN EFFECTIVE BAR DIAMETER SHALL BE USED FOR DETERMINING COVER AND SPACING LIMITATIONS.
  - FOR 2 BAR BUNDLE  $d_{eff} = 1.60 \sqrt{AREA}$
  - FOR 3 BAR BUNDLE  $d_{eff} = 1.95 \sqrt{AREA}$
  - FOR 4 BAR BUNDLE  $d_{eff} = 2.26 \sqrt{AREA}$



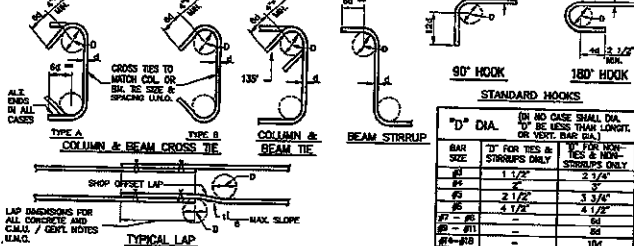
- NOTES:
- ALL HOOKED BARS SHALL EXTEND AS FAR AS POSSIBLE TO THE OPPOSITE FACE WITH A MINIMUM 2" END COVER AND EMBEDMENT NOT LESS THAN THE SCHEDULE.
  - MINIMUM SIDE COVER = 2 1/2".
  - FOR WALL FOOTING BOWL EMBEDMENT LENGTHS SEE TYPICAL CONCRETE WALL, DOWL, EMBEDMENT AND LAP SCHEDULE.

**STANDARD HOOK DETAILS**



- NOTES:
- STRAIGHT BARS TERMINATED AT A JOINT SHALL PASS THROUGH THE COVERED CORE OF A SEISMIC COLUMN OR SOUPHANT ELEMENT. ANY PORTION OF THE STRAIGHT EMBEDMENT NOT WITHIN THE COVERED CORE SHALL BE INCREASED BY A FACTOR OF 1.5.
- STRAIGHT BARS AT A JOINT**  
(SEISMIC ONLY I.E. AT SHEAR WALL)

\* 2 1/2" MIN. AT SEISMIC ZONES D, 1 AND 2 ONLY  
= 12s AT TIES AND STRIPPUS #6 AND LARGER



**2 TYPICAL REINFORCING STEEL LAPS, BENDS, AND HOOKS DETAIL**

BAR SIZE U/L/O	DOWL EMBEDMENT	MINIMUM LAP LENGTH
#3	9"	12"
#4	11"	15"
#5	14"	19"
#6	17"	23"
#7	20"	26"
#8	22"	30"
#9	25"	34"
#10	28"	39"
#11	31"	42"
#14	38"	-
#18	50"	-

**6 COMPRESSION EMBEDMENT/LAP SPlice SCHEDULE**

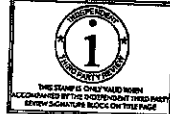
f <sub>c</sub> (PSI)	4000		5000		6000		8000	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	16"	16"	16"	16"	16"	16"	16"	16"
#4	24"	19"	22"	17"	20"	16"	18"	16"
#5	30"	23"	27"	21"	25"	19"	22"	17"
#6	40"	31"	36"	27"	33"	25"	29"	22"
#7	54"	42"	49"	37"	44"	34"	38"	30"
#8	74"	55"	64"	49"	58"	45"	50"	39"
#9	96"	69"	81"	61"	72"	55"	62"	48"
#10	114"	83"	97"	73"	85"	67"	76"	58"
#11	140"	102"	120"	90"	105"	81"	94"	72"
#14	178"	130"	153"	114"	132"	100"	114"	87"

**10 TENSION LAP SPlice SCHEDULE**

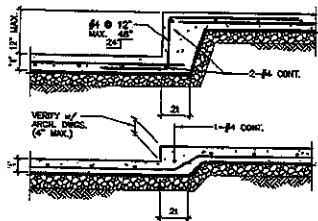
- NOTES:
- ALL CONCRETE F<sub>c</sub> ≥ 3000 PSI
  - FOR USE IN SPIRALLY-REINFORCED COLLINS WITH SPIRALS CONFORMING TO SECTIONS 7.10.4 AND 7.10.5 OF ACI 318-02. INCLUDING ANCHORAGE AND SPLICES OF SPIRALS, THE ACI CODE REQUIREMENTS APPLY.
  - 7.10.4.4 - ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1 1/2 EXTRA TURNS OF SPIRAL BAR OR WIRE AT EACH END OF A SPIRAL CORE.
  - 7.10.4.5 - SPLICES OF SPIRAL REINFORCEMENT SHALL BE LAP SPLICES OF 40s FOR DEFORMED SPIRAL BAR OR WIRE OR 20s FOR PLAIN BAR OR WIRE BUT NOT LESS THAN 12" DE WLD.

BAR	AREA (sq.in.)	0.11		0.20		0.31		0.44		0.60		0.79		1.00		1.27		1.56		
		DIAMETER db	0.375	0.500	0.625	0.750	0.875	1.000	1.128	1.270	1.410	TOP	BOT	TOP	BOT	TOP	BOT	TOP	BOT	TOP
#3	0.11	TOP	16	12	18	14	22	17	26	20	38	29	43	33	49	38	55	42	61	47
		BOT	16	12	16	12	19	15	23	18	33	25	37	29	42	33	47	37	53	41
#4	0.20	TOP	16	12	16	12	17	13	20	16	29	23	34	26	38	29	43	33	47	36
		BOT	22	17	29	22	36	28	43	33	63	48	72	55	81	62	91	70	101	78
#5	0.31	TOP	19	15	25	19	31	24	37	29	54	42	62	49	70	54	79	61	87	67
		BOT	17	13	23	17	28	22	34	26	49	38	58	43	63	48	71	54	78	60
#6	0.44	TOP	23	18	30	22	37	27	45	32	52	37	59	43	67	48	75	54	84	60
		BOT	21	15	26	19	32	23	39	28	45	32	52	37	58	42	65	47	73	52
#7	0.60	TOP	21	15	23	17	29	21	35	25	40	28	46	33	52	37	59	42	65	47
		BOT	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
#8	0.79	TOP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
		BOT	6	7	9	10	12	14	15	17	19	21	22	24	26	28	30	32	34	36
#9	1.00	TOP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
		BOT	6	9	11	13	15	17	19	21	22	24	26	28	30	32	34	36	38	40
#10	1.27	TOP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
		BOT	6	8	10	11	13	15	17	19	21	22	24	26	28	30	32	34	36	38
#11	1.56	TOP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
		BOT	6	8	10	11	13	15	17	19	21	22	24	26	28	30	32	34	36	38

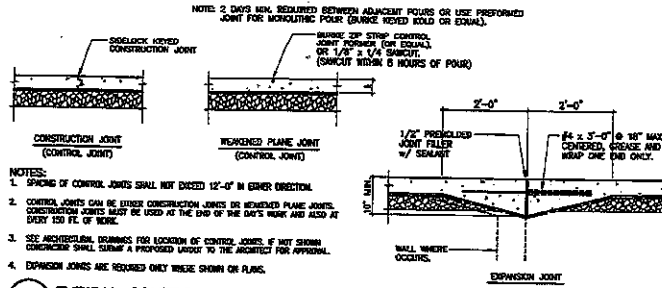
**12 TYPICAL STRAIGHT AND HOOKED EMBEDMENT LENGTH SCHEDULE**



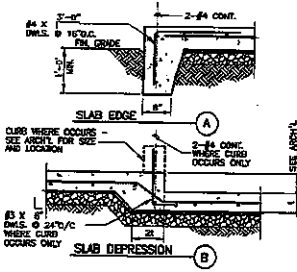
DESIGNER	DATE	DESCRIPTION	REV.	DATE	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIAHI TEMPORARY PROGRAM FACILITIES WAIAHI, HAWAII					
TYPICAL DETAILS					
ENGLEBORG PARTNERS, LLC					
DATE	DATE	DATE	DATE	DATE	DATE
APRIL 1, 2009					



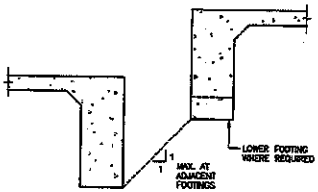
**4** TYP. DEPRESSED SLAB DETAIL  
N.T.S. (16)S-003-4



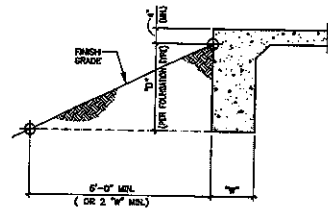
**3** TYPICAL CONTROL JOINT DETAILS  
N.T.S. (16)S-003-3



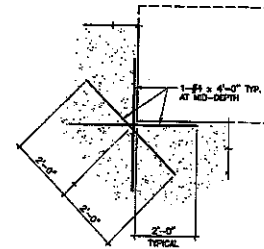
**1** TYP. SLAB ON GRADE DETAILS  
N.T.S. (16)S-003-1



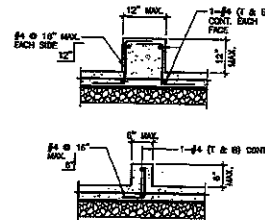
**8** TYPICAL ADJACENT FTG DETAIL  
N.T.S. (16)S-003-8



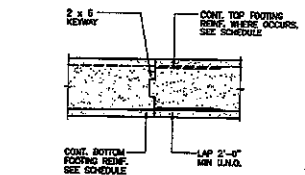
**7** TYP FTG LOCATION @ SLOPE  
N.T.S. (16)S-003-7



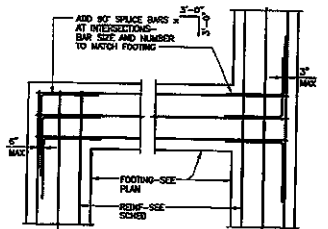
**6** TYPICAL S.O.G. RE-ENTRANT CORNER OR BLOCKOUT DETAIL  
N.T.S. (16)S-003-6



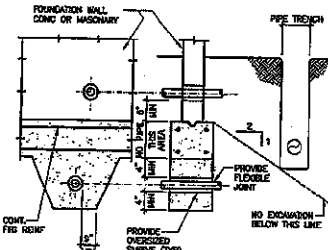
**5** TYPICAL CURB DETAILS  
N.T.S. (16)S-003-5



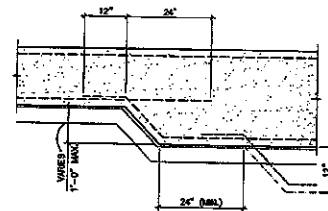
**12** TYP FOOTING CONSTRUCTION JOINT DETAIL  
N.T.S. (16)S-003-12



**11** TYP. FOOTING REINFORCING AT INTERSECTIONS-PLAN  
N.T.S. (16)S-003-11



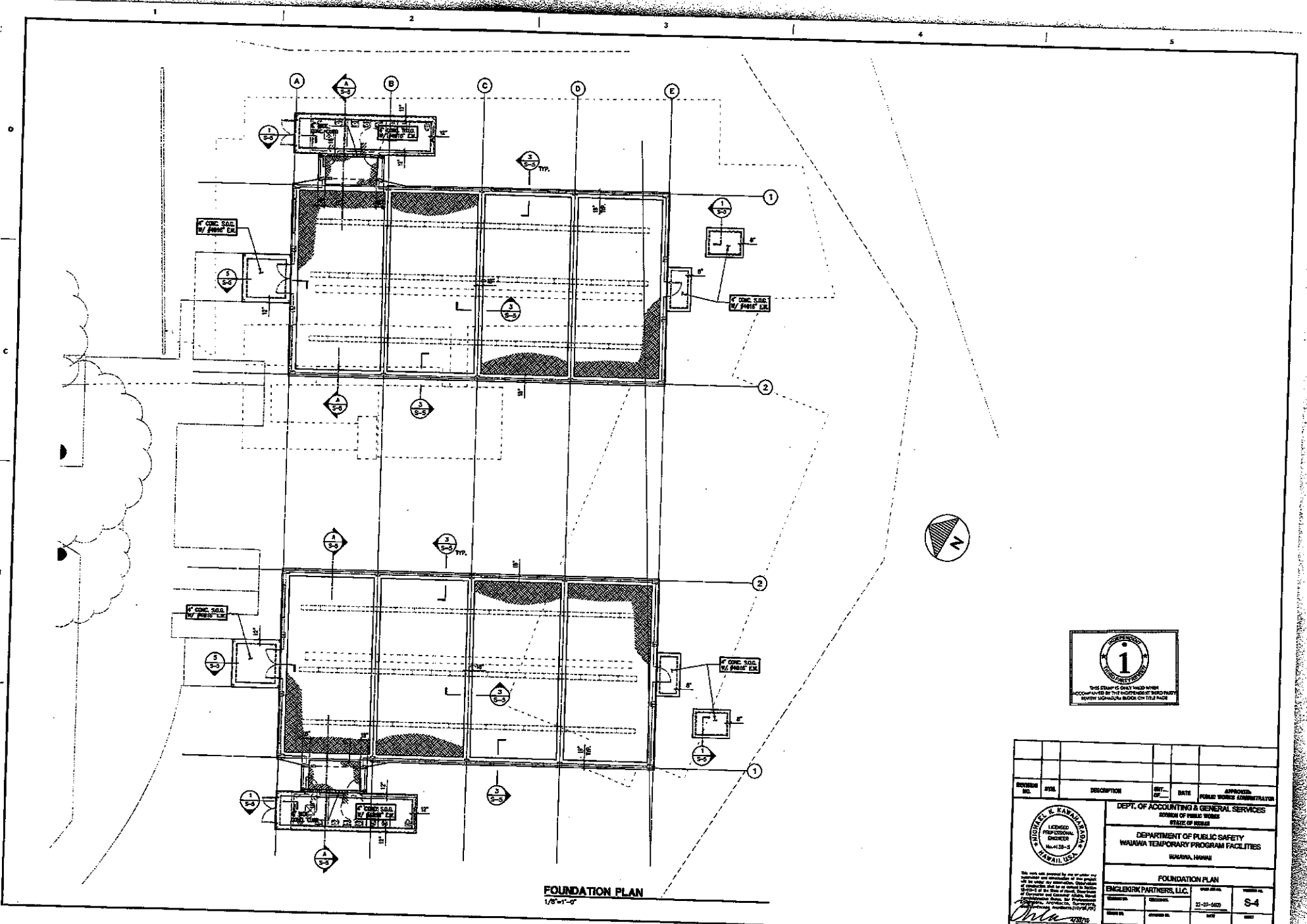
**10** PIPE AT OR ADJACENT TO FTG  
N.T.S. (16)S-003-10



**9** TYPICAL STEP FOOTING  
N.T.S. (16)S-003-9



ISSUED NO.	REV.	DESCRIPTION	DATE	BY	APPROVED
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>DEPARTMENT OF PUBLIC SAFETY</b> WAHAWA TEMPORARY PROGRAM FACILITIES WAHAWA, HAWAII					
TYPICAL DETAILS					
<b>ENGLERK PARTNERS, LLC</b>					
DESIGNED BY			22-27-2020		S-3
DRAWN BY					
CHECKED BY					
SCALE	AS SHOWN				
DATE			APR. 2, 2020		



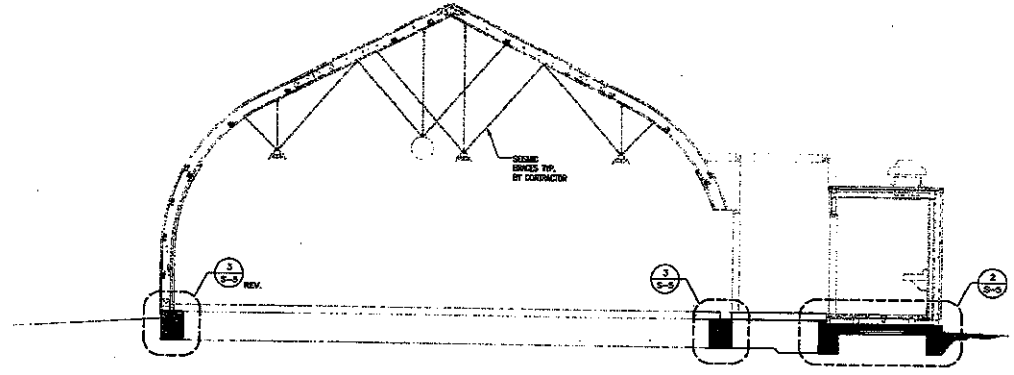
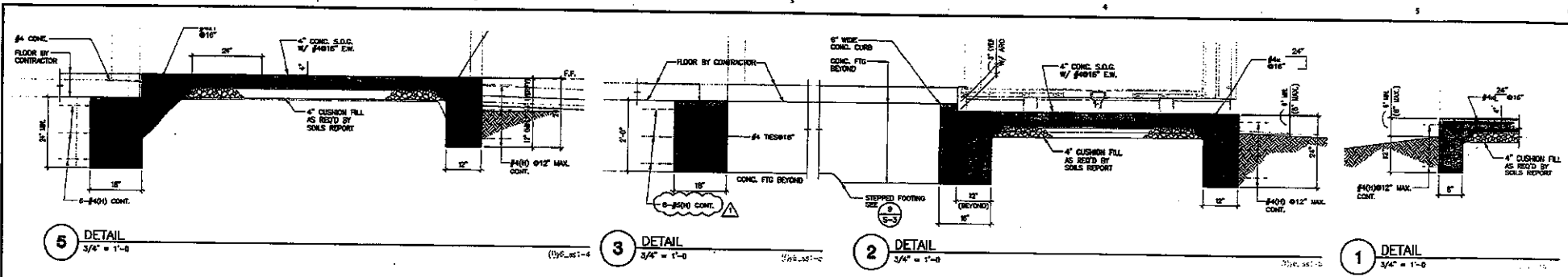
**FOUNDATION PLAN**  
1/8"=1'-0"



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

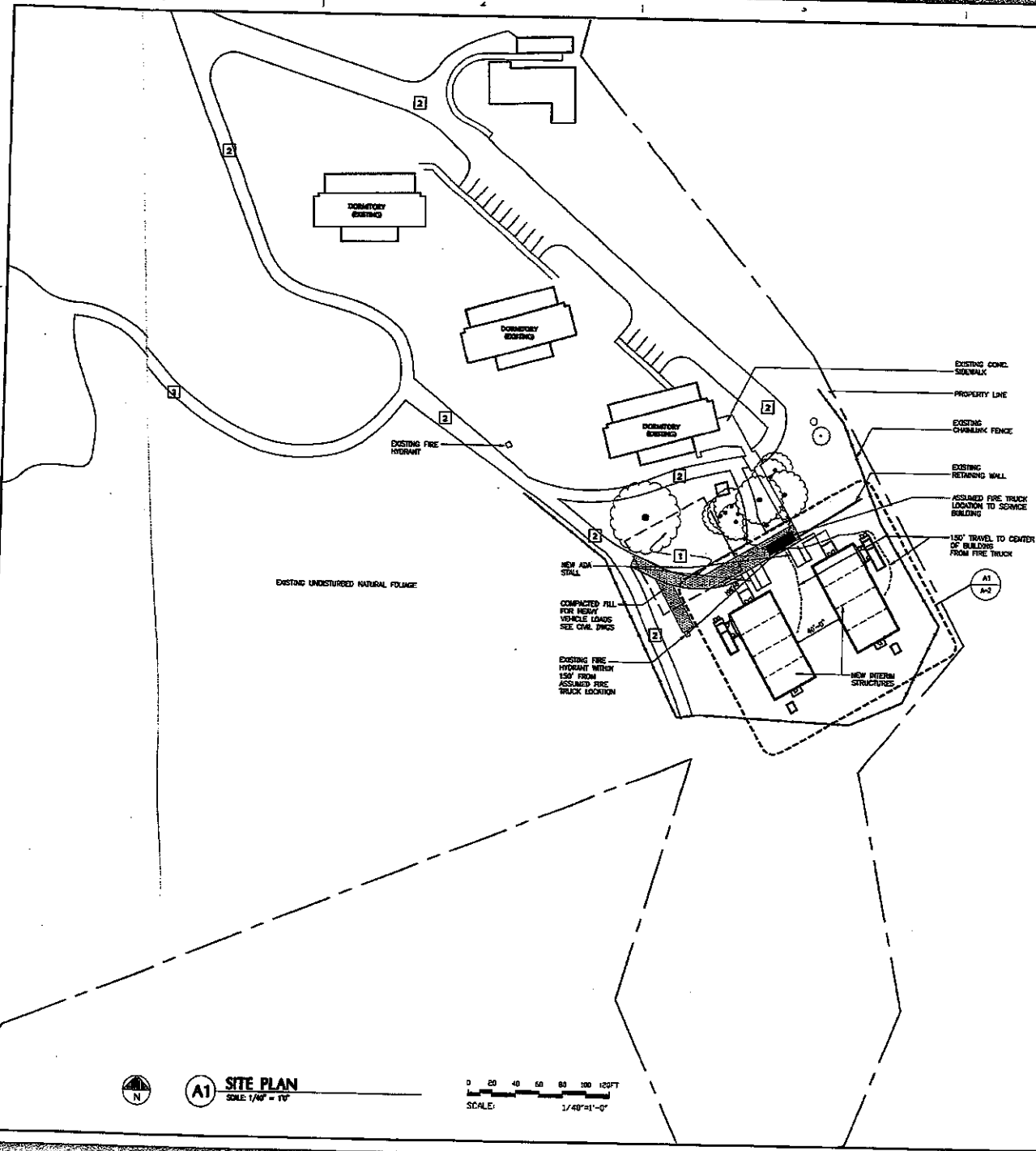
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII	
		DEPARTMENT OF PUBLIC SAFETY WAIANAHA TEMPORARY PROGRAM FACILITIES WAIANAHA, HAWAII	
FOUNDATION PLAN			
ENCLERK PARTNERS, LLC 22-21-5420		S-4	
DRAWN BY CHECKED BY DATE	DESIGNED BY APPROVED BY DATE	DATE APR. 3, 2009	SHEET NO.



**A SECTION**  
1/4" = 1'-0"



APR 27, 2008	APPROVED:
DATE	PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES	
DIVISION OF PUBLIC WORKS	
STATE OF HAWAII	
DEPARTMENT OF PUBLIC SAFETY	
WAIPAHOEHOE TEMPORARY PROGRAM FACILITIES	
WAIPAHOE, HAWAII	
BUILDING SECTION AND FOUNDATION DETAILS	
ENGINEER: PARTNERS, L.L.C.	SCALE: S-5
DATE: 27-07-2008	
SIGNATURE: [Signature]	DATE: APR 23, 2008



### GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE OWNERS REPRESENTATIVE. SEE PROJECT MANUAL FOR REQUIREMENTS.
2. SEE CIVIL AND ELECTRICAL DRAWINGS FOR SITE CONSTRUCTION AND INFRASTRUCTURE REQUIRED FOR THE CONSTRUCTION OF THE NEW BUILDING(S).
3. SEE CIVIL AND ELECTRICAL DRAWINGS FOR EXISTING SITE CONSTRUCTION TO REMAIN IN CLOSE PROXIMITY TO CONSTRUCTION SITE.
4. CONTRACTOR SHALL NOT LIMIT ACCESS TO OTHER FACILITY FUNCTIONS DURING CONSTRUCTION. WORK REQUIRING DISRUPTIONS TO FACILITY OPERATIONS SHALL BE COORDINATED IN ADVANCE WITH OWNERS REPRESENTATIVE. SEE PROJECT MANUAL FOR REQUIREMENTS.

### SHEET NOTES

- 1 DESIGNATED CONTRACTOR STAGING AREA. AREA SHALL BE SURROUNDED BY 6'-0" HIGH ENCLOSURE RESTRICTING ACCESS TO AREA FOR EQUIPMENT AND BUILDING MATERIAL. STAGING SEE PROJECT MANUAL.
- 2 FACILITY ACCESS ROAD TO BE MAINTAINED DURING CONSTRUCTION.

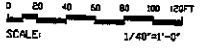


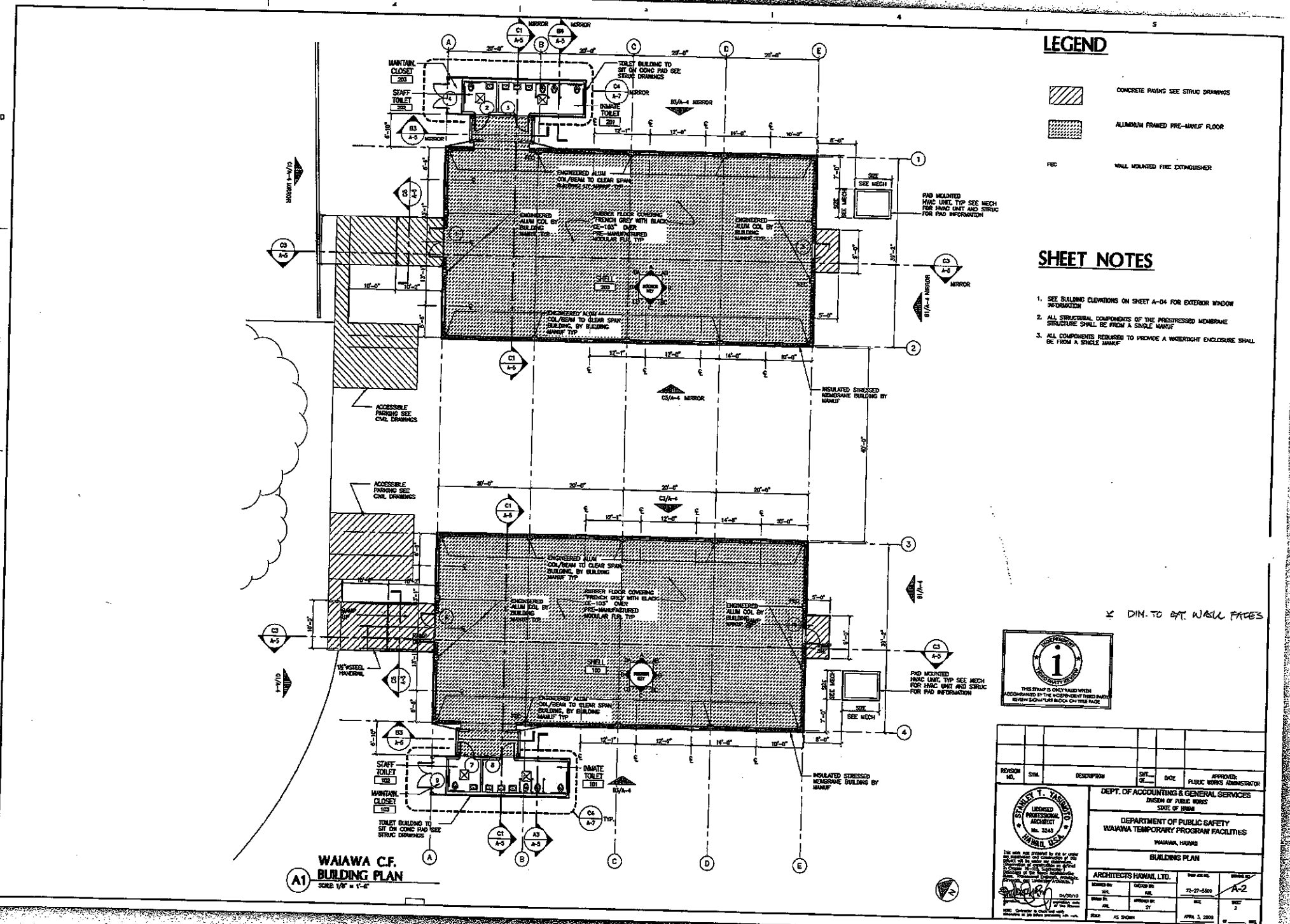
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII	
DEPARTMENT OF PUBLIC SAFETY WAIANAHA TEMPORARY PROGRAM FACILITIES WAIANAHA, HAWAII		SITE PLAN	
ARCHITECTS HAWAII, LTD.		DRAWN BY: A/E CHECKED BY: A/E APPROVED BY: P.E.	DATE: 21-21-2009 SHEET: A-1
100% CONTRACTOR TO CHECK AND VERIFY. REVISIONS TO BE MADE IMMEDIATELY UPON NOTIFICATION BY THE ARCHITECT.		DATE: 04-23-2009	SCALE: AS SHOWN

**A1 SITE PLAN**  
SCALE: 1/48" = 1'-0"





**LEGEND**

- CONCRETE PAVING SEE STRUC DRAWINGS
- ALUMINUM FRAMED PRE-MANUF. FLOOR
- WALL MOUNTED FIRE EXTINGUISHER

**SHEET NOTES**

1. SEE BUILDING ELEVATIONS ON SHEET A-04 FOR EXTERIOR WINDOW INFORMATION
2. ALL STRUCTURAL COMPONENTS OF THE PRESTRESSED MEMBRANE STRUCTURE SHALL BE FROM A SINGLE MANUF.
3. ALL COMPONENTS REQUIRED TO PROVIDE A WATERTIGHT ENCLOSURE SHALL BE FROM A SINGLE MANUF.

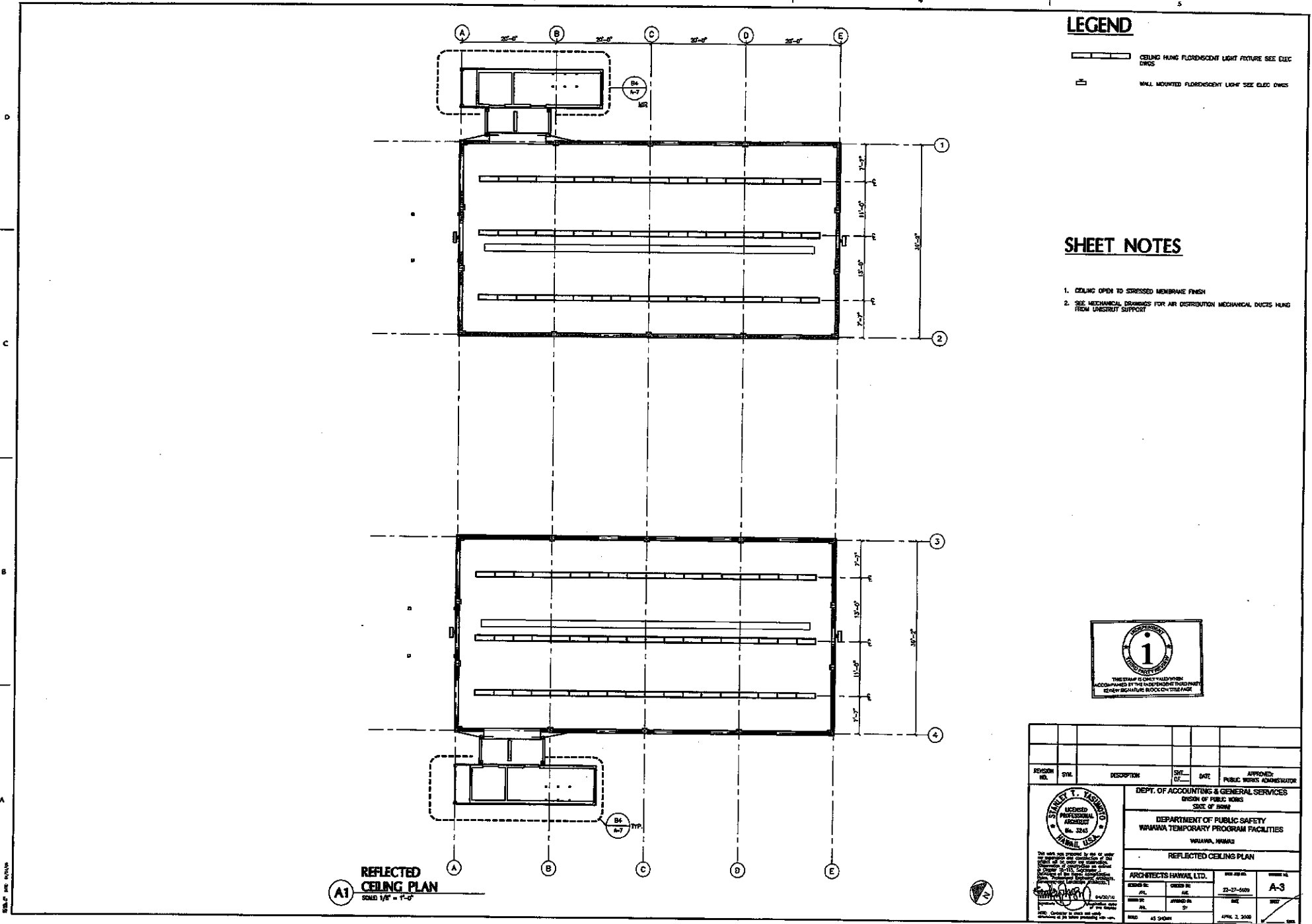
K DIM. TO EXT. WALL FACES





REGION NO.	SYMBOL	DESCRIPTION	DATE	BY	APPROVED
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>DEPARTMENT OF PUBLIC SAFETY</b> <b>WAIAWA TEMPORARY PROGRAM FACILITIES</b> WAIAWA, HAWAII					
<b>BUILDING PLAN</b>					
<b>ARCHITECTS HAWAII, LTD.</b>					
DESIGNED BY	DATE	21-27-5609	DRAWN BY		A-2
CHECKED BY	DATE		APPROVED BY		
SCALE	AS SHOWN		DATE		APRIL 3, 2009

**WAIAWA C.F. BUILDING PLAN**  
SCALE 1/8" = 1'-0"

FOR OFFICIAL USE ONLY



**LEGEND**

-  CEILING HUNG FLUORESCENT LIGHT FIXTURE SEE ELEC DWGS
-  WALL MOUNTED FLUORESCENT LIGHT SEE ELEC DWGS

**SHEET NOTES**


1. CEILING OPEN TO STRESSED MEMBRANE FINISH
2. SEE MECHANICAL DRAWINGS FOR AIR DISTRIBUTION MECHANICAL DUCTS HUNG FROM UNDERTRUSS SUPPORT



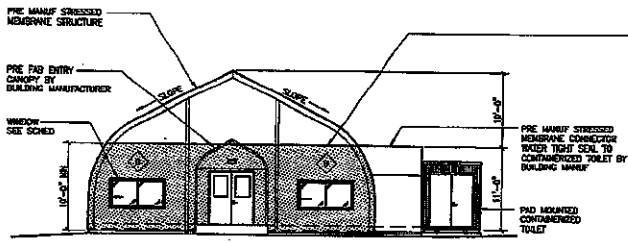
**A1 REFLECTED CEILING PLAN**  
SCALE 1/8" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	SITE	DATE	APPROVED:

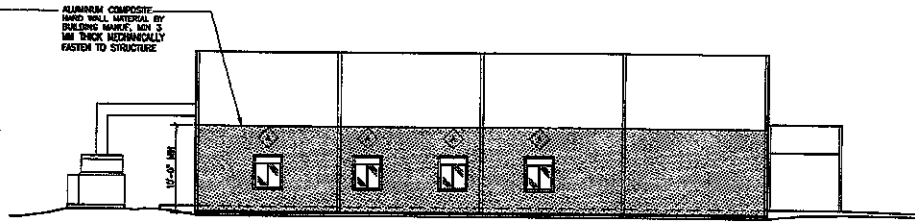
  

		<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII	
LICENSED PROFESSIONAL ARCHITECT No. 2245 HAWAII, U.S.A.		<b>DEPARTMENT OF PUBLIC SAFETY</b> <b>WAIANA TEMPORARY PROGRAM FACILITIES</b> WAIANA, HAWAII	
REFLECTED CEILING PLAN			
<b>ARCHITECTS HAWAII, LTD.</b>		22-27-6609	A-3
ARCHITECT J.T.	CHECKED BY J.T.	DATE APR 2, 2008	SHEET 102
DRAWN BY J.T.	APPROVED BY J.T.	DATE APR 2, 2008	SHEET 102
TITLE AS SHOWN	DATE APR 2, 2008	SHEET 102	SHEET 102

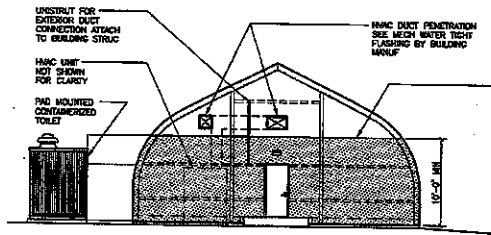




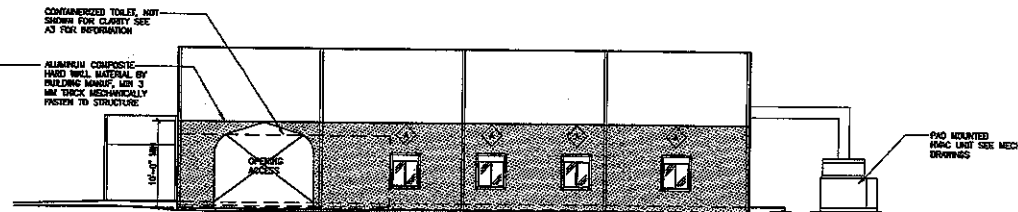
**C1 FRONT EXTERIOR ELEVATION**  
SCALE: 1/8" = 1'-0"



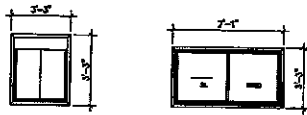
**C3 SIDE EXTERIOR ELEVATION**  
SCALE: 1/8" = 1'-0"



**B1 REAR EXTERIOR ELEVATION**  
SCALE: 1/8" = 1'-0"



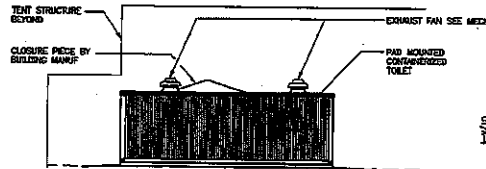
**B3 SIDE EXTERIOR ELEVATION**  
SCALE: 1/8" = 1'-0"



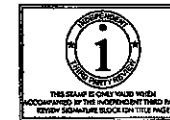
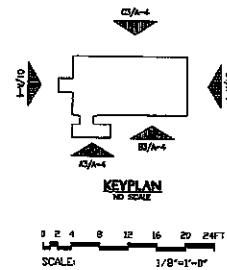
**A** WINDOW BY BUILDING MANUFACTURER - ALUMINUM FRAME W/COERCITINE SHELF FLASHING AND DRIP CAP  
GLAZING SHALL BE DOUBLE GLAZED LOW E SOLAR BAN OR ARJON FILLED TEMPERED SAFETY GLASS  
WINDOWS TO BE PROTECTED AGAINST WIND-BORNE DEBRIS IN ACCORDANCE WITH ASCE SECTION 6.5.3.3

**B** WINDOW BY BUILDING MANUFACTURER - ALUMINUM FRAME W/COERCITINE SHELF FLASHING AND DRIP CAP  
GLAZING SHALL BE DOUBLE GLAZED LOW E SOLAR BAN OR ARJON FILLED TEMPERED SAFETY GLASS  
WINDOWS TO BE PROTECTED AGAINST WIND-BORNE DEBRIS IN ACCORDANCE WITH ASCE SECTION 6.5.3.3

**WINDOW SCHEDULE**



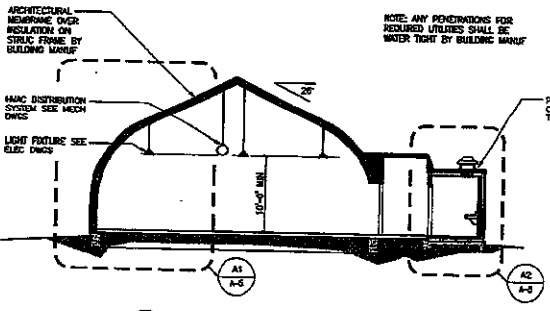
**A3 SIDE EXTERIOR ELEVATION TOILET**  
SCALE: 1/8" = 1'-0"



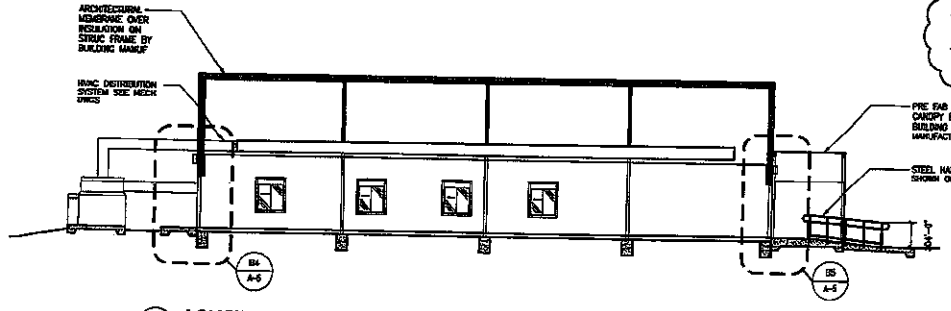
ADD-1		BUILDING DEPARTMENT COMMENTS		4-27-06	
REVISION NO.	SYMBOL	DESCRIPTION	DATE	APPROVED:	PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAWAUA TEMPORARY PROGRAM FACILITIES WAWAUA, HAWAII BUILDING ELEVATIONS					
ARCHITECTS HANNE LTD. HANNE HANNE HANNE		ONE HANNOI 22-07-8609 HAWAII HONOLULU		A-4 SHEET	
DATE: APRIL 2, 2006					

### GENERAL NOTES

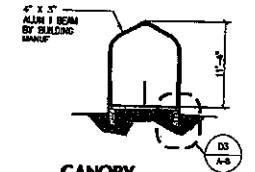
1. ARCHITECTURAL, MECHANICAL, ELECTRICAL AND INSTRUMENTATION SYSTEM COMPONENTS AND ELEMENTS PERMANENTLY ATTACHED TO STRUCTURES SHALL COMPLY WITH SECTION 1101 ARCHITECTURAL, MECHANICAL, ELECTRICAL COMPONENTS UNDER REQUIREMENTS.



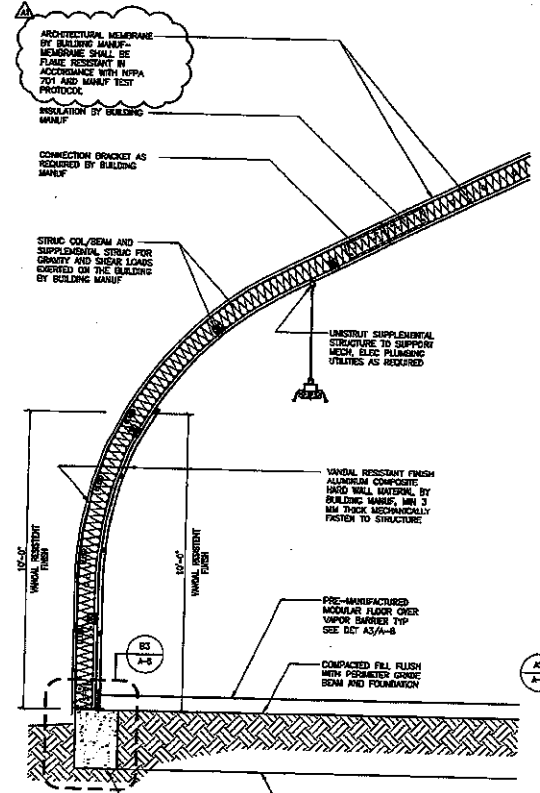
**C1 CROSS SECTION**  
SCALE 1/8" = 1'-0"



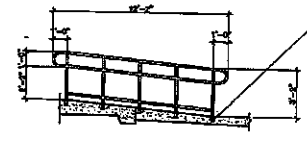
**C3 LONGITUDINAL SECTION**  
SCALE 1/8" = 1'-0"



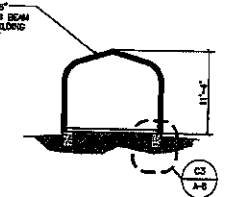
**C5 CANOPY CROSS SECTION**  
SCALE 1/8" = 1'-0"



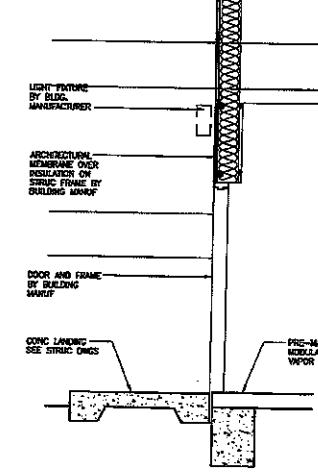
**A1 WALL SECTION**  
SCALE 1/2" = 1'-0"



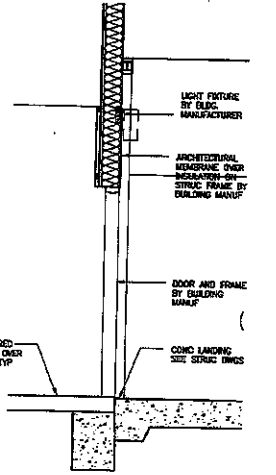
**B2 STEEL HANDRAIL DETAIL**  
SCALE 1/8" = 1'-0"



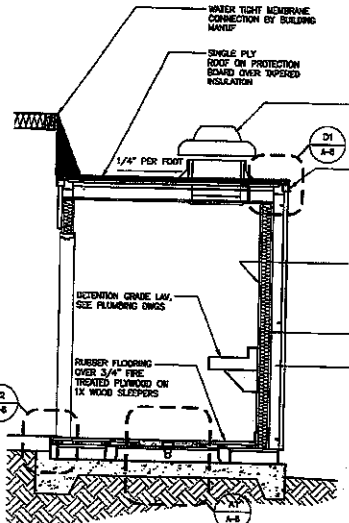
**B3 CROSS SECTION**  
SCALE 1/8" = 1'-0"



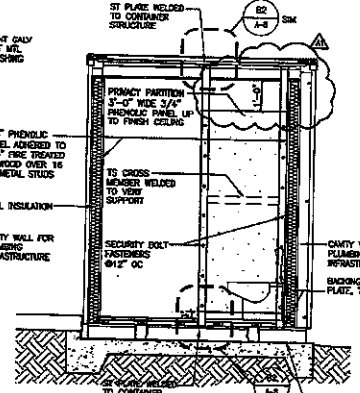
**B4 WALL SECTION**  
SCALE 1/2" = 1'-0"



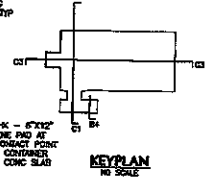
**B5 WALL SECTION**  
SCALE 1/2" = 1'-0"



**A2 WALL SECTION**  
SCALE 1/2" = 1'-0"

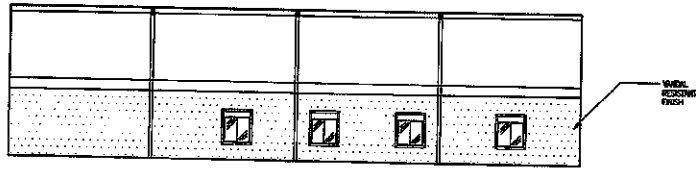


**A3 TOILET PARTITION WALL SECTION**  
SCALE 1/2" = 1'-0"

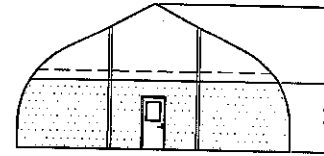


KEYPLAN  
IN SCALE

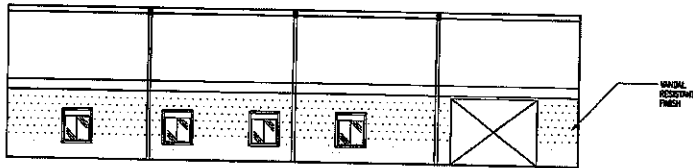
ADD-1	BUILDING DEPARTMENT COMMENTS	4-27-00	APPROVED:
REVISION NO.	DESCRIPTION	DATE	PUBLIC WORKS ADMINISTRATOR
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF UTAH DEPARTMENT OF PUBLIC SAFETY WANAHA TEMPORARY PROGRAM FACILITIES WANAHA, HAWAII	
BUILDING SECTIONS			
ARCHITECTS HAWAII, LTD.		ISSUE NO.	Sheet No.
DATE	ISSUED BY	DATE	NO.
APRIL 3, 2000	ST	23-07-0002	A-5
SCALE	AS SHOWN	DATE	BY



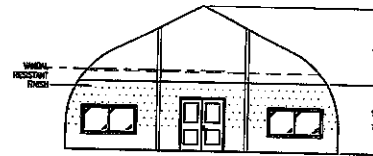
A



B

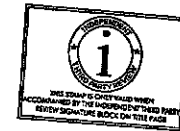


C




D

**C-1 INTERIOR ELEVATIONS**  
SCALE 1/8" = 1'-0"



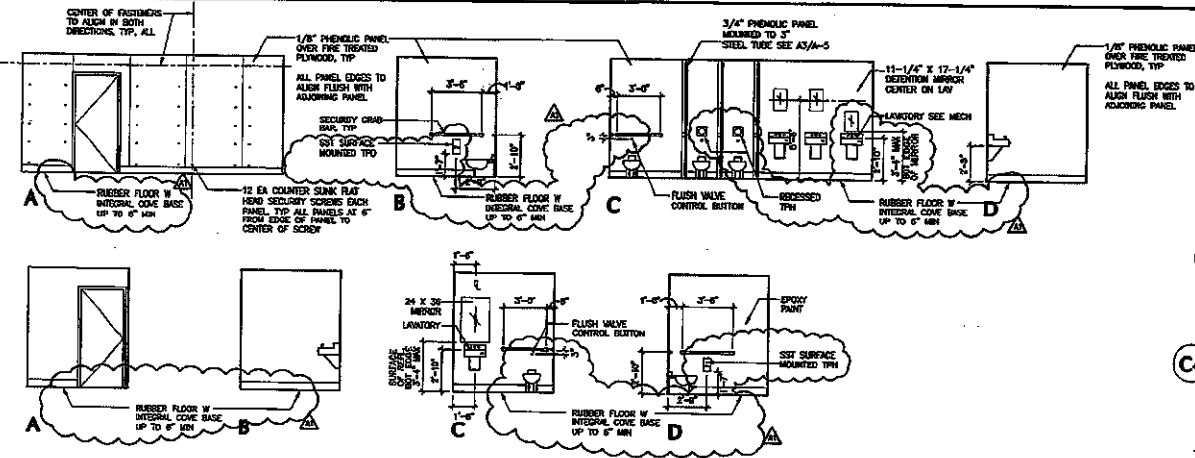
REVISION NO.	DATE	DESCRIPTION	DESIGNED BY	DATE	APPROVED BY


**DEPT. OF ACCOUNTING & GENERAL SERVICES**  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII  
**DEPARTMENT OF PUBLIC SAFETY**  
**WAWAIA TEMPORARY PROGRAM FACILITIES**  
 WAWAIA, HAWAII

**INTERIOR ELEVATIONS**

ARCHITECTS HAWAII, LTD.	DATE: 04/23/10	SCALE: AS SHOWN
DESIGNED BY: JAL	CHECKED BY: JAL	DATE: 22-07-009
DRAWN BY: JAL	APPROVED BY: JAL	DATE: APRIL 1, 2009

This work was prepared by me or under my direct supervision and I am a duly Licensed Professional Architect in the State of Hawaii. I am not providing this work as a contractor or subcontractor. I am not providing this work as a consultant or subcontractor. I am not providing this work as a contractor or subcontractor. I am not providing this work as a contractor or subcontractor.

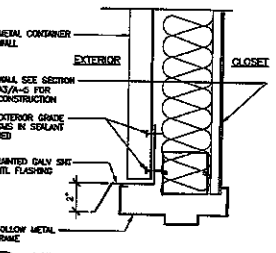
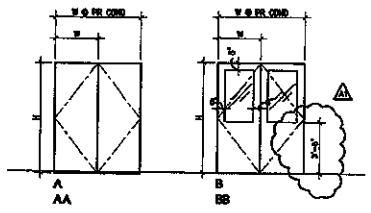


**(C1) RESTROOM ELEVATIONS**  
SCALE 1/4" = 1'-0"

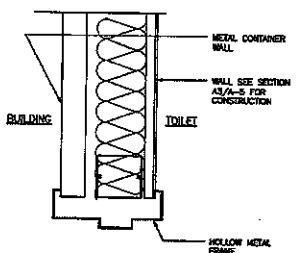
DOOR OPENING SCHEDULE										
DOOR NUMBER	SIZE (W x H)	TYPE	CONSTR.	FINISH	DOOR RASH	RATING	FRAME DETAIL			REMARKS
							FR. CONSTR.	FRAME FINISH	HEAD	
1	8-0 X 7-0 PR	BB	-	-	-	-	-	-	-	001 ADA COMPLIANT EXTERIOR DOOR BY MANUFACTURER
2	3-0 X 7-0	A	HM	PT	-	-	HM	PT	A2/A-7	002 UNDERCUT
3	3-0 X 7-0	A	HM	PT	-	-	HM	PT	A2/A-7	003 UNDERCUT
4	3-0 X 7-0 PR	AA	HM	PT	-	-	HM	PT	A1/A-7	004 EXTERIOR
5	3-0 X 7-0	B	-	-	-	-	-	-	-	001 BY MANUFACTURER, EXTERIOR
6	3-0 X 7-0 PR	BB	-	-	-	-	-	-	-	001 ADA COMPLIANT EXTERIOR DOOR BY MANUFACTURER
7	3-0 X 7-0	A	HM	PT	-	-	HM	PT	A2/A-7	002 UNDERCUT
8	3-0 X 7-0	A	HM	PT	-	-	HM	PT	A2/A-7	003 UNDERCUT
9	3-0 X 7-0 PR	AA	HM	PT	-	-	HM	PT	A1/A-7	004 EXTERIOR
10	3-0 X 7-0	B	-	-	-	-	-	-	-	001 BY MANUFACTURER, EXTERIOR

**DOOR NOTES LIST**

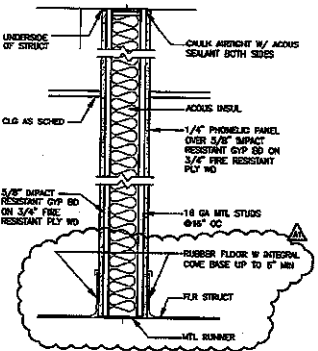
- ALL DOORS ARE 1 3/4" THICK UNLESS NOTED OTHERWISE.
- DOOR TYPES  
F - FLUSH  
FD - FLUSH W/ GUZING
- DOOR CONSTRUCTION  
HM - HOLLOW METAL  
DOOR FINISH  
PT - EPOXY PAINT
- FRAME CONSTRUCTION  
HM - HOLLOW METAL
- PERFORMANCE REQUIREMENT:  
EXTERIOR DOORS TO BE PROTECTED AGAINST WIND-BORNE DEBRIS IN ACCORDANCE WITH ASCE 7.5.3.3



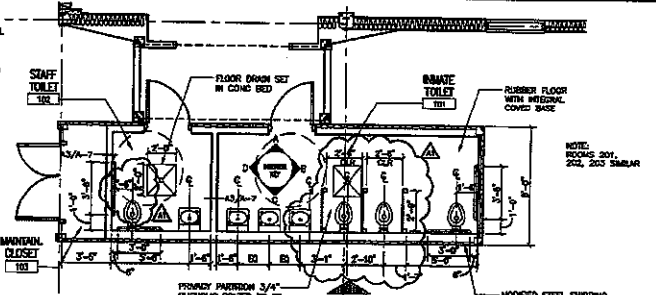
**(A1) HEAD**  
SCALE 3" = 1'-0"



**(A2) HEAD/JAMB**  
SCALE 3" = 1'-0"

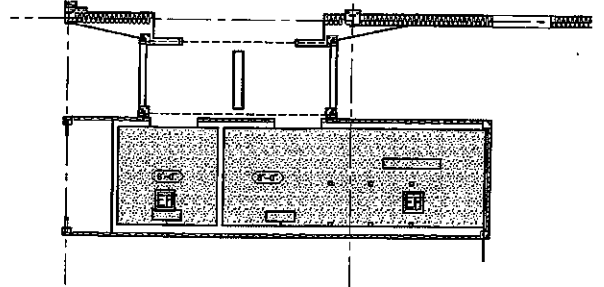


**(A3) PARTITION TYPE**  
SCALE 3" = 1'-0"

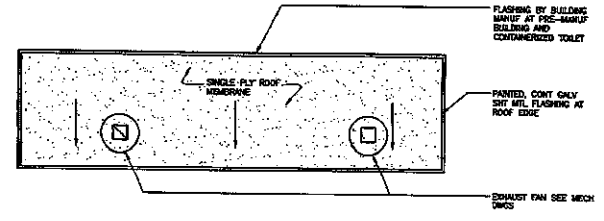


**(C4) ENLARGED PLAN AT CONTAINERIZED TOILET**  
SCALE 1/4" = 1'-0"

NOTE: CONTAINERIZED TOILET SHALL BE PRE-FABRICATED AND DELIVERED TO THE SITE FOR UTILITY CONNECTIONS. ALL APPLICABLE BUILDING CODES SHALL BE ADHERED TO IN THE CONSTRUCTION OF THE TOILET.



**(B4) CONTAINERIZED TOILET RCP**  
SCALE 1/4" = 1'-0"

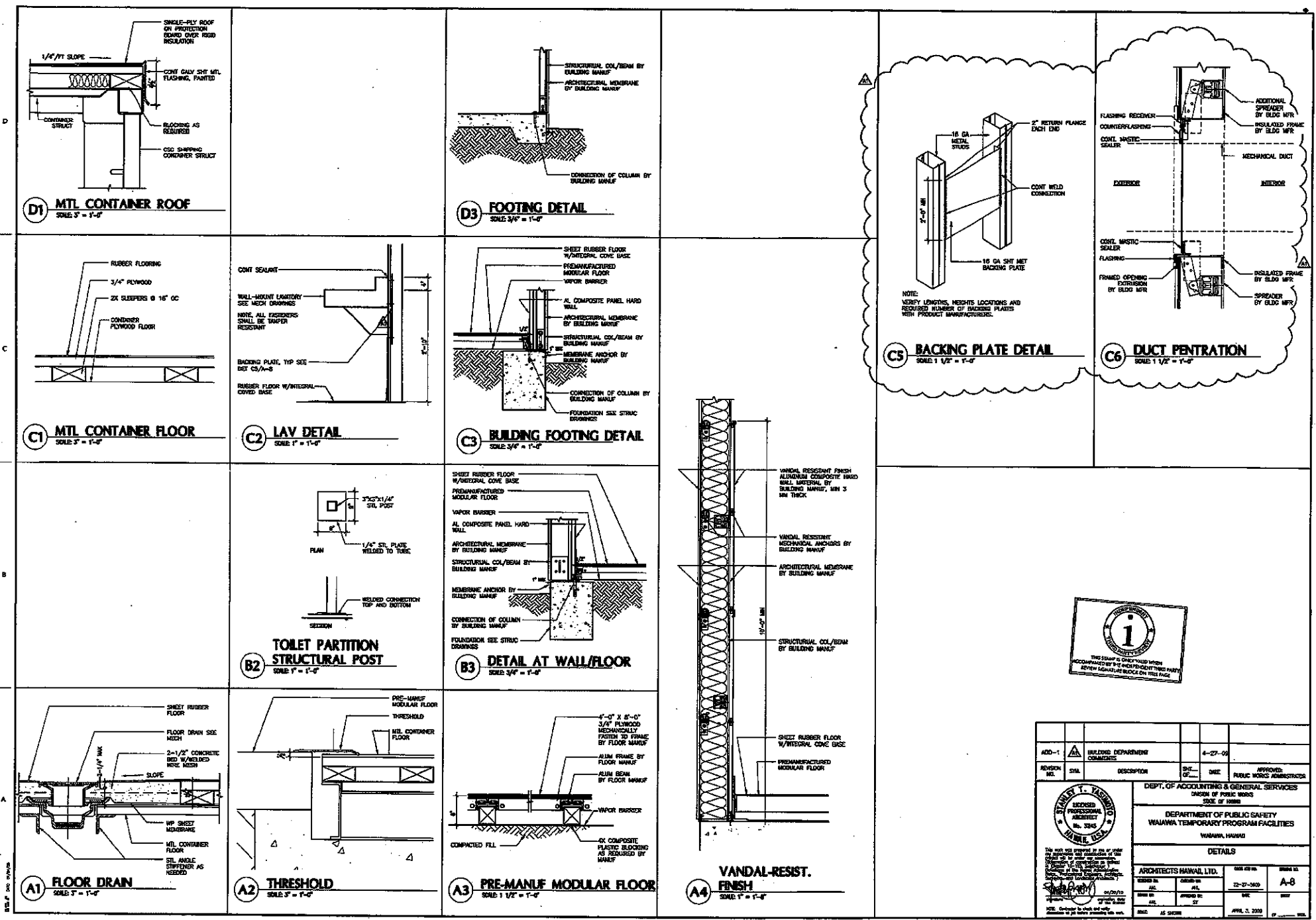


**(A4) CONTAINERIZED TOILET ROOF**  
SCALE 1/4" = 1'-0"

**LEGEND**

- CEILING SYMBOLS**
- CEILING MOUNTED FLOURESCENT LIGHT
  - WALL MOUNTED FLOURESCENT LIGHT
  - TEMPER RESISTANT GRILL AT EXHAUST FAN DELET
  - IMPACT RESISTANT OVP 30

ADD-1	▲ BUILDING DEPARTMENT COMMENTS	4-27-05
REVISION NO.	SYMBOL	DESCRIPTION
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANA WAREHOUSES PROGRAM FACILITIES WAIANA, HAWAII		
RESTROOM PLAN		
ARCHITECTS HAWAII, LTD.	DATE: 22-07-05	SCALE: A-7
DESIGNER: [Signature]	PROJECT NO.:	DATE: APRIL 2, 2005



ADD-1	WARNING DEPARTMENT COMMENTS	4-27-09	
ADVISOR	DESIGN	DESCRIPTION	DATE
APPROVED:	PUBLIC WORKS ADMINISTRATOR		
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII	
DETAILS			
ARCHITECTS HAWAII, LTD. 1001 KALANIANA'OLE BLVD., SUITE 200 HONOLULU, HAWAII 96813 TEL: 808-955-1234 FAX: 808-955-1235 WWW: WWW.ARHAWAII.COM		SHEET NO. 12-27-2409	SHEET NO. A-8
DATE	AS SHOWN	APRIL 2, 2009	

### EXHAUST FAN SCHEDULE\*

SYMBOL	QTY	AREA SERVED	TYPE	CFM	S.P.	RPM	SONES	ELECTRICAL				WEIGHT (LBS)	REMARKS
								HP	VOLTAGE	PHASE	DRIVE		
	1	UNISEX STAFF TOILET	ROOF DOWN BLAST	100	0.15	1300	2.7	1/100	110	1	DIRECT	18	DESIGN IS BASED ON GREENHECK G-060-G
	1	UNISEX STAFF TOILET	ROOF DOWN BLAST	100	0.15	1300	2.7	1/100	110	1	DIRECT	18	DESIGN IS BASED ON GREENHECK G-060-G
	1	RESTROOM	ROOF DOWN BLAST	255	0.15	1300	3.7	1/50	110	1	DIRECT	18	DESIGN IS BASED ON GREENHECK G-075-G
	1	RESTROOM	ROOF DOWN BLAST	255	0.15	1300	3.7	1/50	110	1	DIRECT	18	DESIGN IS BASED ON GREENHECK G-075-G

\*INTERLOCK FANS WITH BATHROOM LIGHT SWITCHES

### MECHANICAL EQUIPMENT SCHEDULE

SYMBOL	QTY	AREA SERVED	REMARKS
	1-EA	AIR CONDITIONING UNIT, PACKAGE UNIT TOTAL CAPACITY: 103,000 BTU/HR SENSIBLE CAPACITY: 86,000 BTU/HR AIR FLOW: 4,480 CFM @ 1.2"ESP OUTSIDE AIR: 400 CFM AMBIENT AIR: 85° F ENTERING AIR: 73.2° F DB/62.0° F WB EER: 11.0 ELECTRICAL: 460V/3/60 POWER SUPPLY: 24.9 MVA, 30 MSCP 26 FIA, 170 LRA OPERATING WEIGHT: 915 LBS SOUND RATING: 84 dB(A) (ARI 370-2001)  PROVIDE W/ MOTOR STARTER, DISCONNECT SWITCH, 2" THICK FILTERED MESH & THROWAWAY TYPE FILTERS, VOLTAGE PHASE PROTECTION LINE LIGHTS, CORROSION PROTECTION COATINGS, AND VIBRATION ISOLATORS.	DESIGN BASED ON CARRIER 50A012.

### PLUMBING FIXTURE SCHEDULE

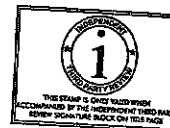
SYMBOL	FIXTURE	TYPE	PIPE SIZE				GAL/FLUSH	GPM	REMARKS
			W	V	CP	HW			
	WATER CLOSET, ACCESSIBLE	FLOOR MOUNTED, FLUSH VALVE	3"	2"	1-1/4"	-	1.6	-	BLOWOUT JET
	WATER CLOSET	FLOOR MOUNTED, FLUSH VALVE	3"	2"	1-1/4"	-	1.6	-	BLOWOUT JET
	LAVATORY, ACCESSIBLE	WALL HUNG	2"	1-1/2"	1/2"	-	-	2.0	
	LAVATORY	WALL HUNG	2"	1-1/2"	1/2"	-	-	2.0	
	FLOOR DRAIN	CAST IRON, BRONZE FENCE PLATE	2"	1-1/2"	1/2"	-	-	-	
	HOSE BB, INTERIOR	NON-REMOVABLE VACUUM BREAKER	-	-	3/4"	-	-	-	
	HOSE BB, EXTERIOR	NON-REMOVABLE VACUUM BREAKER	-	-	3/4"	-	-	-	

#### GENERAL NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE 2005 IBC AND THE CITY & COUNTY OF HONOLULU/STATE OF HAWAII AMENDMENTS AND ORDINANCES.
- FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL CONFORM IN ACCORDANCE WITH 1997 UNIFORM FIRE CODE, ARTICLE 37.
- SEE SPECIFICATION SECTION 15200 - SEISMIC REQUIREMENTS AND SECTION 15653 - AIR CONDITIONING AND VENTILATION FOR DUCT SUPPORT REQUIREMENTS.

### MECHANICAL LEGEND

SYMBOLS	ABBR.	DESCRIPTION
		EXISTING TO REMAIN
	(E)	EXISTING
		EXISTING TO BE REMOVED
		NEW MECHANICAL WORK
	(N)	NEW
	S OR W	SOIL OR WASTE BELOW FLOOR
	S OR W	SOIL OR WASTE ABOVE FLOOR
	V	VENT
	CW	COLD WATER
	CO	CLEAN-OUT, WDG-WALL, FGD-FLOOR, CGD-GRADE
	24/12	DUCTWORK 1ST FIGURE - SIDE SHOWN 2ND FIGURE - SIDE NOT SHOWN
		LINED DUCTWORK
	SA	DUCT SECTION - SUPPLY AIR
	RA	DUCT SECTION - RETURN AIR
	SAR RAR	SUPPLY AIR REGISTER RETURN AIR REGISTER
		TURNING VANE
	ER	EXHAUST REGISTER
		MANUAL VOLUME DAMPER
	D	CONDENSATE DRAIN
	T	THERMOSTAT
	SD	SMOKE DETECTOR
	SA	SUPPLY AIR - DIRECTION OF FLOW
	RA OR EA	RETURN OR EXHAUST AIR - DIRECTION OF FLOW
		GATE VALVE
		STRAINER
		UNION
	DC	SHUTOFF VALVE IN RISER



#### DEPARTMENT OF HEALTH NOTE

THE AIR CONDITIONING AND VENTILATION SYSTEM SHALL COMPLY WITH TITLE 11, ADMINISTRATIVE RULES, DEPARTMENT OF HEALTH CHAPTER 33, AIR CONDITIONING AND VENTILATING REQUIREMENTS.

#### BOARD OF WATER SUPPLY NOTE

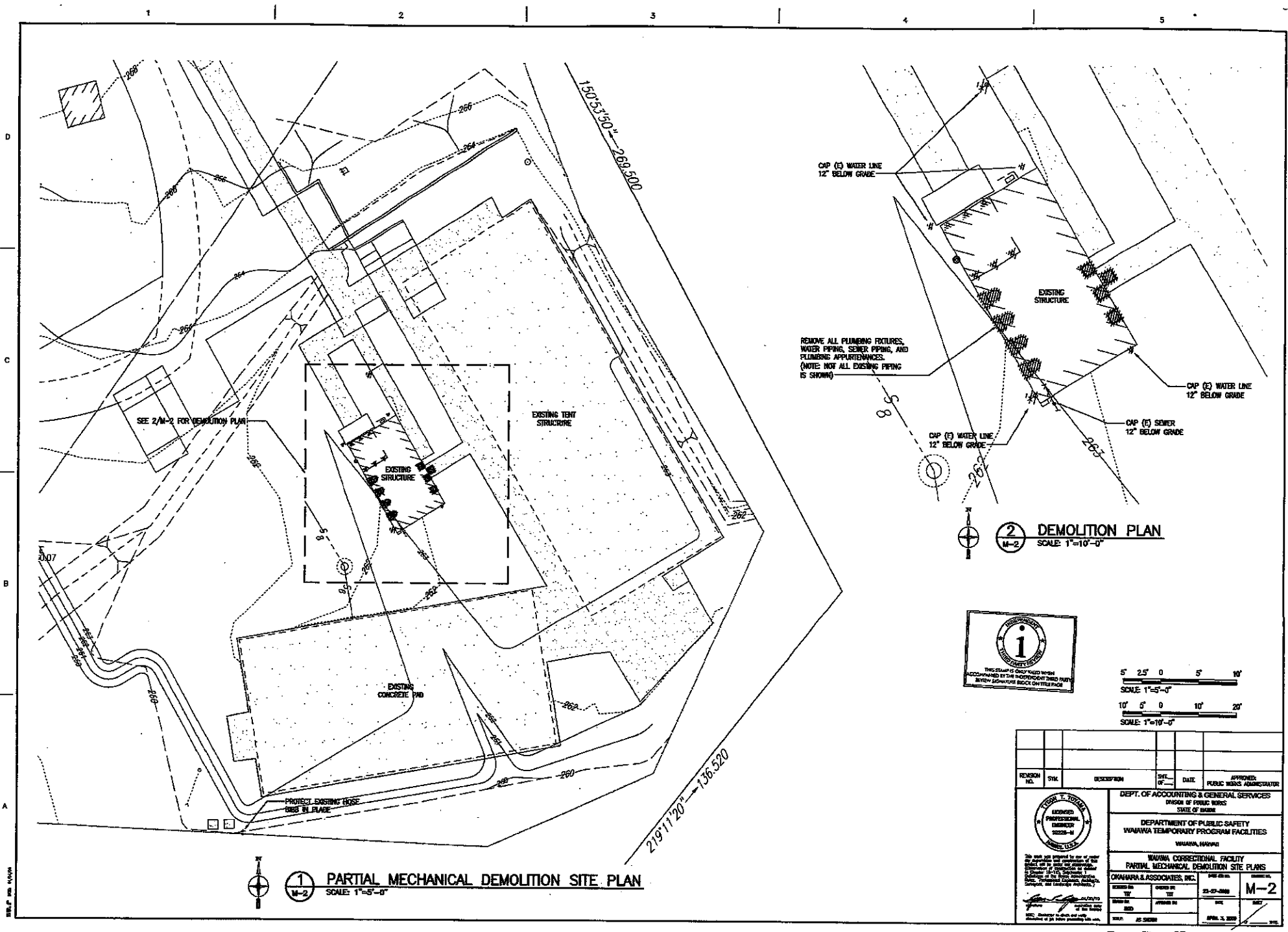
WAIANA CORRECTIONAL FACILITY HAS ITS OWN PRIVATE WATER SYSTEM AS CONFIRMED WITH BWS SERVICE ENGINEERING.

#### REVISED ORDINANCES OF HONOLULU CHAPTER 32 BUILDING ENERGY EFFICIENCY STANDARDS

THE BUILDING ENERGY EFFICIENCY STANDARDS HAVE BEEN REVIEWED AND TO THE BEST OF MY KNOWLEDGE THIS DESIGN SUBSTANTIALLY CONFORMS TO THE MECHANICAL REQUIREMENTS OF SECTIONS 8.3, 9.3 AND 10.3.

*Tison Toyama*  
TISON TOYAMA  
NAME (PRINT)  
MECHANICAL ENGINEER  
TIT:  
10225-M  
P.E. OR ARCH. LICENSE NO.

ADD-1		ADDED NOTES AND EDITED P.L.R. STATEMENT				
REVISION NO.	SYMBOL	DESCRIPTION	DATE	APPROVED		
 DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII			DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
WAIANA CORRECTIONAL FACILITY MECHANICAL LEGEND, SCHEDULES AND NOTES OKUBARA & ASSOCIATES, INC.			WAIANA CORRECTIONAL FACILITY MECHANICAL LEGEND, SCHEDULES AND NOTES OKUBARA & ASSOCIATES, INC.			
DESIGNED BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE	
TYE	04/26/10	BY	25-07-000	M-1	2007	
DATE	04/26/10	DATE	04/26/10	DATE	04/26/10	
SCALE	AS SHOWN	SCALE	AS SHOWN	SCALE	AS SHOWN	

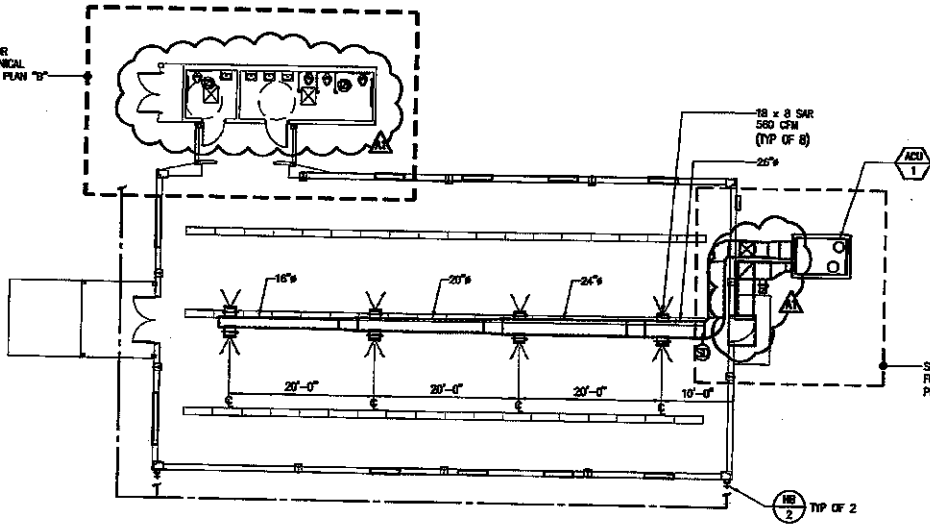


REVISION NO.	DATE	DESCRIPTION	BY	CHK'D BY	APPROVED BY

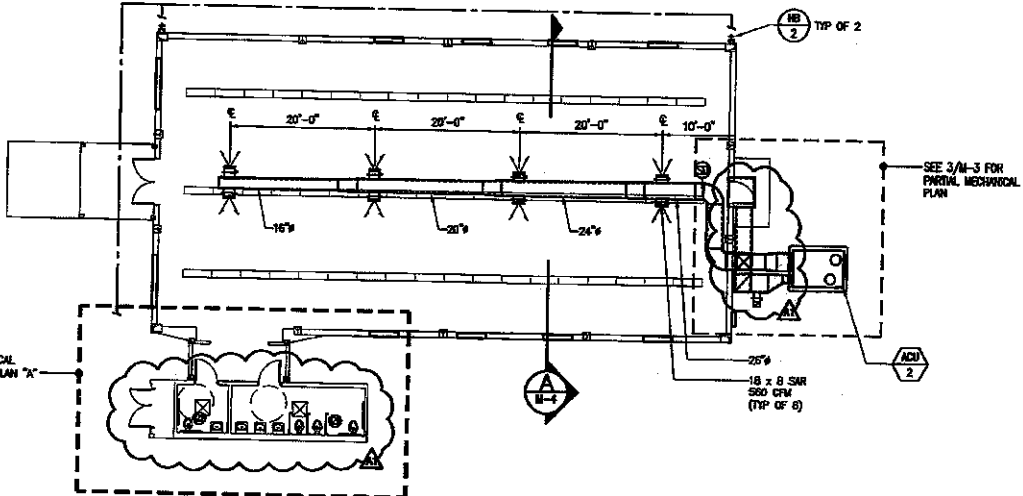
  

		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII	
DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII		WAIANA CORRECTIONAL FACILITY PARTIAL MECHANICAL DEMOLITION SITE PLANS	
DRAWN BY: [Signature] CHECKED BY: [Signature] DATE: 03-07-2008	PROJECT NO.: M-2	O'HANNA & ASSOCIATES, INC. 2000 KALANANAKU BLVD., SUITE 200 HONOLULU, HI 96815 TEL: 808-943-8888 FAX: 808-943-8889 WWW: OAHANNA.COM	

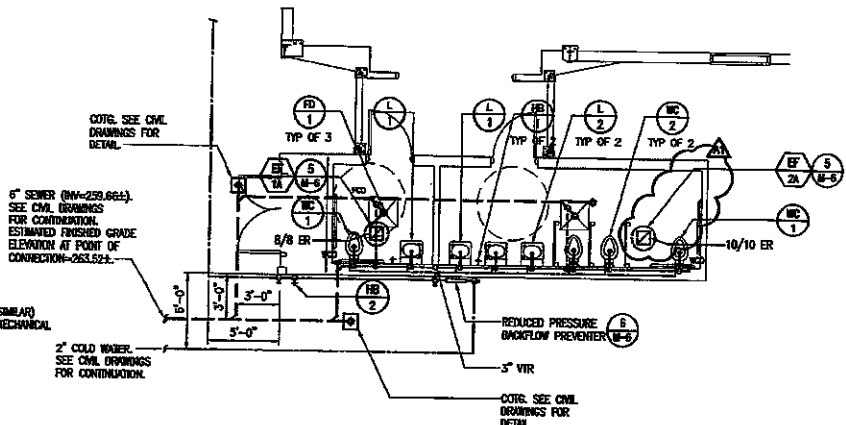
SEE 6/M-5 FOR  
PARTIAL MECHANICAL  
AND PLUMBING PLAN "B"



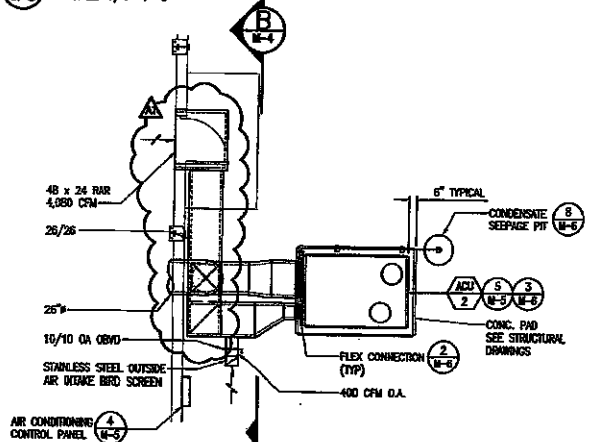
SEE 2/M-3 FOR  
PARTIAL MECHANICAL  
AND PLUMBING PLAN "A"



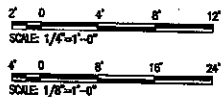
**1 WAIAWA - MECHANICAL PLAN**  
SCALE: 1/8"=1'-0"



**2 WAIAWA - PARTIAL MECHANICAL AND PLUMBING PLAN "A"**  
SCALE: 1/4"=1'-0"

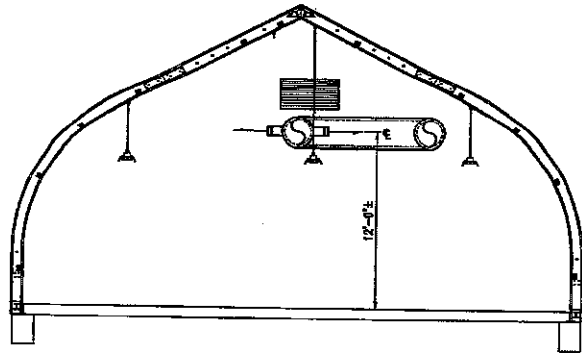


**3 WAIAWA - PARTIAL MECHANICAL PLAN**  
SCALE: 1/4"=1'-0"

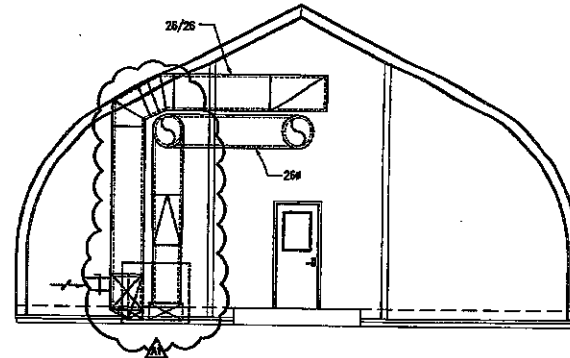


ADD-1	CLEANED UP DRAWING				
REVISION NO.	DATE	DESCRIPTION	CHK. BY	DATE	APPROVED BY
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS DEPARTMENT OF PUBLIC SAFETY WAIAWA TEMPORARY PROGRAM FACILITIES MOLOKAI, HAWAII					
WAIAWA CORRECTIONAL FACILITY MECHANICAL PLAN AND PARTIAL MECH PLANS SCALE OF HAWAII					
OKAMURA & ASSOCIATES, INC. LICENSED PROFESSIONAL ENGINEER STATE OF HAWAII NO. 10001					
DESIGNED BY	CHKD BY	DATE	SCALE	DRAWING NO. <b>M-3</b> SHEET NO. <b>1</b> OF <b>1</b>	
APPROVED BY	DATE	APRIL 2, 2008			

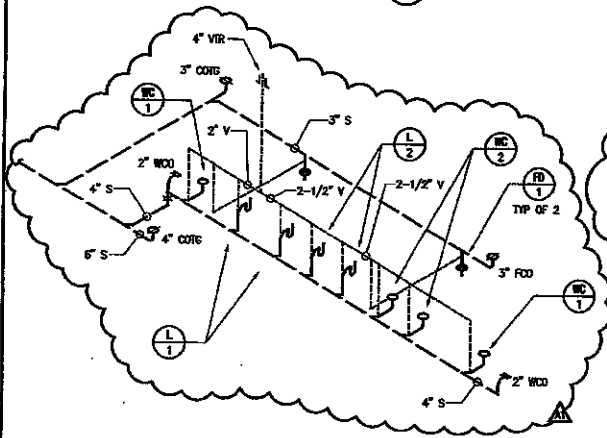




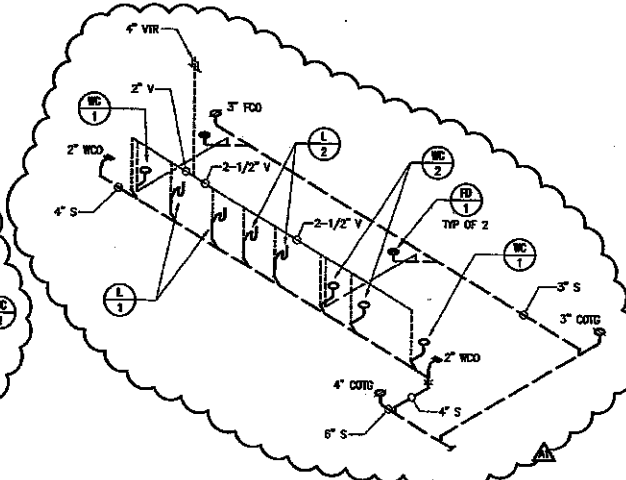
**(A) SECTION**  
SCALE: 1/4"=1'-0"



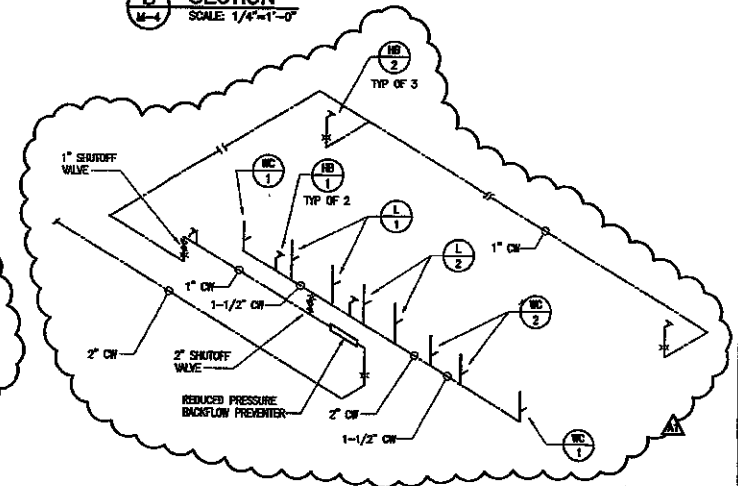
**(B) SECTION**  
SCALE: 1/4"=1'-0"



**(1) SEWER AND VENT DIAGRAM "A"**  
NOT TO SCALE



**(2) SEWER AND VENT DIAGRAM "B"**  
NOT TO SCALE

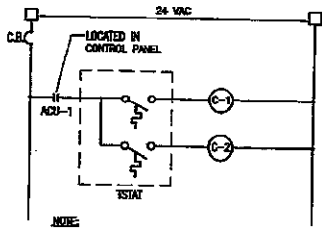


**(3) COLD WATER DIAGRAM**  
NOT TO SCALE

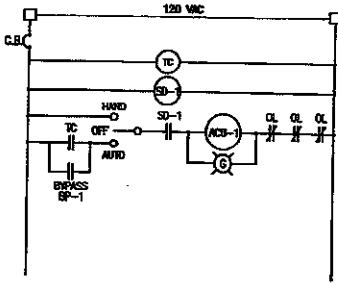


2" 0 4" 8" 12"  
SCALE: 1/4"=1'-0"  
4" 0 8" 16" 24"  
SCALE: 1/8"=1'-0"

ADD-1	▲	ADDED PIPE SIZES AND CLEARED UP DRAWING				
REVISION NO.	SIGN.	DESCRIPTION	SIGN.	DATE	APPROVED:	PUBLIC WORKS ADMINISTRATOR
				DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY HAWAIIA TEMPORARY PROGRAM FACILITIES HAWAIIA, HAWAII		
				HAWAII CORRECTIONAL FACILITY MECHANICAL SECTIONS AND DIAGRAMS OKIYAMA & ASSOCIATES, INC.		
DESIGNED BY	CHKD BY	DATE	REVISED BY	DATE	REVISED BY	DATE
				NO. OF SHEETS	M-4	
				DATE	APRIL 2, 2008	

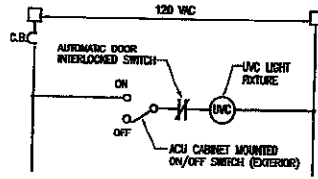


- NOTE:
1. MOUNT T-STAT IN CONTROL PANEL.
  2. SIMILAR FOR ACU-2.



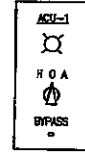
- LEGEND
- CB CIRCUIT BREAKER
  - TC TIME CLOCK
  - SD SMOKE DETECTOR
  - ACU AIR CONDITIONING UNIT
  - OL OVERLOAD PROTECTION
  - PLT PILOT LIGHT

- NOTE:
1. TIME CLOCK SHALL BE 7-DAY ELECTRONIC TYPE WITH CAPACITANCE BACKUP.
  2. SIMILAR FOR ACU-2.



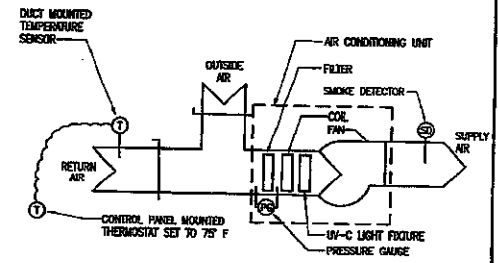
NOTE: TYPICAL FOR ACU-1 AND ACU-2

3 UVC WIRING DIAGRAM  
M-5 NOT TO SCALE



- NOTES:
1. SEE 2/M-5 FOR CONTROL PANEL WIRING DIAGRAM.
  2. STAINLESS STEEL CABINET, HINGES, LOCKING AND MOUNTING DEVICES.
  3. ALL LIGHTS SHALL BE PUSH TO TEST TYPE.
  4. NEAR 4 CABINET AND COMPONENTS.
  5. SIMILAR FOR ACU-2.

4 CONTROL PANEL  
M-5 NOT TO SCALE



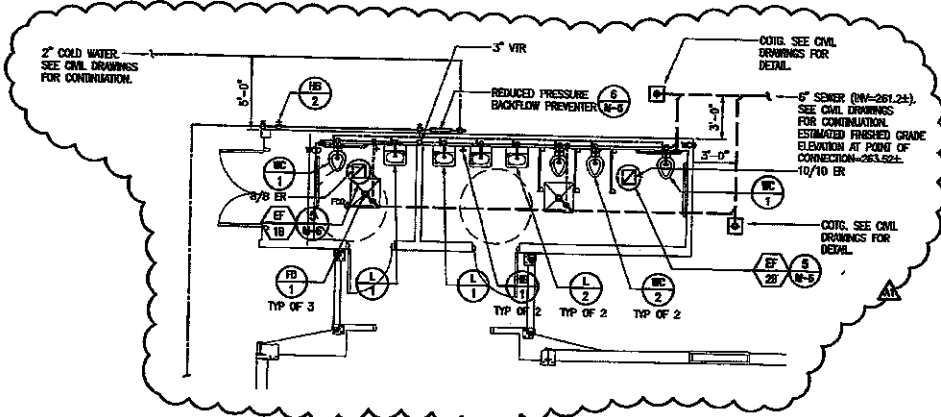
5 SUPPLY AIR DIAGRAM  
M-5 NOT TO SCALE

SYSTEM OPERATION

1. THE TIME CLOCK SHALL ACTIVATE AND DEACTIVATE THE SYSTEM. A DIGITAL BYPASS BUTTON SHALL BE PROVIDED FOR OFF HOURS USE. THE BYPASS BUTTON SHALL ACTIVATE SYSTEM 1-HOUR EACH TIME IT IS DEPRESSED UP TO 6-HOURS.
2. THE EMPORATOR FAN SHALL OPERATE CONTINUOUSLY WHILE SYSTEM IS ACTIVATED.
3. THE ULTRAVIOLET LIGHTS SHALL OPERATE CONTINUOUSLY 24/7. THE ULTRAVIOLET LIGHTS SHALL BE OPERATED WITH A LABELED ON/OFF SWITCH ADJACENT TO THE UV-C ACCESS PANEL ON THE ACU. PROVIDE A SIGN MOUNTED ON THE ACCESS PANEL WITH THE FOLLOWING, "DANGER UV-C LIGHT EMITTER IN USE - TURN OFF BEFORE SERVICING".

1 ACU-1, 2 WIRING DIAGRAM  
M-5 NOT TO SCALE

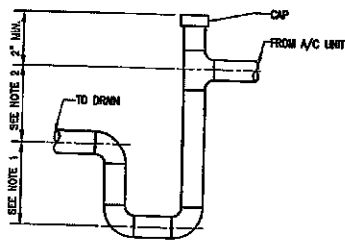
2 CONTROL PANEL WIRING DIAGRAM  
M-5 NOT TO SCALE



6 WAIAWA - PARTIAL MECHANICAL AND PLUMBING PLAN "B"  
M-5 SCALE 1/4"=1'-0"

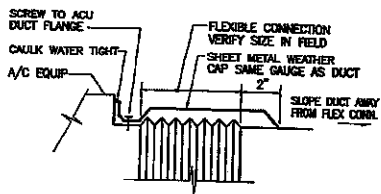


ADD-1	△	CORRECTED BACKGROUND				
REVISION NO.	CHG.	DESCRIPTION	SHT. OF	DATE	APPROVED:	
					PUBLIC WORKS ADMINISTRATOR	
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIAWA TEMPORARY PROGRAM FACILITIES WAIAWA, HAWAII				
WAIAWA CORRECTIONAL FACILITY MECHANICAL DETAILS AND PARTIAL MECHANICAL PLAN OSHIMURA & ASSOCIATES, INC.		SHEET NO. M-5 DATE: 06/15/2010 DRAWN BY: MJB CHECKED BY: [Signature] DATE: 06/15/2010	SCALE: 1/4"=1'-0" SCALE: 1/8"=1'-0"	0 4 8 12 0 8 16 24	06/15/2010 06/15/2010 06/15/2010	M-5

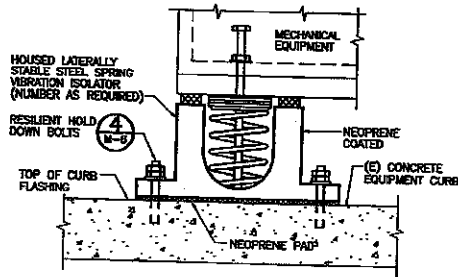


- NOTES:
1. 1" GREATER THAN HALF OF THE TOTAL STATIC PRESSURE
  2. FAN STATIC PRESSURE

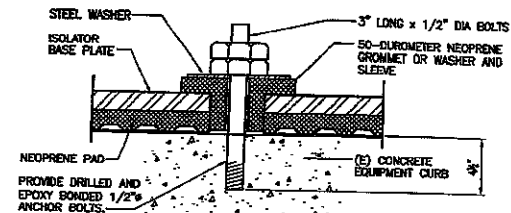
**1** CONDENSATE TRAP DETAIL  
M-6 NOT TO SCALE



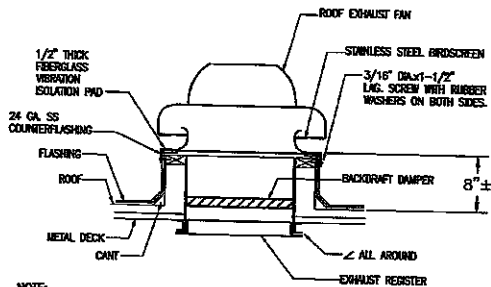
**2** FLEXIBLE CONNECTION DETAIL  
M-6 NOT TO SCALE



**3** EQUIPMENT SUPPORT DETAIL  
M-6 NOT TO SCALE

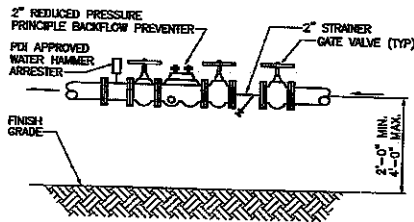


**4** RESILIENT HOLD DOWN BOLT INSERT FOR VIBRATION ISOLATORS DETAIL  
M-6 NOT TO SCALE

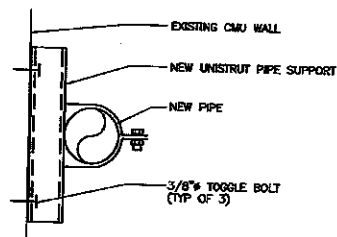


- NOTE:
1. TOP OF CURB MUST BE LEVELLED. SHIM BOTTOM OF CURB AS REQUIRED.

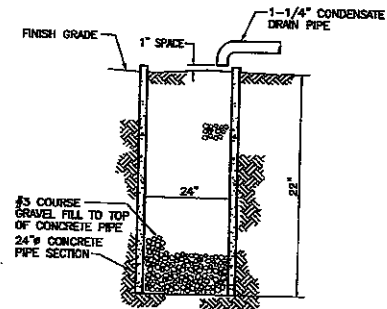
**5** EXHAUST FAN DETAIL  
M-6 NOT TO SCALE



**6** BACKFLOW PREVENTER DETAIL  
M-6 NOT TO SCALE



**7** PIPE SUPPORT DETAIL  
M-6 NOT TO SCALE



- NOTE:
1. POTHOLE FOR EXISTING UTILITIES BEFORE INSTALLING SEEPAGE PIT.

**8** SEEPAGE PIT DETAIL  
M-6 NOT TO SCALE



REVISION NO.	SYMBOL	DESCRIPTION	DATE	APPROVED

	DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF ILLINOIS	
	DEPARTMENT OF PUBLIC SAFETY WAUWATAMPIA TEMPORARY PROGRAM FACILITIES WAUWATAMPIA, ILLINOIS	
	WAUWATAMPIA CORRECTIONAL FACILITY MECHANICAL DETAILS	
	OKAMURA & ASSOCIATES, INC. LICENSED PROFESSIONAL ENGINEER 02228-4 STATE OF ILLINOIS	DRAWN BY: TTT CHECKED BY: TTT APPROVED BY: TTT DATE: 06-24-2008 SCALE: M-6

**ELECTRICAL SYMBOL LIST / MOUNTING HEIGHT SCHEDULE**

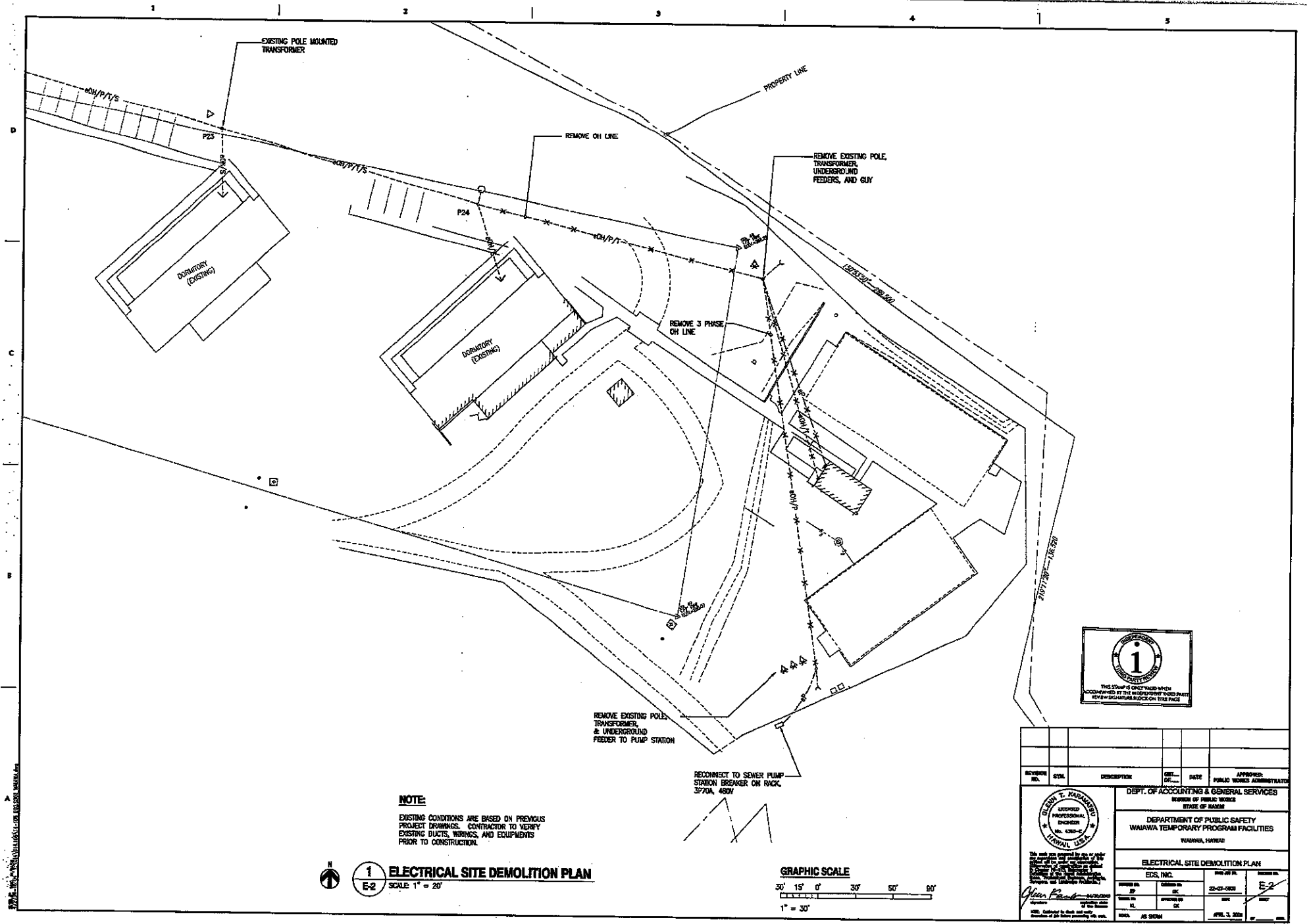
MOUNTING HEIGHT FROM FLOOR TO	(SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN)		DESCRIPTION	MOUNTING HEIGHT FROM FLOOR TO	(SPECIAL MOUNTING HEIGHTS INDICATED ON PLAN)		DESCRIPTION	
	TOP	¢			TOP	¢		
		EXISTING	NEW			EXISTING	NEW	
							CONCEALED WIRING IN CEILING OR WALLS. (HASHMARKS INDICATE 3-WIRES WITHIN, ALL OTHERS SIMILAR).	
7'-6"							EXPOSED RACEWAY, PROVIDE STRAP 10'-0" ON CENTER MINIMUM	
							LIQUID-TIGHT FLEXIBLE CONDUIT	
							CONDUIT STUD, 3/4" MINIMUM CONDUIT UNLESS OTHERWISE NOTED	
							SAWCUT RACEWAY/SIDEMALK. REPAIR TO MATCH EXISTING	
7'-6"							FIRE ALARM SYSTEM RACEWAY, 3/4" MINIMUM	
48"							TELEPHONE SYSTEM RACEWAY, 1" MINIMUM WITH FULLSTRONG	
46"							SITE ELECTRICAL POWER DUCTLINE	
							SITE TELEPHONE SYSTEM DUCTLINE	
							SITE COMMUNICATION SYSTEM DUCTLINE	
46"							OVERHEAD LINES (P/S/T/V/S/L) P-PRIMARY S-SECONDARY T-TELEPHONE V-CATV SL-STREET LIGHTING	
18"							+42" DENOTES 42" ABOVE FINISHED FLOOR OR GRADE	
16"							A.F.F. ABOVE FINISHED FLOOR	
							ELECTRICAL HANDHOLE, SIZE AS INDICATED	
							GFCI GROUND FAULT CIRCUIT INTERRUPTER	
							GRD GROUND	
18"							HECo HAWAIIAN ELECTRIC COMPANY	
5'-0"							HP HORSEPOWER	
10'-0"							KW KILOWATT	
							NL NIGHT LIGHT CIRCUIT	
5'-0"							WP WEATHERPROOF	
5'-5"							X DENOTES DEMOLITION/REMOVAL	
5'-0"							DI DUCT DETAIL INDICATOR	
5'-0"							DI NOTE INDICATOR	
							DI DETAIL INDICATOR: TOP HALF DENOTES DETAIL NUMBER, BOTTOM HALF DENOTES SHEET NUMBER	
							FPS PRIMARY FUSED SWITCH	
5'-0"							PT POWER TRANSFORMER	
							GRD GROUND	
18"							CB CIRCUIT BREAKER	
5'-0"							NOF NON-FUSED DISCONNECT SWITCH	
46"							NO normally open (NO) CONTACT	
6'-10"							NC normally closed (NC) CONTACT	
6'-10"							HVS HIGH VOLTAGE SPLICE	
6'-10"							PM POLE MOUNTED FLOOD LIGHT	
6'-10"								
			<p>INTERIOR WORK: CONCEALED WIRING IN FINISHED FLOOR OR BELOW GRADE (NO HASHMARKS INDICATE 2 CURRENT CARRYING CONDUCTORS AND 1 GROUND CONDUCTOR WITHIN, ALL OTHERS SIMILAR).</p> <p>EXTERIOR WORK: CONCRETE ENCASED UNDERGROUND DUCT LINE. SEE DUCT SECTION INDICATOR AND SCHEDULE.</p>					

**GENERAL ELECTRICAL NOTES:**

- SCHEDULE ALL BUS OUTAGES WITH THE CONTRACTING OFFICER. REQUEST OUTAGES AT LEAST 45 CALENDAR DAYS IN ADVANCE TO ALLOW SUFFICIENT TIME FOR THE OWNER TO MAKE NECESSARY PREPARATIONS. OWNER RESERVES THE RIGHT TO RESCHEDULE BUS OUTAGES AT ANY TIME.
  - UNDERGROUND DUCTS SHALL BE SPACED CLEAR OF DEBRIS AND OBSTRUCTIONS WITH A WIRE BRUSH AND TESTED BY PASSING A WOODEN MANDREL WITH A DIAMETER 1/2 INCH LESS THAN THE INSIDE DIAMETER OF THE CONDUIT PRIOR TO PULLING CABLES.
  - A CABLE TO BE WORKED ON WHICH CANNOT BE POSITIVELY IDENTIFIED OR DETERMINED TO BE DE-ENERGIZED SHALL BE PIERCED OR SEVERED WITH AN APPROVED TOOL. NOTIFY AND SCHEDULE WORK WITH THE CONTRACTING OFFICER. PREPARE FOR ANY OUTAGES THAT MAY OCCUR SHOULD THE CABLE BE ENERGIZED.
  - VERIFY RATINGS SHOWN OF ALL ELECTRICALLY OPERATED OR CONTROLLED EQUIPMENT PROVIDED BY MECHANICAL OR OTHER TRADES. PROVIDE CIRCUIT PROTECTIVE DEVICES, DISCONNECT SWITCHES, STARTERS, CONDUIT AND WIRING REQUIRED FOR THE ACTUAL EQUIPMENT PROVIDED.
  - ALL ABOVE GROUND AND EXPOSED ELECTRICAL CONDUIT SHALL BE GALVANIZED RIGID STEEL CONDUIT WITH THREADED LIQUID-TIGHT FITTINGS.
  - COORDINATE LOCATIONS OF CONDUIT STUDS-UPS FOR EQUIPMENT CONNECTIONS WITH THE CONNECTION POINTS REQUIRED FOR THE EQUIPMENT SUPPLIED.
  - PROVIDE A GREEN INSULATED EQUIPMENT GROUND CONDUCTOR WITH PHASE CONDUCTORS IN ALL RACEWAYS. EQUIPMENT GROUND CONDUCTOR SHALL BE NO SMALLER THAN THE SIZES REQUIRED IN ACCORDANCE WITH NEC TABLE 250-95.
- CAUTION: INSURE THAT ALL INCOMING AND OUTGOING TIES AND FEEDERS ARE DE-ENERGIZED AND LOCKED-OUT BEFORE REMOVING WIRING.

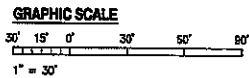


MEMBER NO.	ETEL	DESCRIPTION	SIT. OF...	DATE	APPROVED
					PUBLIC WORKS ADMINISTRATION
			DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII		
GENERAL NOTES AND SYMBOL LIST					
ECS, INC.					
DESIGNED BY	DATE	CHECKED BY	DATE	SCALE	
BY	02-27-08	OC	02-27-08		E-1
PROJECT NO.	08-0000	DATE	02-27-08		
SCALE	AS SHOWN	DATE	02-27-08		



**NOTE:**  
 EXISTING CONDITIONS ARE BASED ON PREVIOUS PROJECT DRAWINGS. CONTRACTOR TO VERIFY EXISTING DUCTS, WIRING, AND EQUIPMENTS PRIOR TO CONSTRUCTION.

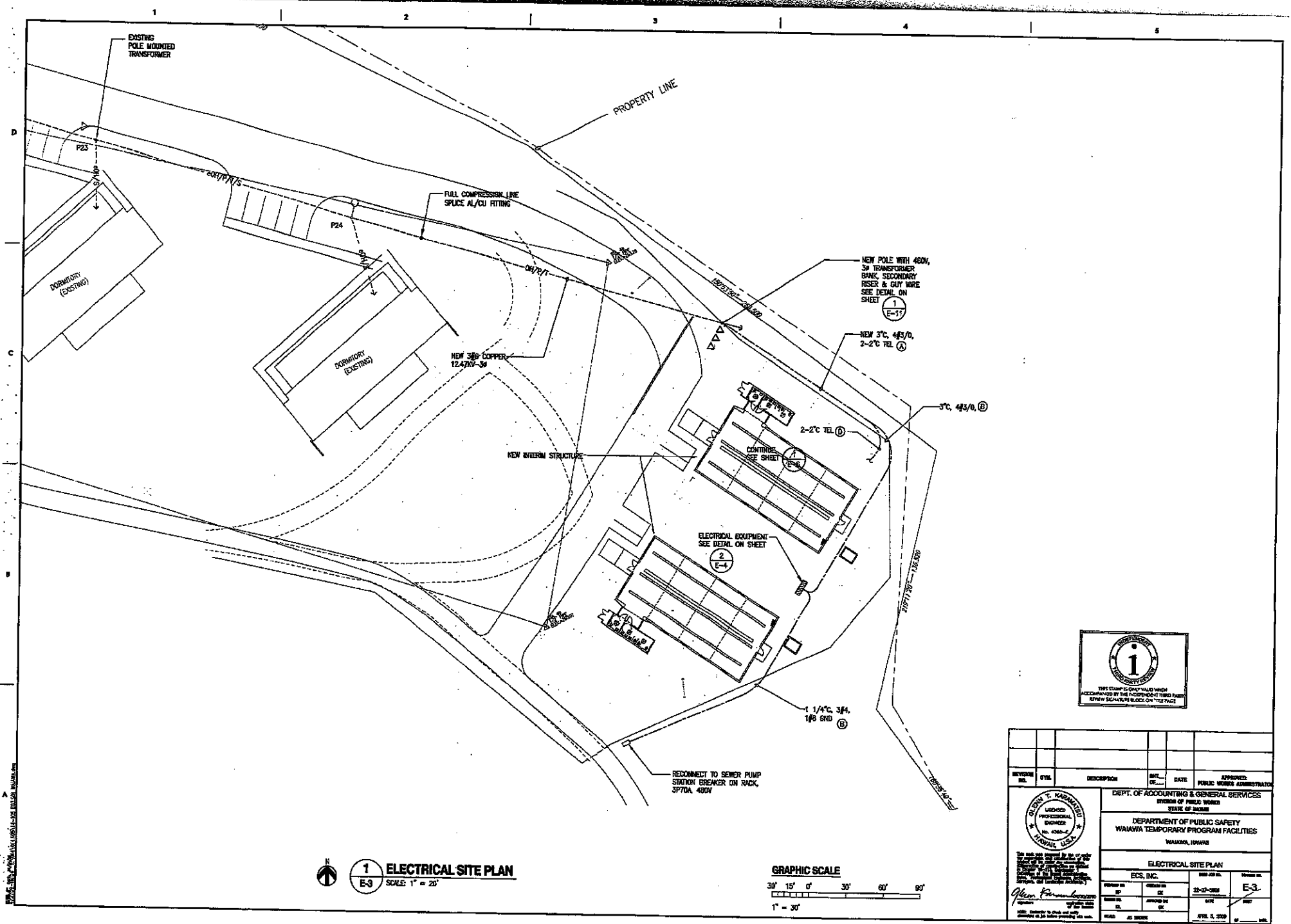
**1**  
**E-2**  
**ELECTRICAL SITE DEMOLITION PLAN**  
 SCALE 1" = 30'



REVISION NO.	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE	APPROVED BY

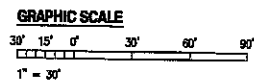
  

	DEPT. OF ACCOUNTING & GENERAL SERVICES BUREAU OF PUBLIC WORKS STATE OF HAWAII	
	DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII	
	ELECTRICAL SITE DEMOLITION PLAN EDS, INC.	
DESIGNED BY: [Signature] CHECKED BY: [Signature] DATE: APRIL 3, 2020	DRAWN BY: [Signature] DATE: APRIL 3, 2020	PROJECT NO.: E-2






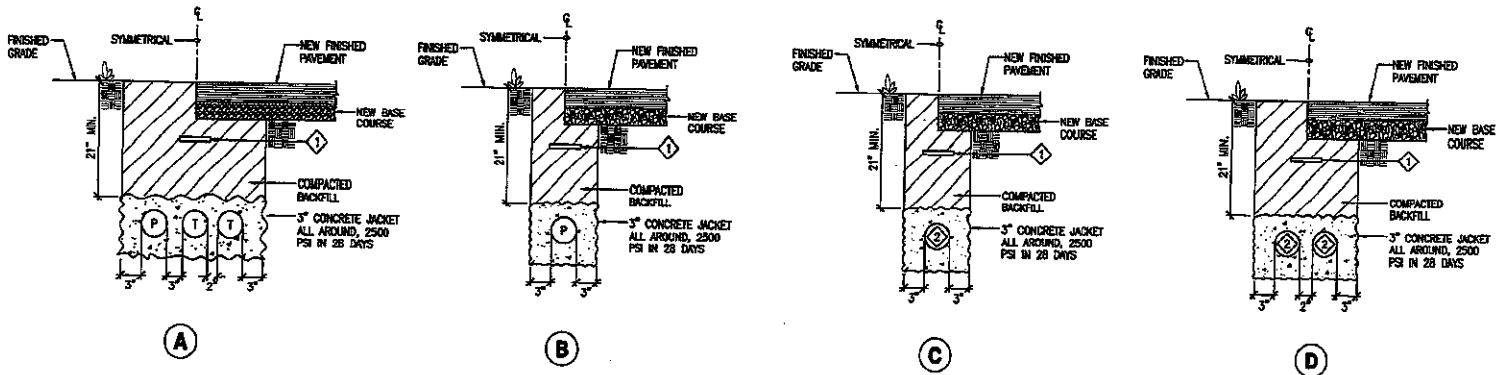
**1 ELECTRICAL SITE PLAN**  
 SCALE: 1" = 20'



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

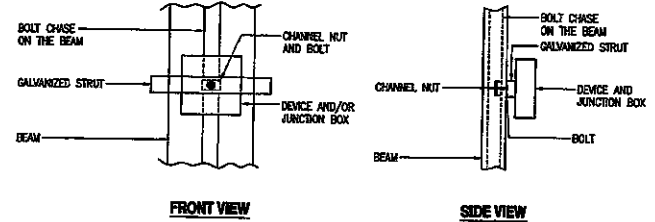
 GREGORY C. MADHOKEL LICENSED PROFESSIONAL ENGINEER NO. 4360-F STATE OF ILLINOIS		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF ILLINOIS	
		DEPARTMENT OF PUBLIC SAFETY WAWWA TEMPORARY PROGRAM FACILITIES WAWWA, ILLINOIS	
ELECTRICAL SITE PLAN			
ECS, INC.		DATE	REVISED BY
DESIGNED BY	CHECKED BY	DATE	
DRAWN BY	APPROVED BY	DATE	



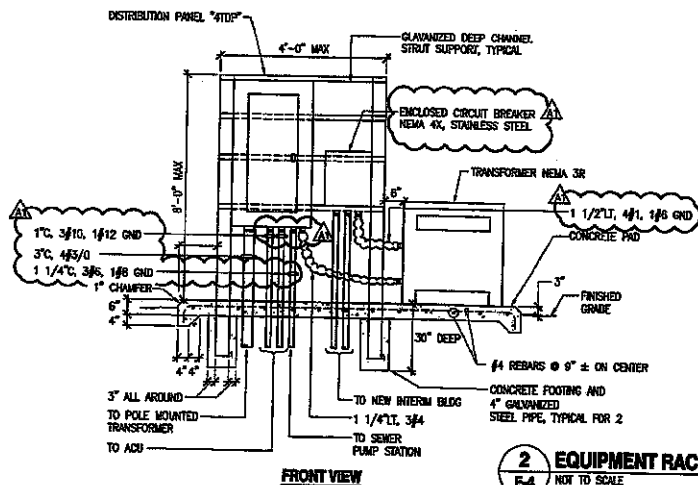
**NOTES:**

- ① PLASTIC TAPE MARKER IMPRINTED WITH "CAUTION - ELECTRIC LINE BURIED BELOW" ENTIRE LENGTH OF DUCT.
- ② SYSTEM AS INDICATED ON THE DRAWINGS. FA-FIVE ALARM, T-TELEPHONE.

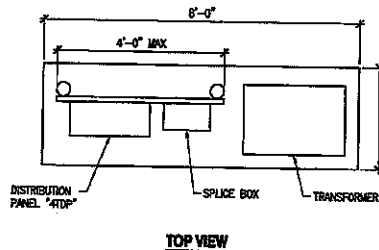
**1 DUCT DETAILS**  
E-4 NOT TO SCALE



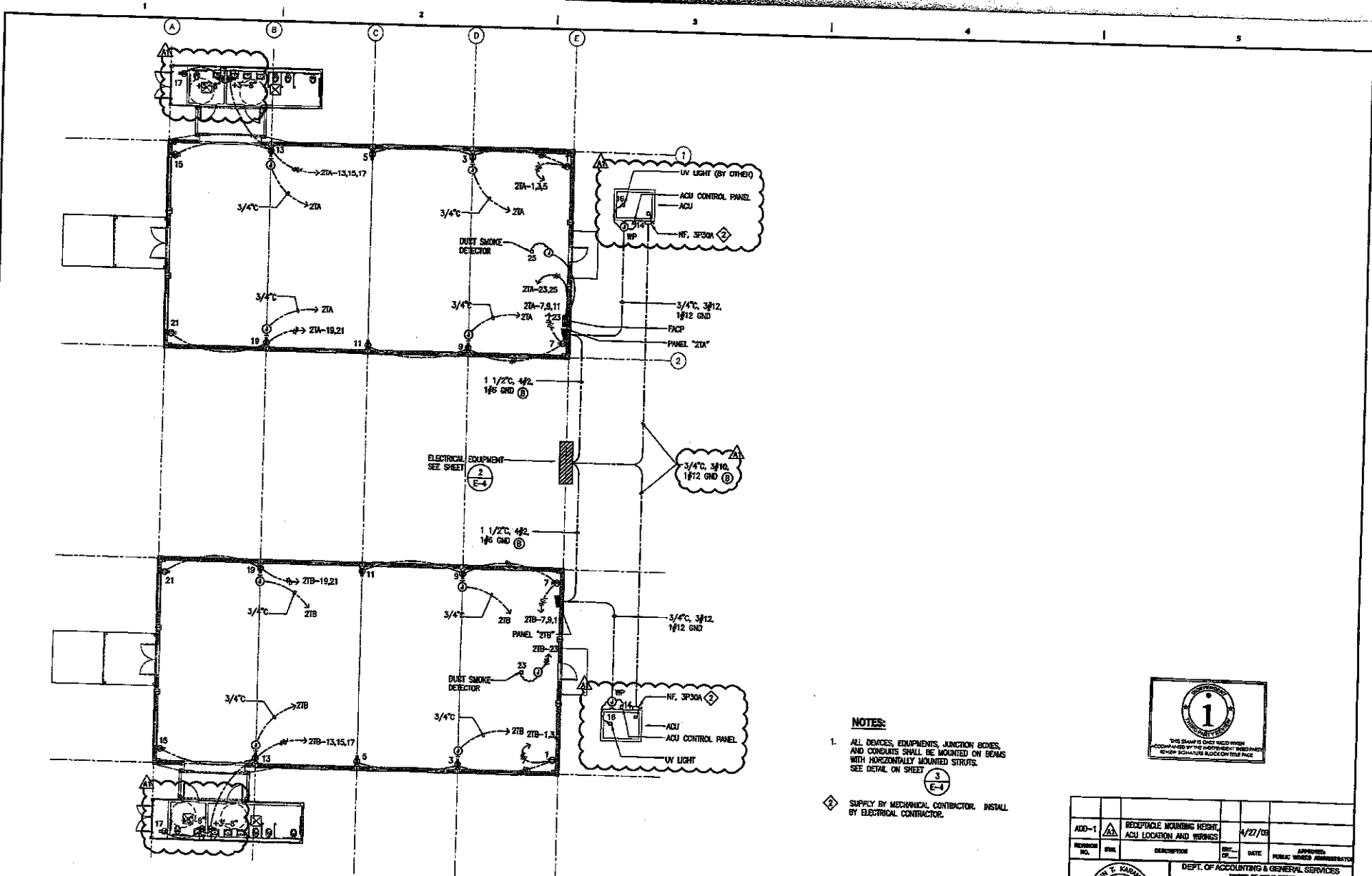
**3 DEVICE AND JUNCTION BOX MOUNTING**  
E-4 NOT TO SCALE



**2 EQUIPMENT RACK DETAIL**  
E-4 NOT TO SCALE



ADD-1	E-4	EQUIPMENT RACK DETAIL	4/27/08		
REVISION NO.	FILE	DESCRIPTION	DATE	APPROVED	
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII					
<b>DUCT AND EQUIPMENT RACK DETAIL</b> ECR, INC. DRAWN BY: [Signature] DATE: 3-27-08 CHECKED BY: [Signature] DATE: [Blank] APPROVED BY: [Signature] DATE: APRIL 5, 2008					



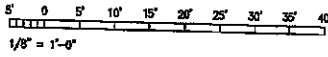
**1 POWER PLAN**  
E-5 SCALE: 1/8" = 1'-0"

**NOTES:**

- ALL DEVICES, EQUIPMENTS, JUNCTION BOXES, AND CONDUITS SHALL BE MOUNTED ON BEAMS WITH HORIZONTALLY MOUNTED STRUTS. SEE DETAIL ON SHEET **3 E-4**
- SUPPLY BY MECHANICAL CONTRACTOR. INSTALL BY ELECTRICAL CONTRACTOR.

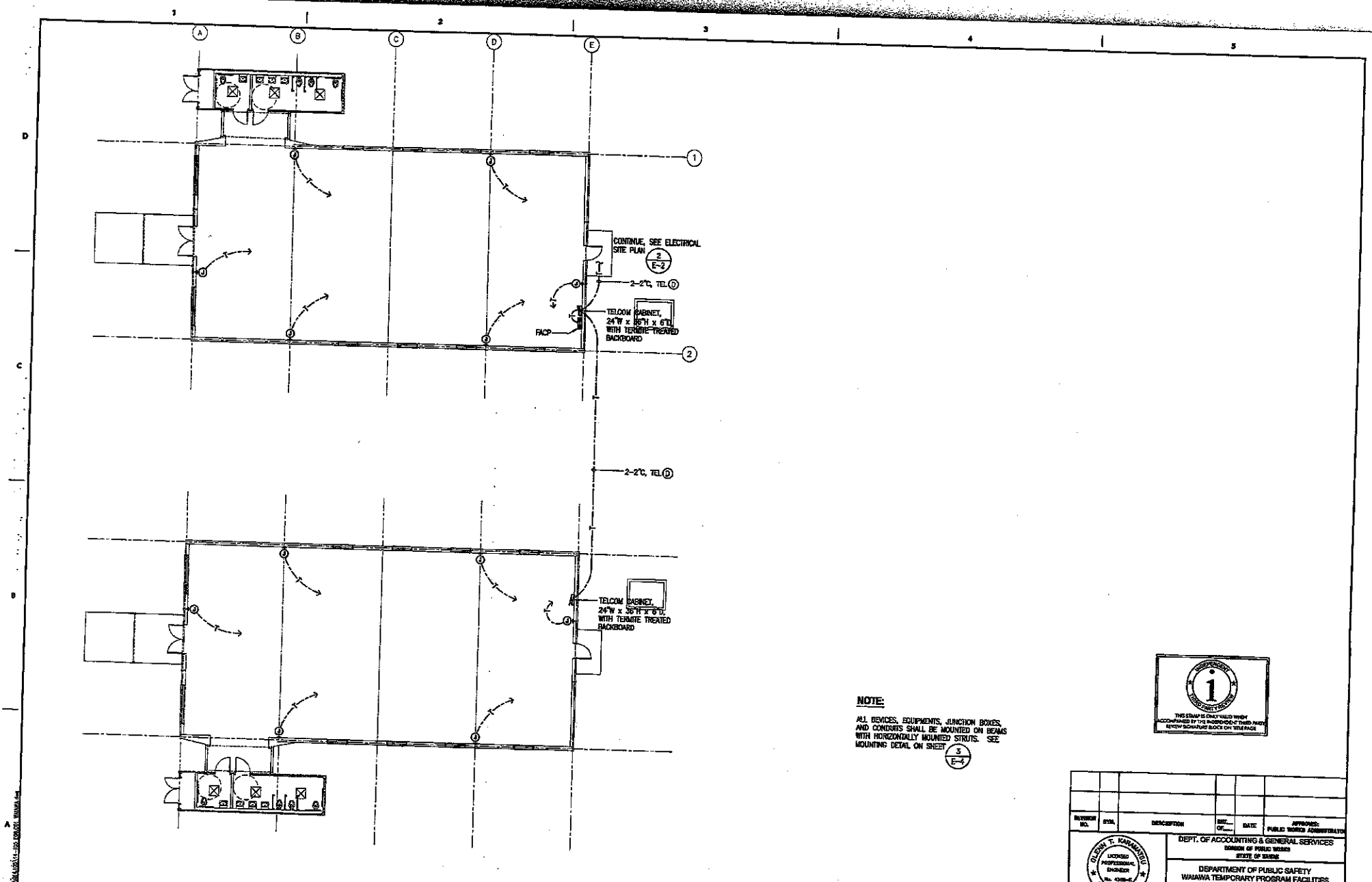


**GRAPHIC SCALE**



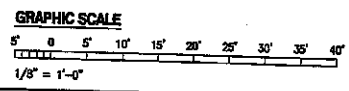
ADD-1	RECEPTACLE MOUNTING HEIGHT, ACU LOCATION AND WIRINGS	4/27/05
REVISION NO.	DESCRIPTION	DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC SAFETY STATE OF HAWAII DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII		
POWER PLANS		
DESIGNED BY	ISSUED BY	DATE
DRP	DRP	22-07-0505
CHECKED BY	APPROVED BY	DATE
EL	EL	APRIL 2, 2005
E-5 E-5 APRIL 2, 2005		



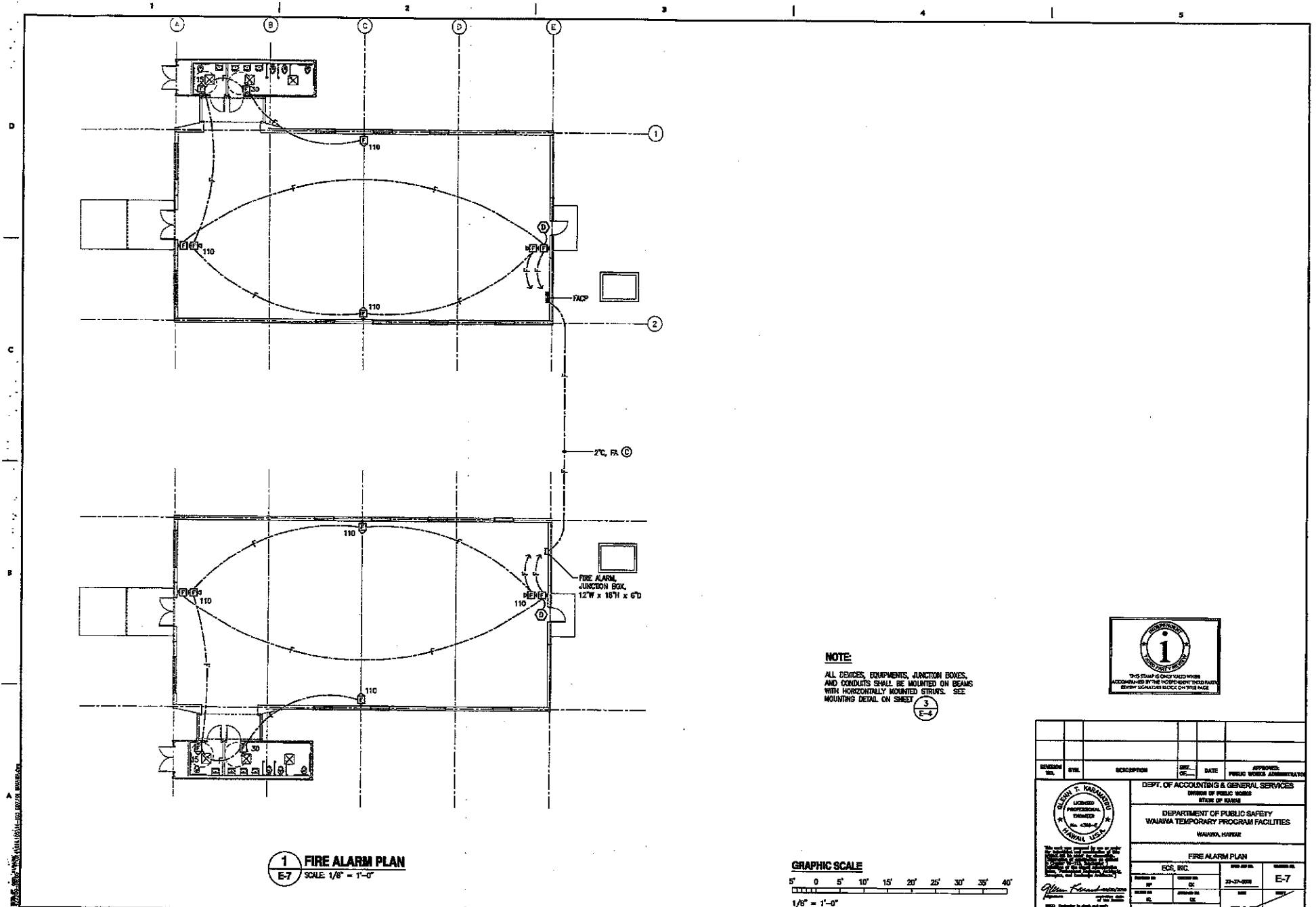


**1 SIGNAL PLAN**  
E-6 SCALE: 1/8" = 1'-0"

**NOTE:**  
ALL DEVICES, EQUIPMENTS, JUNCTION BOXES,  
AND CONDUITS SHALL BE MOUNTED ON BEAMS  
WITH HORIZONTALLY MOUNTED STRUTS. SEE  
MOUNTING DETAIL ON SHEET **3**  
E-4



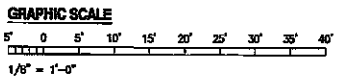
NUMBER	DATE	DESCRIPTION	REV.	DATE	BY	APPROVED
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>DEPARTMENT OF PUBLIC SAFETY</b> WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII						
<b>SIGNAL PLAN</b> ECS, INC.			DATE: 24-01-2000 DRAWN BY: [Signature] CHECKED BY: [Signature]		PROJECT NO.: E-6 SHEET NO.: 1 OF 1	



**1 FIRE ALARM PLAN**  
 SCALE 1/8" = 1'-0"

**NOTE**  
 ALL DEVICES, EQUIPMENTS, JUNCTION BOXES,  
 AND CONDUITS SHALL BE MOUNTED ON BEAMS  
 WITH HORIZONTALLY MOUNTED STRUTS. SEE  
 MOUNTING DETAIL ON SHEET

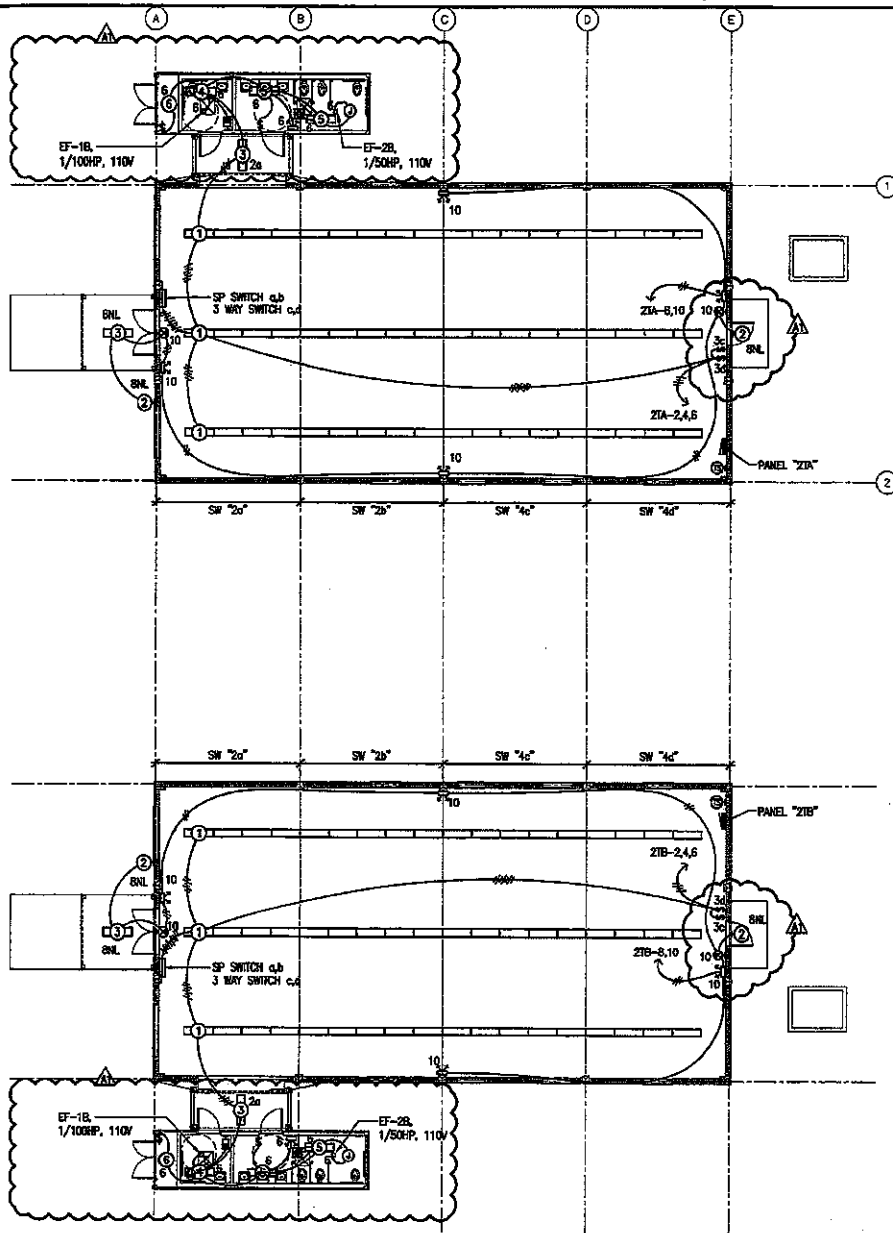
3  
 E-4



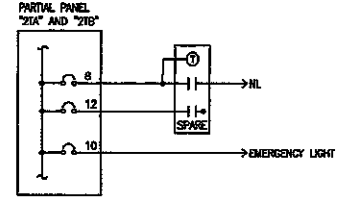
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

	DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS DEPARTMENT OF PUBLIC SAFETY WAUWATAMPA TEMPORARY PROGRAM FACILITIES WAUWATAMPA, WISCONSIN		
	FIRE ALARM PLAN ECS, INC.		
PROJECT NO. DRAWING NO. DATE	DRAWN BY CHECKED BY DATE	24-10-1988 E-7	APRIL 1, 1988

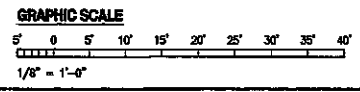
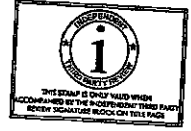


**1 LIGHTING PLAN**  
E-8 SCALE: 1/8" = 1'-0"

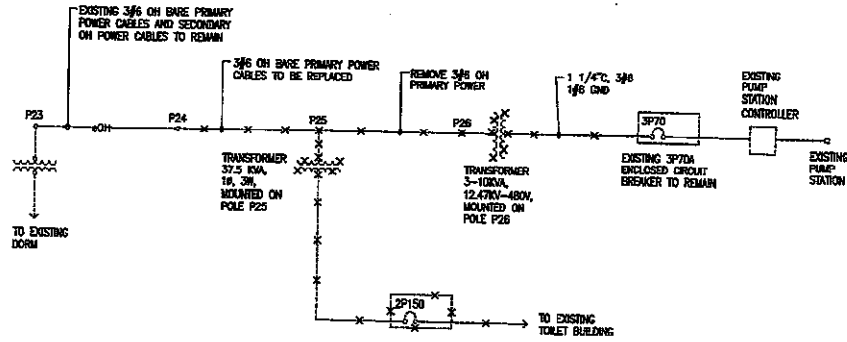


**2 LIGHTING CONTROL DIAGRAM**  
E-8 NO SCALE

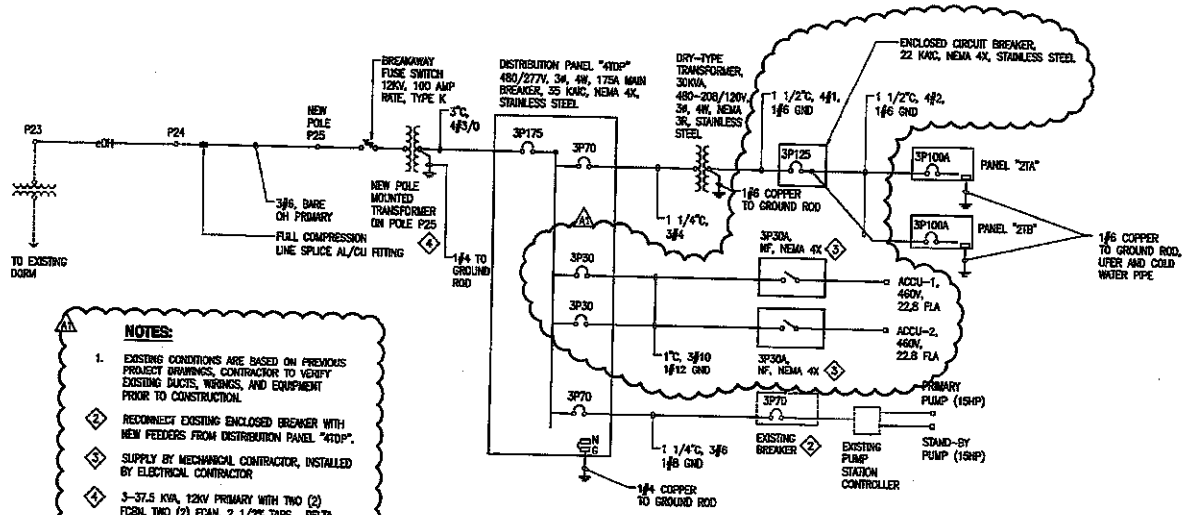
**NOTE:**  
ALL DEVICES, EQUIPMENTS, JUNCTION BOXES,  
AND CONDUITS SHALL BE MOUNTED ON SCAMIS  
WITH HORIZONTALLY MOUNTED STRUTS.  
SEE MOUNTING DETAIL ON SHEET  
E-4



ADD-1	FIXTURE LOCATION	DATE	4/21/09
REVISION NO.	DESCRIPTION	DATE	APPROVED:
1			PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
DEPARTMENT OF PUBLIC SAFETY WAIANA TEMPORARY PROGRAM FACILITIES WAIANA, HAWAII			
LIGHTING PLAN			
ECS, INC.		PROJECT NO.	E-8
DESIGNED BY	DATE	21-07-0809	
DRAWN BY	DATE		
IN CHARGE	DATE		
APPROVED BY	DATE	APRIL 21, 2009	



**1 ONE-LINE DIAGRAM - DEMOLITION**  
E-9 NO SCALE

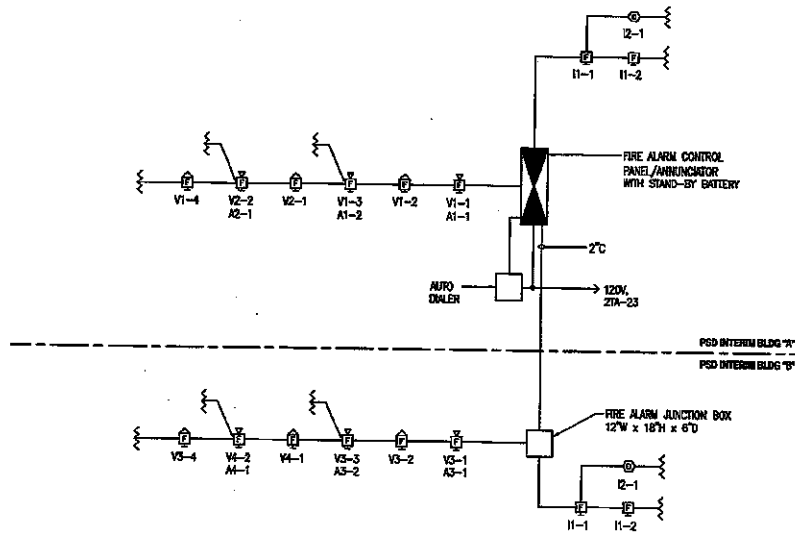


- NOTES:**
- EXISTING CONDITIONS ARE BASED ON PREVIOUS PROJECT DRAWINGS. CONTRACTOR TO VERIFY EXISTING DUCTS, WORKS, AND EQUIPMENT PRIOR TO CONSTRUCTION.
  - RECONNECT EXISTING ENCLOSED BREAKER WITH NEW FEEDERS FROM DISTRIBUTION PANEL "410P".
  - SUPPLY BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR
  - 3-37.5 KVA, 12KV PRIMARY WITH TWO (2) FCBL, TWO (2) FCAN, 2 1/2" TAPS. DELTA PRIMARY, 480/277 GROUNDING WYE SECONDARY, 80KV BL.
  - ALL OTHER FACILITIES SHALL BE KEPT OPERATIONAL DURING CONSTRUCTION. COORDINATE ANY INTERRUPTION IN SERVICE WITH PSD AND INTERRUPTION IN SERVICE SHALL BE LIMITED TO 4-HOURS.



**2 ONE-LINE DIAGRAM**  
E-9 NO SCALE

ADD-1	ONE LINE DIAGRAM, NOTES	4/27/08			
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED:
					PUBLIC WORKS ADMINISTRATION
			DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF IDAHO DEPARTMENT OF PUBLIC SAFETY YAWWA TEMPORARY PROGRAM FACILITIES YAWWA, IDAHO		
ONE-LINE DIAGRAM					
ECS, INC.		DATE: 04/27/08		DRAWING NO: E-9	
APPROVED BY: [Signature]		CHECKED BY: [Signature]		DATE: APRIL 23, 2008	



**WIRING NOTES:**

- ALL WIRING SHALL BE INSTALLED IN CONDUIT, MINIMUM SIZE #14 AWG AND COLOR CODED PER DMS SPECIFICATIONS
- MINIMUM SIZE CONDUIT SHALL BE 3/4". PROVIDE WIRING PER APPROVED SHOP DRAWING.
- INTRUSION DEVICES SHALL CAUSE A GENERAL ALARM THROUGHOUT BUILDING. DUCT DETECTOR SHALL PROVIDE A TROUBLE ALARM AT FACP
- T-TAPPING NOT ALLOWED
- LABEL ALL CONDUCTORS AT DEVICES AND CONTROL PANEL WITH CIRCUIT & DEVICES NUMBER. INSTALL MARKERS WITHIN 4" OF END OF WIRE.

**FIRE ALARM NOTES:**

- DESIGN STANDARDS - FIRE ALARM SYSTEMS, AUTOMATIC FIRE DETECTORS, EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS AND NOTIFICATION DEVICES SHALL BE DESIGNED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH UFC STANDARD 10-2 AND OTHER NATIONALLY RECOGNIZED STANDARDS. 1997 UFC, SECTION 1007.3.1.
- AUDIBLE/VISUAL AND VISUAL DEVICES SHALL HAVE THEIR BOTTOMS AT HEIGHTS ABOVE THE FINISHED FLOOR OF NOT LESS THAN 80 IN. (2m) AND NO GREATER THAN 96 IN. (2.4m). CEILING MOUNTED APPLIANCES SHALL BE INSTALLED PER TABLE 6-4.4.1 (b). 1997 UFC STANDARD 10-2 SECTION 6-4.4.
- AUDIABILITY. THE ALARM SIGNAL SHALL BE A DISTINCTIVE SOUND, WHICH IS NOT USED FOR ANY OTHER PURPOSE OTHER THAN THE FIRE ALARM. ALARM-SIGNALING DEVICES SHALL PRODUCE A SOUND THAT EXCEEDS THE PREVAILING EQUIVALENT SOUND LEVEL IN A ROOM OR SPACE BY 15 DECIBELS MINIMUM, OR EXCEEDS ANY MAXIMUM SOUND LEVEL WITH A DURATION OF 60 SECONDS MINIMUM BY 5 DECIBELS MINIMUM, WHICHEVER IS LOUDER. SOUND LEVELS FOR ALARM SIGNALS SHALL BE 100 DECIBELS MAXIMUM. 1997 UFC SECTION 1007.3.3.3 AS AMENDED.
- ACCEPTANCE TEST. UPON COMPLETION OF THE INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE CHIEF. ALL FUNCTIONS OF THE SYSTEM OR ALTERATION SHALL BE TESTED.



**1 FIRE ALARM ONE-LINE DIAGRAM**  
E-10 NO SCALE

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

Seal of the State of Hawaii, Department of Public Safety, Fire Marshal.

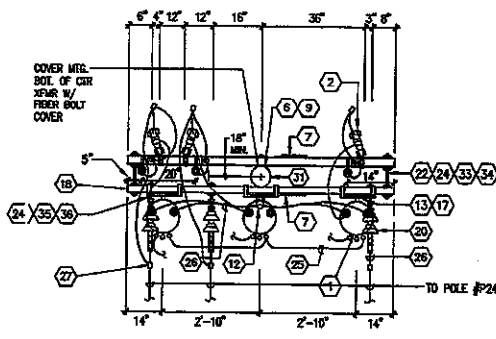
DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

DEPARTMENT OF PUBLIC SAFETY  
HAWAII TEMPORARY PROGRAM FACILITIES  
HAWAII, HAWAII

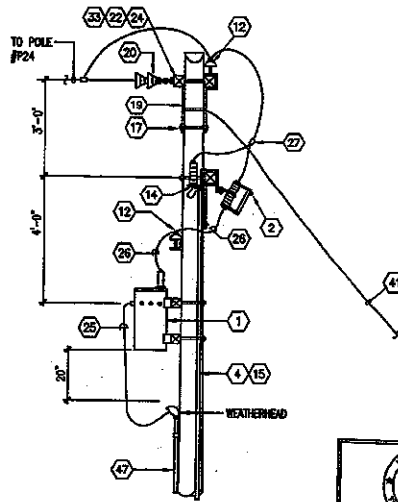
**FIRE ALARM ONE-LINE DIAGRAM**

ECS, INC.

ISSUED BY: [Signature]  
DATE: 22-02-2003  
PROJECT: [Signature]  
DATE: APRIL 2, 2003



PLAN



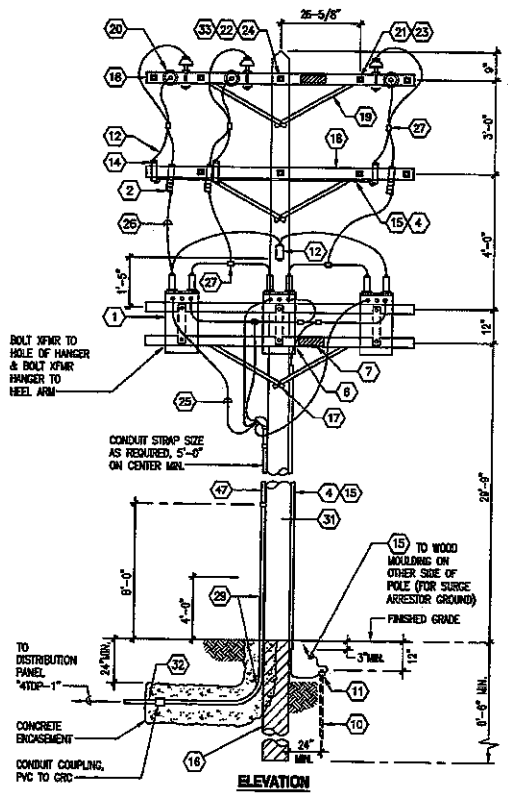
SIDE ELEVATION



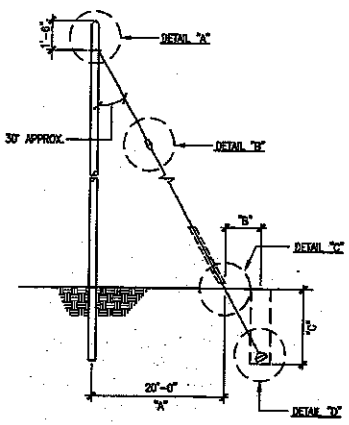
7" (ANCHOR ROD EYE TO C. OF POLE)	15" (ANCHOR ROD EYE TO C. OF HOLE)	15" (VERTICAL DEPTH) 15" DIA.
5'-0"	1'-0"	7'-3"
10'-0"	1'-11"	7'-1"
15'-0"	2'-0"	6'-9"
20'-0"	3'-3"	6'-6"
25'-0"	3'-10"	6'-2"

**POLE MATERIAL SCHEDULE**  
(ALL ITEMS ARE NEW UNLESS OTHERWISE INDICATED)

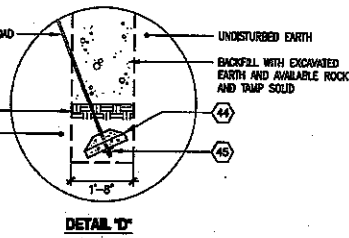
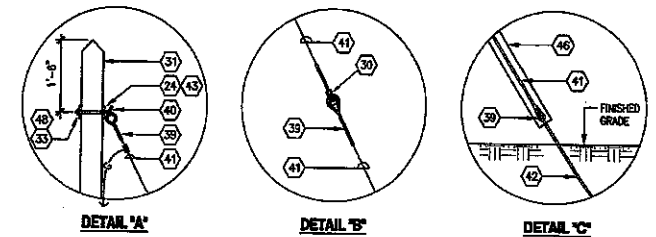
ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	TRANSFORMERS, OIL-FILLED, 37.5KVA, 1A, 12000-277V	25	CONDUCTOR, #4/D, BODY X2HW
2	FUSE CUTOUT, OPEN, DISCONNECTING, 100 AMPS, 10,600VAC SYMMETRICAL, SW, GALVANIZED FRAME	26	CONDUCTOR, BARE COPPER, SOLID #6, MEDIUM HARD DRAWN
3	CONDUCTOR, BARE COPPER, SOLID #6, SOFT DRAWN (BONDING)	27	CONDUCTOR, SPLIT BOLT
4	WOOD MOULDING, 1/2" INSIDE DIAMETER X LENGTH AS REQUIRED, W/2-HOLE STRAPS AND NAILS	28	NOT USED
5	NOT USED	29	CONDUIT, RIGID STEEL, 3", 4#4/D X2HW
6	OWER, BOLT, CURVE BASE, FERRE	30	GUY BOB
7	SIGN - HIGH VOLTAGE - PLASTIC, YELLOW, W/FLATHEAD NAILS	31	POLE, WOOD, PENTACHLOROPHENOL TREATED, CLASS 3, 45 FOOT
8	NOT USED	32	CONDUIT, PVC SCHEDULE 40, 3", 4#4/D X2HW
9	HAIL, ROOFING, PAPER, GALVANIZED, 1-1/2" X 11D	33	NUT, SQUARE, 5/8", GALV.
10	ROD, GROUND, COPPER-CLAD STEEL, 3/4" X 10'-0"	34	WASHER, ROUND, 11/16" HOLE, GALV.
11	GROUND ROD COMPRESSION CONNECTOR	35	DOUBLE ARMING BOLTS, 5/8" X 10" W/NUTS, GALV.
12	INSULATOR, PIN-TYPE, CLASS 65-3, WITH STEEL PIN, WASHER AND NUT	36	STANDARD EYELET, EXTRA LONG, 5/8" BOLT SIZE
13	SUPPORT, BUS GALVANIZED, 16"	37	STRAP CLAMP, ENVELOP TYPE, ULTIMATE STRENGTH - 8,000 lb
14	SURGE ARRESTOR, 15KV	38	GUY STRAP INSULATOR, CLASS 54-2
15	GROUND WIRE, #4, BARE COPPER, SOFT DRAWN	39	DEADEND STRAND GRP, 7/16", HIGH STRENGTH GALV.
16	TERMITE SOCK MESH	40	ANGLE TRIPLEEYE BOLT, 3/4" X 10"
17	SCREW, LAG, 1/2" X 4", FETTER DRIVE	41	GUY WIRE, 7/16" DIA, HIGH STRENGTH GALV.
18	BRACE, CROSSARM, 1/4" X 1-1/4" X 36", ANGLE STEEL	42	ANCHOR ROD THREADED, SINGLE STRAND EYE 3/4" X 8'-0", GALV.
19	CROSSARM, WOOD, DOUGLAS FIR, 3-1/2" X 4-1/2" X 8'-0"	43	LIFT PLATE, 3-HOLE, 3/4" DIAMETER BOLT
20	SUSPENSION INSULATOR, 10" DIAMETER, CLEVIS DEADEND, CLASS 2/32-1	44	ANCHOR SLUG, CONCRETE, 18" DIAMETER
21	CROSSARM BRACE BOLT, MACHINE, 3/8" X LENGTH AS REQUIRED, W/NUT, GALV.	45	WASHER SQUARE, 4" X 4" X 3/16", 11/16" HOLE, GALV.
22	CROSSARM BOLT, MACHINE, 5/8" X 14" (SINGLE ARM), 5/8" X 18" (DOUBLE ARM) GALV.	46	GUY GUARD, 8'-0", YELLOW PLASTIC
23	WASHER, ROUND, 1" DIAMETER, 7/16" HOLE, GALV.	47	CONDUIT, PVC SCHEDULE 80, 3", 4#4/D, X2HW
24	WASHER, SQUARE, 2-1/4" X 2-1/4" X 3/16", 3/4" HOLE, GALV.	48	WASHER, SQUARE, CURVED, 2-1/2" X 2-1/2" X 3/16", 3/4" HOLE



ELEVATION



**2 ANCHOR AND GUYING DETAILS**  
E-11 NOT TO SCALE



DETAIL 'D'

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

DEPARTMENT OF PUBLIC SAFETY  
HAWAII TEMPORARY PROGRAM FACILITIES  
HAWAII, HAWAII

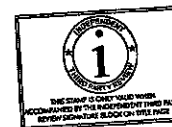
POLE DETAIL			
DESIGNER	CHECKED	DATE	SCALE

### LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	LAMPS
①	FLUORESCENT, SEEN MOUNTED AT +10'-0" AFF, 2-LAMP WIDE, POLYCARBONATE LENS, VANDAL RESISTANT, 120V ELECTRONIC BALLAST COLUMBIA #RHM-232-E120 LITHONIA #RMC-232-MVOLT-GZ810RS OR APPROVE EQUAL	2-F32T8
②	COMPACT FLUORESCENT, WALL MOUNTED AT +8'-6" AFF, 120V ELECTRONIC BALLAST, UL LISTED FOR WET LOCATION HUBBELL #LMC-UP32-6-3 LITHONIA #RMC-32 T2T-120 OR APPROVE EQUAL	1-PL32
③	FLUORESCENT, SEEN MOUNTED, 1-LAMP, POLYCARBONATE LENS, VANDAL RESISTANT, 120V ELECTRONIC BALLAST COLUMBIA #RHM-132-E120 LITHONIA #RMC-132-MVOLT-GZ810RS OR APPROVE EQUAL	1-F32T8
④	FLUORESCENT, WALL MOUNTED, 1-LAMP, POLYCARBONATE LENS, VANDAL RESISTANT, 120V, ELECTRONIC BALLAST, UL LISTED FOR DMHP LOCATION COLUMBIA #RHM-132-E120 LITHONIA #RMC-132-MVOLT-GZ810RS OR APPROVE EQUAL	1-F32T8
⑤	FLUORESCENT, SURFACE MOUNTED, 1-LAMP, POLYCARBONATE LENS, VANDAL RESISTANT, 120V, ELECTRONIC BALLAST, UL LISTED FOR DMHP LOCATION COLUMBIA #RHM-132-E120 LITHONIA #RMC-131-MVOLT-GZ810RS OR APPROVE EQUAL	1-F32T8
⑥	COMPACT FLUORESCENT, CEILING MOUNTED, POLYCARBONATE LENS, VANDAL RESISTANT, 120V, ELECTRONIC BALLAST LUMINAIRE #LUP32-1PLC28-120 LITHONIA #RMC-28UIT-120 OR APPROVE EQUAL	1-PL28
⑦	EMERGENCY LIGHT, WALL MOUNTED AT +8'-0", 2-HEAD, 120/277V, SEALED MAINTENANCE-FREE BATTERIES, WHITE FINISH, LOW VOLTAGE DISCONNECT, VANDAL RESISTANT SHIELD, DUALUTE #DC-2-YRS LITHONIA #ELM2-ELA VS OR APPROVE EQUAL	2-10W MNL
⑧	EXIT LIGHT, WALL MOUNTED AT +8'-0", RED LETTERS ON WHITE BACKGROUND, 120/277V, SEALED MAINTENANCE FREE BATTERIES, 5-WATT MAXIMUM PER FUSE, CAST ALUMINUM HOUSING APPROVE EQUAL	LED

PANEL '2TA'		120/208 VOLTS, 3 PHASE, 4 WIRE			MIN AC: 10,000			
		100 AMP MAIN BREAKER			MOUNTING: SURFACE			
		RETRY OPTIONS:						
CKT NO	USE	CKT BRK	CONNECTED LOAD (KVA)			CKT BRK	USE	CKT NO
			PHASE A	PHASE B	PHASE C			
12 1	RECEPT	1 20	0.2   1.8			20	1	10
12 3	RECEPT	1 20	0.2   1.8			20	1	10
12 5	RECEPT	1 20	0.2   1.8			20	1	10
12 7	RECEPT	1 20	0.2   0.2		0.2   0.2	20	1	10
12 8	RECEPT	1 20	0.2   0.2		0.2   0.2	20	1	10
12 11	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 13	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 15	RECEPT	1 20	0.2   0.2		0.2   0.2	20	1	10
10 17	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 18	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 21	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
12 23	SPARE	1 20			1.0   1.0	20	1	10
12 25	DUCT SMOKE DETECTOR	1 15	0.2					
12 27	SPARE	1 15			1.0			
29	SPARE	1 20			1.0			
31	PFB	1						
33	PFB	1						
35	PFB	1						
37	PFB	1						
39	PFB	1						
41	PFB	1						
CONNECTED LOAD/PHASE			5.0	5.0	6.4			
TOTAL CONNECTED LOAD			16.4 KVA					
DEMAND FACTOR			0.8					
TOTAL DEMAND LOAD			13.1 KW= 36.5 AMPS					

PANEL '2TB'		120/208 VOLTS, 3 PHASE, 4 WIRE			MIN AC: 10,000			
		100 AMP MAIN BREAKER			MOUNTING: SURFACE			
		RETRY OPTIONS:						
CKT NO	USE	CKT BRK	CONNECTED LOAD (KVA)			CKT BRK	USE	CKT NO
			PHASE A	PHASE B	PHASE C			
12 1	RECEPT	1 20	0.2   1.8			20	1	10
12 3	RECEPT	1 20	0.2   1.8			20	1	10
12 5	RECEPT	1 20	0.2   1.8			20	1	10
12 7	RECEPT	1 20	0.2   0.2		0.2   0.2	20	1	10
12 9	RECEPT	1 20	0.2   0.2		0.2   0.2	20	1	10
12 11	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 13	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 15	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 17	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 18	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
10 21	RECEPT	1 20	0.2   1.0		0.2   1.0	20	1	10
12 23	DUCT SMOKE DETECTOR	1 15	0.2		0.2   1.0			
25	SPARE	1 20	1.0					
27	SPARE	1 20			1.0			
29	SPARE	1 20			1.0			
31	PFB	1						
33	PFB	1						
35	PFB	1						
37	PFB	1						
39	PFB	1						
41	PFB	1						
CONNECTED LOAD/PHASE			5.8	5.0	5.6			
TOTAL CONNECTED LOAD			16.4 KVA					
DEMAND FACTOR			0.8					
TOTAL DEMAND LOAD			13.1 KW= 36.5 AMPS					



REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

DEPARTMENT OF PUBLIC SAFETY  
WAIANA TEMPORARY PROGRAM FACILITIES  
WAIANA, HAWAII

LUMINAIRE AND PANEL SCHEDULES

ECS, INC.

DATE: 25-09-2008

PROJECT NO: E-12

APPROVED BY: [Signature]

DATE: APR 3, 2009

**BP 664633**



# WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS

FOR THE DEPARTMENT OF PUBLIC SAFETY

BY THE DEPARTMENT OF ACCOUNTING  
AND GENERAL SERVICES  
STATE OF HAWAII  
HONOLULU, OAHU, HAWAII

D.A.G.S. PROJECT NO.: 12-27-5623

TAX MAP KEY: 9-4-33.002 9-6-005:011

ADDRESS: 94 - <sup>670</sup>560 KAMEHAMEHA HWY  
WAIPAHU, HI 96789

INDEX OF DRAWINGS		
NO.	SHT.	SHEET TITLE
1	T-1.0	ISLAND PLAN, INDEX OF DRAWINGS
2	T-2.0	GENERAL PLAN, GENERAL NOTES
3	D-1.0	DEMOLITION PLAN
4	D-1.1	DEMOLITION PHOTO DETAILS
5	D-1.2	DEMOLITION PHOTO DETAILS
6	A-1.0	SITE PLAN
7	A-2.0	FLOOR PLAN
8	A-2.1	MISC. DETAILS
9	A-3.0	ELEVATION, SECTIONS
10	A-4.0	SECTIONS
11	A-4.1	SECTIONS
12	S-1.0	GENERAL NOTES AND TYPICAL DETAILS
13	S-1.1	SECTION AND DETAILS
14	S-2.0	FOUNDATION PLAN
15	M-0.1	MECHANICAL GENERAL NOTES, LEGEND, SCHEDULE, AND CI CALCULATION
16	M-0.2	OVERALL MECHANICAL SITE PLAN
17	M-1.0	MECHANICAL FLOOR PLAN - REMOVAL WORK
18	M-1.1	MECHANICAL FLOOR PLAN - NEW WORK
19	M-5.0	PLUMBING ISOMETRIC - REMOVAL WORK
20	M-5.1	PLUMBING ISOMETRIC - NEW WORK
21	M-5.2	MECHANICAL DETAILS
22	E-0.0	GENERAL NOTES, SYMBOL LIST, ABBREVIATION LIST, AND NOTES
23	E-0.1	ELECTRICAL SITE PLAN
24	E-1.0	ELECTRICAL FLOOR PLAN - NEW WORK
25	E-1.1	DETAILS AND PANEL SCHEDULE
26	K-1.0	FOOD SERVICE EQUIPMENT PLAN AND SCHEDULE
27	K-2.0	FOOD SERVICE EQUIPMENT ELECTRICAL & MECHANICAL PLAN, SCHEDULE AND NOTES
28	K-3.0	FOOD SERVICE EQUIPMENT BUILDING WORK, REFRIGERATION PLAN AND DETAILS
29	K-4.0	FOOD SERVICE EQUIPMENT DETAILS

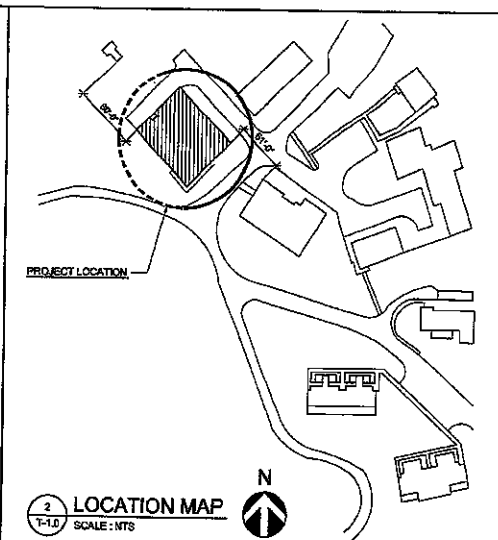
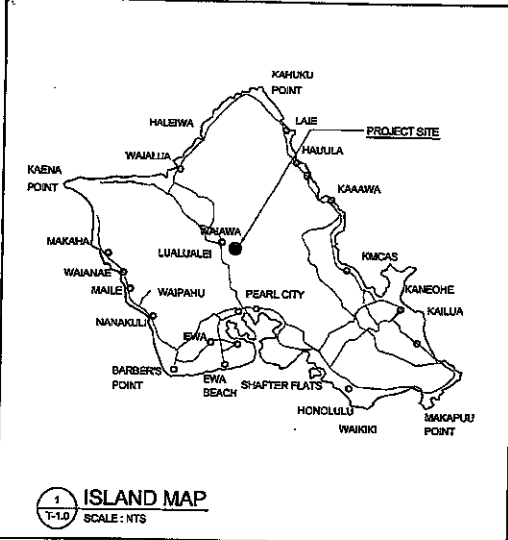
DEPARTMENT OF PUBLIC SAFETY  
SUPERVISOR'S SIGNATURE: Date  
The Individual's Signature  
EXISTING THIS APPROVED FOR USE  
Date: 6-4-12  
Approved by: [Signature]

**BUILDING DIVISION  
FILE COPY**

1210-26-028

DEPARTMENT OF PLANNING AND PERMITTING  
CITY AND COUNTY OF HONOLULU

ACCEPTANCE: [Signature] DATE: 11/13/10  
 ZONING: [Signature] DATE: 11/13/10  
 ELECTRICAL: [Signature] DATE: 11/13/10  
 PLUMBING: [Signature] DATE: 11/13/10  
 BUILDING: [Signature] DATE: 11/13/10  
 PERMIT: [Signature] DATE: 11/13/10



**CONSULTANTS**

ARCHITECT: FRANKLIN WONG & ASSOCIATES, LTD.

STRUCTURAL: KAI HAWAII, INC.

MECHANICAL/ELECTRICAL ENGINEER: INSYNERGY ENGINEERING

KITCHEN CONSULTANT: MIZO AND ASSOCIATES

**APPROVALS**

DIRECTOR  
DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII  
DATE: 6/4/12

COMPTROLLER  
DEPT. OF ACCOUNTING & GENERAL SERVICES  
STATE OF HAWAII  
DATE: 4/27/10

PUBLIC WORKS ADMINISTRATOR  
DEPT. OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII  
DATE: 4/27/10

REVISION NO. \_\_\_\_\_ DATE \_\_\_\_\_

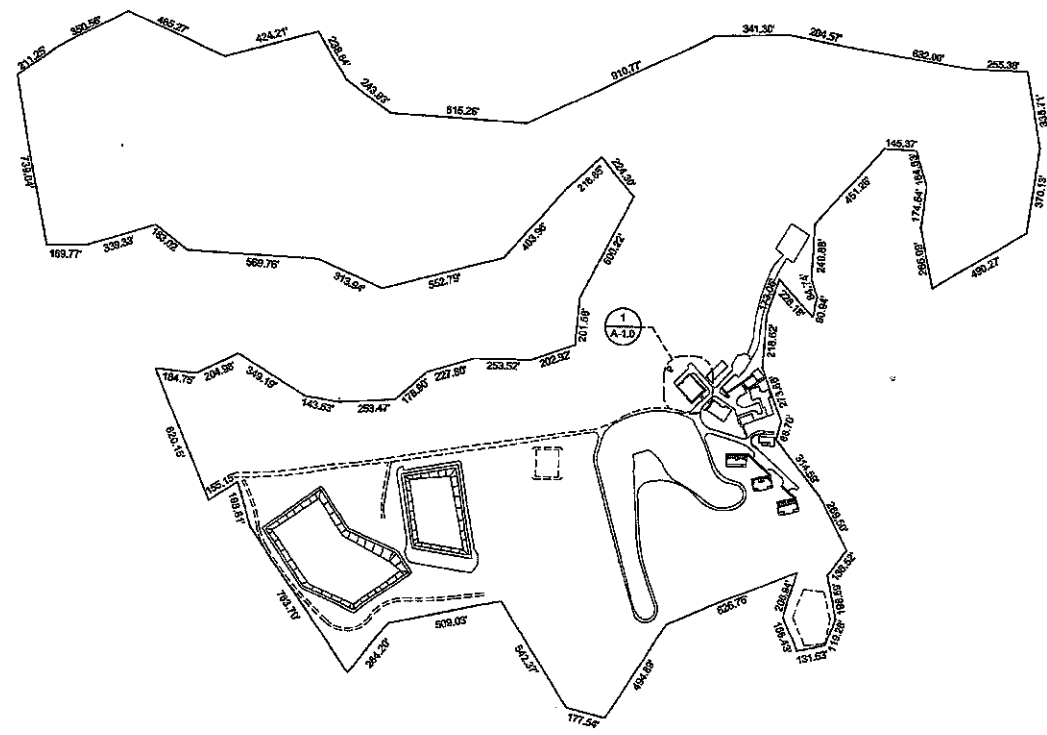
DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

**WAIAWA CORRECTIONAL FACILITY  
KITCHEN IMPROVEMENTS**

ISLAND PLAN, INDEX OF DRAWINGS

FRANKLIN WONG & ASSOCIATES  
DESIGNED BY: FW  
CHECKED BY: FW  
DATE: 12-27-06  
PROJECT NO.: 12-27-5623  
DRAWN BY: T-1.0  
DATE: MAY 2010  
SCALE: 1/8" = 1'-0"

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.



ZONING PLAN REVIEW  
BY: *D. G. ...*  
DATE: 1/19/10

1 GENERAL PLAN  
T-2.0 SCALE: 1/258"=1'-0"



ABBREVIATIONS

A/C	AIR CONDITIONING	GA	GAUGE
AB	ANCHOR BOLT	GALV	GALVANIZED
ABV	ABOVE	INT	INTERIOR
AC	ASPHALTIC CONCRETE	INV	INVERT
ACOUS	ACOUSTICAL	IT	INVERT
AF	ABOVE FINISHED FLOOR	JT	JOINT
ALT	ALTERNATE	LB	POUND
AP	ACCESS PANEL	LF	LINEAL FOOT
APPROX	APPROXIMATE	MAX	MAXIMUM
ARCH	ARCHITECTURAL	MECH	MECHANICAL
ASB	ASBESTOS	MET	METAL
ASPH	ASPHALT	MFR	MANUFACTURER
BITUM	BITUMINOUS	MIN	MINIMUM
BLDG	BUILDING	MISC	MISCELLANEOUS
BM	BEAM	NO	MASONRY OPENING
BOT	BOTTOM	MTL	MATERIAL
BUR	BUILT-UP ROOFING	NIC	NOT IN CONTRACT
CEMPLAS	CEMENT PLASTER	NTS	NOT TO SCALE
CT	CERAMIC TILE	OC	ON CENTER
CIP	CAST-IN-PLACE	OPNG	OPENING
CJ	CONTROL JOINT	OPP	OPPOSITE
CLG	CEILING	OVHD	OVERHEAD
CLR	CLEAR	PNC	POLYURETHANE MODIFIED CONCRETE
CMU	CONCRETE MASONRY UNITS	PLAS	PLASTER
CO	CLEAN OUT	PLGB	PLUMBING
COL	COLUMN	PLYWD	PLYWOOD
CONC	CONCRETE	QT	QUARRY TILE
COND	CONDITION	REV	REVISION
DN	DOWN	RFG	ROOFING
DR	DOOR	RM	ROOM
DS	DOWNSPOUT	RO	ROUGH OPENING
DWG	DRAWING	SC	SCALE
EA	EACH	SCHED	SCHEDULE
EJ	EXPANSION JOINT	SECT	SECTION
EL	ELEVATION	SF	SQUARE FOOT
ELEC	ELECTRICAL	SHT	SHEET
ENCL	ENCLOSURE	SIM	SIMILAR
EQ	EQUAL	SL	SLOPE
EQPT	EQUIPMENT	SPEC	SPECIFICATION
EXP	EXPANSION	SG	SQUARE
(E)	EXISTING	SSTL	STAINLESS STEEL
EXT	EXTERIOR	STR	STRUCTURAL
FCU	FAN COIL UNIT	STRUC	STRUCTURE
FD	FLOOR DRAIN	SUSP	SUSPENDED
FDN	FOUNDATION	THK	THICK
FFE	FINISH FLOOR ELEVATION	THR	THRESHOLD
FIN	FINISH	TYP	TYPICAL
FLR	FLOOR	VCT	VINYL COMPOSITION TILE
FLASH	FLASHING	VERT	VERTICAL
FOLDG	FOLDING		
FOC	FACE OF CONCRETE		
FOF	FACE OF FINISH		
FOM	FACE OF MASONRY		
FOS	FACE OF STUD		
FOW	FACE OF WALL		
FR	FRAME		
FS	FLOOR SINK		
FT	FOOT		
FTG	FOOTING		

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY ALL EXISTING FIELD CONDITIONS, DIMENSIONS AND OBSTRUCTIONS.
2. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES WORK. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES IN THE DRAWINGS (MECHANICAL, ARCHITECTURAL, STRUCTURAL, ELECTRICAL) IMMEDIATELY BEFORE PROCEEDING WITH ANY FURTHER WORK. OTHERWISE, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COST INVOLVED IN THE CORRECTION OF THE CONSTRUCTION. INSTALLATION COORDINATE SHUT DOWN OF ALL UTILITIES WITH THE CONTRACTING OFFICER AND THE WAIAWA CORRECTIONAL FACILITY.
3. THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO UTILITIES PRESENT BEFORE DEMOLITION OF ANY SORT. SHOULD ANY UTILITIES BE DAMAGED IN THE PROCESS OF DEMOLITION, THE CONTRACTOR SHALL REPAIR THE UTILITIES AT NO COST TO THE STATE.
4. ALL WORK SHALL BE NEW UNLESS OTHERWISE NOTED AS EXISTING.
5. REMOVE ALL ABANDONED PIPING THAT WILL INTERFERE WITH THE INSTALLATION OF NEW WORK.
6. ALL PATCH WORK SHALL MATCH THE EXISTING ADJACENT AREA IN COLOR AND TEXTURE UNLESS OTHERWISE SPECIFIED.
7. EXISTING PIPE INVERTS AND LOCATIONS WERE TAKEN FROM EXISTING DRAWINGS. THE CONTRACTOR SHALL VERIFY PIPE INVERTS AND TONE AND DETERMINE EXISTING UNDERGROUND PIPE LOCATIONS PRIOR TO EXCAVATION AND INSTALLATION OF ANY NEW WORK.
8. THE CONTRACTOR SHALL PUMP AND CLEAN THE EXISTING GREASE INTERCEPTOR AND DISPOSE OF MATERIAL ACCORDINGLY PRIOR TO REMOVAL OF INTERCEPTOR.
9. THE CONTRACTOR SHALL TAKE INVENTORY OF THE WORKING CONDITION OF ALL EXISTING PLUMBING FIXTURES PRIOR TO COMMENCEMENT OF WORK. INVENTORY AND WORKING CONDITION LIST SHALL BE PROVIDED TO CONTRACTING OFFICER AND WAIAWA CORRECTIONAL FACILITY.
10. THE CONTRACTOR SHALL REMOVE AND STORE ALL KITCHEN EQUIPMENT AND FURNISHINGS IN A CONTRACTOR PROVIDED CONTAINER. THE CONTAINER WILL BE STORED AT A SITE DETERMINED BY THE WAIAWA CORRECTIONAL FACILITY.
  - a) AFTER THE WORK ON THE FLOORING IS COMPLETED, REINSTALL ALL EQUIPMENT BACK TO ITS ORIGINAL LOCATION.
  - b) ALL SPACES BETWEEN FIXED ITEMS AND WALLS, CEILING, FLOOR SHALL BE COMPLETELY SEALED WITH STAINLESS STEEL TRIP STRIPS, WELDING, SOLDERING, MASTIC OR EPOXY SEALANT. MASTIC IS NOT PERMISSIBLE IN JOINTS OR SEAMS WHICH ARE MORE THAN 3/16" INCH.
11. THE STAGING AREAS WILL BE ADDRESSED IN THE PRE-CONSTRUCTION CONFERENCE.
12. THE PROJECT WILL BE COORDINATED TO PERMIT ACCESS TO RELATED KITCHEN ACTIVITIES (I.E. INMATE DINING ETC.)
13. DUE TO THE LIMITED ACCESS AND SENSITIVE NATURE OF THIS PROJECT, PHOTOS HAVE BEEN LAYERED ONTO THE DEMOLITION SHEETS. COLORED PHOTOS OF THESE SAME IMAGES ARE ALSO AVAILABLE ON CD AND BY DOWNLOAD AT THE DAG'S WEBSITE.


1) ALL CONSTRUCTION SHALL CONFORM TO THE CODES, IBC AND LATEST CITY AND COUNTY OF HAWAII ORDINANCES, AND ALL OTHER APPLICABLE CODES, ARTICLES ETC.

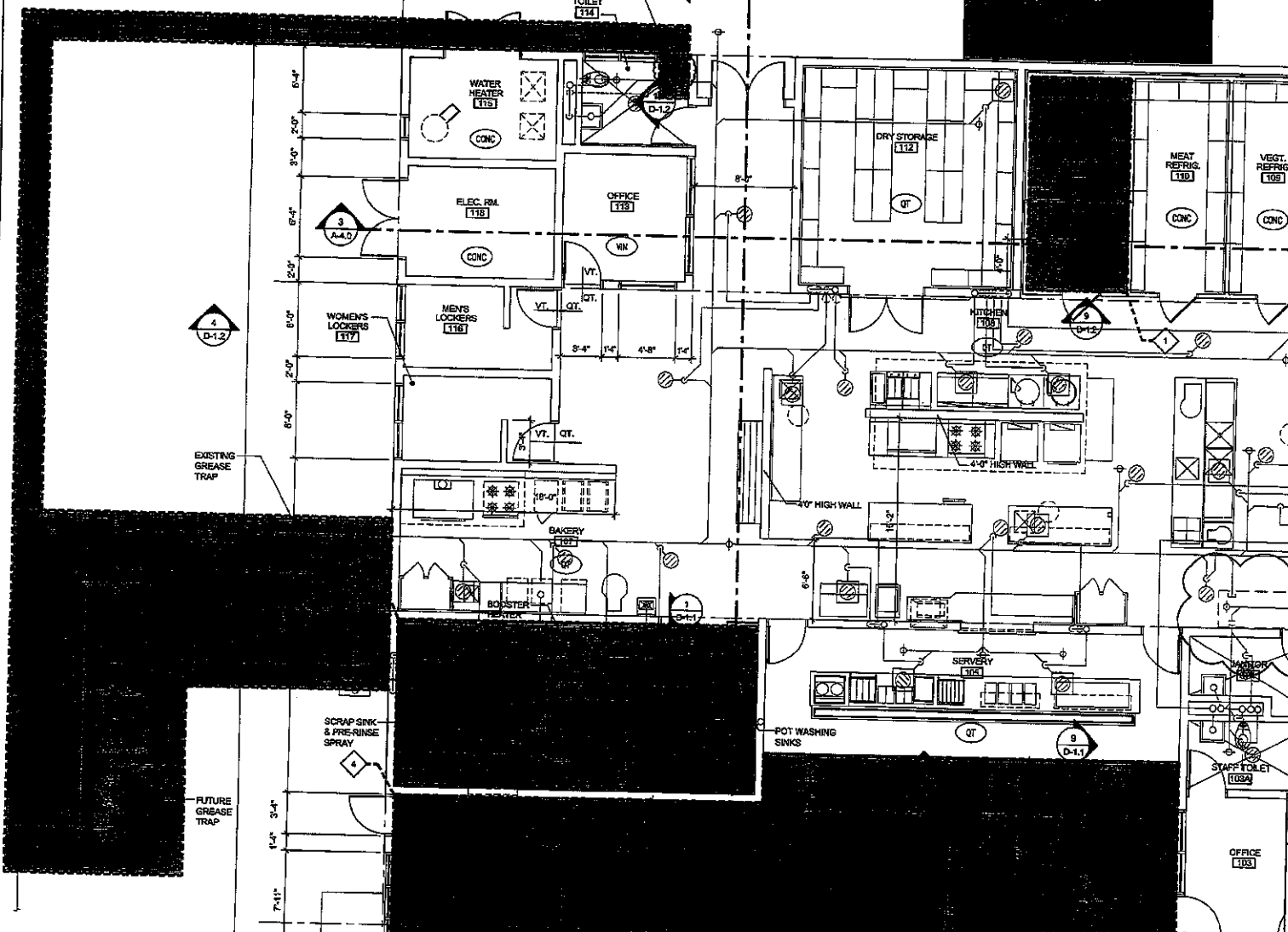
2) PRE-SAFETY DURING CONSTRUCTION, ATTENTION OR DEMOLITION SHALL BE PERFORMED IN ACCORDANCE WITH THE UNDERLYING FIRE CODE, ARTICLES ETC.

ARCHITECTURAL SYMBOLS

- ⊖ REFERENCE NO./LETTER GRID LINE/COLUMN LINE
- 1 DRAWING NO. DRAWING DESIGNATION/TITLE
- 1/10 SCALE SHEET NO.
- 2 DWG. NO./LETTER SECTION/DETAIL DESIGNATION
- 2/10 SHEET NO.
- ⊖ DWG. NO./LETTER BUILDING SECTION
- ⊖ SHEET NO.

REVISION NO.	DATE	DESCRIPTION	APPROVED
PUBLIC WORKS ADMINISTRATOR			
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>			
GENERAL PLAN, GENERAL NOTES			
FRANKLIN WORK & ASSOCIATES		DATE: 12-27-2009	DRAWING NO. T-2.0
DESIGNED BY: FW	CHECKED BY: FW	DATE: MAY 2010	SHEET 2 OF 25
DRAWN BY: FW	APPROVED BY: FW	MAY 2010	
THIS DRAWING WAS PREPARED BY ME OR UNDER MY SUPERVISION.			
FILE NO. DRAWER FOLDER			

**LEGEND :**  
 ZONE OF WORK



**KEYNOTE LEGEND**

NOTE #	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER. MAINTAIN EXISTING STRUCTURAL SLAB.	1B D-1.2
2	REMOVE EXISTING LEAN TO SHED MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR.	11.12 D-1.2
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS.	1 D-1.1
3A	CONTRACTOR TO TEST / REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERTOPS. STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE.	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL, TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB.	5-18 D-1.1
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED GEVER LINES @ AREAS INDICATED.	1-2 D-1.1
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	1 M-1.1
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER INSULATION AND CONCRETE TOPPING. SEAL ENTIRE FLOOR WITH EPOXY PCM FLOOR FINISH. RE-ENERGIZE FREEZER & TEST.	SM D-1.2
9	PROVIDE NEW EXTERIOR REGULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS)	7 A-4.0 K-1.0
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS).	1 M-1.1
11	PROVIDE EPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER FLR. & OVER SELF LEVELING COMPOUND ON INMATE DINING. STAINC. CONC. SLAB AS NEEDED TO MAKE TARGET ELEVATIONS.	SPEC RESUR
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS	1 M-1.1
13	(NOT USED)	1 M-1.1
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	1 M-1.1 S-1.0
15	RECOMPACT SUB BASE CONDITIONS TO 65% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC BEARING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII SEPTEMBER 1984; SEE GENERAL NOTES ON A-1.0; RESTORE LANDSCAPED AREAS WHEN DISTURBED.	-

**1 DEMOLITION PLAN** N  
 D-1.0 SCALE: 1/4"=1'-0"

**REVISED PRINT**

ADD-1	REPAIRED SCOPE OF WORK	1 of 10	WFO
REVISED	DATE	DESCRIPTION	DATE
PUBLIC WORKS ADMINISTRATOR			
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>			
DEMOLITION PLAN			
FRANKLIN WORKS ASSOCIATES		DATE PROJECT NO.	PROJECT NO.
DESIGNED BY:	FW	12-27-5623	D-1.0
DRAWN BY:	FWA	DATE	SHEET #
DATE	MAY 2010	NO.	29

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

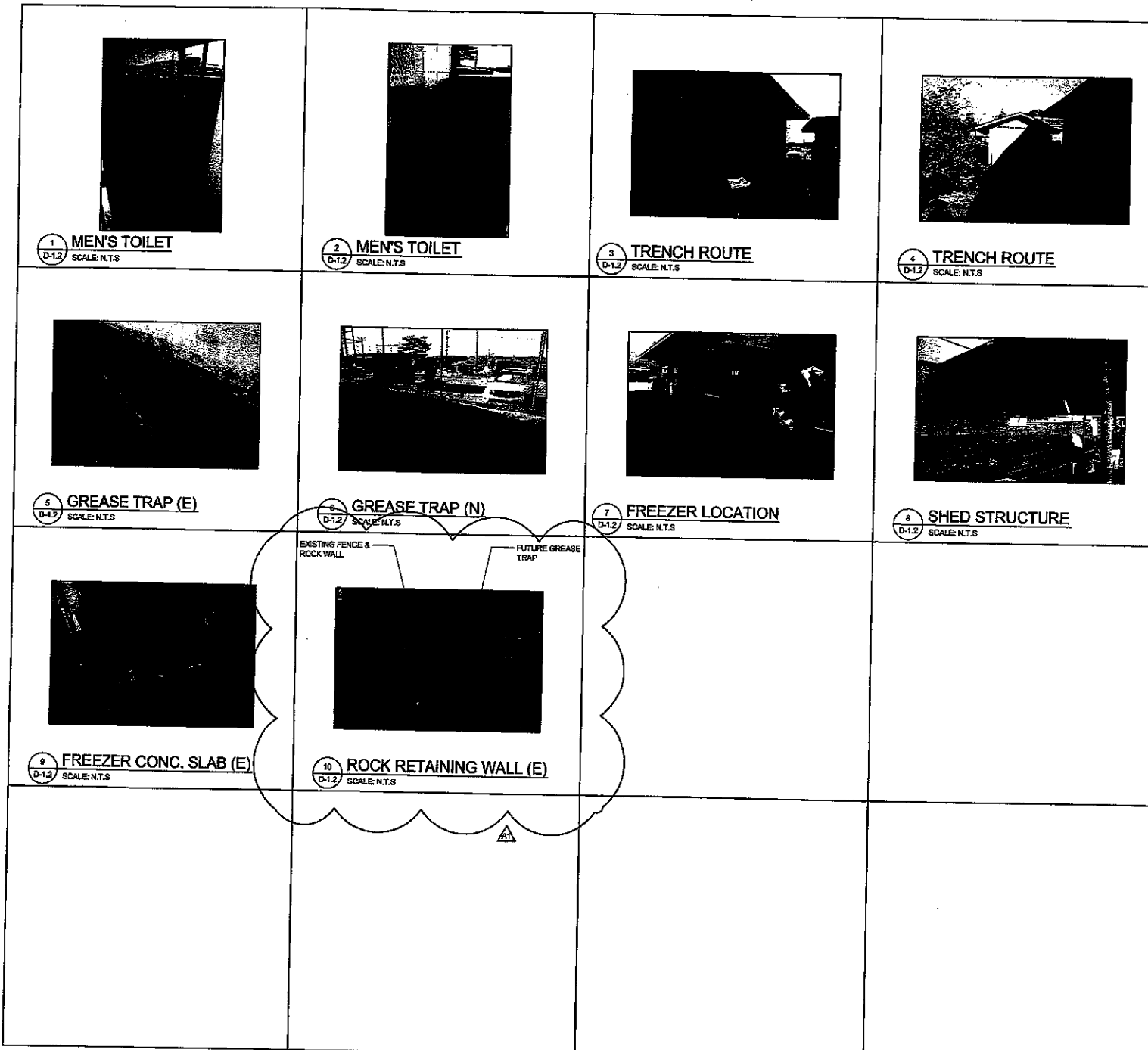
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KEYNOTE LEGEND		
NOTES	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER. MAINTAIN EXISTING STRUCTURAL SLAB.	19 D-1.7
2	REMOVE EXISTING LEAN TO SCHED MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR.	11-12 D-1.7
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAIN AS INDICATED. SEE PLUMBING DRAWINGS.	1 D-1.3
3A	CONTRACTOR TO TEST / REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERS. STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE.	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB.	5-15 D-1.1
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED.	1-4 D-1.1
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS).	1 M-1.1
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER. INSULATION AND CONCRETE TOPPING. SEAL ENTIRE FLOOR WITH EPOXY FCM FLOOR FINISH. RE-ENERGIZE FREEZER & TEST.	SMA M-1.9
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS).	7 A-4.0 M-1.9
10	REPLACE EXISTING FLOOR DRAIN AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT ETC, QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS).	1 M-1.7
11	PROVIDE EPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER FLR. & OVER SELF LEVELING COMPOUND ON INMATE DINING STRUC. CONC. SLAB AS NEEDED TO MAKE TARGET ELEVATIONS.	SPEC 05540
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS.	1 M-1.7
13	(NOT USED)	1 M-1.1
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	1 M-1.1 S-1.9
15	RECOMPACT SUB BASE CONDITIONS TO 95% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC BEARING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII, SEPTEMBER 1984; SEE GENERAL NOTES ON A-1.0; RESTORE LANDSCAPED AREAS WHEN DISTURBED.	

PHOTOS REPRESENT EXISTING CONDITIONS SLATED FOR RENOVATION AND ARE KEYED TO THE FLOOR PLAN FOR YOUR REFERENCE

APPROVED	DATE	APPROVED	DATE
PUBLIC WORKS ADMINISTRATION			
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>WAI'AWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>			
DEMOLITION PHOTO DETAILS			
FRANKLIN WONG & ASSOCIATES		DATE PROJECT BEGAN	
DESIGNED BY FW	DRAWN BY FW	12-27-5823	D-1.1
CHECKED BY FWA	APPROVED BY FW	DATE MAY 2010	SHEET 4 OF 29
THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY SUPERVISION.			



**KEYNOTE LEGEND**

NOTE #	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER. MAINTAIN EXISTING STRUCTURAL SLAB.	(1.12) (D-1.2)
2	REMOVE EXISTING LEAKY TO SHED MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR.	(1.12) (D-1.2)
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS.	(1) (D-1.1)
3A	CONTRACTOR TO TEST / REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERS, STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE.	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB.	(5-10) (D-1.1)
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED.	(1.4) (D-1.1)
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	(1) (W-1.1)
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER INSULATION AND CONCRETE TOPPING; SEAL ENTIRE FLOOR WITH EPOXY FLOOR FINISH. RE-ENERGIZE FREEZER & TSS.	(8M) (K-1.0)
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS)	(7) (ALL) (K-1.0)
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT ETC. QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS)	(1) (W-1.1)
11	PROVIDE EPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER FLR. & OVER SELF-LEVELING COMPOUND ON INMATE DINING STRUC. CONC. SLAB AS NEEDED TO MAKE TARGET ELEVATIONS.	(SPEC) (3547)
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS	(1) (W-1.7)
13	(NOT USED)	(1) (W-1.7)
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	(1) (W-1.1) (K-1.0)
15	RECOMPACT SUB BASE CONDITIONS TO 95% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC BEARING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII SEPTEMBER 1984; SEE GENERAL NOTES ON A-1.0; RESTORE LANDSCAPED AREAS WHEN DISTURBED.	-

PHOTOS REPRESENT EXISTING CONDITIONS SLATED FOR RENOVATION AND ARE KEYED TO THE FLOOR PLAN FOR YOUR REFERENCE

ADD: 1	CLARIFICATION	2 of 10	010
REVISED BY:	DESCRIPTION	DATE	DATE

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

**WAIAWA CORRECTIONAL FACILITY  
KITCHEN IMPROVEMENTS**

DEMOLITION PHOTO DETAILS

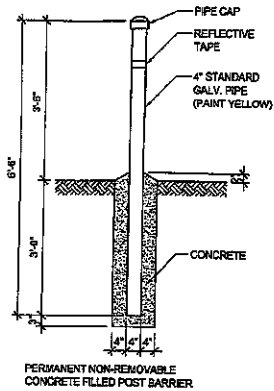
FRANKLIN WONG & ASSOCIATES

DESIGNED BY: FW  
CHECKED BY: FW  
DATE: 12-27-2023

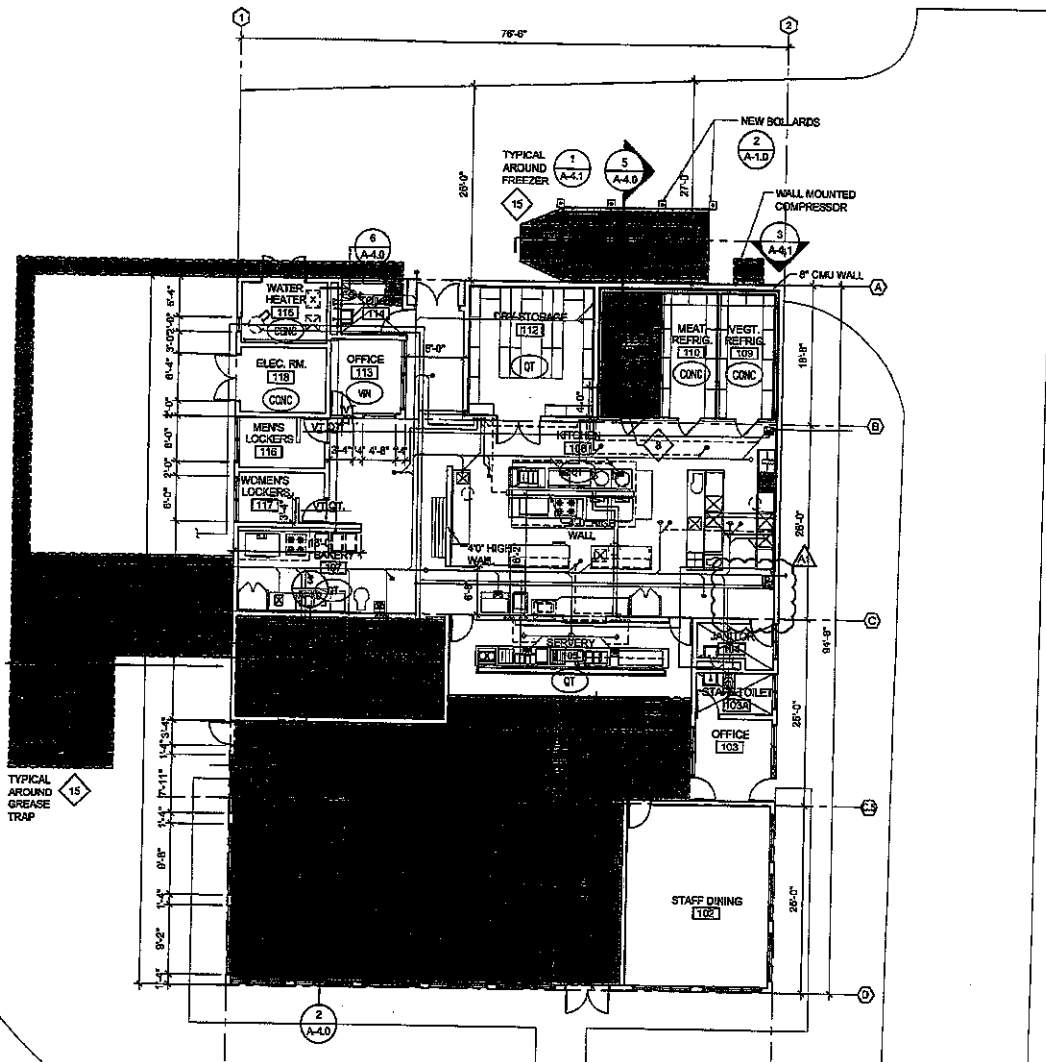
DRAWN BY: FWA  
APPROVED BY: FW  
DATE: MAY 2010

SCALE: 1" = 10'

THIS MARK WAS PREPARED BY ME OR UNDER MY SUPERVISION.



2 TYP. BOLLARD (N)  
A-1.0 SCALE: 3/4"=1'-0"



LEGEND:  
 ZONE OF WORK


1 SITE PLAN  
A-1.0 SCALE: 1/8"=1'-0"

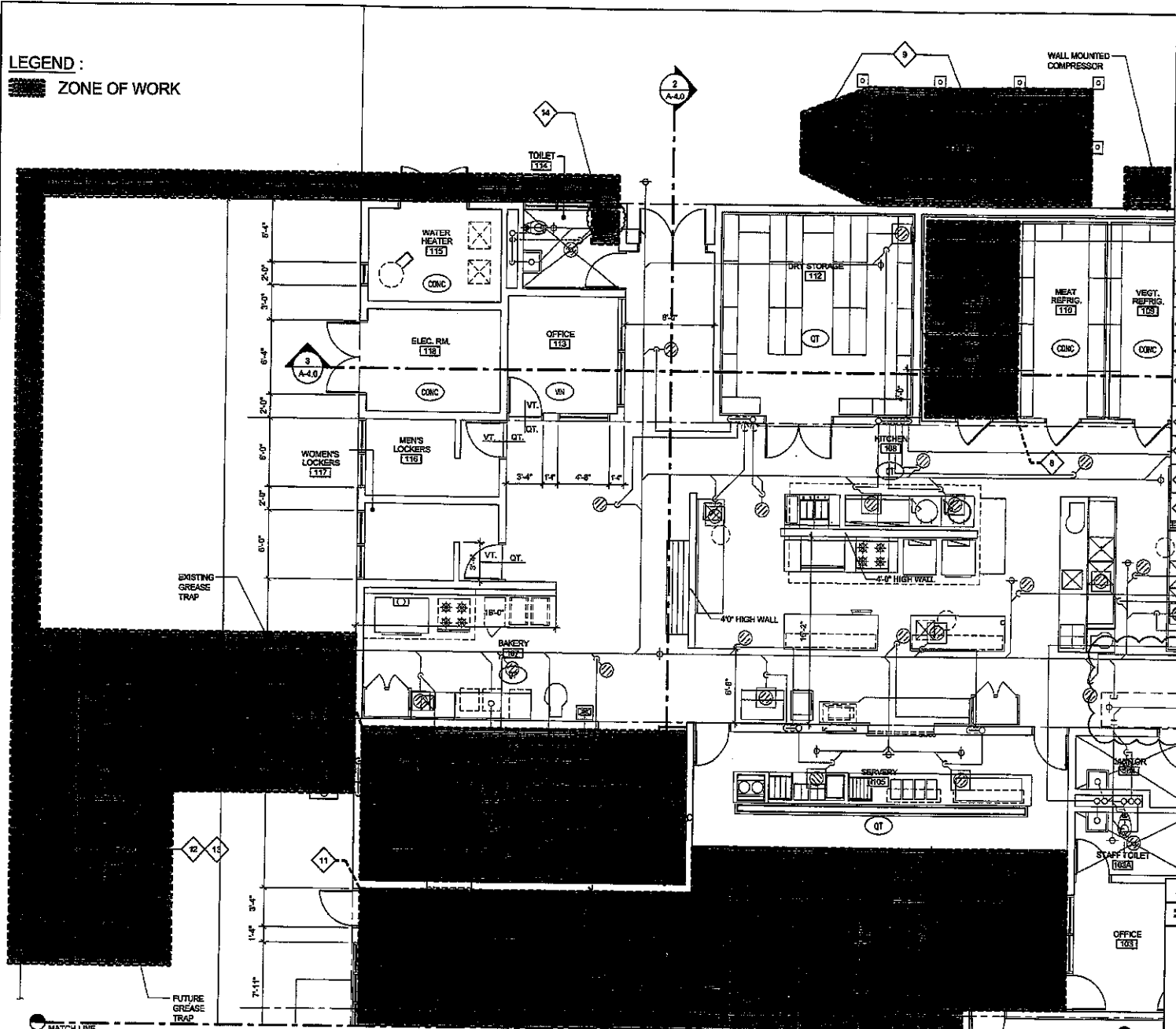
KEYNOTE LEGEND

NOTE #	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER; MAINTAIN EXISTING STRUCTURAL SLAB	13 (D-1.2)
2	REMOVE EXISTING LEAN TO SHED / MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR	11,12 (D-1.2)
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING FUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS	1 (D-1.1)
3A	CONTRACTOR TO TEST / REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERS. STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB	5-18 (D-1.1)
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED	1-4 (D-1.1)
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	1 (M-1.1)
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER, INSULATION AND CONCRETE TOPPING; SEAL ENTIRE FLOOR WITH EPOXY FROM FLOOR FINISH. RE-ENERGIZE FREEZER & TEST	8 (S-1.0)
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL, & ELECTRICAL DRAWINGS)	7 (M-4.0) (S-1.0)
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT ETC. QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS)	1 (M-1.7)
11	PROVIDE EPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER FLR. & OVER SELF LEVELING COMPOUND ON INMATE DINING STRUC. CONC. SLAB AS NEEDED TO MAKE TARGET ELEVATIONS.	SPEC (S-5.0)
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS	1 (M-1.7)
13	(NOT USED)	1 (M-1.7)
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	1 (M-1.7) (S-1.0)
15	RECOMPACT SUB BASE CONDITIONS TO 95% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC BEARING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII, SEPTEMBER 1984; SEE GENERAL NOTES ON A-1.0. RESTORE LANDSCAPED AREAS WHEN DISTURBED.	1 (M-1.7) (S-1.0)

REVISED PRINT

ADD-1	△	REDUCED SCOPE OF WORK	3 of 10	DATE	
APPROVED BY	DATE	DESCRIPTION	BY	DATE	APPROVED
					PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> KITCHEN IMPROVEMENTS					
SITE PLAN					
FRANKLIN WONG & ASSOCIATES		DATE: PROJECT 10	DRAWING NO.		
DESIGNED BY: FW	CHECKED BY: FW	12-27-2023	A-1.0		
DRAWN BY: FWA	APPROVED BY: FW	DATE: 8	PAGE		
DATE: MAY 2010	OF 22		SHEET		

**LEGEND :**  
 **ZONE OF WORK**



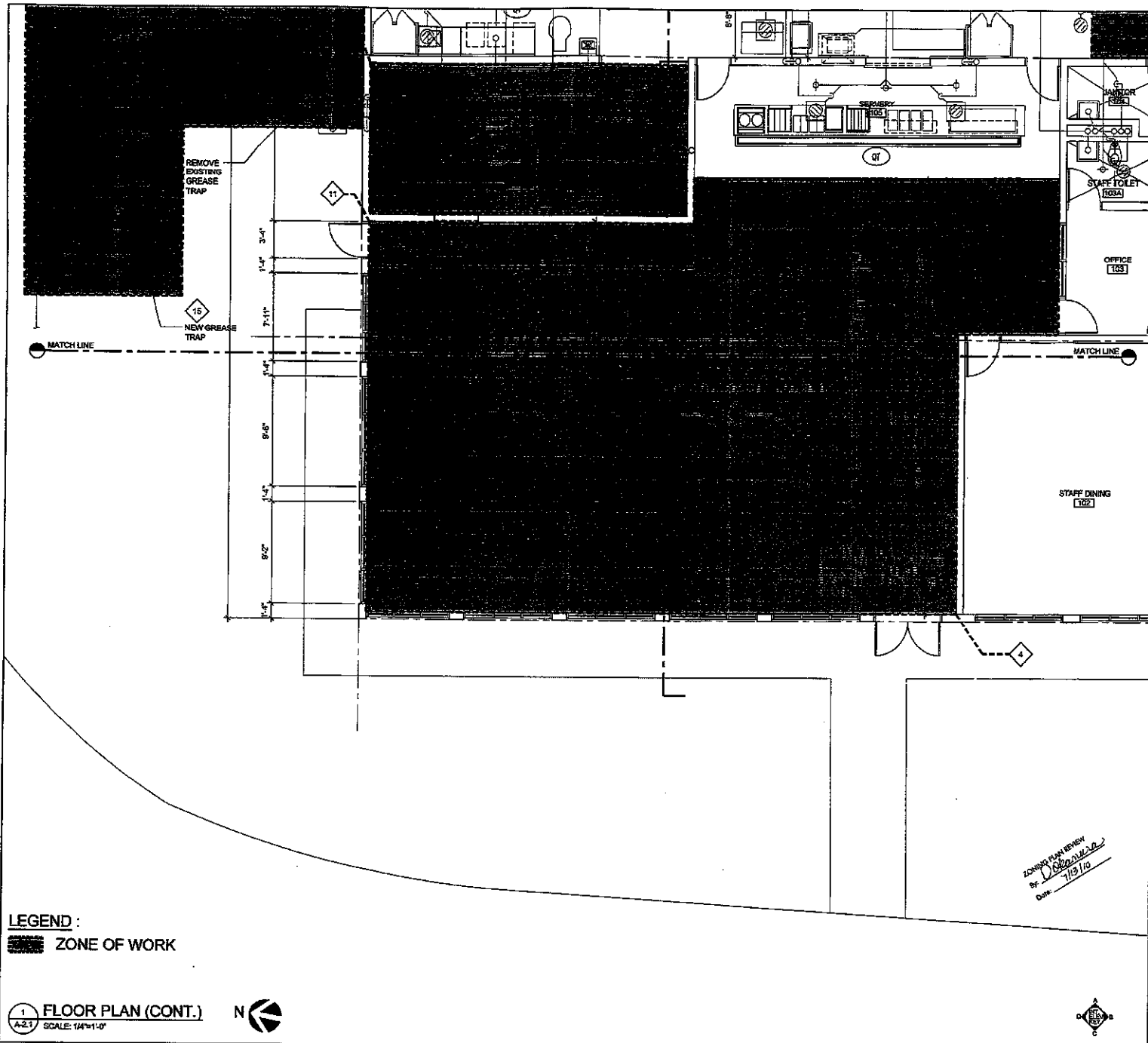
**KEYNOTE LEGEND**

NOTE #	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER. MAINTAIN EXISTING STRUCTURAL SLAB.	13 A-1.5
2	REMOVE EXISTING LEAN TO SHED MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR	11,12 D-1.2
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS.	1 D-1.1
3A	CONTRACTOR TO TEST, REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERS. STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB	5-15 D-1.1
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED	1,2 D-1.1
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	1 M-1.1
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER INSULATION AND CONCRETE TOPPING; SEAL ENTIRE FLOOR WITH EPOXY PCM FLOOR FINISH. DE-ENERGIZE FREEZER & TEST	SM M-1.0
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS)	7 A-1.0 K-1.0
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT ETC. QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS)	1 M-1.1
11	PROVIDE EPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER FLR. & OVER SELF LEVELING COMPOUND ON INMATE DINING STRUC. CONC. SLAB AS NEEDED TO MAKE TANGENT EL EVATIONS.	SP-2 S-5.0
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS	1 M-1.1
13	(NOT USED)	1 M-1.1
14	REVISE PLUMBING, REPAIR CONCRETE SLABS, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	1 M-1.1 S-1.0

**REVISED PRINT**

ADD-1	REDUCED SCOPE OF WORK	4 of 12	513
DATE	REVISION	APPROVED	
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>			
FLOOR PLAN			
FRANKLIN WONG & ASSOCIATES		DATE PROJECT NO.	DRAWING NO.
DESIGNED BY FW	CHECKED BY FW	12-27-5625	A-2.0
DRAWN BY FWA	APPROVED BY FW	SHEET	SHEET 7
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.		DATE	MAY 2010
SCALE:		OF	29

**1 FLOOR PLAN**  
 A-2.0 SCALE: 1/4"=1'-0" 



**KEYNOTE LEGEND**

NOTE #	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER. MAINTAIN EXISTING STRUCTURAL SLAB.	(1) D-1.2
2	REMOVE EXISTING LEAN TO SHED MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR.	(1,12) D-1.2
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS.	(1) D-1.1
3A	CONTRACTOR TO TEST / REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERS. STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE.	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB.	(5-8) D-1.1
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED.	(1-4) D-1.1
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	(1) M-1.1
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER INSULATION AND CONCRETE TOPPING; SEAL ENTIRE FLOOR WITH EPOXY PCM FLOOR FINISH. RE-ENERGIZE FREEZER & TEST.	(SBA) M-1.0
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS)	(7) ALL (4-8) (1-10)
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT ETC. QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS)	(1) M-1.1
11	PROVIDE SPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER F.L.R. & OVER SELF LEVELING COMPOUND ON INMATE DINING STAIRS. CONG. SLABS AS NEEDED TO MATCH TARGET ELEVATIONS.	(SPEC) (SBA) (1) M-1.1
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS	(1) M-1.1
13	(NOT USED)	(1) M-1.1
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	(1) W-1.1 (1) S-1.0
15	RECOMPACT SUB BASE CONDITIONS TO 95% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC SIGNING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII, SEPTEMBER 1984; SEE GENERAL NOTES ON A-1.0; RESTORE LANDSCAPED AREAS WHEN DISTURBED.	-

**LEGEND :**  
 ZONE OF WORK

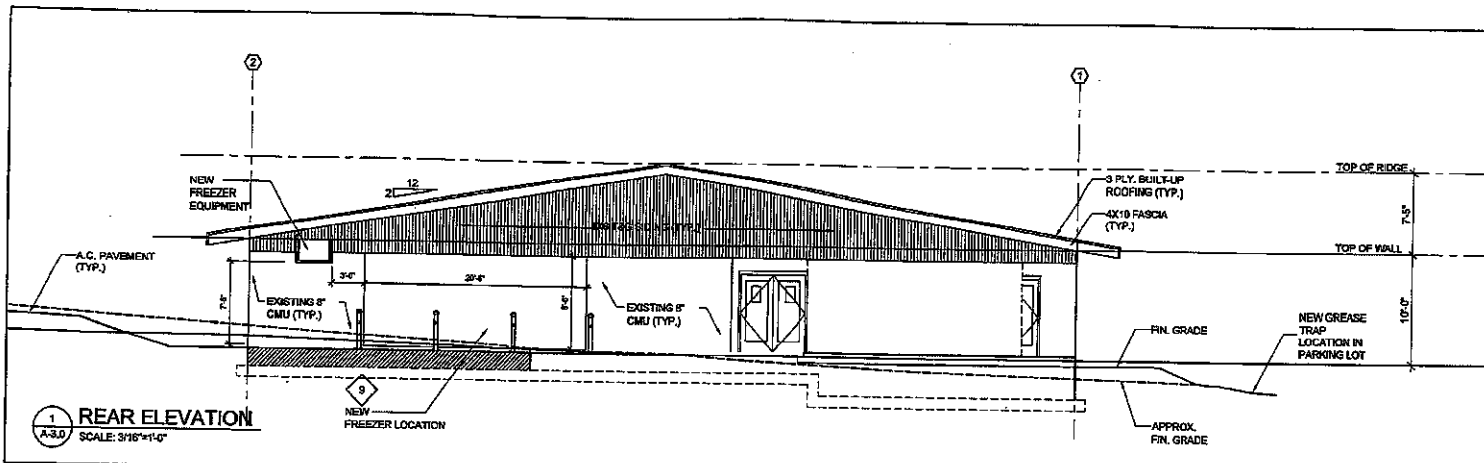
1 FLOOR PLAN (CONT.)  
 A-2.1 SCALE: 1/4"=1'-0"



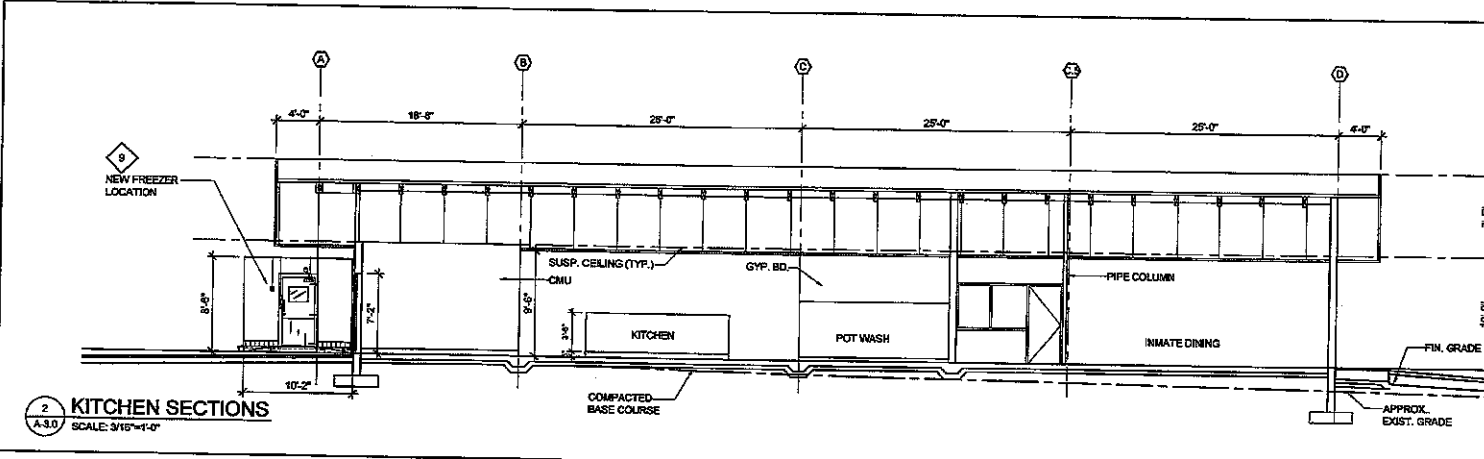
ZONING PLAN REVIEW  
 By: *[Signature]*  
 Date: 1/19/10

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED
PUBLIC WORKS ADMINISTRATOR					
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>					
FLOOR PLAN (CONT.)					
FRANKLIN WONG & ASSOCIATES 40382012		DATE PREPARED 12-27-2023		ISSUE NO. A-2.1	
DESIGNED BY FWA	CHECKED BY FW	DATE MAY 2010	SHEET NO. 8	OF 29	
THIS DRAWING WAS PREPARED BY ME OR UNDER MY SUPERVISION.					
FILE _____ DRAWER _____ FOLDER _____					

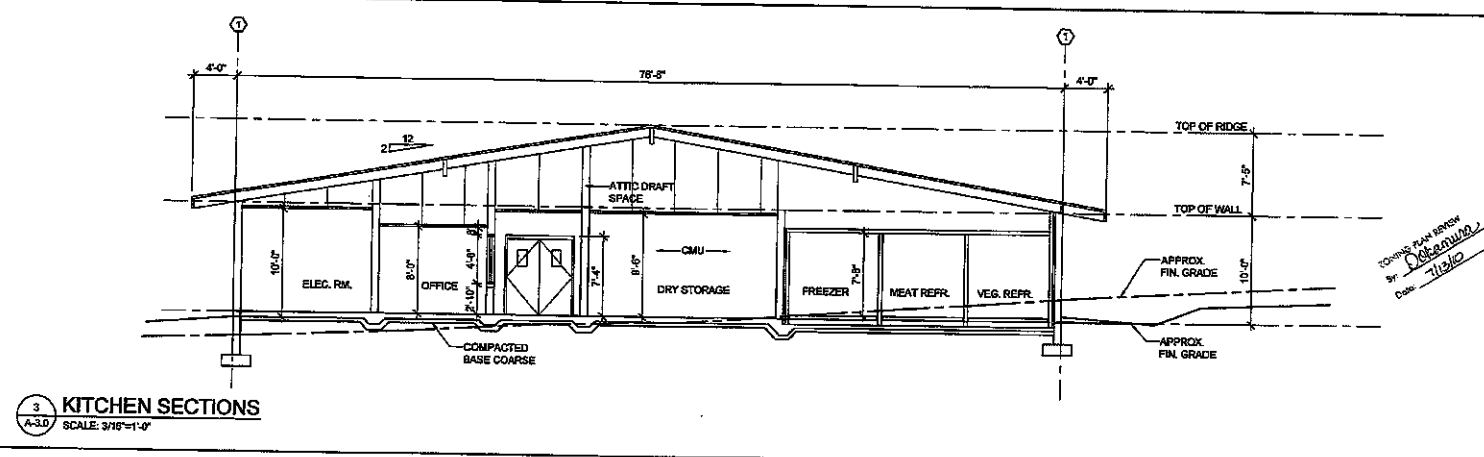




1 REAR ELEVATION  
A-3.0 SCALE: 3/16"=1'-0"



2 KITCHEN SECTIONS  
A-3.0 SCALE: 3/16"=1'-0"



3 KITCHEN SECTIONS  
A-3.0 SCALE: 3/16"=1'-0"

KEYNOTE LEGEND		
NOTE #	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER. MAINTAIN EXISTING STRUCTURAL SLAB.	10 D-1.2
2	REMOVE EXISTING LEAN TO SHED / MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR.	11,12 D-1.2
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS.	1 D-1.1
3A	CONTRACTOR TO TEST/TREASURE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERTOPS, STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE.	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB.	5,16 D-1.1
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED.	1,2 D-1.1
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	1 M-1.1
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER INSULATION AND CONCRETE TOPPING, SEAL ENTIRE FLOOR WITH EPOXY PCM FLOOR FINISH, RE-ENERGIZE FREEZER & TEST.	SM C-1.0
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS)	7 A-4.0 C-1.0
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT ETC, QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS)	1 M-1.1
11	PROVIDE EPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER FLR & OVER SELF LEVELING COMPOUND ON INMATE DINING STYLIC CONC. SLABS AS NEEDED TO MEET TARGET ELEVATIONS	SPES C-3.5A
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS	1 M-1.1
13	(NOT USED)	-
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	1 M-1.1 A-1.0
15	RECOMPACT SUB BASE CONDITIONS TO 85% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC BEARING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII, SEPTEMBER 1984; SEE GENERAL NOTES ON A-1.0. RESTORE LANDSCAPED AREAS WHEN DISTURBED.	-

CONTRACTOR REVIEW  
By: *D. Williams*  
Date: 7/18/10

REVISION NO.	DATE	DESCRIPTION	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

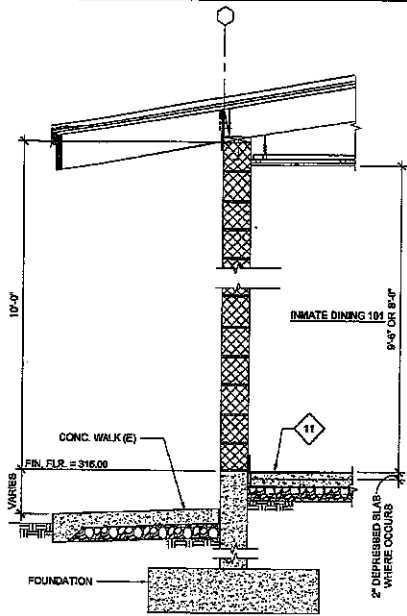
**WAIWA CORRECTIONAL FACILITY  
KITCHEN IMPROVEMENTS**

ELEVATION, SECTIONS

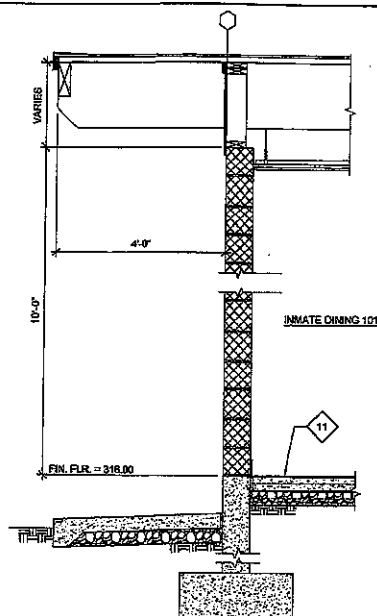
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DESIGNED BY FW	APPROVED BY FW	DATE MAY 2010	SHEET NO. 3

THIS DRAWING WAS PREPARED BY ME OR UNDER MY SUPERVISION

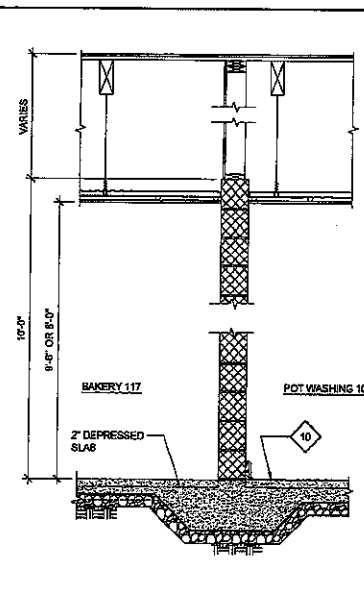
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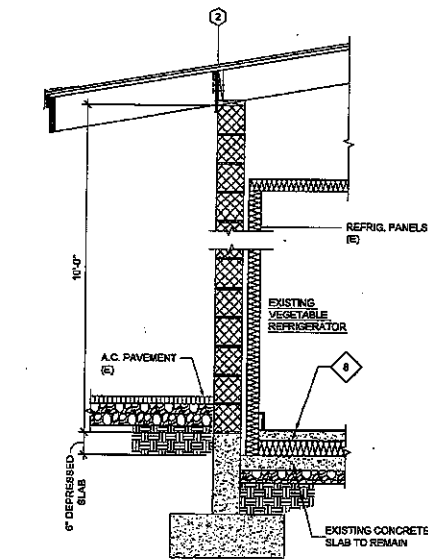
1 WALL SECTION (E)  
SCALE: 3/4"=1'-0"



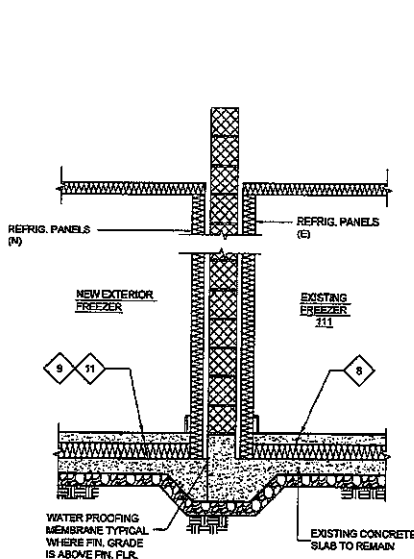
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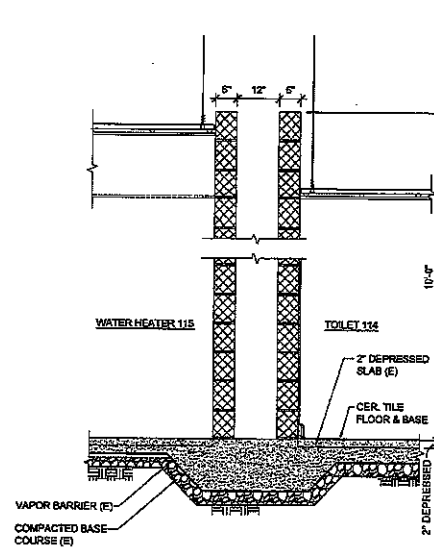
3 WALL SECTION (E)  
SCALE: 3/4"=1'-0"



4 WALL SECTION (E)  
SCALE: 3/4"=1'-0"



5 WALL SECTION (E)  
SCALE: 3/4"=1'-0"



6 WALL SECTION (E)  
SCALE: 3/4"=1'-0"

KEYNOTE LEGEND

NOTE #	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER. MAINTAIN EXISTING STRUCTURAL SLAB.	(13) P-1,2
2	REMOVE EXISTING LEAN TO SHED7 MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR.	(11,12) P-1,2
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS.	(D-11)
3A	CONTRACTOR TO TEST / REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERS, STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE	(-)
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL, TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB.	(5-16) D-1,1
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED D-1,1	(1,4) D-1,1
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	(1) M-7,7
7	NOT USED	(-)
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER INSULATION AND CONCRETE TOPPING; SEAL ENTIRE FLOOR WITH EPOXY PCM FLOOR FINISH. RE-ENERGIZE FREEZER & TEST.	(11) S-8
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS)	(7) ALL A-4.0 (E-10)
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT EPO. QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS)	(1) M-1,1
11	PROVIDE EPOXY POLYURETHANE MODIFIED CEMENT ON NEW FREEZER FLR. & OVER SELF LEVELING COMPOUND ON INMATE DINING STRUC. CONC. SLAB AS NEEDED TO MAKE TARGET FLUNCTIONS.	SPEC 335.4
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS	(1) M-1,1
13	(NOT USED)	(1) M-1,1
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	(1) M-1,1 (E-10)
15	RECOMPACT SUB BASE CONDITIONS TO 95% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC BEARING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS' PROJECTS IN THE STATE OF HAWAII, SEPTEMBER 1994; SEE GENERAL NOTES ON A-1,0, RESTORE LANDSCAPED AREAS WHEN DISTURBED.	(-)

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

WAIAWA CORRECTIONAL FACILITY  
KITCHEN IMPROVEMENTS

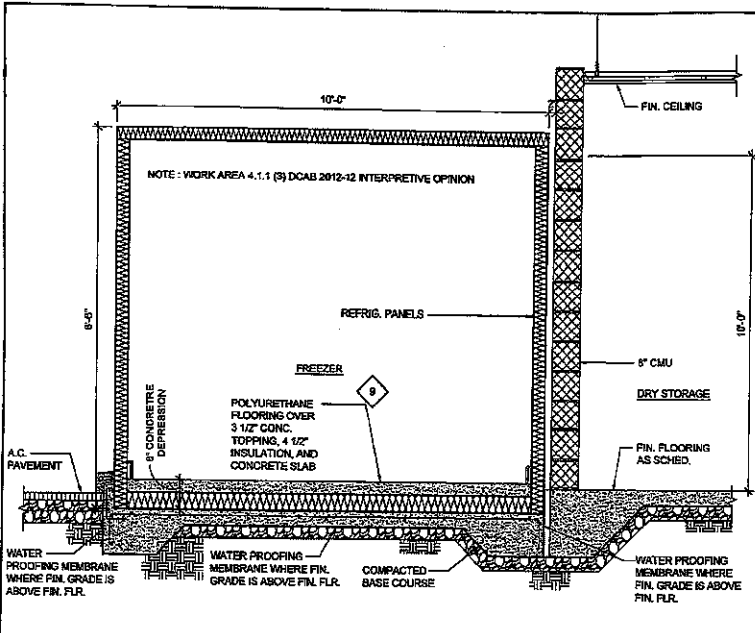
SECTIONS  
FRANKLIN WONG & ASSOCIATES

DESIGNED BY: FW  
DRAWN BY: FW  
CHECKED BY: FW

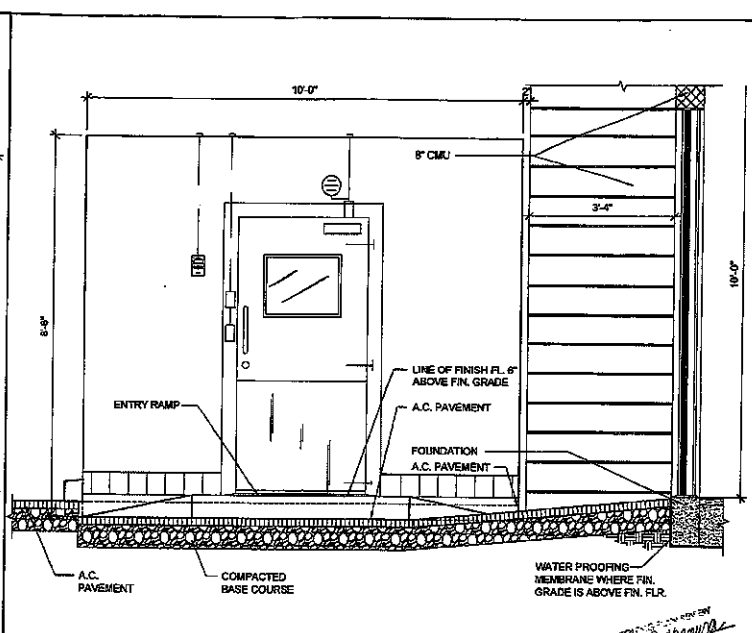
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DATE: MAY 2010  
SHEET NO.: 10

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

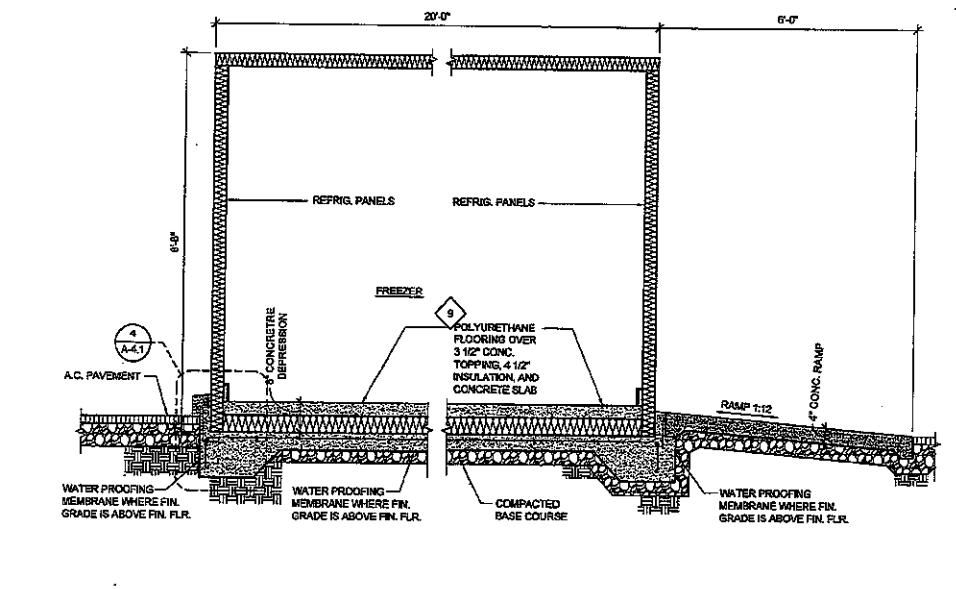
FILE DRAWER FOLDER



**1 FREEZER TRANSVERSE SECTION**  
 SCALE: 3/4"=1'-0"



**2 FREEZER FRONT ELEVATION**  
 SCALE: 3/4"=1'-0"

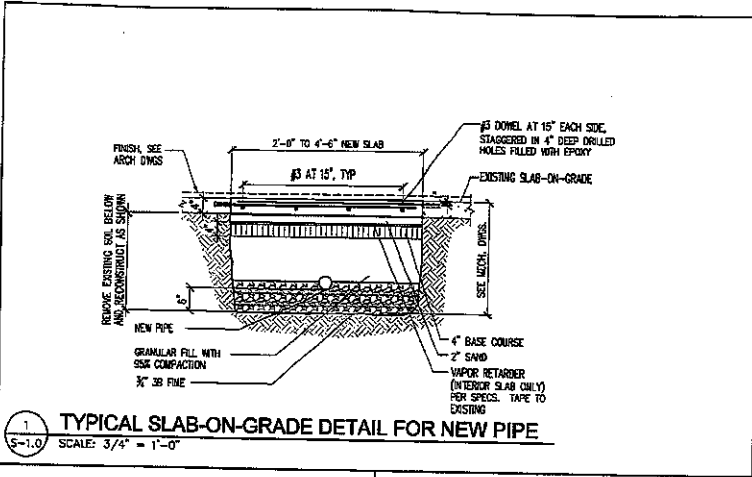


**3 FREEZER LONGITUDINAL SECTION**  
 SCALE: 3/4"=1'-0"

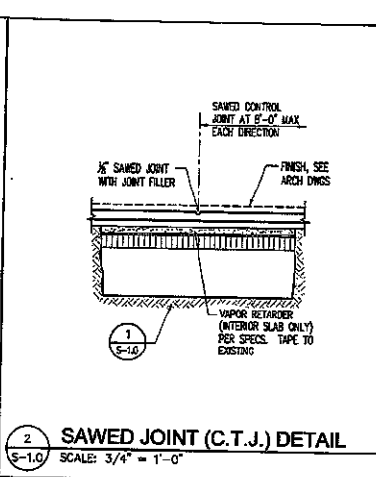
KEYNOTE LEGEND		
NOTE	REMARKS	DETAIL REF.
1	DE-ENERGIZE FREEZER AND DEMOLISH EXISTING 4" THICK DAMAGED INSULATION, CONCRETE FLOOR TOPPING, AND ENTRY THRESHOLD IN FREEZER; MAINTAIN EXISTING STRUCTURAL SLAB.	13 D-12
2	REMOVE EXISTING LEAN TO SHED / MISCELLANEOUS FURNITURE ITEMS, AND PREPARE DESIGNATED AREA FOR FUTURE MODULAR EXTERIOR FREEZER AND REFRIGERATOR.	11,12 D-12
3	DEMOLISH SECTION OF QUARRY TILE FLOORING IN POT WASHING AREA THAT IS LIFTING DUE TO WATER INFILTRATION AND REVISE FLOOR DRAINS AS INDICATED. SEE PLUMBING DRAWINGS.	1 D-11
3A	CONTRACTOR TO TEST / REMOVE EXISTING PLUMBING, KITCHEN EQUIPMENT, FURNISHINGS & STAINLESS STEEL COUNTERTOPS, STORE IN CONTAINER UNTIL INSTALLATION OF NEW FLOORS IS COMPLETE.	-
4	DEMOLISH EXISTING CONCRETE TOPPING, VINYL TILE, & PORTION OF QUARRY TILE FLOOR IN DINING ROOM DOWN TO CONCRETE FOUNDATION SLAB.	5-23 D-11
5	REMOVE PORTIONS OF CONCRETE FLOOR SLABS AND WALLS TO ACCOMMODATE NEW SEGREGATED SEWER LINES @ AREAS INDICATED.	1-4 D-11
6	MODIFY PORTION OF PARKING LOT FOR FUTURE GREASE TRAP (SEE PLUMBING DRAWINGS)	1 M-1.1
7	NOT USED	-
8	DOUBLE INSULATED SLAB REPAIR - CONSTRUCT NEW REPAIR SECTION OF FREEZER INSULATION AND CONCRETE TOPPING; SEAL ENTIRE FLOOR WITH EPOXY PCM FLOOR FINISH, RE-ENERGIZE FREEZER & TEST.	SHM E-10
9	PROVIDE NEW EXTERIOR MODULAR FREEZER, CONCRETE FOUNDATION SLAB, AND RAMP (SEE KITCHEN, STRUCTURAL, MECHANICAL & ELECTRICAL DRAWINGS).	7 ALL A-4.1, M-1.1
10	REPLACE EXISTING FLOOR DRAINS AND FIELD OF FLOOR TILES INCLUDING MORTAR SETTING BED WITH SLIP RESISTANT ETC, QUARRY TILE TO MATCH EXISTING WITH SLIP RESISTANT (SEE PLUMBING DRAWINGS)	1 M-1.1
11	PROVIDE EPOXY POLYURETHANE MODIFIED COMPOUND ON NEW FREEZER FLR. & OVER SELF LEVELING COMPOUND ON INMATE DINING STRUC. CONC. SLAB AS NEEDED TO MAKE TARGET ELEVATIONS.	SPEL SS-9
12	REMOVE EXISTING GREASE TRAP AND PROVIDE NEW GREASE TRAP / RELATED WASTE LINES AS INDICATED ON THE PLUMBING DRAWINGS.	1 M-1.1
13	(NOT USED)	1 M-1.1
14	REVISE PLUMBING, REPAIR CONCRETE SLAB, AND PROVIDE FINISHES TO MATCH ADJACENT SURFACES.	1 M-1.1, S-7.0
15	RECOMPACT SUB BASE CONDITIONS TO 95% COMPACTION AND REPAIR ASPHALT PAVING / CONCRETE SLABS TO COMPLY WITH TRAFFIC BEARING PAVEMENT OR SIDEWALK STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII SEPTEMBER 1984; SEE GENERAL NOTES ON A-1.0; RESTORE LANDSCAPED AREAS WHEN DISTURBED.	-

DATE: 12/27/2012  
 BY: [Signature]  
 DATE: [Signature]

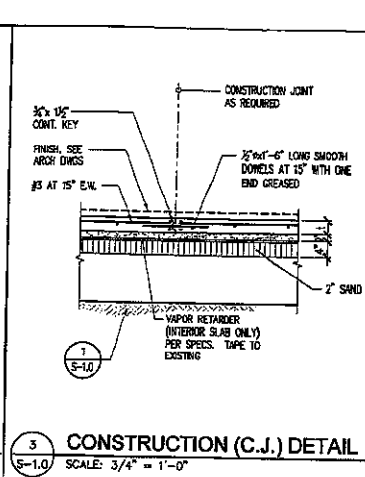
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					PUBLIC WORKS ADMINISTRATOR
<b>WAIAWA CORRECTIONAL FACILITY</b> KITCHEN IMPROVEMENTS					
SECTIONS					
FRAMING & ASSOCIATES		DATE PREPARED BY	DATE	DRAWING NO.	
DESIGNED BY: FW	CHECKED BY: FW	12-27-5623		A-4.1	
DRAWN BY: FWA	APPROVED BY: FW	DATE		SHEET	
		MAY 2010		11	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.					



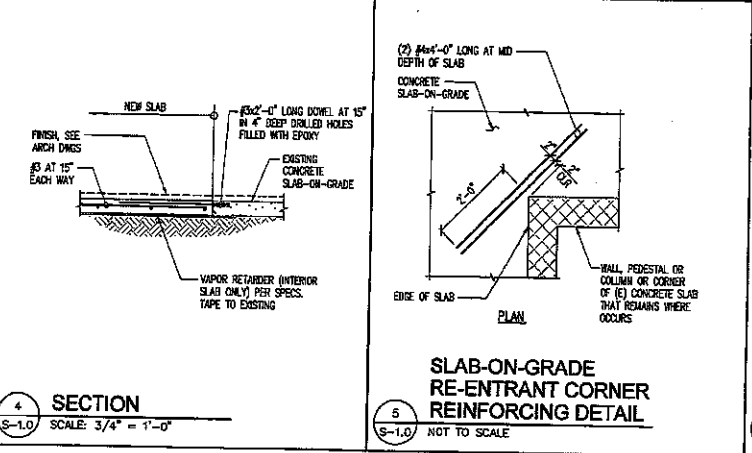
1 TYPICAL SLAB-ON-GRADE DETAIL FOR NEW PIPE  
SCALE: 3/4" = 1'-0"



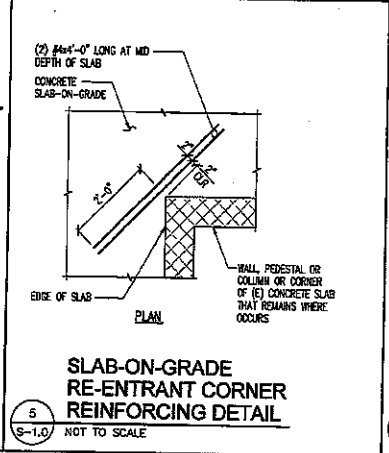
2 SAWED JOINT (C.T.J.) DETAIL  
SCALE: 3/4" = 1'-0"



3 CONSTRUCTION (C.J.) DETAIL  
SCALE: 3/4" = 1'-0"



4 SECTION  
SCALE: 3/4" = 1'-0"



5 EPOXY GROUT DETAIL  
SCALE: 3/4" = 1'-0"

MIN DEPTH OF HOLE (SEE SCHEDULE)

MIN DIA. OF HOLE (SEE SCHED.)

BAR SIZE	DRILL BIT DIAMETER	MINIMUM DEPTH
#3	3/8"	3/2"
#4	1/2"	4/2"
#5	5/8"	6"
#6	3/4"	10"
#7	1"	13"
#8	1 1/4"	16"

6 EPOXY GROUT DETAIL  
SCALE: 3/4" = 1'-0"

**GENERAL NOTES:**

- ALL WORK SHALL CONFORM TO IBC 2003.
- THE CONTRACTOR SHALL VERIFY LOCATIONS, ELEVATIONS, AND PIPE SIZES WITH MECHANICAL DWGS AND ALL DIMENSIONS AND CONDITIONS PRIOR TO START OF THE JOB AND NOTIFY ALL DISCREPANCIES TO THE OFFICER-IN-CHARGE.
- FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND THEY SHALL APPLY GENERALLY THROUGHOUT FOR SIMILAR CONDITIONS. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
- TEMPORARY CONSTRUCTION LOADS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE TEMPORARY ERECTION BRACING AND SHORING FOR ALL STRUCTURAL MEMBERS AS REQUIRED FOR STRUCTURAL STABILITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING STRUCTURES AT HIS EXPENSE.
- MODIFICATION TO DRAWINGS: THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS MUST SUBMIT IN WRITING ANY REQUEST FOR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS THAT ARE SUBMITTED TO THE DESIGN PROFESSIONAL FOR HIS REVIEW DO NOT CONSTITUTE IN WRITING. IN ANY EVENT, CHANGES TO THE PLAN AND SPECIFICATIONS BY MEANS OF SHOP DRAWINGS BECOME THE RESPONSIBILITY OF THE PERSON INITIATING SUCH CHANGES.

**CONCRETE:**

- ALL WORK SHALL CONFORM TO ACI 318-2002.
- VERIFY LOCATIONS AND DIMENSIONS OF SLOTS, ANCHORS, DUCTS, ETC., RELATING TO MECHANICAL, ELECTRICAL AND ARCHITECTURAL WORK BEFORE POURING CONCRETE.
- ALL INSERTS, ANCHOR BOLTS, PLATES ETC. EMBEDDED IN CONCRETE SHALL BE HOT-DIPPED GALVANIZED UNLESS NOTED OTHERWISE.
- ALL CONCRETE SHALL HAVE THE FOLLOWING 28 DAY COMPRESSIVE STRENGTHS WITH MAXIMUM AGGREGATE OF 3/4" AND MAX. SLUMP OF 4 1/2".

SLAB ON GRADE	4000 PSI
PRECAST GREASE INTERCEPTOR	4000 PSI
AND SAMPLE BOX	3000 PSI
ALL OTHERS	3000 PSI

- EPOXY SHALL BE USED FOR ALL DRILLED AND GROUTED REINFORCING BARS OR BOLTS. SUBMIT MANUFACTURER'S LITERATURE TO OFFICER-IN-CHARGE FOR APPROVAL.
- SAWED JOINT SHALL BE INDICATED AS SHOWN ON PLAN BUT SHALL NOT BE FARTHER APART THAN 8'-0".

**REINFORCING STEEL:**

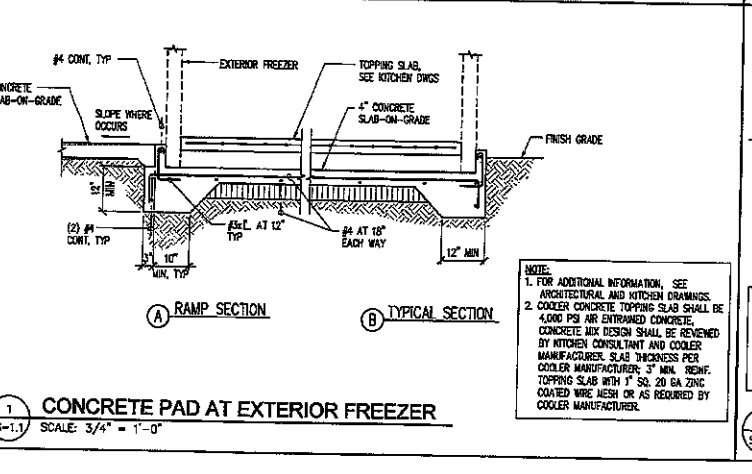
- ALL REINFORCING STEEL SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60 EXCEPT TIES AND STIRRUPS WHICH SHALL BE INTERMEDIATE GRADE DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 40.
- CONCRETE COVERAGE FOR REINFORCING BARS SHALL BE AS FOLLOWS EXCEPT WHERE NOTED:

CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 AND LARGER	3"
#5 AND SMALLER	1.5"
TIES AND STIRRUPS	1.5"
SLABS AND WALLS	3/4"

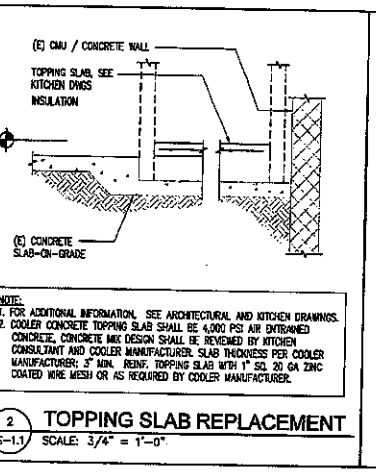
- SPICES SHALL BE STAGGERED WHERE POSSIBLE.
- BAR LAPS, SPICES, EMBEDMENTS AND EXTENSIONS SHALL BE 40 BAR DIAMETERS BUT NOT LESS THAN 24 INCHES.
- WELDED WIRE FABRIC SHALL BE MADE OF COLD DRAWN WIRE AND SHALL CONFORM TO ASTM-105, GALVANIZED.
- BENDS NOT DIMENSIONED SHALL BE STANDARD HOOKS.
- SYNTHETIC FIBER: SHALL BE ADDED IN THE CONCRETE SLAB ON GRADE FOLLOWING THE RECOMMENDATION OF SYNTHETIC FIBER MFR. SEE SPECS.

**DRILLING AND EPOXY PROCEDURES:**

- DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID CUTTING ANY EXISTING REINFORCING STEEL BY RELUCTING HOLE SLIGHTLY.
- EPOXY GROUT: "HY-105" AS MANUFACTURED BY HILTI CORP. (CBO No. 5153) INSTALL IN ACCORDANCE W/ THE MANUFACTURER'S PRINTED INSTRUCTIONS.
- PROVIDE SUPPORT FOR DOWEL BY TYING TO REBAR OR OTHER ELEMENT UNTIL GROUT HAS CURED.
- SPECIAL INSPECTION IS NOT REQUIRED FOR DOWELS IN CONCRETE SLAB-ON-GRADE BUT SPECIAL INSPECTION IS REQUIRED AT ALL OTHER LOCATIONS (WALLS ETC.)



1 CONCRETE PAD AT EXTERIOR FREEZER  
SCALE: 3/4" = 1'-0"



2 TOPPING SLAB REPLACEMENT  
SCALE: 3/4" = 1'-0"

**GENERAL NOTES:**

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- FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND THEY SHALL APPLY GENERALLY THROUGHOUT FOR SIMILAR CONDITIONS. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
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- MODIFICATION TO DRAWINGS: THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS MUST SUBMIT IN WRITING ANY REQUEST FOR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS THAT ARE SUBMITTED TO THE DESIGN PROFESSIONAL FOR HIS REVIEW DO NOT CONSTITUTE IN WRITING. IN ANY EVENT, CHANGES TO THE PLAN AND SPECIFICATIONS BY MEANS OF SHOP DRAWINGS BECOME THE RESPONSIBILITY OF THE PERSON INITIATING SUCH CHANGES.

**CONCRETE:**

- ALL WORK SHALL CONFORM TO ACI 318-2002.
- VERIFY LOCATIONS AND DIMENSIONS OF SLOTS, ANCHORS, DUCTS, ETC., RELATING TO MECHANICAL, ELECTRICAL AND ARCHITECTURAL WORK BEFORE POURING CONCRETE.
- ALL INSERTS, ANCHOR BOLTS, PLATES ETC. EMBEDDED IN CONCRETE SHALL BE HOT-DIPPED GALVANIZED UNLESS NOTED OTHERWISE.
- ALL CONCRETE SHALL HAVE THE FOLLOWING 28 DAY COMPRESSIVE STRENGTHS WITH MAXIMUM AGGREGATE OF 3/4" AND MAX. SLUMP OF 4 1/2".

SLAB ON GRADE	4000 PSI
PRECAST GREASE INTERCEPTOR	4000 PSI
AND SAMPLE BOX	3000 PSI
ALL OTHERS	3000 PSI

- EPOXY SHALL BE USED FOR ALL DRILLED AND GROUTED REINFORCING BARS OR BOLTS. SUBMIT MANUFACTURER'S LITERATURE TO OFFICER-IN-CHARGE FOR APPROVAL.
- SAWED JOINT SHALL BE INDICATED AS SHOWN ON PLAN BUT SHALL NOT BE FARTHER APART THAN 8'-0".

**REINFORCING STEEL:**

- ALL REINFORCING STEEL SHALL BE HIGH STRENGTH DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60 EXCEPT TIES AND STIRRUPS WHICH SHALL BE INTERMEDIATE GRADE DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 40.
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CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 AND LARGER	3"
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SLABS AND WALLS	3/4"

- SPICES SHALL BE STAGGERED WHERE POSSIBLE.
- BAR LAPS, SPICES, EMBEDMENTS AND EXTENSIONS SHALL BE 40 BAR DIAMETERS BUT NOT LESS THAN 24 INCHES.
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- PROVIDE SUPPORT FOR DOWEL BY TYING TO REBAR OR OTHER ELEMENT UNTIL GROUT HAS CURED.
- SPECIAL INSPECTION IS NOT REQUIRED FOR DOWELS IN CONCRETE SLAB-ON-GRADE BUT SPECIAL INSPECTION IS REQUIRED AT ALL OTHER LOCATIONS (WALLS ETC.)

DESIGN NO.	DATE	APPROVED
		PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES		
DIVISION OF PUBLIC WORKS		
STATE OF HAWAII		
<b>WAI'ANA CORRECTIONAL FACILITY</b>		
<b>KITCHEN IMPROVEMENTS</b>		
GENERAL NOTES AND TYPICAL DETAILS		
FRANKLIN WONG & ASSOCIATES	DATE PREPARED	REVISION
DESIGNED BY: BSA	CHECKED BY: CA	12-27-5823
DRAWN BY: JT	DATE	12
SCALE	AS NOTED	MAY 2010
FILE NO.	OWNER	PROJECT

FOR OFFICIAL USE ONLY - D-157

**1 CONCRETE PAD AT EXTERIOR FREEZER**  
SCALE: 3/4" = 1'-0"

**A RAMP SECTION**      **B TYPICAL SECTION**

**NOTE:**  
1. FOR ADDITIONAL INFORMATION, SEE ARCHITECTURAL AND KITCHEN DRAWINGS.  
2. COOLER CONCRETE TOPPING SLAB SHALL BE 4,000 PSI AIR ENTRAINED CONCRETE. CONCRETE MIX DESIGN SHALL BE REVIEWED BY KITCHEN CONSULTANT AND COOLER MANUFACTURER. SLAB THICKNESS PER COOLER MANUFACTURER. 3" MIN. REINF. TOPPING SLAB WITH 1" SQ. 20 GA ZINC COATED WIRE MESH OR AS REQUIRED BY COOLER MANUFACTURER.

**2 TOPPING SLAB REPLACEMENT**  
SCALE: 3/4" = 1'-0"

**NOTE:**  
1. FOR ADDITIONAL INFORMATION, SEE ARCHITECTURAL AND KITCHEN DRAWINGS.  
2. COOLER CONCRETE TOPPING SLAB SHALL BE 4,000 PSI AIR ENTRAINED CONCRETE. CONCRETE MIX DESIGN SHALL BE REVIEWED BY KITCHEN CONSULTANT AND COOLER MANUFACTURER. SLAB THICKNESS PER COOLER MANUFACTURER. 3" MIN. REINF. TOPPING SLAB WITH 1" SQ. 20 GA ZINC COATED WIRE MESH OR AS REQUIRED BY COOLER MANUFACTURER.

**3 SECTION AT TROUGH DRAIN**  
SCALE: 3/4" = 1'-0"

**NOTE:**  
SEE ARCH DWGS AND PLUMBING DWGS FOR BALANCE OF INFORMATION

P:\Projects\2016\2016-06-01-10-00-00\2016-06-01-10-00-00\2016-06-01-10-00-00.dwg (12/27/2016 10:00:00 AM) (12/27/2016 10:00:00 AM)

SECTION NO.	REV.	DESCRIPTION	BY	DATE	APPROVED
					PUBLIC WORKS ADMINISTRATOR

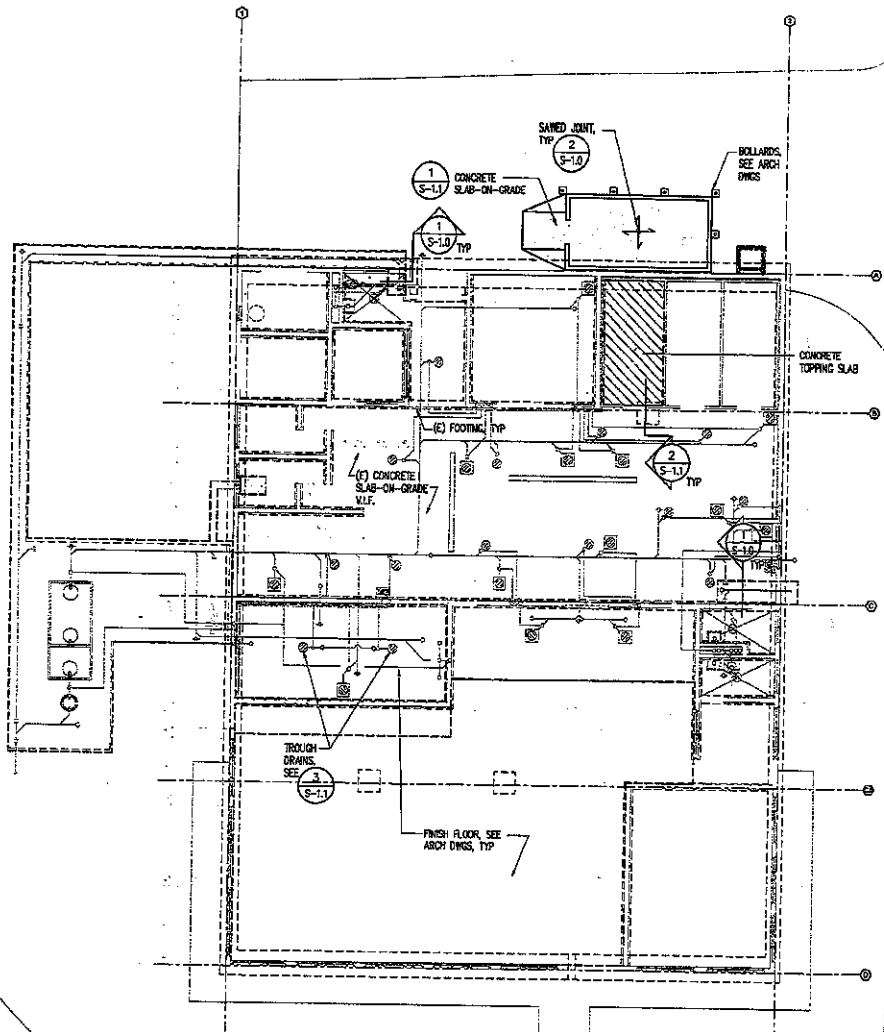
**DEPT. OF ACCOUNTING & GENERAL SERVICES**  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

**WAIIAWA CORRECTIONAL FACILITY**  
**KITCHEN IMPROVEMENTS**

SECTIONS AND DETAILS

<b>FRANKLIN WORKS &amp; ASSOCIATES</b>		DATE: PROJECT NO.	<b>S-1.1</b>
APPROVED BY: <i>Brian Muehlenberg</i>	CHECKED BY: LA	DATE: 12-27-2022	DATE: 13
DESIGNED BY: JT	APPROVED BY: RA	DATE: MAY 2016	BY: 29
REVISION DATE OF THE SOURCE (S/2022) THIS WORK WAS PROVIDED BY ME OR UNDER MY SUPERVISION NONE AS NOTED			

P.L.S. OWNER      FOLDER



- NOTES:**
1. GENERAL NOTES AND TYPICAL DETAILS, SEE SHEET S-101.
  2. CONCRETE SLAB-ON-GRADE SHALL MATCH THICKNESS OF EXISTING CONCRETE SLAB-ON-GRADE, U.O.
  3. PROVIDE RE-ENTRANT CORNER BARS, TYP. SEE TYPICAL DETAILS.
  4. TRENCH LOCATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE NOT SHOWN TO SCALE AND DO NOT INDICATE ALL TRENCHES REQUIRED. ACTUAL LENGTH AND QUANTITY OF TRENCHES SHALL BE DETERMINED FROM THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND FIELD VERIFICATION.
  5. VERIFY IN FIELD EXISTING PLUMBING LINES, EXTEND AND/OR WIDEN TRENCHES AS REQUIRED FOR CONNECTIONS.
  6. DEPTH OF TRENCHES VARIES, SEE MECHANICAL, ELECTRICAL DRAWINGS, AND FIELD VERIFICATION.
  7. AT LOCATIONS WHERE PLUMBING GOES FROM INSIDE TO OUTSIDE OF THE BUILDING, PLUMBING SHALL BE EITHER GO UNDER THE EXISTING FOOTING OR THRU THE EXISTING FOOTING IN CORES NO MORE THAN 1" LARGER THAN THE PIPE. VERIFY IN FIELD ALL EXISTING CONDITIONS. BOTTOM OF CORE SHALL BE 6" MIN ABOVE BOTTOM OF FOOTING.
  8. SAW CUT CONTRACTION JOINTS AT 8'-0" MAX AND AT ALL "L" AND "T" INTERSECTIONS, SEE DETAIL 2/S-1.0.
  9. SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR MODIFICATIONS TO (E) FLOOR DRAINS, FLOOR TRENCHES, FLOOR TRENCHES, AND FLOOR SINKS, TYP.
  10. SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR DEMOLITION DRAWINGS AND FOR PHASING.
  11. SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR BID ALTERNATES.

- LEGEND:**
- REMOVE (E) CONCRETE SLAB-ON-GRADE AND REPLACE WITH CONCRETE SLAB-ON-GRADE TO MATCH (E) CONCRETE SLAB-ON-GRADE THICKNESS 4" MIN. REINF. WITH #5 AT 15" EACH WAY, TYP.
  - INSULATED CONCRETE TOPPING SLAB OVER CONCRETE SLAB-ON-GRADE. REMOVE (E) CONCRETE SLAB-ON-GRADE AND PROVIDE NEW SLAB LOWER AS REQUIRED. 4" MIN. REINF. WITH #5 AT 15" EACH WAY, TYP.
  - INSULATED CONCRETE TOPPING SLAB.
  - EXTERIOR TRENCHING - REMOVE (E) EXISTING CONCRETE SLAB, WHERE OCCURS AND REPLACE WITH SAME THICKNESS SLAB AND FINISH TEXTURE TO MATCH ADJACENT (E) SLAB. AT CONCRETE PAVING, PROVIDE PAVING AND CURBS PER STANDARD DETAILS FOR PUBLIC WORKS PROJECTS IN THE STATE OF HAWAII AND REDCOMPACTED SUB-BASE PER ARCHITECTURAL DRAWINGS.

CONCRETE PLAN REVIEW  
by *D. Williams*  
Date: 7/13/10

**FOUNDATION PLAN**  
SCALE: 1/8" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED
					PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY</b> <b>KITCHEN IMPROVEMENTS</b>					
FOUNDATION PLAN					
FRANKLIN WONG & ASSOCIATES			SCALE PROJECT NO.	DRAWN BY	
DESIGNED BY ENR	CHECKED BY KJM		12-27-06223	S-2.0	
DRAWN BY JT	APPROVED BY KJ		DATE	SHEET	
			MAY 2010	14	
NOTE: AS NOTED					
FILE: DRAWING: FOLDER:					

### MECHANICAL GENERAL NOTES:

- THE EXISTING CONDITIONS SHOWN ON THE PLANS HAVE BEEN BASED UPON RECORD DRAWINGS WHICH ARE LIMITED IN ACCURACY. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY AND COORDINATE WITH THE ENGINEER FOR ANY MAJOR DEVIATIONS OR DISCREPANCIES DISCOVERED IN THE PLANS AND SPECIFICATIONS DUE TO UNFORESEEN OR VARYING FIELD CONDITIONS.
- THE ENTIRE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE BUILDING CODE OF THE COUNTY OF HONOLULU, STATE DEPARTMENT OF HEALTH REGULATIONS, THE CURRENT VERSION OF THE UNIFORM PLUMBING CODE, UNIFORM FIRE CODE, NATIONAL ELECTRIC SAFETY CODE, ASME BOILER & PRESSURE VESSEL CODE, ASME PRESSURE PIPING CODE, HAWAII BUILDING ENERGY CONSERVATION CODE AND ALL OTHER AGENCIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIAL AND EQUIPMENT INCLUDING CUTTING AND PATCHING AS REQUIRED FOR COMPLETE AND OPERATING SYSTEMS. "PROVIDE" SHALL MEAN TO PROVIDE ALL NECESSARY AND SPECIFIED MATERIALS AND INSTALL A COMPLETE WORKING INSTALLATION AS REFERENCED ON CONSTRUCTION DRAWINGS.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER THE COMPLETE INSTALLATION OF SYSTEMS TO FUNCTION AS DESCRIBED AND SPECIFIED. THE OMISSION OF REFERENCE TO ANY NECESSARY ITEM OF LABOR OR MATERIAL SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH LABOR AND MATERIAL.
- DRAWINGS DO NOT ATTEMPT TO SHOW EXACT DETAILS OF PIPING, AND EXISTING CONDITIONS. PROVIDE OFFSETS AS NECESSARY TO AVOID EXISTING OBSTRUCTIONS OR INTERFERENCE WITH OTHER TRADES. THE CONTRACTOR SHALL REVIEW ALL PIPING RUNS PRIOR TO FABRICATION AND SHALL NOTIFY THE ENGINEER OF ANY INTERFERENCE AND/OR LACK OF ADEQUATE CLEARANCES IMMEDIATELY.
- SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, THE CONTRACTOR SHALL MARK SUCH CHANGES ON RECORD DRAWINGS. IF THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE APPROVED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE PROPOSED ALTERNATE METHODS TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED.
- PRIOR TO INSTALLATION PROVIDE SHOP DRAWINGS FOR THE LAYOUT OF EQUIPMENT AND PIPING SHOWING COORDINATION OF ALL WORK WITH ALL OTHER TRADES, INCLUDING PLUMBING, FIRE SPRINKLER, AND FIRE ALARM CONTROLS SYSTEMS. SUBMIT COORDINATION DRAWINGS FOR REVIEW PRIOR TO INSTALLATION TO ENSURE ADEQUATE ACCESS TO THE SPACES AND TO ALL SERVICEABLE ITEMS. COORDINATION DRAWINGS SHALL OVERLAY HVAC, PLUMBING, FIRE SPRINKLER, ELECTRICAL, AND FIRE ALARM SYSTEMS AND ALL CONFLICTS BETWEEN TRADES SHALL BE NOTED AND RESOLVED.
- PATCH AND PAINT ALL EXPOSED MATERIALS INCLUDING PIPING TO MATCH ADJACENT SURFACES OR AS INDICATED.
- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER BEFORE MAKING ANY PENETRATIONS THROUGH STRUCTURAL MEMBERS, WALLS, AND SLABS.
- ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR PARTITIONS SHALL BE PROPERLY FIRE STOPPED WITH AN UL APPROVED SYSTEM APPROPRIATE FOR PENETRATION TYPE. ALL PENETRATIONS THROUGH WATER PROOF WALLS, FLOORS OR PARTITIONS SHALL BE PROPERLY SEALED WITH AN APPROVED SYSTEM APPROPRIATE FOR PENETRATION TYPE TO PREVENT MOISTURE PENETRATION.
- PROVIDE ACCESS PANELS TO ALL CONCEALED VALVES, AND EQUIPMENT. PANELS SHALL BE W/DOOR OR EQUAL. CONTRACTOR SHALL COORDINATE THE LOCATION OF ACCESS PANELS TO INSURE THAT THE EQUIPMENT CAN BE MAINTAINED ADEQUATELY.
- ALL EQUIPMENT SHALL BE CAPABLE OF FITTING INTO THE SPACES ALLOCATED. THE CONTRACTOR SHALL REVIEW ALL SPACES WHERE EQUIPMENT IS TO BE INSTALLED PRIOR TO ORDERING OF EQUIPMENT AND SHALL NOTIFY THE ENGINEER OF ANY INADEQUATE CLEARANCES OR CONDITIONS THAT WILL PREVENT THE PROPER INSTALLATION AND OPERATION OF THE EQUIPMENT.
- THE GREASE INTERCEPTOR SHALL BE INSTALLED SUCH THAT IT IS EASILY ACCESSIBLE FOR INSPECTION, CLEANING AND THE REMOVAL OF F.O.G. AND SOLID MATERIAL PER THE CURRENT CITY AND COUNTY OF HONOLULU RULES AND REGULATIONS.
- THE GREASE INTERCEPTOR SHALL BE INSTALLED SUCH THAT ALL SANITARY TEES ARE ACCESSIBLE FOR INSPECTION AND MAINTENANCE.

LEGEND		
SYMBOL	ABBRV.	DESCRIPTION
--- ---	CAP	CAPPED PIPING
--- ---	CD	CONDENSATE PIPING
---	CONC	CONCRETE
---	CONN	CONNECTION
---	CONT	CONTINUATION
---	DN	DOWN
---	EA	EXHAUST AIR
---	EF	EXHAUST FAN
---	EXIST	EXISTING
⊙	FD	FLOOR DRAIN
⊙	FS	FLOOR SINK
⊙	FOC	FLOOR CLEANOUT
---	POC	POINT OF CONNECTION
---	POR	POINT OF REMOVAL
---	---	PIPE RISER UP
---	---	PIPE RISER DOWN
---	PRV	POWERED ROOF VENTILATOR
---	S	SANITARY PIPING
---	V	VENT PIPING

PLUMBING FIXTURE LEGEND	
ABBRV.	DESCRIPTION
DW	DISHWASHER
EW	ELECTRIC WATER COOLER
FOC	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
GI	GREASE INTERCEPTOR
GT	GREASE TRAP
HS	HAND SINK
LAV	LAVATORY
MS	MOP SINK
SK-1	SINGLE COMPARTMENT SINK
SK-2	TWO COMPARTMENT SINK
SK-3	THREE COMPARTMENT SINK
WC	WATER CLOSET
WCO	WALL CLEAN OUT

### GREASE INTERCEPTOR SIZING FOR GI-1

ACCORDING TO THE NEW HONOLULU GREASE INTERCEPTOR SIZING TABLE A 1500 GALLONS GREASE INTERCEPTOR IS REQUIRED FOR 85 D.F.U.

DRAINAGE FIXTURE UNIT SUMMARY FOR NEW GI-1					
FIXTURE NO.	FIXTURE TYPE	NO. OF FIXTURES	D.F.U. PER FIXTURES	TOTAL D.F.U.	REMARKS
1	HAND SINK (H/O FOOD WASTE)	2	3	6	2" TRAP
2	FLOOR DRAIN (FD)	14	0	0	EMERGENCY ONLY
3	FLOOR SINK (FS)	8	4	32	2" TRAP
4	FLOOR SINK (FS)	5	6	30	3" TRAP
5	DISHWASHER	1	2	2	2" TRAP
6	3-COMPARTMENT SINK	1	6	6	3" TRAP
7	PRE RINSE SINK	1	6	6	3" TRAP
8	SERVICE SINK	1	3	3	2" TRAP
TOTAL				85	

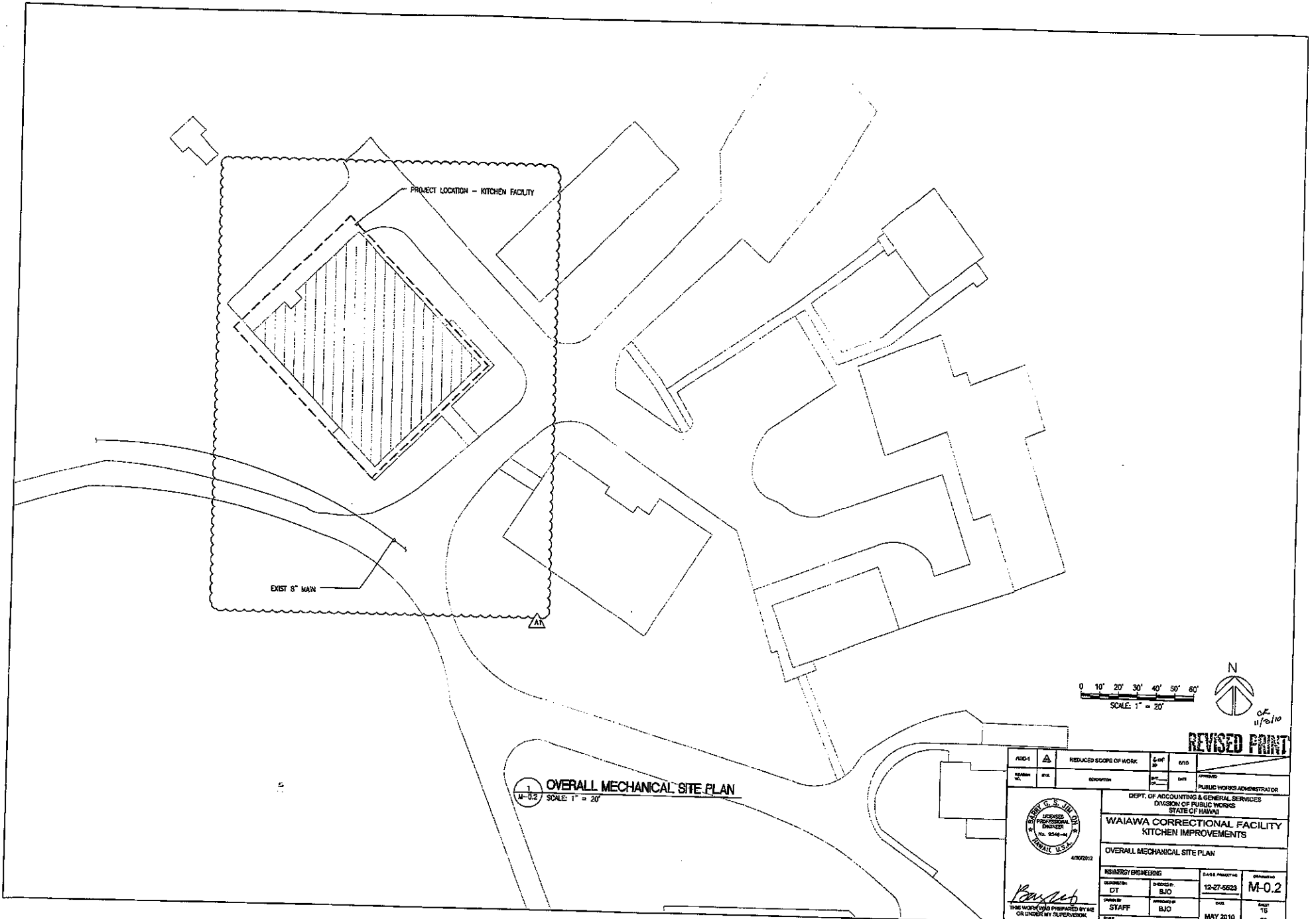
NOTE: GREASE INTERCEPTOR CAPACITY SHALL BE IN ACCORDANCE WITH THE CALCULATIONS ABOVE.

### NEW GREASE INTERCEPTOR SCHEDULE

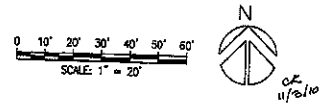
UNIT	CAPACITY (GAL.)	LOCATION	DIMENSIONS			INLET	OUTLET	MIN. EXCAVATION DIMENSION	WEIGHT	REMARK
			WIDTH	LENGTH	HEIGHT					
GI-1	1500	EXTERIOR	5'-0"	13'-5"	4'-8"	4"	4"	7'-0" x 14'-5"	TOP SLAB: 5,600 LBS TANK: 13,700 LBS	PROVIDE CONCRETE VAULTED INTERCEPTOR SUITABLE FOR H-20 LOADING AND INSTALLATION BELOW WATER TABLE. PROVIDE JENSEN PRECAST H/1500S OR APPROVED EQUAL. UPC CERTIFIED AND ACCEPTABLE TO THE CITY AND COUNTY OF HONOLULU DEPT. OF ENVIRONMENTAL SERVICES. GREASE INTERCEPTOR SHALL BE AN UP/MD APPROVED GREASE INTERCEPTOR.

REVISED PRINT

ADD-1	REVISION SCOPE OF WORK	DATE	BY
NO. 1	DESCRIPTION	DATE	BY
PUBLIC WORKS ADMINISTRATOR			
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
WAI'ANA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS			
MECHANICAL GENERAL NOTES, LEGEND, SCHEDULE AND GI CALCULATIONS			
ASTINERY ENGINEERING		DATE PLOTTED	PLOTTED BY
DESIGNED BY	DATE	12-27-2023	MA-0.1
DRIVEN BY	PROJECT	NO.	SHEET
STAFF	BLJ	015	15
SCALE		MAY 2010	OF 29



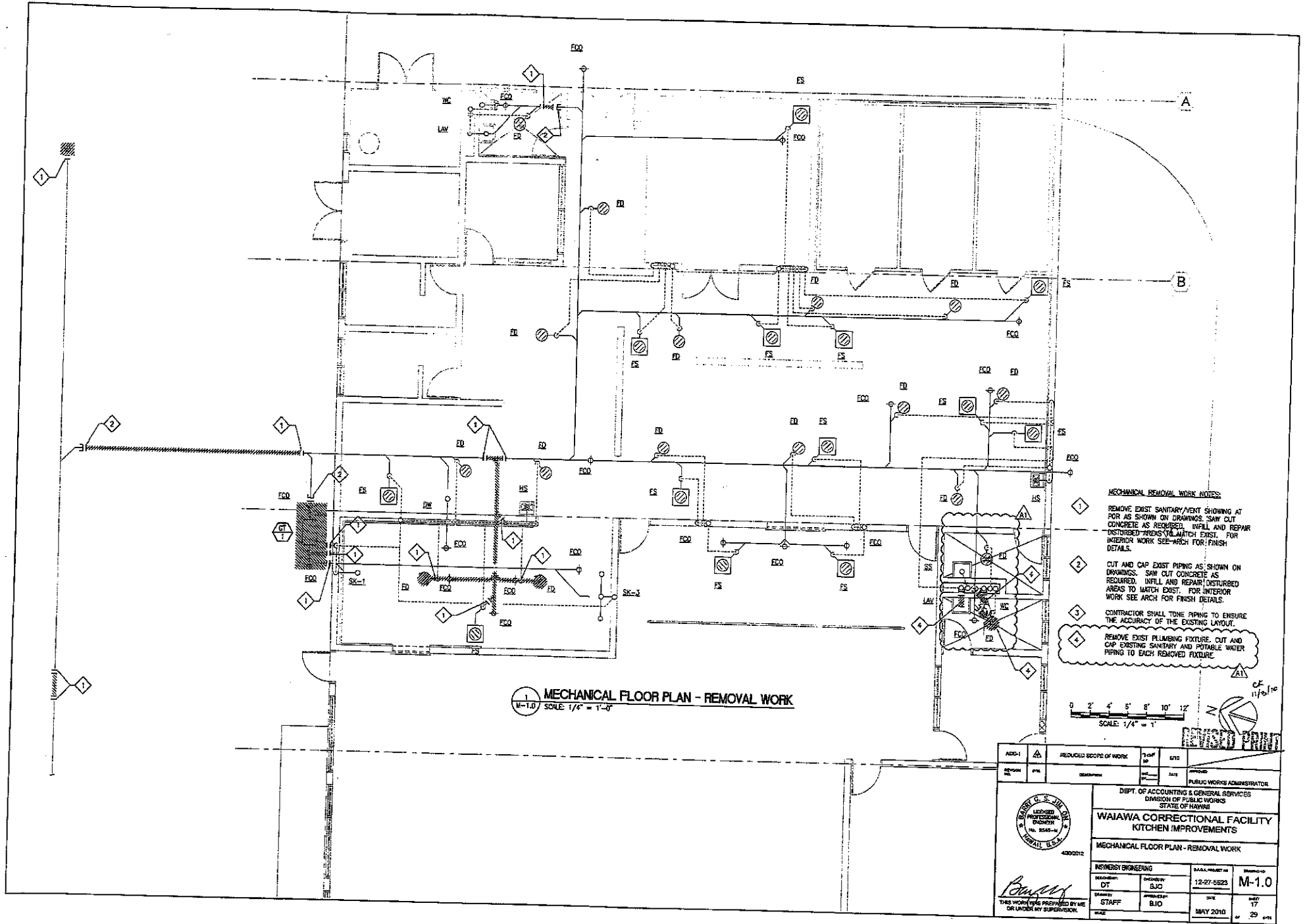
1  
M-0.2 OVERALL MECHANICAL SITE PLAN  
SCALE: 1" = 20'



ADD-1		REDUCED SCALE OF WORK		DATE	BY	APPROVED
NO.	DATE	DESCRIPTION	DATE	BY	DATE	PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII						
<b>WAIAWA CORRECTIONAL FACILITY</b> <b>KITCHEN IMPROVEMENTS</b>						
OVERALL MECHANICAL SITE PLAN						
RISENBERG ENGINEERING LICENSED PROFESSIONAL ENGINEER No. 5046-04 HAWAII, U.S.A. 43072012				DATE & PROJECT NO. 12-27-0623		
DESIGNED BY DT		DRAWN BY BJO		DATE MAY 2010		SHEET NO. M-0.2
CHECKED BY STAFF		APPROVED BY BJO		DATE MAY 2010		SHEET NO. 29
THE WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.						

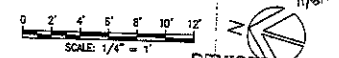
REVISED PRINT



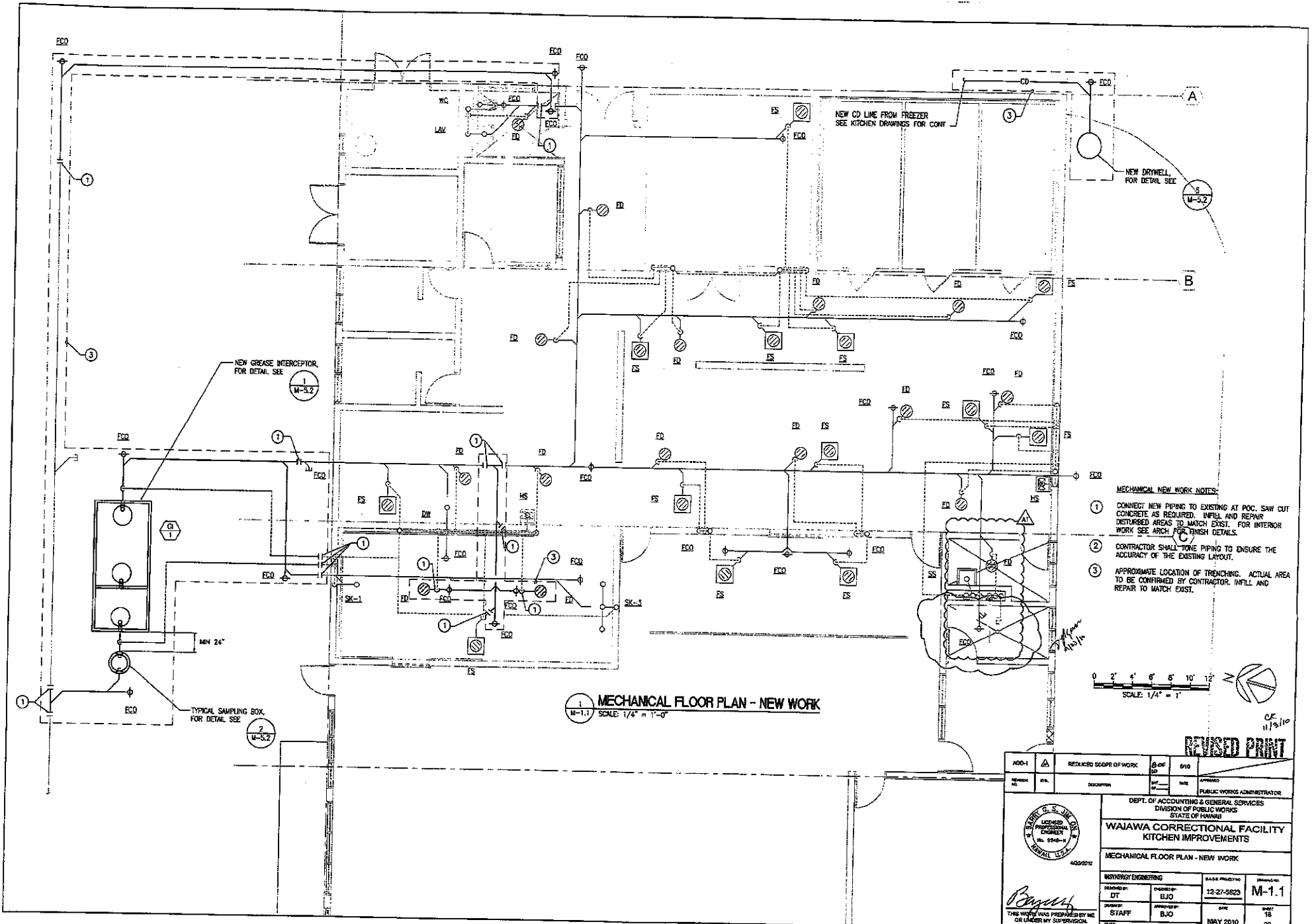


- MECHANICAL REMOVAL WORK NOTES:**
- 1 REMOVE EXIST SANITARY/VENT SHOWING AT FOR AS SHOWN ON DRAWINGS. SAW CUT CONCRETE AS REQUIRED. INFILL AND REPAIR DISTURBED AREAS TO MATCH EXIST. FOR INTERIOR WORK SEE ARCH FOR FINISH DETAILS.
  - 2 CUT AND CAP EXIST PIPING AS SHOWN ON DRAWINGS. SAW CUT CONCRETE AS REQUIRED. INFILL AND REPAIR DISTURBED AREAS TO MATCH EXIST. FOR INTERIOR WORK SEE ARCH FOR FINISH DETAILS.
  - 3 CONTRACTOR SHALL TUNE PIPING TO ENSURE THE ACCURACY OF THE EXISTING LAYOUT.
  - 4 REMOVE EXIST PLUMBING FIXTURE. CUT AND CAP EXISTING SANITARY AND POTABLE WATER PIPING TO EACH REMOVED FIXTURE.

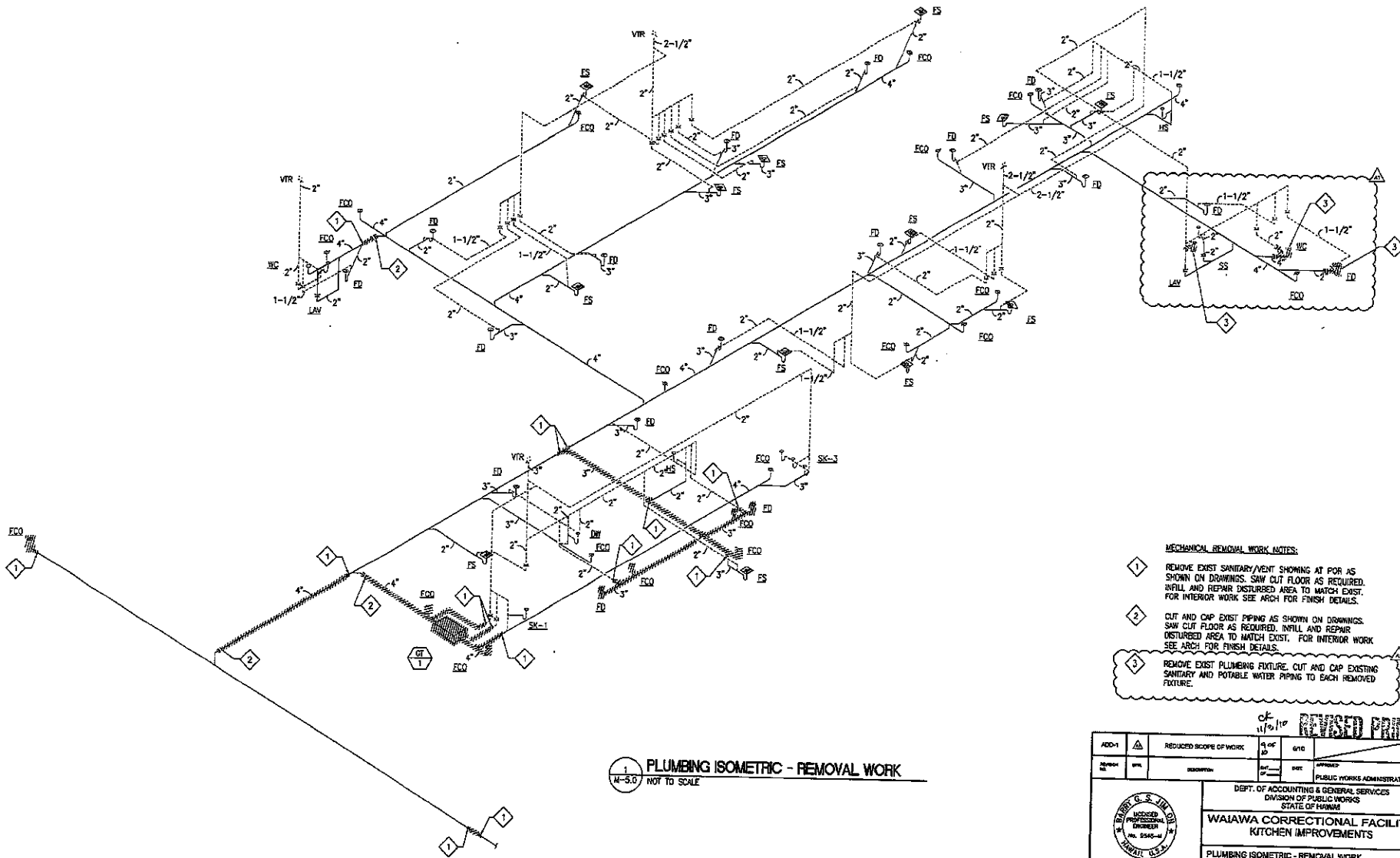
**MECHANICAL FLOOR PLAN - REMOVAL WORK**  
 SCALE: 1/4" = 1'-0"



ARCH-1	REDUCED SCOPE OF WORK	DATE	2/27/10
DESIGNER	DATE	APPROVED	DATE
			2/27/10
PUBLIC WORKS ADMINISTRATOR			
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>			
MECHANICAL FLOOR PLAN - REMOVAL WORK			
INSURERS ENGINEERING		DATE	12-27-09
DESIGNED BY	DT	DATE	12-27-09
DRAWN BY	STAFF	DATE	17
SCALE		DATE	MAY 2010
		DATE	29



ADD-1	REVISOR	DESCRIPTION	DATE	BY
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY          KITCHEN IMPROVEMENTS</b> MECHANICAL FLOOR PLAN - NEW WORK 4009212				
INVENTORY ENGINEERING DESIGNED BY: DT DRAWN BY: STAFF		CHECKED BY: EJO APPROVED BY: BJO		DATE: 12-27-2023 DATE: MAY 2010
PROJECT NO: 12-27-5623 SHEET: 18 OF: 23			DRAWING NO: M-1.1	



1 PLUMBING ISOMETRIC - REMOVAL WORK  
 NOT TO SCALE

- MECHANICAL REMOVAL WORK NOTES:**
- 1 REMOVE EXIST SANITARY/VENT SHOWING AT FOR AS SHOWN ON DRAWINGS. SAW CUT FLOOR AS REQUIRED. INFILL AND REPAIR DISTURBED AREA TO MATCH EXIST. FOR INTERIOR WORK SEE ARCH FOR FINISH DETAILS.
  - 2 CUT AND CAP EXIST PIPING AS SHOWN ON DRAWINGS. SAW CUT FLOOR AS REQUIRED. INFILL AND REPAIR DISTURBED AREA TO MATCH EXIST. FOR INTERIOR WORK SEE ARCH FOR FINISH DETAILS.
  - 3 REMOVE EXIST PLUMBING FIXTURE. CUT AND CAP EXISTING SANITARY AND POTABLE WATER PIPING TO EACH REMOVED FIXTURE.

REVISED PRINT

ADD-1	△	REDUCED SCOPE OF WORK	CLC	6/10
APPROV	DATE	ISSUED BY	DATE	APPROVED
				PUBLIC WORKS ADMINISTRATOR

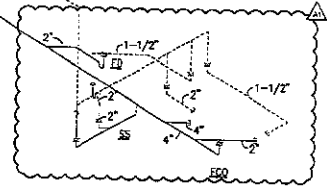
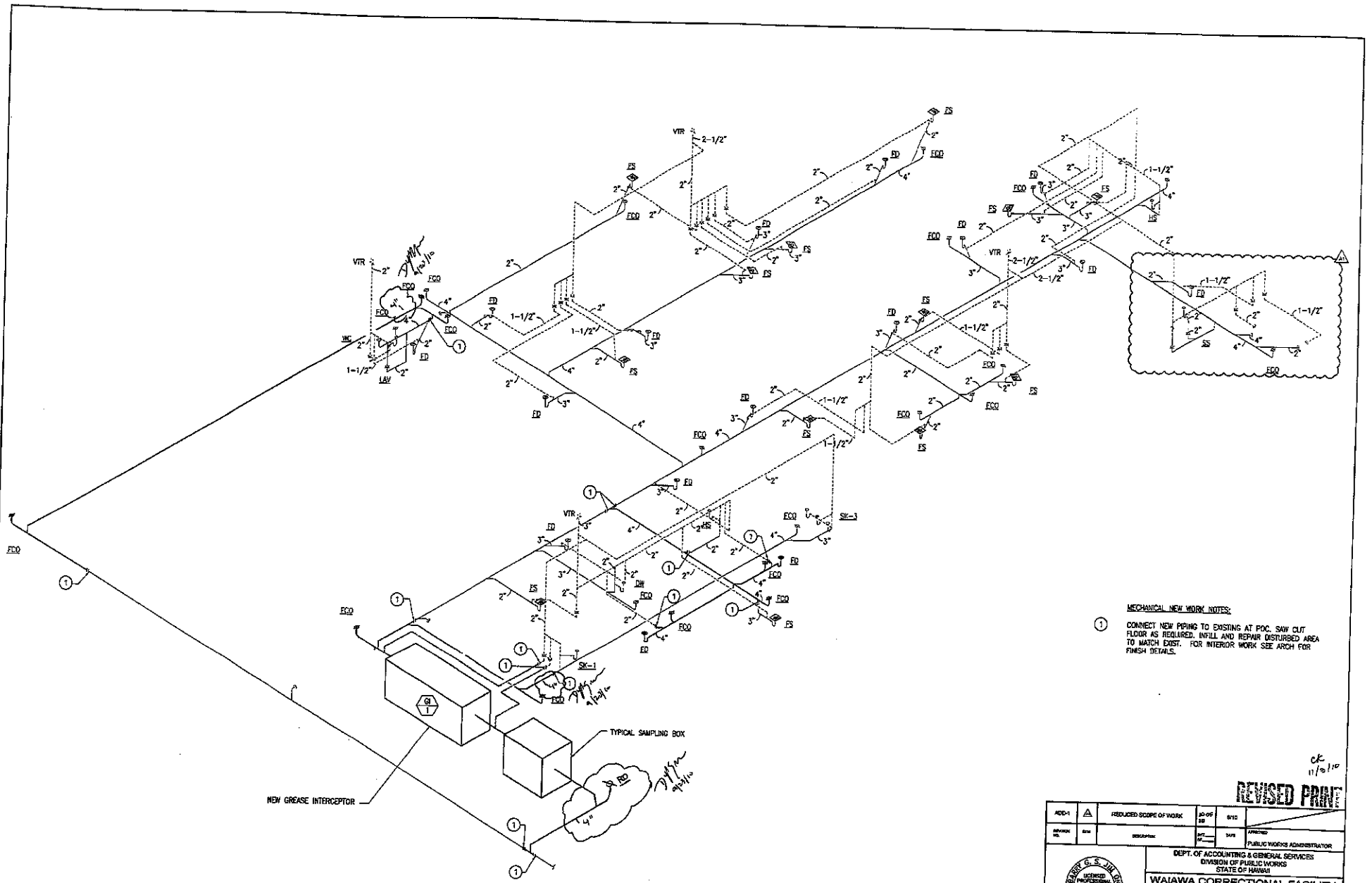
DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

**WAIAWA CORRECTIONAL FACILITY  
 KITCHEN IMPROVEMENTS**

PLUMBING ISOMETRIC - REMOVAL WORK

PROFESSIONAL ENGINEER		DATE PLOTTED TO	DRAWING NO.
DESIGNED BY DT	CHECKED BY SJO	12-27-2023	M-5.0
DRAWN BY STAFF	CHECKED BY BJD	DATE	SHEET
		MAY 2010	19
TOTAL			29

FILE DRAWER FOLDER



**MECHANICAL NEW WORK NOTES:**

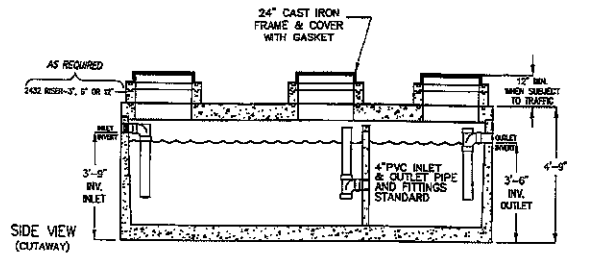
① CONNECT NEW PIPING TO EXISTING AT FOC. SAW CUT FLOOR AS REQUIRED. INFILL AND REPAIR DISTURBED AREA TO MATCH EXIST. FOR INTERIOR WORK SEE ARCH FOR FINISH DETAILS.

ck  
11/2/10

**REVISED PRINT**

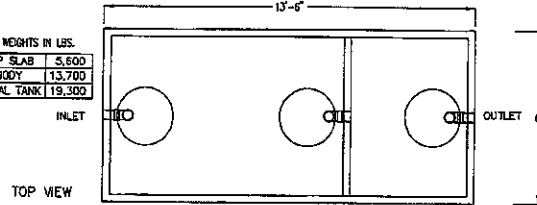
① **PLUMBING ISOMETRIC - NEW WORK**  
M-5.1 NOT TO SCALE

ADD-1	△	REDUCED SCOPE OF WORK	30 OFF	6110
REVISION	DATE	DESCRIPTION	BY	DATE
				APPROVED
PUBLIC WORKS ADMINISTRATOR				
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII				
WAIKAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS				
PLUMBING ISOMETRIC - NEW WORK				
KISTNER ENGINEERING			DATE PREPARED	DRAWING NO.
DESIGNED BY	BY	DATE	12-27-5623	M-5.1
CHECKED BY	BY	DATE		
STAFF	BY	DATE	MAY 2010	SHEET 20
SCALE				OF 25 SHEETS



HEIGHTS IN LBS.

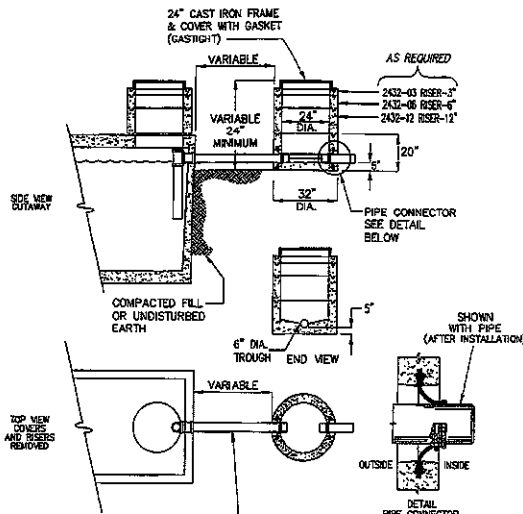
TOP SLAB	5,600
BODY	13,700
TOTAL TANK	19,300



- LIQUID CAPACITY: 1500 GALLONS.
- TANK DESIGNED FOR H-20 TRAFFIC WHEEL LOAD WITH 1' TO 6' MAX. EARTH COVER AND WATER TABLE AT ONE FOOT BELOW GRADE.
- SUITABLE NATIVE SOIL OR GRANULAR SUB-BASE SHALL BE COMPACTED AND LEVELED TO HANDLE ANTICIPATED LOADS. SEE INSTALLATION PROCEDURES SHEET FOR ADDITIONAL INFO.
- EXTERIOR AND INTERIOR CONCRETE SURFACES TO BE COATED WITH AN APPROVED BITUMINOUS MATERIAL.

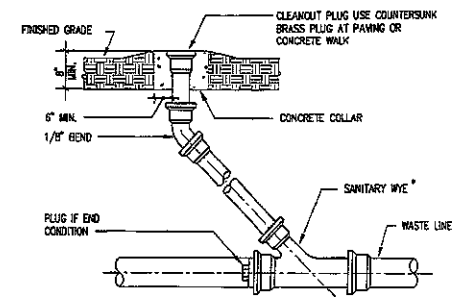
NOTE: RESTORE DISTURBED AREAS TO MATCH ADJACENT SURFACES

1 1500 GALLON GREASE INTERCEPTOR DETAIL  
M-5.2 NOT TO SCALE

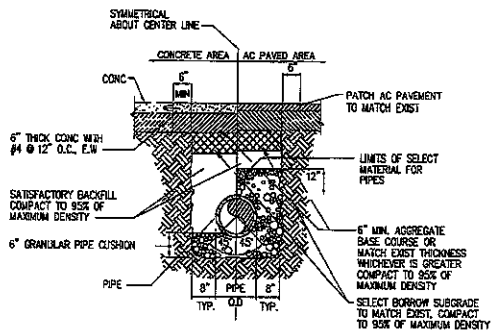


BOX WEIGHT: 1350 LBS.  
BOX DESIGN LOAD: H-20 TRAFFIC  
SAMPLE BOX MUST BE PLACED ON SUITABLE BASE OF COMPACTED SOIL OR UNDISTURBED EARTH IN TRAFFIC CONDITION.  
PLUMBING BETWEEN TANK & BOX SUPPLIED & INSTALLED BY CONTRACTOR

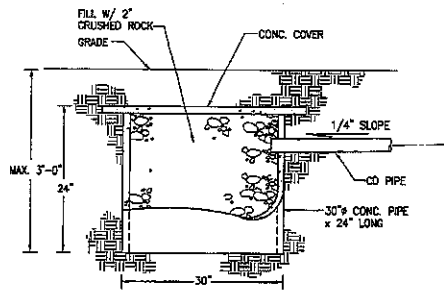
2 TYPICAL SAMPLING BOX DETAIL  
M-5.2 NOT TO SCALE



3 TYPICAL FLOOR CLEAN OUT DETAIL  
M-5.2 NOT TO SCALE



4 TYPICAL UNDERGROUND PIPING DETAIL  
M-5.2 NOT TO SCALE



5 TYPICAL DRYWELL DETAIL  
M-5.2 NOT TO SCALE

DATE	SCALE	DESCRIPTION	DATE	SCALE	DESCRIPTION
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY</b> KITCHEN IMPROVEMENTS					
MECHANICAL DETAILS					
DESIGNED BY BJO		CHECKED BY BJO		DATE MAY 2010	
DRAWN BY BJO		APPROVED BY BJO		SHEET NO. 21	
THIS WORKING DRAWING IS TO BE USED UNDER THE SUPERVISION OF THE STAFF.					
FILE NO.	DRAWING NO.	FOUNDER			

ELECTRICAL LEGEND			
SYMBOLS			DESCRIPTION
EXIST	NEW	MTD HT	
		-	DISCONNECT SWITCH, HP RATED
		-	COMBINATION STARTER / DISCONNECT
		-	MOTOR STARTER, FURNISHED BY MECHANICAL, INSTALLED BY ELEC
		-	PANELBOARD OR LOADCENTER
		-	HOMERUN RACEWAY & WIRING
		-	FLEXIBLE RACEWAY & WIRING
		-	RACEWAY & WIRING, CONCEALED IN WALL OR CEILING
		-	RACEWAY & WIRING, EXPOSED
		-	ELECTRICAL RACEWAY & WIRING. HATCHMARKS INDICATE NO. OF CURRENT CARRYING CONDUCTORS. NO MATCH MARKS INDICATE TWO CURRENT CARRYING CONDUCTORS. PROVIDE INSULATED GREEN EQUIPMENT GROUND CONDUCTOR SIZED PER NEC

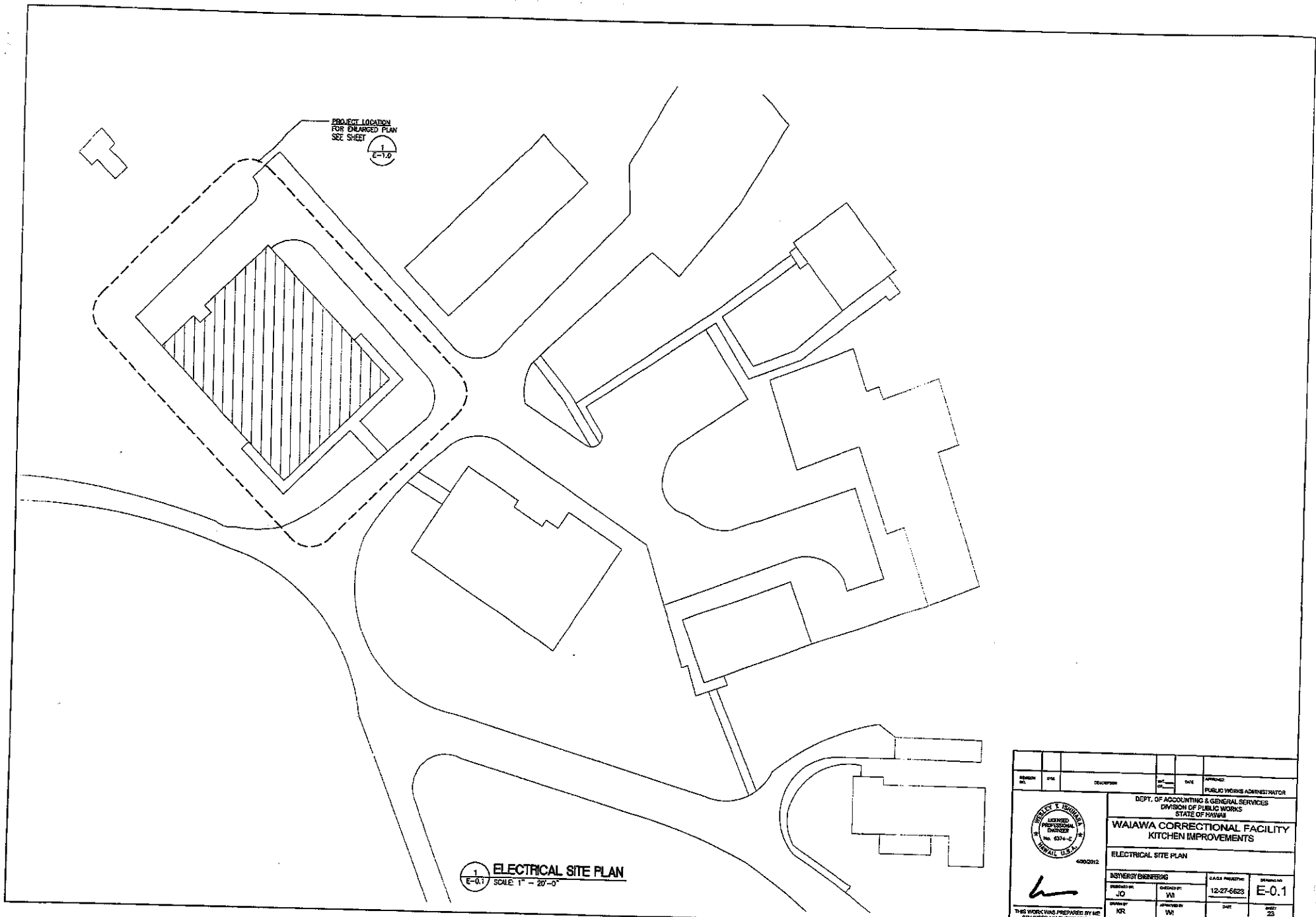
MARKER	
	NOTE DESIGNATION, NOTE "*" INDICATED
	REVISION DESIGNATION
	ELECTRICAL REFERENCE MARKER

ELECTRICAL ABBREVIATIONS		
AIC	AMPERE-INTERRUPTING CAPACITY	LIG LIGHTING
AC	ASPHALT CONCRETE	MECO MAUI ELECTRIC COMPANY
AF	ABOVE FINISH FLOOR	MH MANHOLE
AMP, A	AMPERE	MAX MAXIMUM
AWG	AMERICAN WIRE GAUGE	MIN MINIMUM
BKR	BREAKER	MLO MAIN LUGS ONLY
BLDG	BUILDING	mm MILLIMETERS
BKSD	BACKBOARD	MTD MOUNT OR MOUNTED
C	CONDUIT, CONDUCTOR	MTG MOUNTING
CTV	CABLE TELEVISION	(N) NEW
CKT	CIRCUIT	NEC NATIONAL ELECTRICAL CODE
CMU	CONCRETE MASONRY UNIT	NEMA NATIONAL ELECTRICAL MANUFACTURE'S ASSOCIATION
CONC	CONCRETE	NO.# NUMBER
CT	CURRENT TRANSFORMER	O.C. ON CENTER
D	DEEP	OCPD OVER CURRENT PROTECTION DEVICE
DISC	DISCONNECT	PA PUBLIC ADDRESS
DIST	DISTRIBUTION	PB PULLBOX
EF	EXHAUST FAN	PTB PROVISION FOR FUTURE BREAKER
EH	ELECTRICAL HAND HOLE	PHL PANEL
EMH	ELECTRICAL MANHOLE	# PHASE
EPB	ELECTRICAL PULLBOX	PVC POLYVINYL CHLORIDE
ENCL	ENCLOSURE	RM ROOM
EM	EMERGENCY	SD STORM DRAIN
EMT	ELECTRICAL METALLIC TUBING	SDMH STORM DRAIN MANHOLE
EO	ELECTRONICALLY OPERATED	SMH SEWER MANHOLE
EOL	END OF LINE	SN SOLID NEUTRAL
EP	EXPLOSION-PROOF	S/S STAINLESS STEEL
EQUIP	EQUIPMENT	SURF SURFACE
(E)	EXISTING	SW SWITCH
FA	FIRE ALARM	SWBD SWITCHBOARD
FACP	FIRE ALARM CONTROL PANEL	TBB TELECOMMUNICATIONS BACKBOARD
FLA	FULL LOAD AMPERE	THK THICK
GEC	GROUNDING ELECTRODE CONDUCTOR	TYP TYPICAL
GFC	GROUND FAULT CIRCUIT INTERRUPTOR	UG UNDERGROUND
GND	GROUND	UV/IR ULTRAVIOLET/INFRARED
GRS	GALVANIZED RIGID STEEL	UN UNLESS OTHERWISE NOTED
H	HIGH, HEIGHT	V VOLTS
HP	HORSEPOWER	W WIRE, WIDE, WATTS, WITH
HPS	HIGH PRESSURE SODIUM	WP WEATHERPROOF
IG	ISOLATED GROUND	XFRM TRANSFORMER
JB	JUNCTION BOX	ø PHASE
JV	KILO-VOLT	' FOOT, FEET
KVA	KILO-VOLT AMPERE	" INCH, INCHES
KW	KILOWATT	& AND
L	LONG LENGTH	

- ### ELECTRICAL GENERAL NOTES
- WORK INCLUDES INSTALLATION OF ALL ELECTRICAL SYSTEMS COMPLETE AND OPERATIONAL TO THE SATISFACTION OF THE OWNER AS LIMITED BY THE INTENT OF THE CONTRACT DOCUMENTS.
  - PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70), NATIONAL ELECTRICAL SAFETY CODE, AND ALL LOCAL RULES AND REGULATIONS.
  - OBTAIN ALL NECESSARY PERMITS.
  - VISIT THE JOB SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AND THE EXTENT OF REMOVAL, RELOCATION, RECONNECTION AND/OR NEW WORK PRIOR TO BIDDING. BID SUBMISSION SHALL BE CONSIDERED AS EVIDENCE THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS RESOLVED ALL DISCREPANCIES AND QUESTIONS AND NO EXTRA PAYMENT WILL BE AUTHORIZED FOR WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO DO SO.
  - PROVIDE COMPRESSION TYPE FITTINGS FOR EMT CONDUITS. SET SCREW FITTINGS ARE PROHIBITED AND WILL NOT BE APPROVED. PROVIDE GALVANIZED WALLEABLE IRON FOR ALL OTHER FITTINGS.
  - SIZE ALL CONDUIT PER THE NATIONAL ELECTRICAL CODE UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
  - PROVIDE SOLID COPPER, 600 VOLT INSULATION TYPE THIN, THIN POWER CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS #10 AND SMALLER.
  - PROVIDE AN INSULATED GREEN GROUNDING CONDUCTOR, SIZED PER THE NATIONAL ELECTRICAL CODE, FOR ALL CIRCUITS. INSTALL THIS CONDUCTOR IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LUGS AND ATTACH TO THE DEVICE, LUMINAIRE, OR EQUIPMENT USING A SUITABLE GROUNDING LUG.
  - PROVIDE AND INSTALL ALL JUNCTION AND PULLBOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZE BOXES PER THE NATIONAL ELECTRICAL CODE.
  - COORDINATE WITH OTHER TRADES AND CONFIRM THE EXACT EQUIPMENT LOCATIONS, AND MOUNTING HEIGHTS OF ALL POWER AND TELEPHONE DEVICES BEFORE ROUGHING IN.
  - SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS AND SLABS USING A UL LISTED FIRE RATED SEALANT TO MAINTAIN THE INTEGRITY OF THE FIRE RATING.
  - SEAL AND PAINT ALL PENETRATIONS THROUGH WALLS AND SLABS TO MATCH ADJACENT SURFACE.
  - OBTAIN APPROVAL FROM THE ARCHITECT BEFORE MAKING ANY PENETRATIONS THROUGH STRUCTURAL MEMBERS OR FIRE RATED WALLS AND SLABS.
  - CONFIRM THE TYPE OF CEILING BEING INSTALLED PRIOR TO ORDERING LUMINAIRE TRIMS FOR PROPER COORDINATION. CATALOG NUMBERS ARE GIVEN FOR A GENERIC LUMINAIRE AND MAY NOT EXPRESSLY CONFIRM TYPE OF CEILING OR OPENING PROVIDED BY OTHER TRADES.
  - SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, MARK SUCH CHANGES ON THE AS-BUILT DRAWINGS. IF THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE APPROVED BY THE CONTRACT DOCUMENTS, SUBMIT DRAWINGS SHOWING THE PROPOSED ALTERNATE METHODS TO THE ARCHITECT. DO NOT PROCEED UNTIL APPROVAL IS OBTAINED.
  - SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR ALL LUMINAIRES, EQUIPMENT AND DEVICES COVERED BY THIS CONTRACT FOR APPROVAL PRIOR TO ORDERING.
  - UPDATE THE CIRCUIT DIRECTORIES ON EXISTING PANELS, REFLECTING THE CIRCUIT ARRANGEMENT AS IT WAS ACTUALLY INSTALLED. PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW PANELBOARDS.
  - CONCEAL ALL CONDUITS UNLESS OTHERWISE NOTED. THE MINIMUM SIZE IS 3/4 INCH. EMT MAY BE USED FOR INDOOR CONCEALED CONDUIT RUNS 2" OR SMALLER.
  - TONE AND LOCATE ALL UTILITY LINES WITHIN THE PROJECT AREA PRIOR TO START OF EXCAVATION. REPAIR OR PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
  - AFTER INSTALLATION OF CABLES, CONDUITS SHALL BE SEALED WITH CALKING COMPOUND TO PREVENT ENTRANCE OF MOISTURE OR GASES INTO BUILDING.
  - COORDINATE BREAKER SIZING WITH MECHANICAL EQUIPMENT REQUIREMENTS.
  - THE MINIMUM CONDUIT SIZE IS 3/4 INCH (COMM) FOR INTERIOR ABOVE GRADE USE AND 1" FOR EXTERIOR UNDERGROUND USE. ACCEPTABLE CONDUITS FOR INTERIOR USE ARE EMT WITH SET SCREW FITTINGS, GRS, MC, LIQUID TIGHT FLEXIBLE METAL AND FLEXIBLE METAL CONDUITS. ACCEPTABLE CONDUITS FOR EXTERIOR USE ARE PVC SCH40, PVC SCH80, GRS, INC. TYPE MC CABLE SHALL BE ACCEPTABLE ONLY WHERE FISHED IN EXISTING WALLS/ CEILING; FOR FIXTURE WIPES; NOT ALLOWED IN NEW WALLS/ CEILING.
  - COORDINATE ALL EXTERIOR UTILITY DISTRIBUTION WORK WITH UTILITY COMPANIES.
  - PER NEC 110, MANUFACTURERS ARE REQUIRED TO PROVIDE LABEL ON ELECTRICAL EQUIPMENT SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. ENSURE THAT ALL ELECTRICAL APPARATUS ARE PROVIDED WITH THIS LABEL.

- ### DEMOLITION NOTES
- THE DEMOLITION PLAN IS INTENDED TO SHOW THE GENERAL SCOPE OF WORK AND DOES NOT NECESSARILY SHOW EVERY DEVICE, BOX, CONDUIT, PANEL, ETC. TO BE REMOVED. FIELD VERIFY OTHER ELECTRICAL SERVICES THAT MAY BE ENCOUNTERED DURING DEMOLITION AND REMOVE OR RE-ROUTE THESE ITEMS AS REQUIRED.
  - REMOVE ALL UNUSED WIRING FROM DEMOLITION AREA NOT CONCEALED IN CONCRETE OR PLASTER INCLUDING WIRING DISCONNECTED UNDER THIS CONTRACT AND WIRING UNCOVERED BY DEMOLITION.
  - ALL REMAINING JUNCTION AND PULL BOXES SHALL BE ACCESSIBLE AS PER NATIONAL ELECTRICAL CODE (N.E.C.). THE CONTRACTOR SHALL MOVE EXISTING BOXES, ETC. AS REQUIRED BY NEW CONSTRUCTION.
  - ALL MATERIALS REMOVED REMAIN THE PROPERTY OF THE OWNER. IF THE OWNER CHOOSES TO DISCARD THESE MATERIALS, CONTRACTOR SHALL DISPOSE OF THE UNWANTED MATERIAL.
  - REUSE EXISTING CIRCUITS FOR THE NEW WORK. IDENTIFY AND VERIFY EACH CIRCUIT.

REVISION NO.	DATE	DESCRIPTION	DATE	APPROVED
				PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII				
<b>WAI'ANA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>				
GENERAL NOTES, SYMBOLS LIST, ABBREVIATION LIST, AND NOTES				
40020012				
INSPIRE ENGINEERING				
DESIGNER: JO	CHECKED BY: MH	SCALE PROJECT NO. 12-27-5523	JOB NO. E-0.0	
DRAWN BY: KFR	APPROVED BY: WB	DATE MAY 2010	PAGE 29 OF 30	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION				
FILE _____ DRAWN _____ PLOTTED _____				

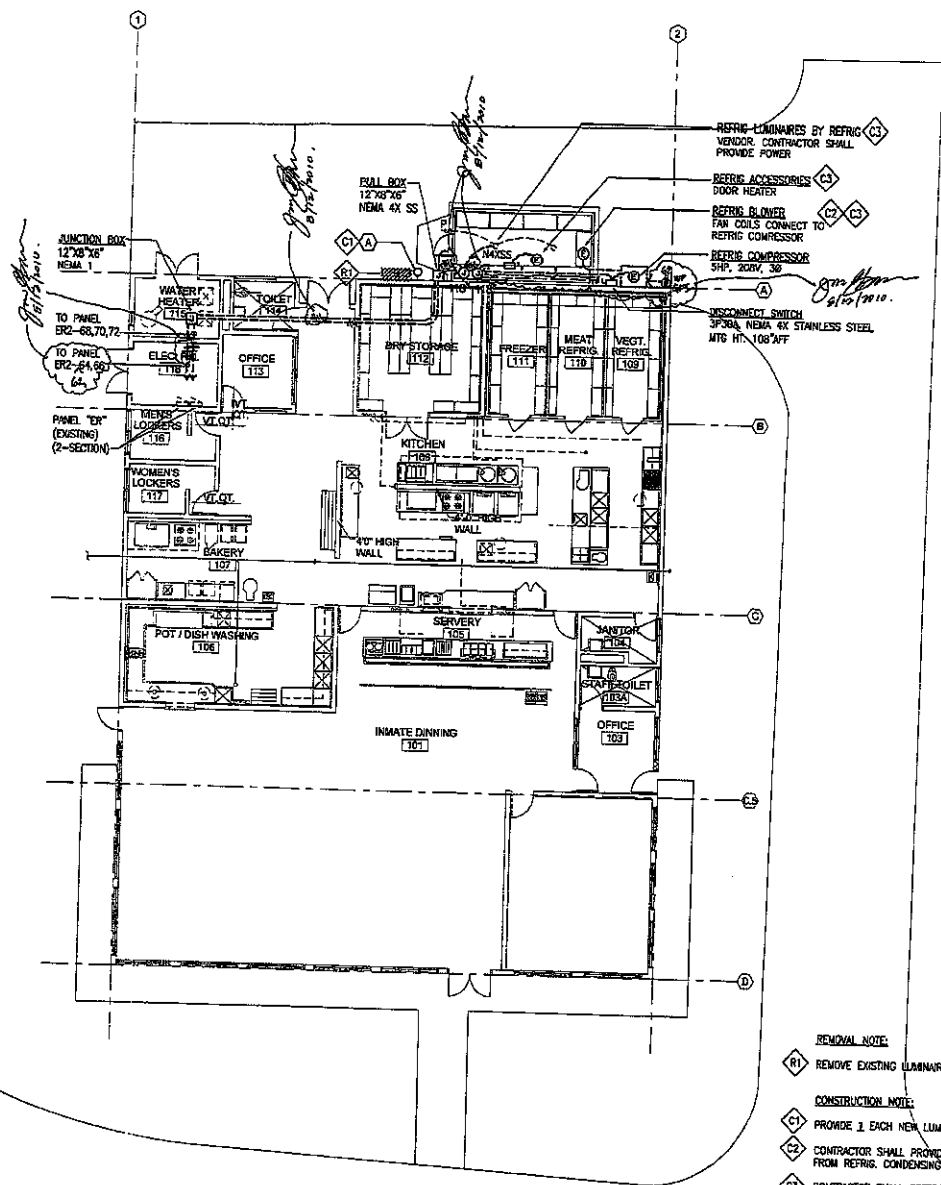


PROJECT LOCATION  
FOR ENLARGED PLAN  
SEE SHEET

1  
E-1.0

1  
E-0.1  
**ELECTRICAL SITE PLAN**  
SCALE: 1" = 20'-0"

REVISION NO.	DATE	DESCRIPTION	DATE	APPROVED
				PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII				
<b>WAIAWA CORRECTIONAL FACILITY          KITCHEN IMPROVEMENTS</b>				
ELECTRICAL SITE PLAN				
63992012				
			<b>INSYNERGY ENGINEERING</b>	
DESIGNED BY	CHECKED BY	CASE NUMBER	SHEET NO. <b>E-0.1</b>	
JIC	YH	12-27-5623		
DRAWN BY	APPROVED BY	DATE		
KR	YH	MAY 2010		
THIS WORKING PREPARED BY ME OR UNDER MY SUPERVISION.			SCALE	DATE
				MAY 25 2010



**ELECTRICAL FLOOR PLAN - NEW WORK**  
 SCALE: 1/8" = 1'-0"

REFRIG LUMINAIRE BY REFRIG (C3)  
 VENDOR CONTRACTOR SHALL PROVIDE POWER

REFRIG ACCESSORIES (C3)  
 DOOR HEATER

REFRIG BLOWER (C2, C3)  
 FAN COILS CONNECT TO REFRIG COMPRESSOR

REFRIG COMPRESSOR (C3)  
 SHP, 200V, 3Ø

RECONNECT SWITCH (A)  
 3P/3Ø, NEMA 4X STAINLESS STEEL  
 MTS HT. 108" AFF.

5/10/2010

- REMOVAL NOTE:**
- (R1) REMOVE EXISTING LUMINAIRE MAINTAIN CIRCUITING FOR NEW LIGHTING.
- CONSTRUCTION NOTE:**
- (C1) PROVIDE 1 EACH NEW LUMINAIRE RE-CONNECT TO EXISTING CIRCUIT.
  - (C2) CONTRACTOR SHALL PROVIDE 1.5" CONDUIT FOR EVAPORATOR COILS FROM REFRIG. CONDENSING UNIT.
  - (C3) CONTRACTOR SHALL REFERENCE KITCHEN CONSULTANT-DRAWINGS K-20 FOR FURTHER DIRECTIONS OF INSTALLATION. SEAL ALL CONDUITS AND PENETRATIONS INTO REFRIGERATION BOX.

REVISION NO.	DATE	DESCRIPTION	APP'D.	DATE	APPROVED
					PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>					
ELECTRICAL FLOOR PLAN - NEW WORK					
DESIGNED BY INTEGRITY ENGINEERING JO		DRAWN BY VI		SCALE 12-27-5623	PROJECT NO. E-1.0
CHECKED BY KR		APPROVED BY M		DATE MAY 2010	PAGE 24
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.					
FILE: .DRAWER . FOLDER					



PANEL: ER-1 (2 SECTION)		VOLTAGE: 208Y/120V			3 PHASE			POLES: 30					
MAIN BUS: 225A		MAIN BKR: 3P225A			4 WIRE			MIN A.L.C.: 22,000					
MOUNTING: SURFACE		BKR TYPE: BOLT-ON			(EXISTING)			CABINET WIDTH: 20"					
CKT. NO.	DESCRIPTION	KVA			CKT. BKR	WIRE	CKT. NO.	DESCRIPTION	KVA				
		A	B	C					A	B	C		
1	L - WALK IN	1.0				#12	2	FOU A/C	1.0				
3			1.0				4	GUARD SHACK	1.0	1.0			
5				1.0			6						
7	EF #1	1.2			3P20A	#12	8	EF #1	1.2		3P20A #12		
9			1.2				10		1.2				
11				1.2			12			1.2			
13	REFRIGER	3.2			3P40A	#8	14	REFRIG 'A'	0.6		3P20A #8		
15			3.2				16			0.6			
17				3.2			18			0.6			
19	REFRIG B (C)	0.6			3P20A	#12	20	EF #1	1.2		3P20A #12		
21			0.6				22		1.2				
23				0.6			24			1.2			
25	EF #2	0.9			3P20A	#12	26	EF #3	0.5		3P20A #12		
27			0.9				28		0.5				
29				0.9			30			0.5			
		6.9	8.9	6.9				11.4	11.4	11.4	4.5	4.5	4.5
TOTAL PHASE A, B, C		14.8	15.6	13.9									
CONNECTED KVA:		44.3 KVA											
DEMAND FACTOR:		70 %											
DEMAND KVA:		31.0 KVA											
DEMAND AMPS:		86.1 A											

LUMINAIRE SCHEDULE			
TYPE	DESCRIPTION	LAMPS	MOUNTING
(A)	HID, FULL CUTOFF, COMPACT WALL PACK, DIE CAST HOUSING, BRONZE HUBBELL HRC-1117-B OR PRE-APPROVED EQUAL.	(1)000MM	WALL SURFACE

PANEL: ER-2 (2-SECTION)		VOLTAGE: 208Y/120V			3 PHASE			POLES: 72					
MAIN BUS: 225A		MAIN BKR: FEED-THRU			4 WIRE			MIN A.L.C.: 22,000					
MOUNTING: SURFACE		BKR TYPE: BOLT-ON			(EXISTING)			CABINET WIDTH: 20"					
CKT. NO.	DESCRIPTION	KVA			CKT. BKR	WIRE	CKT. NO.	DESCRIPTION	KVA				
		A	B	C					A	B	C		
31	SUPPLY FAN #2	0.9			3P20A	#12	32	SUPPLY FAN #1	1.3		3P20A #12		
33			0.9				34		1.3				
35				0.9			36			1.3			
37	SUPPLY FAN #3	1.3			3P20A	#12	38	SUPPLY FAN #4	1.3		3P20A #12		
39			1.3				40		1.3				
41				1.3			42			1.3			
43	EF #4	0.9			1P20A	#12	44	FAN CONTROL	1.0		1P20A #12		
45	SPARE	1.0			2P20A	#12	46	CONDENSER	1.2		2P20A #12		
47			1.0				48		1.2				
49	PF#	1.0					50	PF#	1.0				
51			1.0				52		1.0				
53				1.0			54			1.0			
55				1.0			56		1.0				
57				1.0			58			1.0			
59				1.0			60			1.0			
61			1.0				62	3 REFRIG - REFRIG COMP CMC	1.0		1P20A #12 #		
63				1.0			64	REFRIG OUTSIDE MSC	1.0		1P20A #10 *		
65				1.0			66	REFRIG OUTSIDE - LTS	1.0		1P20A #10 *		
67				1.0			68	REFRIG OUTSIDE	5.5		3P50A #6 *		
69				1.0			70			5.5			
71				1.0			72			5.5			
		7.1	7.2	7.2				19.2	19.5	19.5	12.1	12.3	19.5
TOTAL PHASE A, B, C		30.6	30.9	30.5									
CONNECTED KVA:		92.4 KVA (256.7A)											
DEMAND FACTOR:		80 %											
DEMAND KVA:		73.9 KVA											
DEMAND AMPS:		205.3 A											

3  
 \* PROVIDE 3 EACH NEW 1P20A CIRCUIT BREAKER IN PFB, 64 AND 66 AND 1 EACH NEW 3P50A IN PFB 68, 70, 72. ALL CIRCUIT BREAKERS SHALL MATCH MANUFACTURER TYPE FOR EXISTING PANEL.

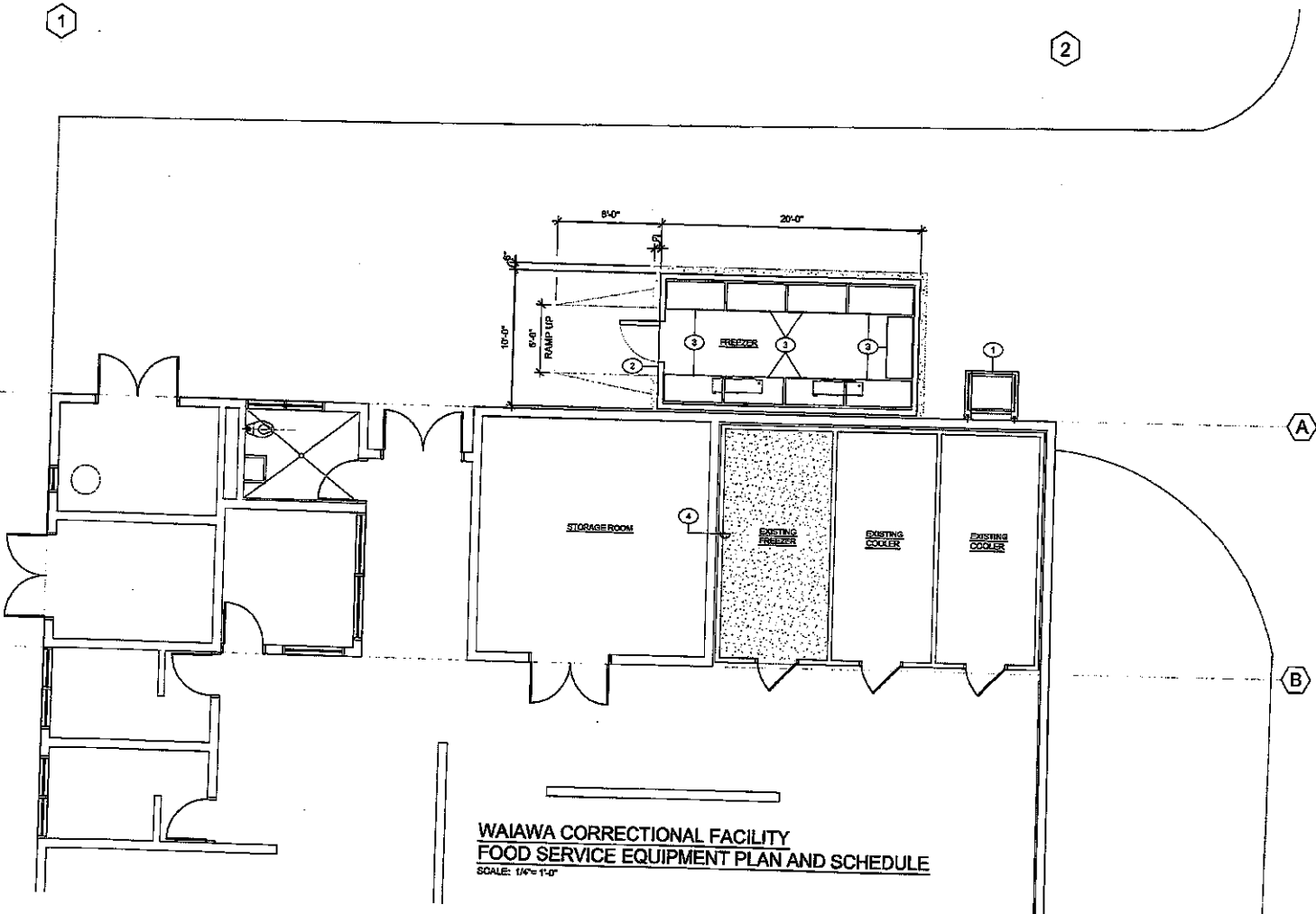
*John [Signature]*  
 8/12/2010

*John [Signature]*  
 8/12/2010

DESIGN NO.	DATE	DESCRIPTION	SCALE	BY	APPROVED
					FUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY</b> <b>KITCHEN IMPROVEMENTS</b>					
DETAILS AND PANEL SCHEDULE					
UNIVERSITY ENGINEERING DESIGNER: JO DRAWN BY: KR			SCALE: AS SHOWN 12-27-5623		DRAWING: E-1.1 SHEET: 25 DATE: MAY 2010
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.					

FOOD SERVICE EQUIPMENT SCHEDULE				
ITEM NO.	QTY	DESCRIPTION	REMARKS/SPECIFICATIONS	
1	1	REFRIGERATION SYSTEM	WALL MOUNTED; 8'-0" CLEARANCE TO GROUND; UNIT WT. 307 LBS.	●
2	1	COLD STORAGE ROOM	8" HIGH BUILT-UP INSULATED FLOOR WITH EXTERIOR CONCRETE RAMP UP; 8'-0" INTERIOR HEIGHT	●
3	1 LOT	SHELVING	-	●
4	1	WALK-IN FREEZER (SUB-FLOOR INSULATION ONLY)	CONCRETE TOPPING REMOVAL & REPAIR REFER TO ARCHITECTURAL SECTION	●

**NOTE**  
 1 - NEW EQUIPMENT ( BY K.E.C. )



**WAIAWA CORRECTIONAL FACILITY**  
**FOOD SERVICE EQUIPMENT PLAN AND SCHEDULE**  
 SCALE: 1/4" = 1'-0"

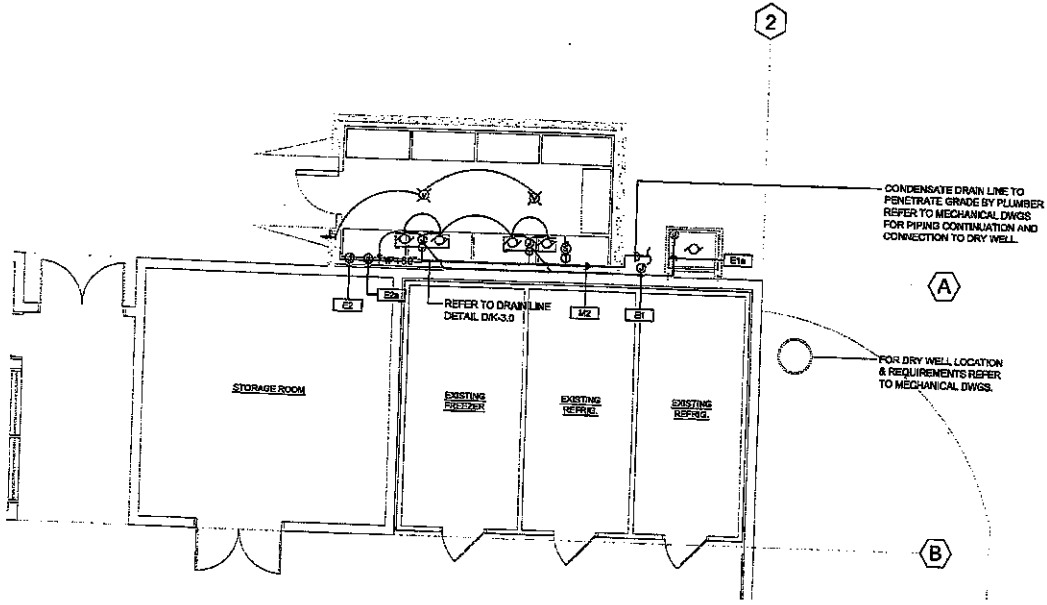
**KITCHEN EQUIPMENT CONTRACTOR (K.E.C.) NOTE:**

WORK SHALL CONSIST OF FURNISHING ALL LABOR, TOOLS, MATERIALS, ETC. REQUIRED FOR A COMPLETE INSTALLATION WHETHER INDICATED ON DRAWINGS OR NOT. IT IS THE KITCHEN EQUIPMENT CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLANS, SPECIFICATIONS AND JOBSITE CONDITIONS AND NOTIFY THE OFFICE IN WRITING OF ANY DISCREPANCIES, AMBIGUITIES, ERRORS AND OMISSIONS. ANY OF THE ABOVE NOT BROUGHT TO THE ATTENTION OF THE CONSULTANT SHALL BECOME THE SOLE RESPONSIBILITY OF THE KITCHEN EQUIPMENT CONTRACTOR. THE KITCHEN EQUIPMENT CONTRACTOR SHALL COORDINATE ALL REQUIRED WORK WITH THE GENERAL CONTRACTOR.

**GENERAL CONTRACTOR (G.C.) NOTES:**

- GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH KITCHEN EQUIPMENT CONTRACTOR, BUILDING CONSTRUCTION SCHEDULE ALONG WITH KITCHEN EQUIPMENT INSTALLATION SCHEDULE TO PROVIDE PROPER ACCESS FOR EQUIPMENT DELIVERY AND INSTALLATION FOR EXAMPLE: COORDINATING CONSTRUCTION OF WALL SECTIONS OR DOOR OPENINGS, ETC.
- ALL DIMENSIONS SHOWN ON THIS PLAN ARE INDICATED TO BE TAKEN FROM FINISHED SURFACES AND INCLUDE ANY TILE, FLOORING, ETC. CONTRACTOR SHALL MAKE ALL ADVANCES SUCH THAT WHEN FINISHED MATERIAL IS APPLIED TO VERTICAL AND HORIZONTAL SURFACES THE FINAL DIMENSION CONFORMS TO THIS PLAN.
- GENERAL CONTRACTOR (G.C.) AND KITCHEN EQUIPMENT CONTRACTOR SHALL COORDINATE THE INSTALLATION & LOCATION OF WALL AND/OR FLOOR SLEEVES TO BE PROVIDED BY THE G.C. AS INDICATED ON DRAWINGS OR AS REQUIRED.
- GENERAL CONTRACTOR SHALL PROVIDE LEVEL FLOOR, FREE OF PROJECTING AGGREGATE, FOR COLD STORAGE ROOM.
- GENERAL CONTRACTOR TO COORDINATE REFRIGERATION LINE RUNS WITH OTHER TRADES TO INSURE NON-INTERFERENCE WITH OTHER TRADES' LINE RUNS. REFER TO MECHANICAL DWGS. FOR REFRIGERATION LINE RUNS.
- GENERAL CONTRACTOR TO PROVIDE ALL FLOOR AND WALL PENETRATIONS FOR REFRIGERATION LINES & ELECTRICAL CONDUIT LINE RUNS. REFER TO MECHANICAL DWGS. FOR REFRIGERATION LINE RUN REQUIREMENTS.

NO.	REV.	DESCRIPTION	DATE	APPROVED
				PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> <b>KITCHEN IMPROVEMENTS</b>				
<b>FOOD SERVICE EQUIPMENT PLAN AND SCHEDULE</b>				
DESIGNED BY: IM DRAWN BY: RY		CHECKED BY: BM APPROVED BY: IM		DATE: 12-27-2023 SHEET: 25 OF: 29
THIS PROJECT WAS PREPARED BY ME OR UNDER MY SUPERVISION.		AS NOTED		MAY 2010



**ELECTRICAL (ELECTRICIAN) NOTES:**

- ALL EQUIPMENT AND RECEPTACLES ARE TO BE FULLY CONNECTED. ELECTRICIAN TO FURNISH FINAL CONNECTIONS AND ALL TOOLS, MATERIALS AND ACCESSORIES AS REQUIRED WHETHER INDICATED OR NOT FOR A COMPLETE INSTALLATION.
- ELECTRICIAN SHALL PROVIDE SERVICE AND MAKE CONNECTIONS TO REFRIGERATION COMPRESSORS. REMOTE DISCONNECT SWITCH FOR COMPRESSORS SHALL BE LOCATED WITHIN 10 FEET.
- ELECTRICIAN SHALL FURNISH AND INSTALL CONDUITS AS INDICATED ON PLAN FOR REFRIGERATION, BEVERAGE, LIQUOR OR BEER LINES. ALL SUCH CONDUITS SHALL HAVE A MINIMUM OF 24-INCH BEND AND SHALL TERMINATE 6 INCHES ABOVE FINISHED FLOOR/ CONCRETE PAD OR 4 INCHES OUT FROM FINISHED WALL. PROVIDE FULL BOXES AT INTERVALS OF 30 FEET OR AS INDICATED ON PLAN.
- ELECTRICIAN SHALL PROVIDE ALL CONDUITS, JUNCTION BOXES, CONVENIENCE OUTLETS (MOUNTED HORIZONTALLY), SWITCHES, STAINLESS STEEL COVER PLATES AND FULL BOXES NOT BUILT INTO EQUIPMENT.
  - ALL ROUGH-INS SHALL BE CONCEALED WHEREVER POSSIBLE.
  - CONDUIT AND/OR CONTROL WIRING RUN FOR REFRIGERATION COMPRESSOR TO THE WALK-IN FAN COILS SHALL BE LOCATED BY ELECTRICAL ENGINEER.
- ELECTRICIAN SHALL FURNISH AND INSTALL ALL INTERCONNECTING CONDUITS, CONDUITS, CONTROL WIRING AND/OR MICRO SWITCHES.
- PRE-FABRICATED DOLD STORAGE ROOMS ARE FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR COMPLETE WITH SPACE BOXES, LIGHT FIXTURES, LIGHT SWITCHES AND DOOR HEATERS. ELECTRICIAN TO INSTALL SAME AND SHALL FURNISH AND INSTALL INTERCONNECTING CONDUITS, WIRING, SEAL OFFS, SEALANT, ETC., AND MAKE FINAL CONNECTIONS.
- ELECTRICAL REQUIREMENTS ARE INDICATED FOR INDIVIDUAL EQUIPMENT ITEMS. COMBINING OF LINES FOR SIMPLIFICATION IS ACCEPTABLE.
- IT IS THE INTENTION OF THE OUTLET PLAN TO SHOW UTILITY REQUIREMENTS AND CONNECTION POINTS ONLY. DO NOT USE FOR ACTUAL ROUGHING-IN. FOR FINAL ROUGHING-IN LOCATIONS SEE DIMENSIONED DRAWINGS PROVIDED BY THE KITCHEN EQUIPMENT CONTRACTOR. THE KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE TO INDICATE ALL EQUIPMENT REQUIREMENTS ON FINAL ROUGHING-IN DRAWINGS.

**MECHANICAL (PLUMBER) NOTES:**

- ALL EQUIPMENT SHALL BE FULLY CONNECTED. PLUMBER TO FURNISH FINAL CONNECTIONS AND ALL TOOLS, MATERIALS AND ACCESSORIES AS REQUIRED WHETHER INDICATED OR NOT FOR COMPLETE INSTALLATION.
- IT IS THE INTENTION OF THE OUTLET PLAN TO SHOW UTILITY REQUIREMENTS AND CONNECTION POINTS ONLY. DO NOT USE FOR ACTUAL ROUGHING-IN. FOR FINAL ROUGHING-IN LOCATIONS SEE DIMENSIONED DRAWINGS PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR. THE KITCHEN EQUIPMENT CONTRACTOR IS RESPONSIBLE TO SHOW ALL EQUIPMENT REQUIREMENTS ON FINAL ROUGHING-IN DRAWINGS.

**NOTES:**

- WASTE WATER MANAGEMENT DIVISION REQUIREMENTS FOR WASTE LINES TO GREASE TRAPS AND SANITATION DRAIN LINE REQUIREMENTS. REFER TO MECHANICAL ENGINEERS DRAWINGS.

**FOOD SERVICE EQUIPMENT ELECTRICAL SCHEDULE**

ITEM NO.	DESCRIPTION	ELECTRICAL				REMARKS
		AMPS	VOLTS	PHASE	CONN HT	
E1	REFRIGERATION SYSTEM	27.4A	208	3	+10"	E1a: (1) 1" CONDUIT W/ (6) WIRES BY ELECTRICIAN TO REFRIG. SYSTEM FOR DEFRIST CONTROL. ELECTRICIAN SHALL COLOR CODE WIRES: 1 COMMON, 2 HEATERS, 1 FAN COIL, 1 TERMINATION. REFER TO MECH. DWGS. FOR LINE RUN
E1a	REFRIGERATION SYSTEM	-	-	-	-	
E2	WALK-IN FREEZER	15A	120	1	+11"	ELECTRICAL CONNECTION TO WALK-IN LIGHTS ELECTRICAL CONNECTION TO WALK-IN MISC. EQUIPMENT: DOOR DEFRIST HEATER, DRAIN LINE HEATER, & TEMP. ALARM
E2a	WALK-IN FREEZER	15A	120	1	+11"	

**FOOD SERVICE EQUIPMENT MECHANICAL SCHEDULE**

ITEM NO.	DESCRIPTION	MECHANICAL								REMARKS			
		HW	CW	CONN HT	WASTE	INDIRECT	CONN HT	GAS	CONN HT		CFM		
M2	WALK-IN FREEZER	-	-	-	DRY WELL	●	-	-	-	-	-	-	-

**ELECTRICAL SYMBOLS:**

- J JUNCTION BOX
- T THERMOSTAT
- S LIQUID LINE SOLENOID
- M ELECTRICAL MOTOR
- L VAPORPROOF LED LIGHT FIXTURE
- SW SWITCH
- SW+ VAPORPROOF SWITCH WITH PILOT LIGHT

**MECHANICAL SYMBOLS:**

- DW DRY WELL
- W WASTE

**WAIAWA CORRECTIONAL FACILITY**  
**FOOD SERVICE EQUIPMENT MECHANICAL and ELECTRICAL PLAN AND SCHEDULE**  
 SCALE: 1/4" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	CHECKED	APPROVED
					PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY</b> <b>KITCHEN IMPROVEMENTS</b>					
FOOD SERVICE EQUIPMENT ELECTRICAL & MECHANICAL PLAN, SCHEDULE AND NOTES					
K&A ASSOCIATES, INC. 4520012			SALES PROJECT NO. 12-27-5623		
DESIGNER: RM		CHECKED BY: RY		DRAWN BY: IM	
DATE: MAY 2010		SCALE: AS NOTED		SHEET NO. <b>K-2.0</b> OF 27	
THIS DRAWING WAS PREPARED BY ME OR UNDER MY SUPERVISION.					
FILE: DRAWN: . REVIS:					

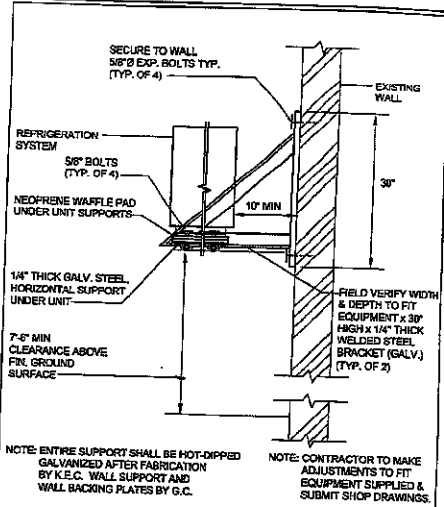
**REFRIGERATION CONTRACTOR NOTE: (INSULATION REQUIREMENTS)**

K.E.C. SHALL INSULATE LINES WITH INSULATION SIZED AS REQUIRED TO AVOID SWEATING. VERIFY OUTDOOR REQUIREMENTS WITH MANUFACTURER BEFORE START OF INSTALLATION. INSTALLATION INSTALLER SHALL BE A "CERTIFIED" ARMAFLEX INSTALLER.

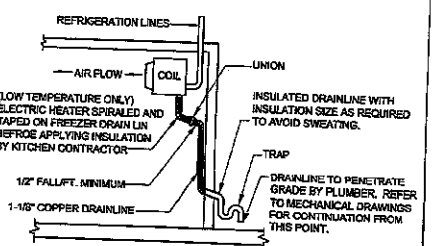
GENERAL CONTRACTOR SHALL COORDINATE INSULATED LINE RUNS WITH KITCHEN EQUIPMENT CONTRACTOR AND ALL OTHER TRADES TO "ENSURE" A STRAIGHT LINE RUN WITH A MINIMUM OF LINE BENDS.

REFRIGERATION SCHEDULE									
SYSTEM	DESCRIPTION	OPER. TEMP.	SECTON TEMP.	H.P.	VOLTS	PHASE	COOLING BTU	DEFROST METHOD	COMPRESSOR LOCATION
"A"	ITEM NO. 2 WALK-IN FREEZER	0°-45°	-15°	5	208	3	APR	DEFROST TIMER	SEE MECHANICAL DRAWINGS

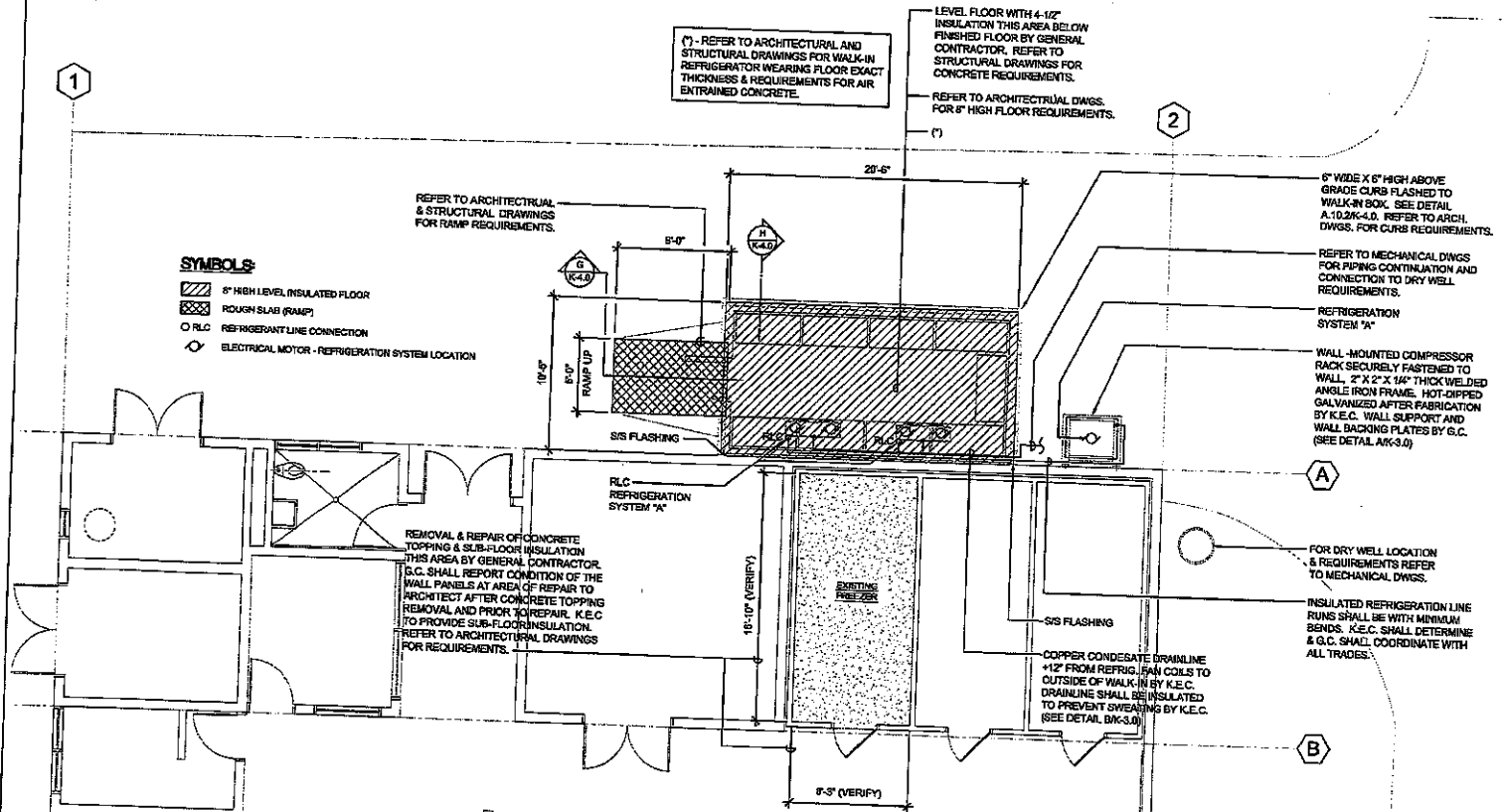
\* - STANDARD RATING



**WALL MOUNTED COMPRESSOR RACK MOUNTING DETAIL**  
NOT TO SCALE



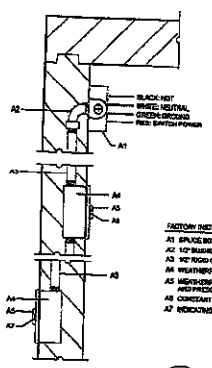
**DRAIN LINE DETAIL**



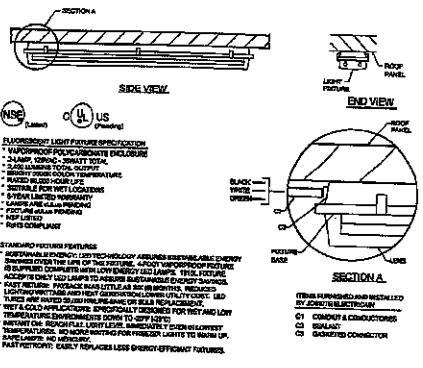
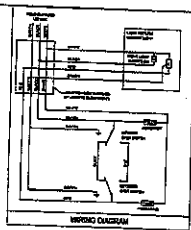
- SYMBOLS:**
- 6" HIGH LEVEL INSULATED FLOOR
  - ROUGH SLAB (RAMP)
  - RLC REFRIGERANT LINE CONNECTION
  - ELECTRICAL MOTOR - REFRIGERATION SYSTEM LOCATION

**WAIAWA CORRECTIONAL FACILITY FOOD SERVICE EQUIPMENT BUILDING WORK AND REFRIGERATION PLAN**  
SCALE: 1/8" = 1'-0"

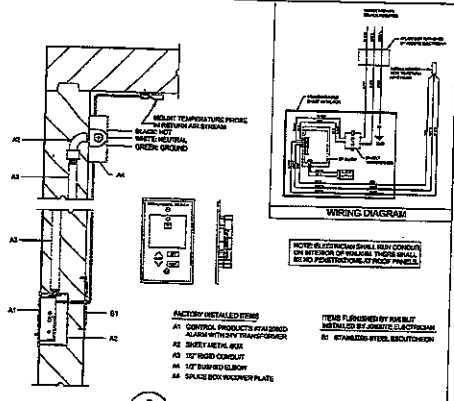
DESIGNED BY	DATE	REVISION	DATE	APPROVED
BY				PUBLIC WORKS ADMINISTRATION
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII				
<b>WAIAWA CORRECTIONAL FACILITY KITCHEN IMPROVEMENTS</b>				
FOOD SERVICE EQUIPMENT BUILDING WORK, REFRIGERATION PLAN AND DETAILS				
WDS & ASSOCIATES, P.C.	DATE PUBLISHED	BY	DATE	NO.
DESIGNED BY: IM	12-27-08	IM		<b>K-3.0</b>
DRAWN BY: RY		APPROVED BY: IM		
DATE PREPARED BY ME OR UNDER MY SUPERVISION		DATE		
		MAY 2010		
SCALE AS NOTED				



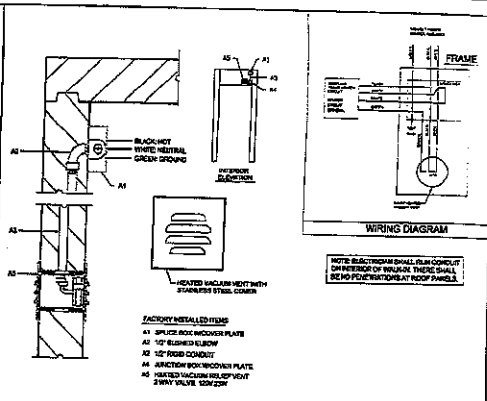
**A LIGHT CONTROL DETAIL**  
K-4.0



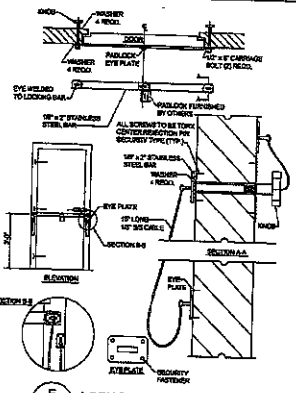
**B LIGHT FIXTURE DETAIL**  
K-4.0



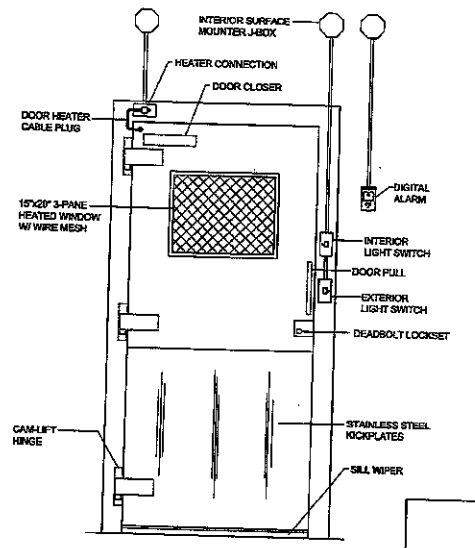
**C DIGITAL THERMOMETER & TEMPERATURE ALARM**  
K-4.0



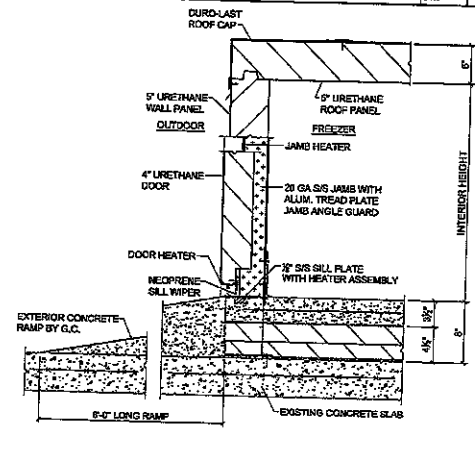
**D VACUUM VENT DETAIL**  
K-4.0



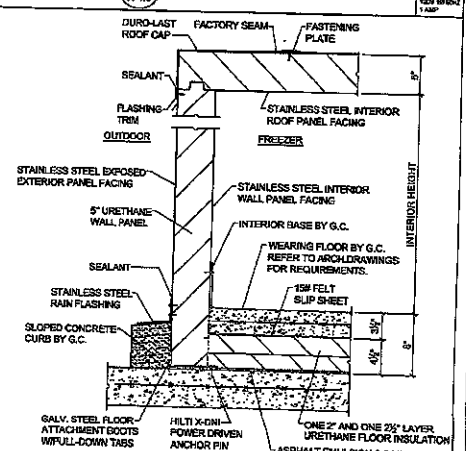
**E LOCK BAR DETAIL PRISON PACKAGE**  
K-4.0



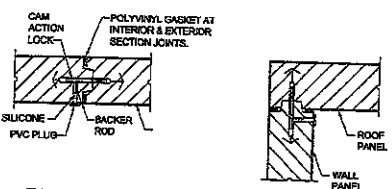
**F DOOR ELEVATION**  
SCALE: 1/4"=1'-0"



**G SECTION DETAIL @ DOOR**  
SCALE: N.T.S.



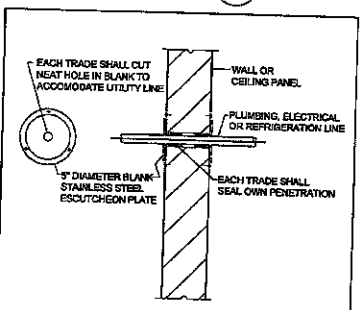
**H SECTION DETAIL @ WALL**  
SCALE: N.T.S.



**I TYPICAL PANEL SECTION JOINT**

- INSTRUCTIONS:**
1. SET CAM LOCK
  2. REMOVE HEX WRENCH
  3. INSERT BACKER ROD
  4. INSERT SILICONE
  5. INSTALL PVC PLUG

**F CAM LOCK TAMPERPROOF**  
K-4.0



**F ESCUTCHEON PLATE DETAIL**  
K-4.0

**BUILT-UP INSULATED FLOOR**

**USTC** **NSE**

APPROVAL NO. 1211405-110  
CLASS 1 - REGULATORY PANEL

COMPLIES WITH FEDERAL ENERGY INDEPENDENCE AND SECURITY ACT OF 2007

REVISION	DATE	DESCRIPTION	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

**WAIAWA CORRECTIONAL FACILITY  
KITCHEN IMPROVEMENTS**

FOOD SERVICE EQUIPMENT DETAILS

**REO ASSOCIATES, INC.**

DESIGNED BY: IM	CHECKED BY: IM	DATE: 12-27-2023	PROJECT NO: K-4.0
APPROVED BY: RY	DATE: 01-07-2024	SCALE: AS NOTED	

THIS PROJECT WAS PREPARED BY ME OR UNDER MY SUPERVISION.

FILE NO. DRAWER NO. FOLDER NO.

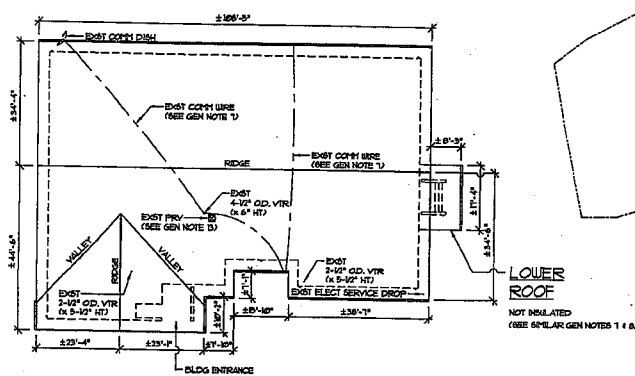
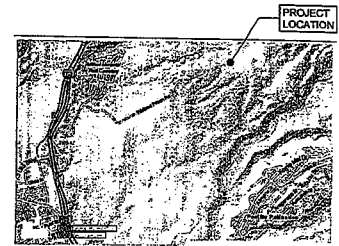
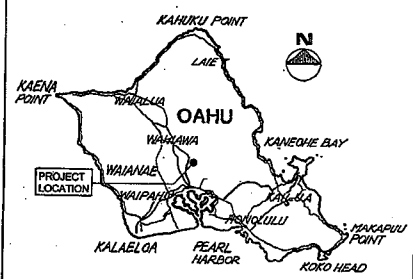
**BP 735209**

**WAIAWA CORRECTIONAL FACILITY**  
**EDUCATION BLDG - REPLACE ROOFING SYSTEM**  
 FOR THE: DEPARTMENT OF PUBLIC SAFETY  
 DIVISION OF CORRECTIONS, STATE OF HAWAII  
 BY THE: DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS, STATE OF HAWAII

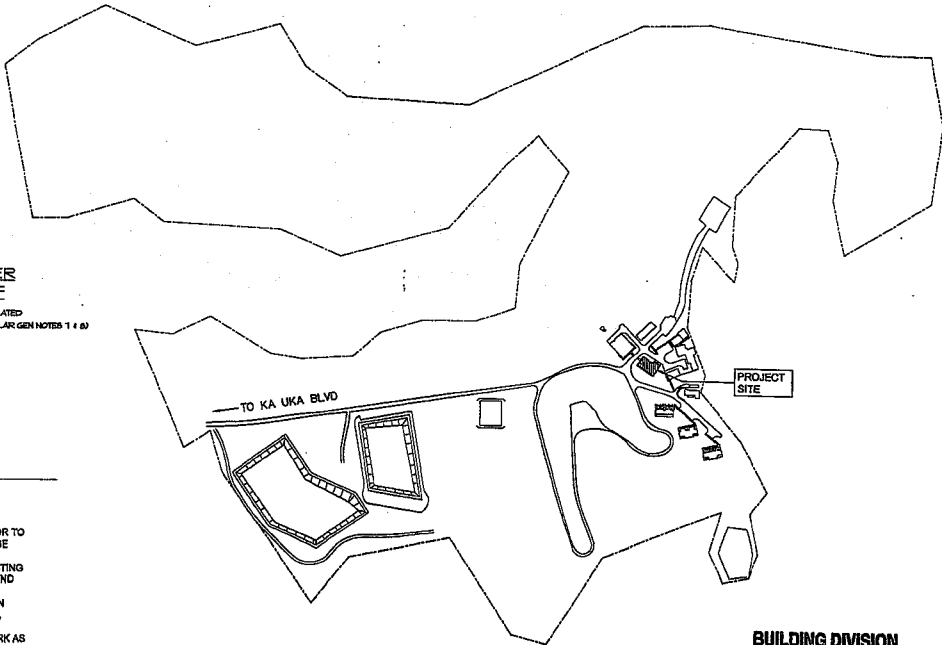
94-560 KAMEHAMEHA HIGHWAY T.M.K.: 9-6-005: 011

DAGS JOB NO. 12-27-5645

ARCHITECT: ROBERT E. FREEBURG, AIA ASSOCIATES



**(A) EDUCATION BUILDING (REMOVAL)**  
 SCALE: 1/8" = 1'-0" (SEE GEN NOTES 1, 2, & 11)



**BUILDING DIVISION**  
**FILE COPY**

2020.01.07.01  
 DEPARTMENT OF PUBLIC WORKS AND PROTECTIVE SERVICES  
 1505 KALANOA AVENUE  
 CITY AND COUNTY OF HONOLULU, STATE OF HAWAII  
 PROJECT NO. 12-27-5645  
 DATE: 1/10/13  
 PROJECT OF: WAIAWA CORRECTIONAL FACILITY  
 T.M.K. 9-6-005-011 PERMIT NO. 155224  
 01/10



- GENERAL NOTES**
- THE CONTRACTOR SHALL EXAMINE THE DRAWINGS & SPECIFICATIONS & SHALL VISIT THE SITE PRIOR TO FABRICATION OR ORDERING MATERIAL. CONTRACTOR SHALL FULLY UNDERSTAND THE SCOPE OF WORK PRIOR TO SUBMISSION OF THE BID AS TO THE EXISTING CONDITIONS AND LIMITATIONS UNDER WHICH THE WORK IS TO BE PERFORMED.
  - ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE AND INTERNATIONAL EXISTING BUILDING CODE AND LATEST CITY AND COUNTY OF HONOLULU/STATE OF HAWAII AMENDMENTS AND ORDINANCES.
  - STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND 2006 NFPA 1, UNIFORM FIRE CODE.
  - THE CONTRACTOR SHALL INCLUDE IN THE BID ALL MISCELLANEOUS ITEMS NECESSARY TO PERFORM THE WORK AS SET FORTH IN THE CONTRACT DOCUMENTS & FIELD VERIFY ALL DIMENSIONS PRIOR TO SUBMISSION OF SHOP DRAWINGS.
  - PROVIDE PROTECTION FOR PEDESTRIANS IN ACCORDANCE WITH ICC 102, AS AMENDED WHENEVER WORKING ABOVE SIDEWALKS AND ENTRYWAYS.
  - PROTECT ADJOINING PROPERTY FROM DAMAGE AT ALL TIMES.
  - REMOVE EXISTING BUILT-UP ROOFING AND INSULATION DOWN TO PLYWOOD DECKING. REMOVE FLASHINGS, GUTTERS AND DOWNSPOUTS. PROTECT THE BUILDING FROM WEATHER AT ALL TIMES. WIRES LAYING ON ROOF IN PHOTOS WILL BE REMOVED BY THE USERS. SEE SECTION 01715 - EXISTING CONDITIONS - ASBESTOS/LEAD/HAZARDOUS MATERIAL SURVEY. WOLLASTONITE, AN UNREGULATED SILICATE MINERAL, HAS BEEN DETECTED IN THE GRAY ROOF COATING. IT SHALL BE REMOVED IN CONFORMANCE WITH OSHA/HHS REGULATIONS. REMOVE ITEMS WITH LEAD CONTAINING PAINT AS SPECIFIED IN SECTION 13222.
  - REMOVE EXISTING T-111 FASCIA, TRIM, PLYWOOD SOFFIT AND BACKING, AND SCREEN VENT TO BARE WOOD FRAMING. PROTECT THE BUILDING FROM WEATHER AT ALL TIMES.
  - PROVIDE NEW MODIFIED BITUMINOUS MEMBRANE ROOFING OVER COVERBOARD AND R-19 INSULATION WITH NEW FLASHINGS.
  - PROVIDE NEW FIBER-CEMENT FASCIA PANELS OVER WEATHER BARRIER AND NEW FIBER-CEMENT SOFFIT PANELS, AND TRIM.
  - PROVIDE DRYWOOD TERMITES FUMIGATION TREATMENT FOR BUILDING. CONDUCT ADVANCE SURVEY WITH CONTRACTING OFFICER AND USERS TO OUTLINE ALL MATERIALS THAT NEED TO BE REMOVED FROM THE BUILDING PRIOR TO TERTING AND FUMIGATION.
  - PAINT FASCIA, SOFFIT, TRIM, FLASHINGS, PVC DOWNSPOUTS, ETC. BROWN TO MATCH EXISTING.
  - REMOVE EXISTING AND PROVIDE NEW POWERED EXHAUST AS SPECIFIED AND AS INDICATED. MODIFY EXISTING CURBS AS REQUIRED BY NEW FAN. ALL ELECTRICAL WORK FOR DISCONNECTION AND RECONNECTION SHALL BE BY LICENSED ELECTRICAL CONTRACTOR AS INCIDENTAL WORK.
- NOTE: PROVIDE SHALL MEAN FURNISH AND INSTALL.

**APPROVALS:**

*Rob E. Freeburg* 1/7/13  
 DIRECTOR  
 DEPARTMENT OF PUBLIC SAFETY  
 STATE OF HAWAII DATE

*Maxine Pineda* 1/10/13  
 COMPTROLLER  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES  
 STATE OF HAWAII DATE

*John A. Vento* JAN 10 2013  
 PUBLIC WORKS ADMINISTRATOR  
 DEPARTMENT OF ACCOUNTING & GENERAL SERVICES  
 STATE OF HAWAII DATE

NO.	REV.	DESCRIPTION	DATE	SCALE	FORM NO.	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

**WAIAWA CORRECTIONAL FACILITY**  
**EDUCATION BUILDING**  
**REPLACE ROOFING SYSTEM**

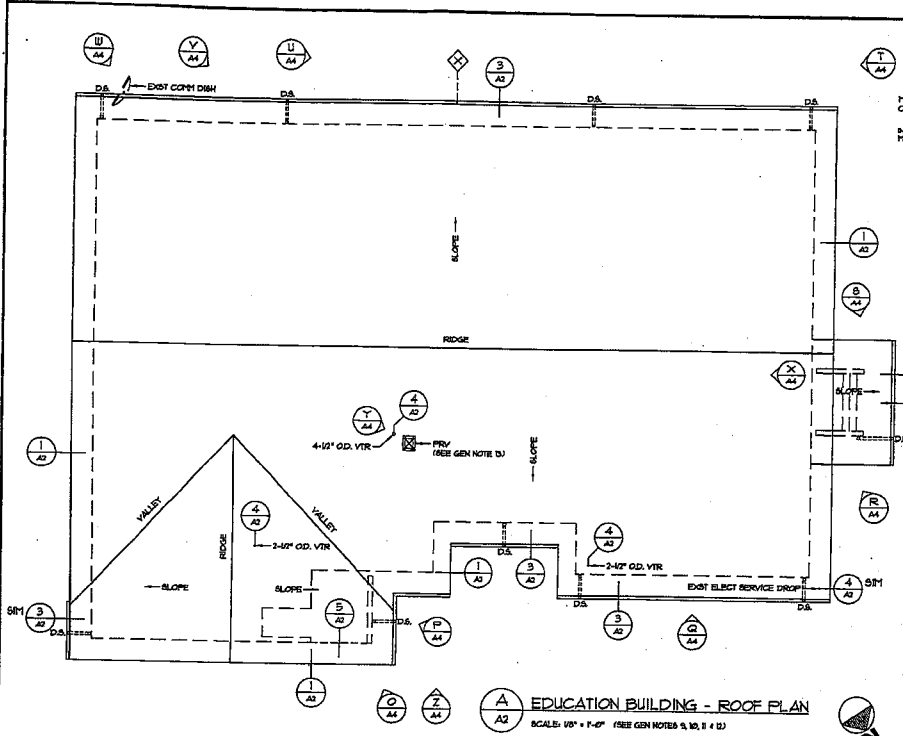
UNION LOCAL 1000

VICINITY/LOCATION MAPS, SITE PLAN, TITLE, APPROVALS, EXISTING BUILDING BODY PLAN, GENERAL NOTES

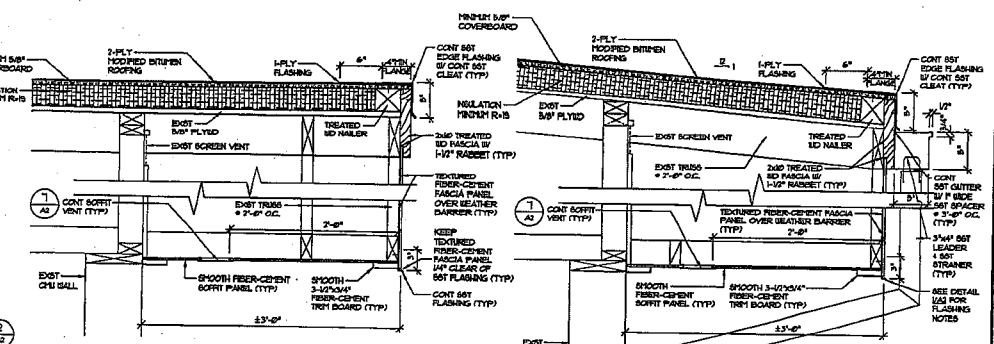
THIS WORK WAS PREPARED BY  
 AS CHECKED BY SUPERVISOR

ROBERT E. FREEBURG, AIA & ASSOC.  
 DESIGNED BY: R.E.F.  
 DRAWN BY: R.E.F.  
 DATE: 12-27-5645  
 SCALE: AS SHOWN  
 EXPIRES: DEC 2012

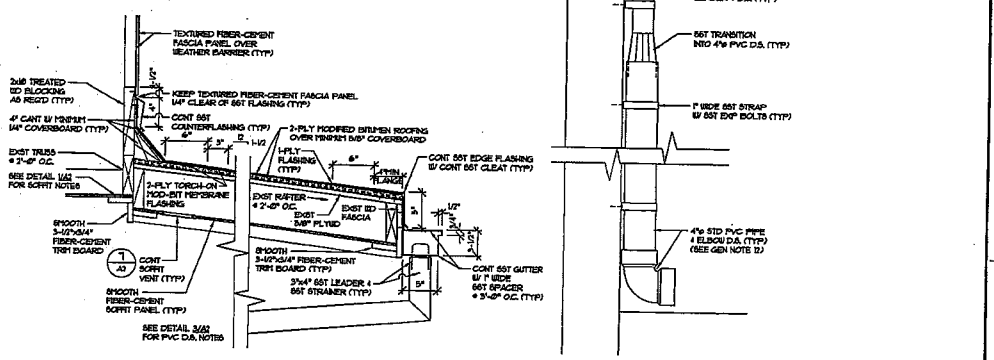
PROJECT NO. 12-27-5645  
 SHEET NO. 01



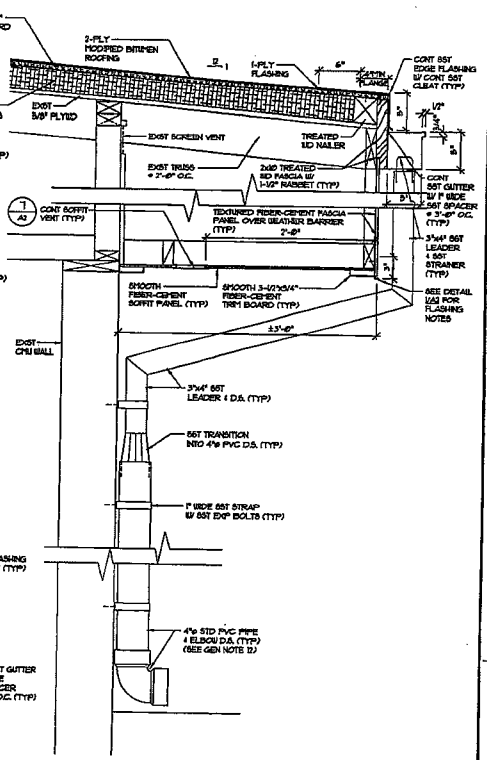
**A EDUCATION BUILDING - ROOF PLAN**  
SCALE: 1/8" = 1'-0" (SEE GEN NOTES 9, 10 & 12)



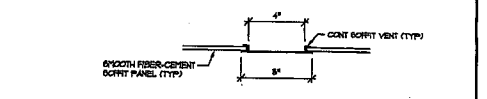
**1 TYP SECTION**  
SCALE: 1/2" = 1'-0" (SEE GEN NOTES 9, 10 & 12)



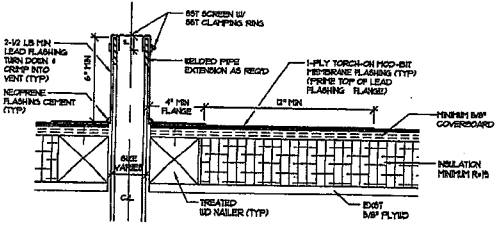
**2 SECTION @ LOW ROOF**  
SCALE: 1/2" = 1'-0" (SEE GEN NOTES 9, 10 & 12)



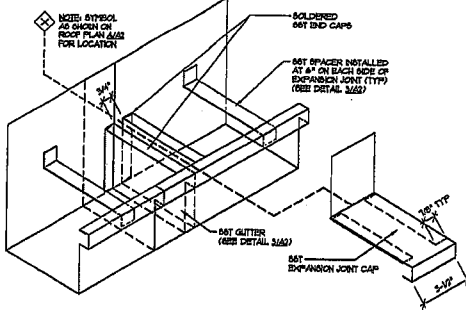
**3 TYP SECTION**  
SCALE: 1/2" = 1'-0" (SEE GEN NOTES 9, 10 & 12)



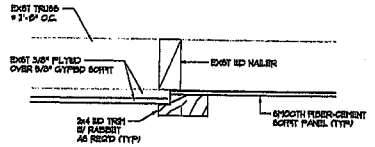
**7 TYP SOFFIT VENT DETAIL**  
SCALE: 3" = 1'-0"



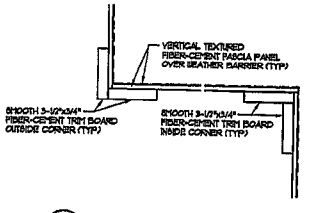
**4 TYP VTR DETAIL (CONDUIT 6IM)**  
SCALE: 3" = 1'-0"



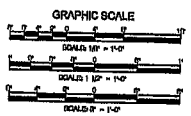
**X GUTTER EXPANSION JOINT**  
SCALE: 3" = 1'-0"



**5 SECTION @ ENTRANCE**  
SCALE: 3" = 1'-0"



**6 TYP FASCIA CORNER DETAIL**  
SCALE: 3" = 1'-0"

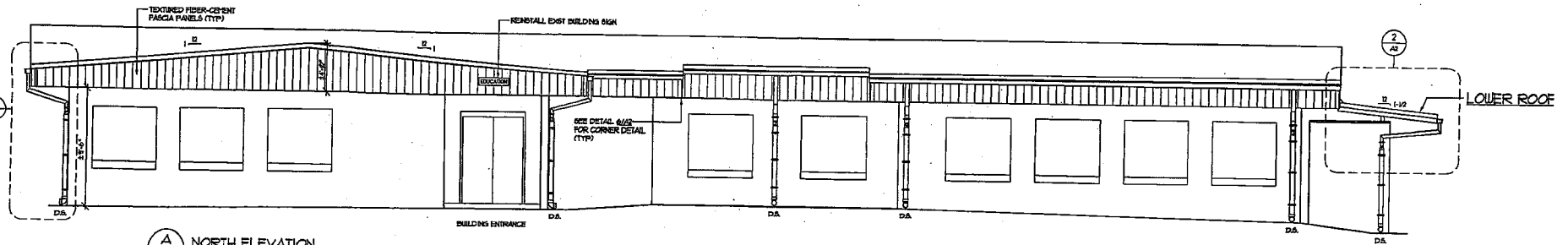


REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

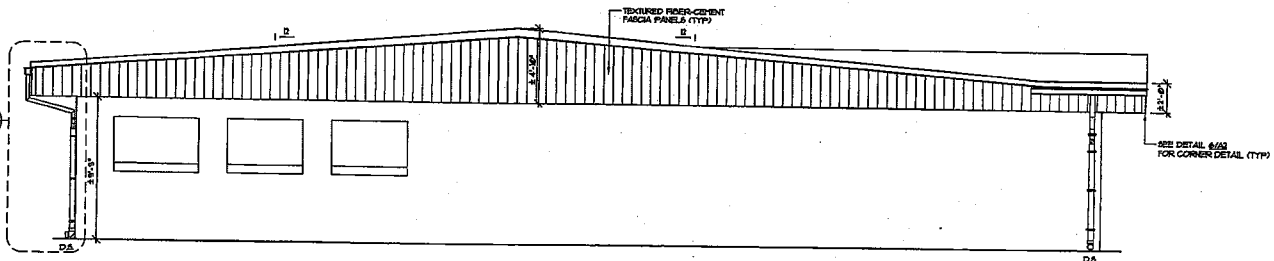
  

		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>HAWAII CORRECTIONAL FACILITY</b> <b>EDUCATION BUILDING</b> <b>REPLACE ROOFING SYSTEM</b> OAHU (USA)
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. 		DRAWN BY: REF CHECKED BY: REF DATE: 12-27-2015 AS SHOWN
PROJECT NO.: 12-27-2015	SHEET NO.: 2	TOTAL SHEETS: 4

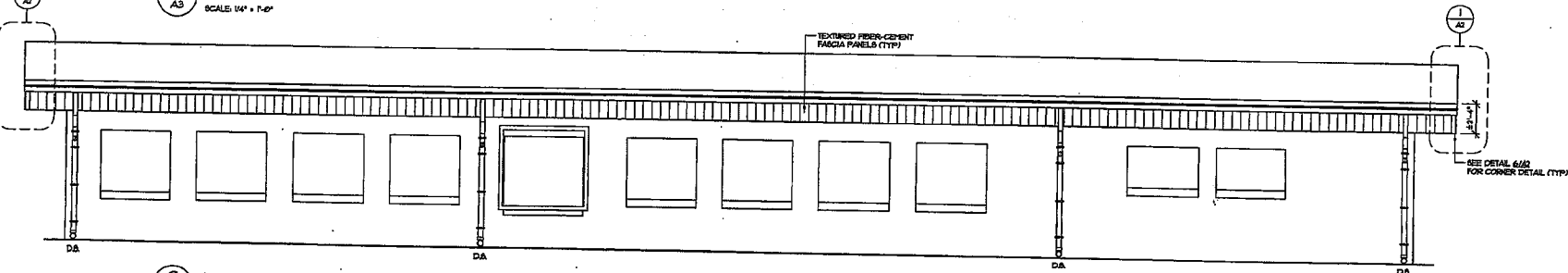




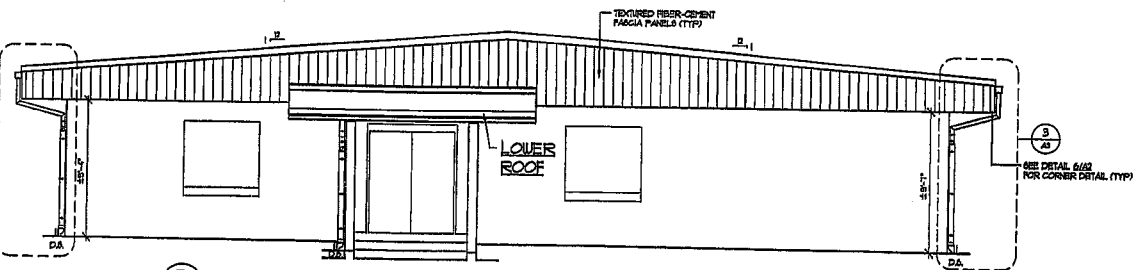
**A NORTH ELEVATION**  
SCALE: 1/4" = 1'-0"



**B EAST ELEVATION**  
SCALE: 1/4" = 1'-0"



**C SOUTH ELEVATION**  
SCALE: 1/4" = 1'-0"



**D WEST ELEVATION**  
SCALE: 1/4" = 1'-0"



PROJECT NO.	12-27-5845	DATE	DEC 2012
DESCRIPTION	DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII		
OWNER	HAWAIIAN CORRECTIONAL FACILITY EDUCATION BUILDING REPLACE ROOFING SYSTEM OHU		
DESIGNED BY	ROBERT E. FRIEDMAN, AIA & ASSOC.		
APPROVED BY	DATE	BY	DATE
APPROVED BY	12-27-5845	DATE	DEC 2012
PROJECT NO.	12-27-5845	SHEET	3 OF 4
DATE	DEC 2012	BY	AS SHOWN

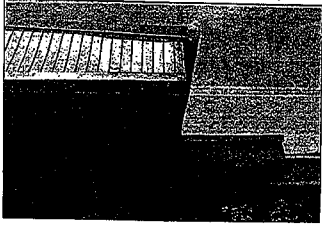


PHOTO O  
A4 (BUILDING ENTRANCE)

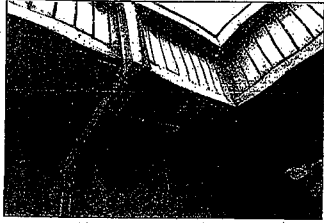


PHOTO P  
A4

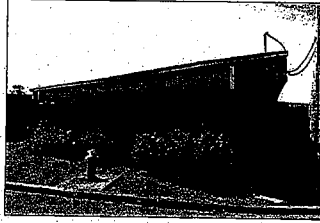


PHOTO Q  
A4

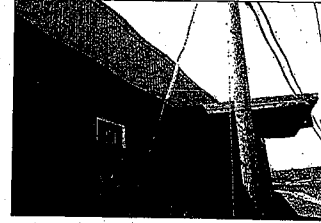


PHOTO R  
A4 (LOWER ROOF)



PHOTO S  
A4 (LOWER ROOF)

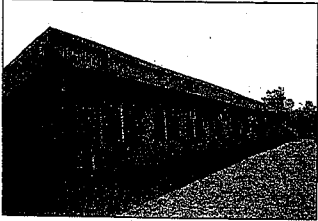


PHOTO T  
A4

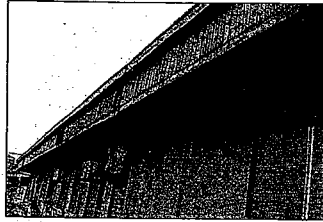


PHOTO U  
A4



PHOTO V  
A4

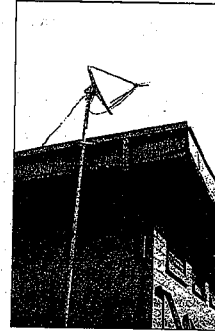


PHOTO W  
A4 (EXIST COMM DISH TO REMAIN)



PHOTO X  
A4 (EXIST COMM WIRES SEE GEN NOTE 1)

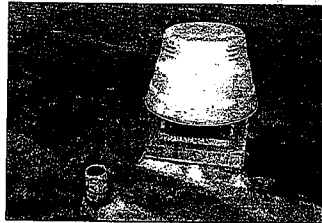


PHOTO Y  
A4 (SEE GEN NOTE 1B)

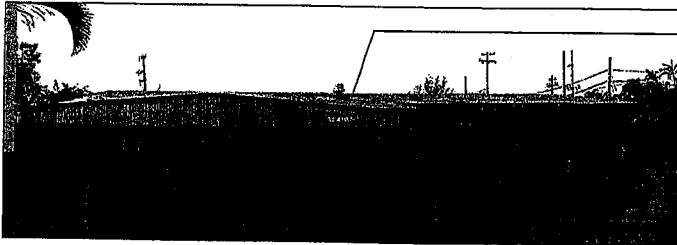


PHOTO Z  
A4

REMOVE EXIST BUILDING SIGN  
& REINSTALL AFTER FACIA WORK COMPLETED

ISSUE NO.	REV.	DESCRIPTION	DATE	APPROVED
				PUBLIC WORKS ADMINISTRATION
		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIHUA CORRECTIONAL FACILITY</b> <b>EDUCATION BUILDING</b> <b>REPLACE ROOFING SYSTEM</b> WAIHUA Oahu HONOLULU		
PHOTOS				
<b>REC</b> <small>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</small> <small>EXPIRES DATE 04/20/14</small>		<small>DATE FOR NO.</small> <small>FORWARD BY</small> REF <small>FORWARD BY</small> REF <small>DATE</small>	<small>DATE FOR NO.</small> <b>12-27-2012</b> <small>DATE</small>	<small>REVISION NO.</small> <b>A4</b> <small>SHEET</small> <b>4</b> <small>OF 4 SHEETS</small>
		<small>AS SHOWN</small>	<small>DEC 2012</small>	<small>OF 4 SHEETS</small>

**BP 749789**

# WAIAWA CORRECTIONAL FACILITY KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT

94-560 KAMEHAMEHA HIGHWAY  
WAIPAHU, OAHU, HAWAII

FOR THE: DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII

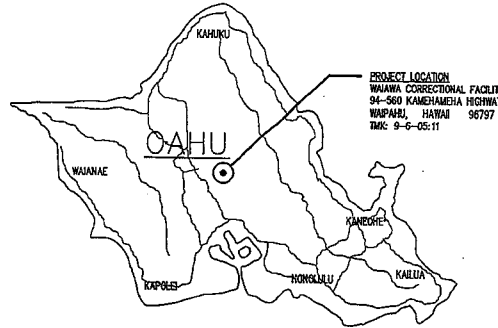
BY THE: DEPARTMENT OF ACCOUNTING  
AND GENERAL SERVICES  
PUBLIC WORKS DIVISION  
STATE OF HAWAII

D.A.G.S. JOB NO.: 12-27-5650

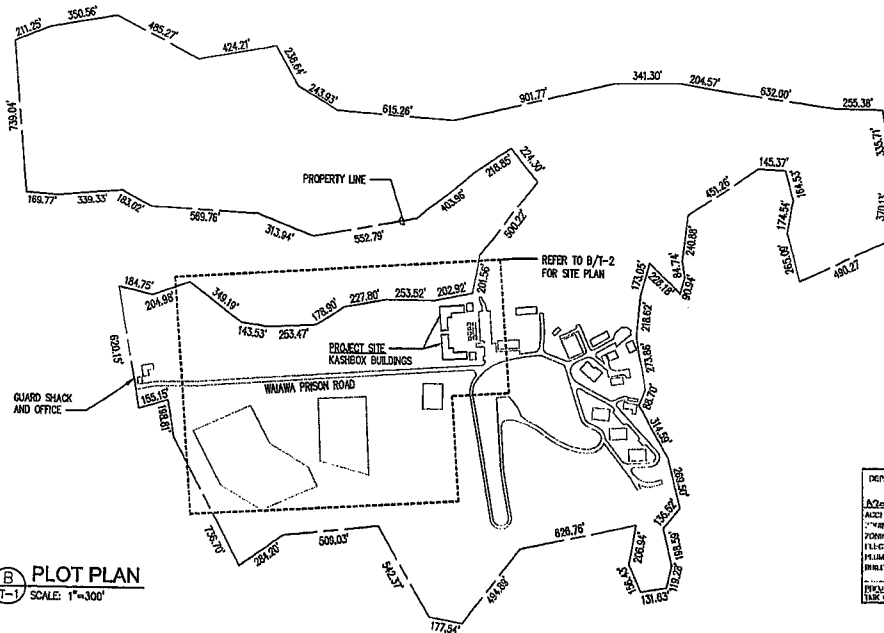
MECHANICAL ENGINEER: KATAYAMA & ASSOCIATES, INC.  
ARCHITECT: KEN KAJIWARA ARCHITECTS, INC.  
ELECTRICAL ENGINEER: H & O - III, INC.  
ENVIRONMENTAL CONSULTANT: ENVIRONMETEO SERVICES, INC.

### ZONING CODE SUMMARY:

TMC:	9-6-05:11	SMA/SHORELINE:	NOT IN SMA
AREA:	6,677,033 SQ. FT.	SPECIAL DISTRICT:	NOT IN SPECIAL DISTRICT
FLOOD ZONE:	0-UNDETERMINED FLOOD HAZARD	STATE LAND USE:	AGRICULTURAL DISTRICT
HEIGHT LIMIT:	-	STREET SETBACK:	NONE
HISTORIC REGISTER:	NONE	ZONING:	F-1 MILITARY AND FEDERAL PRESERVATION
LOT RESTRICTION:	NONE		



**ISLAND PLAN**  
SCALE: NOT TO SCALE  
NORTH



**PLOT PLAN**  
SCALE: 1"=300'  
NORTH

**BUILDING DIVISION  
FILE COPY**

DEPARTMENT OF PLANNING AND PERMITTING  
DIVISION OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU  
AGRICULTURAL DISTRICT  
PROJECT NO. 12-27-5650  
ZONING CODE: F-1  
ELECTRICAL PERMITS: 12-27-5650  
ISSUED: 4/30/2018

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APPROVALS:		
<i>[Signature]</i>		3/12/14
DIRECTOR DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII		DATE
<i>[Signature]</i>		3/13/14
COMPTROLLER DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII		DATE
<i>[Signature]</i>		3/13/14
PUBLIC WORKS ADMINISTRATOR DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII		DATE

	DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT</b> WAIPAHU, OAHU, HAWAII
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION DATE: 4/30/2018 LICENSE EXP.: 4/30/2018	KATAYAMA & ASSOCIATES, INC. 12-27-5650 <b>T-1</b> DATE: 4/30/2018

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**DEMOLITION NOTES:**

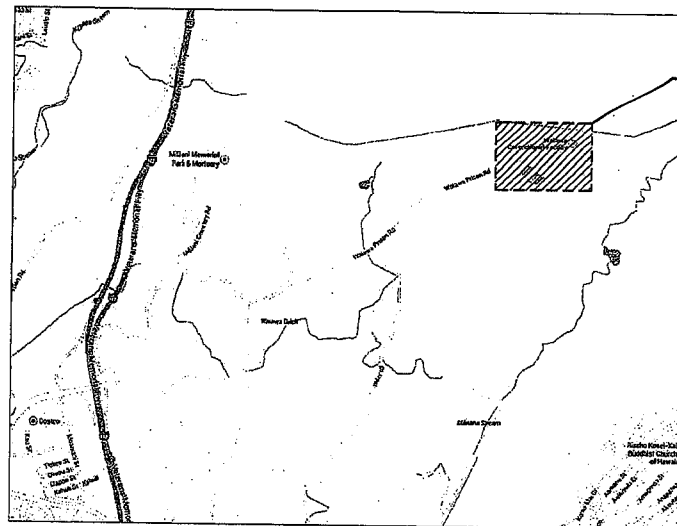
- PRIOR TO DEMOLITION REMOVAL**
1. ALL DEMOLITION WORK SHALL TAKE PLACE IN AND UNDER FULL CONTAMINATION PROCEDURES UNDER NEGATIVE PRESSURE.
  2. INITIAL CLEANING - HEPA VACUUM AND WET-CLEAN ALL FLOOR AND HORIZONTAL SURFACES. HEPA VACUUM, WET WIPE, AND REMOVE ALL MOVABLE OBJECTS FROM WITHIN THE REGULATED WORK AREA(S). OBJECTS THAT CANNOT BE MOVED WILL BE THOROUGHLY VACUUMED, WET WIPED, AND COVERED WITH 2 LAYERS OF 6-MIL POLYETHYLENE SHEETING. INITIAL CLEANING SHALL TAKE PLACE PRIOR TO THE START OF ANY WORK.
  3. SEAL ALL OPENING WITHIN THE WORK AREA (INSTALLATION OF CRITICAL BARRIERS).
  4. ISOLATE REMOVAL WORK AREA WITH PLASTIC BARRIERS OR OTHER ISOLATION METHODS WHICH PREVENT THE MIGRATION OF ANY DEBRIS FROM THE WORK AREA.
  5. INSTALL AIR PURIFYING UNIT(S).
  6. INSTALL DECONTAMINATION UNIT ADJACENT TO WORK AREA.
  7. ENSURE, PRIOR TO THE START OF WORK, A MINIMUM OF -0.04 COLUMN INCHES OF WATER PRESSURE DIFFERENTIAL, RELATIVE TO THE OUTSIDE PRESSURE CAN BE OBTAINED AND MAINTAINED THROUGHOUT DEMOLITION UNTIL COMPLETED.

- DEMOLITION**
1. ALL MATERIAL SHALL BE SATURATED WITH AMENDED WATER CONTAINING A WETTING AGENT (SURFACTANT) BEFORE REMOVAL. WET METHODS SHALL BE USED AT ALL TIMES DURING THE DEMOLITION AND DISPOSAL OF MATERIALS. NO DRY OR MECHANICAL METHOD OF REMOVAL IS PERMITTED. THE MATERIAL SHALL BE CAREFULLY REMOVED, WHOLE AND INTACT TO THE EXTENT POSSIBLE, AND CAREFULLY CARRIED FOR BAGGING AND DISPOSAL. DRILLING, BREAKING, PULVERIZING, OR CRUSHING OF MATERIAL SHALL BE AVOIDED. APPLICATION OF A LOCK DOWN ON SURFACES WHERE IS REQUIRED.
  2. THE MATERIAL SHALL BE REMOVED IN PHASES. FIRST THE DEBRIS SHALL BE PACKED INTO LEAK TIGHT DOUBLE 6-MIL PLASTIC BAGS AND SEALED AIR TIGHT. THE BAGGED DEBRIS SHALL BE HANDLED AND CARRIED SO THAT THE POLYETHYLENE WRAPPING IS NOT TORN OR PUNCTURED. THE MAXIMUM NUMBER OF MATERIAL SHALL BE BAGGED AND SHALL BE LIMITED TO WHAT CAN EASILY BE LIFTED BY ONE PERSON.
  3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, PRIOR TO THE SUBMISSION OF HIS BID, TO VERIFY THE QUANTITY AND THICKNESS OF THE MATERIAL AND SATISFY HIMSELF AS TO THE COMPLEXITY OF THE TOTAL WORK AND/OR EFFORT TO REMOVE SAID MATERIAL AND COMPLETE WORK AS SPECIFIED. NO ADDITIONAL PAYMENT WILL BE CONSIDERED BY THE STATE TO THE BIDDER BECAUSE OF LACK OF SUCH EXAMINATION OR KNOWLEDGE.
  4. REQUIRE THAT ANY TIME A WORKER ENTERS THE WORK AREA THE FOLLOWING PROCEDURE IS FOLLOWED:  
ACCESS TO THE WORK AREA SHALL BE THROUGH THE DECONTAMINATION UNIT LOCATED AS APPROVED BY THE CONTRACTING OFFICER. ALL OTHER MEANS OF ACCESS (DOORS, STAIRWAYS, HALLWAYS, ETC.) SHALL BE BLOCKED OR LOCKED SO AS TO PREVENT NON-EMERGENCY ENTRY TO OR EXIT FROM THE WORK AREA. THE ONLY EXCEPTION IS THE WASTE LOAD-OUT AIRLOCK WHICH SHALL REMAIN SEALED EXCEPT DURING LOADING OUT OF CONTAMINATED ASBESTOS CONTAINING WASTE FROM THE WORK AREA, AND EMERGENCY EXITS IN CASE OF FIRE OR ACCIDENT. EMERGENCY EXITS SHALL NOT BE LOCKED FROM THE INSIDE, HOWEVER, THEY SHALL BE SEALED WITH POLYETHYLENE SHEETING AND TAPED UNTIL NEEDED, LOCKED SO AS TO PREVENT ENTRY FROM THE OUTSIDE IF POSSIBLE AND SHALL BE CLEARLY MARKED ON THE NON-WORK AREA SIDE TO WARN OF THE ASBESTOS ABATEMENT PROCEEDING WITHIN.

- DECONTAMINATION PROCEDURES**
1. A THREE (3) STAGE DECONTAMINATION UNIT ADJACENT TO EACH WORK AREA MUST BE OF SUFFICIENT SIZE TO ACCOMMODATE CLEANING OF EQUIPMENT AND REMOVAL OF PERSONAL PROTECTIVE EQUIPMENT (PPE), SHOWERING AND DRESSING WITHOUT SPREADING CONTAMINATION BEYOND THIS AREA.
  2. BEFORE LEAVING THE WORK AREA, REQUIRE THE WORKER TO REMOVE ALL GROSS CONTAMINATION AND DEBRIS FROM OVERALLS AND FEET.
  3. THE WORKER THEN PROCEEDS TO THE EQUIPMENT ROOM AND REMOVES ALL CLOTHING EXCEPT RESPIRATORY PROTECTION EQUIPMENT. DISPOSABLE COVERALLS ARE PLACED IN A BAG FOR DISPOSAL WITH OTHER CONTAMINATED MATERIAL.
  4. THE WORKER THEN PROCEEDS TO THE SHOWER. AFTER SHOWERING, THE WORKER MOVES TO THE CHANGE ROOM AND DRESSES IN EITHER NEW COVERALLS FOR RE-ENTRY OF THE WORK AREA OR STREET CLOTHES IF LEAVING.

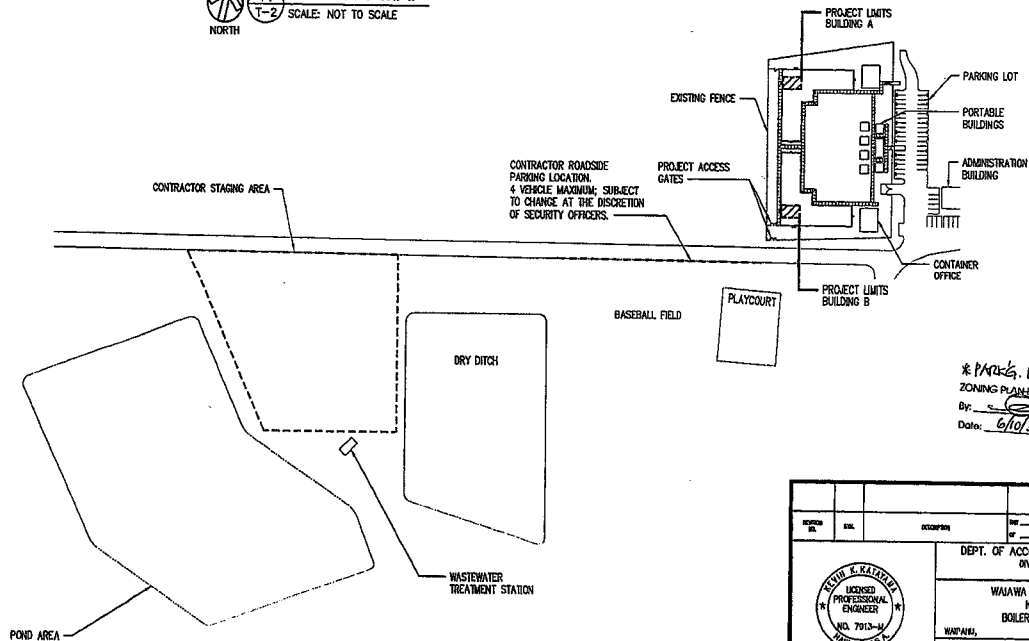
- DISPOSAL OF NON-REGULATED CONSTRUCTION DEBRIS**
1. DISPOSAL OF NON-REGULATED CONSTRUCTION DEBRIS MAY BE DISPOSED OF AN APPROVED PERMITTED LANDFILL.

COORDINATE ALL WORK WITH PROJECT PLANS AND SPECIFICATIONS.



PROJECT LOCATION  
WAIAWA CORRECTIONAL FACILITY

**VICINITY MAP**  
SCALE: NOT TO SCALE



**SITE PLAN**  
SCALE: NOT TO SCALE

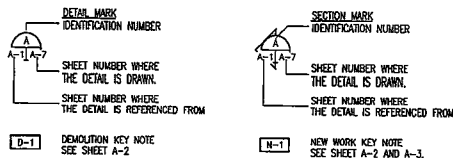
REVISION NO.	DATE	DESCRIPTION	BY	CHK	DATE APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIAWA CORRECTIONAL FACILITY KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT					
GENERAL NOTES, VICINITY MAP, SITE PLAN					
KATAYAMA & ASSOCIATES, INC. LICENSED PROFESSIONAL ENGINEER NO. 7913-A HAWAII, U.S.A.					
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION					
DESIGNED BY	W.K.	CHECKED BY	K.C.	DATE	12-27-1996
DRAWN BY	W.K.	APPROVED BY	K.C.	SHEET	2
SCALE	AS NOTED	DATE	4/20/2014	OF	15 SHEETS

**GENERAL NOTES**

- ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE (IBC) AND THE LATEST CITY AND COUNTY OF HONOLULU/STATE OF HAWAII AMENDMENTS AND ORDINANCES. COMPLY WITH THE MOST STRINGENT CODE.
- CONTRACTOR SHALL PROVIDE A SAFE, ACCESSIBLE PASSAGE AROUND THE CONSTRUCTION SITE PER AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES SECTION 402.1.
- FOR THE PURPOSES OF THIS PROJECT, THE WORD "PROVIDE" SHALL MEAN BOTH THE FURNISHING AND THE INSTALLATION OF THE MATERIAL BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.
- ALL ITEMS SHOWN ON THE DRAWINGS ARE NEW UNLESS INDICATED OR NOTED OTHERWISE. (NEW ITEMS ARE TYPICALLY INDICATED BY THE SUFFIX "(N)" AFTER THE ITEM BEING DESCRIBED).
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE AND BUILDING BEFORE PROCEEDING WITH THE WORK AND NOTIFY THE CONTRACTING OFFICER PRIOR TO COMMENCEMENT OF WORK OF ALL DISCREPANCIES AND/OR EXISTING CONDITIONS THAT WILL AFFECT THE WORK.
- DIMENSIONS SHOWN ON THE DRAWINGS ARE FROM FINISH FACE TO FINISH FACE, UNLESS NOTED OTHERWISE. DIMENSIONS OFF OF EXISTING WALLS, COLUMNS, ETC. ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD.
- TEMPORARY SUPPORTS SHALL BE USED TO AVOID ANY UNNECESSARY DAMAGE TO THE EXISTING STRUCTURE OR FINISHES DURING REMOVAL AND CONSTRUCTION WORK.
- TEMPORARILY RELOCATE AND/OR DISCONNECT EXISTING EQUIPMENT, MECHANICAL AND ELECTRICAL CONNECTIONS, ETC. AS REQUIRED, TO EXECUTE THE WORK. RETURN THESE ITEMS TO EXISTING LOCATION UPON COMPLETION OF THE WORK IN PROPER WORKING ORDER. THE CONTRACTOR SHALL CONSULT AND SECURE PROPER NOTICE TO THE CONTRACTING OFFICER REGARDING ANY TEMPORARY DISCONNECTION OF UTILITIES.
- REPAIR ALL SURFACES AFFECTED BY DEMOLITION OR INSTALLATION OF NEW WORK. REPAIR ALL SURFACES TO EITHER PROPERLY ACCEPT NEW SCHEDULED WORK OR TO MATCH IN MATERIAL, COMPOSITION, AND APPEARANCE THE FINISH OF THE EXISTING SURFACES.
- EXISTING ITEMS SCHEDULED FOR REINSTALLATION:  
ALL EXISTING ITEMS, TEMPORARILY REMOVED TO FACILITATE THE INSTALLATION OF THE NEW WORK, SHALL BE REINSTALLED UTILIZING NEW STAINLESS STEEL FASTENERS, STRAPS, ETC.
- THE CONTRACTOR SHALL REVIEW AND ESTABLISH WITH THE CONTRACTING OFFICER, PRIOR TO COMMENCEMENT OF WORK THE FOLLOWING:  
A. EXACT EXTENT OF STAGING AREA.  
B. EXACT LOCATION OF SITE ACCESS POINT.  
C. THE EXISTING CONDITION OF STAGING AREA AND SITE ACCESS POINT AS IT PERTAINS TO LANDSCAPING, IRRIGATION, UTILITIES, SITE FURNISHINGS, PAVING, ETC.  
D. THE CONTRACTOR SHALL SURVEY AND PHOTOGRAPHICALLY DOCUMENT ANY AND ALL EXISTING BUILDING AND SITE DAMAGE, AND ADVISE THE CONTRACTING OFFICER OF THESE CONDITIONS PRIOR TO START OF ANY WORK. THE CONTRACTOR SHALL ACCEPT THE BUILDING AND SITE IN THE CONDITION THAT EXISTS AT THE TIME ACCESS IS GRANTED TO BEGIN WORK. ANY DAMAGE NOT IDENTIFIED AS EXISTING PRIOR TO THE START OF WORK SHALL BE CONSIDERED THE RESPONSIBILITY OF THE CONTRACTOR. DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE STATE.

- BUILDING PROTECTION**
  - ENSURE THAT THERE ARE NO OPENINGS IN THE WALL/WINDOWS/DOORS OF THE BUILDINGS AT THE END OF EACH WORKING DAY WHERE UNLAWFUL ENTRY INTO THE BUILDING IS POSSIBLE, DURING NON-WORKING HOURS.
  - CONFINE CONSTRUCTION ACTIVITIES, OPERATIONS, MATERIAL, EQUIPMENT AND APPLIANCES TO WITHIN THE DESIGNATED AND BARRICADED PROJECT AREAS. ISOLATE WORK AREA FROM BUILDING OCCUPANTS, BUILDING USERS AND GENERAL PUBLIC. ANY INJURY OR DAMAGE TO PERSONS AND/OR PROPERTIES ADJOINING THE WORK AREA, NOT PHYSICALLY ISOLATED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST TO REMEDY INJURY OR DAMAGE SHALL BE BORNE BY THE CONTRACTOR AT NO COST TO THE STATE.
  - PROTECT BUILDING INTERIOR AND ALL CONTENTS FROM DUST AND DEBRIS FROM DEMOLITION AND NEW WORK. PROVIDE TEMPORARY PROTECTION MEASURES TO PROTECT THESE AREAS AND ITEMS FROM CONSTRUCTION DEBRIS. CLEAN ALL INTERIOR SURFACES, INCLUDING BUT NOT LIMITED TO FURNISHING, EQUIPMENT, BOOKS, ETC. INTERIOR SURFACES UPON COMPLETION OF THE WORK.
  - NOXIOUS ODOR AND DUST MIGRATION  
CAP AND SEAL ALL OUTSIDE AIR INTAKE VENTS, LOUVERS, ETC. AS REQUIRED TO MITIGATE NOXIOUS ODORS AND DUST FROM ENTERING THE USER OCCUPIED SPACES IN THE BUILDING. IN THE EVENT THE MIGRATION OF THE ODORS/DUST CANNOT BE PREVENTED, AND THE AIR CONDITIONING SYSTEM OUTAGE IS NECESSARY, COORDINATE THIS ACTIVITY WITH THE CONTRACTING OFFICER.
- EXISTING FRAMING PLYWOOD SHEATHING DAMAGE REPAIR
  - EXISTING 1/2" THICK PLYWOOD SHEATHING MAY BE DAMAGED DUE TO MOISTURE INTRUSION. REPLACE SHEATHING FOUND TO BE DAMAGED AND AN IMPROPER SUBSTRATE FOR THE NEW FINISH MATERIAL. INCLUDE LABOR AND MATERIAL TO REPLACE 200 S.F. OF PLYWOOD IN THE BASE BID AND LIST VARIABLE UNIT COST ON THE BID FORM.
  - EXISTING 2X4 AND 2X6 WALL FRAMING MAY BE DAMAGED DUE TO MOISTURE INTRUSION. REPLACE FRAMING FOUND TO BE DAMAGED AND AN IMPROPER SUBSTRATE FOR THE NEW FINISH MATERIAL. INCLUDE LABOR AND MATERIAL TO REPLACE 80 L.F. OF 2X4 WALL FRAMING AND 40 L.F. OF 2X6 WALL FRAMING IN THE BASE BID AND LIST VARIABLE UNIT COST ON THE BID FORM.
- PROJECT PRODUCT STANDARDS: THIS PROJECT WAS DEVELOPED AND DETAILED AROUND THE FOLLOWING PRODUCTS AND MATERIALS.
  - ALUMINUM STORM RESISTANT LOUVERS - CONSTRUCTION SPECIALTIES, RS-400, 4" DEEP. PRODUCTS OF OTHER MANUFACTURERS ARE ACCEPTABLE, PROVIDED THEY MEET THE SPECIFICATIONS AND ARE REVIEWED AND APPROVED DURING THE SUBSTITUTION REQUEST PERIOD. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY TO DEVELOP DETAILS AND AN IMPROPER SUBSTRATE FOR THE EXISTING SUBSTRATE AND WORK BY OTHER TRADES, TO MEET THE ALTERNATE PRODUCT MANUFACTURER'S PRODUCT SPECIFICATIONS. ALL COST RELATED TO USE OF THE ALTERNATE PRODUCT, INCLUDING BUT NOT LIMITED TO DESIGN COSTS, COSTS RELATED TO OTHER TRADES, ETC. SHALL BE BORNE BY THE CONTRACTOR.

**SYMBOLS**



**ABBREVIATIONS**

Ø	DIAMETER	HD	HAND
±	NUMBER PLUS OR MINUS	LD	INSIDE DIAMETER
ABS	ABSORBE	LB	POUND(S)
ACCU	ACROCONTROLE-BUTADIENE-STYRENE	LCP	LEAD CONTAINING PAINT
ACU	AIR CONDITIONER CONDENSER UNIT	MAX	MAXIMUM
ASB	ASBESTOS CONTAINING MATERIAL	MECH	MECHANICAL
BT	BITUMEN	MEDL	MECHANICAL
BUH	BUILT-UP ROOFING	MIN	MINIMUM
CD	CONDOSITE	MOD	MODIFIED
CONC.	CONCRETE	(N)	NEW
CONB.	CONDOSITE CONCRETE PAD	O.C.	ON CENTER
CP	CONCRETE PAD	O.D.	OUTSIDE DIAMETER
ØA	DIAMETER	OPP.	OPPOSITE
DS	DOWNSPOUT	PVC	POLYVINYL CHLORIDE
EA	EACH	R.D.	ROOF DRAIN
ELECT.	ELECTRICAL	RA	RAINLEADER
(E)	EXISTING	SA	SELF ADHERING
EF	EXHAUST FAN	S.S.	STAINLESS STEEL
ETC.	ETC.	T&G	TONGUE AND GROOVE
EX	EXISTING	TPD	THERMOPLASTIC POLYOLEFIN
F.V.	FIELD VERIFY	TPP	TYPICAL
FFR	FALL PROTECTION RESTRAINT		
GN	GOOSENECK		

**PAINTING NOTES**

- THE SCOPE OF WORK IS THE GENERAL PAINTING OF THE INTERIOR SURFACES OF BUILDINGS A AND B BOILER ROOMS AND EXTERIOR PAINTING ON EXTERIOR SURFACES AFFECTED BY THE INSTALLATION OF THE NEW LOUVERS. SURFACE MOUNTED MECHANICAL AND ELECTRICAL PIPING SHALL BE PAINTED. SEE REQUIREMENTS IN MECHANICAL SPECIFICATIONS, IF ANY, FOR ANY PIPING COLOR CODING. SURFACES NOT TO BE PAINTED SHALL INCLUDE, BUT NOT LIMITED TO THE FOLLOWING SURFACES:
  - ITEMS WITH MANUFACTURER'S PRE-FINISHED FINISHES, UNLESS NOTED OTHERWISE.
  - ANODIZED ALUMINUM FINISHED SURFACES.
  - SIGNAGE, UNLESS NOTED OTHERWISE.
  - LIGHT FIXTURES
- GENERAL PREPARATION FOR REPAINTING - CONTRACTOR SHALL REPAIR AND COAT/PAIN ITEMS SO INDICATED ON THE DOCUMENTS, UNLESS NOTED OTHERWISE.
  - REMOVE FROM SURFACE TO BE REPAINTED ALL FOREIGN MATTER, SUCH AS TAPE OR GUM.
  - REMOVE ALL RUST, CORROSION, SCALE AND UNSOUND EXISTING PAINT.
  - CLEAN AND REMOVE ALL ALGAE, MOLD, AND OTHER GROWTH INCLUDING VEGETATION.
  - REMOVE ALL UNSOUND (SOFT) SURFACES AND NEUTRALIZE ALL ALGAE AND MOLD GROWTH.
  - FILL ALL INSECT BORINGS.
  - REMOVE ALL LOOSE, BULTERED, SCALED, CRAZED, CHALKY FINISH TO AN EXISTING TIGHT AND FIRM FINISH.
  - WHERE EXISTING FINISH REMAINS CLEAN, TIGHT AND FIRM, PREPARE SURFACE BY LIGHTLY SANDING. SAND TO FEATHER SMOOTH EDGES AT SCARRED AREAS.
  - SEAL ALL CRACKS UNDER .025 INCH WIDTH AND REPAIR ALL HOLES PRIOR TO PAINT APPLICATION. FOR CRACKS EXCEEDING .025 INCH WIDTH, REPAIR PER DETAIL 4, 5-002 ON STRUCTURAL DRAWINGS.
  - SPOT PRIME SURFACES TO BE PAINTED AT AREAS WHERE DARE SUBSTRATE, SEALANT OR OR PAINTING MATERIAL IS EXPOSED.
  - WASH ALL SURFACES WITH APPROPRIATE SOLUTION TO REMOVE ANY ACCUMULATED FILM OF WAX, GREASE, SMOKE, DIRT, CHALKY OR OTHER FOREIGN MATTER WHICH WOULD IMPAIR BOND OF, OR BLEED THROUGH NEW FINISH. AFTER WASHING, RINSE WITH POTABLE WATER AND ALLOW TO DRY.
- COLOR - MATCH EXISTING PAINT COLORS.

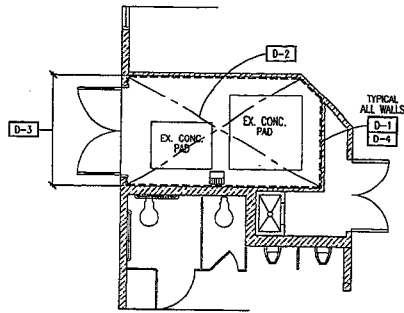
**FRAMING AND LUMBER NOTES**

- LUMBER SHALL BE TERMITE TREATED AND ROT TREATED DOUGLAS FIR CONFORMING WITH STANDARD GRADING AND DRESSING RULES OF THE WEST COAST BUREAU.
- UNLESS OTHERWISE NOTED, THE MINIMUM GRADE OF THE FOLLOWING STRUCTURAL MEMBERS SHALL BE AS FOLLOWS:
  - STRUCTURAL LIGHT FRAMING (SURFACE FOUR SIDES, S4S)
    - 2 TO 4 INCHES THICK, 2 TO 4 INCHES WIDE - STUD GRADE
    - 2 TO 4 INCHES THICK, 5 INCHES AND WIDER - GRADE 2
- SHEATHING SHALL BE IDENTIFIED WITH APPROPRIATE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE U.S. PRODUCTS STANDARD PS 1 OR ONE OF APA'S PERFORMANCE STANDARDS.
  - INTERIOR WALL SHEATHING SHALL BE CDX APA RATED SHEATHING EXPOSURE 1, 16" O.C. SPAN RATINGS.
  - EXTERIOR WALL SHEATHING SHALL BE APA RATED SIDING EXPOSURE 1, 16" O.C. SPAN RATINGS.
- WALLS SHALL BE GALVANIZED COMMON WALLS.
- A 30# LAYER ROOFING FELT SHALL BE PLACED BETWEEN ALL WOOD MEMBERS AND CONCRETE OR MASONRY SURFACES.

PROJECT NO.	DATE	DESCRIPTION	SCALE	DATE	BY	DATE	BY	DATE	BY
		DEPT. OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII WAIANA CORRECTIONAL FACILITY KASINDO BUILDINGS BOILER SYSTEMS REPLACEMENT WAIKAPU, OAHU, HAWAII							
GENERAL NOTES									
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.									
DESIGN DATE	DESIGN NO.	ISSUE NO.	DATE	BY	DATE	BY	DATE	BY	DATE
03/23/14	03	1	12-27-2014	ME	03	03	03	03	03
DATE OF REVISION	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY
04/20/14	ME	2	04/20/14	ME	03	03	03	03	03

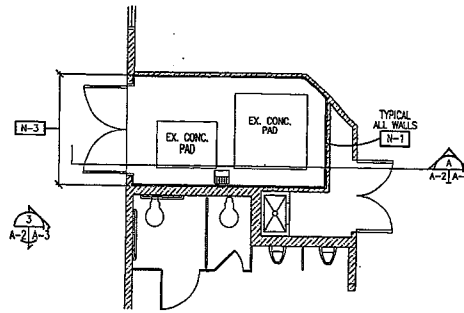
**KEYNOTES**

- D-1** REMOVE DRYWALL ON PARTITION FACE AND ASSOCIATED FASTENERS, COMPLETE TO EXISTING PLYWOOD SHEATHING SUBSTRATE. REPLACE SHEATHING DAMAGED IN DEMOLITION OR WATER DAMAGED (SEE GENERAL NOTE 13, SHEET A-1.) PREPARE SHEATHING TO PROVIDE AN ACCEPTABLE SUBSTRATE FOR NEW DRYWALL.
- D-2** REMOVE DRYWALL ON WOOD TRUSS AND ASSOCIATED FASTENERS, COMPLETE TO EXISTING BARE WOOD TRUSS CHORD. PREPARE TRUSS SURFACE AS REQUIRED TO PROVIDE AN ACCEPTABLE SUBSTRATE FOR NEW DRYWALL.
- D-3** REMOVE PLYWOOD SIDING, SHEATHING AND ASSOCIATED FASTENERS TO BARE WOOD STUD SUBSTRATE, AS REQUIRED TO INSTALL NEW LOUVER AND ASSOCIATED WOOD FRAMING.
- D-4** WHERE EXISTING 1/2" PLYWOOD SHEATHING EXTENDS TO THE TOP OF FLOOR SLAB, VERIFY THE SLAB IS BACKED BY AN EXISTING CONCRETE CURB. REMOVE BOTTOM 3" OF PLYWOOD SHEATHING, WHERE CONCRETE CURB IS FOUND.
- N-1** 5/8" THICK TYPE "X" GYPSUM BOARD (N) OVER EXISTING 1/2" THICK PLYWOOD SHEATHING ON EXISTING 2x4 WOOD STUDS. (2x6 ON EXTERIOR WALL). PAINT (N) DRYWALL. SEE SECTION A2, SHEET A-4.
- N-2** 5/8" THICK TYPE "X" GYPSUM BOARD (N) ON EXISTING WOOD TRUSSES, 24" O.C. PAINT (N) DRYWALL.
- N-3** 1/2" PLYWOOD SHEATHING (N). REPLACE PLYWOOD REMOVED TO INSTALL NEW LOUVER AND WOOD FRAMING.



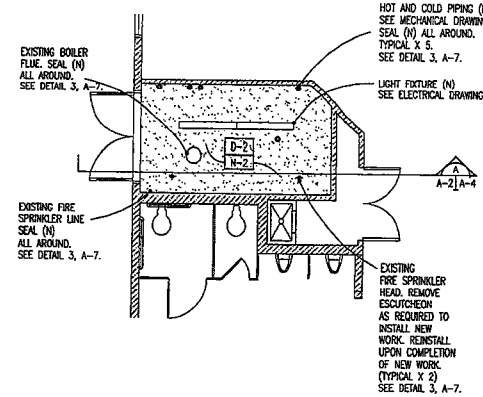
**BUILDING A BOILER ROOM DEMOLITION PLAN**

SCALE: 1/4" = 1' - 0"



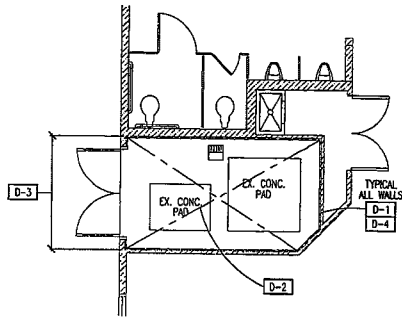
**BUILDING A BOILER ROOM NEW WORK PLAN**

SCALE: 1/4" = 1' - 0"



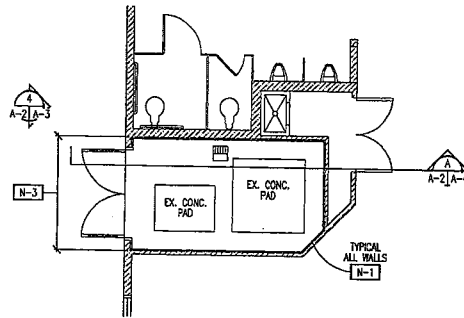
**BUILDING A BOILER ROOM REFLECTED CEILING PLAN**

SCALE: 1/4" = 1' - 0"



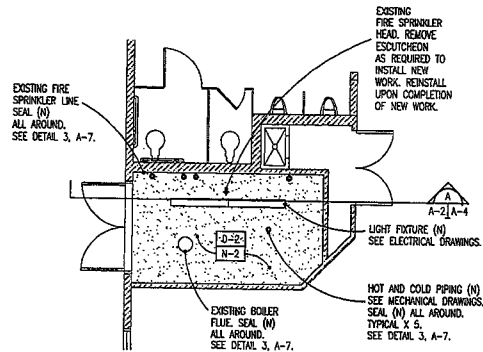
**BUILDING B BOILER ROOM DEMOLITION PLAN**

SCALE: 1/4" = 1' - 0"



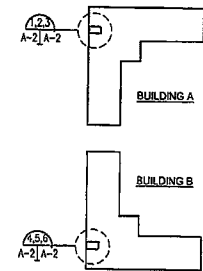
**BUILDING B BOILER ROOM NEW WORK PLAN**

SCALE: 1/4" = 1' - 0"

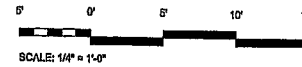


**BUILDING B BOILER ROOM REFLECTED CEILING PLAN**

SCALE: 1/4" = 1' - 0"



**KEY PLAN**



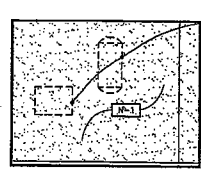
SCALE: 1/4" = 1'-0"

KEY TO INTERIOR ELEVATIONS  
SEE SHEET A-3 FOR ELEVATIONS

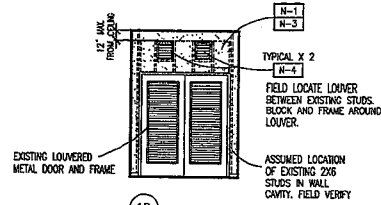
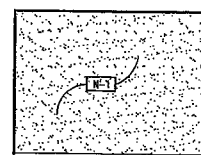
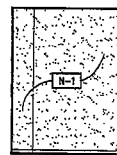
REV.	DATE	DESCRIPTION	BY	DATE	PROJECT
DEPT. OF ACCOUNTING AND GENERAL SERVICES STATE OF IOWA WAWAUA CORRECTIONAL FACILITY KASHOBUK BUILDINGS BOILER SYSTEMS REPLACEMENT					
WAWAUA: BUILDING A AND B BOILER ROOM DEMOLITION, NEW WORK, REFLECTED CEILING PLANS			DRAWING NO. <b>A-2</b>		
PREPARED BY: KEN KALMBURGA ARCHITECTS			DATE: 12-27-2010		
DRAWN BY: K3			SHEET NO. 4		
CHECKED BY: K3			DATE: MAR 2014		
SCALE: AS NOTED			1/15		

**KEYNOTES**

- N-1** 5/8" THICK TYPE "X" GYPSUM BOARD (N) OVER EXISTING 1/2" THICK PLYWOOD SHEATHING ON EXISTING 2x4 WOOD STUDS. (2x6 ON EXTERIOR WALL). PAINT (N) DRYWALL. SEE SECTION A-2, SHEET A-4.
- N-2** 5/8" THICK TYPE "X" GYPSUM BOARD (N) ON EXISTING WOOD TRUSSES, 24" O.C. PAINT (N) DRYWALL.
- N-3** 1/2" PLYWOOD SHEATHING (N), REPLACE PLYWOOD REMOVED TO INSTALL NEW LOUVER AND WOOD FRAMING.
- N-4** STORM RESISTANT ALUMINUM LOUVER (N) WITH INSECT AND BRIB SCREEN (N) AND ASSOCIATED WOOD 2x6 WOOD FRAMING (N), NOMINAL 1 1/2" WIDE X 1 1/2" HIGH X 4" DEEP.



PROVIDE IN WALL CAVITY BLOCKING TO MOUNT TEMPERING VALVE STATION (N) AND EXPANSION TANK (N). COORDINATE LOCATION AND NUMBER OF BLOCKING WITH RESPECTIVE MECHANICAL EQUIPMENT.



1A

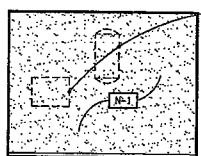
1B

1C

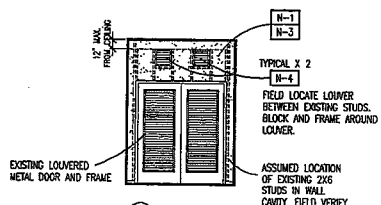
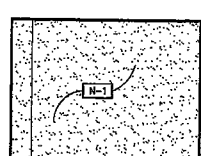
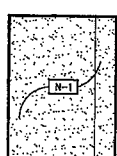
1D

**1 BUILDING A BOILER ROOM INTERIOR ELEVATIONS**  
A-2 | A-3 SCALE: 1/4" = 1' - 0"

NOTE: SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR WALL MOUNTED EQUIPMENT AND APPURTENANCES.



PROVIDE IN WALL CAVITY BLOCKING TO MOUNT TEMPERING VALVE STATION (N) AND EXPANSION TANK (N). COORDINATE LOCATION AND NUMBER OF BLOCKING WITH RESPECTIVE MECHANICAL EQUIPMENT.



2A

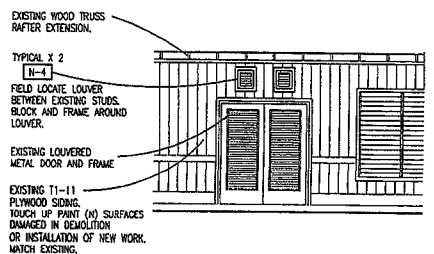
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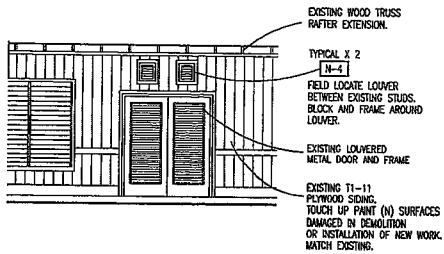
2D

**2 BUILDING B BOILER ROOM INTERIOR ELEVATIONS**  
A-2 | A-3 SCALE: 1/4" = 1' - 0"

NOTE: SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR WALL MOUNTED EQUIPMENT AND APPURTENANCES.



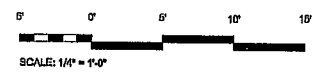
EXISTING WOOD TRUSS RAFTER EXTENSION.  
TYPICAL X 2 N-4  
FIELD LOCATE LOUVER BETWEEN EXISTING STUDS. BLOCK AND FRAME AROUND LOUVER.  
EXISTING LOUVERED METAL DOOR AND FRAME  
EXISTING T1-11 PLYWOOD SIDING. TOUCH UP PAINT (N) SURFACES DAMAGED IN DEMOLITION OR INSTALLATION OF NEW WORK. MATCH EXISTING.



EXISTING WOOD TRUSS RAFTER EXTENSION.  
TYPICAL X 2 N-4  
FIELD LOCATE LOUVER BETWEEN EXISTING STUDS. BLOCK AND FRAME AROUND LOUVER.  
EXISTING LOUVERED METAL DOOR AND FRAME  
EXISTING T1-11 PLYWOOD SIDING. TOUCH UP PAINT (N) SURFACES DAMAGED IN DEMOLITION OR INSTALLATION OF NEW WORK. MATCH EXISTING.

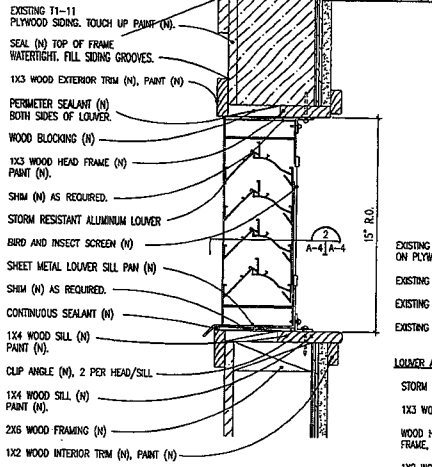
**3 BUILDING A BOILER ROOM EXTERIOR ELEVATIONS**  
A-2 | A-3 SCALE: 1/4" = 1' - 0"

**4 BUILDING B BOILER ROOM EXTERIOR ELEVATIONS**  
A-2 | A-3 SCALE: 1/4" = 1' - 0"

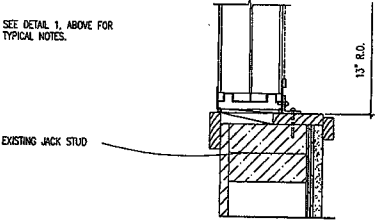


DATE	DESIGNED BY	CHECKED BY	DATE	PROJECT
				DEPT. OF ACCOUNTING AND GENERAL SERVICES
STATE OF ILLINOIS				
WANDA CORRECTIONAL FACILITY				
KASHIROX BUILDINGS				
BOILER SYSTEMS REPLACEMENT				
DATE	SCALE	DATE	SCALE	DATE
INTERIOR AND EXTERIOR ELEVATIONS				
THIS WORK WAS PREPARED BY FOR UNDER MY SUPERVISION.		DRAWN BY CHECKED BY DATE		
KEN KAWADA ARCHITECTS		PROJECT NO. 12-27-9504		
11000 S. WILSON AVENUE, SUITE 100, CHICAGO, ILL. 60628		SHEET NO. 11		
TEL: 312-467-1100		DATE: MAR. 2014		
FAX: 312-467-1101		SCALE: 1/4" = 1'-0"		

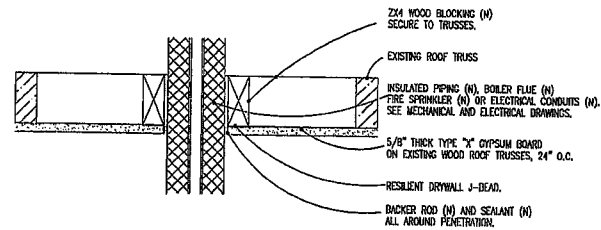




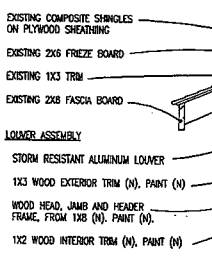
1 LOUVER HEAD AND JAMB DETAIL  
 SCALE: 3" = 1' - 0"



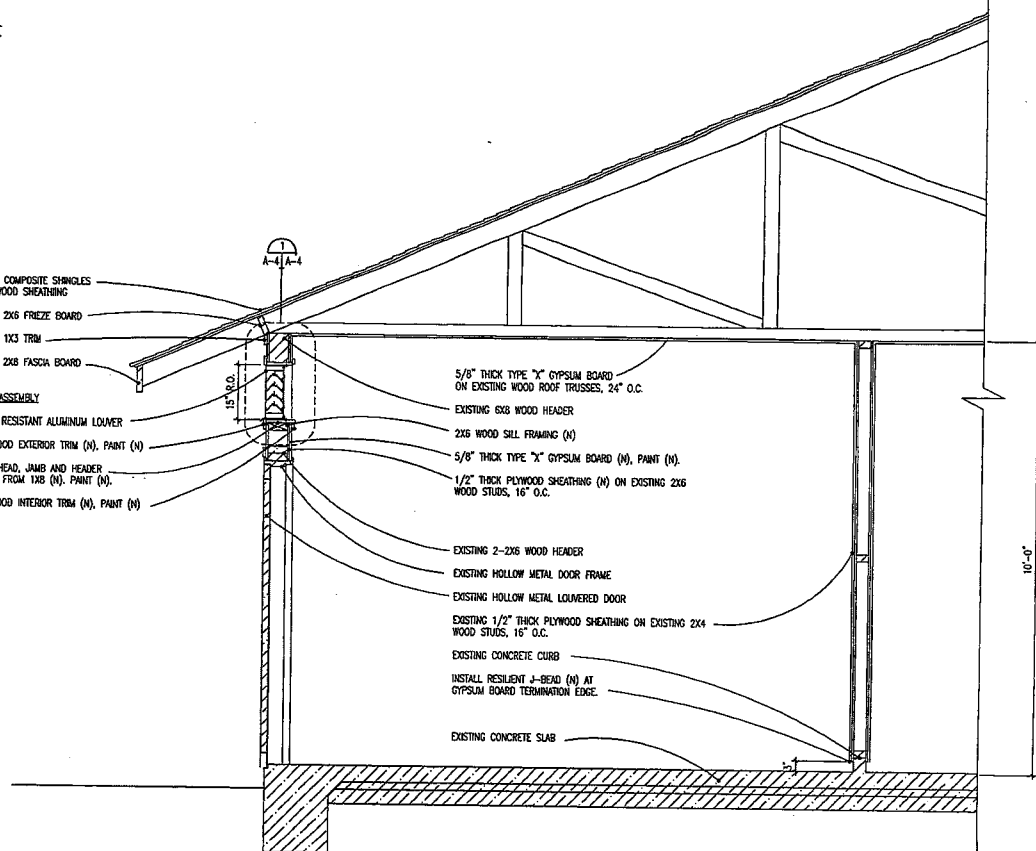
2 LOUVER JAMB DETAIL  
 SCALE: 3" = 1' - 0"



3 CEILING PENETRATION DETAIL  
 SCALE: 3" = 1' - 0"



A BUILDING SECTION A  
 SCALE: 3/4" = 1' - 0"



DATE	REV.	DESCRIPTION	BY	CHK.	DATE	APPROVED
DEPT. OF ACCOUNTING AND GENERAL SERVICES STATE OF HAWAII WAIANAHA CORRECTIONAL FACILITY KASIBOY BUILDINGS BOLLER SYSTEMS REPLACEMENT WAIANAHA CAMP, HAWAII WALL SECTIONS						
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.			NEW KALAMORA ARCHITECTS 12-77-1600 HAWAII			
DESIGNED BY	KL	CHECKED BY	KL	DATE	12-27-1600	SCALE
DRAWN BY	KL	APPROVED BY	KL	DATE		A-4
DATE	1/16/10	SCALE	AS NOTED	DATE	MAR. 2014	BY

**GENERAL PLUMBING NOTES:**

1. THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY ALL EXISTING FIELD CONDITIONS, DIMENSIONS AND OBSTRUCTIONS. THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO UTILITIES PRESENT BEFORE DEMOLITION OF ANY SORT. SHOULD ANY UTILITIES BE DAMAGED IN THE PROCESS OF DEMOLITION AND OR CONSTRUCTION, THE CONTRACTOR SHALL REPAIR THE UTILITIES AT NO ADDITIONAL COST TO THE UNIVERSITY. ANY CLAIMS FILED DUE TO THE DISRUPTION OF THE UTILITY SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL DEMOLITION MATERIAL, COMPLYING WITH ALL FEDERAL, STATE AND LOCAL CODES.
2. ALL MECHANICAL PLUMBING AND FIRE PROTECTION WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION, AND ALL APPLICABLE CODES IN EFFECT; IBC, UAC, UPC, UFC, NFPA, OSHA AND THE STATE OF HAWAII DEPARTMENT OF HEALTH. NO LEAD-CONTAINING MATERIALS OR EQUIPMENT SHALL BE USED UNDER THIS SECTION. THE CONTRACTOR SHALL ENSURE THAT ALL MATERIAL AND EQUIPMENT IN CONTACT WITH POTABLE WATER ARE LEAD FREE.
3. ALL WORKMANSHIP SHALL BE OF THE HIGHEST STANDARDS. INSTALL ALL WORK IN A NEAT SYSTEMATIC AND ORDERLY ARRANGEMENT. ALL MATERIAL SHALL BE NEW AND OF THE BEST QUALITY AVAILABLE, FREE FROM ALL DEFECTS. THE CONTRACTOR SHALL GUARANTEE THE MATERIALS AND INSTALLATION FOR ONE YEAR FROM THE PROJECT ACCEPTANCE DATE AGAINST ANY DEFECTS DUE TO FAULTY MATERIALS, EQUIPMENT, WORKMANSHIP OF INSTALLATION, UPON THE NOTICE OF THE DEFECT, THE CONTRACTOR SHALL REPLACE OR REPAIR THE DEFECTIVE ITEM AT NO ADDITIONAL COST.
4. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE WORK OF ALL OTHER DISCIPLINES AND TRADES. SHOULD ANY DISCREPANCIES BE DISCOVERED IN THE BID DOCUMENTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER BEFORE PROCEEDING ANY FURTHER WITH THE WORK, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COST INVOLVED WITH THE CORRECTION OF THE CONSTRUCTION INSTALLATION.
5. PROVIDE FIRE STOPS AND / OR SEALANT AROUND ALL PIPE, DUCT, CONDUIT, ETC PENETRATIONS. THE SEALS SHALL HAVE A FIRE RATING GREATER THAN OR EQUAL TO THE FIRE RATING OF THE WALL, FLOOR AND ENCLOSURE.
6. ALL EQUIPMENT, DUCTWORK, PIPING ETC. SHALL BE SUPPORTED FROM THE BUILDING'S STRUCTURAL FRAME AND MEMBERS. ALL DUCT SIZES ARE NET DIMENSIONS AND DO NOT INCLUDE ANY INSULATION, SUPPORT OR REINFORCEMENT DIMENSIONS. ALL WORK SHALL BE NEW UNLESS OTHERWISE NOTED AS EXISTING. PAINT ALL EXPOSED DUCTWORK IN FINISHED AREAS TO MATCH THE ADJACENT SURFACES OR OTHERWISE AS INSTRUCTED AS EQUAL AND ACCEPTABLE TO THE CONTRACTING OFFICER. ALL PATCHWORK SHALL MATCH THE EXISTING ADJACENT SURFACE IN TEXTURE AND COLOR UNLESS INDICATED OTHERWISE. COORDINATE ALL PATCHWORK WITH THE ARCHITECTURAL DRAWINGS. PAINT ALL EXPOSED SURFACES TO MATCH THE ADJACENT SURFACES UNLESS INDICATED OTHERWISE. PROVIDE CORROSION PROTECTION ON ALL EXPOSED SURFACES AS INDICATED IN THE SPECIFICATIONS.
7. THE CONTRACTOR SHALL PERFORM TEST ON ALL MECHANICAL SYSTEMS AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES AND REGULATIONS. ALL TEST SHALL BE WITNESSED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL PROVIDE ALL SERVICES AND MATERIALS REQUIRED BY THE TEST AND CERTIFY IN WRITING THAT ALL WORK HAS PASSED ALL REQUIRED TEST. TESTING AND BALANCING OF THE AIR CONDITIONING SYSTEMS SHALL BE COMPLETED BY A THIRD PARTY INDEPENDENT NEBB OR ASAC CERTIFIED CONTRACTOR.
8. PROVIDE WIRE MOLDING FOR FINISHED AREAS AND JUNCTION BOXES AS REQUIRED FOR ALL POWER AND CONTROL WIRING. COORDINATE WITH ELECTRICAL SPECIFICATIONS AND MATCH ACCORDINGLY. ALL CONTROL WIRING 120V AND GREATER SHALL BE INSTALL BE A LICENSED ELECTRICAL CONTRACTOR.
9. PROVIDE IDENTIFICATION FOR ALL PIPING BY MEANS OF COLORED, WATERPROOF, ALL TEMPERATURE, SELF ADHERING LABEL AND DIRECTIONAL ARROWS OR BY PAINTING USING CONTRACTING COLORS, 1/2" MINIMUM HEIGHT STENCIL LETTERING.
10. PROVIDE SEISMIC BRACING ON ALL EQUIPMENT, DUCTWORK, PIPING, ETC. AS REQUIRED BY THE BUILDING CODE AND AS DETAILED BY SMACNA STANDARDS.
11. ONE BUILDING'S WATER HEATING SYSTEM SHALL BE OPERATIONAL AT ALL TIMES.

**LEGEND & ABBREVIATIONS**

SYMBOL	ABBREV	DESCRIPTION	SYMBOL	ABBREV	DESCRIPTION
ABV	ABOVE	-----			EXISTING WORK TO REMOVE
ARCH	ARCHITECT	=====			EXISTING WORK TO REMAIN
BEL	BELOW	-----	CW		DOMESTIC COLD WATER PIPE
CEL	CEILING	-----	CW		EXIST DOMESTIC COLD WATER PIPE TO REMAIN
CONN	CONNECT / CONNECTION	-----	HW		HOT WATER PIPING
DN	DOWN	-----	HW		EXISTING HOT WATER PIPING TO REMAIN
DWG	DRAWING	-----	GAS		GAS PIPE
ELEC	ELECTRICAL	-----	GAS		EXISTING GAS PIPE TO REMAIN
EXIST	EXISTING	-----	S		EXISTING SANITARY PIPE TO REMAIN
FLR	FLOOR	-----	V		EXISTING VENT PIPE TO REMAIN
FS	FIRE SPRINKLER	-----	FS		EXISTING FIRE SPRINKLER PIPE TO REMAIN
FLS	FLOOR SINK	-----			
GAL	GALLON	-----			
GWH	GAS WATER HEATER	-----			
MTD	MOUNTED	-----			
ST	STORAGE TANK	-----			
T/P	TEMPERATURE AND PRESSURE	-----			
TYP	TYPICAL	-----			
VTR	VENT THRU ROOF	-----			

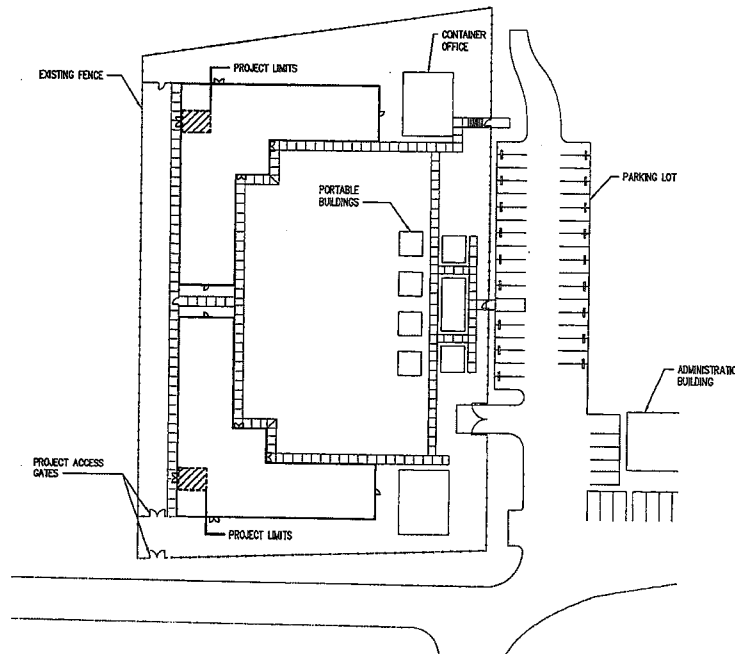
**MECHANICAL EQUIPMENT SCHEDULE:**

**GAS FIRED WATER HEATER:** RAYPAK-HI DELTA OR LAARS-MIGHTY THEM2 OR APPROVED EQUAL

NO.	MANUFACTURER & MODEL NUMBER	MBTUH INPUT	MBTUH OUTPUT	RECOVERY RATE (RRH)	DOMESTIC WATER (°F)		FLUE DIAMETER (IN)	REMARKS
					ENTERING	LEAVING		
GWH 1	RAYPAK - HI DELTA WH3-502B	500	425	736	70	140	6	120V/1A/60 HZ TO HEATER CONTROL AND REAR MOUNTED CIRCULATION PUMP

**HOT WATER STORAGE TANK:** PV-AQUAPLEX OR HANSON OR APPROVED EQUAL

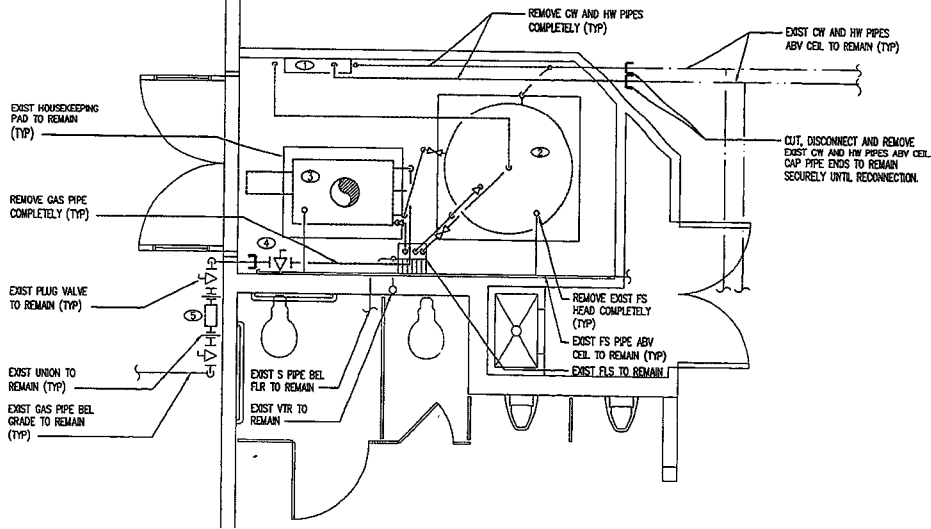
NO.	MANUFACTURER & MODEL NUMBER OR APPROVED EQUAL	STORAGE CAPACITY (GAL)	NOMINAL OVERALL HEIGHT (IN)	TANK DIAMETER (IN)	REMARKS
ST 1	PV - AQUAPLEX L 400A-TR	400	87	46	ASME STAMPED AND NATIONAL BOARD REGISTERED FOR 150 PSI WORKING PRESSURE, STAINLESS STEEL, NO TANK LINING, FACTORY INSULATED AND JACKETED, CORROSION AND CHLORIDE STRESS CORROSION CRACK RESISTANT.



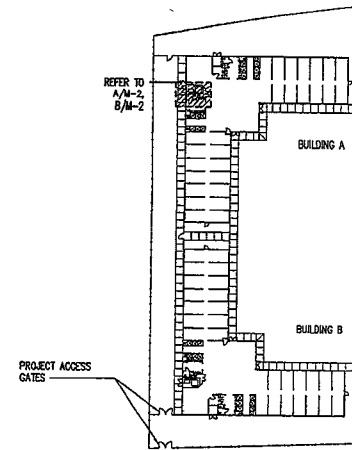
**SITE PLAN**  
SCALE: NOT TO SCALE  
NORTH

CITY AND COUNTY OF HONOLULU  
REVISED ORDINANCE CHAPTER 32,  
HONOLULU COUNTY CODE 1990 AS AMENDED  
TO THE BEST OF MY KNOWLEDGE THIS DESIGN SUBSTANTIALLY  
CONFORMS TO THE BUILDING ENERGY CONSERVATION CODE FOR:  
 MECHANICAL COMPONENT SYSTEMS  
 BUILDING COMPONENT SYSTEMS  
 ELECTRICAL COMPONENT SYSTEMS  
 SIGNATURE: *K. K. Katayama* DATE: *3/21/14*  
 NAME: KEVIN K. KATAYAMA  
 TITLE: MECHANICAL ENGINEER  
 LICENSE NO.: 7913-M

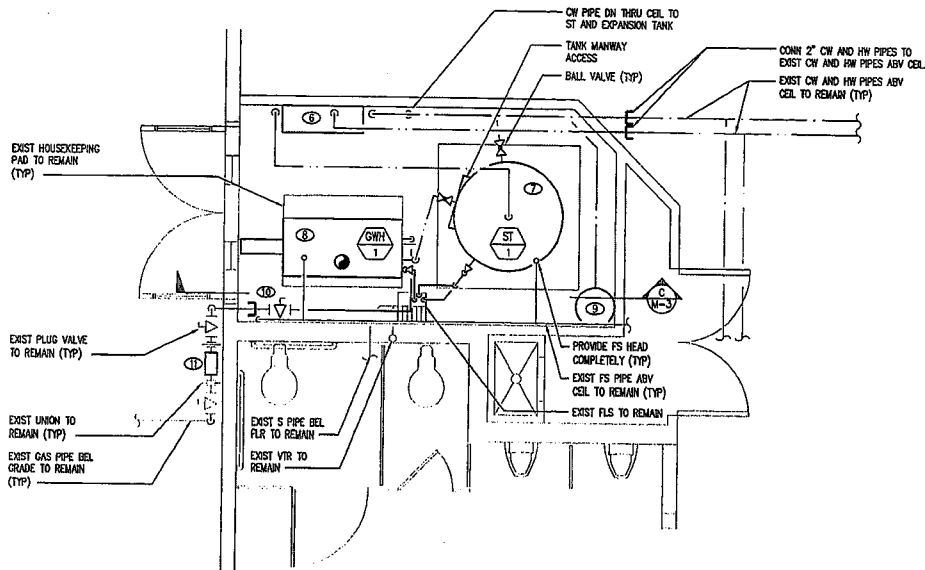
REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII WAIANA CORRECTIONAL FACILITY KASEBOX BUILDINGS BOILER SYSTEMS REPLACEMENT CHAIR HAWAII					
GENERAL PLUMBING NOTES, LEGEND & ABBREVIATIONS, MECHANICAL EQUIPMENT SCHEDULE, SITE PLAN					
RATAYAMA & ASSOCIATES, INC.					
DESIGNED BY K.K.	CHECKED BY K.K.	DATE 3/21/14	SCALE AS SHOWN	<b>M-1</b> MECH	



**BUILDING A**  
**A BOILER ROOM PLUMBING DEMOLITION PLAN**  
 SCALE: 1/2" = 1'-0"  
 NORTH



**C KEY PLAN - KASHBOX BUILDINGS**  
 SCALE: NOT TO SCALE  
 NORTH



**BUILDING A**  
**B BOILER ROOM PLUMBING FLOOR PLAN**  
 SCALE: 1/2" = 1'-0"  
 NORTH

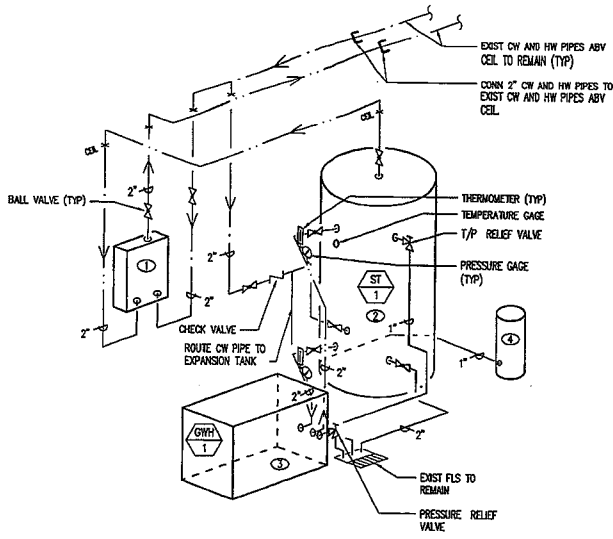
**PLUMBING WORK NOTES:**

COORD ALL REMOVAL AND INSTALLATION WITH ARCH & ELEC DWGS. COORD ACCESS INTO SPACE ABV CEIL WITH ARCH DWGS. VERIFY ALL EXIST PIPES SIZES AND ADJUST CONN ACCORDINGLY. REFER TO A/M-6 FOR BOILER ROOM PIPING SCHEMATIC.

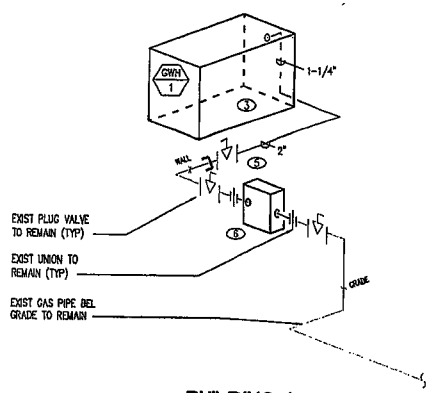
- 1 REMOVE EXIST TEMPERING VALVE STATION IN WALL MTD CABINET COMPLETELY INCLUDING ALL ACCESSORIES, SUPPORTS AND PIPING.
- 2 REMOVE EXIST HOT WATER ST COMPLETELY INCLUDING ALL ACCESSORIES, SUPPORTS, AND PIPING.
- 3 REMOVE EXIST CWH COMPLETELY INCLUDING ALL ACCESSORIES, SUPPORTS AND PIPING. COORD ALL POWER AND CONTROL WIRING DISCONNECTION WITH ELEC DWGS. CUT, DISCONNECT AND REMOVE EXIST FLUE BEL CEIL. CAP EXIST FLUE END TO REMAIN SECURELY UNTIL RECONNECTION.
- 4 CUT, DISCONNECT AND REMOVE EXIST GAS PIPE AND EXIST PLUG VALVE COMPLETELY. CAP PIPE END TO REMAIN SECURELY UNTIL RECONNECTION.
- 5 REMOVE PROPANE GAS REGULATOR.
- 6 PROVIDE TEMPERING VALVE STATION IN WALL MTD CABINET COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW AND HW PIPES AND ROUTE ABV CEIL TO EXIST CW AND HW PIPES. CONN 2" HW PIPE FROM ST.
- 7 PROVIDE HOT WATER ST COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW PIPE AND ROUTE TO CW PIPE ABV CEIL. CONN 2" HW PIPE AND ROUTE ABV CEIL AND DN TO TEMPERING VALVE STATION. CONN 2" HW PIPES FROM CWH. CONN 2" DRAIN PIPE AND ROUTE TO EXIST PLS. PROVIDE 1/2" RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST PLS.
- 8 PROVIDE CWH COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. COORD ALL POWER AND CONTROL WIRING CONN WITH ELEC DWGS. PROVIDE 6" TYPE B FLUE AND CONN TO EXIST 12" FLUE BEL CEIL WITH FLUE INCREASER. VERIFY CONN POINT WITH EXIST FIELD CONDITIONS. CONN 2" HW PIPES AND ROUTE TO ST. PROVIDE PRESSURE RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST PLS.
- 9 PROVIDE FLR MTD EXPANSION TANK COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN TO CW PIPE WITH 1" CW SYSTEM CONN PIPE. REFER TO B/M-6 AND C/M-6 FOR DETAILS.
- 10 PROVIDE 2" GAS PIPE AND GAS SHUT-OFF VALVE COMPLETELY. REDUCE GAS PIPE TO 1-1/4" AFTER SHUT OFF VALVE AND ROUTE TO GWH.
- 11 PROVIDE PROPANE GAS REGULATOR.

(1/2" = 1'-0") 1 2 3 4

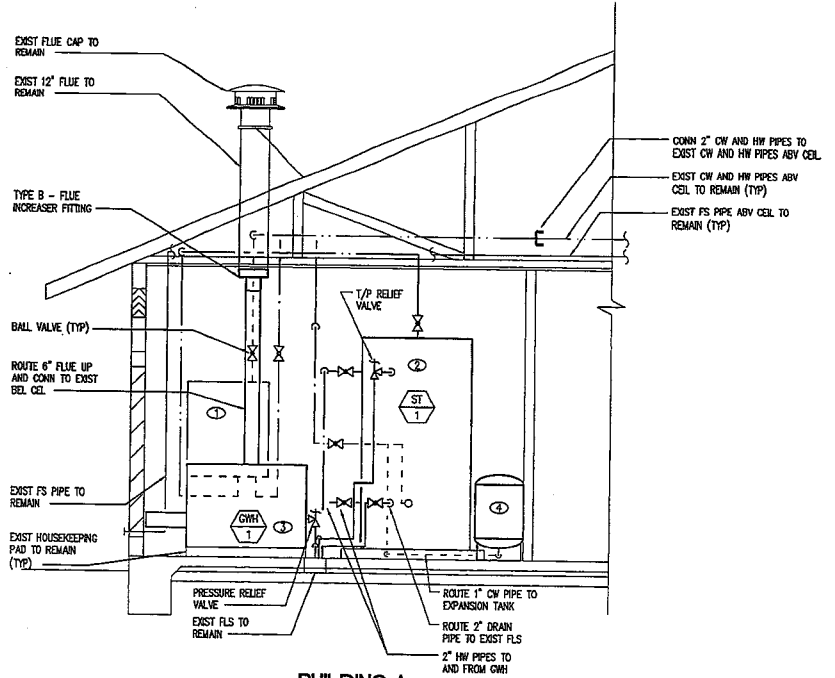
PROJECT NO.	DATE	DESCRIPTION	REV.	DATE	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIANA CORRECTIONAL FACILITY KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT					
WAIANA	PROJECT NO.	DATE	SCALE	ISSUED BY	
				M-2	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION					
KATAYAMA & ASSOCIATES, INC.					
DESIGNED BY	REVIEWED BY	DATE	PROJECT NO.	SCALE	ISSUED BY
LICENSURE EXP. 4/30/2016					



**BUILDING A**  
**A WATER PIPING DIAGRAM**  
 M-3 SCALE: NOT TO SCALE



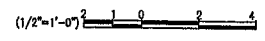
**BUILDING A**  
**B GAS PIPING DIAGRAM**  
 M-3 SCALE: NOT TO SCALE



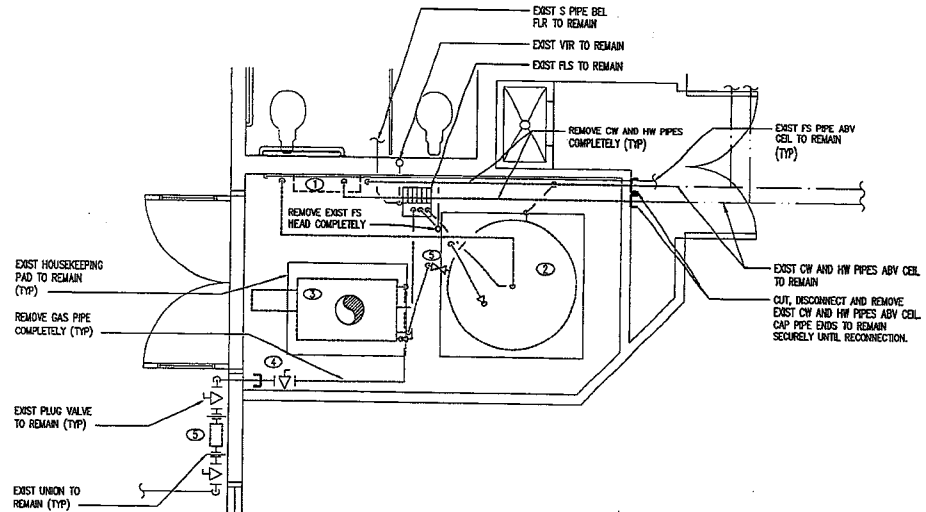
**BUILDING A**  
**C SECTION**  
 M-3 SCALE: 1/2" = 1'-0"

**MECHANICAL WORK NOTES:**

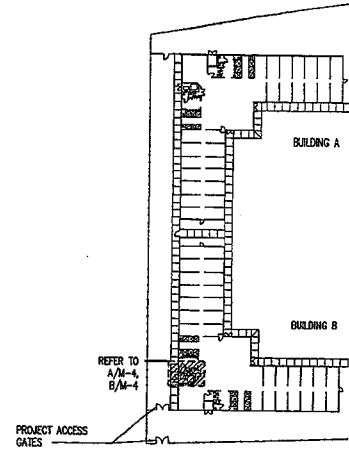
- COORD ALL INSTALLATION WITH ARCH & ELEC DWGS. COORD ACCESS INTO SPACE ABV CELL WITH ARCH DWGS. VERIFY ALL EXIST PIPES SIZES AND ADJUST DOWN ACCORDINGLY. REFER TO A/M-6 FOR BOILER ROOM PIPING SCHEMATIC.
- 1) PROVIDE TEMPERING VALVE STATION IN WALL MTD CABINET COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW AND HW PIPES AND ROUTE ABV CELL TO EXIST CW AND HW PIPES. CONN 2" HW PIPE FROM ST.
  - 2) PROVIDE HOT WATER ST COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW PIPE AND ROUTE TO CW PIPE ABV CELL. CONN 2" HW PIPE AND ROUTE ABV CELL AND ON TO TEMPERING VALVE STATION. CONN 2" HW PIPES FROM GWH, CONN 2" DRAIN PIPE AND ROUTE TO EXIST FLS. PROVIDE T/P RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST FLS.
  - 3) PROVIDE GWH COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. COORD ALL POWER AND CONTROL WIRING CONN WITH ELEC DWGS. PROVIDE 6" TYPE B FLUE AND CONN TO EXIST 12" FLUE BEL CELL WITH FLUE INCREASER. VERIFY CONN POINT WITH EXIST FIELD CONDITIONS. CONN 2" HW PIPES AND ROUTE TO ST. PROVIDE PRESSURE RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST FLS.
  - 4) PROVIDE FLR MTD EXPANSION TANK COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN TO CW PIPE WITH 1" CW SYSTEM CONN PIPE. REFER TO B/M-6 AND G/M-6 FOR DETAILS.
  - 5) PROVIDE 2" GAS PIPE AND GAS SHUT-OFF VALVE COMPLETELY. REDUCE GAS PIPE TO 1-1/4" AFTER SHUT OFF VALVE AND ROUTE TO GWH.
  - 6) PROVIDE PROPANE GAS REGULATOR.



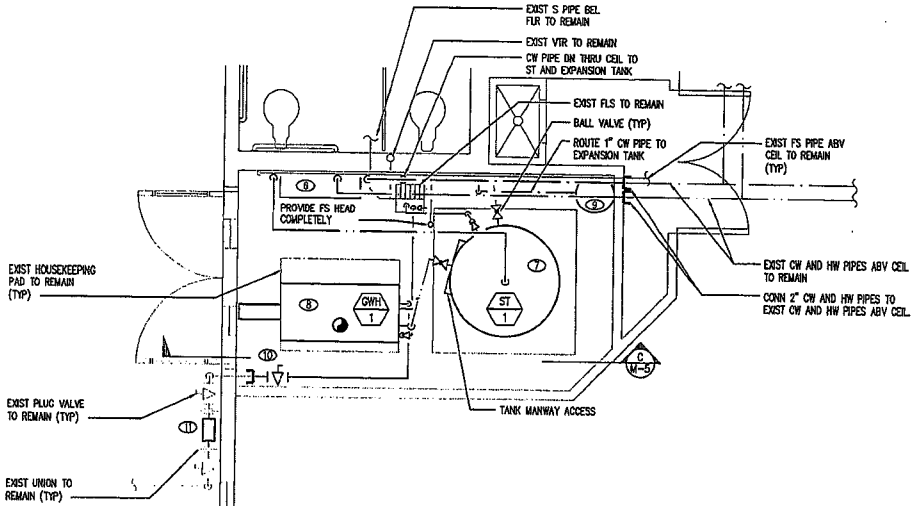
ROOM NO.	CELL	DATE	DATE	DATE	DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIANA CORRECTIONAL FACILITY KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT					
BUILDING A WATER PIPING DIAGRAM, GAS PIPING DIAGRAM, SECTION					
		KATAYAMA & ASSOCIATES, INC. 12-27-2016 M-3			
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION DATE: 12-27-2016 LICENSE EXP. DATE: 4/30/2018					



**BUILDING B**  
**BOILER ROOM PLUMBING DEMOLITION PLAN**  
 NORTH  
 SCALE: 1/2" = 1'-0"



**KEY PLAN - KASHBOX BUILDINGS**  
 NORTH  
 SCALE: NOT TO SCALE



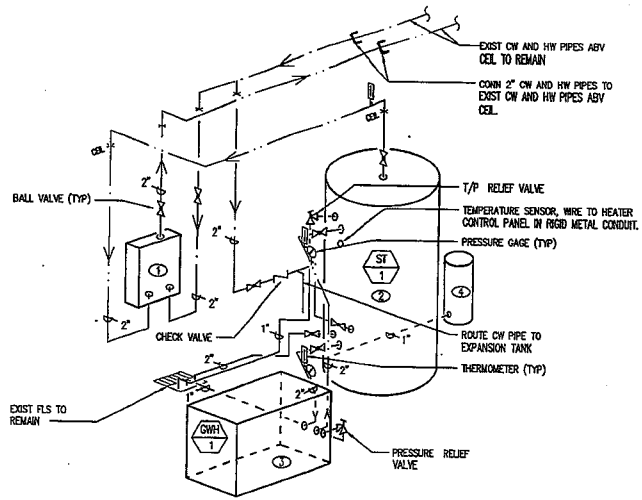
**BUILDING B**  
**BOILER ROOM PLUMBING FLOOR PLAN**  
 NORTH  
 SCALE: 1/2" = 1'-0"

**PLUMBING WORK NOTES:**

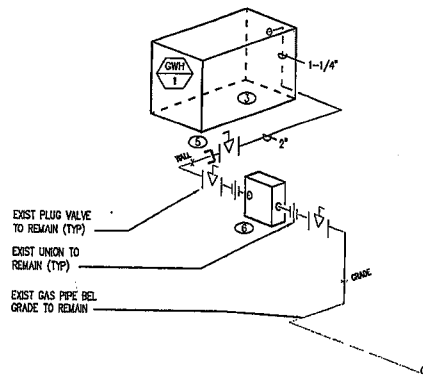
- COORD ALL REMOVAL AND INSTALLATION WITH ARCH & ELEC DWGS. COORD ACCESS INTO SPACE ABV CEL WITH ARCH DWGS. VERIFY ALL EXIST PIPES SIZES AND ADJUST CORN ACCORDINGLY. REFER TO A/A-6 FOR BOILER ROOM PIPING SCHEMATIC.
- ① REMOVE EXIST TEMPERING VALVE STATION IN WALL MTD CABINET COMPLETELY INCLUDING ALL ACCESSORIES, SUPPORTS AND PIPING.
  - ② REMOVE EXIST HOT WATER ST COMPLETELY INCLUDING ALL ACCESSORIES, SUPPORTS, AND PIPING.
  - ③ REMOVE EXIST CHH COMPLETELY INCLUDING ALL ACCESSORIES, SUPPORTS AND PIPING. COORD ALL POWER AND CONTROL WIRING DISCONNECTION WITH ELEC DWGS. CUT, DISCONNECT AND REMOVE EXIST FLUE BEL CEL. CAP EXIST FLUE END TO REMAIN SECURELY UNTIL RECONNECTION.
  - ④ CUT, DISCONNECT AND REMOVE EXIST GAS PIPE AND EXIST PLUG VALVE COMPLETELY. CAP PIPE END TO REMAIN SECURELY UNTIL RECONNECTION.
  - ⑤ REMOVE PROPANE GAS REGULATOR.
  - ⑥ PROVIDE TEMPERING VALVE STATION IN WALL MTD CABINET COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW AND HW PIPES AND ROUTE ABV CEL TO EXIST CW AND HW PIPES. CONN 2" HW PIPE FROM ST.
  - ⑦ PROVIDE HOT WATER ST COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW PIPE AND ROUTE TO CW PIPE ABV CEL. CONN 2" HW PIPE AND ROUTE ABV CEL AND ON TO TEMPERING VALVE STATION. CONN 2" HW PIPES FROM CHH. CONN 2" DRAIN PIPE AND ROUTE TO EXIST FLS. PROVIDE 1" RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST FLS.
  - ⑧ PROVIDE CHH COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. COORD ALL POWER AND CONTROL WIRING CONN WITH ELEC DWGS. PROVIDE OF TYPE B FLUE AND CONN TO EXIST 12" FLUE BEL CEL WITH FLUE INCREASER. VERIFY CONN POINT WITH EXIST FIELD CONDITIONS. CONN 2" HW PIPES AND ROUTE TO ST. PROVIDE PRESSURE RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST FLS.
  - ⑨ PROVIDE FLR MTD EXPANSION TANK COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN TO CW PIPE WITH 1" CW SYSTEM CONN PIPE. REFER TO B/A-6 AND C/A-6 FOR DETAILS.
  - ⑩ PROVIDE 2" GAS PIPE AND GAS SHUT-OFF VALVE COMPLETELY. REDUCE GAS PIPE TO 1-1/4" AFTER SHUT OFF VALVE AND ROUTE TO CHH.
  - ⑪ PROVIDE PROPANE GAS REGULATOR.

(1/2"=1'-0") 1 0 2 4

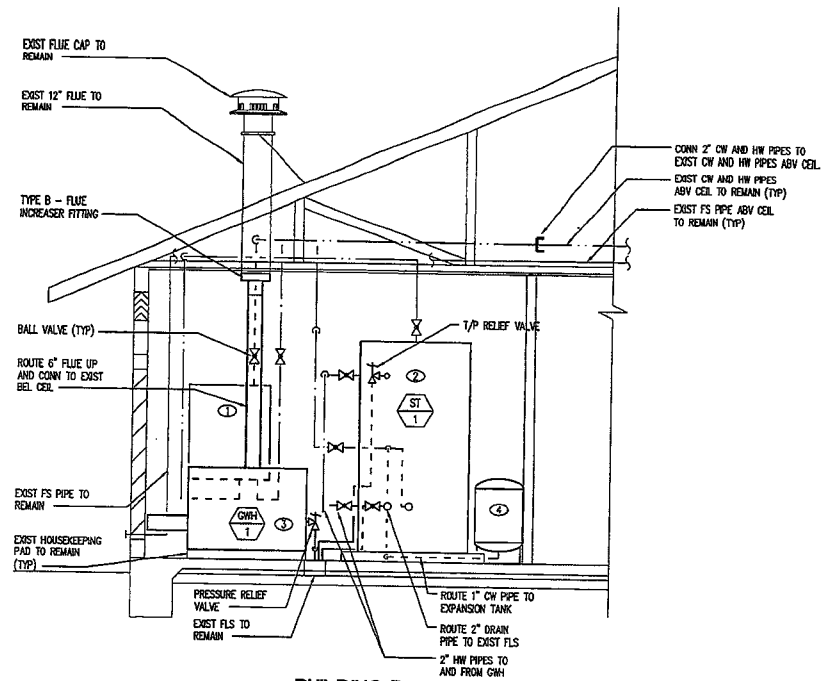
PROJECT NO.	DATE	SCALE	BY	CHECKED BY	APPROVED BY
			DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF IOWA <b>WAHAWA CORRECTIONAL FACILITY</b> KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT WAPAWA, IOWA <b>BUILDING B, BOILER ROOM PLUMBING DEMOLITION &amp; FLOOR PLAN, KEY PLAN, PLUMBING WORK NOTES</b>		
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION DATE: 4/30/2016 LICENSE NO.: 4/30/2016			DRAWN BY: K.A. CHECKED BY: K.A. DATE: 12-27-2016	PROJECT NO.: M-4 SHEET NO.: 10 TOTAL SHEETS: 10	AS NOTED DATE: MAR 2016



**BUILDING B**  
**A WATER PIPING DIAGRAM**  
M-5 SCALE: NOT TO SCALE



**BUILDING B**  
**B GAS PIPING DIAGRAM**  
M-5 SCALE: NOT TO SCALE



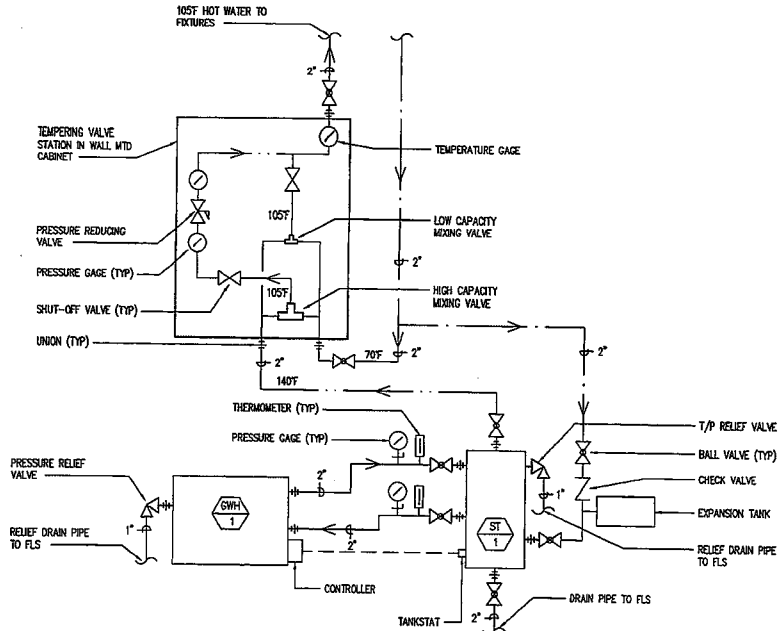
**BUILDING B**  
**C SECTION**  
M-5 SCALE: 1/2" = 1'-0"

**MECHANICAL WORK NOTES:**

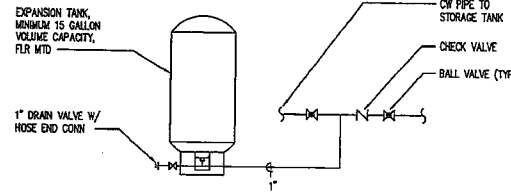
- COORD ALL INSTALLATION WITH ARCH & ELEC DWGS. COORD ACCESS INTO SPACE ABV CELL WITH ARCH DWGS. VERIFY ALL EXIST PIPE SIZES AND ADJUST CONN ACCORDINGLY. REFER TO A/M-5 FOR BOILER ROOM PIPING SCHEMATIC.
- 1 PROVIDE TEMPERING VALVE STATION IN WALL MTD CABINET COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW AND HW PIPES AND ROUTE ABV CELL TO EXIST CW AND HW PIPES. CONN 2" HW PIPE FROM ST.
  - 2 PROVIDE HOT WATER ST COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN 2" CW PIPE AND ROUTE TO CW PIPE ABV CELL. CONN 2" HW PIPE AND ROUTE ABV CELL AND DN TO TEMPERING VALVE STATION. CONN 2" HW PIPES FROM GWH. CONN 2" DRAIN PIPE AND ROUTE TO EXIST FLS. PROVIDE 1/2" RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST FLS.
  - 3 PROVIDE GWH COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. COORD ALL POWER AND CONTROL WIRING CONN WITH ELEC DWGS. PROVIDE 6" TYPE B FLUE AND CONN TO EXIST 12" FLUE BEL CELL WITH FLUE INCREASER. VERIFY CONN POINT WITH EXIST FIELD CONDITIONS. CONN 2" HW PIPES AND ROUTE TO ST. PROVIDE PRESSURE RELIEF VALVE AND ROUTE 1" RELIEF DRAIN PIPE TO EXIST FLS.
  - 4 PROVIDE FLR MTD EXPANSION TANK COMPLETELY INCLUDING ALL ACCESSORIES AND SUPPORTS. CONN TO CW PIPE WITH 1" CW SYSTEM CONN PIPE. REFER TO D/M-6 AND C/M-6 FOR DETAILS.
  - 5 PROVIDE 2" GAS PIPE AND GAS SHUT-OFF VALVE COMPLETELY. REDUCE GAS PIPE TO 1-1/4" AFTER SHUT OFF VALVE AND ROUTE TO OMBL.
  - 6 PROVIDE PROPANE GAS REGULATOR.

(1/2"=1'-0") 1 0 2 4

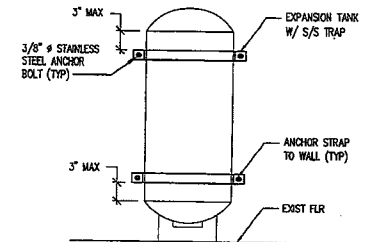
NO.	DATE	DESCRIPTION	BY	DATE	APPROVED PLUMBER REGISTRATION NO.
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIANA CORRECTIONAL FACILITY KASIBOX BUILDINGS BOILER SYSTEMS REPLACEMENT					
BUILDING B, WATER PIPING DIAGRAM, GAS PIPING DIAGRAM, SECTION					
KATAYAMA & ASSOCIATES, INC. REGISTERED PROFESSIONAL ENGINEER NO. 7013-M HAWAII, U.S.A.			DRAWN BY CHECKED BY DESIGNED BY APPROVED BY SCALE: AS NOTED		
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION			DATE AND BY MARCH 11, 1978 M-5		
DATE: 4/30/2016			SCALE: AS NOTED		



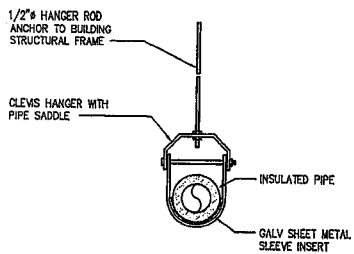
**A** BOILER ROOM WATER PIPING SCHEMATIC  
M-6 SCALE: NOT TO SCALE



**B** EXPANSION TANK PIPING SCHEMATIC  
M-6 SCALE: NOT TO SCALE

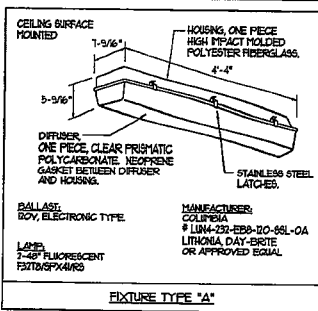
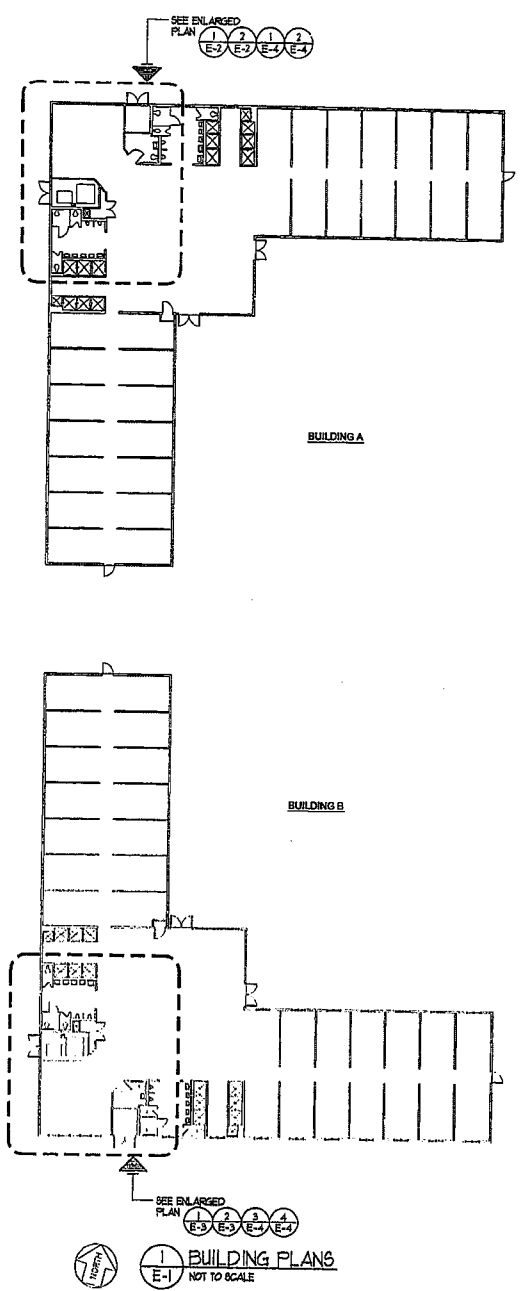


**C** EXPANSION TANK SUPPORT DETAIL  
M-6 SCALE: NOT TO SCALE



**D** PIPE HANGER DETAIL  
M-6 SCALE: NOT TO SCALE

PROJECT NO.	DATE	REVISION	REV. OF	DATE	APPROVED BY
					FIELD MARK AMENDMENT
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIANA CORRECTIONAL FACILITY KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT					
WAIPIHALE		OWAH		HAWAII	
PLUMBING DETAILS					
KATAYAMA & ASSOCIATES, INC.		DATE JOB NO.	PROJECT NO.		
DESIGNED BY: M.C.	CHECKED BY: K.J.L.	12-22-2010		<b>M-6</b>	
DRAWN BY: M.C.	APPROVED BY: K.J.L.	DATE:	SCALE:		
ISSUE NO.:	ISSUE DATE:	ISSUE DESCRIPTION:			
1	4/20/2010	AS NOTED			
DRAWN BY: [Signature] DATE: 4/20/2010					

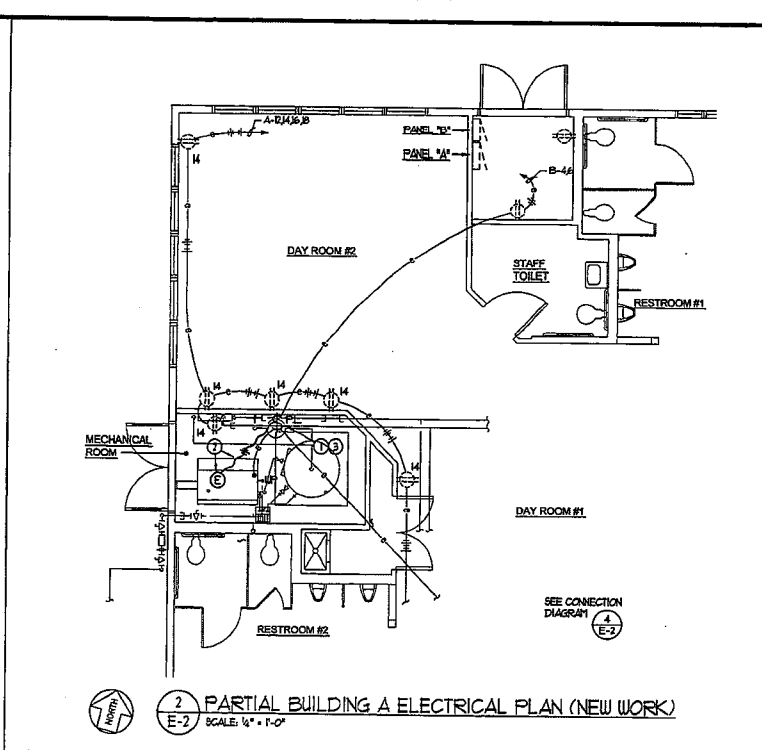
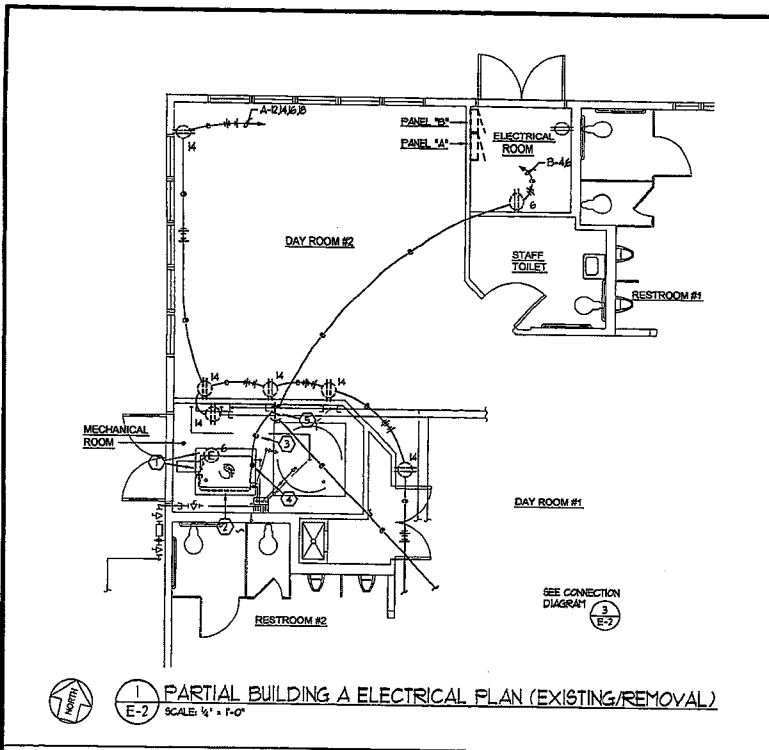


ELECTRICAL SYMBOL LIST		
EXISTING	NEW	DESCRIPTION
(L)	(L)	LIGHT, FLUORESCENT, CEILING SURFACE MOUNTED.
(S)	(S)	SWITCH, FLUSH TUBELER, WALL MOUNTED.
(S)	(S)	SWITCH WITH PILOT LIGHT FOR 10A.
(O)	(O)	CAST OUTLET BOX MOUNTED ON CONDUIT RISER.
(R)	(R)	RECEPTACLE, DUPLEX, WALL MOUNTED, 20A, 250V, NEMA 3-20.
(E)	(E)	EQUIPMENT CONNECTION.
(P)	(P)	ELECTRIC PANEL.
(C)	(C)	RACEWAY, CONCEALED.
(F)	(F)	FLEXIBLE RACEWAY.
(A)	(A)	ARROW, HICHERUN TO PANEL OR CABINET.
(B)	(B)	RACEWAY, STUBBED AND CAPPED.
(N)	(N)	ELECTRICAL NOTE INDICATOR.
(I)	(I)	FIXTURE INDICATOR, UPPER HALF, FIXTURE TYPE, LOWER HALF, NO. OF LAMPS & BAYS OR LENGTH.
(D)	(D)	DETAIL INDICATOR, UPPER HALF, DETAIL NUMBER, LOWER HALF, SHEET NUMBER, DETAIL LOCATION.
(W)	(W)	INDICATES WEATHERPROOF.

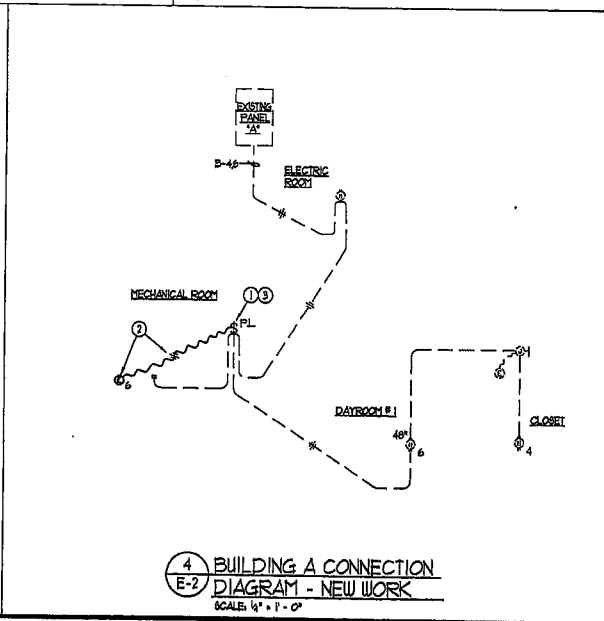
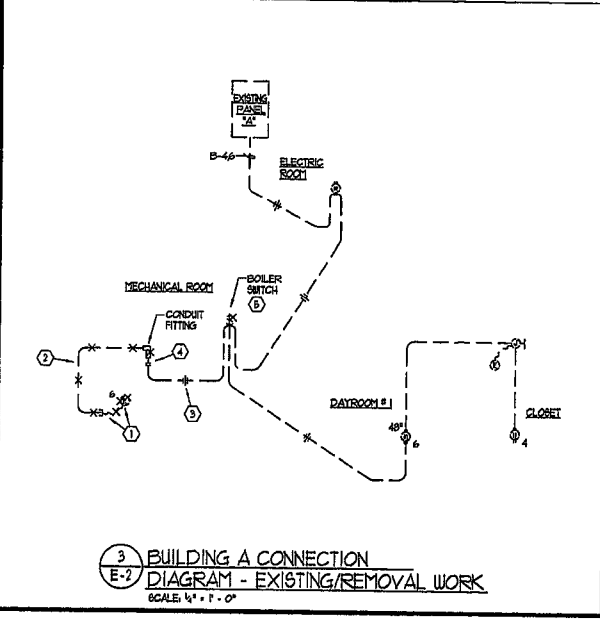
- GENERAL ELECTRICAL NOTES:**
- ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS PRIOR TO BIDDING. BID SUBMISSION SHALL BE CONSIDERED AS CONFIRMATION THAT THE CONTRACTOR HAS VISITED THE SITE AND HAS RESOLVED ALL DISCREPANCIES AND QUESTIONS REGARDING THE WORK. NO EXTRA PAYMENT WILL BE GIVEN FOR WORK MADE NECESSARY BY THE CONTRACTOR'S FAILURE TO VISIT THE SITE.
  - ALL RACEWAYS AND OUTLETS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
  - CONDUIT SIZES INDICATED ON THE DRAWINGS ARE NOT NECESSARILY BASED ON THE MINIMUM SIZE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND MAY BE PURPOSEFULLY OVERSIZED FOR FUTURE CONDITIONS OR TO AVOID CONDUIT HEATING. CONDUIT SIZES NOT CALLED OUT ON THE DRAWINGS SHALL BE SIZED BY THE CONTRACTOR BASED ON THE ACTUAL NUMBER OF CONDUCTORS TO BE INSTALLED, USING THE NATIONAL ELECTRICAL CODE AS A GUIDE. IN NO CASE SHALL CONDUIT SIZES BE SMALLER THAN 1/2" DIAMETER.
  - ALL WIRING SHALL INCLUDE AN INSULATED GREEN GROUNDING CONDUCTOR SIZED PER TABLE 250.66 OF THE NATIONAL ELECTRICAL CODE. THIS CONDUCTOR SHALL BE CARRIED IN ALL RACEWAYS INCLUDING THOSE INSTALLED FOR SWITCH LUGS AND SHALL BE ATTACHED TO THE DEVICE, LIGHT FIXTURE, OR EQUIPMENT HOUSING USING A SUITABLE GROUNDING LUG.
  - THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL JUNCTION AND PULL BOXES REQUIRED FOR THE INSTALLATION OF ELECTRICAL DEVICES AND EQUIPMENT, WHETHER OR NOT SPECIFICALLY INDICATED ON THE PLANS. SIZING OF THESE BOXES SHALL BE PER THE NATIONAL ELECTRICAL CODE.
  - THE CONTRACTOR SHALL CONFIRM EXACT EQUIPMENT LOCATIONS AND RATINGS PRIOR TO WIRING AND CONNECTION FOR POWER.
  - PROJECT CONDITIONS MAY REQUIRE REARRANGEMENT OF ELECTRICAL WORK. THE CONTRACTOR SHALL INDICATE WHEN CHANGES ON THE AS-BUILT DRAWINGS. THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE PROPOSED METHOD FOR APPROVAL. THE CONTRACTOR SHALL NOT PROCEED UNTIL APPROVAL IS OBTAINED. REARRANGEMENT OF WORK FOR THE PURPOSE OF COORDINATION BETWEEN TRADES SHALL NOT BE CONSIDERED A REASON FOR EXTRA COST.
  - EXISTING CONDITION SHOWN ON DRAWINGS ARE TAKEN FROM PAST DESIGN DRAWINGS AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. PRIOR TO STARTING NEW WORK, CONTRACTOR SHALL VERIFY AND TRACE ALL EXISTING CONDITION SHOWN. DEVIATIONS SHALL BE SHOWN ON AS-BUILT DRAWINGS.
  - THE CONTRACTOR SHALL REMOVE EXISTING BRANCH CIRCUIT WIRES FROM EXISTING WIRING THAT ARE TO BE DECOMMISSIONED. ALL REMAINING WIRES SHALL BE TAGGED WITH CIRCUIT NUMBER.
  - THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES.
  - THE CONTRACTOR SHALL LABEL EACH RECEPTACLE WITH PANEL NAME AND CIRCUIT NUMBER. USE KEYTAG LABELS.
  - THE CONTRACTOR SHALL RECONNECT ALL EXISTING AND CONNECT ALL NEW BRANCH CIRCUITS TO THE APPROPRIATE ELECTRICAL PANEL. PROVIDE ADDITIONAL CIRCUIT BREAKERS AS REQUIRED.
  - THE CONTRACTOR SHALL FILL IN THE PANEL SCHEDULES OF THE NEW ELECTRIC PANELS USING A TYPEWRITER. PROVIDE CIRCUIT DESCRIPTIONS BASED ON CIRCUIT TRACING OF EXISTING CIRCUITS AND PLAN DESCRIPTION FOR NEW CIRCUITS.

	DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS WAIANA CORRECTIONAL FACILITY KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT WAIANA, HAWAII
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>B.T.</i> Brian T. Itzin LICENSED PROFESSIONAL ENGINEER STATE OF HAWAII No. 10084-C	GENERAL ELECTRICAL NOTES AND SYMBOL LIST H & O R, INC. 12-21-PARR DATE: 1.3 11.13

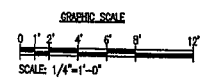




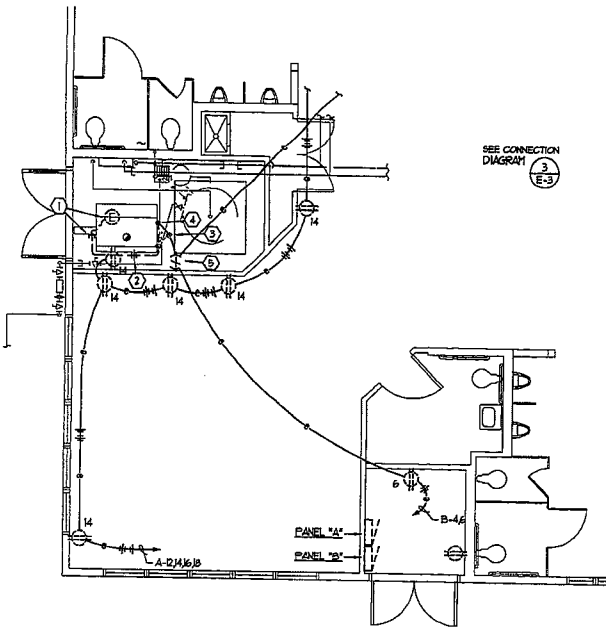
- ELECTRICAL NOTES: EXISTING/REMOVAL WORK**
- 1 DISCONNECT & REMOVE WIRING AND CONNECTION TO GAS WATER HEATER.
  - 2 REMOVE EXPOSED WIRING ON CONCRETE.
  - 3 REMOVE WIRES FROM CONDUIT.
  - 4 REMOVE CONDUIT FITTING ON RISER CONDUIT. CUT CONDUIT AT FLOOR LINE.
  - 5 DISCONNECT & REMOVE FLUSH MOUNTED BOILER SWITCH.



- ELECTRICAL NOTES: NEW WORK**
- 1 PROVIDE SURFACE MOUNTED CAST OUTLET BOX OVER EXISTING FLUSH OUTLET.
  - 2 PROVIDE WIRING & CONNECTION TO GAS WATER HEATER, 1/2" C, 3-# 12.
  - 3 PROVIDE P20A SWITCH WITH PILOT LIGHT FOR "ON" IN NEW SURFACE MOUNTED OUTLET. CONNECT TO EXISTING CIRCUIT.

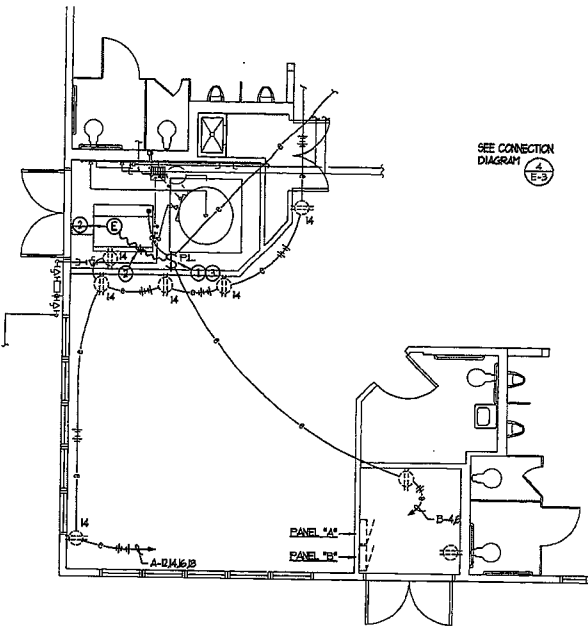


PROJECT NO.	DATE	DESCRIPTION	DESIGNED BY	DATE	APPROVED BY
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF ILLINOIS <b>WAPAWA CORRECTIONAL FACILITY</b> KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT WAPAWA, ILLINOIS					
PARTIAL BLDG. A ELEC. PLANS & CONNECTION DIAGRAMS (EXISTING/REMOVAL & NEW WORK)					
H A O IL, INC. LICENSED PROFESSIONAL ENGINEER No. 0050-2 URBANA, ILL. U.S.A.		DRAWN BY: S.M. CHECKED BY: J.L. DATE: 12-27-88 SHEET NO.: 14 OF 18 SHEETS			
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. SIGNATURE: [Signature] EXP. DATE OF REG. 04/26/19 AS NOTED					



SEE CONNECTION  
DIAGRAM 3  
E-3

1 PARTIAL BUILDING B ELECTRICAL PLAN (EXISTING/REMOVAL)  
SCALE: 1/4" = 1'-0"

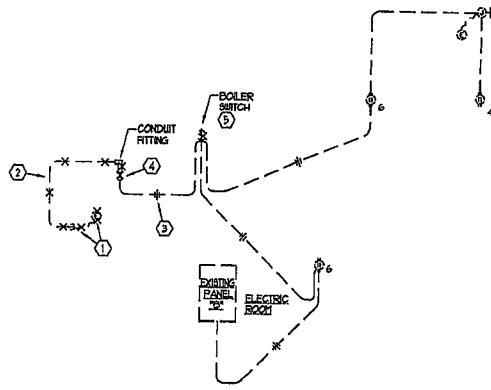


SEE CONNECTION  
DIAGRAM 4  
E-3

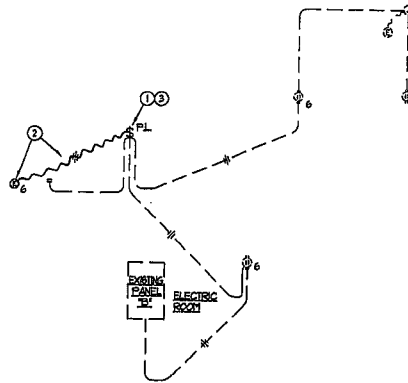
2 PARTIAL BUILDING B ELECTRICAL PLAN (NEW WORK)  
SCALE: 1/4" = 1'-0"

**ELECTRICAL NOTES: EXISTING/REMOVAL WORK**

- ① DISCONNECT & REMOVE WIRING AND CONNECTION TO GAS WATER HEATER
- ② REMOVE EXPOSED WIRING ON CONCRETE
- ③ REMOVE WIRES FROM CONDUIT
- ④ REMOVE CONDUIT FITTING ON RISER CONDUIT. CUT CONDUIT AT FLOOR LINE
- ⑤ DISCONNECT & REMOVE FLUSH MOUNTED BOILER SWITCH



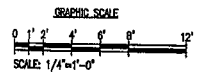
3 BUILDING B CONNECTION  
DIAGRAM - EXISTING/REMOVAL WORK  
SCALE: 1/4" = 1'-0"



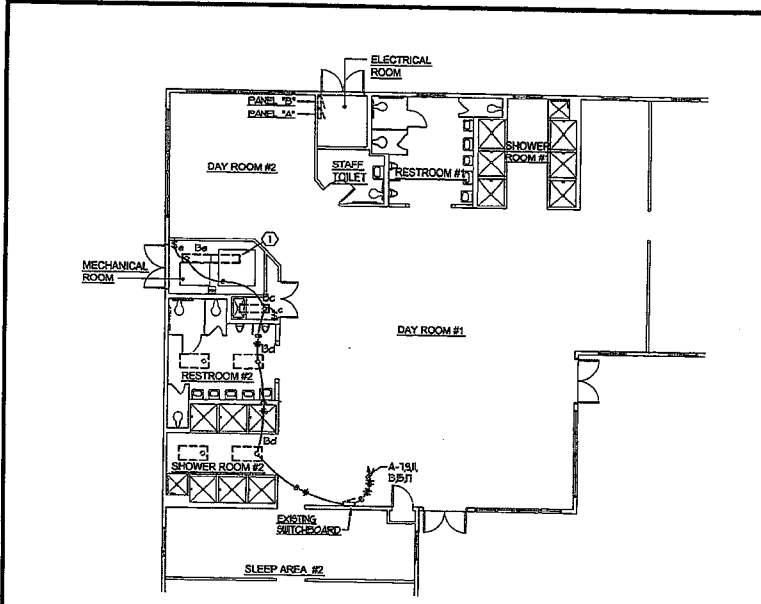
4 BUILDING B CONNECTION  
DIAGRAM - NEW WORK  
SCALE: 1/4" = 1'-0"

**ELECTRICAL NOTES: NEW WORK**

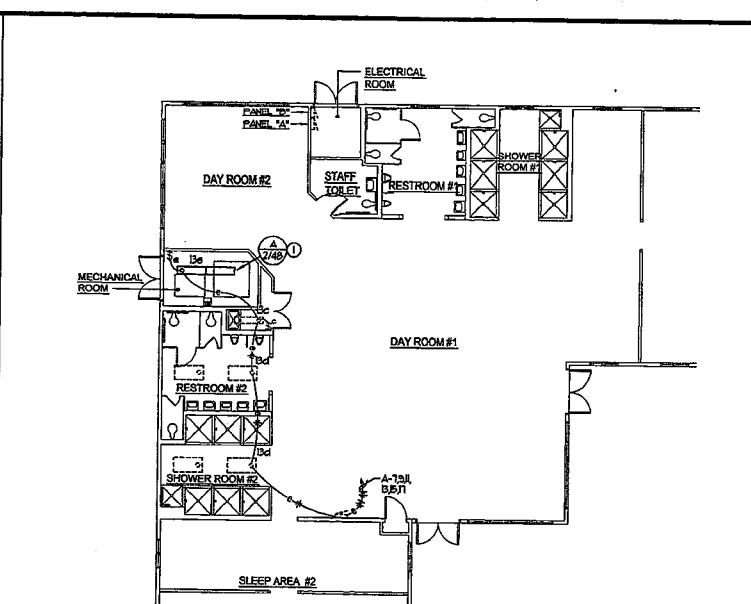
- ① PROVIDE SURFACE MOUNTED CAST OUTLET BOX OVER EXISTING FLUSH OUTLET.
- ② PROVIDE WIRING & CONNECTION TO GAS WATER HEATER, 1/2" C, 3-# 12.
- ③ PROVIDE PULL BOX SWITCH WITH PLOT LIGHT FOR 10A IN NEW SURFACE MOUNTED OUTLET. CONNECT TO EXISTING CIRCUIT.



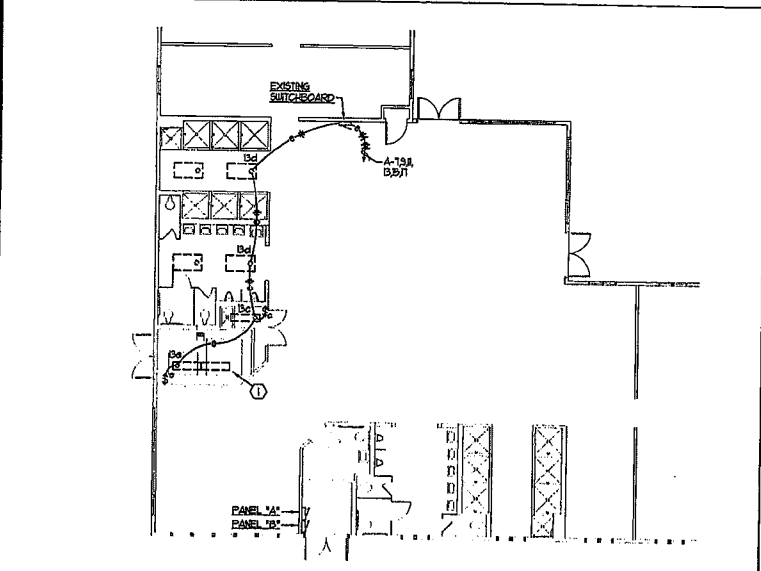
DESIGN NO.	DATE	REVISION	BY	CHK	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII HAWAII CORRECTIONAL FACILITY KAYIBOX BUILDINGS BOILER SYSTEMS REPLACEMENT					
PARTIAL BLDG. B ELEC. PLANS & CONNECTION DIAGRAMS (EXISTING/REMOVAL & NEW WORK)					
DESIGNED BY	DATE	CHECKED BY	DATE	SCALE	PROJECT NO.
DRW	11-27-1999	SM	12-27-1999	E-3	15
APPROVED BY	DATE	PRINTED AT THE OFFICE OF THE ENGINEER 15 MAR 2004			



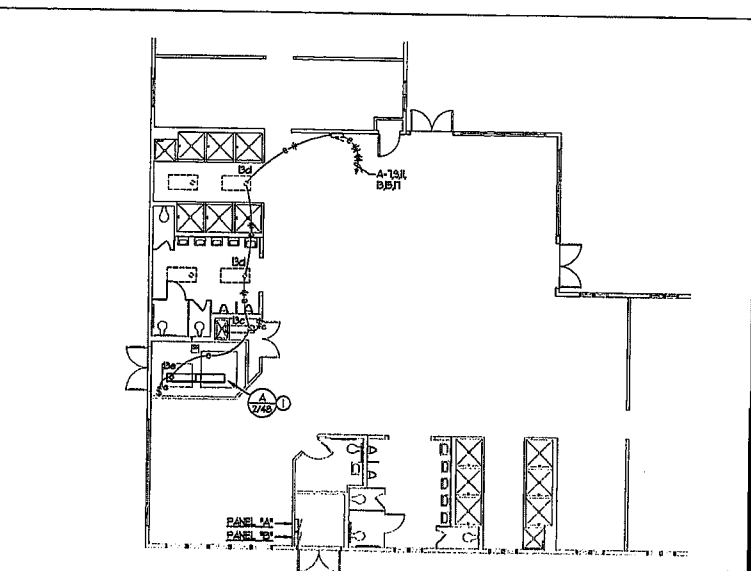
1 PARTIAL BUILDING A LIGHTING PLAN (EXISTING/REMOVAL)  
E-4 SCALE: 1/8" = 1'-0"



2 PARTIAL BUILDING A LIGHTING PLAN (NEW WORK)  
E-4 SCALE: 1/8" = 1'-0"



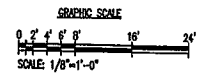
3 PARTIAL BUILDING B LIGHTING PLAN (EXISTING/REMOVAL)  
E-4 SCALE: 1/8" = 1'-0"



4 PARTIAL BUILDING B LIGHTING PLAN (NEW WORK)  
E-4 SCALE: 1/8" = 1'-0"

**ELECTRICAL NOTES: EXISTING/REMOVAL WORK**  
 ① DISCONNECT & REMOVE CEILING SURFACE MOUNTED LIGHT FIXTURE ON GYPSUM BOARD TO BE REPLACED.

**ELECTRICAL NOTES: NEW WORK**  
 ① INSTALL NEW LIGHTING FIXTURE OVER EXISTING CEILING FLUSH MOUNTED OUTLET IN NEW GYPSUM BOARD CEILING. CONNECT TO EXISTING SWITCH CIRCUIT.



ROOM NO.	NO.	REVISION	DATE	BY	APPROVED
					PROJECT MANAGER
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS WAIANAHA CORRECTIONAL FACILITY KASHBOX BUILDINGS DOLLER SYSTEMS REPLACEMENT WAIANAHA, OAHU, HAWAII					
PARTIAL BUILDINGS A & B LIGHTING PLANS (EXISTING/REMOVAL & NEW WORK)					
H & O E, INC. 12-27-0000		DRAWING NO. <b>E-4</b>			
DRAWN BY I.T.C.	CHECKED BY S.M.	DATE 1/16/18	SHEET 16	TOTAL SHEETS 16	
SERVICE:					
EXTENSION DATE OF THE DESIGN: 04/24/18					
SCALE: AS NOTED					

**BP 753038**

# WAIAWA CORRECTIONAL FACILITY

## EDUCATION BLDG-REPLACE A/C SYSTEM AND UPGRADE ELECTRICAL

FOR THE: DEPARTMENT OF PUBLIC SAFETY  
 DIVISION OF CORRECTIONS, STATE OF HAWAII

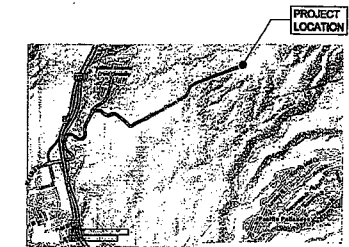
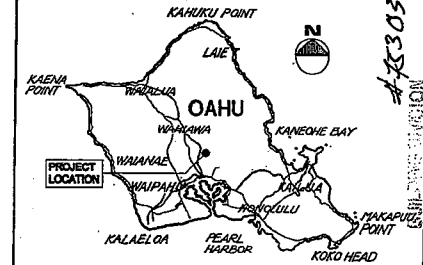
BY THE: DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS, STATE OF HAWAII

94-560 KAMEHAMEHA HIGHWAY

T.M.K.: 9-6-005: 011

DAGS JOB NO. 12-27-5646

ROBERT E. FREEBURG, AIA ASSOCIATES  
 MECHANICAL ENGINEER: DSA ENGINEERING INC.  
 ELECTRICAL ENGINEER: ECS, INC.

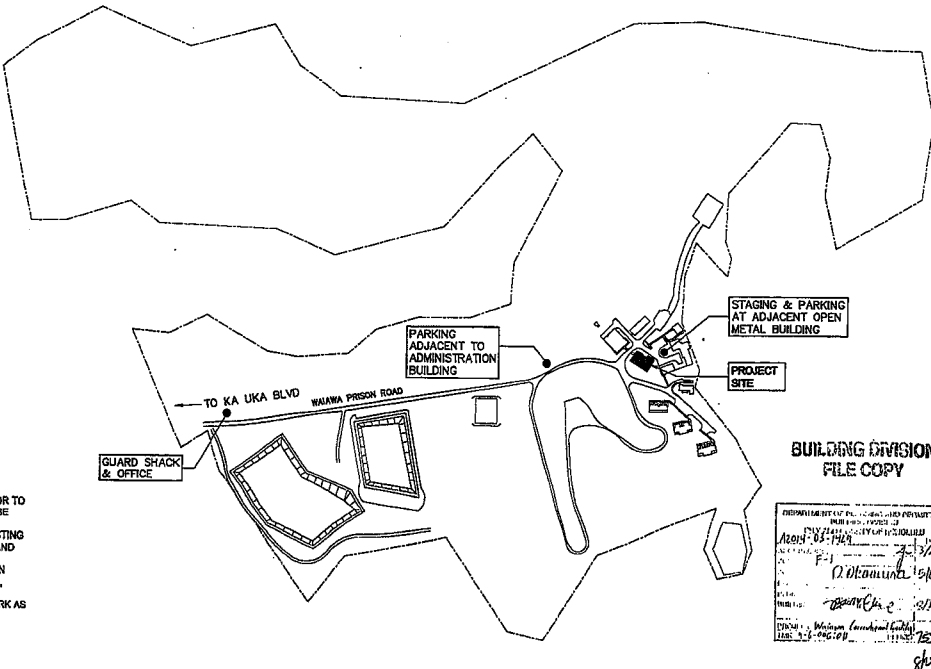
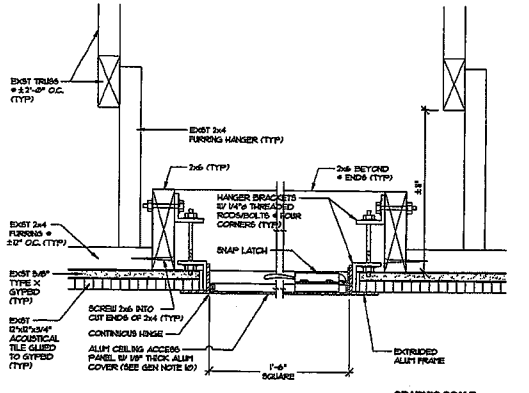


APPROVALS:

*Neil Ohi* 1/5/14  
 DIRECTOR DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII DATE

*JM* 2/6/14  
 COMPTROLLER DEPARTMENT OF ACCOUNTING & GENERAL SERVICES STATE OF HAWAII DATE

*Janice* 2/6/14  
 PUBLIC WORKS ADMINISTRATOR DEPARTMENT OF ACCOUNTING & GENERAL SERVICES STATE OF HAWAII DATE



- GENERAL NOTES
- THE CONTRACTOR SHALL EXAMINE THE DRAWINGS & SPECIFICATIONS & SHALL VISIT THE SITE PRIOR TO FABRICATION OR ORDERING MATERIAL. CONTRACTOR SHALL FULLY UNDERSTAND THE SCOPE OF WORK PRIOR TO SUBMISSION OF THE BID AS TO THE EXISTING CONDITIONS AND LIMITATIONS UNDER WHICH THE WORK IS TO BE PERFORMED.
  - ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE AND INTERNATIONAL EXISTING BUILDING CODE AND LATEST AND LATEST CITY AND COUNTY OF HONOLULUI/STATE OF HAWAII AMENDMENTS AND ORDINANCES.
  - STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND 2006 NFPA 1, UNIFORM FIRE CODE.
  - THE CONTRACTOR SHALL INCLUDE IN THE BID ALL MISCELLANEOUS ITEMS NECESSARY TO PERFORM THE WORK AS SET FORTH IN THE CONTRACT DOCUMENTS & FIELD VERIFY ALL DIMENSIONS PRIOR TO SUBMISSION OF SHOP DRAWINGS.
  - PROVIDE PROTECTION FOR PEDESTRIANS IN ACCORDANCE WITH ICC IBC, AS AMENDED WHENEVER WORKING ABOVE SIDEWALKS. PROTECT OCCUPANTS DURING THE PHASING OF THE WORK.
  - PROTECT ADJOINING PROPERTY FROM DAMAGE AT ALL TIMES.
  - EXISTING DUCTS IN ATTIC WILL BE REMOVED BY PRISON LABOR. AFTER CONTRACTOR CUTS CEILING FOR A/C CASSETTES AND ACCESS PANELS, THE STAIRS WILL HAVE A BUSINESS DAYS AT EACH LOCATION WHERE EXISTING DUCTWORK IS LOCATED IN BETWEEN THE APPLICABLE TRUSSES OR IN ADJACENT AREA FOR THE STATE TO HAVE ACCESS AND REMOVE THE OLD DUCTWORK. DUCTWORK THAT THE CONTRACTOR IDENTIFIES AS NOT INTERFERING WITH THE NEW WORK MAY BE ABANDONED IN PLACE.
  - SEAL ALL PENETRATIONS TO THE EXTERIOR WEATHERTIGHT.
  - PAINT ALL EXPOSED CONDUITS, PIPES, DUCTS, ACCESS PANELS, ETC. TO MATCH ADJACENT SURFACE.
  - PROVIDE ACCESS PANELS AS INDICATED OR AS REQUIRED BY THE PROPOSED EQUIPMENT MANUFACTURER IN ACoustICAL TILE OVER GYPSUM BOARD AND GYPSUM BOARD CEILINGS FOR MAINTENANCE AND SERVICE. CAREFULLY CUT OPENINGS IN ACoustICAL TILE OVER GYPSUM BOARD AND IN GYPSUM BOARD CEILINGS FOR INSTALLATION OF MECHANICAL EQUIPMENT AND ACCESS PANELS. PROVIDE BLOCKING AND SUPPORT FOR CUT CEILING FRAMING. PROVIDE COMMON KEY FOR ALL PANELS.
  - THE BUILDING SHALL REMAIN OPERATIONAL DURING A MAJORITY OF THE CONSTRUCTION PERIOD. INTERIOR WORK WILL BE DIVIDED INTO 2 PHASES TO ALLOW THE STATE THE CONTINUED USE OF THE FACILITY. THE EXISTING CORRIDOR WILL DIVIDE THE BUILDING INTO NORTH AND SOUTH PHASES. THE CORRIDOR MAY BE DONE IN EITHER PHASE. WORK IN THE CORRIDOR SHALL ALLOW FOR FIRE EXIT TO THE 2 EXITS AT ALL TIMES. FURNISH SCHEDULE OF WORK AND PROPOSED PHASING TO THE CONTRACTING OFFICER FOR ACCEPTANCE BY THE WARDEN. INTERIOR WORK IS RESTRICTED AS SPECIFIED IN SECTION 01100 - PROJECT REQUIREMENTS.

- INDEX TO DRAWINGS
- A-1 VICINITY/LOCATION MAPS, SITE PLAN, TITLE, APPROVALS, INDEX TO DRAWINGS, GENERAL NOTES & DETAIL
  - M-1 MECHANICAL EQUIPMENT SCHEDULES, LEGEND & NOTES
  - M-2 AIR CONDITIONING - DEMOLITION PLAN
  - M-3 AIR CONDITIONING PLAN - AIR DISTRIBUTION
  - M-4 AIR CONDITIONING PLAN - PIPING
  - M-5 VRF CONTROL & REFRIGERANT PIPING DIAGRAM
  - E-1 ELECTRICAL SYMBOL LIST AND GENERAL NOTES
  - E-2 SITE AND LEARNING CENTER ELECTRICAL PLANS - DEMOLITION WORK
  - E-3 ELECTRICAL SITE PLAN - NEW WORK AND POLE RISER DETAILS
  - E-4 ELECTRICAL PLAN - NEW WORK
  - E-5 ONE-LINE DIAGRAMS AND PANEL SCHEDULE
  - E-6 PAD MOUNTED TRANSFORMER DETAILS
  - E-7 ELECTRICAL EQUIPMENT ELEVATION AND DUCT SCHEDULE

BUILDING DIVISION  
FILE COPY

APPROVED BY: *[Signature]* 1/5/14  
 PROJECT NO. 12-27-5646  
 DATE 1/5/14

REVISION NO.	DATE	DESCRIPTION	APPROVED BY

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

WAIAWA CORRECTIONAL FACILITY  
 EDUCATION BUILDING-REPLACE A/C SYSTEM  
 AND UPGRADE ELECTRICAL

WARRANTY: 12 MONTHS  
 DATE: 12-27-5646

THIS WORK WAS PREPARED BY ROBERT E. FREEBURG, AIA & ASSOC. FOR THE DEPARTMENT OF PUBLIC SAFETY, STATE OF HAWAII.

DATE: 12-27-5646

PROJECT NO. 12-27-5646

DATE: JAN 2014

AS SHOWN

**INDOOR UNIT (IU)**

TAG	SERVES	OUTDOOR UNIT	INDOOR UNIT TYPE	SUPPLY AIR CFM (H)	OUTSIDE AIR CFM (H)	E.S.P. (IN. WG.)	TOTAL CAP. (BTUH)	SEDS. CAP. (BTUH)	INDOOR AIR CONDITION			ELECTRICAL							WT. (LBS.)	MANUFACTURER	MODEL No.	MAXIMUM DIMENSION (INCHES)			MAX. SOUND PRESS. LEVEL (dBA)
									DB (°F)	WB (°F)	XRH	AMPS	KW	MCA	MOCP	VOLTS	PHASE	HZ				HEIGHT	WIDTH	DEPTH	
108	108 MEDIA MATERIALS		1-WAY CEILING CASSETTE	307	20	-	6,000	5,950	75.0	62.6	50	0.20	0.04	0.25	15	208/230	1	60	38	MITSUBISHI	PMFY-P06NBU-E	9-1/16	31-31/32	15-9/16	35
107	107 MEDIA CENTER		4-WAY CEILING CASSETTE	390	80	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
107	107 MEDIA CENTER		4-WAY CEILING CASSETTE	390	80	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
107	107 MEDIA CENTER		4-WAY CEILING CASSETTE	390	80	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
106	106 CLASSROOM		4-WAY CEILING CASSETTE	390	135	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
106	106 CLASSROOM		4-WAY CEILING CASSETTE	280	90	-	8,000	7,645	75.0	62.6	50	1.50	0.24	3.33	15	208/230	1	60	41	MITSUBISHI	PLFY-P08NQU-E	8-3/16	22-7/16	22-7/16	38
106	106 CLASSROOM		4-WAY CEILING CASSETTE	390	135	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
106	106 CLASSROOM		4-WAY CEILING CASSETTE	280	90	-	8,000	7,645	75.0	62.6	50	1.50	0.24	3.33	15	208/230	1	60	41	MITSUBISHI	PLFY-P08NQU-E	8-3/16	22-7/16	22-7/16	38
102	102 CLASSROOM		4-WAY CEILING CASSETTE	390	113	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
102	102 CLASSROOM		4-WAY CEILING CASSETTE	390	113	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
102	102 CLASSROOM		4-WAY CEILING CASSETTE	390	113	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
102	102 CLASSROOM		4-WAY CEILING CASSETTE	390	111	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
110	110 CORRIDOR/ENTRY	OU 1	DUCTED CEILING CONCEALED	710	100	0.50	24,000	21,100	75.0	62.6	50	1.48/1.31	0.258/0.258	1.85/1.64	15	208/230	1	60	108	MITSUBISHI	PVFY-P24E00A	42-3/4	17-3/4	21	39
113	113 EDUCATION SPECIALIST		4-WAY CEILING CASSETTE	280	20	-	8,000	7,645	75.0	62.6	50	1.50	0.24	3.33	15	208/230	1	60	41	MITSUBISHI	PLFY-P08NQU-E	8-3/16	22-7/16	22-7/16	38
112	112 CHAPLIN		4-WAY CEILING CASSETTE	280	20	-	8,000	7,645	75.0	62.6	50	1.50	0.24	3.33	15	208/230	1	60	41	MITSUBISHI	PLFY-P08NQU-E	8-3/16	22-7/16	22-7/16	38
111	111 MULTI-PURPOSE RM		4-WAY CEILING CASSETTE	390	150	-	15,000	13,180	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P15NQU-E	9-1/4	22-7/16	22-7/16	40
111	111 MULTI-PURPOSE RM		4-WAY CEILING CASSETTE	390	150	-	15,000	13,180	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P15NQU-E	9-1/4	22-7/16	22-7/16	40
119	119 LIBRARY/STACK RM		4-WAY CEILING CASSETTE	390	75	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
119	119 LIBRARY/STACK RM		4-WAY CEILING CASSETTE	390	70	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
119	119 LIBRARY/STACK RM		4-WAY CEILING CASSETTE	390	75	-	12,000	10,550	75.0	62.6	50	0.28	0.06	0.35	15	208/230	1	60	44	MITSUBISHI	PLFY-P12NQU-E	9-1/4	22-7/16	22-7/16	39
105	105 MULTI-USE OFFICE		4-WAY CEILING CASSETTE	280	20	-	8,000	7,645	75.0	62.6	50	1.50	0.24	3.33	15	208/230	1	60	41	MITSUBISHI	PLFY-P08NQU-E	8-3/16	22-7/16	22-7/16	38
OUTSIDE AIR	OUTSIDE AIR		DUCTED CEILING CONCEALED	900	900	0.50	36,000	29,825	75.0	62.6	50	1.83/1.71	0.324/0.324	2.41/2.14	15	208/230	1	60	120	MITSUBISHI	PVFY-P36E00A	48-1/8	21	21	39
OUTSIDE AIR	OUTSIDE AIR		DUCTED CEILING CONCEALED	900	900	0.50	36,000	29,825	75.0	62.6	50	1.83/1.71	0.324/0.324	2.41/2.14	15	208/230	1	60	120	MITSUBISHI	PVFY-P36E00A	48-1/8	21	21	39

\* INTERLOCK TO RUN WITH INDOOR UNITS

**MECHANICAL LEGEND**

SYMBOL	ABBREV.	DESCRIPTION
	CD	CEILING DIFFUSER
	CD	CEILING DIFFUSER
	CD	CEILING DIFFUSER
	CFM	CUBIC FEET PER MINUTE
	D	CONDENSATE DRAIN PIPING
		DUCTWORK: FIRST SIZE SIDE SHOWN
		EXISTING DUCTWORK TO BE REMOVED
	IU	INDOOR UNIT
	OU	OUTDOOR UNIT
	RAR	RETURN AIR REGISTER
	RG	REFRIGERANT GAS PIPING
	RL	REFRIGERANT LIQUID PIPING
	TAR	TRANSFER AIR REGISTER
	TYP	TYPICAL
		EQUIPMENT TYPE
		EQUIPMENT NUMBER

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY AND COORDINATE WITH THE CONTRACTING OFFICER ANY MAJOR DEVIATIONS OR DISCREPANCIES IN THE PLANS AND SPECIFICATIONS DUE TO UNFORSEEN OR VARYING FIELD CONDITIONS.
2. THE ENTIRE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE BUILDING CODE OF THE CITY AND COUNTY OF HONOLULU, STATE DEPARTMENT OF HEALTH REGULATIONS, UNIFORM PLUMBING CODE, UNIFORM FIRE CODE, NATIONAL ELECTRICAL CODE, HAWAII STATE MODEL ENERGY CODE AND ALL OTHER AGENCIES HAVING JURISDICTION.
3. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER THE COMPLETE INSTALLATION OF SYSTEMS TO FUNCTION AS DESCRIBED AND SPECIFIED. THE OMISSION OF REFERENCE TO ANY NECESSARY ITEM OF LABOR OR MATERIAL SHALL NOT RELIEVE THE CONTRACTOR FROM PROVIDING SUCH LABOR AND MATERIAL.
4. ALL EQUIPMENT SHALL BE CAPABLE OF FITTING INTO THE SPACES NOTED ON THE DRAWINGS. CLEARANCES AS NOTED FOR INSTALLATION SHALL BE ADEQUATE FOR THE OPERATION AND MAINTENANCE OF THE EQUIPMENT AS VERIFIED BY MANUFACTURER IN WRITING.
5. COORDINATE WITH OTHER TRADES PRIOR TO COMMENCING AND DURING CONSTRUCTION.

CITY AND COUNTY OF HONOLULU  
 REVISED ORDINANCE CHAPTER 32,  
 HONOLULU COUNTY CODE 1990, AS AMENDED

TO THE BEST OF MY KNOWLEDGE, THIS PROJECT'S DESIGN SUBSTANTIALLY CONFORMS TO THE BUILDING ENERGY CONSERVATION CODE FOR:

BUILDING COMPONENT SYSTEMS  
 ELECTRICAL COMPONENT SYSTEMS  
 MECHANICAL COMPONENT SYSTEMS

SIGNATURE: VICTOR J. RUSSELL DATE: 1/20/14  
 NAME: VICTOR J. RUSSELL  
 TITLE: MECHANICAL ENGINEER  
 LICENSE NO.: PE-4765

**OUTDOOR UNIT (OU)**

TAG	SERVES	TOTAL COOLING CAP. (BTUH)	COND. AIR TEMP. (°F)	ELECTRICAL																TOTAL WT. (LBS.)	MANUFACTURER	MODEL No.	MAXIMUM DIMENSION (INCHES)			MAXIMUM SOUND PRESSURE LEVEL (dBA)					
				MODULE 1 & MODULE 2 (TYPICAL FOR EACH)								MODULE 3											HEIGHT	WIDTH	DEPTH						
				MODEL No. P12NQU-A (TYPICAL FOR EACH)				MODEL No. P12NQU-A				MODEL No. P12NQU-A				MODEL No. P12NQU-A															
OU 1	ALL IU	264,000	95	1	5.1	0.051	1	0.92	23/21	30/30	208/230	3	60	1	8.5	0.051	1	0.92	41/38	50/50	208/230	3	60	1,423	MITSUBISHI	PVHY-P264TJMU-A	55	MODULE 1 & 2: 38-1/8 MODULE 3: 48-1/8	20-15/16	MODULE 1 & 2: 60 MODULE 3: 60	

**HVAC NOTES:**

1. INDOOR/OUTDOOR UNITS BASED ON MITSUBISHI CITY-MULTI VRF DUCTLESS SPLIT-SYSTEM. CONTRACTOR SHALL SIZE, REFRIGERANT PIPING, CONDENSATE DRAIN PIPING AND ALL ACCESSORIES IF OTHER MANUFACTURER IS USED. ACCEPTABLE MANUFACTURERS ARE MITSUBISHI, LG, DAIKIN, AND FUJITSU OR APPROVED EQUAL.
2. DUCT SIZES SHOWN ARE NET INSIDE DIMENSIONS.

**GENERAL NOTES (CONT):**

6. DRAWINGS DO NOT ATTEMPT TO SHOW EXACT DETAILS OF PIPING AND DUCTWORK. PROVIDE OFFSETS AS NECESSARY TO AVOID LOCAL OBSTRUCTIONS OR INTERFERENCE WITH OTHER TRADES. REVIEW ALL PIPING AND DUCT RUNS PRIOR TO FABRICATION AND IMMEDIATELY NOTIFY THE CONTRACTING OFFICER OF ANY INTERFERENCE AND/OR LACK OF ADEQUATE CLEARANCES.
7. SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, MARK SUCH CHANGES ON THE AS-BUILT DRAWINGS. IF THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE APPROVED BY THE CONTRACT DRAWINGS, SUBMIT SHOP DRAWINGS SHOWING THE PROPOSED ALTERNATE METHODS TO THE CONTRACTING OFFICER FOR REVIEW. DO NOT PROCEED UNTIL REVIEWED.

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

**WAIANA CORRECTIONAL FACILITY**  
 EDUCATION BUILDING-REPLACE A/C SYSTEM AND UPGRADE ELECTRICAL

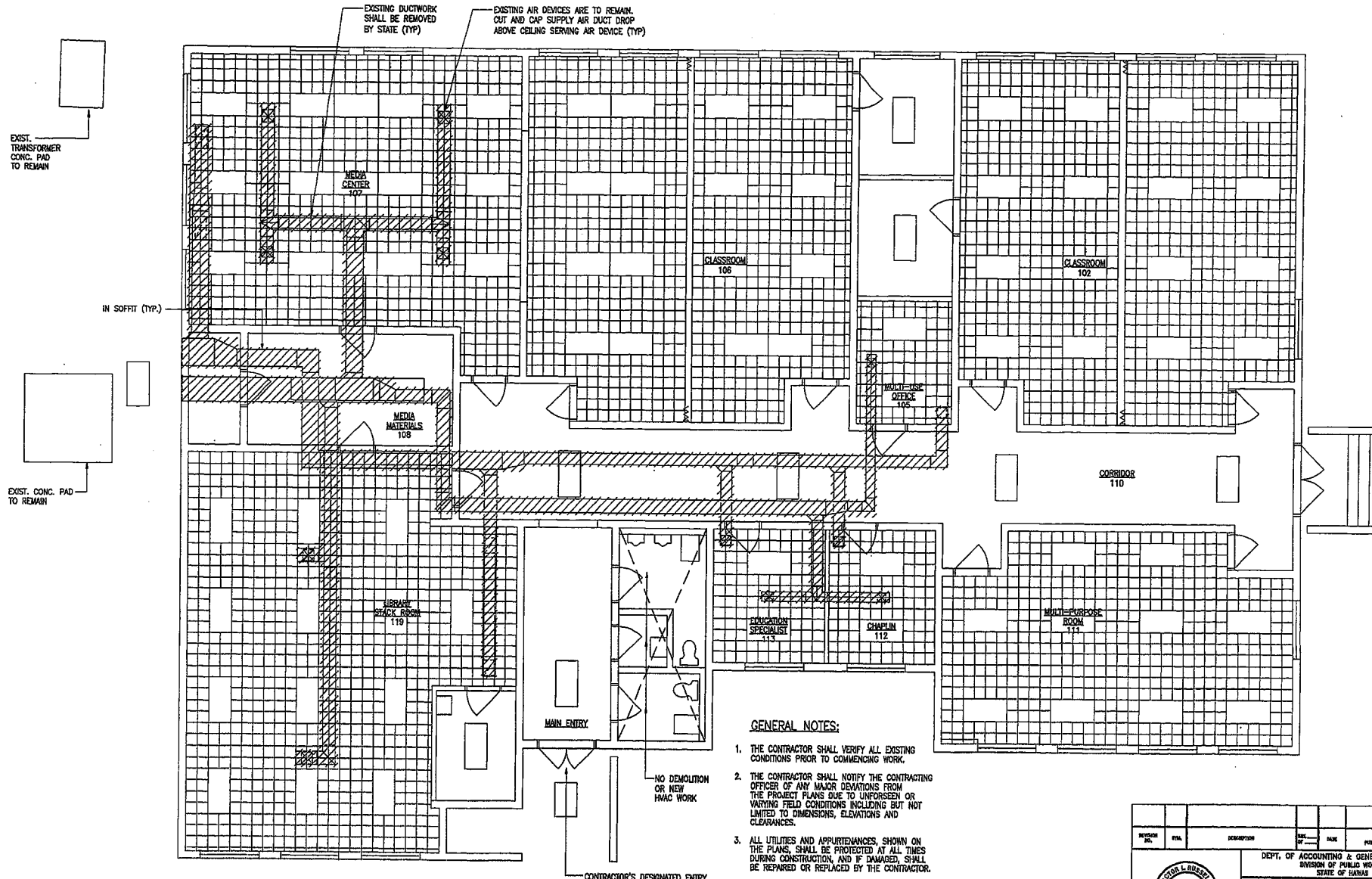
MECHANICAL EQUIPMENT SCHEDULE, LOGS, & NOTES

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

D&A ENGINEERING INC.  
 12-27-2014

M1

DATE: AS SHOWN  
 JAN 2014

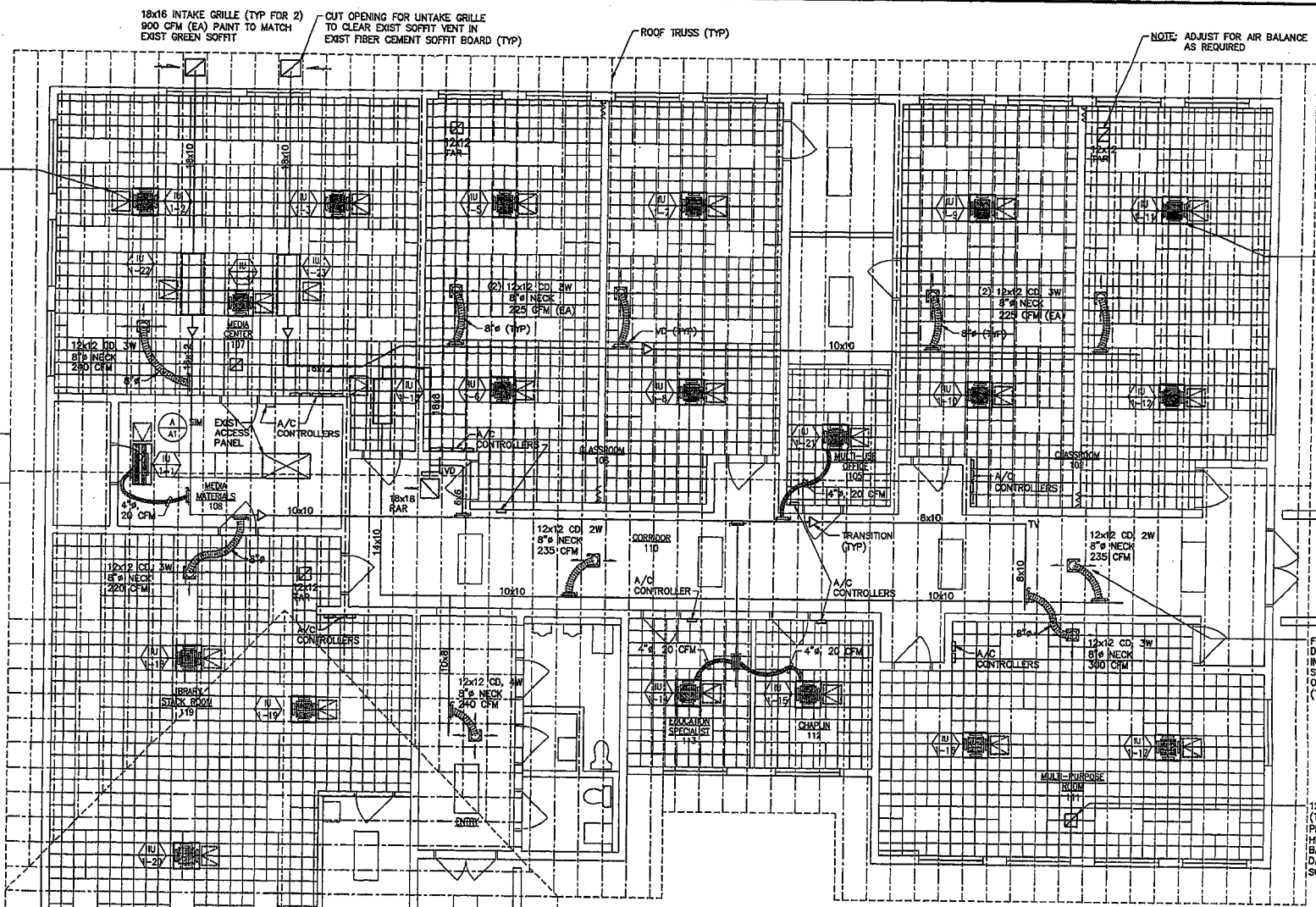


- GENERAL NOTES:**
1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
  2. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER OF ANY MAJOR DEVIATIONS FROM THE PROJECT PLANS DUE TO UNFORSEEN OR VARYING FIELD CONDITIONS INCLUDING BUT NOT LIMITED TO DIMENSIONS, ELEVATIONS AND CLEARANCES.
  3. ALL UTILITIES AND APPURTENANCES, SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION, AND IF DAMAGED, SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.
  4. INFORMATION SHOWN FOR EXISTING BUILDING FEATURES AND CONDITIONS ARE BASED ON BEST AVAILABLE DRAWINGS FROM STATE'S FILES AND FIELD SURVEYS.

**A**  
**M2** AIR CONDITIONING - DEMOLITION PLAN  
SCALE: 1/4" = 1'-0"



SECTION NO.	REV.	DESCRIPTION	DATE	BY	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIANA CORRECTIONAL FACILITY</b> <b>EDUCATION BUILDING-REPLACE A/C SYSTEM</b> <b>AND UPGRADE ELECTRICAL</b>					
AIR CONDITIONING - DEMOLITION PLAN					
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.					
		DATE FOR THIS DRAWING: 12-27-2014		SHEET NO. M2	
PREPARED BY: [Signature] CHECKED BY: [Signature]		APPROVED BY: [Signature] DATE: JAN 2014		SCALE: AS SHOWN	



18x16 INTAKE GRILLE (TYP FOR 2)  
900 CFM (EA) PAINT TO MATCH  
EXIST GREEN SOFFIT

CUT OPENING FOR UNTAKE GRILLE  
TO CLEAR EXIST SOFFIT VENT IN  
EXIST FIBER CEMENT SOFFIT BOARD (TYP)

ROOF TRUSS (TYP)

NOTE: ADJUST FOR AIR BALANCE  
AS REQUIRED

(A) A1  
CEILING ACCESS PANEL,  
VERIFY LOCATION W/  
EQUIPMENT MANUFACTURER  
(TYPICAL UNLESS NOTED  
OTHERWISE)

(1) M3  
SEE HANGER  
DETAIL (TYPICAL  
UNLESS NOTED  
OTHERWISE)

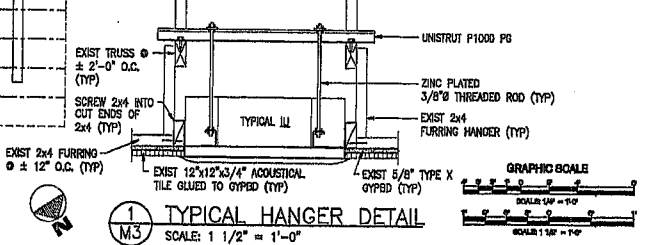
EXIST  
CONC PAD  
(TO REMAIN)

FOR FIRE/SMOKE  
DAMPER OPERATION  
IN CORRIDOR  
SEE CONTROL NOTES  
ON SHEET M-5  
(TYP)

12x12 TAR  
(TO ABU TYP)  
PROVIDE MIN 18"  
HIGH BOOT W/  
BACKDRAFT  
DAMPER &  
SOFFEN (TYP)

- NOTE:
1. INSTALL OUTSIDE AIR FANCOIL UNITS (U-1-24 AND U-1-25) BETWEEN ROOF TRUSSES AS LOCATED. USE EXISTING ACCESS PANEL IN ROOM 108 OR CUT EXISTING CEILING ON "JOINT LINE", IF NECESSARY AND PATCH TO MATCH EXISTING. ANY ADDITIONAL CEILING PENETRATIONS MADE BY THE CONTRACTOR SHALL BE PATCHED TO MATCH EXISTING OR FITTED WITH ACCESS PANEL AS DETAILED.
  2. A/C CONTROLS SHALL BE MOUNTED AT 48" MAXIMUM ABOVE FINISHED FLOOR TO CONFORM WITH ADAAG SECTION 309.
  3. SEE SHEET M-4 FOR CONDENSATE AND REFRIGERANT PIPING LAYOUTS.
  4. ALL EQUIPMENT SHALL BE CAPABLE OF FITTING INTO THE SPACES NOTED ON THE DRAWINGS. CLEARANCES AS NOTED FOR INSTALLATION SHALL BE ADEQUATE FOR THE OPERATION AND MAINTENANCE OF THE EQUIPMENT AS VERIFIED BY MANUFACTURER IN WRITING.

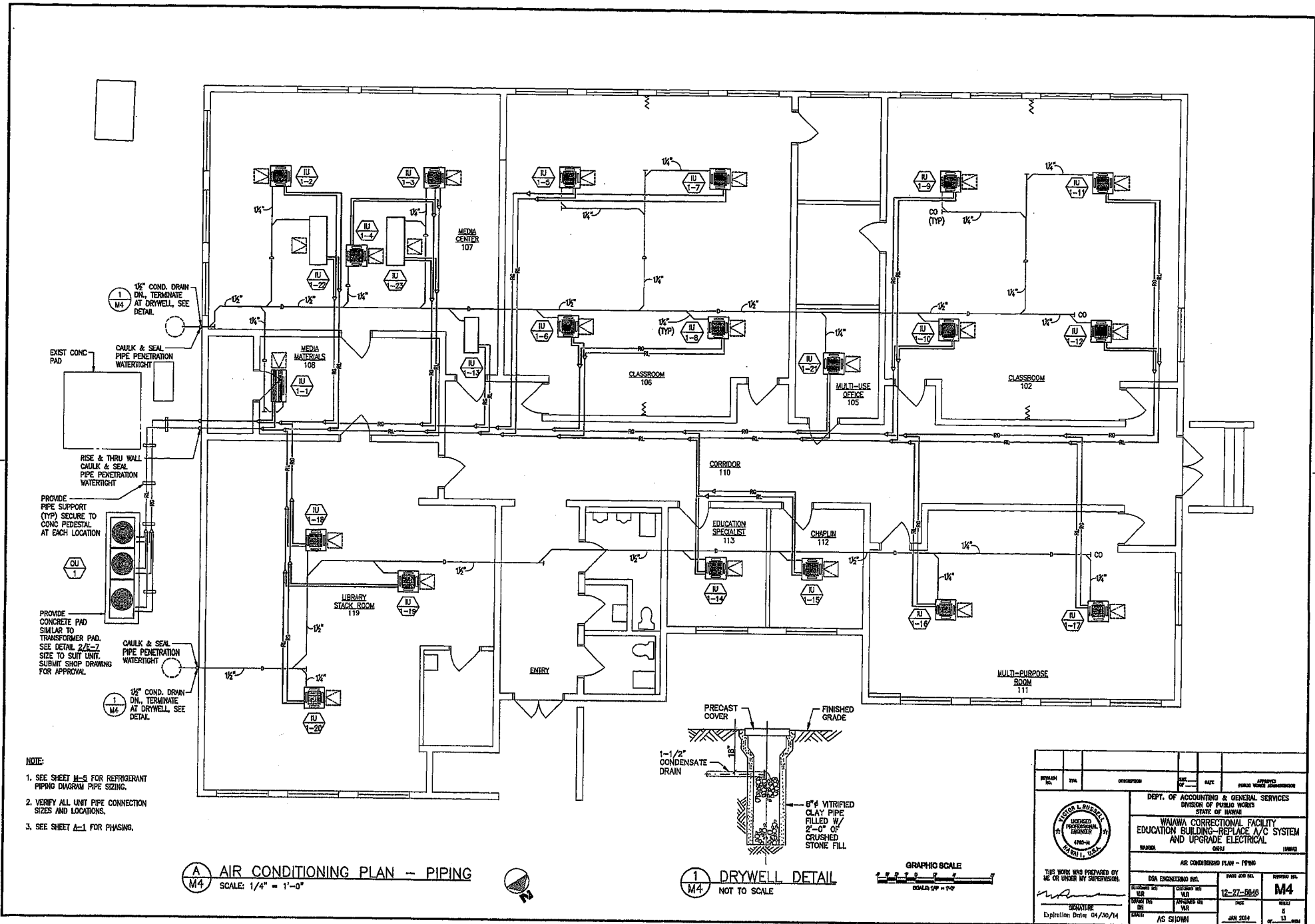
(A) AIR CONDITIONING PLAN -- AIR DISTRIBUTION  
SCALE: 1/4" = 1'-0"



(1) TYPICAL HANGER DETAIL  
SCALE: 1 1/2" = 1'-0"

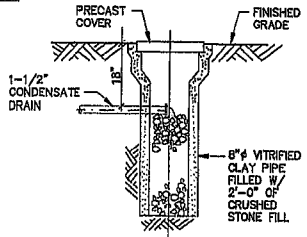
REVISION	DATE	DESCRIPTION	BY	DATE	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAWAUA CORRECTIONAL FACILITY</b> <b>EDUCATION BUILDING--REPLACE A/C SYSTEM</b> <b>AND UPGRADE ELECTRICAL</b>					
AIR CONDITIONING PLAN -- AIR DISTRIBUTION					
ISSUED BY	DATE	ISSUED BY	DATE	ISSUED BY	DATE
DESIGNED BY	12-27-66	DESIGNED BY	12-27-66	DESIGNED BY	12-27-66
CHECKED BY		CHECKED BY		CHECKED BY	
DATE		DATE		DATE	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. SIGNATURE: <i>[Signature]</i> Expired Date: 04/30/74					
AS SHOWN JAN 2014 OF 13					





- NOTE:
1. SEE SHEET M-8 FOR REFRIGERANT PIPING DIAGRAM PIPE SIZING.
  2. VERIFY ALL UNIT PIPE CONNECTION SIZES AND LOCATIONS.
  3. SEE SHEET A-1 FOR PHASING.

**A**  
**M4** AIR CONDITIONING PLAN -- PIPING  
SCALE: 1/4" = 1'-0"



**1**  
**M4** DRYWELL DETAIL  
NOT TO SCALE



REVISION NO.	DATE	DESCRIPTION	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII			
<b>WAIANA CORRECTIONAL FACILITY</b> <b>EDUCATION BUILDING-REPLACE A/C SYSTEM</b> <b>AND UPGRADE ELECTRICAL</b>			
WORKSHEET NO.	0001	PROJECT NO.	10000
AIR CONDITIONING PLAN -- PIPING			
DESIGNED BY	DRG 200 NLS	PROJECT NO.	10000
CHECKED BY	12-27-0648	SCALE	<b>M4</b>
DRAWN BY	DATE	BY	DATE
AS SHOWN	JAN 2014	BY	13

VRF  
SYSTEM SCHEMATIC DWG.

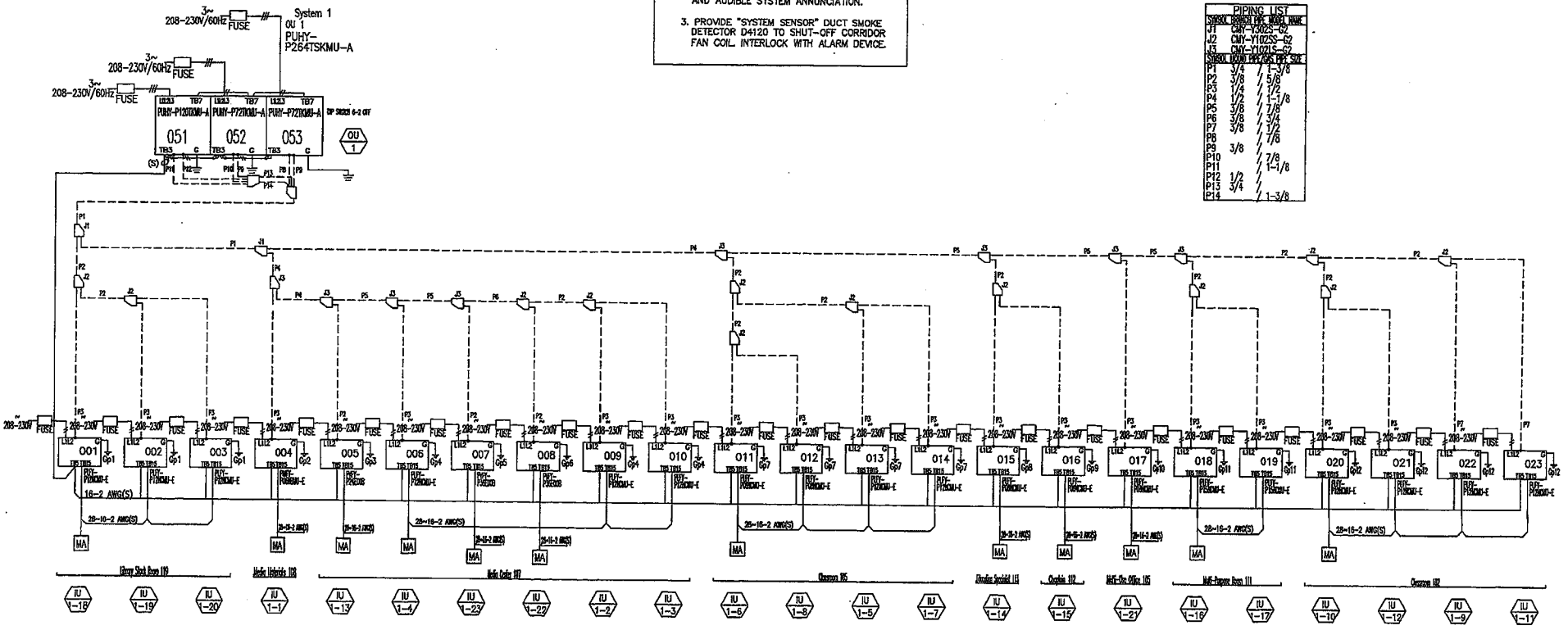
CONTROL NOTES: (FOR SHEET M5)

1. PROVIDE FIRE/SMOKE DAMPER AT ALL CEILING DIFFUSER AND RETURN AIR REGISTERS.
2. CORRIDOR SMOKE DETECTORS BY ELECTRICAL CONTRACTOR SHALL ACTIVATE FIRE/SMOKE DETECTORS AND MULTI-SIGNALING "SYSTEM SENSOR" MODEL RTS2-AOS TO PROVIDE VISIBLE AND AUDIBLE SYSTEM ANNUNCIATION.
3. PROVIDE "SYSTEM SENSOR" DUCT SMOKE DETECTOR D4120 TO SHUT-OFF CORRIDOR FAN COIL INTERLOCK WITH ALARM DEVICE.

DISPLAY	DESCRIPTION
---	POWER WIRE
---	CONTROL WIRE
---	REF. PIPE

Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.  
 $1.25 \text{oz} (1/8 \text{ in})$ ;  $1.25 \text{oz} (1/8 \text{ in})$  or more;  $0.75 \text{oz} (20 \text{ AWG})$ ; between  $0.5 \text{oz} (24 \text{ AWG})$  and  $0.75 \text{oz} (20 \text{ AWG})$ .

PIPE NO.	SIZE	LENGTH	CHARGE
P1	3/4"	1'-3/8"	
P2	3/8"	5/8"	
P3	1/2"	1/2"	
P4	1/2"	1/2"	
P5	3/8"	1/8"	
P6	3/8"	3/4"	
P7	3/8"	1/8"	
P8	3/8"	1/8"	
P9	3/8"	7/8"	
P10	1/2"	1'-1/8"	
P11	1/2"	1'-1/8"	
P12	1/2"	1'-1/8"	
P13	3/4"	1'-3/8"	
P14	3/4"	1'-3/8"	



**A** VRF CONTROL & REFRIGERANT PIPING DIAGRAM  
M5 NOT TO SCALE

PROJECT NO.	DATE	REVISION	DATE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII		PROJECT NO. M5	
WAIANA CORRECTIONAL FACILITY EDUCATION BUILDING-REPLACE A/C SYSTEM AND UPGRADE ELECTRICAL		DATE FOR P.L. 12-27-2010	
WAIANA		DRAWN BY: M5	
VRF CONTROL & REFRIGERANT PIPING DIAGRAM		CHECKED BY: M5	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.		DATE FOR P.L. 12-27-2010	
SIGNATURE: [Signature]		DATE: JAN 2011	
EXPIRES DATE: 01/20/14		SCALE: AS SHOWN	

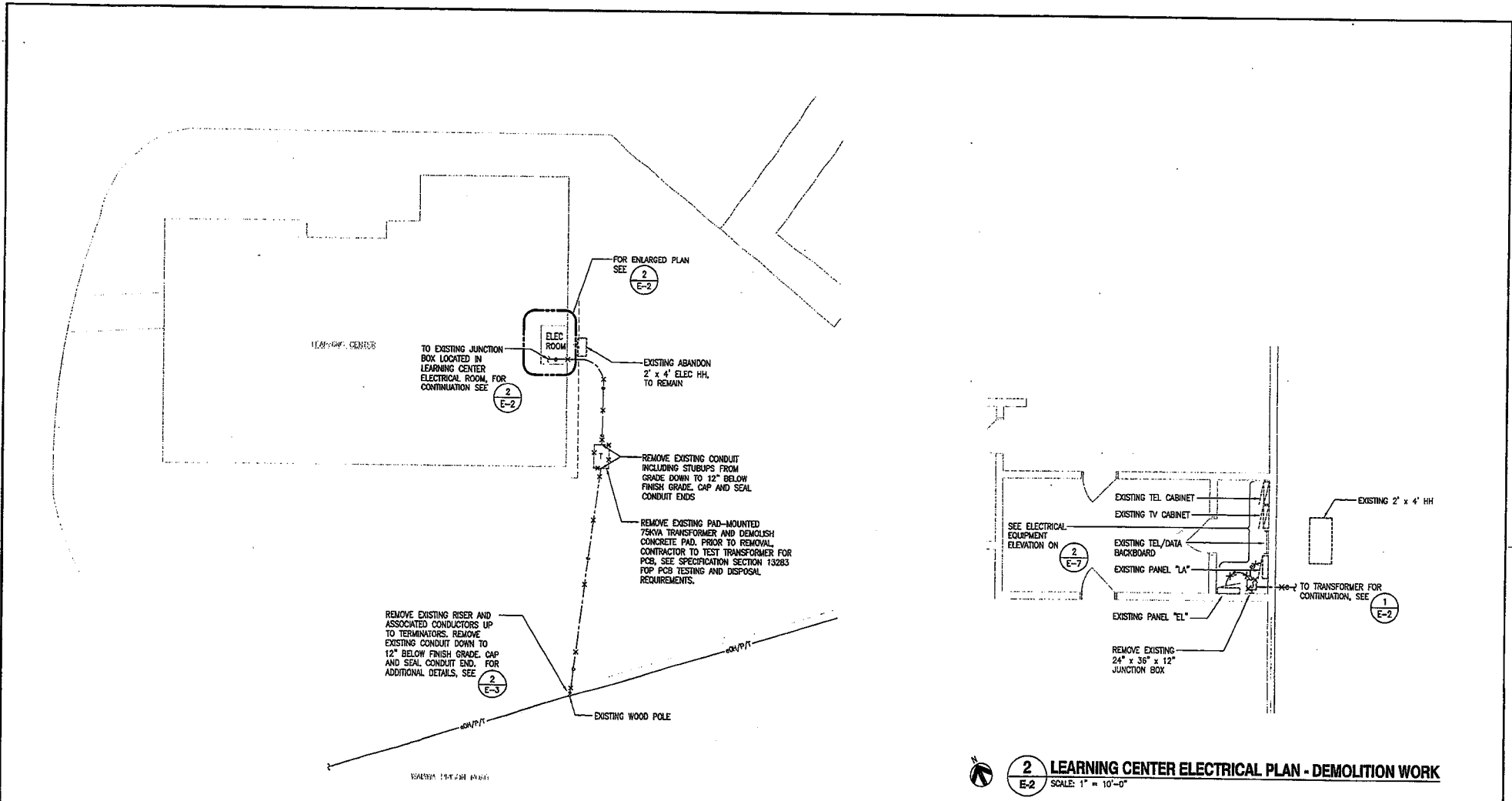
**ELECTRICAL SYMBOL LIST / MOUNTING HEIGHT SCHEDULE**

MOUNTING HEIGHT FROM FLOOR TO	SYMBOL		DESCRIPTION
	EXISTING	NEW	
24"			RECEPTACLE, DUPLEX, GFCI TYPE, 125V, NEMA TYPE 5-20R
			JUNCTION BOX, WALL MOUNTED
			DUCT SMOKE DETECTOR CONNECTION, DUCT DETECTOR FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR
			SINGLE STATION SMOKE DETECTOR, TANDEM WIRED FOR COMMON ALARM, CEILING MOUNTED, FOR WIRING DETAILS, SEE SHEET 3/E-5.
			TRANSFORMER, PAD MOUNTED
			JUNCTION BOX, LARGE, WALL MOUNTED
46"			DOUBLE POLE SINGLE THROW SWITCH, 20A, 120/277V, 1 HP
5'-0"			NON-FUSED DISCONNECT SWITCH, 3P30A UNLESS OTHERWISE NOTED, VOLTAGE TO MATCH CIRCUITING
8'-0"			PANELBOARD
			CONCEALED CONDUIT IN CEILING OR WALLS, (HASHMARKS INDICATE 3-WIRES WITHIN, ALL OTHERS SIMILAR)
			EXPOSED RACEWAY, PROVIDE STRAP AT INTERVAL NOT EXCEEDING 10'-0" ON CENTER
			HOMERUN ARROW TO PANELBOARD, LETTER INDICATES PANELBOARD, NUMBERS INDICATES CIRCUITS. (HASHMARKS INDICATE 3 CURRENT CARRYING CONDUCTORS AND GROUND WIRE WITHIN, ALL OTHERS SIMILAR)
			INTERIOR WIRING: CONCEALED CONDUIT IN FINISHED FLOOR OR BELOW GRADE (NO HASHMARKS INDICATE 2 CURRENT CARRYING CONDUCTORS AND 1 GROUND CONDUCTOR WITHIN, ALL OTHERS SIMILAR).
			EXTERIOR WIRING: CONCRETE ENCASED UNDERGROUND DUCT LINE, SEE DUCT SECTION INDICATOR AND SCHEDULE.
			LIQUID-TIGHT FLEXIBLE CONDUIT
			OVERHEAD LINES (P/T) P=PRIMARY T=TELEPHONE
			DENOTES 42" ABOVE FINISHED FLOOR OR GRADE
			GFCI GROUND FAULT CIRCUIT INTERRUPTER
			GND GROUND
			HH HANDHOLE
			KW KILOWATT
			N.C. NORMALLY CLOSED
			SCH SCHEDULE
			SS STAINLESS STEEL
			WP WEATHERPROOF
			X DENOTES DEMOLITION/REMOVAL
			◇ NOTE INDICATOR
			⊙ DETAIL INDICATOR: TOP HALF DENOTES DETAIL NUMBER, BOTTOM HALF DENOTES SHEET NUMBER
			□ DUCT SCHEDULE CALLOUT, NUMBER DENOTES TYPE "1" DUCT, OTHERS SIMILAR, SEE SHEET E-7
			Ⓐ DUCT SECTION INDICATOR, SEE SHEET E-7
			EQUIPMENT TERMINATION WITH FLEXIBLE CONDUIT WHIP
			POWER TRANSFORMER
			GROUND
			PRIMARY FUSED SWITCH
			CIRCUIT BREAKER
			NON-FUSED DISCONNECT SWITCH
			NORMALLY CLOSED (NO) CONTACT
			FUSE
			ELBOW TYPE HIGH VOLTAGE CONNECTOR

**GENERAL NOTES:**

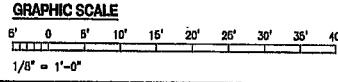
- ALL ELECTRICAL ITEMS INDICATED ON THE DRAWINGS ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- ALL CONDUIT ROUTING LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL ROUTE CONDUITS IN A LOGICAL AND CONSTRUCTIBLE MANNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE. NOTIFY THE CONTRACTING OFFICER OF ALL QUESTIONS IN WRITING AND RESOLVE ALL CONTRACTOR'S QUESTIONS AND CONCERNS PRIOR TO PROCUREMENT AND BEFORE START OF CONSTRUCTION.
- SHOULD PROJECT CONDITIONS REQUIRE REARRANGEMENT OF WORK, MARK SUCH CHANGES ON THE "AS-BUILT" DRAWINGS. IF THESE CHANGES REQUIRE ALTERNATE METHODS TO THOSE SPECIFIED IN THE CONTRACT DOCUMENTS, SUBMIT DRAWINGS SHOWING THE PROPOSED ALTERNATE METHODS TO THE CONTRACTING OFFICER. DO NOT PROCEED UNTIL APPROVAL IS OBTAINED FROM THE CONTRACTING OFFICER.
- THE CONTRACTOR SHALL SCHEDULE ALL WORK TO MINIMIZE DISRUPTION TO THE FACILITY. CONTRACTOR SHALL COORDINATE SCHEDULING REQUIREMENTS WITH THE CONTRACTING OFFICER PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL SEQUENCE WORK TO MINIMIZE THE NUMBER ELECTRICAL OUTAGES TO THE FACILITY AND LIMIT THE ELECTRICAL OUTAGE TO 8 HOURS. CONTRACTOR SHALL SUBMIT WRITTEN NOTICE OF SCHEDULED OUTAGES TO CONTRACTING OFFICER AT LEAST 14 DAYS IN ADVANCE.
- CONTRACTOR SHALL VISIT THE PROJECT SITE, PRIOR TO BIDDING, TO FAMILIARIZE THEMSELVES WITH THE FACILITY LAYOUT.
- CONDUIT (EMT, GRS) SHALL BE SUPPORTED PER NEC.
- PROVIDE FIRESTOPPING MATERIAL AT ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS.
- REMOVE CONDUCTORS FROM EXISTING DUCTLINE DESIGNATED FOR REMOVAL. ABANDON DUCTS IN PLACE, CAP AND SEAL REMAINING CONDUIT END. SEE E-2 FOR ADDITIONAL REQUIREMENTS.
- INFORMATION ON EXISTING UNDERGROUND UTILITIES SHOWN ON THE DRAWING HAVE BEEN OBTAINED FROM AVAILABLE REFERENCE DRAWINGS. ALL EXISTING UNDERGROUND UTILITIES MAY NOT BE SHOWN. CONTRACTOR TO TUNE FOR ALL EXISTING UNDERGROUND UTILITIES AND DUCTLINES PRIOR TO EXCAVATION. DAMAGES TO EXISTING UNDERGROUND UTILITIES AND/OR DUCTLINE SHALL BE REPAIRED AT NO COST TO THE STATE.

	DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS WAIANA CORRECTIONAL FACILITY EDUCATION BUILDING-REPLACE A/C SYSTEM AND UPGRADE ELECTRICAL WAIPUA OHEI 19843
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>Douglas N. Adair</i> SIGNATURE EXPIRES: 04/30/14	ELECTRICAL SYMBOL LIST AND GENERAL NOTES EGS, BLDG. SHEET NO. 13 OF 11 DATE: 12-27-2013 AS SHOWN JAN 2014

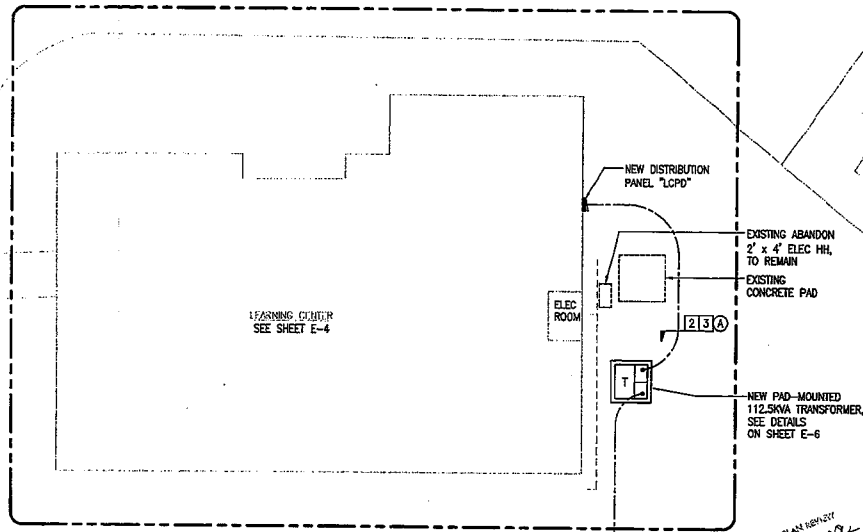


**1 ELECTRICAL SITE PLAN - DEMOLITION WORK**  
 SCALE: 1" = 10'-0"

**2 LEARNING CENTER ELECTRICAL PLAN - DEMOLITION WORK**  
 SCALE: 1" = 10'-0"



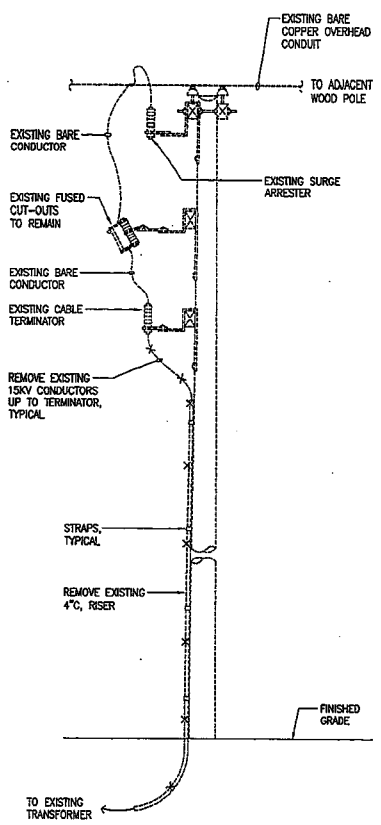
SYSTEM NO.	DATE	DESCRIPTION	REV.	DATE	APPROVED
					PUBLIC WORKS ASSISTANT
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIANA CORRECTIONAL FACILITY            EDUCATION BUILDING - REPLACE A/G SYSTEM            AND UPGRADE ELECTRICAL</b>					
WAIANA OAHU IPR008					
SITE AND LEARNING CENTER ELECTRICAL PLANS - DEMOLITION WORK					
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION <i>Michelle N. Adair</i> SIGNATURE HAWAII LICENSE NO. 10077-E Expiration Date: 04/30/14		ELEC. DIV. DESIGNED BY: SA 12-27-2010 CHECKED BY: SA DATE: JAN 2014 AS SHOWN		DRAWING NO. <b>182-2</b> SHEET 6 OF 13 SHEETS	



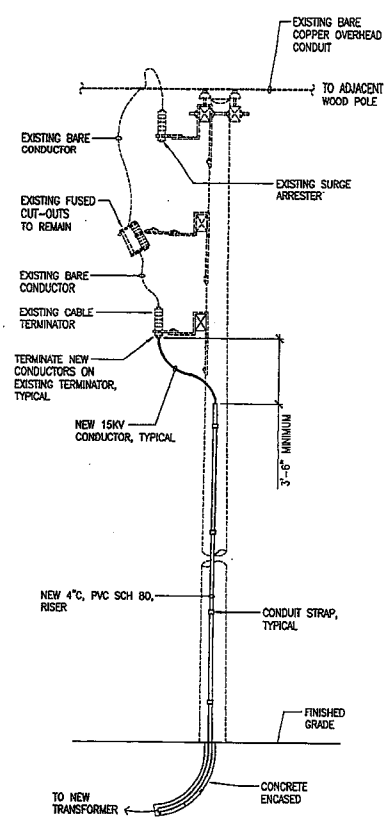
WORKING PLAN REVISED BY *O. Oshiro* DATE: 07/14

4" C POLE RISER, FOR ADDITIONAL DETAILS, SEE **3 E-3**

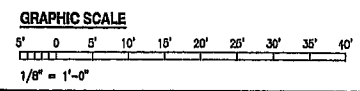
**1 ELECTRICAL SITE PLAN - NEW WORK**  
SCALE: 1" = 10'-0"



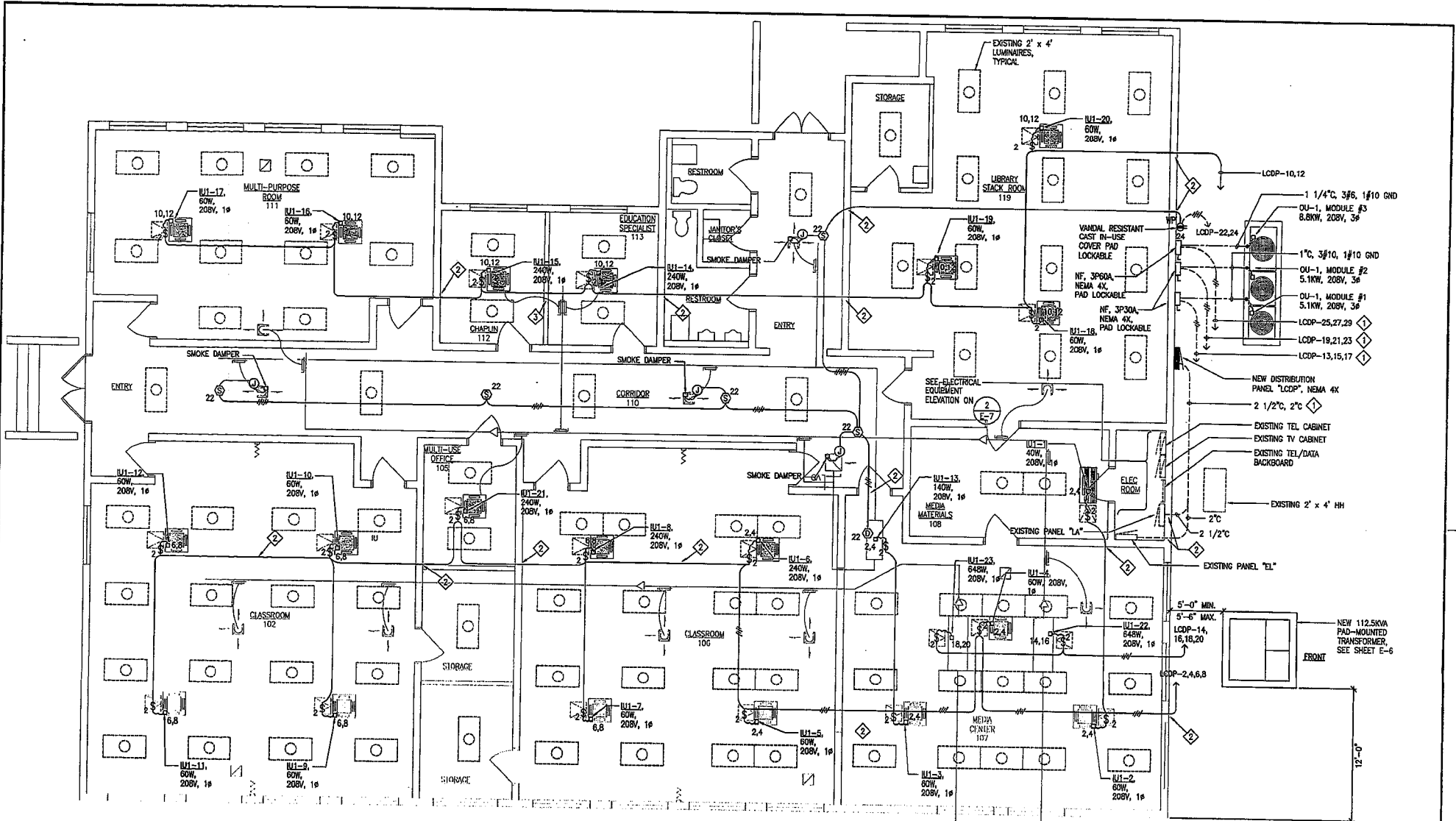
**2 RISER DETAIL - DEMOLITION WORK**  
E-3 NOT TO SCALE



**3 RISER DETAIL - NEW WORK**  
E-3 NOT TO SCALE



BOOK NO.	REV.	DESCRIPTION	REV. BY	DATE	APPROVED BY
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAWA CORRECTIONAL FACILITY</b> EDUCATION BUILDING-REPLACE A/C SYSTEM AND UPGRADE ELECTRICAL					
WORKSHEET NO. <b>0401</b> PROJECT NO. <b>1989</b>					
<b>ELECTRICAL SITE PLAN - NEW WORK</b>					
DESIGNED BY <i>[Signature]</i>		CHECKED BY MA		DRAWN BY MA	
DATE 12-27-88		DATE 12-27-88		DATE 12-27-88	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION SIGNATURE: <i>[Signature]</i> PROJECT NUMBER: 1989-0401 EXPIRATION DATE: 04/30/14					
SCALE: AS SHOWN					



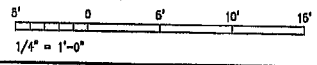
**NOTES:**

- ① ROUTE ALONG THE WALL AT 8"-6" AFF MINIMUM.
- ② PENETRATE EXISTING CMU WALL FOR CONDUIT INSTALLATION, PATCH AND PAINT TO MATCH SURROUNDING FINISHES. PROVIDE FIRE STOPPING AS REQUIRED.
- ③ PENETRATE GYPSUM BOARD WALL OR CONDUIT INSTALLATION, PATCH AND PAINT TO MATCH SURROUNDING FINISHES.



**ELECTRICAL PLAN - NEW WORK**  
SCALE: 1/4" = 1'-0"

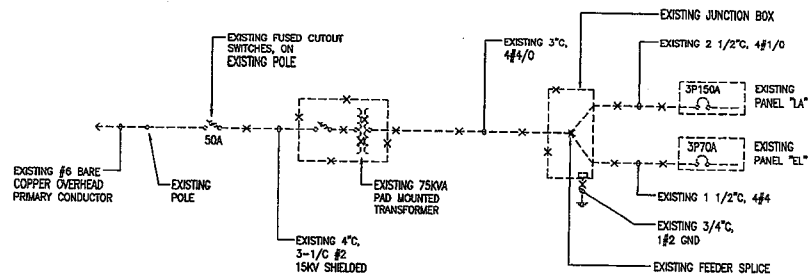
**GRAPHIC SCALE**



REVISED BY	DATE	DESCRIPTION	REV. NO.	DATE	APPROVED BY

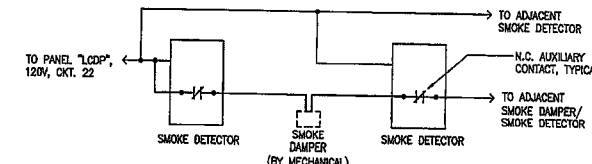
  

		DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF ILLINOIS	
		WANAHA CORRECTIONAL FACILITY EDUCATION BUILDING—REPLACE A/C SYSTEM AND UPGRADE ELECTRICAL	
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION		PROJECT NUMBER FOR REC. AC. Expiration Date: 04/30/14	
DESIGNED BY	DRAWN BY	DATE	SCALE
		12-27-2010	AS SHOWN
PROJECT NO.	DATE	REV.	BY
		10	
		13	

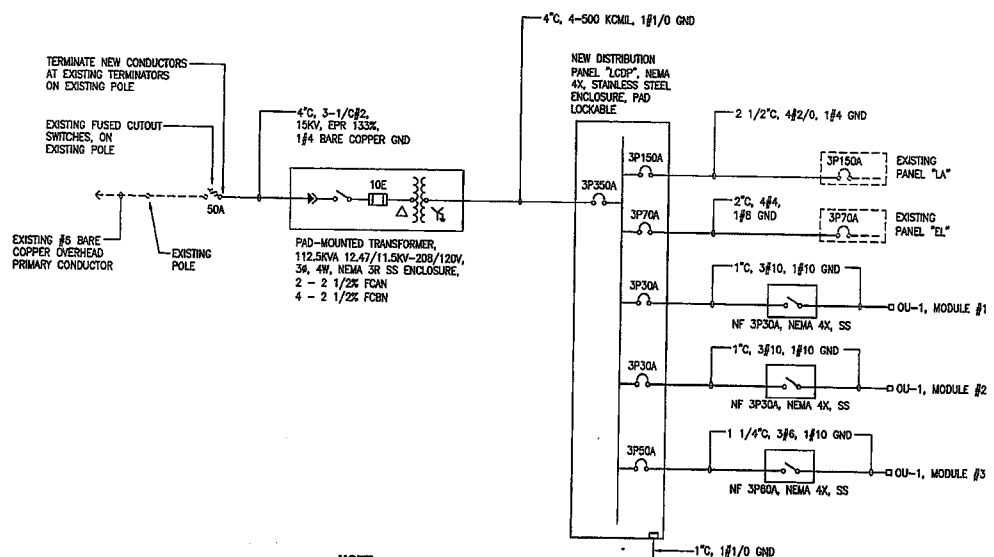


**1 ONE-LINE DIAGRAM - DEMOLITION WORK**  
E-5 NO SCALE

Circuit No.	USE	Ckt Bkr Pole/Amp	CONNECTED LOAD (KVA)			Ckt Bkr Amp/Pole	USE	Ckt No.
			PHASE A	PHASE B	PHASE C			
2/0 1		3	18.2	0.4		15		2
2/0 3	EXISTING PANEL "LA"	3	16.8	0.4		15		4
2/0 5		3	15.0			15		4
4 7		3	7.1	0.4		15		8
4 9	EXISTING PANEL "EL"	3	6.2	0.4		15		8
4 11		3	7.0			15		10
10 13		3	1.7	0.4		15		10
10 15	OUT MODULE #1	3	1.7	0.4		15		10
10 17		3	1.7	0.4		15		10
10 19		3	1.7	0.4		15		10
10 21	OUT MODULE #2	3	1.7	0.5		20	1	22
10 23		3	1.7	0.5		20	1	22
6 25		3	3.0	0.5		15		24
6 27	OUT MODULE #3	3	3.0	0.5		15		28
8 29		3	3.0			1	1	30
- 31	PFB	1						32
- 33	PFB	1						34
- 35	PFB	1						36
- 37	PFB	1						38
- 39	PFB	1						40
- 41	PFB	1						42
CONNECTED LOAD/PHASE			33.8	31.6	30.2			
TOTAL CONNECTED LOAD			95.6			KVA		
DEMAND FACTOR			0.8					
TOTAL DEMAND LOAD			76.5			KVA= 212.5 AMPS		



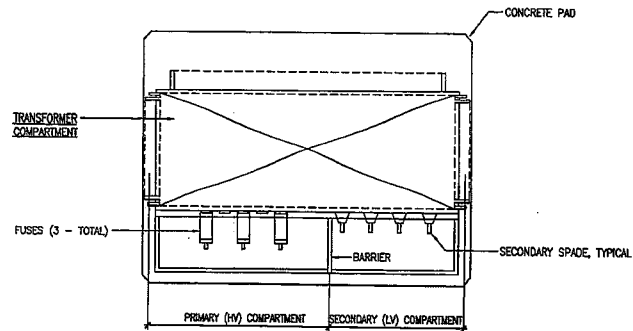
**3 TYPICAL SMOKE DETECTOR WIRING DIAGRAM**  
E-5 NO SCALE



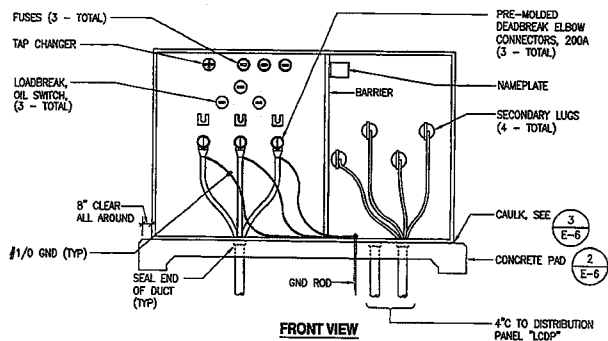
**NOTE:**  
TRANSFORMER PRIMARY VOLTAGE RATING IS BASED ON THE EXISTING PRIMARY DISTRIBUTION SYSTEM INFORMATION OBTAINED FROM RECORD DRAWINGS. CONTRACTOR TO VERIFY ACTUAL PRIMARY VOLTAGE AND SET TRANSFORMER TAPS TO PROVIDE TRANSFORMER SECONDARY VOLTAGE OF 208Y/120V, 3# 4W.

**2 ONE-LINE DIAGRAM - NEW WORK**  
E-5 NO SCALE  
(SOLID LINE INDICATES NEW WORK, DASH LINE INDICATES EXISTING)

REVISION	DATE	DESCRIPTION	BY	DATE	FORM NO. 10/2009
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAWA CORRECTIONAL FACILITY</b> <b>EDUCATION BUILDING-REPLACE A/C SYSTEM</b> <b>AND UPGRADE ELECTRICAL</b>					
		ONE-LINE DIAGRAM AND PANEL SCHEDULE EES, D.C.      PAGE AND NO.      DRAWING NO.			
RECORDED BY: <i>MA</i> DRAWN BY: <i>MA</i> CHECKED BY: <i>MA</i> DATE: 12-27-2014 EXPIRES: 04/30/14	DESIGNED BY: <i>MA</i> APPROVED BY: <i>MA</i> DATE: 12-27-2014 AS SHOWN	12-27-2014 11 13	THIS DRAWING WAS PREPARED BY ME OR UNDER MY SUPERVISION.		



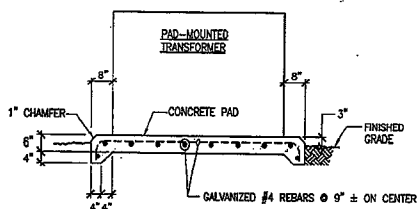
**TOP VIEW**



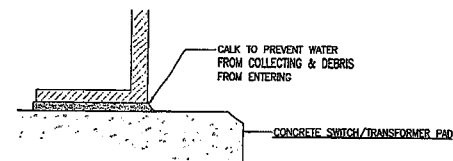
**FRONT VIEW**

**NOTE:**  
FRONT DOOR NOT SHOWN FOR CLARITY, DOOR SHALL BE PADLOCKABLE.

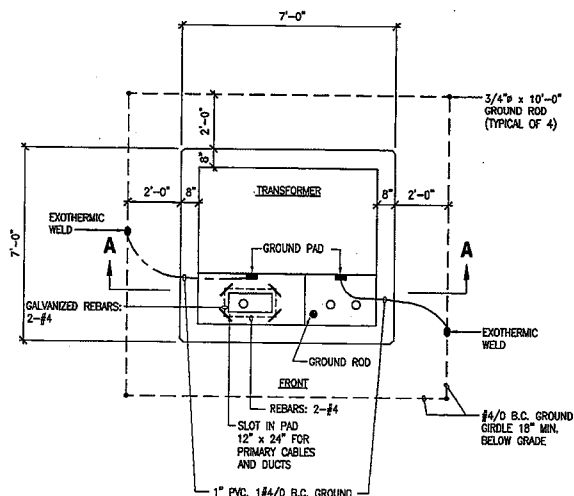
**1 PAD MOUNTED TRANSFORMER DETAIL**  
E-6 NOT TO SCALE



**SECTION "A-A"**



**3 CAULKING DETAIL**  
E-6 NOT TO SCALE



**PLAN VIEW**

**NOTES:**

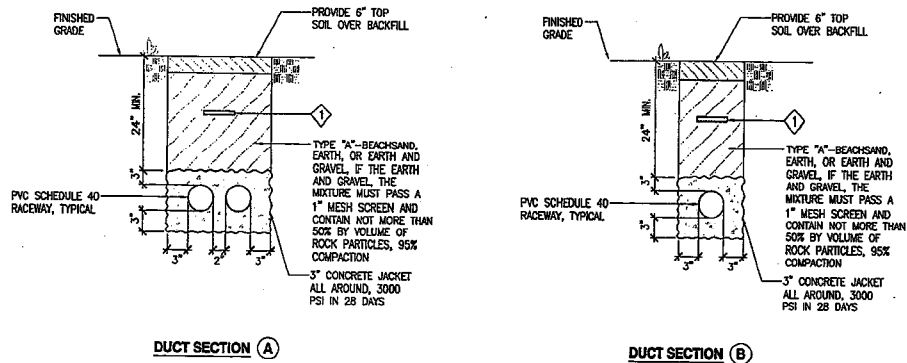
- COORDINATE OVERALL PAD DIMENSIONS WITH TRANSFORMER BEING PROVIDED & ADJUST ACCORDINGLY. ALLOW 8" CLEARANCE FROM SIDE OF TRANSFORMER TO EDGE OF PAD.
- CONCRETE COMPRESSIVE STRENGTH: 3000 PSI IN 28 DAYS.

*12/21/2014 BY: WJW  
D. O'Rourke  
5/10/14*

**2 TRANSFORMER PAD DETAIL**  
E-6 NOT TO SCALE

PROJECT NO.	PH.	DESCRIPTION	REV.	DATE	ISSUED UNDER SUPERVISION
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIANA CORRECTIONAL FACILITY EDUCATION BUILDING—REPLACE A/C SYSTEM AND UPGRADE ELECTRICAL					
PWD MOUNTED TRANSFORMER DETAILS					
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>M. N. Aho</i> REGISTERED PROFESSIONAL ENGINEER No. 10071-C EXPIRES 04/30/14		DATE AND NO. 12-27-2014		DRAWING NO. E-6	
DRAWN BY MO		CHECKED BY MA		SHEET 12 OF 13	
REVISION AS SHOWN		DATE JAN. 2014		PROJECT NO. 13-0018	

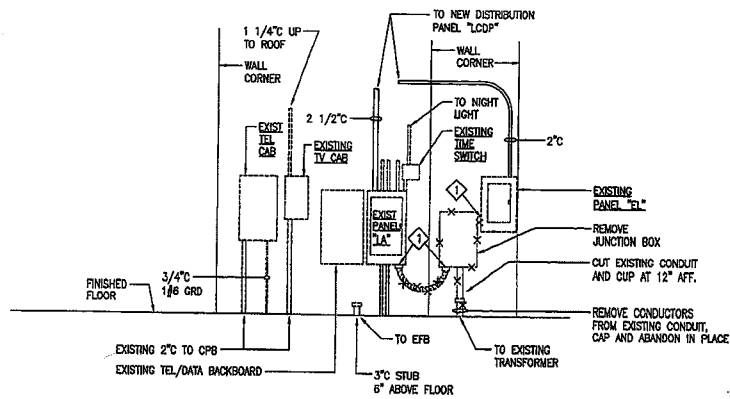




DUCT SCHEDULE		
TYPE	DESCRIPTION	CABLES
1	4" PVC SCHEDULE 40, CONCRETE ENCASED	3-1/C #2, 15KV, EPR 133%, 1#4 GND
2	4" PVC SCHEDULE 40, CONCRETE ENCASED	4-500 KCMIL, 1#1/0 GND
3	4" SPARE	PULL STRING

**NOTE:**  
 ◆ PLASTIC TAPE MARKER IMPRINTED WITH "CAUTION - ELECTRICAL LINE BURIED BELOW" ENTIRE LENGTH OF DUCT.


**1 ELECTRICAL DUCT SECTION DETAILS**  
 E-8 NOT TO SCALE



**NOTE:**  
 ◆ CAP AND SEAL UNRISSED HOLE/KNOCKOUTS AFTER CONDUIT REMOVAL.

**2 ELECTRICAL EQUIPMENT ELEVATION**  
 E-8 SCALE: 3/8" = 1'-0"

*W. R. BARNHART*  
 5/24/14

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIANA CORRECTIONAL FACILITY</b> <b>EDUCATION BUILDING-REPLACE A/C SYSTEM</b> <b>AND UPGRADE ELECTRICAL</b>					
ELECTRICAL EQUIPMENT ELEVATION AND DUCT SCHEDULE					
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.					
					
DESIGNED BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE
<i>W. R. Barnhart</i>	12-27-5049				10-7
SCALE	APPROVED FOR	DATE			
AS SHOWN		JAN 2014			
EXPIRATION DATE	04/30/14				

**BP 763468**

# DEPARTMENT OF PUBLIC SAFETY STATE OF HAWAII

# WAIAWA CORRECTIONAL FACILITY WASTEWATER SYSTEM IMPROVEMENTS

**WAIPAHU, OAHU, HAWAII**  
**DAGS JOB NO. 12-27-5563**

PREPARED BY:

**M&E Pacific, Inc.**

METCALF & EDDY | AECOM

DAMES PACIFIC CTR, STE. 1800 · 841 BISHOP ST, HONOLULU, HAWAII 96813

FOR:

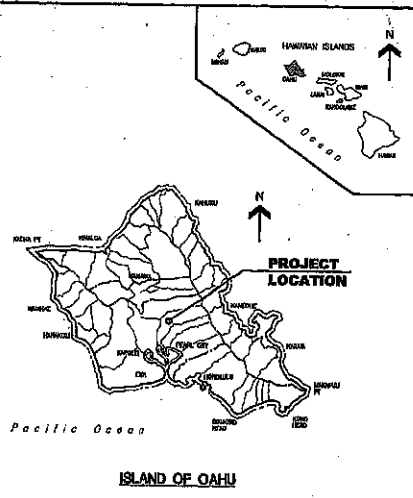
**DIVISION OF PUBLIC WORKS  
DEPT. OF ACCOUNTING & GENERAL SERVICES  
STATE OF HAWAII**

**BUILDING DIVISION  
FILE COPY**

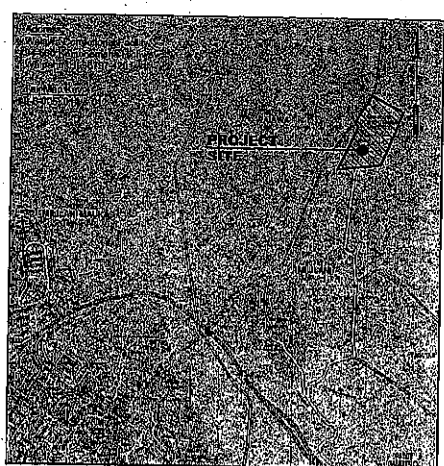
CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PLANNING AND PERMITTING  
**APPROVED**

The purpose hereof is to permit or approval of plans, specifications, and other data that may be submitted to the permittee or approval of any modification of any portion of the same or any other law. The issuance of approval does not constitute a warranty or endorsement of any product or service. The permittee or approval of any modification of any portion of the same or any other law. The issuance of approval does not constitute a warranty or endorsement of any product or service. The permittee or approval of any modification of any portion of the same or any other law. The issuance of approval does not constitute a warranty or endorsement of any product or service.

PERMIT NUMBER: 76346  
APPROVED DATE: 10/17/14  
BY: Lane Fogarty



**VICINITY MAP**  
NOT TO SCALE



**LOCATION MAP**  
NOT TO SCALE

**INDEX TO DRAWINGS**

SHEET NO.	SHEET NAME	SHEET TITLE
1	001	TITLE SHEET
2	C-001	CONSTRUCTION NOTES
3	C-002	GENERAL PLAN
4	C-003	SITE PLAN
5	C-004	CONSTRUCTION PHASING & LINER DETAILS

**APPROVED:**

*Neil Saha* *12/20/12*  
DIRECTOR DEPARTMENT OF PUBLIC SAFETY  
STATE OF HAWAII DATE

*[Signature]* *11/1/12*  
COMPTROLLER DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII DATE

*[Signature]* *12/20/12*  
PUBLIC WORKS ADMINISTRATOR DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII DATE

*[Signature]* *11/1/12*  
CHIEF, ENVIRONMENTAL MANAGEMENT DIVISION DEPARTMENT OF HEALTH  
STATE OF HAWAII DATE



BY	DATE	REVISION	DATE	BY	DATE	REVISION	DATE
<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII <b>WAIAWA CORRECTIONAL FACILITY</b> <b>WASTEWATER SYSTEM IMPROVEMENTS</b> WAIPAHU OAHU, HAWAII <b>TITLE SHEET</b>							
M & E PACIFIC, INC.		DRAWN BY: [Signature]		CHECKED BY: [Signature]		DATE: 12-27-2012	
PROJECT NO. 12-27-5563		SHEET NO. 001		TOTAL SHEETS 1		DATE: 12-27-2012	

GENERAL NOTES:

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS...
2. VERIFY AND CHECK ALL DIMENSIONS AND DETAILS ON THE CONSTRUCTION DRAWINGS...
3. WORK INCIDENTAL TO THE CONTRACT AND NECESSARY TO COMPLETE THE PROJECT...
4. IN PERFORMING ALL WORK, THE CONTRACTOR SHALL EXERCISE DUE CARE AND CAUTION...
5. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION...
6. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBER, DIRT, NOISE, EMISSION, ETC...
7. THE UNDERGROUND PIPES, CABLES OR DUCTILES KNOWN TO EXIST BY THE CONTRACTING OFFICER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS...
8. THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL OR BETTER CONDITION ALL IMPROVEMENTS DAMAGED AS A RESULT OF THE CONSTRUCTION...
9. LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM LATEST RELIABLE SOURCES AND ARE APPROXIMATE ONLY...
10. ALL EXISTING UTILITIES TO REMAIN IN USE, WHETHER OR NOT SHOWN ON THE PLANS...
11. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) SET OF APPROVED PLANS AT THE PROJECT SITE DURING THE CONSTRUCTION...
12. CONTRACTOR TO COMPLY WITH AMERICANS WITH DISABILITIES ACCESSIBILITY GUIDELINES (ADA).

CONSTRUCTION NOTES:

- 1. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER SUFFICIENTLY IN ADVANCE OF OPENING ANY OR UTILIZING EXISTING BORROW PITS OR ON-SITE BORROW...
2. THE CONTRACTOR SHALL CONDUCT ALL TESTS AS REQUESTED BY THE CONTRACTING OFFICER AND BE RESPONSIBLE FOR ALL EXPENSES INCURRED IN CONDUCTING THESE TESTS...
3. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, AND SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF SAME...
4. ALL AREAS THAT ARE AT FINISHED GRADE SHALL BE RESTORED TO FINISHED GRADE UPON COMPLETION OF ANY ADDITIONAL WORK IN THAT AREA...
5. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR UNLESS SPECIFIED ON THE PLANS TO BE ABANDONED...
6. THE CONTRACTOR SHALL MAKE ARRANGEMENT FOR UTILITIES, SUCH AS ELECTRICITY, WATER, ETC., REQUIRED FOR HIS OPERATIONS AND ALL COSTS SHALL BE BORNE BY THE CONTRACTOR...
7. THE CONTRACTOR SHALL PROVIDE TO THE CONTRACTING OFFICER "AS-BUILT" DRAWINGS OF ALL NEW UTILITIES AND STRUCTURES UPON COMPLETION OF WORK...
8. IF DIMENSIONAL ERRORS OR CONFLICTS OCCUR, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTING OFFICER AND SHALL WAIT FOR CLARIFICATION BEFORE RESUMING OR COMMENCING WORK ON THE DISCREPANCY ITEM...
9. THE CONTRACTOR SHALL OBTAIN AND PAY FOR REQUIRED PERMITS FROM APPROPRIATE GOVERNMENT AGENCIES, WHICH MAY HAVE BEEN OBTAINED BY OWNER...
10. THE CONTRACTOR SHALL COORDINATE THE STORAGE OF HIS MATERIAL AND EQUIPMENT WITH THE OWNER'S REPRESENTATIVE...
11. THE UNDERGROUND PIPES, CABLES OR DUCTILES KNOWN TO EXISTING BY THE CONTRACTING OFFICER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS...
12. IF SUBSURFACE CULTURAL REMAINS SUCH AS ARTIFACTS, BURIALS OR DEPOSITS OF SHELLS OR CHARCOAL ARE UNCOVERED DURING EXCAVATION WORK, THE CONTRACTOR SHALL STOP WORK IN THE AREA OF THE FIND AND CONTACT THE STATE'S HISTORIC PRESERVATION DIVISION IMMEDIATELY (PHONE: 802-8085)...
13. UTILITIES SHALL BE PLACED AFTER FILLS ARE CONSTRUCTED, THE BOTTOMS OF UTILITY TRENCHES SHALL BE DOWNGRADED AT LOW POINTS AND GRADED TO DRAIN WATER...
14. PETROGLYPHS AND OTHER ARCHAEOLOGICAL FEATURES MUST BE PROTECTED DURING CONSTRUCTION...
15. ALL CURBS, SIDEWALKS OR OTHER PAVEMENT BEYOND THE LIMITS OF CONSTRUCTION THAT IS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REPLACED AND RESTORED AT NO ADDITIONAL EXPENSE TO THE OWNER.

LINER INSTALLATION NOTES:

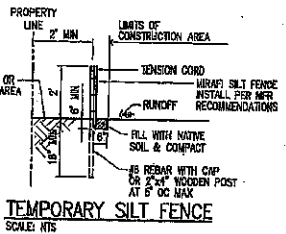
- 1. THE SURFACE OF THE SUBGRADE SHALL BE PREPARED BY EXCAVATING AND TRIMMING THE EARTH TO ELEVATIONS AND SECTIONS AS SHOWN ON THE DRAWINGS...
2. IN THE LINER AREA, WHERE GRAVELLY MATERIALS CONTAINING LARGE COBBLES OR FRAGMENTS OF STONES AND OTHER FOREIGN MATERIALS, THE SURFACE OF THE COMPLETED SUBGRADE SHALL BE SMOOTH, UNIFORM AND FREE FROM SLIDING GRANULES IN GRADE...
3. COMPACTOR OF THE EARTH SUBGRADE SHALL BE ACCOMPANIED WITH A VIBRATING ROLLER OR A STEEL WHEEL ROLLER WEIGHING NOT LESS THAN 50 POUNDS PER LINEAR INCH OF ROLLER WIDTH...
4. TIRES OR TRACK MARKS, OR OTHER SHARP CHANGES IN ELEVATION DEEPER THAN 1/2" SHOULD BE REMOVED...
5. CONCRETE SURFACES WHICH ARE TO BE ATTACHED TO THE LINER SHALL HAVE ALL ROUGH EDGES AND PROJECTIONS REMOVED IN THE AREA OF LINSING...
6. CHECK MEASUREMENTS AND GRADIES PRIOR TO START OF LINER INSTALLATION...
7. THE ANCHOR TRENCH AS SHOWN IN THE TYPICAL ANCHOR TRENCH DETAIL...
8. OLD TIRES OR SANDBAGS WILL BE NEEDED TO KEEP THE MATERIAL IN POSITION DURING WET CONDITIONS...
9. DRAINAGE ON THE LINER IS PERMITTED ONLY WHEN THE LINER IS FIRST COVERED WITH 12" OF EARTH...
10. STRUCTURES INCLUDING PIPES, SPLASH PADS, INLETS, OUTLETS AND HORIZONTAL BOXES...
11. FRIENDLY NEIGHBOR FENCE SHALL MEET NOISE REQUIREMENTS BY THE CITY & STATE STANDARDS.

BEST MANAGEMENT PRACTICES NOTES:

- 1. THE CONTRACTOR SHALL ERECT AND MAINTAIN THROUGHOUT THE ENTIRE PROJECT ALL NECESSARY SILT FENCES, DUST FENCES, CONSTRUCTION INGRESS/EGRESS AND ANY OTHER ITEMS AS REQUIRED AND INDICATED IN THE PROJECT SPECIFICATIONS...
2. THE CONSTRUCTION INGRESS AND EGRESS SHALL HAVE AN 8" THICK 1/2" CRUSHED ROCK LAYER AT 50' MIN LONG BY 30' MIN WIDE...
3. SLOPE AND EXPOSED AREAS SHALL BE SODDED OR PLANTED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED...
4. UNLESS INDICATED OTHERWISE IN THE SPECIAL PROVISIONS OR PROPOSAL PAYMENT FOR PLANTING OR GRASSING REQUIRED UNDER THIS ITEM...
5. ALL BEST MANAGEMENT PRACTICES (BMP'S) SHALL NOT BE REMOVED UNTIL ALL PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED...
6. AT THE END OF CONSTRUCTION OPERATIONS, EXISTING CURBS AND DEMS SURROUNDING THE PROJECT SITE SHALL BE INSPECTED AND ANY ACCUMULATED SEDIMENT AND DEBRIS FOUND IN THE DRAIN STRUCTURES SHALL BE REMOVED...
7. THE CONTRACTOR AT HIS OWN EXPENSE SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DIRT NUISANCE...
8. ALL BEST DRAIN INLETS ON SITE, AND THOSE OPPOSITE WHICH MAY RECEIVE RUNOFF FROM THE SITE...
9. THE CONTRACTOR SHALL KEEP EXISTING ROADWAYS FREE FROM SILT...
10. THE CONTRACTOR SHALL INSPECT SILT FENCES ON A WEEKLY BASIS...
11. THE CONTRACTOR SHALL INSPECT ALL CATCH BASINS/DRAIN INLET PROTECTION MEASURES ON A WEEKLY BASIS...
12. FRIENDLY NEIGHBOR FENCE SHALL MEET NOISE REQUIREMENTS BY THE CITY & STATE STANDARDS.

SEWER AND RECLAIMED WATER NOTES:

- 1. ALL SEWER CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE COUNTY'S STANDARD SPECIFICATION, SEPT. 1986...
2. ALL NEW BURIED TRANSMISSION PIPING IN THE RECLAIMED WATER SYSTEM...
3. SLOPE FOR SEWER LATERALS SHALL BE 2.00% UNLESS OTHERWISE NOTED...
4. BUILDING PLUMBING FACILITIES SHALL BE CONTROLLED BY SEWER LATERAL INVERTS...
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUOUS SEWER SERVICE TO ALL AFFECTED AREAS DURING CONSTRUCTION AS REQUIRED...
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SEWAGE SPILLS CAUSED DURING CONSTRUCTION...
7. BYPASSING OR SPILLS OF UNTRATED OR PARTIAL OR FULLY TREATED SEWAGE TO SURFACE WATERS, RIVERS, PONDS, OR DRAINAGE COURSES SHALL BE STRICTLY PROHIBITED BY THE CLEAN WATER ACT.



TEMPORARY SILT FENCE SCALE: NTS

CITY AND COUNTY OF HONOLULU DEPARTMENT OF PLANNING AND PERMITTING APPROVED
The Director hereby approves this plan for construction, provided that the contractor shall be held responsible for any damage to any adjacent property...

PROTECTIVE COVER NOTES:

- 1. THE PROTECTIVE COVER SHALL BE COMPOSED OF WELL-GRADED EARTHEN FILL MATERIAL FREE OF ORGANICS, TRASH, CRYSTALLS OR OTHER DELECTOROUS MATTER...
2. A MINIMUM OF 12" OF COVER BETWEEN LOW GROUND EQUIPMENT AND THE LINER IS REQUIRED AT ALL TIMES...
3. AVOID UNLAME STRESS ON THE LINER AT ALL TIMES...
4. IF DAMAGE DOES OCCUR, REPORT IT TO THE PROJECT MANAGER IMMEDIATELY SO REPAIRS CAN BE PERFORMED WITHOUT NEEDLESS DELAY...
5. COVER SHALL BE PLACED AND MAINTAINED IN A UNIFORM THICKNESS, FREE OF RITS AND IRREGULARITIES...
6. DO NOT WORK WET COVER MATERIAL THAT CANNOT SUPPORT EQUIPMENT...
7. EQUIPMENT OPERATORS AND ALL OTHER PERSONNEL MUST BE QUALIFIED AND MUST EXERCISE GOOD JUDGMENT AND COMMON SENSE AT ALL TIMES...
8. 3/4 SIZES OR LESS SHOULD ALWAYS BE USED WITH DUST COVER SLOPES...
9. SLOWERS ON TRUCKS TRANSPORTING SILT MUST PROCEED SLOW AT SPEEDS UNDER 15 MPH...

PUBLIC HEALTH & SAFETY NOTES:

- 1. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS...
2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM RUBBER, DIRT, NOISE, EMISSION, ETC...
3. THE CONTRACTOR SHALL PROVIDE USUAL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLASHES, BARRIAGES, WARNERS, CONES AND OTHER PROTECTIVE FACILITIES...
4. THE CONTRACTOR'S ATTENTION IS DIRECTED TO CHAPTER 44B PUBLIC HEALTH REGULATIONS DEPARTMENT OF HEALTH STATE OF HAWAII...

Approval form with stamps from Planning and Permitting, and Accounting & General Services. Includes project name: WAIHANA CORRECTIONAL FACILITY WASTEWATER SYSTEM IMPROVEMENTS and contractor: M & E PACIFIC, INC.



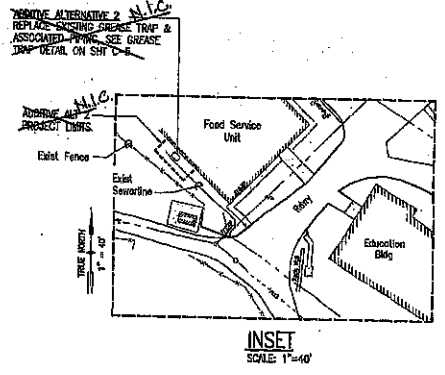
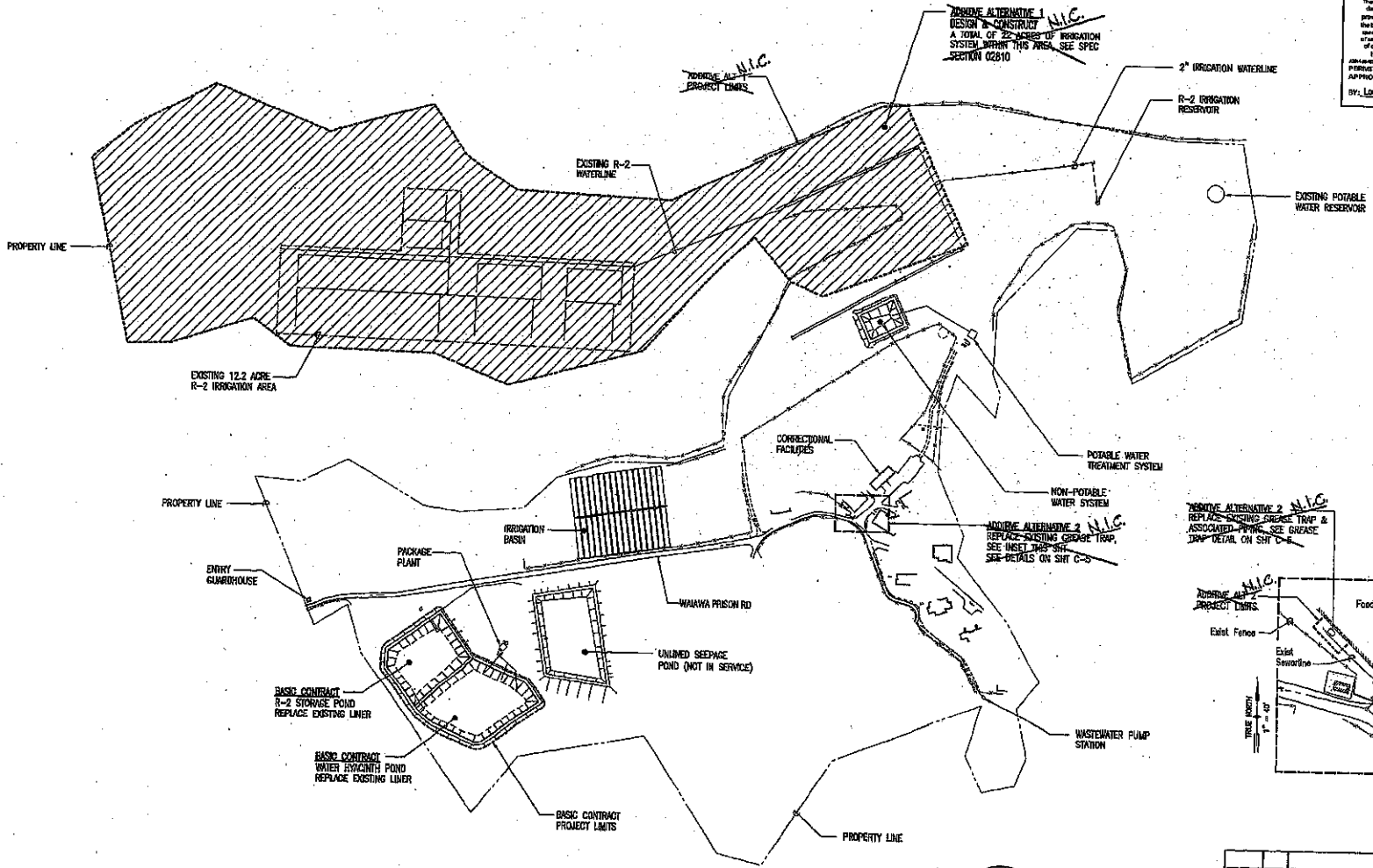
CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PLANNING AND PERMITTING

**APPROVED**

The issuance hereunder of any permit or approval of plans, specifications, and other data shall not be construed to be a permit for, or approval of, any violation of any provision of Title 22B or of any other laws. The issuance of a permit shall not prevent the building official from determining whether the construction of work in the plans and specifications or work being installed conforms with the provisions of the provisions of Title 22B or any other laws or the Department of Planning and Permitting. It is the responsibility of the applicant to ensure that the construction of any work complies with the provisions of Title 22B or any other laws.

PROJECT NUMBER:  
APPROVED DATE: 10/17/24

BY: *Lara Foster*



**GENERAL PLAN**  
SCALE: 1"=200'

**LANDRI & PARRISH**  
LICENSED PROFESSIONAL ENGINEER  
NO. 4420  
EXPIRATION DATE OF HIS LICENSE: 1/31/24

**LANDRI & PARRISH**  
LICENSED PROFESSIONAL ENGINEER  
NO. 4420  
EXPIRATION DATE OF HIS LICENSE: 1/31/24

SCALE: 1" = 40' FEET

SCALE: 1" = 200' FEET

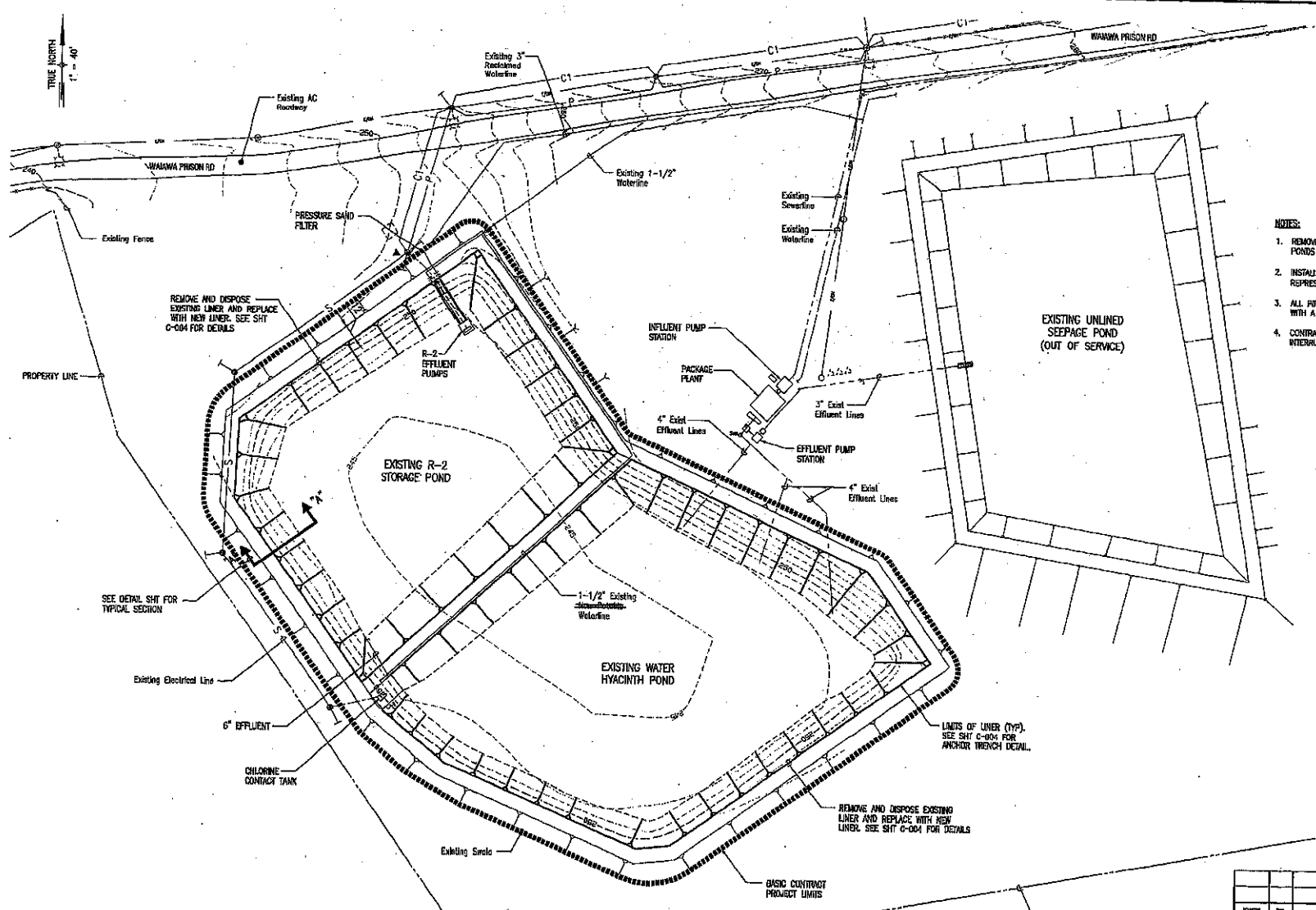
APPROVAL	DATE	REVISION	BY	DATE	APPROVED	POWER SOURCE
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS OFFICE OF ISSUES						
<b>WAIANA CORRECTIONAL FACILITY WASTEWATER SYSTEM IMPROVEMENTS</b> WAIANA, OAHU, HAWAII						
GENERAL PLAN						
<b>M &amp; E PACIFIC, INC.</b>		DRAWN BY		PROJECT NO.		
<i>Devin Rount</i>		DATE		C-002		
DRAWN BY		DATE		PAGE		
BY		12-22-2013		3		
BY		12		PAGE		
BY		NOV 21, 2020		OF 24 PAGES		



CITY AND COUNTY OF HONOLULU  
 DEPARTMENT OF PLANNING AND PERMITTING  
**APPROVED**  
 The issuance hereof is on the basis of approval of these specifications, and other data that has been provided to be a permit for, or approval, only in violation of any provisions of the code or of any other laws. The issuance of this permit does not constitute a warranty or approval of the construction of the project or the performance of the contractor. The contractor shall be responsible for the construction of the project in accordance with the specifications and the code. The contractor shall be responsible for the construction of the project in accordance with the specifications and the code. The contractor shall be responsible for the construction of the project in accordance with the specifications and the code.  
 PERMIT NUMBER:  
 APPROVED DATE: 10/17/14  
 BY: Loren Posselt

**NOTES:**

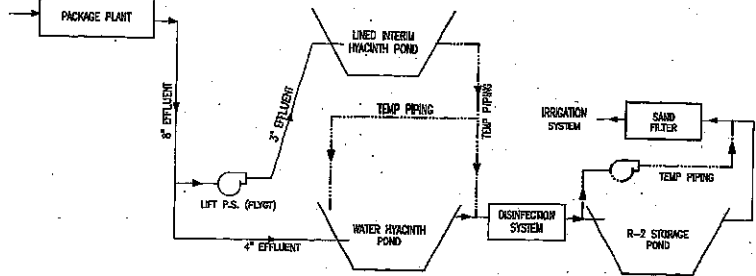
1. REMOVE AND DISPOSE EXISTING LINER FROM R-2 & HYACINTH PONDS AND INSTALL NEW 60 MIL UV STABILIZED HDPE LINER.
2. INSTALLATION OF LINER SHALL BE UNDER MANUFACTURER'S REPRESENTATIVE'S SUPERVISION. SEE SPECIFICATIONS.
3. ALL PIPED DISCHARGES INTO THE LINED PONDS SHALL BE PROVIDED WITH A PIPE BOOT. SEE PIPE PENETRATION DETAIL ON SHEET C-4.
4. CONTRACTOR IS TO ENSURE THAT WASTEWATER TREATMENT IS NOT INTERRUPTED OR IMPACTED DURING CONSTRUCTION.



**SITE PLAN**  
 SCALE: 1"=40'



PROJECT NO.	DATE	ISSUED FOR	BY	DATE	REVISION
DEPT. OF ACCOUNTING & GENERAL SERVICES Division of Public Works SOLID WASTE DIVISION					
<b>WAI'ANA CORRECTIONAL FACILITY WASTEWATER SYSTEM IMPROVEMENTS</b> WAI'ANA, OAHU, HAWAII					
SITE PLAN					
M & E PACIFIC, INC.		DATE AND BY:	ISSUED BY:		
DESIGNED BY:	REVIEWED BY:	DATE:	NO.:		
DRN-10	ES/UN	12-27-1063	C-003		
SCALE:	ALL	DATE:	NO.:		
SCALE: AS NOTED		NOV. 21, 2010	4		



**CONSTRUCTION PHASING**  
SCALE: NTS

**CONSTRUCTION PHASING NOTES:**

1. TEMPORARY PIPING & PUMPS ARE PART OF THE CONTRACTOR'S MEANS & METHODS TO RE-LINE THE EXISTING PONDS.
2. THE IRRIGATION SYSTEM WILL BE CONSTRUCTED VIA DESIGN-BUILD, SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL.
3. THE EXISTING TREATMENT POND'S IRRIGATION SYSTEM SHALL BE CONTINUOUSLY TREATING AND DISPENSING SECONDARY EFFLUENT THROUGHOUT THE CONSTRUCTION DURATION.
4. CONSTRUCTION PHASING SHALL BE PART OF THE CONTRACTOR'S MEANS & METHODS.
5. IF THE EXISTING UNLINED POND IS USED DURING CONSTRUCTION, THE POND SHALL BE LINED IN ACCORDANCE WITH THE SPECIFICATIONS.
6. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY PIPING, VALVES AND PUMPS TO EXECUTE HIS CONSTRUCTION PHASING PLAN.
7. THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL TEMPORARY PIPING, VALVES AND PUMPS AND RESTORE THE AREA TO BETTER OR EQUAL CONDITION AS THE ADJACENT AREA.

**CONTRACTOR'S MEANS & METHODS:**

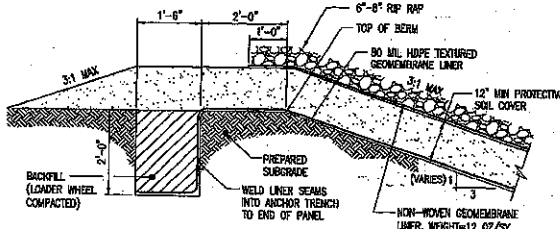
1. LINE THE EXISTING SEEPAGE POND (MIN 36 MIL HDPE).
2. INSTALL TEMPORARY PIPING AND PUMPS.
3. TRANSFER HYACINTH TO LINED SEEPAGE POND.
4. REMOVE HYACINTH POND FROM SERVICE, RE-LINE POND.
5. PLACE FORMER HYACINTH POND INTO SERVICE AS THE INTERIM R-2 EFFLUENT STORAGE POND.
6. USE TEMPORARY PUMP TO DIVERSY FLOWS AROUND R-2 STORAGE POND.
7. RE-LINE R-2 POND.
8. PLACE THE HYACINTH POND AND R-2 POND INTO SERVICE.
9. REMOVE INTERIM HYACINTH POND FROM SERVICE. CONTRACTOR TO REMOVE ALL TEMPORARY PIPING AFTER FINAL ACCEPTANCE OF THE POND LINES.

CITY AND COUNTY OF HONOLULU  
DEPARTMENT OF PLANNING AND PERMITTING

**APPROVED**

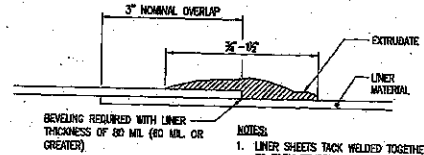
The issuance hereof of any permit or approval of plans, specifications, and other data shall not be construed to be a permit for, or approval of, any violation of any provision of the Code of Ordinances of any jurisdiction, the liability for which shall remain the responsibility of the contractor. The issuance of any permit or approval of plans, specifications, and other data shall not be construed to be a guarantee of the accuracy of the information provided hereon, and the contractor shall be responsible for the accuracy of the information provided hereon. The contractor shall be responsible for the accuracy of the information provided hereon.

PERMIT NUMBER: 12-27-2024  
APPROVED DATE: 12/27/24  
BY: Lena Esposito



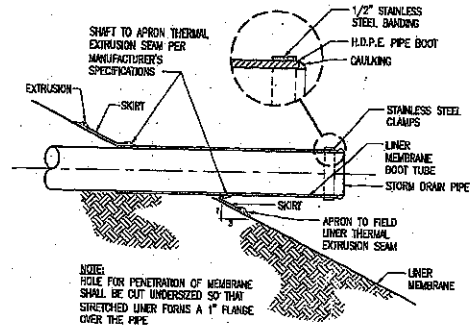
**TYPICAL ANCHOR TRENCH**  
SCALE: NTS

- NOTES:**
1. THE SURFACE OF THE SUBGRADE SHALL BE PREPARED BY EXCAVATING AND TRIMMING THE SOIL TO ELEVATIONS AND SECTIONS AS SHOWN ON THE DRAWINGS.
  2. THE PREPARED SUBGRADE SHALL BE FREE FROM LOOSE EARTH, ROCK, COBBLES, RUBBER, OR OTHER FOREIGN MATERIALS.
  3. THE SURFACE OF THE COMPLETED SUBGRADE SHALL BE SMOOTH, UNIFORM AND FREE FROM SUDDEN CHANGES IN GRADE.

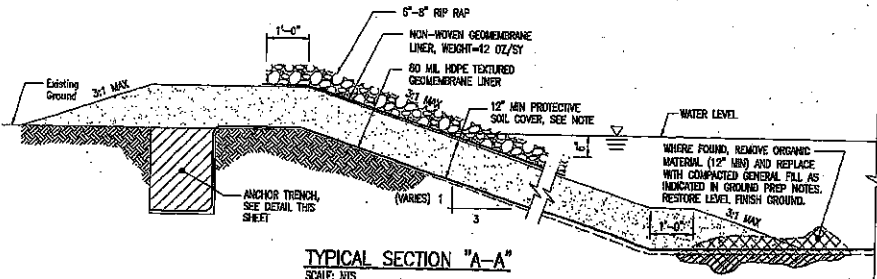


**EXTRUSION WELD**  
SCALE: NTS

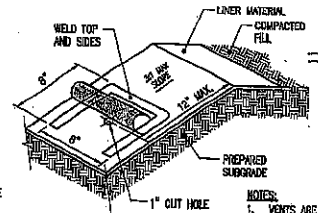
- NOTES:**
1. LINER SHEETS TACK WELDED TOGETHER AT OVERLAP TO FORM TEMPORARY BOND PRIOR TO WELDING.
  2. GRINDING NOT TO EXCEED 1/4" PAST "SQUEEZE-OUT" ON EITHER SIDE. PROPER CARE SHOULD BE TAKEN IN NOT REMOVING TOO MUCH MATERIAL WHEN GRINDING.
  3. VACUUM TESTING IS THE NONDESTRUCTIVE SEAM TEST METHOD FOR EXTRUSION WELDS, AND IS REQUIRED WHERE EXTRUSION WELDS ARE USED.
  4. ALL METAL PIPES AND FASTENERS SHALL BE TYPE 316 STAINLESS STEEL.
  5. EXTRUDATE SHALL BE IDENTICAL TO THE LINING MATERIAL.



**LINER SLOPE PIPE PENETRATION DETAIL**  
SCALE: NTS

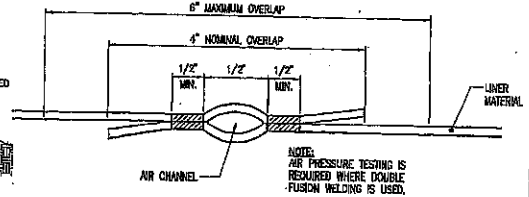


**TYPICAL SECTION "A-A"**  
SCALE: NTS

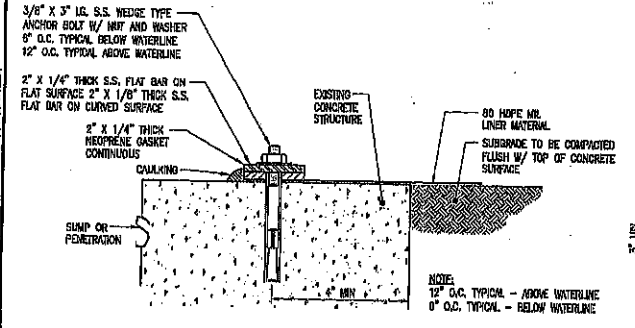


**LINER VENT DETAIL**  
SCALE: NTS

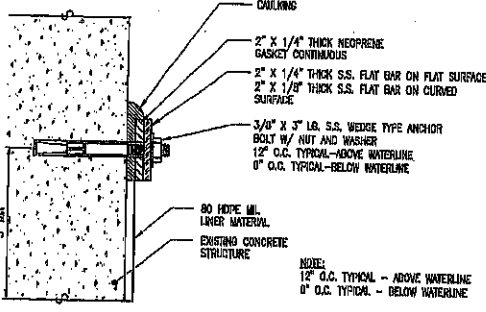
- NOTES:**
1. VENTS ARE SPACED 60'-0" O.C.
  2. VENTS SHOULD BE LOCATED AT LEAST ONE OR TWO FEET ABOVE MAXIMUM WATERLINE.



**DOUBLE FUSION WELD**  
SCALE: NTS



**HORIZONTAL METAL BATTEN STRIP DETAIL**  
SCALE: NTS



**VERTICAL METAL BATTEN STRIP DETAIL**  
SCALE: NTS

PROFESSIONAL SEAL OF THE LICENSED MECHANICAL ENGINEER  
STATE OF HAWAII  
EXPIRES 12/31/2025  
12/27/24

NO.	REV.	DATE	BY	APP. BY	REVISION

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

**WAIANA CORRECTIONAL FACILITY  
WASTEWATER SYSTEM IMPROVEMENTS**  
WAIANA, OAHU, HAWAII

**CONSTRUCTION PHASING & LINER DETAILS**

**M & E P/C INC.**  
12-27-2024  
C-004  
PAGE 5

**BP 786079**



PERMITS AND LICENSING DIVISION  
 SUPPLEMENTAL INFORMATION FOR BUILDING DIVISION  
 PERMIT APPLICANT AND CONTRACTOR

1. The applicant shall provide the following information to the Building Division:

2. The applicant shall provide the following information to the Building Division:

3. The applicant shall provide the following information to the Building Division:

4. The applicant shall provide the following information to the Building Division:

5. The applicant shall provide the following information to the Building Division:

6. The applicant shall provide the following information to the Building Division:

7. The applicant shall provide the following information to the Building Division:

8. The applicant shall provide the following information to the Building Division:

9. The applicant shall provide the following information to the Building Division:

10. The applicant shall provide the following information to the Building Division:

# WAIAWA CORRECTIONAL FACILITY ELECTRICAL SYSTEM IMPROVEMENTS

OAHU, HAWAII  
 TAX MAP KEY : 9-6-05 : 11  
 DAGS JOB NO : 12-27-5564

FOR AND BY THE  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

ELECTRICAL ENGINEER :  
 ELECTECH HAWAII, INC.  
 CIVIL ENGINEER :  
 IMATA AND ASSOCIATES INC.  
 STRUCTURAL ENGINEER :  
 CONSULTING STRUCTURAL HAWAII, INC.

INDEX OF DRAWINGS		
SHEET No.	DWG. No.	SHEET TITLE
1	T-1	INDEX OF DRAWINGS, LOCATION MAP, VICINITY MAP
2	C-1	NOTES & BORING LOGS
3	C-2	SITE PLANS
4	C-3	DETAILS
5	C-4	WALL ELEVATION & SECTION
6	C-5	RETAINING WALLS NOTES & DETAILS
7	S-2	CONCRETE PAD DETAILS
8	E-1	EXISTING ELECTRICAL SITE PLAN - DEMOLITION WORK, ELECTRICAL SYMBOLS, DUCTION SECTIONS
9	E-2	EXISTING SINGLE LINE DIAGRAM - DEMOLITION WORK, SINGLE LINE DIAGRAM - NEW WORK, SWITCHBOARD ELEVATION
10	E-3	POLE DETAIL, LIST OF MATERIALS

640984 #

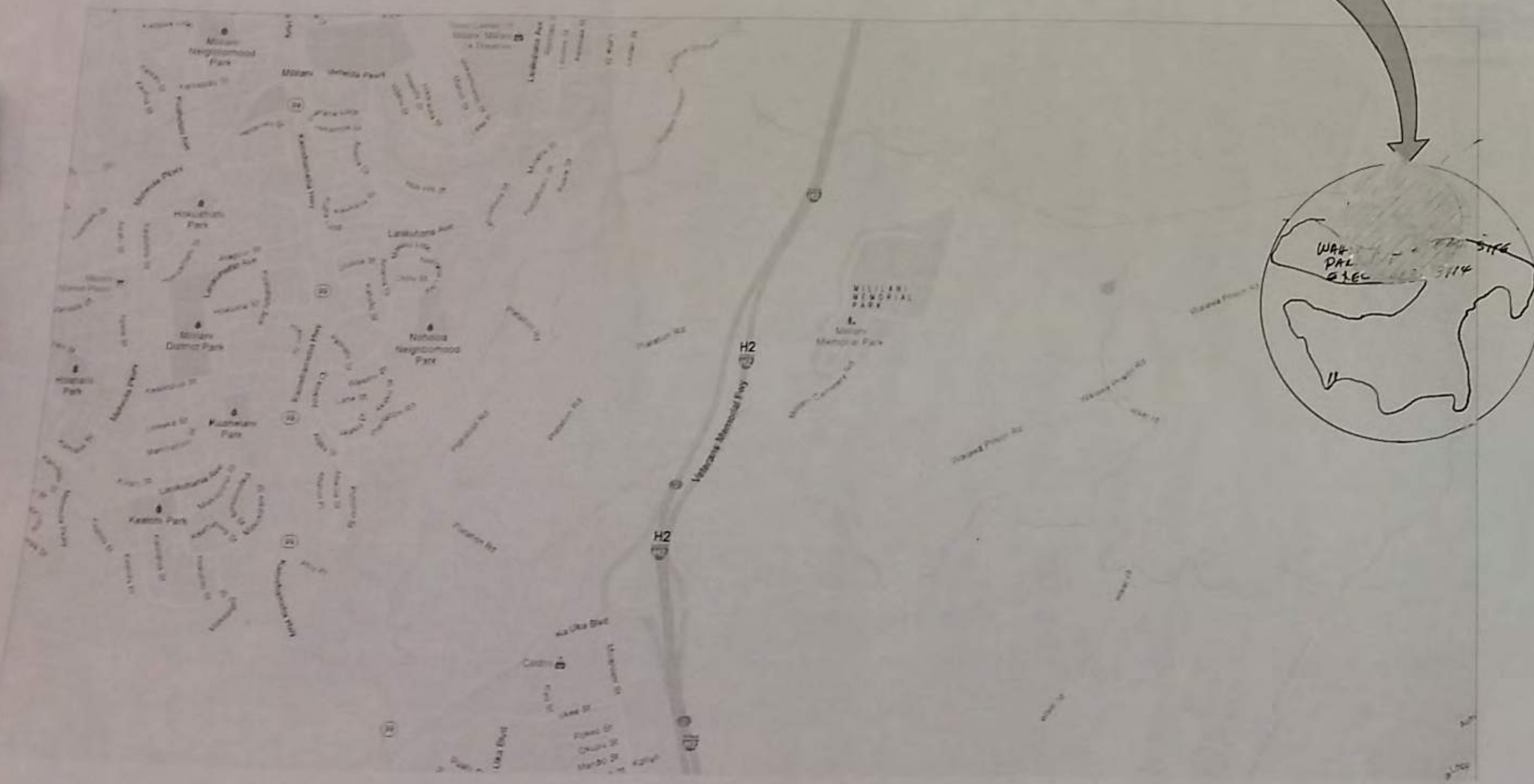
BUILDING DIVISION

WAIAWA CORRECTIONAL FACILITY

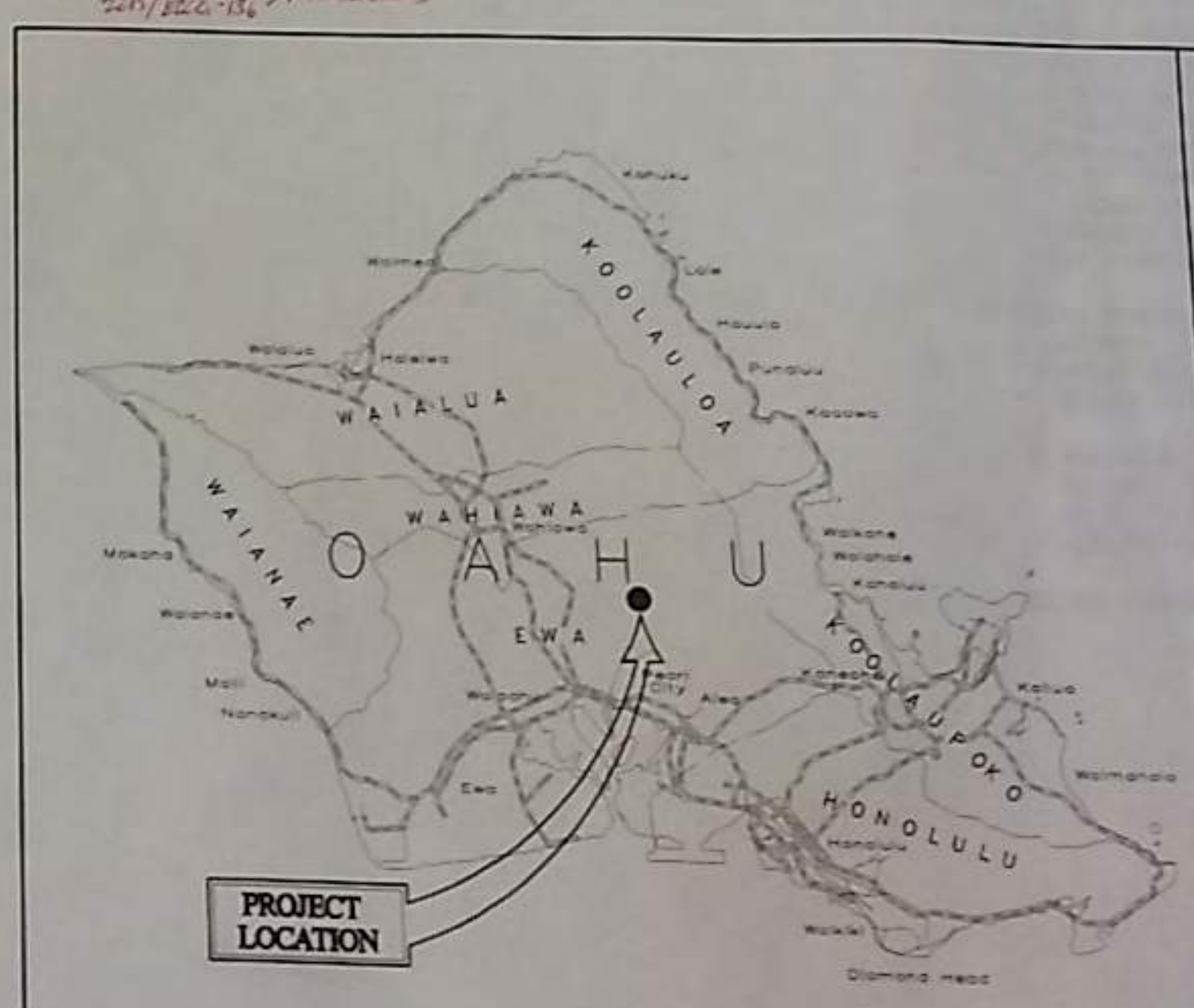
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 OF 2014-02-0070  
 BUILDING DIVISION  
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APPROVED BY  
 [Signature]  
 DATE: 2/24/10

CONSTRUCTION OR INSTALLATION  
 APPROVED BY  
 [Signature]  
 DATE: 2/24/10



VICINITY MAP  
 NOT TO SCALE



LOCATION MAP  
 NOT TO SCALE

APPROVALS:

[Signature] 3/1/10  
 DIRECTOR  
 DEPARTMENT PUBLIC SAFETY  
 STATE OF HAWAII

[Signature] 3/1/10  
 COMPTROLLER  
 DEPT OF ACCOUNTING AND GENERAL SERVICES  
 STATE OF HAWAII

[Signature] 3/1/10  
 PUBLIC WORKS ADMINISTRATOR  
 DEPT OF ACCOUNTING AND GENERAL SERVICES  
 STATE OF HAWAII

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

WAIAWA CORRECTIONAL FACILITY  
 ELECTRICAL SYSTEM IMPROVEMENTS

MILILANI OAHU HAWAII

INDEX OF DRAWINGS, LOCATION MAP, VICINITY MAP

ELECTECH HAWAII, INC.  
 DESIGNED BY: MM CHECKED BY: CP DATE: 12-27-5564 DRAWING NO.: T-1  
 DRAWN BY: EB APPROVED BY: CP DATE: JAN., 2013 SHEET: 1 OF 1

SCALE: AS NOTED

BUILDING DIVISION

BUILDING DIVISION  
 FILE COPY

USE ORDINANCE  
 D-1-B-COUNTER

INDEX OF DRAWINGS		
SHEET No.	DWG. No.	SHEET TITLE
1	T-1	INDEX OF DRAWINGS, LOCATION MAP, VICINITY MAP
2	C-1	NOTES & BORING LOGS
3	C-2	<del>IMPROVEMENT PLANS</del> SITE PLANS
4	C-3	DETAILS
5	C-4	<del>DETAILS</del> WALL ELEVATION & SECTION
6	<del>BLM</del> C-5	<del>STRUCTURAL NOTES &amp; RETAINING WALL DETAILS</del> RETAINING WALLS NOTES & DETAILS
7	S-2	CONCRETE PAD DETAILS
8	E-1	EXISTING ELECTRICAL SITE PLAN - DEMOLITION WORK, ELECTRICAL SITE PLAN - NEW WORK, ELECTRICAL SYMBOLS, DUCTION SECTIONS
9	E-2	EXISTING SINGLE LINE DIAGRAM - DEMOLITION WORK, SINGLE LINE DIAGRAM - NEW WORK, SWITCHBOARD ELEVATION
10	E-3	POLE DETAIL, LIST OF MATERIALS

# 786079

BUILDING DIVISION  
FILE COPY

2014/CP-176

**HIRATA & ASSOCIATES, INC.**

**BORING LOG** W.O. 14-5707

BORING NO. B1      DRIVING WT. 140 lb.      START DATE 8/19/14  
 SURFACE ELEV. 3024\*      (GROUP) 20 ft.      END DATE 8/19/14

DEPTH (ft.)	BLOWS PER FOOT	SOIL DENSITY (pcf)	MOIST. CONT. (%)	DESCRIPTION
0				
1	16	91	12	Silty GRAVEL (GM) - Dark gray, moist, medium dense with sand, coral fragments, and asphaltic concrete pavement rubble. (FILL)
2	14/8"	87	16	
3	19/6"	75	40	Clayey SILT (MH) - Reddish brown, moist, stiff
4	40	82	35	
5				
6	83/10"	83	41	
7				
8				
9				
10				
11	54/8"	81	40	
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

Plate A4.1

**BORING NOTES:**

- BORING LOGS INDICATE THE APPROXIMATE SUBSURFACE SOIL CONDITIONS ENCOUNTERED ONLY AT THE DRILL HOLES WHERE THE BORINGS WERE MADE AT THE TIMES DESIGNATED ON THE LOGS AND MAY NOT REPRESENT CONDITIONS AT OTHER LOCATIONS OR AT OTHER DATES. SOIL CONDITIONS AND WATER LEVELS MAY CHANGE WITH THE PASSAGE OF TIME AND CONSTRUCTION METHODS OR IMPROVEMENTS AT THE SITE.
- THE INFORMATION SHOWN IN THE BORING LOGS WERE OBTAINED FOR THE EXCLUSIVE USE OF THE STATE FOR DESIGN PURPOSES ONLY AND FOR THE CONVENIENCE OF THE STATE IN CONTROL OF THE EARTHWORK. NO GUARANTEE IS GIVEN AS TO THE CHARACTER OF THE MATERIAL ENCOUNTERED IN ANY BORING NOR IS ANY GUARANTEE GIVEN THAT ANY BORING REPRESENTS THE TRUE CHARACTER OF THE MATERIAL WHICH WILL BE EXCAVATED AS WHICH WILL UNDERLIE THE PROPOSED STRUCTURE. THE STATE ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY AND/OR SUFFICIENCY OF THE BORING AND ANY INTERPRETATION MADE THEREOF AND WILL MAKE NO GUARANTEE OF THE SAME.
- THE BORINGS SHOWN ON THIS SHEET WERE OBTAINED FROM A SOILS AND FOUNDATION INVESTIGATION REPORT ENTITLED "NEW RETAINING WALL FOR ELECTRICAL SYSTEM IMPROVEMENTS" WAIANA CORRECTIONAL FACILITY, PREPARED BY HIRATA & ASSOCIATES, INC. 99-1433 KOAHA PL AIEA, HAWAII 96701, DATED AUGUST 19, 2014.
- SEE PLAN SHEET C-2 FOR BORING LOCATIONS.

**CONSTRUCTION NOTES:**

- ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986 AND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU AND THE COUNTIES OF KAUAI, MAUI, AND HAWAII.

**GRADING NOTES:**

- ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 14, ARTICLES 13, 14, 15 AND 16, AS RELATED TO GRADING, SOIL EROSION AND SEDIMENT CONTROL OF THE REVISED ORDINANCES OF HONOLULU, 1990, AS AMENDED.
- NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATIONS OCCUR, THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
- THE CONTRACTOR, AT HIS OWN EXPENSES, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 60.1, "AIR POLLUTION CONTROL".
- THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST, BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
- ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, ADEQUATE PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE.
- ALL SLOPES AND EXPOSED AREAS SHALL BE SOGGED 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.
- FILLS ON SLOPES STEEPER THAN 5:1 SHALL BE KEVED.
- THE CITY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
- NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE DIRECTOR D.P.P., PROVIDED SUCH GRADING WORK IS ALSO IN CONFORMANCE WITH THE COMMUNITY NOISE CONTROL STANDARDS CONTAINED IN THE HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 46, "COMMUNITY NOISE CONTROL".
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- ALL GRADING OPERATION SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER QUALITY AND WATER POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES, TITLE 11, CHAPTER 54, "WATER QUALITY STANDARDS", AND TITLE 11, CHAPTER 55, "WATER POLLUTION CONTROL", AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
- WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY EARTH MOVING PHASE OF THE GRADING IS INITIATED.
- TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR GRADING PERMIT.
- IF THE GRADING WORK INVOLVES CONTAMINATED SOIL, THEN ALL GRADING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.
- BUILDING PERMIT FOR RETAINING WALLS SHALL BE OBTAINED PRIOR TO COMMENCEMENT OF GRADING WORK ON SITE.
- FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL NOTIFY THE CIVIL ENGINEERING BRANCH, D.P.P. AT 788-8084 TO ARRANGE FOR INSPECTIONAL SERVICES AND SUBMIT TWO (2) SETS OF APPROVED CONSTRUCTION PLANS SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK. FOR CITY PROJECTS, THE CONTRACTOR SHALL COORDINATE INSPECTIONAL SERVICES WITH THE RESPONSIBLE CITY AGENCY.
- PURSUANT TO CHAPTER 6E, HRS., IN THE EVENT ANY ARTIFACTS OR HUMAN REMAINS ARE UNCOVERED DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL IMMEDIATELY SUSPEND WORK AND NOTIFY THE FACILITY, DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES CONTRACTING OFFICER HONOLULU POLICE DEPARTMENT AND THE STATE DEPARTMENT OF LAND AND NATURAL RESOURCES-HISTORIC PRESERVATION DIVISION (692-8015). IN ADDITION, FOR NON-CITY PROJECTS, THE CONTRACTOR SHALL INFORM THE CIVIL ENGINEERING BRANCH, D.P.P. (788-8084); AND FOR CITY PROJECTS, NOTIFY THE RESPONSIBLE CITY AGENCY.
- FOR ALL PROJECTS, WHICH WILL DISTURB ONE (1) ACRE OR MORE OF LAND, THE CONTRACTOR SHALL NOT START CONSTRUCTION UNTIL A NOTICE OF GENERAL PERMIT COVERAGE (NGPC) IS RECEIVED FROM THE DEPARTMENT OF HEALTH, STATE OF HAWAII, AND HAS SATISFIED ANY OTHER APPLICABLE REQUIREMENTS OF THE NPDES PERMIT PROGRAM. ALSO, FOR NON-CITY AND OTHER NON-GOVERNMENTAL PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NGPC TO THE PERMITTING AND INSPECTION SECTION, CIVIL ENGINEERING BRANCH, D.P.P., AT LEAST SEVEN (7) CALENDAR DAYS BEFORE THE START OF THE CONSTRUCTION. FOR CITY OR GOVERNMENTAL PROJECTS, THE CONTRACTOR SHALL PROVIDE A WRITTEN COPY OF THE NGPC TO THE APPROPRIATE CITY DEPARTMENT OR GOVERNMENTAL AGENCY PER THEIR REQUIREMENTS.
- ALL GRADING AND CONSTRUCTION WORK SHALL IMPLEMENT MEASURES TO ENSURE THAT THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE WILL BE REDUCED TO THE MAXIMUM EXTENT PRACTICABLE AND WILL NOT CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF WATER QUALITY STANDARDS.
- NON-COMPLIANCE TO ANY OF THE ABOVE REQUIREMENTS SHALL MEAN IMMEDIATE SUSPENSION OF ALL WORK AND REMEDIAL WORK SHALL COMMENCE IMMEDIATELY. ALL COSTS INCURRED SHALL BE BILLED TO THE VIOLATOR. FURTHERMORE, VIOLATORS SHALL BE SUBJECT TO ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES.
- FOR BENCH MARK, SEE SHEET C-2.

APPROVED:

*M. J. [Signature]*  
 DIRECTOR, DEPARTMENT OF PLANNING & PERMITTING  
 (FOR SITE GRADING ONLY)

DATE 8/19/2015

REVISION NO.	BY	DESCRIPTION	DATE	APPROVED PUBLIC WORKS ADMINISTRATION

**DEPT. OF ACCOUNTING & GENERAL SERVICES**  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

**WAIANA CORRECTIONAL FACILITY**  
 ELECTRICAL SYSTEM IMPROVEMENTS

MILLAN      OAHU      HAWAII

**NOTES AND BORING LOGS**

HIRATA & ASSOCIATES, INC.      DATE: 8/19/15      DRAWING NO.



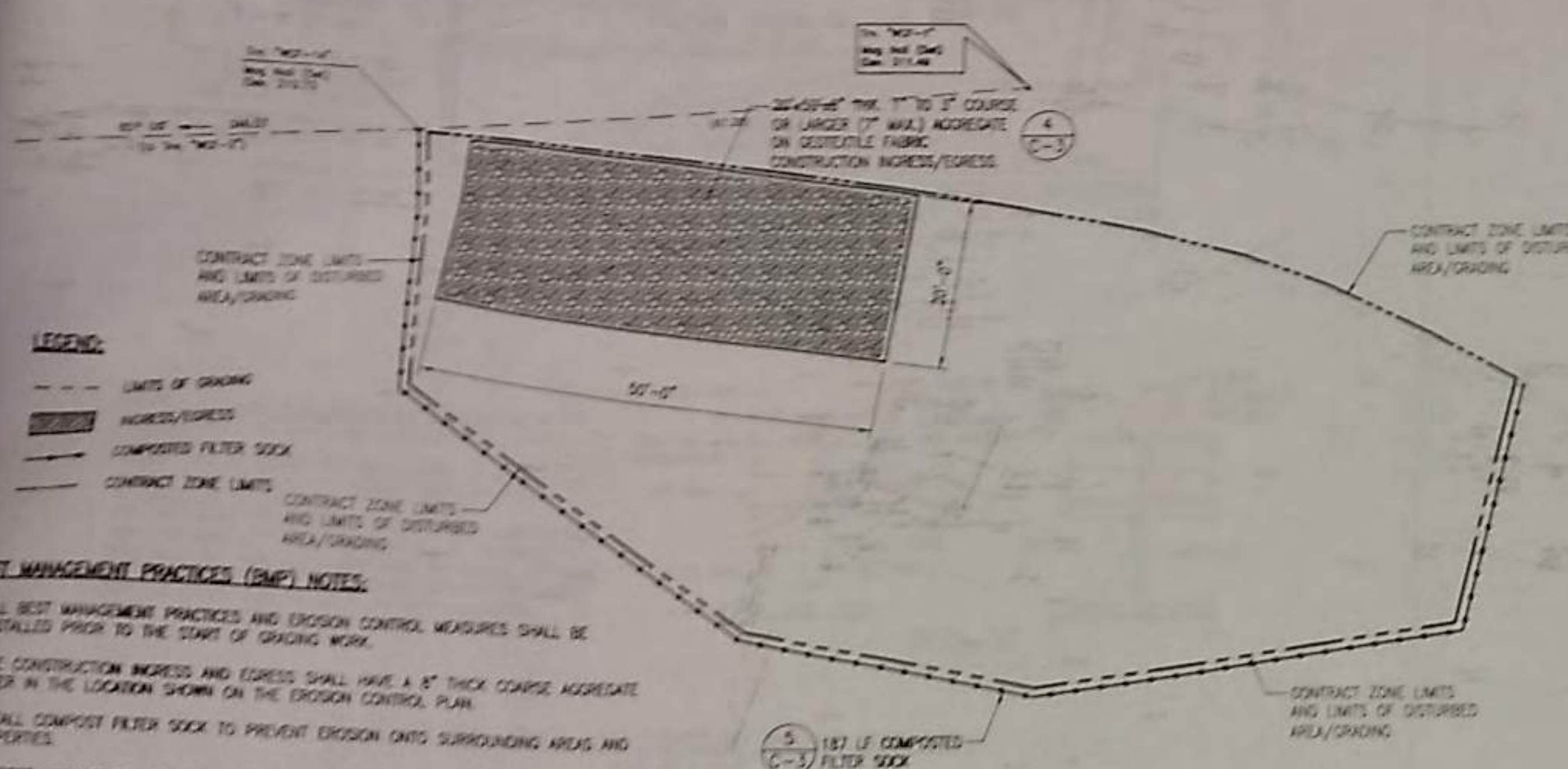
Department of Planning and Permitting  
 City and County of Honolulu  
 June 2014

AND USE ORDINANCE

A-B-COUNTER

**EROSION CONTROL NOTES:**

- 1. THIS PLAN SHALL BE POSTED IN A VISIBLE LOCATION (i.e., PROJECT TRAILER), AND SHALL BE APPROPRIATELY MODIFIED TO REFLECT CURRENT SITE CONDITIONS.
- 2. ENSURE TEMPORARY SOIL STABILIZATION SUCH AS HYDROMULCHING W/ GRASS SEEDS IS APPLIED ON ANY BARE SOILED AREA THAT WILL REMAIN UNFINISHED FOR MORE THAN 30 CALENDAR DAYS.
- 3. ENSURE SOIL STABILIZATION IS APPLIED AS SOON AS PRACTICAL AFTER GRADING IS COMPLETED. IRRIGATION AND MAINTENANCE OF THE PERENNIAL VEGETATION SUCH AS GRASS MUST BE PROVIDED FOR 30 CALENDAR DAYS OR UNTIL THE VEGETATION TAKES ROOT, WHICHEVER IS SHORTER.



**BEST MANAGEMENT PRACTICES (BMP) NOTES:**

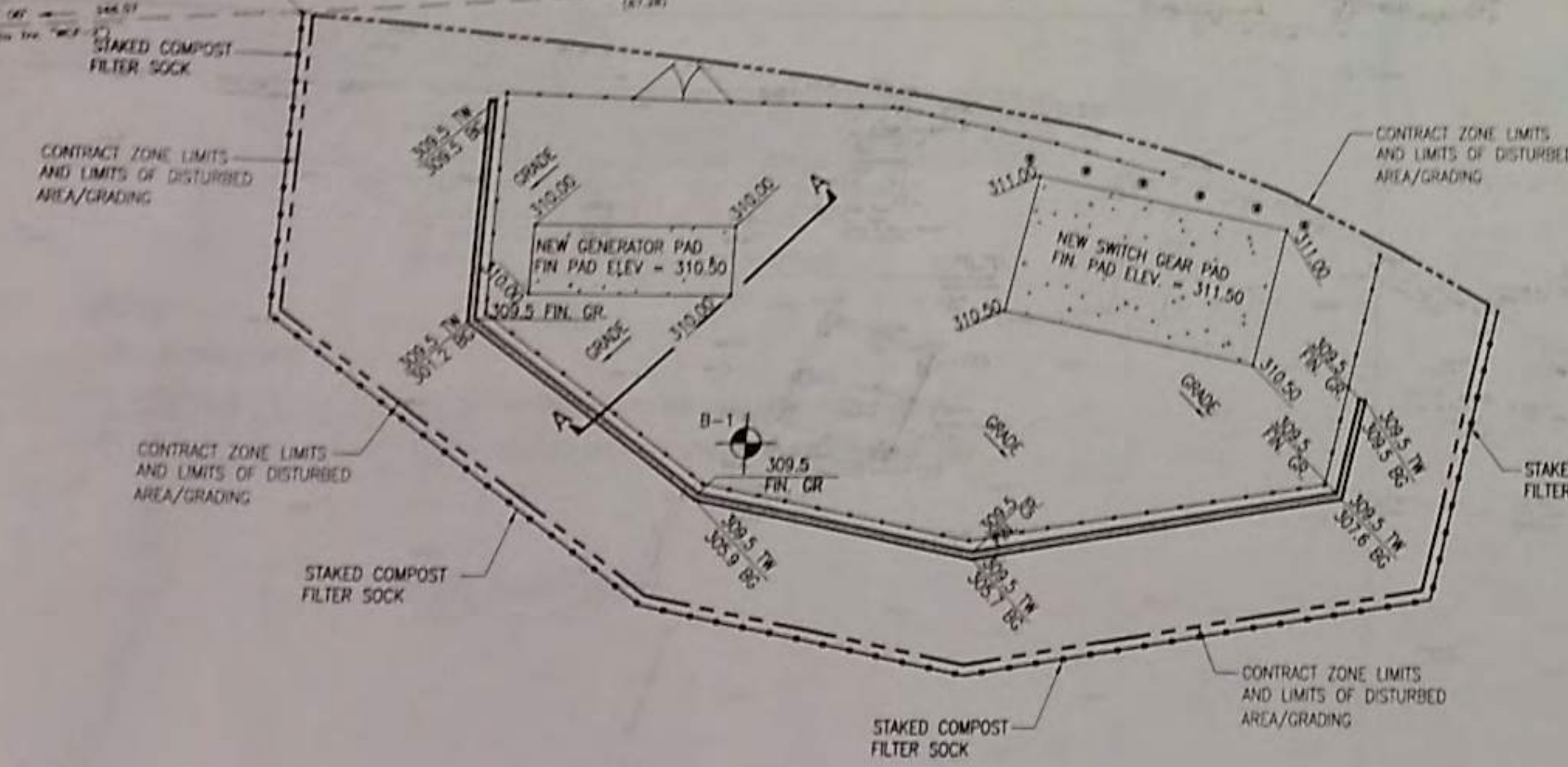
- 1. ALL BEST MANAGEMENT PRACTICES AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF GRADING WORK.
- 2. THE CONSTRUCTION INGRESS AND EGRESS SHALL HAVE A 6" THICK COURSE AGGREGATE LAYER IN THE LOCATION SHOWN ON THE EROSION CONTROL PLAN.
- 3. INSTALL COMPOST FILTER SOCK TO PREVENT EROSION ONTO SURROUNDING AREAS AND PROPERTIES.
- 4. ALL BEST MANAGEMENT PRACTICES SHALL NOT BE REMOVED UNTIL ALL PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED.
- 5. PROVIDE MEASURES SUCH AS WATERING THE SITE TO MITIGATE DUST NUISANCE.
- 6. PERIODICALLY INSPECT AND MAINTAIN EROSION CONTROL MEASURES.

**EROSION CONTROL PLAN**  
SCALE: 1" = 10'-0"

**ESTIMATED EARTHWORK SUMMARY:**

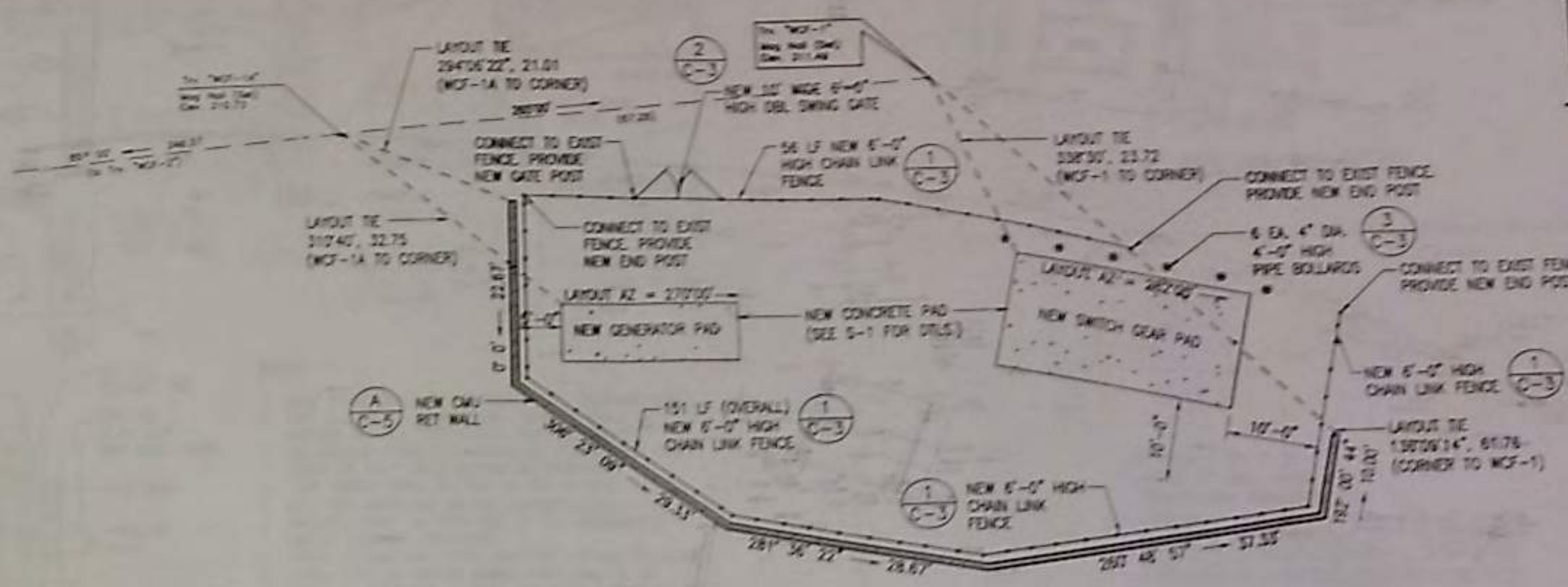
- TOTAL EXCAVATION = 0 CY
- TOTAL EMBANKMENT = 120 CY
- TOTAL AREA TO BE GRADED = 5,490 SF = 0.13 AC (INCLUDING WALL FOUNDATIONS)
- TOTAL AREA TO BE DISTURBED = 5,490 SF = 0.13 AC (FOR NPDES PURPOSES, PER DOH DEFINITION OF "DISTURBANCE OF LAND")

- 1. QUANTITIES SHOWN ARE FOR GRADING PERMIT PURPOSES ONLY AND SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE EXACT QUANTITIES FOR HIS BIDDING PURPOSES.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE THE GRADING WORK TO THE GRADES AND DIMENSIONS SHOWN ON THE PLANS. IF IMPORTED MATERIALS ARE REQUIRED TO OBTAIN FINISHED GRADES, THE CONTRACTOR IS REQUIRED TO IMPORT SUSTAINABLE MATERIALS AS SPECIFIED AT THE CONTRACTOR'S EXPENSE. IF EXCAVATED MATERIAL IS IN EXCESS, THE CONTRACTOR SHALL BE REQUIRED TO DEPOSE OF THE MATERIAL AWAY FROM THE PROJECT AT THE CONTRACTOR'S EXPENSE.
- 3. EARTHWORK QUANTITIES ARE TAKEN FROM FINISHED GRADE TO EXISTING GROUND.



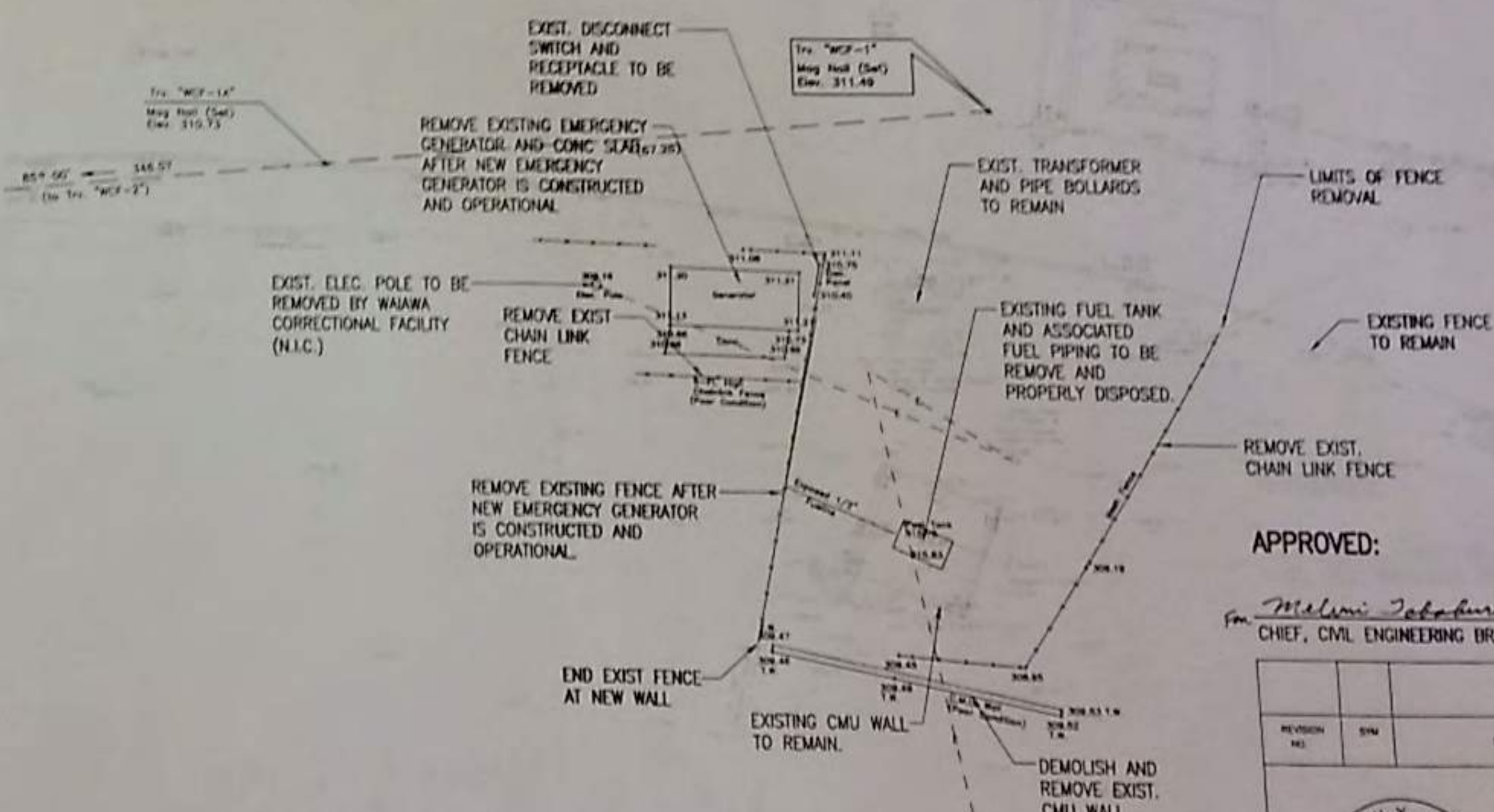
**SITE GRADING DRAINAGE PLAN**  
SCALE: 1" = 10'-0"

**SITE LAYOUT AND IMPROVEMENT PLAN**  
SCALE: 1" = 10'-0"



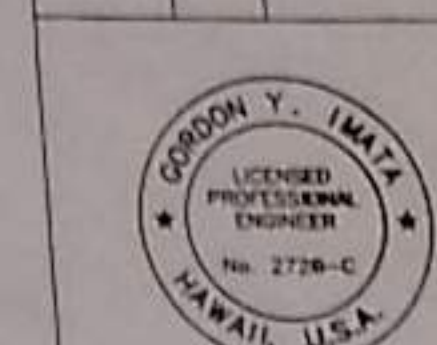
**NOTE:**  
1. NORTH ARROW, AZIMUTHS, AND ELEVATIONS ARE ASSUMED. REFER TO TRAVERSE POINT ELEVATIONS AND AZIMUTHS FOR LAYING OUT NEW WORK.

**EXISTING CONDITION AND DEMOLITION PLAN**  
SCALE: 1" = 10'-0"



**APPROVED:**

*Milani Sabarwal* 10/8/12  
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE



REVISION NO.	DATE	DESCRIPTION	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

**WAIANA CORRECTIONAL FACILITY  
ELECTRICAL SYSTEM IMPROVEMENTS**

MILANI OAHU HAWAII

**SITE PLANS**

IMATA & ASSOCIATES, INC. DRAWING NO. 12-27-5564 SHEET 3 OF 10  
DESIGNED BY GYI CHECKED BY GYI  
DRAWN BY RDL APPROVED BY GYI  
DATE OCT., 2012  
SCALE AS NOTED

**WORK SUMMARY**

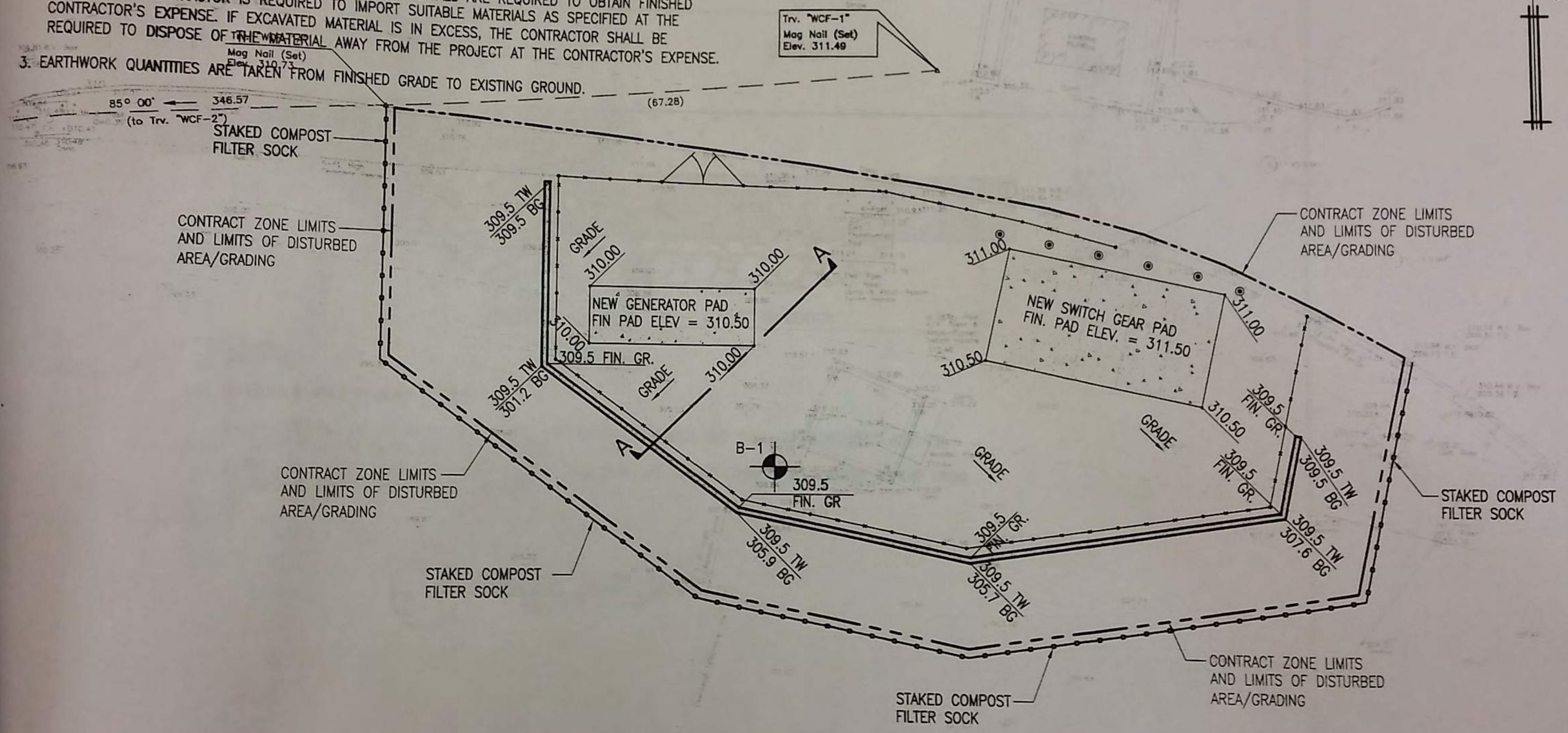
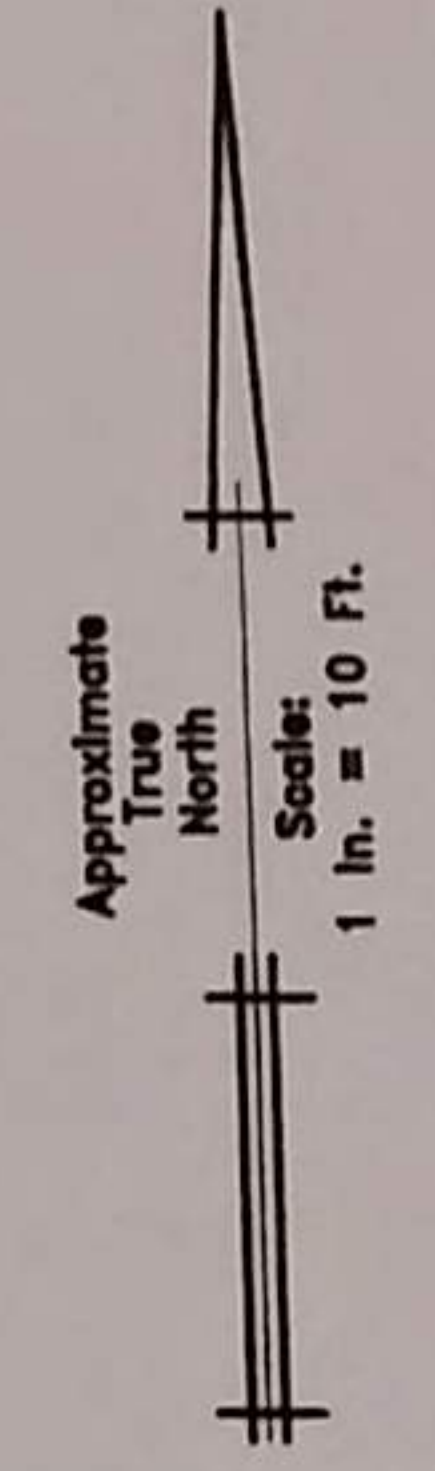
TOTAL EXCAVATION = 0 CY

TOTAL EMBANKMENT = 120 CY

TOTAL AREA TO BE GRADED = 5,480 SF = 0.13 AC (INCLUDING WALL FOUNDATIONS)

TOTAL AREA TO BE DISTURBED = 5,480 SF = 0.13 AC (FOR NPDES PURPOSES, PER DOH DEFINITION OF "DISTURBANCE OF LAND")

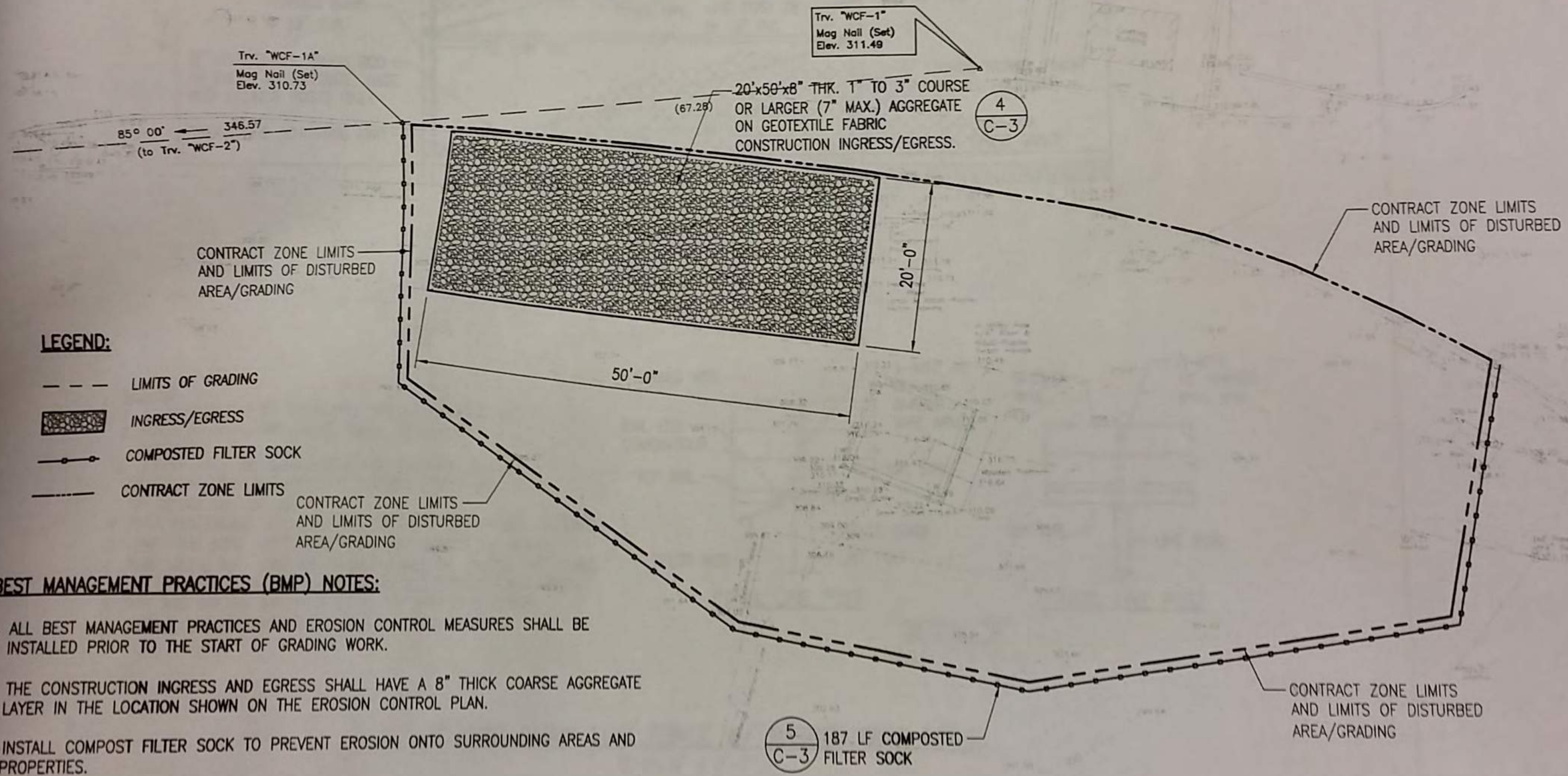
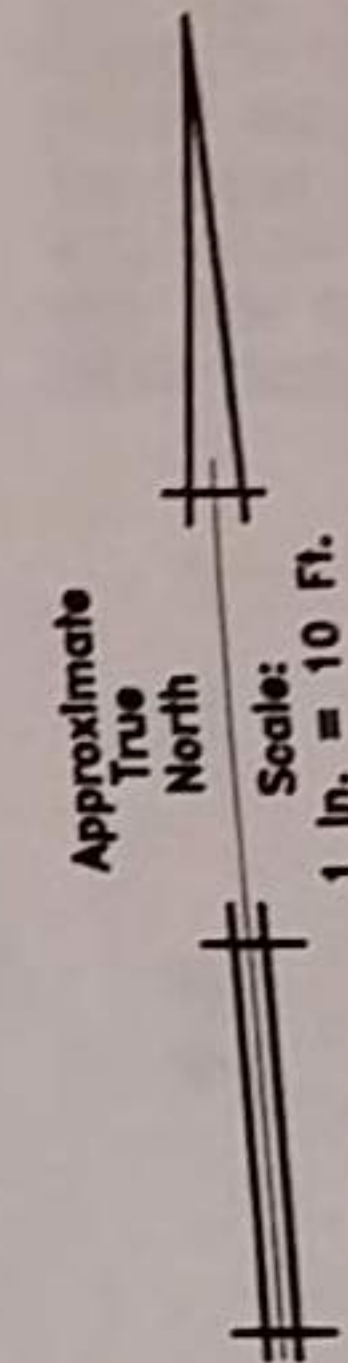
1. QUANTITIES SHOWN ARE FOR GRADING PERMIT PURPOSES ONLY AND SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE EXACT QUANTITIES FOR HIS BIDDING PURPOSES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE THE GRADING WORK TO THE GRADES AND DIMENSIONS SHOWN ON THE PLANS. IF IMPORTED MATERIALS ARE REQUIRED TO OBTAIN FINISHED GRADES, THE CONTRACTOR IS REQUIRED TO IMPORT SUITABLE MATERIALS AS SPECIFIED AT THE CONTRACTOR'S EXPENSE. IF EXCAVATED MATERIAL IS IN EXCESS, THE CONTRACTOR SHALL BE REQUIRED TO DISPOSE OF THE MATERIAL AWAY FROM THE PROJECT AT THE CONTRACTOR'S EXPENSE.
3. EARTHWORK QUANTITIES ARE TAKEN FROM FINISHED GRADE TO EXISTING GROUND.



**SITE GRADING DRAINAGE PLAN**  
SCALE: 1" = 10'-0"

**EROSION CONTROL NOTES:**

1. THIS PLAN SHALL BE POSTED IN A VISIBLE LOCATION (e.g., PROJECT TRAILER), AND SHALL BE APPROPRIATELY MODIFIED TO REFLECT CURRENT SITE CONDITIONS.
2. ENSURE TEMPORARY SOIL STABILIZATION SUCH AS HYDROMULCHING W/ GRASS SEEDS IS APPLIED ON ANY BARE SOILED AREA THAT WILL REMAIN UNFINISHED FOR MORE THAN 30 CALENDAR DAYS.
3. ENSURE SOIL STABILIZATION IS APPLIED AS SOON AS PRACTICAL AFTER GRADING IS COMPLETED. IRRIGATION AND MAINTENANCE OF THE PERENNIAL VEGETATION SUCH AS GRASS MUST BE PROVIDED FOR 30 CALENDAR DAYS OR UNTIL THE VEGETATION TAKES ROOT, WHICHEVER IS SHORTER.



**LEGEND:**

- LIMITS OF GRADING
- INGRESS/EGRESS
- COMPOSTED FILTER SOCK
- CONTRACT ZONE LIMITS

**BEST MANAGEMENT PRACTICES (BMP) NOTES:**

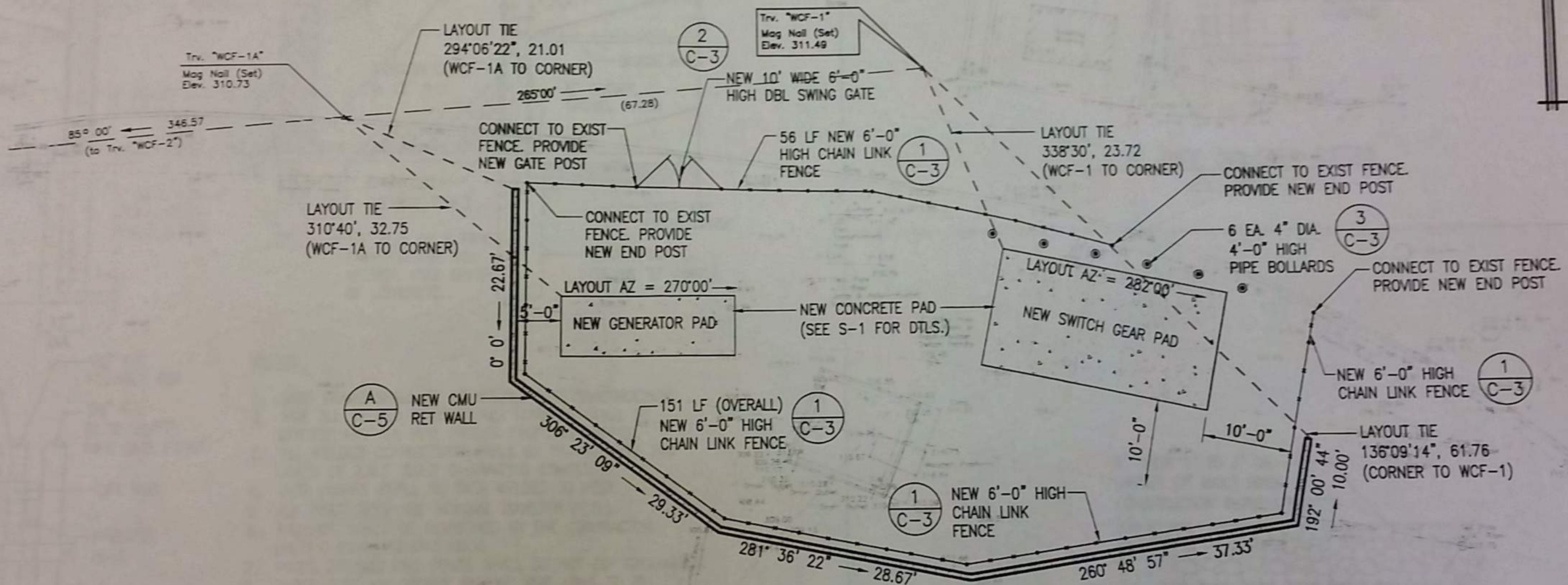
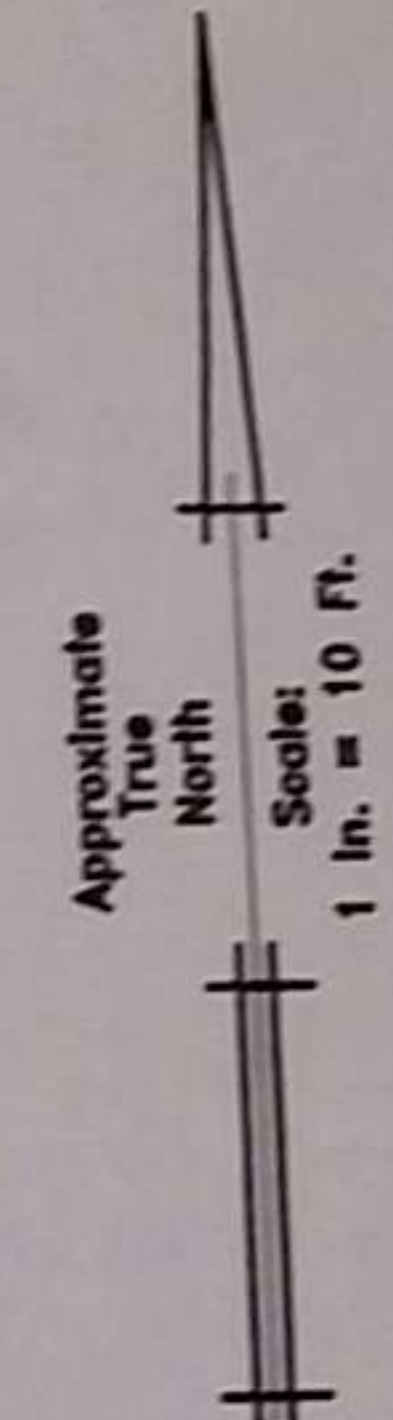
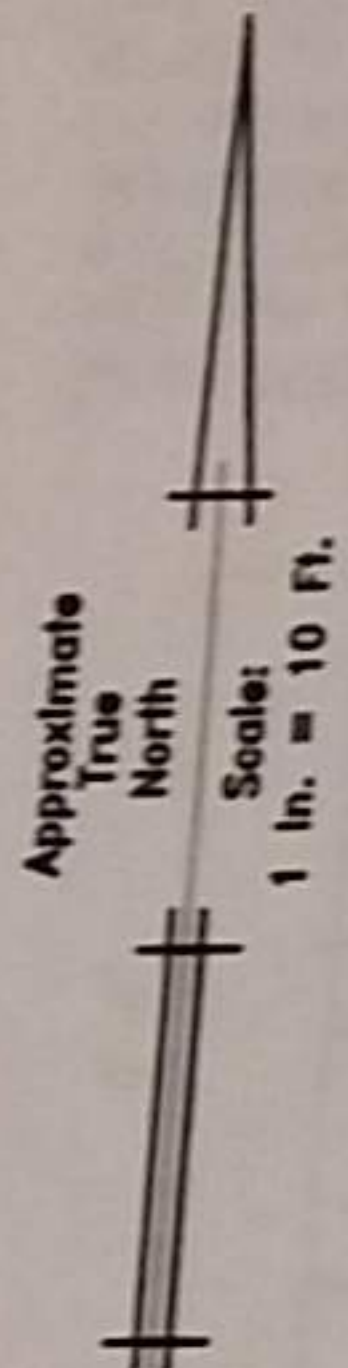
1. ALL BEST MANAGEMENT PRACTICES AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF GRADING WORK.
2. THE CONSTRUCTION INGRESS AND EGRESS SHALL HAVE A 8" THICK COARSE AGGREGATE LAYER IN THE LOCATION SHOWN ON THE EROSION CONTROL PLAN.
3. INSTALL COMPOST FILTER SOCK TO PREVENT EROSION ONTO SURROUNDING AREAS AND PROPERTIES.
4. ALL BEST MANAGEMENT PRACTICES SHALL NOT BE REMOVED UNTIL ALL PERMANENT EROSION CONTROLS ARE IN PLACE AND ESTABLISHED.
5. PROVIDE MEASURES SUCH AS WATERING THE SITE TO MITIGATE DUST NUISANCE.
6. PERIODICALLY INSPECT AND MAINTAIN EROSION CONTROL MEASURES.

**EROSION CONTROL PLAN**

SCALE: 1" = 10'-0"

**NOTE:**

1. NORTH TRAVE



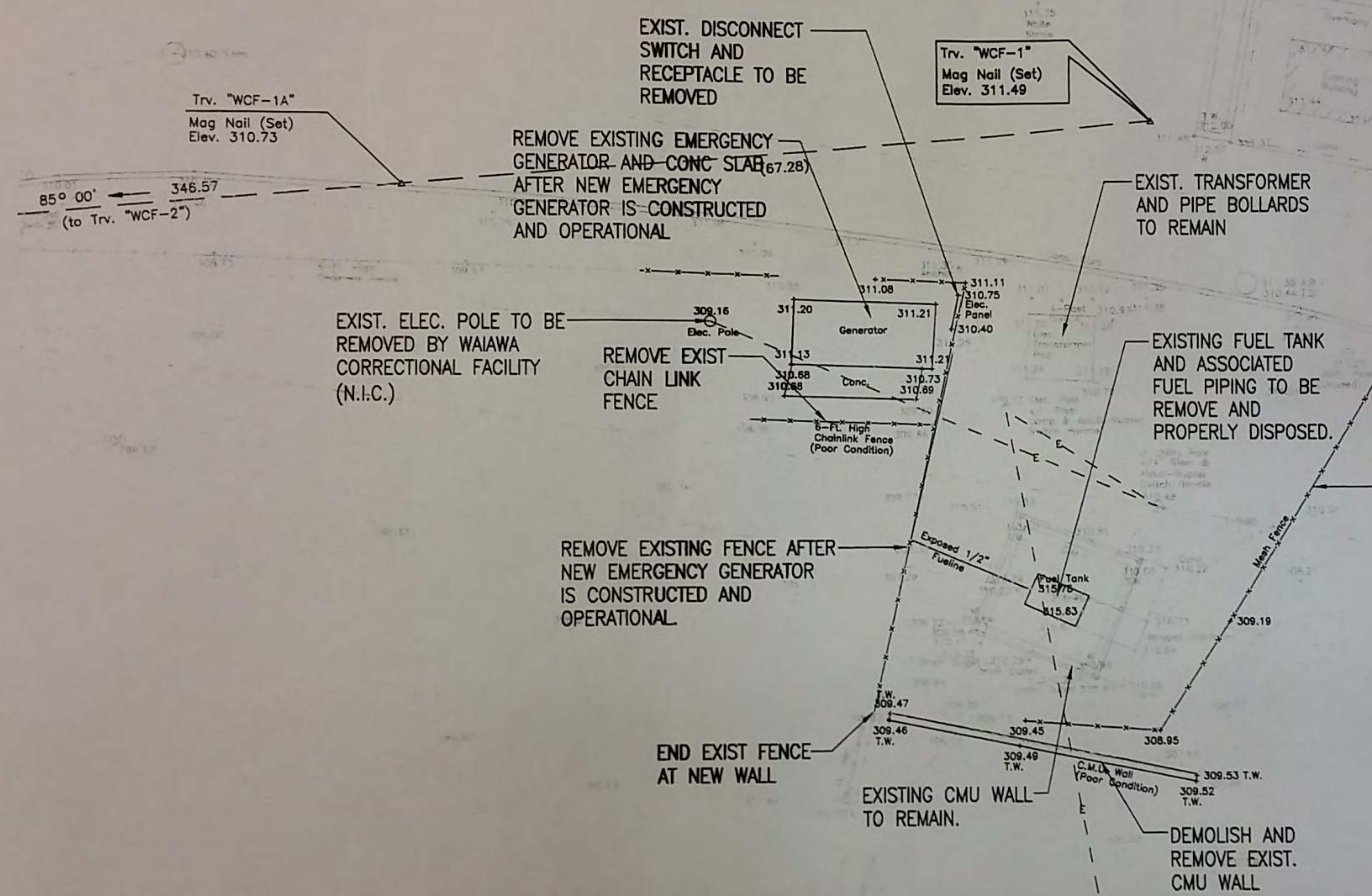
CONTRACT ZONE LIMITS  
AND LIMITS OF DISTURBED  
AREA/GRADING

**NOTE:**  
1. NORTH ARROW, AZIMUTHS, AND ELEVATIONS ARE ASSUMED. REFER TO TRAVERSE POINT ELEVATIONS AND AZIMUTHS FOR LAYING OUT NEW WORK.

**SITE LAYOUT AND IMPROVEMENT PLAN**  
SCALE: 1" = 10'-0"

Approximate True North  
Scale: 1 in. = 10 Ft.

Approximate True North  
Scale: 1 in. = 10 Ft.



ZONE LIMITS  
OF DISTURBED  
SOIL

STAKED COMPOST  
FILTER SOCK

**EXISTING CONDITION AND DEMOLITION PLAN**  
SCALE: 1" = 10'-0"

APPROVED:

*Meloni Sababura*  
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

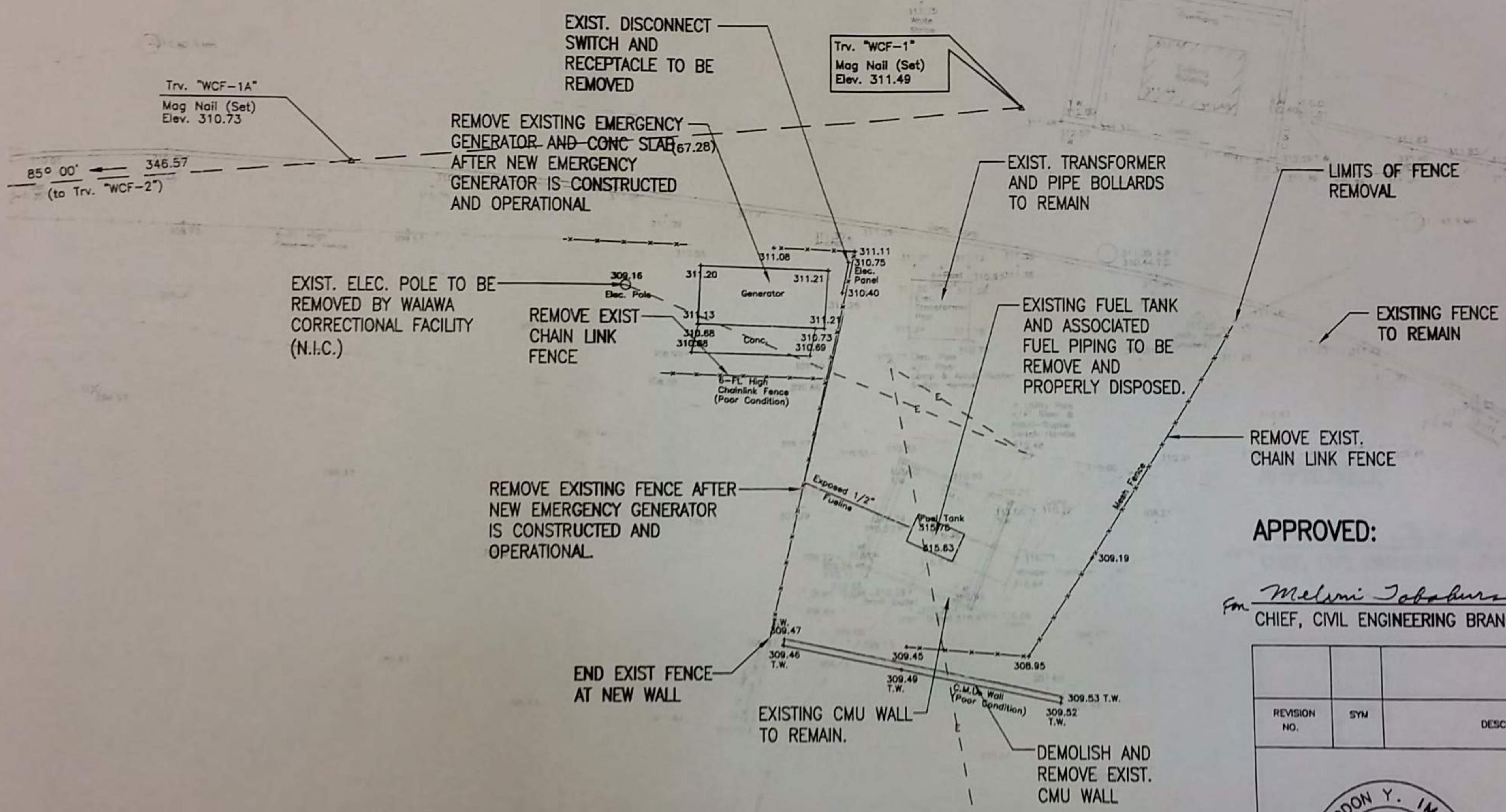
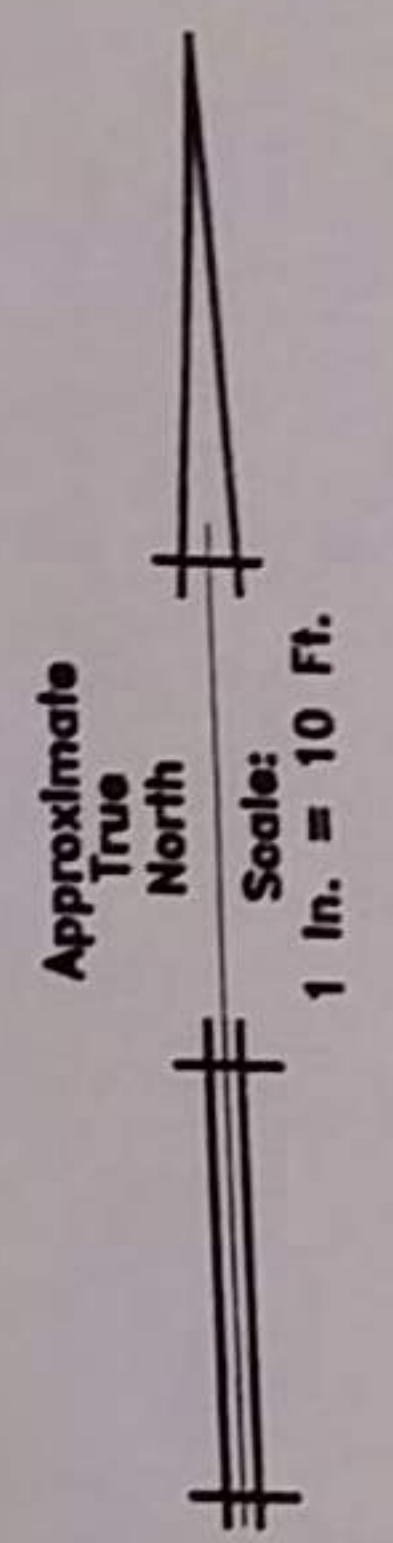
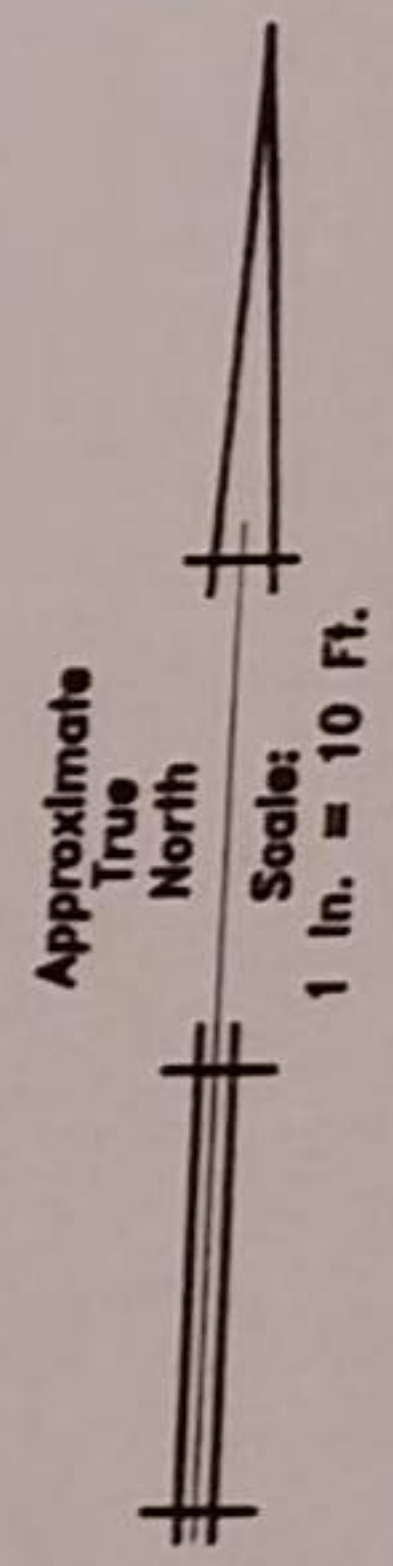
10/8/14  
DATE

REVISION NO.	SYM	DESCRIPTION	SHT OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY            ELECTRICAL SYSTEM IMPROVEMENTS</b>					
MILILANI		OAHU		HAWAII	
<b>SITE PLANS</b>					
<b>IMATA &amp; ASSOCIATES, INC.</b>			DAGS Job No. <b>12-27-5564</b>	DRAWING NO. <b>C-2</b>	
DESIGNED BY: <b>GYI</b>	CHECKED BY: <b>GYI</b>		DATE <b>OCT., 2012</b>	SHEET <b>3</b>	
DRAWN BY: <b>RDL</b>	APPROVED <b>GYI</b>		SCALE: <b>AS NOTED</b>	OF 10 SHEETS	
EXPIRATION DATE OF THE LICENSE: 04/30/2018					



*Gordon Y. Imata*  
THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION





TRACT ZONE LIMITS  
LIMITS OF DISTURBED  
/GRADING

**EXISTING CONDITION AND DEMOLITION PLAN**  
SCALE: 1" = 10'-0"

REVISION NO.	SYM	DESCRIPTION	SHT OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR



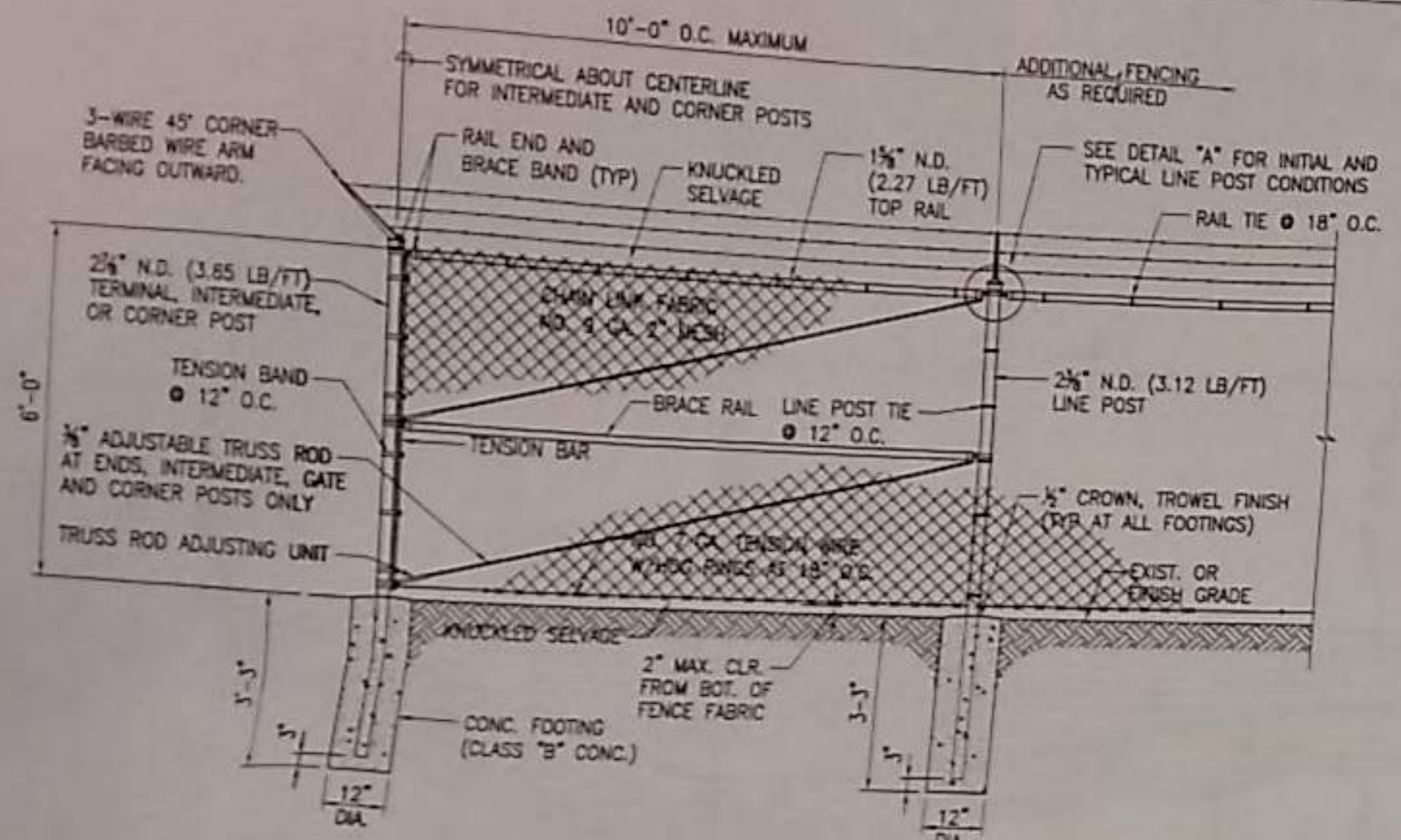
DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

WAIAWA CORRECTIONAL FACILITY  
ELECTRICAL SYSTEM IMPROVEMENTS

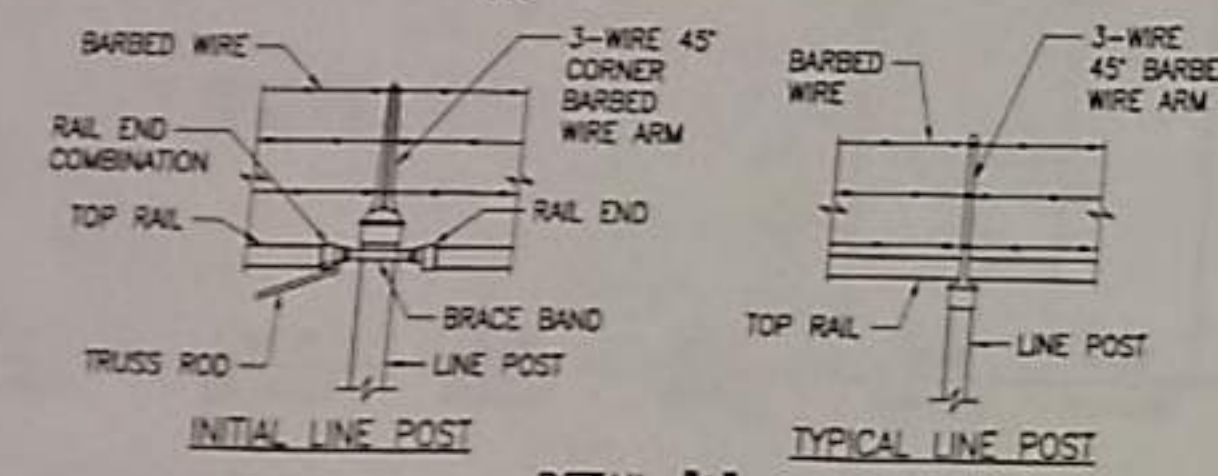
MILILANI OAHU HAWAII

*Gordon Y. Imata*  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
EXPIRATION DATE OF THE LICENSE: 04/30/2018

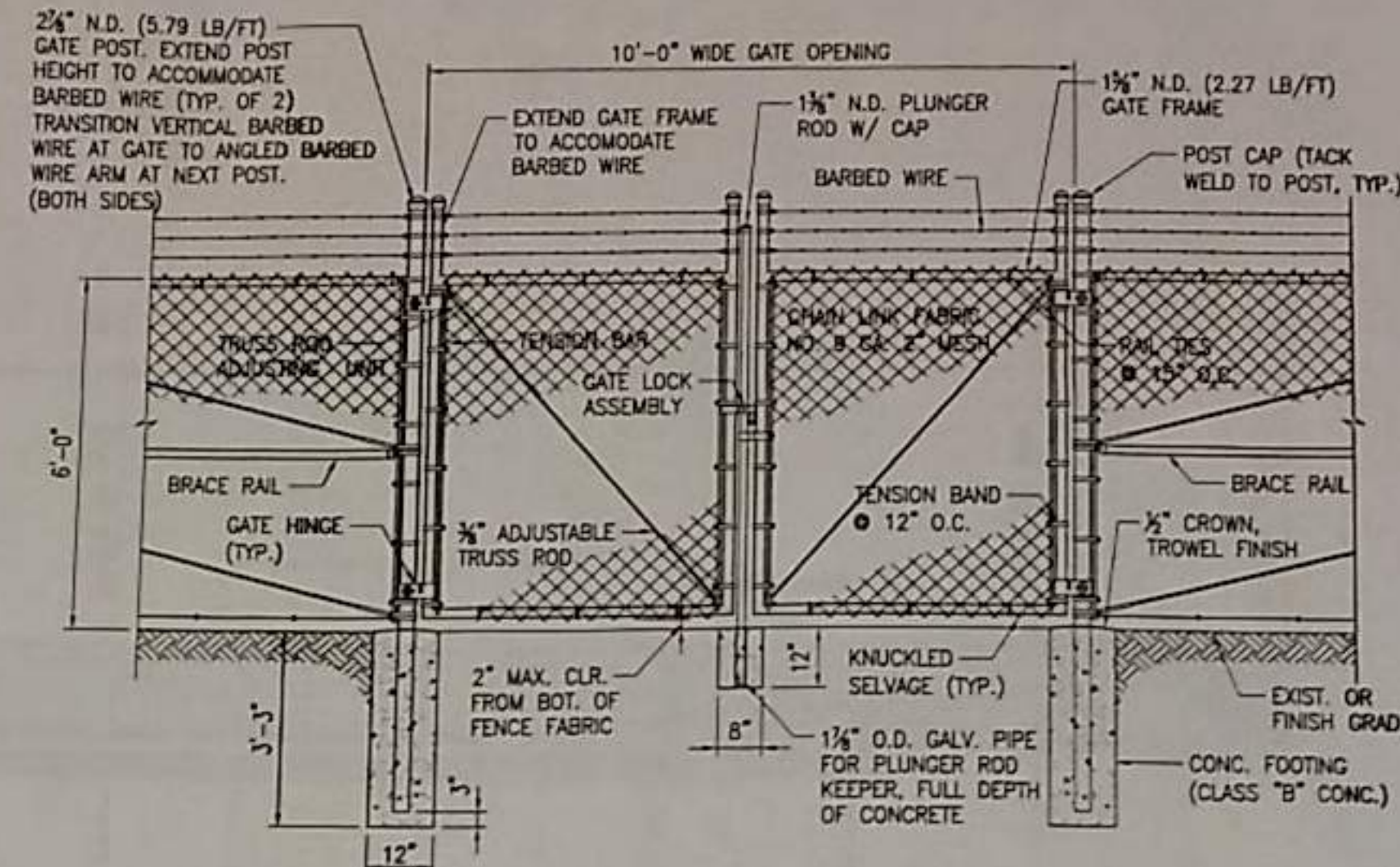
IMATA & ASSOCIATES, INC.		DAGS Job No.	DRAWING NO.
DESIGNED BY: GYI	CHECKED BY: GYI	12-27-5564	C-2
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET
SCALE: AS NOTED		OCT., 2012	3 OF 10 SHEETS



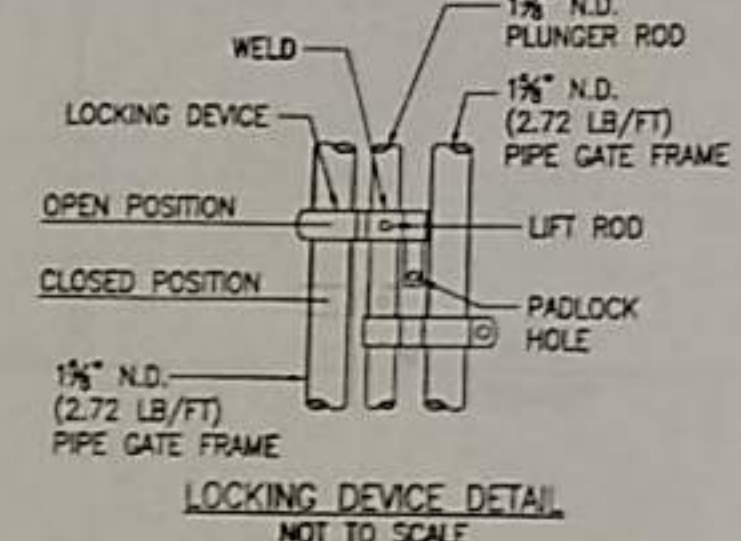
- NOTES**
1. ALL PIPE AND POST SIZES ARE OUTSIDE DIAMETER (N.D.) GALVANIZED.
  2. PIPES, FITTINGS, AND POSTS SHALL BE HOT-DIPPED GALVANIZED.
  3. FABRIC SHALL BE CONTINUOUS AND FASTENED TO END POSTS BY TENSION BARS AND TENSION BANDS SPACED APPROXIMATELY 12" APART.
  4. WIRE FASTENINGS SHALL BE NO. 12 GAUGE GALVANIZED TIE WIRE.
  5. LINE POST WIRE FASTENINGS SHALL BE SPACED 12" APART.
  6. HORIZONTAL RAIL WIRE FASTENINGS SHALL BE SPACED 18" APART.
  7. NO SPLICING SHALL BE ALLOWED ON ALL STRAIGHT-RUN PIPES.
  8. TOP AND BOTTOM SALVAGES SHALL BE KNUCKLED FINISH.
  9. INSTALL INTERMEDIATE POSTS AT 200' MAX. INTERVALS.



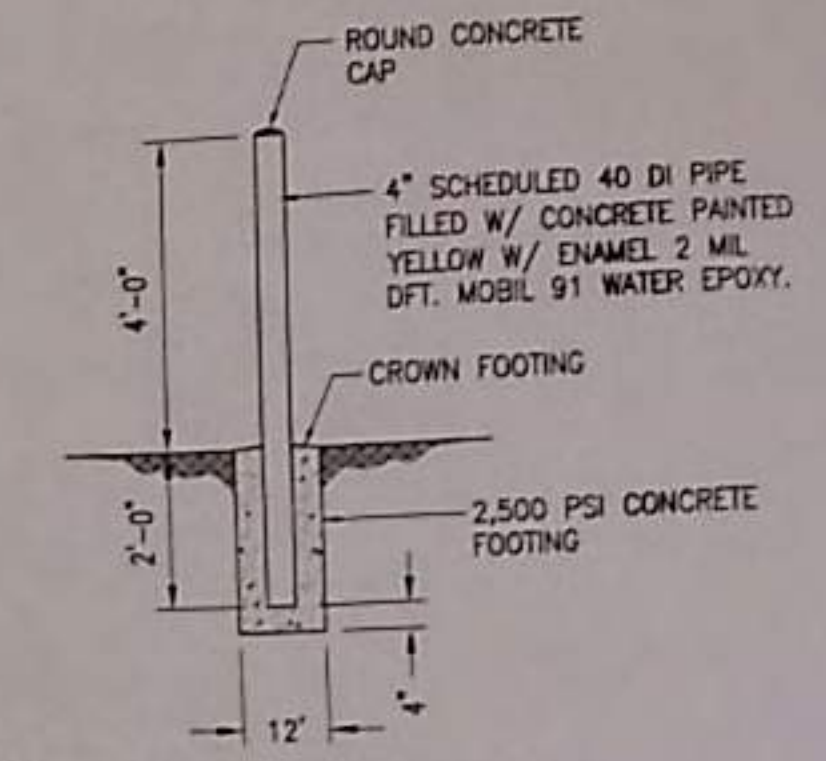
1 6'-0" HIGH CHAIN LINK FENCE W/ BARBED WIRE DETAIL  
SCALE: 1/2" = 1'-0"



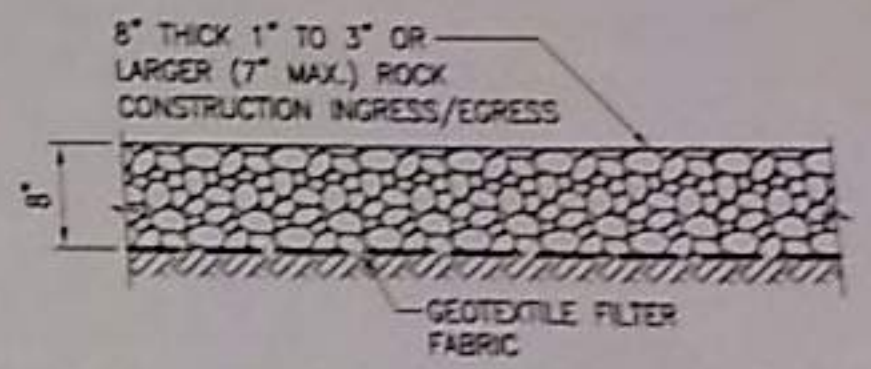
- NOTES**
1. GATE FRAME SHALL BE OF WELDED PIPE CONSTRUCTION.
  2. FOR ALL WELDED CONNECTIONS, CORNERS SHALL BE MITERED AND ALL PIPE BRACES PROPERLY CAPPED.
  3. ALL WELDED CONNECTIONS SHALL BE PAINTED WITH TWO COATS OF Z.R.C. COLD GALVANIZING COMPOUND.
  4. GATE HINGES SHALL BE TACK WELDED TO POST.
  5. ALL POST SIZES ARE NOMINAL DIAMETER (N.D.).
  6. PADLOCK SHALL BE FURNISHED BY THE CONTRACTOR, UNLESS INDICATED OTHERWISE.
  7. PIPES, FITTINGS AND POSTS SHALL BE HOT-DIP GALVANIZED.
  8. THREE-WIRE 45-DEGREE BARBED WIRE ARMS TO BE INSTALLED BEGINNING AT INITIAL LINE POST FROM GATE POST.



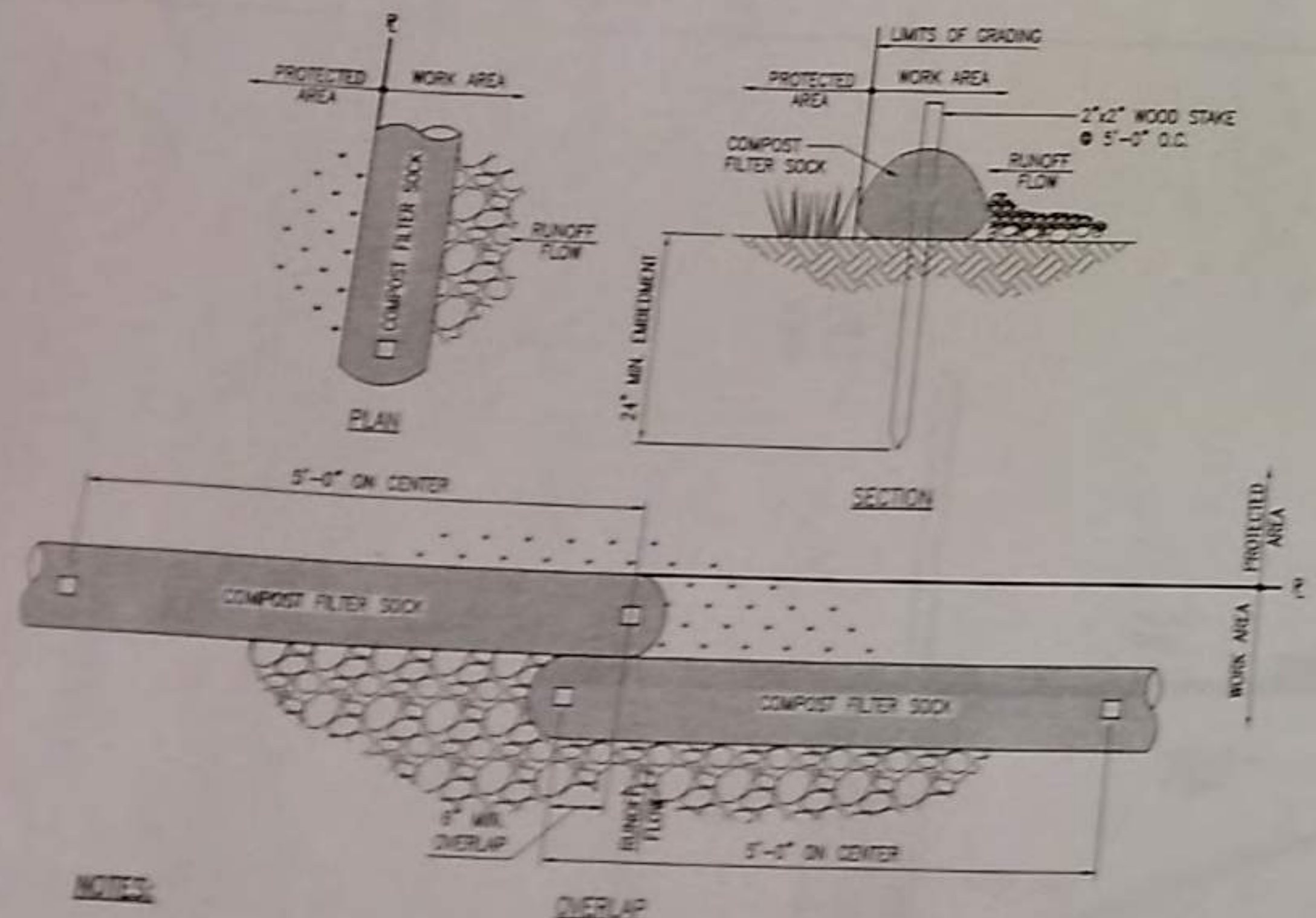
2 10'-0" WIDE, 6'-0" HIGH DOUBLE SWING GATE DETAIL  
SCALE: 1/2" = 1'-0"



3 4" PIPE BOLLARD DETAIL  
SCALE: 1/2" = 1'-0"



4 SECTION - CONSTRUCTION INGRESS/EGRESS  
SCALE: 1" = 1'-0"



- NOTES**
1. MINIMUM SOCK DIAMETER IS 18".
  2. COMPOST FILL OF THE FILTER SOCK SHALL NOT CONTAIN BLOSSOMS AND SHALL BE CONSISTENT WITH EPA GUIDELINES FOR FILTER SOCK FILL MATERIAL.
  3. ENDS OF FILTER SOCKS (WHERE NOT OVERLAPPING) SHALL BE TURNED UPSLOPE TO PREVENT RUNOFF FROM RUNNING AROUND THE END OF THE SOCK.

5 COMPOST FILTER SOCK  
SCALE: 1" = 1'-0"

APPROVED: *Melvin Subhan*  
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE: \_\_\_\_\_

NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

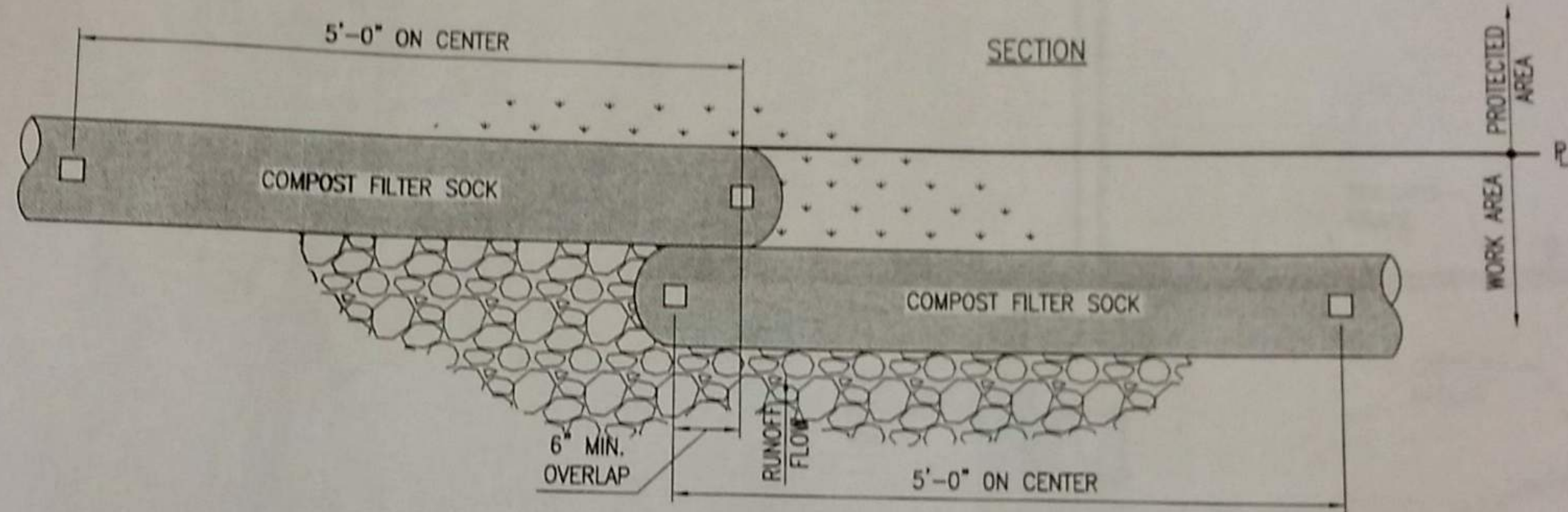
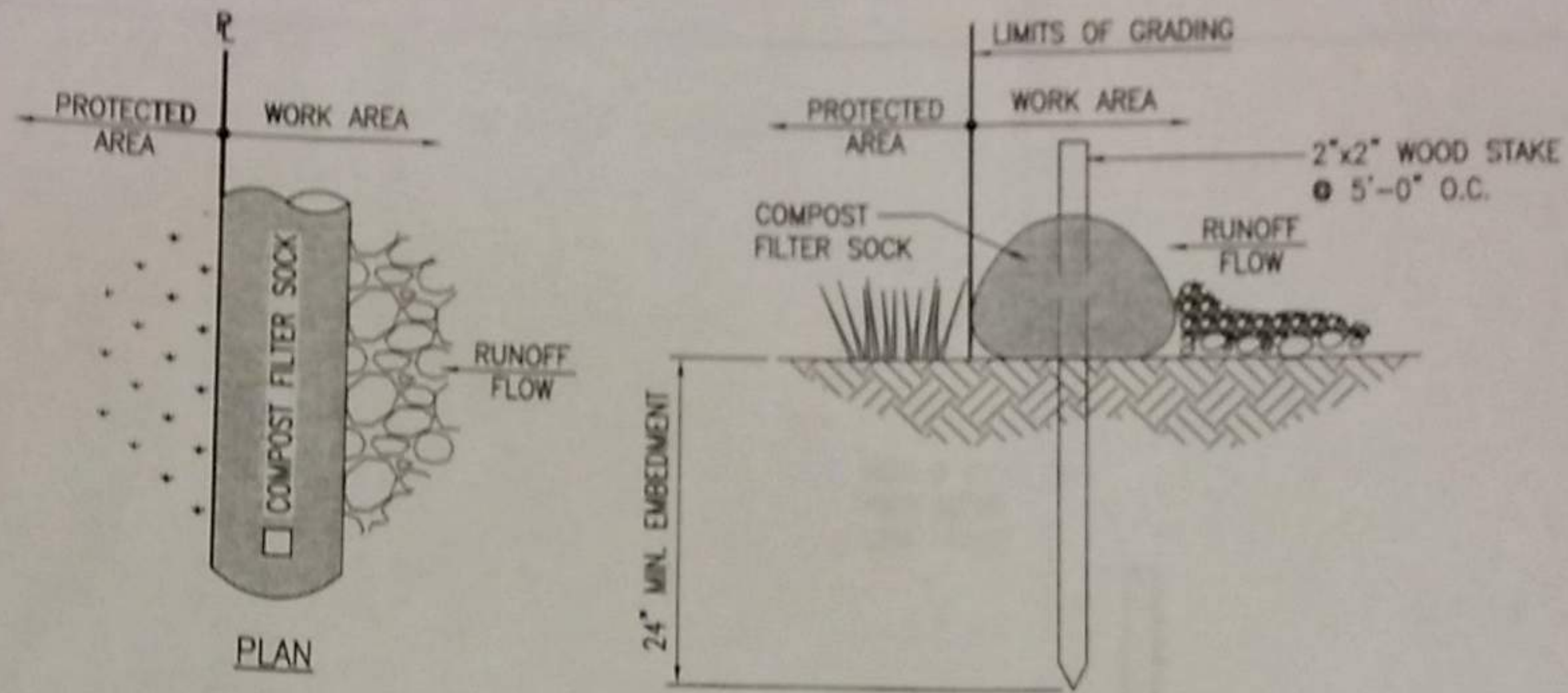
DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
MAUIA CORRECTIONAL FACILITY  
ELECTRICAL SYSTEM IMPROVEMENTS

WELLMAN      DATE: \_\_\_\_\_

DETAILS

W&A & ASSOCIATES, INC.      DATE: \_\_\_\_\_

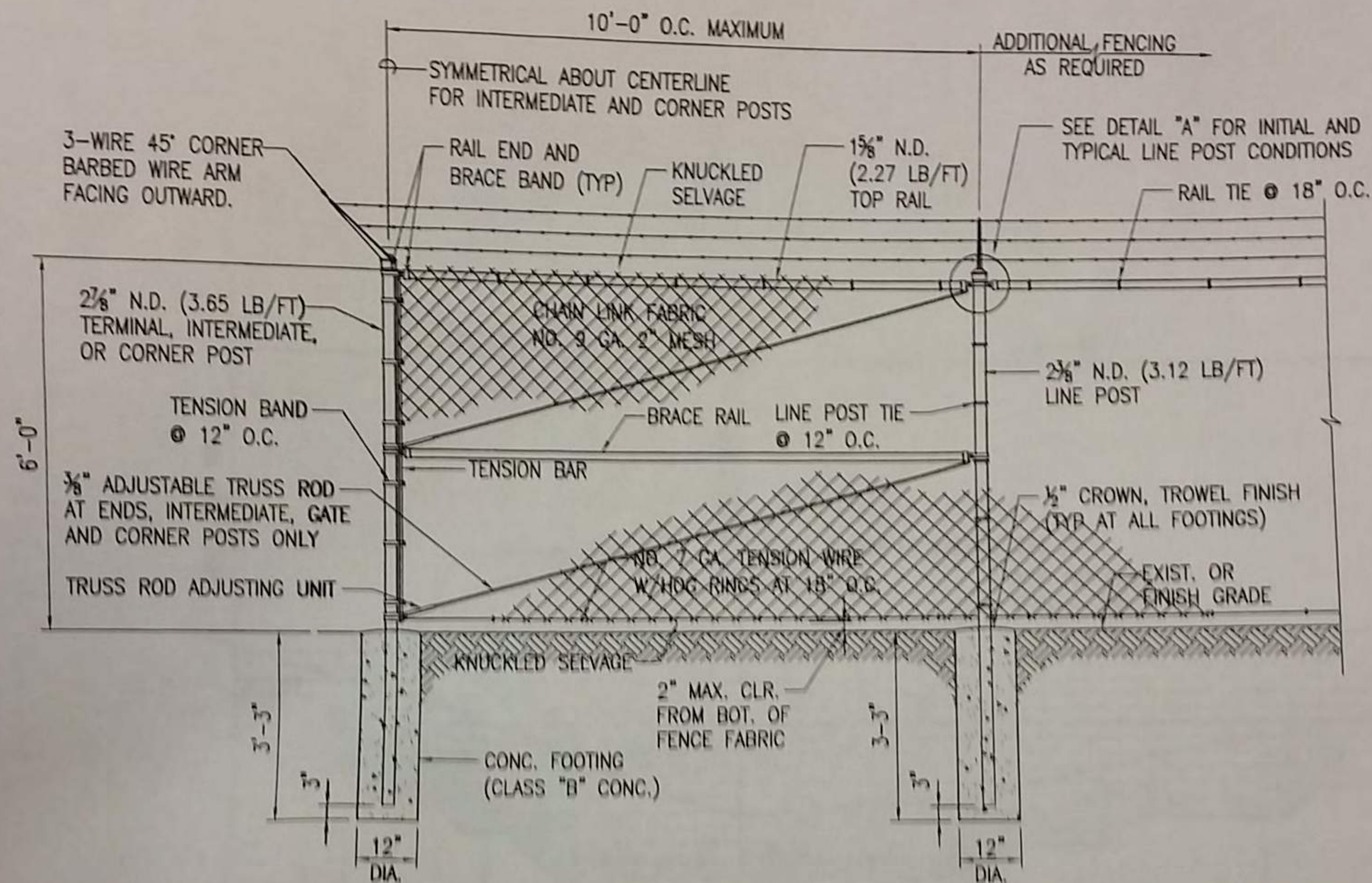
Department of Planning and Permitting  
 City and County of Honolulu  
 June 2014  
 USE ORDINANCE  
 B COUNTER



**NOTES:**

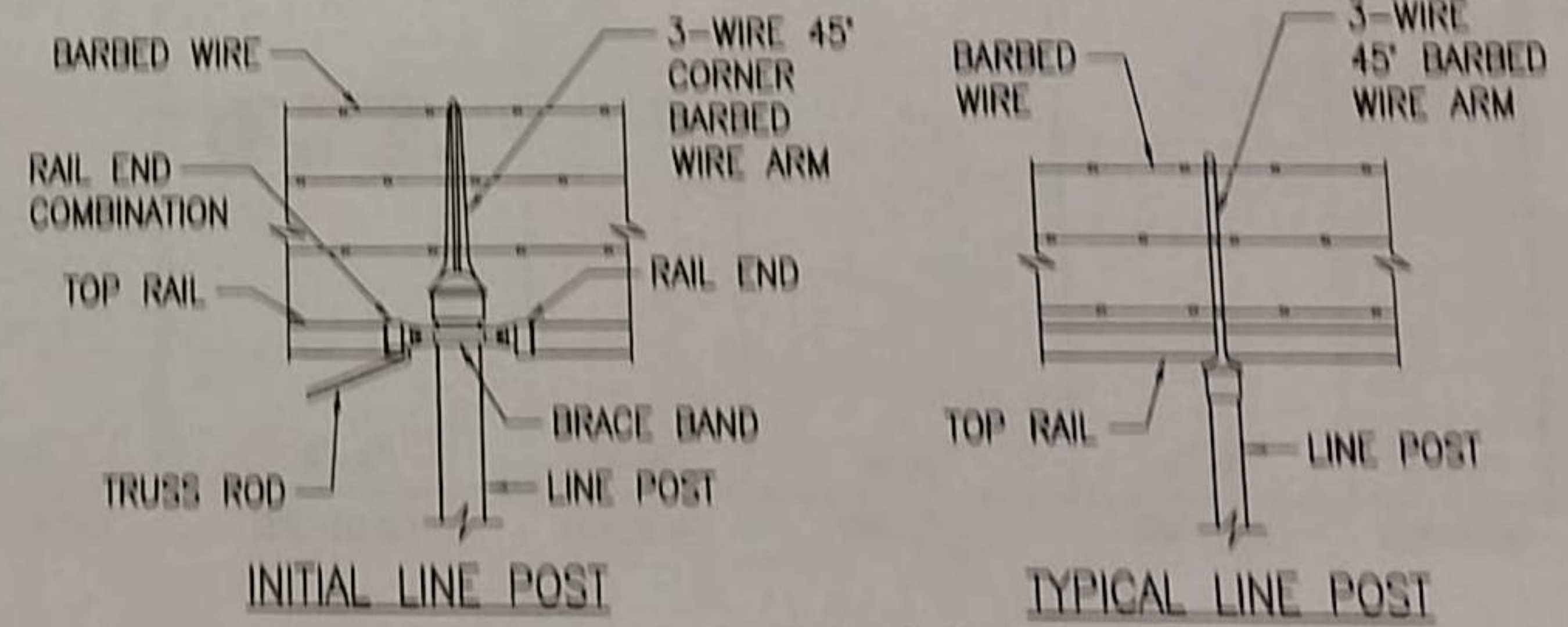
1. MINIMUM SOCK DIAMETER IS 18".
2. COMPOST FILL OF THE FILTER SOCK SHALL NOT CONTAIN BIOSOLIDS AND SHALL BE CONSISTENT WITH EPA GUIDELINES FOR FILTER SOCK FILL MATERIAL.
3. ENDS OF FILTER SOCKS (WHERE NOT OVERLAPPING) SHALL BE TURNED UPSLOPE TO PREVENT RUNOFF FROM RUNNING AROUND THE END OF THE SOCK.

5
COMPOST FILTER SOCK  
C-3
SCALE: 1" = 1'-0"



**NOTES:**

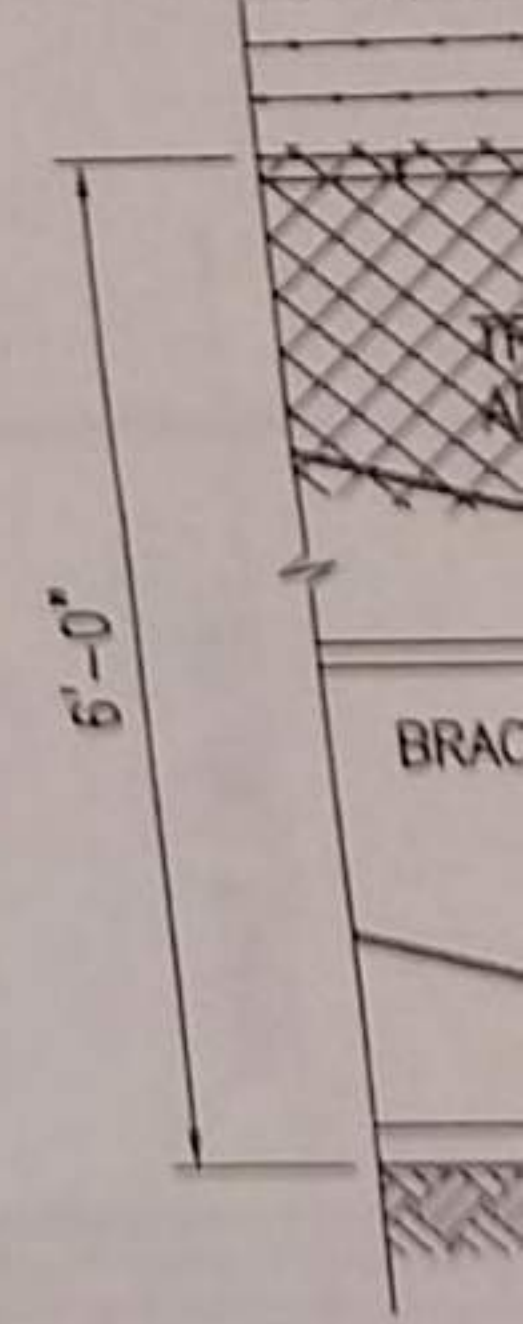
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4. WIRE FASTENINGS SHALL BE NO. 12 GAUGE GALVANIZED TIE WIRE.
5. LINE POST WIRE FASTENINGS SHALL BE SPACED 12" APART.
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7. NO SPLICING SHALL BE ALLOWED ON ALL STRAIGHT-RUN PIPES.
8. TOP AND BOTTOM SALVAGES SHALL BE KNUCKLED FINISH.
9. INSTALL INTERMEDIATE POSTS AT 200' MAX. INTERVALS.

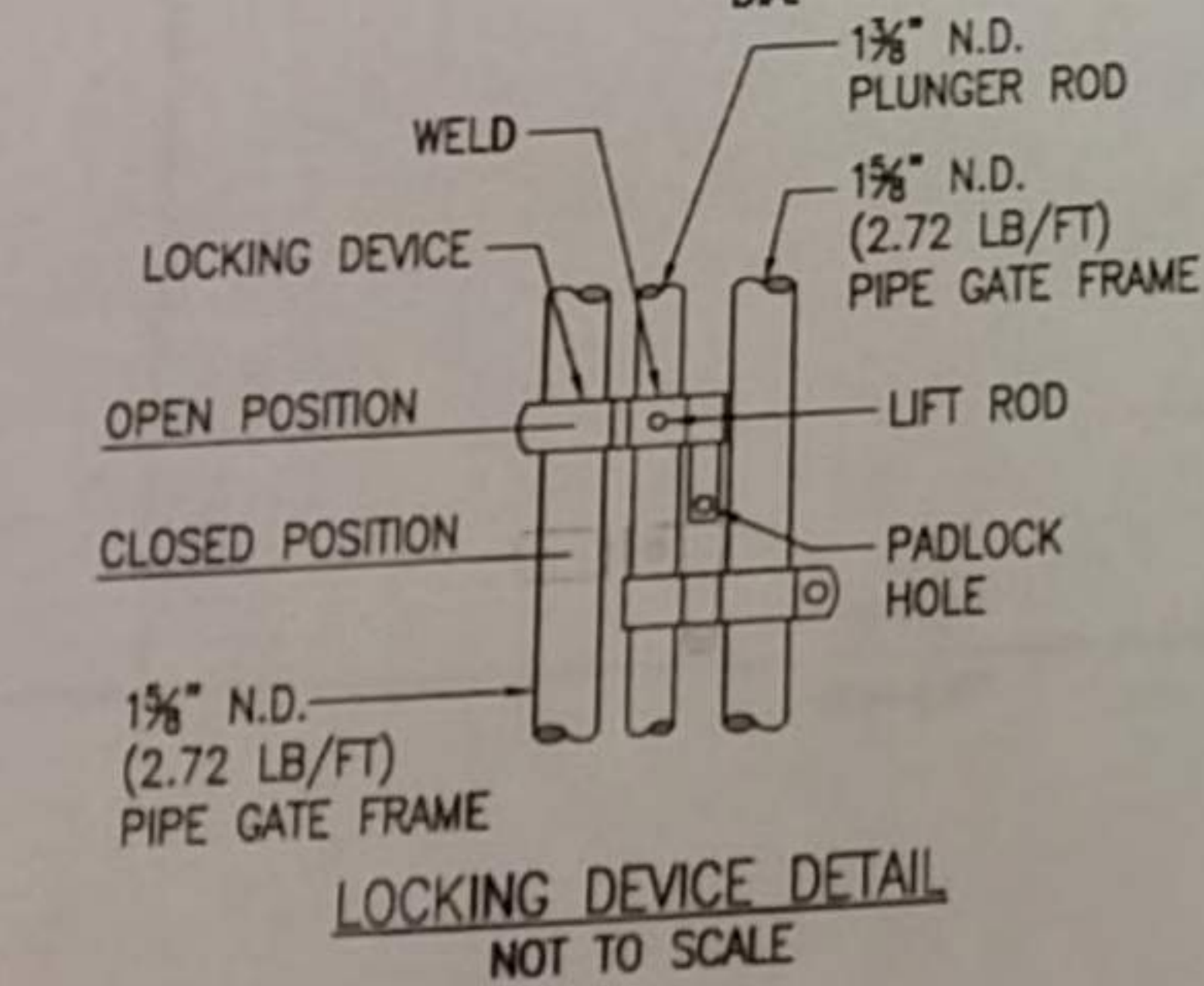
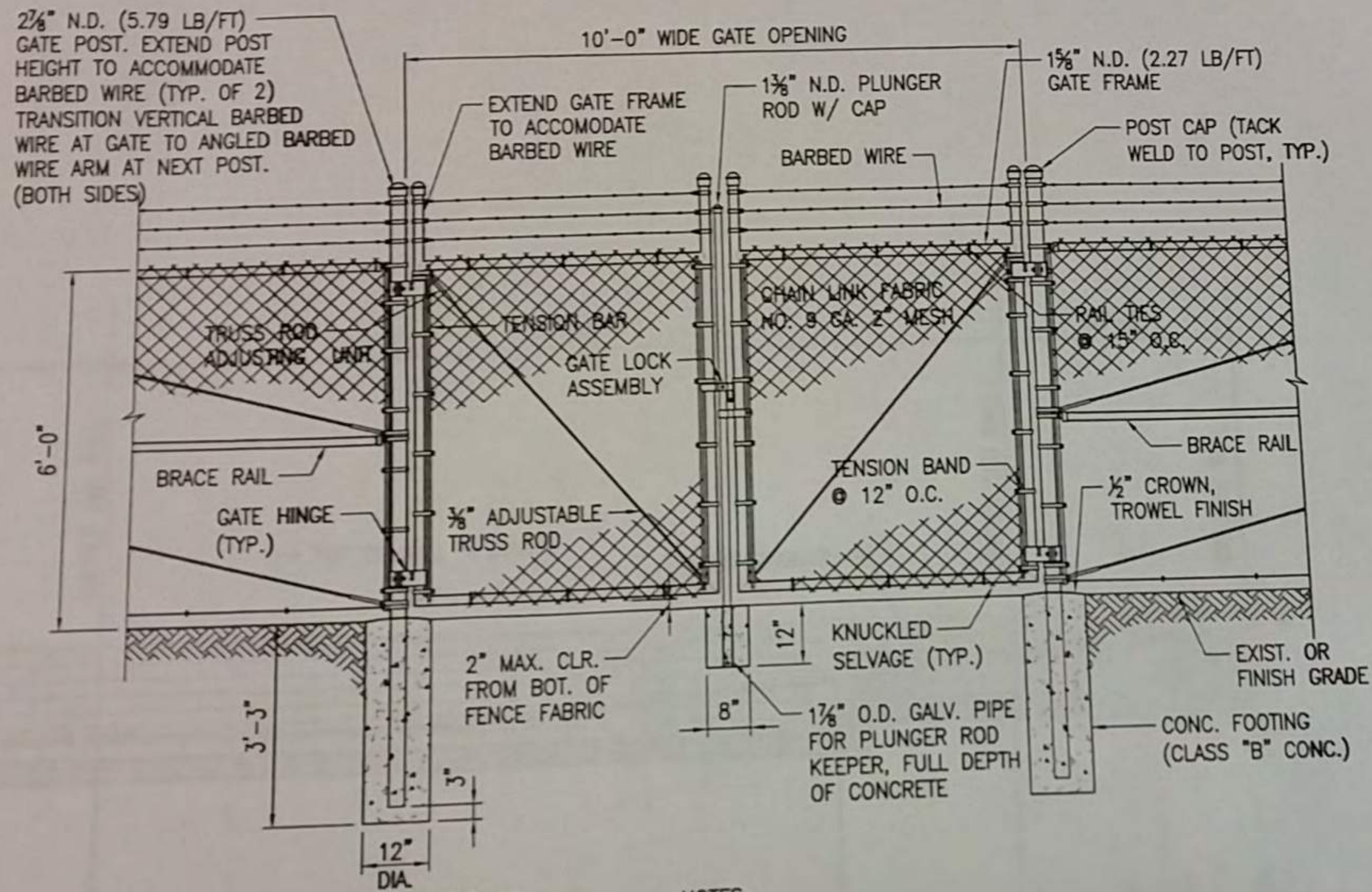


**DETAIL "A"**  
SCALE: 1" = 1'-0"

1  
C-3 6'-0" HIGH CHAIN LINK FENCE W/ BARBED WIRE DETAIL  
SCALE: 1/2" = 1'-0"

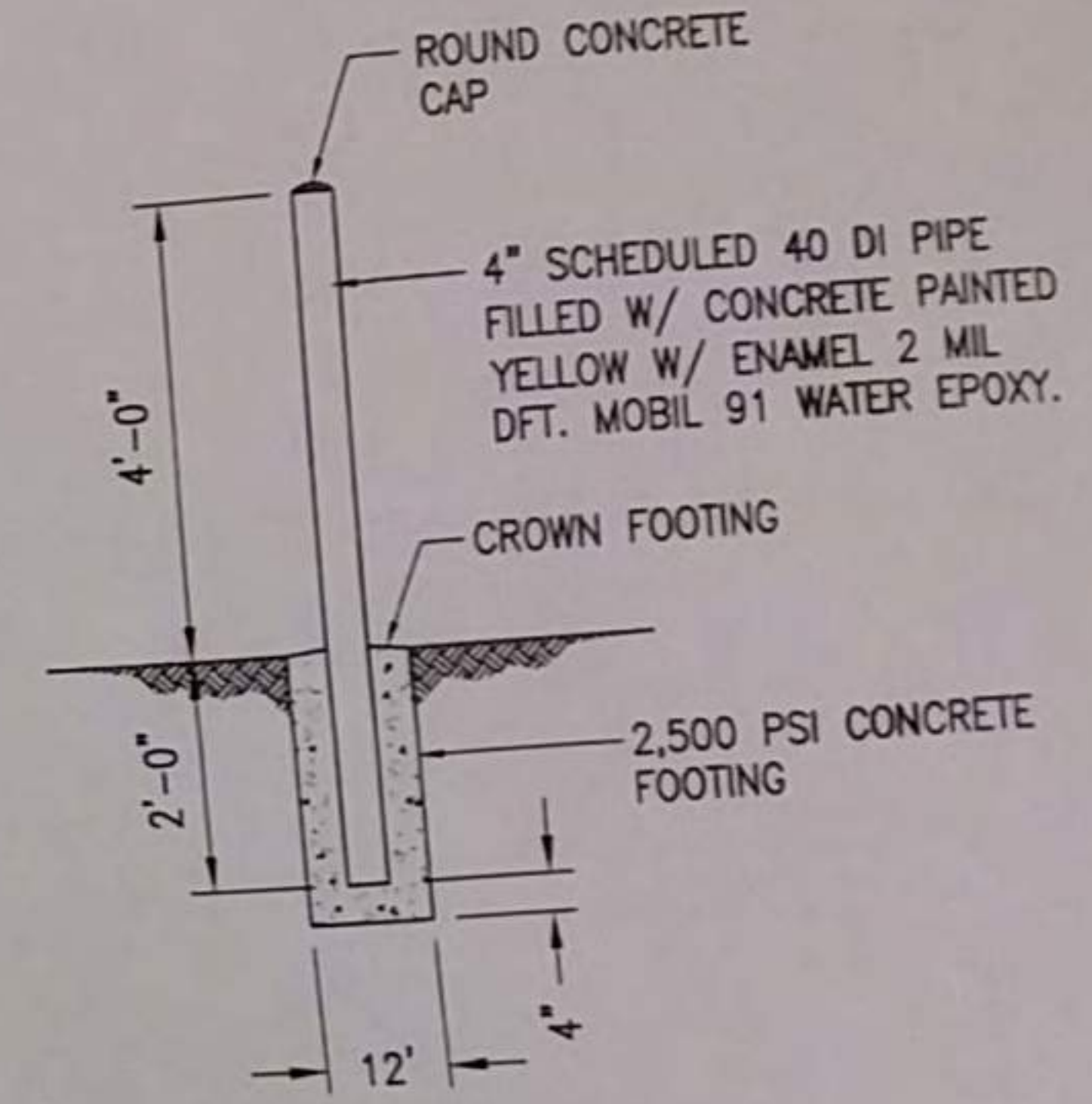
2 3/8" N.D. (5.79 LB/FT) GATE POST. EXTEND POST HEIGHT TO ACCOMMODATE BARBED WIRE (TYP. OF TRANSITION VERTICAL BAR WIRE AT GATE TO ANGLE WIRE ARM AT NEXT POST (BOTH SIDES))



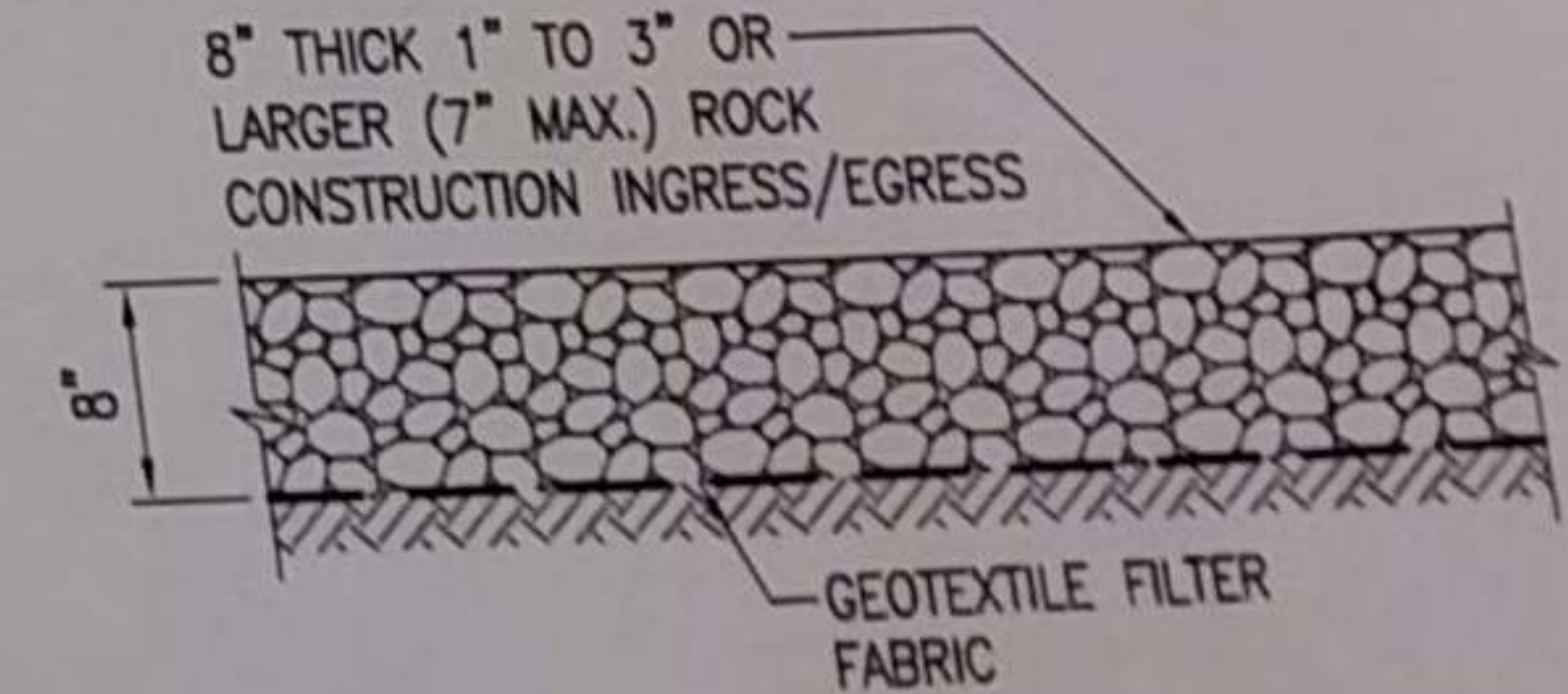


2  
C-3 10'-0" WIDE, 6'-0" HIGH DOUBLE SWING GATE DETAIL  
SCALE: 1/2" = 1'-0"

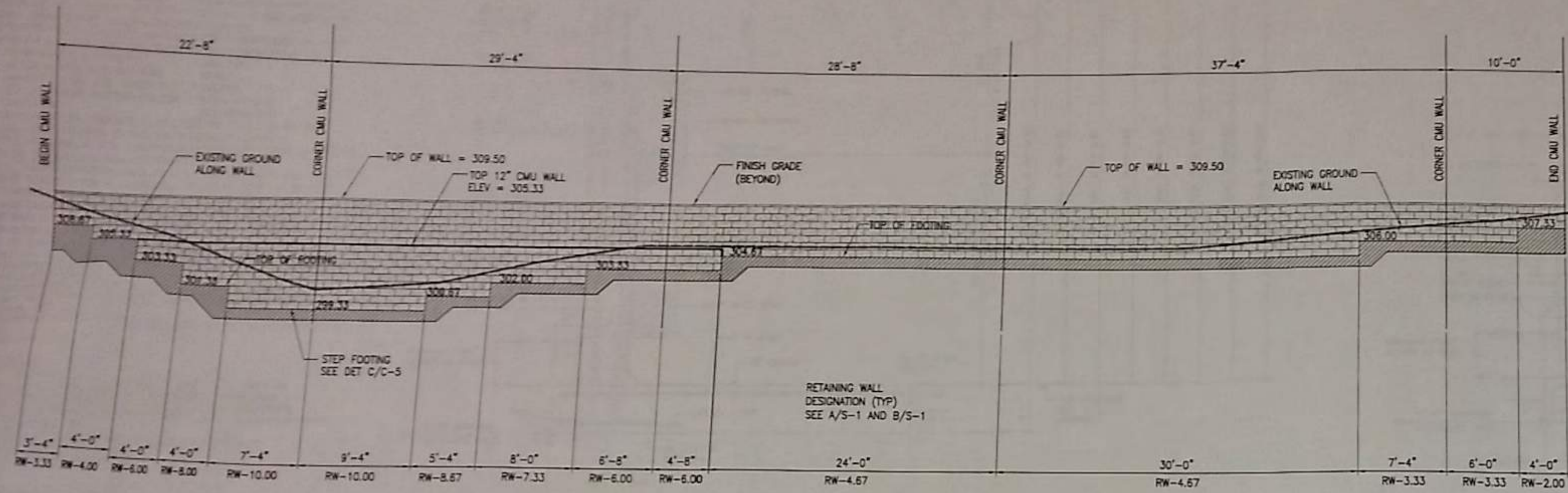
- NOTES:
1. GATE FRAME SHALL BE OF WELDED PIPE CONSTRUCTION.
  2. FOR ALL WELDED CONNECTIONS: CORNERS SHALL BE MITERED AND ALL PIPE BRACES PROPERLY CAPPED.
  3. ALL WELDED CONNECTIONS SHALL BE PAINTED WITH TWO COATS OF Z.R.C. COLD GALVANIZING COMPOUND.
  4. GATE HINGES SHALL BE TACK WELDED TO POST.
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  7. PIPES, FITTINGS AND POSTS SHALL BE HOT-DIP GALVANIZED.
  8. THREE-WIRE 45-DEGREE BARBED WIRE ARMS TO BE INSTALLED BEGINNING AT INITIAL LINE POST FROM GATE POST.



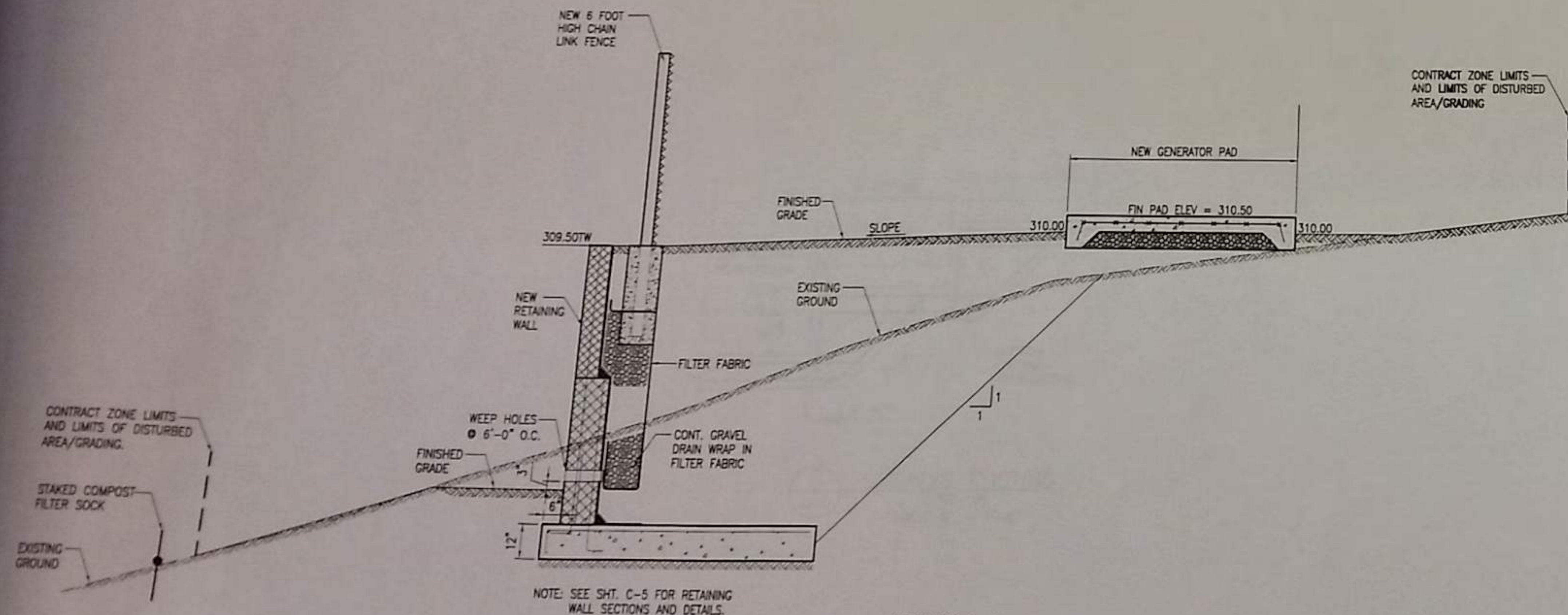
3  
C-3 4" PIPE BOLLARD DETAIL  
SCALE: 1/2" = 1'-0"



4  
C-3 SECTION - CONSTRUCTION INGRESS/EGRESS  
SCALE: 1" = 1'-0"



**CMU RETAINING WALL ELEVATION**  
SCALE: 3/8" = 1'-0"



**SECTION A-A**  
SCALE: 1/2" = 1'-0"

APPROVED:  
*Melvin Johnson*  
FOR CHIEF, CIVIL ENGINEERING BRANCH, D.P.P. DATE 10/2/12

REVISION NO.	SYM	DESCRIPTION	SHT OF	DATE	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
STATE OF HAWAII

**WAIKAWA CORRECTIONAL FACILITY  
ELECTRICAL SYSTEM IMPROVEMENTS**

MILLIANS OAHU HAWAII

**WALL ELEVATION AND SECTION**

IMATA & ASSOCIATES, INC. SHEET NO. 12-27-5564 DRAWING NO. C-4

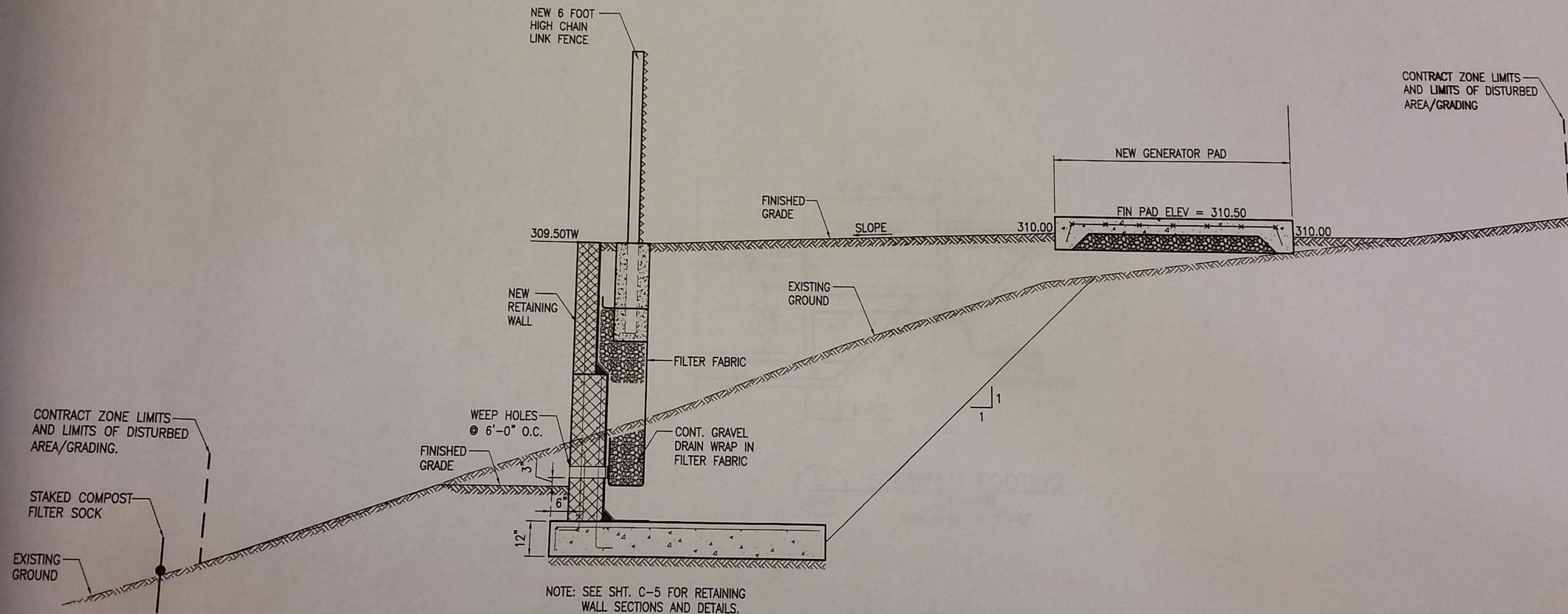
DESIGNED BY: GYI CHECKED BY: GYI  
DRAWN BY: RDL APPROVED BY: GYI DATE: OCT. 2012 SHEET: 5 OF 10 SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION  
EXPIRATION DATE OF THE LICENSE: 04/30/2018  
SCALE: AS NOTED

DAI-B COUNTER  
 LAND USE ORDINANCE  
 Department of Planning and Permitting  
 City and County of Honolulu  
 June 2014

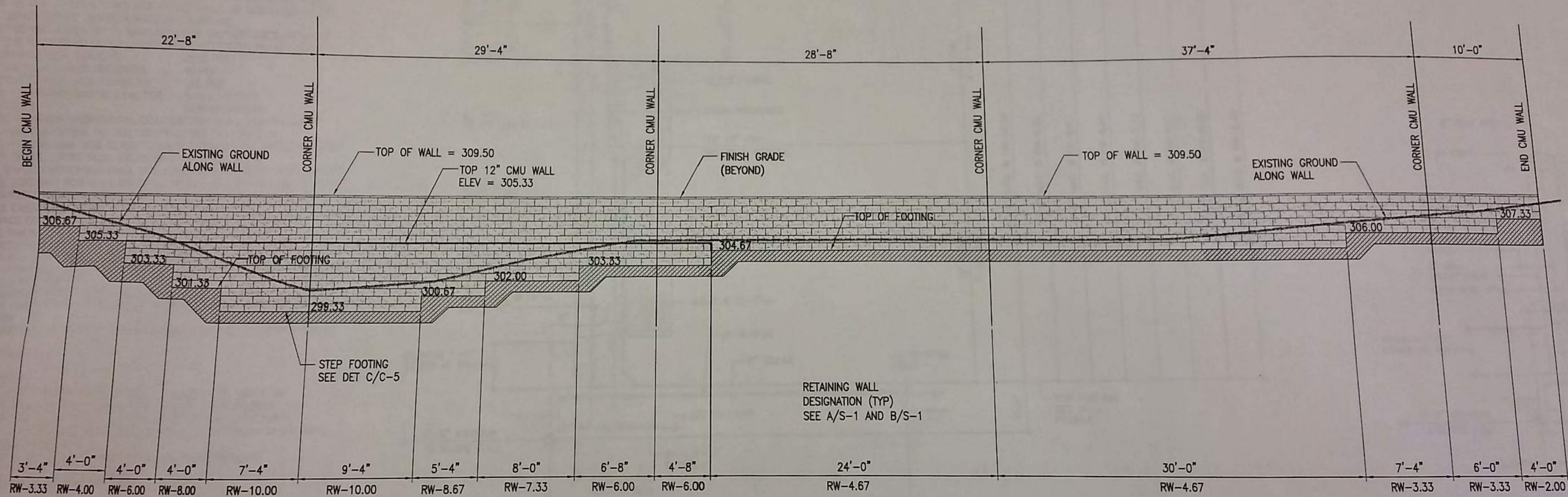
CMU RETAINING WALL ELEVATION

SCALE: 3/16" = 1'-0"



NOTE: SEE SHT. C-5 FOR RETAINING WALL SECTIONS AND DETAILS.

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



**CMU RETAINING WALL ELEVATION**  
 SCALE:  $\frac{3}{16}" = 1'-0"$



**RETAINING WALL NOTES**

- A. CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.
- B. DISCREPANCIES BETWEEN THE GRADES NOTED ON THE DRAWINGS AND THE ACTUAL GRADES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER BEFORE STARTING ANY WORK SO INVOLVED.
- C. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING SHORING, LAGGING, AND PROTECTION OF ADJACENT PROPERTIES AND UTILITIES. EXISTING AREAS OR CONDITIONS DISTURBED BY THE CONTRACTOR'S ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- D. AS NO GEOTECHNICAL REPORT IS AVAILABLE FOR THIS PROJECT, WE HAVE ASSUMED THE FOLLOWING SOIL CONDITIONS AND DESIGN PARAMETERS:  
 ALLOWABLE SOIL BEARING 2000 PSF  
 ACTIVE DESIGN SOIL PRESSURE 40 PCF  
 PASSIVE DESIGN SOIL PRESSURE 250 PCF  
 SOIL - FOOTING FRICTION FACTOR 0.40 x WEIGHT SOIL TYPE NON-EXPANSIVE
- E. DURING FOUNDATION EXCAVATION, CONTRACTOR SHALL REPORT ANY UNUSUAL SOIL CONDITION TO THE CONTRACTING OFFICER FOR RESOLUTION. UNUSUAL SOIL CONDITIONS INCLUDE BUT IS NOT LIMITED TO EXPANSIVE SOILS, LOOSE SOIL, EXCESSIVELY WET SOILS, ETC.
- F. BACKFILL BEHIND RETAINING WALL SHALL BE NON-EXPANSIVE, WELL GRADED MATERIAL, SUITABLE FOR WALL BACKFILL. PLACE FILL IN 6" LOOSE LIFTS AND COMPACT TO 90% MAXIMUM DENSITY. DO NOT OVER COMPACT FILL, AS THIS WILL CREATE EXCESSIVE PRESSURES BEHIND THE WALL.
- G. AT THE BACK OF ALL RETAINING WALLS PROVIDE DAMP-PROOFING BY MORTARING THE BACK OF THE WALL WITH A BITUMASTIC COATING.
- H. AT ALL RETAINING WALLS PROVIDE 4" DIAMETER WEEPS AT 6'-0" o.c. CONNECT ALL WEEPS WITH A CONTINUOUS DRAIN CONSISTING OF 1-1/2" THICK DRAINAGE GRAVEL AT THE BACK FACE OF THE WALL. WRAP GRAVEL IN GEOTEXTILE FILTER FABRIC.
- I. ALL GRADE DISCREPANCIES AND DISCREPANCIES IN THE HEIGHT OF THE RETAINING WALLS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR RESOLUTION.
- J. STEEP RETAINING WALL FOOTINGS AS REQUIRED. DO NOT SLOPE BOTTOM OF FOOTINGS.
- K. GROUT ALL CMU SOLID.

**REINFORCING STEEL:**

- A. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- B. REINFORCING SHALL BE SPLICED ONLY AS SHOWN ON DRAWINGS. ALL OTHER SPLICES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
- C. BARS NOTED "CONT." SHALL BE SPLICED A MINIMUM OF 34 BAR DIAMETERS, BUT NEVER LESS THAN 2'-0".
- D. MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE:  
 CONCRETE CAST AGAINST EARTH 3"  
 EXPOSED TO EARTH OR WEATHER 2"

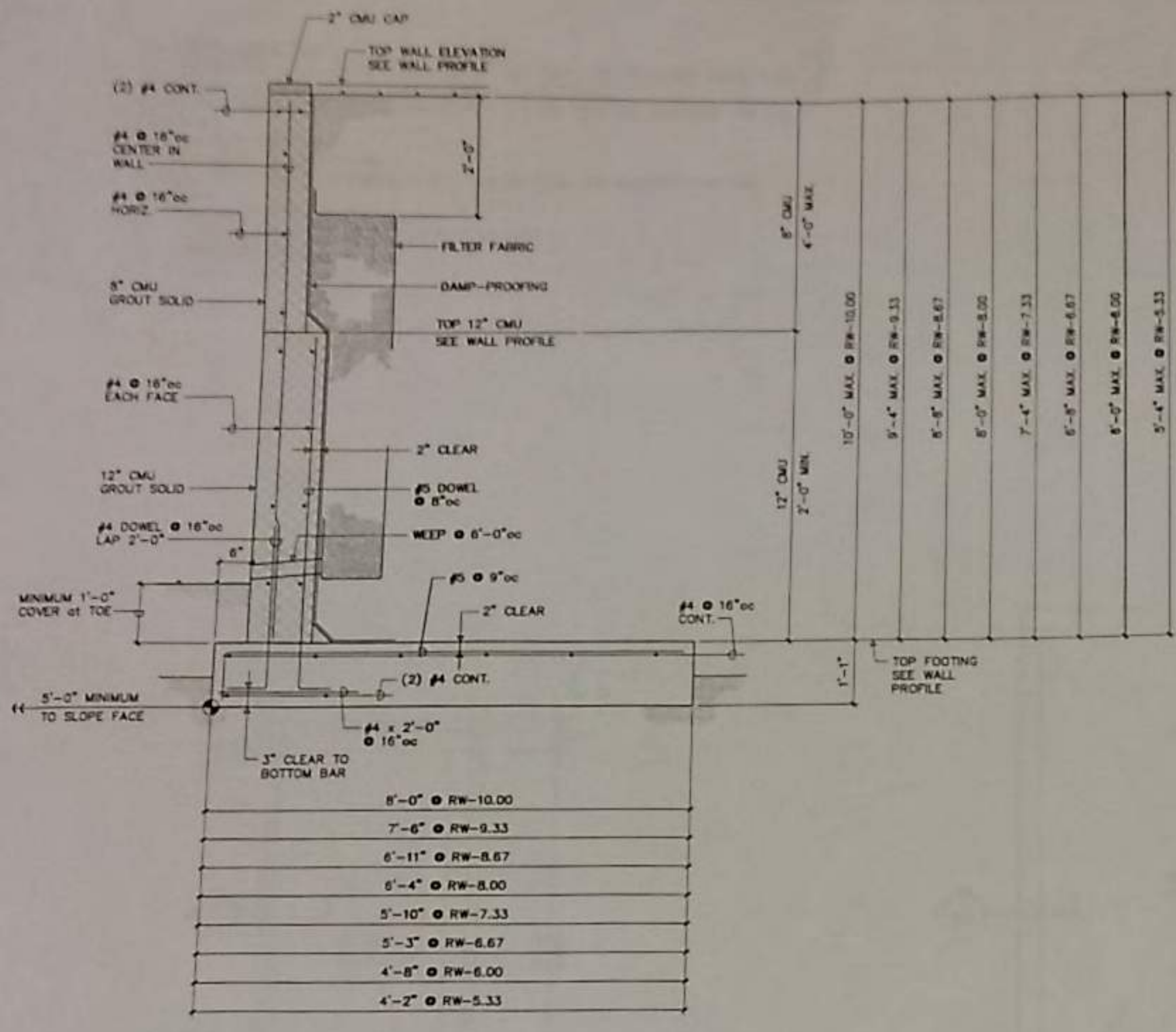
**CONCRETE:**

- A. ALL CONCRETE WORK SHALL CONFORM TO ACI 318-05.
- B. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER 48 HOURS BEFORE THE POURING OF ANY STRUCTURAL CONCRETE SO AN INSPECTION CAN BE MADE BEFORE POURING. NO POUR SHALL PROCEED WITHOUT THE CONSENT OF THE CONTRACTING OFFICER.
- C. MINIMUM 28 DAY COMPRESSIVE STRENGTH, LARGE AGGREGATE SIZE AND MAXIMUM WATER/CEMENT (W/C) RATIO SHALL BE AS FOLLOWS. ITEMS NOTED "NA" ARE SUBJECT TO DESIGN JUDGEMENT BY CONCRETE SUPPLIER:

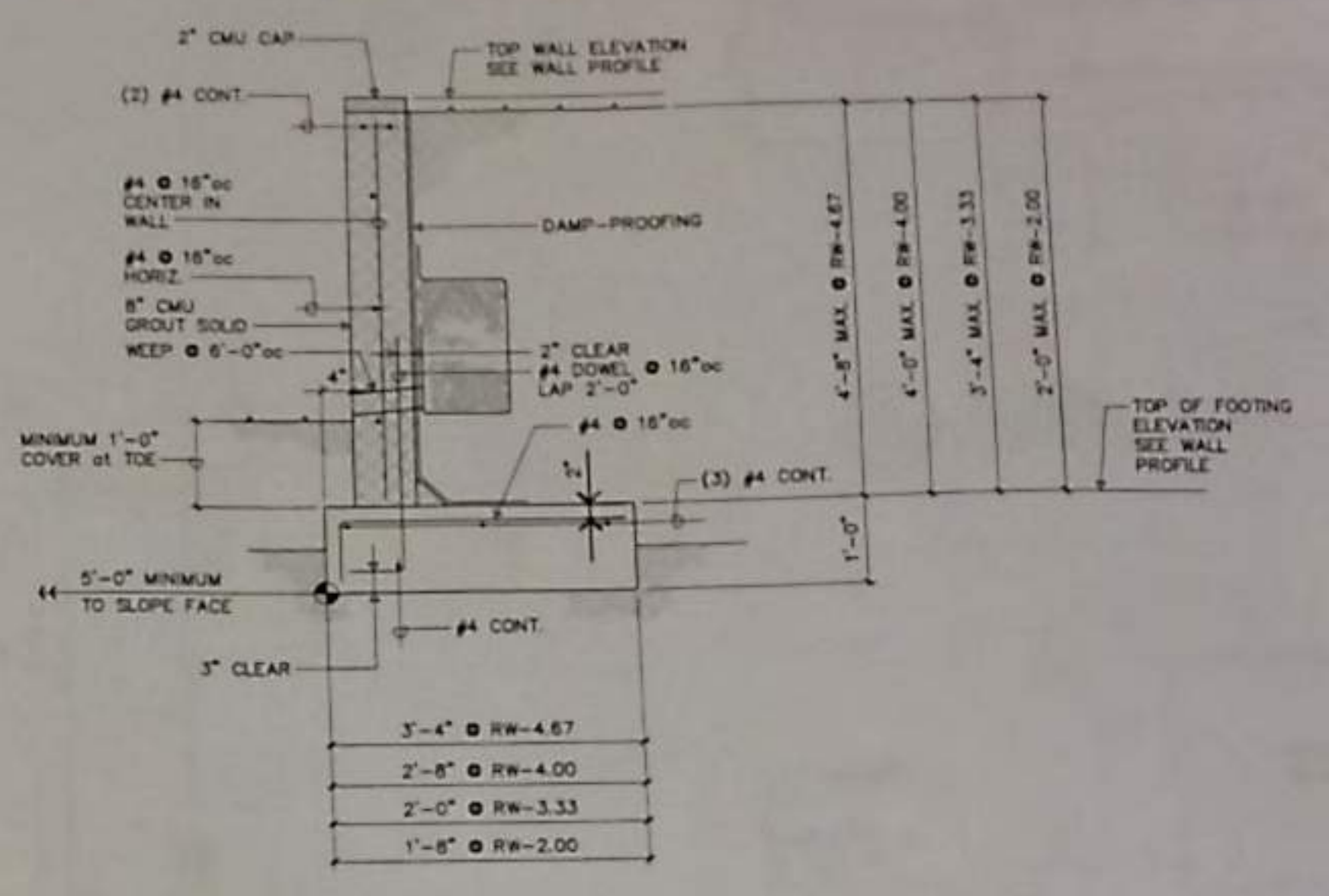
STRENGTH	MINIMUM	LARGE	MAXIMUM
3000 PSI	ASTM D448 #5	NA	NA

**CONCRETE BLOCK MASONRY:**

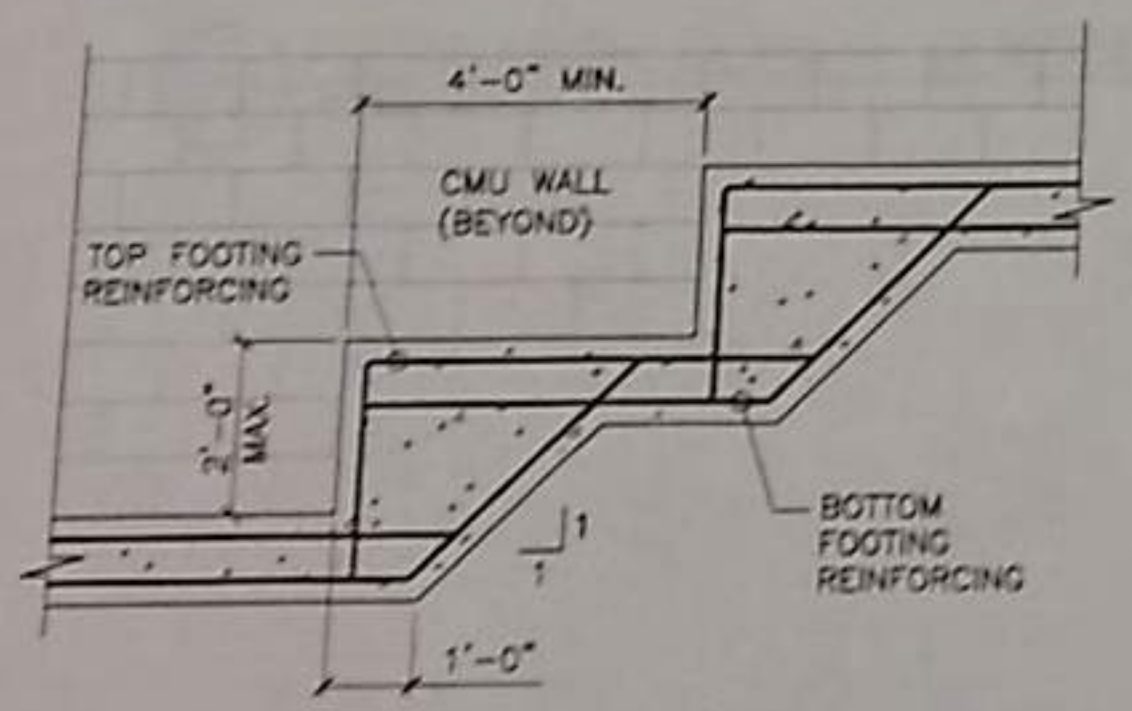
- A. CONCRETE BLOCK SHALL BE GRADE "N", TYPE II, HOLLOW LOAD BEARING UNITS CONFORMING TO ASTM C90.
- B. MASONRY UNITS SHALL HAVE A LINEAR DRYING SHRINKAGE NOT TO EXCEED 0.045% WHEN TESTED IN ACCORDANCE WITH ASTM C426.
- C. MASONRY MORTAR SHALL BE TYPE "M", WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.
- D. MASONRY GROUT SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 2500 PSI.
- E. GROUT ALL CMU SOLID.
- F. ALL WALLS SHALL BE CONSTRUCTED IN CONVENTIONAL RUNNING BOND UNLESS NOTED OTHERWISE.
- G. GROUT LIFTS SHALL NOT EXCEED 4'-0" IN HEIGHT. GROUT POUR SHALL BE LIMITED TO 8'-0" HIGH.
- H. UNLESS NOTED OTHERWISE, USE OPEN END (H-BLOCK) FOR ALL MASONRY CONSTRUCTION.



**A** RETAINING WALL RW-10.00 RW-9.33, RW-8.67, RW-8.00 RW-7.33, RW-6.67, RW-6.00, RW-5.33  
 SC: 3/4" = 1'-0"



**B** RETAINING WALL RW-4.67, RW-4.00, RW-3.33, RW-2.00  
 SC: 3/4" = 1'-0"



**C** STEPPED FOOTING (TYP-1B)  
 SCALE: 1/2" = 1'-0"

Department of Planning and Permitting  
 City and County of Honolulu  
 June 2014  
 LAND USE ORDINANCE  
 DAI-B COUNTER

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII  
**WAIANA CORRECTIONAL FACILITY**  
 ELECTRICAL SYSTEM IMPROVEMENTS  
 M.S.J.H.E.      C.A.V.U.      P.H.H.H.E.  
 RETAINING WALLS NOTES AND DETAILS  
 AND STEPPED FOOTING DETAILS  
 MATA & ASSOCIATES, INC.  
 DESIGNED BY: GYI      CHECKED BY: GYI      DATE: 12-27-2011      DRAWING NO.: C-5  
 DRAWN BY: RDL      APPROVED BY: GYI      DATE: OCT., 2012      SHEET: 6  
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION      SCALE: AS NOTED      OF 10 SHEETS  
 EXPIRATION DATE OF THE LICENSE: 04/30/2016

**RETAINING WALL NOTES**

- A. CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.
- B. DISCREPANCIES BETWEEN THE GRADES NOTED ON THE DRAWINGS AND THE ACTUAL GRADES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER BEFORE STARTING ANY WORK SO INVOLVED.
- C. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING SHORING, LAGGING, AND PROTECTION OF ADJACENT PROPERTIES AND UTILITIES. EXISTING AREAS OR CONDITIONS DISTURBED BY THE CONTRACTOR'S ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- D. AS NO GEOTECHNICAL REPORT IS AVAILABLE FOR THIS PROJECT, WE HAVE ASSUMED THE FOLLOWING SOIL CONDITIONS AND DESIGN PARAMETERS.
 

ALLOWABLE SOIL BEARING	2000 PSF
ACTIVE DESIGN SOIL PRESSURE	40 PCF
PASSIVE DESIGN SOIL PRESSURE	250 PCF
SOIL / FOOTING FRICTION FACTOR	0.40 x WEIGHT
SOIL TYPE	NON-EXPANSIVE
- E. DURING FOUNDATION EXCAVATION, CONTRACTOR SHALL REPORT ANY UNUSUAL SOIL CONDITION TO THE CONTRACTING OFFICER FOR RESOLUTION. UNUSUAL SOIL CONDITIONS INCLUDE BUT IS NOT LIMITED TO EXPANSIVE SOILS, LOOSE SOIL, EXCESSIVELY WET SOILS, ETC.
- F. BACKFILL BEHIND RETAINING WALL SHALL BE NON-EXPANSIVE, WELL GRADED MATERIAL, SUITABLE FOR WALL BACKFILL. PLACE FILL IN 6" LOOSE LIFTS AND COMPACT TO 90% MAXIMUM DENSITY. DO NOT OVER COMPACT FILL, AS THIS WILL CREATE EXCESSIVE PRESSURES BEHIND THE WALL.
- G. AT THE BACK OF ALL RETAINING WALLS PROVIDE DAMP-PROOFING BY MOPPING THE BACK OF THE WALL WITH A BITUMASTIC COATING.
- H. AT ALL RETAINING WALLS PROVIDE 4" DIAMETER WEEPS AT 6'-0" o.c. CONNECT ALL WEEPS WITH A CONTINUOUS DRAIN CONSISTING OF 1'-0" THICK DRAINAGE GRAVEL AT THE BACK FACE OF THE WALL. WRAP GRAVEL IN GEOTEXTILE FILTER FABRIC.
- I. ALL GRADE DISCREPANCIES AND DISCREPANCIES IN THE HEIGHT OF THE RETAINING WALLS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR RESOLUTION.
- J. STEP RETAINING WALL FOOTINGS AS REQUIRED. DO NOT SLOPE BOTTOM OF FOOTING.
- K. GROUT ALL CMU SOLID.

**REINFORCING STEEL:**

- A. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- B. REINFORCING SHALL BE SPLICED ONLY AS SHOWN ON DRAWINGS. ALL OTHER SPLICES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
- C. BARS NOTED "CONT." SHALL BE SPLICED A MINIMUM OF 34 BAR DIAMETERS, BUT NEVER LESS THAN 2'-0".
- D. MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE:
 

CONCRETE CAST AGAINST EARTH	3"
EXPOSED TO EARTH OR WEATHER	2"

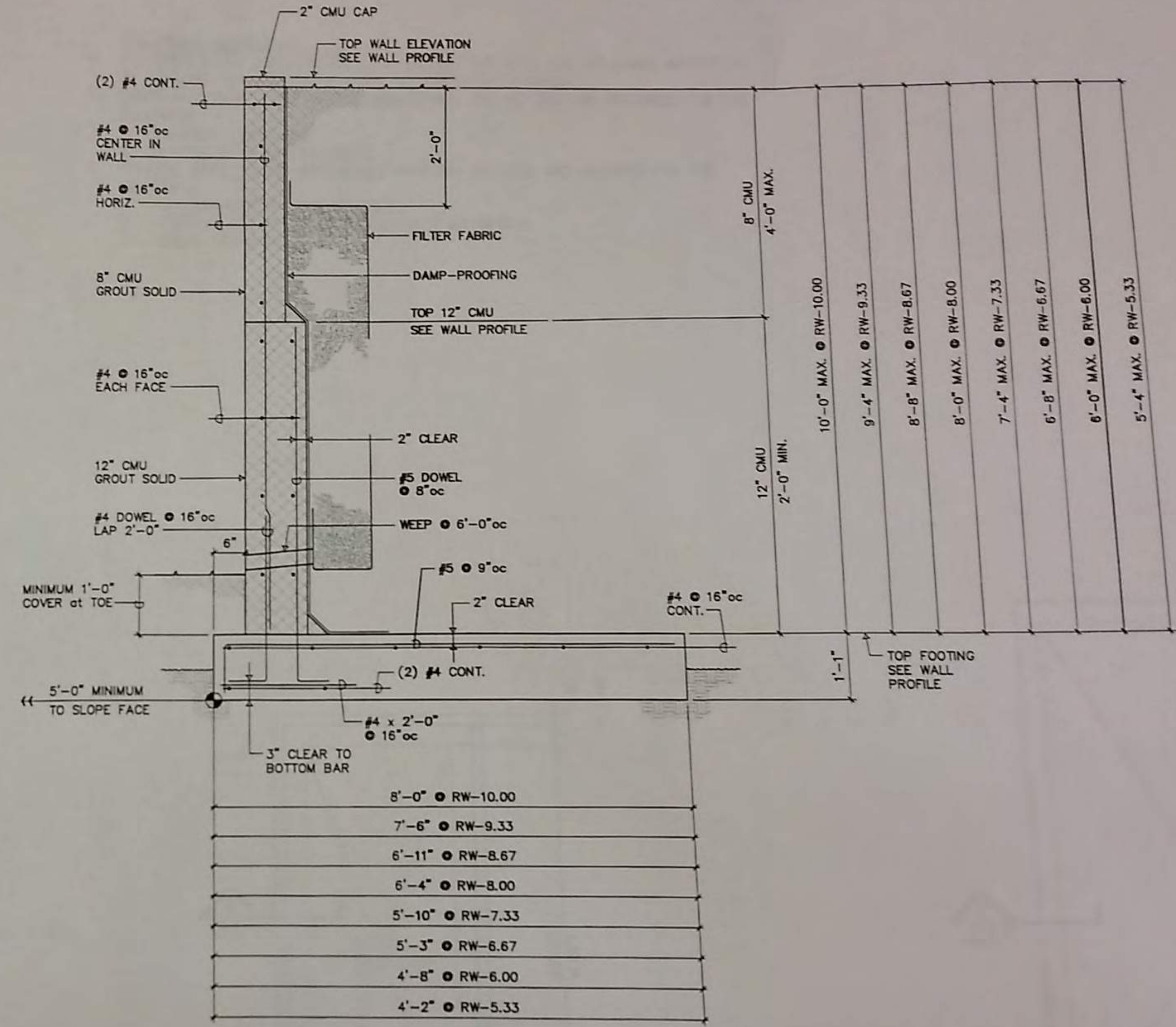
**CONCRETE:**

- A. ALL CONCRETE WORK SHALL CONFORM TO ACI 318-05
- B. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER 48 HOURS BEFORE THE POURING OF ANY STRUCTURAL CONCRETE SO AN INSPECTION CAN BE MADE BEFORE POURING. NO POUR SHALL PROCEED WITHOUT THE CONSENT OF THE CONTRACTING OFFICER.
- K. MINIMUM 28 DAY COMPRESSIVE STRENGTH, LARGE AGGREGATE SIZE AND MAXIMUM WATER/CEMENT (W/C) RATIO SHALL BE AS FOLLOWS. ITEMS NOTED "NA" ARE SUBJECT TO DESIGN JUDGEMENT BY CONCRETE SUPPLIER:
 

	MINIMUM STRENGTH	LARGE AGGREGATE	MAXIMUM W/C RATIO
FOOTINGS	3000 PSI	ASTM D448 #5	NA

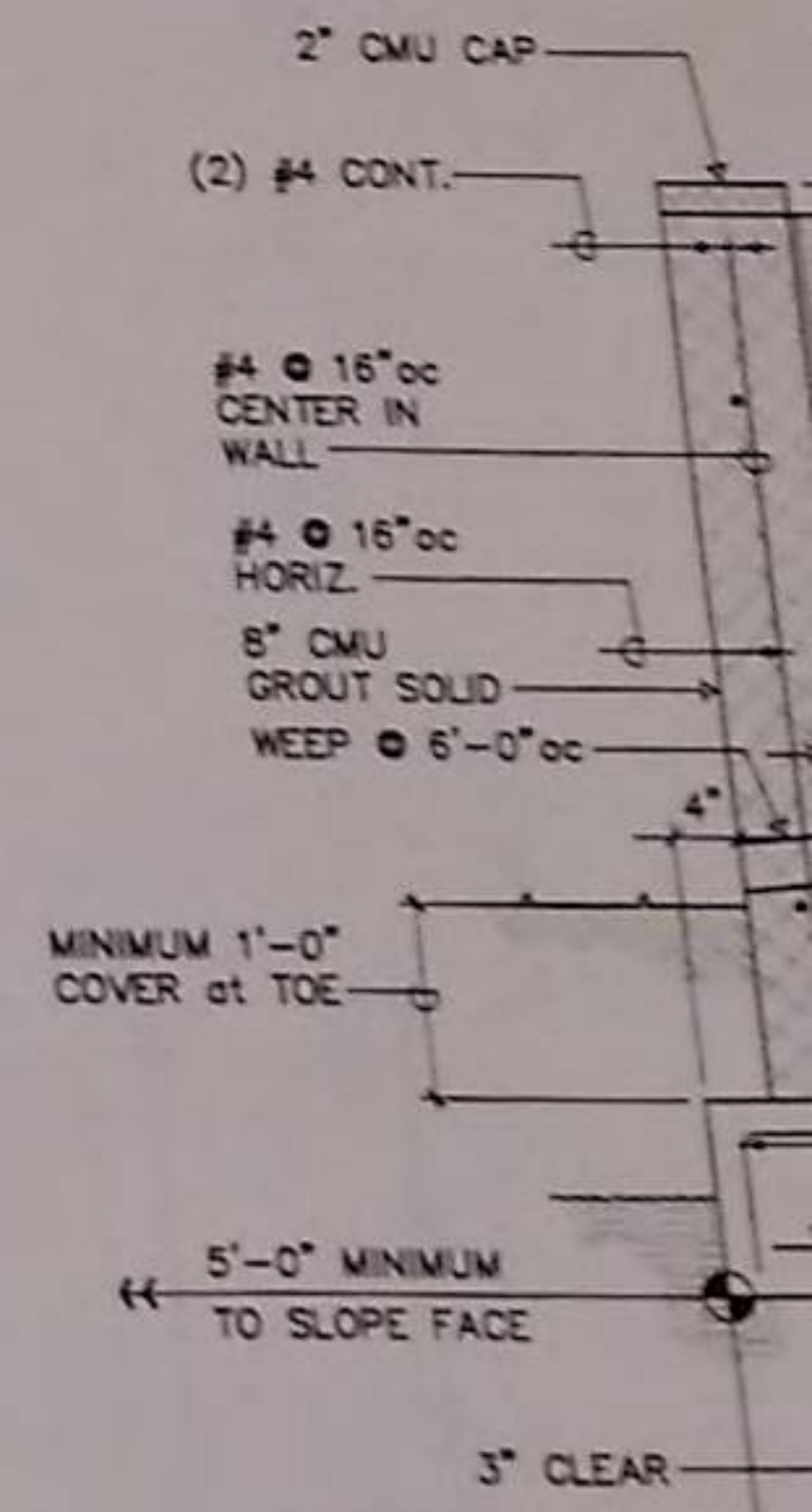
**CONCRETE BLOCK MASONRY:**

- A. CONCRETE BLOCK SHALL BE GRADE "N", TYPE II, HOLLOW LOAD BEARING UNITS CONFORMING TO ASTM C90.
- B. MASONRY UNITS SHALL HAVE A LINEAR DRYING SHRINKAGE NOT TO EXCEED 0.045% WHEN TESTED IN ACCORDANCE WITH ASTM C426.
- C. MASONRY MORTAR SHALL BE TYPE "M", WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI.
- D. MASONRY GROUT SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 2500 PSI.
- E. GROUT ALL CMU SOLID.
- F. ALL WALLS SHALL BE CONSTRUCTED IN CONVENTIONAL RUNNING BOND UNLESS NOTED OTHERWISE.
- G. GROUT LIFTS SHALL NOT EXCEED 4'-0" IN HEIGHT. GROUT POUR SHALL BE LIMITED TO 8'-0" HIGH.
- H. UNLESS NOTED OTHERWISE, USE OPEN END (H-BLOCK) FOR ALL MASONRY CONSTRUCTION.

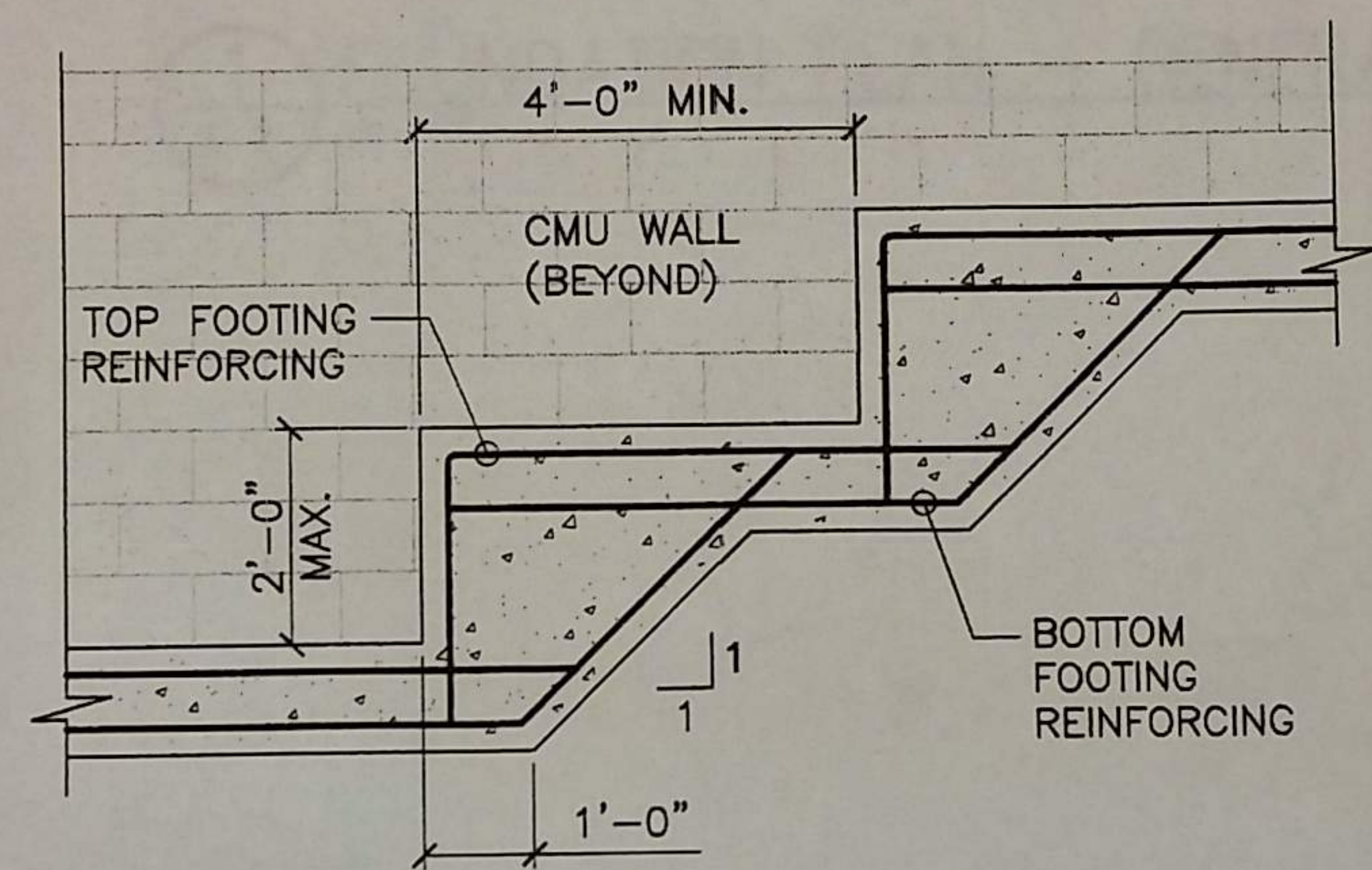


RETAINING WALL RW-10.00 RW-9.33, RW-8.67, RW-8.00 RW-7.33, RW-6.67, RW-6.00, RW-5.33

(A) C-5 SC: 3/4" = 1'-0"

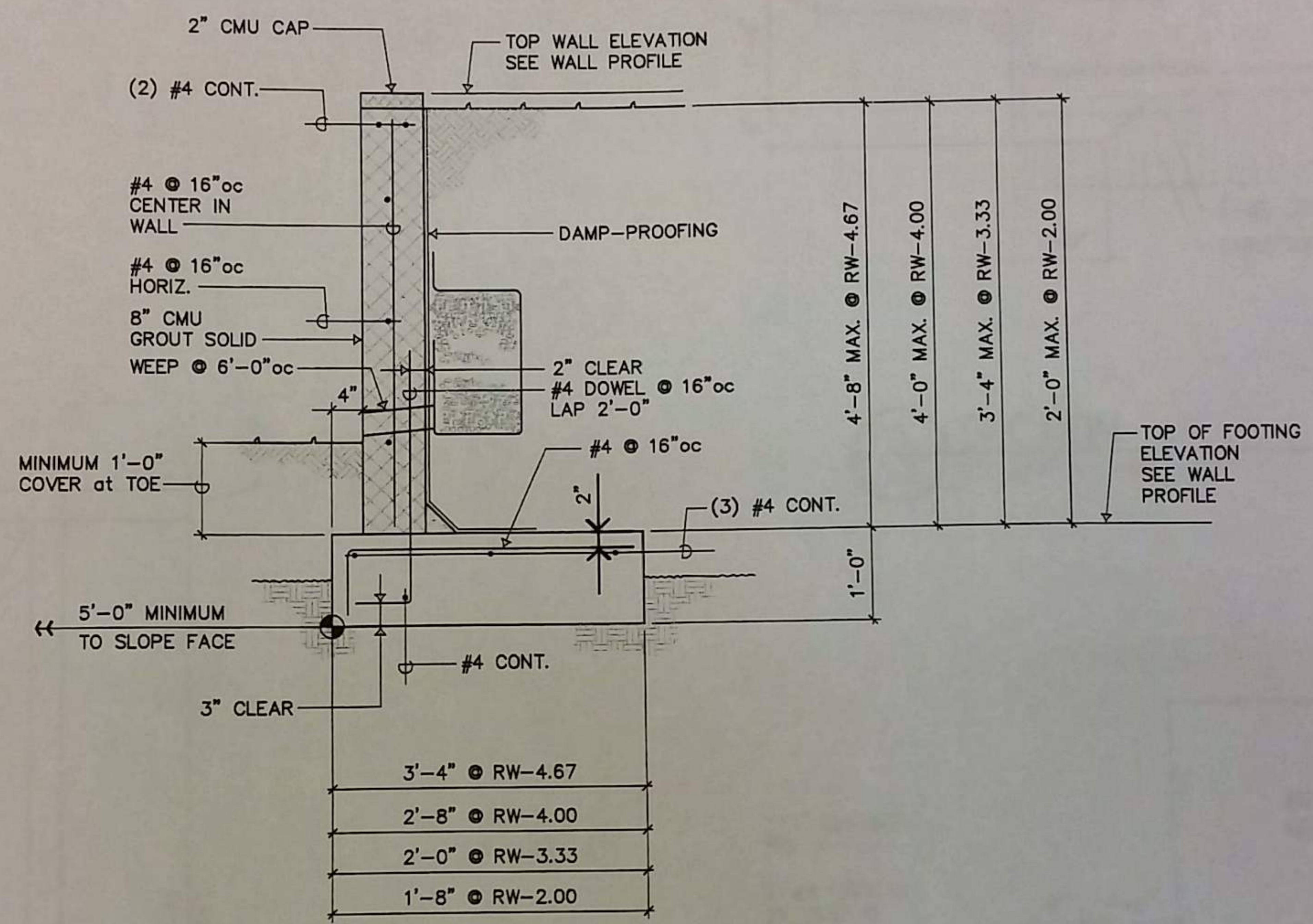
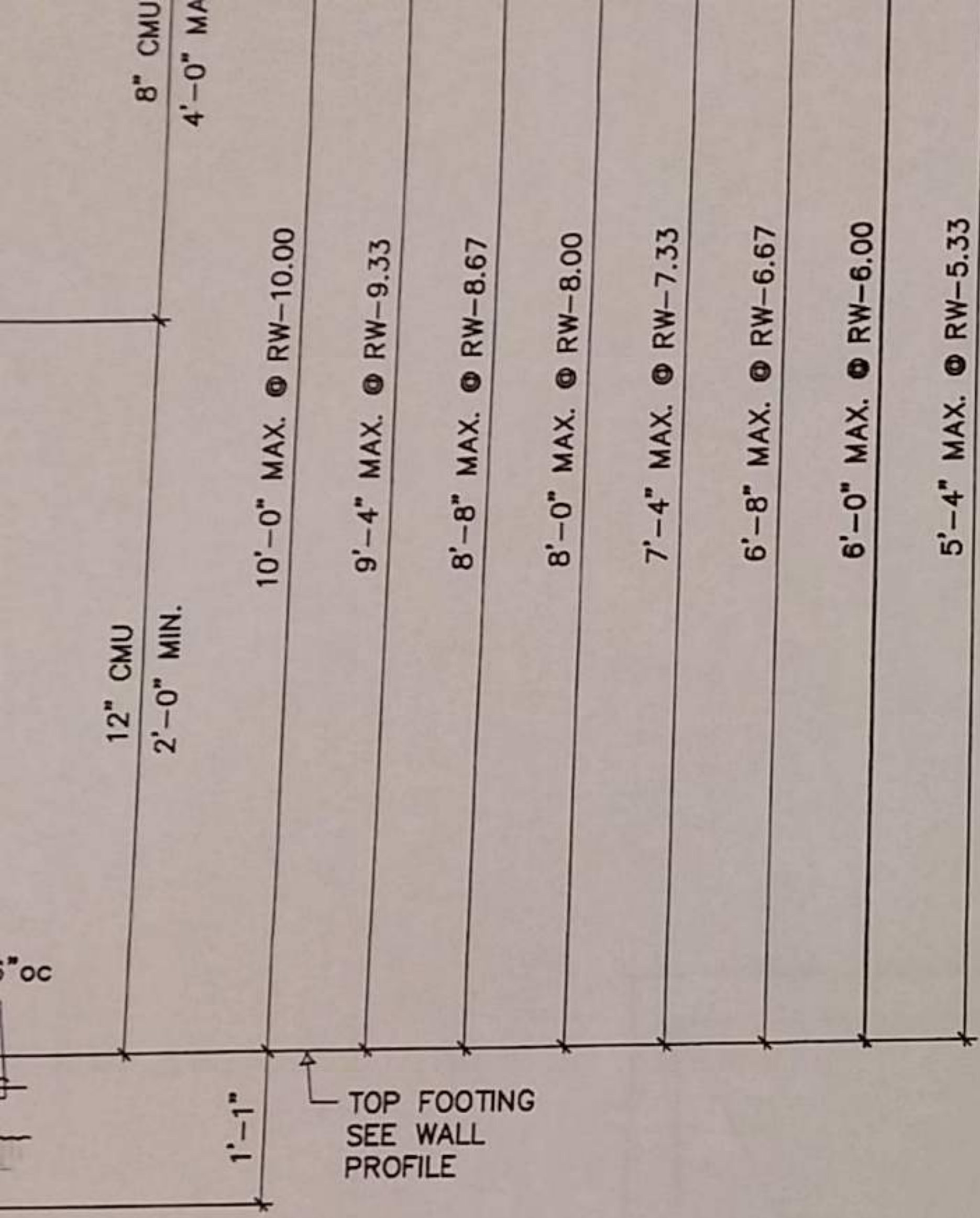


(B) RETAIN C-5 SC: 3/4" = 1'-0"



**C**  
C-5

**STEPPED FOOTING**  
(TYP-1B)  
SCALE: 1/2" = 1'-0"



RW-8.67,  
 0, RW-5.33

(B) RETAINING WALL RW-4.67, RW-4.00, RW-3.33, RW-2.00  
 C-5 SC: 3/4" = 1'-0"

**GENERAL NOTES**

- GENERAL**
- CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, 2006 EDITION, AND STANDARDS REFERENCED THEREIN, AS ADOPTED AND AMENDED BY THE CITY AND COUNTY OF HONOLULU.
  - THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS, EXISTING GROUND ELEVATIONS AND CONDITIONS AGAINST THE PROJECT DRAWINGS PRIOR TO STARTING WORK. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
  - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING SHORING, LAGGING, AND PROTECTION OF ADJACENT PROPERTIES, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL ORDINANCES.
  - DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOBSITE SAFETY. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE DESIGN AND PROVISION OF ALL TEMPORARY BRACING, SHORING, GUYS, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES.
  - SPECIFIC DETAILS AND SCHEDULES SHALL TAKE PRECEDENCE OVER TYPICAL DETAILS AND SCHEDULES. IN GENERAL, DETAILS AND NOTES IN DRAWINGS SHALL TAKE PRECEDENCE OVER THE SPECIFICATIONS.
  - ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE STARTING ANY WORK SO INVOLVED.

**DESIGN LOADS**

- LATERAL LOADS**
- SEISMIC CLASSIFICATION OF BUILDING - CATEGORY II, STANDARD  
 IMPORTANCE FACTOR (I<sub>f</sub>) = 1.00  
 SEISMICITY - S<sub>s</sub>=0.15g, S<sub>0.5</sub>=0.40g
  - WIND VELOCITY EXPOSURE C 105 MPH

- ENGINE GENERATOR WITH FUEL** 8,000 LBS  
**PRIMARY SWITCHGEAR** 40,000 LBS

**REINFORCING STEEL**

- REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 40 FOR #3 BARS, GRADE 60 FOR #4 BARS AND LARGER.
- WELDING OF REINFORCING BARS SHALL BE PROHIBITED.
- MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE:
  - CAST-IN-PLACE CONCRETE
    - CONCRETE CAST AGAINST EARTH 3"
    - CONCRETE EXPOSED TO EARTH OR WEATHER #6 AND LARGER 2"
    - #5 AND SMALLER 1-1/2"
- PROVIDE DOWELS IN FOOTINGS THE SAME SIZE AND SPACING AS COLUMN AND WALL BARS, UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL BE LAPPED OR SPLICED AT LOCATIONS AS INDICATED. WHERE LAP OR SPLICE LOCATIONS ARE NOT SPECIFICALLY INDICATED, LAPS OR SPLICES SHALL BE WELL STAGGERED.
- ALL REINFORCING STEEL SHALL BE LAPPED 40 BAR DIAMETERS OR 2'-0" MINIMUM UNLESS OTHERWISE NOTED IN PLANS.
- ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO STARTING FABRICATION. SHOP DRAWINGS SHALL BE COMPLETE AND INCLUDE GRADES, SIZES, LENGTHS, BENDS, AND SPACINGS OF ALL FOOTING, SLAB, COLUMN, WALL AND BEAM REINFORCING.

**CONCRETE**

- ALL CONCRETE WORK SHALL CONFORM TO ACI 318-05. PLACEMENT OF CONCRETE SHALL BE IN CONFORMANCE WITH THE ACI 301.
- ALL CONCRETE, UNLESS OTHERWISE NOTED, SHALL BE REGULAR WEIGHT HARD ROCK TYPE (150 PCF).
- AGGREGATES SHALL CONFORM TO ASTM C33.
- CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
- THE 28 DAY COMPRESSIVE STRENGTH, AGGREGATE SIZE AND SLUMP SHALL BE AS FOLLOWS:

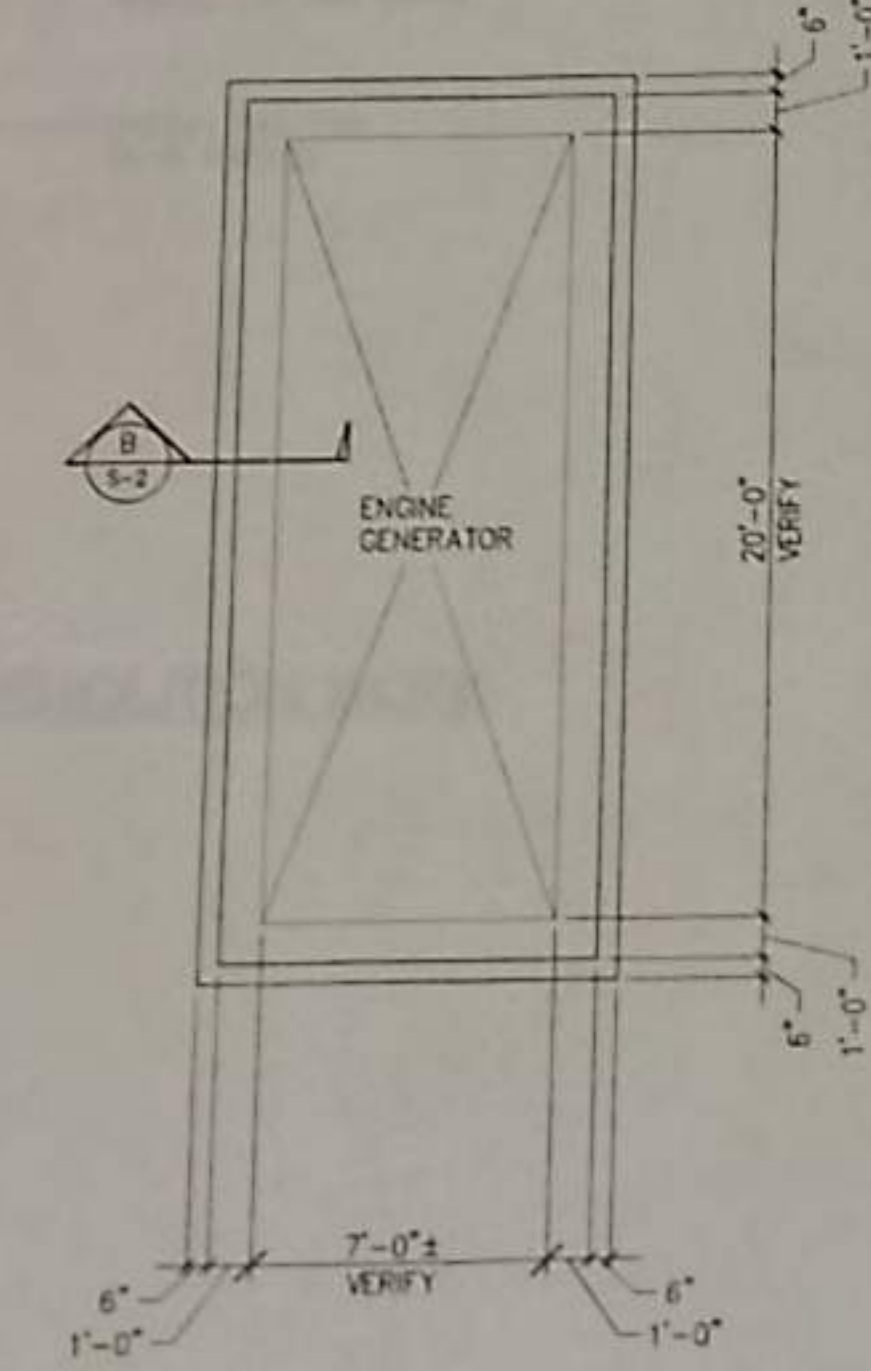
ALL CONCRETE	STRENGTH PSI	MAXIMUM AGGREGATE 3/4"	SLUMP +/- 1" 4"
	4000		

- PIPES/CONDUITS MAY PASS THROUGH CONCRETE IN SLEEVES BUT SHALL NOT BE EMBEDDED THEREIN. SLEEVES SHALL BE LARGER IN DIAMETER THAN THE PIPE AND THE ANNULAR SPACE SHALL BE CAULKED WITH A RESILIENT MATERIAL.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS PRIOR TO ANY CONCRETE POURS SO A REVIEW OF THE REINFORCING STEEL LAYOUT AND CONCRETE POUR CAN BE MADE. NO POUR SHALL PROCEED WITHOUT PRIOR REVIEW.
- KEYED CONSTRUCTION JOINTS SHALL BE USED IN ALL CASES. ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND ALL LAUNTS SHALL BE REMOVED.
- CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR AT LEAST THE FIRST SEVEN (7) DAYS AFTER PLACEMENT. ALTERNATE METHODS OF CURING WILL BE APPROVED IF SATISFACTORY PERFORMANCE CAN BE ASSURED.
- THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW AT LEAST TWO WEEKS PRIOR TO CONCRETE POURS.

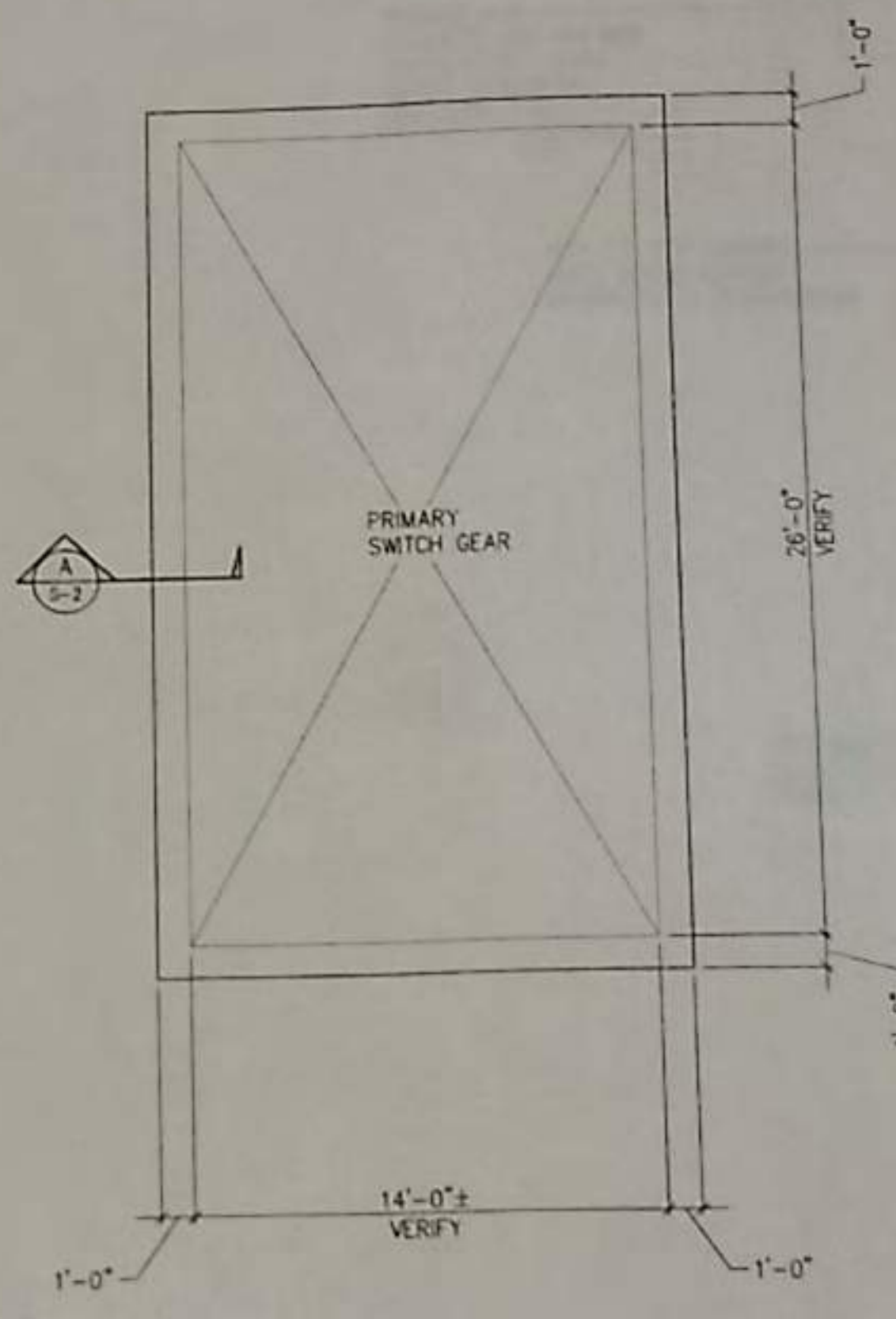
**FOUNDATION NOTES**

- THE FOUNDATION DESIGN IS BASED ON AN ASSUMED BEARING CAPACITY OF 1500 PSF AND BOTTOMS OF ALL FOOTINGS SHALL BE FOUNDED AT LEAST 16" BELOW LOWEST ADJACENT FINISH GRADE.
- THE CONTRACTOR'S LICENSED GEOTECHNICAL ENGINEER IN THE STATE OF HAWAII SHALL MONITOR ALL FOOTING TRENCHES, FILL, AND BACKFILL OPERATIONS. COST OF GEOTECHNICAL ENGINEER'S SERVICES SHALL BE BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE APPROPRIATE ARRANGEMENTS FOR INSPECTIONS AS REQUIRED.
- PAD THICKNESSES ARE MINIMUM THICKNESSES ONLY AND MAY BE INCREASED DUE TO SPECIFIC CONDITIONS.
- CLEAN AND MOISTEN FOOTING TRENCHES PRIOR TO POURING FOOTING.
- FILL PLACEMENT
  - FILL MATERIAL SHALL BE NON-EXPANSIVE, SELECT MATERIAL LESS THAN 3" IN MAXIMUM DIMENSION, WITH LESS THAN 25% PASSING THE #200 SIEVE AND HAVING A PLASTICITY INDEX LESS THAN 20.
  - SCARIFY SUBGRADE 6", MOISTURE CONDITION, AND RECOMPACT TO 90% MAXIMUM DENSITY PER ASTM D1557. ANY SOFT, WEAK OR YIELDING AREAS DISCLOSED DURING THE SCARIFYING OPERATIONS SHOULD BE OVER-EXCAVATED TO FIRM GROUND AND THE RESULTING EXCAVATION BACKFILLED WITH WELL-COMPACTED ENGINEERED FILL.
  - PLACE FILL IN 8" LOOSE LIFTS AND COMPACT TO 90% MAXIMUM DENSITY PER ASTM D1557.
  - MOISTURE CONDITION FILL AND SUBGRADE AS REQUIRED TO NEAR OPTIMUM MOISTURE CONTENT.
- DO NOT PLACE CONDUITS AND UTILITY LINES IN FOOTING TRENCHES.

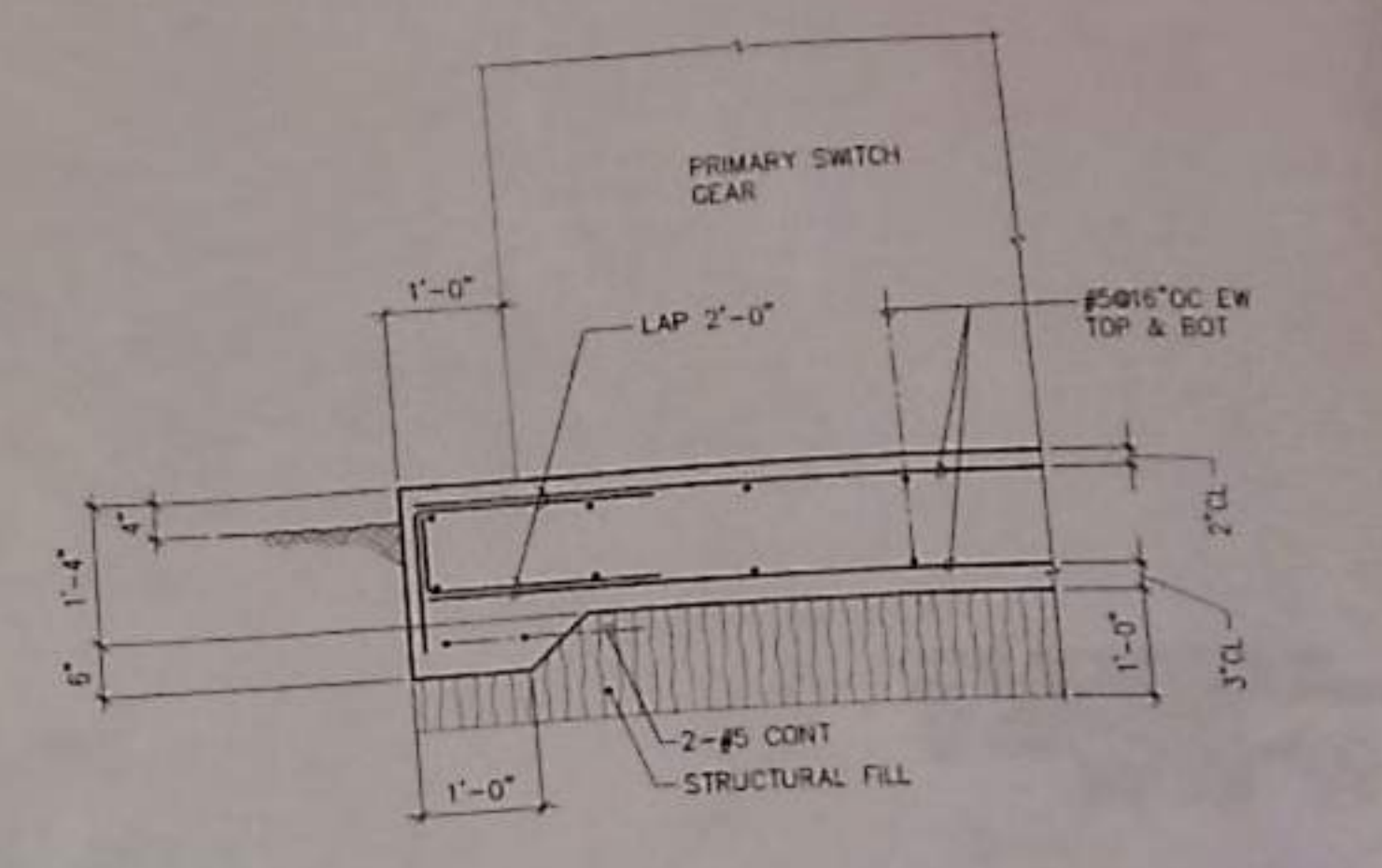
- STRUCTURAL INSPECTIONS**
- THE CONTRACTOR SHALL PROVIDE, AT HIS/HER OWN COST, THE FOLLOWING INSPECTIONS BY PERSONS APPROVED BY THE CITY & COUNTY OF HONOLULU:
  - CONTINUOUS INSPECTIONS IN ACCORDANCE WITH THE IBC 2006 ARE REQUIRED FOR THE FOLLOWING:
    - CONCRETE PLACEMENT.
    - PLACEMENT OF ANCHOR BOLTS.
  - PERIODIC INSPECTION IN ACCORDANCE WITH THE IBC 2006 ARE REQUIRED FOR THE FOLLOWING:
    - PLACEMENT OF REINFORCING STEEL.
    - VERIFYING USE OF APPROVED CONCRETE MIX DESIGN.
    - CURING TECHNIQUES.



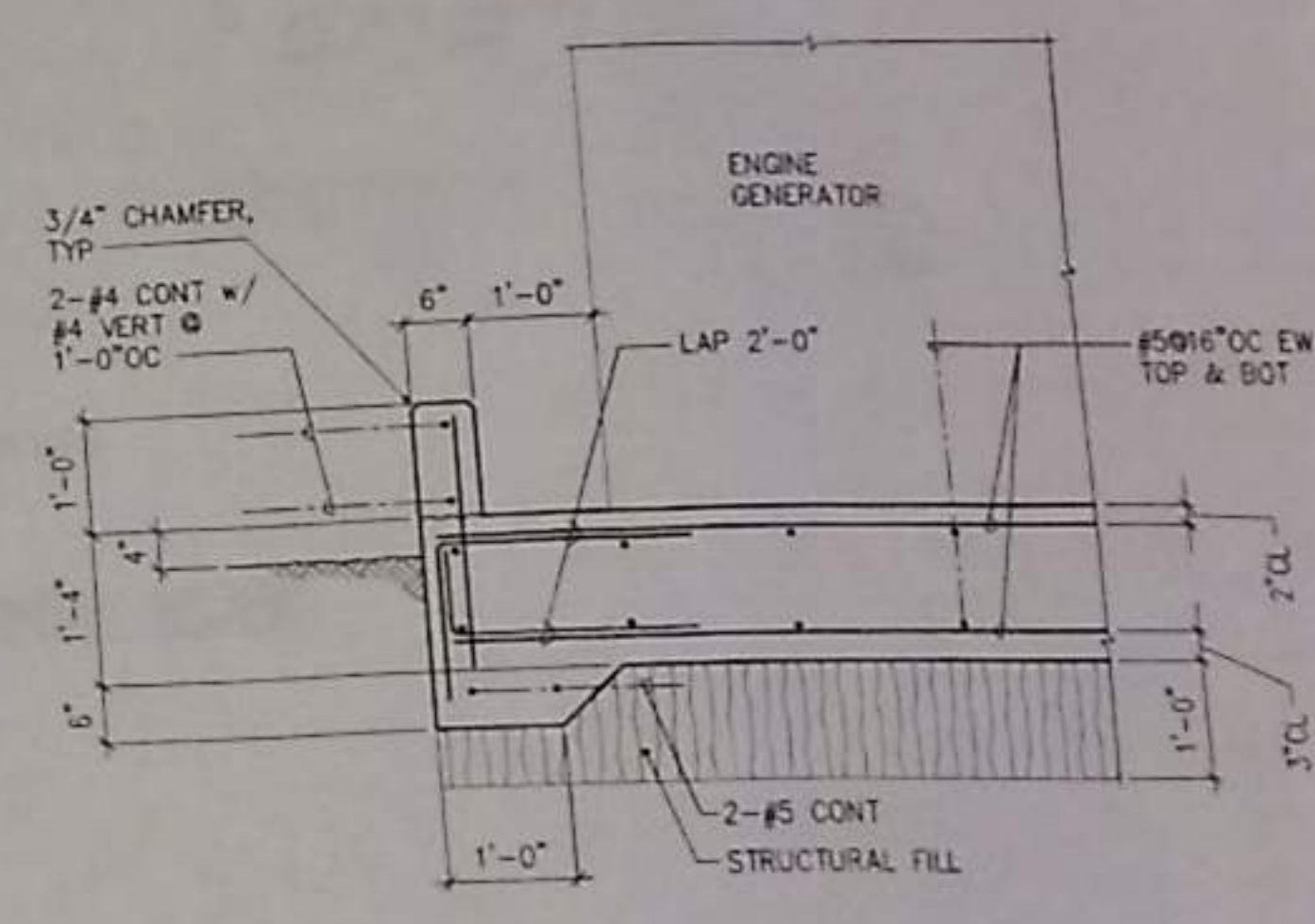
1 FOUNDATION PLAN - GENERATOR  
 SC 1/4" = 1'-0"



2 FOUNDATION PLAN - PRIMARY SWITCH GEAR  
 SC 1/4" = 1'-0"



A SECTION  
 SC 3/4" = 1'-0"



B SECTION  
 SC 3/4" = 1'-0"

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

DEPT. OF ACCOUNTING & GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 STATE OF HAWAII

**WAIANA CORRECTIONAL FACILITY**  
 ELECTRICAL SYSTEM IMPROVEMENTS

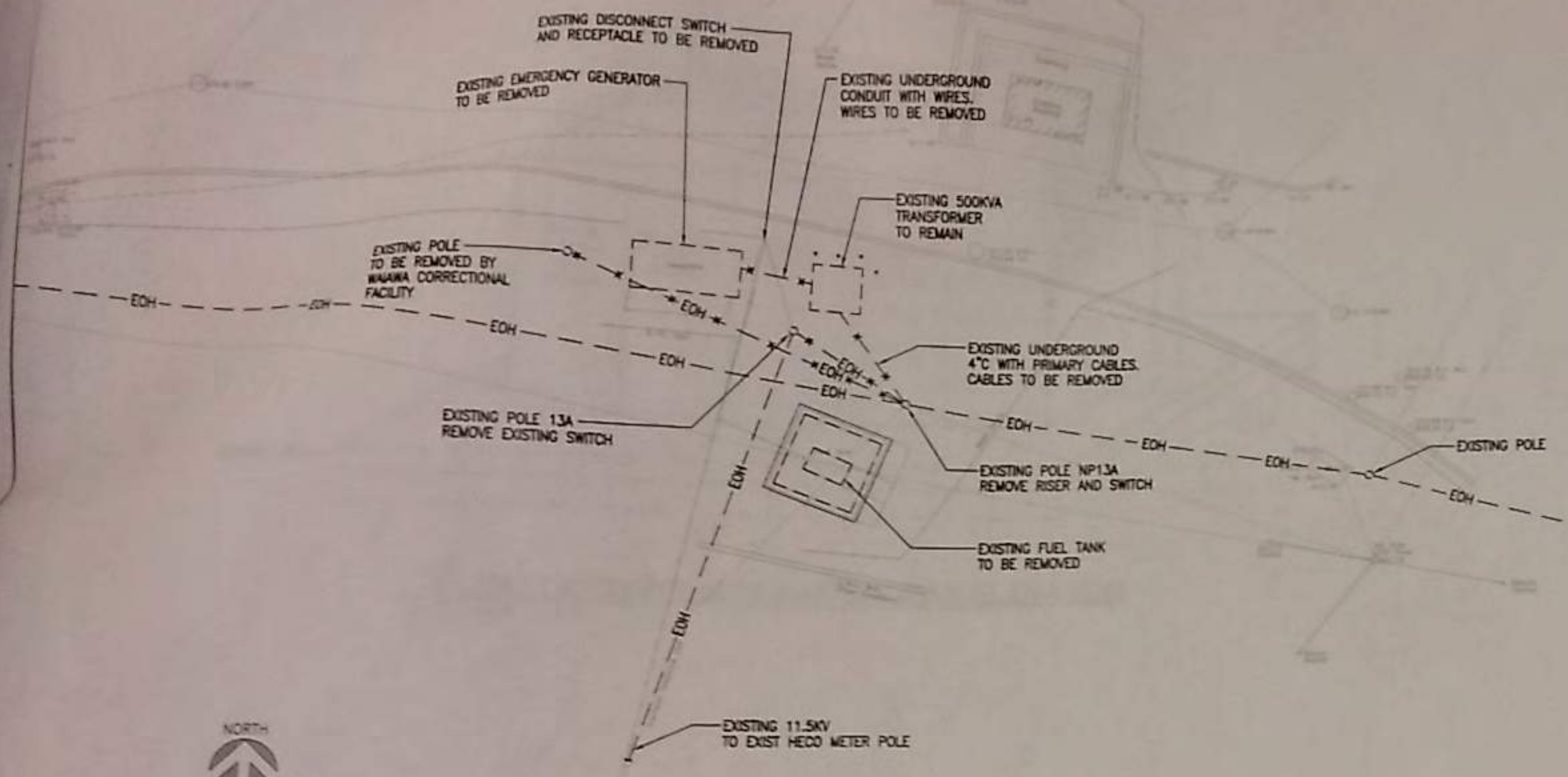
WILSON DATE: HAWAII

CONCRETE PAD DETAILS

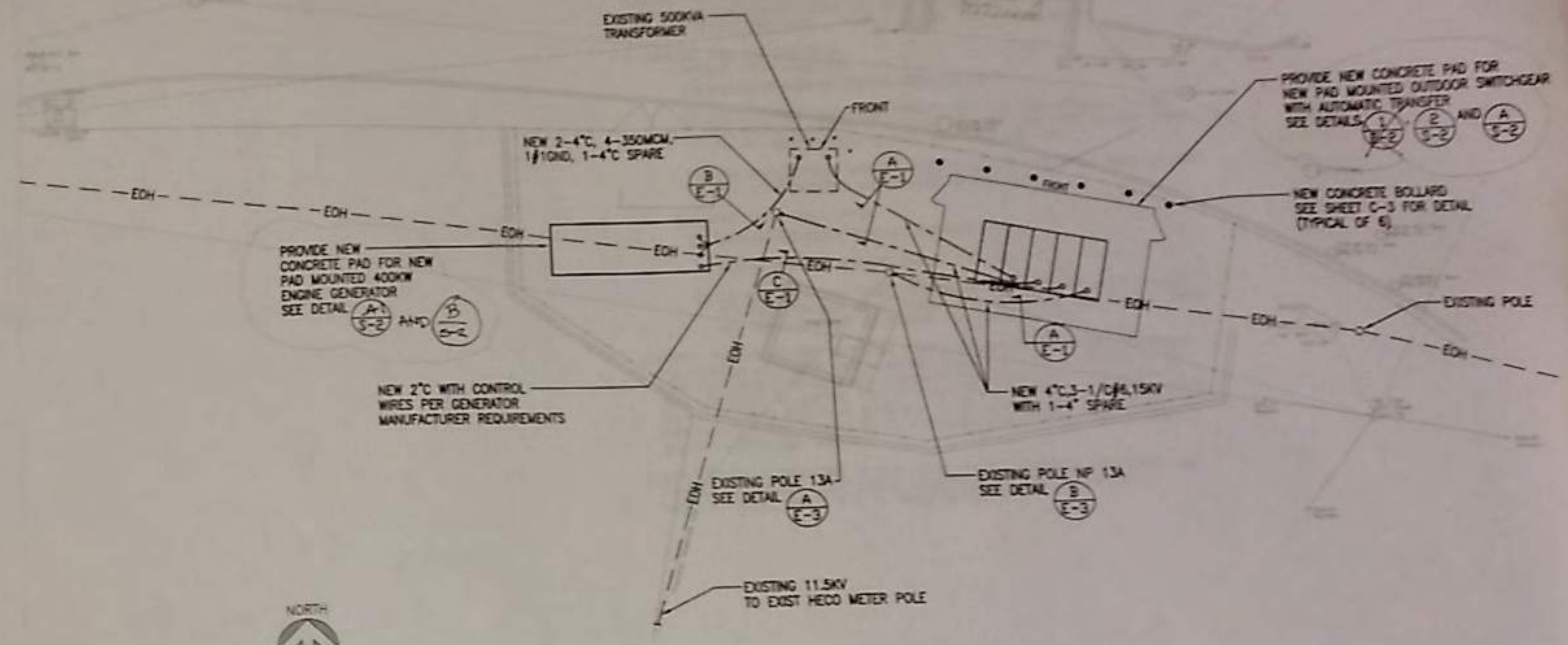
ELECTECH HAWAII, INC. DRAWN BY: S-1  
 DESIGNED BY: EJO  
 CHECKED BY: EJO  
 APPROVED BY: [Signature]  
 DATE: JAN. 2013

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Department of Planning and Permitting  
 City and County of Honolulu  
 June 2014  
 AND USE ORDINANCE  
 A-B COUNTER



**EXISTING ELECTRICAL SITE PLAN - DEMOLITION WORK**  
SCALE: 1" = 10'-0"



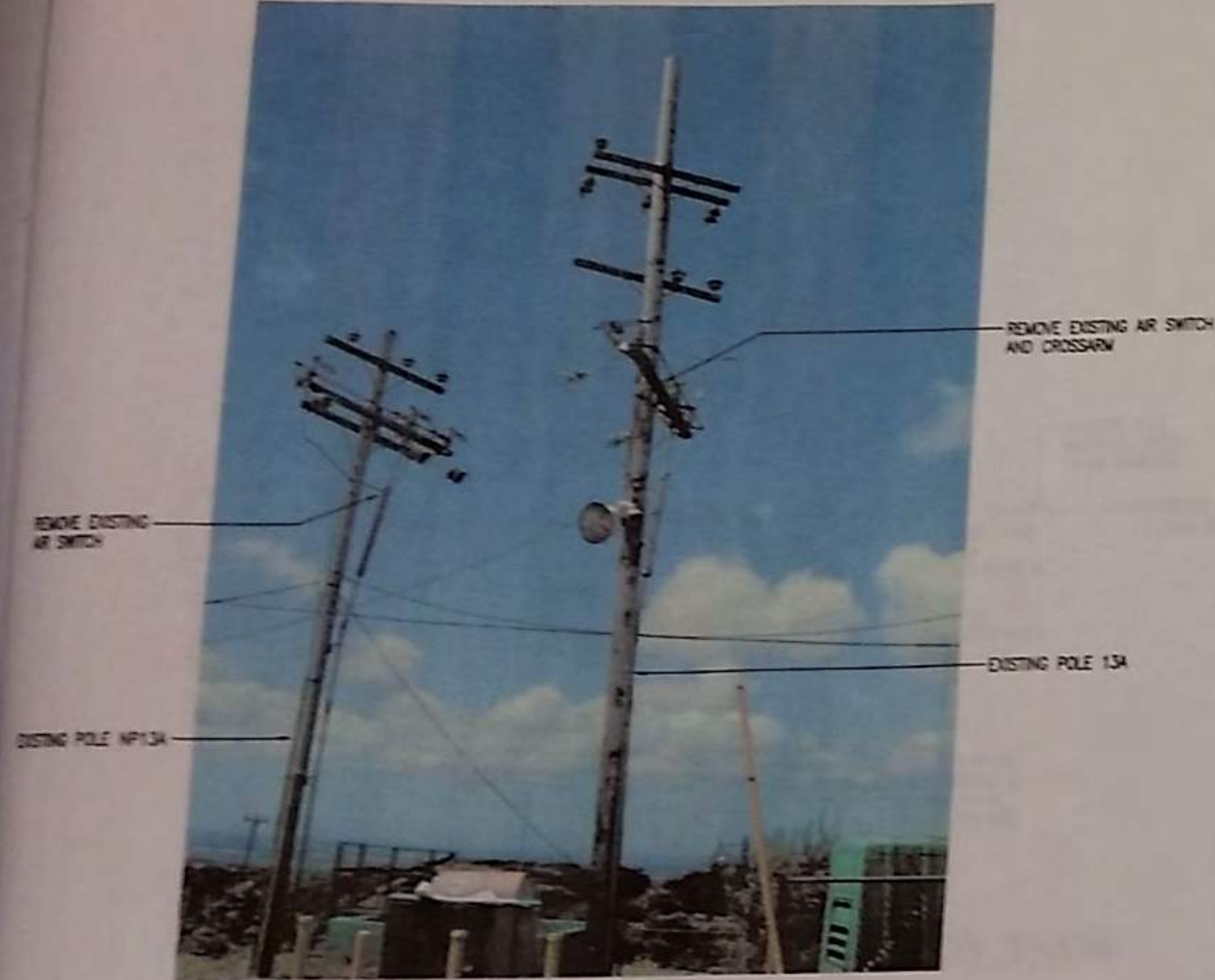
**ELECTRICAL SITE PLAN - NEW WORK**  
SCALE: 1" = 10'-0"

**ELECTRICAL SYMBOLS**

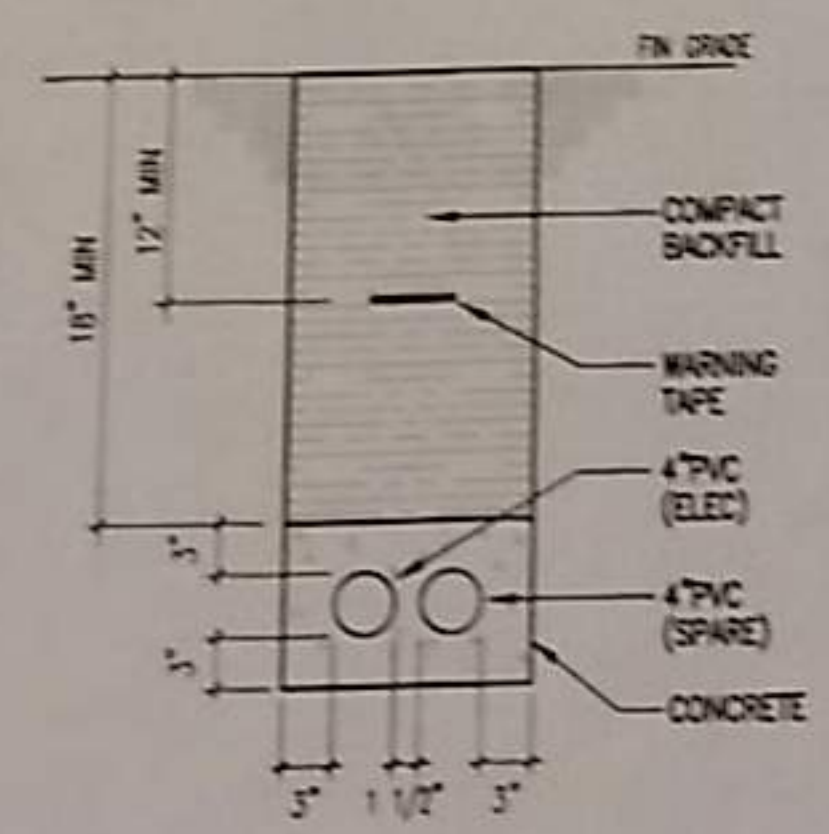
- → → → → WIRING IN EXISTING RACEWAY TO BE REMOVED
- --- --- WIRING IN EXISTING RACEWAY TO REMAIN
- - EDH - → EXISTING OVERHEAD LINES TO BE REMOVED
- EDH - - EXISTING OVERHEAD LINES TO REMAIN
- - F - → EXISTING POLE MOUNTED FUSE CUTOUTS TO BE REMOVED
- F - - NEW POLE MOUNTED FUSE CUTOUTS
- --- --- WIRING IN RACEWAY CONCEALED IN FLOOR OR BELOW GRADE
- EXISTING UTILITY POLE TO REMAIN

**Notes:**

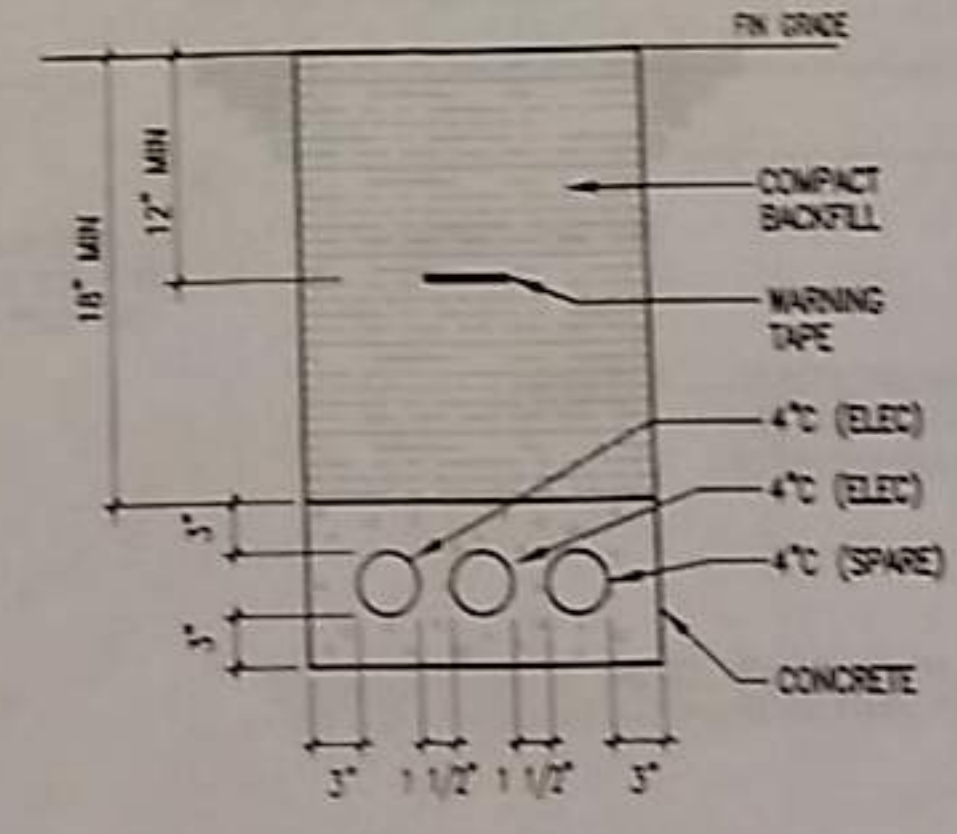
1. Fuel tanks over 60 gallons require an HFD tank permit.
2. The storage, use, and handling of flammable and combustible liquids, including waste liquids, shall comply with Title Chapter, NFPB 20, Flammable and Combustible Liquids Code and sections 60.1 and section 60.2 of the NFPB 1, 2001.
3. Permits where required shall comply with section 11.2 and applications for permits shall be submitted with proposed site plans, NFPB 1, 2001.
4. Vent pipes that are provided for normal tank venting shall terminate inside the vault, and at least 12 feet above ground level and shall meet the requirements of 5.7.1 of NFPB 20, NFPA 2, 2001.



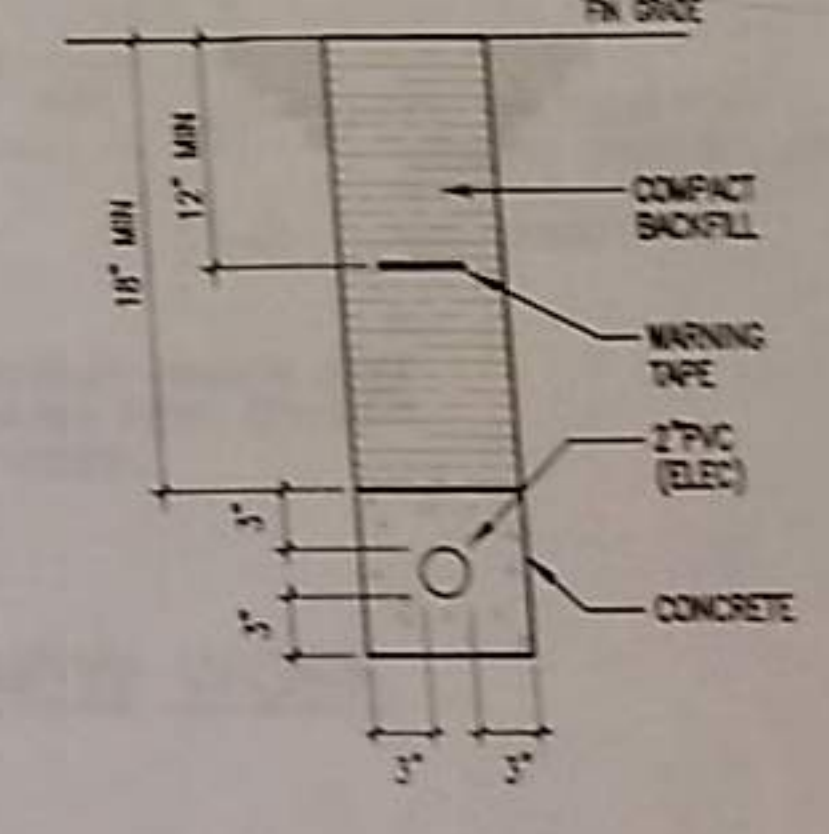
**1 EXISTING UTILITY POLE DETAIL**  
E-1 NOT TO SCALE



**A DUCT SECTION**  
E-1 NOT TO SCALE



**B DUCT SECTION**  
E-1 NOT TO SCALE



**C DUCT SECTION**  
E-1 NOT TO SCALE

REVISION NO.	DATE	DESCRIPTION	BY	DATE	APPROVED

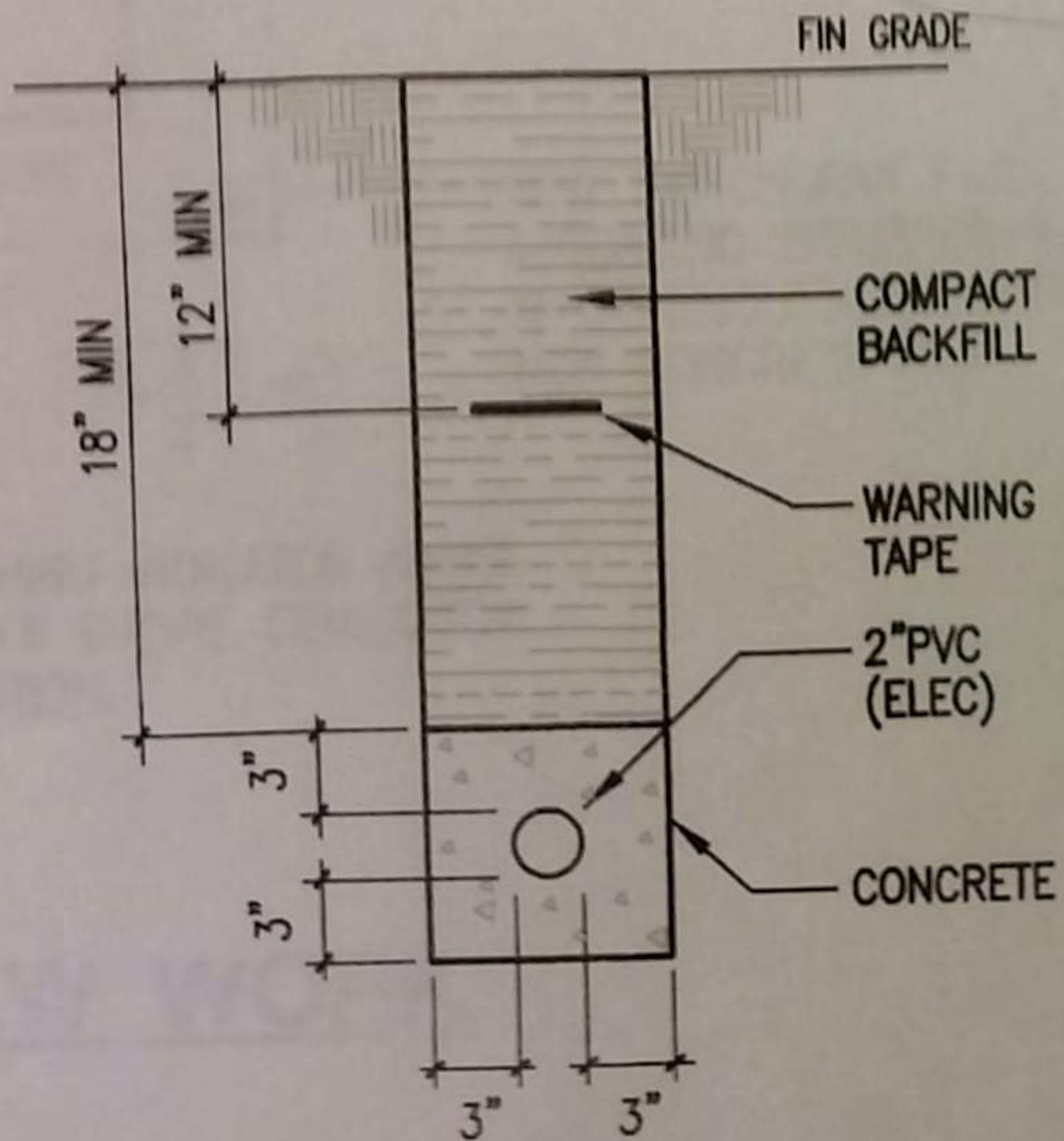
		<b>DEPT. OF ACCOUNTING &amp; GENERAL SERVICES</b> DIVISION OF PUBLIC WORKS STATE OF HAWAII	
<b>WAIANA CORRECTIONAL FACILITY</b> ELECTRICAL SYSTEM IMPROVEMENTS			
MILEAGE	DATE	SCALE	NO.
EXISTING ELECTRICAL SITE PLAN - DEMOLITION WORK ELECTRICAL SITE PLAN - NEW WORK, EXISTING UTILITY POLE DETAIL - ELECTRICAL SYMBOLS			
DESIGNED BY: MM	DRAWN BY: CP	CHECKED BY: CP	DATE: 12-27-2013
APPROVED BY: EB	DATE: JAN. 2013	SCALE: AS NOTED	SHEET NO. E-1 OF 10 SHEETS

Department of Planning and Permitting  
 City and County of Honolulu  
 June 2014  
 LAND USE ORDINANCE  
 DAI-B COUNTER

Notes:

1. Fuel tanks over 60 gallons require an HFD tank permit.
2. The storage, use, and handling of flammable and combustible liquids, including waste liquids, shall comply with this Chapter, NFPA 30, Flammable and Combustible Liquids Code, and section 60.1 and section 60.2 of the NFPA 1, 2006.
3. Permits where required shall comply with section 1.1.2 and applications for permits shall be submitted with a proposed site plan. NFPA 1, 2006.
4. Vent pipes that are provided for normal tank venting shall terminate outside the vault, and at least 12 feet above ground level and shall meet the requirements of 5.7.1 of NFPA 30. NFPA 1, 2006.

*Copy 5.27.2015*

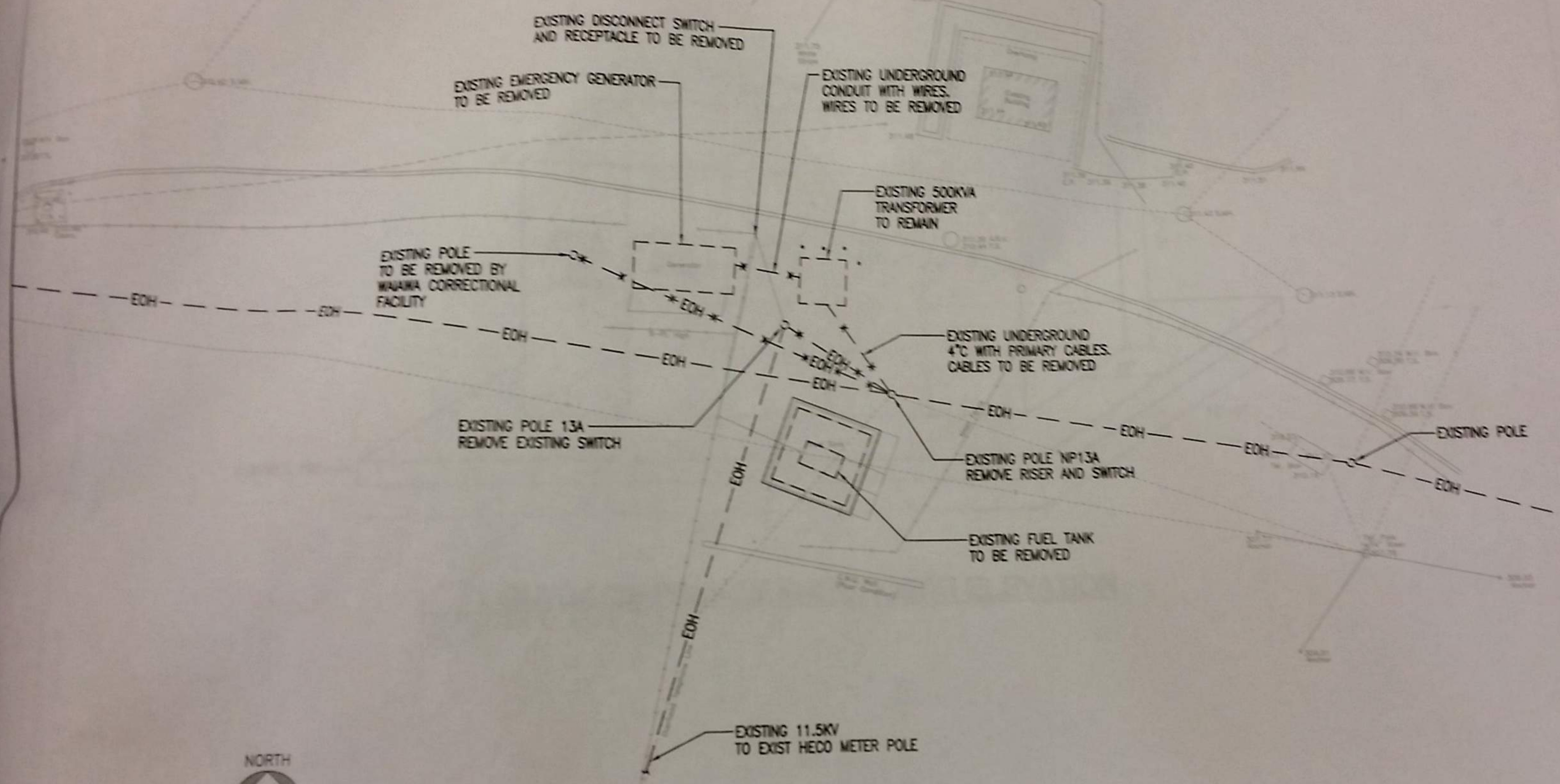


**C DUCT SECTION**  
E-1 NOT TO SCALE

REVISION NO.	SYM	DESCRIPTION	SHT OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
<b>WAIAWA CORRECTIONAL FACILITY</b> ELECTRICAL SYSTEM IMPROVEMENTS					
MILILANI		OAHU	HAWAII		
EXISTING ELECTRICAL SITE PLAN - DEMOLITION WORK, ELECTRICAL SITE PLAN - NEW WORK, EXISTING UTILITY POLE DETAIL, ELECTRICAL SYMBOLS					
ELECTECH HAWAII, INC.				DAGS Job No.	DRAWING NO.
DESIGNED BY: MM		CHECKED BY: CP		12-27-5564	<b>E-1</b>
DRAWN BY: EB		APPROVED CP		DATE	SHEET 8
SCALE: AS NOTED				JAN., 2013	OF 10 SHEETS

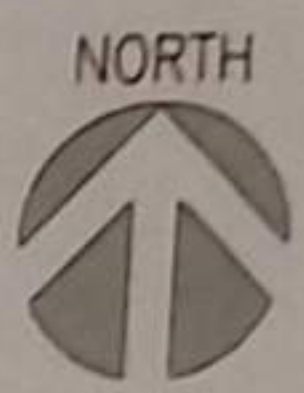
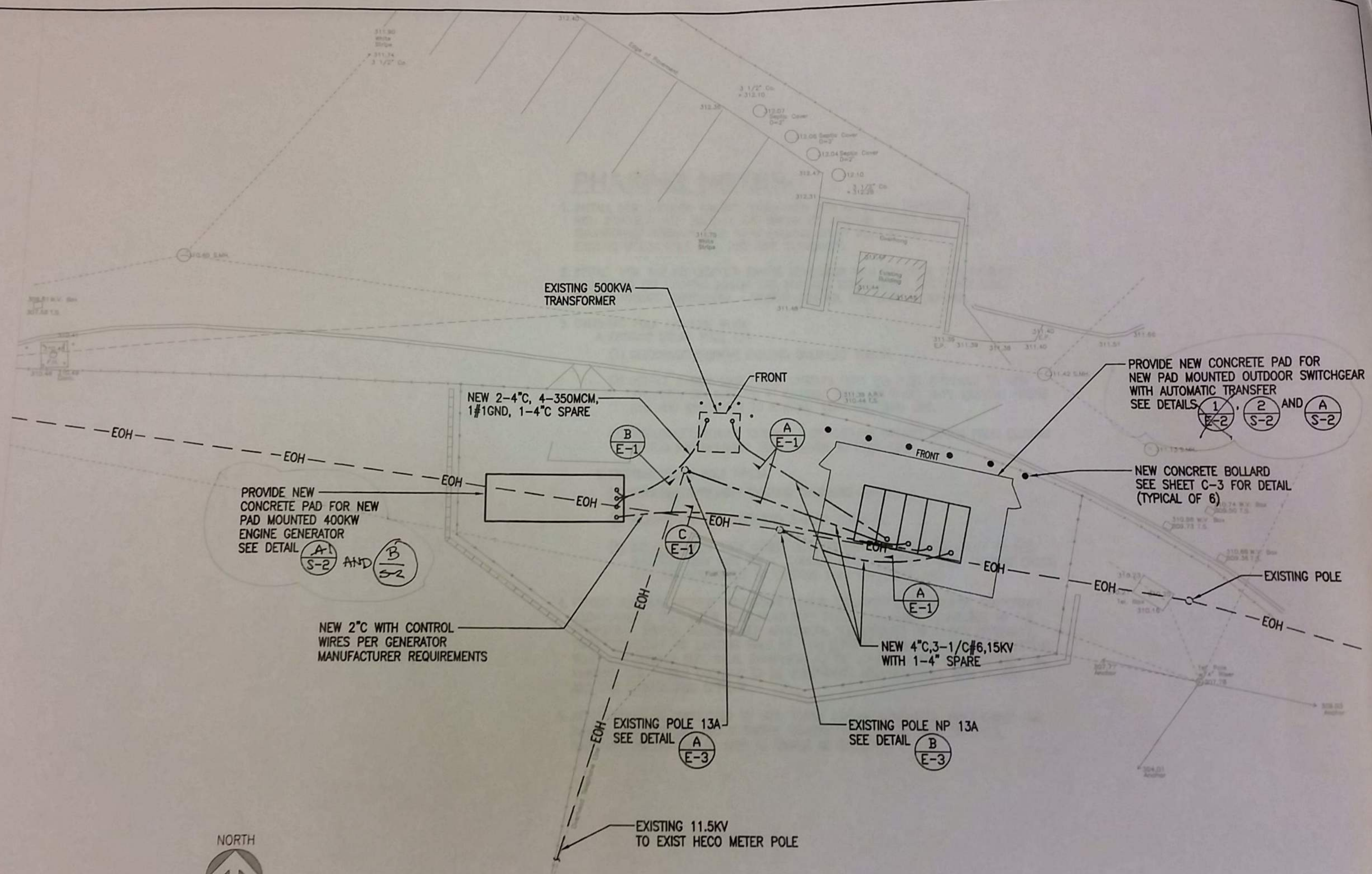


*Clayton C. Y. Pang*  
 EXPIRATION DATE OF THE LICENSE: 04/30/2018  
 THIS WORK WAS PREPARED BY  
 ME OR UNDER MY SUPERVISION

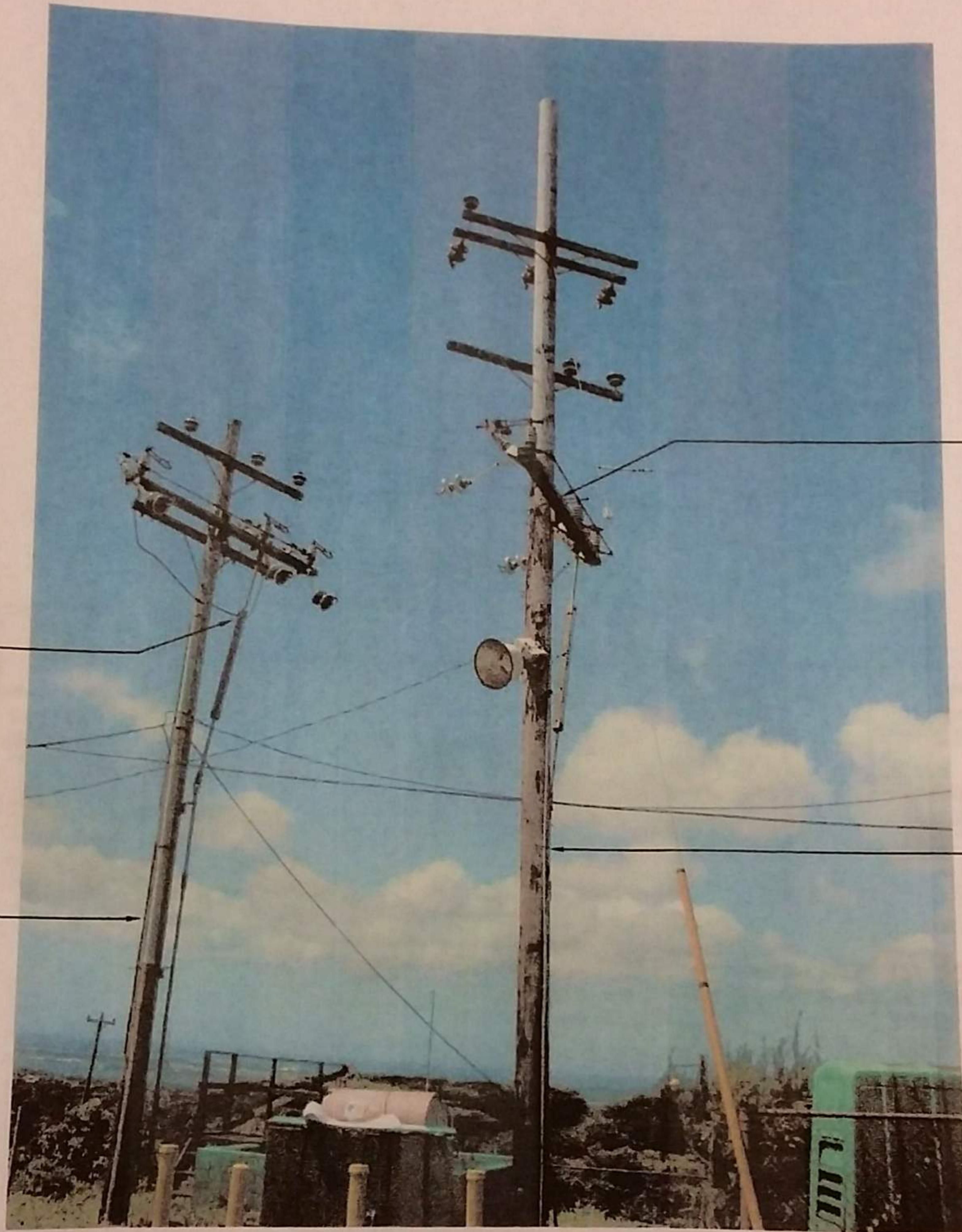


**EXISTING ELECTRICAL SITE PLAN - DEMOLITION WORK**  
 SCALE: 1" = 10'-0"





**ELECTRICAL SITE PLAN - NEW WORK**  
 SCALE: 1" = 10'-0"

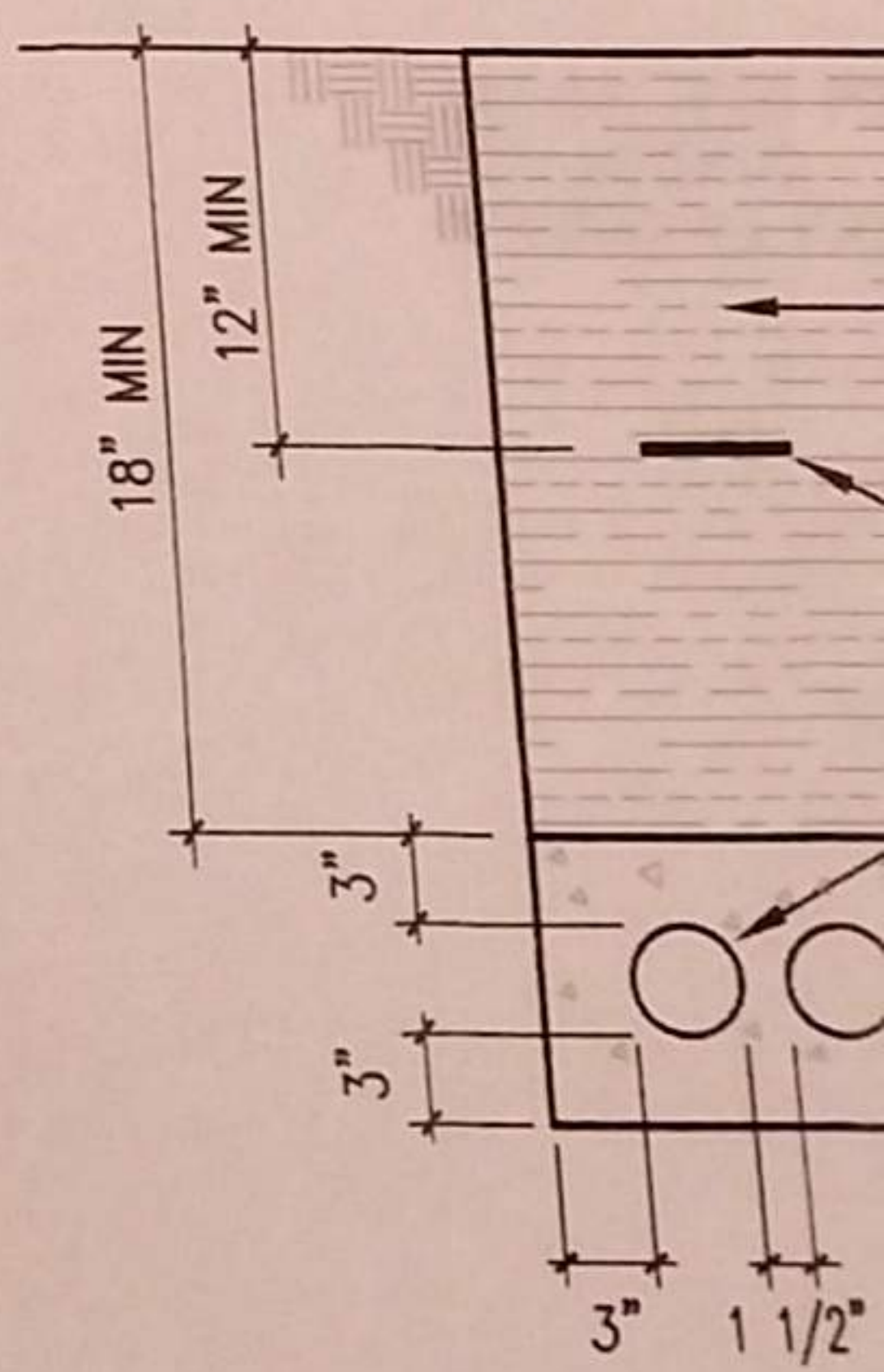


REMOVE EXISTING AIR SWITCH

REMOVE EXISTING AIR SWITCH AND CROSSARM

EXISTING POLE NP13A

EXISTING POLE 13A



1  
E-1

**EXISTING UTILITY POLE DETAIL**

NOT TO SCALE

FOR OFFICIAL USE ONLY  
D-243

A  
E-1

**DUCT S**

NOT TO SCALE

**ELECTRICAL SY**

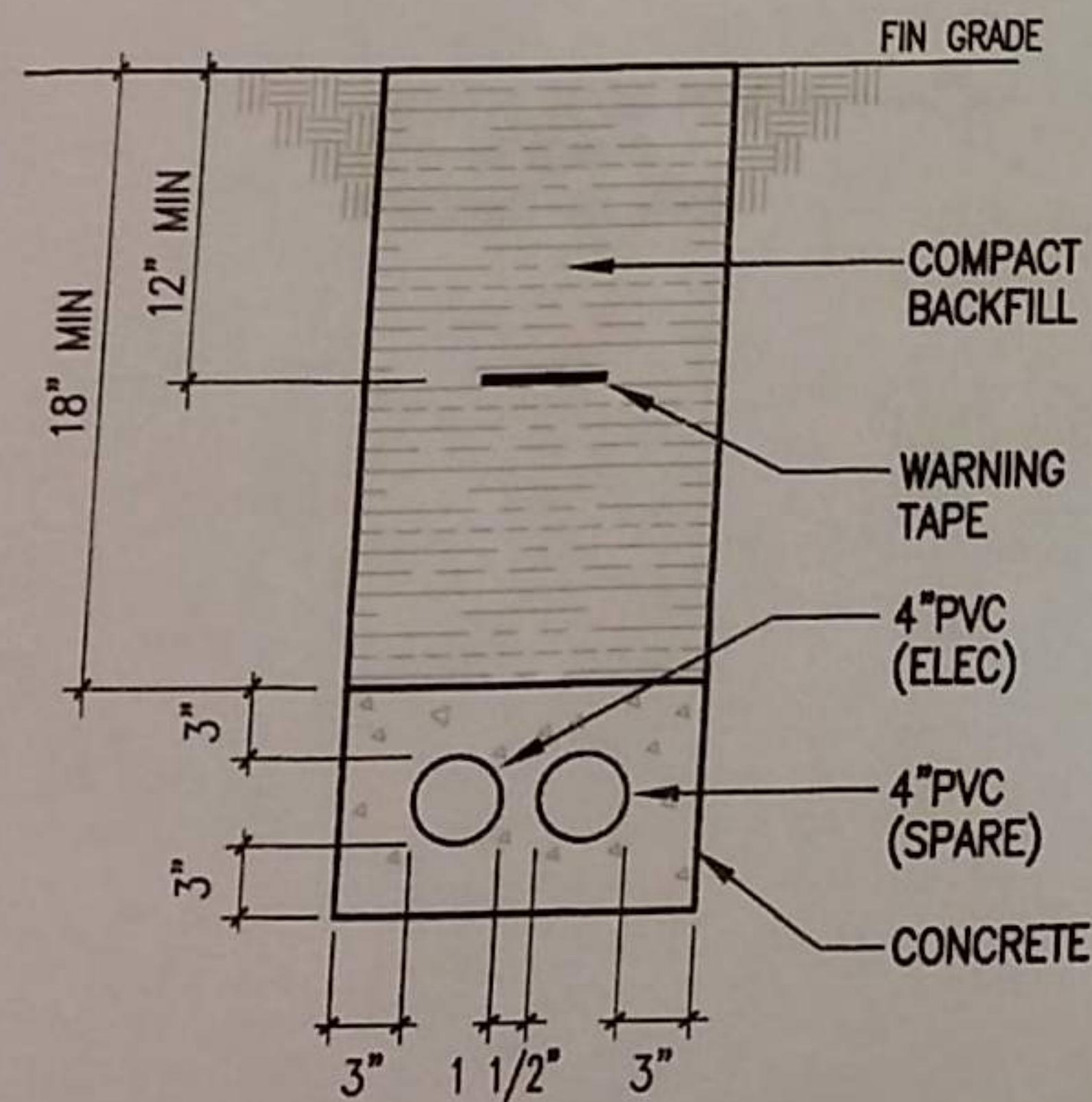
- \*-x-\* WIRING IN EXISTING RACEWAY
- WIRING IN EXISTING RACEWAY
- \*-EOH-\* EXISTING OVERHEAD LINES T
- EOH-- EXISTING OVERHEAD LINES T
- \*o-o\* EXISTING POLE MOUNTED F
- o-o- NEW POLE MOUNTED FUSE
- WIRING IN RACEWAY CONC
- o EXISTING UTILITY POLE TO

**Notes:**

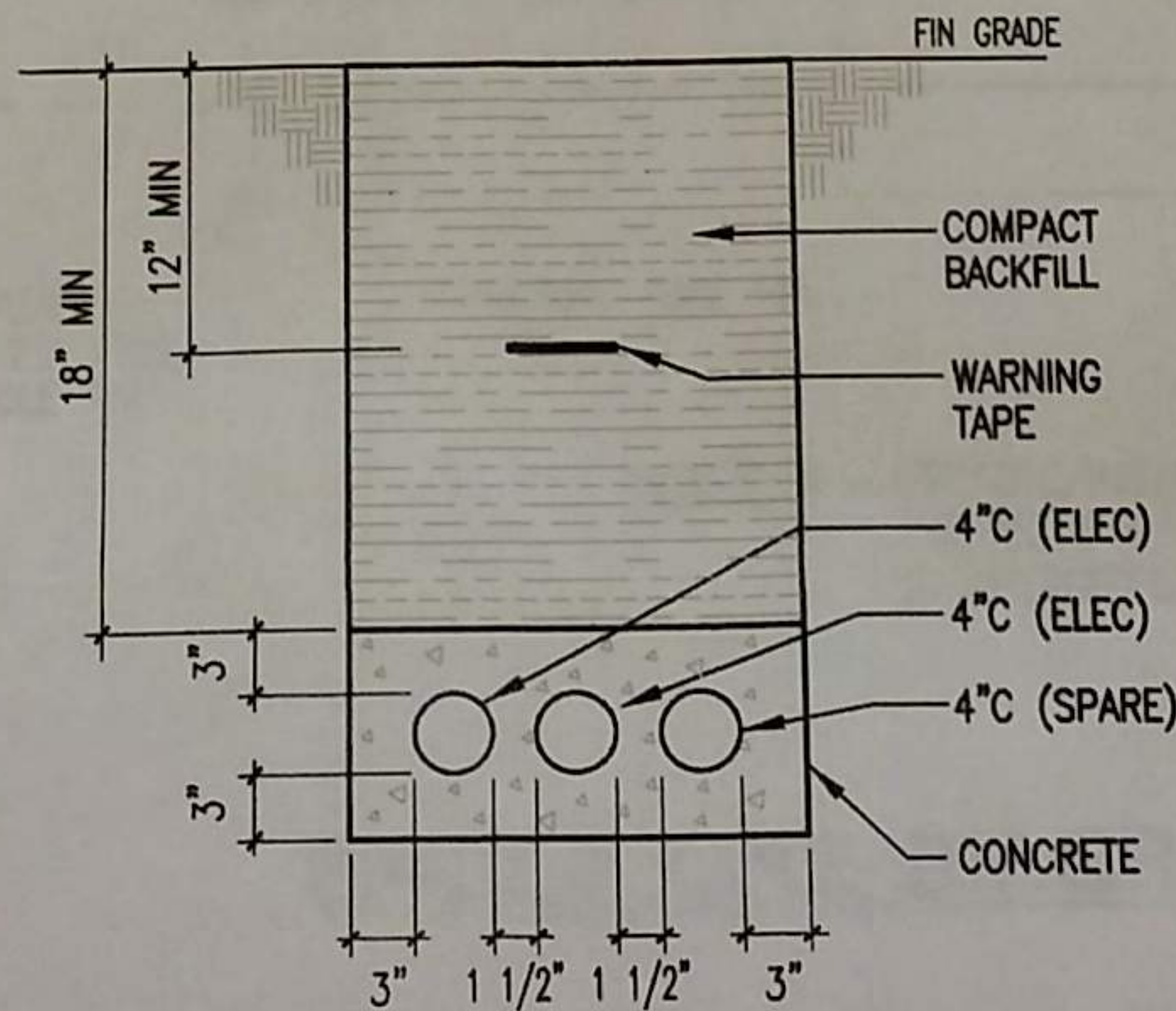
1. Fuel tanks over 60 gallons require a
2. The storage, use, and handling of fla  
liquids, including waste liquids, shall  
Flammable and Combustible Liquids C  
of the NFPA 1, 2001.
3. Permits where required shall con  
for permits shall be submitted w
4. Vent pipes that are provided for n  
outside the vault, and at least  
shall meet the requirements o

REMOVE EXISTING AIR SWITCH  
AND CROSSARM

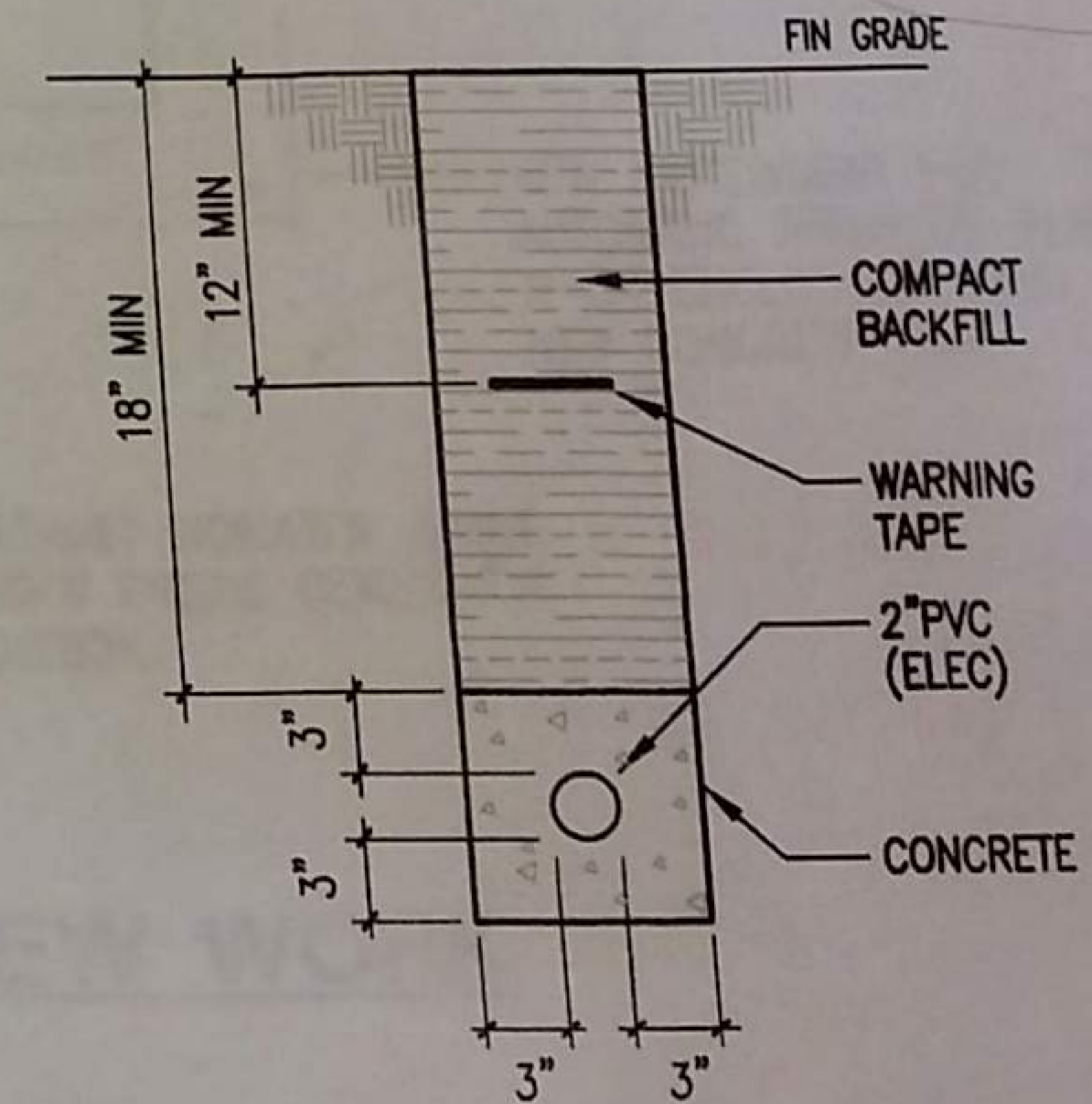
EXISTING POLE 13A



**A** DUCT SECTION  
E-1 NOT TO SCALE



**B** DUCT SECTION  
E-1 NOT TO SCALE

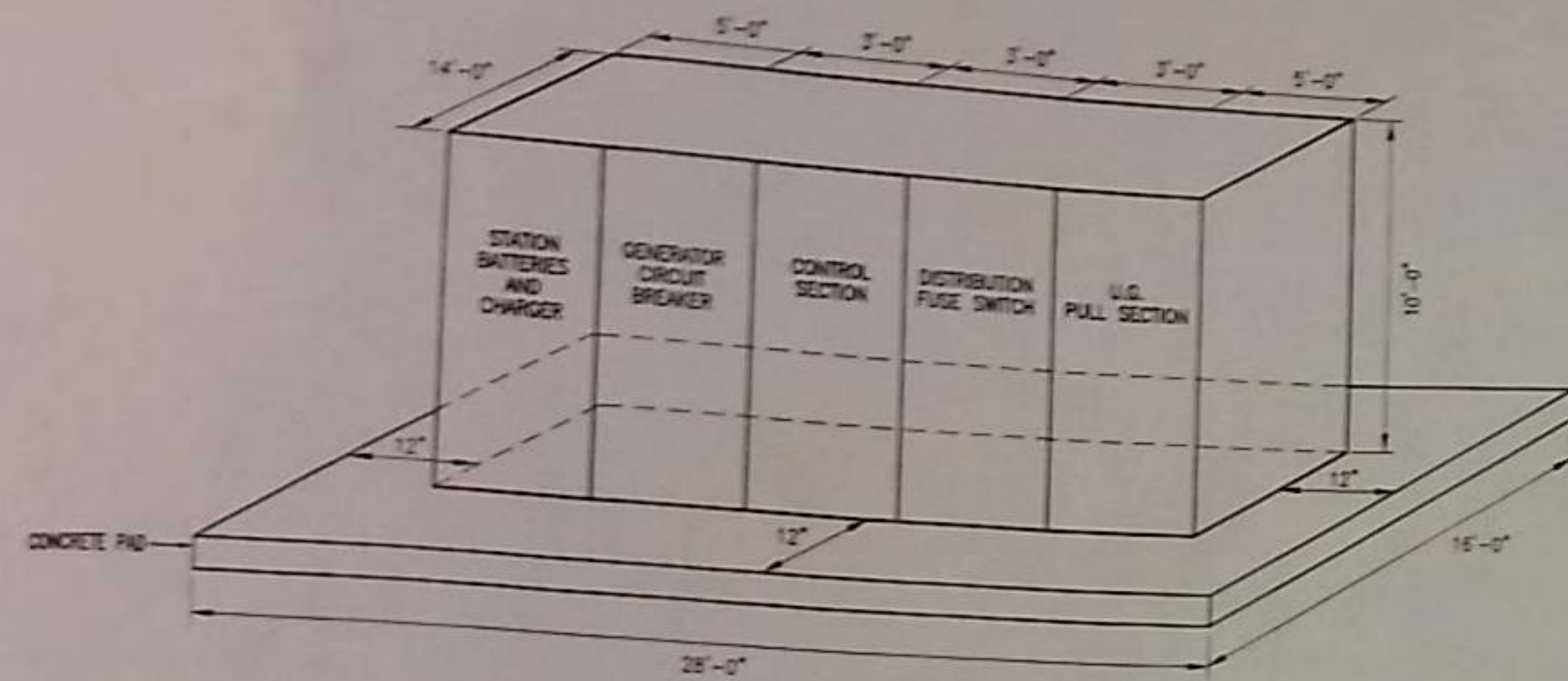


**C** DUCT SECTION  
E-1 NOT TO SCALE

REVISION NO.	SYM



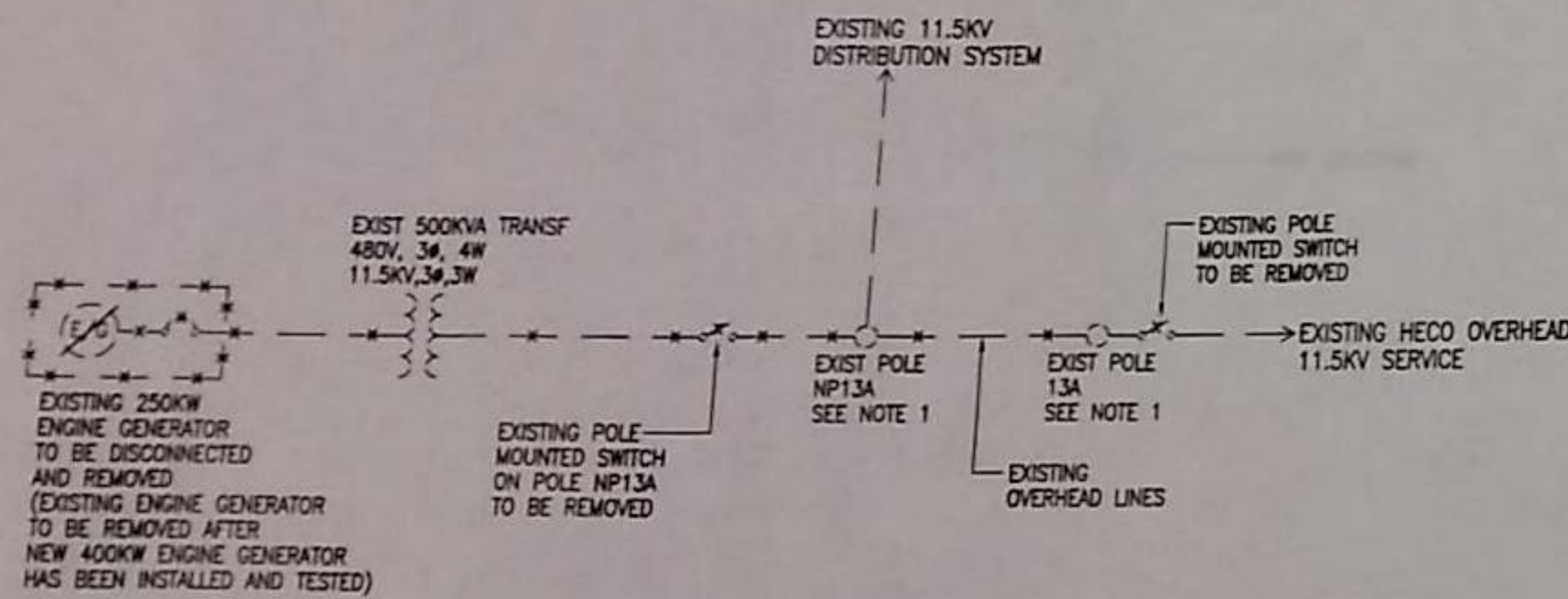
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THIS WORK WAS PR  
ME OR UNDER MY S



1 OUTDOOR PRIMARY SWITCHGEAR ELEVATION  
E-2 NOT TO SCALE

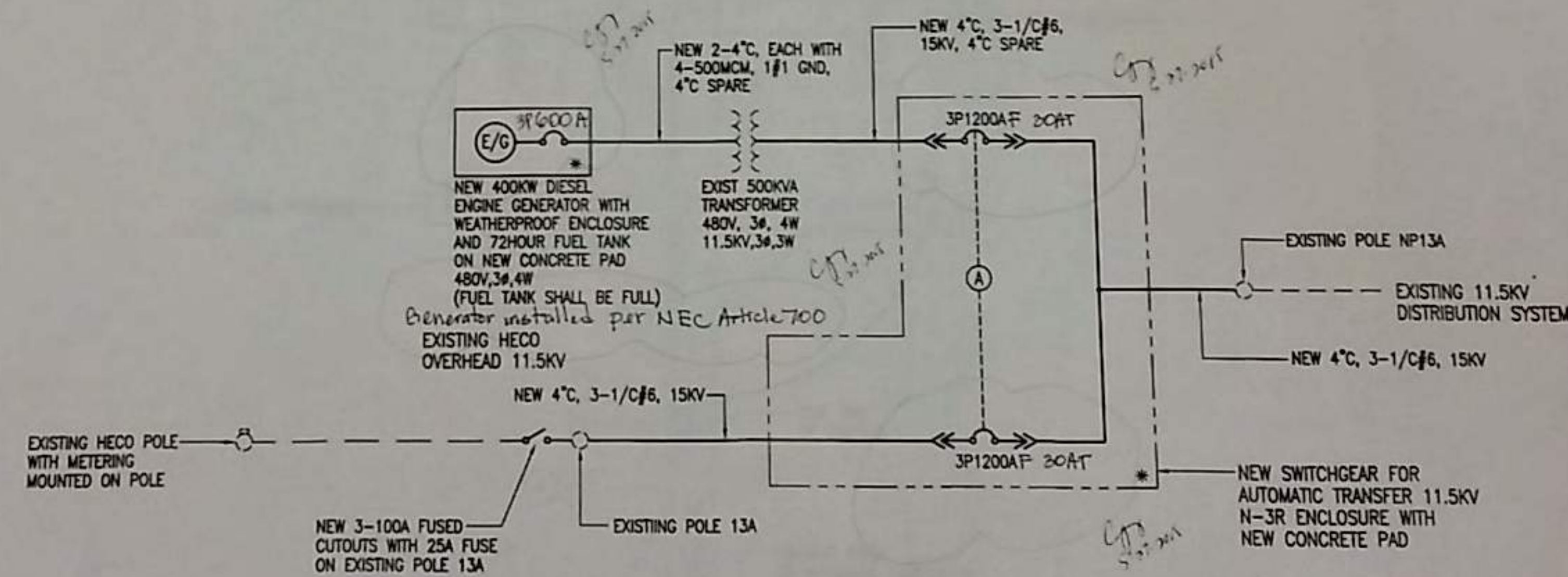
**PHASING NOTES:**

1. INSTALL NEW OUTDOOR PRIMARY SWITCHGEAR WITH AUTOMATIC TRANSFER SWITCH WITH CONCRETE PAD, RACEWAY AND WIRING TO EXISTING 500KVA PAD MOUNTED TRANSFORMER-PRIMARY SIDE, FROM EXISTING UTILITY POLE NP13A, AND FROM EXISTING UTILITY POLE 13A, AND PIPE STANCHIONS.
2. INSTALL NEW 400 KW OUTDOOR ENGINE GENERATOR WITH CONCRETE PAD, RACEWAY AND WIRING TO EXISTING 500KVA PAD MOUNTED TRANSFORMER SECONDARY SIDE, TO NEW PRIMARY SWITCHGEAR - MASTER CONTROL, FOR CONTROL WIRING.
3. OVERHEAD POLE AND LINE WORK:
  - A. EXISTING UTILITY POLE 13A:
    - (1) DISCONNECT/REMOVE EXISTING OVERHEAD SWITCH.
    - (2) INSTALL 3-NEW 100A FUSED CUTOUTS WITH 25A FUSE (CONNECT TO NEW 3-1/C#6, 15KV WIRE VIA 4" CONDUIT RISER ON POLE) ONTO EXISTING CROSS ARM AND RECONNECT TO EXISTING 15KV OVERHEAD LINE.
    - (3) DISCONNECT/REMOVE EXISTING UNDERGROUND PRIMARY WIRING FROM EXISTING 500KVA PAD MOUNTED TRANSFORMER TO POLE 13A.
  - B. EXISTING UTILITY POLE NP13A:
    - (1) DISCONNECT/REMOVE EXISTING OVERHEAD SWITCH.
    - (2) REMOVE EXISTING OVERHEAD 3-FUSE CUTOUTS.
    - (3) INSTALL 3 NEW 100A FUSED CUTOUTS WITH 25A FUSE (CONNECT TO NEW 3-1/C#6, 15KV WIRE VIA 4" CONDUIT RISER ON POLE) ONTO EXISTING CROSS ARM AND RECONNECT TO EXISTING 15KV OVERHEAD LINE.
4. POWER OUTAGES: PROVIDE TEMPORARY POWER. CONTRACTOR TO PROVIDE TEMPORARY 250KW ENGINE GENERATOR 480V, 3Ø, 4W WITH FUEL TANK, THEN CONNECTED TO THE TEMPORARY 500KVA TRANSFORMER 480V, 3Ø, 4W (SECONDARY TO 11.5KV (PRIMARY), THEN CONNECTED TO EXISTING POLE NP 13A (EXISTING 11.5KV DISTRIBUTION SYSTEM). TEMPORARY POWER ELECTRICAL EQUIPMENT TO BE LOCATED ONTO THE EXISTING PARKING LOT. POWER OUTAGES TO BE COORDINATE AND SCHEDULE WITH FACILITIES AND THE CONTRACTING OFFICER.
5. AFTER POWER IS CONNECTED TO NEW 400KW ENGINE GENERATOR, DISCONNECT AND REMOVE THE EXISTING 250KW ENGINE GENERATOR AND FUEL TANK ENTIRELY, INCLUDING WIRING AND DELIVER TO OWNER AS DIRECTED.



**NOTE:** 1. TWO OVERHEAD SWITCHES ON EXISTING POLES 13A AND NP13A THAT ARE KIRK KEY INTERLOCKED. THESE SWITCHES PROVIDE A MANUAL TRANSFER SCHEME THAT ALLOWS THE SYSTEM TO BE SWITCHED FROM HECO POWER TO GENERATOR POWER AND VICE VERSA TO BE DISCONNECTED AND REMOVED.

**SINGLE LINE DIAGRAM - DEMOLITION WORK**



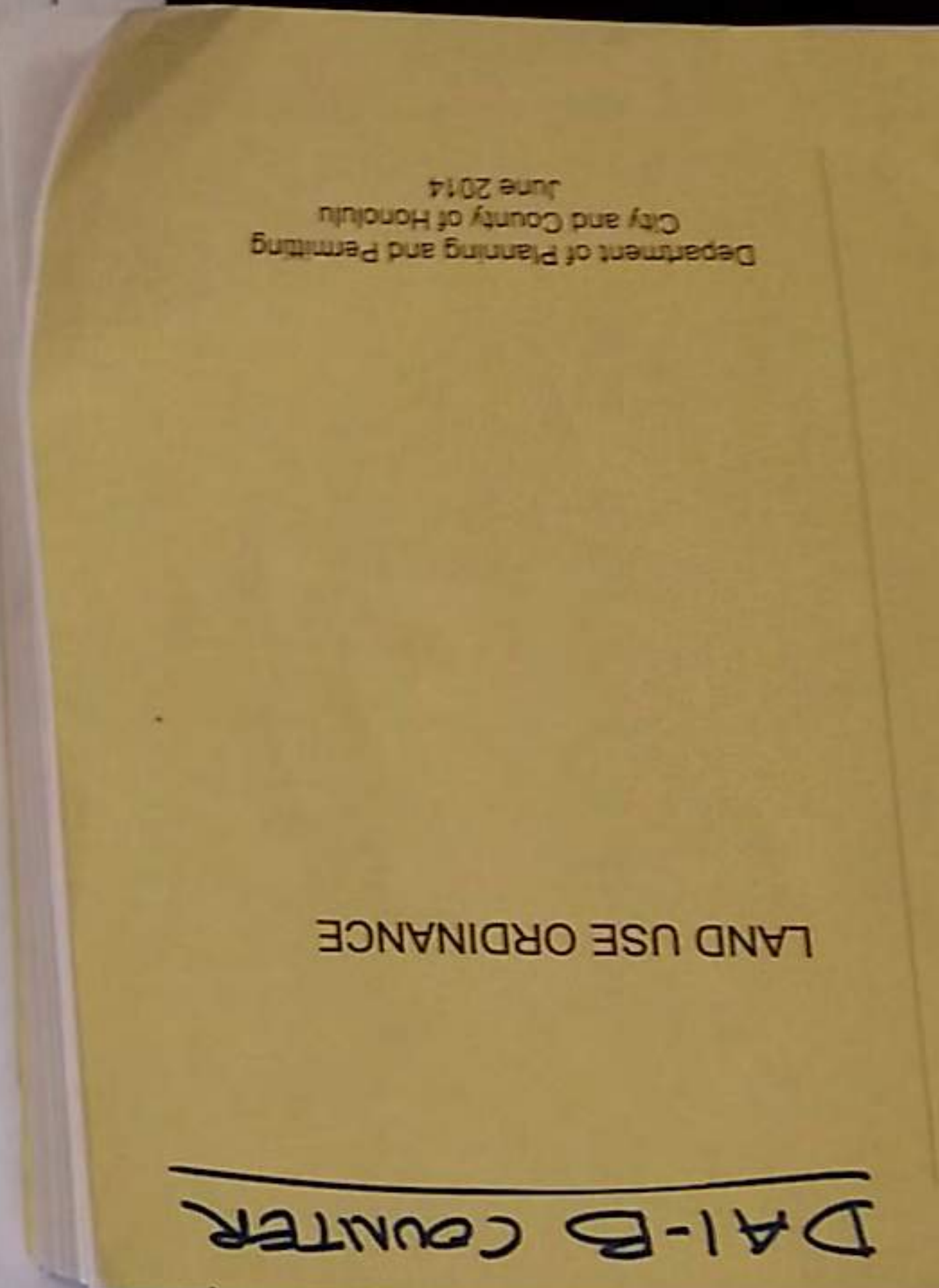
**NOTE:** \* - PROVIDE/INSTALL A VISUAL FLASHING INDICATOR ABOVE THE EQUIPMENT WHEN THE 400KW ENGINE GENERATOR IS ENERGIZED IN THE "ON" POSITION.

**SINGLE LINE DIAGRAM - NEW WORK**

REVISION NO.	BY	DESCRIPTION	DATE	APPROVED

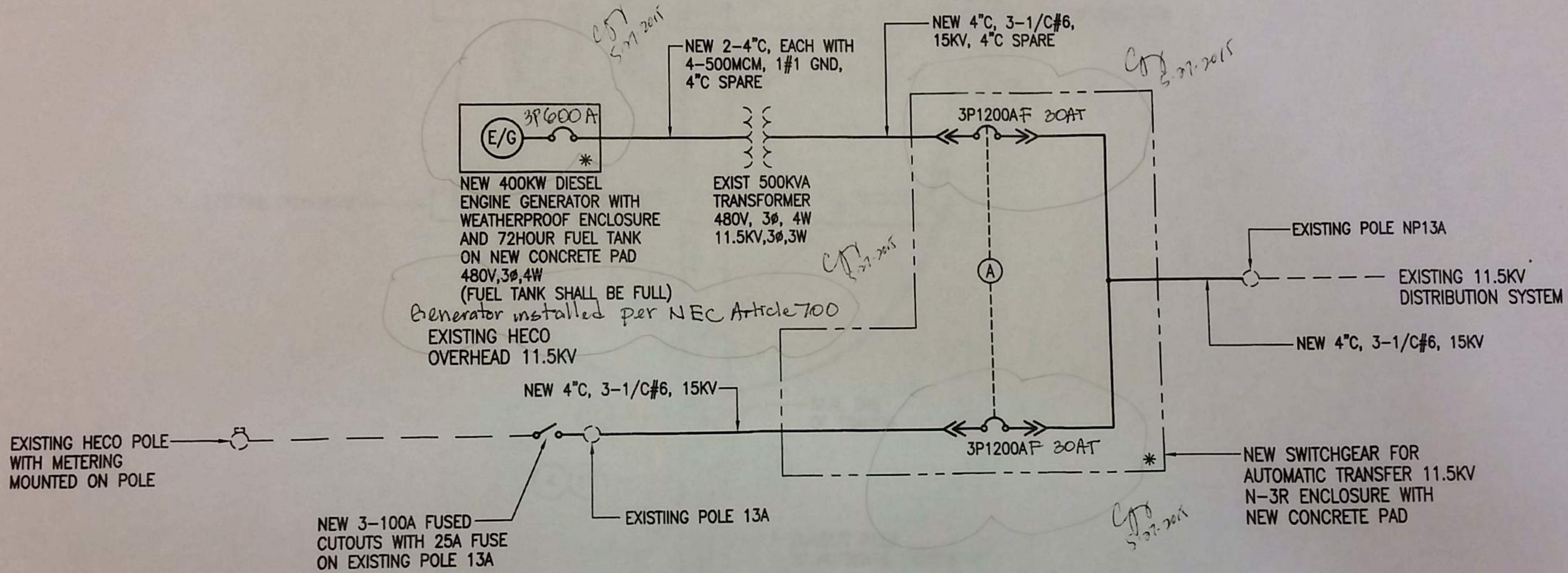
  

DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII		
WAIKAWA CORRECTIONAL FACILITY ELECTRICAL SYSTEM IMPROVEMENTS		
MILLER	OHU	HAWAII
SINGLE LINE DIAGRAM - DEMOLITION AND NEW WORK, SWITCHBOARD ELEVATION, PHASING NOTES		
ELECTECH HAWAII, INC.		DRAWING NO.
DESIGNED BY: MM	CHECKED BY: CP	12-27-5584
DRAWN BY: EB	APPROVED BY: CP	DATE: JAN. 2013
SCALE: AS NOTED		SHEET: 9 OF 10



LAND USE ORDINANCE

OVERHEAD



**NOTE:** \* - PROVIDE/INSTALL A VISUAL FLASHING INDICATOR ABOVE THE EQUIPMENT WHEN THE 400KW ENGINE GENERATOR IS ENERGIZED IN THE "ON" POSITION.

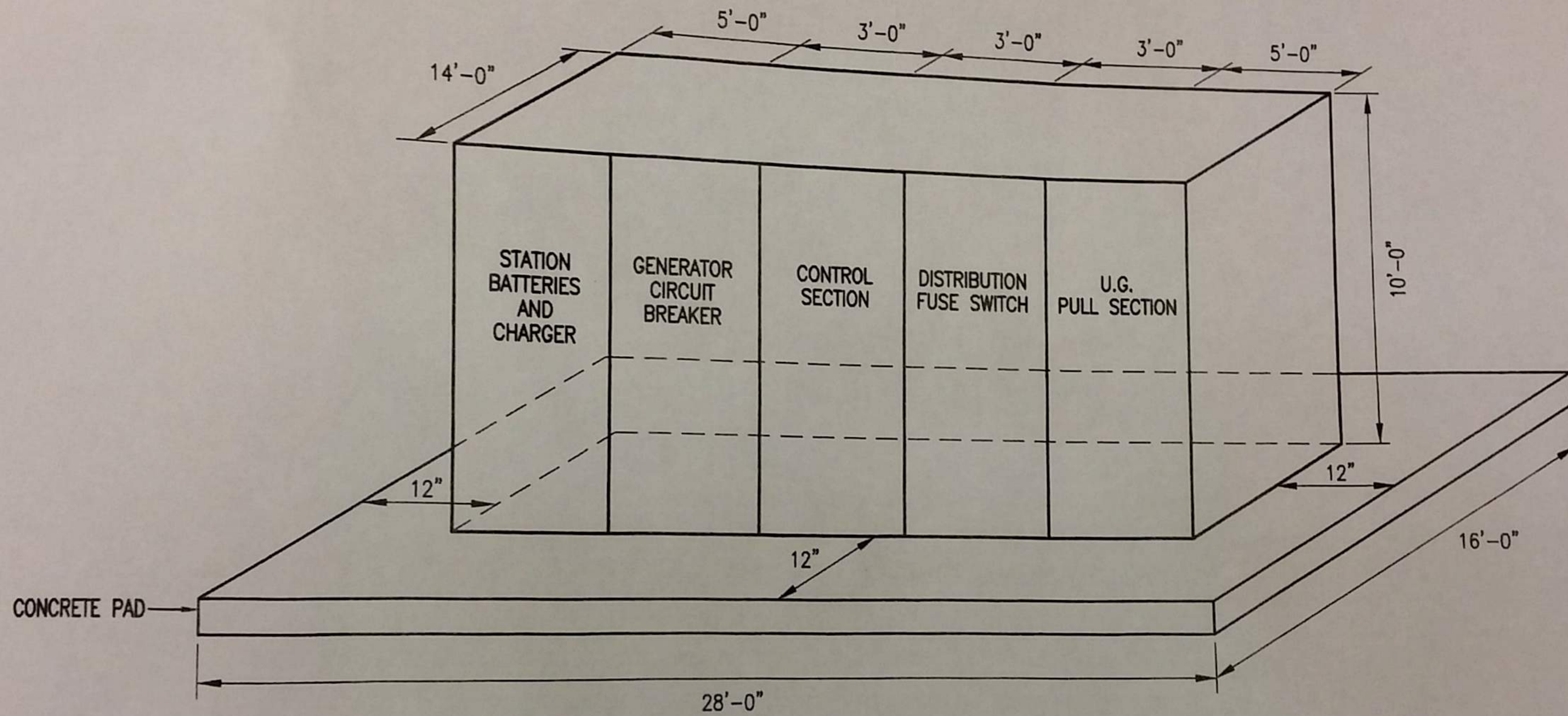
## SINGLE LINE DIAGRAM - NEW WORK

REVISION NO.	SYM	DESCRIPTION

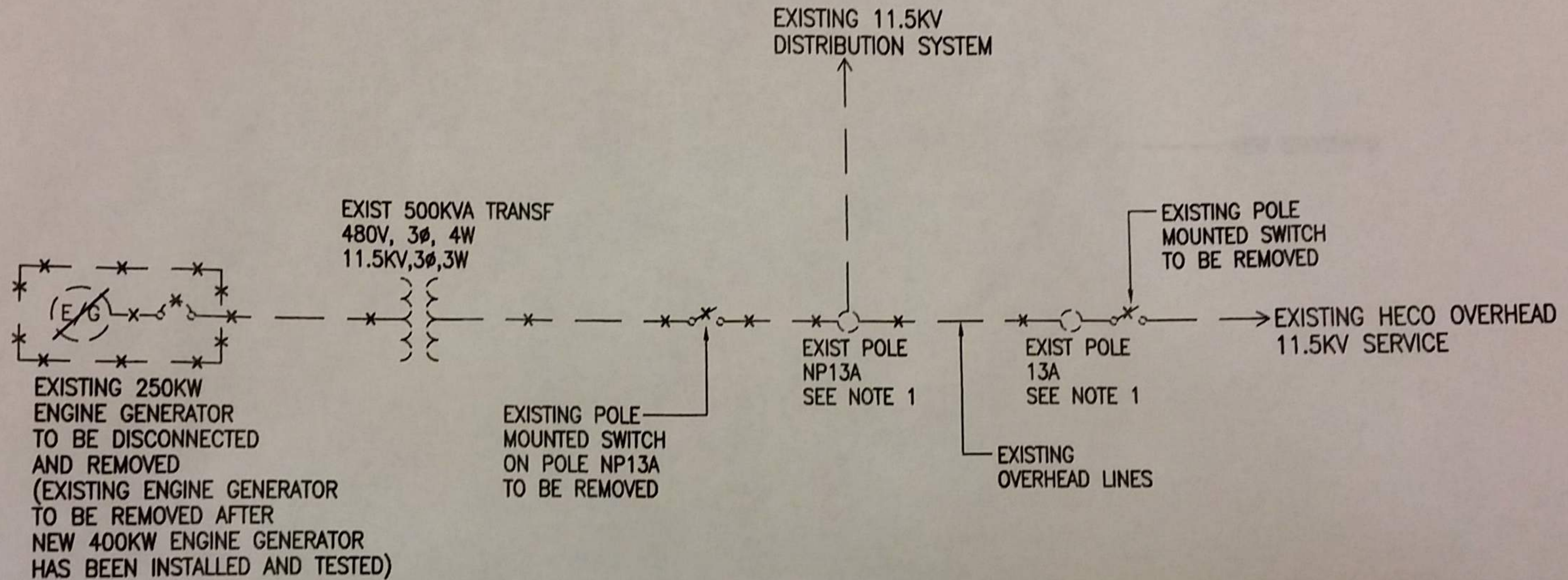
CLAYTON C. Y. PANG  
LICENSED PROFESSIONAL ENGINEER  
No. 4145-E  
HAWAII, U.S.A.

*Clayton C. Y. Pang*  
EXPIRATION DATE OF THE LICENSE 04/30/2018

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



1 **OUTDOOR PRIMARY SWITCHGEAR ELEVATION**  
 E-2 NOT TO SCALE



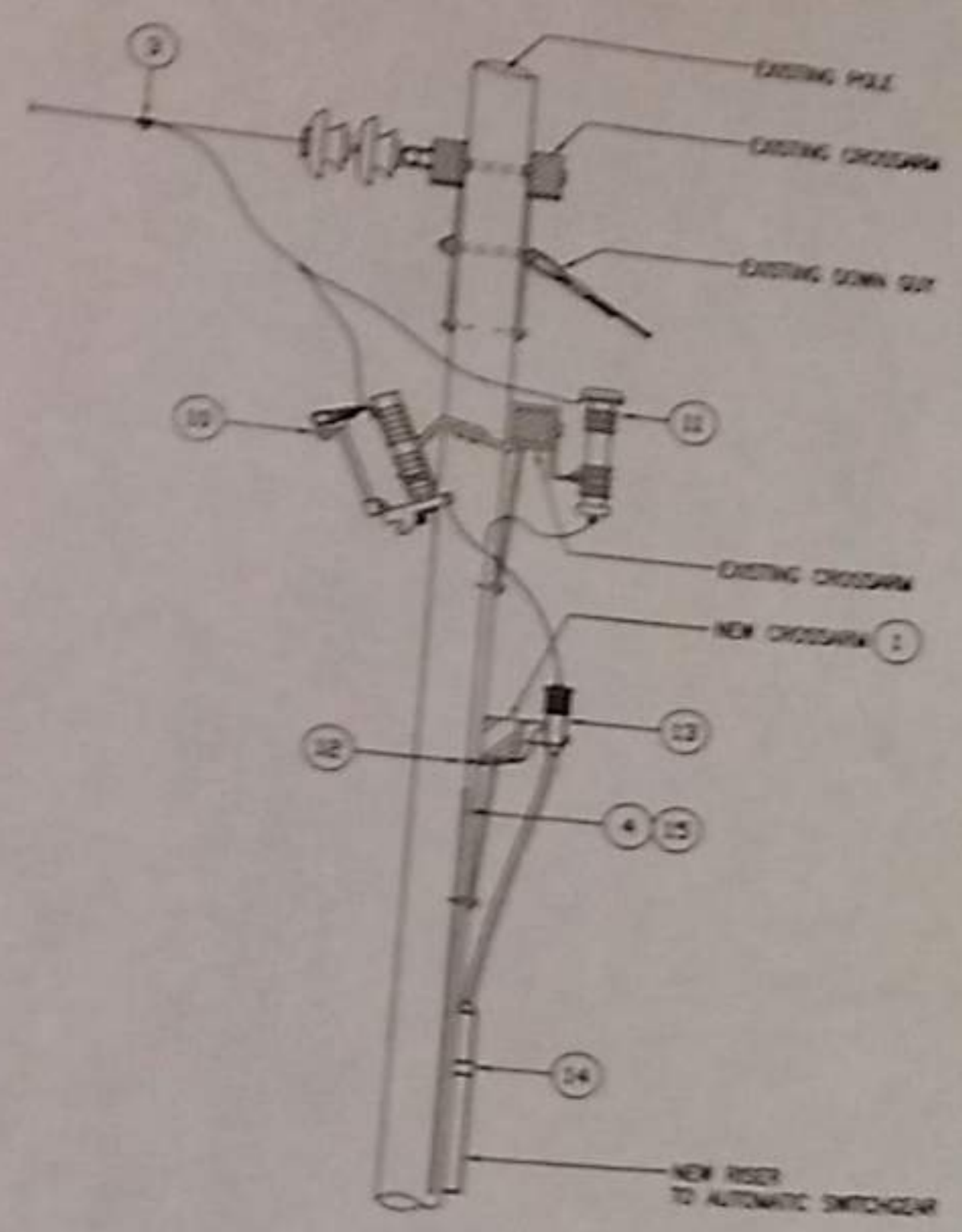
**NOTE:** 1. TWO OVERHEAD SWITCHES ON EXISTING POLES 13A AND NP13A THAT ARE KIRK KEY INTERLOCKED. THESE SWITCHES PROVIDE A MANUAL TRANSFER SCHEME THAT ALLOWS THE SYSTEM TO BE SWITCHED FROM HECO POWER TO GENERATOR POWER AND VICE VERSA TO BE DISCONNECTED AND REMOVED.

## SINGLE LINE DIAGRAM - DEMOLITION WORK

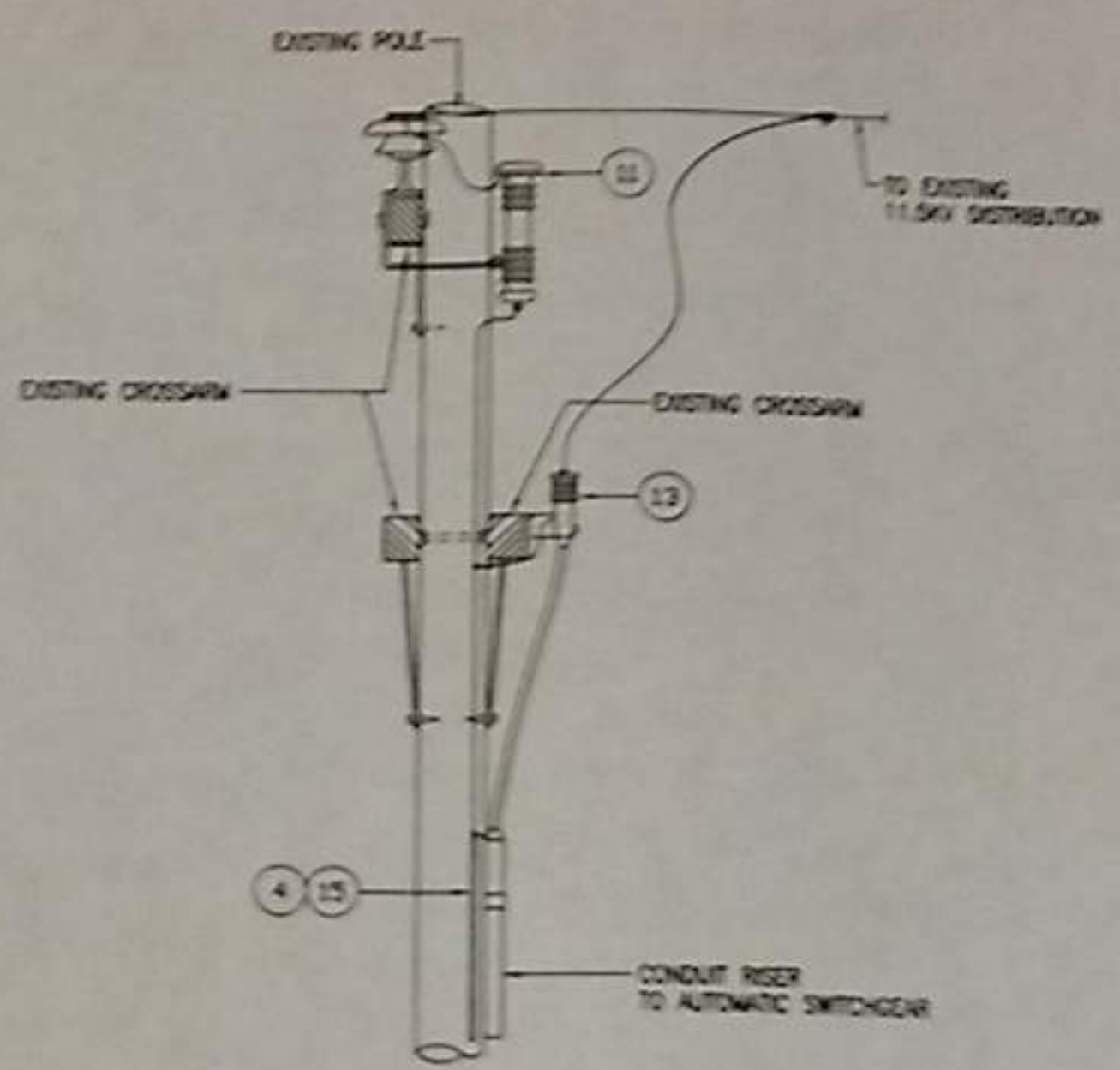
## PHASING NOTES:

1. INSTALL NEW OUTDOOR PRIMARY SWITCHGEAR WITH AUTOMATIC TRANSFER SWITCH WITH CONCRETE PAD, RACEWAY AND WIRING (TO EXISTING 500KVA PAD MOUNTED TRANSFORMER-PRIMARY SIDE; FROM EXISTING UTILITY POLE NP13A; AND FROM EXISTING UTILITY POLE 13A), AND PIPE STANCHIONS.
2. INSTALL NEW 400 KW OUTDOOR ENGINE GENERATOR WITH CONCRETE PAD, RACEWAY AND WIRING (TO EXISTING 500KVA PAD MOUNTED TRANSFORMER SECONDARY SIDE; TO NEW PRIMARY SWITCHGEAR - MASTER CONTROL FOR CONTROL WIRING).
3. OVERHEAD POLE AND LINE WORK:
  - A. EXISTING UTILITY POLE 13A.
    - (1) DISCONNECT/REMOVE EXISTING OVERHEAD SWITCH.
    - (2) INSTALL 3-NEW 100A FUSED CUTOUTS WITH 25A FUSE (CONNECT TO NEW 3-1/C#6,15KV WIRE VIA 4" CONDUIT RISER ON POLE) ONTO EXISTING CROSS ARM AND RECONNECT TO EXISTING 15KV OVERHEAD LINE.
    - (3) DISCONNECT/REMOVE EXISTING UNDERGROUND PRIMARY WIRING FROM EXISTING 500KVA PAD MOUNTED TRANSFORMER TO POLE 13A.
  - B. EXISTING UTILITY POLE NP13A.
    - (1) DISCONNECT/REMOVE EXISTING OVERHEAD SWITCH.
    - (2) REMOVE EXISTING OVERHEAD 3-FUSE CUTOUTS.
    - (3) INSTALL 3 NEW 100A FUSED CUTOUTS WITH 25A FUSE (CONNECT TO NEW 3-1/C#6,15KV WIRE VIA 4" CONDUIT RISER ON POLE) ONTO EXISTING CROSS ARM AND RECONNECT TO EXISTING 15KV OVERHEAD LINE.
4. POWER OUTAGES: PROVIDE TEMPORARY POWER. CONTRACTOR TO PROVIDE TEMPORARY 250KW ENGINE GENERATOR 480V,3 $\phi$ ,4W WITH FUEL TANK, THEN CONNECTED TO THE TEMPORARY 500KVA TRANSFORMER 480V,3 $\phi$ ,4W (SECONDARY) TO 11.5KV (PRIMARY), THEN CONNECTED TO EXISTING POLE NP 13A (EXISTING 11.5KV DISTRIBUTION SYSTEM). TEMPORARY POWER ELECTRICAL EQUIPMENT TO BE LOCATED ONTO THE EXISTING PAVE PARKING LOT. POWER OUTAGES TO BE COORDINATE AND SCHEDULE WITH FACILITIES AND THE CONTRACTING OFFICER.
5. AFTER POWER IS CONNECTED TO NEW 400KW ENGINE GENERATOR, DISCONNECT AND REMOVE THE EXISTING 250KW ENGINE GENERATOR AND FUEL TANK ENTIRELY, INCLUDING WIRING AND DELIVER TO OWNER AS DIRECTED.

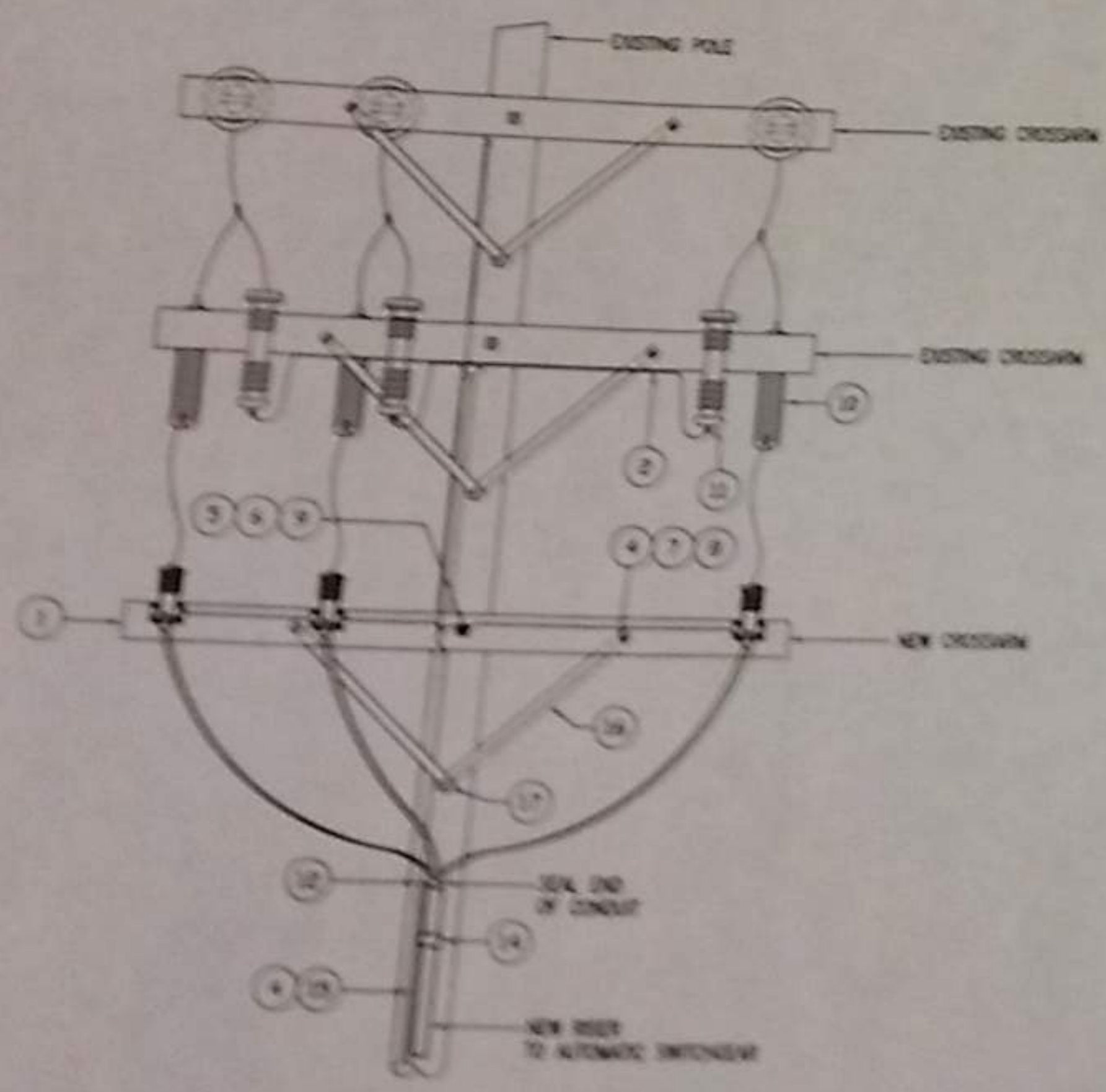




SIDE ELEVATION

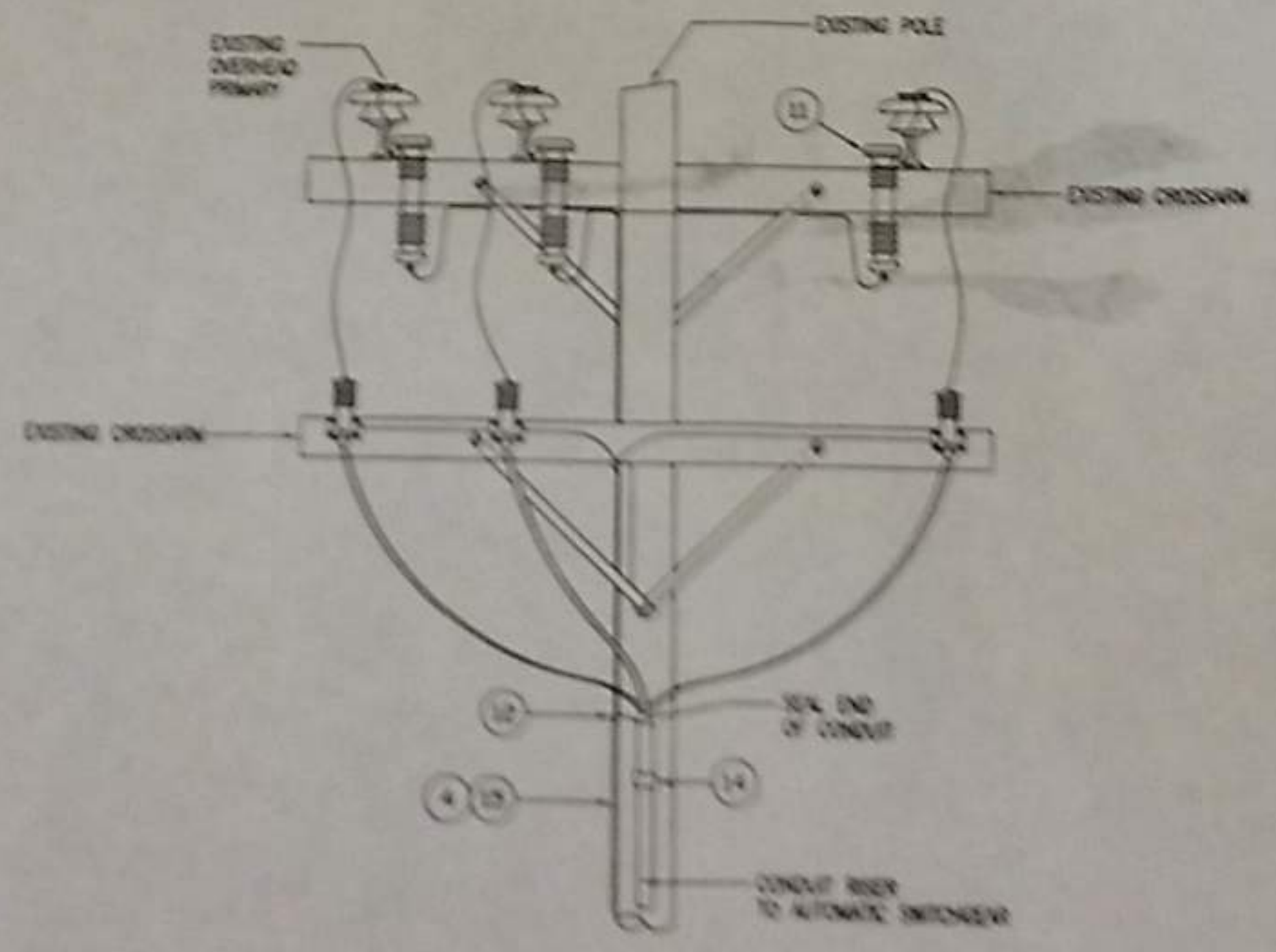


SIDE ELEVATION



FRONT ELEVATION

**A** POLE NO 13A DETAIL  
NOT TO SCALE



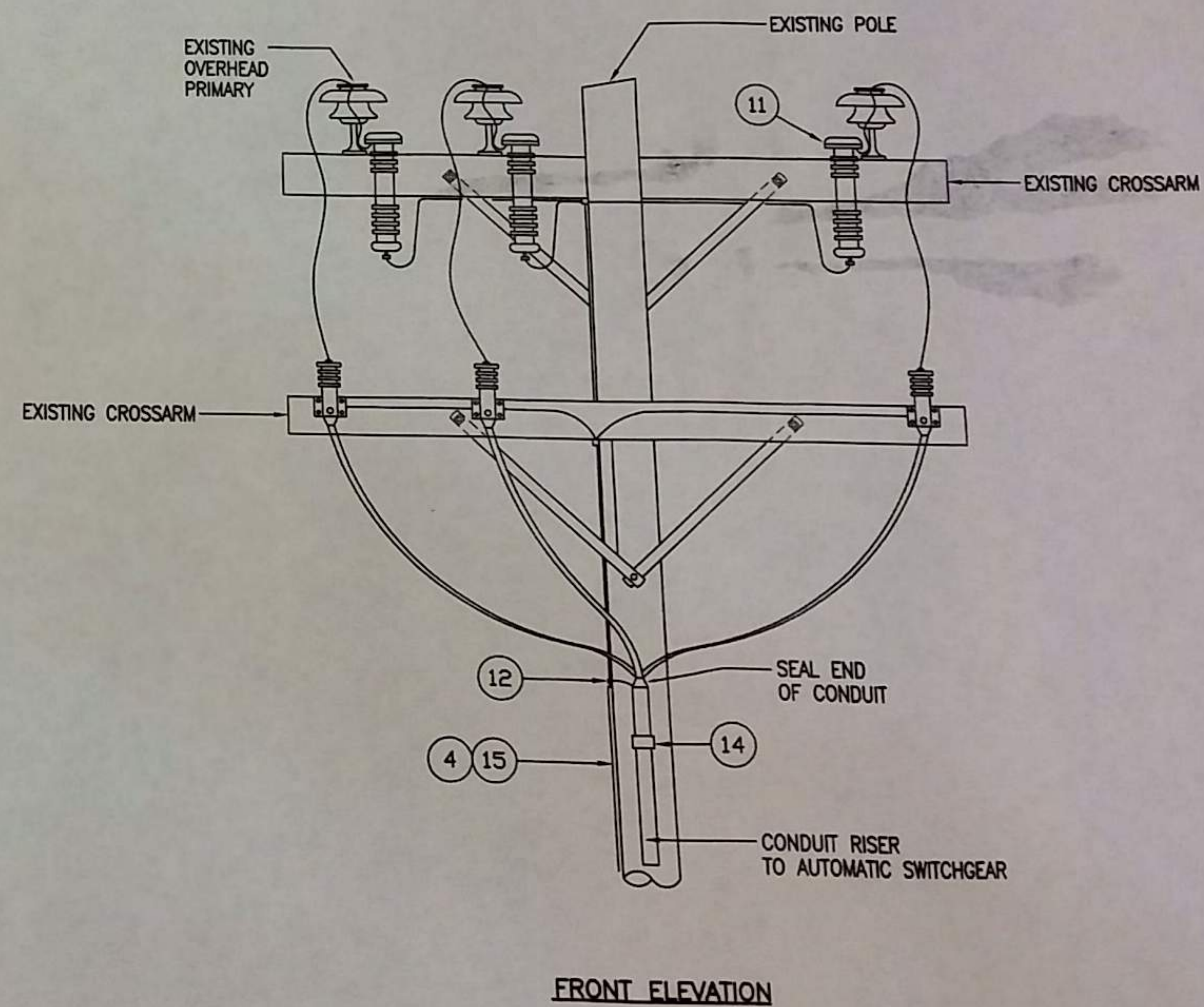
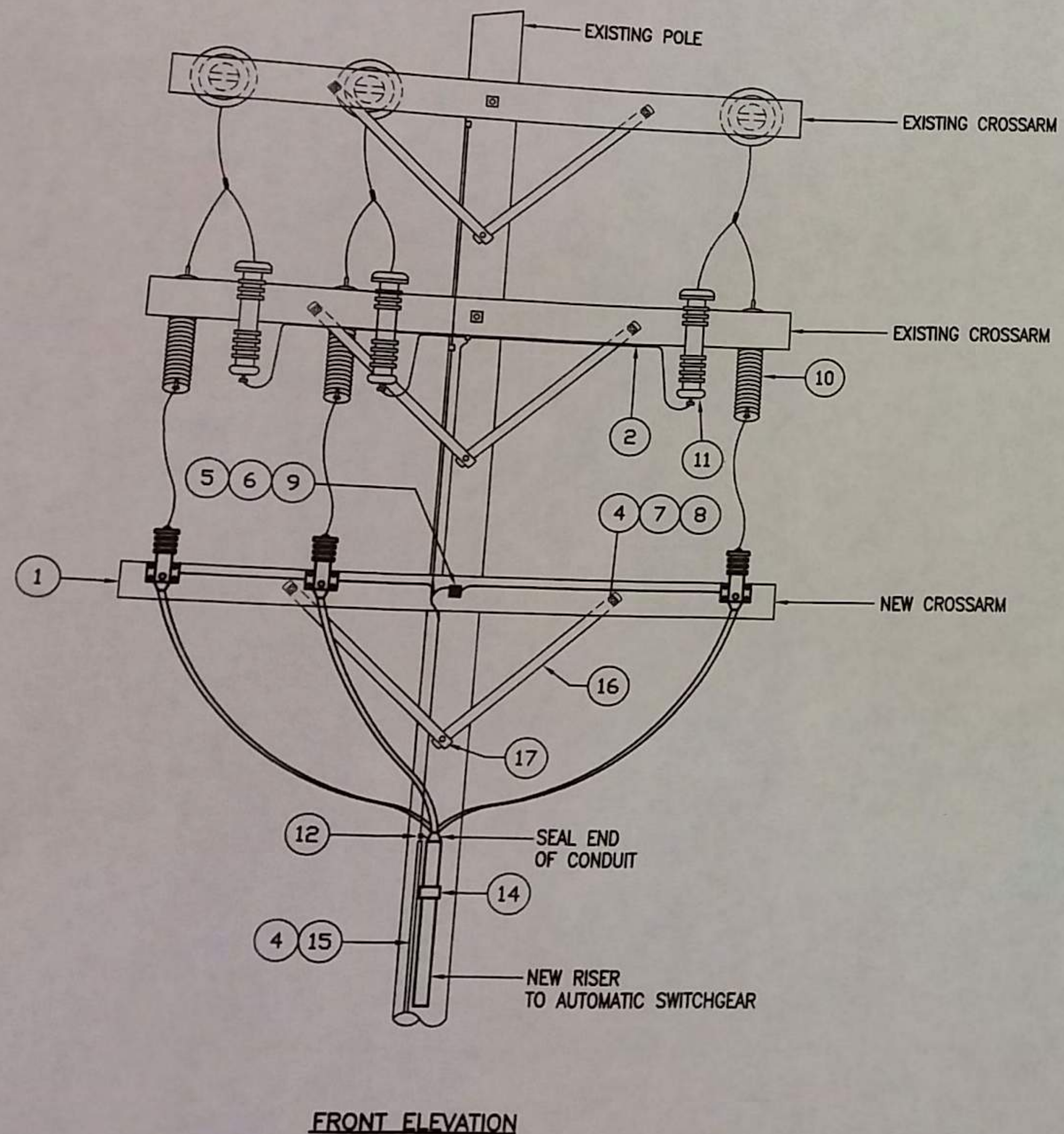
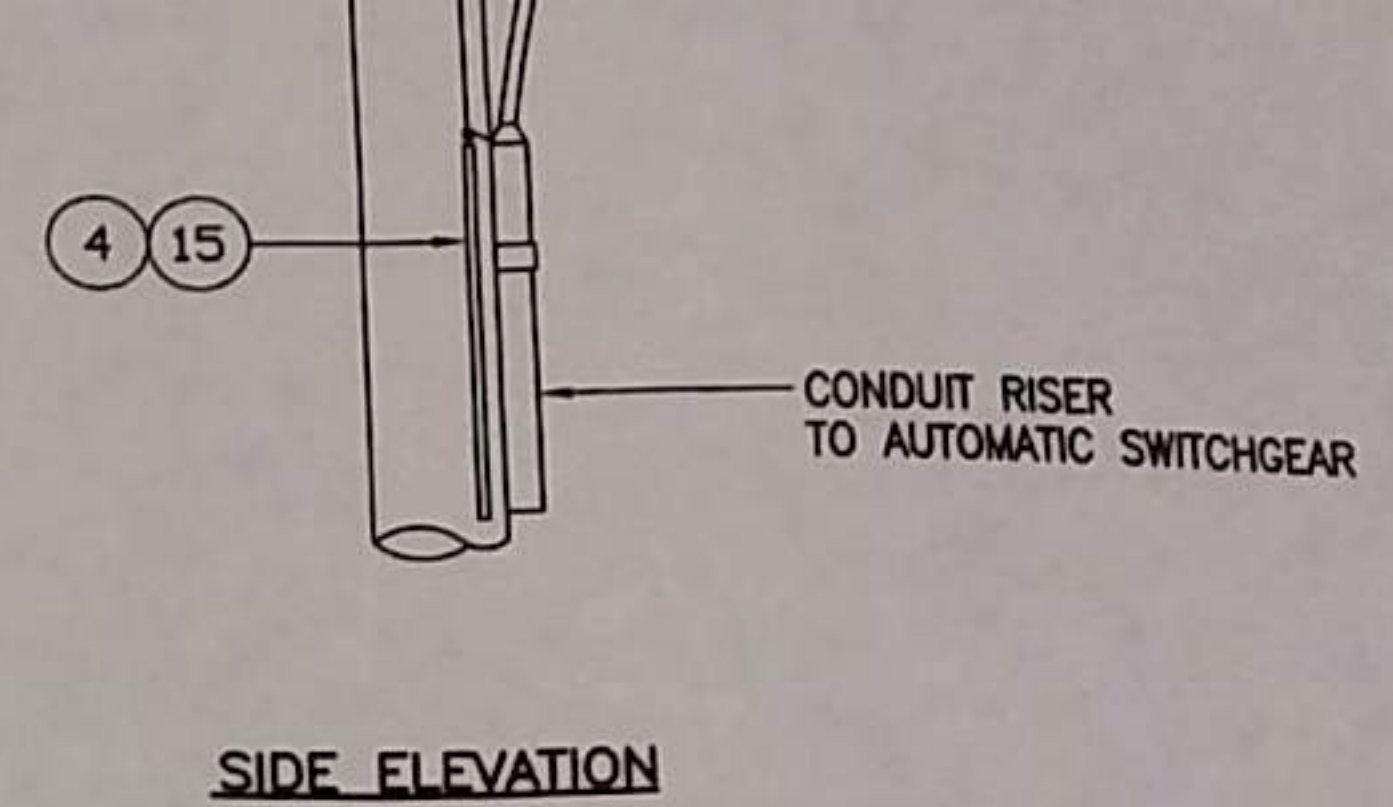
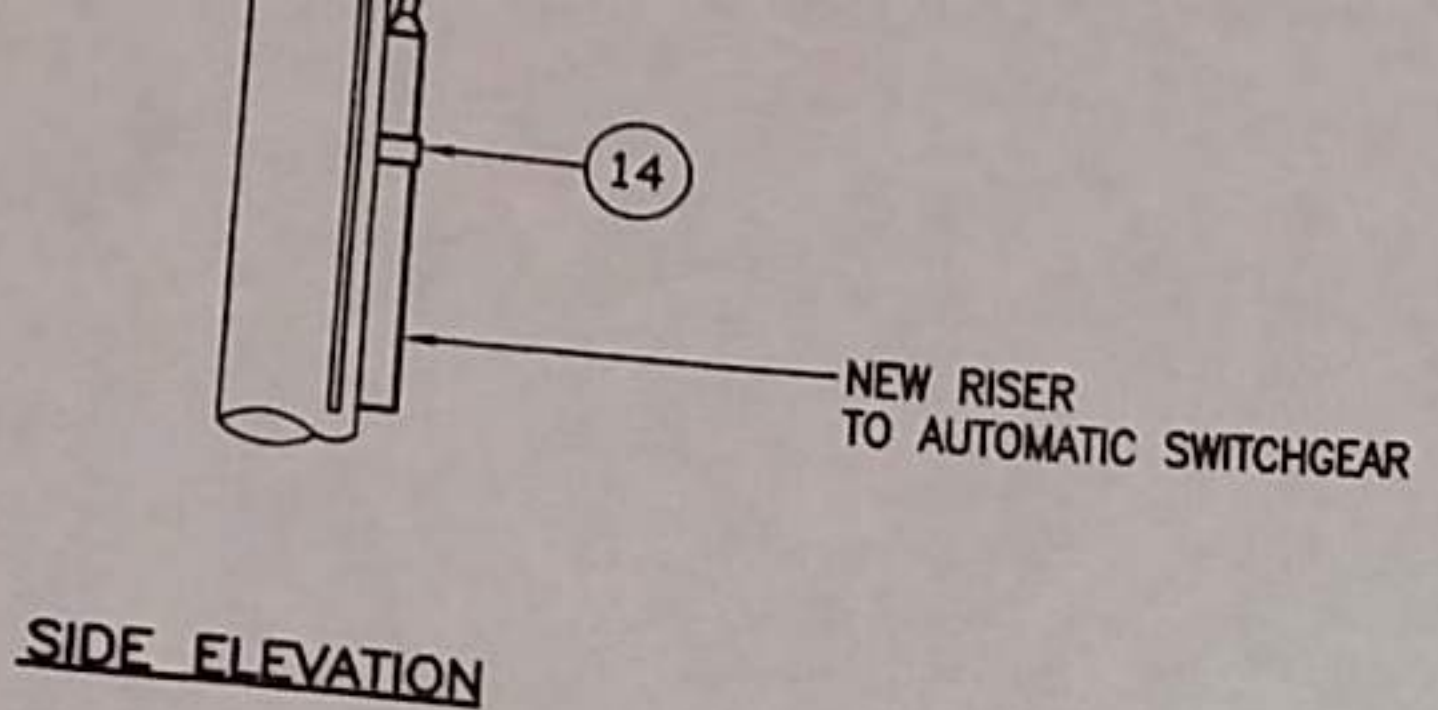
FRONT ELEVATION

**B** POLE NO 13A DETAIL  
NOT TO SCALE

LIST OF MATERIALS	
PART NO.	DESCRIPTION
1	CROSSARM, CROSSARM TR, 2 1/2" x 4 1/2" x 8'-0"
2	#6 WDG COPPER BOND TO INSULATOR PWS
3	CLAMP, HOT LINE TAP ASSEMBLY
4	#4 SOFT DRAWN COPPER GROUND WIRE
5	MACHINE BOLT, 5/16" x 1 1/2"
6	SQUARE WASHER, 2 1/4" x 2 1/4" x 5/16", WITH 11/16" DIAMETER HOLE
7	ROUND WASHER, 1" DIAMETER, WITH 7/16" DIAMETER HOLE
8	ROUND WASHER, 1 1/4" DIA., WITH 9/16" DIA. HOLE, USE UNDER HEAD OF CHIRAGE BOLT
9	W-T LOCKWIT, SQUARE, 5/8" BOLT SIZE
10	NEW FUSE COUTUT, OPEN TYPE, LOAD-BREAK, HOOK STICK OPERATED
11	SURGE ARRESTER, ZINC OXIDE
12	CONNECTOR, SPLIT BOLT, COPPER ALLOY
13	NEW TERMINATOR, SINGLE CONDUCTOR, SLIP-ON-TYPE, 10KV
14	CONDUIT STRAP, TWO HOLE TYPE
15	WOOD MOLDING, HALF ROUND, STAPLE EVERY 12" WITH COPPERCLAD STAPLES
16	BRACE FLAT CROSS ARM, 21.88mm x 21.88mm x 261.51mm STRUCTURAL GRADE STEEL, 44,480 NEWTONS BREAKING STRENGTH
17	LAG SCREW, 12.72mm # x 101.5mm, FETTER DRIVE

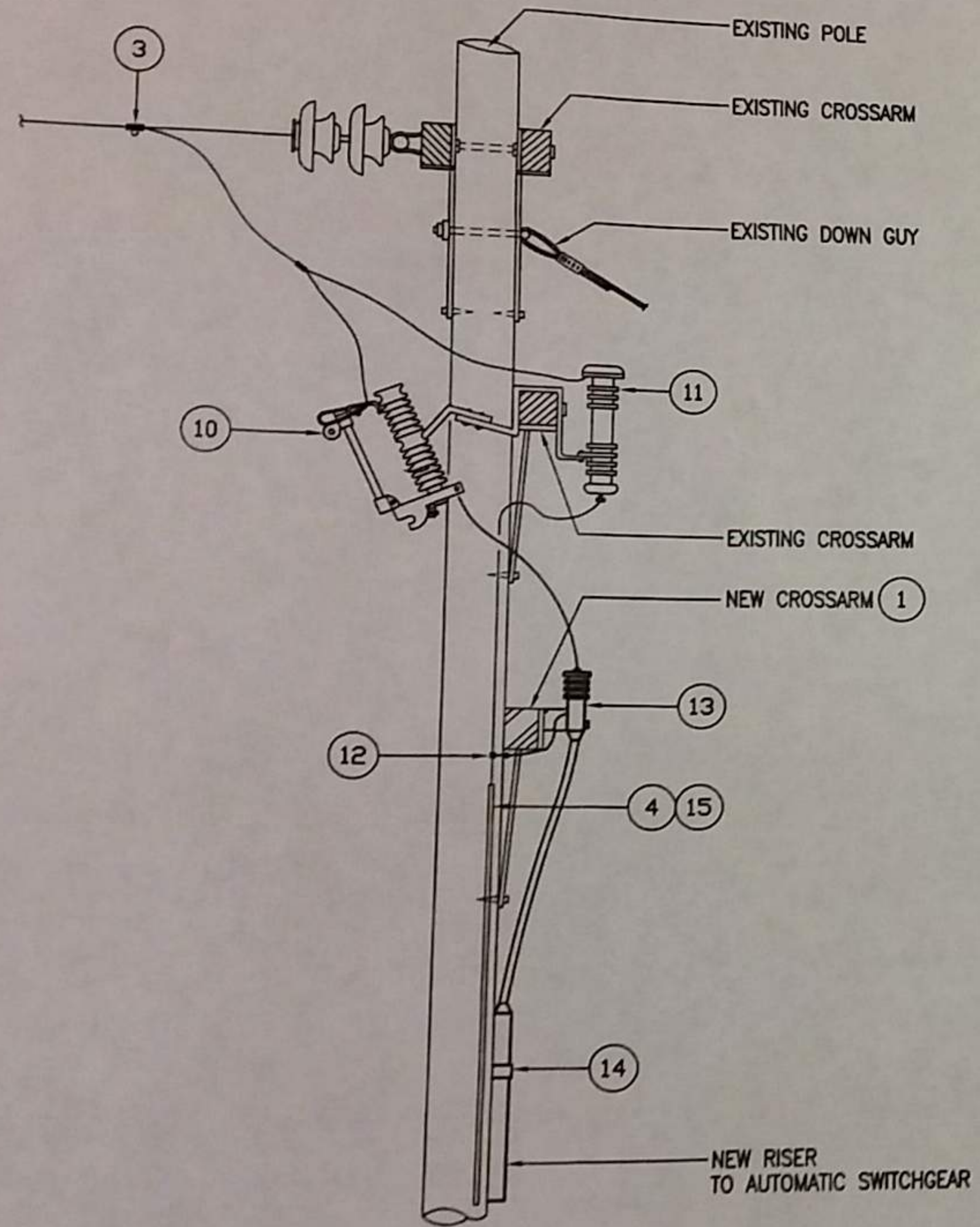
Department of Planning and Permitting  
 City and County of Honolulu  
 June 2014  
 LAND USE ORDINANCE  
 DAI-B COUNTER

	DEPT. OF ACCOUNTING & GENERAL SERVICES OFFICE OF TRAIL WORK 100 W. WILSON ST. HONOLULU, HI 96813
MAIWA CORRECTIVE FACILITY ELECTRICAL SYSTEM IMPROVEMENTS	
PROJECT NO. _____ DATE _____	SHEET NO. _____ TOTAL SHEETS _____
PREPARED BY: _____ CHECKED BY: _____ DATE: _____	

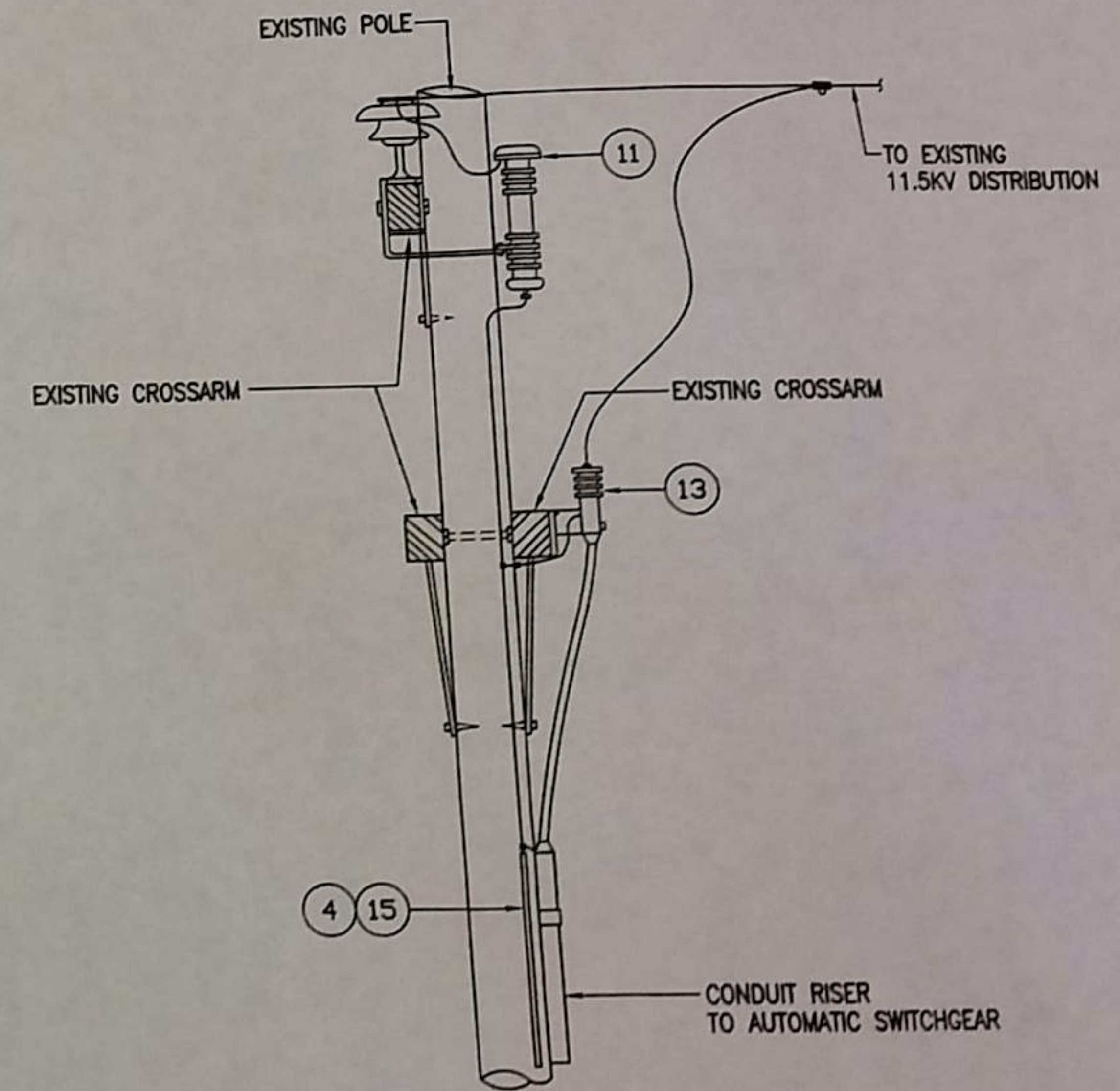


**A** POLE 13A DETAIL  
E-3 NOT TO SCALE

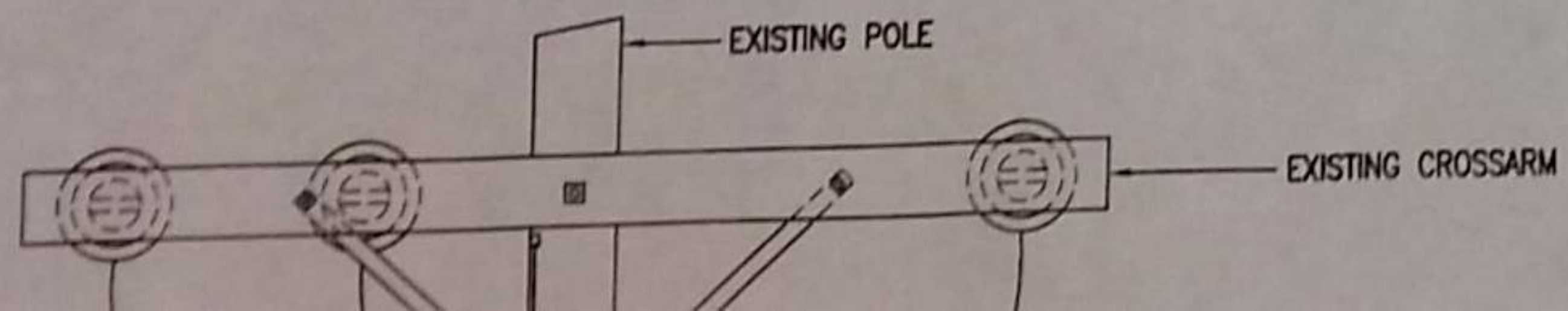
**B** POLE NP 13A DETAIL  
E-3 NOT TO SCALE



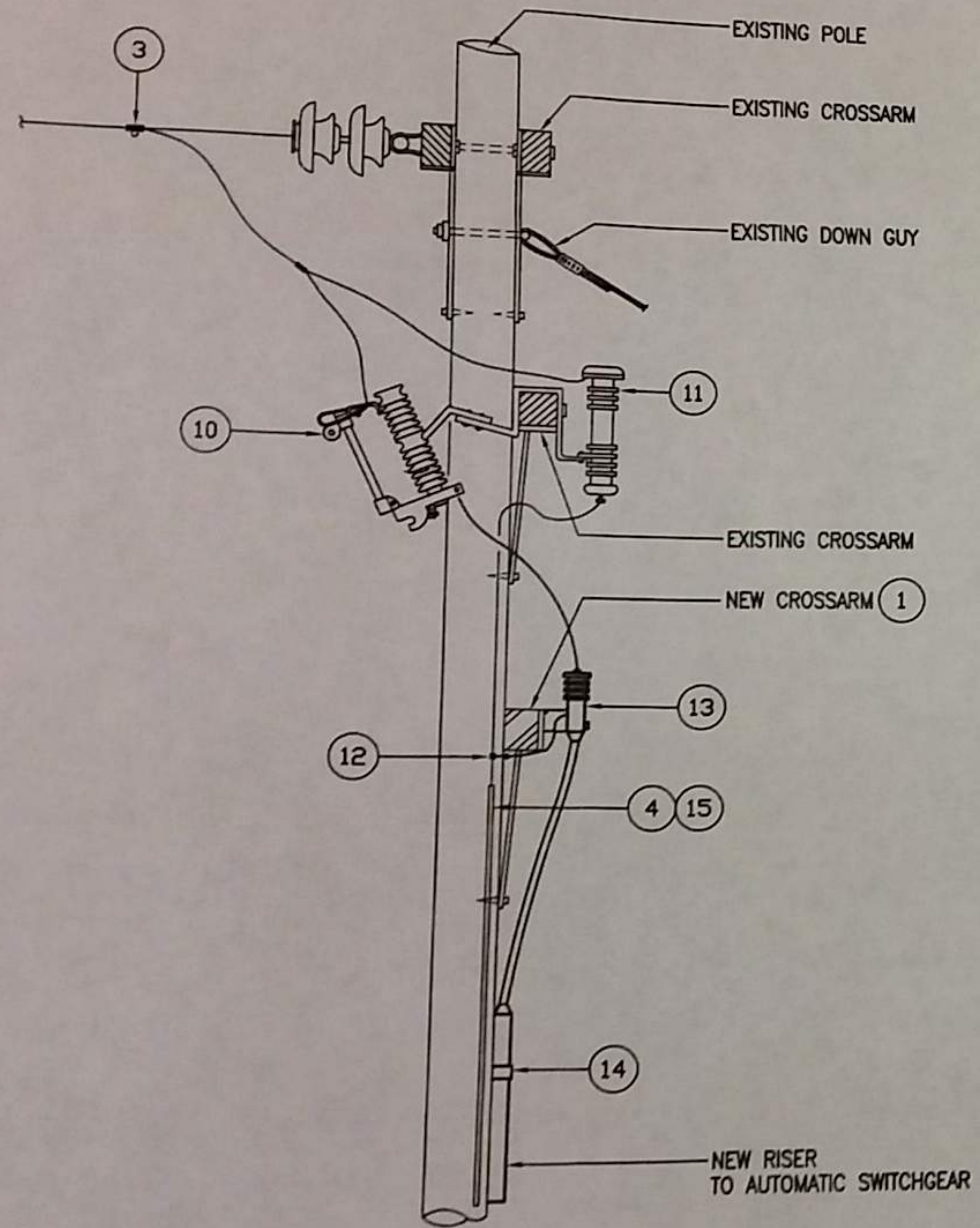
SIDE ELEVATION



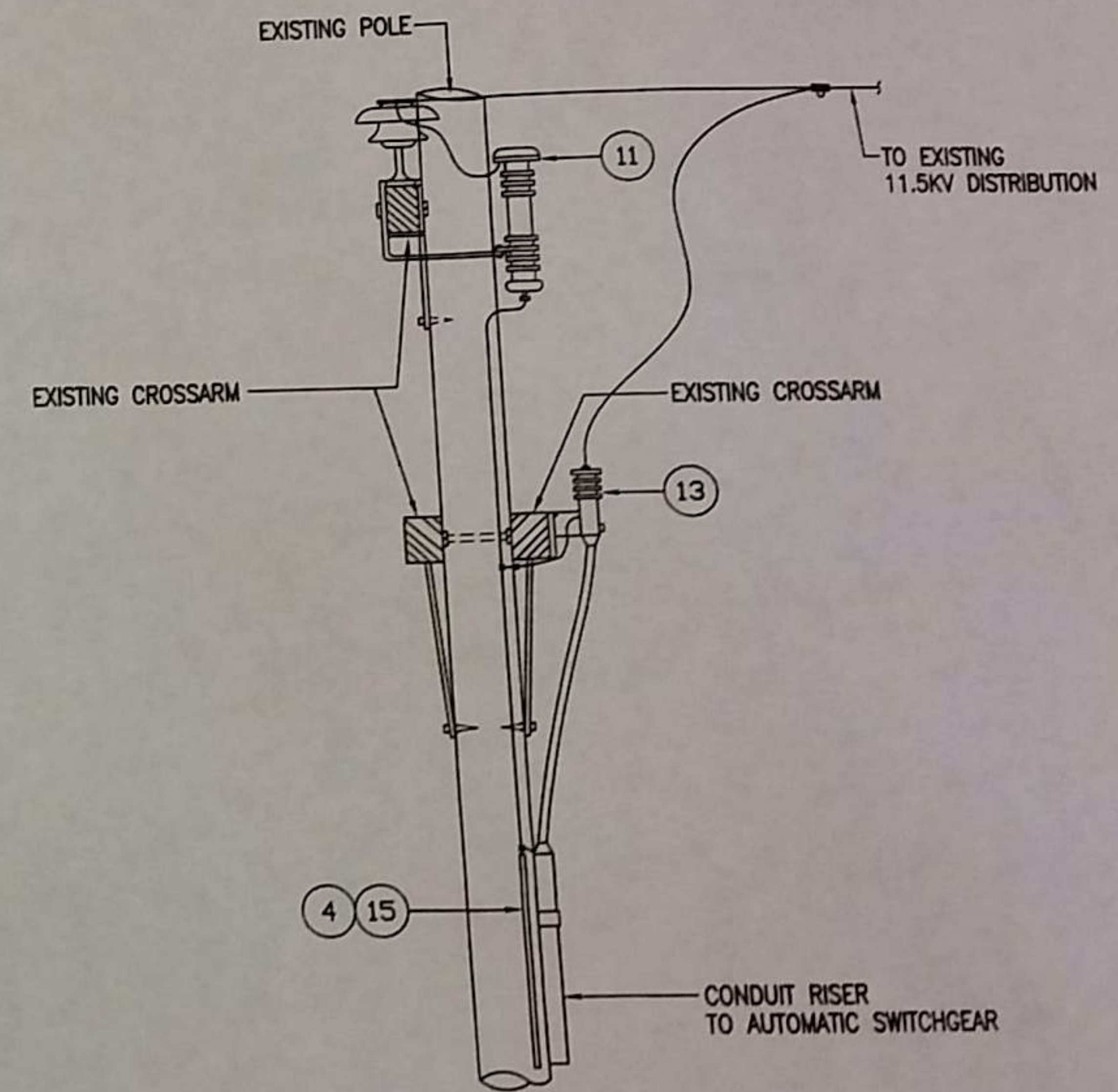
SIDE ELEVATION



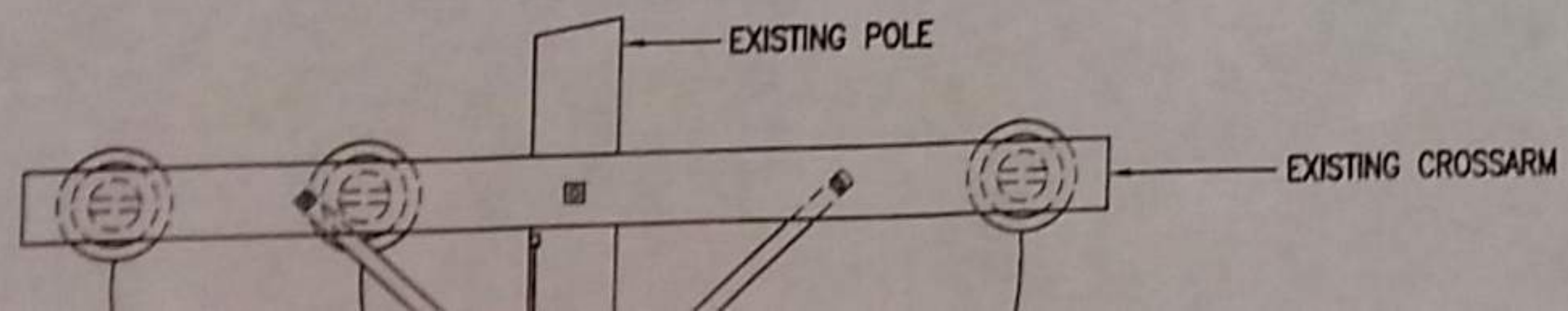
PART NO.	DESCRIPTION
1	CROSSARM, DOUGL
2	#8 MHD COPPER
3	CLAMP, HOT LINE
4	#4 SOFT DRAWN
5	MACHINE BOLT,
6	SQUARE WASHE
7	ROUND WASHE
8	ROUND WASHE
9	M-F LOCKNUT
10	NEW FUSE C
11	SURGE ARRE
12	CONNECTOR
13	NEW TERMIN
14	CONDUIT S
15	WOOD MO
16	BRACE FL STEEL, 4
17	LAG SCR



SIDE ELEVATION



SIDE ELEVATION



PART NO.	DESCRIPTION
1	CROSSARM, DOUGL
2	#8 MHD COPPER
3	CLAMP, HOT LINE
4	#4 SOFT DRAWN
5	MACHINE BOLT,
6	SQUARE WASHE
7	ROUND WASHE
8	ROUND WASHE
9	M-F LOCKNUT
10	NEW FUSE C
11	SURGE ARRE
12	CONNECTOR
13	NEW TERMIN
14	CONDUIT S
15	WOOD MO
16	BRACE FL STEEL, 4
17	LAG SCR

INDEX OF DRAWINGS		
SHEET No.	DWG. No.	SHEET TITLE
1	T-1	INDEX OF DRAWINGS, LOCATION MAP, VICINITY MAP
2	C-1	NOTES & BORING LOGS
3	C-2	<del>IMPROVEMENT PLANS</del> SITE PLANS
4	C-3	DETAILS
5	C-4	<del>DETAILS</del> WALL ELEVATION & SECTION
6	<del>BLM</del> C-5	<del>STRUCTURAL NOTES &amp; RETAINING WALL DETAILS</del> RETAINING WALLS NOTES & DETAILS
7	S-2	CONCRETE PAD DETAILS
8	E-1	EXISTING ELECTRICAL SITE PLAN - DEMOLITION WORK, ELECTRICAL SITE PLAN - NEW WORK, ELECTRICAL SYMBOLS, DUCTION SECTIONS
9	E-2	EXISTING SINGLE LINE DIAGRAM - DEMOLITION WORK, SINGLE LINE DIAGRAM - NEW WORK, SWITCHBOARD ELEVATION
10	E-3	POLE DETAIL, LIST OF MATERIALS

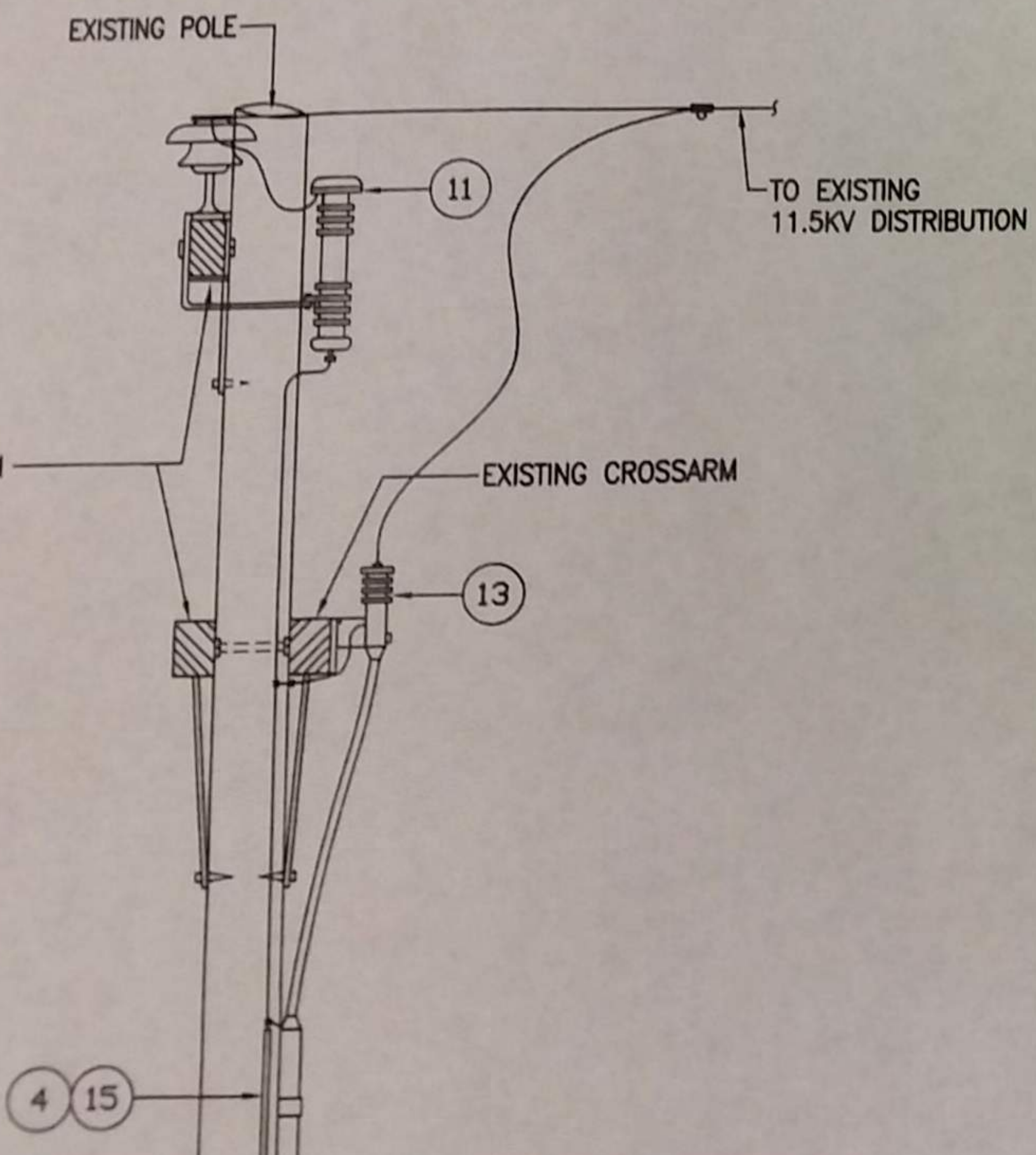
# 786079

BUILDING DIVISION  
FILE COPY

2014/CP-176

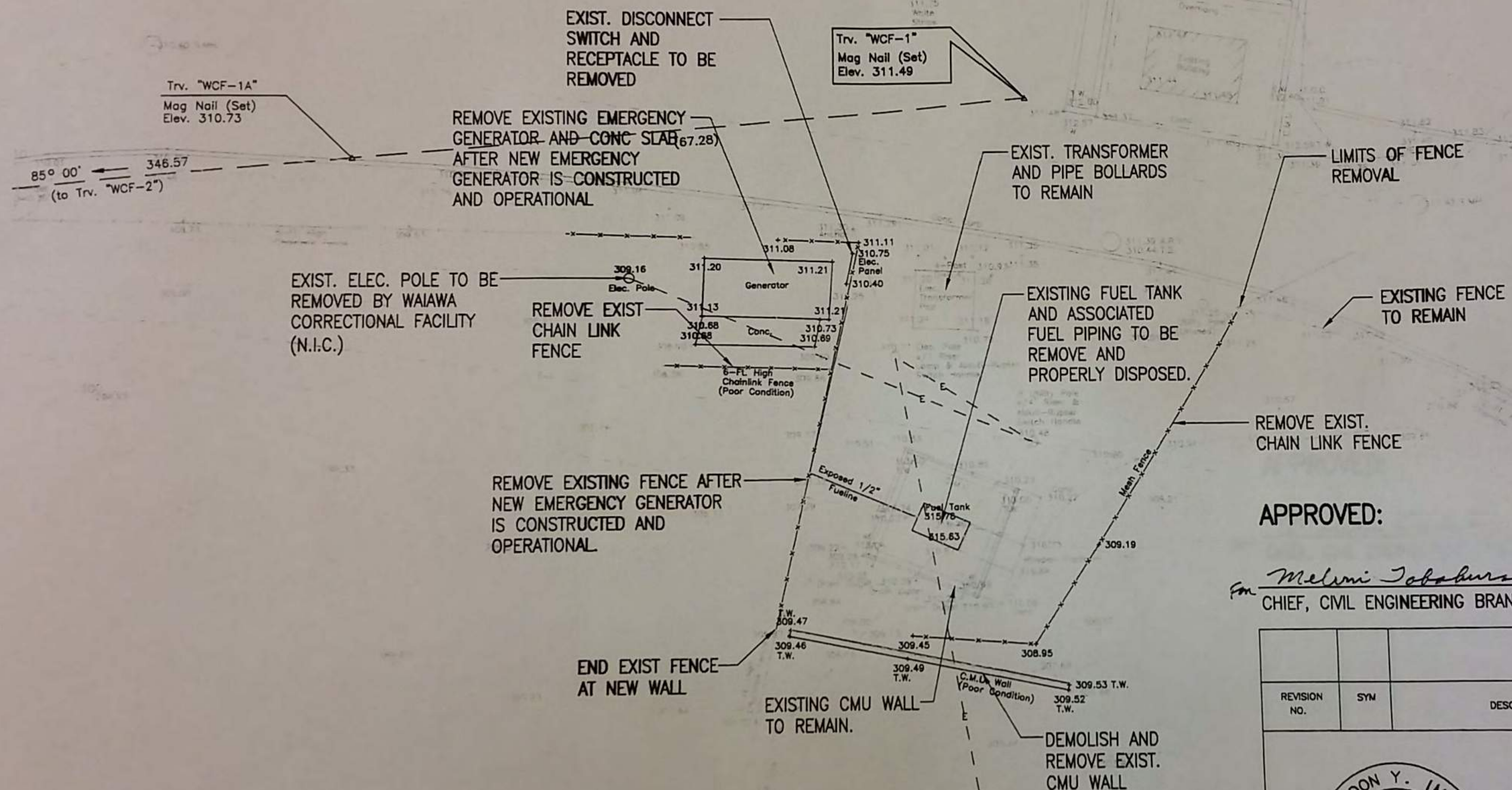
## LIST OF MATERIALS

PART NO.	DESCRIPTION
1	CROSSARM, DOUGLAS FIR, 3 1/2" x 4 1/2" x 8'-0"
2	#8 MHD COPPER BOND TO INSULATOR PINS
3	CLAMP, HOT LINE TAP ASSEMBLY
4	#4 SOFT DRAWN COPPER GROUND WIRE
5	MACHINE BOLT, 5/8" x 14"
6	SQUARE WASHER, 2 1/4" x 2 1/4" x 3/16", WITH 11/16 DIAMETER HOLE
7	ROUND WASHER, 1" DIAMETER, WITH 7/16" DIAMETER HOLE
8	ROUND WASHER, 1 1/4" DIA., WITH 9/16" DIA. HOLE, USE UNDER HEAD OF CARNAGE BOLT
9	M-F LOCKNUT, SQUARE, 5/8" BOLT SIZE
10	NEW FUSE CUTOUT, OPEN TYPE, LOAD-BREAK, HOOK STICK OPERATED
11	SURGE ARRESTER, ZINC OXIDE
12	CONNECTOR, SPLIT BOLT, COPPER ALLOY
13	NEW TERMINATOR, SINGLE CONDUCTOR, SLIP-ON-TYPE, 15KV
14	CONDUIT STRAP, TWO HOLE TYPE
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16	BRACE FLAT CROSS ARM, 31.88mm x 31.88mm x 863.51mm STRUCTURAL GRADE STEEL, 44,480 NEWTONS BREAKING STRENGTH
17	LAG SCREW, 12.72mm $\phi$ x 101.5mm, FETTER DRIVE



Approximate True North  
Scale: 1 in. = 10 Ft.

Approximate True North  
Scale: 1 in. = 10 Ft.



**EXISTING CONDITION AND DEMOLITION PLAN**  
SCALE: 1" = 10'-0"

APPROVED:

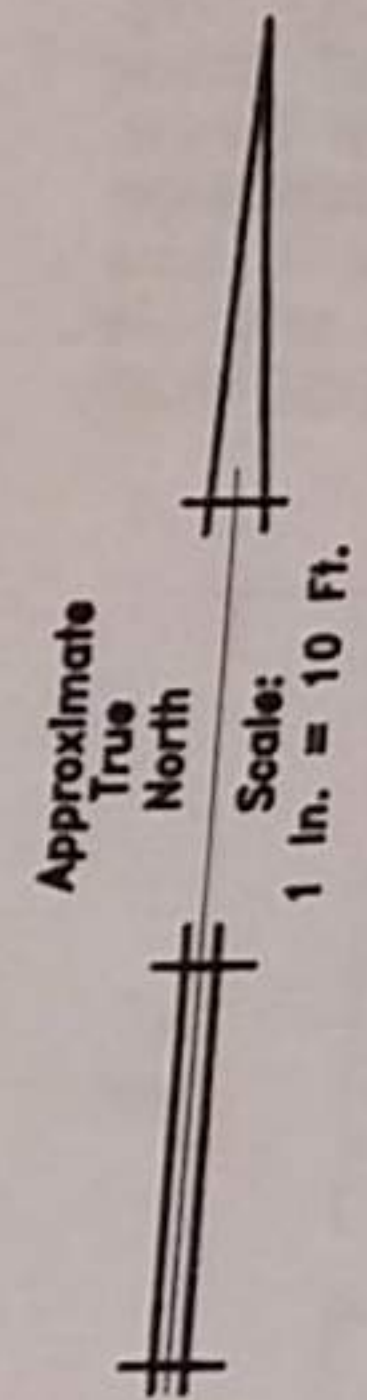
*Meloni Jobahura*  
CHIEF, CIVIL ENGINEERING BRANCH, D.P.P.

10/8/14  
DATE

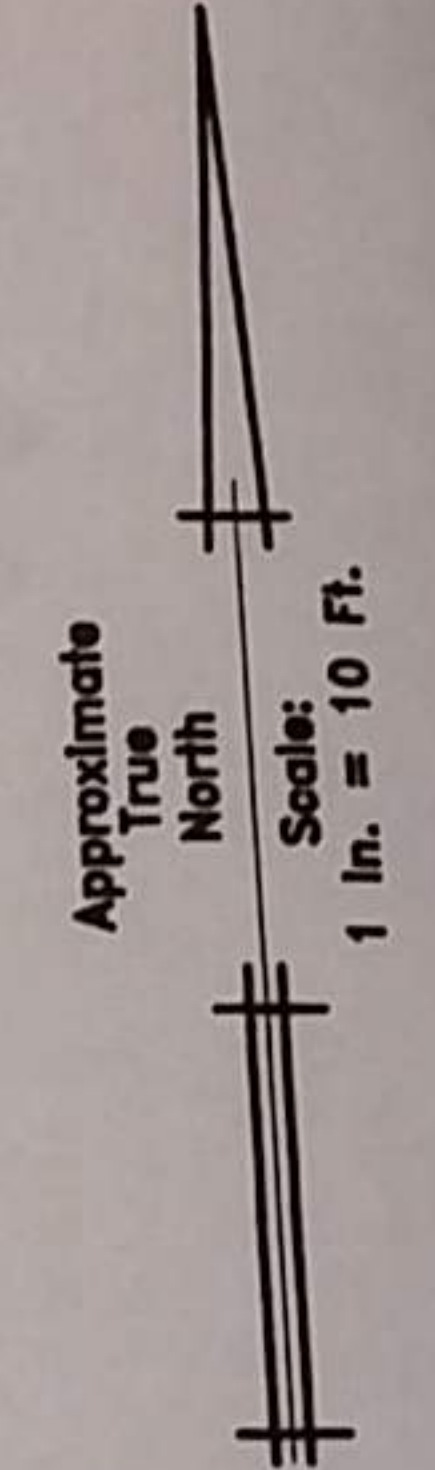
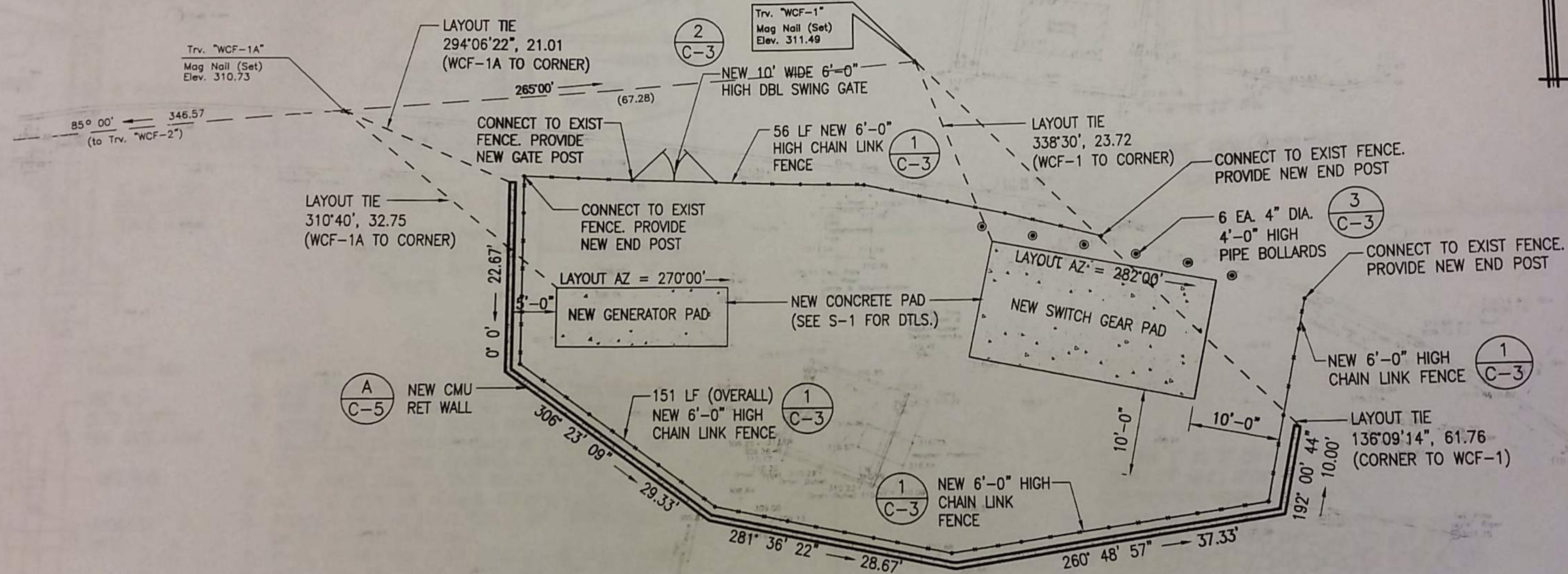
REVISION NO.	SYM	DESCRIPTION	SHT OF	DATE	APPROVED: PUBLIC WORKS ADMINISTRATOR
DEPT. OF ACCOUNTING & GENERAL SERVICES DIVISION OF PUBLIC WORKS STATE OF HAWAII					
WAIAWA CORRECTIONAL FACILITY ELECTRICAL SYSTEM IMPROVEMENTS					
MILILANI		OAHU		HAWAII	
SITE PLANS					
IMATA & ASSOCIATES, INC.			DAGS Job No.	DRAWING NO.	
DESIGNED BY: GYI	CHECKED BY: GYI	12-27-5564		C-2	
DRAWN BY: RDL	APPROVED BY: GYI	DATE	SHEET		
SCALE: AS NOTED		OCT., 2012	3		
EXPIRATION DATE OF THE LICENSE: 04/30/2016		OF 10 SHTS			



*Gordon Y. Imata*  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



NE LIMITS  
F DISTURBED



**NOTE:**

1. NORTH ARROW, AZIMUTHS, AND ELEVATIONS ARE ASSUMED. REFER TO TRAVERSE POINT ELEVATIONS AND AZIMUTHS FOR LAYING OUT NEW WORK.

**SITE LAYOUT AND IMPROVEMENT PLAN**

SCALE: 1" = 10'-0"



INDEX OF DRAWINGS		
SHEET No.	DWG. No.	SHEET TITLE
1	T-1	INDEX OF DRAWINGS, LOCATION MAP, VICINITY MAP
2	C-1	NOTES & BORING LOGS
3	C-2	<del>IMPROVEMENT PLANS</del> SITE PLANS
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9	E-2	EXISTING SINGLE LINE DIAGRAM - DEMOLITION WORK, SINGLE LINE DIAGRAM - NEW WORK, SWITCHBOARD ELEVATION
10	E-3	POLE DETAIL, LIST OF MATERIALS

# 786079

BUILDING DIVISION  
FILE COPY

2014/CP-176

**Appendix E: Aerial Photos**

Date	Description
1968	USGS_1968_No. 2204_Flt 21_MAGIS
1977	USGS_1977_No. 2167_Flt 20_MAGIS
2016	Austin Tsutsumi & Assoc

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2-26-68

I-6

GS-VXJ-S

USGS 1968 No. 2204 flight path 21 UHMAGIS

FOR OFFICIAL USE ONLY

F3

0 4 3

12-13-77

9-33

GS-VEEE

USGS 1977 No. 2167 flight path 20 UHMAGIS

FOR OFFICIAL USE ONLY



FOR OFFICIAL USE ONLY

E-5

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**Appendix F: Plat Maps and Property Description**

Date	Description	Document Included
1951	Land Court Application 1000 Map 0030 Subdivision and Designation of Easements	Y
1972	Land Court Application 1000 Map 0348 Consolidation, Resubdivision and Designation of Easements	Y
1979	Land Court Application 1000 Map 0513 Subdivision and Designation of Easements	Y
1985	Quitclaim Deed Conveyed Waiawa Military Reservation to the State of Hawai'i (referenced in 2015 US DOE letter to DPS).	<b>Not in File</b>
1988	DAGS Metes and Bounds description "see Plat 2192 for Tracing"	Y
1988	H.S.S. Plat 2192 Waiawa Correctional Facility Site Parcels 1 and 2 Waiawa, 'Ewa, O'ahu, Hawai'i	Y
unknown	Tax Map 9-6-5	Y
1989	Governor's Executive Order 3414	Y

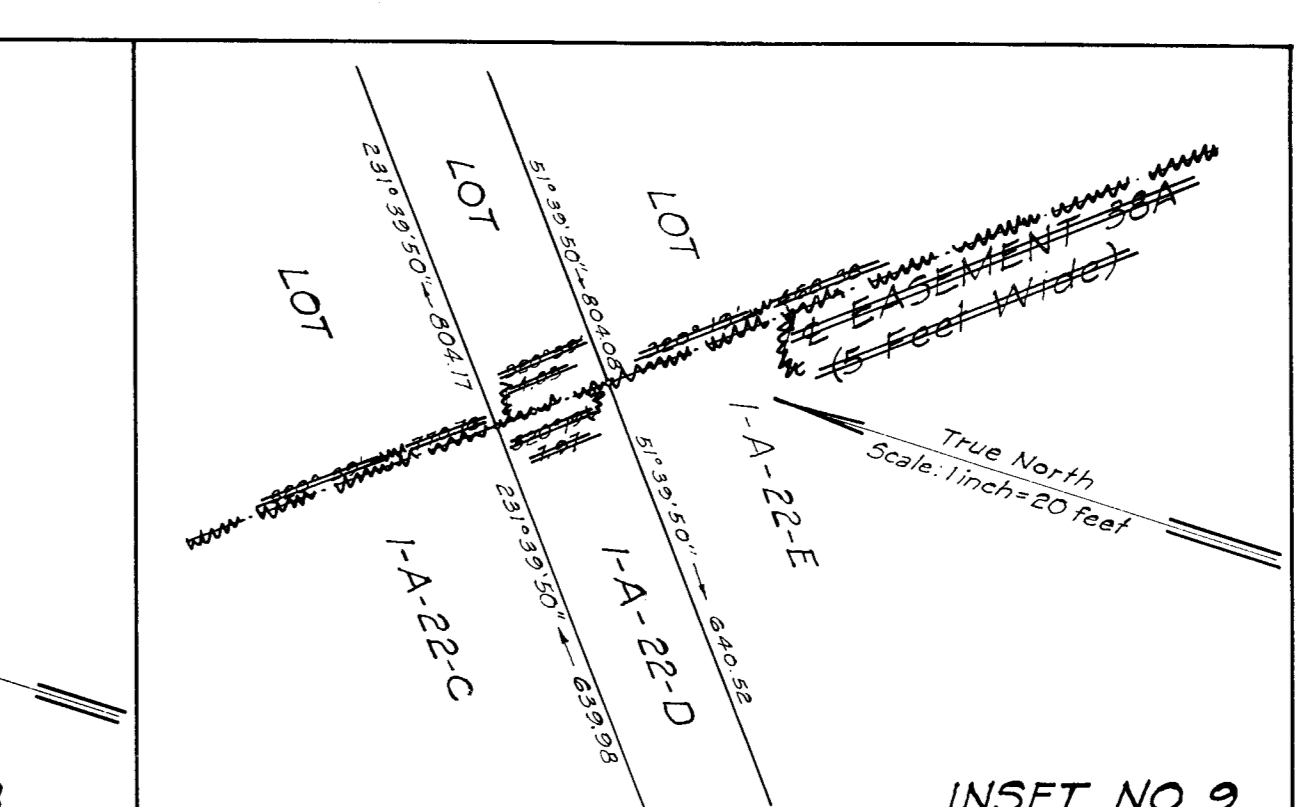
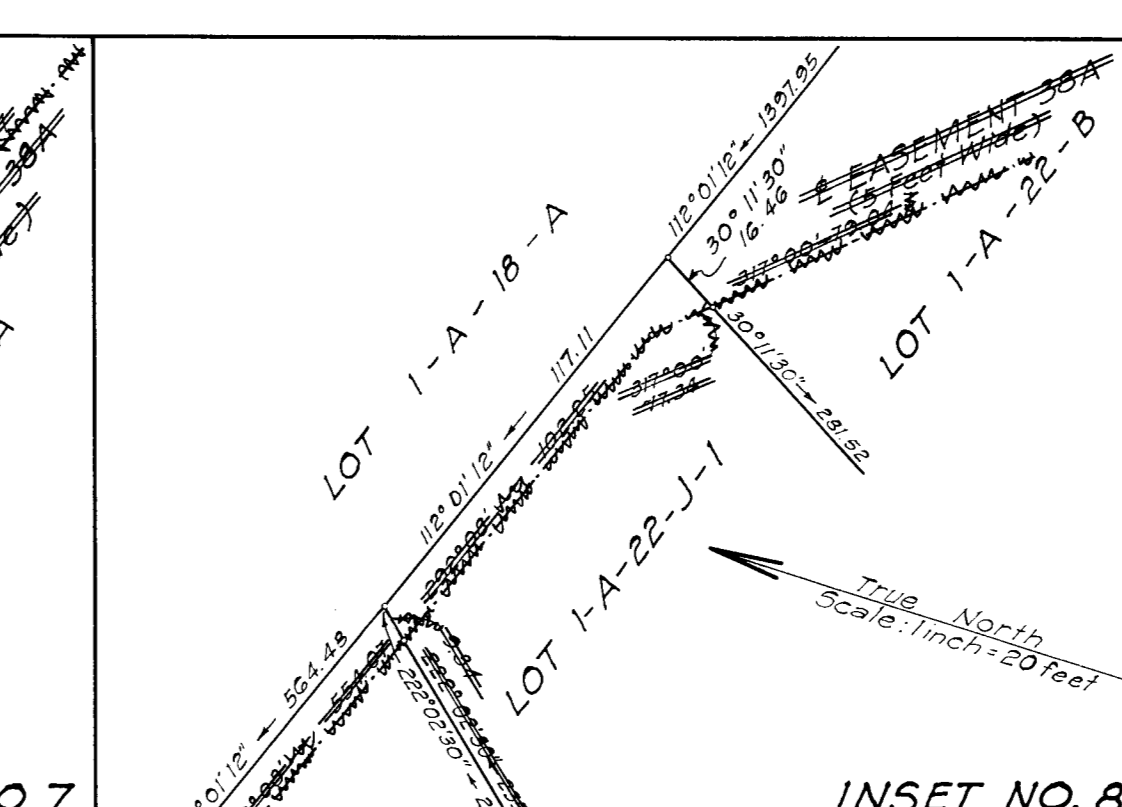
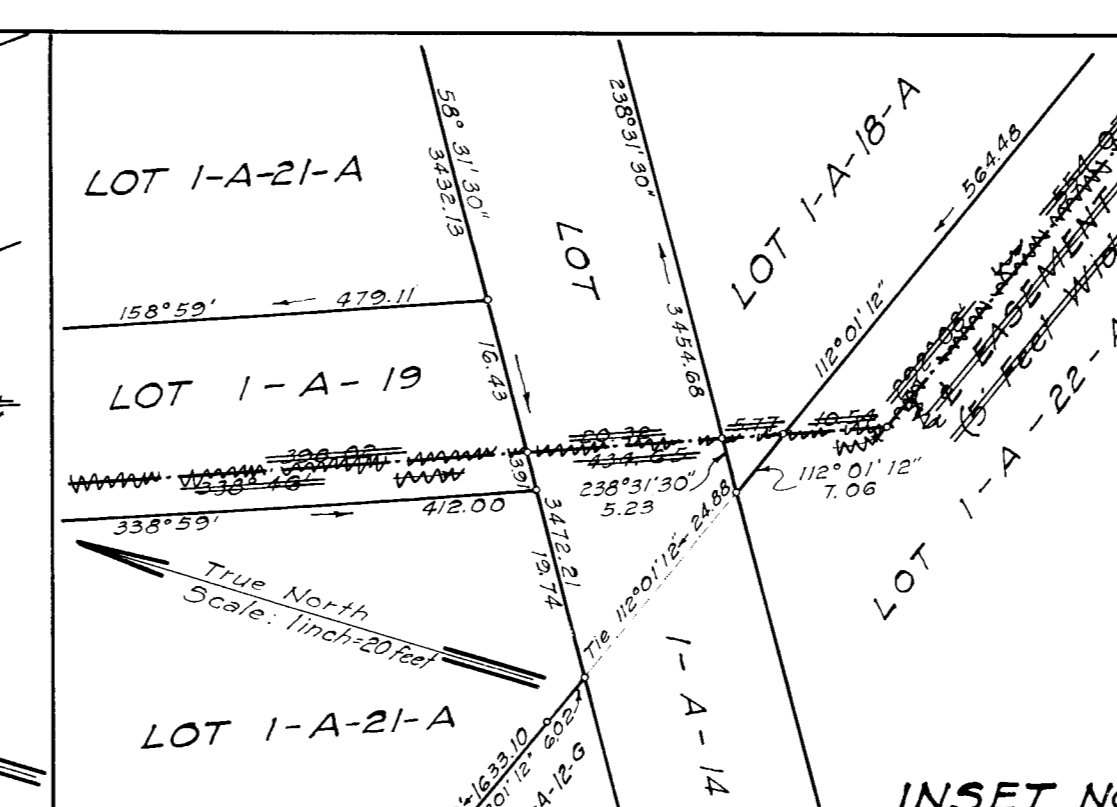
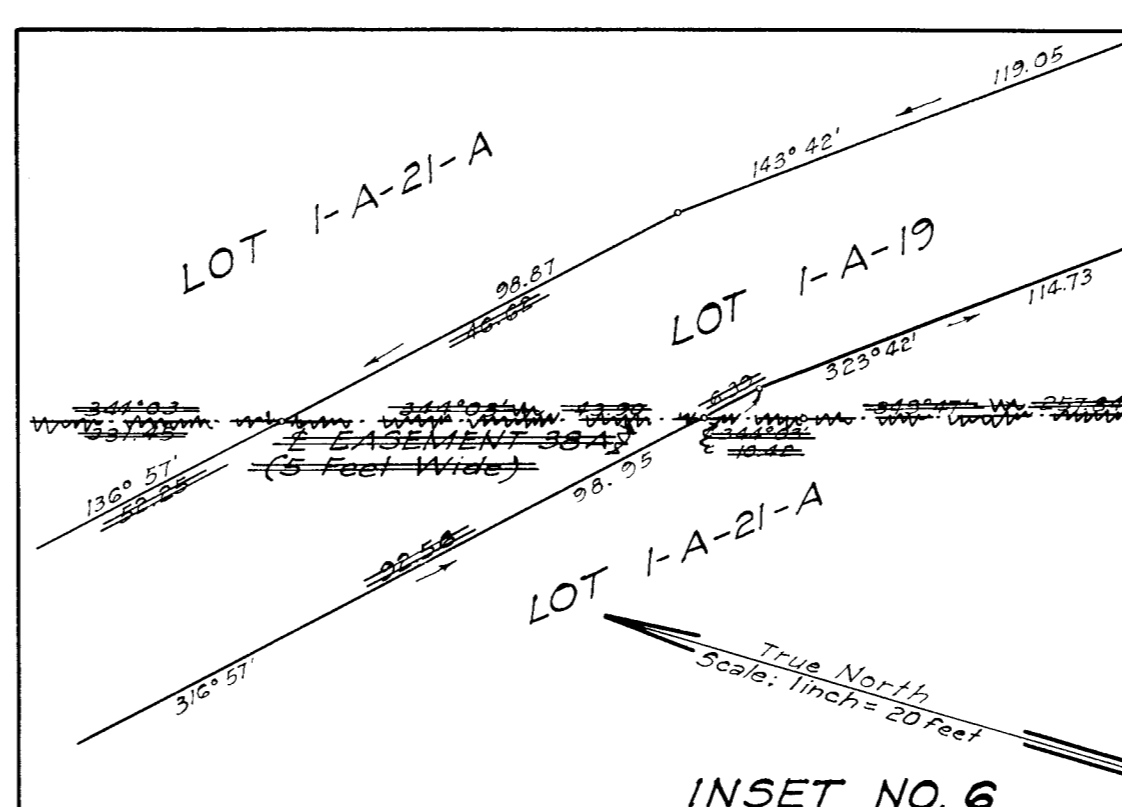
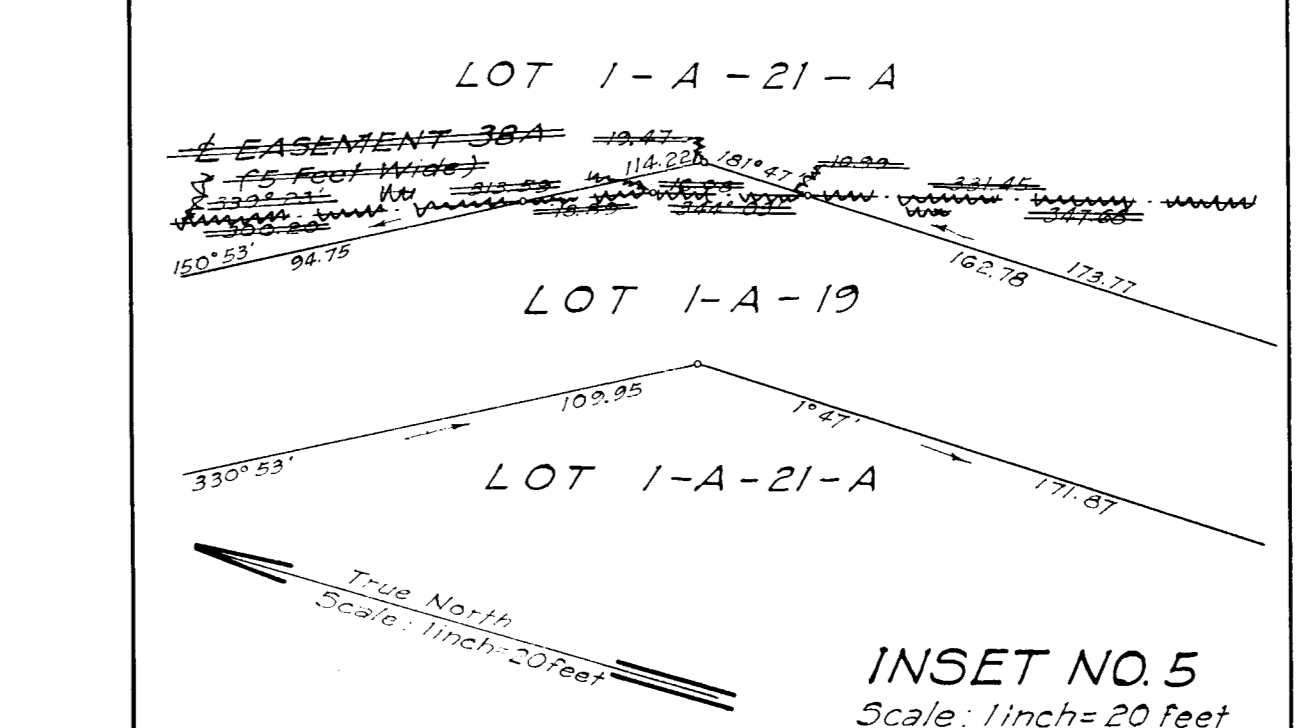
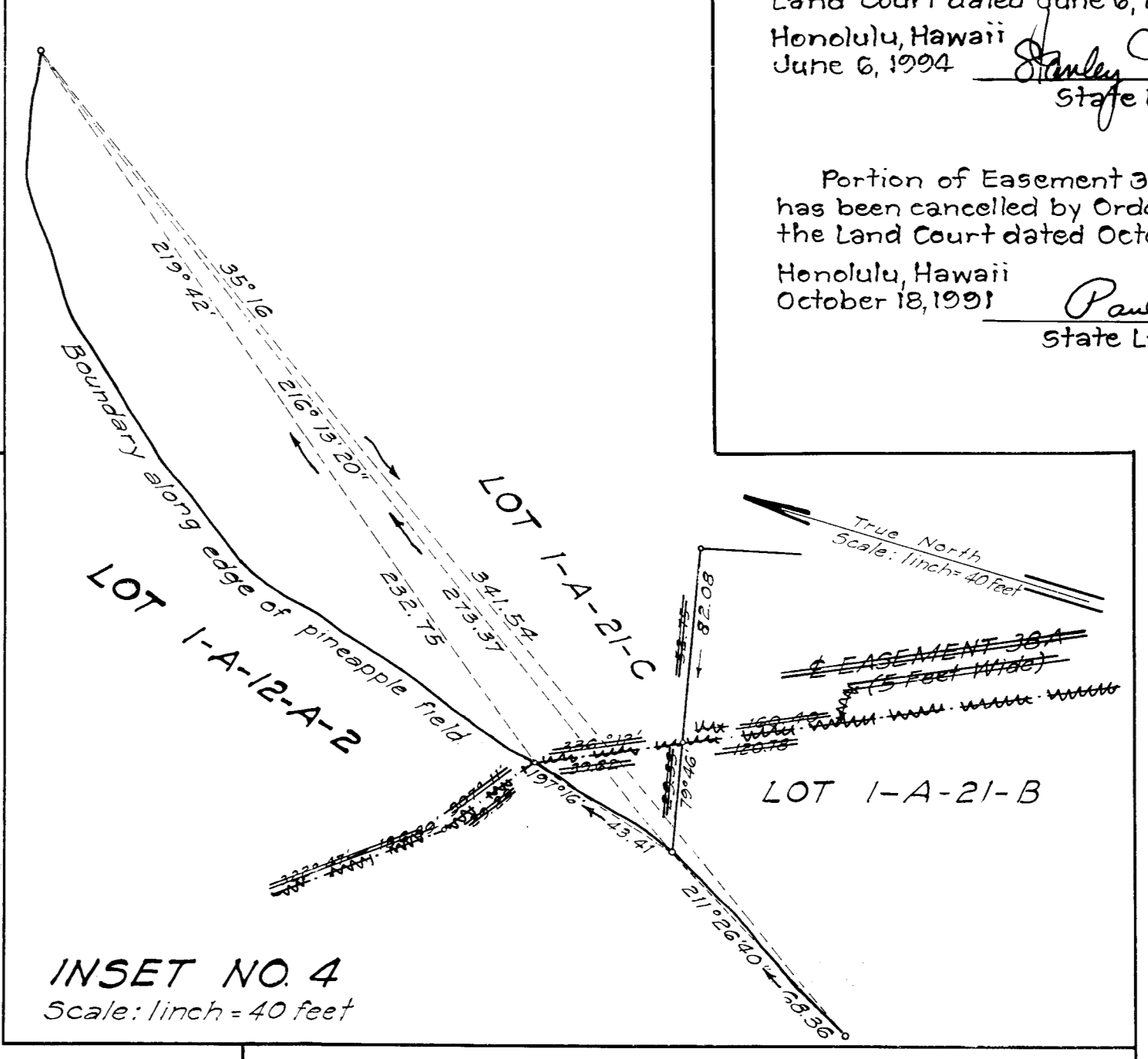
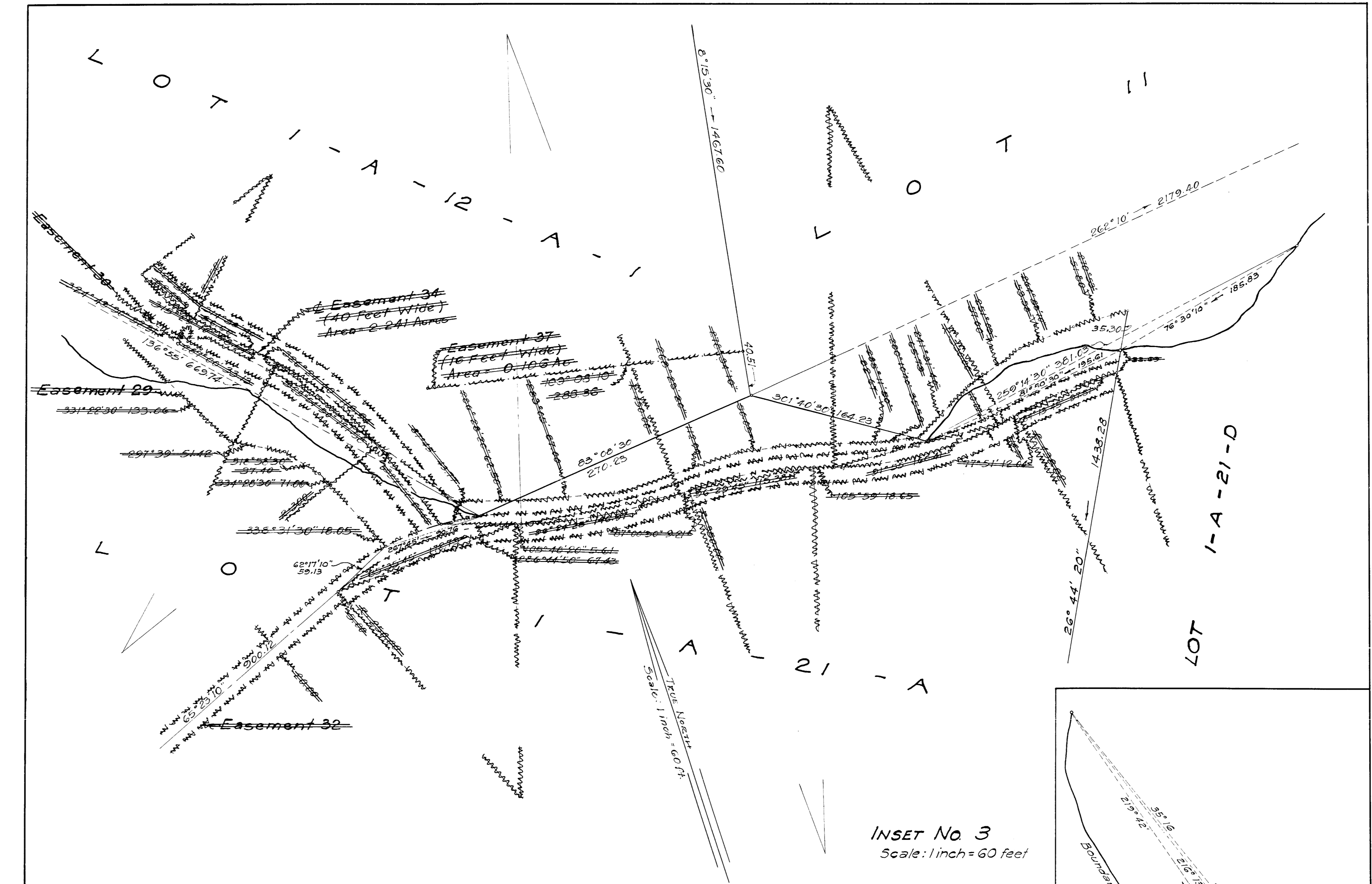
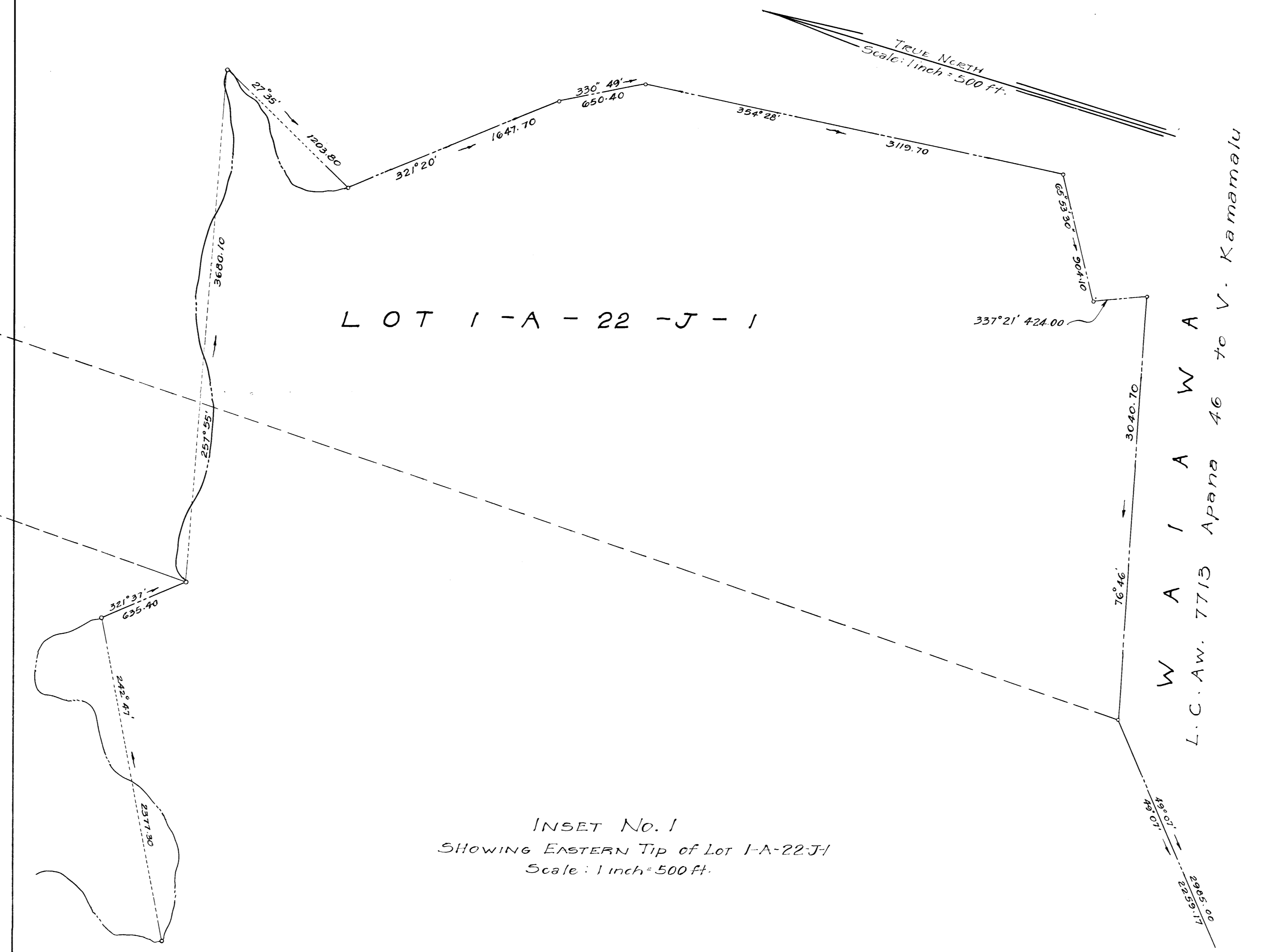
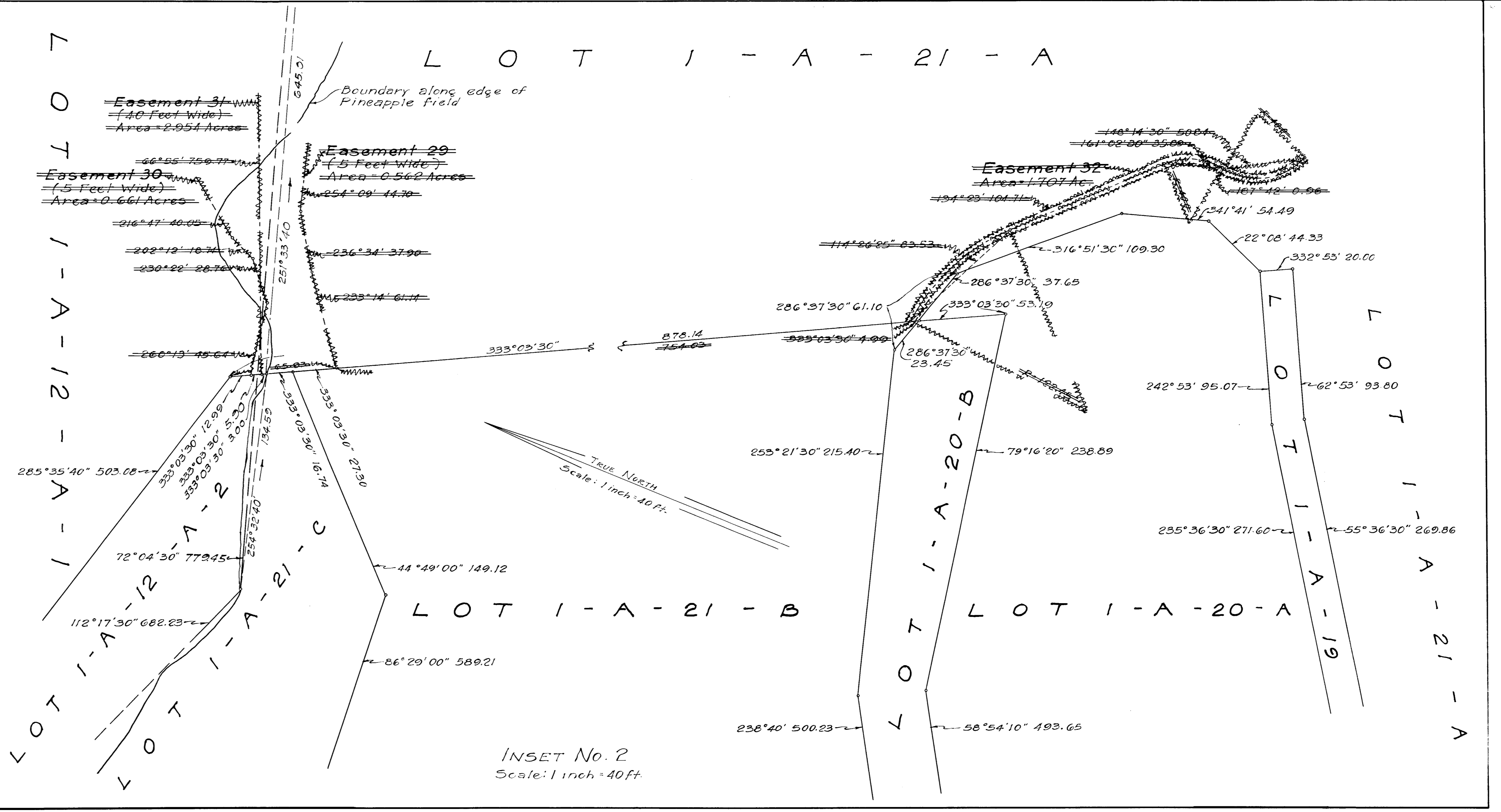
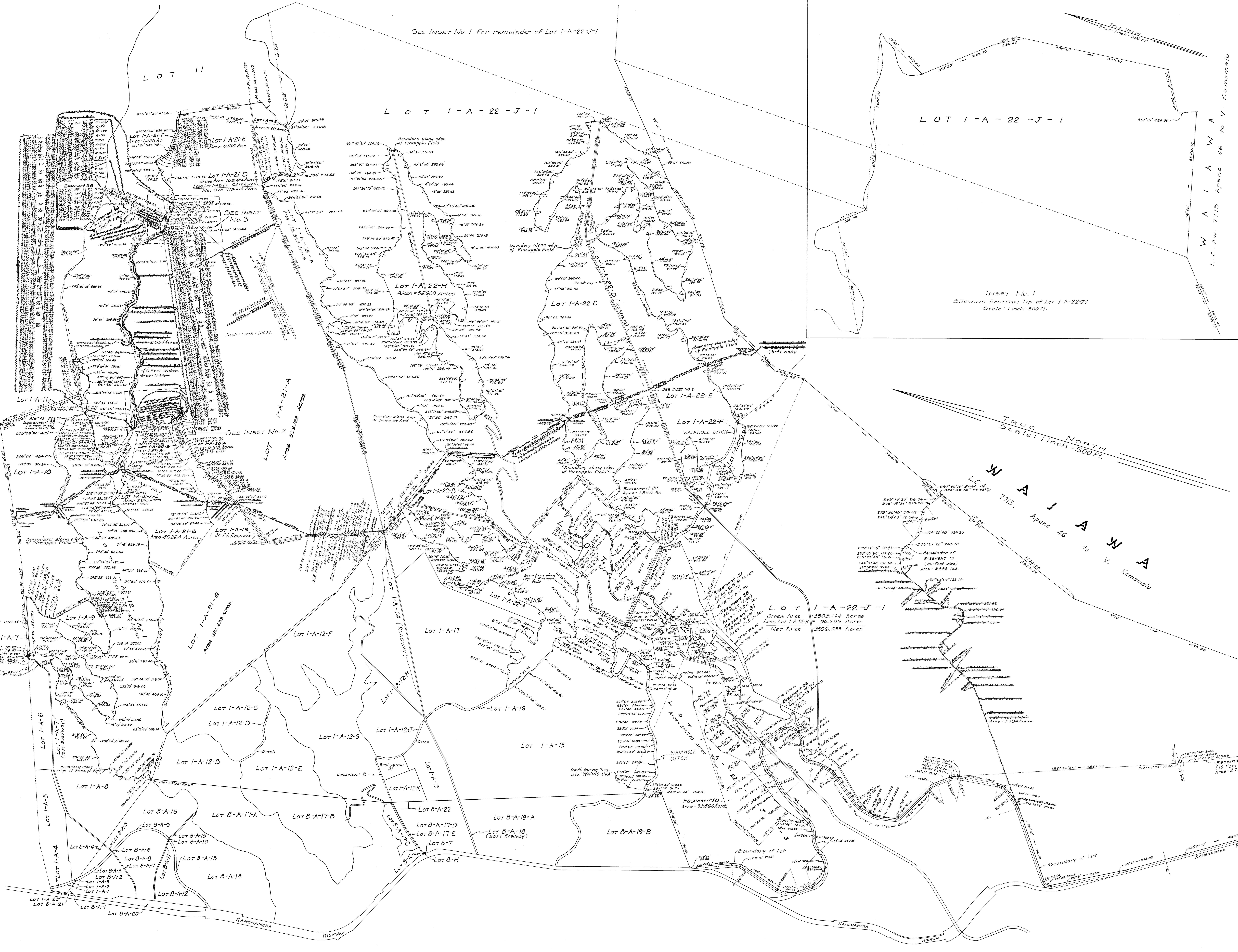


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F-2

W A I K A L A U A  
RESERVATION  
MILITARY  
UNITED STATES



**LAND COURT**  
TERRITORY OF HAWAII

**LAND COURT APPLICATION 1000**

SUBDIVISION OF LOTS 1-A-18, 1-A-20, AND 1-A-21  
AS SHOWN ON MAP 18  
INTO LOTS 1-A-18-A AND 1-A-18-B,  
1-A-20-A AND 1-A-20-B AND  
1-A-21-A TO 1-A-21-G (INCLUSIVE)

SUBDIVISION OF LOTS 1-A-12-A AND 1-A-22-J  
AS SHOWN ON MAP 22  
INTO LOTS 1-A-12-A-1 AND 1-A-12-A-2 AND  
1-A-22-J-1 TO 1-A-22-J-3 (INCLUSIVE)

DESIGNATION OF EASEMENTS 18 TO 38 (INCLUSIVE) AND 38-A  
AT WAIKAKALAU, AND WAIPIO, EWA, OAHU, T.H.

Portion of Easement 30-A has been cancelled by Order of the Judge of the Land Court dated May 28, 1952.  
Honolulu, Hawaii  
State Land Surveyor

Portion of Easement 30-A has been cancelled by Order of the Judge of the Land Court dated March 30, 1951.  
Honolulu, Hawaii  
State Land Surveyor

Easements 34, 35 and 37 have been cancelled by Order of the Judge of the Land Court dated June 6, 1950.  
Honolulu, Hawaii  
State Land Surveyor

Easements 32, 33 and the remainder of 31 as shown herein have been cancelled by Order of the Judge of the Land Court dated July 23, 1950.  
Honolulu, Hawaii  
State Land Surveyor

Easements 32 and 33 and portion of Easement 31-A as shown herein have been cancelled by Order of the Judge of the Land Court dated August 5, 1950.  
Honolulu, Hawaii  
State Land Surveyor

Portion of Easement 30-A as shown herein has been cancelled by Order of the Judge of the Land Court dated June 6, 1950.  
Honolulu, Hawaii  
State Land Surveyor

Portion of Easement 30-A as shown herein has been cancelled by Order of the Judge of the Land Court dated October 16, 1951.  
Honolulu, Hawaii  
State Land Surveyor

Fort Armstrong  
Honolulu, T.H.  
July 14, 1950

Office of the District Engineer  
Honolulu District  
Corps of Engineers, U.S. Army

By: *Walter R. 24*  
Cadastral Engineer

Approved By:  
*J. P. Dallen*  
Colonel, C.E.  
District Engineer

Owner: JOHN T. ESTATE, LIMITED  
Owner's Certificate of Title: 13843

AUTHORIZED AND APPROVED BY ORDER OF THE JUDGE OF THE LAND COURT DATED: AUGUST 9, 1951  
BY THE ORDER OF THE COURT

*Paul Bullard*  
REGISTRAR OF THE LAND COURT

Portion of Easement 30-A affecting Lot 1-A-21-A as shown herein has been cancelled by Order of the Judge of the Land Court dated July 10, 1952.  
Honolulu, Hawaii  
State Land Surveyor

Portions of Easements 31 and 38 affecting Lot 1-A-21-A as shown herein have been cancelled by Order of the Judge of the Land Court dated July 10, 1952.  
Honolulu, Hawaii  
State Land Surveyor

Portion of Easement 31-A affecting Lot 1-A-21-A as shown herein has been cancelled by Order of the Judge of the Land Court dated August 30, 1950.  
Honolulu, Hawaii  
State Land Surveyor

# LAND COURT

STATE OF HAWAII

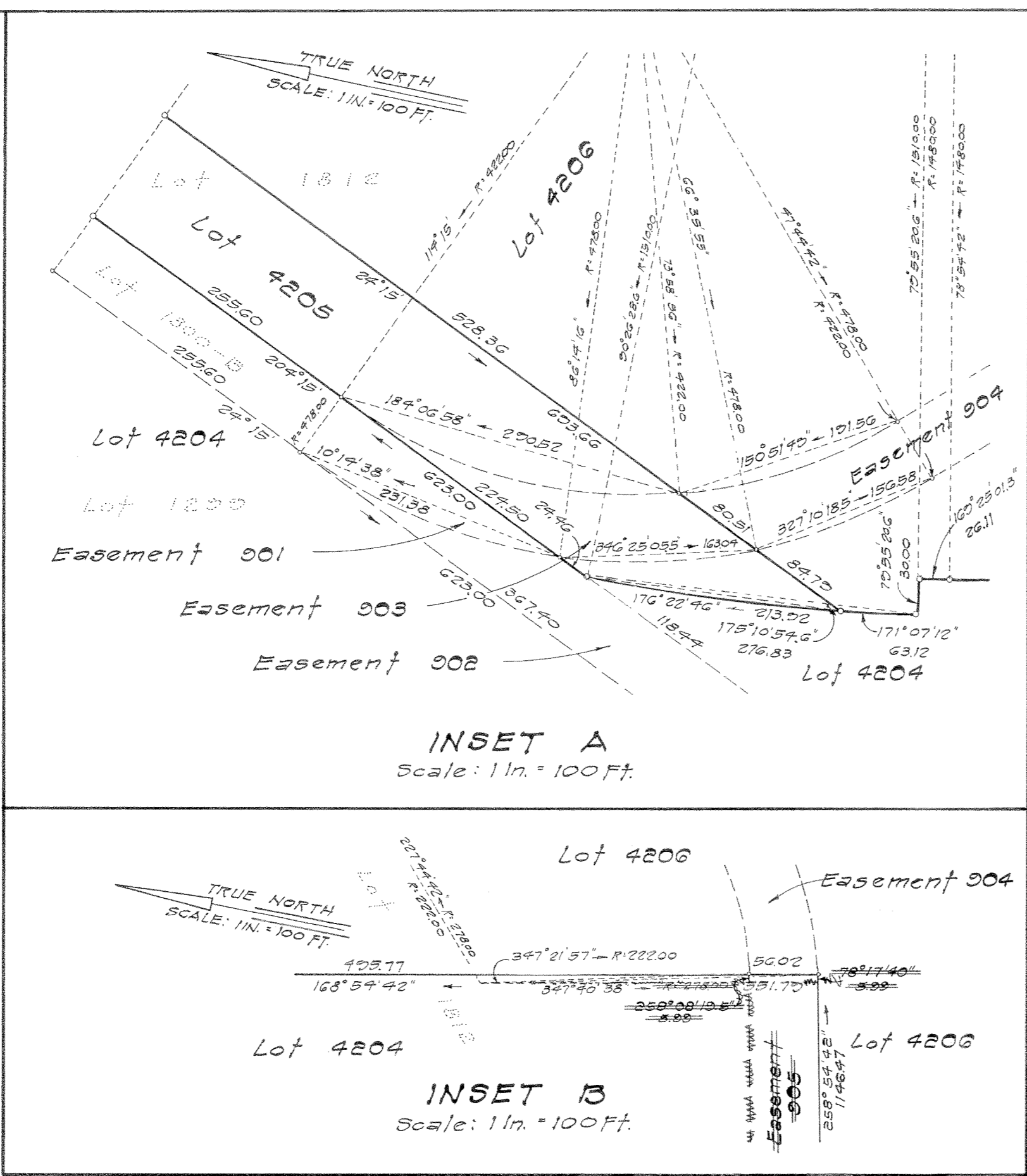
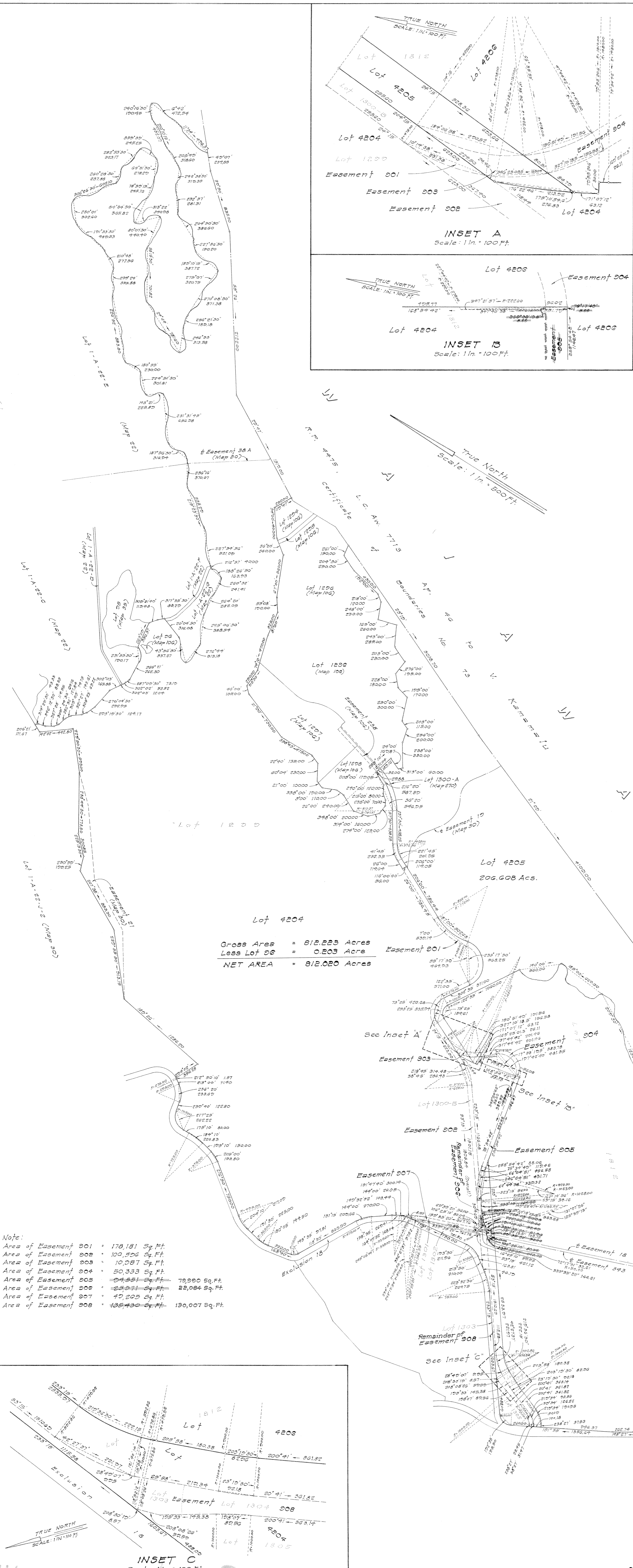
## LAND COURT APPLICATION 1000

CONSOLIDATION OF LOT 1812 AS SHOWN ON MAP 213  
 AND LOTS 1200, 1301 TO 1305 (INCLUSIVE) AS SHOWN ON MAP 106  
 AND LOT 1300-B AS SHOWN ON MAP 270  
 AND RESUBDIVISION OF SAID CONSOLIDATION  
 INTO LOTS 4204 TO 4206 (INCLUSIVE)  
 AND DESIGNATION OF EASEMENTS 901 TO 908 (INCLUSIVE)  
 AS SHOWN BELOW

- EASEMENT 901 OVER AND ACROSS LOT 4204
- EASEMENT 902 AFFECTING LOT 4204
- EASEMENT 903 OVER AND ACROSS LOT 4205
- EASEMENT 904 OVER AND ACROSS LOT 4206
- EASEMENT 905 OVER AND ACROSS LOT 4204
- EASEMENT 906 AFFECTING LOT 4204
- EASEMENT 907 OVER AND ACROSS LOT 4204
- EASEMENT 908 OVER AND ACROSS LOT 4204

AND DELETION OF EASEMENT 330 AS SHOWN ON MAPS 101 AND 213

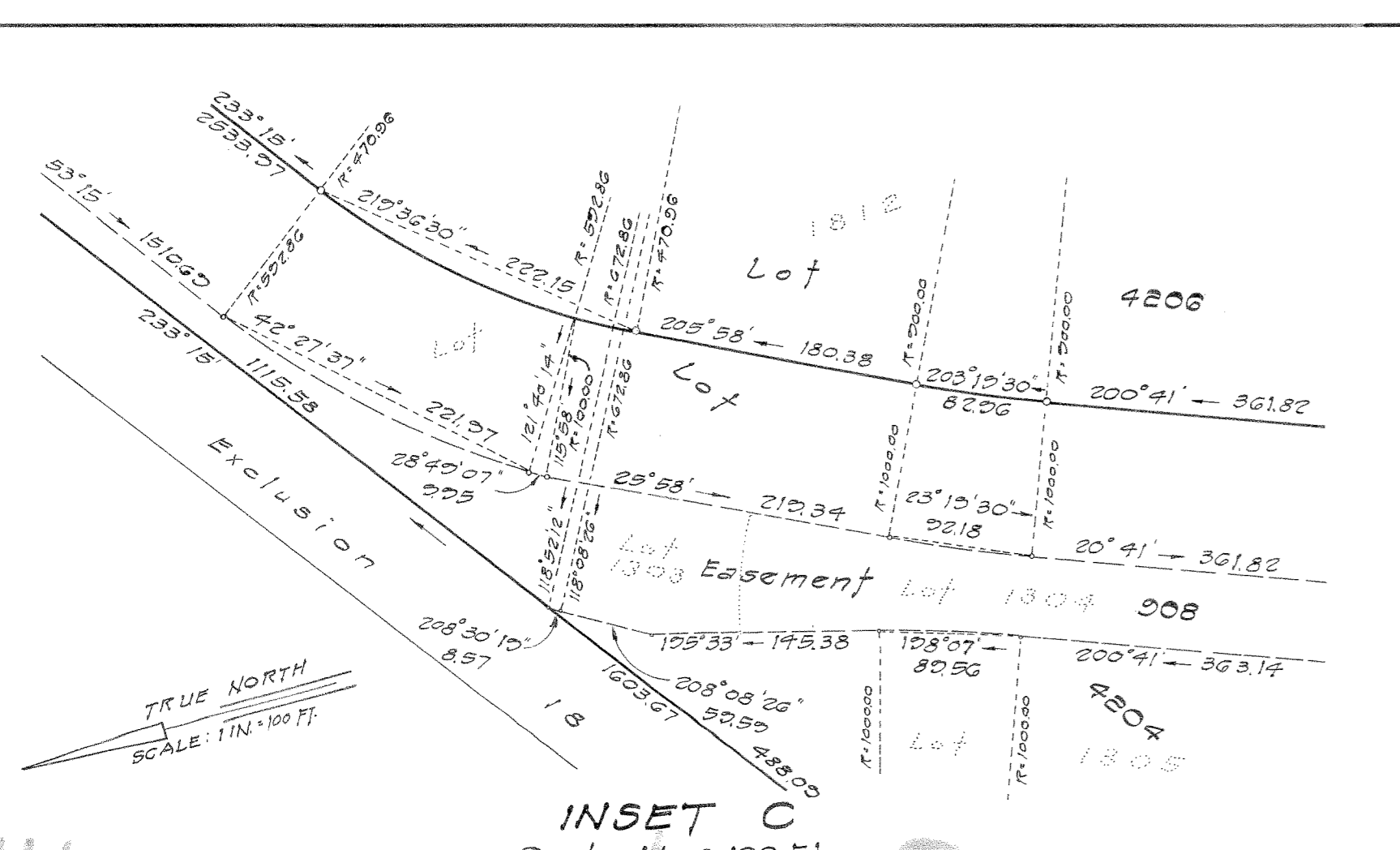
AT WAIPIO, EWA, OAHU, HAWAII



Lot 4204  
 Gross Area = 812.225 Acres  
 Less Lot 96 = 0.203 Acre  
 NET AREA = 812.020 Acres

LOT 4206  
 Gross Area = 606.708 Acres  
 Less Lots 1300-B and 1811 = 0.868 Acre  
 NET AREA = 605.841 Acres

- Note:
- Area of Easement 901 = 178,181 Sq. Ft.
  - Area of Easement 902 = 100,526 Sq. Ft.
  - Area of Easement 903 = 10,287 Sq. Ft.
  - Area of Easement 904 = 50,333 Sq. Ft.
  - Area of Easement 905 = 79,900 Sq. Ft.
  - Area of Easement 906 = 22,086 Sq. Ft.
  - Area of Easement 907 = 47,005 Sq. Ft.
  - Area of Easement 908 = 135,430 Sq. Ft.



700 Bishop Street Suite 707  
 Honolulu, Hawaii  
 December 7, 1971



SAM O. HIROTA, INC.

By: Katsuchi Ninomiya  
 KATSUCHI NINOMIYA (Registered Professional  
 Surveyor Certificate Number 2281-B  
 Land Court Surveyor Certificate Number 192)

Owner: Castle & Cooke, Inc.  
 Owner's Certificate of Title: 20280

AUTHORIZED AND APPROVED BY ORDER OF THE JUDGE  
 OF THE LAND COURT DATED: FEBRUARY 22, 1972  
 BY ORDER OF THE COURT: James J. Sprinch  
 Acting REGISTRAR OF THE LAND COURT

Portion of Easement 905 affecting Lot 4204 as  
 shown herein has been cancelled by Order of the Judge  
 of the Land Court dated February 22, 1972.  
 Honolulu, Hawaii  
 February 22, 1972 Nagutaka Suki  
 State Land Surveyor

Portion of Easements 906 and 908 as  
 shown herein have been cancelled by Order of  
 the Judge of the Land Court dated May 26, 2004.  
 Honolulu, Hawaii  
 May 26, 2004 Melvin M. Mee  
 Acting State Land Surveyor

**LAND COURT**  
STATE OF HAWAII  
**LAND COURT APPLICATION 1000**

SUBDIVISION OF LOT 4204  
AS SHOWN ON MAP 348  
INTO LOTS 4204-A, 4204-B, 4204-C AND 4204-D  
AND CANCELLATION OF PORTION OF EASEMENT 905 AFFECTING LOT 4204  
AS SHOWN ON MAP 348

DESIGNATION OF THE FOLLOWING EASEMENTS:

- EASEMENT 2843 AFFECTING LOT 4204-A
- EASEMENT 2844 OVER AND ACROSS LOT 4204-A
- EASEMENT 2845 AFFECTING LOT 4204-B
- EASEMENT 2846 OVER AND ACROSS LOT 4204-B
- EASEMENT 2847 OVER AND ACROSS LOT 4204-B
- EASEMENT 2848 OVER AND ACROSS LOT 4204-C
- EASEMENT 2849 OVER AND ACROSS LOT 4204-C
- EASEMENT 2850 OVER AND ACROSS LOT 4204-C
- EASEMENT 2851 OVER AND ACROSS LOT 4204-C

AND DESIGNATION OF RESTRICTION OF ACCESS RIGHTS AFFECTING  
LOT 4205 AS SHOWN ON MAP 348 AND  
LOTS 4204-A AND 4204-B  
AT WAIPIO, EWA, OAHU, HAWAII

700 Bishop Street, Suite 608  
Honolulu, Oahu, Hawaii



COMMUNITY PLANNING, INC.

By: Harry K. Matsuo  
Registered Professional Surveyor  
Certificate Number 2717  
Land Court Surveyor Certificate Number 108

OWNER: Castle & Cooke, Inc.  
OWNER'S CERTIFICATE OF TITLE: 146,878

AUTHORIZED AND APPROVED BY ORDER OF THE JUDGE  
OF THE LAND COURT DATED FEBRUARY 22, 1979  
BY ORDER OF THE COURT.

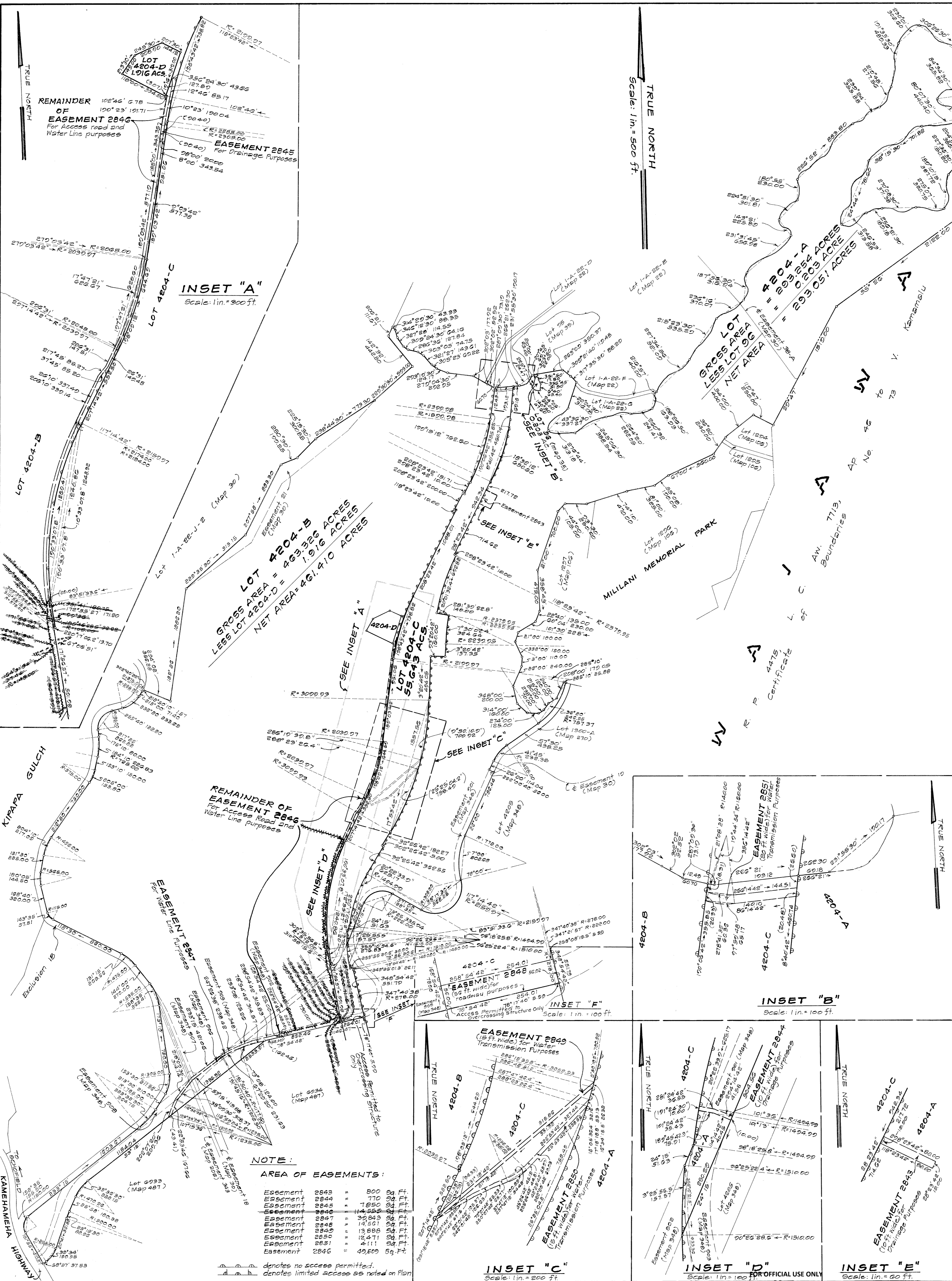
Janita K. Post  
REGISTRAR OF THE LAND COURT

Portions of Easement 2846 as shown hereon  
have been deleted by Order of the Judge of the  
Land Court dated July 3, 1989.  
Honolulu, Hawaii  
June 9, 1993

Paul S. Nuku  
State Land Surveyor

Filed January 24, 1979  
James A. Smith  
Registrar

30' x 36" = 7.50 Sq. Ft.



**NOTE:**  
**AREA OF EASEMENTS:**

Easement 2843	=	800	Sq. Ft.
Easement 2844	=	770	Sq. Ft.
Easement 2845	=	7850	Sq. Ft.
Easement 2846	=	14,559	Sq. Ft.
Easement 2847	=	39,843	Sq. Ft.
Easement 2848	=	14,567	Sq. Ft.
Easement 2849	=	13,888	Sq. Ft.
Easement 2850	=	12,471	Sq. Ft.
Easement 2851	=	4,111	Sq. Ft.
Easement 2846	=	40,609	Sq. Ft.

--- denotes no access permitted.  
--- denotes limited access as noted on Plan

Tax Map Key: 9-4-06: 1,3 and per 10;  
9-5-03: per 4, and per Interstate Highway R.F.P. No. I-42-1(2)

C.S.F. 20,841

WAIAWA CORRECTIONAL FACILITY SITE  
PARCELS 1 AND 2  
Waiawa, Ewa, Oahu, Hawaii

Governor's Exec. Order 3414

See Plat 2192 for Tracing

DLNR  
12-23-88  
142-R

FOR OFFICIAL USE ONLY

F-6



STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

HONOLULU

September 29, 1988

C.S.F. No. 20,841

WAIAWA CORRECTIONAL FACILITY SITE

PARCELS 1 AND 2

Waiawa, Ewa, Oahu, Hawaii

Being portions of Royal Patent 4475, Land Commission Award 7713, Apana 46 to V. Kamamalu conveyed to the State of Hawaii by the United States of America by Deed dated April 25, 1985 and recorded in Liber 18721, Page 536 (Land Office Deed S-27506).

PARCEL 1

Beginning at the southwest corner of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 1602.20 feet South and 14,354.82 feet East, thence running by azimuths measured clockwise from True South:-

1. 156° 55' 40" 620.15 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
2. 275° 05' 40" 184.75 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
3. 243° 19' 20" 204.98 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
4. 300° 49' 10" 349.19 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
5. 278° 58' 20" 143.53 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
6. 265° 40' 40" 253.47 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
7. 226° 57' 50" 178.90 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
8. 253° 03' 227.80 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;

FOR OFFICIAL USE ONLY

9.	269° 43' 40"	253.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
10.	249° 55' 50"	202.92 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
11.	185° 07'	201.56 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
12.	207° 48' 40"	500.22 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
13.	139° 22'	224.30 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
14.	47° 04' 50"	218.85 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
15.	42° 35'	403.96 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
16.	75° 19' 20"	552.79 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
17.	111° 57' 10"	313.94 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
18.	91° 53' 40"	569.76 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
19.	125° 18' 50"	183.02 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
20.	72° 56' 40"	339.33 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
21.	88° 46'	169.77 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
22.	168° 17' 50"	739.04 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
23.	231° 37'	211.25 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;

24.	242°	42'	20"	360.57 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
25.	291°	53'	30"	485.27 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
26.	254°	32'	10"	424.21 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
27.	326°	40'		238.64 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
28.	304°	25'		243.93 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
29.	272°	45'		615.26 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
30.	244°	43'	30"	910.77 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
31.	267°	35'	20"	341.30 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
32.	279°	17'	50"	204.57 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
33.	278°	50'	10"	632.00 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
34.	271°	10'	50"	255.38 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
35.	349°	19'	50"	335.71 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
36.	8°	24'		370.13 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
37.	60°	07'	10"	490.27 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
38.	167°	36'		265.09 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;



39.	187° 50' 20"	174.54 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
40.	162° 28' 30"	164.53 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
41.	92° 18' 20"	145.37 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
42.	43° 27' 30"	451.26 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
43.	2° 38'	240.88 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
44.	340° 10' 10"	84.74 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
45.	11° 03'	90.94 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
46.	136° 34' 40"	226.18 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
47.	18° 28' 10"	173.05 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
48.	3° 19' 10"	218.62 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
49.	337° 02'	273.86 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
50.	15° 06'	88.70 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
51.	320° 18' 40"	314.59 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
52.	330° 53' 50"	269.50 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
53.	39° 11' 20"	136.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;

54.	348° 35' 40"	198.59 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
55.	22° 05' 20"	119.28 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
56.	78° 33' 40"	131.63 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
57.	154° 53' 50"	156.43 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
58.	196° 59' 10"	206.94 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
59.	68° 39'	626.76 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
60.	33° 20' 30"	494.89 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
61.	104° 03' 50"	177.54 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
62.	146° 26' 30"	542.37 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
63.	79° 36'	509.03 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
64.	39° 07' 40"	284.20 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
65.	144° 17' 50"	763.70 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
66.	163° 15' 30"	198.81 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
67.	58° 51' 20"	155.15 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu to the point of beginning and containing an AREA OF 157.875 ACRES.

Subject, however, to the following easements as described in Deed from the United States of America to the State of Hawaii dated August 25, 1985 and recorded in Liber 18721, Page 536 (Land Office Deed S-27506) over, under and across the above described Waiawa Correctional Facility Site, Parcel 1, said easements more particularly described as follows:

EASEMENT A FOR WAIAHOLE WATER CO., LTD'S TUNNEL PURPOSES

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 47 of the above-described Waiawa Correctional Facility, Parcel 1 being 3° 19' 10" 59.47 feet, thence running by azimuths measured clockwise from True South:-

- 1. 95° 54' 05"                      842.26 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 11 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 185° 07'                      37.30 feet and containing an AREA OF 0.773 ACRE.

EASEMENT B FOR WAIAHOLE WATER CO., LTD'S TUNNEL PURPOSES

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 16 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 255° 19' 20" 77.92 feet, thence running by azimuths measured clockwise from True South:-

- 1. 95° 54' 05"                      168.14 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 16 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 291° 57' 10"                      99.06 feet and containing an AREA OF 0.154 ACRE.

EASEMENT C FOR TELEPHONE LINE PURPOSES

Being a strip of land ten (10.00) feet wide and extending five (5.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 26 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 326° 40' 56.40 feet, thence running by azimuths measured clockwise from True South:-

- 1. 97° 17' 10" 138.80 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 26 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 254° 32' 10" 110.70 feet and containing an AREA OF 1388 SQUARE FEET.

EASEMENT D FOR TELEPHONE LINE PURPOSES

Being a strip of land ten (10.00) feet wide and extending five (5.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 34 of the above described Waiawa Correctional Facility Site, Parcel 1 being 349° 19' 50' 30.00 feet, thence running by azimuths measured clockwise from True South:-

- 1. 98° 38' 226.38 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 33 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 91° 10' 50" 37.06 feet and containing an AREA OF 2264 SQUARE FEET.

Reserving, however, to the State of Hawaii its successors and assigns Road Easements E, F, G and H over and across the above described Waiawa Correctional Facility Site, Parcel 1 as shown on plan attached hereto and made a part hereof.

FOR OFFICIAL USE ONLY

PARCEL 2

Beginning at the east corner of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 1562.69 feet North and 16,983.43 feet East, thence running by azimuths measured clockwise from True South:-

1. 41° 26' 50" 635.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
2. 63° 14' 736.12 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
3. 79° 19' 10" 368.21 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
4. 156° 36' 35" 854.46 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
5. 242° 16' 30" 284.97 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
6. 272° 54' 50" 369.50 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
7. 279° 45' 40" 308.14 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
8. 259° 55' 10" 167.42 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
9. 277° 13' 349.79 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
10. 244° 19' 40" 154.04 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
11. 276° 06' 20" 204.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu to the point of beginning and containing an AREA OF 22.611 ACRES.

Together with the following easements in favor of the above described Waiawa Correctional Facility Site, Parcels 1 and 2 as described in Deed from the United States of America to the State of Hawaii dated April 25, 1985 and recorded in Liber 18721, Page 536 (Land Office Deed S-27506) over, under and across Royal Patent 4475, Land Commission Award 7713, Apana 46 to V. Kamamalu and Land Court Application 1000 and more particularly described as follows:

A. EASEMENT 3-E FOR POWER LINE PURPOSES:

Being a strip of land fifty (50.00) feet wide and extending twenty-five (25.00) feet on each side of the following described centerline:

Beginning at the southerly end of this centerline, the true azimuth and distance from the end of Course 29 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 244° 43' 30" 313.11 feet, thence running by azimuths measured clockwise from True South:-

1. 143° 21' 10"                      624.22 feet to the northerly end of this centerline, the true azimuth and distance to the end of Course 3 of the above-described Waiawa Correctional Facility Site, Parcel 2 being :  
79° 19' 10"    109.88 feet  
and containing an AREA OF  
0.717 ACRE.

B. EASEMENT 4-E FOR ACCESS ROAD PURPOSES:

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the south end of this centerline, the true azimuth and distance to the end of Course 34 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 271° 10' 50" 20.15 feet, thence running by azimuths measured clockwise from True South:-

1. 174° 15' 40"                      761.98 feet;

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2. Thence on a curve to the left with a radius of 800.00 feet, the arc length being 223.09 feet and the chord azimuth and distance being:  
166° 16' 20"      222.37 feet;
3. 158° 17'                      394.87 feet;
4. Thence on a curve to the left with a radius of 125.00 feet, the arc length being 178.63 feet and the chord azimuth and distance being:  
117° 20' 40"      163.81 feet;
5. 76° 24' 20"                      167.33 feet;
6. 71° 31' 40"                      472.80 feet to the west end of this centerline, the true azimuth and distance to the initial point of the above-described Waiawa Correctional Facility Site, Parcel 2 being:  
276° 06' 20"      48.09 feet  
and containing an AREA OF 2.019 ACRES.

C. EASEMENT OF 5-E FOR ACCESS ROAD PURPOSES

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the south end of this centerline, the true azimuth and distance to the end of Course 57 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 154° 53' 50" 29.84 feet, thence running by azimuths measured clockwise from True South:-

1. 16° 59' 10"                      29.84 feet;
2. 334° 53' 50"                      91.56 feet;
3. 355° 09' 50"                      83.39 feet;
4. 253° 44' 50"                      208.46 feet;
5. Thence on a curve to the left with a radius of 30.00 feet, the arc length being 40.02 feet and the chord azimuth and distance being:  
215° 32'                      37.12 feet;
6. 177° 19' 10"                      34.37 feet;

7. Thence on a curve to the right with a radius of 50.00 feet, the arc length being 49.44 feet and the chord azimuth and distance being:  
205° 38' 45" 47.45 feet;
8. 233° 58' 20" 17.44 feet;
9. Thence on a curve to the left with a radius of 100.00 feet, the arc length being 94.97 feet and the chord azimuth and distance being:  
206° 46' 91.43 feet;
10. 179° 33' 40' 21.55 feet;
11. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 95.94 feet and the chord azimuth and distance being:  
197° 53' 05" 94.32 feet;
12. 216° 12' 30" 169.54 feet;
13. Thence on a curve to the left with a radius of 30.00 feet, the arc length being 42.24 feet and the chord azimuth and distance being:  
175° 52' 30" 38.83 feet;
14. 135° 32' 30" 105.82 feet;
15. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 88.57 feet and the chord azimuth and distance being:  
152° 27' 25" 87.30 feet;
16. 169° 22' 20" 70.54 feet;
17. Thence on a curve to the left with a radius of 150.00 feet, the arc length being 86.66 feet and the chord azimuth and distance being:  
152° 49' 15" 85.47 feet;
18. 136° 16' 10" 161.69 feet;
19. Thence on a curve to the right with a radius of 30.00 feet, the arc length being 82.37 feet and the chord azimuth and distance being:  
214° 55' 20" 58.83 feet;
20. 293° 34' 30" 64.37 feet;
21. Thence on a curve to the left with a radius of 30.00 feet, the arc length being 62.15 feet and the chord azimuth and distance being:  
234° 13' 35" 51.62 feet;



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22. 174° 52' 40" 71.96 feet;
23. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 45.76 feet and the chord azimuth and distance being:  
183° 37' 05" 45.59 feet;
24. 192° 21' 30" 253.66 feet to the north end of this centerline and containing an AREA OF 1.903 ACRES.

D. EASEMENT 6-E FOR WATER AND POWER LINE PURPOSES

Beginning at the northeast corner of this easement, at the end of Course 45 of the above-described Waiawa Correctional Facility Site, Parcel 1, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 742.66 feet South and 17032.36 feet East, thence running by azimuths measured clockwise from True South:-

1. 336° 02' 50" 145.91 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
2. 270° 00' 240.69 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
3. 180° 00' 17.54 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
4. 269° 04' 26.20 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
5. 360° 00' 57.97 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
6. 90° 00' 292.90 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
7. 156° 02' 50" 285.07 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
8. 316° 34' 40" 120.02 feet along the Waiawa Correctional Facility Site, Parcel 1 to the point of beginning and containing an AREA OF 0.466 ACRE.

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E. EASEMENT 7-E FOR POWER LINE PURPOSES

Being a strip of land ten (10.00) feet wide and extending five (5.00) feet on each side of the following described centerline:

Beginning at the south end of this centerline, the true azimuth and distance to the end of Course 49 of the above described Waiawa Correctional Facility Site, Parcel 1 being  $337^{\circ} 02'$  33.82 feet, thence running by azimuths measured clockwise from True South:-

1.  $212^{\circ} 21' 50''$  314.65 feet to the north end of this centerline and containing an AREA OF 0.072 ACRE.

F. EASEMENT 8-E FOR ACCESS ROAD PURPOSES

Being a strip of land twenty (20.00) feet wide and extending ten (10.00) feet on each side of the following described centerline:

Beginning at the westerly end of this centerline, and on the boundary between the Lands of Waipio and Waiawa, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 4600.27 feet South and 7880.16 feet East, thence running by azimuths measured clockwise from True South:-

1. On a curve to the right with a radius of 400.00 feet, the arc length being 129.12 feet and the chord azimuth and distance being:  
 $312^{\circ} 42' 10''$  128.56 feet;
2.  $321^{\circ} 57'$  83.97 feet;
3. Thence on a curve to the left with a radius of 650.00 feet, the arc length being 104.24 feet and the chord azimuth and distance being:  
 $317^{\circ} 21' 20''$  104.13 feet;
4.  $312^{\circ} 45' 40''$  124.20 feet;
5. Thence on a curve to the left with a radius of 125.00 feet, the arc length being 150.07 feet and the chord azimuth and distance being:  
 $278^{\circ} 22' 05''$  141.22 feet;
6.  $243^{\circ} 58' 30''$  2879.28 feet;

7. Thence on a curve to the left with a radius of 575.00 feet, the arc length being 132.11 feet and the chord azimuth and distance being:  
237° 23' 35" 131.81 feet;
8. 230° 48' 40" 731.14 feet;
9. Thence on a curve to the left with a radius of 225.00 feet, the arc length being 175.02 feet and the chord azimuth and distance being:  
208° 31' 35" 170.64 feet;
10. 186° 14' 30" 233.26 feet;
11. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 159.01 feet and the chord azimuth and distance being:  
216° 36' 40" 151.67 feet;
12. 246° 58' 50" 2764.29 feet to the easterly end of this centerline, the true azimuth and distance from the initial point of the above described Waiawa Correctional Facility Site, Parcel 1 being:  
156° 55' 40" 52.18 feet  
and containing an AREA OF 3.53 ACRES.

G. Easements as shown on Land Court Application 1000

Easement No.	Map No.
19	30
901	348
902	348
903	348
904	348
905	348
906	348
2848	513

H. Sanitary Sewer Outfall Easement

Being a strip of land five (5.00) feet wide and extending two and one-half (2.50) feet on each side of this centerline, covered by Lease No. 14,835 from Edwin P. Murray, et al, Trustees under the Will and of the Estate of Bernice P. Bishop, Deceased, to the United States of America dated October 21, 1965 and recorded in Liber 5191, Pages 253-258 and more particularly described as follows:

Beginning at the east end of this centerline, the true azimuth and distance from the end of Course 56 of the above described Waiawa Correctional Facility Site, Parcel 1 being  $154^{\circ} 53' 50''$  32.00 feet, thence running by azimuths measured clockwise from True South:-

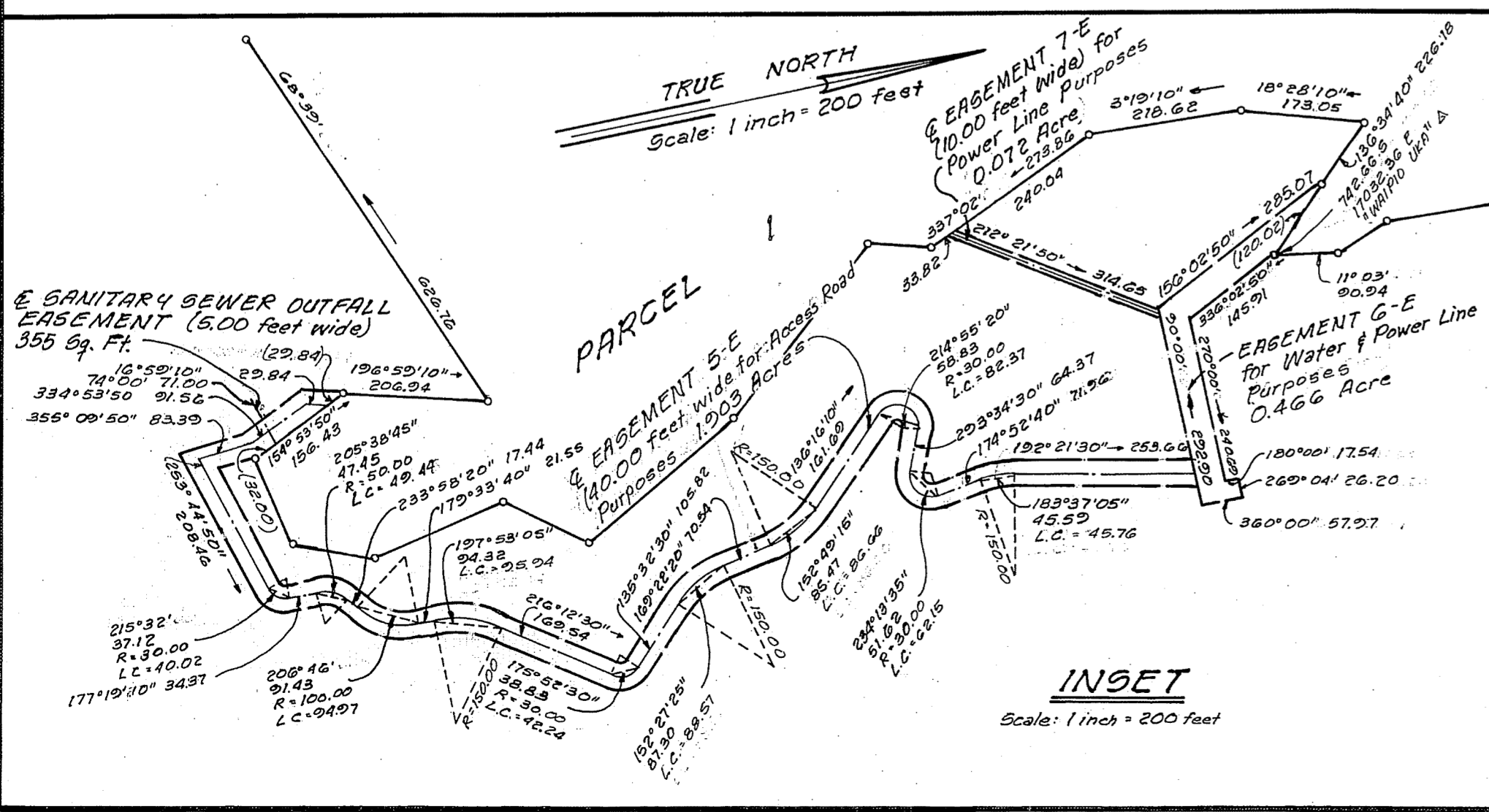
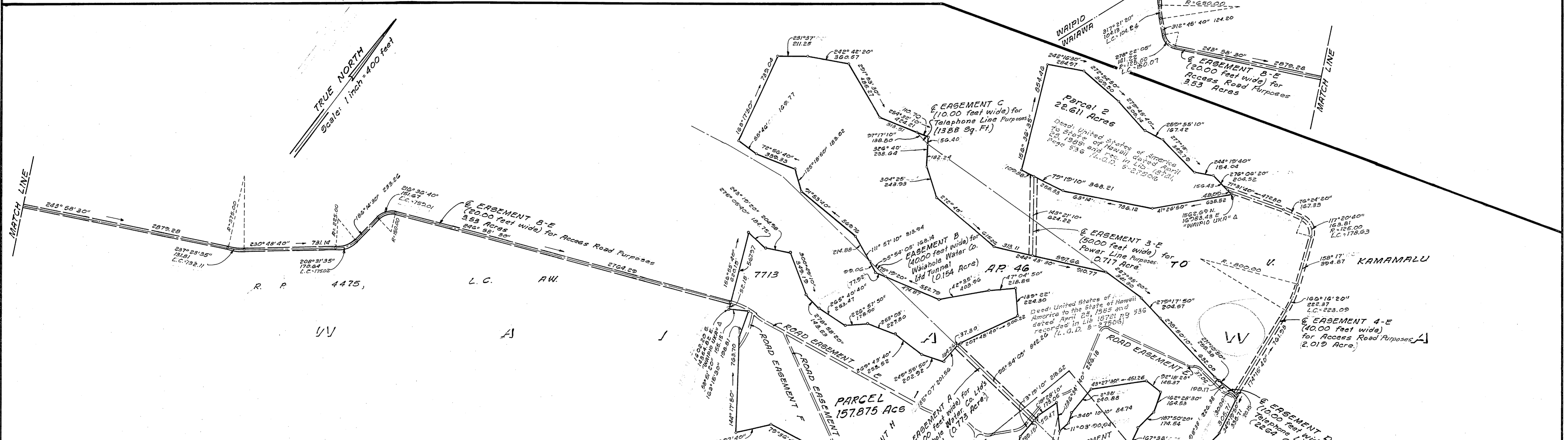
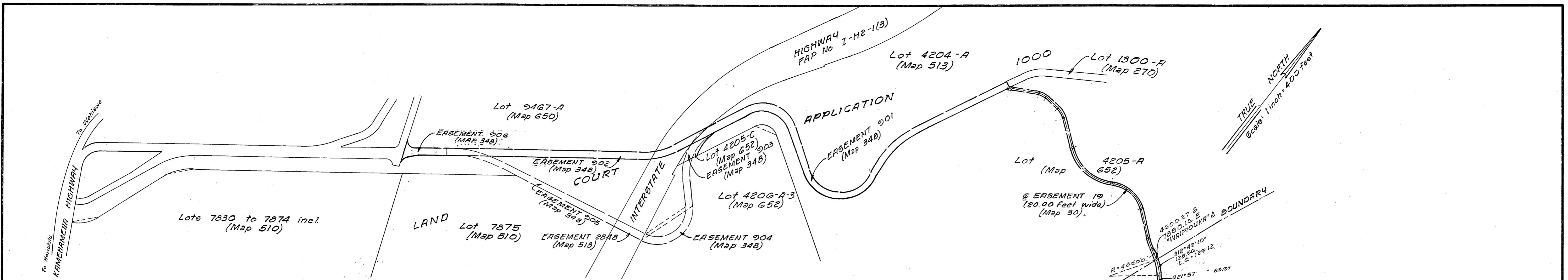
1.  $74^{\circ} 00'$  71.00 feet to the west end of this centerline and containing an AREA OF 355 SQUARE FEET.

SURVEY DIVISION  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

By: Joseph M. Matsuno  
Joseph M. Matsuno  
Land Surveyor gm

Compiled from data furn. by  
U.S.A., Ld.Ct.App. 1000, Maps 30,  
348, 513 and Govt. Survey Records.

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STATE OF HAWAII  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 SURVEY DIVISION  
 Paul Nuha - State Land Surveyor

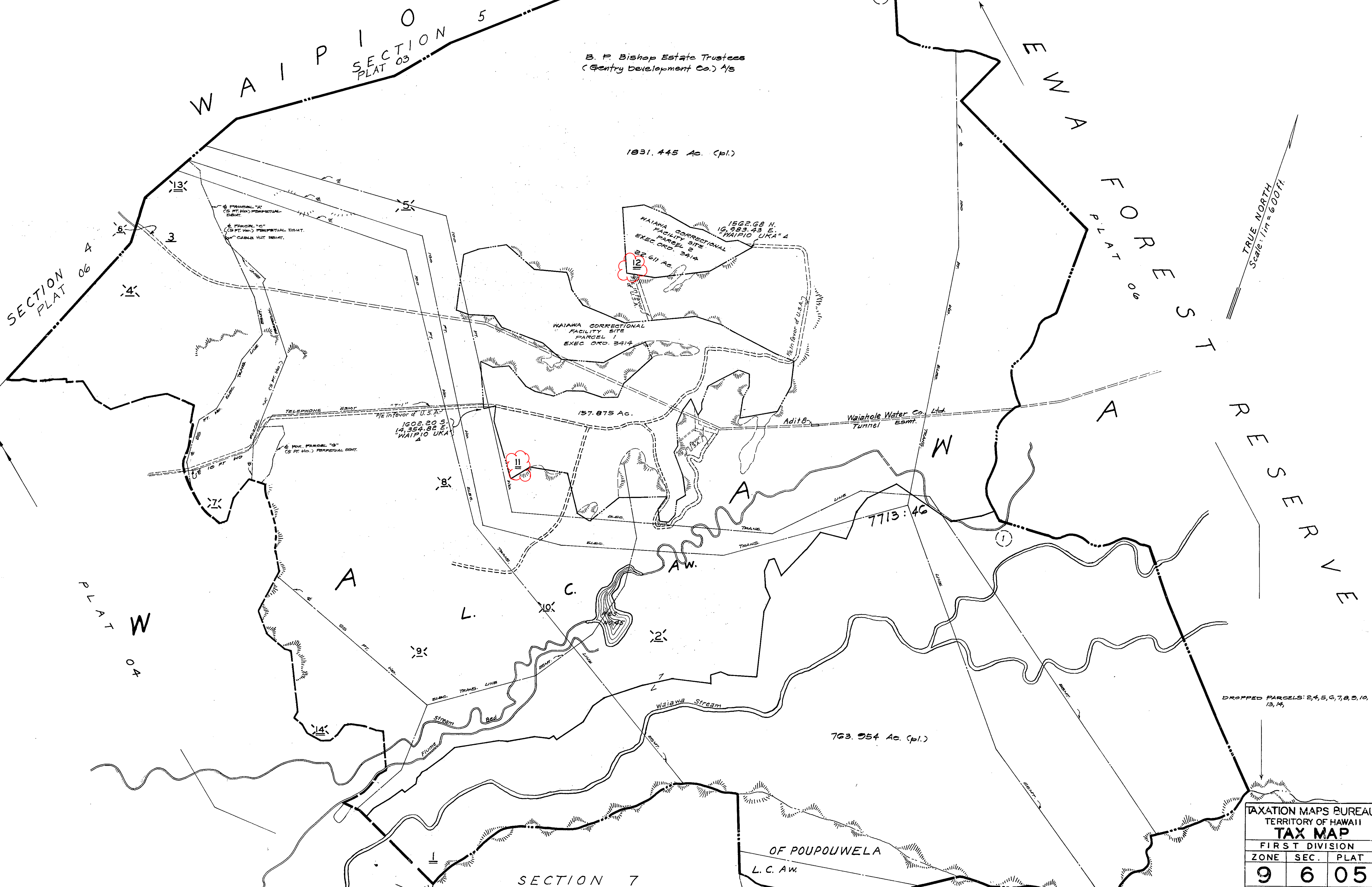
**WAIAWA CORRECTIONAL FACILITY SITE  
 PARCELS 1 AND 2  
 WAIAWA, EWA, OAHU, HAWAII**

Scale: 1 inch = 400 feet  
 Tracing by J.M. Matsuno September, 1988

Job No. 0-217(88)  
 IBM Folder 9-D

FOR DESCRIPTION - SEE C.S.F. 20,841  
**H.S.S. PLAT 2192**

CONDUCTED  
FEB 23 1941  
001  
JAN 18 1943  
FEB 13 57  
NOV 3 59  
JAN 20 59  
MAY 21 55  
AUG 3 57



Dwg. No. 3519  
Source: B.P. Bishop Estate Map  
By: D.S.C. & A.L.F. Feb. 1941

POR. OF WAIAWA; EWA, OAHU

SECTION 7

OF POUPOUWELA  
L.C.A.W.

SUBJECT TO CHANGE

DROPPED PARCELS: 2, 4, 5, 6, 7, 8, 9, 10, 13, 14

TAXATION MAPS BUREAU		
TERRITORY OF HAWAII		
<b>TAX MAP</b>		
FIRST DIVISION		
ZONE	SEC.	PLAT
9	6	05
CONTAINING PARCELS		
SCALE: 1 IN. = 600 FT.		

# Setting Aside Land for Public Purposes

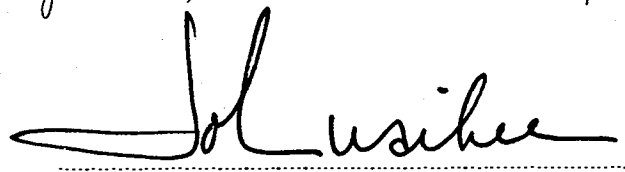
By this Executive Order, I, the undersigned, Governor of the State of Hawaii, by virtue of the authority in me vested by Section 171-11, Hawaii Revised Statutes, and every other authority me hereunto enabling, do hereby order that the public land hereinafter described be, and the same is, hereby set aside for the following public purposes:

FOR CORRECTIONAL AND EDUCATIONAL FACILITY PURPOSES to be under the control and management by the Department of Corrections, State of Hawaii, being those certain parcels of land designated as "Waiawa Correctional Facility Site Parcels 1 and 2," containing an area of approximately 157.875 acres and 22.611 acres, respectively, SUBJECT TO Easements A through D inclusive, and TOGETHER WITH Easements 3-E through 8-E inclusive, Easements as shown on Land Court Application 1000, and Sanitary Sewer Outfall Easement, all more particularly described in Exhibit "A", attached hereto and made a part hereof; said exhibit being a survey description prepared by the Survey Division, Department of Accounting and General Services, State of Hawaii, being designated C.S.F. No. 20,841 and dated September 29, 1988, and also delineated on map designated, H.S.S. Plat 2192.

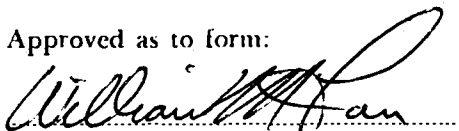
SUBJECT to disapproval by the Legislature by two-thirds vote of either the Senate or the House of Representatives or by majority vote of both, in any regular or special session next following the date of this Executive Order.

In Witness Whereof, I have hereunto set my hand and caused the Great Seal of the State of Hawaii to be affixed.

Done at the Capitol at Honolulu this 24<sup>th</sup> day of February, Nineteen Hundred and 89.

  
Governor of the State of Hawaii

Approved as to form:

  
Deputy Attorney General

Dated: 1/31/89

SURVEY DIVISION  
D.A.G.S.  
FEB 28 9 16 AM '89

EO Folder 21B





STATE OF HAWAII

SURVEY DIVISION

DEPT. OF ACCOUNTING AND GENERAL SERVICES

HONOLULU

C.S.F. No. 20,841

September 29, 1988

WAIAWA CORRECTIONAL FACILITY SITE  
PARCELS 1 AND 2  
Waiawa, Ewa, Oahu, Hawaii

Being portions of Royal Patent 4475, Land Commission Award 7713, Apana 46 to V. Kamamalu conveyed to the State of Hawaii by the United States of America by Deed dated April 25, 1985 and recorded in Liber 18721, Page 536 (Land Office Deed S-27506).

PARCEL 1

Beginning at the southwest corner of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 1602.20 feet South and 14,354.82 feet East, thence running by azimuths measured clockwise from True South:-

1. 156° 55' 40" 620.15 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
2. 275° 05' 40" 184.75 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
3. 243° 19' 20" 204.98 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
4. 300° 49' 10" 349.19 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
5. 278° 58' 20" 143.53 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
6. 265° 40' 40" 253.47 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
7. 226° 57' 50" 178.90 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
8. 253° 03' 227.80 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;

9.	269° 43' 40"	253.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
10.	249° 55' 50"	202.92 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
11.	185° 07'	201.56 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
12.	207° 48' 40"	500.22 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
13.	139° 22'	224.30 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
14.	47° 04' 50"	218.85 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
15.	42° 35'	403.96 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
16.	75° 19' 20"	552.79 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
17.	111° 57' 10"	313.94 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
18.	91° 53' 40"	569.76 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
19.	125° 18' 50"	183.02 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
20.	72° 56' 40"	339.33 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
21.	88° 46'	169.77 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
22.	168° 17' 50"	739.04 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
23.	231° 37'	211.25 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;

24.	242° 42' 20"	360.57 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
25.	291° 53' 30"	485.27 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
26.	254° 32' 10"	424.21 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
27.	326° 40'	238.64 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
28.	304° 25'	243.93 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
29.	272° 45'	615.26 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
30.	244° 43' 30"	910.77 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
31.	267° 35' 20"	341.30 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
32.	279° 17' 50"	204.57 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
33.	278° 50' 10"	632.00 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
34.	271° 10' 50"	255.38 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
35.	349° 19' 50"	335.71 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
36.	8° 24'	370.13 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
37.	60° 07' 10"	490.27 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
38.	167° 36'	265.09 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;

39.	187° 50' 20"	174.54 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
40.	162° 28' 30"	164.53 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
41.	92° 18' 20"	145.37 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
42.	43° 27' 30"	451.26 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
43.	2° 38'	240.88 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
44.	340° 10' 10"	84.74 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
45.	11° 03'	90.94 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
46.	136° 34' 40"	226.18 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
47.	18° 28' 10"	173.05 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
48.	3° 19' 10"	218.62 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
49.	337° 02'	273.86 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
50.	15° 06'	88.70 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
51.	320° 18' 40"	314.59 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
52.	330° 53' 50"	269.50 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
53.	39° 11' 20"	136.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;

54.	348° 35' 40"	198.59 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
55.	22° 05' 20"	119.28 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
56.	78° 33' 40"	131.63 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
57.	154° 53' 50"	156.43 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
58.	196° 59' 10"	206.94 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
59.	68° 39'	626.76 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
60.	33° 20' 30"	494.89 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
61.	104° 03' 50"	177.54 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
62.	146° 26' 30"	542.37 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
63.	79° 36'	509.03 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
64.	39° 07' 40"	284.20 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
65.	144° 17' 50"	763.70 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
66.	163° 15' 30"	198.81 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
67.	58° 51' 20"	155.15 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu to the point of beginning and containing an AREA OF 157.875 ACRES.

Subject, however, to the following easements as described in Deed from the United States of America to the State of Hawaii dated August 25, 1985 and recorded in Liber 18721, Page 536 (Land Office Deed S-27506) over, under and across the above described Waiawa Correctional Facility Site, Parcel 1, said easements more particularly described as follows:

EASEMENT A FOR WAIAHOLE WATER CO., LTD'S TUNNEL PURPOSES

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 47 of the above-described Waiawa Correctional Facility, Parcel 1 being 3° 19' 10" 59.47 feet, thence running by azimuths measured clockwise from True South:-

- 1. 95° 54' 05"                      842.26 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 11 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 185° 07'                      37.30 feet and containing an AREA OF 0.773 ACRE.

EASEMENT B FOR WAIAHOLE WATER CO., LTD'S TUNNEL PURPOSES

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 16 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 255° 19' 20" 77.92 feet, thence running by azimuths measured clockwise from True South:-

- 1. 95° 54' 05"                      168.14 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 16 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 291° 57' 10"                      99.06 feet and containing an AREA OF 0.154 ACRE.

EASEMENT C FOR TELEPHONE LINE PURPOSES

Being a strip of land ten (10.00) feet wide and extending five (5.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 26 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 326° 40' 56.40 feet, thence running by azimuths measured clockwise from True South:-

1. 97° 17' 10" 138.80 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 26 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 254° 32' 10" 110.70 feet and containing an AREA OF 1388 SQUARE FEET.

EASEMENT D FOR TELEPHONE LINE PURPOSES

Being a strip of land ten (10.00) feet wide and extending five (5.00) feet on each side of the following described centerline:

Beginning at the easterly end of this centerline, the true azimuth and distance from the end of Course 34 of the above described Waiawa Correctional Facility Site, Parcel 1 being 349° 19' 50' 30.00 feet, thence running by azimuths measured clockwise from True South:-

1. 98° 38' 226.38 feet to the westerly end of this centerline, the true azimuth and distance to the end of Course 33 of the above-described Waiawa Correctional Facility Site, Parcel 1 being: 91° 10' 50" 37.06 feet and containing an AREA OF 2264 SQUARE FEET.

Reserving, however, to the State of Hawaii its successors and assigns Road Easements E, F, G and H over and across the above described Waiawa Correctional Facility Site, Parcel 1 as shown on plan attached hereto and made a part hereof.

PARCEL 2

Beginning at the east corner of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 1562.69 feet North and 16,983.43 feet East, thence running by azimuths measured clockwise from True South:-

1. 41° 26' 50" 635.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
2. 63° 14' 736.12 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
3. 79° 19' 10" 368.21 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
4. 156° 36' 35" 854.46 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
5. 242° 16' 30" 284.97 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
6. 272° 54' 50" 369.50 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
7. 279° 45' 40" 308.14 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
8. 259° 55' 10" 167.42 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
9. 277° 13' 349.79 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
10. 244° 19' 40" 154.04 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu;
11. 276° 06' 20" 204.52 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46 to V. Kamamalu to the point of beginning and containing an AREA OF 22.611 ACRES.



Together with the following easements in favor of the above described Waiawa Correctional Facility Site, Parcels 1 and 2 as described in Deed from the United States of America to the State of Hawaii dated April 25, 1985 and recorded in Liber 18721, Page 536 (Land Office Deed S-27506) over, under and across Royal Patent 4475, Land Commission Award 7713, Apana 46 to V. Kamamalu and Land Court Application 1000 and more particularly described as follows:

A. EASEMENT 3-E FOR POWER LINE PURPOSES:

Being a strip of land fifty (50.00) feet wide and extending twenty-five (25.00) feet on each side of the following described centerline:

Beginning at the southerly end of this centerline, the true azimuth and distance from the end of Course 29 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 244° 43' 30" 313.11 feet, thence running by azimuths measured clockwise from True South:-

- 1. 143° 21' 10"                      624.22 feet to the northerly end of this centerline, the true azimuth and distance to the end of Course 3 of the above-described Waiawa Correctional Facility Site, Parcel 2 being :  
79° 19' 10"    109.88 feet  
and containing an AREA OF  
0.717 ACRE.

B. EASEMENT 4-E FOR ACCESS ROAD PURPOSES:

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the south end of this centerline, the true azimuth and distance to the end of Course 34 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 271° 10' 50" 20.15 feet, thence running by azimuths measured clockwise from True South:-

- 1. 174° 15' 40"                      761.98 feet;

September 29, 1988

2. Thence on a curve to the left with a radius of 800.00 feet, the arc length being 223.09 feet and the chord azimuth and distance being:  
166° 16' 20"      222.37 feet;
3. 158° 17'      394.87 feet;
4. Thence on a curve to the left with a radius of 125.00 feet, the arc length being 178.63 feet and the chord azimuth and distance being:  
117° 20' 40"      163.81 feet;
5. 76° 24' 20"      167.33 feet;
6. 71° 31' 40"      472.80 feet to the west end of this centerline, the true azimuth and distance to the initial point of the above-described Waiawa Correctional Facility Site, Parcel 2 being:  
276° 06' 20"      48.09 feet  
and containing an AREA OF 2.019 ACRES.

C. EASEMENT OF 5-E FOR ACCESS ROAD PURPOSES

Being a strip of land forty (40.00) feet wide and extending twenty (20.00) feet on each side of the following described centerline:

Beginning at the south end of this centerline, the true azimuth and distance to the end of Course 57 of the above-described Waiawa Correctional Facility Site, Parcel 1 being 154° 53' 50" 29.84 feet, thence running by azimuths measured clockwise from True South:-

1. 16° 59' 10"      29.84 feet;
2. 334° 53' 50"      91.56 feet;
3. 355° 09' 50"      83.39 feet;
4. 253° 44' 50"      208.46 feet;
5. Thence on a curve to the left with a radius of 30.00 feet, the arc length being 40.02 feet and the chord azimuth and distance being:  
215° 32'      37.12 feet;
6. 177° 19' 10"      34.37 feet;

7. Thence on a curve to the right with a radius of 50.00 feet, the arc length being 49.44 feet and the chord azimuth and distance being:  
205° 38' 45" 47.45 feet;
8. 233° 58' 20" 17.44 feet;
9. Thence on a curve to the left with a radius of 100.00 feet, the arc length being 94.97 feet and the chord azimuth and distance being:  
206° 46' 91.43 feet;
10. 179° 33' 40' 21.55 feet;
11. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 95.94 feet and the chord azimuth and distance being:  
197° 53' 05" 94.32 feet;
12. 216° 12' 30" 169.54 feet;
13. Thence on a curve to the left with a radius of 30.00 feet, the arc length being 42.24 feet and the chord azimuth and distance being:  
175° 52' 30" 38.83 feet;
14. 135° 32' 30" 105.82 feet;
15. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 88.57 feet and the chord azimuth and distance being:  
152° 27' 25" 87.30 feet;
16. 169° 22' 20" 70.54 feet;
17. Thence on a curve to the left with a radius of 150.00 feet, the arc length being 86.66 feet and the chord azimuth and distance being:  
152° 49' 15" 85.47 feet;
18. 136° 16' 10" 161.69 feet;
19. Thence on a curve to the right with a radius of 30.00 feet, the arc length being 82.37 feet and the chord azimuth and distance being:  
214° 55' 20" 58.83 feet;
20. 293° 34' 30" 64.37 feet;
21. Thence on a curve to the left with a radius of 30.00 feet, the arc length being 62.15 feet and the chord azimuth and distance being:  
234° 13' 35" 51.62 feet;

22. 174° 52' 40" 71.96 feet;
23. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 45.76 feet and the chord azimuth and distance being:  
183° 37' 05" 45.59 feet;
24. 192° 21' 30" 253.66 feet to the north end of this centerline and containing an AREA OF 1.903 ACRES.

D. EASEMENT 6-E FOR WATER AND POWER LINE PURPOSES

Beginning at the northeast corner of this easement, at the end of Course 45 of the above-described Waiawa Correctional Facility Site, Parcel 1, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 742.66 feet South and 17032.36 feet East, thence running by azimuths measured clockwise from True South:-

1. 336° 02' 50" 145.91 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
2. 270° 00' 240.69 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
3. 180° 00' 17.54 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
4. 269° 04' 26.20 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
5. 360° 00' 57.97 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
6. 90° 00' 292.90 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
7. 156° 02' 50" 285.07 feet along the remainder of R.P. 4475, L.C.Aw. 7713, Ap. 46, to V. Kamamalu;
8. 316° 34' 40" 120.02 feet along the Waiawa Correctional Facility Site, Parcel 1 to the point of beginning and containing an AREA OF 0.466 ACRE.

E. EASEMENT 7-E FOR POWER LINE PURPOSES

Being a strip of land ten (10.00) feet wide and extending five (5.00) feet on each side of the following described centerline:

Beginning at the south end of this centerline, the true azimuth and distance to the end of Course 49 of the above described Waiawa Correctional Facility Site, Parcel 1 being  $337^{\circ} 02'$  33.82 feet, thence running by azimuths measured clockwise from True South:-

1.  $212^{\circ} 21' 50''$  314.65 feet to the north end of this centerline and containing an AREA OF 0.072 ACRE.

F. EASEMENT 8-E FOR ACCESS ROAD PURPOSES

Being a strip of land twenty (20.00) feet wide and extending ten (10.00) feet on each side of the following described centerline:

Beginning at the westerly end of this centerline, and on the boundary between the Lands of Waipio and Waiawa, the coordinates of said point of beginning referred to Government Survey Triangulation Station "WAIPIO UKA" being 4600.27 feet South and 7880.16 feet East, thence running by azimuths measured clockwise from True South:-

1. On a curve to the right with a radius of 400.00 feet, the arc length being 129.12 feet and the chord azimuth and distance being:  
 $312^{\circ} 42' 10''$  128.56 feet;
2.  $321^{\circ} 57'$  83.97 feet;
3. Thence on a curve to the left with a radius of 650.00 feet, the arc length being 104.24 feet and the chord azimuth and distance being:  
 $317^{\circ} 21' 20''$  104.13 feet;
4.  $312^{\circ} 45' 40''$  124.20 feet;
5. Thence on a curve to the left with a radius of 125.00 feet, the arc length being 150.07 feet and the chord azimuth and distance being:  
 $278^{\circ} 22' 05''$  141.22 feet;
6.  $243^{\circ} 58' 30''$  2879.28 feet;

7. Thence on a curve to the left with a radius of 575.00 feet, the arc length being 132.11 feet and the chord azimuth and distance being:  
237° 23' 35" 131.81 feet;
8. 230° 48' 40" 731.14 feet;
9. Thence on a curve to the left with a radius of 225.00 feet, the arc length being 175.02 feet and the chord azimuth and distance being:  
208° 31' 35" 170.64 feet;
10. 186° 14' 30" 233.26 feet;
11. Thence on a curve to the right with a radius of 150.00 feet, the arc length being 159.01 feet and the chord azimuth and distance being:  
216° 36' 40" 151.67 feet;
12. 246° 58' 50" 2764.29 feet to the easterly end of this centerline, the true azimuth and distance from the initial point of the above described Waiawa Correctional Facility Site, Parcel 1 being:  
156° 55' 40" 52.18 feet  
and containing an AREA OF 3.53 ACRES.

G. Easements as shown on Land Court Application 1000

Easement No.	Map No.
19	30
901	348
902	348
903	348
904	348
905	348
906	348
2848	513

H. Sanitary Sewer Outfall Easement

Being a strip of land five (5.00) feet wide and extending two and one-half (2.50) feet on each side of this centerline, covered by Lease No. 14,835 from Edwin P. Murray, et al, Trustees under the Will and of the Estate of Bernice P. Bishop, Deceased, to the United States of America dated October 21, 1965 and recorded in Liber 5191, Pages 253-258 and more particularly described as follows:

Beginning at the east end of this centerline, the true azimuth and distance from the end of Course 56 of the above described Waiawa Correctional Facility Site, Parcel 1 being 154° 53' 50" 32.00 feet, thence running by azimuths measured clockwise from True South:-

1. 74° 00' 71.00 feet to the west end of this centerline and containing an AREA OF 355 SQUARE FEET.

SURVEY DIVISION  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
STATE OF HAWAII

By: Joseph M. Matsuno  
Joseph M. Matsuno  
Land Surveyor gm

Compiled from data furn. by  
U.S.A., Ld.Ct.App. 1000, Maps 30,  
348, 513 and Govt. Survey Records.

**PLAN INFORMATION****KALANIMOKU BUILDING 4TH FLOOR ROOM 431**

<b>COMPLEX</b>	<b>TITLE</b>	<b>DAGS Job No.</b>	<b>FILE No.</b>	<b>DATE</b>	<b>SHTS</b>	<b>TYPE</b>	<b>DEPT</b>
WAIAWA ARMY NATL GUARD ARMORY	ADDITION & RENOV	12 - 14 - 6193	H-19-2	2/1/1996	6		DOD
WAIAWA ARMY NATL GUARD ARMORY	ADDITION & RENOV-PH 2	12 - 14 - 7004	H-19-2	6/1/1996	47		DOD
WAIAWA ARMY NATL GUARD ARMORY	ADDITION & RENOV-PH 2	12 - 14 - 7004	H-19-2	7/1/1997	6	PCD 1	DOD
WAIAWA CORRECTIONAL FACILITY	EDUCATION BLDG, REPLACE AC SYSTEM & UGRADE ELECT	12 - 27 - 5646	SPR 2		13		PSD
WAIAWA CORRECTIONAL FACILITY	KITCHEN/DINING BLDG	02 - 27 - 3069	WAIA, B	12/1/1986	36		PSD
WAIAWA CORRECTIONAL FACILITY	SITework	02 - 27 - 3098	WAIA, A	1/1/1987	7		PSD
WAIAWA CORRECTIONAL FACILITY	WASTEWATER FAC	02 - 27 - 3098	WAIA, B	3/1/1987	8		PSD
WAIAWA CORRECTIONAL FACILITY	LIBRARY/EDUCATION BLDG	02 - 27 - 3098	WAIA, A	3/1/1987	18		PSD
WAIAWA CORRECTIONAL FACILITY	MODIFICATION TO ELEC DISTR SYSTEM	02 - 27 - 3098	WAIA, B	4/1/1987	1	ADD 1	PSD
WAIAWA CORRECTIONAL FACILITY	MODIFICATION TO ELEC DISTR SYSTEM	02 - 27 - 3098	WAIA, B	4/1/1987	10		PSD
WAIAWA CORRECTIONAL FACILITY	MODIFICATION TO ELEC DISTR SYSTEM	02 - 27 - 3098	WAIA, B	6/1/1987	1	ADD 2	PSD
WAIAWA CORRECTIONAL FACILITY	MODIFICATION TO ELEC DISTR SYSTEM	02 - 27 - 3098	WAIA, B	8/1/1987	3	PCD 1	PSD
WAIAWA CORRECTIONAL FACILITY	SUPPORT FAC FRESH WATER PUMPS	12 - 27 - 1887	WAIA, C	5/1/1988	6		PSD
WAIAWA CORRECTIONAL FACILITY	SUPPORT FAC FRESH WATER PUMPS	12 - 27 - 1887	WAIA, C	6/1/1988	5	ADD 2	PSD
WAIAWA CORRECTIONAL FACILITY	SUPPORT FAC FREST WATER PUMPS	12 - 27 - 1887	WAIA, C	8/1/1988	2	PCD 1	PSD
WAIAWA CORRECTIONAL FACILITY	FIRE PROTECTION IMPRV	22 - 27 - 5180	WAIA, B	8/1/1991	2		PSD
WAIAWA CORRECTIONAL FACILITY	ACCESS ROAD IMPRV	22 - 27 - 5181	WAIA, B	2/1/1992	3		PSD
WAIAWA CORRECTIONAL FACILITY	SURFACE WATER TREATMENT SYSTEM	12 - 27 - 6659	WAIA, A	2/1/1994	12		PSD
WAIAWA CORRECTIONAL FACILITY	SEWAGE DISPOSAL SYSTEM	12 - 27 - 6172	WAIA, A	2/1/1994	11		PSD
WAIAWA CORRECTIONAL FACILITY	SURFACE WATER TREATMENT SYSTEM	12 - 27 - 6659	WAIA, A	8/1/1994	5	PCD 1	PSD
WAIAWA CORRECTIONAL FACILITY	SURFACE WATER TREATMENT SYSTEM	12 - 27 - 6659	WAIA, A	11/1/1994	1	PCD 2	PSD
WAIAWA CORRECTIONAL FACILITY	SEWAGE DISPOSAL SYSTEM	12 - 27 - 6172	WAIA, A	6/1/1995		PCD 1	PSD
WAIAWA CORRECTIONAL FACILITY	INTERIM INFRASTRUCTURE IMPRV	12 - 27 - 5510	WAIA, D	12/1/1996	35		PSD
WAIAWA CORRECTIONAL FACILITY	KASHBOX COMPOUND	12 - 27 - 5522	WAIA, D	10/1/1997	58	AS BLT	PSD
WAIAWA CORRECTIONAL FACILITY	TEMPORARY PROGRAM FACILITIES	22 - 27 - 5609	WAIA, D	4/1/2009	47	AS BLTS	PSD
WAIAWA CORRECTIONAL FACILITY	VAR REPAIRS & IMPV TO BLDGS & SITES	12 - 27 - 5604	WAIA, C	4/1/2010	23	AS BLTS	PSD



**KALANIMOKU BUILDING 4TH FLOOR ROOM 431**

***PLAN INFORMATION***

COMPLEX	TITLE	DAGS Job No.	FILE No.	DATE	SHTS	TYPE	DEPT
WAIAWA CORRECTIONAL FACILITY	KITCHEN IMPVMTS	12 - 27 - 5623 ✓	WAIA, B	5/1/2010	29	AS BLT	PSD
WAIAWA CORRECTIONAL FACILITY	ELECTRICAL SYSTEM IMPROVEMENTS	12 - 27 - 5564	WAIAWA	10/1/2012	11		PSD
WAIAWA CORRECTIONAL FACILITY	EDUCATIONAL BUILDING, REPLACE ROOFING SYSTEM	12 - 27 - 5645	WAIA, D	12/1/2012	4	AS BLT	PSD
WAIAWA CORRECTIONAL FACILITY	KASHBOX BUILDINGS BOILER SYSTEMS REPLACEMENT	12 - 27 - 5650	WAIA D	3/1/2014	16	AS BLT	PSD
WAIAWA CORRECTIONAL FACILITY, secure roo	ACCESS ROAD	02 - 27 - 3098	WAIA,A	2/1/1987	18		PSD
WAIKIKI COMMUNITY CTR	EDUCATION CTR RENOV	12 - 10 - 3123	A-5-1	6/1/1989	13		DOH
WAIKIKI COMMUNITY CTR	REROOF ADMIN & HEALTH BLDGS, RECONSTRUCT PARKIN	12 - 10 - 3179	A-5-1	3/1/1990	3		DOH
WAIKIKI COMMUNITY CTR	REROOF ADMIN & HEALTH BLDGS, RECONSTRUCT PARKIN	12 - 10 - 3179	A-5-1	6/1/1990		PCD 1	DOH
WAIKIKI COMMUNITY CTR	BLDG RENOV	12 - 10 - 4866	A-5-1	2/1/1992	8		DOH
WAIKIKI COMMUNITY CTR	BLDG RENOV	12 - 10 - 4866	A-5-1	7/1/1992	2	PCD 2	DOH
WAIKIKI COMMUNITY CTR	BLDG RENOV	12 - 10 - 4866	A-5-1	7/1/1992	4	PCD 1	DOH
WAIKIKI KAPAHULU / McCULLY-MOILILI LIBRA	RETROFIT TO ENERGY EFFICIENT LIGHT FIXTURES	82 - 36 - 6411	D-2-3	5/1/2008	4	AS BLTS	HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	CLARIFICATION OF SPLITE FACE BLOCK	- -	D-6-3				HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	COLOR SCHEDULE	- -	D-6-3				HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	LIB OF HAWAII	- - 183	D-6-3	1/1/1951	19		HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	REVISED AUDITORIUM WALL FRAMING	- - 183	D-6-3	9/1/1951	1		HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	CORK TILE FLR	- - 183	D-6-3	10/1/1951	1		HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	REV DOOR DETAIL	- - 183	D-6-3	2/1/1952	1		HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	PICTURE MOULD & FENCE BRACING	- -	D-6-3	3/1/1952			HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	BLDG SITE	- -	D-6-3	12/1/1959			HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	MENDING TABLE, COUNTER	- -	D-6-3	6/1/1961			HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	LAWN SPRINKLER IMPRV	53 - 53 - 2555.2	D-6-3	3/1/1973	1		HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	A/C & CARPENTING	02 - 16 - 6726	D-6-3	2/1/1976			HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	LAWN SPRINKLER IMPRV	- -	D-6-3	4/1/1976	1	AS BLTS	HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	REROOF	02 - 10 - 9231	D-6-3	5/1/1981	1		HSPLS
WAIKIKI KAPAHULU PUBLIC LIBRARY	REPLACE RESTRM FIXTURES, PARTITIONS	06 - 10 - 9543C	D-8-1	3/1/1982			HSPLS

**Helber Hastert & Fee**  
*Planners, Inc.*

March 2, 2017

Mr. Kimo Unten, P.E.  
Austin Tsutsumi & Associates, Inc.  
501 Sumner St # 521,  
Honolulu, HI 96817



**Waiawa Correctional Facility, Oahu, Hawaii**  
**Plan Review Use Permit and Special Use Permit Applications**

Dear Mr. Unten,

We are pleased to submit this proposal based on the results of our recently completed due diligence study. The proposal provides a description of recommended technical studies and proposed work tasks, a preliminary schedule and a detailed budget.

**1. Background**

The Hawaii Department of Public Safety (DSP) has been notified by the Honolulu Department of Planning and Permitting it must comply with the Plan Review Use (PRU) and State Special Use Permit (SUP) requirements to bring its Waiawa Correctional Facility (WCF) into compliance. HHF has recently completed a due diligence study that included initial interviews with state and county agencies involved in the processing of the PRU and SUP applications and WCF personnel, to gain insight into the application process and coordination requirements.

DSP has prepared three Chapter 343 HRS (EIS/EA) documents for the facility and feels it has complied with all requirements and therefore, a new EA is not believed to be needed.

**2. Project Team**

HHF will provide overall project management, and would lead the PRU/SUP effort and serve as the primary team liaison for the project. HHF team members proposed to support the project and their roles are identified below.

- Tom Fee, AICP, LEED AP: Project Director
- Questor Lau, AIA: Project Manager
- Glenn Tadaki, Senior Planner

## 2. Technical Studies

We have identified several technical studies that we recommend be prepared to support the applications. These studies will ensure that the applications have a firm foundation and that technically qualified subject matter experts are involved that can be later called to testify as experts at the Planning Commission and City Council hearings, if needed.

- Preliminary Engineering Assessment (review of major infrastructure and utility systems including roads, drainage, wastewater, water, and electrical service).
- Traffic Study. WCF operations do not generate a significant amount of traffic – particularly peak hour traffic. A traffic engineer needs to assess the situation, consult with State and County transportation agencies, and prepare the appropriate reporting needed to satisfy these officials (e.g., memo, assessment, traffic impact report). At this time, we do not anticipate that a traffic impact assessment report (TIAR) will be needed; however we have included the TIAR as an allowance in case the City or State deems a TIAR necessary.
- A biological survey to determine presence or absence of any protected species and if mitigation is required. No critical habitat or wetlands are designated in the WCF area. Threatened and Endangered plants are not likely to be found on the flatter, developed areas but may be present in the gulches. The native pueo may use remote grassy areas for nesting/roosting/foraging. Bats are always a possibility and will be addressed in the mitigation section (e.g., restrictions on cutting trees during pupping season, use of multi-strand barbed wire, etc.). The project elevation is probably too low for any active elepaio habitat (endangered species).
- Groundwater hydrology assessment to assess potential effects of the WCF on the Waiawa Shaft Hydrologic Zone of Contribution which bisects the site. The assessment will also discuss Waiahole Ditch water withdrawal rights.
- Reconnaissance level historic architectural survey – to determine if there are any national register of historic places-eligible facilities present and if so, how these facilities shall be managed (e.g., original barracks buildings and tunnel system).
- Archaeological literature review and field inspection to determine presence/absence of any archeologically significant features. It is likely the outcome will be “no effect” or “no adverse effect” – unless SHPD requires archeological testing or additional work (not included in this scope/budget).
- Cultural Impact Assessment to research and fully vet issues related to native Hawaii gathering rights and other factors covered under Articles IX and XII of the State Constitution (to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups).

### 3. Takeaways from the Due Diligence study

The recently completed due diligence study was very helpful in scoping the SUP and PRU application requirements and understanding agency review standards. The upshot of the review is that the SUP needs to be processed before the PRU can be submitted to DPP and the SUP application will be closely scrutinized by the Land Use Commissioners. The LUC doesn't have authority to modify the application transmitted by the City and County of Honolulu – therefore the application and associated record needs to be carefully crafted to provide the complete record the LUC needs to approve the application.

The recent OP staff interview challenged the assertion that the project need not prepare another Chapter 343 HRS because it had already been done, including a comprehensive EA completed in 1998 (19 years ago). The rationale being that the applications will need to address resources at the level of a Chapter 343 HRS document anyway, and going through the EA process inoculates the applicant from a potential procedural claim that it improperly avoided Chapter 343 HRS. LUC staff noted that the public nature of the Chapter 343 HRS process is a good way to ferret out issues and address them in advance of a public hearing where there is less room to negotiate and maneuver. The cons are that the decision to prepare the EA rests with DPP, and during their briefing they did not object to the initial position that there was no need to produce another EA (one of the DPP planners noted that their decision would weigh heavily on the content of the 5+ year master plan). Other factors include the added expense and time, and the difficulty in identifying a 343 HRS trigger. The issue should be revisited with DPP in the early stages of the project.

### 4. Proposed Scope of Work

The entire application process has been divided into 15 discrete tasks described below.

<b>Task</b>	<b>Description</b>
1. Background Research	The recently completed due diligence study has greatly reduced the level of background research needed. Additional focused research is still needed to address content requirements of the SUP and PRU applications.
2. Site Visits	The team will need to visit the site several more times to create the floor plans, fine tune the site plan (to be provided by ATA) and consult with on-site staff (one 2-hour windshield tour was conducted as part of the due diligence assessment).

Task	Description
3. Client Meetings	A series of regularly scheduled progress meetings are proposed where HHF will provide a status report on work underway, discuss forthcoming efforts, and receive feedback and direction from the client.
4. Technical Study Coordination	<p>A number of technical studies are proposed to support the applications. Effort is needed coordinate the various disciplines and ensure that the technical reports will satisfy DPP and LUC requirements.</p> <p>A listing of recommended technical studies are technical studies is provided above.</p>
5. Elected Officials, Agency and Community Consultations	<p>The Due Diligence study included an initial round of consultations with DPP, LUC, and OP. It is expected that the team will need to periodically loop back with these agencies during the course of developing the applications. Additional agencies will include DLNR, DOH, DOT Highways DOA/ADC, UH WRRRC, elected official serving the area, adjacent land owners, neighborhood boards and nearby business associations. Other stakeholders will be identified as part of the consultation process. HHF will review the last 12 months of Pearl City and Mililani Neighborhood Board minutes to familiarize the team with typical issues and concerns and any specific references to the WCF. A key goal in community consultation is to develop a list of supporters that would be willing to submit letters of support and to identify and resolve areas of concern early on.</p>
6. Neighborhood Board Presentations	<p>DPP’s SUP and PRU application instructions require that the local Neighborhood Board receive a briefing on a proposed application before it is submitted to DPP, and that copies of the Board’s minutes reflecting the presentation and comments made be included in the applications. Technically, WCF is within the boundary of the Pearl City Neighborhood Board but the WCF Warden indicates he has been regularly briefing the Mililani Neighborhood Board. HHF will coordinate with the DPS Public Affairs Officer to ensure that the required Neighborhood Board notices are prepared in a timely manner, that talking points are provided for the PAO’s presentation, and that an adequate meeting record is prepared. A rehearsal is recommended to develop standard responses and to prepare for potentially difficult questions.</p>

Task	Description
7. Five-Year Master Plan	<p>The Land Use Ordinance (LUO Sec. 21-2.120-2 General provisions) requires that a “proposed master plan spanning at least five years shall be submitted by the applicant for a PRU... the proposed master plan shall encompass the entire lot or the entirety of all lots for which the PRU is applied.” HHF intends to utilize ATA’s site plan, developed as part of its statewide DPS contract, as the base for the master plan. Annotations for existing and planned uses will be added to the site plan. Draft and final versions of the master plan would be developed as part of the draft and final versions of the SUP and PRU applications.</p>
8. Floor plans	<p>The DPP PRU application requires single line floor plans and basic use designations of all buildings, along with associated floor area calculations. Floor plans of some of the newer building are available but floor plans for a number of other buildings will have to be created. A best practice will be to prepare the floor plans using the building envelopes captured in the ATA site plan.</p>
9. Landscape Plan (existing and proposed)	<p>An HHF landscape architect would prepare the PRU-required “detailed landscape plan” showing existing and planned landscape improvements.</p>
10. PRU and SUP Technical Report Draft and Final	<p>As discussed with DPP and LUC staff, HHF would prepare a technical report following the common elements of both the SUP and PRU applications. It would address the physical, environmental, and social aspects of the facility. The technical report would be developed in two distinct phases: Draft and Final. The draft report will be as complete as possible and circulated internally for review and comment. Review comments on the draft plan would be incorporated into the final technical report that would accompany the SUP and PRU applications.</p>
11. SUP and PRU Applications	<p>The SUP and PRU applications have different additional content requirements - beyond the common aspects of both applications - that would be addressed in this task. It’s likely that the County will not waive its application fees, contrary to past public purpose projects. SUP and PRU application fees are estimated at approximately \$32,000 but the actual amount won’t be known until the applications are filed. Application fees will be included as a reimbursable expense.</p>

12. DPP  
Coordination/Support
- Per DPP’s preference, the applications will be submitted sequentially, with the SUP first. DPP will review each application to determine if it can be accepted for processing. HHF will work closely with DPP staff to get the applications accepted for processing (it’s entirely possible that DPP will ask to have additional information added to the application prior to acceptance). Once accepted, the applications will be routed for agency review and DPP staff will begin to prepare the Director’s Report consisting of an assessment, findings and recommended conditions. This staff report will ultimately be sent to the Director for review and approval. HHF staff will stay in close touch with DPP staff during this process to minimize the potential for surprises. This process repeats itself with each application (SUP first, PRU second). Because the technical report will have been reviewed with the SUP, PRU processing should be easier than SUP processing.
13. LUC/OP  
Coordination/Support
- HHF will closely coordinate with LUC and OP staff during the development of the technical report to ensure the level of detail meets their expectations.
14. SUP Planning  
Commission Hearing
- HHF staff will be available to either make or support DPP staff presentations at the Planning Commission meeting and support Commissioner and staff information needs.
15. PRU Planning  
Commission/City Council  
Hearings
- The PRU is first heard by the Planning Commission who then passes their recommendation and record and recommendations to the City Council. HHF will ensure that the relevant Council Committee Chair and Councilman Elefante (in whose district WCF is situated) are briefed and kept aware of the proposed applications.
- The City Council will schedule several hearings as part of its process to review the PRU application. An advance presentation to the relevant Committee Chair, would be scheduled once the draft resolution has formally been received by the council. Draft testimony for the public hearing will be prepared and reviewed by the client prior to delivery by HHF staff. HHF staff will stay in close contact with the relevant committee clerks to ensure that this final phase of the assignment proceeds smoothly.

## 5. Preliminary Schedule

A preliminary schedule is presented below shown in three month increments encompassing a 19-21 month process. It is a high level schedule subject to change by City and State agencies as they each arrange their individual processing schedules.

Major Milestones	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 5	Qtr 6	Qtr 7
Prepare technical studies (incl floor plans)	■						
Prepare Technical Report and SUP Application		■					
Neighborhood Board presentation(s)			■				
DPP SUP Acceptance/Processing/PC recommendation to LUC			■	■			
LUC Processing/Decision/Conditions					■		
Update Technical Report/Finalize PRU application						■	
DPP PRU Acceptance/processing/PC recommendation						■	
City Council Public Hearing							■
City Council Hearing/Approval							■

The first stage is to prepare the technical studies to support the SUP and PRU technical report. Once the report is near completion, a presentation to the Neighborhood Board would be coordinated through the DPS PAO. The Neighborhood Board meeting record will be incorporated into the technical report as an appendix and summarized in the report itself. The finalized technical report and the SUP application would then be submitted to DPP for its processing, including preparation of the Director’s Report, Recommendations and hearing by the Planning Commission. The Planning Commission recommendations and record is then transmitted to the LUC for its consideration, decision and conditions. Those conditions would be incorporated into the PRU technical report and then the PRU application would be submitted to DPP for processing, including preparation of the Director’s Report, Recommendations and draft resolution and subsequent hearing by the Planning Commission. The Planning Commission recommendations and record is then transmitted to the City Council for its consideration, public hearing, decision and adoption of the final PRU resolution. The team can try to accelerate stages if needed or try to structure stages to align with the client’s internal milestones.

## 6. Proposed Fees

[This information not included in Due Diligence Report]

Thank you for this opportunity to submit our proposal for this important project.

Sincerely,

Thomas A. Fee, AICP, LEED AP  
President



