Attachment I
Representative Photographs of Similar Solar and Storage Project Components

Photograph 1. View of typical solar photovoltaic modules on a fixed-tilt racking system (*O‘ahu, Hawai‘i*)

Photograph 2. View of typical solar photovoltaic modules on a fixed-tilt racking system (*O‘ahu, Hawai‘i*)

Photograph 3. View of typical battery units and associated equipment on concrete equipment pad (*Kaua‘i, Hawai‘i*)

Photograph 4. View of typical substation and associated electrical equipment (*Kaua‘i, Hawai‘i*)

Attachment J
Correspondence Regarding Water Availability

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com

May 11, 2020

MAY 18 2020

Mr. Nick Molinari
AES Distributed Energy
282 Century Place
Louisville, Colorado 80027

Dear Mr. Molinari:

Subject: Your Email Dated March 13, 2020 Requesting Water Availability to the Proposed AES West Oahu Solar and Storage Project
Tax Map Key: 9-2-002: 007

Thank you for your letter regarding the proposed solar power storage facility and the compatible agricultural activities.

The existing water system is adequate to accommodate the proposed solar and storage facility. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply (BWS) reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

Proposed water connection designs for the solar storage facility shall be submitted for our review and approval. Construction schedule shall be coordinated with the BWS to minimize impacts to our water system.

Water service cannot be made to the proposed compatible agricultural activities. The existing BWS water system has limited capacity and cannot accommodate the additional agricultural demands.

The developer should investigate the feasibility of developing its own private source water or using nonpotable water sources, such as the Waiahole Ditch, for irrigation of the proposed agricultural activities. The parcel is located above the potable aquifer, within the BWS No-Pass Zone and close to the Department of Health's capture zone delineation of a major BWS water source. Therefore, the developer will be required to submit and implement a soil and water conservation plan with best management practices to prevent contamination of the underlying aquifer.

If water is made available for the proposed solar and storage project, the applicant will be required to pay our Water System Facilities Charges for resource development and transmission.

The developer will be required to obtain a water allocation letter from the University of Hawaii West Oahu for use of their East Kapolei 440' reservoir storage.

Water conservation measures are required for the proposed development. These measures include utilization of nonpotable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at (808) 748-5443.

Very truly yours,

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

Jan S. Gouveia
Vice President for Administration

UNIVERSITY of HAWAI'I® SYSTEM

June 2, 2020

AES West Oahu Solar, LLC
282 Century Place, #2000
Louisville, CO 80027
Attn: Mr. Nick Molinari
nick.molinari@aes.com

RE: Water Assessment - University of Hawai'i West Oahu Solar + Storage Project

Dear Mr. Molinari

The University of Hawai'i has received your request to review potential water resources for the proposed West Oahu Solar + Storage project. We understand there are three proposed water uses for the project.

1) Crop Cultivation or Honey Production and Cattle Grazing: Unfortunately, the University of Hawai'i West Oahu (UHWO) cannot make water available for crop cultivation due to the significant water demands required for this use. We do, however, support the compatible agricultural uses already proposed for the project (i.e., honey bees and cattle grazing) and are willing to work with AES and the Board of Water Supply (BWS) to provide water for these uses. These aforementioned compatible agricultural activities would provide meaningful agricultural output but would not require the extremely large quantity of water that would be needed for crop cultivation.

2) Landscaping: UHWO does have capacity to meet potential water demands for landscape irrigation, if needed. It is our understanding that the water demands for this use are significantly lower than that of crop cultivation and would be required only for a limited time until landscaping plants are established and reach sufficient maturity to survive without irrigation.

3) Construction-Related Dust Control: UHWO does have capacity to meet potential water demands for temporary dust control during the construction and decommissioning phases of the project, if needed. It is our understanding that the water demands for this activity are very low and only required for a limited time until the completion of project construction.

Requests for potable water allocations will need to be coordinated with the University of Hawai'i. The water uses and availability identified above are subject to approval by the University and BWS and may require closing of abandoned wells. UHWO is committed to working with both AES and BWS on this matter.

Sincerely,

Jan Gouveia
Vice President for Administration

2444 Dole Street, Bachman Hall 109H
Honolulu, Hawai'i 96822
Telephone: (808) 956-6405 • Fax: (808) 956-9701

August 28, 2020

Mr. Ernest Lau
Board of Water Supply
630 S. Beretania Street
Honolulu, HI 96843

Subject: Your Letter Dated May 11, 2020 Regarding Water Availability for the Proposed AES West Oahu Solar and Storage Project

Dear Mr. Lau,

Our apologies for the delayed follow up. This email is in response to a comment within your letter dated May 11, 2020: "The developer should investigate the feasibility of developing its own private source water or using non-potable water sources, such as the Waiahole Ditch, for irrigation of the proposed agricultural activities."

After conducting preliminary due diligence, AES has determined that development of its own private water source such as a groundwater well or reservoir **would not be needed to meet the water demands of compatible agricultural activities such as grazing and honey production. Further, the maintenance and ownership** of a private water source does not align with the temporary nature of this project. AES only has a 25-year term for use of the land and as a result, the long-term maintenance and ownership of a private water system would be problematic. The use agreement with the University of Hawaii (landowner) and the power purchase agreement require the project to be decommissioned and removed, and the land returned to the owner. Further, it was determined that the timing to develop and construct a private water source would not comport with the project schedule as mandated by the PUC. Lastly, the portion of the Waiahole Ditch that runs through the project area is in poor condition and is not functional to carry water.

As noted in your letter, it is acknowledged that water service cannot be made available for high-demand crop cultivation agricultural activities. **For the reasons described in the previous paragraph, AES did not further investigate the development of a private water source.** It is also acknowledged that if water is made available for the lower water demands of the proposed

AES Distributed Energy
282 Century Place, Suite 2000
Louisville, CO 80027
aesdistributedenergy.com

solar and storage project, the applicant will be required to pay the Water System Facilities Charges for resource development and transmission. Further, the developer will be required to obtain a water allocation letter from the University of Hawaii West Oahu if use of their East Kapolei 440' reservoir storage is required for the project. In conjunction with that approach, proposed water connection designs for the solar storage facility shall be submitted to BWS for review and approval, and the final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

Regards,

Nick Molinari

Project Development Manager
AES Distributed Energy
282 Century Place, Suite 2000
Louisville, CO 80027
Tel: 1 303 524 4368
Email: nick.molinari@aes.com

Cc:
Robert Chun (BWS)
Barry Usagawa (BWS)
Kirstin Punu (AESDE)

Attachment K
Landscape Plan Narrative

MAILELANI
DESIGN

AES West O'ahu Solar Project
Landscape Plan
July 2020

Introduction

The proposed AES West Oʻahu Solar Plus Storage Project, located within the upper slopes of Makakilo, Ewa, Oʻahu will sit on a parcel of land, owned by the State of Hawaiʻi (University of Hawaiʻi [UH] West Oʻahu), commonly referred to as the UH West Oʻahu Mauka Lands property. The project area will encompass up to 97 acres within an approximately 861-acre parcel. It is projected to provide 12.5 MW of solar energy and 50 MWh of battery storage with the intent to assist the State of Hawaii in achieving its energy goals of generating 100% from renewable sources. The 25-year lifespan of this Project will conclude with the decommissioning of the system and restoring the site to pre-Project conditions.

Landscape Design Intent

As part of the development of the Project, a landscape plan was sought to be included as part of a SUP (Special Use Permit) and CUP (Conditional Use Permit) application based on certain requirements stated in the LUO (Land Use Ordinance). The landscape plan must show proposed visual buffering from adjacent streets and major roadways, a supporting irrigation system and maintenance requirements. The plan identified and evaluated areas around the perimeter of the Project area that could potentially provide effective visual screening and/or buffering. The areas that were identified that had the most potential were along the South West (SW)/West (W) portion of the Project area facing the nearby Makakilo neighborhood, as well as the Eastern (E) boundary facing the H-1 freeway.

Prior to developing the landscape plan, climactic, geographic, cultural and biological information was collected and researched to assist and guide the landscape design intent, and to assure the proposed plant palette was sensitive and appropriate to the specific location. Considering all of the above factors, all facets of the Project's perimeter were considered and explored, to determine the most effective, practical and feasible approach to the landscape design.

Existing Site Conditions

The majority of the Project site sits on steep terrain ranging from 290' to 425' above sea level with slopes from 16% to 70% throughout, split by the Kalo'i Gulch and former Waiahole Ditch. The annual rainfall average is 30” a year, resulting in a dry, semi-arid, grassland environment. Biologically, the flora and fauna are varied but largely populated by non-native plant species such as Haole Koa (Leucaena leucocephala), Guinea grass (Urochloa maxima) and Buffel Grass (Cenchrus ciliaris). Of the 29 plant species identified on site, only 3 are native Hawaiian. These include ʻIlima papa (Sida fallax), 'Uhaloa (Waltheria indica) and Wiliwili (Erythrina sandwicensis).

Limitations

Landowner considerations: The University of Hawaiʻi has a long-term responsibility for the maintenance and stewardship of the UH West Oʻahu Mauka Lands Property, and expressed a strong desire to avoid the planting of trees or shrubs that may pose long-term maintenance and liability challenges due to fallen branches, aggressive root systems, etc. particularly within close proximity to roadways. Furthermore, planting of trees or other large vegetation may encourage undesirable activities on the property and as such, were requested to be avoided.[1]

[1] Enclosure A: Letter to AES West Oahu Solar, LLC from University of Hawaii dated June 23, 2020

Resources – The Project area does not currently have infrastructure for water or power to irrigate landscaping. As described above, the site is in a dry, semi-arid environment such that even a drought-resistant plant palette would require an irrigation system during the initial stages of establishment (see further discussion in "Temporary Irrigation System" section below.) The Project site is void of any water transmission infrastructure and irrigation water will need to be transported by truck and stored on-site in water tanks. As water tanks will be filled by truck, they must be located adjacent to service roads, limited to the South (S) and East (E) portion of the Project's fenced area (further discussed below). As the suitable water tank locations are in the lower elevation areas of the Project area, any plant materials placed up-slope of the tanks would require a booster pumping system to deliver water up-slope to the plants.

Vehicular Access – The Project site plan proposes various access points and internal service roads within the S and E portion of the Project's fenced area. However, due to the steep, rocky terrain construction of new service roads providing access to the Western Project area boundary is infeasible. Without vehicle access to the SW/W side of the site, installation of any plant material and supporting irrigation as well as ongoing maintenance would be unsafe and cost prohibitive.

Plant height and shading: Access to sunlight is essential to the production of renewable energy. The presence of any shadows upon the proposed solar panels significantly reduces their effectiveness. Therefore, consideration of the mature height of new plant materials and existing topography was considered in the placement of plants.

Landscape Plant Palette

Numerous factors were considered in selecting the most appropriate plant species for the Project requirements. In addition to being effective as a visual buffer, other considerations included annual rainfall, range of temperature, wind patterns, soil type, topography and elevation, existing vegetation types and sun exposure.

The consideration and study of the above factors resulted in the selection of the following plants.

'A'ali'i (see image below)	Shrub	Dodonaea viscosa
Kulu'i (see image below)	Shrub	Nototrichium sandwicense
ʻIlima	Shrub	Sida fallax

Figure 1 (Plant Palette)

'A'ali'i (Dodonaea viscosa)

'Ilima (Sida fallax)

Kulu'i (Nototrichium sandwicense)

Landscape Plan

The proposed landscape plan takes into consideration the various limitations outlined above, feasibility of installation, irrigation required through establishment, safety, cost and maintenance relative to the potential of providing a visual buffer from adjacent streets and major roadways. This palette was selected based on feedback received during community outreach, and is in keeping with AES' desire to support the reintroduction of species indigenous to the region. The plan proposes clustering of primarily native plant material along the E boundary of the Project area facing the H-1 freeway, optimizing the natural terrain, and relying on a gravity-fed irrigation system,

1241 ala amoamo street honolulu, hawai'i 96819 • ph: 808.383.6530 • em: vivian@mailelanidesign.com

eliminating the need for a pump or generator to supply water to the plants. Because these areas slope downward, the potential for shading at mature heights is greatly reduced. Further, ʻIlima was specifically identified and incorporated into the plan to provide an important food source for honeybees and would support the compatible agricultural activities through honey production. Although the landscaping would not completely screen the Project facilities, it would yield additional environmental and agricultural benefits to further support the community's vision and statewide goals related to agriculture and energy.

As discussed in further detail below, it was determined that planting along the SW/W portion of the Project area facing the nearby Makakilo neighborhood, as well as the NE boundary facing the H-1 freeway, with the intent to provide an effective visual screen between the project site and the upper residential area of Makakilo, and from vehicles traveling on Farrington Highway, required large and medium trees and shrubs with mature heights of 40' – 50'. Due to the considerations outlined above, and further discussed in the "Feasibility Studies" section below, the plan proposes preserving much of the existing vegetation along the West ridge, and the East side of the project site, outside the project fence line. While not anticipated to be effective in completely screening the view of the panels, it is expected to provide a visual buffer between the project site and upper residential areas as well as soften the view of the Project from major roadways below.

Temporary Irrigation System

The use of drought tolerant, site appropriate plants has great potential in the long run to reduce the amount of water needed to sustain the average plant. However, in the initial stages, regular watering is critical in the plants' establishment, assuring adequate root growth, canopy growth and overall health. Once established, these selected native plants, that are inherently drought-tolerant, are anticipated to survive on their own, relying only on rainfall within the area.

As the Project site is void of any water transmission infrastructure, irrigation water will need to be transported and/or stored on site. The proposed temporary irrigation system includes some or all of those listed below with the assumption that water will be delivered via a water truck to fill/refill the water storage tanks:

- One (1) 1000-gallon water storage tank
- Remote controlled valves with solar powered timers
- HDPE mainline pipe
- PVC laterals
- In-line drip tubing

The anticipated water demand for the proposed landscape plan is 6,100 gallons/year with a water truck refilling the tank 6-7 times.

Maintenance

The proposed plant palette was created with minimal maintenance requirements. Once established on-site the proposed plants are intended to survive on their own with little intervention. However, during the suggested 365-day maintenance period, the landscape contractor shall provide the following:

Landscape:

- First 6 months (weekly): Inspection of all plants, checking tree stakes, tree guys, observation of pests, successful plant establishment, replacement of dead plants, applying fertilizer, etc.
- Next 6 months (bi-monthly): same as above

Irrigation:

- First 6 months (weekly): Inspection that all irrigation equipment is in working order. Replace broken heads/drip tubing, fix leaks, overspray, fix gullies as needed, adjust timers as needed.
- Next 6 months (bi-monthly): same as above

1241 ala amoamo street honolulu, hawai'i 96819 • ph: 808.383.6530 • em: vivian@mailelanidesign.com

Feasibility Studies
Several options were considered as part of an initial feasibility study and are further discussed below.

Planting along the SW/W portion of the Project area facing the nearby Makakilo neighborhood, as well as the NE boundary facing the H-1 freeway with the intent to provide an effective visual buffer between the Project site and the upper residential area of Makakilo and vehicles traveling on Farrington Highway below was considered and was determined to have required large and medium trees and shrubs with mature heights of 40' – 50'. As stated above, it is the University's strong desire to avoid the planting of large trees or shrubs that may pose long-term maintenance and liability challenges.

In addition, the Project site plan proposes various access points and internal service roads within the S and E portion of the Project's fenced area. However, due to the steep, rocky terrain, construction of new service roads providing access to the Western Project area boundary is infeasible. Without vehicle access to the SW/W side of the site, installation of any plant material and supporting irrigation as well as ongoing maintenance would be unsafe and cost prohibitive.

Similarly, the installation of temporary irrigation for plant materials on the SW/W side of the site would involve substantial effort and cost, requiring a booster pump, (2) 2000-gallon water tanks and a solar powered generator to pump water up hill to the plants from the access road 130' below. The anticipated water demand for this scenario was 20,600 gallons/year with a water truck refilling the tanks 5-6 times.

Warranty
All plant materials furnished under this project shall be warranted in writing, for a period of 1 year from the date of the start of the maintenance period against defective, unsound, or diseased conditions that may appear. Replacement of these plants shall be of the same species as originally planted and shall be of a size closely approximating the size of the plant if normal growth had occurred since the original planting.

Summary
The proposed landscape plan began by identifying and evaluating areas around the perimeter of the Project area that could potentially provide effective visual screening and/or buffering of views of the Project from various vantage points. Areas identified as having most potential for location of plant materials that could provide screening and/or buffering were along the SW/W portion of the Project area facing the nearby Makakilo neighborhood, as well as the NE boundary facing the H-1 freeway.

Feasibility studies were conducted, and various limitations were identified which make installation of plant materials on the SW/W and higher-elevation portions of the NE side of the site infeasible.

The resulting landscape plan proposes clustering of primarily native plant material along the E boundary of the Project area facing the H-1 freeway, optimizing the natural terrain, and relying on a gravity-fed irrigation system, eliminating the need for a pump or generator to supply water to the plants. The pallete was selected based on feedback received during community outreach and is in keeping with AES' desire to support the reintroduction of species indigenous to the region. In addition, 'ilima was specifically identified and incorporated into the plan as an important food source for honeybees and would support the compatible agricultural activities through honey production. Although the landscaping would not completely screen the Project facilities, it would yield additional environmental and agricultural benefits to further support the community's vision and statewide goals related to agriculture and energy.

The plan proposes preserving much of the existing vegetation along the West ridge, and the East side of the project site, outside the Project fence line, providing a visual buffer and softening the view of the Project from various vantage points.

1241 ala amoamo street honolulu, hawai'i 96819 • ph: 808.383.6530 • em: vivian@mailelanidesign.com

Jan S. Gouveia
Vice President for Administration

UNIVERSITY of HAWAI'I® SYSTEM

June 23, 2020

AES West Oahu Solar, LLC
282 Century Place, #2000
Louisville, CO 80027
Attn: Mr. Nick Molinari
nick.molinari@aes.com

RE: Landscape Plan - University of Hawai'i West Oahu Solar + Storage Project

Dear Mr. Molinari

The University of Hawai'i understands that AES West Oahu Solar will be preparing a landscape plan as required under the permitting process for the University of Hawai'i West Oahu Solar + Storage Project and as described in the Project's Draft EA.

The University of Hawai'i has a long-term responsibility for the maintenance and stewardship of these lands. As such, it is our strong desire that AES avoid the planting of trees or shrubs that may pose long-term maintenance and liability challenges for the University due to fallen branches, aggressive root systems, etc. particularly within close proximity to roadways.

Furthermore, the planting of trees or other large vegetation may encourage undesirable activities on the property and should be avoided.

Sincerely,

Jan Gouveia
Vice President for Administration

2444 Dole Street, Bachman Hall 109H
Honolulu, Hawai'i 96822
Telephone: (808) 956-6405 • Fax: (808) 956-9701

Attachment L
Decommissioning Plan

Decommissioning Plan

AES Distributed Energy

West Oahu Solar Project

March 2020

Prepared for:
AES Distributed Energy
282 Century Pl, Suite 2000
Louisville, CO 80027

Contents

1 Introduction

AES Distributed Energy (AES) engaged HDR Engineering, Inc. (HDR) to provide a physical plan to complete decommissioning of the West Oahu Solar project (Project). The Project consists of a solar photovoltaic (PV) system plus battery energy storage system (BESS) and project substation. The decommissioning plan (Plan) describes the general measures and procedures that should be developed and implemented to decommission and restore the site, and safely dispose of or recycle project materials.

1.1 Decommissioning Requirements

This Plan outlines a typical program for decommissioning the Project at the end of the project life cycle that satisfies Hawaii state law requiring decommissioning per the "Permissible uses within the agricultural districts" as part of the Special Use Permit requirements, specifically the following requirements per Section 205-4.5, Item 21[1]:

> *"(B) Proof of financial security to decommission the facility is provided to the satisfaction of the appropriate county planning commission prior to date of commencement of commercial generation; and*
> *(C) Solar energy facilities shall be decommissioned at the owner's expense according to the following requirements:*
> *(i) Removal of all equipment related to the solar energy facility within twelve months of the conclusion of operation or useful life; and*
> *(ii) Restoration of the disturbed earth to substantially the same physical condition as existed prior to the development of the solar energy facility."*

Prior to commencing decommissioning, the Owner would need to verify with the local, state or federal agencies any additional requirements and submit a revised plan as required.

1.2 Project Description

The Project is located on the Hawaiian island of Oahu, North of the intersection of Interstate H1 and Kualakai Parkway (see Figure 1) on approximately 80 acres of agricultural zoned property. The undeveloped site consists primarily of shrub brush on Land Study Bureau (LSB) Soil Classification B, D and E. The Project consists of 17.4 MWdc (12.5 MWac at POI) of fixed tilt solar PV with 20 DC-coupled 650 kW BESS containers. The project will interconnect via a new project substation to an existing overhead 46 kV transmission line owned by Hawaii Electric Company (HECO) that bisects the site.

[1] Hawaii State Legislature, §205-4.5 Permissible uses within the agricultural districts, https://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch0201-0257/HRS0205/HRS_0205-0004_0005.htm

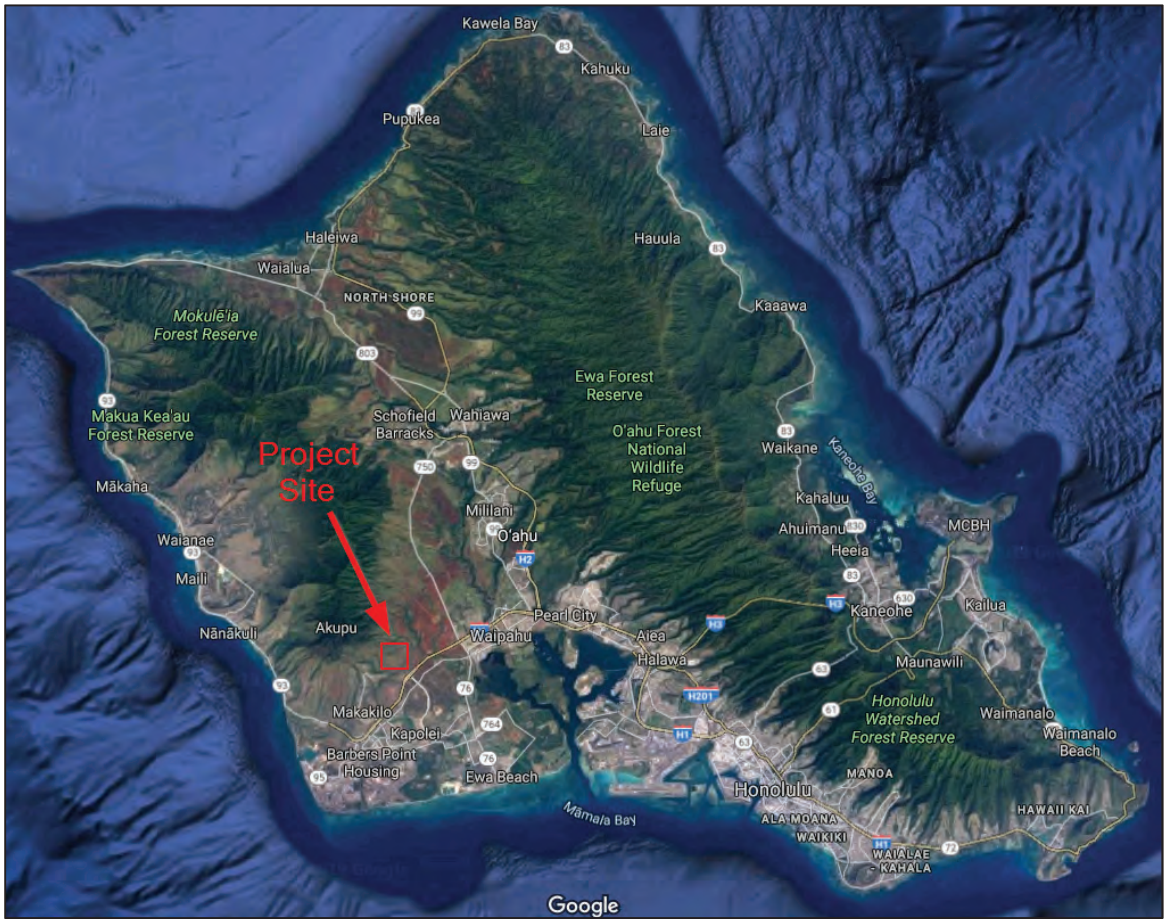


Figure 1 – Project Site Location (Source: Google Earth)

For preliminary site layout, see Appendix A. Major features of the Project are outlined below:

- 405 Watt (nominal) output, Monocrystalline, bifacial PV panels
- Fixed axis steel racks in a double portrait layout to support the PV panels
- Steel pile foundation to support panels/racks and miscellaneous equipment
- Five (5) 2.8 MWac central inverters on pads along with five (5) 3000 kVA medium voltage step up transformers, and associated data collection equipment for metering and monitoring.
- Twenty (20) 650 kWdc BESS storage containers co-located on electrical equipment pads
- On-site 100 ft by 200 ft project substation with GSU transformer
- 20 ft wide gravel site access roads
- Perimeter security fencing
- Bee hives and cattle grazing throughout the project area

1.3 Decommissioning Plan Description

This Plan has been developed to outline typical procedures and considerations for decommissioning the Project. Decommissioning may occur because the project has fulfilled its intended purpose and term, or because it has been abandoned.

2 Decommissioning Procedures

2.1 Overview

After project end of life or conclusion of operation, the site would be restored within 6-12 months to substantially the same physical condition as existed prior to the development of the Project. This decommissioning includes removal of project equipment and all site restoration activities noted below. All site activities described below will commence after the site has been de-energized and secured. Because decommissioning activities are not expected to occur for many years, and regulatory requirements may change, any applicable permitting or regulatory requirements would be reviewed with appropriate local and state agencies prior to decommissioning activities to ensure compliance.

2.2 General Environmental Protections

During decommissioning activities, general environmental protection measures would be implemented as required. Many activities during decommissioning would be comparable to the construction phase, including the use of heavy equipment on site, preparing staging areas, dust and erosion control procedures, and restoring disturbed areas around all project infrastructure. The project decommissioning activities shall meet all environmental, stormwater, dust control, erosion control and permitting requirements per local, state and federal regulations.

2.3 Pre-decommissioning Activities

Prior to engaging in decommissioning activities, the Owner would update this decommissioning plan in accordance with appropriate requirements at the time of decommissioning. Decommissioning and restoration activities will be performed in accordance with all relevant ordinances and requirements in place at the time of decommissioning and in accordance with the Project's other environmental permits. At the end of the Project's useful life, it will first be de-energized and isolated from all external electrical lines prior to initiating dismantling or ground-disturbing decommissioning work. This includes coordination and advanced communication with the interconnection utility (HECO).

2.4 Decommissioning and Restoration Activities

The major components of the Project are PV modules, steel racking and support piles, electrical cabling, inverters, transformers, BESS containers, and project substation equipment. All electrical equipment, both above ground and underground (where practicable and as noted herein), will be removed from the project property upon decommissioning.

PV Module and Racking Removal

All modules will be disconnected, removed from the racking, packaged and transported to a designated location for recycling or resale. Recycling will be done in accordance with applicable laws and requirements. Whether recycling or disposal occurs on the island or off the island may depend on current regulations at the time. The connecting cables and the combiner boxes will be de-energized, disconnected, and removed. The steel racking system supporting the PV modules will be unbolted and disassembled by laborers using standard hand tools, possibly assisted by small portable crane. All steel support structures will be completely removed and transported off site for salvage or reuse. Any demolition debris that is not salvageable will be transported to an approved disposal area. Other salvageable equipment and/or material will be removed for the site for resale, scrap value or disposal.

The modules and racking systems will likely be supported via driven steel piles or screws. Other miscellaneous equipment may be supported via steel piles. All piles will be removed and salvaged.

Electrical Equipment Removal

All decommissioning of electrical devices, equipment, and wiring/cabling will be in accordance with local, state and federal laws. Any electrical decommissioning will include obtaining required permits, and following applicable safety procedures before de-energizing, isolating, and disconnecting electrical devices, equipment and cabling. Decommissioning will require dismantling and removal of the electrical equipment, including inverters, transformers and underground/aboveground cables. All electrical equipment will be removed from the project property upon decommissioning. The equipment will be disconnected and transported off site.

Any concrete foundations and support pads will be broken up by mechanical equipment (e.g. backhoe-hydraulic hammer/shovel, jackhammer), loaded in to dump trucks and removed from the site. All concrete foundations will be removed, including any deep pier foundations (if required). Smaller pre-cast concrete support pads will be removed intact by cranes and loaded onto trucks for reuse, or will be broken up and hauled away by dump trucks. Prior to removal of any transformers, any oil will be pumped out into a separate industry approved disposal container and sealed to prevent any spillage during storage and/or transportation. Salvaged oil from transformers will be transported to the nearest oil recycling or disposal center. Equipment and material may be salvaged for resale or scrap value depending on the market conditions.

BESS Removal

The BESS containers will be co-located with project inverters and electrical equipment. They will be comprised of containerized modules consisting of lithium-ion batteries and an air conditioning / HVAC system to provide cooling and heating. Lithium-ion batteries will require routine continuous maintenance and care in their use and handling. Batteries reaching end of life will be recycled and disposed of in accordance with the relevant local, state or federal regulations. Replacements will be made with new or appropriately refurbished batteries. This periodic replacement would have no effect on decommissioning processes.

The following steps are required for BESS removal:

- Disconnect BESS from sectionalizing equipment, inverters, transformers and auxiliary power

- Remove battery racks for recycling as well as other easily non-secured components. Containers to be removed and remaining components disassembled at appropriate recycling facilities.
- Remove foundation pad and/or pile supports as previously noted.
- Re-grade surfaces, add topsoil and seed according to “Site Restoration” below.

Project Substation Removal

All project substation equipment and buildings shall be removed, including the underground cabling, grounding grid, and foundations. The Project does not anticipate a gen-tie line to connect to the utility transmission line outside of the single connecting overhead span, but regardless all equipment, structures and foundations required for removal shall be done according to this Plan. Decommissioning activities would require coordination with the local utility on the interconnecting transmission line including the assets at the point of interconnection. Owner shall not be responsible for decommissioning anything on the utility transmission line unless otherwise agreed upon.

The following steps are required for Project substation removal:

- De-energize transformers and other energized equipment and disconnect from the project substation
- Disconnect and remove medium voltage switchgear
- Disconnect and remove sectionalizing equipment and transformers
- Disconnect and remove electrical and communications equipment in the control building
- Demolish control building and remove foundation
- Remove equipment foundation pads and pile supports for remaining equipment
- Remove grounding grid, fence and cables
- Remove and recycle aggregate surfaces
- Re-grade surfaces, add topsoil and seed according to “Site Restoration” below

Road Rehabilitation

At the time of decommissioning, the Owner will coordinate with the property owners and easement holders (if applicable) to determine if any site access roads should remain. If any of the other roads serve no future purpose, they will be decommissioned and restored to preconstruction conditions. The decommissioning will involve the removal of the aggregate and filling the remaining voids with on-site surface materials by grading. Removed materials will be taken to an appropriate recycling area (possibly on site) where the gravel or aggregate materials can be processed for salvage value or future use. Remaining ground surfaces will be rough graded to merge with the surrounding elevations and returned to near preconstruction conditions by means of grading and disking, using a tractor and disc attachment to restore the soil structure and to aerate the soil.

Site Restoration

Following decommissioning, the Project site will be stabilized to ensure that there are no ongoing adverse environmental effects. The site will be restored to a clean, safe and environmentally stable state, and substantially to preconstruction conditions according to state regulations. Site restoration activities in the various project areas will immediately follow the removal of above ground and below ground structures to ensure there are no adverse environmental impacts due to rain events. Site restoration will consist of re-seeding of disturbed areas with native grass mixture as required.

Fences and Gates

The security fence will be dismantled, removed and recycled offsite only after all other ground-disturbing decommissioning and site restoration work has been completed. The fencing protecting the perimeter of the site typically consists of steel fence attached to line posts. Posts will typically extend to depths of 4 ft to 6 ft below grade and will either be encased in concrete footings or directly embedded. All posts shall be removed intact. The Project will be accessed through manually operated swing gates located at multiple permanent access points and personnel gates. It is anticipated that the fence, gates, wire and hardware would be removed and recycled at decommissioning.

2.5 Waste Management Procedures

During decommissioning, debris and waste generated will be recycled to the extent feasible and as required by local, state and federal regulations. The contractor will facilitate recycling of all construction waste through coordination with licensed sub-contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes. The contractor will also be responsible for ensuring that wastes requiring special disposal (e.g., transformers) are handled according to regulations that are in effect at the time of disposal. Although hazardous waste is not anticipated on the site, any hazardous waste would be removed and disposed of in accordance with applicable laws and regulations.

2.6 Emergency Response and Communications Plans

During decommissioning, the Owner and Contractor will coordinate with local authorities, the public, and others as required to provide information about the ongoing activities. Besides regular direct/indirect communication, signs will be posted at the Project facility to inform the local public and visitors. The Owner and Contractor’s project representatives contact information (e.g. telephone number) will be made public for those seeking more information about the decommissioning activities and/or for reporting emergencies and complaints. All inquiries will be directed to the project representatives.

In the event of an emergency, the Owner will mobilize its resources to the site to respond to the event. Personnel involved in decommissioning will be trained in the emergency response and communications procedures. Emergency response procedures will be prepared prior to decommissioning.

3 Material and Salvage Plan

This section identifies major material and equipment quantities on the Project based off of preliminary designs. Any bids from decommissioning contractors will be responsible for verification of quantities (per final drawings), construction costs and salvage rates.

Salvage value of recyclable material is derived from the makeup of the materials of the racking system, piles, inverters, transformers, cabling, aggregate, BESS and potentially PV panels (see bullets below) removed from the project at end of life.

The following may be assumed for salvage recovery rates and values:

- Depending on the component, equipment, and anticipated decommissioning activity, various material recovery percentages ranging from 75% to 100% are assumed. Salvage rate accounts for inefficiencies in removal of salvageable material, damage during removal or transport, and inability to cost effectively separate components to recoverable materials. To be on the conservative side, a salvage rate less than 100% is typical to thereby reduce the salvage value recovered.
- The future market is not clear on the usability or value of recently deployed solar panels after the approximate component lifecycle of 25 years. Panels are recyclable (the majority of components) and disposing of panels in a landfill should be avoided.
    - Panels may be recycled by a panel recycler at a cost of $25 per panel (about $0.50/lb) as reported by Recycle PV Solar, LLC[2]. This can be impacted by transportation costs for the recycler.
    - Alternatively, the panels could also be offered to a panel refurbishment company at no cost to the project or possibly at a salvage rate. The Owner would dismantle, package and turn over the panels at no cost; therefore, no panel recycling fee.
    - Panel salvage/reuse is likely to remain dynamic; alternatives should be evaluated for and reassessed periodically.
- All excess material that is not salvageable is anticipated to be removed off-site and transported to approved disposal facilities.

3.1 Major Equipment Quantities

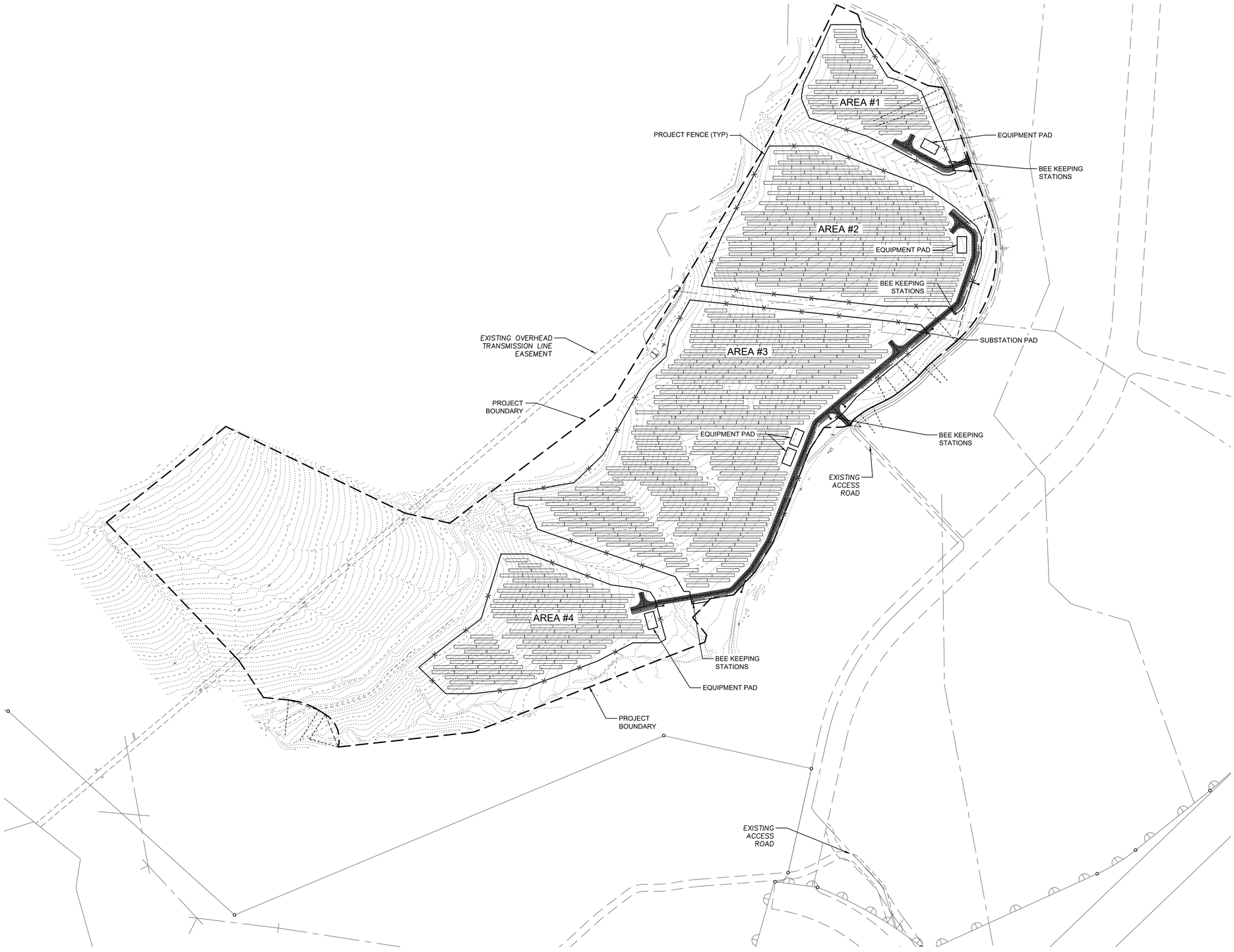
Major equipment quantities on the Project are listed in the table below based off preliminary design documents. Quantities listed below may not reflect final installed quantities and should be updated to reflect final designs.

Major Equipment Quantity Summary				
Item	**Description/Details**	**Unit**	**Quantity**	**Notes**
PV Modules	Jinko Eagle Bifacial HC 72M G2	Each	42,980	
ISU Transformers	3000 kVA	Each	5	GE Prolec
Inverters	2.8 MW Central Inverters	Each	5	GPTECH Inverters
BESS	650 kW BESS	Each	20	40 x 8 Containerized. Manufacturer not identified at this stage

[2] Recycle PV Solar. www.recyclepv.solar; accessed November 5, 2019.

Major Equipment Quantity Summary				
Item	**Description/Details**	**Unit**	**Quantity**	**Notes**
GSU Substation Transformer	10/13.3/16.6 MVA, 46kV-12.47kV Transformer	Each	1	Siemens
Substation Steel Structures	TBD	Lbs	TBD	
Breaker	46 kV Breaker	Each	1	TBD
15 kV Switchgear	Switchgear with (3) breakers and communication section	Each	1	TBD
Racking	Steel PV Racking Structure	Lbs	TBD	RBI Solar
Fence	PV Perimeter Fence	LF	TBD	
Roads	20 ft Gravel Access Roads	LF	TBD	Confirm Road Details

Appendix A:
Preliminary Site Layout



AES
Distributed Energy

AES Distributed Energy
282 Century Pl. Suite 2000
Louisville, CO 80027 USA

HDR
3J CONSULTING
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING
9600 SW NIMBUS AVE, SUITE 100, BEAVERTON, OR 97008

SYSTEM DESCRIPTION

REVISIONS

REV	BY	DATE	DESCRIPTION

PE STAMP

AES WEST OAHU SOLAR
OAHU, HI

PROJECT NUMBER
19537
PHASE
ISSUED FOR REVIEW
MILESTONE
60% DESIGN

ELECTRICAL DESIGNER

STRUCTURAL DESIGNER

DATE 03-13-2020
SCALE 1"=200'

TITLE
OVERALL SITE PLAN

DRAWING
FIGURE 1

Attachment M
Community Meeting and Outreach Summary Report and August 26, 2020 Meeting Agenda for the Makakilo/ Kapolei/Honokai Hale Neighborhood Board No. 34

MAKAKILO/ KAPOLEI/ HONOKAI HALE NEIGHBORHOOD BOARD NO. 34

c/o NEIGHBORHOOD COMMISSION • 925 DILLINGHAM BOULEVARD, SUITE 160 • HONOLULU, HAWAII 96817
TEL: (808) 768-3710 • FAX: (808) 768-3711 • INTERNET: http://www.honolulu.gov/nco

REGULAR MEETING AGENDA
WEDNESDAY, AUGUST 26, 2020
KAPOLEI HALE- CONFERENCE ROOM
1000 Uluohia St, Kapolei
7:00 P.M. – 9:45 P.M.
Meeting number: 146 187 5524
Password: fXRuUsM7C73 (39788767 from phones and video systems)
https://cchnl.webex.com/cchnl/j.php?MTID=md9b77dcdbe7af7c904a5676ded64b0ae
Join by phone: 1-408-418-9388 United States Toll

MEETING POLICIES

RULES OF SPEAKING: Makakilo/Kapolei/Honokai Hale Neighborhood Board No. 34 asks if anyone wishing to speak is asked to raise their hand, and when recognized by the Chair to address comments to the Chair. §2-14-117 Order and decorum. (a) All board members shall promote and preserve the order and decorum of the commission's proceedings. Time allowances will prevail at the noted limits and anyone wanting to comment on multiple items will be allowed to do so with the same time limit allowed per issue/item when the issue/item is called. All speakers are asked to be first recognized by the Chair, and address comments through the Chair. Speakers (community and Board), must keep their comments under one (1) minute (adopted December 5, 2005), and those giving **reports are urged to keep their reports under three (3) minutes unless otherwise noted. Written reports, flyers, information pertinent to reports are to be handed out PRIOR to presentation/discussion. Please silence all electronic devices. Please adhere to time limits.**
NOTE: The Board may take action on any agenda item. As required by the State Sunshine Law (HRS 92), specific issues not noted on this agenda cannot be voted on unless added to the agenda.
ORDER AND DECORUM: Our meetings are intended to act with fairness and order, and according to the 2008 Neighborhood Plan. Everyone is asked to treat each speaker with respect and keep their comments on **agenda subjects** within the time allowed. Your kokua is appreciated to avoid delays or timely adjournment of the meeting. Rules of decorum will be strictly enforced.

WELCOME

I. CALL TO ORDER

II. ROLL CALL – Neighborhood Board Assistant

III. ELECTION OF OFFICERS TO SERVE FROM JULY 1, 2020 to JUNE 30, 2021 [NP §2-14-120(b)]. The officers to be elected are the Chair, one or more Vice Chairs, a Secretary, a Treasurer, and any other officer(s) determined to be needed to conduct the board's business.

IV. CITY MONTHLY REPORTS

1. Honolulu Fire Department (HFD) – Duty Officer
2. Honolulu Police Department (HPD) – Duty Officer
3. Mayor Kirk's Caldwell Representative- Tim Hiu
4. Councilmember Kymberly Pine and/or Louis Galdeira
5. Board of Water Supply (BWS) – Rian Adachi
6. Honolulu Authority for Rapid Transportation (HART)- Johnny Reid
7. Oahu Metropolitan Planning Organization Report- Frank Genadio

V. MEETING DETERMINATION-DATE/TIME/LOCATION (AUGUST 2020 to JUNE 2021)

VI. DETERMINATION OF BOARD RECESS SCHEDULE (AUGUST 2020 to JUNE 2021)

VII. REQUEST TO PARTICIPATE IN THE OLELO BROADCAST PROGRAM

VIII. ADOPTION OF ORAL TESTIMONY RULES

IX. MOTION TO RETAIN COMMITTEES, SUBCOMMITTEES, & THEIR MEMBERSHIP

X. APPROVAL OF MINUTES FROM THE FEBRUARY 26, 2020 BOARD MEETING

XI. COMMUNITY/BOARD CONCERNS & ANNOUNCEMENTS (Limited to one (1) minute each per person in totality. Issues concerning and/or needing elected official's or agency input/comments and related issues are to be discussed at the relative portion of the agenda. Issues and concerns not listed elsewhere on the Board's agenda may be raised, but HRS Chapter 92 ("Sunshine Law") prohibits Board action from being taken during this meeting.)

XII. STATE MONTHLY REPORTS – (Limited to two (2) minutes each, unless otherwise requested) *If there are any printed reports and/or flyers that need to be disseminated, please do so before start of meeting (or as early as possible) so Board members have adequate time to brief themselves with your material and information.*

1. Governor David Ige's Representative – Robert Yu, Department of Budget and Finance
2. Highways Division, DOT- Karen Chun, Acting Design Branch Head
3. State Senator Mike Gabbard or designated office representative
4. State Senator Maile Shimabukuro or designated office representative
5. State Representative Sharon Har or designated office representative
6. State Representative Ty Cullen or designated office representative
7. State Representative Stacelynn K.M. Eli or designated office representative
8. Hawaii Community Development Authority (HCDA)- Tesha Malama

XIII. BOARD BUSINESS (10 minutes limit unless otherwise noted) Discussion and Action

1. 2020 Census- Sharlette Poe, Chair Waianae Neighborhood Board No. 24
2. P3 Memorial Update- Carl Vincenti
3. Environmental Services, Refuse Division- Lori Kahikina, Director of Environmental Services
4. Makai Apartments Parking Lot Improvements Project- Michael Iosua, Imanaka Asato LLC (on behalf of Greystar)
5. Farrington Highway Improvements Project- Jeff Overton (Principal with G70)
6. Resolution for Community Gardens Expansion to Leeward Coast- Hannah Azouz
7. Develop Utility-Scale Solar + Battery Storage on University of Hawai'i West Oahu's Mauka Land- Shane H Peters (On Behalf of AES Distributed Energy)
8. An Introduction to the Barbers Point Solar Project- Jody Allione

XIV. TREASURER'S REPORT

XV. COMMITTEE REPORTS – (Limited to two (2) minutes each)

XVI. ANNOUNCEMENTS

- Next Scheduled Meeting – The Makakilo/Kapolei/Honokai Hale Neighborhood Board No.34's next scheduled meeting will be held on Wednesday, September 23, 2020 at Kapolei Hale.

XVII. ADJOURNMENT

'Olelo Community Television Cablecast of Board Meetings: The Makakilo/Kapolei/Honokai Hale Neighborhood Board regular meetings are video recorded and later on `Olelo Community Television Channel 49 at 9:00 p.m. on the second Friday of the month and on Channel 49 with a schedule of the 1st and 3rd Saturday of the month at 12:00 p.m. determined by 'Olelo. There may be a week or two (2) delay after a meeting date before the first cablecast of that meeting's video. The 'Olelo program schedule is posted at http://www.olelo.org/programming/default.html

A mailing list is maintained for interested persons and agencies to receive this board's agenda and minutes. Additions, corrections, and deletions to the mailing list may be directed to the Neighborhood Commission Office (NCO) at Kapalama Hale, 925 Dillingham Boulevard, Suite 160 Honolulu, Hawaii 96817; Telephone (808) 768-3710 Fax (808) 768-3711. Agendas and minutes are also available on the internet at www.honolulu.gov/nco.

All written testimony must be received in the Neighborhood Commission Office 48 hours prior to the meeting. If within 48 hours, written and/or oral testimony may be submitted directly to the board at the meeting. If submitting written testimony, please note the board and agenda item(s) your testimony concerns. Send to: Neighborhood Commission Office, 925 Dillingham Boulevard, Suite 160 Honolulu, Hawaii 96817. Fax: (808) 768-3711. Email: nbtestimony@honolulu.gov.

If you require special assistance, auxiliary aid and/or service to participate in this event (i.e. sign language interpreter; interpreter for language other than English, or wheelchair accessibility), please contact the NCO at (808) 768-3710 or email your request to nco@honolulu.gov at least three (3) business days prior to the meeting.

West Oahu Solar-Plus-Storage Project
COMMUNITY MEETING AND OUTREACH
SUMMARY REPORT

Prepared For:
AES Distributed Energy

March 31, 2019

Background

AES Distributed Energy was recently selected by The Hawaiian Electric Companies (HECO) to develop a solar-plus-storage project on Oahu on the leeward portion of the island near Makakilo.

As an initial step in the process, HECO has directed AES Distributed Energy to conduct a community meeting to describe the proposed project in further detail and gather community input. AES Distributed Energy retained the services of Peters Communications to assist with this initiative.

This report is a preliminary summary of the outreach activities conducted to date along with the community's feedback and questions received thus far. A community meeting was conducted on Tuesday, February 26, 2019 from 5:30 p.m. to 7:30 p.m. at Kapolei High School.

Community Outreach

Prior to the scheduled community meeting, the AES project team conducted a strategic outreach effort to engage and inform key elected officials and community leaders.

- *Council Member Kymberly Pine* – CM Pine was reached early in the process to discuss project details and to introduce principals of AES Distributed Energy. Her preliminary comments cited visual impacts as the probable primary source of concern from community members. She also asserted that the community is growing increasingly concerned that the process for renewable energy projects is being rushed without meaningful opportunities for the community to consider and comment. Her suggestions:
    - Proactively offer solutions/mitigation measures for visual impacts including landscaping. She also suggested that AES consider using native plants and potentially partner with the Malama Learning Center. She urged AES to show visualizations of the project with landscaping to indicate to the community that AES is mindful of their concerns.
    - CM Pine recommended that AES respectfully inform the community that there will be ample opportunity to participate in the approval process for the project. She also recommended AES explain that the project is not approved until it goes through the land use and entitlement process which will be months down the road.

Community Outreach (Cont'd)

- *Rep. Ty Cullen* – Preliminary outreach was conducted with Rep. Cullen's office on Monday, February 11, 2019 to provide a project factsheet along with the community meeting notice. A follow up meeting with Rep. Cullen was conducted on Tuesday, February 19, 2019. He thought the project seemed fine but was mindful that visual impacts would probably be an issue of concern.
- *Rep. Sharon Har* – Preliminary outreach was conducted with Rep. Har's office on Monday, February 11, 2019 to provide a project factsheet along with the community meeting notice. A follow up meeting with Rep. Har was conducted on Thursday, February 21, 2019. Rep. Har was very supportive. She was familiar with the coal plant in Kalaeloa and thought that AES had a good reputation. She did not anticipate significant opposition.
- *Sen. Mike Gabbard* – Preliminary outreach was conducted with Sen. Gabbard's office on Monday, February 11, 2019 to provide a project factsheet along with the community meeting notice. A follow up meeting with Sen. Gabbard was conducted on Thursday, February 21, 2019. Sen. Gabbard shared his support for the project. He further suggested partnering with Gary Maunakea-Forth of Ma'o Farms to explore agricultural opportunities as a component of the project. Mr. Maunakea-Forth provides work and education opportunities at his farm for disadvantaged youth from the leeward area. He also suggested UH West Oahu's agriculture program might be a good partner.
- *Maeda Timson* – An AES project consultant conducted early outreach with well-known community leader Maeda Timson (former neighborhood board chair and member of the Hawaii Community Development Authority Kalaeloa board). Based on project information she was provided, Ms. Timson thought AES was being thorough and careful with its initial community outreach efforts and meeting. She did not think the project would be as controversial as other renewable energy projects being proposed in West Oahu given its location and the partnership with landowner University of Hawaii.
- *Dr. Kioni Dudley* – Preliminary outreach was conducted with Dr. Dudley, former neighborhood board chair and community activist. The project team is awaiting a response to a request for a follow up in-person meeting to discuss the project in further detail.
- *Jack Legal* – Preliminary outreach was conducted with Mr. Legal, current neighborhood board chair. The project team is awaiting a response to a request for a follow up in-person meeting to discuss the project in further detail.

Community Meeting Notification

In addition to strategic community outreach, the AES project team issued a community meeting notice via first class mail through the US Postal Service to approximately 2,264 addresses in east Makakilo. See 'Appendix A' for a copy of the meeting notice. See 'Appendix B' for a map of the area targeted for direct mail.

Community Meeting Details

Date: Tuesday, February 26, 2019
Time: 5:30 – 7:30 p.m.
Location: Kapolei High School Cafeteria
91-5007 Kapolei Parkway
Kapolei, HI 96707
Presenters: Rob Cooper – Business Development Director, AES
Sam Ley – Senior Energy Systems Engineer, AES

ATTENDEES
19 individuals attended the community meeting. Notable attendees included West Oahu community member and former Kapolei/Makakilo neighborhood Board Chair Maeda Timson as well as staff from Sen. Gabbard's office.

COMMUNITY QUESTIONS/COMMENTS
Following the presentation by AES project representatives Cooper and Ley, meeting participants posed a number of questions in the following categories:

- **Subject: Vandalism and Safety**
  Questions/Comments
  - We have vandalism problems around here. How do you propose to address that?

  Responses
  - Safety is our main concern. If someone breaks a panel, we'll be a little disappointed but we're more concerned about the broken glass hurting someone.
  - We will have fencing and surveillance cameras to help prevent this. We'll also have operators on site to help deter people from entering the property to damage equipment.
  - During construction, we'll also have 24-hour security to prevent theft and damage.
  - It is also important to know that the primary access to the site is currently secured with through a gate and roadway that is maintained by Grace Pacific. They have onsite security at that gate so it would be another layer of safety and security to deter vandalism.

Community Meeting Details (Cont'd)

- **Subject: Agricultural Land**

  Questions/Comments:

  - You mentioned agriculture lands B, D and E for the property. Can you explain how good the agricultural lands are? Not just for grazing animals because we graze cows there now. Is this area good to plant?

  Responses:

  - The State categorizes lands in order from A through E. A represents the prime ag lands that are currently being used for agricultural use. B lands are just below that tier but are typically not used for active farming. We have some B lands and as you mentioned this are currently used for grazing. In the past, it was used for sugarcane production.
  - The good news is that we're sensitive to this and our operations are design to be completely removed so that the land can be restored to previous conditions and return to agricultural use.
  - D and E lands are generally considered poor conditions for growing crops. They're typically very rocky or very steep and are generally considered unproductive.
  - It should be noted that UH West Oahu has A lands below that they intend to continue to use for agricultural purposes. They set aside the less productive B, D and E lands for renewable energy production.
  - Another thing we want to be sure everyone is aware of is that our intention here is to find compatible agriculture uses on the B lands. The good thing about solar is that it is not an exclusive use of the land. We want to be able to do both agricultural production as well as solar energy. There are multiple benefits here. The community receives renewable energy and reduces carbon footprint, the University receives revenue, and we can still generate agricultural production.

  Questions/Comments:

  - Just to be clear, the B lands here were only categorized as such because they were inaccessible. Now that there will be access, I would urge you to consider partnering with others like Malama Learning Center to do some planting; just something to think about.

- **Subject: Traffic and Access**

  Questions/Comments:

  - How do you intend to access the site? Is it through Makakilo Drive or through the quarry road? This is important because using Makakilo Drive will add to traffic and damage the road with heavy trucks.

  Responses:

  - AES has already reached out to Grace Pacific. We will be accessing the property through their quarry road and security gate. We're very sensitive to the traffic concerns. By utilizing the quarry road, we'll have direct access to the freeway and will be able to minimize area traffic.

Community Meeting Details (Cont'd)

- **Subject: Decommissioning**

  Questions/Comments:

  - With regard to your comment about decommissioning, is that part of a written agreement or is that something you're just saying? I ask because we've been burned before by developers who've said one thing but done another.

  Responses:

  - Yes, it will be in writing. We will have an agreement with UH West Oahu. In addition, we will float a bond to cover the cost of decommissioning and the removal of all equipment, which will be disposed and recycled as appropriate. In doing so, we will be restoring the property to the same condition in which we started.
  - We should also note, this isn't just a promise or agreement. This is also a requirement under state law. Under the rules for use of agricultural lands for renewable energy projects, we will be required by the Land Use Commission and Public Utilities Commission to decommission our property as described and issue a bond at the start to cover those costs.

Email Comments

AES has also established a dedicated email address to capture additional comments and feedback from the community. AESWestOahuSolar@aes.com has been shared with members of the community, area leaders and elected officials to raise awareness of the continuing opportunity for the community to weigh in on the project. The email address has been active from February 12 and will remain active until March 28, 2019 (30 days after the public meeting).

As of March 28, 2019, AES received only one email from an individual indicating their regrets for not being able to attend the meeting in person.

Conclusion

The AES project team recognizes we are still in the preliminary phases of the project and that significant outreach activities must be undertaken as we proceed. If the project receives preliminary approval from the Public Utilities Commission, AES has indicated a strong commitment to continuing outreach efforts to address potential concerns and raise awareness about the benefits of the project.

If you have any questions or concerns regarding this preliminary summary and report, please don't hesitate to contact Shane Peters at shane@peters-comm.com or (808) 421-9879.

APPENDIX A

AES Distributed Energy, Inc.
West Oahu Solar-Plus-Storage Project
Invitation to Community Meeting – Feb 26th

Purpose:

The AES Distributed Energy, Inc. (AES) team would like to invite you to a community meeting for a proposed solar + energy storage project in the West Oahu region. The project is in its initial stages and AES hopes to share information, solicit feedback and questions, and engage the community.

Community Meeting Location & Time:

DATE: Tuesday, February 26
TIME: 5:30 p.m. to 7:30 p.m.
LOCATION: Kapolei High School - Cafeteria
91-5007 Kapolei Parkway
Kapolei, HI 96707

About AES:

AES Distributed Energy was recently selected by the Hawaiian Electric Companies for three of its eight solar-plus-storage projects in Hawai'i, representing the largest addition of renewable energy in the state's history. One of AES Distributed Energy's projects is on the island of Oahu with Hawaiian Electric Company and the other two projects are on Hawai'i Island and Maui.

AES Distributed Energy is a wholly owned subsidiary of The AES Corporation (NYSE: AES).
With a presence in Hawai'i for more than 25 years, AES shares the state's commitment to a greener energy future and is helping the state realize its goal of reaching 100% renewable energy by 2045.

Project Location:

The proposed AES West Oahu project is located on a portion of land owned by the University of Hawaii located mauka of the University of Hawaii West Oahu campus and the H-1 freeway near Kualakai Parkway.

AES West Oahu Project Details:

- 12.5 MW of solar PV plus 50 MWh battery energy storage system
- Enough energy to offset ~2,335 homes electricity use per year

Questions/Comments:

AES welcomes questions and comments by email at AESWestOahuSolar@aes.com.

AES Distributed Energy
4875 Pearl East Circle, Suite 200
Boulder, CO 80301
aesdistributedenergy.com

Project Location Map:

AES Distributed Energy
4875 Pearl East Circle, Suite 200
Boulder, CO 80301
aesdistributedenergy.com

APPENDIX B


COMPACT
MAKAKILO HEIGHTS
MAKAKILO CITY
EAST KAPOLEI
Makakilo Drive
Makakilo Drive
Kualakai Parkway
Kualakai Parkway
Farrington Highw
93
93
93
93
Fort Barrette Road
Kapolei Parkway
Kapolei Parkway
Kapolei Parkway
Kapolei Parkway
0.5 mi.
Map Dimensions: 2.86 mi x 4.3 mi
Map data © OpenStreetMap contributors, CC BY-SA

Attachment N
Stormwater Management Design Memo

3J CONSULTING
9600 SW NIMBUS AVENUE, STE 100
BEAVERTON, OREGON 97008
PH: (503) 946.9365
WWW.3J-CONSULTING.COM

TECHNICAL MEMORANDUM

To: Dave Phillips, PLS
Power Delivery Renewable Lead
HDR Engineering, Inc.
412 E Parkcenter Blvd, Suite 100
Boise, ID 834706-6659

From: Phillip Patague, PE
Water Resources Engineer

Kathleen Freeman, PE
Water Resources Project Manager

CC: Aaron Murphy, PE
Senior *Project Manager*

Date: January 30, 2020

Project Name: **AES Solar Oahu – West Oahu**
Project No: **19537**
Subject: **60% Stormwater Management Plan**

The project site is located just off Pueonani Street near latitude 21°22'24.39"N and longitude 158°03'56.28"W approximately 0.5 miles north of Queen Liliuokalani Freeway on the island of Oahu. The project proposes five solar array systems, with a total project area of approximately 96.81 ac. Onsite drainage will largely remain unchanged since the solar arrays will be elevated above the undeveloped ground surface. Gravel access roads and concrete equipment pads are proposed which are expected to increase stormwater runoff. Furthermore, the project is expected to disturb more than one acre, requiring the implementation of water quality treatment facilities. Natural drainage patterns divide the project site into smaller drainage management areas (DMA). 35.65 ac of the project site consist of DMAs containing the proposed impervious areas, which will drain to proposed stormwater management best management practices (BMP). The remaining onsite area will contain proposed solar modules but not impervious area; therefore, these areas should not experience altered stormwater runoff quantity and quality. It is important to note that onsite wetlands flow through the project site; however, runoff to the wetland areas generated by onsite impervious areas will be mitigated through design.

This memorandum will discuss the methodologies used in (1) quantifying stormwater runoff for the affected areas and (2) sizing the required stormwater management BMPs.

The design and analysis of onsite BMPs are based on the County of Honolulu's "Rules Relating to Storm Drainage Standards", "Post-Construction Water Quality Requirements" and "Storm Water BMP Guide for New and Redevelopment". The memo will refer to all of these guidance documents collectively as "the Standards".

Existing Conditions

The existing site is undeveloped and sparsely covered with vegetation. Onsite drainage patterns will remain mostly unchanged due to this project; however, to implement a Low Impact Development (LID) approach, stormwater management BMPs will be proposed directly downstream of impervious areas. By considering the onsite grading and desired BMP locations, the storm drainage analysis is focused on six (6) drainage management areas (DMA). The remaining onsite area will not be re-graded; the proposed solar systems will be elevated above the existing ground surface. Therefore, runoff flows and volumes for these areas were not evaluated and these drainage areas are considered Self-Mitigating because the stormwater quality and quantity are not expected to change as a result of this project.

Table 1 below outlines each DMA in existing conditions; all areas are pervious.

DMA	Area (ac)
1	3.11
2	4.77
3	1.02
4	2.84
5	23.33
6	0.57
Total	35.65

Table 1 – Existing DMAs

Developed Conditions

The developed site consists of proposed solar array systems with appurtenant concrete equipment pads and gravel access roads. Grading activities will be primarily concentrated around the impervious areas only. Table 2 below outlines the drainage areas in developed conditions. Please see attached "Developed Conditions Exhibit".

DMA	Total Area (ac)	Impervious Area (ac)	Pervious Area (ac)
1	3.11	0.27	2.84
2	4.77	0.38	4.39
3	1.02	0.20	0.82
4	2.84	0.24	2.60
5	23.33	0.68	22.66
6	0.57	0.16	0.41
Total	35.65	1.92	33.73

Table 2 – Developed DMAs

Stormwater Management Design Standards

Water Quality Treatment

The project will disturb more than one acre, which requires specific sizing criteria be met for stormwater quality facilities. This project proposes infiltration trenches for water quality treatment. A Geotech Report prepared by GeoLabs, Inc., dated September 13, 2019, measured onsite infiltration at multiple locations and determined a site average of 11.7 in/hr. Per the Standards, a safety factor of 2 was applied to the average infiltration rate to size the water quality facilities.

Water Quantity Management

For water quantity management, the infiltration trenches will be sized to mitigate the developed peak flow rate to the predevelopment value. To accomplish this, the storage volume of an infiltration trench shall equal at least the total additional runoff volume for the appropriate storm intensity. Since all the drainage areas are less than 100 acres, the appropriate storm intensity corresponds to the 50-yr, 1-hr storm event. Per Plate 2 (see attached), the precipitation depth for the 50-yr storm is 3.2 inches (see attached). The corresponding peak rainfall intensity will be discussed in a later section.

Rational Method

Per the Standards, the Rational Method shall be used for drainage areas of 100 acres or less. Therefore, hand calculations in conjunction with reference tables and charts provided in the Standards were used to quantify all relevant runoff values. The Rational Method is dependent upon the runoff coefficient (C), rainfall intensity (I) and drainage area (A). The drainage areas are outlined in a previous section, while the methodologies for deriving C and I are discussed in the following sections.

Time of Concentration

The time of concentration (Tc) is needed to determine the peak rainfall intensity (I) for determining runoff via the Rational Method. Since the drainage areas have no well-defined channels, it is assumed all runoff with occur as overland flow. The times of concentration were determined for each drainage area using Plate 3 (see attached) of the Standards and are shown in Table 3.

DMA	Tc (min)
1	26
2	29
3	27.8
4	28.5
5	28.5
6	19.5

Table 3 – Times of Concentration

The proposed impervious areas will typically be implemented at the most downstream point of each drainage area, which is not expected to alter the times of concentration.

Correction Factor

A correction factor is used to convert the 50-yr, 1-storm precipitation depth to the rainfall intensity. Using the Tc calculated and Plate 4 from the Storm Drainage Standards, a correction factor was determined for each sub basin. Table 4 below shows the correction factor for each sub basin.

DMA	Correction Factor
1	1.6
2	1.5
3	1.6
4	1.5
5	1.5
6	1.8

Table 4 – Correction Factor

Rainfall Intensity

The appropriate rainfall value for the 50-yr, 1-hr storm were determined for the site using Plate 2 (see attached) of the Standards. This value was determined to be 3.2 in The rainfall value from Plate 2 was then multiplied by the correction factor determined in Table 4 to calculate the rainfall intensity for each basin. Table 5 shows the peak rainfall intensity for each basin.

DMA	Intensity (in/hr)
1	5.12
2	4.80
3	5.12
4	4.80
5	4.80
6	5.76

Table 5 – Rainfall Intensity

Runoff Coefficient

In existing conditions, all drainage areas are undeveloped with sparse vegetation, which reflects a runoff coefficient (C) of 0.30.

Per the Standards, runoff coefficients for existing conditions were determined using the peak rainfall intensities shown in Table 5 and Table 1 of The Standards. In developed conditions, certain areas will be paved or gravel, while most of the pervious area will remain the same cover type as in existing conditions. The runoff coefficient for developed conditions was weighted to account for different cover types. Runoff coefficients for each basin are shown in Table 6.

DMA	Existing C	Developed C
1	0.43	0.47
2	0.41	0.45
3	0.43	0.52
4	0.41	0.45
5	0.41	0.42
6	0.44	0.57

Table 6 – Runoff Coefficients

Runoff Volumes

Table 7 below outlines the existing and developed 50-yr runoff volumes for each basin and the resulting increase due to this project.

DMA	Existing Runoff (cf)	Developed Runoff (cf)	Increase in Runoff (cf)
1	15,538	16,999	1,461
2	22,722	24,894	2,172
3	5,104	6,180	1,077
4	13,534	14,893	1,359
5	111,131	114,983	3,852
6	2,921	3,785	864

Table 7 – Runoff Volumes

Stormwater Management Facilities

Proposed infiltration trenches will treat and manage stormwater runoff. The attached BMP Sizing Worksheets indicate the required volumes for each infiltration trench to provide sufficient water quality treatment. However, each trench will be sized to store the increase in runoff volume per basin shown in Table 7 above, which are in excess of the required water quality volumes (except for DMA 5), to provide sufficient water quantity management.

All infiltration trenches have a total depth of 3 ft, width of 9 ft, and will be filled with washed gravel with porosity of 0.35. Table 8 below outlines each infiltration trench's area and provided storage volume.

DMA	Trench Area (sf)	Provided Storage (cf)
1	1,436	1,508
2	2,142	2,249
3	1,035	1,087
4	1,305	1,370
5	6,143	6,450[(1)]
6	868	911

Table 8 – Infiltration Trench Dimensions

[(1)]Water Quality Volume exceeds 50-yr runoff volume increase

Conclusions

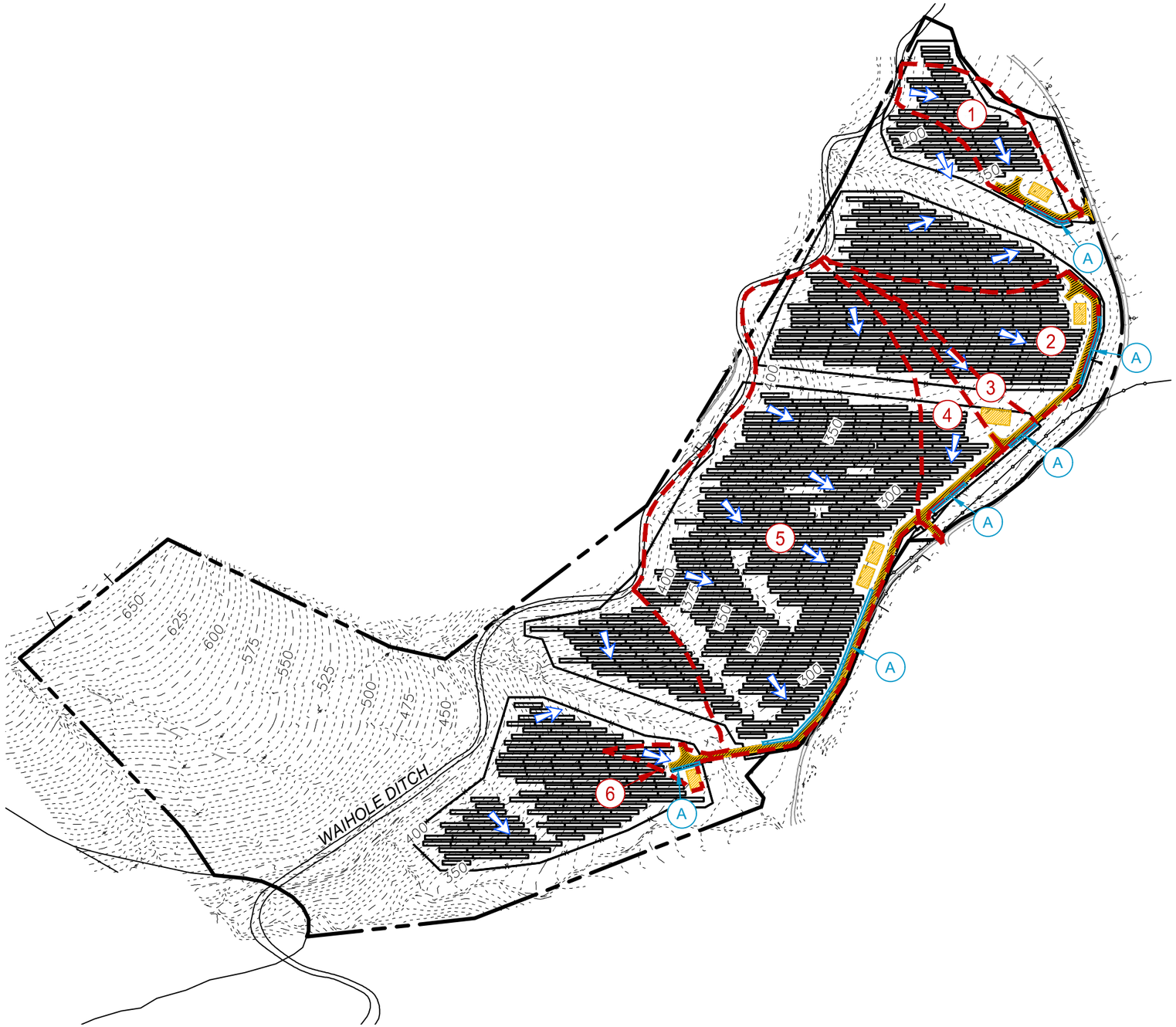
This project proposes minimal surface improvements, which are not expected to affect the drainage patterns of most of the site. In developed conditions, the ground underneath the solar panels will be undeveloped and grading activities will be concentrated around the access roads and equipment pads. Runoff is expected to occur only as overland flow and will discharge to proposed infiltration trenches for stormwater management.

Please take the time to review this memo and contact us if you have any questions or require clarification.

Attachments

1. Developed Conditions Exhibit
2. Hydrologic Soil Group Map
3. Time of Concentration (Plate 3)
4. Correction Factors (Plate 4)
5. 50-yr, 1-hr Rainfall Depth (Plate 2)
6. Coefficient of Runoff (Table 1)
7. BMP Sizing Worksheets

- - - E N D O F D O C U M E N T - - -



LEGEND

- BASIN BOUNDARY
- # BASIN TAG
- IMPERVIOUS AREA
- DRAINAGE DIRECTION
- A INFILTRATION TRENCH

DEVELOPED DRAINAGE AREAS

Basin	A ac	Aimp ac	Aper ac
1	3.11	0.27	2.84
2	4.77	0.38	4.39
3	1.02	0.20	0.82
4	2.84	0.24	2.60
5	23.33	0.68	22.66
6	0.57	0.16	0.41
Total	*35.65*	*1.92*	*33.73*

N
W E
S

SCALE: 1" = 400'

0 400 800 FT

AES SOLAR FARM - WEST OAHU

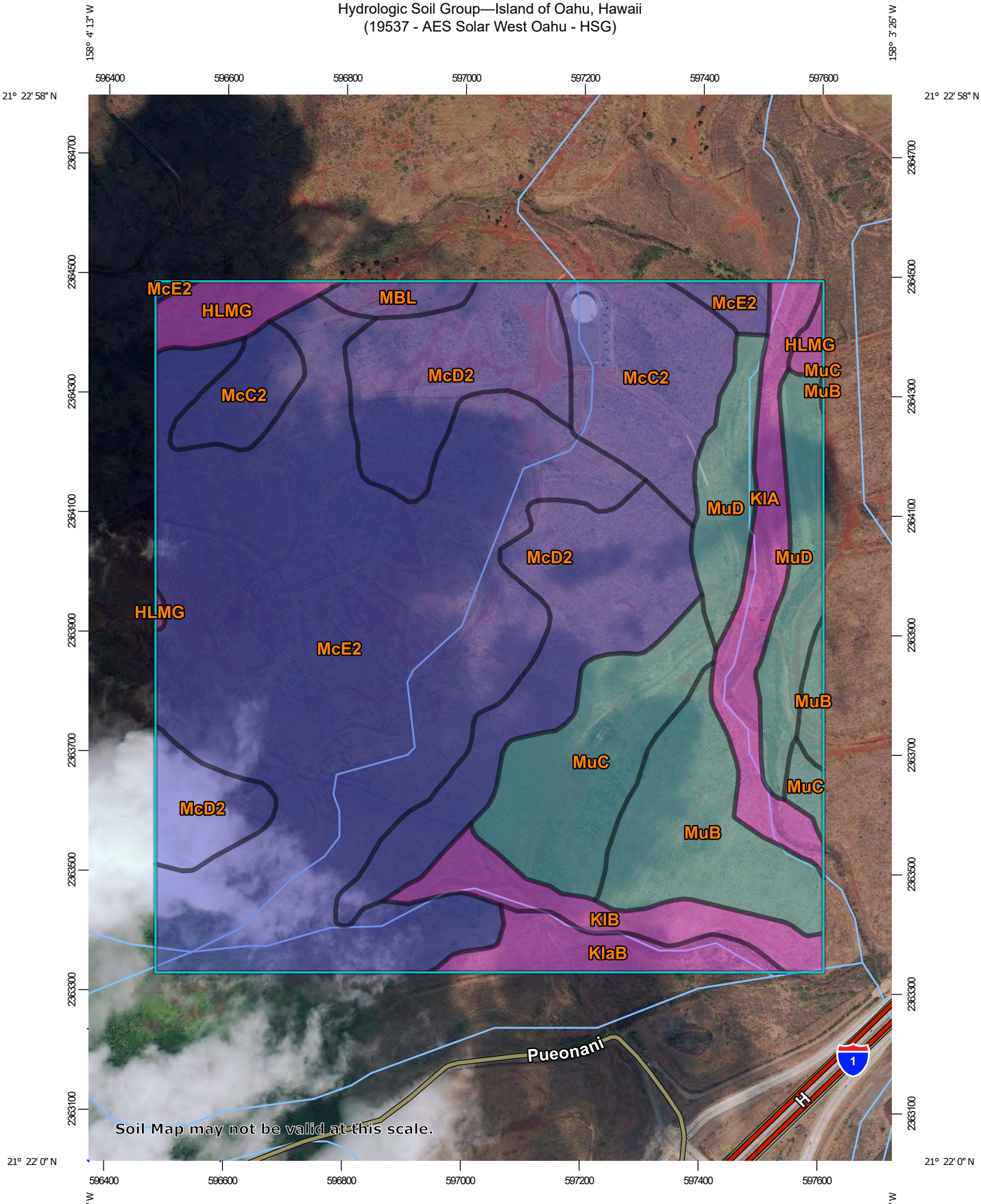
3J CONSULTING, INC
CIVIL ENGINEERING
WATER RESOURCES
COMMUNITY PLANNING

COUNTY OF HONOLULU

DEVELOPED CONDITIONS EXHIBIT

JAN 2020

Hydrologic Soil Group—Island of Oahu, Hawaii
(19537 - AES Solar West Oahu - HSG)



Map Scale: 1:8,720 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 4N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Island of Oahu, Hawaii
Survey Area Data: Version 14, Sep 17, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Aug 14, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HLMG	Helemano silty clay, 30 to 90 percent slopes	A	7.0	2.2%
KlA	Kawaihapai clay loam, 0 to 2 percent slopes, MLRA 158	A	15.3	4.8%
KlaB	Kawaihapai stony clay loam, 2 to 6 percent slopes, MLRA 158	A	8.6	2.7%
KlB	Kawaihapai clay loam, 2 to 6 percent slopes	A	10.9	3.4%
MBL	Mahana-Badland complex	B	3.1	1.0%
McC2	Mahana silty clay loam, 6 to 12 percent slopes, eroded	B	26.6	8.3%
McD2	Mahana silty clay loam, 12 to 20 percent slopes, eroded	B	56.0	17.4%
McE2	Mahana silty clay loam, 20 to 35 percent slopes, eroded	B	129.3	40.1%
MuB	Molokai silty clay loam, 3 to 7 percent slopes, MLRA 158	C	21.7	6.7%
MuC	Molokai silty clay loam, 7 to 15 percent slopes, MLRA 158	C	23.0	7.2%
MuD	Molokai silty clay loam, 15 to 25 percent slopes	C	20.7	6.4%
Totals for Area of Interest			**322.4**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

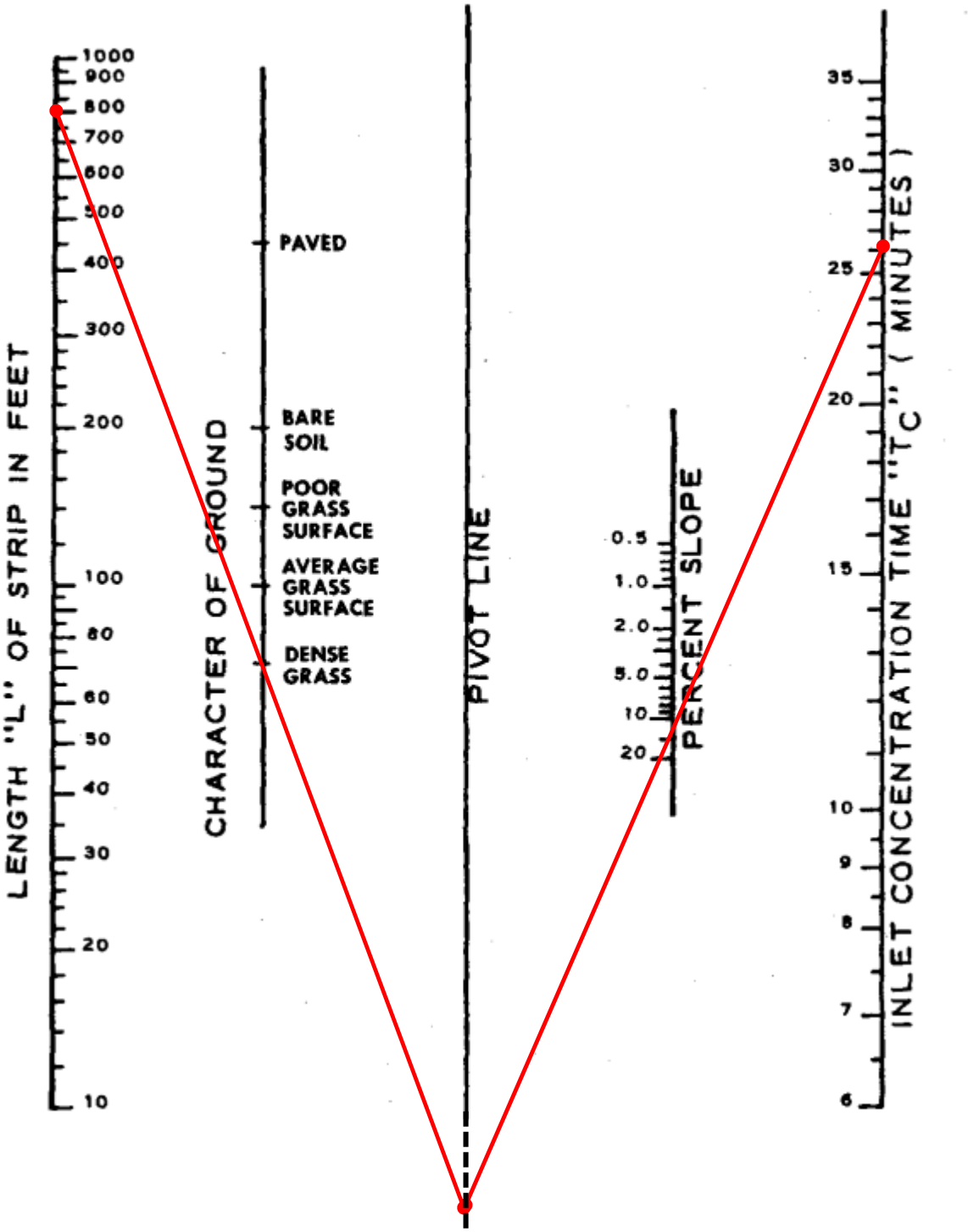
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

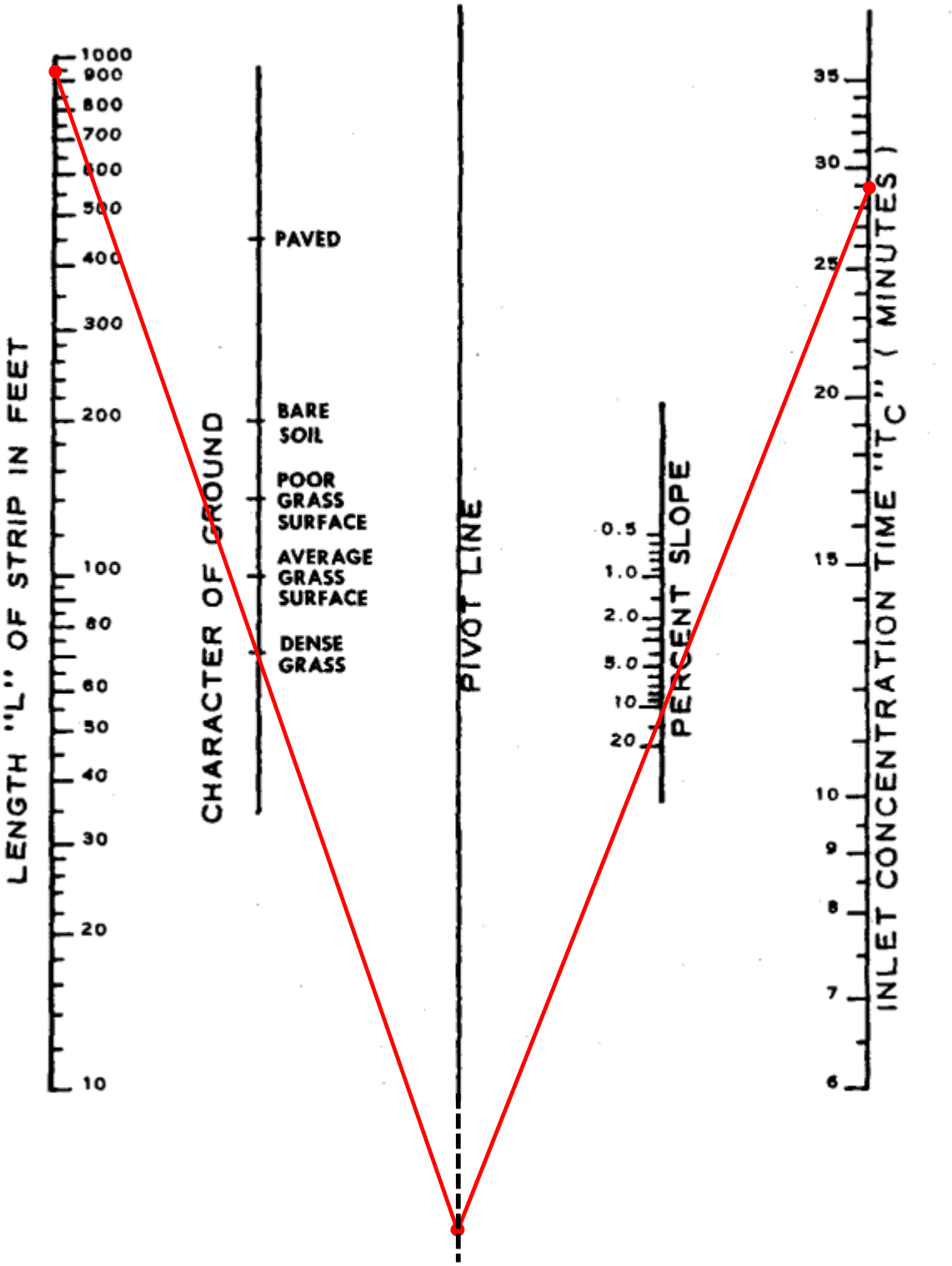
Tie-break Rule: Higher

Time of Concentration (Plate 3 from Storm Drainage Standards)

Basin 1



Basin 2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80
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50
40
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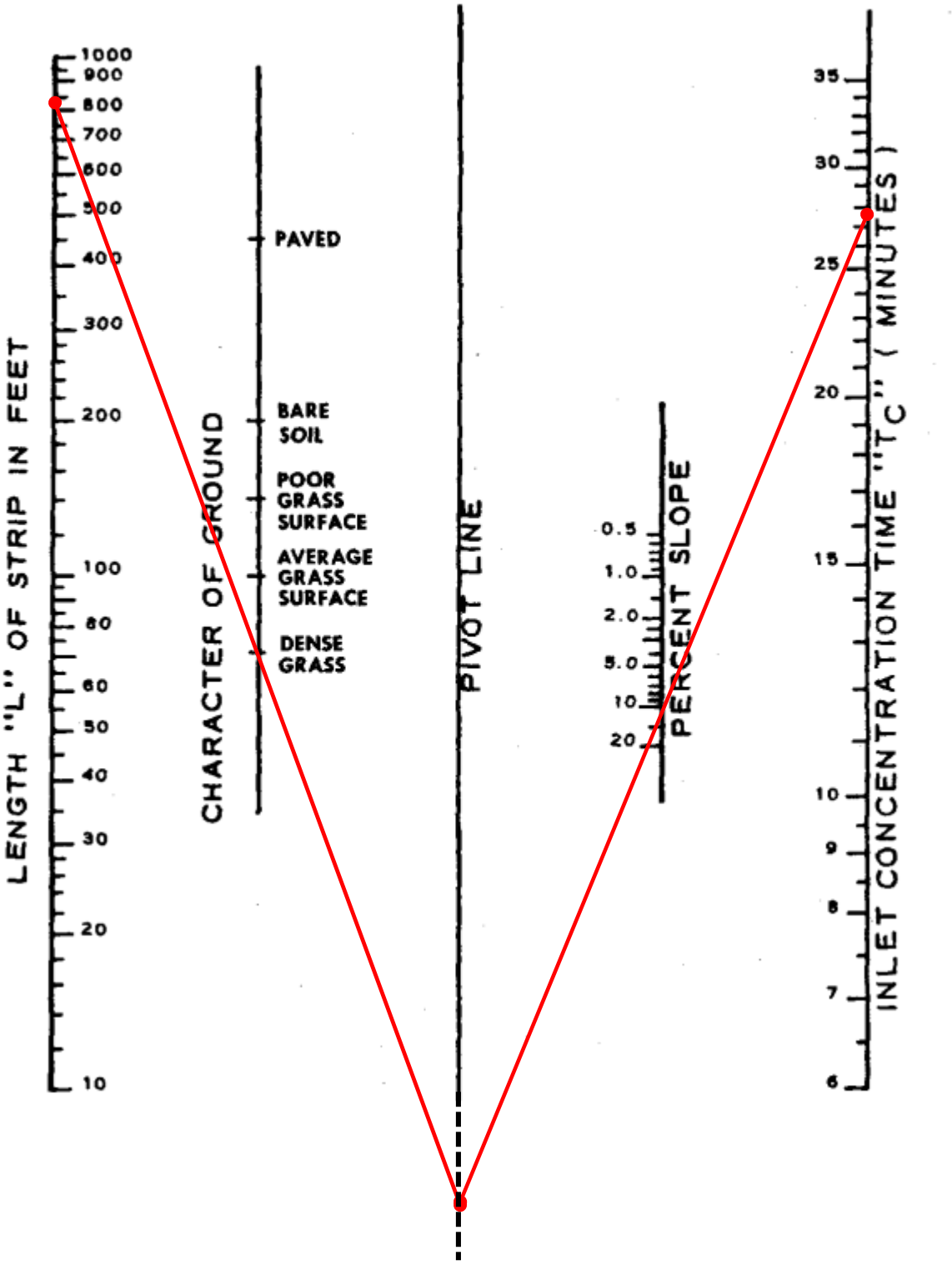
20
10
CHARACTER OF GROUND
PAVED
BARE SOIL
POOR GRASS SURFACE
AVERAGE GRASS SURFACE
DENSE GRASS
PIVOT LINE
PERCENT SLOPE
0.5
1.0
2.0
5.0
10
20
INLET CONCENTRATION TIME "Tc" (MINUTES)
35
30
25
20
15
10
9
8
7
6

Basin 3


LENGTH "L" OF STRIP IN FEET
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CHARACTER OF GROUND
PAVED
BARE SOIL
POOR GRASS SURFACE
AVERAGE GRASS SURFACE
DENSE GRASS
PIVOT LINE
PERCENT SLOPE
0.5
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INLET CONCENTRATION TIME "Tc" (MINUTES)
35
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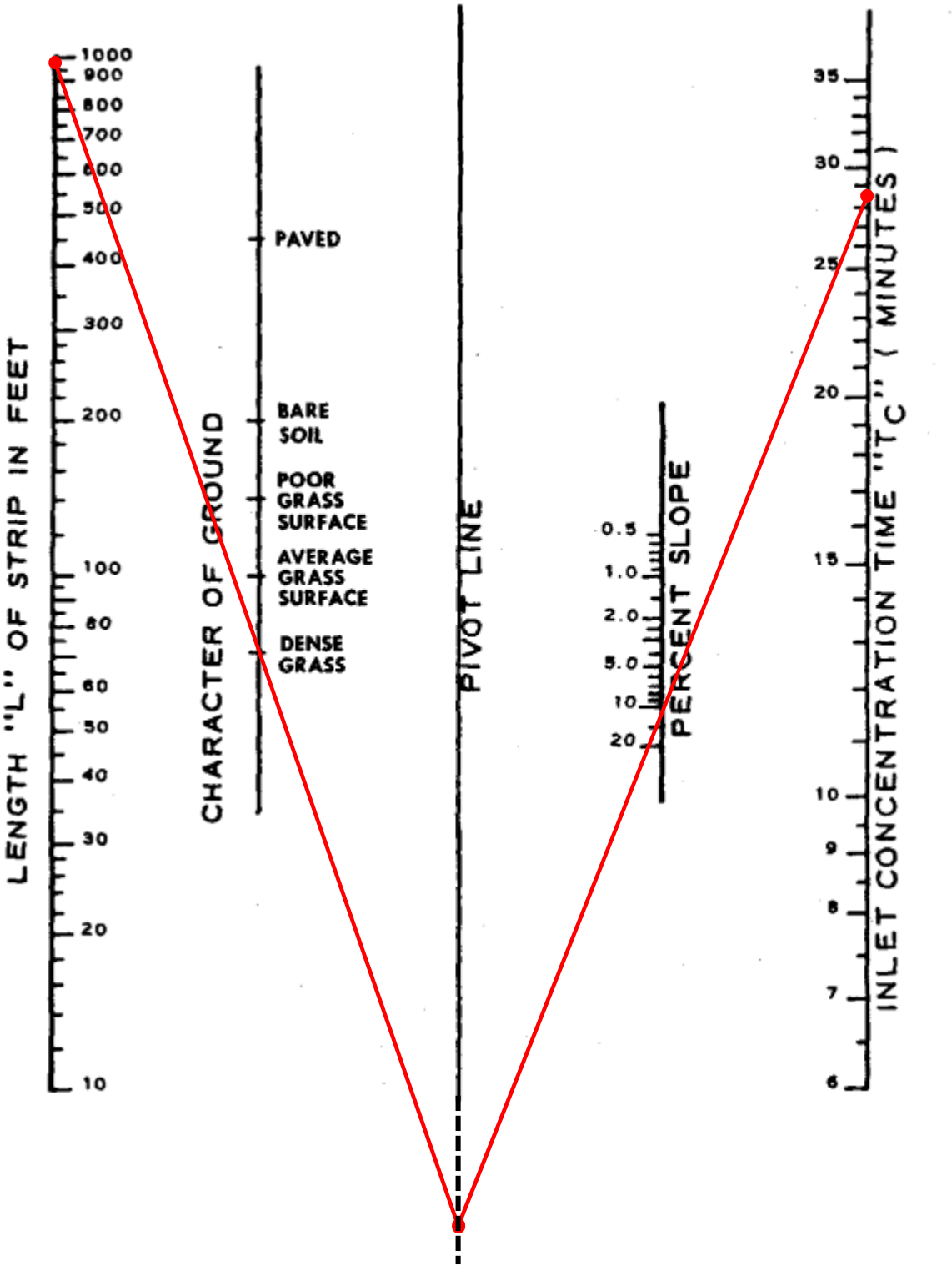
Basin 4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CHARACTER OF GROUND
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BARE SOIL
POOR GRASS SURFACE
AVERAGE GRASS SURFACE
DENSE GRASS
PIVOT LINE
PERCENT SLOPE
0.5
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INLET CONCENTRATION TIME "Tc" (MINUTES)
35
30
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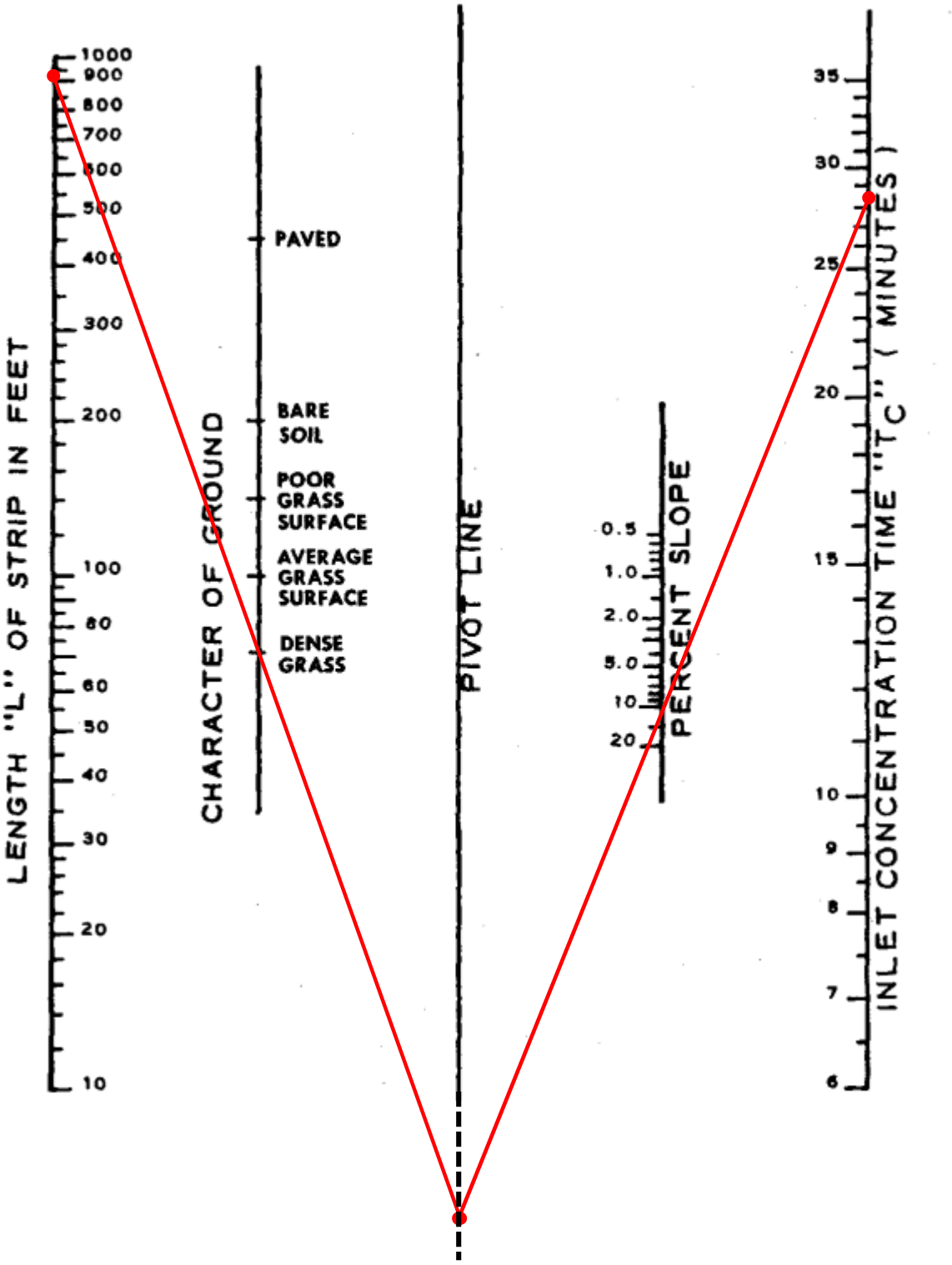
6

Basin 5


LENGTH "L" OF STRIP IN FEET
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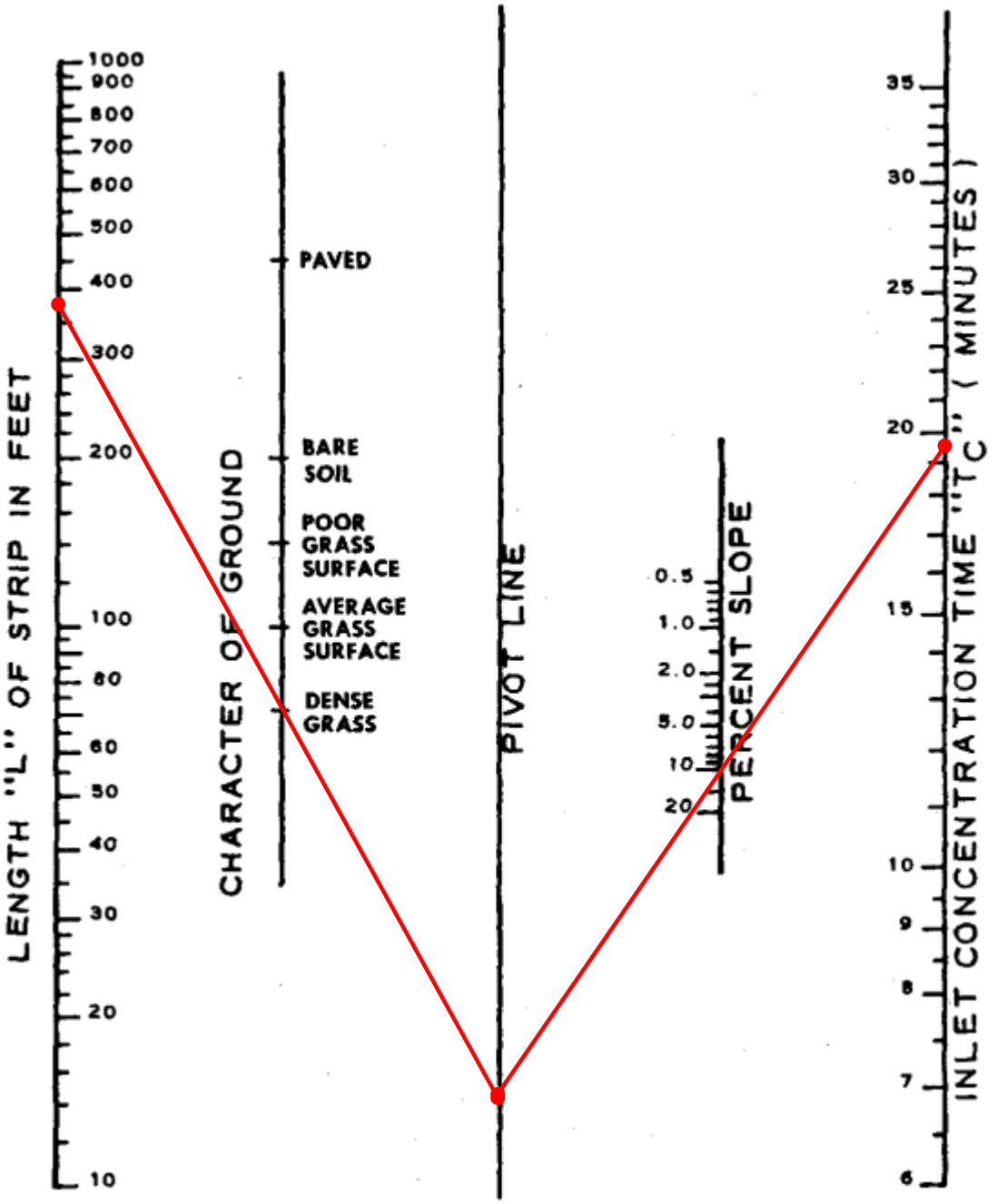
20
10
CHARACTER OF GROUND
PAVED
BARE SOIL
POOR GRASS SURFACE
AVERAGE GRASS SURFACE
DENSE GRASS
PIVOT LINE
PERCENT SLOPE
0.5
1.0
2.0
5.0
10
20
INLET CONCENTRATION TIME "Tc" (MINUTES)
35
30
25
20
15
10
9
8
7
6

Basin 6


LENGTH "L" OF STRIP IN FEET
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80
60
50
40
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20
10
CHARACTER OF GROUND
PAVED
BARE SOIL
POOR GRASS SURFACE
AVERAGE GRASS SURFACE
DENSE GRASS
PIVOT LINE
PERCENT SLOPE
0.5
1.0
2.0
5.0
10
20
INLET CONCENTRATION TIME "TC" (MINUTES)
35
30
25
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15
10
9
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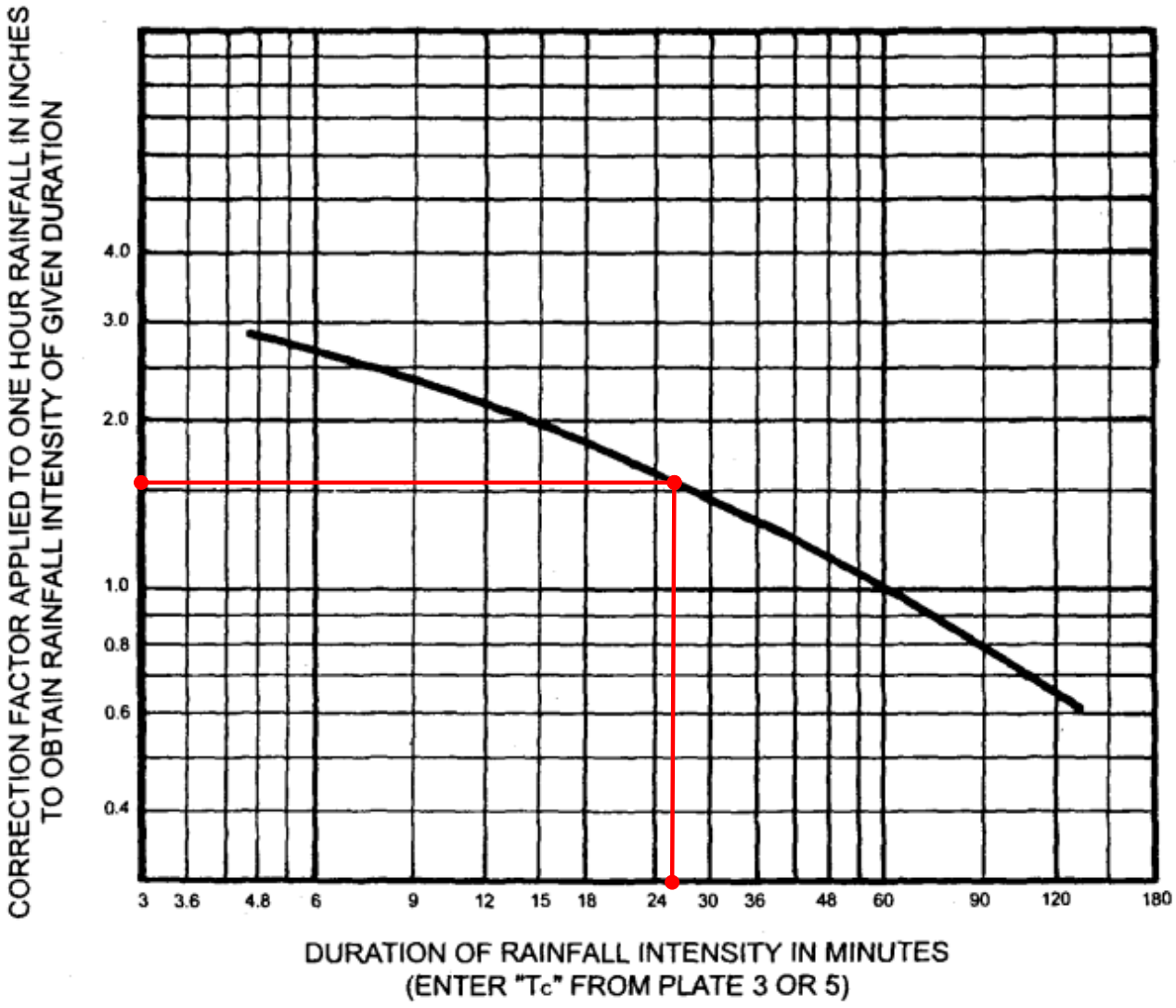
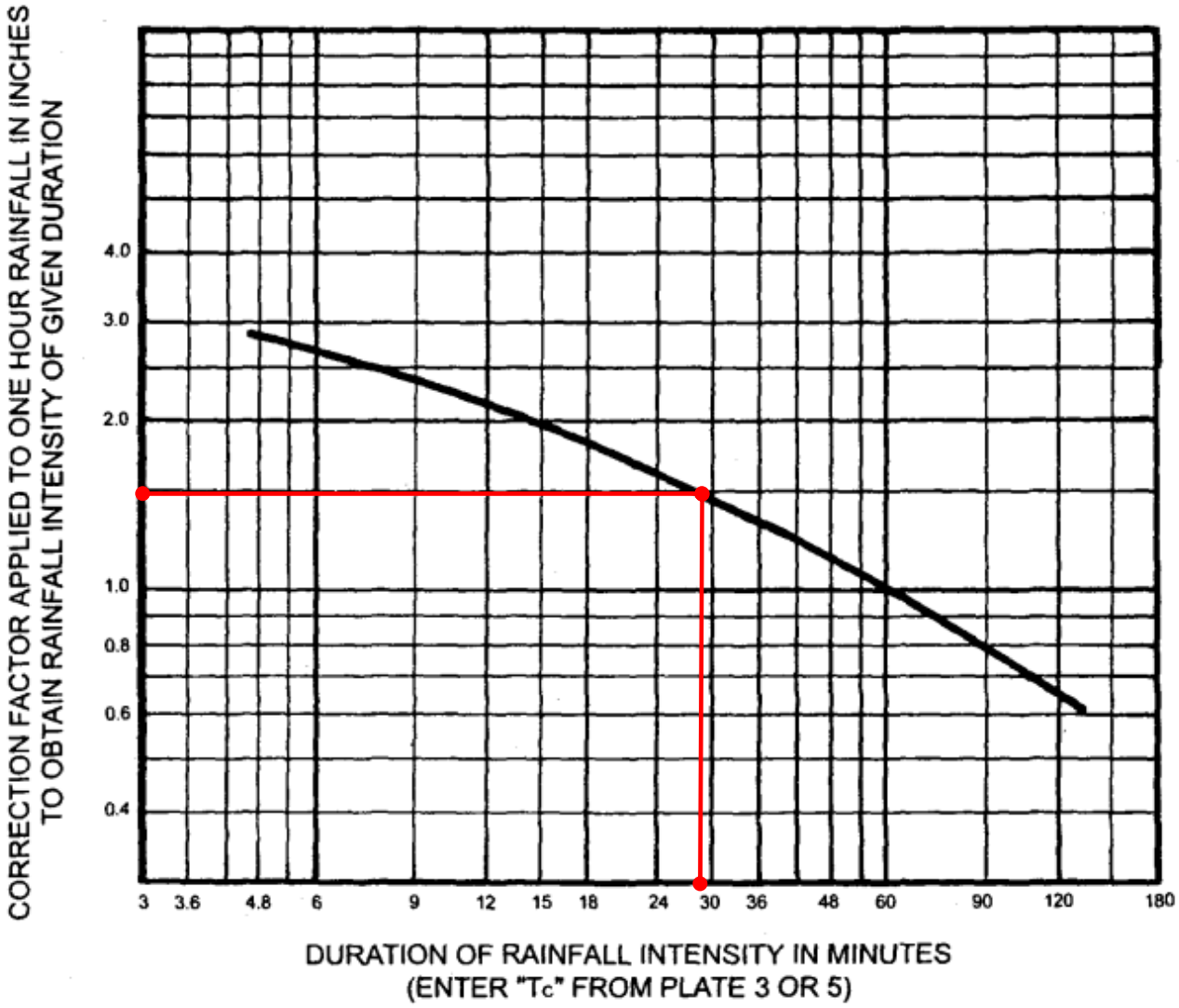
7
6

Rainfall Intensity (Plate 4 from Storm Drainage Standards)

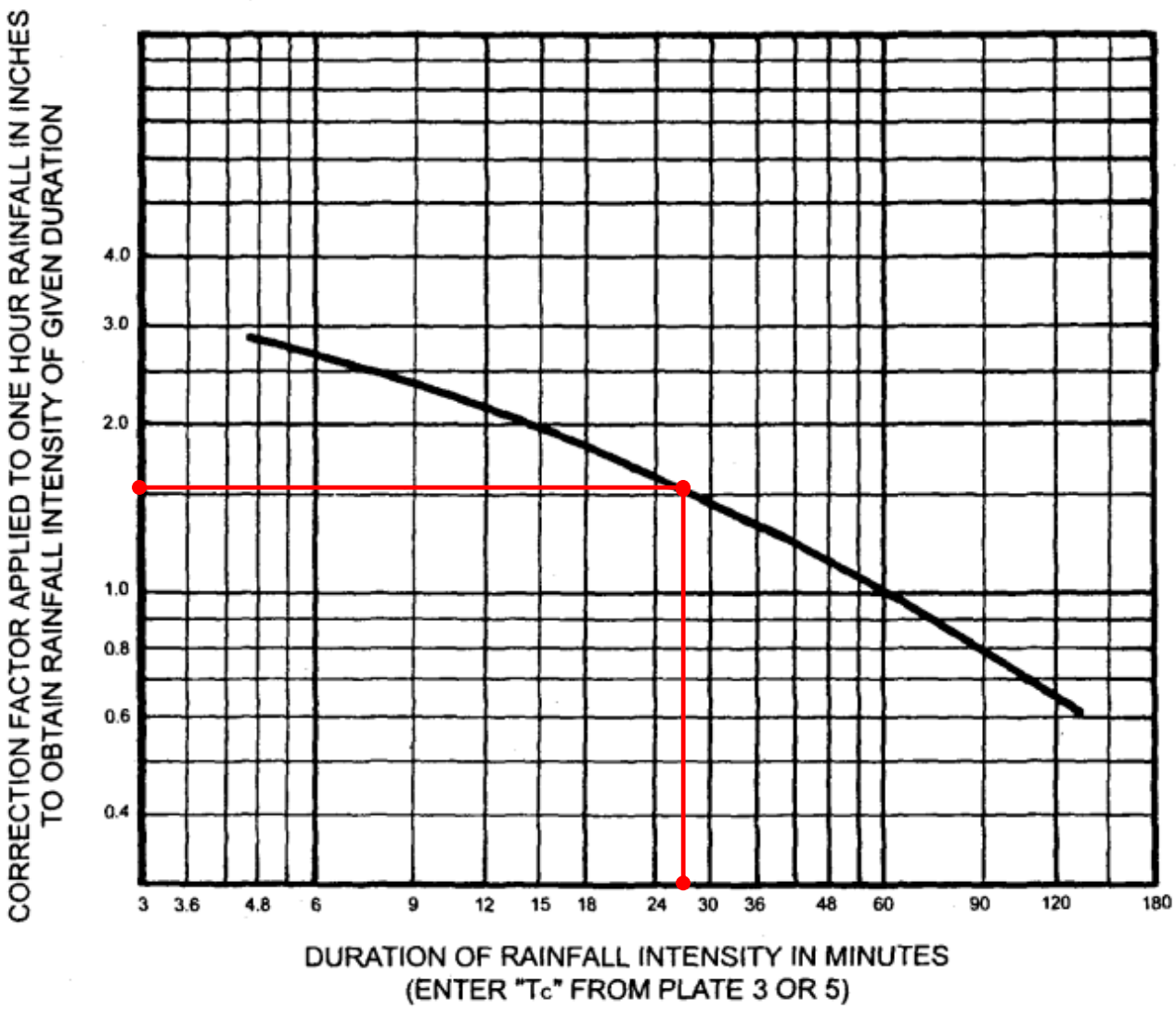
Basin 1



Basin 2


CORRECTION FACTOR APPLIED TO ONE HOUR RAINFALL IN INCHES
TO OBTAIN RAINFALL INTENSITY OF GIVEN DURATION
4.0
3.0
2.0
1.0
0.8
0.6
0.4
3
3.6
4.8
6
9
12
15
18
24
30
36
48
60
90
120
180
DURATION OF RAINFALL INTENSITY IN MINUTES
(ENTER "Tc" FROM PLATE 3 OR 5)

Basin 3


CORRECTION FACTOR APPLIED TO ONE HOUR RAINFALL IN INCHES
TO OBTAIN RAINFALL INTENSITY OF GIVEN DURATION
4.0
3.0
2.0
1.0
0.8
0.6
0.4
3
3.6
4.8
6
9
12
15
18
24
30
36
48
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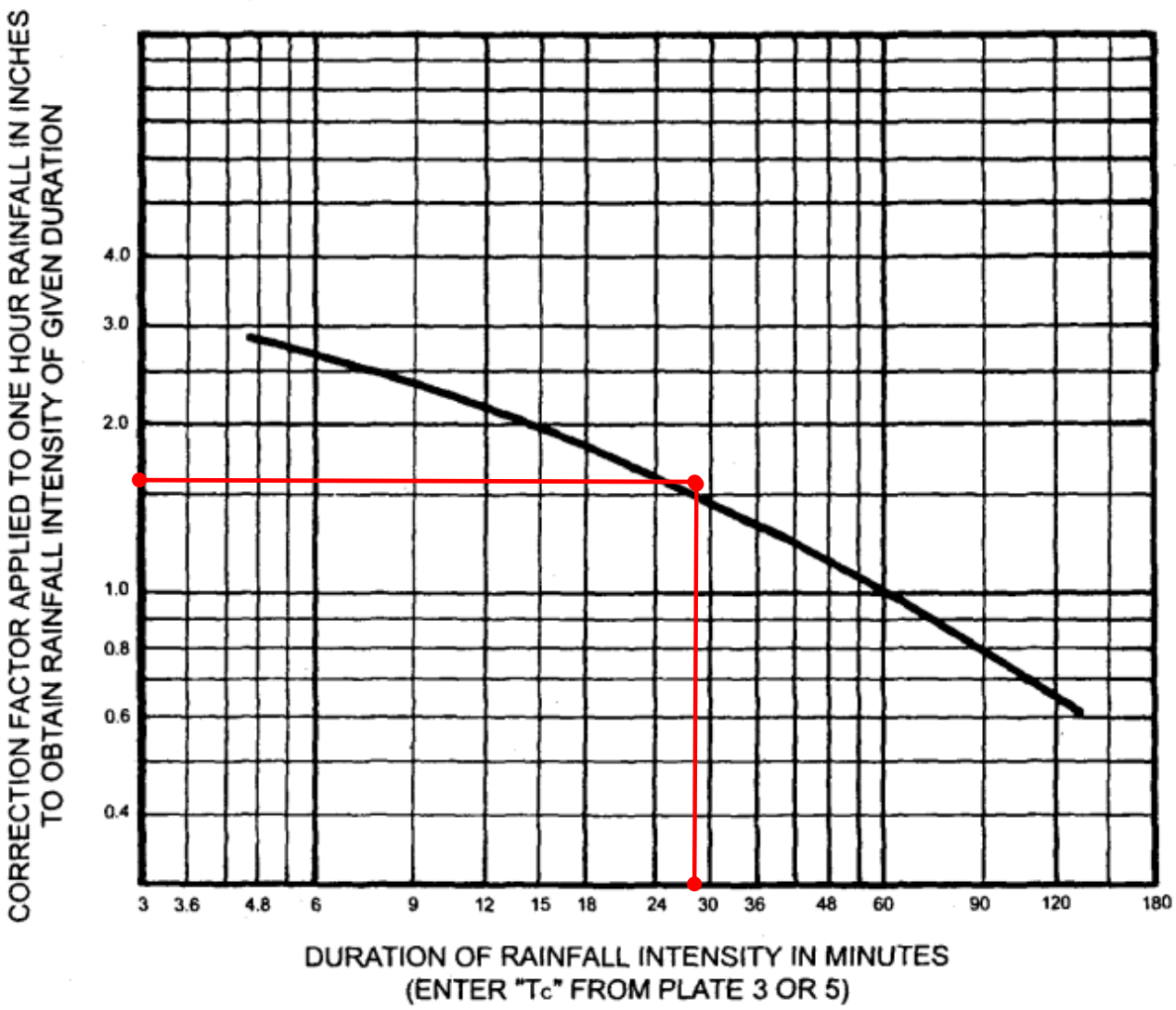
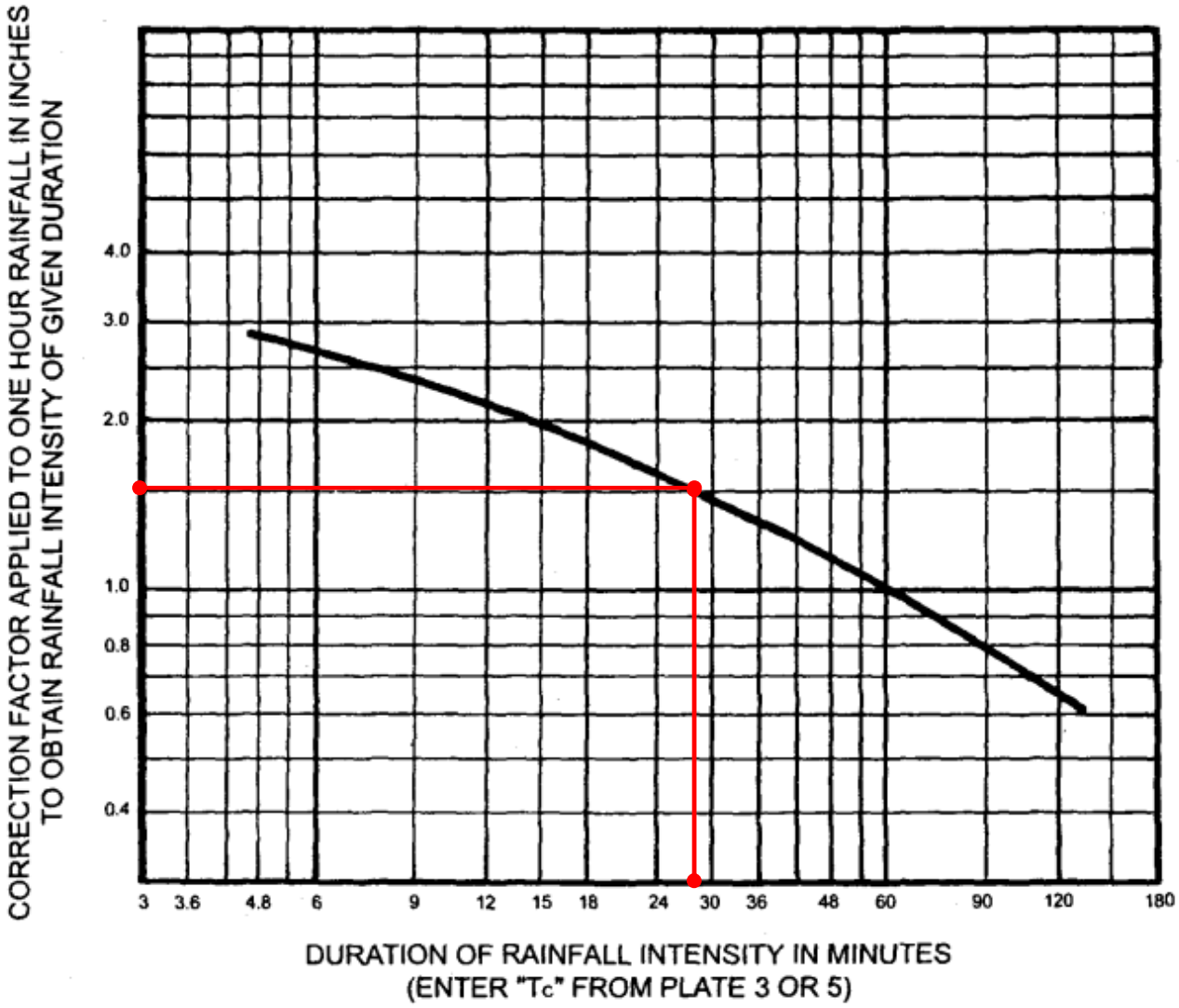
120
180
DURATION OF RAINFALL INTENSITY IN MINUTES
(ENTER "Tc" FROM PLATE 3 OR 5)

Basin 4


CORRECTION FACTOR APPLIED TO ONE HOUR RAINFALL IN INCHES
TO OBTAIN RAINFALL INTENSITY OF GIVEN DURATION
4.0
3.0
2.0
1.0
0.8
0.6
0.4
3
3.6
4.8
6
9
12
15
18
24
30
36
48
60
90
120
180
DURATION OF RAINFALL INTENSITY IN MINUTES
(ENTER "Tc" FROM PLATE 3 OR 5)

Basin 5


CORRECTION FACTOR APPLIED TO ONE HOUR RAINFALL IN INCHES
TO OBTAIN RAINFALL INTENSITY OF GIVEN DURATION
4.0
3.0
2.0
1.0
0.8
0.6
0.4
3
3.6
4.8
6
9
12
15
18
24
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36
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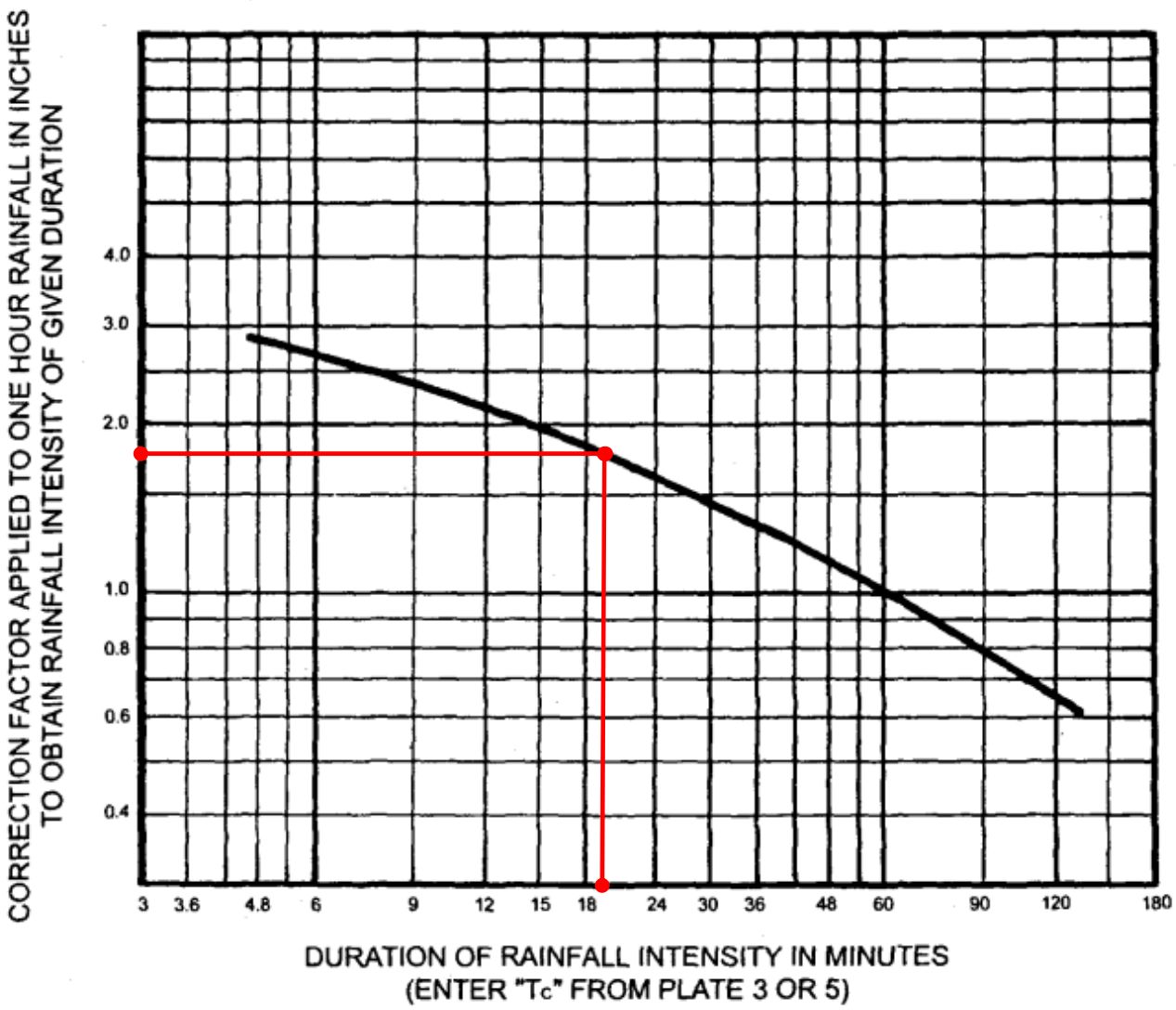
60
90
120
180
DURATION OF RAINFALL INTENSITY IN MINUTES
(ENTER "Tc" FROM PLATE 3 OR 5)

Basin 6


CORRECTION FACTOR APPLIED TO ONE HOUR RAINFALL IN INCHES
TO OBTAIN RAINFALL INTENSITY OF GIVEN DURATION
4.0
3.0
2.0
1.0
0.8
0.6
0.4
3
3.6
4.8
6
9
12
15
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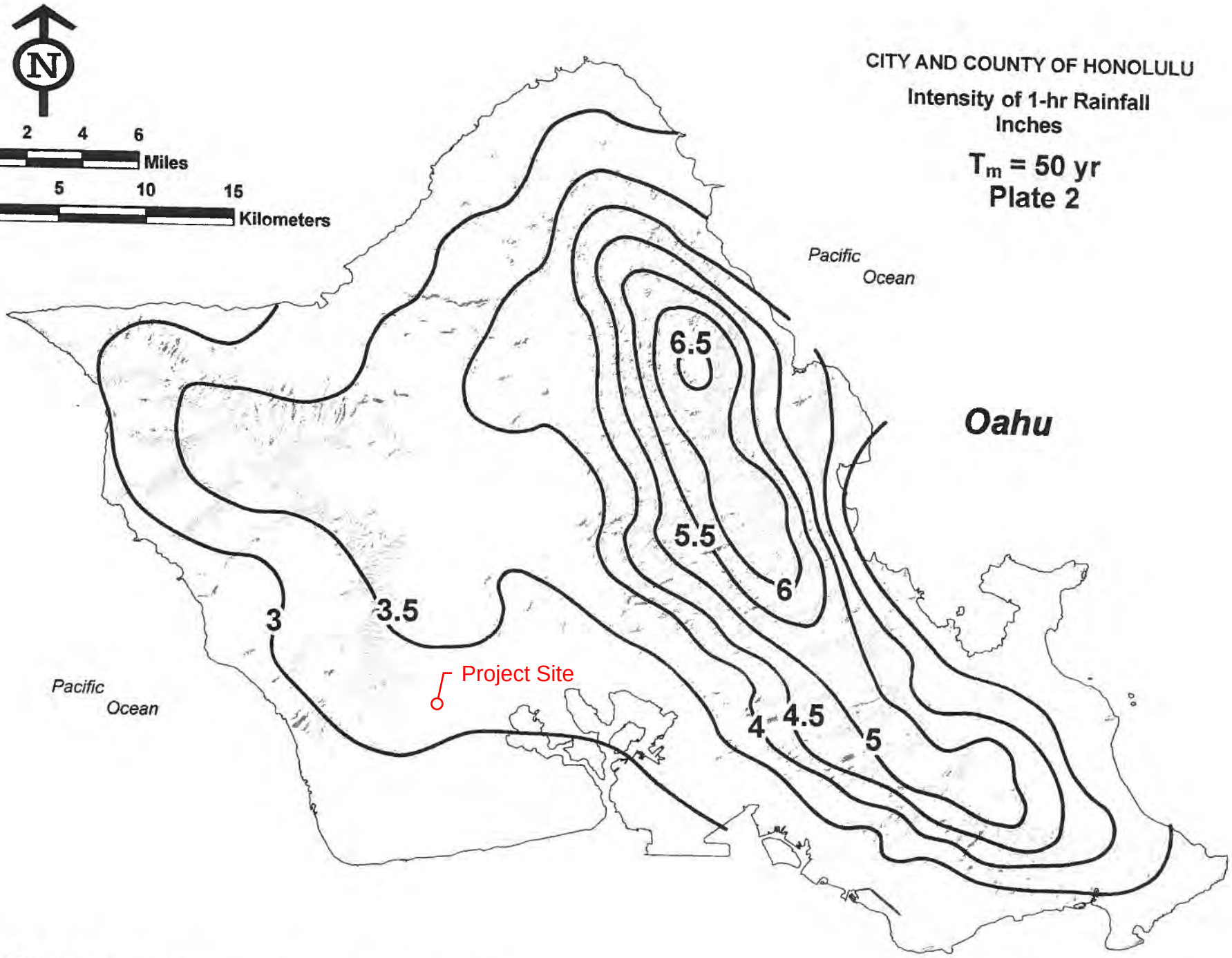
24
30
36
48
60
90
120
180
DURATION OF RAINFALL INTENSITY IN MINUTES
(ENTER "Tc" FROM PLATE 3 OR 5)

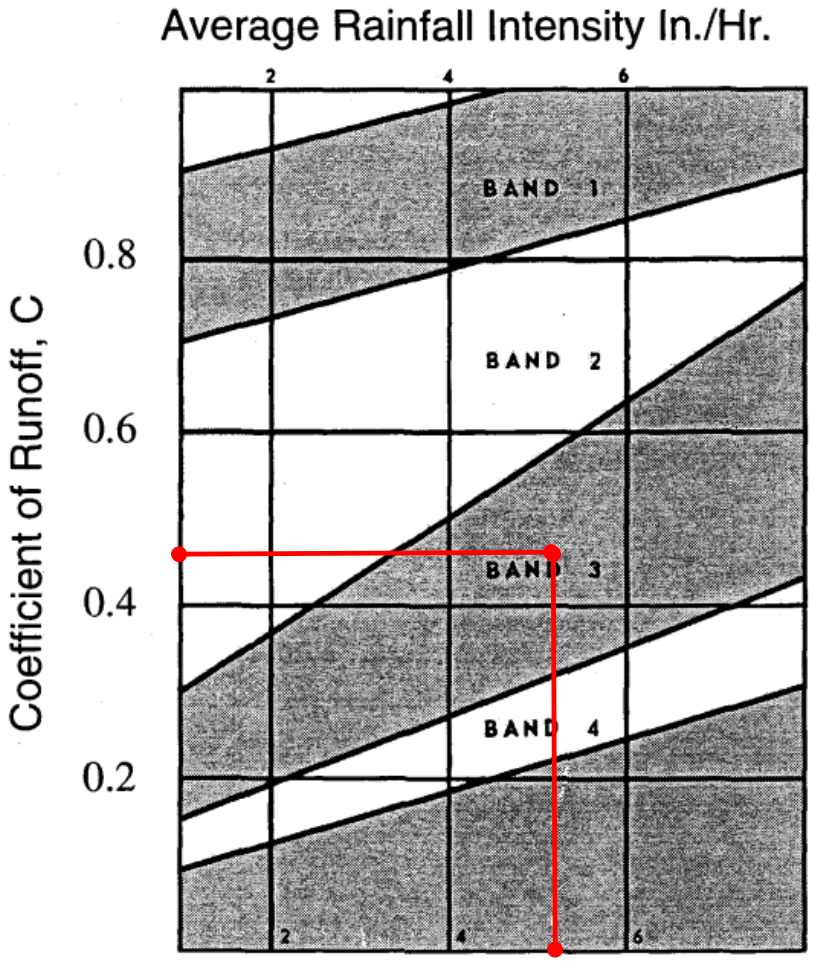


[Eff: APR 0 8 2011] (Auth: Sec 14-12.31, ROH) (Imp: Sec 14-12.31, ROH)

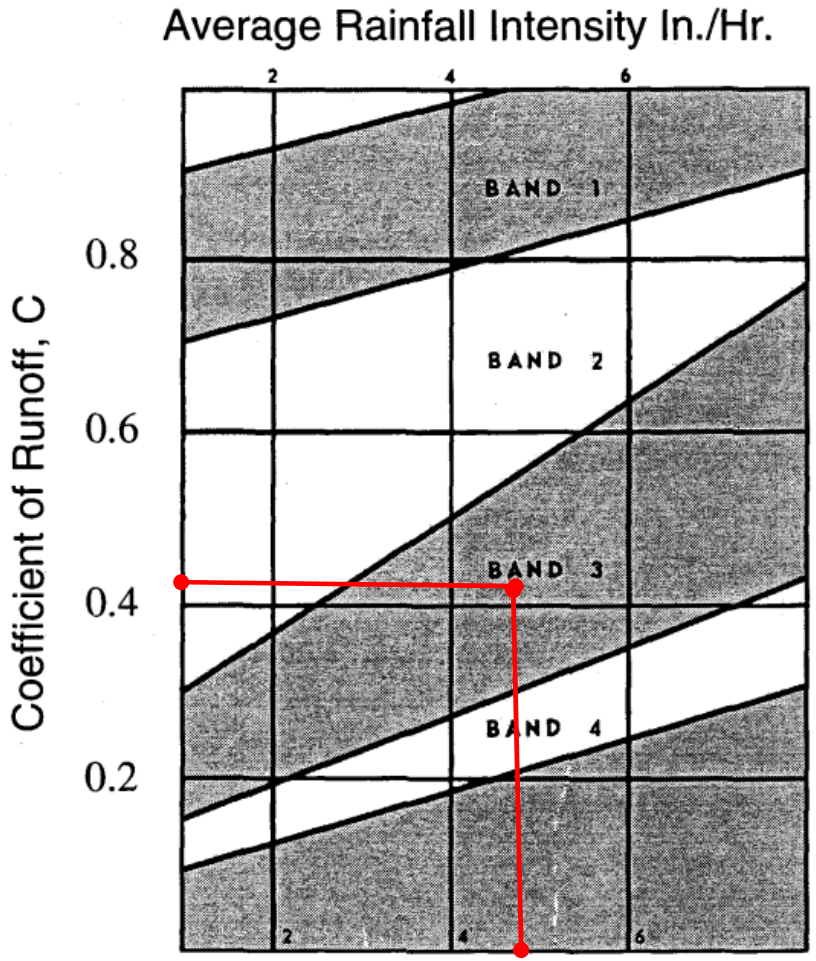
Source: National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Silver Spring, Maryland, 2009

Runoff Coefficient (Table 1 from Storm Drainage Standards)

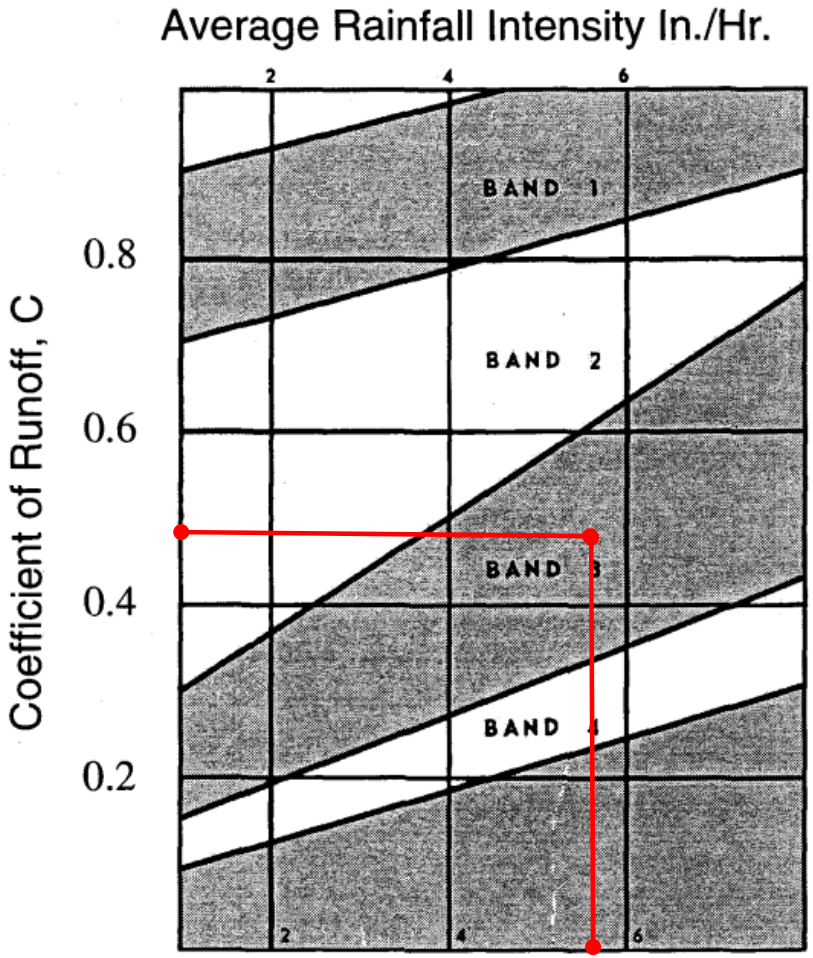
Basins 1 & 3



Basins 2, 4 & 5



Basin 6


Average Rainfall Intensity In./Hr.
2
4
6
Coefficient of Runoff, C
0.8
0.6
0.4
0.2
BAND 1
BAND 2
BAND 3
BAND 4
2
4
6