



City of Pittsburg Planning Commission Agenda

10/24/2023

**City of Pittsburg Marina Center
340 Marina Boulevard, Pittsburg, CA 94565**

Please note venue change due to Council Chamber remodel.

**Regular Meeting
7:00 P.M.**

Planning Commission Members

**Ivelina Popova, Chair
Arlene Kobata, Vice-Chair
Sarah Foster, Commissioner
Alvin Jackson, Commissioner
Donna Smith, Commissioner
Elissa Robinson, Commissioner**

Any member of the public who wishes to address the Commission should complete a Speaker's Card, available on the public counter below the dais. Please note on the card the agenda item number, or, for items not listed on this agenda, a brief description of the issue on which you would like to address the Commission. Give the completed form to the Minutes Clerk or a staff member, who will give the card to the Commission Chair. The Chair will invite the speaker(s) to the podium at the appropriate time during the meeting. Each individual will be given three minutes to address the Commission, unless additional time is allowed as provided for spokespersons. Prior to speaking, each speaker is requested to state his or her name and business and city of residence in a clear and audible tone of voice. For items listed under the "Public Hearings" or "Commission Consideration" portions of this agenda, the public hearing or public comment period will follow a brief presentation on the item by Planning Department staff and/or the project applicant.

A decision by the Planning Commission is not final until the appeal period expires 10 calendar days after the date the decision occurred. The applicant, City Council member(s), City Manager, or any affected person may appeal the denial, approval, recommendation, or any condition of approval of an item within the 10-day appeal period. A completed appeal form and the applicable filing fee must be filed with the City Planner, 65 Civic Avenue, Pittsburg. The appeal form must include the name and address of the appellant and state the reasons for the appeal. The appeal will be set for City Council consideration and appropriate public notification given.

The Commission requests that you refrain from disruptive conduct during the meeting and that you observe the order and decorum of the Council Chamber. Please turn off or set to vibrate all cellular phones, and refrain from making personal, impertinent or slanderous remarks. Boisterous or disruptive behavior while the Commission is in session, and the display of signs in a manner that violates the rights of others or prevents others from watching or fully participating in the Planning Commission meeting is considered counterproductive and will not be tolerated, and the Commission Chair can order any person who engages in such conduct to leave the Council Chamber.

This agenda was posted in City Hall and City of Pittsburg Marina Center on Friday, October 20, 2023

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

DELETIONS, WITHDRAWALS OR CONTINUANCES

COMMENTS FROM THE AUDIENCE

CONSENT

1. **Minutes**
Minutes of September 26, 2023

COMMISSION CONSIDERATIONS

2. **Recommendation to the City Council on Adoption of the City of Pittsburgh Sustainability Plan**
Recommendation to the City Council on the Final Draft of the City of Pittsburgh Sustainability Plan.

The proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) and Government Code Sections 15308 and 15322 (Class 8 and Class 22). The Plan is strictly a policy document to improve the City's resilience when confronted with impacts of climate change and does not provide entitlements to any specific land use projects, nor does it make any changes to the General Plan land use map or modify land use designations, densities, or land use intensities.

PUBLIC HEARINGS

3. **Dace Consulting, AP-23-0138 (UP)**
This is a public hearing on a request for approval of a Use Permit to allow operation of a consulting services business within an existing commercial tenant space located at 675 Railroad Avenue, in the CP (Pedestrian Commercial) District. Assessor's Parcel No. 085-171-009.

4. **Recommending City Council approval and adoption of an Ordinance for the Creating of Healthy Communities, Amending Titles 5, 8, 9, and 18 of the Pittsburgh Municipal Code, to Revise Requirements for a Tobacco Retailer License, Limit Smoking in Specific Locations, Update the Social Host Ordinance, and Add Requirements for Cannabis Businesses, consistent with state law, AP-23-0145 (RZ – Text Amendment).**

This is a request for recommendation to the City Council for approval and adoption of an Ordinance for the Creating of Healthy Communities, Amending Titles 5, 8, 9, and 18 of the Pittsburgh Municipal Code, to Revise Requirements for a Tobacco Retailer License, Limit Smoking in Specific Locations, Update the Social Host Ordinance, and Add Requirements for Cannabis Businesses, consistent with state law.

5. **Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE).**

This is a public hearing on a request for approval of a Use Permit and Fence Height Exception to install a 10-foot-tall, electrically-charged security fence four to eight inches behind an existing, eight-foot-tall, slatted chain link fence, in order to provide additional security and deter theft and vandalism. The proposed electric fence would be installed along the east and south sides of the building located at 498 East 10th Street in the CS-D (Service Commercial – Downtown Overlay) District. Assessor Parcel No. 085-184-014.

Environmental Determination: This project is exempt from the requirements of the California Environmental Quality Act (CEQA) under Class 3, “New Construction or Conversion of Small Structures,” of the CEQA Guidelines, section 15303(e).

ZONING ADMINISTRATOR REPORTS

6. **Notice of Intent to Conduct a Zoning Administrator Public Hearing and Exercise Delegated Design Review Authority**

The Zoning Administrator submits two notices of intent to conduct a Zoning Administrator public hearing one to establish the sale of beer and wine at an existing, legally established, full-service restaurant located at 260 Diane Avenue; and one Variance application for exceptions to setbacks pursuant to PMC Section 18.10.050 and 18.28.020.B. The Zoning Administrator also submits five notices of intent to Exercise Delegated Design Review Authority.

STAFF COMMUNICATIONS

COMMITTEE REPORTS

ADJOURNMENT OF PLANNING COMMISSION MEETING

NOTICE TO PUBLIC

NOTICE TO THE DISABLED AND VISUALLY OR HEARING IMPAIRED

In compliance with the Americans with Disabilities Act, the city of Pittsburg will provide special assistance for disabled citizens. Upon request, an agenda for any meeting shall be made available in appropriate alternative formats. The Council Chamber is equipped with sound amplifier units for use by the hearing impaired. The units operate in conjunction with the Chamber's sound system. You may request the sound amplifier from the City Clerk for personal use during Commission meetings. If you need special assistance to participate in this meeting, or are requesting a specially formatted agenda, please contact the City Clerk at 925-252-4850. Notification 48 hours prior to the meeting will enable the city to make reasonable arrangements to ensure accessibility to this meeting or provide the requested agenda format. (28 CFR 35.102-35.104 ADA Title II)

GENERAL INFORMATION

Copies of the open session agenda packets that are distributed to the Planning Commission are on file in the office of the Planning Department, 65 Civic Avenue, Pittsburg, California, and are available for public inspection, beginning no fewer than 72 hours in advance of the meeting, during normal business hours (8:00 a.m. – 5:00 p.m., Monday through Friday, except city holidays). Additionally, if any reports or documents that are public records are distributed to the Planning Commission fewer than 72 hours before the meeting, those reports and documents will also be available for public inspection in the city's Planning Department and at the Commission meeting. The Pittsburg Library is also provided a full agenda packet for your convenience. As a courtesy, the agenda is also located on the city's website at www.ci.pittsburg.ca.us.

**MINUTES
OF A REGULAR MEETING
OF THE
PITTSBURG PLANNING COMMISSION**

September 26, 2023

A regular meeting of the Pittsburg Planning Commission was called to order by Chair Popova at 7:00 p.m. on Tuesday, August 8, 2023, in the Council Chamber at City Hall, 65 Civic Avenue, Pittsburg, California.

ROLL CALL

Present: Chair Popova, Vice-Chair Kobata, Commissioners Foster, Robinson, Smith

Absent: Commissioner Jackson

Staff: Assistant Director of Community and Economic Development John Funderburg, Assistant City Clerk Haidi Muro

PLEDGE OF ALLEGIANCE

Commissioner Robinson led the Pledge of Allegiance.

DELETIONS / WITHDRAWALS / CONTINUANCES

Item No. 2, a recommendation to the City Council to Authorize the Vacation of 0.012 Acres of a Public Utility Easement at 1000 Buchanan Road, Pittsburg, CA 94565 was continued to a date specific of November 14, 2023.

COMMENTS FROM THE AUDIENCE

There were no comments from the audience.

CONSENT

1. Minutes of August 8, 2023

On motion by Commissioner Robinson, seconded by Vice-Chair Kobata to approve the consent item and carried by the following vote:

AYES: Foster, Kobata, Popova, Robinson, Smith
NAYES: None
ABSTAIN: None
ABSENT: Jackson

PRESENTATION

Secretary Funderburg provided an update on current projects throughout the City of Pittsburg.

Bruce Ohlson, a resident of Pittsburg commented on the Dream Courts project.

ZONING ADMINISTRATOR REPORTS

The Zoning Administrator submitted four notices of intent to conduct a Zoning Administrator public hearing, one for a Fence Height Exception pursuant to PMC 18.32.010.B.3, two for Variance Applications pursuant to PMC 18.10.050 and 18.28.020(B) and one for an Administrative Design Review Application pursuant to Planning Commission Resolution 9918.

STAFF COMMUNICATIONS

Secretary Funderburg provided information materials and discussed the tentative schedule for upcoming meetings.

Two (2) items are tentatively being presented at the October 10, 2023, meeting:

1. Sustainability Plan – The Sustainability Plan includes emissions reduction goals and actions the City can implement to put the community on a path towards reducing GHG emissions with a focus on community health and a thriving economy. Additionally, it will complement the Environmental Justice and Equity goals established in the 2040 Envision Pittsburgh General Plan Update.
2. CP (Pedestrian Commercial) Zone Text Amendment – City initiated updates to the permitted uses in this zone.

One (1) item is tentatively being presented at the October 24, 2023, meeting:

1. East Street Estates – Design Review to construct eight new single-family dwellings in an existing subdivision located at 399, 403, 407, 411 East 9th Street and 400, 404, 408, 412 East 8th Street, in the RS-4 (Single-Family Residential, 4,000 sf. min.)

There were no further staff communications.

COMMITTEE REPORTS

Chair Popova and Commissioner Robison reported on the Community and Economic Development Subcommittee.

ADJOURNMENT

The meeting was adjourned at 7:51p.m. to October 10, 2023.

Respectfully Submitted,

John Funderburg, Secretary

**CITY OF PITTSBURG
PLANNING COMMISSION
STAFF REPORT
October 24, 2023**

ITEM: Recommendation to the City Council on Adoption of the City of Pittsburg Sustainability Plan

ORIGINATED BY: City of Pittsburg, 65 Civic Avenue, Pittsburg, CA 94565

SUBJECT: Recommendation to the City Council on the Final Draft of the City of Pittsburg Sustainability Plan.

RECOMMENDATION: Staff recommends that the Planning Commission adopt a Resolution recommending approval and implementation of the City of Pittsburg Sustainability Plan.

BACKGROUND: California is recognized globally as a leader in preparing for and adapting to climate change, having established a variety of ambitious Greenhouse Gas (GHG) emissions reduction goals and associated strategies. The primary legislation that has driven statewide GHG emissions reductions are Executive Order (EO) S-3-05, Assembly Bill (AB) 32 of 2006 (AB 32), EO B-30-15, Senate Bill (SB) 32 of 2016, (SB 32) EO B-55-18, and most recently AB 1279 of 2022 (AB 1279). Signed in 2005, EO S-3-05 established statewide GHG emission reduction targets to achieve long-term climate stabilization as follows: by 2020, reduce GHG emissions to 1990 levels and by 2050, reduce GHG emissions to 80 percent below 1990 levels. In 2018, the goals of EO S-3-05 were accelerated by EO B-55-18, which established a goal of achieving carbon neutrality no later than 2045 and was codified by AB 1279. Carbon neutrality is defined by AB 1279 as reducing GHG emissions by no less than 85% and removing or sequestering the remaining.

In 2008, the City made a commitment to sustainability by completing a GHG emissions inventory for data year 2005 as a first step in complying with the International Council for Local Environmental Initiatives (ICLEI) Local Governments for Sustainability's Cities for Climate Protection Program recommendations. Pittsburg and fifteen other Contra Costa City Climate Leaders (4CL) cities joined this ICLEI program in 2007 to foster regional GHG reduction. The 2005 baseline inventory accounted for five community sources—industry, transportation, commercial energy, residential energy, and waste—and six municipal sources—water, facility energy, vehicle fleet, employee commutes, streetlights, and waste.

In 2019, the City furthered this commitment by completing an updated (2016) GHG emissions inventory, which was structured to reflect the applicable sectors accounted for in 2005 to provide an accurate comparison of changes in emissions in the 11 intervening years. In the updated inventory, industrial emissions were not included because they are monitored by the California Air Resources Board (CARB) and the City does not have direct control over those sources. Therefore, industrial emissions were not included in the 2016 inventory and to provide a comparison between 2005 and 2016, industrial emissions were removed from the original 2005 inventory.

Other initiatives by the City to reduce GHG emissions include the adopted 2020 Pittsburg Moves *Active Transportation Plan*, which envisions Pittsburg as the most bicycle and pedestrian friendly community in East Contra Costa County. The City also provides community resources on climate action planning and sustainability on the City's website.

Planning Commission and Public Comments (Draft Plan)

On June 27, 2023, staff presented the Draft Sustainability Plan (Plan) to the Planning Commission for comment, review, and feedback. During the presentation, the Commissioners provided feedback and suggestions on the planned outreach, incorporation of public art into the plan, ensuring equity and environmental justice, carbon sequestration (tree canopy), and plans for funding. Each of these comments are addressed in the discussion below.

To address the comment regarding outreach, staff has been proactive in community outreach throughout the process ensuring that local residents and the community are provided opportunities to comment on the Draft and Final Draft documents. As such, increasing public participation was a key component and details regarding outreach and comment periods can be reviewed in the table below titled, "Community Outreach and Engagement Events".

Community Outreach and Engagement Events

Topic	Event	Date
Introduction to Sustainability	Community Pop-up Event	August 5, 2022
Strategy and Action Review and Prioritization	Community Open House	January 25, 2023
Introduction to Sustainability Plan	Community Input Survey	December 11, 2022 - January 31, 2023
Reducing Vehicle Miles Traveled and Increasing Zero-Emissions Vehicle and Equipment Use	Weekly Social Media Post and Virtual Climate Café	March 7, 2023 March 9, 2023
Waste Diversion	Weekly Social Media Post and Virtual Climate Café	March 17, 2023 March 16, 2023
Decarbonizing Electricity and Use and Storage of Local Renewable Energy	Weekly Social Media Post and Virtual Climate Café	March 21, 2023 March 23, 2023
Water Conservation and Local Water Supply	Weekly Social Media Post and Virtual Climate Café	March 28, 2023 March 30, 2023
Carbon Sequestration	Weekly Social Media Post and Virtual Climate Café	April 4, 2023 April 6, 2023
City's Commitment to Climate Action	Weekly Social Media Post and Virtual Climate Café	April 11, 2023 April 13, 2023
Reducing Reliance on	Weekly Social Media Post	April 18, 2023

Natural Resources	and Virtual Climate Café	April 20, 2023
Creating High Road Jobs	Weekly Social Media Post and Virtual Climate Café	April 25, 2023 April 27, 2023
Public Hearing	Pittsburg Planning Commission Meeting	June 27, 2023
Public Comment Period	Public Comment on Draft Sustainability Plan	July 5 – August 4, 2023
Recommendation to City Council	Pittsburg Planning Commission Meeting	October 24, 2023

In regard to the comment raised by the Commission regarding the incorporation of public art and City beautification, staff updated the Plan to include new goals and action items. Action item CS-1.2e. was updated to include components of art and beautification into the urban park guidelines. Goal W-1.3 was also added to the Plan to increase green stormwater infrastructure which will provide the community with visible green projects that improve the appearance of neighborhoods. Goal CS-1.1 of the Plan also provides opportunities to beautify neighborhoods through tree plantings, greenspace expansions, and community gardens.

Feedback received from the Commission on the Plan also included the component of ensuring equity and environmental justice. Identified in the Plan as Sustainability Pillars are strategies to establish action items for each goal to ensure each goal is implementable and effective. Equity is one of these Sustainability Pillars. Each goal contains at least one action item that addresses the Equity Sustainability Pillar to provide disadvantaged and vulnerable communities with the resources needed to benefit from each goal. The Plan was also developed with Equity Guardrails. These Equity Guardrails (defined in Table 8) were used to assess and update each goal of the Plan to ensure the impacts, co-benefits, and opportunities associated with each goal will be equitably distributed amongst the community and that additional burdens from goals on disadvantaged and vulnerable communities are avoided. The Equity Guardrails met by each goal are listed at the bottom of each goal's action items table. Together, the Equity Sustainability Pillar and Equity Guardrails confirm equity and environmental justice are incorporated throughout the Plan.

A key component of the Plan is carbon sequestration. To address the comments that were received by the Commission, staff updated the Plan to include new strategies and action items. Under goal CS-1.1 action items CS-1.1h., CS-1.1i., and CS-1.1j. were added to achieve the fundamental goals for increasing carbon sequestration by supporting the City's tree canopy, greenspaces, and community gardens.

Another concern raised by the Commission was funding. Funding for the implementation of the Sustainability Plan is adequately addressed in the Plan as staff has anticipated cost estimates for each goal to reduce GHG emissions. These cost estimates focused on both internal costs (municipal-focused) and external costs (community-focused). The provisions in the Plan provide a prioritization of funding around three main components and principles (equity, cost-effectiveness, and ability to

leverage local resources). These components were identified and analyzed for each of the goals during the development and review of the Plan to establish a plan that can be successfully implemented over time, with the smallest burden on the community.

On July 5, 2023, the City circulated the Draft Sustainability Plan to all interested parties, major stakeholders, partnering agencies, local businesses, non-profit organizations, and the public for comment and review. The Plan was circulated for public comment and review from July 5, 2023, through August 4, 2023. The Plan was also made available on the City website and announced on all social media streams (X, Facebook, Next Door, etc.). Comments from the public and interested parties received included recommendations, clarifications, and questions regarding the Plan. Staff has reviewed all the comments and has updated or revised the Plan accordingly. A full summary of the comments received, and staff responses can be found within Attachment 3.

SUBCOMMITTEE FINDINGS: Staff presented updates on the public engagement efforts conducted for Plan development to the Economic Development and Waterfront Subcommittee on March 9, 2023, which was met with Subcommittee support.

GENERAL PLAN/CODE COMPLIANCE: The City of Pittsburg Sustainability Plan is consistent with the General Plan Resource Conservation Element and Air Quality Goals 9-G-9 through 9-G-11 and Policies 9-P-29 through 9-P-32, which seek to improve air quality by meeting all Federal and State ambient air quality standards by reducing the generation of air pollutants from stationary and mobile sources. It is also consistent with priorities identified during the visioning workshops for the 2040 Envision Pittsburg General Plan Update. Residents participating in those workshops expressed that as the City continues to grow, additional emphasis needs be placed on reducing the generation of air pollutants and alternative ways of getting around, including walking and bicycling.

STAFF ANALYSIS: The City of Pittsburg Sustainability Plan is a living document that was designed to engage, excite, and empower the community to take incremental steps towards a healthier, more sustainable future. In alignment with SB 1000 of 2018, the Plan establishes emissions reduction targets that align with goals set by California as required by SB 32 and AB 1279.

This Plan will serve as a first step towards reducing GHG emissions in Pittsburg and establish practices the community can implement that are practical and result in real, positive change. Due to the systemic nature of climate change, relying on voluntary, individual actions will not be enough to reduce GHG emissions in a significant way. However, that does not derail the progress of each person's individual actions, which could collectively result in real change. Local governments across the United States are stepping up as leaders of climate action and innovation. Reducing GHG emissions is going to require real change, and communities like Pittsburg are perfectly situated to begin implementing new solutions to reduce GHG emissions in their local municipalities.

Making meaningful progress towards reducing Pittsburg's GHG emissions starts with the leadership of City government, through strong actions like providing permit

incentives and developing equitable outreach programs that spur change in the community. The City of Pittsburgh Sustainability Plan addresses this and is committed to reducing GHG emissions. There is a wealth of opportunities for the City to take action to improve the community while also reducing its GHG emissions. It is important that these opportunities are taken advantage of, so real momentum can be built upon, and Pittsburgh can establish a path towards the 2030 and 2045 GHG emission reduction targets.

Goals and Opportunities

One of the main goals of the Sustainability Plan is to bring awareness around sustainability and opportunities to reduce emissions in the community across all sectors (or sources, i.e., transportation, energy, water, or waste) and provide information about what residents can do to implement the plan and set our community on the path towards more significant GHG reductions. The City's commitment to reduce GHG emissions and become more sustainable means the community will benefit from various co-benefits, including improved health and safety, high-road job development, connected communities, energy security, reduced reliance on fossil fuels, and community savings.

With the cornerstone goal of creating high road jobs through sustainable actions identified in the Plan, Pittsburgh's Plan implementation focuses on both community health and a thriving economy. Through a series of community engagement events, surveys, and activities outlined below, staff identified the Pittsburgh community's unique barriers to practicing sustainability. The Plan, therefore, incorporates actions that will complement the Environmental Justice and Equity goals established in 2040 Envision Pittsburgh General Plan Update.

ENVIRONMENTAL DETERMINATION:

The proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) and Government Code Sections 15308 and 15322 (Class 8 and Class 22). The Plan is strictly a policy document to improve the City's resilience when confronted with impacts of climate change and does not provide entitlements to any specific land use projects, nor does it make any changes to the General Plan land use map or modify land use designations, densities, or land use intensities.

ATTACHMENTS:

1. Proposed Resolution
2. Exhibit A - Sustainability Plan
3. Public Comments Summary

Prepared By: Ariana Ruiz, Assistant Planner

BEFORE THE PLANNING COMMISSION OF THE CITY OF PITTSBURG

In the Matter of:

Recommending that the City Council	)	
Adopt the City of Pittsburgh Sustainability	)	Resolution No.
Plan	)	

The Planning Commission DOES RESOLVE as follows:

Section 1. Background

- A. California law that has driven statewide greenhouse gas (GHG) emissions reductions are Executive Order (EO) S-3-05, AB 32, EO B-30-15, Senate Bill (SB) 32, EO B-55-18, and most recently Assembly Bill (AB) 1279 of 2022. Signed in 2005, EO S-3-05 established statewide GHG emission reduction targets to achieve long-term climate stabilization as follows: by 2020, reduce GHG emissions to 1990 levels and by 2050, reduce GHG emissions to 80 percent below 1990 levels. In 2018, the goals of EO S-3-05 were accelerated by EO B-55-18, which established a goal of achieving carbon neutrality by 2045 and was codified by AB 1279 of 2022; and
- B. In 2008, the City completed an emissions inventory for data year 2005 as a first step in complying with the International Council for Local Environmental Initiatives (ICLEI) Local Governments for Sustainability's Cities for Climate Protection Program recommendations. In 2019, the City furthered this commitment by completing an updated (2016) emissions inventory, which was structured to reflect the sectors accounted for in 2005 to provide an accurate comparison of changes in emissions in the 11 intervening years; and
- C. In alignment with SB 1000 of 2016, the City of Pittsburgh Sustainability Plan (Plan) establishes emissions reduction targets that align with goals set by California for 2030 as required by SB 32 of 2016, and AB 1279 of 2022; and
- D. The City conducted community engagement efforts within the past two and a half years to develop the Plan with community concerns, priorities, hurdles, and suggestions in mind; and
- E. The City's commitment to reduce GHG emissions and become more sustainable means the community will benefit from various co-benefits, including improved health and safety, high-road job development, connected communities, energy security, reduced reliance on fossil fuels, and community savings; and
- F. The Plan is a living document that will be evaluated for effectiveness and progress every three years; and
- G. The proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3), and Government Code Section 15308 and 15322 (Class 8 and Class 22). The Plan is strictly a policy document to improve the City's resilience when

confronted with impacts of climate change and does not provide entitlements to any specific land use projects, nor does it make any changes to the General Plan land use map or modify land use designations, densities, or land use intensities.

- H. On or prior to October 13, 2023, in accordance with Government Code sections 65853, a "Notice of Public Hearing" for the October 24, 2023, public hearing on this item was published in the East County Times; was posted at City Hall and in the "Public Notices" section of the city website. Although not required, the notice was also posted citywide on www.nextdoor.com ("Nextdoor").

Section 2: Findings

- A. Based on the Planning Commission Staff Report entitled, "Recommendation to the City Council on Adoption of the City of Pittsburg Sustainability Plan", dated October 24, 2023, and based on all the information contained in the Planning Division files on the Final Draft City of Pittsburg Sustainability Plan, incorporated herein by reference and available for review in the Planning Division located at 65 Civic Avenue in Pittsburg, and based on all written and oral testimony presented at the October 24, 2023, meeting, the Planning Commission finds that:

1. All recitals above are true and correct and are incorporated herein by reference.

Section 3. Decision

Based on the findings and the authority set forth above, the Planning Commission hereby recommends that the City Council adopt the Final Draft City of Pittsburg Sustainability Plan, as written in the attached "Exhibit A".

Section 4. Effective Date

This resolution shall take effect immediately upon its adoption.

On motion by Commissioner _____, seconded by Commissioner _____, the foregoing resolution was passed and adopted the 24th day of October, 2023, by the Planning Commission of the City of Pittsburg, California by the following vote:

AYES:

NAYES:

ABSTAIN:

ABSENT:

I hereby certify that the above Resolution No. was adopted by the Planning Commission of the City of Pittsburg on October 24, 2023.

JOHN FUNDERBURG, MS, SECRETARY
PITTSBURG PLANNING COMMISSION



City of Pittsburgh Sustainability Plan

**Final Draft
October 2023**

Project Team Acknowledgements

The City of Pittsburg Sustainability Plan Team extends its sincere gratitude to everyone who has supported and participated in this foundational planning process. This plan was developed through an integrated partnership between community members, City staff from all departments, including Community Development, Public Works, the City Manager's Office, and Environmental Services; and interested parties. The invaluable contributions made by the community at large, City staff, Council members, and planning experts, in addition to your unwavering support and collaborative input played an instrumental role in the development of this comprehensive plan. Voices, feedback, and input are interwoven throughout this document and your continued dedication and collaboration have been instrumental in shaping an implementable Sustainability Plan that encompasses a wide range of sustainable practices. The City is grateful for the expertise, time, and effort that each person has contributed to designing this comprehensive strategy. Specifically, we would like to thank:

- Community Members
- Pittsburg Planning Commission
- Pittsburg City Council
- City Staff from all Departments, with a special thanks to the Sustainability Plan Team:
 - o John Samuelson, Director of Public Works and City Engineer
 - o Jordan Davis, Director of Community & Economic Development
 - o Dick Abono, Director of Special Projects
 - o John Funderburg, Assistant Director of Planning
 - o Hilario Mata, Assistant Public Works Director
 - o Laura Wright, Retired Environmental Affairs Manager
 - o Sara Bellafronte, Assistant to the City Manager
- Delta Diablo
- Rincon Consultants, Inc.

Your active involvement, feedback, and support have enriched this plan and provided alignment with our City's goals and the community's needs. Together, we look forward to continuing our collaborative efforts as we transition into the implementation phase, working towards a greener and more sustainable future.



Glossary

Term	Definition
Active Transportation	A means of transportation that is powered by human energy, for example walking or biking.
Alteration/Remodel	Any construction or renovation to an existing structure other than repair for the purpose of maintenance or addition.
Anthropogenic	Made by people or resulting from human activities; usually used in the context of emissions that are produced as a result of human activities.
Atmosphere	The envelope of gases surrounding the Earth; the gases that make up the atmosphere primarily include nitrogen (78%) and oxygen (21%), as well as argon, helium, carbon dioxide, methane, and water vapor in trace amounts.
CALGreen	An abbreviated reference to the California Green Building Standards code, which sets minimum requirements for sustainable practices for construction (residential and commercial) projects throughout the state. It is updated every three years in accordance with the building code cycle.
California Air Resources Board (CARB)	The lead agency for climate change programs that also oversees all air pollution control efforts in California to attain and maintain health-based air quality standards.
Carbon-free Energy	Energy produced by a resource that produces no carbon emissions while generating energy, for example, nuclear or large hydroelectric.
Carbon-neutrality/ Net-Zero Emissions	Balancing anthropomorphically generated emissions out by removing GHGs from the atmosphere in a process known as carbon sequestration.
Carbon sequestration	The long-term storage or capture of carbon dioxide and other forms of carbon from the atmosphere through biological, chemical, and physical processes.
CH ₄	Methane, a hydrocarbon that is a greenhouse gas produced through anaerobic (without oxygen) decomposition of waste in landfills, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.
Climate	The average of weather patterns over a long period of time (usually 30 or more years).
Climate Change	A change in the average conditions — such as temperature and rainfall — in a region over a long period of time.

Term	Definition
Co-benefits	Additional benefits attributed to sustainable initiatives beyond greenhouse gas emissions reductions, including improved health and safety, high-road job development, connected communities, energy security, reduced reliance on fossil fuels, and community savings.
CO ₂	Carbon dioxide, a naturally occurring gas and a by-product of burning fossil fuels and biomass, as well as land-use changes and other industrial processes.
CO ₂ e	Carbon dioxide equivalent, a metric measure used to compare the emissions from various GHGs based upon their GWP.
Decarbonization	Replacing technologies and services that run on fossil fuels (e.g., natural gas) with ones that run on zero-carbon sources of energy (for example electricity from renewable energy like solar or wind power), ideally from renewable sources.
Disadvantaged Communities	Any community disproportionately affected by environmental, health, and other burdens or low-income areas disproportionately affected by environmental pollution and other hazards.
Emissions	The release of a substance (usually a gas when referring to the subject of climate change) into the atmosphere.
Electric Vehicle (EV)	A vehicle that uses one or more electric motors or traction motors for propulsion.
Energy Storage	Can provide frequency regulation to maintain balance between the network's load and detected power generated, achieving more reliable power supplies. Batteries are an example of energy storage.
Fossil Fuel	A general term for fuel formed from decayed plants and animals that have been converted to crude oil, coal, natural gas, or heavy oils by exposure to heat and pressure in the Earth's crust.
Greenhouse Gas (GHG)	A gas that absorbs infrared radiation, traps heat in the atmosphere, and contributes to the greenhouse effect.
Global Warming Potential (GWP)	Total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas, carbon dioxide, which is assigned a value of 1.
Local Governments for Sustainability (ICLEI)	A global network of more than 1,750 local and regional governments committed to sustainable urban development – emissions estimates were calculated using ICLEI's best available methodologies.
Intergovernmental Panel on Climate Change (IPCC)	The United Nations body for assessing the science related to climate change.

Term	Definition
MCE	A not-for-profit, community choice aggregator (CCA) that provides clean energy options to residents and businesses in Marin County, California and select cities in Contra Costa, Napa, and Solano counties.
Mitigation	An action that will reduce or prevent GHG emissions, such as electrifying buildings that previously ran on natural gas.
Metric Tons (MT)	Common international measurement for the quantity of GHG emissions – one metric ton is equal to 2,205 pounds or 1.1 short tons.
Metric tons carbon dioxide equivalent (MT CO ₂ e)	Metric/unit that GHG emissions are reported per standard practice; when dealing with an array of emissions, the gases are converted to their carbon dioxide equivalents for comparison purposes.
Microgrid	A group of interconnected loads and distributed energy resources that act as a single controllable entity in respect to the grid. A microgrid can operate in 'island mode' and disconnect from the grid, or operate while connection to the grid.
N ₂ O	Nitrous Oxide, a powerful GHG with a high global warming potential; major sources of nitrous oxide include soil cultivation practices, especially the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning.
Organic Material	Natural materials, for example food scraps and yard waste.
Photovoltaic (PV)	Relates to the production of electric current at the junction of two substances exposed to light (e.g., solar energy).
Representative Concentration Pathway (RCP)	Greenhouse gas concentration trajectory scenarios adopted by the IPCC.
Reach Code	A building code which requires a higher level of energy efficiency than the standard statewide code. Reach codes are allowed and encouraged under Title 24.
Renewable Energy	Energy derived from natural sources that are replenished at a higher rate than they are consumed (e.g., wind, biomass). By definition, all renewable energy is also considered "carbon-free," however, only naturally replenishing sources are considered renewable.
Resilience	Ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate.
Senate Bill (SB) 32	SB 32 is the California Senate bill in 2016 that requires there be a reduction in GHG emissions to 40% below 1990 levels by 2030.

Term	Definition
Senate Bill (SB) 1383	California's Short-Lived Climate Pollutant Reduction Strategy, which sets statewide targets to reduce compostable materials in landfills by 75% by 2025, and to rescue at least 20% of edible food currently disposed for human consumption by 2025.
Service population	Total combined residents and employees served by the community
Sequestration	The storage of carbon in plants or materials so that it cannot enter the atmosphere and cause additional warming.
Social Equity	All people having equal access to and influence on the resources and benefits of society.
Transportation Demand Management (TDM)	Transportation Demand Management focuses on how people make their transportation decisions, and facilitates greater usage of infrastructure for transit, ridesharing, walking, biking, and telework.
Urban Forest Management Plan	An Urban Forest Management Plan (UFMP) promotes the sustainability of trees in an urban space that maximizes environmental benefits while maintaining other/ linked safety and economics goals.
Vehicle Miles Traveled (VMT)	VMT is the total miles traveled by motor vehicle that are generated over a population over a given timeframe (e.g., one year).
Weather	The state of the atmosphere over a short period of time (usually an hour or a day), describing if it is hot or cold, wet or dry, calm or stormy, clear or cloudy, etc.
Zero-Emissions-Vehicle (ZEV)	A vehicle that never emits exhaust gas from the onboard source of power.
Zero Waste	The conservation of all resources by means of responsible production, consumption, reuse, and recovery of materials and packaging, without burning, and with no discharges to land, water, or air that threaten human health.

Table of Contents





Table of Contents

Glossary i

Introduction 1

GHG Emissions Inventories,
Forecasts, and Targets 15

GHG Emissions Reduction
Strategies 23

Implementation 99

Appendices

Appendix A	Regulatory Context
Appendix B	CalAdapt Report
Appendix C	2005 GHG Inventory Methodology
Appendix D	2016 GHG Inventory Methodology
Appendix E	GHG Forecast and Targets Analysis
Appendix F	Cost Summary
Appendix G	Categorical Exemption

1. Introduction



John Buckley Square

City's Sustainability Vision

The Pittsburg **Sustainability Plan** is a living document that has been designed to engage, excite, and empower our community to take incremental steps towards a healthier, more sustainable future. This plan will serve as a first step towards reducing greenhouse gas (GHG) emissions in the City and establishes practices the community can implement that are practical and result in real, positive change. As such, the primary focus of this plan is to create a more sustainable, equitable, and healthy Pittsburg, while maintaining a strong economy and reducing emissions to support California's Climate goals.

Sustainability can be defined as meeting the needs of the present without compromising the ability of future generations to meet theirs and is supported by three primary pillars: economic viability, environmental protection, and social responsibility (Figure 1).¹ Building off these pillars, this plan has been created with input from community members, interested parties, and City staff to establish a robust structure and continue

1. https://www.epa.gov/sites/default/files/2015-05/documents/sustainability_primer_v9.pdf

cultivating a healthy, flourishing City, while reducing GHG emissions and becoming more sustainable. The City's commitment to reduce GHG emissions and become more sustainable means the community will benefit from various co-benefits, including improved health and safety, high-road job development, connected communities, energy security, reduced reliance on fossil fuels, and community savings. The co-benefits are discussed further in Chapter 3, *GHG Reduction Strategy*.

Background and Purpose

The plan establishes a framework for the community to work together to create positive change, with sustainability and GHG emission reductions at its core. The following section provides a brief background and purpose of this plan.

Background

The City of Pittsburg has been committed to increasing sustainable operations and policies and fostering a healthy community for many years.

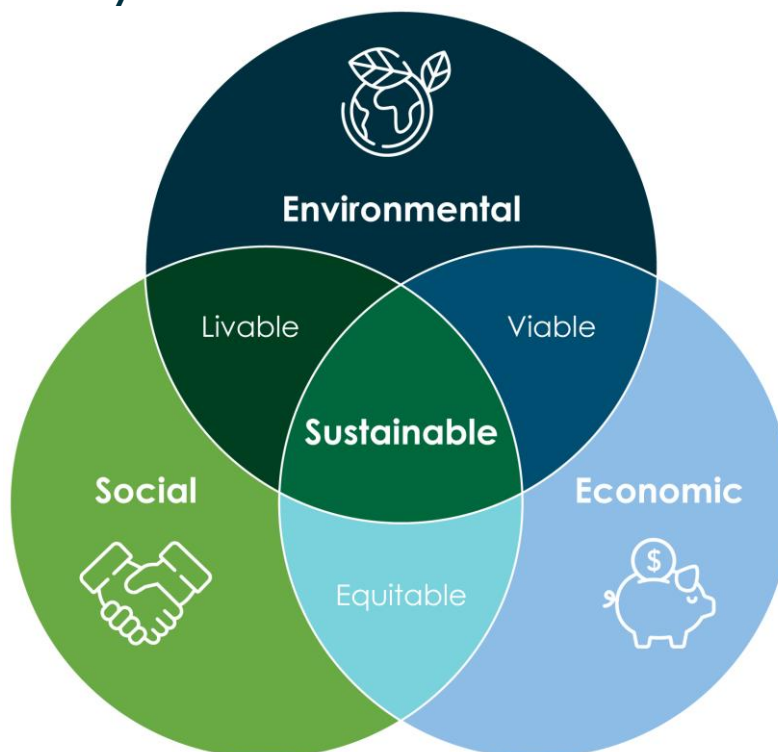
For example, the City created a Sustainability Overview reference page on the City website that includes information related to: transportation, energy use, climate action news, energy upgrade, composting, Living Green Gardens, hazardous waste, stormwater, waste and recycling, and water conservation. Pittsburg also completed a GHG inventory for 2005 and 2016 to track and understand the City's GHG emissions profile and sources. Additionally, the City has adopted a handful of documents, including Pittsburg Moves,² the City's Active Transportation Plan, which focuses on infrastructure and availability for active transportation options in hopes of improving health, mobility, livability, the economy, and the environment. Pittsburg Moves includes over 257 projects, such as roadway and trail improvements, including paving or repaving; installing trail crossing signals, high visibility cross walk markings, new signage, and creating high-visibility crosswalks; providing pedestrian refuge; and adding Class I and II bike lanes on various roadways throughout the City. This Sustainability Plan further demonstrates that Pittsburg is committed to reducing GHG emissions and continuing to improve life in the City.

2. <https://www.ipcc.ch/report/ar6/wg2/>

Purpose

The Sustainability Plan is a long-range document that guides the City towards sustainability and GHG emission reduction goals. It includes the inventory of emissions sources in Pittsburg for 2005 and 2016, forecasts future GHG emissions through 2045, and establishes emissions reduction targets that align with goals set by California for both 2030 and 2045. The Sustainability Plan also includes emissions reduction goals and actions the City can implement to put the community on a path towards reducing GHG emissions with a focus on community health and our thriving economy. We recognize that the time to act is now – as a community, we can and should work together to establish a healthier future with safer homes and public spaces; more secure, high-paying jobs; and reliable access to clean resources. The structures and systems that shape our day-to-day activities can make a significant difference. According to the United Nations Intergovernmental Panel on Climate Change's (IPCC) recent report (2022), changes in lifestyle and behaviors have a significant role to play in mitigating climate change.

Figure 1. Sustainability Pillars



Source: <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/venn-diagram>

Specifically, actively commuting, avoiding flying when possible, shifting to plant-based diets, reducing food waste, and switching to electric vehicles and electric building heating systems are things that, with the right structures and systems in place, we can all do to reduce emissions and improve our own health, as well as the health of our communities. One of the main goals of Sustainability Plan is to bring awareness to sustainability and opportunities to reduce emissions in the community across all sectors and provide information about what we can each do today to make a difference and set our community on the path towards more significant GHG reductions. Collectively, through implementation of thoughtful actions, we can change the world by focusing locally on Pittsburg to establish a future that makes us proud.

Equity and Environmental Justice

A foundational objective of this plan is to enhance equity throughout the community while working towards long-term sustainability and GHG emission reduction goals. The City acknowledges that past policies and plans may have not equally distributed the benefits to specific communities

while leaving them out of the decision-making process. Equity means ensuring that the impacts, co-benefits, and opportunities associated with this plan's goals are fairly distributed amongst the community, that the potential burdens of implementing these goals are fairly distributed, and that all communities—specifically, those who have been historically left out of the conversation before—participate in the plan's decision-making process.

As such, equity can be thought of as the goal while environmental justice is the act of achieving and protecting that goal. As outlined in the Community Health and Environmental Justice Element, a foundational objective of this plan is to consider and respond to environmental justice issues

Environmental justice is defined in California law as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

Government Code Section 65040.12

Anchor Monument, City Hall



to confirm disadvantaged and vulnerable communities are engaged and represented in the decision-making process, to protect disadvantaged and vulnerable communities from environmental hazards, and to create a future where such communities have access to recreation, transportation, education, community amenities, healthy foods, and safe and decent housing.

Sustainability Planning Process

As mentioned above, the Sustainability Plan development process was built off the work done for the previous GHG emissions inventories and development of future GHG emissions forecasts and emissions reduction targets. As shown in Figure 2, after the targets were set, emissions reduction goals and supporting actions were designed based on the success of the work done previously in the City and current best practices. The goals and actions were refined based on City staff, interested party, and community feedback, to establish a robust plan of voluntary actions.

Once the goals and supporting actions were finalized, an implementation plan (Chapter 5, Implementation Plan) was established to track and monitor the City's progress towards the previously identified targets. As a final step, the Sustainability Plan will be adopted after public review. Successfully developing a long-range plan takes a team, including various interested parties, community members, decision-makers, City staff, and consultants, that work together collaboratively to design a plan that is representative of the needs and the desires of the community at large.

The development of this Sustainability Plan required just that – it was developed through an integrated partnership between City staff from all departments, including Community Development, Economic Development, Public Works, the City Manager's Office, and Environmental Services; interested parties; and community members. The main community-focused outreach and engagement events that were completed as part of the Sustainability Plan development process are outlined Table 1.

Figure 2. Sustainability Plan Process Flow Diagram



Table 1. Summary of Sustainability Plan Interested Party and Community Outreach and Engagement Events

Topic	Event	Date
Introduction to Sustainability Plan	Community Pop-Up Event	August 5, 2022
Input on Sustainability Plan	Community Input Survey	December 11, 2022 – January 31, 2023
Strategy and Action Review and Prioritization	Community Open House	January 25, 2023
Reducing Vehicle Miles Traveled and Increasing Zero-Emissions Vehicle and Equipment Use	Weekly Social Media Post Virtual Climate Café	March 7, 2023 March 9, 2023
Waste Diversion	Weekly Social Media Post Virtual Climate Café	March 14, 2023 March 16, 2023
Decarbonizing Electricity and Use and Storage of Local Renewable Energy	Weekly Social Media Post Virtual Climate Café	March 21, 2023 March 23, 2023
Water Conservation and Local Water Supply	Weekly Social Media Post Virtual Climate Café	March 28, 2023 March 30, 2023
Carbon Sequestration	Weekly Social Media Post Virtual Climate Café	April 4, 2023 April 6, 2023
City's Commitment to Climate Action	Weekly Social Media Post Virtual Climate Café	April 11, 2023 April 13, 2023
Reducing Reliance of Natural Resources	Weekly Social Media Post Virtual Climate Café	April 18, 2023 April 20, 2023
Creating High Road Jobs	Weekly Social Media Post Virtual Climate Café	April 25, 2023 April 27, 2023

Co-benefits of Greatest Interest to the Community:

- Improved air and water quality
- Increased personal and public health
- Protection of natural resources
- Increased resilience
- Cost savings
- Creation of high-road jobs

"Environmental justice must be central to this work as well. We have a lot of industrial businesses in the community. Thinking through a long-term plan for making a transition to cleaner businesses is going to be crucial. Providing jobs for youth is also very important!"
- City of Pittsburg Resident

Your Voice Matters!

As part of the Sustainability Plan development process, the City hosted 10 events that were open to the community members and advertised, in part, via the City's social media pages. Additionally, the City hosted a survey with the goal of gaining an understanding of the community's current awareness of climate change and preferred path toward increasing our ability to reduce the impacts of climate change and become more sustainable, while retaining the character of the City. The survey received 71 responses, 41% (31 people) of whom participated in a public planning process (e.g., participating in community surveys, providing feedback on plans and policies, attending City Council Meetings, etc.) for the first time! In addition to the survey, the City hosted a social media and Climate Café campaign, where the Sustainability Plan goals were presented by topic area and then a discussion was held to answer any questions and collect feedback from the community on anticipated hurdles and solutions to overcome those hurdles.

Based on the feedback received from the community, 13 new actions were added, and an additional 8 actions were revised or updated, with additional highlights shown in Figure 3. The community insight is incredibly valuable for this process as it confirms that the Sustainability Plan aligns with the specific needs and aspirations of the people it aims to serve.

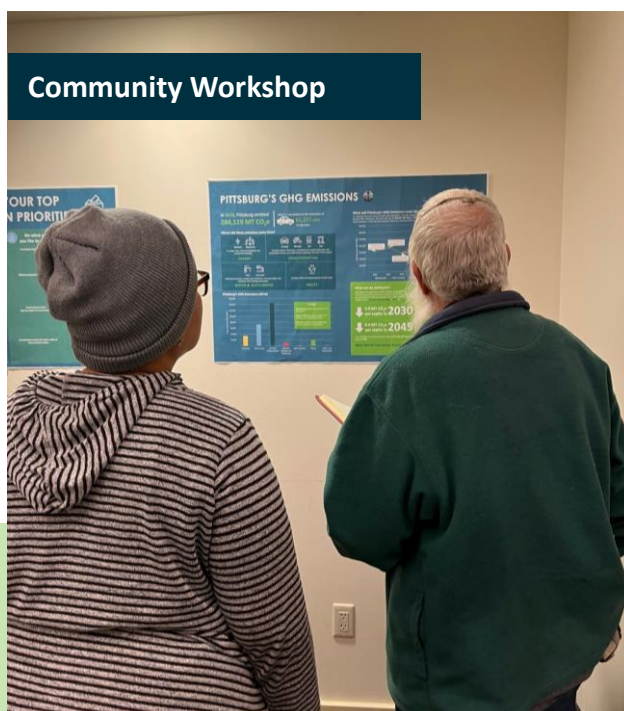


Figure 3. Outreach by the Numbers



Greenhouse Gas Emissions Background Context

Most of the energy that affects Earth's climate comes from the sun. When solar radiation reaches the Earth's atmosphere, some of it is reflected into space and a small portion is absorbed by Earth's surface. As Earth absorbs the solar radiation, its surface gains heat and then reradiates it back into the atmosphere. Some of this heat gets trapped by gases in the atmosphere, causing Earth to stay warm enough to sustain life. This is known as the "greenhouse effect" and the gases trapping the heat are known as "greenhouse gases."³ The greenhouse effect, shown on the next page, is integral to sustaining life on Earth. However, human activities emit GHGs more than natural ambient concentrations, thereby contributing to the enhancement of the natural greenhouse effect. This enhanced greenhouse effect contributes to global warming, an accelerated rate of warming of Earth's average surface temperature. More specifically, by burning fossil fuels (e.g., gasoline, diesel, natural gas, coal) to power homes, businesses, and automobiles, we increase the amount of GHGs emitted into the atmosphere,⁴ which, in turn, leads to increased absorption of infrared radiation by the Earth's atmosphere and increasing temperatures near the surface.

Types of GHGs

The United Nations Intergovernmental Panel on Climate Change's (IPCC) list of GHG emissions include carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), as well as chlorofluorocarbons, hydrochlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, which are collectively called fluorinated gases.⁵ Fluorinated gases are man-made gases that can stay in the atmosphere for centuries and contribute to the GHG effect. Ninety-seven percent⁶ of the annual GHG emissions generated in the United States consist

of CO₂, CH₄, and N₂O, while fluorinated gases⁷ result in the remaining three percent of emissions. Most fluorinated gases come from industrial sources. Due to CO₂, CH₄, and N₂O comprising the large majority of GHG emissions in Pittsburgh, the Sustainability Plan focuses on these three gases for its GHG emissions inventory, forecast, and reduction strategy (See Chapter 2, *GHG Emissions Inventories, Forecasts, and Targets*, for more information).

While Pittsburgh does include various industrial sources, these emissions are not under direct operational control of the City and therefore are not included in the inventory.

Each type of GHG has a differing ability to trap heat in the Earth's atmosphere, referred to as the gas's global warming potential (GWP).⁸ The reference point to compare the potential impact of different GHGs is CO₂, and therefore CO₂ has a GWP of 1, whereas CH₄ has a GWP of 28. This means that each metric ton (MT) of methane causes 28 times more warming than 1 MT of CO₂. Even more potent, N₂O has a GWP of 265, or 265 times the GWP of 1 MT of CO₂.⁹

Sources of GHG Emissions

Anthropogenic (human caused) GHG emissions stem primarily from the burning of fossil fuels (including gasoline, natural gas, and coal), decomposition of organic waste in landfills, methane emissions from agriculture, and deforestation. These activities release GHGs into the atmosphere and contribute to climate change. With the accelerated increase in fossil fuel combustion and deforestation since the Industrial Revolution of the 19th century, concentrations of GHG emissions in the atmosphere have increased exponentially. The United States Environmental Protection Agency (U.S. EPA) tracks the country-wide emissions and publishes an annual report: Inventory of U.S. Greenhouse Gas Emissions and Sinks.¹⁰ The Inventory of U.S. Greenhouse Gas

3. <https://scied.ucar.edu/longcontent/greenhouse-effect>

4. <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

5. <https://www.c2es.org/content/main-greenhouse-gases/>

6. <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

7. Fluorinated gases, which include four main types: hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride, are man-made gases that can stay in the atmosphere for centuries and contribute to the GHG effect.

8. <https://www.ipcc.ch/assessment-report/ar5/>

9. <https://www.ipcc.ch/assessment-report/ar5/>

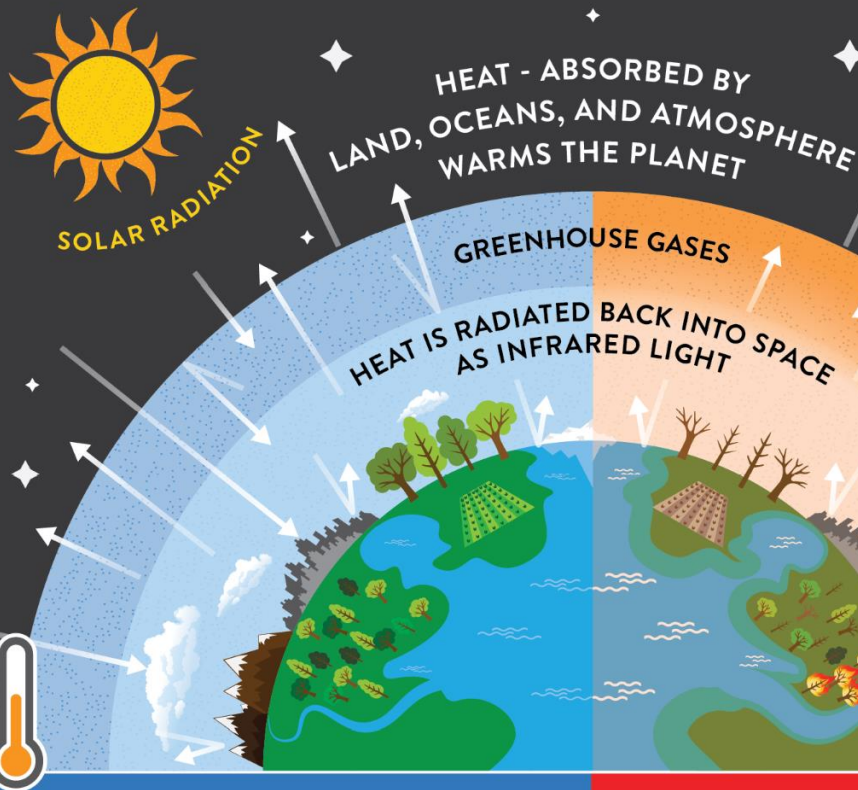
10. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

Greenhouse Gas Effect

In the last century, human activities such as burning fossil fuels and deforestation have caused a jump in the concentration of greenhouse gases in the atmosphere.

THE RESULT: Extra trapped heat and higher global temperatures.

WITH NORMAL GREENHOUSE GASES



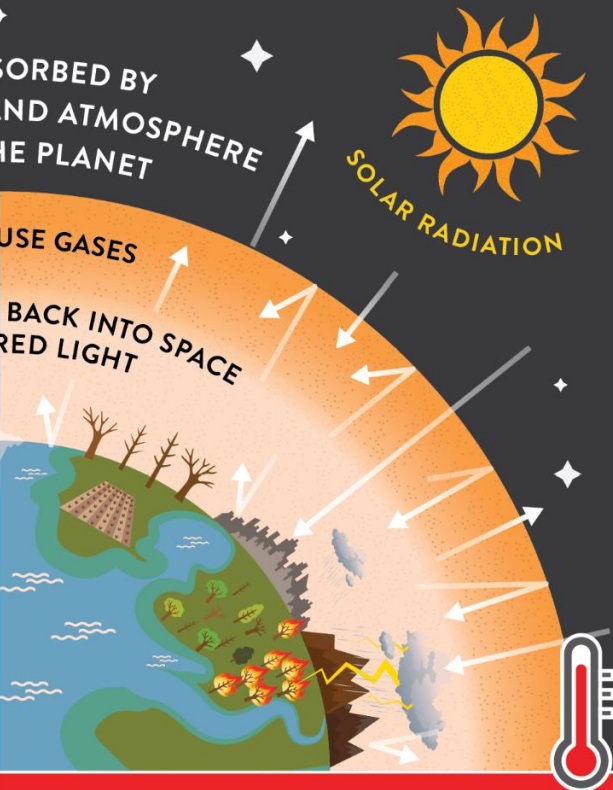
Some heat continues into space while the rest, trapped by greenhouse gases, help maintain the planet's relatively comfortable temperatures.

LESS GAS =
LESS HEAT TRAPPED IN THE ATMOSPHERE

Retaining more reliable:

- Weather
- Temperature
- Rainfall
- Sea Level

WITH INCREASED GREENHOUSE GASES



Increased greenhouse gases means less heat escapes to space. Between preindustrial times and now, the earth's average temperature has risen by 1.8°F (1.0°C).

MORE GAS =
MORE HEAT TRAPPED IN THE ATMOSPHERE

More intense:

- Storms
- Heat
- Drought
- Sea Level Rise



Great Blue Heron in Riverview Park

Emissions and Sinks is a comprehensive account of total GHG emissions for all man-made sources in the U.S. including CO₂ removal from the atmosphere by “sinks,” (e.g., through the uptake of carbon and storage in forests, vegetation, and soils) from management of lands in their current use, or as lands are converted to other uses. In 2021, the most recent year in which emissions have been calculated, emissions in the U.S. totaled 5,586 million metric tons (MMT) of CO₂e after accounting for sequestration.¹¹ Emissions increased in 2021 by 6 percent (after accounting for sequestration from the land sector), driven largely by an increase in CO₂ emissions from fossil fuel combustion due primarily to economic activity rebounding after the height of the COVID-19 pandemic.¹²

Legislative Background

California is recognized globally as a leader in climate change, having established a variety of ambitious GHG reduction goals and associated strategies. The primary legislation that has driven

11. <https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks>

12. <https://www.nature.com/articles/s41558-022-01332-6>

What does 1 MT of CO₂e really mean?

1 MT CO₂e = 2,564 miles driven by an average gasoline-powered passenger vehicle or 113 gallons of gasoline

*That's about the distance from
Pittsburg, CA to Pittsburgh, PA!*

Source: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results>

statewide GHG emissions reductions are Executive Order (EO) S-3-05, Assembly Bill (AB) 32, EO B-30-15, Senate Bill (SB) 32, EO B-55-18, and most recently AB 1279. Signed in 2005, EO S-3-05 established statewide GHG emission reduction targets to achieve long-term climate stabilization as follows: *by 2020, reduce GHG emissions to 1990 levels and by 2050, reduce GHG emissions to 80 percent below 1990 levels.* In 2018, the goals of EO S-3-05 were accelerated by EO B-55-18, which established a goal of achieving carbon neutrality by 2045 and was codified in 2022 by AB 1279. Carbon neutrality refers to emitting net zero carbon emissions, which can be achieved by either

eliminating all GHG emissions, or balancing carbon emissions with carbon removal and sequestration.

To meet the state’s 2045 goal of carbon neutrality CARB recommends that local agencies long-term targets align with AB 1279. Specifically, CARB guidance is for jurisdictions to first strive to exceed the SB 32 targets of reducing GHG emissions 40% below 1990 levels, while establishing a policy framework to achieve the long-term target of carbon neutrality by 2045. See Figure 4 as well as Appendix A for more information on the most influential California legislation related to climate change.

Adaptation, Resilience, and Vulnerability

As we work to mitigate the greatest impacts of climate change, we must also adapt, or adjust, to our changing world both collectively and independently. Even with deep reductions in GHG emissions, it is anticipated that the global temperatures will continue to rise because GHG persist for so long in the atmosphere.¹³ Therefore, it is necessary to prepare for the future to increase our adaptive capacity, which is the potential or ability of a system, region, or community to adapt to the effects or impacts of climate change.

Adaptation

Adapting to climate change involves adjusting to and preparing for actual or expected future climate risks as well as taking advantage of any opportunities that are associated with our changing climate.¹⁴ Climate change affects people across the world, however, not equally. Over the last decade, scientists have measured the warmest years on record, while sea level rise has reached a new high.¹⁵ We will adapt to the changing climate by reducing our vulnerability to its impacts, which may require relocating resources to avoid rising sea levels and using new and innovative technologies to overcome challenges.

13. <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>

14. <https://climate.nasa.gov/solutions/adaptation-mitigation/>

15. <https://public.wmo.int/en/media/press-release/eight-warmest-years-record-witness-upsurge-climate-change-impacts>

Figure 4. CA Regulatory Timeline

2002	SB 1078 Renewable Portfolio Standards AB 1493 Vehicular GHG Emissions
2005	EO S-3-05 Targets for GHG Emission Reductions Pittsburg Baseline Emissions Inventory
2006	AB 32 Global Warming Solutions Act SB 107 Renewable Energy Increase
2007	EO S-1-07 Low Carbon Fuel Standard SB 97 Climate Change in CEQA
2008	SB 375 Sustainable Communities EO S-14-08 Increase RPS
2009	CALGreen Green Building Code SB X7-7 Water Conservation Act
2011	SB 2X 33% by 2020 RPS Increase
2012	AB 341 Mandatory Commercial Recycling
2014	AB 32 Scoping Plan Update AB 1826 Organic Waste Recycling
2015	SB 350 Clean Energy and Pollution Reduction Act EO-30-15 40% below 1990 by 2030
2016	SB 1383: Short-lived Climate Pollutants SB 379 Climate Adaptation and Resilience Updated Emissions Inventory
2017	2017 (AB 32) Scoping Plan Update
2018	SB 100 Increase RPS EO B-55-18 Carbon Neutrality by 2045
2020	SB N-79-20 Zero-emissions passenger vehicles Pittsburg Moves
2021	SB 27 Carbon sequestration
2022	SB 379 Residential solar energy systems: permitting SB 1063 appliance standards and cost-effective measures AB 1909 Vehicles: bicycle omnibus bill AB 1857 Solid Waste Incineration AB 1985 Organic waste procurement targets AB 1279 California Climate Crisis Act SB 1020 Increase RPS
2023	Pittsburg Sustainability Plan Envision Pittsburg – General Plan

*Pittsburg Initiatives
State Initiatives*

Resilience

The ability to prepare for, recover from, and adapt to climate impacts is called “climate resilience.” High-quality resilience planning accounts for both acute events (e.g., heat waves, heavy rain events, and wildfire) and chronic events (e.g., sea level rise, worsening air quality, and climate migration). Overall, California is resilient and Cities throughout the state, including Pittsburg, take steps to enhance resilience by protecting and repairing coastlines, exploring and implementing large scale renewable energy projects, and investing in green technologies of the future. Additional ways to increase resilience include promoting sustainable land management practices, fostering community engagement and education on climate change, encouraging the use of green building materials and designs, and integrating nature-based solutions such as reforestation and ecosystem restoration.

Vulnerability

Vulnerability refers to the level or degree to which an individual or entity are able to cope with the adverse impacts of climate change. The three dimensions that make up climate vulnerability are exposure, sensitivity, and adaptive capacity.

Located at the point where the Sacramento and San Joaquin Rivers meet, Pittsburg is a city of both progress and promise.¹⁶

Our Changing World

The California Office of Environmental Health Hazard Assessment (OEHHA) reported in 2018 that despite annual variations in weather patterns, California has seen a trend of increased average temperatures, more extreme heat days, higher acidity in the Pacific Ocean, and earlier and reduced snowmelt.¹⁷ Although we will all be

impacted, community members will not be affected by environmental hazards in the same way. Impact is dependent on various circumstances, such as age, health, and socioeconomic status. Being resilient will require the City to adapt to these vulnerabilities and continue to operate in a sustainable way to continue establishing a healthy environment and a thriving economy.

Those that are most vulnerable will bear the greatest burden associated with the potential impacts of our changing climate. Race, ethnicity, gender identity, sexual orientation, age, social class, physical ability, religious or ethical value systems, national origin, immigration status, linguistic ability, and zip code do not make an individual inherently vulnerable. Vulnerabilities arise from systemic deficiencies rather than a judgement of any community member or neighborhood. This document provides a foundation to even the playing field and to ultimately reduce potential burdens of climate change, especially on vulnerable populations and disadvantaged communities.

Climate Change in Pittsburg

The City of Pittsburg may experience a variety of impacts due to climate change, including an increase in average temperature and changes in precipitation. Public health may be negatively impacted by extreme weather events, such as changes in temperature and rainfall that decrease water supply, worsen air quality, and/or increase allergens and air pollutants. In addition, we will experience increased flooding due to more intense precipitation events. Children, the elderly, asthmatics, and others susceptible to harm from air pollution exposure, are at the greatest risk of the negative impacts associated with climate change.¹⁸ Increases in temperature could also worsen local heat island effects in Pittsburg and the surrounding area, meaning that urban areas could experience a compounded level of heating due to built environments absorbing and re-emitting more heat than rural communities with more natural landscapes.¹⁹

16. <https://www.pittsburgca.gov/our-city/our-history>

17. <https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf>

18. <https://ww2.arb.ca.gov/capp-resource-center/community-assessment/sensitive-receptor-assessment>

19. <https://www.epa.gov/heatislands/learn-about-heat-islands>

This could lead to hazardous conditions such as heat stroke and respiratory ailments for community members. Potential impacts to public health include premature death from heat stroke, cardiovascular disease, respiratory disease, and cerebrovascular disease; cardiovascular stress; and kidney and respiratory disorders.²⁰ Those in the community without health insurance (about 12.6 percent of the population under 65) and those living under the poverty line (approximately 10.3 percent of the population) are particularly vulnerable.²¹ Projections of future vulnerabilities were taken from Cal-Adapt,²² an interactive platform that allows users to explore how climate change might affect California at the local level under different emissions scenarios and climate models. The main emissions scenario used in this analysis is Representative Concentration Pathway (RCP) 8.5, or known as the high emissions

20. https://www.niehs.nih.gov/research/programs/climatechange/health_impacts/heat/index.cfm

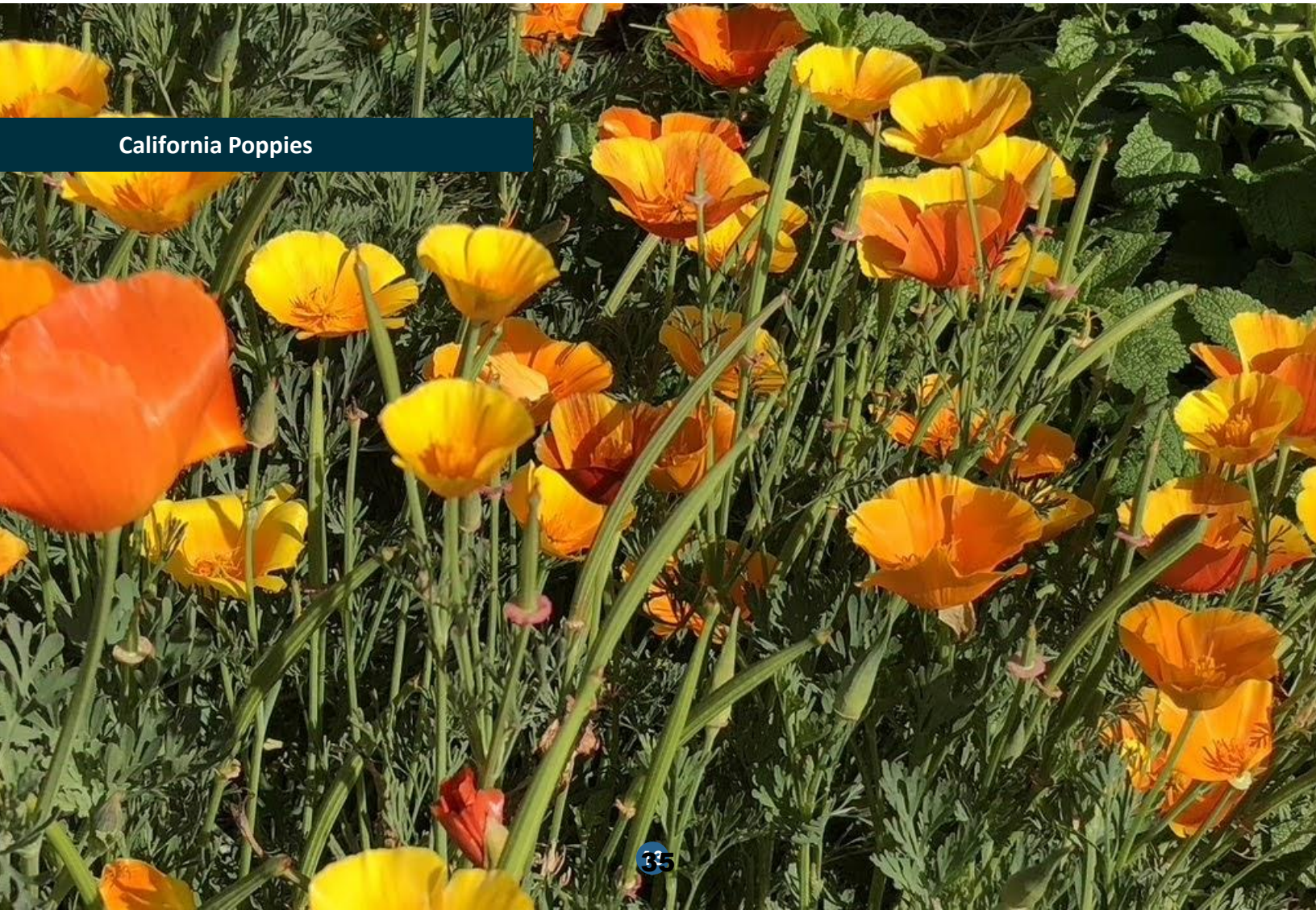
21. <https://www.census.gov/quickfacts/fact/table/pittsburgcitycalifornia/AGE775221#AGE775221>

22. <https://cal-adapt.org/>

scenario, which assumes high population, slow technological progress, and no policy driven mitigation. For an extensive view of potential impacts, RCP 4.5 is also used below. This scenario, known as the stabilizing scenario, assumes emissions peak around 2040 before declining due to the use of emissions reduction technologies and strategies.

Based on the analysis, average maximum temperatures in the City of Pittsburg are expected to rise between 4.7°F (under RCP 4.5, the stabilizing scenario) and 7.8°F (under RCP 8.5, the high emissions scenario) between the baseline (1961 – 1990) and the end of the century (2070 – 2099). Likewise, the average minimum temperature in Pittsburg will increase under both scenarios, with minimum temperatures expected to rise by 4.2°F (under RCP 4.5) and 7.3°F (under RCP 8.5) between the baseline (1961 – 1990) and the end of the century (2070 – 2099). In Pittsburg, extreme heat days are defined as days with temperatures over 100.2°F. By the end of the century, it is anticipated that there will be 19 extreme heat days under RCP 4.5 and 34 extreme heat days under RCP 8.5, up from approximately 4 days

California Poppies

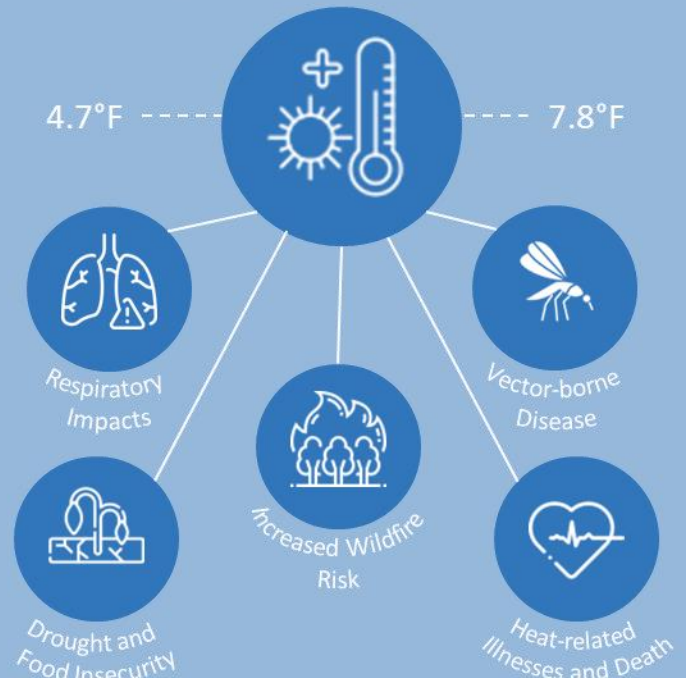


over the 30-year modeled average for 1961 – 1990. Simultaneously, it is anticipated that the maximum length of dry spell, which is defined as the number of consecutive days with less than 1 millimeter of rain, will also increase. Under RCP 4.5, it is anticipated that the maximum length of dry spell will increase by 10 days, from 117 days to 127 days, and under RCP 8.5, it is anticipated to increase by 15 days, to 132. Figure 5 provides a comparison of the anticipated changes in Pittsburg under both scenarios, with more information provided in Appendix B, CalAdapt.

Despite the very real impacts of climate change, there is hope. Hope that is based in science and provides a realistic path forward for us to truly change the world in which we live, work, and play. The Sustainability Plan includes actions in which every part of the community – residents, property owners, businesses, and City government – can participate to improve quality of life. The City of Pittsburg will strive to set an example by doing its part to achieve sustainable goals and fostering a safe, healthy, vibrant, and resilient community. We're excited to work together to build a more sustainable and resilient future!

Figure 4. Climate Changes and Risks in Pittsburg

Pittsburg anticipated average maximum temperature increase by 2100



Recycled Water Irrigation Signage

2. GHG Emissions Inventories, Forecasts, & Targets

Existing GHG Emissions

A GHG emissions inventory identifies the major sources and quantities of GHG emissions produced by community wide activities within a jurisdiction's boundaries for a given year, including the subset of emissions generated by City government (municipal) operations, each of which are summarized in more detail below. Estimating GHG emissions enables local governments to establish an emissions baseline, track emissions trends, identify the greatest sources of GHG emissions within their jurisdiction, and set targets for future reductions.

The Sustainability Plan builds off the 2005 baseline and updated 2016 inventory of GHG emissions from community wide and municipal activities within the City. The 2016 GHG emissions inventory was completed to provide an updated emissions inventory and help measure the GHG emissions reduction progress since 2005. Additionally, the 2005 baseline emissions inventory was updated at the time that the 2016 inventory was drafted to establish a consistent comparison of the City of Pittsburgh's change in emissions over time. Both the 2005 and 2016 inventories include GHG emissions from the community, as well as municipal emissions that are generated by City buildings and operations. It is important to note that the municipal operations inventory is a portion of the community inventory, meaning that the municipal emissions are included within the community-wide inventory, and are completed to demonstrate City leadership.

Both inventories are divided into four sectors, or sources of emissions: energy (electricity and natural gas), transportation, solid waste, and water (consumption and wastewater treatment). Emissions estimates were calculated using the International Council for Local Environmental Initiatives (ICLEI) methodologies, specifically, the United States Community Protocol for Accounting and Reporting Greenhouse Gas Emissions Version 1.2 (Community Protocol) is used for community-wide emissions and the Local Government Operations Protocol Version 1.1 (LGOP) was used to quantify municipal emissions. To allow for comparison among GHG emissions sources, all emissions are translated to the equivalent of one

metric ton of carbon dioxide, or MT CO₂e. One MT CO₂e is the equivalent of using 113 gallons of gasoline or driving 2,564 miles in an average gasoline-powered vehicle.²³

2016 Community Emissions

In 2016, Pittsburgh emitted approximately 284,129 MT CO₂e. As shown in Table 2 and Figure 6, the transportation sector was the largest source of emissions, generating approximately 155,918 MT CO₂e, or approximately 55 percent of total 2016 emissions. Electricity and natural gas consumption within the residential and commercial sectors was the second largest source of emissions, generating 105,037 MT CO₂e, or 37 percent of the total in 2016. Waste generation, including processing and the decomposition of waste, resulted in seven percent of the City's emissions (20,269 MT CO₂e), while water use and wastewater generation resulted in the remaining approximately one percent of total emissions in 2016, which equates to 2,906 MT CO₂e.

Changes Since 2005

Overall, GHG emissions have decreased by approximately 79,770 MT CO₂e or 22 percent between 2005 and 2016. This decrease was driven primarily by a 58 percent reduction in emissions generated by electricity due to an increase in renewable energy causing a significant decrease in the emission factor for electricity. Emissions from residential natural gas use also decreased, whereas commercial natural gas use slightly increased during the same timeframe. Together, these changes equated to a 30 percent reduction in building energy emissions over the decade. Likewise, total transportation emissions decreased by 25 percent, however, emissions from off-road vehicles and equipment increased by approximately seven percent between 2005 and 2016. Waste emissions stayed relatively constant between the two years, and emissions from water were reduced by over 50 percent. See Table 3 for details on the change in GHG emissions from 2005 to 2016. For additional details on the 2005 inventory sectors and results, see Appendix C.

23. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator?unit=gasoline&amount=2445>

Table 2. Community Greenhouse Gas Emissions Inventory (2016)

Sector and Primary Sources	2016 Emissions (MT of CO ₂ e)	% of 2016 Emissions
Energy	105,037	37
Electricity use in residential and non-residential buildings	30,442	11
Natural gas use in residential and non-residential buildings	71,959	25
Electricity transmission and distribution losses	2,636	1
Transportation	155,918	55
On-road transportation	145,013	51
Off-Road Vehicles and Equipment	9,928	3
BART passenger rail	163	<1
Port transport and goods movement	815	<1
Waste	20,269	7
Decomposition of solid waste sent to landfills	20,269	7
Water and Wastewater	2,906	1
Electricity used to treat, transport, and pump water	1,917	1
Wastewater collection and treatment	989	<1
Total	284,129	100.0 %

Notes: MT CO₂e = Metric tons of carbon dioxide equivalent.

Emissions have been rounded to the nearest whole number and therefore sums may not match.

Figure 6. Community Greenhouse Gas Emissions Inventory (2016)

On-road transportation

145,012.71

Natural Gas

71,958.53

Electricity

33,077.78

Waste

20,269.02

Off-Road Vehicles and Equipment

9,927.8

Water and Wastewater

2,905.92

BART and Port

977.49

Table 3. Change in Greenhouse Gas Emissions Between 2005 and 2016

Sector and Primary Sources	2005	2016	Change	Percent Change (%)
Energy (MT of CO₂e)	150,110	105,037	-45,074	-30%
Electricity use in residential and non-residential buildings (MT of CO ₂ e)	72,249	30,442	-41,808	-58%
Natural gas use in residential and non-residential buildings (MT of CO ₂ e)	73,960	71,959	-2,001	-3%
Electricity transmission and distribution losses (MT of CO ₂ e)	3,901	2,636	-1,265	-32%
Transportation (MT of CO₂e)	187,784	155,918	-31,866	-17%
On-road transportation (MT of CO ₂ e)	175,229	145,013	-30,217	-17%
Off-Road Vehicles and Equipment (MT of CO ₂ e)	9,248	9,928	679	7%
BART passenger rail (MT of CO ₂ e)	1,170	163	-1,007	-86%
Port transport and goods movement (MT of CO ₂ e)	2,136	815	-1,322	-62%
Waste (MT of CO₂e)	20,101	20,269	168	1%
Decomposition of solid waste sent to landfills (MT of CO ₂ e)	20,101	20,269	168	1%
Water and Wastewater (MT of CO₂e)	5,903	2,906	-2,997	-51%
Electricity used to treat, transport, and pump water (MT of CO ₂ e)	4,708	1,917	-2,791	-59%
Wastewater collection and treatment (MT of CO ₂ e)	1,195	989	-206	-17%
Community-wide Total Emissions (MT of CO₂e)	363,899	284,129	-79,770	-22%
Population	61,120	69,805	8,685	14%
Community-wide Total Emissions per Capita (MT of CO₂e/person)¹	5.95	4.07	-1.88	-32%

Notes: MT CO₂e = Metric tons of carbon dioxide equivalent.

Emissions have been rounded to the nearest whole number and therefore sums may not match.

1. The inventories are translated to per capita emissions by dividing mass emissions by population for each year.

The decrease in Pittsburgh's GHG emission can also be evaluated on a per capita basis to capture the population and economic growth experienced in the period between the two GHG inventories. Even though Pittsburgh's service population increased by 14 percent between 2005 and 2016, overall GHG emissions decreased by 22 percent. This equates to a reduction in per capita GHG emissions by 32 percent over the eleven-year period, as shown at the bottom of Table 3.

While the overall GHG emission reductions set us on the right path towards our 2030 GHG reduction target, more work is needed to allow Pittsburgh to

continue reductions. As demonstrated in Table 5, GHG emissions per capita will continue to decrease through 2045. However, this decrease will occur at a much slower rate than seen between 2005 and 2016. Historically, Pittsburgh experienced emission reductions from renewable energy and efficiency gains. These reductions were enough to overcome population and economic growth. In the future, emission reductions from state regulations that can be quantified today will not overcome the projected growth in Pittsburgh's population and economy. This means overall GHG emissions will increase through 2045 without local action.

Municipal Emissions

In 2016, the City of Pittsburgh's GHG emissions associated with municipal operations totaled 4,837 MT CO₂e. As shown in Table 4 and Figure 7, emissions from the City's energy use were the largest sector (2,671 MT CO₂e, or 55 percent). The second largest source of emissions (1,729 MT CO₂e, or 36 percent) was from the vehicle and

transit fleet, as well as employee commute to municipal facilities. The remaining emissions were generated using water and generating wastewater by municipal staff at City-owned facilities, which generated 44 and 393 MT CO₂e, respectively, resulting in a total of nine percent of the annual emissions. For additional details on the sectors included in the 2016 municipal GHG inventory, see Appendix D.

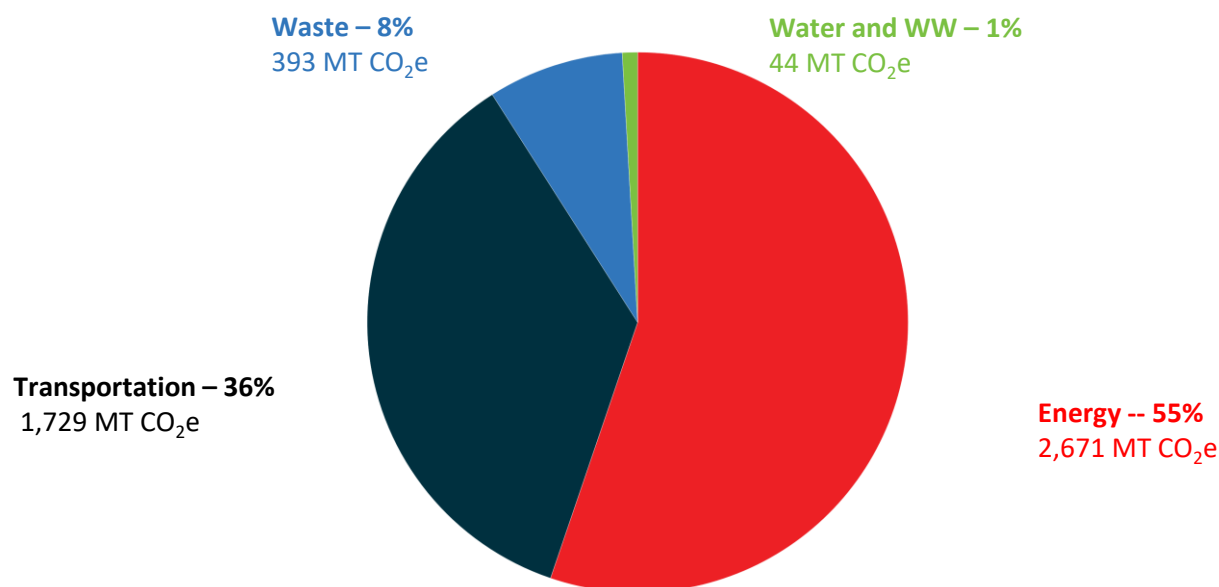
Table 4. Municipal Greenhouse Gas Emissions Inventory (2016)

Sector and Primary Sources	2016 Emissions (MT of CO ₂ e)	% of 2016 Emissions
Energy	2,671	55%
Electricity	2,347	48%
Natural gas	325	7%
Transportation	1,729	36%
Employee commute	339	7%
Vehicle and Transit Fleet	1,390	29%
Waste	393	8%
Methane generated from decomposition of solid waste sent to landfills	393	8%
Water	44	1%
Electricity used to treat, transport, and pump water and wastewater to City facilities	44	1%
Total	4,837	100%

Notes: MT CO₂e = Metric tons of carbon dioxide equivalent.

Emissions have been rounded to the nearest whole number and therefore sums may not match.

Figure 7. Municipal Greenhouse Gas Emissions Inventory (2016)



GHG Emissions Forecast

Emissions forecasts provide an estimate of future GHG emissions. The future GHG emissions levels are projected using the 2016 inventory based on a continuation of current activities and projected change in the community over time. The forecast accounts for current and future legislative actions from the state government and is used to help identify actions that must be taken now to meet future GHG reduction targets. This Sustainability Plan identifies GHG emissions reduction targets for the years 2030 (i.e., SB 32 target year) and 2045 (i.e., AB 1279 target year).

Business-as-Usual

A business-as-usual (BAU) forecast assumes that no additional efforts or legislative actions will be made to reduce GHG emissions in the future. The BAU forecast projects changes in population, housing, employment, and transportation activity over time, as detailed in the City’s General Plan. The BAU forecast does not account for GHG emissions reductions associated with local GHG reduction strategy implementation or additional legislative actions. The BAU forecast projects how GHG emissions would change in the years 2030, 2035, 2040, and 2045. As shown in Table 5 below, Pittsburg’s business-as-usual GHG emissions are projected to increase to 423,267 MT CO₂e in 2030, 481,579 MT CO₂e in 2035, 539,891 MT CO₂e in 2040, and 604,997 MT CO₂e in 2045. Appendix E provides additional details on the projected changes in Pittsburg’s population, housing, and employment and the BAU forecasted GHG emissions.

Adjusted Forecast

An adjusted forecast accounts for state regulations that require the reduction of future GHG emissions within the state. Several state regulations (e.g., SB 100, 2019 Title 24 Energy Efficiency Standards, Advanced Clean Truck Rule) have been enacted that will reduce future GHG emissions.

These regulations have been incorporated into an adjusted forecast, which provides a more accurate picture of future emissions growth and the emission reduction the City and community will be responsible for after state regulations have been implemented. As shown in Table 5, Pittsburg’s adjusted GHG emissions are projected to increase to 329,938 MT CO₂e in 2030, 345,821 MT CO₂e in 2035, 360,264 MT CO₂e in 2040, and 379,140 MT CO₂e in 2045. Additional details on the GHG adjusted forecast and the state regulations included are provided in Appendix B.

GHG Emissions Targets

GHG reduction targets are used for sustainability and climate action planning to establish measurable metrics intended to guide the community’s commitment to begin reducing GHG emissions and help gauge progress on reducing emissions over time. After analyzing the City’s 2016 inventory and forecast scenarios, emission targets were set to create quantitative goals that will further the City’s ability to measure emission reduction progress from the forecasted scenarios.

Table 5. Pittsburg Business-as-Usual and Adjusted GHG Forecast

Emissions Forecast	2030	2035	2040	2045
Business as Usual Forecast (MT CO ₂ e)	423,267	481,579	539,891	604,997
Emission Reductions from State Initiatives (MT CO ₂ e)	116,506	135,758	190,401	225,857
Adjusted Forecast (MT CO₂e)	329,938	345,821	360,264	379,140
Population	85,934	90,780	95,626	101,312
Per Capita Adjusted Forecast (MT CO₂e/person)¹	3.84	3.81	3.77	3.74

Notes: MT CO₂e = Metric tons of carbon dioxide equivalent.
Emissions have been rounded to the nearest whole number and therefore sums may not match.

1. The adjusted forecast is translated to per capita emissions by dividing mass emissions by population for each year.

In accordance with state guidance, Pittsburg has chosen to set efficiency, or per capita, GHG emission reduction targets (i.e., MT CO₂e per capita) as part of this Sustainability Plan.²⁴ These types of targets will guide the City towards the state's emission reduction goals while accounting for the City's expected population growth. Table 6 below shows what Pittsburg's GHG emission reduction targets would be if aligned with the state's 2030 goal (i.e., reducing 1990 per capita GHG emissions 40 percent by 2030)²⁵ prior to reaching the state's long-term goal of carbon neutrality by 2045. However, this target pathway allows Pittsburg's mass emissions, defined as the total emissions generated in the City, to increase above 2016 emission levels before 2030 (shown in the bottom row of Table 6), making future progress towards carbon neutrality more difficult. To account for the City's expected population growth while remaining in line with the reduction path to achieve the state's long-term 2045 goal, Pittsburg has decided to choose a more proactive 2030 GHG emission reduction target based on mass or total Citywide emissions, as shown in Table 7. As such, the following GHG reduction targets have been established by the City of Pittsburg:

- Reduce GHG emissions to 3.0 MT CO₂e per capita by 2030 (the SB 32 target year)
- Reduce GHG emissions to 0.0 MT CO₂e per capita by 2045 (the AB 1279 target year)

Table 7 and Figure 8 on the following page show Pittsburg's established emission reduction targets, the targets translated to a mass emissions pathway, and the emissions remaining each year. The emissions remaining represent the emissions between Pittsburg's adjusted forecast and the established GHG emission reduction targets—these are the emissions after state regulations that Pittsburg would need to reduce through local action to meet their targets. Pittsburg would be required to reduce 72,136 MT CO₂e by 2030, 164,261 MT CO₂e by 2035, 264,638 MT CO₂e by 2040, and 379,140 MT CO₂e by 2045 to meet their targets. The goals and actions developed by City staff and the community in the following section (Section 3, *Emissions Reductions Strategies*) will help the City begin making progress towards reducing these remaining emissions gaps and meeting their future GHG reduction targets. See Appendix E for more information on the GHG emission reduction targets and the target setting process.

24. <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>

25. Per the General Plan Guidelines from the Governor's Office of Planning and Research, 1990 emissions were estimated under the assumption that 2005 emission levels were 15% higher than 1990 levels. https://opr.ca.gov/docs/OPR_C8_final.pdf.

Table 6. SB 32 Per Capita GHG Emissions Target Pathway Scenario

Emissions Forecast or Pathway	2030 (MT CO ₂ e)	2035 (MT CO ₂ e)	2040 (MT CO ₂ e)	2045 (MT CO ₂ e)
Adjusted Forecast (MT CO ₂ e)	329,938	345,821	360,264	379,140
Population	85,934	90,780	95,626	101,312
Per Capita Adjusted Forecast (MT CO ₂ e/person) ¹	3.84	3.81	3.77	3.74
SB 32 Per Capita Target Pathway (MT CO ₂ e/person) ²	3.90	2.60	1.30	0
SB 32 Per Capita Target Pathway Translated to Mass Emissions (MT CO ₂ e) ³	335,303	236,141	124,373	0
Remaining Emissions Gap (MT CO₂e)⁴	-5,365	109,680	235,890	379,140

Notes: MT CO₂e = Metric tons of carbon dioxide equivalent

Emissions have been rounded to the nearest whole number and therefore sums may not match.

1. The adjusted forecast is translated to per capita emissions by dividing mass emissions by population for each year.
2. The target pathway is calculated by reducing 1990 per capita emissions (i.e., 6.5 MT CO₂e/person) by 40% in 2030 and to zero in 2045. This provisional target pathway is consistent with both SB 32 and a trajectory set forth to achieve AB 1279.
3. The target pathways are translated to mass emissions by multiplying the per capita emissions target by the City's estimated population in the respective year. Actual mass emission targets will depend on the City's actual population in the future years.
4. The remaining emissions gaps are calculated by subtracting the mass emission targets from the adjusted forecast for each year.
5. The target pathway is calculated by reducing per capita emissions to 3.00 MT CO₂e/person in 2030 and zero in 2045.

Table 7. Pittsburgh GHG Reduction Target Pathway and Remaining Emissions Gap

Emissions Forecast or Pathway	2030 (MT CO ₂ e)	2035 (MT CO ₂ e)	2040 (MT CO ₂ e)	2045 (MT CO ₂ e)
Adjusted Forecast (MT CO ₂ e)	329,938	345,821	360,264	379,140
Population	85,934	90,780	95,626	101,312
Per Capita Adjusted Forecast (MT CO ₂ e/person) ¹	3.84	3.81	3.77	3.74
SB 32 Per Capita Target Pathway (MT CO ₂ e/person) ²	3.00	2.00	1.00	0
SB 32 Per Capita Target Pathway Translated to Mass Emissions (MT CO ₂ e) ³	257,802	181,560	95,626	0
Remaining Emissions Gap (MT CO₂e)⁴	72,136	164,261	264,638	379,140

Notes: MT CO₂e = Metric tons of carbon dioxide equivalent

Emissions have been rounded to the nearest whole number and therefore sums may not match.

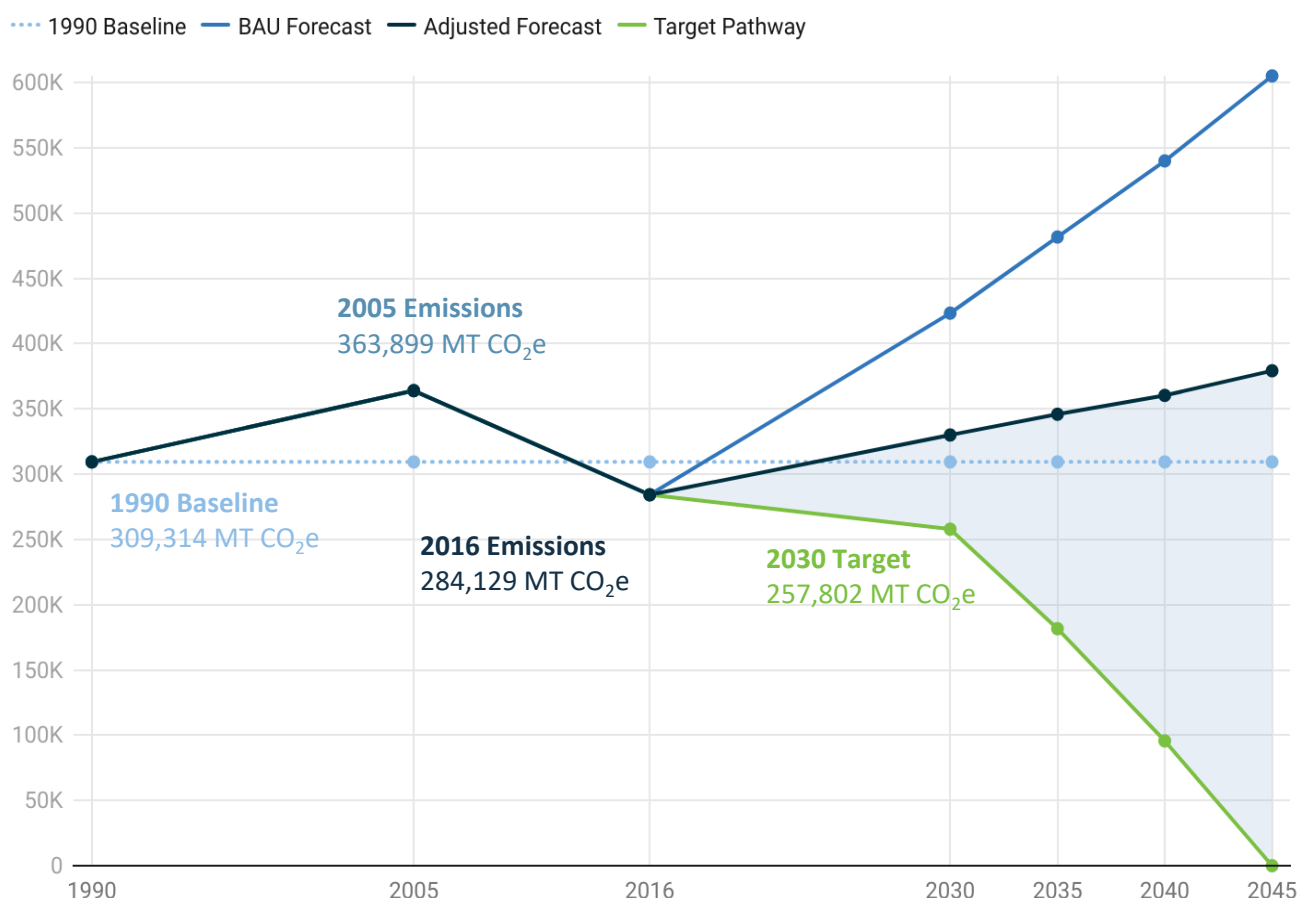
1. The adjusted forecast is translated to per capita emissions by dividing mass emissions by population for each year.

2. The target pathway is calculated by reducing per capita emissions to 3.00 MT CO₂e/person in 2030 and zero in 2045.

3. The target pathways are translated to mass emissions by multiplying the per capita emissions target by the City's population in the respective year.

4. The remaining emissions gaps are calculated by subtracting the mass emission targets from the adjusted forecast for each year.

Figure 8. GHG Reduction Target Pathway and Gap Analysis



3. GHG Emissions Reduction Strategies



California Buckeye

GHG Reduction Strategy

It is not too late to limit some of the worst impacts from climate change if we act in earnest now.²⁶ We must work together to mitigate, or reduce, the flow of GHG emissions into the atmosphere and simultaneously adapt to the changes that have already occurred or will occur in the future.²⁷ Mitigation strategies are discussed throughout this section and information on how the City of Pittsburg will adapt is interwoven into the co-benefits.

This Sustainability Plan is designed to reduce GHG emissions through implementation of feasible and achievable, yet ambitious GHG emissions reduction strategies and goals that equitably benefit the entire community. The initiatives included in the Sustainability Plan are structured in a stepwise manner, with strategies, goals, and actions. Each strategy provides an overarching statement with which the goals align. The goals included under each strategy are intended to pull in the same direction, providing effective and realistic means for making progress towards the sustainability efforts and GHG emission reductions

necessary to reach the 2030 target and establish the blueprint for the deep decarbonization needed to reach the 2045 target of carbon neutrality.²⁸ Finally, the actions provide supportive steps to begin working towards the quantified or specific targets outlined in each goal. The actions, when implemented, will help Pittsburg make progress towards the goal, however, more work will be needed to continue to move the needle forward and ultimately reach both the 2030 and 2045 targets, such as adopting reach codes and ordinances.

Reducing Emissions in Pittsburg

To develop the goals and actions in the Sustainability Plan, the City utilized guiding principles and considered factors such as co-benefits, costs, and equity. The following sections describe each element in detail. Figure 9 below depicts the structure of the plan's strategies, goals, and actions, as well as the elements used to develop them.

26. [https://www.climate.gov/news-features/climate-qa/can-we-slow-or-even-reverse-global-warming#:~:text=Yes.,\(%E2%80%9Cblack%20carbon%E2%80%9D\)](https://www.climate.gov/news-features/climate-qa/can-we-slow-or-even-reverse-global-warming#:~:text=Yes.,(%E2%80%9Cblack%20carbon%E2%80%9D)).

27. According to NASA, in relation to climate change, there is a time lag between what we do and when we feel it, but that lag is less than a decade.

28. The GHG reduction targets included in this Plan are intended to align with the GHG reduction goal codified by SB 32 of reduce GHG emissions to 40 percent below 1990 levels by 2030. According to the Association of Environmental Professionals (AEP) 2016 White Paper "Beyond 2020 and Newhall," meeting the long-term target of carbon neutrality in 2045 will require substantial advances in cost-effective technological solution related to GHG reductions. As such, the GHG reduction goals will begin substantial progress toward meeting the long-term 2045 target but will need to be reassessed as future advances in technology become available.

Sustainability Pillars

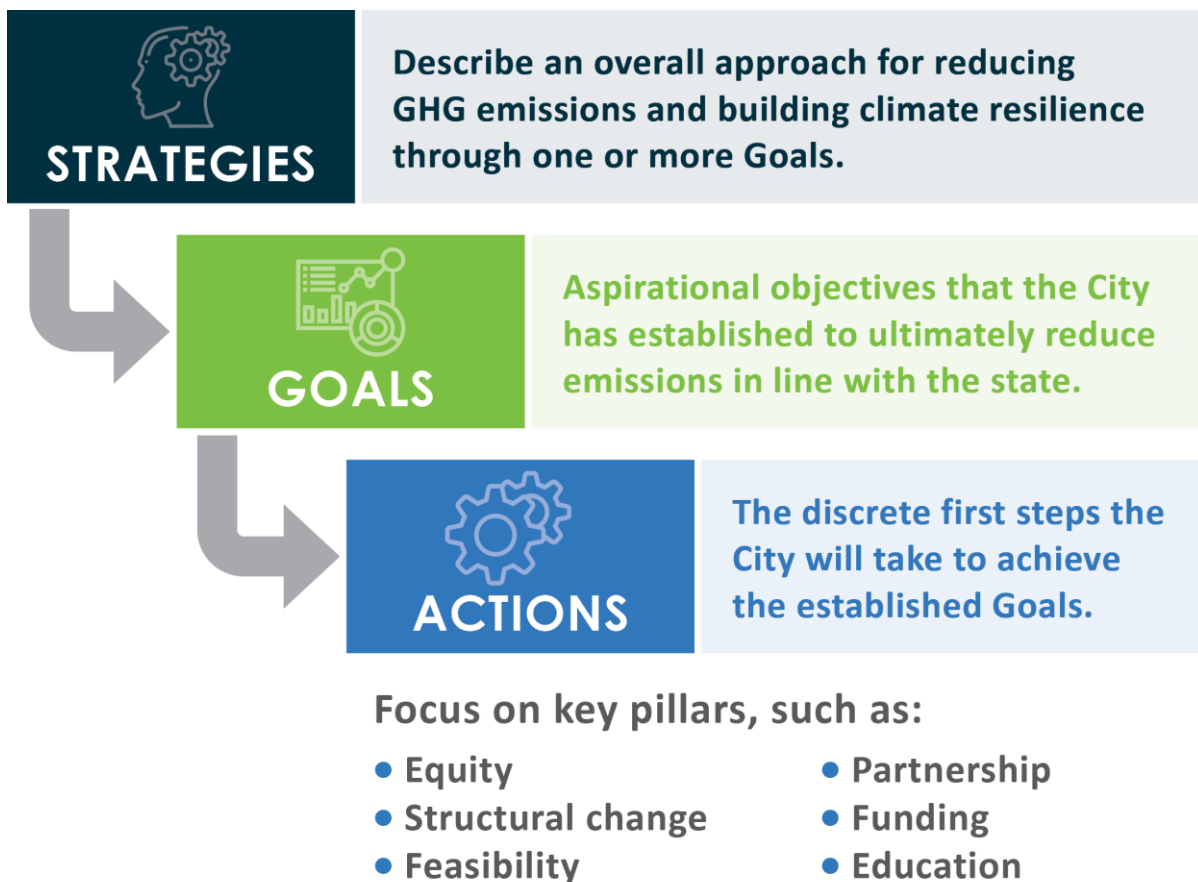
High-quality sustainability and climate action planning is built on six essential pillars that, when incorporated into the design of each goal, where applicable, result in implementable and effective sustainability and GHG emissions reduction strategies. These pillars include:

- **Equity** – Goals should include programs and policies to provide disadvantaged and vulnerable communities the resources to benefit from each goal.
- **Structural change** – Goals should establish institutional and policy framework to facilitate long-term change.
- **Feasibility** – Goals should help the City understand costs, benefits, barriers, and opportunities to develop programs and policies to best serve the community.

- **Partnership** – Goals should focus on partnerships with outside agencies and community-based organizations to leverage expertise and resources to create programs and policies the City would not be able to achieve alone.
- **Funding** – Goals should identify funding and financing avenues to support the associated costs and be designed to overcome potential financial impacts of modernization.
- **Education** – Goals should include community engagement and empower residents and interested parties to act.

These pillars have been used to establish actions that will in-turn work towards the 2030 emissions reduction target and begin progress to the long-term 2045 target of carbon neutrality. The 2030 and 2045 targets represent the City's fair share reductions towards achieving the State's overall climate goals. During the action development process, each initiative was viewed through the

Figure 9. Strategy, Goal, and Action Structure



Over time, the Plan will be reviewed, and additional actions will be added to make greater progress on the established Goals. This Sustainability Plan serves as the City's first step in climate action planning and will continue to be refined.

lens of these pillars to build a comprehensive approach to sustainability. The Cornerstone Goal, Goal C-1.1, illustrates how each of the pillars are integrated into the supportive actions.

The Cornerstone Goal

In construction, the cornerstone is often the first stone set, and all other stones are set in reference from that point, essentially determining the direction or position of the building. Similarly, the Cornerstone Goal (C-1.1) sets the direction of this Plan and is intended to build support around an area of community pride. The Cornerstone Goal of this Plan intends to connect the Plan and the community around the opportunity to leverage sustainability efforts and climate action for continued economic development in Pittsburg. Initiatives from all-electric building retrofits to increased waste diversion will create new jobs. A recent study by the University of California, Los Angeles (UCLA) Luskin Center for Innovation found that 100,000 full-time equivalent jobs would be created across various sectors of the economy as the result of electrifying all of California's new and existing buildings by 2045.²⁹ Similarly, in the waste and materials sector, the process of re-using materials was found to create 200 times as many jobs as sending those materials to landfills and incinerators while recycling increased jobs by a factor of 50. Done in an intentional and holistic way, Pittsburg can leverage these job opportunities to create high-road jobs for Pittsburg residents in the sustainability industry—that is jobs that will provide Pittsburg residents family-sustaining wages, comprehensive benefits, and opportunities for continued career advancement.³⁰

The sustainability pillars provide this intentional and holistic approach in a stepwise manner. Designed to embody each of the identified sustainability pillars, the Cornerstone Goal will be equipped with a framework for transformational change and community engagement to serve as a strong foundation for the Plan and the community as we work towards the City's GHG emission reduction targets.

29. <https://innovation.luskin.ucla.edu/2019/11/13/move-to-all-electric-buildings-will-trigger-significant-demand-for-skilled-workers/>.

30. https://www.usdn.org/uploads/cms/documents/workforce-guide_4.12.21_form.pdf

The Cornerstone Goal

Provide high-road jobs to low-income community members through a local High-road Workforce Development Program.

The Cornerstone Goal embodies each pillar in the following ways:

- Focuses on equity by establishing a High-road Workforce Development Program targeted towards disadvantaged community members and vulnerable populations. As such, it aims to focus its employment and training resources on those with the most to gain from them.
- Focuses on structural change by amending the City's bid procurement and evaluation process to include local workforce as a criterion for evaluating capital improvement project bids. Meeting this pillar sets the goal up to create long-term change by establishing policies that will increase demand for local workforce and the program itself.
- Focuses on feasibility by analyzing current opportunities for high-road jobs. Embodying this pillar provides the City important information to design a program that best meets the community's needs.
- Focuses on partnership by collaborating with community-based organizations who have connections to community members in disadvantaged and vulnerable communities. Meeting this pillar allows the City to engage more community members than they would have been able to on their own, increasing the reach of the program across the community.
- Focuses on funding by applying for applicable grants to support the High-road Workforce Development Program's incentives for employers and developers. Meeting this pillar secures the development and sustainability of the program without putting undue pressure on the City's budget.
- Focuses on education by providing resources related to the High-road Workforce Development Program and developing an internship/apprenticeship board for local employers and Los Medanos College to share employment opportunities.

With each pillar, the Cornerstone Goal will be able to make transformational change and engage the community, paving the way for the rest of the goals in the Plan. Continuing this stepwise approach to designing each goal with the pillars, the other Sustainability Plan goals will establish their own foundations to make continued and far-reaching change.

Equity Guardrails

Integral to sustainability planning is ensuring that the impacts, co-benefits, and opportunities associated with each goal are equitably distributed amongst the community and that additional burdens on disadvantaged and vulnerable communities are avoided. The City of Pittsburgh defines disadvantaged and vulnerable communities as follows:

- Disadvantaged community (DAC): a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.
- Vulnerable community: an area with concentrated populations of seniors, persons with a disability, and lower income residents.³¹

Such communities are often disproportionately affected by the impacts of climate change and the burdens of sustainability actions. For this reason, they must be engaged, represented, and prioritized during the planning process. This kind of equitable community planning can help cities design safe, thoughtful, and specific policies that improve public health across the community, provide equitable job opportunities and better incomes, and minimize disproportionate burdens. Altogether, equitable community planning provides a strong foundation for realistic sustainability initiatives to be developed and implemented by the community.

To engage in equitable community planning, the City developed Equity Guardrails—a set of guiding criteria designed to formalize the Sustainability Plan’s foundational goal for improving environmental justice issues as outlined in the Community Health and Environmental Justice Element. The specific criteria are used to

31. Definitions sourced from the General Plan’s Community Health & Environmental Justice Element.

instill equity within each goal of the Sustainability Plan. Actions included in this Sustainability Plan were reviewed for each criterion to determine if its associated actions would result in disproportionate burdens, inequities, or discrimination. If determined it could, the actions associated with the goal were updated to instead benefit the community members that have the most to gain. In this way, the criteria are used to instill equity within each goal of the Sustainability Plan, guiding the City towards a paradigm shift in environmental justice and public policy to transform the behaviors, institutions, and systems that disproportionately harm disadvantaged and vulnerable communities.

Table 8, on the following page, lists and defines the Equity Guardrail criteria that were used to assess each goal during the development of the Sustainability Plan.

Co-Benefits

Sustainability goals will produce additional benefits beyond GHG emissions reductions that the community will see from implementing the goals and actions. These co-benefits will have long-term positive impacts that will help Pittsburgh reach their community goals. The co-benefits identified for each Sustainability Plan actions include:

- **Improved Health and Safety** 
 - Creating a healthier community with less respiratory illnesses by improving indoor and outdoor air quality; improving life and property safety through efforts to increase adaptive capacity; and improving quality of life and comfort by creating more opportunities for physical activity, increasing access to green spaces, and maintaining thermal comfort
- **High-Road Job Development** 
 - Creating and training Pittsburgh residents for high-quality jobs in sustainable industries that provide family-sustaining living wages, comprehensive benefits, and opportunity for career advancement.
- **Community Savings** 
 - Providing the community with long-term cost savings in areas such as utility bills

- **Connected Communities** 
 - Promoting a cohesive City with a strong sense of community by creating opportunities for community members to engage in public life and build ties to their neighbors
- **Energy Security** 
 - Increasing the uninterrupted availability of energy sources in the community at an affordable price and from local sources
- **Reduced Reliance on Fossil Fuels** 
 - Reducing the community's reliance on imported, polluting, and price-variable oil and gas

Table 8. Equity Guardrail Criteria

Equity Guardrail	Criteria
Access to Health and Safety Benefits	Each goal must be supported by actions that either mitigate potential negative outcomes, or improve access to the following for DACs and vulnerable communities: ▪ Individual and population health ▪ Life and property safety ▪ Quality of life and comfort Due to the upfront costs of actions such as electrification, many households will need financial support to have access to these health and safety benefits.
Equitable Allocation of Costs and Benefits	Each goal must be supported by actions that equitably allocate both costs and benefits across the community. This could include developing programs to provide equitable access to funding and financing mechanisms that address the specific needs of DACs and vulnerable communities (e.g., mitigating the additional upfront and maintenance costs of new technologies) or by developing equitable fee structures for transit or other services.
Promotes Housing Affordability and Anti-Displacement	Each goal must be supported by actions that: ▪ Improve access to benefits for renters and residents living in multi-family buildings ▪ Do not displace renters or overburden homeowners ▪ Do not place additional disproportionate financial burdens or hardships on DACs and vulnerable communities ▪ Protect DACs and vulnerable communities from cost-of-living increases
Authentic Investment and Engagement	Each goal must be supported by actions that continue engagement with DACs and vulnerable communities over the course of implementation to address identified hurdles as well as unforeseen barriers and constraints.
Provides Local and Accessible High-Road Job Development	Each goal must be supported by actions that create and protect local and accessible high-road job development, particularly for people experiencing barriers to employment. High-road jobs refer to high-quality jobs that provide family-sustaining, living wages, comprehensive benefits, and opportunity for career advancement.

Costs

Implementing the Sustainability Plan's goals may be extremely variable in cost as goals range from outreach and education to major investments in new infrastructure such as bike lanes and electric vehicle charging networks. While it may be tempting to only consider the upfront costs of a goal, there are many other cost considerations that should be part of the decision-making process. These costs were identified for each Sustainability Plan goal and used to categorize each goal as either having no-cost, low-cost, moderate-cost, or high-cost. Each cost category has been defined as follows:

- **No Cost:** Goals associated with operational changes that do not include upfront costs or result in zero lifecycle costs.
- **Low-Cost:** Goals associated with relatively low upfront costs or City staff time, (e.g., policy updates or outreach). For community members, this represents low upfront costs compared to existing alternatives.
- **Moderate-Cost:** Goals involving consultants or moderate infrastructure changes associated with an intermediate level of costs, (e.g., feasibility studies, program development, and retrofitting existing infrastructure). For community members, this represents costs that are not comparable to existing costs nor are offset over the lifetime (e.g., new fees or upfront costs partially offset by rebate opportunities).
- **High-Cost:** Goals that involve longer term projects requiring substantial investments into major infrastructure or technology over time, (e.g., energy storage, bike lanes, or other infrastructure changes). For community members, this represents costs that are not comparable to existing costs nor are offset over the lifetime (e.g., new electric vehicle purchase).

For a complete description of the costs for the Sustainability Plan goals, please see Appendix F.

Moving Towards the State's Goals

The goals and supporting actions outlined in this section were developed and refined using the elements described above and ultimately establish Pittsburgh's first steps to work towards the City's 2030 GHG emissions reduction target and begin progress towards meeting the longer-term target of carbon neutrality by 2045. However, more work is needed to effectively reach both the 2030 target and the longer-term 2045 target. It is anticipated that the Plan will be reviewed and updated on a triennial basis, as discussed in Goal M-1.1 and Chapter 5, *Implementation*. Future iterations of the Plan will outline additional ways to meet the 2030 and 2045 emission reduction targets as new technologies and solutions become available. Continued progress will require a community-wide commitment at all levels to work towards the goals outlined in this Plan and make the necessary adjustments identified through regularly monitored progress.

Table 9 below summarizes the strategies and goals of the Sustainability Plan. The following section identify the supporting actions associated with each goal and identify the pillars, equity guardrails, co-benefits, and costs associated with each goal or action, as appropriate. In addition, the following sections identify the key performance indicators (KPI) that will be used to monitor progress made on each goal. Together, these KPI's will help gauge overall progress towards the City's GHG emission reduction targets and signal opportunities for additional actions and refinement.

Table 9. Summary of GHG Emission Reduction Goals

ID #	Goal Text
Strategy C-1: Cornerstone to Climate Action Planning	
C-1.1	Provide high-road jobs to members of disadvantaged and vulnerable communities through a local High-road Workforce Development Program.
Strategy E-1 Electrify the Building Stock	
E-1.1	Electrify 75% of new construction in the City by 2026 and 100% of new construction in the City by 2029.
E-1.2	Electrify existing residential buildings to reduce residential natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.
E-1.3	Electrify existing commercial buildings to reduce commercial natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.
Strategy E-2 Decarbonize Electricity and Increase Use and Storage of Local Renewable Energy	
E-2.1	Increase the number of accounts enrolled in MCE's programs to 95%, with a total of 40% of accounts enrolled in the Deep Green energy option by 2030.
E-2.2	Increase generation and storage of local renewable energy.
Strategy T-1 Reduce Passenger Car Vehicle Miles Traveled	
T-1.1	Implement Pittsburgh Moves, increasing active transportation mode share from 1.5% in 2020 to 3% by 2030 and 9% by 2045.
T-1.2	Implement public and shared transit programs to increase public transit mode share from 10.1% in 2020 to 12% by 2030 and 17% by 2045.
Strategy T-2 Increase Zero-Emission Vehicle and Equipment Use	
T-2.1	Increase passenger zero-emission vehicle adoption from 2.3% in 2020 to 15% by 2030 and 100% by 2045.
T-2.2	Increase commercial zero-emission vehicle adoption from less than 1% in 2020 to 10% by 2030 and 100% by 2045.
T-2.3	Transition 5% of all (i.e., commercial and residential) off-road equipment to zero-emission alternatives by 2030 and 100% by 2045.
Strategy W-1 Increase Water Conservation and Local Water Supply	
W-1.1	Reduce per capita water consumption by 10% by 2030 and 30% by 2045, from 2016 levels.
W-1.2	Increase recycled water use in the City.
W-1.3	Increase green stormwater infrastructure.
Strategy W-2 Minimize Water Loss System-wide	
W-2.1	Reduce real and apparent system water loss from a rate of 13% in 2020 to less than 10% by 2030 and less than 7% by 2045.
Strategy SW-1 Organic Waste Diversion	
SW-1.1	Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.
Strategy SW-2 Reduce Community Waste Generation	
SW-2.1	Reduce community-wide waste generation 55% by 2025 and 90% by 2040 statewide, from 2014 levels.

Strategy CS-1 Carbon Sequestration

CS-1.1 Increase carbon sequestration by planting 150 new trees annually through 2045 to sequester carbon and create urban shade to reduce heat island effect.

CS-1.2 Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community by 2030, increasing up to 0.10 by 2045.

Strategy M-1 Commit to Climate Action

M-1.1 Complete annual progress reports on Pittsburgh's Sustainability Plan every three years.

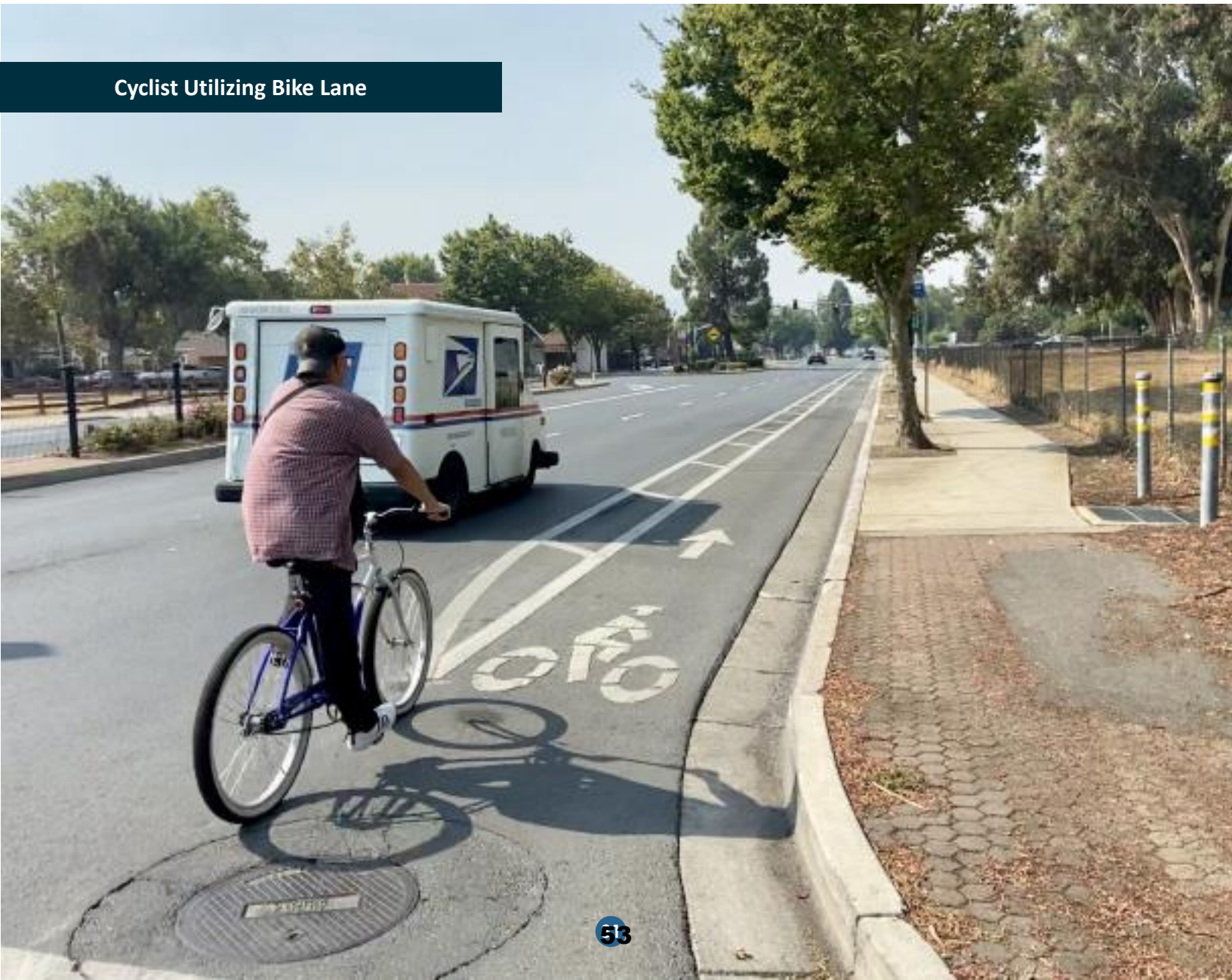
Strategy M-2 Reduce Municipal Reliance on Natural Resources

M-2.1 Electrify 25% of existing City facilities by 2030 and 100% of existing City facilities by 2045, as well as all newly constructed City buildings, while also increasing renewable energy use.

M-2.2 Transition 50% of the City's vehicle and equipment fleet to renewable fuels and electric by 2030 and 100% by 2045.

M-2.3 Reduce the number of single occupancy, fossil fueled vehicle annual employee commute trips 20% by 2030 and 50% by 2045.

Cyclist Utilizing Bike Lane



How to read the following pages:

- 1 SW-1.1 – Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.
- 2 Sustainable solid waste management is a critical component to a healthy and inclusive Pittsburgh. While waste may not be the most glamorous sector, it holds important connections to GHG emissions and community health, and when reimagined serves as a tangible touchpoint to every Pittsburgh resident and business. Landfilled organic waste emits 20% of the state's total methane¹¹ emissions—a powerful GHG pollutant 28 times more potent than carbon dioxide. Meeting SB 1383 requirements and reducing emissions of short-lived climate pollutants (SLCP) like methane will not only have the most immediate impact on mitigating climate change, but also improve the health and safety of the community by reducing air pollutants, building access and security to healthy food through local food recovery programs, and fostering a connected Pittsburgh by encouraging residents to participate in composting workshops and peer-to-peer learning events. Additionally, the implementation of these measures can lead to job creation and economic growth by stimulating the development of innovative technologies and the expansion of green industries.

43. <https://pittsburghpa.gov/organics.html>

Actions, Pillar, and Co-benefits

3 SW-1.1a: Adopt municipal procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.

SW-1.1b: Work with Mt. Diablo Resource Recovery to establish and implement a detailed outreach and engagement plan for restaurants, grocery stores, and other commercial entities that generate organic waste to provide education and available resources for increased organic diversion.

SW-1.1c: Support the County with information and collaborative planning to provide sufficient edible food reuse infrastructure to accept the capacity needed to recover 20% of edible food disposed or identify proposed new or expanded food recovery capacity.

SW-1.1d: Continue working with the Bay Area Recycling Outreach Coalition and Mt. Diablo Resource Recovery and Pittsburgh Unified School District to establish and provide exciting education and outreach programs for school children and adults around food waste prevention, nutrition education, and the importance of edible food recovery. The education program may include:

Pillars

- EQUITY
- FEASIBILITY
- FUNDING
- STRUCTURAL CHANGE
- EDUCATION
- PARTNERSHIP

Co-Benefits

- HIGH-ROAD JOB DEVELOPMENT
- IMPROVED HEALTH AND SAFETY
- REDUCED RELIANCE ON FOSSIL FUELS

64

Community feedback resulted in 13 new actions and 8 updated actions!

New Action

Updated Action

- 1 Goal
- 2 Description of Goal
- 3 Actions
- 4 Sustainability Pillar
- 5 Co-benefits
- 6 Flag denoting inclusion revised text or additional actions based on community feedback
- 7 Cost
- 8 Equity Guardrails
- 9 Key Performance Indicators
- 10 Key showing pillar and co-benefit icons

Actions, Pillar, and Co-benefits

SW-2.1h: Partner with Delta Diablo to promote use of the existing Household Hazardous Waste facility. Additional promotion and education to the community could include sending out an annual mailer, providing regular updates on Pittsburgh's social media pages, and through flyers and brochures available at community events.

Pillars

- EQUITY
- FEASIBILITY
- FUNDING
- STRUCTURAL CHANGE
- EDUCATION
- PARTNERSHIP

Co-Benefits

- HIGH-ROAD JOB DEVELOPMENT
- IMPROVED HEALTH AND SAFETY
- REDUCED RELIANCE ON FOSSIL FUELS
- COMMUNITY SAVINGS
- CONNECTED COMMUNITIES
- ENERGY SECURITY

Cost

City Cost: Low Community Cost: Moderate

Equity Guardrails

Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development

KPI

Change in community-wide waste generation (%)

10

Cornerstone

C-1 Cornerstone to Climate Action Planning

- C-1.1 Provide high-road jobs to members of disadvantaged and vulnerable communities through a local High-road Workforce Development Program.

C-1.1 – Provide high-road jobs to members of disadvantaged and vulnerable communities through a local High-road Workforce Development Program.

Reducing GHG emissions and creating a more sustainable Pittsburgh will require initiatives from building retrofits to electric vehicle infrastructure buildout that demand a skilled, trained, and stable green workforce. As a community, we can leverage this demand to create high-road jobs for Pittsburgh residents—jobs that will provide Pittsburgh residents family-sustaining wages, comprehensive benefits, and opportunities for continued career advancement.³² Targeted towards community members with the most to gain from these high-quality, stable jobs, we can uplift and improve economic conditions for members of disadvantaged and vulnerable communities providing meaningful social justice in Pittsburgh. Through a High-road Workforce Development Program we can create a future that brings renewable energy, ecological restoration, and more scientific-based environmental education to Pittsburgh, leveraging efforts to reduce GHG emissions and create a more sustainable City for continued economic development. Additionally, this goal would decrease income inequality by providing workers with better-paying jobs and opportunities for advancement, while reducing poverty through living wages.

Actions, Pillar, and Co-benefits	C.1.1a: Establish a High-road Workforce Development Program that provides incentives to Pittsburgh businesses and potential developers to establish apprenticeships programs for Pittsburgh members of disadvantaged and vulnerable communities.		
	C.1.1b: Apply for grant opportunities to offer incentives to employers and developers for implementing local workforce apprenticeship programs, through grants such as the Transformative Climate Communities Implementation Grant and High Road Training Partnerships: Resilient Workforce Fund Program.		
	C.1.1c: Perform an analysis on current workforce opportunities within the City that provide potential for high-road jobs through direct engagement with local businesses. Through this analysis establish the criteria for high-road jobs, and identify opportunities for bringing in additional developers and businesses that will provide jobs that meet these criteria.		
	C.1.1d: Partner with community-based organizations with connections to disadvantaged and vulnerable communities to perform direct		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

32. https://cwdb.ca.gov/wp-content/uploads/sites/43/2019/09/High-Road-ECJ-Brief_UPDATED-BRANDING.pdf

Actions, Pillar, and Co-benefits	engagement promoting opportunities within the High-road Workforce Development Program. C-1.1e: Create a City webpage to provide resources related to the High-road Workforce Development Program to allow for posting of available resources and to develop an internship/apprenticeship board for local employers and Los Medanos College to share employment opportunities. C-1.1f: Amend the City’s bid procurement and evaluation process to include local workforce (i.e., including Pittsburg residents in the project workforce) as a criterion for evaluating capital improvement project bids.	 	
Cost	City Cost: Moderate Community Cost: N/A		
Equity Guardrails	Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Number of apprenticeships created, and value of incentives provided (\$)		

Energy

E-1 Electrify the Building Stock

- E-1.1 Electrify 75% of new construction in the City by 2026 and 100% of new construction in the City by 2029.
- E-1.2 Electrify existing residential buildings to reduce residential natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.
- E-1.3 Electrify existing commercial buildings to reduce commercial natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.

E-1.1 – Electrify 75% of new construction in the City by 2026 and 100% of new construction in the City by 2029.³³

New building electrification is a cost-effective and socially equitable way to reduce GHG emissions, lower community costs, and protect public health. All-electric buildings can be more energy efficient and produce lower energy bills than those powered by natural gas. Implemented with an emphasis on equity, these lower operating costs can help reduce energy bill burdens in the community. Additionally, constructing new all-electric buildings is more cost-effective up-front than building traditional mixed-fuel buildings due to the cost savings obtained from avoiding the installation and expansion of natural gas infrastructure. These long-term and up-front cost savings make all-electric new construction an easy choice for the community. All-electric buildings also provide a critical step towards improving public health. Burning natural gas in poorly ventilated areas (i.e., through gas stoves in particular)³⁴ can cause a drastic increase of harmful indoor pollutants that are linked to increased risk of respiratory illnesses. For example, studies show that using natural gas stoves is associated with increased risk of asthma in children, as well as more severe asthma symptoms.³⁵ Electric appliances completely mitigate these indoor air pollutant risks.

Actions, Pillar, and Co-benefits 			
	E.1.1a:	Conduct a cost effectiveness study by 2025 to analyze the impact of adopting an electrification ordinance for all new construction to inform future consideration of an ordinance.	 
	E.1.1b:	Identify and partner with local community-based organizations with connections to disadvantaged and vulnerable communities to conduct targeted outreach to identify and analyze equity concerns with an electrification ordinance for all new construction to inform future consideration of an ordinance.	 
	E.1.1c:	Establish partnerships with the Building Decarbonization Coalition, MCE, Bay Area Regional Energy Network, the International Brotherhood of Electrical Workers, and others, to engage with local interested parties from the building industry, such as local developers, to evaluate the feasibility of adopting an electrification ordinance for all new construction and inform future consideration of an ordinance.	 
	E.1.1d:	Partner with organizations such as the Building Decarbonization Coalition, MCE, and Bay Area Regional Energy Network to compile a suite of	 



EQUITY



STRUCTURAL CHANGE



FEASIBILITY



EDUCATION



FUNDING



PARTNERSHIP



HIGH-ROAD JOB DEVELOPMENT



IMPROVED HEALTH AND SAFETY



REDUCED RELIANCE ON FOSSIL FUELS



COMMUNITY SAVINGS



CONNECTED COMMUNITIES



ENERGY SECURITY

33. New construction refers to new buildings and building additions and alterations

34. <https://ww2.arb.ca.gov/resources/documents/indoor-air-pollution-cooking>

35. <https://www.apha.org/Policies-and-Advocacy/Public-Health-Policy-Statements/Policy-Database/2023/01/18/Gas-Stove-Emissions>

Actions, Pillar, and Co-benefits	case studies and cost-effective strategies (e.g., energy efficiency improvements) for electric buildings by prototype, help educate building owners and the construction industry on the cost savings, environmental benefits, and versatility associated with all-electric construction, and educate developers and other interested parties on new appliances and approaches to building electrification. Share the information on the City’s website, at City events, and at the City’s permit counters. E-1.1e: Provide education around cooking with electric appliances and partner with local chefs and/or restaurants to host cooking demonstrations at community events such as the Farmers’ Market, Green Footprint Festival, or Pittsburg First Fridays. E-1.1f: Partner with the Bay Area Regional Energy Network and the International Brotherhood of Electrical Workers, or similar entities, to provide technical resources, including hosting workforce development trainings as part of the Highroad Workforce Development Program for installers, local contractors, and building owners/operators to discuss the benefits and technical requirements of electrification. Partner with community-based organizations to connect members of disadvantaged and vulnerable communities to these training programs.	 	 
Cost	City Cost: Moderate Community Cost: No cost		
Equity Guardrails	Access to Health and Safety Benefits, Promotes Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Share of new construction electrified (%)		

Pillars		Co-Benefits	
 EQUITY  FEASIBILITY  FUNDING	 STRUCTURAL CHANGE  EDUCATION  PARTNERSHIP	 HIGH-ROAD JOB DEVELOPMENT  IMPROVED HEALTH AND SAFETY  REDUCED RELIANCE ON FOSSIL FUELS	 COMMUNITY SAVINGS  CONNECTED COMMUNITIES  ENERGY SECURITY

E-1.2 – Electrify existing residential buildings to reduce residential natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.

Existing building electrification, which is defined as the replacement of fossil-fueled systems with electric alternatives, provides the same GHG emission reduction, energy bill, and public health benefits as new building electrification. However, since the costs of electrification typically fall on homeowners, there exists additional barriers to ensuring all community members can benefit. Members of disadvantaged and vulnerable communities often face multiple and sometimes compounding economic barriers that make it difficult to prioritize electrification. Further, many members of these communities are renters lacking the property rights to electrify. Yet, these community members will also be the hardest hit if we leave them as the last customers relying on the gas distribution system because they can least afford the significant bill increases anticipated to support aging and stranded infrastructure.³⁶ Thus, we must pursue residential building electrification equitably to benefit all Pittsburgh residents. In addition to reducing long-term cost burdens, electrification will also improve indoor air quality and increase home values.

Actions, Pillar, and Co-benefits	E.1.2a: Develop a residential building electrification strategy with a detailed existing building analysis and electrification costs analysis to understand cost implications, identify potential equity concerns/impacts, and develop equitable strategies and recommended standards for electrifying existing residential buildings such as those that increase energy efficiency and tenant protections. Identify and partner with local community-based organizations with connections to disadvantaged and vulnerable communities to conduct intentional, thoughtful, and specific community outreach during development of the electrification strategy to understand the community's concerns and needs around electrification.		
	E.1.2b: During the electrification strategy development process, engage the community to evaluate the feasibility of adopting a time of replacement electrification ordinance in the future for HVAC and water heaters.		
	E.1.2c: Develop a permit tracking program for existing building electrification to track annual progress in achieving the electrification goals.		
	Updated E.1.2d: Partner with stakeholders such as MCE and PG&E to understand the feasibility of,		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

36. https://greenlining.org/wp-content/uploads/2019/10/Greenlining_EquitableElectrification_Report_2019_WEB.pdf

Actions, Pillar, and Co-benefits			
	establish, and promote funding pathways to ease community costs for electric appliances, electrification retrofits, and panel upgrades through: ▪ Federal and state grants/subsidies ▪ Tariffed On-bill financing ▪ Metered energy efficiency ▪ Linking electrification to existing weatherization programs		
New	E-1.2e: Partner with PG&E to provide free electrification assessments to rental and multi-family properties to provide recommendations for electric upgrades and funding opportunities.		
New	E-1.2f: Establish a working group of rental and multi-family property owners, as well as tenants that live in these units to: ▪ Identify common goals (e.g., saving money on utility bills, reducing carbon footprint, improving indoor air quality) ▪ Collaborate on initiatives, which would provide a space for tenants and homeowners to implement initiatives that align with the shared goals (e.g., installing energy-efficient lighting or appliances, adding building insulation, and/or installing solar panels). ▪ Establish communication channels to discuss progress, address hurdles, and work together on implementation. ▪ Share resources between tenants and homeowners.		
	E-1.2g: Conduct targeted outreach to rental and multi-family property owners to distribute information about available electrification assessments, retrofit incentives, and long-term benefits associated with electrification and weatherization.		
	E-1.2h: Review and update building codes to provide streamlined permitting for all electric retrofits. Provide Building Department staff training and information on the benefits of electrification for permit applicants.		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

Actions, Pillar, and Co-benefits	E-1.2i: Partner with MCE and PG&E to review incentives, rebates, and financing options for procedural equity and ensure that existing and updated incentive programs are being equitably distributed to the community to reduce energy bill burdens. Hurdles to equitable implementation could include credit checks, excessive procedural hurdles and lack of targeted outreach.		
	E-1.2j: Work with MCE to a conduct feasibility study to evaluate the current uptake and effectiveness of Proper Assessed Clean Energy (PACE) financing for installation of renewable energy systems in single-family and multi-family homes. If feasibility study indicates effectiveness, continue to offer PACE financing for single-family and multi-family homes to install renewable energy systems.		
	E-1.2k: Partner with a financing/management company to provide electrification services and financing to the community with prioritization of members of disadvantaged and vulnerable communities.		
	E-1.2l: Partner with Pittsburgh Below Market Rate (BMR) housing stock owners to develop a strategy to begin electrifying publicly owned BMR housing. Identify a group of publicly owned BMR housing to conduct a full electrification pilot to help test and further develop the strategy. Promote the pilot as an example to the wider community on the feasibility and benefits of residential electrification.		

Cost	City Cost: Moderate Community Cost: Moderate
Equity Guardrails	Access to Health and Safety Benefits, Equitable Allocation of Costs and Benefits, Promotes Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development
KPI	Change in residential natural gas consumption (%)

Pillars			Co-Benefits		
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS		
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES		
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY		

E-1.3 – Electrify existing commercial buildings to reduce commercial natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.

Electrifying existing commercial buildings also provides the same GHG emission reduction, energy bill, and public health benefits as residential building electrification. However, leveraging the benefits from electrifying businesses also faces economic and social barriers. Like residential building electrification, we must pursue commercial building electrification equitably to help small and minority-owned businesses benefit from electrification rather than be left with polluting and increasingly expensive gas appliances.³⁷ Furthermore, electrifying businesses involves buildings of larger sizes and different purposes. While the technology does exist today to fully electrify all commercial buildings, we must support our business owners understand the options, resources, and benefits to electrifying their business. To successfully electrify commercial buildings and mitigate the greatest impacts of climate change, it is crucial to raise awareness among business owners, provide financial incentives, and offer access to expertise regarding the options, support, and benefits of electrifying their establishments.

Actions, Pillar, and Co-benefits	E.1.3a: Develop a strategy to support commercial building electrification, including initiatives and recommended standards for retrofitting commercial buildings, prioritizing appliance replacements, and avoiding expansion of natural gas infrastructure.		
	E.1.3b: Conduct engagement efforts for the commercial sector during development of the building electrification strategy to understand potential concerns and barriers to commercial electrification and educate commercial property owners on the potential cost savings and other benefits of electrification. Include targeted outreach to small businesses and minority-owned businesses to understand potential equity concerns with commercial electrification during the strategy development process.		
	E.1.3c: Continue to work with Bay Area Regional Energy Networks, MCE, and StopWaste to improve, implement, and promote commercial electrification rebates and financing opportunities, as well as other offered incentives. Review the incentives for procedural equity and promote them to small		

Pillars			Co-Benefits		
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS		
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES		
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY		

37. https://greenlining.org/wp-content/uploads/2019/10/Greenlining_EquitableElectrification_Report_2019_WEB.pdf

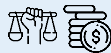
Energy

E-2 Decarbonize Electricity and Increase Use and Storage of Local Renewable Energy

- E-2.1 Increase the number of accounts enrolled in MCE's programs to 95%, with a total of 40% of accounts enrolled in the Deep Green energy option by 2030.
- E-2.2 Increase generation and storage of local renewable energy.

E-2.1 – Increase the number of accounts enrolled in MCE’s programs to 95%, with a total of 40% of accounts enrolled in the Deep Green energy option by 2030.

Pittsburg currently enrolls residents and businesses in MCE’s Light Green electricity service. The service provides electricity sourced from 60 percent renewable energy, helping it achieve a lower carbon intensity than the electricity from Pacific Gas & Electric (PG&E). MCE’s Deep Green service eliminates fossil fuels altogether, providing electricity from 100 percent renewable sources (i.e., solar and wind).³⁸ While the California grid will continue to get cleaner as the Renewable Portfolio Standard progresses, MCE provides Pittsburg significant GHG emission reduction potential in the meantime—especially when paired with all-electric buildings. Helping residents and businesses maintain enrollment in MCE and opt-up to Deep Green will help Pittsburg leverage the benefits of renewable energy, fostering a sustainable and resilient community while reducing GHG emissions.

Actions, Pillar, and Co-benefits	E.2.1a: Continue to work with MCE to conduct an annual analysis of opt-out rates in the City and expand the research to understand why residents and businesses opt out of MCE. Include targeted outreach to residents living on low and fixed incomes and disadvantaged and vulnerable communities to identify barriers to remaining with MCE.		
	E.2.1b: Partner with MCE to design educational campaigns, including tabling at community events, establishing informational resources on the City’s website, regularly posting on social media, and developing energy bill inserts, to highlight the benefits of 100% renewable energy.		
	E.2.1c: In collaboration with MCE, implement a pilot program to provide Pittsburg’s affordable housing units managed by the Pittsburg Housing Authority MCE’s Deep Green service by 2025. Identify funding options with MCE such as subsidy of pilot study through the non-discounted customers or grant funding.		
	E.2.1d: Support an equitable transition to renewables by partnering with MCE to create a funding or		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

38. <https://www.mcecleanenergy.org/energy-suppliers/>

Actions, Pillar, and Co-benefits	Family Electric Rate Assistance (FERA) programs to opt-up to MCE’s Deep Green option. This may include subsidizing costs to customers who participate in CARE/FERA programs through non-discounted customer rate increase or obtainment of funding for disadvantaged and vulnerable communities. Include targeted outreach to educate residents on the availability of energy savings programs to help offset potential rate increases when opting-up.		
Cost	City Cost: Low	Community Cost: Low	
Equity Guardrails	Equitable Allocation of Costs and Benefits, Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement		
KPI	Accounts enrolled in MCE and MCE’s Deep Green (%)		

<u>Pillars</u>				<u>Co-Benefits</u>			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

E-2.2 – Increase generation and storage of local renewable energy.

While all-electric buildings can be more energy efficient and produce lower energy bills than those powered by gas, we must also prioritize reliability and safety. Pairing all-electric buildings with local solar photovoltaics and battery storage can insulate the community from public safety power shutoffs and grid outages, increasing the resilience of our buildings. Additionally, local solar and battery storage can reduce energy bill burdens by reducing the electricity purchased from the grid and avoiding purchase during peak hours. However, solar and battery storage come with high upfront and maintenance costs that may be difficult for members of disadvantaged and vulnerable communities to prioritize and many members of these communities live in rental or multi-family properties that come with physical and legal limitations to installing solar and battery storage. To create an equitable transition to renewable energy, the actions below develop a framework that focuses on partnerships and financing mechanisms to provide local solar to disadvantaged and vulnerable communities and explore future opportunities for community solar.

Actions, Pillar, and Co-benefits	E.2.2a:	Establish and streamline standards and permit requirements for electrification-related installations and battery storage systems, to allow for easier implementation of these technologies in Pittsburgh.		
	Updated E.2.2b:	Consider adopting a PV (Solar) Ordinance requiring residential and nonresidential building additions and alterations to install PV systems that meet minimum requirements of Tier 2 Voluntary Standards under CalGreen. Engage with local building industry stakeholders to understand concerns and develop exemptions to the ordinance where the installation of PV systems may not be economically feasible.		
	E.2.2c:	Expand the partnership with GRID Alternatives through increased funding/promotion and promote the benefits of renewable energy through multi-lingual educational programs in order to support an equitable transition to renewable energy.		
	Updated E.2.2d:	Work with PG&E, MCE, and/or other partners to support and incentivize local on-site energy generation and storage resources. This could include: Connecting home and business owners, particularly those in disadvantaged and vulnerable communities, to incentives for renewable energy and storage including Net Metering Programs through PG&E for bill		

<u>Pillars</u>			<u>Co-Benefits</u>				
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

Transportation

T-1 Reduce Passenger Car Vehicle Miles Traveled

- T-1.1 Implement Pittsburgh Moves, increasing active transportation mode share from 1.5% in 2020 to 3% by 2030 and 9% by 2045.
- T-1.2 Implement public and shared transit programs to increase public transit mode share from 10.1% in 2020 to 12% by 2030 and 17% by 2045.

T-1.1 – Implement Pittsburg Moves, increasing active transportation mode share from 1.5% in 2020 to 3% by 2030 and 9% by 2045.

In addition to reducing vehicle miles traveled (VMT), and in turn GHG emissions, increasing active transportation provides a robust set of health, mobility, and livability benefits. Increasing opportunities for active transportation—as in any self-propelled, human-powered form of transportation such as walking or biking—increases residents’ opportunity for physical exercise and recreational activities providing important physical and mental health benefits. Active transportation also improves mobility, providing community members who cannot drive (e.g., children, seniors) affordable options to travel independently. At the same time, it helps bridge the first- and last-mile gap providing extended mobility options for community members. Lastly, a thriving active transportation network will provide Pittsburg a safe and connected network to interact with neighbors, fostering a sense of community and promoting healthy lifestyles for all residents. The actions below commit Pittsburg to planning and implementing active transportation infrastructure improvements and establish a framework of partnerships, engagement, and education to best serve the community members who have the most to gain from active transportation improvements.

Actions, Pillar, and Co-benefits	T.1.1a:	Based on the goals and policies outlined in Pittsburg Moves, coordinate with Contra Costa Transportation Authority to establish a target timeline and funding strategy that address each of the projects in Appendix A. The timeline should outline a path that confirms an equal focus on improvement projects that will benefit residents living in disadvantaged and vulnerable communities.		
	T.1.1b:	Complete the feasibility analysis outlined in the Pittsburg Moves Project List to begin implementing the supporting projects.		
	New T.1.1c:	Establish bicycle lockers and bicycle parking minimums for new developments by land use types.		
	New T.1.1d:	Work with existing commercial and institutional property owners to identify additional opportunities to install safe bicycle lockers and parking spaces to encourage residents and visitors to make short trips via active transportation.		
	T.1.1e:	Partner with schools, employers, transit agencies, Bike East Bay, the League of American Bicyclists, Metropolitan Transportation Commission, and/or community		



EQUITY



FEASIBILITY



FUNDING



STRUCTURAL CHANGE



EDUCATION



PARTNERSHIP



HIGH-ROAD JOB DEVELOPMENT



IMPROVED HEALTH AND SAFETY



REDUCED RELIANCE ON FOSSIL FUELS



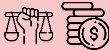
COMMUNITY SAVINGS



CONNECTED COMMUNITIES



ENERGY SECURITY

Actions, Pillar, and Co-benefits			
	groups to teach bicycle and pedestrian safety in schools and workplaces and to educate residents and businesses about the safe route availability and the health and environmental benefits of walking, bicycling, and using public transit.		
	T.1.1f: Develop a Specific Capital Improvement Plan for active transportation and mobility projects for disadvantaged and vulnerable communities. Partner with community-based organizations with connections to disadvantaged and vulnerable communities to engage the community in the development and implementation of the plan.		
Updated	T.1.1g: Partner with community groups to obtain funding through the California Air Resources Board Carsharing and Clean Mobility Options Incentive Program for a pilot bike-share program for disadvantaged and vulnerable communities and to connect disadvantaged and vulnerable communities with the E-Bike Purchase Incentive Program through CalBike and the California Air Resources Board (CARB), 511 Contra Costa, Contra Costa Transportation Authority, and the Bay Area Air Quality Management District.		
	T-1.1h: Promote active transportation through car-free events by identifying areas of the City to periodically close streets to cars, potentially coupled with the Farmer's Market or other large and regular community events.		
	T-1.1i: Work with a partner such as Lyft, Lime, Bike East Bay, 511 Contra Costa, or Encina Bicycle Center, to establish a book-a-bike program within the Civic Center.		
	T-1.1j: Devote staff time to tracking and applying for grant funding to complete projects that would improve active transportation or mobility in the community.		
	T-1.1k: Implement all policy recommendations included in the Pittsburg Moves to improve pedestrian and bicycle networks and increase		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT  IMPROVED HEALTH AND SAFETY  REDUCED RELIANCE ON FOSSIL FUELS	 COMMUNITY SAVINGS  CONNECTED COMMUNITIES  ENERGY SECURITY
 FEASIBILITY	 EDUCATION		
 FUNDING	 PARTNERSHIP		

Actions, Pillar, and Co-benefits	transit ridership based on the established timeframes. T-1.1I: Install approximately 45 miles of bikeways by 2040, including approximately 26 additional miles of shared-use paths; 7 miles of new buffered bike lanes; 8 miles of new bike boulevards; and 17 miles of new separated bikeways.		
Cost	City Cost: High Community Cost: No cost		
Equity Guardrails	Access to Health and Safety Benefits, Equitable Allocation of Costs and Benefits, Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Bicycle and pedestrian mode share (%)		

<u>Pillars</u>		<u>Co-Benefits</u>	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

T-1.2 – Implement public and shared transit programs to increase public transit mode share from 10.1% in 2020 to 12% by 2030 and 17% by 2045.

Increasing public transit mode share provides benefits beyond reducing GHG emissions from vehicles. Public transit and shared transportation can shift communities towards a healthier future by reducing local air pollutants and boosting quality of life. For Pittsburgh, this means a safer and more affordable means of transportation, increased mobility, alleviating traffic congestion, improving air quality, enhancing accessibility for marginalized communities, and promoting economic growth by reducing transportation costs for individuals and businesses alike. Public transportation has substantially lower crash rates and lower crash severity³⁹ than automotive travel and improves public health by reducing air pollution. It also provides cost saving opportunities due to savings from less fuel, maintenance, insurance, and registration costs. Public transportation also fosters public health improvements because most public transit users regularly walk or bike to access points.⁴⁰ This trend can result in improved health and reduced medical expenses when coupled with the local air quality improvements that reduced mobile combustion of fossil fuels provides.

Actions, Pillar, and Co-benefits	T.1.2a:	Establish guidelines and recommended standards for new development of public space to be transit accessible and multi-functional by co-locating public facilities.		
	T.1.2b:	Consistent with the intention of Senate Bill 10, allow developers to build housing without off-street parking if they're close to frequent transit service.		
	T.1.2c:	Partner with Tri-Delta Transit to conduct a study to determine transit priority corridors and prioritize infrastructure improvements in existing neighborhoods that enable people to better access and use public transit.		
	T.1.2d:	Conduct engagement efforts for the general public and targeted to disadvantaged and vulnerable communities to understand the community's concerns around or barriers to using public and/or shared transit.		
	T.1.2e:	Through the adoption of an Overlay or Specific Plan, encourage employers to develop a Transportation Demand Management (TDM) Plan. Design a baseline TDM Plan for large employers (i.e., businesses with more than 25 employees) to adopt or model their TDM's after. TDM plans should include money-based		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

39. <https://www.transportation.gov/mission/health/Expand-Public-Transportation-Systems-and-Offer-Incentives>

40. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3407915/>

Actions, Pillar, and Co-benefits	incentives for employees to bike, walk, carpool, or take the bus to work. T-1.2f: Conduct engagement efforts for the general public, with a targeted approach to disadvantaged and vulnerable communities to understand the potential concerns around the analysis of disincentive-based policies for driving single passenger vehicles. Through feedback from these engagement efforts, define equity metrics for the implementation of disincentive-based policies and depending on the outcome of the analysis, structure the policies to meet these metrics.		     
Cost	City Cost: Moderate Community Cost: Moderate		
Equity Guardrails	Access to Health and Safety Benefits, Equitable Allocation of Costs and Benefits, Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement		
KPI	Public transit and shared transport mode share (%)		

<u>Pillars</u>		<u>Co-Benefits</u>	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY



Transportation

T-2 Increase Zero-Emission Vehicle and Equipment Use

- T-2.1 Increase passenger zero-emission vehicle adoption from 2.3% in 2020 to 15% by 2030 and 100% by 2045.
- T-2.2 Increase commercial zero-emission vehicle adoption from less than 1% in 2020 to 10% by 2030 and 100% by 2045.
- T-2.3 Transition 5% of all (i.e., commercial and residential) off-road equipment to zero-emission alternatives by 2030 and 100% by 2045.

T-2.1 – Increase passenger zero-emission vehicle adoption from 2.3% in 2020 to 15% by 2030 and 100% by 2045.

Widespread adoption of passenger zero-emission vehicles (ZEVs) provides a range of benefits including significantly reduced GHG emissions, improved public health, and cost savings. By avoiding the local combustion of fossil fuels, ZEVs reduce the level of smog, particulate matter, and other harmful pollutants that will, in turn, help reduce the incidence of respiratory illness.⁴¹ Additionally, without fluids to replace and with fewer moving parts, ZEVs produce long-term costs savings through lower operating and maintenance costs than internal combustion engine vehicles. However, it is important that the transition to ZEVs is equitable and accessible to all Pittsburgh residents. Purchasing a ZEV and upgrading home infrastructure to allow for charging (e.g., receptacle installation, electrical panel upgrade) can be an upfront cost difficult for members of disadvantaged and vulnerable communities to prioritize. Similarly, residents of rental and multi-family properties may lack the property rights to upgrade infrastructure for charging. The actions below focus on an equitable transition to ZEVs through the installation of publicly-available chargers across the City, the implementation of financing mechanisms for ZEVs and at-home chargers, and extensive research and engagement to begin developing a ZEV network that overcomes local barriers to implementation.

Actions, Pillar, and Co-benefits 			
	T.2.1a:	Establish a prioritized list of locations in Pittsburgh for new publicly accessible electric vehicle charging stations with consideration for equitable distribution of chargers to renters, residents of multi-family homes, residents living on low and fixed-incomes, and disadvantaged and vulnerable communities. Include locations for Level 2 charging where residents make extended stops and locations for Level 3 charging (DC Fast Charging) for residents without access to overnight charging and for highway travelers. Install at least 50 new publicly accessible charging stations by 2030 and 100 by 2045, through public-private partnerships and on City-owned properties at the identified locations. Promote the availability of new public chargers on social media and on the City's website.	 
	T.2.1b:	Continue to maintain a streamlined electric vehicle (EV) infrastructure permitting process and ordinance in accordance with AB 1236.	 
	T.2.1c:	Allow for granting of zero emission vehicles (ZEVs) access to preferred parking spaces in new private parking lots, where it is logical, feasible and not cost-prohibitive.	 

<u>Pillars</u>				<u>Co-Benefits</u>			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

41. <https://www.sciencedirect.com/science/article/abs/pii/S0048969723003765?via%3Dihub>

Actions, Pillar, and Co-benefits		T.2.1d: Work with MCE and PG&E to incentivize residential electric vehicle charger installations and panel upgrades through on-bill financing. Promote the incentives through multi-lingual outreach material on the City’s website and at community events.		
	Updated	T.2.1e: Coordinate with community-based organizations, local agencies, and non-profits to conduct ZEV education events for residents and targeted events for members of disadvantaged and vulnerable communities that would engage the community to evaluate the barriers to ZEV adoption, promote information on the costs and benefits of owning ZEVs, and promote steps on how to purchase a ZEV and receive incentives (including education on pre-owned EVs and how to determine current battery range).		
		T-2.1f: Develop outreach and education materials and distribute to local businesses, rental and multi-family property owners, and developers on the financial (e.g., new funding streams), environmental, and health and safety benefits of ZEVs. Provide information on available funding opportunities and the City’s streamlined permitting process.		
	Updated	T-2.1g: Conduct outreach, including interviews with residents and business owners to evaluate the feasibility of adopting an electric vehicle charging infrastructure reach code that meets or exceeds the minimum requirements of the Tier 2 Voluntary Standards under CALGreen. Partner with community-based organizations with connections to disadvantaged and vulnerable communities to include targeted outreach and interviews to members of disadvantaged and vulnerable communities to understand equity impacts of the reach code and barriers to adoption.		
		T-2.1h: Explore opportunities to assist disadvantaged and vulnerable community members to purchase and operate ZEVs including:		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

Actions, Pillar, and Co-benefits	▪ Opportunities with CARB, BAAQMD, or other agencies to start a purchase rebate program and provide higher trade-in value for combustion vehicles ▪ Opportunities with MCE and other agencies to discount charger and/or electricity rates for those with an electric vehicle. T-2.1i: Collaborate with neighboring jurisdictions and the Contra Costa Transportation Authority to develop a connected network for zero emission vehicle car share. T-2.1j: Support zero-emission vehicle car share companies in coming to the City. Coordinate with car share companies and community-groups to develop an affordable, zero-emission vehicle car share to serve affordable housing and/or multifamily developments with a priority to target disadvantaged and vulnerable communities.	 	
Cost	City Cost: High Community Cost: Low		
Equity Guardrails	Access to Health and Safety Benefits, Equitable Allocation of Costs and Benefits, Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Passenger ZEV adoption (%)		

Pillars Co-Benefits			
 EQUITY  FEASIBILITY  FUNDING	 STRUCTURAL CHANGE  EDUCATION  PARTNERSHIP	 HIGH-ROAD JOB DEVELOPMENT  IMPROVED HEALTH AND SAFETY  REDUCED RELIANCE ON FOSSIL FUELS	 COMMUNITY SAVINGS  CONNECTED COMMUNITIES  ENERGY SECURITY

T-2.2 – Increase commercial zero-emission vehicle adoption from less than 1% in 2020 to 10% by 2030 and 100% by 2045.

In addition to improving air quality and reducing GHG emissions, increasing commercial ZEV adoption brings cost-savings, improved energy security, and increased competitiveness for businesses. Commercial ZEVs, such as electric delivery trucks, can help to reduce operating costs by minimizing fuel and maintenance expenses, while also providing cost-savings through improved energy efficiency. For this transition to be successful, it is important to confirm Pittsburgh businesses of all sizes have access to the resources and support they need to make the transition. Furthermore, increasing commercial ZEV adoption can also lead to improved public health outcomes by reducing local air pollution in the City. Diesel-powered commercial vehicles are a significant source of particulate matter and other harmful pollutants, which can have negative health impacts, especially for vulnerable populations such as children, the elderly, and those with respiratory conditions. By transitioning to ZEVs, businesses can contribute to cleaner air and a healthier community and play an active role in establishing the most sustainable future. Additionally, increasing commercial ZEV adoption can also enhance energy security by reducing reliance on imported fossil fuels, which can be subject to price volatility and supply disruptions.

Actions, Pillar, and Co-benefits			
	T.2.2a: Consider establishing a licensing fee for commercial delivery vehicles operating on fossil fuels (such as Amazon and FedEx) to provide funding for new active transportation and EV charging/ZEV fueling infrastructure and discounting the fee for the proportion of electric vehicles the delivery company uses. Evaluation of the fee would include: ▪ Engaging directly with delivery service providers operating in the City ▪ Determining if phasing is needed ▪ Identifying gaps in ZEV fueling/charging infrastructure to maintain route efficiency.		
	T.2.2b: Encourage commercial vehicle fleet operators to accelerate electrification by providing them educational material on the benefits of ZEVs (e.g., fuel cost savings through networked charging and current availability of ZEVs ahead of State mandates), educating them on the City's streamlined permitting process, and compiling and distributing information on potential funding opportunities. Include Pittsburgh Unified School District's zero-emission buses as a case study to demonstrate the feasibility and benefits of transitioning commercial fleets to ZEVs.		

<u>Pillars</u>				<u>Co-Benefits</u>			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

Cost	City Cost: Low Community Cost: Low
Equity Guardrails	Access to Health and Safety Benefits, Provides Local and Accessible High-road Job Development
KPI	Commercial ZEV adoption (%)

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

T-2.3 – Transition 5% of all (i.e., commercial and residential) off-road equipment to zero-emission alternatives by 2030 and 100% by 2045.

Like the adoption of ZEVs, decarbonizing off-road equipment offers significant GHG emission reductions and air quality improvements. Off-road equipment, such as landscaping equipment and construction equipment, emit both GHG emissions and local smog-forming emissions. In California, total smog-forming emissions from small off-road engines exceed emissions from light-duty passenger vehicles. Likewise, operating a commercial leaf blower for one hour emits smog-forming pollution comparable to driving a new light-duty passenger car about 1,100 mile or over 15 hours of driving.⁴² These characteristics mean zero-emission alternatives for off-road equipment can help create a cleaner and healthier Pittsburg. However, decarbonizing off-road equipment requires upfront costs that can be difficult for residential and business members of disadvantaged and vulnerable communities to navigate. An equitable transition to zero-emission alternatives requires a multi-faceted approach that addresses both the technical and financial barriers to adoption.

Actions, Pillar, and Co-benefits	T-2.3a: Develop small off-road equipment (SORE) guidelines in alignment with CARB’s goals encouraging that at time of replacement, zero emission landscape equipment be used starting in 2024 and portable generators be zero-emissions by 2028.		
	T-2.3b: Partner with BAAQMD to identify funding opportunities to encourage residents to replace gas-powered landscaping equipment and off-road engines with zero emission equipment with a focus on funding opportunities for members of disadvantaged and vulnerable communities and small and minority-owned businesses.		
	T-2.3c: Conduct an investigation of major commercial off-road equipment fleets in Pittsburg and identify fleets with highest decarbonization potential and fleets in disadvantaged and vulnerable communities that will need targeted support to transition.		
	T-2.3d: Develop an Off-road Equipment Replacement Outreach Campaign that provides information to contractors, residents, and fleet operators in Pittsburg, with a target towards those identified with high decarbonization potential		

Pillars				Co-Benefits			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

42. <https://ww2.arb.ca.gov/resources/fact-sheets/sore-small-engine-fact-sheet>

Water

W-1 Increase Water Conservation and Local Water Supply

- W-1.1 Reduce per capita water consumption 10% by 2030 and 30% by 2045, from 2016 levels.
- W-1.2 Increase recycled water use in the City.
- W-1.3 Increase green stormwater infrastructure.

W-1.1 – Reduce per capita water consumption 10% by 2030 and 30% by 2045, from 2016 levels.

California has experienced its driest two decades in at least 1,200 years,⁴³ with models predicting the current “megadrought” to continue despite occasional heavy precipitation events, such as what the state experienced in winter 2023. This new reality underscores the pressing need for communities to take proactive steps to reduce water consumption, in order to build a resilient and sustainable future for all. By reducing community water consumption, we can help to preserve and protect this precious resource, ensuring that it remains available for the long-term. Moreover, reducing water consumption can also lead to significant cost savings for both residents and businesses alike, as lower utility bills can translate into real monetary savings. At the community level, reducing water consumption can enable fewer investments in water treatment and delivery infrastructure, resulting in a more efficient and cost-effective water system. In addition to the economic benefits, reducing water consumption can also have positive environmental impacts, such as reducing the energy required to pump and treat water, thus leading to energy savings.

Actions, Pillar, and Co-benefits Updated			
	W.1.1a: Adopt a Water Conservation and Water Shortage Contingency Program Ordinance to establish a clear protocol of drought thresholds that trigger varying water use reduction strategies that focus primary on domestic water use, health and sanitation, and fire protection.		
	W.1.1b: Continue to implement and enforce Model Water Efficient Landscape Ordinance to encourage use of efficient irrigation systems, greywater usage, onsite storm water capture, and limit the portion of landscapes that can be covered in turf.		
	W.1.1c: Continue the “Delta Water Education Program” to promote and reinforce the importance of water resources, water conservation, and local management of watersheds and water quality, to children in the local community.		
	W.1.1d: Continue to partner with Contra Costa Water District to promote water conservation messaging, including multi-lingual education materials such as publications, website pages, community events and booths, workshops and presentations, newsletters, newspaper ads, and bill inserts. Include targeted outreach to disadvantaged and vulnerable communities to reduce utility bill burdens.		
Pillars Co-Benefits			
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

43. <https://www.nytimes.com/2022/02/14/climate/western-drought-megadrought.html>

Actions, Pillar, and Co-benefits	W-1.1e: Continue to partner with Contra Costa Water District to provide water conserving fixtures/fittings and rebates for appliances to residents throughout Pittsburg, with a focus on disadvantaged and vulnerable communities to reduce utility bill burdens.		
	W-1.1f: Maintain a comprehensive, coordinated education campaign focused on property owners, landlords, property management companies, and occupants for reducing the use of water in homes and businesses. Establish a shared understanding of existing incentives for appliances, fittings and fixtures; lawns; and irrigation systems, and how to access them, including Contra Costa Water District incentive programs and rebates.		
	W-1.1g: Perform analysis to understand the feasibility and potential potable water savings of adopting a Dual Drainage Plumbing Ordinance to provide information to community members.		
	W-1.1h: Promote the Living Green Gardens, the City's water-wise public demonstration garden, to encourage efficient landscape and watering practices and to provide a hands-on learning experience for members of the community. Additionally, develop more classes on new materials and continue active maintenance of the garden.		
	W-1.1i: Implement water conservation strategies, such as increasing efficiency and use of recycled water, in City landscaping and grounds maintenance procedures.		
	W-1.1j: Consider the adoption of an ordinance in the Municipal Code that requires hospitality agencies (i.e., hotels and motels) to only provide daily services upon request and share such information with guests. Engage hospitality agencies and other stakeholders in the evaluation process.		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

Actions, Pillar, and Co-benefits	New	W-1.1k: Continue to partner with Contra Costa Water District (CCWD) to promote the “Lawn to Garden Rebate” to encourage residents and business owners to transition their existing lawns to waterwise landscaping. Provide specific outreach to multi-family and commercial entities, including providing flyers in water bills and partnering with “My Pittsburg Chamber” to provide information to business entities in the community.		
	New	W-1.1.l: Apply for a rebate to transition non-essential municipal lawns to native, waterwise landscaping, and promote the Living Green Garden to continue offering a place for community members to visit and learn more about waterwise landscaping and available incentives and rebates, as well as information on local nurseries that provide native waterwise landscaping.		
Cost	City Cost: ModerateCommunity Cost: No cost			
Equity Guardrails	Promote Housing Affordability & Anti-Displacement, Provides Local and Accessible High-road Job Development			
KPI	Per capita water use (gallons)			
 EQUITY  STRUCTURAL CHANGE  FEASIBILITY  EDUCATION  FUNDING  PARTNERSHIP  HIGH-ROAD JOB DEVELOPMENT  IMPROVED HEALTH AND SAFETY  REDUCED RELIANCE ON FOSSIL FUELS  ENERGY SECURITY  COMMUNITY SAVINGS  CONNECTED COMMUNITIES				

W-1.2 – Increase recycled water use in the City.

Increasing recycled water use in the City can increase adaptive capacity in Pittsburg while providing environmental and economic benefits. First and foremost, recycling water can help increase the adaptive capacity of the community by establishing an additional water supply that can be utilized during times of extreme drought or water scarcity. This additional water supply can also expand the community's access to a regenerative water source, providing strong equity benefits to Pittsburg communities. Additionally, recycling water can reduce the environmental impact of upstream water processes when compared to those for “new” water — such as extraction or the energy used to pump and deliver water long distances. When used to replace existing drinking water supplies for non-potable uses (e.g., irrigation and industrial uses), recycled water can lower water utility bills.⁴⁴ Additionally, recycled water can be used for groundwater recharge. Groundwater recharge through recycled water not only helps replenish depleted aquifers, but it also plays a crucial role in enhancing water availability during drought periods and mitigating the effects of over-extraction. By injecting treated recycled water into underground aquifers, the natural storage capacity of groundwater is replenished, creating a sustainable and reliable source of water for future generations. These characteristics equate to a dependable and affordable water supply that provides local businesses an incentive to remain in the City.

Actions, Pillar, and Co-benefits	W-1.2a: Work with Delta Diablo to perform a feasibility study on increasing local recycled water supply through expansion in purple piping infrastructure or inclusion of tertiary treated wastewater effluent to supplement existing potable water supply. The feasibility study would evaluate potential impacts to cost of service and investigate ways to maintain or decrease costs of service through the projects.		
	W-1.2b: Complete a feasibility study to identify opportunities for increased access to recycled water and to accurately determine the quantity of recycled water available to the City. The feasibility study would analyze possible land use types (i.e., landscaping and fields) and specific projects that could switch from potable to recycled water.		
	W-1.2c Pursue funding opportunities at the State and federal level, such as the Clean Water State Revolving Fund and the US Bureau of Reclamation's WaterSMART grants, to create more financial incentive for increased recycled water infrastructure.		
	New W-1.2d Continue to partner with Contra Costa Water District to identify new incentives and rebates		

<u>Pillars</u>				<u>Co-Benefits</u>			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

44. <https://www.sciencedirect.com/science/article/pii/S0921344921005577>

Actions, Pillar, and Co-benefits	and promote existing programs on the City's water webpage for opportunities such as the "Landscape to Laundry Greywater Rebates" to install a greywater system and "Car Wash Coupons" for car wash facilities that use recycled water to incentive residents to "go grey."		
Cost	City Cost: Moderate Community Cost: N/A		
Equity Guardrails	Promote Housing Affordability & Anti-Displacement, Provides Local and Accessible High-road Job Development		
KPI	Change in recycled water use (million gallons)		

Pillars				Co-Benefits			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

W-1.3 – Increase green stormwater infrastructure.

Green stormwater infrastructure refers to the construction and retrofit of storm drainage to reduce runoff volumes, disperse runoff to vegetated areas, harvest and use runoff where feasible, promote infiltration and evapotranspiration, and use bioretention and other natural systems to detain and clean runoff before it reaches our creeks and the Bay. It is a nature-based solution that in addition to improving water quality, increasing community resilience to precipitation events, and reducing consumption of potable water, provides a multitude of important co-benefits to the community. Green stormwater infrastructure can serve as visible green projects for the community that beautify neighborhoods, create ecological habitats, enhance economic vitality for local businesses, and demystify the groundwater management system by brining it above ground. Green stormwater infrastructure—such as pervious pavement, rain gardens, and rainwater harvesting systems—can be incorporated into construction on new and previously developed parcels, as well as new and rebuilt streets, roads, and other infrastructure within the public right-of-way. The actions below leverage the work Pittsburg is already doing to increase green stormwater infrastructure in the community and create a framework of incentives and education to increase the community's awareness of and participation in green stormwater infrastructure.

Actions, Pillar, and Co-benefits	W-1.3a: Continue to implement the Green Infrastructure Plan to retrofit 4 acres of existing impervious surfaces through private and public developments; and update the plan as needed to monitor progress and revise project priorities.		
	W-1.3b: Continue compliance with the City's National Pollutant Discharge Elimination System (NPDES) permit to require new developments to convey runoff to engineered bioretention basins or vegetative features.		
	New W-1.3c: Partner with Contra Costa Water District to create incentives as part of their Rainwater Harvesting Program to help residents install rain barrels.		
	W-1.3d: Develop and promote incentive programs and rebates for residents and businesses to replace their impervious surfaces with pervious surfaces, including water-wise landscaping.		
	Updated W-1.3e: Continue to partner with Delta Diablo and Contra Costa Water District to conduct an on-going educational campaign to provide community members information on the benefits of green stormwater infrastructure and opportunities to incorporate green		

Pillars				Co-Benefits			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

44. <https://www.sciencedirect.com/science/article/pii/S0921344921005577>

Actions, Pillar, and Co-benefits	stormwater infrastructure into their homes and business properties (including ways to harvest and use the rainwater). Consider developing an interactive map that identifies completed and ongoing green stormwater infrastructure projects in the City (including those at City-owned properties) for community members to explore.		
Cost	City Cost: Moderate Community Cost: N/A		
Equity Guardrails	Promote Housing Affordability & Anti-Displacement, Provides Local and Accessible High-road Job Development		
KPI	Change in recycled water use (million gallons)		

				<u>Pillars</u>				<u>Co-Benefits</u>			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FEASIBILITY		EDUCATION		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY				
	FUNDING		PARTNERSHIP								

Water

W-2 Minimize Water Loss System-wide

- W-2.1 Reduce real and apparent system water loss from a rate of 13% in 2020 to less than 10% by 2030 and less than 7% by 2045

W-2.1 – Reduce real and apparent system water loss from a rate of 13% in 2020 to less than 10% by 2030 and less than 7% by 2045

While reducing water consumption and increasing recycled water use helps increase resilience and affordability, a resilient and affordable water supply system is also one that minimizes real and apparent water losses. Although water loss from small household leaks might seem insignificant, leaks can seriously add up over the long-term. According to the US EPA, the average family can waste 180 gallons per week, or 9,400 gallons of water annually⁴⁵ from household leaks. These leaks are equivalent to the amount of water needed to wash more than 300 loads of laundry. These cumulative leaks not only waste water but also contribute to higher utility bills for consumers and put additional strain on water infrastructure systems. For this reason, reducing real and apparent system water loss from a rate of 13% in 2020 to less than 10% by 2030 and less than 7% by 2045 in the City can provide substantial water savings to the community and help alleviate utility bill burdens for members of disadvantaged and vulnerable communities.

Actions, Pillar, and Co-benefits	W.2.1a: Maintain and continually improve the advanced metering and public facing software that allows water customers to check real-time water consumption data and explore water conservation recommendations based on their actual water consumption history.		
	W.2.1b: Continue to enforce standards set by water waste prevention ordinances stipulated in the Municipal Code.		
	W.2.1c: Continue to partner with CCWD to promote their water efficiency rebates for residential and commercial customers. Develop flyers and other promotional material on the rebates to distribute at community events and perform targeted outreach to members of disadvantaged and vulnerable communities to help reduce utility bill burdens.		
	W.2.1d: Create a "How to Find and Fix a Leak at Home Guide" for distribution at public counters and events, promote "National Fix A Leak Week" in March of every year, and continue to incorporate water waste messaging into communications strategy.		

<

45. <https://www.epa.gov/watersense/statistics-and-facts>

Actions, Pillar, and Co-benefits	W.2.1e: Continue to partner with CCWD to provide Water Wise House Calls to residential customers and work with CCWD to expand the program to commercial customers to complete leak detections, provide tips to avoid high water bills, increase indoor and outdoor water efficiency, and provide information on how to monitor personal water use. Perform targeted outreach to promote the program to members of disadvantaged and vulnerable communities to help reduce utility bill burdens.		
Cost	City Cost: Moderate Community Cost: No cost		
Equity Guardrails	Equitable Allocation of Costs and Benefits, Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Real and apparent system water loss (%)		

<u>Pillars</u>		<u>Co-Benefits</u>	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

Solid Waste

SW-1 Organic Waste Diversion

SW-1.1 Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025.

SW-1.1 – Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.

Sustainable solid waste management is a critical component to a healthy and inclusive Pittsburg. While waste may not be the most glamorous sector, it holds important connections to GHG emissions and community health, and when reimagined serves as a tangible touchpoint to every Pittsburg resident and business. Landfilled organic waste emits 20% of the state’s total methane emissions⁴⁶—a powerful GHG pollutant 28 times more potent than carbon dioxide. Meeting SB 1383 requirements and reducing emissions of short-lived climate pollutants (SLCP) like methane will not only have the most immediate impact on mitigating climate change, but also improve the health and safety of the community by reducing air pollutants, building access and security to healthy food through local food recovery programs, and fostering a connected Pittsburg by encouraging residents to participate in composting workshops and peer-to-peer learning events. Additionally, the implementation of these measures can lead to job creation and economic growth by stimulating the development of innovative technologies and the expansion of green industries.

Actions, Pillar, and Co-benefits			
	SW.1.1a: Adopt municipal procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.		
	New SW.1.1b: Work with Mt. Diablo Resource Recovery to establish and implement a detailed outreach and engagement plan for restaurants, grocery stores, and other commercial entities that generate organic waste to provide education and available resources for increased organic diversion.		
	SW.1.1c: Support the County with information and collaborative planning to provide sufficient edible food reuse infrastructure to accept the capacity needed to recover 20% of edible food disposed or identify proposed new or expanded food recovery capacity.		
Updated	SW.1.1d: Continue working with the Bay Area Recycling Outreach Coalition and Mt. Diablo Resource Recovery and Pittsburg Unified School District to establish and provide exciting education and outreach programs for school children and adults around food waste prevention, nutrition education, and the importance of edible food recovery. The education program may include:		



EQUITY



STRUCTURAL CHANGE



FEASIBILITY



EDUCATION



FUNDING



PARTNERSHIP



HIGH-ROAD JOB DEVELOPMENT



IMPROVED HEALTH AND SAFETY



REDUCED RELIANCE ON FOSSIL FUELS



COMMUNITY SAVINGS



CONNECTED COMMUNITIES



ENERGY SECURITY

46. <https://calrecycle.ca.gov/organics/slcp/>

Actions, Pillar, and Co-benefits			
	- Composting principals, including information on what composting means and why it is important. - Materials that can be composted, which typically include food scraps, yard waste, paper, and other organic matter. - Methods for composting, such as aerobic, anaerobic, and vermicomposting. - Composting equipment required for each potential composting methodology. - Suggestions to troubleshoot or resolve any problems that arise, including information on potential odors and pests. - How to efficiently apply and incorporate compost into soil.		
New	SW.1.1e: Investigate the opportunity to participate in a regional compost trading program to help meet organic waste procurement goals.		
Updated	SW.1.1f: Create relationships with local food recovery organizations, such as FoodShift, the Food Bank of Contra Costa and Solano, religious organizations, and edible food generators to support the establishment of an edible food recovery program to minimize food waste in the City.		
	SW.1.1g: Foster County partnerships to host home composting workshops in the City of Pittsburg and to provide reduced priced composting bins.		
	SW.1.1h: Provide free compost bins and kitchen-top food waste containers to members of disadvantaged and vulnerable communities and elderly households to increase participation in Mt. Diablo Resource Recovery's residential organics curbside program.		
	SW.1.1i: Monitor bill increases from participation in the residential organics curbside program and consider City incentive programs for members of disadvantaged and vulnerable communities to increase participation and reduce utility bill burdens.		

Pillars	Co-Benefits
 EQUITY  STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT  COMMUNITY SAVINGS
 FEASIBILITY  EDUCATION	 IMPROVED HEALTH AND SAFETY  CONNECTED COMMUNITIES
 FUNDING  PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS  ENERGY SECURITY

Solid Waste

SW-2 Reduce Community Waste Generation

SW-2.1 Reduce community-wide waste generation 55% by 2025 and 90% by 2040 statewide, from 2014 levels.

SW-2.1 – Reduce community-wide waste generation 55% by 2025 and 90% by 2040 statewide, from 2014 levels.

Reducing waste conserves the energy and water that goes into the manufacturing and transportation of the products while mitigating the potential air, soil, and water contamination its disposal would cause. Additionally, minimizing waste also contributes to the overall sustainability and long-term well-being of our planet by preserving natural resources and reducing GHG emissions. Achieving communitywide waste reduction, and eventually a state-envisioned zero waste future,⁴⁷ starts at the local level and requires improving existing recycling programs and creating new pathways for waste reduction and reuse. Leveraging critical partnerships with groups like Mt. Diablo Resource Recovery and implementing waste diversion plans and targeted education/outreach will prove instrumental to supporting the community’s efforts in waste generation reduction. Other actions include waste characterization studies to inform waste management planning, potential “problem material” bans, and additional partnerships to promote repair and reuse, all of which will help reduce, directly or indirectly, the environmental and health impacts of landfilled material.

Actions, Pillar, and Co-benefits	SW.2.1a: In partnership with Mt. Diablo Resource Recovery, create a Waste Diversion Plan to reduce waste and increase reuse in the City. Upon finalization, provide the plan to Pittsburg Unified School District, Los Medanos College, retirement communities, and other large institutions to use as a model for adopting their own policies to reduce waste and increase reuse.		
	SW.2.1b: Require large events, as defined in SB 1383, and encourage smaller events to employ or designate an event waste management team and have easy to understand waste, recycling, and organics bin signage to assist with source separation of waste generated at events.		
	SW.2.1c: Conduct periodic waste characterization studies of all City waste streams at the Recycling Center & Transfer Station to evaluate progress, hone approaches, customize outreach/policy, and inform targeted campaigns and policy. Fill in waste generation gaps by collecting data from take-back locations (e.g., grocery stores, auto shops, carpets, mattresses, battery collection).		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

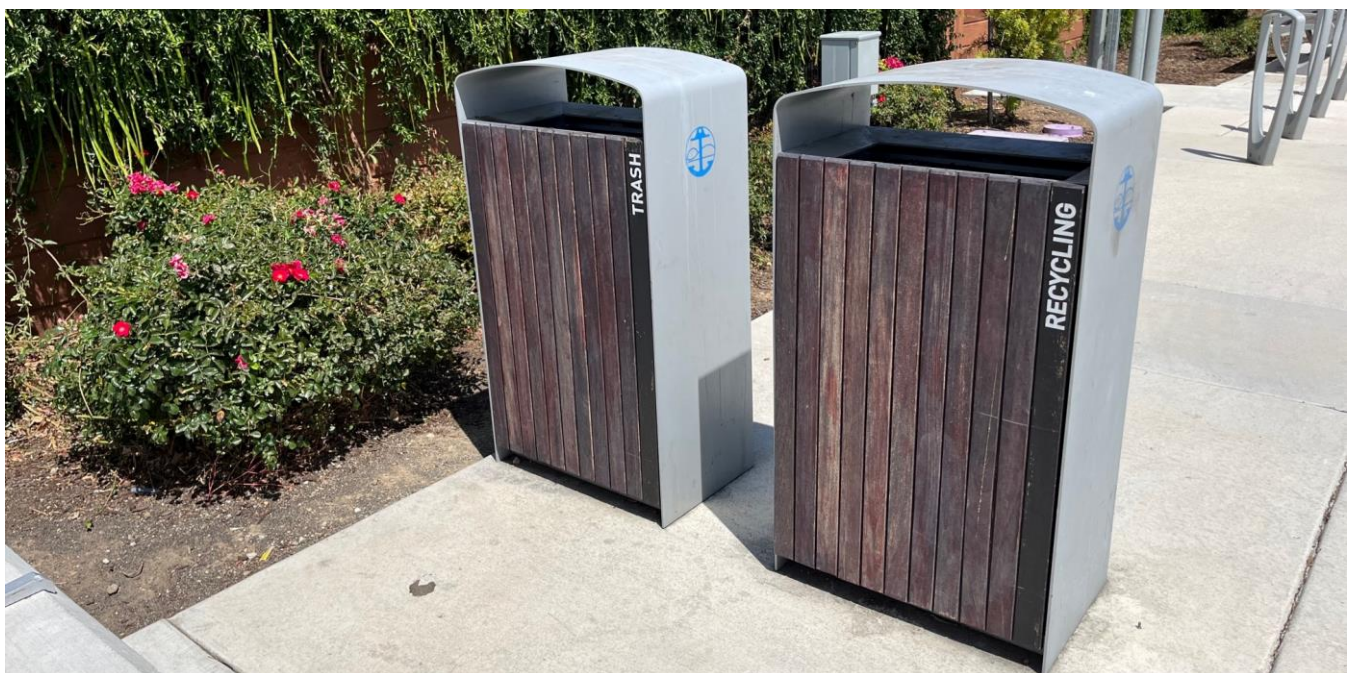
47. <https://calrecycle.ca.gov/zerowaste/>

Actions, Pillar, and Co-benefits	SW.2.1d: Partner with Mt. Diablo Resource Recovery to conduct targeted, multi-lingual, culturally appropriate, and geographically diverse waste prevention educational and technical assistance campaigns based on outcomes of waste characterization studies (e.g., food waste prevention, edible food recovery strategies, proper storage, how to fix clothes/electronics, how to donate, reusable alternatives, effects of over consumption, sustainable consumption habits, buying second hand, buying durable, sharing, and repurposing).		
	SW.2.1e: Impose a fee on single use bags and foodware to fund the waste reduction programs and studies.		
	Updated SW.2.1f: Partner with local businesses, nonprofits, and community groups or organizations to establish pop-up repair cafes for commonly broken and easily repaired items. Additionally, partner with the library to promote reuse by increasing accessibility to shared tools through a tool lending program. In addition to providing available resources, also work with experts in various fields to provide quick reference guidance documents or record short videos that residents can refer to when borrowing specific equipment to learn the most effective ways of using the tools available. Tools provided through the library could include: ▪ Power tools ▪ Hand tools ▪ Electrical tools ▪ Gardening tools ▪ Auto repair tools ▪ Bike repair tools ▪ Sewing and clothing repair tools		
	SW.2.1g: Based on waste characterization studies explore banning top "problem materials" (i.e., items without means of recycling or recycling		

Pillars			Co-Benefits		
	EQUITY			HIGH-ROAD JOB DEVELOPMENT	
	FEASIBILITY			IMPROVED HEALTH AND SAFETY	
	FUNDING			REDUCED RELIANCE ON FOSSIL FUELS	

Actions, Pillar, and Co-benefits	markets, such as sale of polystyrene, produce bags, plastic packaging, straws, plastics #4-7, mixed materials or a specific size/type/etc.). Engage small and minority-owned businesses through targeted outreach to identify equity impacts of such a ban. New SW.2.1h: Partner with Delta Diablo to promote use of the existing Household Hazardous Waste facility. Additional promotion and education to the community could include sending out an annual mailer, providing regular updates on Pittsburg's social media pages, and through flyers and brochures available at community events.		
Cost	City Cost: Low Community Cost: Moderate		
Equity Guardrails	Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Change in community-wide waste generation (%)		

<u>Pillars</u>		<u>Co-Benefits</u>	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY



Carbon Sequestration

CS-1 Carbon Sequestration

- CS.1.1 Increase carbon sequestration by planting 150 new trees annually through 2045 to sequester carbon and create urban shade to reduce heat island effect.
- CS.1.2 Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community by 2030, increasing up to 0.10 by 2045.

CS-1.1 – Increase carbon sequestration by planting 150 new trees annually through 2045 to sequester carbon and create urban shade to reduce heat island effect.

Increasing urban tree canopy coverage and protecting existing trees is essential for a healthier, more livable Pittsburgh. Along with carbon sequestering benefits, a healthy urban tree canopy can support local cooling, stormwater absorption, and provide a wide variety of health benefits⁴⁸ for residents. By providing shade and cooling the air, adequate canopy coverage can reduce the urban heat island effect and mitigate the effects of climate change. For disadvantaged and vulnerable communities where there is below average tree equity, this can prove especially beneficial for both reducing energy costs due to cooling and minimizing disproportionate heat-health related problems. Further, by absorbing and filtering rainwater, trees can help to reduce stormwater runoff and improve water quality. This benefit can help to reduce the strain on the City's stormwater systems and prevent flooding. Studies have also shown that individuals have less mental distress, less anxiety and depression, greater wellbeing and healthier cortisol profiles⁴⁹ when living in urban areas with more greenspace. The wide-ranging benefits of a healthy urban tree canopy are clear, and the actions provide a framework for Pittsburgh to economically and equitably implement tree planting and urban forestry management programs.

Actions, Pillar, and Co-benefits	CS.1.1a: Conduct an urban forest inventory and canopy study to inventory the existing urban forest as a baseline and continue to identify areas in Pittsburgh that have below average canopy coverage, such as census block group 60133141033 and 60133120001, to design and implement a tree planting program focusing on the least covered portions of the City. As part of the Urban Forest Inventory, establish a goal of having no significant difference in canopy coverage between census blocks by 2040.		
	CS.1.1b: Continue protecting existing trees on private property through the Tree Preservation and Protection Ordinance and create a City incentive program (e.g., water bill rebate) for new tree plantings on private properties with a focus on members of disadvantaged and vulnerable communities and in areas where there is below average tree equity or canopy coverage.		
	CS.1.1c: Amend the Municipal Code to include street tree requirements for all zoning districts, strengthen shade tree requirements for new developments, and include permeable surface requirements for new development.		

Pillars			Co-Benefits		
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS		
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES		
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY		

48. <https://www.frontiersin.org/articles/10.3389/fevo.2021.603757/full>

49. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5663018/>

Actions, Pillar, and Co-benefits	CS.1.1d: Continue to dedicate staff time or create a staff position for obtaining grant funding for tree planting and urban forest management. Identify and apply for applicable federal (e.g., USDA) and state (e.g., California ReLeaf, Affordable Housing and Sustainable Communities Program (AHSC), Urban and Community Forestry Program) available grants for Tree Planting projects.		
	CS.1.1e: Develop and adopt an Urban Forest Management Plan that identifies the City's potential capacity for new tree planting, identifies a timeframe for implementation, provides a management plan for existing trees, and establishes a tracking system to assess progress towards annual benchmarks. Collaborate with community-based organizations with connections to disadvantaged and vulnerable communities in the development of the plan.		
	CS.1.1f: As an expansion to the Adopt-a-Spot Program, establish an Adopt-a-Tree program that enables individuals, businesses, and community organizations to plant and care for trees in selected communities with below average canopy coverage and disadvantaged and vulnerable communities. Program should provide formalized information on appropriate trees eligible for planting in Pittsburg (i.e., native, drought tolerant, locations).		
	CS.1.1g: Establish a Tree Trust or Tree Endowment where the interest on the principal can be used for purchasing trees in selected communities with below average tree canopy coverage, paying for tree maintenance in disadvantaged and vulnerable communities, or supporting staff resources for the Urban Forest Management Program.		
	New CS.1.1h: Continue the City's annual Citywide celebration Arbor Day event that encourages and educates residents on the importance of planting native trees and provides resources and support for		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

Actions, Pillar, and Co-benefits			
New	CS-1.1i Work with the Contra Costa County Resource Conservation District, East Bay Regional Park District, and community-based organizations such as Save Mount Diablo to preserve and expand greenspaces (i.e., large open spaces and regional parks) in Pittsburg to increase carbon sequestration and increase access to greenspaces.		
New	CS-1.1j Partner with community-based organizations such as Healthy Hearts and the John Muir Land Trust to increase the number of and access to urban community gardens in Pittsburg. Utilize such gardens to increase carbon sequestration; increase access to greenspaces for renters, residents living in multi-family housing, and members of vulnerable and disadvantaged communities; and provide high-road job development opportunities for members of vulnerable and disadvantaged communities.		
Cost	City Cost: Moderate Community Cost: No cost		
Equity Guardrails	Access to Health and Safety Benefits, Equitable Allocation of Costs and Benefits, Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Number of new trees planted annually		

Pillars	Co-Benefits
EQUITY  FEASIBILITY  FUNDING  STRUCTURAL CHANGE EDUCATION PARTNERSHIP 	 HIGH-ROAD JOB DEVELOPMENT  IMPROVED HEALTH AND SAFETY  REDUCED RELIANCE ON FOSSIL FUELS  COMMUNITY SAVINGS  CONNECTED COMMUNITIES  ENERGY SECURITY

CS-1.2 – Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community by 2030, increasing up to 0.10 by 2045.

Beginning in 2022, Senate Bill (SB) 1383 requires cities to annually procure 0.08 tons of compost per capita. Meeting this annual procurement target provides Pittsburg an opportunity to reduce GHG emissions, leverage economic development, and foster environmental benefits. Applying compost to lands is an effective way to sequester carbon by storing it in the soil rather than releasing it to the atmosphere. Compost also provides additional environmental benefits including improving soil health, increasing water conservation, and providing erosion control—all of which can be important benefits for community parks, institutions, and other natural working lands. Moreover, applying compost at scale to meet the SB 1383 requirement will require new programs and investments in infrastructure. These investments provide Pittsburg an opportunity to support a green, self-sustaining economy that leverages high-road jobs development for the local workforce.

Actions, Pillar, and Co-benefits	CS.1.2a: Conduct an informal audit of compost needs in the City to establish a baseline procurement and application level that meets City needs and increases over time.		
	CS.1.2b: Complete a feasibility study to identify locations within the City to apply mulch to help meet the procurement requirements of SB 1383 and maximize the application of compost over time, working with the City's Parks Department to maximize compost usage at City parks.		
	CS.1.2c: Collaborate with Los Medanos College and local schools to identify opportunities to apply compost to landscaping.		
	CS.1.2d: Work with Alameda County and StopWaste to identify opportunities for a regional compost procurement program.		
	CS.1.2e: Develop and adopt urban park guidelines that 1) provide flexible solutions for developing urban parks in infill areas where traditional neighborhood and community parks are not feasible; 2) establishes guidelines for achieving the greatest carbon sequestration potential of parks via design; 3) are equitable in ensuring such urban parks are accessible for members of disadvantaged and vulnerable communities while avoiding displacement; and		

Pillars		Co-Benefits	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

Actions, Pillar, and Co-benefits	4) align with requirements of the Clean California Local Grant Program for potential funding opportunities. Encourage urban parks as an opportunity to beautify the community and integrate art into sustainability projects.		
Cost	City Cost: ModerateCommunity Cost: N/A		
Equity Guardrails	Promote Housing Affordability & Anti-Displacement, Continues Investment and Engagement, Provides Local and Accessible High-road Job Development		
KPI	Compost applied annually (tons per capita)		



Municipal

M-1 Commit to Climate Action

- M-1.1 Complete annual progress reports on Pittsburgh's Sustainability Plan every three years.

M-1.1 – Complete annual progress reports on Pittsburg’s Sustainability Plan every three years.

Municipal leadership is essential to effective climate policy implementation and serves as a sustainability model the community can follow. With changes in lifestyle and behaviors playing a significant role in mitigating climate change, Pittsburg will lead by example through the promotion of effective and accelerative actions, and the exhibition of their work through publicly available progress reports on the City’s Sustainability Plan every three years. Assessing, tracking, and reporting key sustainability metrics over time will help targets be met, continuously address equity, and confirm that local actions are in line with state climate legislation. Additionally, fostering strong partnerships with local businesses and organizations will further enhance the city's climate efforts and create a more comprehensive and collaborative approach towards sustainability. Completing annual progress reports, increasing transparency, and spurring the progression of the Sustainability Plan will also further connect the community by providing a sense of accountability for goals that can only be reached through a collaborative effort.

Actions, Pillar, and Co-benefits	M.1.1a: Designate staff to manage sustainability programs that implement the Sustainability Plan actions by managing technical studies, leading outreach efforts, updating the website, networking with partners and stakeholders, and pursuing grant opportunities.		
	M.1.1b: Update the community wide GHG emissions inventory and progress on goals biannually in the monitoring tool and share the results with the community on the City's website to measure progress and maintain transparent accountability in making progress towards the Sustainability Plan goals.		
	M.1.1c: Update the Environmental Services webpage at least annually to provide updates on policies implemented as part of the Sustainability Plan.		
	M.1.1d: Devote staff time to tracking and applying for grant funding to complete regular Sustainability Plan updates.		
	M.1.1e: Hold regular sustainability outreach events, such as workshops, presentations, focus groups targeted at specific community groups, public contests or challenges, and an annual event such as Earth Day. Inform the community on		

Pillars				Co-Benefits			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

Actions, Pillar, and Co-benefits	potential climate change impacts, as well as weatherization and other actions that community members can take to implement actions outlined throughout the Plan. M-1.1f: Track and audit where goals are geographically implemented to determine that communities who are most impacted by climate change, including traditionally disadvantaged and vulnerable communities who would benefit the most from adaptation and mitigation efforts.		
Cost	City Cost: Moderate Community Cost: N/A		
Equity Guardrails	Continues Investment and Engagement		
KPI	Number of community outreach events hosted, and value of grants acquired (\$), annual progress report published		

<u>Pillars</u>		<u>Co-Benefits</u>	
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY

Municipal

M-2 Reduce Municipal Reliance on Natural Resources

- M-2.1 Electrify 25% of existing City facilities by 2030 and 100% of existing City facilities by 2045, as well as all newly constructed City buildings, while also increasing renewable energy use.
- M-2.2 Transition 50% of the City's vehicle and equipment fleet to renewable fuels and electric by 2030 and 100% by 2045.
- M-2.3 Reduce the number of single occupancy, fossil fueled vehicle annual employee commute trips 20% by 2030 and 50% by 2045.

M-2.1 – Electrify 25% of existing City facilities by 2030 and 100% of existing City facilities by 2045, as well as all newly constructed City buildings, while also increasing renewable energy use.

As the sustainability leader for the community, the City of Pittsburgh will implement programs, policies, and objectives within our own operations to demonstrate the feasibility, cost-effectiveness, and climate and health benefits of various sustainability initiatives. These initiatives includes electrifying 25% of existing City facilities by 2030 and 100% of existing City facilities by 2045, as well as requiring all newly constructed City buildings to be all-electric. Electrification of the built environment will be critical to reducing municipal GHG emissions from fossil fuel combustion and eliminate the health risks of natural gas use in poorly ventilated areas. Leading by example is crucial because when the community witnesses the City's commitment to sustainability through tangible actions, it inspires and motivates them to adopt similar practices, fostering a collective effort towards a greener future.

Actions, Pillar, and Co-benefits	Updated	M.2.1a: Complete energy audits for all City facilities and implement feasible recommendations for fuel switching and efficiency upgrades.		
		M.2.1b: Opt-up 100% of municipal accounts to MCE's Deep Green energy option by 2030.		
		M.2.1c: Establish a policy requiring all new City-owned buildings be all-electric and a policy requiring all existing natural gas-powered equipment in City-owned buildings be replaced with electric or other zero-emission alternatives at the end of useful life, where technologically feasible.		
		M.2.1d: Identify a municipal building to pilot an all-electric retrofit. Track the change in energy usage and utility bill costs before and after the retrofit to study net benefits.		
		M.2.1e: Partner with PG&E through the Sustainable Solutions Turnkey (SST) program to install renewable energy technology at municipal facilities (such as City Hall) and become a net-zero energy organization.		
		M-2.1f: Partner with PG&E to identify and install battery energy storage systems at appropriate City facilities (including the City Hall/Police Station and the Pittsburgh Marina), and leverage projects to further promote benefits of		

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Actions, Pillar, and Co-benefits	distributed energy storage, which are directly connected to a renewable resource. M-2.1g: Complete analysis to identify the electrical capacity and utility infrastructure upgrades needed to electrify the recreational pool heating system. Pursue replacement funding through PG&E on-bill financing and California Energy Commission 1% Loans, or other funding sources.		
Cost	City Cost: Moderate Community Cost: N/A		
Equity Guardrails	Access to Health and Safety Benefits, Provides Local and Accessible High-road Job Development		
KPI	Facilities electrified (%), share of new municipal construction electrified (%), and capacity of renewable energy installed (Megawatt)		

<u>Pillars</u>				<u>Co-Benefits</u>			
	EQUITY		STRUCTURAL CHANGE		HIGH-ROAD JOB DEVELOPMENT		COMMUNITY SAVINGS
	FEASIBILITY		EDUCATION		IMPROVED HEALTH AND SAFETY		CONNECTED COMMUNITIES
	FUNDING		PARTNERSHIP		REDUCED RELIANCE ON FOSSIL FUELS		ENERGY SECURITY

M-2.2 – Transition 50% of the City's vehicle and equipment fleet to renewable fuels and electric by 2030 and 100% by 2045.

The City of Pittsburgh will continue to position ourselves as a sustainability leader and role model for the community by leveraging fleet electrification. We will transition 50% of our vehicle and equipment fleet to renewable fuels and electric alternatives by 2030 and 100% by 2045. Reducing GHG emissions from the transportation sector can have arguably the largest impact on mitigating climate change, and with the prices of EV batteries⁵⁰ and renewable energy⁵¹ near all time lows. Making the switch now has never been more favorable. With more federal and state funding becoming available through the Inflation Reduction Act and various clean vehicle programs, the transition will also be cost-competitive and provide cost savings (from reduced fossil fuel, maintenance, etc.) over the life cycle of the vehicles and equipment.

Actions, Pillar, and Co-benefits	M.2.2a: Conduct a study to assess the technological and economic feasibility of replacing the City-owned fleets and off-road equipment and develop a time of replacement schedule for applicable vehicle and equipment types.		
	M.2.2b: Upon completion of the study, adopt a ZEV-first purchasing policy for non-essential City fleet vehicles, using the transition to encourage residents to convert as well.		
	M.2.2c: Upon completion of the study, develop and implement a plan to replace all City owned end-of-life off-road equipment with zero-emission equipment. The plan should include evaluation of current City-owned equipment, alternative low or zero-emission options, prioritize equipment to replace first (e.g., largest GHG emission reduction potential), and a timeline for replacements that align with goals and feasibility of replacement.		
	M.2.2d: Secure funding from programs such as the California Air Resources Board's Clean Vehicle Rebate Project and the Truck and Bus Voucher Incentive Program to increase procurement of EV or ZEV cars, trucks, and other vehicles and installation of EV/ZEV charging/fueling infrastructure at municipal facilities. Additionally explore opportunities for Low Carbon Fuel Standard credit generation from		

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50. <https://www.energy.gov/eere/vehicles/articles/fotw-1272-january-9-2023-electric-vehicle-battery-pack-costs-2022-are-nearly>

51. <https://www.washingtonpost.com/politics/2022/09/16/clean-energy-just-got-lot-more-cost-competitive-report-says/>

Actions, Pillar, and Co-benefits	use of low carbon fuels/electricity for fleet vehicles. M-2.1e: Install new public and employee EV chargers at City-owned facilities. M-2.1f: Transition to all-electric landscaping equipment, including leaf blowers, for municipal operations. Use this to promote all-electric equipment in the community, providing information on the City website outlining available incentives for residents and businesses.	 	
Cost	City Cost: High Community Cost: N/A		
Equity Guardrails	Access to Health and Safety Benefits, Provides Local and Accessible High-road Job Development		
KPI	Percent of fleet and equipment decarbonized (%)		

Pillars		Co-Benefits	
 EQUITY  FEASIBILITY  FUNDING	 STRUCTURAL CHANGE  EDUCATION  PARTNERSHIP	 HIGH-ROAD JOB DEVELOPMENT  IMPROVED HEALTH AND SAFETY  REDUCED RELIANCE ON FOSSIL FUELS	 COMMUNITY SAVINGS  CONNECTED COMMUNITIES  ENERGY SECURITY

M-2.3 – Reduce the number of single occupancy, fossil fueled vehicle annual employee commute trips 20% by 2030 and 50% by 2045.

Reducing the number of single occupancy, fossil-fueled vehicle employee commute trips annually can significantly reduce the GHG emissions resulting from municipal employee travel. Alongside GHG emissions reductions, reducing the number of single occupancy, fossil-fueled vehicle commute trips can provide cost-savings for employees and the City. While not as high during peak inflation periods in 2022, average California motor gasoline prices⁵² are still hovering close to the highest they’ve been in two decades. Reducing single occupancy, fossil-fueled vehicle employee commute trips can equate to reduced fuel demands and therefore reduced commute/travel expenses for employees and the City. By exploring alternative modes of transportation for employees and offering telecommute or flexible schedule options to reduce commute/travel time, the City can heavily influence the transition to more efficient and economical employee commuting.

Actions, Pillar, and Co-benefits	M.2.3a: Complete a survey to understand how staff currently travel and what would make them change their patterns to establish an accurate baseline in which to build future goals.		
	M.2.3b: Expand EV charging at public facilities: Install new public and employee EV chargers at City-owned facilities, and: - Consider developing and implement a fee for use of City-owned chargers to encourage efficient use and turnover, especially for those without home charging capability - Consider allocating EV charger fee revenue towards projects that support EV infrastructure, alternative fuel projects, and active transportation projects in neighborhoods that are historically underrepresented		
	M.2.3c: Provide bicycles and bicycle storage for employees to use during work hours for short business or personal trips. Additionally, establish bike lockers at City Hall that are usable to the public.		
	M.2.3d: Expand the subsidized transit commute program to reduce employee commute miles in single occupancy vehicles.		

Pillars			Co-Benefits		
 EQUITY	 STRUCTURAL CHANGE	 HIGH-ROAD JOB DEVELOPMENT	 COMMUNITY SAVINGS		
 FEASIBILITY	 EDUCATION	 IMPROVED HEALTH AND SAFETY	 CONNECTED COMMUNITIES		
 FUNDING	 PARTNERSHIP	 REDUCED RELIANCE ON FOSSIL FUELS	 ENERGY SECURITY		

52. https://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_sca_a.htm

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4. Implementation & Monitoring

Sustainability Plan: The First Step

The Sustainability Plan is the City's roadmap to work towards the established 2030 target which is consistent with the state's goal to reduce GHG emissions 40 percent below 1990 levels by 2030. While the Sustainability Plan goals and actions establish the City's first steps to work towards the 2030 target, more local work, goal development, and state actions will be needed to effectively reach the 2030 target and the longer-term carbon neutrality target in 2045. Additionally, the actions included in this Plan were developed to meet minimum state requirements, but the City reserves the right to exceed these requirements if determined beneficial for the community. Therefore, this plan should be viewed as a strategic framework that will be reevaluated on a triennial basis. This section details how the City will implement the actions, monitor progress, and prepare updates over time.

Team Pittsburgh

Achieving long-term GHG emission reduction targets will require participation from everyone. The City can help provide new services and technologies by implementing actions from training the local workforce and providing electric vehicle charging infrastructure to designating bike lanes, but it is up to the broader community to embrace these new services and technologies and gain the benefits outlined in this plan. Making meaningful progress towards reducing our GHG emissions starts with City leadership, through policies, education, and investments that act as catalysts for change throughout the wider community. Community partners like MCE, Tri Delta Transit, and local utility providers also support these policies with incentives and programs. Businesses can then leverage these policies to provide new services and adopt more sustainable practices. Finally, residents and visitors that have been provided with the incentives and education can actively work together to reduce our environmental impacts, become more sustainable, and decrease GHG emissions. As policies and programs are developed and infrastructure is constructed, City staff will continue to engage the community, provide

progress updates and create ongoing opportunities to solicit community feedback.

The City looks forward to working together with you to become more sustainable and reduce our long-term impact from GHG emissions through new/updated programs and opportunities that will help us meet our goals. *Thank you for being part of our team!*

Cost of Implementation

Anticipated cost estimates for each goal are provided as a range in Section 3, *GHG Reduction Strategy*. For each goal, the cost estimate focuses on both internal costs (municipal-focused) and external costs (community-focused) and provides insight into the variability of these costs. The primary variables that may affect cost effectiveness include upfront versus lifecycle costs and the cost of inaction, which are discussed further below in more detail.

Upfront versus Lifetime Costs

When evaluating how much specific initiatives cost, it is important to differentiate between the upfront costs, such as purchasing an electric vehicle, versus the lifecycle costs which include purchasing, operating, maintaining, and ultimately disposing of that vehicle. Purchasing an electric vehicle could cost more than the industry average vehicle. However, the lifecycle costs of owning an electric vehicle are comparable and sometimes lower than the lifecycle costs of owning an internal combustion engine vehicle. While electric vehicles are more expensive upfront, their operating and maintenance costs are lower since they do not have fluids to replace, have fewer moving parts like transmissions, and experience less brake wear. These lower operating and maintenance costs make the lifecycle costs of owning an electric vehicle comparable and many times lower than an internal combustion engine vehicle, even though the upfront costs were higher. This example demonstrates the importance of considering the lifecycle costs for each goal rather than just the upfront costs.

Additionally, it is anticipated that the cost of electric vehicles will continue to go down as manufacturers continue to implement innovative battery technologies and refine the process to build more affordable models.

It is important to keep in mind that doing nothing to prepare for and mitigate climate change will also carry a cost. The alternative to implementing these goals is not zero.

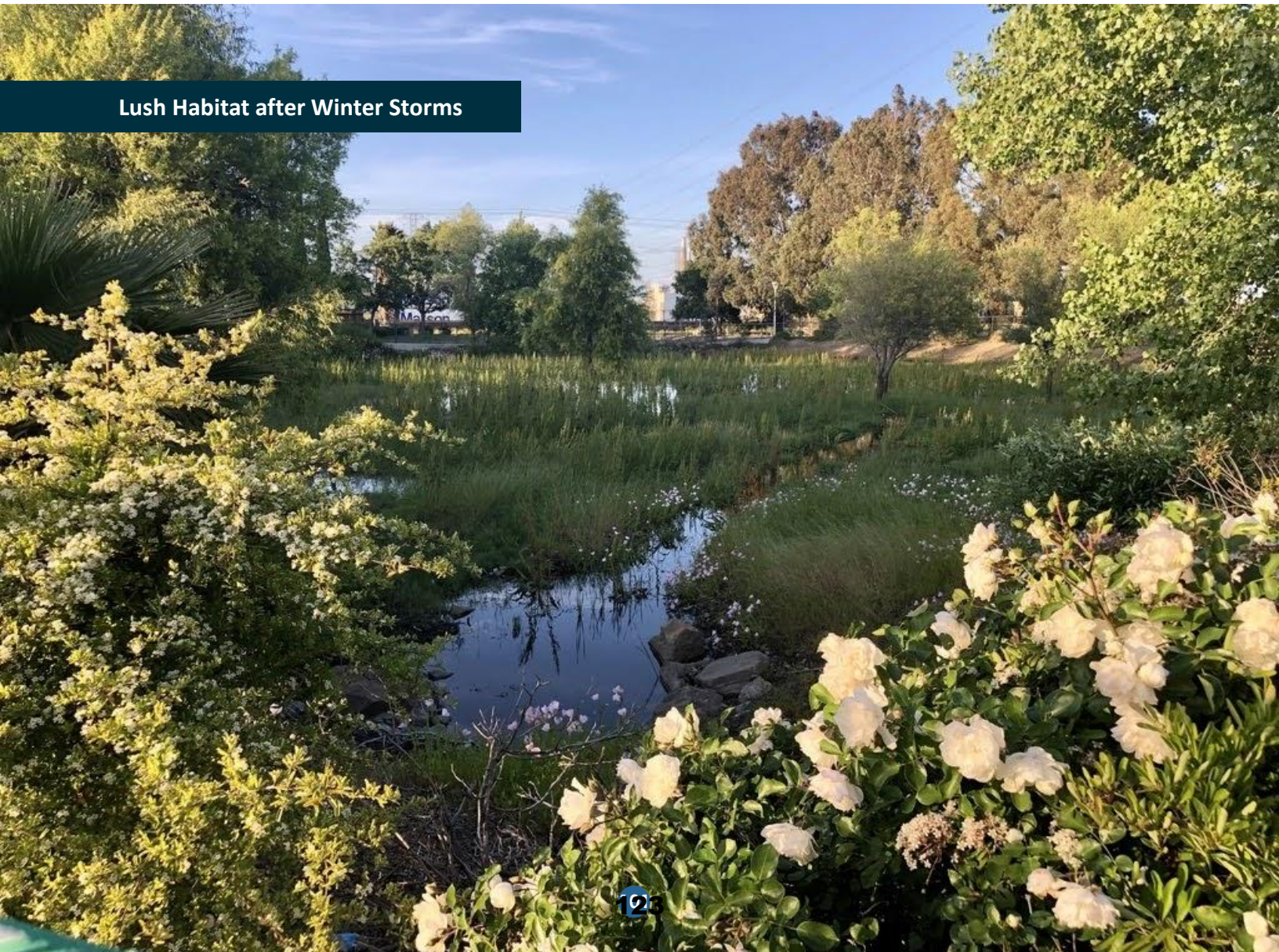
The Cost of Inaction

One immediate example demonstrating the cost of inaction is installing conduit and panel capacity for electric vehicle chargers for all new

construction. While this action increases upfront can be an order of magnitude higher (~\$3,000). Given the move towards electric vehicles, the cost of not installing EV infrastructure today could cost the community significantly more in the future. In a similar vein, adaptation goals will cost the City and the community today. Planting trees, installing microgrids, and setting up cooling centers all have upfront costs. However, it's important to weigh these costs against the costs of a future without these adaptive goals given what we know about impacts from a changing climate. Research published in the journal *Nature*, predict the global cost of not decreasing emissions to reach carbon neutrality by mid-century could range between \$149.78 trillion to \$791.98 trillion by the end of the century.⁵³ That same study found that if we

53. <https://www.nature.com/articles/s41467-020-15453-z>

Lush Habitat after Winter Storms



mitigate climate change and achieve carbon neutrality by mid-century the world could see a \$127 to \$616 trillion economic benefit after considering the cost of mitigation. The humanitarian impact is also significant. The Red Cross and Red Crescent Societies estimate that the number of people in need of humanitarian aid each year could double to 200 million annually by 2050 due to climate change, costing approximately \$20 billion per year.⁵⁴ Furthermore, the World Resources Institute has found that investing in adaptation and resilience provides a benefit-cost ratio ranging from 2:1 to 10:1, meaning that for every dollar invested in resilience and adaptation can equate to \$2 to \$10 dollars' worth of benefits.

Prioritization of Funding

In general, three main principles guide how strategies and future sustainability initiatives should be prioritized, which include:

1. **Equity.** The costs of implementing policies should be equitably spread amongst the community, taking extra care to limit new costs being placed upon segments of the population that are least able to shoulder them (i.e., disadvantaged and vulnerable communities). Where certain segments of the community will benefit disproportionately from an action, the costs should be spread accordingly.
2. **Cost-Effectiveness.** Strategy implementation should prioritize cost-effective actions, which can generate cost savings that will offset the costs to those who are required to pay for its implementation. While some actions may require some initial capital outlay, whenever possible these actions should generate long-term cost savings that will repay and even generate a return on investment.
3. **Ability to Leverage Local Resources.** Leveraging will involve using outside sources of funding to augment local resources to

fund implementation of the Sustainability Plan whenever possible. The City will seek grants, matching funds, in-kind contributions, and other resources from State, Federal, and philanthropic sources to help pay for actions and limit the cost to the City, residents, and businesses.

These components were identified and analyzed for each of the goal during the development phase to establish a plan that can be successfully implemented over time, with the smallest burden on the community.

What can we do Today?

One of the main goals of the Sustainability Plan is to bring awareness to sustainability in the community across all sectors and provide information about what we can each do today to make a difference and set our community on the path towards a more sustainable future with significant GHG emission reductions.

City Leadership

Due to the systemic nature of climate change, relying on voluntary, individual actions will not be enough to reduce GHG emissions in a significant way. However, that does not derail the progress of our individual actions, which could collectively result in real change. Local governments across the United States are stepping up as leaders of climate action and innovation. Reducing GHG emissions is going to require serious commitment, and communities like Pittsburg are perfectly situated to begin implementing new solutions to reduce GHG emissions in our local municipalities.

Making meaningful progress towards reducing Pittsburg's GHG emissions starts with the leadership of City government, through strong actions like providing permit incentives and developing equitable outreach programs that spur change in the community. There is a wealth of opportunities for the City of Pittsburg to take action to improve the community while also reducing its GHG emissions. It is important that these opportunities are taken advantage of, so

54. <https://reliefweb.int/report/world/cost-doing-nothing-humanitarian-price-climate-change-and-how-it-can-be-avoided>

real momentum can be built upon, and Pittsburg can establish a path towards the 2030 GHG emission reduction targets.

Actions that the Pittsburg City government can take today to lead the way on local sustainability action include:

- Providing incentives for residential and commercial electrification that have been reviewed and updated for procedural equity
- Developing outreach programs to educate residents about available incentives for energy efficiency retrofits, such as installing LED lightbulbs or upgrading old appliances
- Applying for grants to provide funding for sustainability programs and green infrastructure, such as building new bike lanes or improving the City's urban canopy

Community Role

As a resident or visitor of Pittsburg, we can also create direct change by making conscientious choices and actively engaging in sustainable initiatives. Figure 10 shows six example actions that individuals can take to be more sustainable and reduce their personal GHG emissions in the short-term. For additional actions that you can take today that will reduce your GHG emissions, see Section 3 (*GHG Emission Reduction Strategies*), where individual actions for residents and businesses are discussed that align with the City's emission reduction and adaptation strategies, respectively.

Monitoring Timeframe and Tools

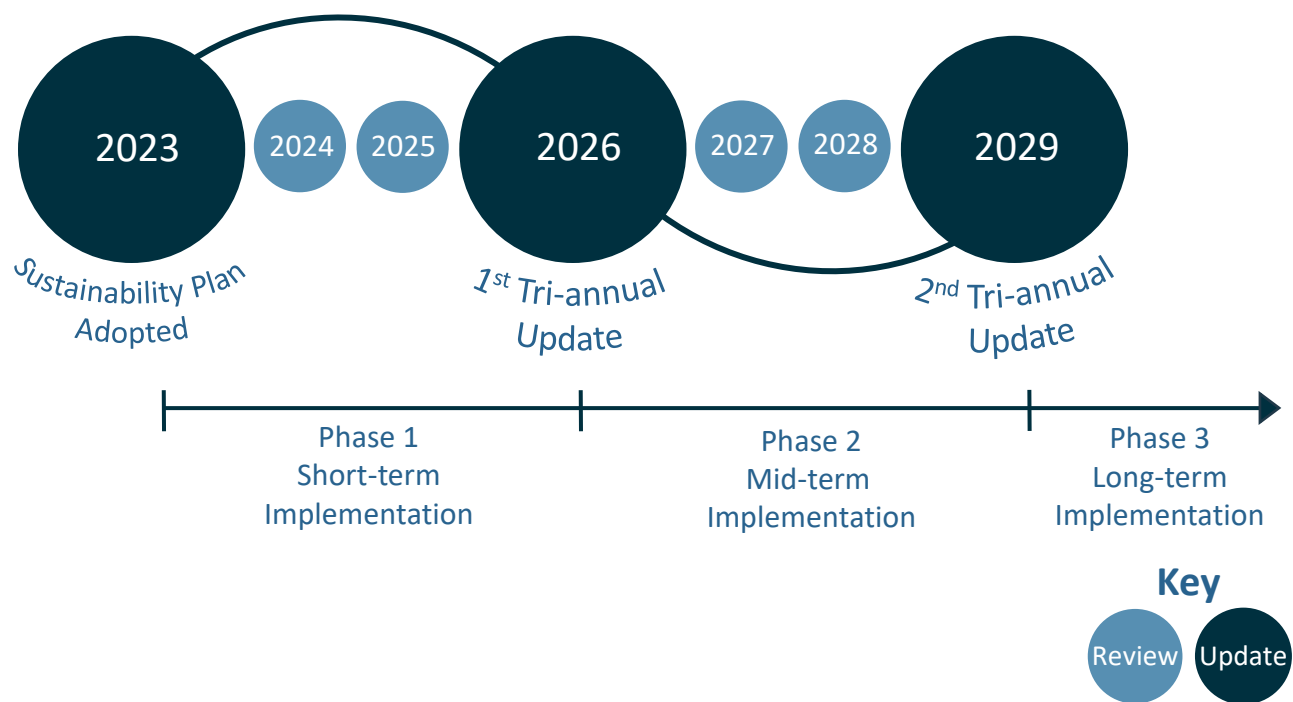
As part of the Sustainability Plan, the City will complete an annual progress report using CAPDash as well as a triennial review and update of the plan. The timeline in Figure 11 shows the monitoring and triennial update schedule for the plan, with a phased approach to goal implementation. The annual progress reports will include calculating an annual community wide GHG emissions inventory in CAPDash, as well as updating the progress of the emission reduction measures in the tool.

The City will conduct internal annual implementation monitoring of the GHG emissions reduction goals and report on this progress to City Council every third year beginning in 2026. The process for monitoring and quantifying goal implementation status relies on key target metrics identified for each of the goals and actions, as summarized in Section 3.

Figure 10. What Can I do Today?



Figure 11. Monitoring Timeline



By committing to annual monitoring of implementation progress and adjusting where necessary, Pittsburg can rise to meet the local and global imperative of reducing GHG emissions. In the process of meeting that challenge, we will benefit from the supplemental health, economic, resilience, and other co-benefits of the GHG emissions reduction measures. This plan marks another major milestone in the City's commitment to a sustainable future. A full implementation summary is saved in Table 10.

Table 10. Implementation and Monitoring Table

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Strategy C-1 Cornerstone to Climate Action Planning				
Goal C-1.1 Provide high-road jobs to members of disadvantaged and vulnerable communities through a local High-road Workforce Development Program.				
C-1.1a	Establish a High-road Workforce Development Program that provides incentives to Pittsburg businesses and potential developers to establish apprenticeships programs for Pittsburg members of disadvantaged and vulnerable communities.	Community Development – Economic Development	1	
C.1.1b:	Apply for grant opportunities to offer incentives to employers and developers for implementing local workforce apprenticeship programs, through grants such as Transformative Climate Communities Implementation Grant and High Road Training Partnerships: Resilient Workforce Fund Program.	Community Development – Economic Development	1	
C.1.1c:	Perform an analysis on current workforce opportunities within the City that provide potential for high-road jobs through direct engagement with local businesses. Through this analysis establish the criteria for high-road jobs and identify opportunities for bringing in additional developers and businesses that will provide jobs that meet these criteria.	Community Development – Economic Development	1	
C.1.1d:	Partner with community-based organizations with connections to disadvantaged and vulnerable communities to perform direct engagement promoting opportunities within the High-road Workforce Development Program.	Community Development – Planning and Economic Development	1	
C.1.1e:	Create a City webpage to provide resources related to the High-road Workforce Development Program to allow for posting of available resources and to develop an internship/apprenticeship board for local employers and Los Medanos College to share employment opportunities.	Community Development – Economic Development	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal C-1.1 Provide high-road jobs to members of disadvantaged and vulnerable communities through a local High-road Workforce Development Program.				
C.1.1f:	Amend the City's bid procurement and evaluation process to include local workforce (i.e., including Pittsburg residents in the project workforce) as a criterion for evaluating capital improvement project bids.	Public Works – Engineering	1	
Strategy E-1 Electrify the Building Stock				
Goal E-1.1 Electrify 75% of new construction in the City by 2026 and 100% of new construction in the City by 2029.				
E-1.1a	Conduct a cost effectiveness study by 2025 to analyze the impact of adopting an electrification ordinance for all new construction to inform future consideration of an ordinance.	Community Development – Planning and Building, Environmental Services	1	
E-1.1b	Identify and partner with local community-based organizations with connections to disadvantaged and vulnerable communities to conduct targeted outreach to identify and analyze equity concerns with an electrification ordinance for all new construction to inform future consideration of an ordinance.	Community Development – Planning and Building, Environmental Services	1	
E-1.1c	Establish partnerships with the Building Decarbonization Coalition, MCE, Bay Area Regional Energy Network, the International Brotherhood of Electrical Workers, and others, to engage with local interested parties from the building industry, such as local developers, to evaluate the feasibility of adopting an electrification ordinance for all new construction and inform future consideration of an ordinance.	Community Development – Planning and Building, Environmental Services	1	
E-1.1d	Partner with organizations such as the Building Decarbonization Coalition, MCE, and Bay Area Regional Energy Network to compile a suite of case studies and cost-effective strategies (e.g., energy efficiency improvements) for electric buildings by prototype, help educate building owners and the construction	Environmental Services, Community Development – Planning and Building	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-1.1 Electrify 100% of new construction in the City by 2026.				
	industry on the cost savings, environmental benefits, and versatility associated with all-electric construction, and educate developers and other interested parties on new appliances and approaches to building electrification. Share the information on the City's website, at City events, and at the City's permit counters.			
E-1.1e	Provide education around cooking with electric appliances partner with local chefs and/or restaurants to host cooking demonstrations at community events such as the Farmers' Market, Green Footprint Festival, or Pittsburgh First Fridays.	Community Development – Economic Development, Environmental Services	1	
E-1.1f	Partner with the Bay Area Regional Energy Network and the International Brotherhood of Electrical Workers, or similar entities, to provide technical resources, including hosting workforce development trainings as part of the Highroad Workforce Development Program for installers, local contractors, and building owners/operators to discuss the benefits and technical requirements of electrification. Partner with community-based organizations to connect members of disadvantaged and vulnerable communities to these training programs.	Community Development – Economic Development, Environmental Services	1	
Goal E-1.2 Electrify existing residential buildings to reduce residential natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.				
E-1.2a	Develop a residential building electrification strategy with a detailed existing building analysis and electrification costs analysis to understand cost implications, identify potential equity concerns/impacts, and develop equitable strategies and recommended standards for electrifying existing residential buildings such as those that increase energy efficiency and tenant protections. Identify and partner with local community-based organizations with connections to disadvantaged and vulnerable communities to conduct	Community Development – Building, Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-1.2 Electrify existing residential buildings to reduce residential natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.				
	intentional, thoughtful, and specific community outreach during development of the electrification strategy to understand the community's concerns and needs around electrification.	Community Development – Planning and Building	2	
E-1.2b	During the electrification strategy development process, engage the community to evaluate the feasibility of adopting a time of replacement electrification ordinance in the future for HVAC and hot water heaters.	Community Development – Building, Environmental Services	1	
E-1.2c	Develop a permit tracking program for existing building electrification to track annual progress in achieving the electrification goals.	Community Development – Planning, Environmental Services	1	
E-1.2d	Partner with stakeholders such as MCE and PG&E to understand the feasibility of, establish, and promote funding pathways to ease community costs for electric appliances, electrification retrofits, and panel upgrades through: - Federal and state grants/subsidies - Tariffed On-bill financing - Metered energy efficiency - Linking electrification to existing weatherization programs	Community Development – Economic Development, Environmental Services	1	
E-1.2e	Partner with PG&E to provide free electrification assessments to rental and multi-family properties to provide recommendations on electric upgrades and funding opportunities.	Community Development – Planning and Building, Environmental Services	1	
E-1.2f	Establish a working group of rental and multi-family property owners, as well as tenants that live in these units to: - Identify common goals (e.g., saving money on utility bills, reducing carbon footprint, improving indoor air quality) - Collaborate on initiatives, which would provide a space for tenants and homeowners to implement initiatives that align with the shared goals (e.g., installing energy-efficient lighting or appliances, adding building insulation, and/or installing solar panels).	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-1.2 Electrify existing residential buildings to reduce residential natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.				
	- Establish communication channels to discuss progress, address hurdles, and work together on implementation. - Share resources between tenants and homeowners.			
E-1.2g	Conduct targeted outreach to rental and multi-family property owners to distribute information about available retrofit incentives and long-term benefits, associated with electrification and weatherization.	Community Development – Planning and Building, Environmental Services	1	
E-1.2h	Review and update building codes to provide streamlined permitting for all electric retrofits. Provide Building Department staff training and information on the benefits of electrification for permit applicants.	Community Development – Building	1	
E-1.2i	Partner with MCE and PG&E to review incentives, rebates, and financing options for procedural equity and ensure that existing and updated incentive programs are being equitably distributed to the community to reduce energy bill burdens. Hurdles to equitable implementation could include credit checks, excessive procedural hurdles and lack of targeted outreach.	Environmental Services	1	
E-1.2j	Work with MCE to a conduct feasibility study to evaluate the current uptake and effectiveness of Proper Assessed Clean Energy (PACE) financing for installation of renewable energy systems in single-family and multi-family homes. If feasibility study indicates effectiveness, continue to offer PACE financing for single-family and multi-family homes to install renewable energy systems.	Community Development –Building	1	
E-1.2k	Partner with a financing/management company - to provide electrification services and financing to the community with prioritization of members of disadvantaged and vulnerable communities.	Community Development – Economic Development, Environmental Services	2	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-1.2 Electrify existing residential buildings to reduce residential natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.				
E-1.2I	Partner with Pittsburgh Below Market Rate (BMR) housing stock owners to develop a strategy to begin electrifying publicly owned BMR housing. Identify a group of publicly owned BMR housing to conduct a full electrification pilot to help test and further develop the strategy. Promote the pilot as an example to the wider community on the feasibility and benefits of residential electrification.	Community Services-Building, Community Services – Housing Authority, Environmental Services	2 – 3	
Goal E-1.3. Electrify existing commercial buildings to reduce commercial natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.				
E-1.3a	Develop a strategy to support commercial building electrification, including initiatives and recommended standards for retrofitting commercial buildings, prioritizing appliance replacements, and avoiding expansion of natural gas infrastructure.	Community Development – Building, Environmental Services	1	
E-1.3b	Conduct engagement efforts for the commercial sector during development of the building electrification strategy to understand potential concerns and barriers to commercial electrification and educate commercial property owners on the potential cost savings and other benefits of electrification. Include targeted outreach to small businesses and minority-owned businesses to understand potential equity concerns with commercial electrification during the strategy development process.	Community Development – Building, Planning, and Economic Development, Environmental Services	1	
E-1.3c	Continue to work with Bay Area Regional Energy Networks, MCE, and StopWaste to improve, implement, and promote commercial electrification rebates and financing opportunities, as well as other offered incentives. Review the incentives for procedural equity and promote them to small and minority-owned businesses through targeted outreach.	Environmental Services, Community Development – Economic Development	1	
E-1.3d	Conduct focused interviews with commercial property owners to evaluate the feasibility of adopting a commercial building	Community Development –	2	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-1.3. Electrify existing commercial buildings to reduce commercial natural gas consumption 15% by 2030 and 100% by 2045, from 2016 levels.				
	electrification ordinance to ban the expansion of natural gas infrastructure and require appliance replacements to be all-electric where technologically feasible. Include interviews specifically with small and minority-owned businesses.	Economic Development and Building, Environmental Services		
E-1.3e	Track annual progress on commercial building electrification through the same permit tracking program developed for residential building electrification.	Community Development – Building	2	
E-1.3f	Conduct engagement efforts for the commercial sector to identify ways the City can support commercial battery storage installations.	Community Development – Building and Economic Development	2	
E-1.3g	Partner with the Chamber of Commerce to inform and facilitate electrification for commercial business owners.	Environmental Services, Community Development – Economic Development	2	
E-1.3h	Use municipal electrification efforts to promote the cost-saving benefits and feasibility of electrification to the commercial sector. Promote municipal building electrifications on the City’s website and at City permit counters with information on costs, timescale, and utility bill savings for each project.	Community Development – Economic Development and Building, Environmental Services	2	
Strategy E-2 Decarbonize Electricity and Increase Use and Storage of Local Renewable Energy				
Goal E-2.1. Increase the number of accounts enrolled in MCE’s programs to 95%, with a total of 40% of accounts enrolled in the Deep Green energy option by 2030.				
E-2.1a	Continue to work with MCE to conduct an annual analysis of opt-out rates in the City and expand the research to understand why residents and businesses opt out of MCE. Include targeted outreach to residents living on low and fixed incomes and disadvantaged and vulnerable communities to identify barriers to remaining with MCE.	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-2.1. Increase the number of accounts enrolled in MCE's programs to 95%, with a total of 40% of accounts enrolled in the Deep Green energy option by 2030.				
E-2.1b	Partner with MCE to design educational campaigns, including tabling at community events, establishing informational resources on the City's website, regularly posting on social media, and developing energy bill inserts, to highlight the benefits of 100% renewable energy.	Environmental Services	1	
E-2.1c	In collaboration with MCE, implement a pilot program to provide Pittsburgh's affordable housing units managed by the Pittsburgh Housing Authority MCE's Deep Green service by 2025. Identify funding options with MCE such as subsidy of pilot study through the non-discounted customers or grant funding.	Community Services – Housing Authority	1	
E-2.1d	Support an equitable transition to renewables by partnering with MCE to create a funding or subsidy program for customers enrolled in the California Alternate Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) programs to opt-up to MCE's Deep Green option. This may include subsidizing costs to customers who participate in CARE/FERA programs through non-discounted customer rate increase or obtainment of funding for disadvantaged and vulnerable communities. Include targeted outreach to educate residents on the availability of energy savings programs to help offset potential rate increases when opting-up.	Community Development – Economic Development	2	
Goal E-2.2. Increase generation and storage of local renewable energy.				
E-2.2a	Establish and streamline standards and permit requirements for electrification-related installations and battery storage systems, to allow for easier implementation of these technologies in Pittsburgh.	Community Development – Building	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-2.2. Increase generation and storage of local renewable energy.				
E-2.2b	Consider adopting a PV (Solar) Ordinance requiring residential and nonresidential building additions and alterations to install PV systems that meet minimum requirements of Tier 2 Voluntary Standards under CalGreen. Engage with local building industry stakeholders to understand concerns and develop exemptions to the ordinance where the installation of PV systems may not be economically feasible.	Community Development – Planning, Building, and Economic Development	1	
E-2.2c	Expand the partnership with GRID Alternatives through increased funding/promotion and promote the benefits of renewable energy through multi-lingual educational programs in order to support an equitable transition to renewable energy.	Environmental Services	2	
E-2.2d	Work with PG&E, MCE, and/or other community partners to support and incentivize local on-site energy generation and storage resources. This could include: - Connecting home and business owners, particularly those in disadvantaged and vulnerable communities, to incentives for renewable energy and storage including Net Metering Programs through PG&E for bill credits, the Disadvantaged Communities-single-family Solar Homes (DAC_SASH) program, Self-Generation Incentive Program (SGIP), and Equity Resilience rebates that provide an upfront rebate for battery storage, as well as the federal investment tax credit. - Promoting installation of storage technology in concert with renewable energy infrastructure through multilingual education programs, outreach, and information provided via City platforms. - Evaluating the feasibility of installing on- and off-site co-located community solar and storage facilities and, if demonstrated effective, installing at least 3 by 2030 to provide cost-saving and resilience benefits to disadvantaged and vulnerable communities.	Community Development – Economic Development, Environmental Services	2	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal E-2.2. Increase generation and storage of local renewable energy.				
E-2.2e	Provide educational materials and workshops to large commercial developers and large business property owners of the benefits of microgrids and energy resiliency resources to identify opportunities for solar installations and/or battery storage on site.	Community Development – Economic Development, Environmental Services	2	
E-2.2f	Partner with affordable housing providers to conduct a feasibility analysis of battery storage and solar projects at the affordable housing in Pittsburg that are eligible for Equity Resilience Incentives under the Self-Generation Incentive Program.	Environmental Services, Community Services – Housing Authority	3	
Strategy T-1 Reduce Passenger Car Vehicle Miles Traveled				
Goal T-1.1 Implement Pittsburg Moves, increasing active transportation mode share from 1.5% in 2020 to 3% by 2030 and 9% by 2045.				
T-1.1a	Based on the goals and policies outlined in Pittsburg Moves, coordinate with Contra Costa Transportation Authority to establish a target timeline and funding strategy that address each of the projects in Appendix A. The timeline should outline a path that confirms an equal focus on improvement projects that will benefit residents living in disadvantaged and vulnerable communities.	Public Works – Engineering	1	
T-1.1b	Complete the feasibility analysis outlined in the Pittsburg Moves Project List to begin implementing the supporting projects.	Community Development – Planning	1	
T-1.1c	Establish bicycle lockers and bicycle parking minimums for new developments by land use types.	Community Development – Planning	1	
T-1.1d	Work with existing commercial and institutional property owners to identify additional opportunities to install safe bicycle lockers and parking spaces to encourage residents and visitors to make short trips via active transportation.	Community Development – Planning	1	
T-1.1e	Partner with schools, employers, transit agencies, Bike East Bay, the League of American Bicyclists, Metropolitan Transportation Commission, and/or community groups to teach bicycle and	Community Development – Planning, Environmental	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal T-1.1 Implement Pittsburg Moves, increasing active transportation mode share from 1.5% in 2020 to 3% by 2030 and 9% by 2045.				
	pedestrian safety in schools and workplaces and to educate residents and businesses about the safe route availability and the health and environmental benefits of walking, bicycling, and using public transit.	Services		
T-1.1f	Develop a Specific Capital Improvement Plan for active transportation and mobility projects for disadvantaged and vulnerable communities. Partner with community-based organizations with connections to disadvantaged and vulnerable communities to engage the community in the development and implementation of the plan.	Community Development – Planning, Public Works – Engineering	1	
T-1.1g	Partner with community groups to obtain funding through the California Air Resources Board Car Sharing and mobility Options program for a pilot bike-share program for disadvantaged and vulnerable communities and to connect disadvantaged and vulnerable communities with the E-Bike Purchase Incentive Program through CalBike and the California Air Resources Board (CARB), 511 Contra Costa, Contra Costa Transportation Authority, and the Bay Area Air Quality Management District.	Community Development – Planning, Public Works – Engineering	1	
T-1.1h	Promote active transportation through car-free events by identifying areas of the City to periodically close streets to cars, potentially coupled with the Farmer’s Market or other large and regular community events.	Community Development – Economic Development, Environmental Services	1	
T-1.1i	Work with partners such as Lyft, Lime, Bike East Bay, 511 Contra Costa, or Encina Bicycle Center to establish a book-a-bike program within the Civic Center.	Community Development – Economic Development and Planning, Public Works – Engineering	1 – 2	
T-1.1j	Devote staff time to tracking and applying for grant funding to complete projects that would improve active transportation or mobility in the community.	Community Development – Economic Development and Planning, Public Works – Engineering	1 – 3	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal T-1.1 Implement Pittsburg Moves, increasing active transportation mode share from 1.5% in 2020 to 3% by 2030 and 9% by 2045.				
T-1.1k	Implement all policy recommendations included in the Pittsburg Moves to improve pedestrian and bicycle networks and increase transit ridership based on the established timeframes.	Community Development – Economic Development and Planning, Public Works – Engineering	1 – 3	
T-1.1l	Install approximately 45 miles of bikeways by 2040, including approximately 26 additional miles of shared-use paths; 7 miles of new buffered bike lanes; 8 miles of new bike boulevards; and 17 miles of new separated bikeways.	Public Works – Engineering	1 – 3	
Goal T-1.2 Implement public and shared transit programs to increase public transit mode share from 10.1% in 2020 to 12% by 2030 and 17% by 2045.				
T-1.2a	Establish guidelines and recommended standards for new development of public space to be transit accessible and multi-functional by co-locating public facilities.	Community Development – Economic Development, Public Works – Engineering	1	
T-1.2b	Consistent with the intention of Senate Bill 10, allow developers to build housing without off-street parking if they're close to frequent transit service	Community Development – Planning	1	
T-1.2c	Partner with Tri-Delta Transit to conduct a study to determine transit priority corridors and prioritize infrastructure improvements in existing neighborhoods that enable people to better access and use public transit.	Community Development – Planning, Public Works – Engineering	1	
T-1.2d	Conduct engagement efforts for the general public and targeted to disadvantaged and vulnerable communities to understand the community's concerns around or barriers to using public and/or shared transit.	Community Development – Economic Development	1	
T-1.2e	Through the adoption of an Overlay or Specific Plan, encourage employers to develop a Transportation Demand Management (TDM) Plan. Design a baseline TDM Plan for large employers (i.e., businesses with more than 25 employees) to adopt or model their TDM's after. TDM plans should include money-	Community Development – Economic Development and Planning	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal T-1.2 Implement public and shared transit programs to increase public transit mode share from 10.1% in 2020 to 12% by 2030 and 17% by 2045.				
	based incentives for employees to bike, walk, carpool, or take the bus to work.	Community Development – Economic Development and Planning	2	
T-1.2f	Conduct engagement efforts for the general public, with a targeted approach to disadvantaged and vulnerable communities to understand the potential concerns around the analysis of disincentive-based policies for driving single passenger vehicles. Through feedback from these engagement efforts, define equity metrics for the implementation of disincentive-based policies and depending on the outcome of the analysis, structure the policies to meet these metrics.	Community Development – Economic Development and Planning	3	
Strategy T-2.1 Increase Zero-Emission Vehicle and Equipment Use				
Goal T-2.1 Increase passenger zero-emission vehicle adoption from 2.3% in 2020 to 15% by 2030 and 100% by 2045.				
T-2.1a	Establish a prioritized list of locations in Pittsburgh for new publicly accessible electric vehicle charging stations with consideration for equitable distribution of chargers to renters, residents of multi-family homes, residents living on low and fixed-incomes, and disadvantaged and vulnerable communities. Include locations for Level 2 charging where residents make extended stops and locations for Level 3 charging (DC Fast Charging) for residents without access to overnight charging and for highway travelers. Install at least 50 new publicly accessible charging stations by 2030 and 100 by 2045, through public-private partnerships and on City-owned properties at the identified locations. Promote the availability of new public chargers on social media and on the City's website.	Community Development – Planning, Environmental Services	1	
T-2.1b	Continue to maintain a streamlined electric vehicle (EV) infrastructure permitting process and ordinance in accordance with AB 1236.	Community Development – Planning and Building	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal T-2.1 Increase passenger zero-emission vehicle adoption from 2.3% in 2020 to 15% by 2030 and 100% by 2045.				
T-2.1c	Allow for granting of zero emission vehicles (ZEVs) access to preferred parking spaces in new private parking lots, where it is logical, feasible and not cost-prohibitive.	Community Development – Planning, Public Works – Engineering	1	
T-2.1d	Work with MCE and PG&E to incentivize residential electric vehicle charger installations and panel upgrades through on-bill financing. Promote the incentives through multi-lingual outreach material on the City’s website and at community events.	Community Development – Economic Development and Planning	1	
T-2.1e	Coordinate with community-based organizations, local agencies, and non-profits to conduct ZEV education events for residents and targeted events for members of disadvantaged and vulnerable communities that would engage the community to evaluate the barriers to ZEV adoption, promote information on the costs and benefits of owning ZEVs, and promote steps on how to purchase a ZEV and receive incentives (including education on pre-owned EVs and how to determine current battery range).	Environmental Services	1	
T-2.1f	Develop outreach and education materials and distribute to local businesses, property owners, and developers on the financial (e.g., new funding streams), environmental, and health and safety benefits of ZEVs. Provide information on available funding opportunities and the City’s streamlined permitting process.	Community Development – Economic Development, Environmental Services	1	
T-2.1g	Conduct outreach, including interviews with residents and business owners to evaluate the feasibility of adopting an electric vehicle charging infrastructure reach code that meets or exceeds the minimum requirements of the Tier 2 Voluntary Standards under CALGreen. Partner with community-based organizations with connections to disadvantaged and vulnerable communities to include targeted outreach and interviews to members of disadvantaged and vulnerable communities to	Community Development – Economic Development, Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal T-2.1 Increase Zero-Emission Vehicle and Equipment Use Goals and Actions				
	understand equity impacts of the reach code and barriers to adoption.			
T-2.1h	Explore opportunities to assist disadvantaged and vulnerable community members to purchase and operate ZEVs including: • Opportunities with CARB, BAAQMD, or other agencies to start a purchase rebate program and provide higher trade-in value for combustion vehicles • Opportunities with MCE and other agencies to discount charger and/or electricity rates for those with an electric vehicle.	Community Development – Economic Development, Environmental Services	2	
T-2.1i	Collaborate with neighboring jurisdictions and the Contra Costa Transportation Authority to develop a connected network on zero-emission vehicle car share.	Public Works – Engineering	2	
T-2.1j	Support zero-emission vehicle car share companies in coming to the City. Coordinate with car share companies and community-groups to develop an affordable, zero-emission vehicle car share to serve affordable housing and/or multifamily developments with a priority to target disadvantaged and vulnerable communities.	Community Development – Economic Development	3	
Goal T-2.2 Increase commercial zero-emission vehicle adoption from less than 1% in 2020 to 10% by 2030 and 100% by 2045.				
T-2.2a	Consider establishing a licensing fee for commercial delivery vehicles operating on fossil fuels (such as Amazon and FedEx) to provide funding for new active transportation and EV charging/ZEV fueling infrastructure and discounting the fee for the proportion of electric vehicles the delivery company uses. Evaluation of the fee would include: • Engaging directly with delivery service providers operating in the City to understand zero emission vehicle capacity • Determining if phasing is needed to allow for time to increase available zero-emission vehicles in fleet • Identifying gaps in the zero-emission vehicle fueling/charging infrastructure to maintain route efficiency.	Community Development – Economic Development, Public Works – Engineering	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal T-2.2 Increase commercial zero-emission vehicle adoption from less than 1% in 2020 to 10% by 2030 and 100% by 2045.				
T-2.2b	Encourage commercial vehicle fleet operators to accelerate electrification by providing them educational material on the benefits of zero emission vehicles (e.g., fuel cost savings through networked charging and current availability of zero emission vehicles ahead of State mandates), educating them on the City's streamlined permitting process, and compiling and distributing information on potential funding opportunities. Include Pittsburgh Unified School District's zero-emission buses as a case study to demonstrate the feasibility and benefits of transitioning commercial fleets to ZEVs.	Community Development – Economic Development, Environmental Services	1	
Goal T-2.3 Transition 5% of all (i.e., commercial and residential) off-road equipment to zero-emission alternatives by 2030 and 100% by 2045.				
T-2.3a	Develop small off-road equipment (SORE) guidelines in alignment with CARB's goals encouraging that at time of replacement, zero emission landscape equipment be used starting in 2025 and portable generators be zero-emissions by 2029.	Community Development – Planning and Economic Development	1	
T-2.3b	Partner with BAAQMD to identify funding opportunities to encourage residents to replace gas-powered landscaping equipment and off-road engines with zero emission equipment with a focus on funding opportunities for members of disadvantaged and vulnerable communities and small and minority-owned businesses.	Community Development – Planning and Economic Development	1	
T-2.3c	Conduct an investigation of major commercial off-road equipment fleets in Pittsburgh and identify fleets with highest decarbonization potential and fleets in disadvantaged and vulnerable communities that will need targeted support to transition.	Community Development – Public Works – Engineering	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal T-2.2 Increase commercial zero-emission vehicle adoption from less than 1% in 2020 to 10% by 2030 and 100% by 2045.				
T-2.3d	Develop an Off-road Equipment Replacement Outreach Campaign that provides information to contractors, residents, and fleet operators in Pittsburgh, with a target towards those identified with high decarbonization potential and small businesses owned by traditionally disadvantaged and vulnerable community members. Information should include equivalent alternatives to fossil-fueled off-road equipment, public health, and safety benefits of alternative equipment technology, and funding opportunities available (i.e., Clean Off-Road Equipment Voucher Incentive Program [CORE]).	Community Development – Planning and Economic Development, Environmental Services	1	
T-2.3e	Partner with BAAQMD to develop a rebate and incentive program for upgrading off-road equipment and switching to electric or biofuels. Develop the program with a focus on procedural equity and prioritize funding distribution to disadvantaged and vulnerable communities.	Community Development – Planning and Economic Development	2	
T-2.3f	As part of the tool lending program at the library (see Action SW.2.1f), offer electric garden and landscape maintenance equipment including electric leaf blowers.	Environmental Services	2	
Strategy W-1 Increase Water Conservation and Local Water Supply				
Goal W-1.1 Reduce per capita water consumption 10% by 2030 and 30% by 2045, from 2016 levels.				
W-1.1a	Adopt a Water Conservation and Water Shortage Contingency Program Ordinance to establish a clear protocol of drought thresholds that trigger varying water use reduction strategies that focus primary on domestic water use, health and sanitation, and fire protection.	Environmental Services, Public Works – Water	1	
W-1.1b	Continue to implement and enforce Model Water Efficient Landscape Ordinance to encourage use of efficient irrigation systems, greywater usage, onsite storm water capture, and limit the portion of landscapes that can be covered in turf.	Public Works – Operations & Maintenance <i>*(Future state – Public Works – Water)</i>	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal W-1.1 Reduce per capita water consumption 10% by 2030 and 30% by 2045, from 2016 levels.				
W-1.1c	Continue the "Delta Water Education Program" to promote and reinforce the importance of water resources, water conservation, and local management of watersheds and water quality, to children in the local community.	Environmental Services	1	
W-1.1d	Continue to partner with Contra Costa Water District (CCWD) to promote water conservation messaging, including multi-lingual education materials such as publications, website pages, community events and booths, workshops and presentations, newsletters, newspaper ads, and bill inserts. Include targeted outreach to disadvantaged and vulnerable communities to reduce utility bill burdens.	Environmental Services, Public Works - Water	1	
W-1.1e	Continue to partner with Contra Costa Water District to provide water conserving fixtures/fittings and rebates for appliances to residents throughout Pittsburg, with a focus on disadvantaged and vulnerable communities to reduce utility bill burdens.	Environmental Services	1	
W-1.1f	Maintain a comprehensive, coordinated education campaign focused on property owners, landlords, property management companies, and occupants for reducing the use of water in homes and businesses. Establish a shared understanding of existing incentives for appliances, fittings and fixtures; lawns; and irrigation systems, and how to access them, including Contra Costa Water District incentive programs and rebates	Environmental Services, Public Works – Operations & Maintenance <i>*(Future state – Public Works – Water)</i>	1	
W-1.1g	Perform analysis to understand the feasibility and potential potable water savings of adopting a Dual Drainage Plumbing Ordinance to provide information to community members.	Community Development – Building	1	
W-1.1h	Promote the Living Green Gardens, the City's water-wise public demonstration garden, to encourage efficient landscape and watering practices and to provide a hands-on learning experience for members of the community. Additionally, develop more classes on new materials and continue active maintenance of the garden.	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal W-1.1 Reduce per capita water consumption 10% by 2030 and 30% by 2045, from 2016 levels.				
W-1.1i	Implement water conservation strategies, such as increasing efficiency and use of recycled water, in City landscaping and grounds maintenance procedures.	Services, Public Works – Operations & Maintenance <i>*(Future state – Public Works – Water)</i>	1	
W-1.1j	Consider the adoption of an ordinance in the Municipal Code that requires hospitality agencies (i.e., hotels and motels) to only provide daily services upon request and share such information with guests. Engage hospitality agencies and other stakeholders in the evaluation process.	Community Development – Planning and Building	1	
W-1.1k	Continue to partner with Contra Costa Water District to promote the “Lawn to Garden Rebate” to encourage residents and business owners to transition their existing lawns to waterwise landscaping. Provide specific outreach to multi-family and commercial entities, including providing flyers in water bills and partnering with “My Pittsburg Chamber” to provide information to business entities in the community.	Environmental Services, Parks	1	
W-1.1l	Apply for a rebate to transition non-essential municipal lawns to native, waterwise landscaping, and promote the Living Green Garden to continue offering a place for community members to visit and learn more about waterwise landscaping and available incentives and rebates, as well as information on local nurseries that provide native waterwise landscaping.	Environmental Services, Parks	1	
Goal W-1.2 Increase recycled water use in the City.				
W-1.2a	Work with Delta Diablo to perform a feasibility study on increasing local recycled water supply through either expansion in purple piping infrastructure or inclusion of tertiary treated wastewater effluent to supplement existing potable water supply. The feasibility study would evaluate potential impacts to cost of service and investigate ways to maintain or decrease costs of service through the projects.	Public Works – Engineering, Operations & Maintenance, and Water	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal W-1.2 Increase recycled water use in the City.				
W-1.2b	Complete a feasibility study to identify opportunities for increased access to recycled water and to accurately determine the quantity of recycled water available to the City. The feasibility study would analyze possible land use types (i.e., landscaping and fields) and specific projects that could switch from potable to recycled water. The feasibility study would also evaluate potential impacts to cost of service and investigate ways to maintain or decrease costs of service through the projects.	Public Works – Operations & Maintenance <i>*(Future state – Public Works – Water)</i>	1	
W-1.2c	Pursue funding opportunities at the State and federal level, such as the Clean Water State Revolving Fund and the US Bureau of Reclamation's WaterSMART grants, to create more financial incentive for increased recycled water infrastructure.	Environmental Services, Public Works – Engineering <i>*(Future state – Public Works – Water)</i>	1	
W-1.2d	Continue to partner with Contra Costa Water District to identify new incentives and rebates and promote existing programs on the City's water webpage for opportunities such as the "Landscape to Laundry Greywater Rebates" to install a greywater system and "Car Wash Coupons" for car wash facilities that use recycled water to incentive residents to "go-grey."	Environmental Services, Public Works — Water	1	
Goal W-1.3 Increase green stormwater infrastructure.				
W-1.3a	Continue to implement the Green Infrastructure Plan to retrofit 4 acres of existing impervious surfaces through private and public developments; and update the plan as needed to monitor progress and revise project priorities.	Environmental Services, Public Works — Water	1	
W-1.3b	Continue compliance with the City's National Pollutant Discharge Elimination System (NPDES) permit to require new developments to convey runoff to engineered bioretention basins or vegetative features.	Environmental Services, Public Works — Water	1	
W-1.3c	Partner with Contra Costa Water District to create incentives as part of their Rainwater Harvesting Program to help residents install rain barrels.	Environmental Services, Public Works — Water	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal W-1.3 Increase green stormwater infrastructure.				
W-1.3d	Develop and promote incentive programs and rebates for residents and businesses to replace their impervious surfaces with pervious surfaces, including native water-wise landscaping.	Environmental Services, Public Works — Water	1	
W-1.3e	Continue to partner with Delta Diablo and Contra Costa Water District to conduct an on-going educational campaign to provide community members information on the benefits of green stormwater infrastructure and opportunities to incorporate green stormwater infrastructure into their homes and business properties (including ways to harvest and use the rainwater). Consider developing an interactive map that identifies completed and ongoing green stormwater infrastructure projects in the City (including those at City-owned properties) for community members to explore.	Environmental Services, Public Works – Engineering <i>*(Future state – Public Works – Water)</i>	1 – 3	
Strategy W-2 Minimize Water Loss System-wide				
Goal W-2.1 Reduce real and apparent system water loss from a rate of 13% in 2020 to less than 10% by 2030 and less than 7% by 2045.				
W-2.1a	Maintain and continually improve the advanced metering and public facing software that allows water customers to check real-time water consumption data and explore water conservation recommendations based on their actual water consumption history.	Public Works – Operations & Maintenance	1	
W-2.1b	Continue to enforce standards set by water waste prevention ordinances stipulated in the Municipal Code.	Public Works - Water	1	
W-2.1c	Continue to partner with CCWD to promote their water efficiency rebates for residential and commercial customers. Develop flyers and other promotional material on the rebates to distribute at community events and perform targeted outreach to members of disadvantaged and vulnerable communities to help reduce utility bill burdens.	Public Works – Operations & Maintenance, Environmental Services	1	
W-2.1d	Create a "How to Find and Fix a Leak at Home Guide" for distribution at public counters and events, promote "National Fix A Leak Week" in March of every year, and continue to incorporate water waste messaging into communications strategy.	Community Development – Building, Public Works – Water, Environmental Services	2	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal W-2.1 Reduce real and apparent system water loss from a rate of 13% in 2020 to less than 10% by 2030 and less than 7% by 2045.				
W-2.1e	Continue to partner with CCWD to provide Water Wise House Calls to residential customers and work with CCWD to expand the program to commercial customers to complete leak detections, provide tips to avoid high water bills, increase indoor and outdoor water efficiency, and provide information on how to monitor personal water use. Perform targeted outreach to promote the program to members of disadvantaged and vulnerable communities to help reduce utility bill burdens.	Public Works – Operations & Maintenance, Environmental Services	1-2	
Strategy SW-1 Organic Waste Diversion				
Goal SW-1.1 Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.				
SW-1.1a	Adopt municipal procurement policies to comply with SB 1383 requirements for jurisdictions to purchase recovered organic waste products.	Public Works – Engineering and Water	1	
SW-1.1b	Work with Mt. Diablo Resource Recovery to establish and implement a detailed outreach and engagement plan for restaurants, grocery stores, and other commercial entities that generate organic waste to provide education and available resources for increased organic diversion.	Environmental Services	1	
SW-1.1c	Support the County with information and collaborative planning to provide sufficient edible food reuse infrastructure to accept the capacity needed to recover 20% of edible food disposed or identify proposed new or expanded food recovery capacity.	Environmental Services	1	
SW-1.1d	Continue working with the Bay Area Recycling Outreach Coalition and Mt. Diablo Resource Recovery and Pittsburg Unified School District to establish and provide exciting education and outreach programs for school children and adults around food waste prevention, nutrition education, and the importance of edible food recovery. The education program may include: Composting principals, including information on what composting means and why it is important.	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal SW-1.1 Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.				
	- Materials that can be composted, which typically include food scraps, yard waste, paper, and other organic matter. - Methods for composting, such as aerobic, anaerobic, and vermicomposting. - Composting equipment required for each potential composting methodology. - Suggestions to troubleshoot or resolve any problems that arise, including information on potential odors and pests. - How to efficiently apply and incorporate compost into soil.			
SW-1.1e	Investigate the opportunity to participate in a regional compost trading program to help meet organic waste procurement goals.	Environmental Services	1	
SW-1.1f	Create relationships with local food recovery organizations, such as FoodShift, the Food Bank of Contra Costa and Solano, religious organizations, and edible food generators to support the establishment of an edible food recovery program to minimize food waste in the City.	Environmental Services	1	
SW-1.1g	Foster County partnerships to host home composting workshops in the City of Pittsburg and to provide reduced priced composting bins.	Environmental Services	1	
SW-1.1h	Provide free compost bins and kitchen-top food waste containers to members of disadvantaged and vulnerable communities and elderly households to increase participation in Mt. Diablo Resource Recovery's residential organics curbside program.	Environmental Services	1	
SW-1.1i	Monitor bill increases from participation in the residential organics curbside program and consider City incentive programs for members of disadvantaged and vulnerable communities to increase participation and reduce utility bill burdens.	Environmental Services	1	
SW-1.1j	Establish a Pittsburg Food System Alliance organization to build a network of leaders in Pittsburg to foster a local food system	Environmental Services	1	

Strategies, Goals, and Actions	Lead	Phase	Notes/Comments (Future Use)
Goal SW-1.1 Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.			
that eliminates food waste, alleviates the food desert, and brings affordable, organic produce to all. Partner with the City's Chamber of Commerce connect with business owners and serve as a conduit for the City.			
Strategy SW-2 Reduce Community Waste Generation			
Goal SW-2.1 Reduce community-wide waste generation 55% by 2025 and 90% by 2040 statewide, from 2014 levels.			
SW-2.1a In partnership with Mt. Diablo Resource Recovery, create a Waste Diversion Plan to reduce waste and increase reuse in the City. Upon finalization, provide the plan to Pittsburg Unified School District, Los Medanos College, retirement communities, and other large institutions to use as a model for adopting their own policies to reduce waste and increase reuse.	Environmental Services	1	
SW-2.1b Require large events, as defined in SB 1383, and encourage smaller events to employ or designate an event waste management team and have easy to understand waste, recycling, and organics bin signage to assist with source separation of waste generated at events.	Environmental Services, Community Development –	1	
SW-2.1c Conduct periodic waste characterization studies of all City waste streams at the Recycling Center & Transfer Station to evaluate progress, hone approaches, customize outreach/policy, and inform targeted campaigns and policy. Fill in waste generation gaps by collecting data from take-back locations (e.g., grocery stores, auto shops, carpets, mattresses, battery collection).	Environmental Services	1	
SW-2.1d Partner with Mt. Diablo Resource Recovery to conduct targeted, multi-lingual, culturally appropriate, and geographically diverse waste prevention educational and technical assistance campaigns based on outcomes of waste characterization studies (e.g., food waste prevention, edible food recovery strategies, proper storage, how to fix clothes/electronics, how to donate, reusable alternatives, effects of over consumption, sustainable	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal SW-2.2 Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.				
	consumption habits, buying second hand, buying durable, sharing, and repurposing).	Environmental Services	1	
SW-2.1e	Impose a fee on single use bags and foodware to fund the waste reduction programs and studies.	Environmental Services	1	
SW-2.1f	Partner with local businesses, nonprofits, and community groups or organizations to establish pop-up repair cafes for commonly broken and easily repaired items. Additionally, partner with the library to promote reuse by increasing accessibility to shared tools through a tool lending program. In addition to providing available resources, also work with experts in various fields to provide quick reference guidance documents or record short videos that residents can refer to when borrowing specific equipment to learn the most effective ways of using the tools available.	Environmental Services	2	
	Tools provided through the library could include: power tools, hand tools, electrical tools, gardening tools, auto repair tools, bike repair tools, and sewing and clothing repair tools.			
SW-2.1g	Based on waste characterization studies explore banning top "problem materials" (i.e., items without means of recycling or recycling markets, such as sale of polystyrene, produce bags, plastic packaging, straws, plastics #4-7, mixed materials or a specific size/type/etc.). Engage small and minority-owned businesses through targeted outreach to identify equity impacts of such a ban.	Environmental Services, Community Development –	2	
SW-2.1h	Partner with Delta Diablo to promote use of the existing Household Hazardous Waste facility. Additional promotion and education to the community could include sending out an annual mailer, providing regular updates on Pittsburg's social media pages, and through flyers and brochures available at community events.	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Strategy CS-1 Carbon Sequestration				
Goal CS-1.1 Increase carbon sequestration by planting 150 new trees annually through 2045 to sequester carbon and create urban shade to reduce heat island effect.				
CS-1.1a	Conduct an urban forest inventory and canopy study to inventory the existing urban forest as a baseline and continue to identify areas in Pittsburgh that have below average canopy coverage, such as census block group 60133141033 and 60133120001, to design and implement a tree planting program focusing on the least covered portions of the City. As part of the Urban Forest Inventory, establish a goal of having no significant difference in canopy coverage between census blocks by 2040.	Parks	1	
CS-1.1b	Continue protecting existing trees on private property through the Tree Preservation and Protection Ordinance and create a City incentive program (e.g., water bill rebate) for new tree plantings on private properties with a focus on members of disadvantaged and vulnerable communities and in areas where there is below average tree equity or canopy coverage.	Community Development – Planning, Public Works – Operations & Maintenance	1	
CS-1.1c	Amend the Municipal Code to include street tree requirements for all zoning districts, strengthen shade tree requirements for new developments, and include permeable surface requirements for new development.	Community Development – Planning, Public Works – Operations & Maintenance	1	
CS-1.1d	Continue to dedicate staff time or create a staff position for obtaining grant funding for tree planting and urban forest management. Identify and apply for applicable federal (e.g., USDA) and state (e.g., California ReLeaf, Affordable Housing and Sustainable Communities Program (AHSC), Urban and Community Forestry Program) available grants for Tree Planting projects.	Parks	1	
CS-1.1e	Develop and adopt an Urban Forest Management Plan that identifies the City’s potential capacity for new tree planting, identifies a timeframe for implementation, provides a management plan for existing trees, and establishes a tracking	Parks	2	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal CS-1.1 Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.				
	system to assess progress towards annual benchmarks. Collaborate with community-based organizations with connections to disadvantaged and vulnerable communities in the development of the plan.			
CS-1.1f	As an expansion to the Adopt-a-Spot Program, establish an Adopt-a-Tree program that enables individuals, businesses, and community organizations to plant and care for trees in selected communities with below average canopy coverage and disadvantaged and vulnerable communities. Program should provide formalized information on appropriate trees eligible for planting in Pittsburg (i.e., native, drought tolerant, locations).	Environmental Services, Parks	2	
CS-1.1g	Establish a Tree Trust or Tree Endowment where the interest on the principal can be used for purchasing trees in selected communities with below average tree canopy coverage, paying for tree maintenance in disadvantaged and vulnerable communities, or supporting staff resources for the Urban Forest Management Program.	Environmental Services, Parks	2	
CS-1.1h	Continue the City's annual Arbor Day celebration event that encourages and educates residents on the importance of planting native trees and provides resources and support for community-led tree planting initiatives. Grow this event to include distributing free or discounted tree seedlings, hosting educational workshops on proper planting techniques and tree maintenance, partnering with local organizations and businesses to sponsor and organize planting events, and establishing a volunteer network to help maintain newly planted trees.	Public Works – Operation & Maintenance	1	
CS-1.1i	Work with the Contra Costa County Resource Conservation District, East Bay Regional Park District, and community-based organizations such as Save Mount Diablo to preserve and expand greenspaces (i.e., large open spaces and regional parks) in Pittsburg to increase carbon sequestration and increase access to greenspaces.	Environmental Services, Parks	1 – 3	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal CS-1.1 Continue to take action to meet SB 1383 organics and recycling requirements, reducing organic waste disposal 75% from 2014 levels by 2025 statewide.				
CS-1.1j	Partner with community-based organizations such as Healthy Hearts and the John Muir Land Trust to increase the number of and access to urban community gardens in Pittsburgh. Utilize such gardens to increase carbon sequestration; increase access to greenspaces for renters, residents living in multi-family housing, and members of vulnerable and disadvantaged communities; and provide high-road job development opportunities for members of vulnerable and disadvantaged communities.	Environmental Services, Parks	1 – 3	
Goal CS-1.2 Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community by 2030, increasing up to 0.10 by 2045.				
CS-1.2a	Conduct an informal audit of compost needs in the City to establish a baseline procurement and application level that meets City needs and increases over time.	Environmental Services	1	
CS-1.2b	Complete a feasibility study to identify locations within the City to apply mulch to help meet the procurement requirements of SB 1383 and maximize the application of compost over time, working with the City's Parks Department to maximize compost usage at City parks.	Environmental Services, Parks	1	
CS-1.2c	Collaborate with Los Medanos College and local schools to identify opportunities to apply compost to landscaping.	Environmental Services	1	
CS-1.2d	Work with Alameda County and StopWaste to identify opportunities for a regional compost procurement program.	Environmental Services	2	
CS-2.2e	Develop and adopt urban park guidelines that 1) provide flexible solutions for developing urban parks in infill areas where traditional neighborhood and community parks are not feasible; 2) establishes guidelines for achieving the greatest carbon sequestration potential of parks via design; and 3) are equitable in ensuring such urban parks are accessible for members of disadvantaged and vulnerable communities while avoiding displacement; and 4) align with requirements of the Clean	Community Development – Planning, Parks	2	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal CS-1.2 Increase carbon sequestration by applying 0.08 tons of compost per capita annually in the community by 2030, increasing up to 0.10 by 2045.				
	California Local Grant Program for potential funding opportunities. Encourage urban parks as an opportunity to beautify the community and integrate art into sustainability projects.	Community Development – Planning, Parks	2	
Strategy M-1 Commit to Climate Action				
Goal M-1.1 Complete annual progress reports on Pittsburg’s Sustainability Plan every three years.				
M-1.1a	Designate staff to manage sustainability programs that implement the SUS Plan actions by managing technical studies, leading outreach efforts, updating the website, networking with partners and stakeholders, and pursuing grant opportunities.	Environmental Services, Community Development – Planning, Building, and Code Enforcement	1	
M-1.1b	Update the community wide GHG emissions inventory and progress on measures biannually in the monitoring tool and share the results with the community on the City's website to measure progress and maintain transparent accountability in making progress towards the Sustainability Plan goals.	Environmental Services	1 – 3	
M-1.1c	Update the Environmental Services webpage at least annually to provide updates on policies implemented as part of the Sustainability Plan.	Environmental Services	1 – 3	
M-1.1d	Devote staff time to tracking and applying for grant funding to complete regular Sustainability Plan updates.	Environmental Services	1 – 3	
M-1.1e	Hold regular sustainability outreach events, such as workshops, presentations, focus groups targeted at specific community groups, public contests or challenges, and an annual event such as Earth Day. Inform the community on potential climate change impacts, as well as weatherization and other actions that community members can take to implement actions outlined throughout the Sustainability Plan.	Environmental Services	1 – 3	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal M-1.1 Complete annual progress reports on Pittsburgh's Sustainability Plan every three years.				
M-1.1f	Track and audit where measures are geographically implemented to determine that communities who are most impacted by climate change, including traditionally disadvantaged and vulnerable communities who would benefit the most from adaptation and mitigation efforts.	Environmental Services	1 – 3	
Strategy M-2 Reduce Municipal Reliance on Natural Resources				
Goal M-2.1 Electrify 25% of existing City facilities by 2030 and 100% of existing City facilities by 2045, as well as all newly constructed City buildings, while also increasing renewable energy use.				
M-2.1a	Complete energy audits for all City facilities and implement feasible recommendations for fuel switching and efficiency upgrades.	Public Works – Operations & Maintenance	1	
M-2.1b	Opt-up 100% of municipal accounts to MCE's Deep Green energy option by 2030.	Public Works – Operations & Maintenance	1	
M-2.1c	Establish a policy requiring all new City-owned buildings be all-electric and a policy requiring all existing natural gas-powered equipment in City-owned buildings be replaced with electric or other zero-emission alternatives at the end of useful life, where technologically feasible.	Public Works – Operations & Maintenance	1	
M-2.1d	Identify a municipal building to pilot an all-electric retrofit. Track the change in energy usage and utility bill costs before and after the retrofit to study net benefits.	Public Works – Operations & Maintenance	1	
M-2.1e	Partner with PG&E through the Sustainable Solutions Turnkey (SST) program to install renewable energy technology at municipal facilities (such as City Hall) and become a zero net energy organization.	Environmental Services, Public Works – Operations & Maintenance	2 - 3	
M-2.1f	Partner with PG&E to identify and install battery energy storage systems at appropriate City facilities (including the City Hall/Police Station and the Pittsburgh Marina), and leverage projects to further promote benefits of distributed energy storage, which are directly connected to a renewable resource.	Environmental Services	2 - 3	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal M-2.1 Electrify 25% of existing City facilities by 2030 and 100% of existing City facilities by 2045, as well as all newly constructed City buildings, while also increasing renewable energy use.				
M-2.1g	Complete an analysis to identify the electrical capacity and utility infrastructure upgrades needed to electrify the recreational pool heating system. Pursue replacement funding through PG&E on-bill financing and California Energy Commission 1% Loans, or other funding sources.	Public Works – Operations & Maintenance	2	
Goal M-2.2 Transition 50% of the City's vehicle and equipment fleet to renewable fuels and electric by 2030 and 100% by 2045.				
M-2.2a	Conduct a study to assess the technological and economic feasibility of replacing the City-owned fleets and off-road equipment and develop a time of replacement schedule for applicable vehicle and equipment types.	Environmental Services, Public Works – Engineering and Operations & Maintenance	1	
M-2.2b	Upon completion of the study, adopt a ZEV-first purchasing policy for non-essential City fleet vehicles, using the transition to encourage residents to convert as well.	Environmental Services	1	
M-2.2c	Upon completion of the study, develop and implement a plan to replace all City owned end-of-life off-road equipment with zero-emission equipment. The plan should include evaluation of current City-owned equipment, alternative low or zero-emission options, prioritize equipment to replace first (e.g., largest GHG emission reduction potential), and a timeline for replacements that align with goals and feasibility of replacement.	Public Works – Operations & Maintenance, Parks	1	
M-2.2d	Secure funding from programs such as the California Air Resources Board's Clean Vehicle Rebate Project and the Truck and Bus Voucher Incentive Program to increase procurement of EV or ZEV cars, trucks, and other vehicles and installation of EV/ZEV charging/fueling infrastructure at municipal facilities. Additionally explore opportunities for Low Carbon Fuel Standard credit generation from use of low carbon fuels/electricity for fleet vehicles.	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal M-2.2 Transition 50% of the City's vehicle and equipment fleet to renewable fuels and electric by 2030 and 100% by 2045.				
M-2.2e	Install new public and employee EV chargers at City-owned facilities.	Public Works – Engineering and Operations & Maintenance	1	
M-2.2f	Transition to all-electric landscaping equipment, including leaf blowers, for municipal operations. Use this to promote all-electric equipment in the community, providing information on the City website outlining available incentives for residents and businesses.	Parks, Public Works – Operations & Maintenance	2	
Goal M-2.3 Reduce the number of single occupancy, fossil fueled vehicle annual employee commute trips 20% by 2030 and 50% by 2045.				
M-2.3a	Complete a survey to understand how staff currently travel and what would make them change their patterns to establish an accurate baseline in which to build future goals.	Environmental Services	1	
M-2.3b	Expand EV charging at public facilities: Install new public and employee EV chargers at City-owned facilities, and: - Consider developing and implement a fee for use of City-owned chargers to encourage efficient use and turnover, especially for those without home charging capability - Consider allocating EV charger fee revenue towards projects that support EV infrastructure, alternative fuel projects, and active transportation projects in neighborhoods that are historically underrepresented - Provide bicycles and bicycle storage for employees to use during work hours for short business or personal trips. Additionally, establish bike lockers at City Hall that are usable to the public.	Public Works – Engineering, Environmental Services	1	
M-2.3c	Provide bicycles and bicycle storage for employees to use during work hours for short business or personal trips. Additionally, establish bike lockers at City Hall that are usable to the public.	Environmental Services	1	

Strategies, Goals, and Actions		Lead	Phase	Notes/Comments (Future Use)
Goal M-2.3 Reduce the number of single occupancy, fossil fueled vehicle annual employee commute trips 20% by 2030 and 50% by 2045.				
M-2.3d	Expand the subsidized transit commute program to reduce employee commute miles in single occupancy vehicles.	Human Resources	1	
M-2.3e	Partner with Tri-Delta Transit, BAAQMD, Bike East Bay, the League of American Bicyclists, and/or Metropolitan Transportation Commission to expand employee use of carbon-free and low carbon transportation by providing education programs on the benefits of commute options including public transportation, EV/ZEV options, and vanpools.	Environmental Services	1 - 2	
M-2.3f	Permit 25% of employees located at the City of Pittsburg to telecommute or utilize flexible schedules through 2030 to reduce travel time, vehicle miles traveled (VMT), and GHG emissions.	Human Resources	2 - 3	



Appendix A: Regulatory Context



Appendix B: Cal-Adapt



Appendix C: 2005 GHG Inventory Methodology



Appendix D: 2016 GHG Inventory Methodology



Appendix E: GHG Forecast and Targets Analysis



Appendix F: Cost Summary



Appendix G: Categorical Exemption



Commentor	Comment Received	Response
Confederated Villages of Lisjan Nation		
	Copy of the CHRIS and EIR for the project.	The Sustainability Plan did not require search of the California Historic Resources Information System (CHRIS). Future projects outside of the plan will undergo separate environmental reviews pursuant to the California Environmental Quality Act (CEQA). Additionally, if notification is required pursuant to AB 52 or SB 18, a CHRIS search among other applicable review processes will be conducted. The Sustainability Plan is eligible to meet <i>Class 8 – Actions by Regulatory Agencies for Protection of the Environment</i> and <i>Class 22 – Educational or Training Program Involving No Physical Changes</i> Categorical Exemptions (CE), pursuant to the California Environmental Quality Act (CEQA). Additionally, the Sustainability Plan is subject to 15061(b)(3) of the CEQA Guidelines Section, the commonsense exemption that applies to projects where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.
Federal Aviation Administration		
	Future locations for the urban forest and tree plantings indicated on a map and would they involve water features or irrigation	Phase 2 includes development and adoption of an Urban Forest Management Plan to identify the city's capacity for new trees, tree types most suitable for the region, where trees may be planted and the best maintenance practices.
	Future locations for solar panel facilities	Measure E-2.2 aims to increase generation and storage of local renewable energy. The measure would include a feasibility study (Action E.2.2a) to determine cost and potential locations for installation of battery

		backup systems or generators at City facilities.
	Future Locations for any wind energy facilities	The Sustainability Plan includes actions associated with evaluating the feasibility of locations and does not establish specific locations for installation at this time.
Ramar Foods		
	Requesting modification to the City Ordinance to reconsider solar carports are not considered when calculating lot coverage ratio on commercial and industrial properties.	The City will conduct a comprehensive update to the Municipal Code and can further address the comments noted.
	Requesting exception from City's Design Standards for clean energy equipment that is in view of public right-of-way and designed to be aesthetically pleasing.	
Manisha Rattu		
	How will the city measure and track who has been left out of the conversation and who is participating?	The City plans to continue outreach to the community, with an emphasis on including individuals who have actively shown interest in inviting them to participate in future events and engagement opportunities. The city will actively ask future invitees/participants <i>"Who is missing from the table?"</i> and initiate direct outreach to such community members.
	Is there any available data on respiratory health issues or asthma related hospitalizations in the city that can be included? How will the city measure and track the impacts of air pollutants on Pittsburgh residents?	There is a limited amount of data available on respiratory health issues related to air quality in Pittsburgh. Although GHG emissions, local air quality, and public health are interconnected, each are monitored through different systems. While it would be ideal to track each through this Sustainability Plan, the Sustainability Plan is designed to track GHG emissions (through GHG inventory updates) with data specifically available to the city. The Sustainability Plan will not track local air pollution for

		Pittsburg, however, Bay Area Air Quality Management District (BAAQMD) will on a regional level.
	What accounted for the reduction in electricity use in residential and nonresidential buildings between 2005 and 2016? Was this due to MCE's Light Green electricity service which draws from 60% renewable energy?	Community members in Pittsburg were not yet purchasing electricity from MCE in 2016. The decrease in GHG emissions from electricity use in residential and non-residential buildings between 2005 and 2016 was due to the decrease in PG&E's emission factor (MT CO ₂ e/kWh). This can be attributed to an increase in low- and zero-carbon electricity sources by the utility company.
	For the goal of electrifying all new construction by 2026, what is the timeframe for working with partners to understand the feasibility of an electrification reach code?	A timeframe to conduct the cost effectiveness study has been added to Action E.1.1a. Coordination with partners will occur during this study development timeframe.
	What are the potential funding mechanisms to reach this goal?	Funding mechanisms have not been identified for this measure at this time. Most available incentives are for the purchase and installation of electric equipment (rather than the feasibility study).
	Will there be any EV charging stations installed prior to 2030?	While the EV charger installation goal is for 2030, it is anticipated the city will reach this through a phased implementation timeline by installing chargers every few years.
	For tree planting, is it possible to integrate native fruit and nut trees into the tree planting program?	Tree types will be specified in the Urban Forest Management Plan, prepared as part of CS.1.1e.
	Protecting and expanding greenspaces (and not just trees) and supporting the development of urban gardens were not highlighted in the actions. Can these be added?	Actions to protect and expand greenspaces and support the development of urban gardens have been added to Measure CS-1.1.

	For funding, is there a local fund or measure that can be established to support the implementation?	
	And, are there efforts to hire up more staff to support the implementation (which includes seeking out grant/funding opportunities)?	
	Is the city collaborating with BAAQMD around their Climate Pollution Reduction Grant program process which will catalyze huge investments for local climate work?	
350 Contra Costa Action		
	Consider “avoiding flying when possible” rather than “avoiding long-haul flights” within the Background section.	Text updated.
	Utilize “electrification ordinance” rather than “reach code”.	Actions E.1.1a, E.1.1b, and E.1.1c updated.
	What is “new construction”?	A footnote has been added addressing this term.
	The 2022 State Building Energy Code (Title 24) mandates solar electric systems under the Prescriptive compliance approach for most new residential and nonresidential buildings. There are also Prescriptive approach electricity storage requirements for some nonresidential buildings. There are no solar electric or storage requirements for building additions and alterations. Local incentives or mandates should concentrate on electricity storage in new residential buildings, perhaps incentives or mandates for solar electric and electricity	Action E-2.2c updated to focus the ordinance on residential and nonresidential building additions and alterations. Other actions in the section are intended to support solar and energy storage in existing buildings by focusing on funding and incentives. These include partnership with GRID Alternatives, work with MCE and PG&E on incentives, and workshops with business property owners.

	storage for larger building additions and alterations and encouraging owners of existing buildings to add solar electric and battery systems.	
	The text includes the phrase "installing a charger". While "networked" charging stations are important for shared parking spaces, "chargers" or "charging stations" are no longer considered necessary for dedicated parking spaces. All EVs can be charged with a standard 120V receptacle, and most EVs have available 240V charging cords for when 240V charging is necessary. Therefore, at assigned parking places, where a power receptacle is not available, only a 120V7 or 240V receptacle need be installed, rather than a "charger".	Purchasing a ZEV and upgrading home infrastructure to allow for charging (e.g., receptacle installation, electrical panel upgrade) can be an upfront cost difficult for members of disadvantaged and vulnerable communities to prioritize
	For residents that do not have access to overnight charging, the City should study whether some Level 3 (DC Fast Charging) stations would be helpful. If so, encourage companies to provide DC Fast Charging stations - especially in locations adjacent to Hwy 4 - where infrastructure would be beneficial to both local residents and to highway travelers. Public Level 2 chargers are probably most useful where people tend to make long stops -such as at city parks and shopping centers.	Establish a prioritized list of locations in Pittsburgh for new publicly accessible electric vehicle charging stations with consideration for equitable distribution of chargers to renters, residents of multi-family homes, residents living on low and fixed-incomes, and disadvantaged and vulnerable communities. Include locations for Level 2 charging where residents make extended stops and locations for Level 3 charging (DC Fast Charging) for residents without access to overnight charging and for highway travelers. Install at least 50 new publicly accessible charging stations by 2030 and 100 by 2045, through public-private partnerships and on City-owned properties at the identified locations. Promote the availability of new public

		chargers on social media and on the City's website
	EVs are a new technology for most drivers, education on purchasing pre-owned EVs - especially focused on determining the current battery estimated range, and important information about charging and battery life - would be helpful for most drivers. Report should clarify that Title 24 Part 11 (CalGreen) mandates EV charging at new residential and new nonresidential buildings. However, while CalGreen requires charging capability at all single-family residences, it only requires charging capability for a minority of new multi-family dwellings. The city should adopt a reach code that requires charging capability for every new multi-family dwelling that is provided with a parking space.	Coordinate with community-based organizations, local agencies, and non-profits to conduct ZEV education events for residents and targeted events for members of disadvantaged and vulnerable communities that would engage the community to evaluate the barriers to ZEV adoption, promote information on the costs and benefits of owning ZEVs, and promote steps on how to purchase a ZEV and receive incentives (including education on pre-owned EVs and how to determine current battery range). Updated the action to clarify the potential reach code would exceed the CALGreen mandatory measures and meet the voluntary standards.
	Action T-2.3a, page 61: Gasoline powered landscape equipment is a large source of GHG emissions. Use of gas-powered leaf blowers ought to be banned within one year of adoption of this plan. Use of all other gas landscape maintenance equipment ought to be banned within two years of adoption of this plan. - If Pittsburg is not yet ready to ban gasoline powered landscape equipment, the city may wish to undertake an	The City believes gasoline-powered landscaping equipment must be quickly reduced and replaced with zero-emission alternatives. While these equipment replacements may not be a significant cost for some community members, it may be a burdensome cost for others, raising equity concerns for a ban. For this reason, the plan approaches off-road equipment by first building up funding support and education, as well as identifying fleets belonging to members of disadvantaged and vulnerable communities for direct support

	electric landscape maintenance equipment system, like the city of Lafayette's library does for electric leaf blowers.	Action T-2.3f directs the City to include electric garden and landscape equipment in the library's tool lending program.
	All new city buildings (as with all new private sector buildings) should use electric heating systems.	Action M.2.1c has been updated. Establish a policy requiring all new City-owned buildings be all-electric and a policy requiring all existing natural gas-powered equipment in City-owned buildings be replaced with electric or other zero-emission alternatives at the end of useful life, where technologically feasible
Greenbelt Alliance		
	How will the City measure and track who has been left out of the conversation and who is participating?	The city plans to continue outreach to the community, with an emphasis on including individuals who have actively shown interest in inviting them to participate in future events and engagement opportunities. The city will actively ask future invitees/participants <i>"Who is missing from the table?"</i> and initiate direct outreach to such community members.
	Is there any available data on respiratory health issues or asthma related hospitalizations in the City? How will the City measure and track the impacts of air pollutants on Pittsburg residents?	There is a limited amount of data available on respiratory health issues related to air quality in Pittsburg. Although GHG emissions, local air quality, and public health are interconnected, each are monitored through different systems. While it would be ideal to track each through this Sustainability Plan, the Sustainability Plan is designed to track GHG emissions (through GHG inventory updates) with data specifically available to the city. The Sustainability Plan will not track local air pollution for Pittsburg, however, Bay Area Air Quality Management District (BAAQMD) will on a regional level.
	What accounted for the reduction in electricity use in residential and nonresidential buildings between 2005 and	Community members in Pittsburg were not yet purchasing electricity from MCE in 2016. The decrease in GHG emissions from electricity use in

	2016? Was this due to MCE's Light Green electricity service which draws from 60% renewable energy?	residential and non-residential buildings between 2005 and 2016 was due to the decrease in PG&E's emission factor (MT CO ₂ e/kWh). This can be attributed to an increase in low- and zero-carbon electricity sources by the utility company.
	For the goal of electrifying all new construction by 2026, what is the timeframe for working with partners to understand the feasibility of an electrification reach code? And what are the potential funding mechanisms to reach this goal?	A timeframe to conduct the cost effectiveness study has been added to Action E.1.1a. Coordination with partners will occur during this study development timeframe.
	Will there be any EV charging stations installed prior to 2030?	While the EV charger installation goal is for 2030, it is anticipated the city will reach this through a phased implementation timeline by installing chargers every few years.
	For funding, is there a local fund or measure that can be established to support the implementation? And are there efforts to hire more staff to support the implementation (which includes seeking out grant/funding opportunities)?	The City has recently adopted Pittsburg Moves, the City's Active Transportation Plan, which focuses on infrastructure and availability for active transportation options in hopes of improving health, mobility, livability, the economy, and the environment. Based on the goals and policies outlined in Pittsburg Moves, coordinate with Contra Costa Transportation Authority to establish a target timeline and funding strategy that address each of the projects in Appendix A. The timeline should outline a path that confirms an equal focus on improvement projects that will benefit residents living in disadvantaged and vulnerable communities.
	Is the City collaborating with BAAQMD around their Climate Pollution Reduction Grant Program process which will catalyze huge investments for local climate work?	The City will partner with community groups to obtain funding for various goals. Staff time will be devoted to tracking and applying for grant funding. The City will seek grants, matching funds, in-kind contributions, and other resources from State, Federal, and

		philanthropic sources to help pay for actions and limit the cost to the City, residents, and businesses.
	M-2.3e could be strengthened by adding active transportation as an education area.	Noted.

**CITY OF PITTSBURG
PLANNING COMMISSION
STAFF REPORT
October 24, 2023**

ITEM: Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE).

ORIGINATED BY: Hannah Robinson, hrobinson@amarok.com, (803) 920-9628

SUBJECT: This is a public hearing on a request for approval of a Use Permit and Fence Height Exception to install a 10-foot-tall, electrically-charged security fence four to eight inches behind an existing, eight-foot-tall, slatted chain link fence, in order to provide additional security and deter theft and vandalism. The proposed electric fence would be installed along the east and south sides of the building located at 498 East 10th Street in the CS-D (Service Commercial – Downtown Overlay) District. Assessor Parcel No. 085-184-014.

RECOMMENDATION: Staff recommends the Planning Commission adopt a Resolution (Attachment 1) approving Use Permit Application No. AP-23-0097 (UP, FHE), subject to conditions.

BACKGROUND: On July 16, 1985, the Planning Commission approved Use Permit Application No. U-85-38, allowing Electro Sales and Manufacturing Company to assemble circuit boards and sell electronic parts and tools at 498 East 10th Street and a parking lot on the east side of Harbor Street, at the intersection of Harbor and East 10th Streets (Resolution No. 4080).

On January 31, 1994, the city approved a business license for Bottom Line Services, a tool grinding and repair shop, also doing business as Bay Saw & Tool, My Generator Guy and Powerhouse Construction.

On July 20, 2023, the applicant filed Planning Application No. 23-0097, requesting approval of a Use Permit and Fence Height Exception to install a 10-foot-tall, electric security fence four to eight inches behind an existing, eight-foot-tall, slatted chain link fence, in order to provide additional security and deter theft. The proposed electric fence would be installed along the east and south sides of the building located at 498 East 10th Street in the CS-D (Service Commercial – Downtown Overlay) District.

PROJECT DESCRIPTION:

Existing Conditions: The property at 498 East 10th Street is approximately 8,000 square feet in size and is improved with a 6,650-square-foot building utilized by Bottom Line Services. The business is a local general contractor specializing in tool repair and generator installation. Bottom Line Services has occupied the property at 498 East 10th Street since January 1994.

The entrance to the existing building is located along East 10th Street. The property has a roughly 1,000-square-foot rear yard along the south property line that is paved and can be used for outdoor storage of equipment. The business also utilizes an

approximately 2,300-square-foot, grade-separated parking area on the east side of the building. A portion of the parking area and the entire rear yard of the property is currently enclosed by an existing, eight-foot-tall chain-link gate and fence topped with razor wire.

Surrounding properties are also developed and are occupied by other light industrial tenants that include contractors, warehousing and distribution uses, plumbing and heating equipment wholesales, and major and minor automotive repair and automotive parts installation.

See Attachment 2 for site photos.

Surrounding Land Uses:

North:	East 10 th Street frontage, residential beyond
West:	East 10 th Street Commercial Corridor
South:	Burlington Northern Santa Fe Railroad
East:	Harbor Street, Auto Repair Shop beyond

See Attachment 3 for a map of surrounding uses.

GENERAL PLAN/CODE COMPLIANCE:

City of Pittsburg General Plan 2020: The project site is on the east edge of the 'Downtown Subarea' of the General Plan and has a land use designation of 'Service Commercial'. This land use designation is specifically intended to provide sites for commercial businesses that are not appropriate in other commercial areas because of high volumes of vehicle traffic and potential adverse impacts on other uses. Service commercial areas often feature automobile repair, contractors' services, and other heavy maintenance activities.

As a commercial use that supports other contracting and construction uses, the existing Bottom Line Services use is consistent with the *Service Commercial* land use designation. The proposed electric fence would be ancillary to the business and would facilitate enhanced security to protect assets of the business, help reduce losses and facilitate ongoing business operations, consistent with the intent of the General Plan.

Zoning: The zoning of the property is CS-D (Downtown Service Commercial) District, the purpose of which is to provide opportunities for service commercial uses that require vehicle or truck traffic, including contractors, repair establishments and retail sales of durable goods, within the downtown but outside of the pedestrian commercial core. Development standards are created for the district that are unique to the downtown location of the district and that reflect the existing development pattern.

Bottom Line Services is a contracting business that grinds and repairs tools and installs generators. The use can be classified as a “Contractor” use in Pittsburg Municipal Code (PMC) section 18.08.100(B)(2), which is a permitted use within the CS-D zoning district.

The proposed electric fence is ancillary to the permitted “Contractor” use on the property and is allowed on properties located in the CS-D zoning district subject to a Use Permit pursuant to PMC 18.84.220(B)(1). Additionally, because the proposed electric fence exceeds eight feet in height, a Fence Height Exception is required pursuant to PMC 18.84.205(F)(2).

Based on the site plan and schematics submitted by the applicant, the proposed electric fence does appear to meet the following PMC section 18.84.220 requirements:

- (1) Will not be located within 25 feet of any outdoor area utilized for the storage, use, or handling of hazardous materials as defined in the California Fire Code.
- (2) Will be completely surrounded by a nonelectrified perimeter fence or wall that is not less than eight feet high. The perimeter fence will be a solid barrier fence, without spaces or gaps, and separated from the electrified fence by a maximum of eight inches.
- (3) The area between the perimeter wall or fence and the electric fence, as well as any area within two feet of the electric fence, will be paved with gravel or concrete and kept clear of landscaping, weeds, shrubbery, trash, other fences or material of any kind.
- (4) Will be clearly identified with warning signs in English and Spanish that read, “Warning: Electric Fence,” above or alongside universal symbols that indicate the presence of an electrified fence.
- (5) Will be installed in compliance with provisions for Alarm Systems in Chapter 9.24 PMC.
- (6) Will be installed with a “Knox Box electrical shunt switch” and a “Knox Box” or other similar approved device for emergency access of police and fire departments.
- (7) Will not be energized during the hours when the general public does not have legal access to the protected property and shall be maintained by an automatic timer.
- (8) Will not produce an electric charge that exceeds energizer characteristics described in paragraph 22.108 of IEC Standard 60335-2.76.
- (9) Will be subject to an indemnification and hold harmless agreement with respect to the installation and operation of the electric fence.

- (10) The property owner is required to carry general liability insurance in a minimum amount of \$1,000,000 in the aggregate.
- (11) The property owner will agree in writing to waive any and all claims for damages to the electric fence against the Contra Costa County fire protection district.

See Attachment 4 for Project Plans.

Required Use Permit Findings: In accordance with PMC section 18.16.040, a Use Permit may be granted only if the Planning Commission can make findings that the proposed use:

1. is in accord with the objective of the Zoning Ordinance, the purposes of the land use district in which it is located and is appropriate to the specific location;
2. is not detrimental to the health, safety, and general welfare of the City;
3. will not adversely affect the orderly development of property within the City;
4. will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the City;
5. is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plan;
6. will not create a nuisance or enforcement problem within the neighborhood;
7. will not encourage marginal development within the neighborhood;
8. will not create a demand for public services within the City beyond that of the ability of the City to meet in light of taxation and spending restraints imposed by law; and,
9. is consistent with the City's approved funding priorities.

Required Fence Height Exception Findings: In accordance with PMC section 18.84.205(F)(2), a Fence Height Exception permit may be issued under the following provisions:

- A. Fence height requirements may be exceeded, reduced, or modified without specific findings of hardship or unusual circumstances when reviewed and adequately controlled to assure that the area will assume or retain the characteristics intended by zoning.
- B. Findings must be made that the installation or construction of a fence or wall,

under the conditions of the particular case, will not infringe upon the light, air circulation or visual openness of surrounding properties; detract, impair or destroy the characteristics of the established area; nor be detrimental to the health, safety or welfare of persons residing or working in or adjacent to the area or neighborhood of such structure.

- C. In approving the permit, the planning commission or zoning administrator may impose such conditions deemed necessary to protect the best interests of the surrounding area or neighborhood, in line with the standards prescribed in this section and with the general plan.

Environmental: This project is exempt from the requirements of the California Environmental Quality Act (CEQA) under Class 3, “New Construction or Conversion of Small Structures,” of the CEQA Guidelines, section 15303(e).

Public Notice: On or prior to October 13, 2023, notice of the October 24, 2023, public hearing was posted at City Hall and at the project site; and on the ‘Public Notices’ section of the city’s website and was mailed via first class or electronic mail to the applicant, to the property owner, to owners of property located within 300 feet of the project site, to local service agencies expected to provide services to the site, and to individuals who had previously filed written request for such notice, in accordance with PMC section 18.14.010 and Government Code section 65091. The notice was also posted on www.nextdoor.com (“Nextdoor”) and was sent directly to all subscribed residents in the “Harbor and School St.,” “W 8th” and “Downtown Pittsburg” neighborhoods.

See Attachment 5 for the Public Hearing Notice.

ANALYSIS:

Staff believes that the Planning Commission can make the required findings to approve Use Permit Application No. 23-0097 (UP, FHE), subject to conditions.

As further detailed in the Code Compliance section of this staff report, staff believes that the proposed electric fence is consistent with the General Plan and the zoning of the property as prescribed in the municipal code. The proposed electric fence would be ancillary to an existing, permitted service commercial use in an appropriately-zoned, commercial location. The proposed electric fence would help to protect the investment in the community and the property that the existing service commercial business has made, by providing an opportunity for enhanced security of equipment located at the existing business.

Staff does not believe that the proposed security fence would adversely affect the orderly development of property, nor the preservation of property values or the protection of the city’s revenue sources. Rather, the proposed electric fence would be an ancillary structure on the already developed property, to which the property owner

has already made improvements. The secondary security fence would help to protect the business' assets on-site and would help to facilitate ongoing operation of the business as a job and business tax revenue generator in the city.

Lastly, staff does not believe that installation of the electrically-charged security fence would infringe upon the light, air circulation or visual openness of surrounding properties. The proposed electric fence would be placed behind a solid, chain link fence with slatting and mesh, so that the proposed electric fence would not easily be seen from the closest public right-of-way on Harbor Street.

ACTION REQUIRED:

Move to adopt a Resolution approving Planning Application No. 23-0097 (UP, FHE), subject to conditions.

ATTACHMENTS:

1. Proposed Resolution
2. Site Photos
3. Map of Surrounding Uses
4. Project Plans
5. Public Hearing Notice & Vicinity Map

Prepared by: Alison Hodgkin, Associate Planner

BEFORE THE PLANNING COMMISSION OF THE CITY OF PITTSBURG

In the Matter of:

RESOLUTION NO. _____

Approving a Use Permit and Fence Height)
Exception for a 10-Foot-Tall, Electric Security)
Fence, located at 498 East 10th Street, for)
“Bottom Line Services, AP-23-0097 (UP, FHE))
Assessor’s Parcel Number 085-184-014.)

The Planning Commission DOES RESOLVE as follows:

Section 1. Background

- A. On July 20, 2023, Hannah Robinson, on behalf of Bottom Line Services, filed Planning Application No. 23-0097, requesting approval of a Use Permit and Fence Height Exception to install a 10-foot-tall, electric security fence four to eight inches behind an existing, eight-foot-tall, slatted chain link fence, in order to provide additional security and deter theft. The proposed electric fence would be installed along the east and south sides of the building located at 498 East 10th Street in the CS-D (Service Commercial – Downtown Overlay) District. Assessor Parcel No. 085-184-014.
- B. This project is exempt from the requirements of the California Environmental Quality Act (CEQA) under Class 3, “New Construction or Conversion of Small Structures,” of the CEQA Guidelines, section 15303(e).
- C. On or before October 13, 2023, a notice of the October 24, 2023, public hearing for the project was posted at City Hall, near the proposed project site, and on the “Public Notices” section of the city’s website; was delivered for posting at the Pittsburg Library; and was mailed via first class or electronic mail to the applicant, to the property owner, to owners of property located within 300 feet of the proposed project site, to local service agencies expected to provide services to the building, and to individuals who had previously filed written request for such notice, in accordance with Pittsburg Municipal Code (PMC) section 18.14.010 and Government Code section 65091. In addition, a copy of the notice was posted on www.nextdoor.com (“Nextdoor”) and was sent directly to all subscribed residents “Harbor and School St.,” “W 8th” and “Downtown Pittsburg” neighborhoods.
- D. PMC section 18.16.040 specifies that the following findings must be made before approval of a use permit. The Planning Commission may grant approval of a use permit if the proposed use:
 - 1. is in accord with the objective of the Zoning Ordinance, the purposes of the land use district in which it is located and is appropriate to the specific location;
 - 2. is not detrimental to the health, safety, and general welfare of the city;

3. will not adversely affect the orderly development of property within the city;
 4. will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the city;
 5. is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plan;
 6. will not create a nuisance or enforcement problem within the neighborhood;
 7. will not encourage marginal development within the neighborhood;
 8. will not create a demand for public services within the city beyond that of the ability of the city to meet in light of taxation and spending restraints imposed by law; and
 9. is consistent with the city's approved funding priorities.
- E. PMC section 18.84.205(F)(2) allows request for Fence Height Exceptions to be considered in conjunction with the issuance of a Use Permit for a proposed use if the Commission finds that installation or construction of the fence will not infringe upon the light, air circulation or visual openness of surrounding properties; detract, impair or destroy the characteristics of the established area; nor be detrimental to the health, safety or welfare of persons residing or working in or adjacent to the area or neighborhood of such structure.
- F. On October 24, 2023, the Planning Commission held a public hearing on Planning Application No. 23-0097 (UP, FHE), at which time oral and/or written testimony was considered.

Section 2. Findings

- A. Based on the Planning Commission Staff Report entitled, "Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE)," dated October 24, 2023, and based on all the information contained in the Planning Division files on the project, incorporated herein by reference and available for review in the Planning Division located at 65 Civic Avenue in Pittsburg, and based on all written and oral testimony presented at the meeting, the Planning Commission finds that:
1. All recitals above are true and correct and are incorporated herein by reference.
 2. The proposed installation of a 10-foot-tall electric fence use will:
 - a) be in accordance with the objectives of the Zoning Ordinance, the purposes of the land use district in which it is located, and appropriate to the specific location, in that the use will help to protect the investment in the community and the property that the existing business has already made, by providing an opportunity for enhanced security to deter theft and vandalism. The location of the fencing is appropriate for the subject site because the east and south sides of the building already include an existing eight-foot-tall, slatted chain link fence topped with razor wire. Installation of the electric fence will not be highly visible

to the general public due to its placement behind the existing fence and behind the existing building and grade-separated parking area.

- b) not be detrimental to the health, safety, and general welfare of the city or persons in the vicinity adjacent to the fence, provided, that the applicant installs adequate warning signage on the perimeter fence, provides a key box outside of the perimeter fence to enable emergency responders to disarm the fence, and complies with all other electrification standards and conditions for installation as prescribed in PMC 18.84.220.
 - c) not adversely affect the orderly development of property within the city, in that the electrically-charged security fence will be an ancillary structure on a property that has been occupied by the same business owner for over 30 years. The secondary security fence will help to protect the business' assets on-site and help to facilitate its ongoing operation within the city.
 - d) not adversely affect the preservation of property values and the protection of the tax base and other substantial revenue sources within the city; rather, the fence will help to facilitate the ongoing operation of Bottom Line Services as a job and business tax generator in the city by providing a means for enhanced security of the business' investments.
 - e) be consistent with the General Plan in that the existing use is consistent with the Service Commercial land use designation. The proposed electric fence would be ancillary to the business and would facilitate enhanced security to protect assets of the business, help reduce losses and facilitate ongoing business operations, consistent with the intent of the General Plan.
 - f) not create a nuisance or enforcement problem within the neighborhood; rather, the fence will help to facilitate security of the business and deter theft and vandalism.
 - g) not encourage marginal development within the neighborhood, in that the electrically-charged security fence will be ancillary to the existing business and will be placed behind an existing perimeter fence already installed along the east and south sides of the property.
 - h) not create a demand for public services within the city beyond that of the ability of the city to meet in light of taxation and spending restraints imposed by law, in that the project site is located in an area of the city served by existing utilities, and the business will be maintained and operated at the cost of the applicant.
 - i) not be inconsistent with the city's approved funding priorities, in that the proposed use is on private property, to be maintained privately, and does not propose or require any city funding.
3. Installation of the 10-foot-tall electric security fence use will not infringe upon the light, air circulation or visual openness of surrounding properties, in that the electric fence is only proposed to be installed along two sides of the building, behind an

existing, eight-foot-tall, slatted chain link fence. The electric security fence will be installed in a commercial location that abuts the railroad tracks to the south and adjacent to a grade-separated parking area to the east and therefore not easily seen from the closest public right-of-way (Harbor Street). Additionally, the electric fence will be clearly identified with warning signs in English and Spanish, will be installed with a “Knox Box” device for emergency access and will not be energized during general business hours and therefore will not be detrimental to the health, safety or welfare of person residing or working in or adjacent to the area or neighborhood.

- B. The staff report entitled, “Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE),” dated October 24, 2023, is referenced hereto as additional support for the findings.

Section 3. Decision

- A. Based on the findings set forth above, the Planning Commission hereby approves Planning Application No. 23-0097 (UP, FHE), subject to the following conditions:
1. The approved use shall be operated substantially as presented to the Planning Commission in the staff report identified in Section 2 above, except as modified by the conditions below. Operation of the approved business in a manner inconsistent with this use permit shall be grounds for revocation of the use permit.
 2. The applicant and business operator shall at all times maintain compliance with the electrification standards and conditions of installation as described in PMC section 18.84.220, as may periodically be amended, which generally include the following requirements:
 - a) Installation of the electric fence shall be completed in conformance with the specifications set forth in the International Electrotechnical Commission (IEC) Standard No. 60335-2-76.
 - b) Any storage, use or handling of Hazardous Materials, as defined in the California Fire Code, shall be prohibited within 25 feet of any electric fence.
 - c) The electric fence shall be surrounded by a minimum eight-foot tall, non-permeable, non-electric perimeter fence at all times. The perimeter fence shall be solid, without spaces or gaps, and separated from the electrified fence by a maximum of eight inches. No part of a perimeter fence shall be allowed to be in contact with the electric fence. The area between the perimeter wall or fence and the electric fence, as well as any area within two feet of the electric fence, shall be paved with gravel or concrete and kept clear of landscaping, weeds, shrubbery, trash, other fences or material of any kind. Perimeter fences or walls shall be view-obscuring and shall be a masonry or concrete wall, wood privacy fence, or an equivalent solid barrier fence.
 - d) Warning signage shall be maintained on the electric fence at intervals of not less than 30 feet. Warning signs shall be displayed in English and Spanish and the

signage size and content shall comply with the requirements of PMC section 18.84.220(B)(4)(d).

- e) Electric fencing installed with an alarm system, as defined in PMC 9.24.020, shall be installed in compliance with all applicable provisions of Chapter 9.24 PMC, including but not limited to registration of the alarm agent and alarm system, technical standards and regulations applicable to audible alarms. Failure to comply with the applicable provisions of Chapter 9.24 PMC will result in enforcement of penalties pursuant to that chapter, and shall provide grounds for denial or revocation of the requisite use permit for the electric fence.
 - f) The electric fence shall be operated with an automatic timer and shall only be energized or armed during the hours when the general public does not have access to the protected property.
 - g) The electric charge produced by the fence upon contact shall not exceed energizer characteristics described in paragraph 22.108 of the IEC Standard 60335-2.76.
 - h) The electric fence shall be energized by a battery not to exceed 12 volts direct current, and the impulse repetition rate of the charge shall be no more frequent than one cycle per second.
- 3. The business operator shall inspect the perimeter fence regularly in order to maintain the integrity of the barrier between the security fence and other properties or areas (such as the parking lot) that are accessible to the general public. Should any slats within the perimeter fence deteriorate, break or otherwise be removed, they shall be replaced immediately, and the interior security fence shall not be armed until the slats have been replaced.
 - 4. If the business uses, handles, or stores hazardous materials in quantities of or greater than 55 gallons (liquid), 500 pounds (solid) or 200 cubic feet (compressed gas), then the applicant shall be required to report this information to the Contra Costa Health Services Hazardous Material program, in accordance with Health and Safety Code, Chapter 6.95, Articles 1-5.
 - 5. The business operator shall ensure that the site is maintained in a neat and clean manner at all times. Trash, debris, weeds and/or other unkempt shrubbery shall not be allowed to accumulate on or around the site, on perimeter fencing, or on the street gutters and sidewalks.
 - 6. The owner of the electric fence and the property owner(s), if different, are each required to carry general liability insurance in a minimum amount of \$1,000,000 in the aggregate. Proof of insurance shall be required prior to Use Permit approval. A failure to maintain proof of insurance and to provide evidence of such insurance to the city annually or more frequently as may be requested by the city planner shall be grounds for denial or revocation of the Use Permit. Proof of insurance shall be underwritten by an organization licensed and authorized to do business in the state of California.

7. The applicant shall agree, as a condition of permit issuance, to defend, indemnify and hold harmless the city of Pittsburg and its agents, officers, consultants, independent contractors and employees from any and all claims, actions or proceedings arising out of any personal injury, including death, or property damage caused by the electric fence.
8. In the event that access by the Contra Costa County Fire Protection District or city of Pittsburg police department personnel to a property where a permitted electric fence has been installed and is operating is required due to an emergency or urgent circumstances, and the Knox Box or other similar approved device referred to in this article is absent or nonfunctional, and an owner, manager, employee, custodian or any other person with control over the property is not present to disable the electric fence, fire or police personnel are authorized to disable the electric fence in order to gain access to the property. The applicant shall agree in writing to waive any and all claims for damages to the electric fence against the Contra Costa County Fire Protection District, city of Pittsburg and their personnel under such circumstances.

City of Pittsburg Engineering Division Conditions

9. The applicant shall obtain an encroachment for the installation of the fence. Plans showing the location of the new fence, including complete dimensions indicating the City's right of way shall be submitted through the Accela permitting portal.
10. The applicant shall pay the encroachment plan review and inspection fees, which are 3.5% and 4.5% respectively, of the estimated cost for the work.
11. The applicant shall execute a Revocable Encroachment Permit Agreement with the City prior to the issuance of the encroachment permit for the installation of the fence.

City of Pittsburg Building Division Conditions

12. All new businesses must acquire a Business License and a Certificate of Occupancy permit prior to opening any business in the City of Pittsburg.
13. On the cover sheet, please indicate the building Design Codes applicable to this project. The City of Pittsburg has adopted and enforces the following building Design Codes: 2022 California Administrative Code (CAC), 2022 California Building Code (CBC), 2022 California Historical Building Code (CHBC), 2022 California Existing Building Code (CEBC), 2022 California Green Building Standards Code (CGBSC), 2022 California Mechanical Code (CMC), 2022 California Plumbing Code (CPC), 2022 California Electrical Code (CEC), 2022 California Energy Code (CEC Part 6), 2022 California Fire Code and the Pittsburg Municipal Code (RMC). Reference CBC Sec. 107.
14. On the cover sheet, please verify the Drawing Index includes all plan sheets. Reference CBC Sec. 107.

15. On the cover sheet, provide or verify the Code Analysis includes the proposed tenant's Use, Occupancy Group, Type of Construction, Separated or Nonseparated Mixed Occupancies, whether or not the building is Fire Sprinkled, Floor Area (S.F.), Number of Stories and Occupant Load. Reference CBC Sec. 111, 302.1, 401, 503, 508, 601, 903 and 1004.1.
16. The preparation of plans or specifications for commercial buildings and tenant improvements shall be performed by a licensed architect or engineer (Exception: Interior alterations that involve only non-bearing partitions). The licensed architect or engineer shall affix a stamp to the plans as evidence of the person's responsibility for the documents.
17. Licensed Mechanical, Plumbing and Electrical Contractors may design the systems that they are to install.
18. The Site Plan shall include code compliant accessible parking spaces and access aisles, and an accessible route from accessible parking spaces to all entrances and exterior ground floor exits. The clear width for sidewalks and walks shall be 48" minimum. The slope of the accessible route shall not exceed 1:20 (5%) in the direction of travel for walking surfaces, 1:12 (8.3%) in the direction of travel for ramps, and the cross slope shall not exceed 1:48 (2%). The slope of curb ramps shall not exceed 1:12 (8.3%). Where the accessible route crosses onto a vehicular route of travel, provide a 36" long continuous detectable warning mat where the pedestrian path crosses or adjoins the vehicular way, such as a driveway, to warn of potential hazards.
19. At least one accessible route shall be provided within the site from accessible parking spaces and accessible loading zones; public streets and sidewalks; and public transportation stops to the accessible building or facility entrance they serve. Where more than one route is provided, all routes must be accessible.
20. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.
21. All exterior and interior accessibility requirements for this project, shall be designed and built to chapter 11B of the California Building Code.

Contra Costa County Fire Protection District (Fire District) Conditions

22. Access gates for Fire District apparatus shall be a minimum of 20 feet wide. Access gates shall slide horizontally or swing inward. Electrically operated gates shall be equipped with a Knox Company key-operated switch at the access control pad for each gate. Manually operated gates shall be equipped with a non-casehardened lock or approved Fire District lock. Provide a Knox box for the keys to open the manual gates.
23. The electric fence shall be equipped with a Knox Company key-activated switch at the main entry gate that will de-activate the system when the key switch is operated. The Knox Company switch shall be clearly labeled with a sign to identify its

purpose. Approved signs stating the identification of disconnect switches/controls in addition to information instructions as to how to disable the electric system shall be installed to the satisfaction of the Fire District. The applicant shall be responsible for contacting the Fire District for information on ordering the key-operated switches.

24. A notice shall be posted at the gates (pedestrian and vehicle gates) indicating a 24-hour contact name and phone number or said information shall be filed and kept updated with the Fire District.
25. The system shall have an approved visual signal indicator next to the Knox key switch for emergency responders that indicates if the battery-operated alarmed electronic fence is energized or de-energized. The indicator color is not designated. The signal indicator shall be lit when the fence is charged and not lit when not charged. Submit plan for the indicator prior to final inspection.
26. The applicant's plans for building permit shall also be subject to review and approval by the Fire District to ensure compliance with minimum requirements related to fire and life safety.
27. The applicant shall contact the fire district (minimum 2 working days in advance) at 925-941-3300 ext 3902 to schedule an inspection with the Fire District of the electric fence prior to use and building occupancy. No inspections shall be scheduled on Fridays or holidays. On the morning of the inspection, a confirmation call made to the Fire District at 925-941-3300 is necessary between 8:00 am and 8:30 am. Otherwise, the inspection will be cancelled. Approved plans shall be onsite at the time of inspection. Failure to have approved plans on site may result in the cancellation of the inspection, and a reinspection fee being assessed.
28. Fire District approval does not relieve the designer/contractor from fully complying with all applicable fire code requirements, nor does it abrogate the requirements of other authorities having jurisdiction.

Standard Conditions

29. All site development shall comply with Title 12 (Streets, Sidewalks, and Utilities), Title 13 (Water and Sewers), and Title 15 (Buildings and Construction) of the Pittsburgh Municipal Code as determined by the City Engineer.
30. The Standard Conditions of Development as adopted by the Pittsburgh Planning Commission by Resolution No. 8931 shall apply as condition of approval for this project as applicable. Where there is a conflict between the conditions of approval of Resolution No. 8931 and the specific conditions identified herein, the specific conditions of this Resolution No. 9992 shall apply.
31. Applicant and property owner agree to indemnify, defend, and hold harmless the City, its officials, officers, employees, agents and consultants from any and all administrative, legal or equitable actions or other proceedings instituted by any person challenging the validity of this project approval, subsequent project approval, or other action arising out of, or in connection with, this project approval. The parties

shall cooperate in defending such action or proceeding. The parties shall use reasonable efforts to select mutually agreeable defense counsel but, if the parties cannot reach agreement, City may select its own legal counsel at developer's sole cost and expense. Developer may select its own legal counsel to represent developer's interests at developer's sole cost and expense. Developer shall pay for City's costs of defense, whether directly or by timely reimbursement to City on a monthly basis. Such costs shall include, but not be limited to, all court costs and attorneys' fees expended by City in defense of any such action or other proceeding, plus staff and City Attorney time spent responding to and defending the claim, action or proceeding.

32. The applicant shall comply with all the requirements of the City's Community Development Department, Contra Costa County Fire Protection District, and all other applicable local, state and federal agencies. It is the responsibility of the applicant to contact each local, state, or federal agency for requirements that may pertain to this project.
33. Use Permit approval will expire on October 24, 2025, unless, prior to that date, the applicant has completed installation of the fence in accordance with all applicable codes and conditions of approval, or has submitted to the Planning Department a written request for an extension of approval and subsequently obtained Planning Commission approval of that request.

Section 4. Effective Date

This resolution shall take effect immediately upon its adoption.

On motion by Commissioner _____, seconded by Commissioner _____, the foregoing resolution was passed and adopted the 24th day of October, 2023, by the Planning Commission of the City of Pittsburg, California by the following vote:

AYES:

NAYES:

ABSTAIN:

ABSENT:

I hereby certify that the above Resolution No. was adopted by the Planning Commission of the City of Pittsburg on October 24, 2023.

JOHN FUNDERBURG, M.S., SECRETARY
PITTSBURG PLANNING COMMISSION

Attachment 2
Existing Site Photos
Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE)

Looking east from E 10th Street toward Harbor Street at sidewalk on north side (front) of property



Looking south from corner of E 10th and Harbor Streets at east side of property adjacent to Harbor Street



Attachment 2
Existing Site Photos
Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE)

Looking south toward elevated railroad crossing at sidewalk between east edge of loading dock and Harbor Street. Note: height of retaining wall increases in height gradually the further south you walk.



Detail of existing perimeter chain link fence outside of railing on top of retaining wall above sidewalk.



Looking west at retaining wall separating loading dock from sidewalk adjacent to Harbor Street. Note: retaining wall gradually increases in height from zero feet on the right (north) to five and one-half feet on the left (south).



Attachment 2
Existing Site Photos
Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE)

Close-up look at distance between bottom edge of railing and fencing on top of retaining wall above sidewalk. Note: ability of persons walking on the sidewalk to reach in beyond perimeter fence approx. one foot.



Looking west from incline above Harbor Street at area between rear property line and railroad tracks.



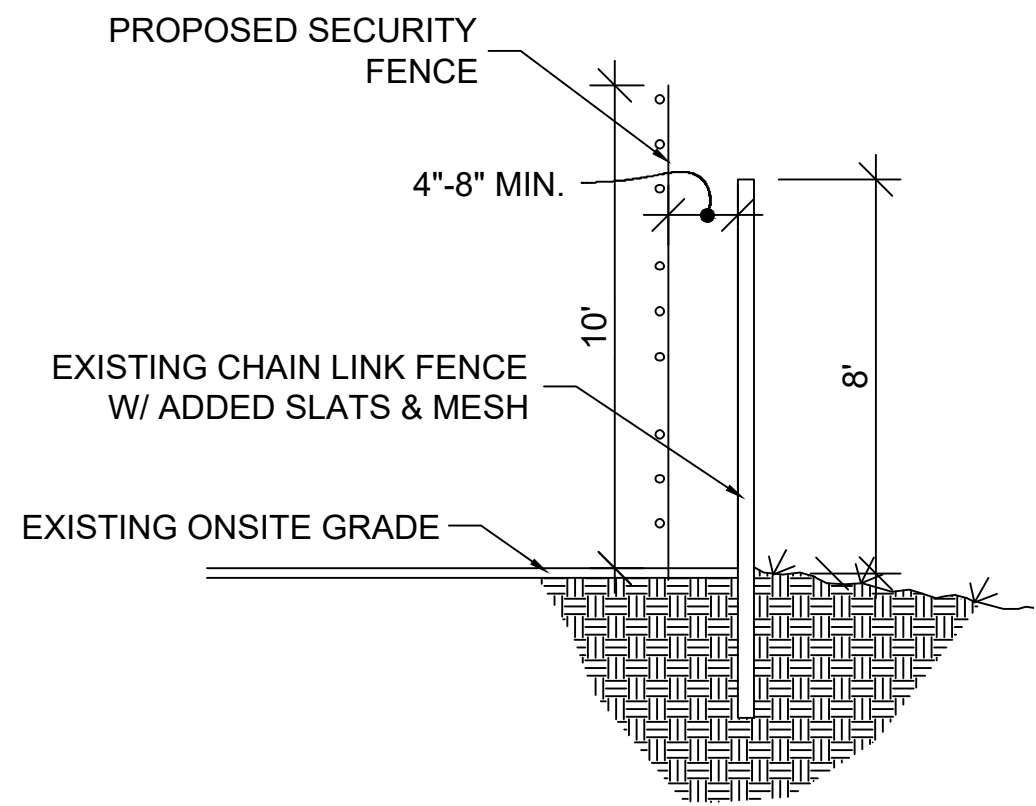
Attachment 2
Existing Site Photos
Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE)

Looking north from railroad toward existing exterior fence on rear property line.

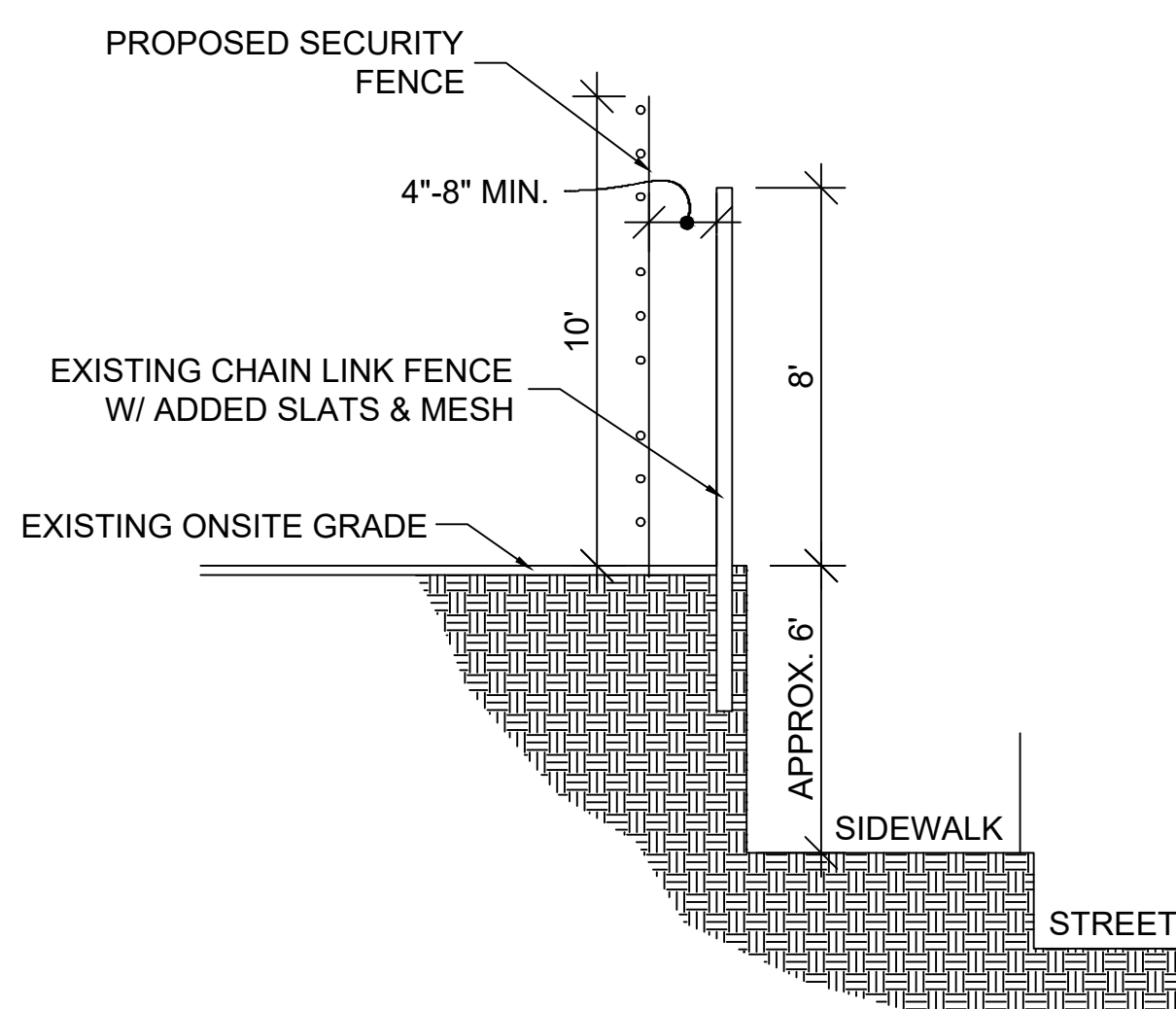


Attachment 3
Map of Surrounding Land Uses
Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE)





1 PERIMETER FENCE SECTION
C-1 NTS.



2 PERIMETER FENCE SECTION
C-1 NTS.

WARNING! Electric Fence

ALARMED AND MONITORED

7,000 V

ALARMADO Y SUPERVISADO

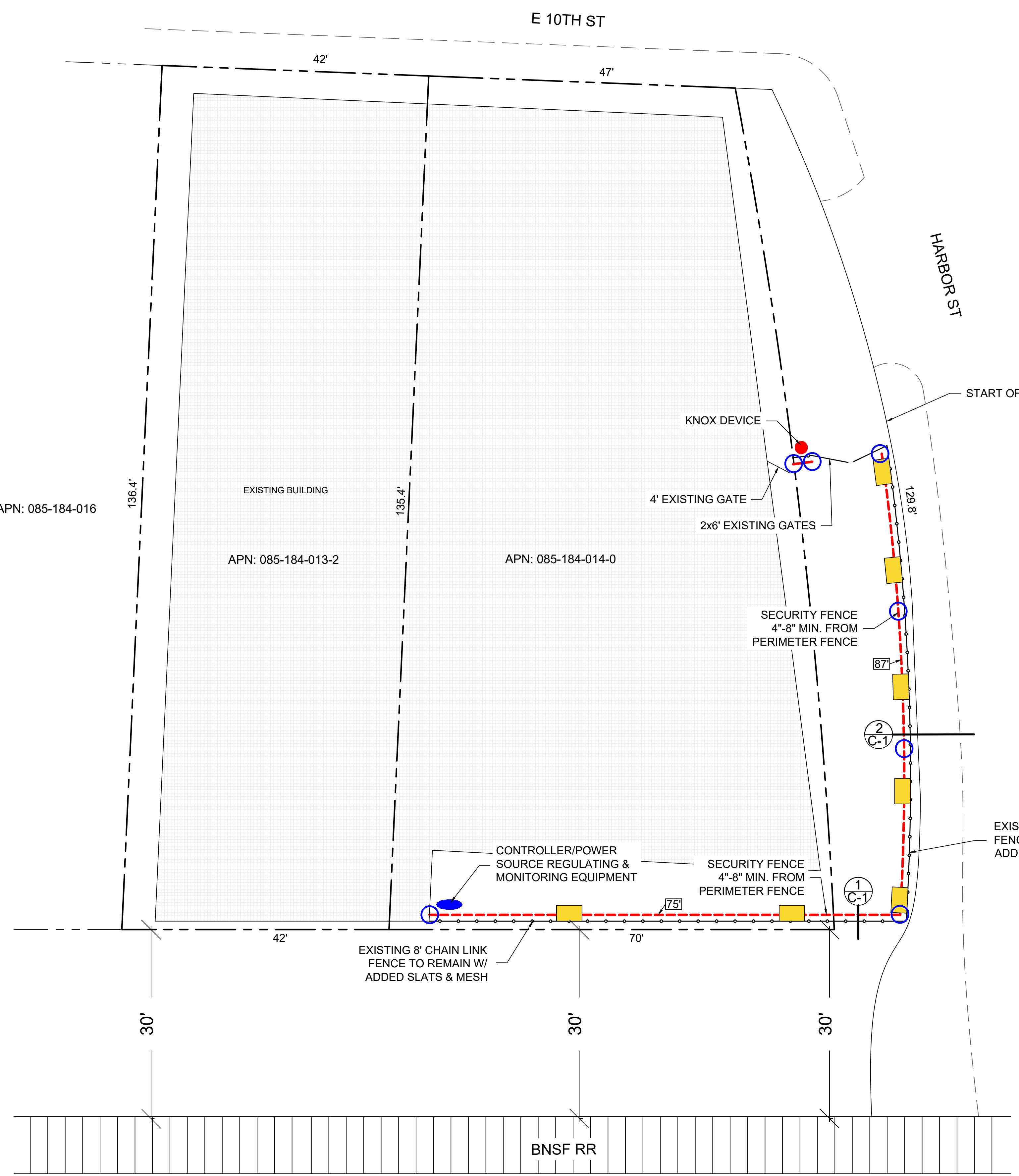
iPELIGRO! Cerca Eléctrica

WARNING SIGNS SHALL BE PLACED AT EACH ENTRANCE OF THE PROPERTY AND MAX 30 FEET ON CENTER THEREAFTER

EXAMPLE WARNING SIGN @ 9"x12"

AMAROK

ULTIMATE PERIMETER SECURITY



SITE PLAN REQUEST TO AUTHORIZE
A SECURITY SYSTEM FOR:
BOTTOM LINE SERVICES
494 & 498 E 10TH ST
PITTSBURG CA 94565

LEGEND

PROPERTY LINE/ROW

EXISTING CHAIN LINK FENCE

PROPOSED PERIMETER SECURITY SYSTEM

ROAD/CURB EDGE

EXISTING BUILDING

PROPOSED SECURITY FENCE LENGTH

WARNING SIGNS (MAX. 30') & ON EVERY GATE

*PROPOSED LOCATION OF ELECTRONICS ONLY, SUBJECT TO CHANGE BASED ON SITE CONDITIONS.
*PROPOSED LOCATION OF KNOX DEVICE ONLY, SUBJECT TO CHANGE BASED ON SITE CONDITIONS.

NOTES

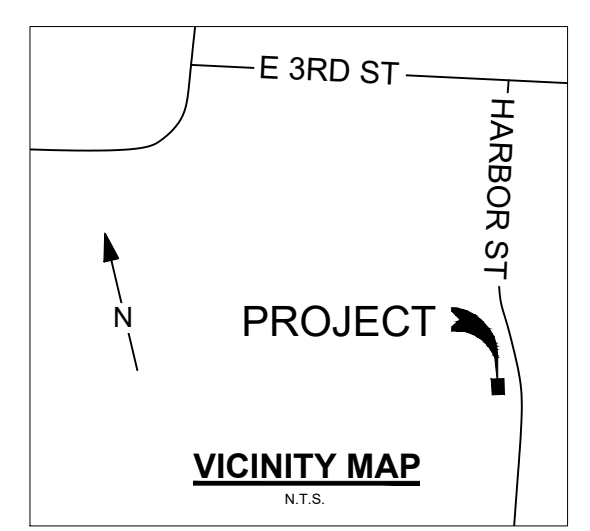
POLE LOCATIONS:
STEEL POLES: TO BE LOCATED APPROXIMATELY ON EACH SIDE OF GATE(S) & EVERY 90° (OR GREATER) TURN IN FENCE LINE.
FIBERGLASS/INTERMEDIATE POLES: TO BE LOCATED APPROXIMATELY EVERY 30'

DISCLAIMER:
POLE LOCATIONS MAY SLIGHTLY DEVIATE FROM STIPULATIONS ABOVE DUE TO ON-SITE CONDITIONS

LOADING DOCK AREA IS CITY PROPERTY AND WILL BE SUBJECT TO AN REVOCABLE ENCROACHMENT PERMIT

PROPERTY OWNER
COCOTIS ENTERPRISES INC
498 E 10TH ST,
PITTSBURG CA 94565

PROJECT DATA
APN: 085-184-013-2 APN: 085-184-014-0
ZONING: CS-D ZONING: CS-D
ACRES: 0.13 ACRES: 0.18



○ DENOTES LOCATIONS FOR STEEL POLE PER 300' MAX SPACING CALCULATIONS AND NOTES THIS SHEET

#	DATE / DESCRIPTION



AMAROK

ULTIMATE PERIMETER SECURITY

550 Assembly Street, 5th Floor Columbia, SC 29201 PH: 803-786-6333

PROJECT:

SHEET TITLE:

BOTTOM LINE SERVICES
494 & 498 E 10TH ST
PITTSBURG CA 94565

SITE PLAN

APPLICANT: AMAROK
550 ASSEMBLY ST 5TH FL
COLUMBIA SC 29201
803-404-6189

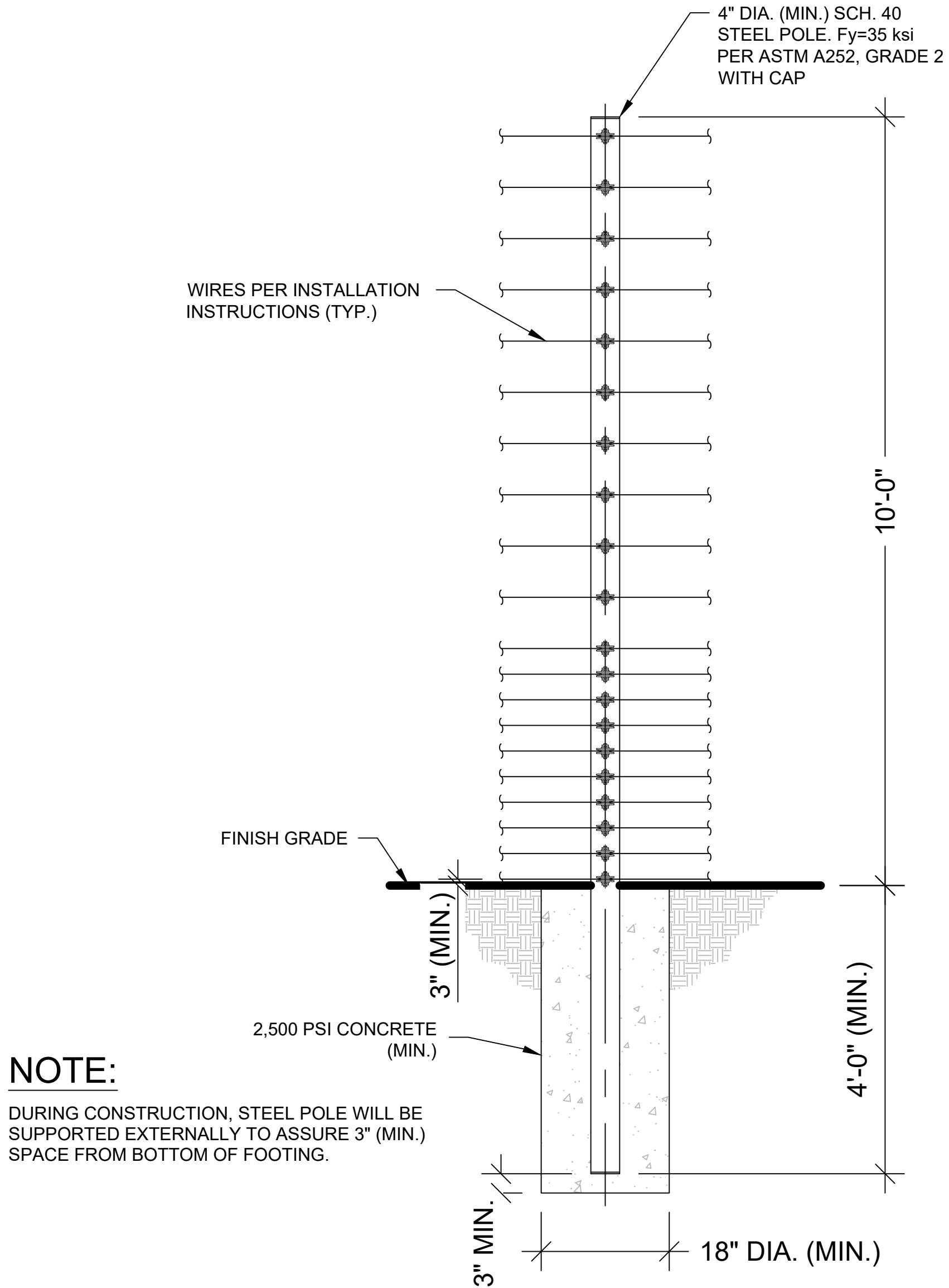
ENGINEER: FDR ENGINEERS PLLC
121 KITTY HAWK DRIVE
MORRISVILLE, NC 27560
619-657-6100

DATE: 10/09/2023
SCALE: SEE PLAN

SHEET

C-1

1 of 3

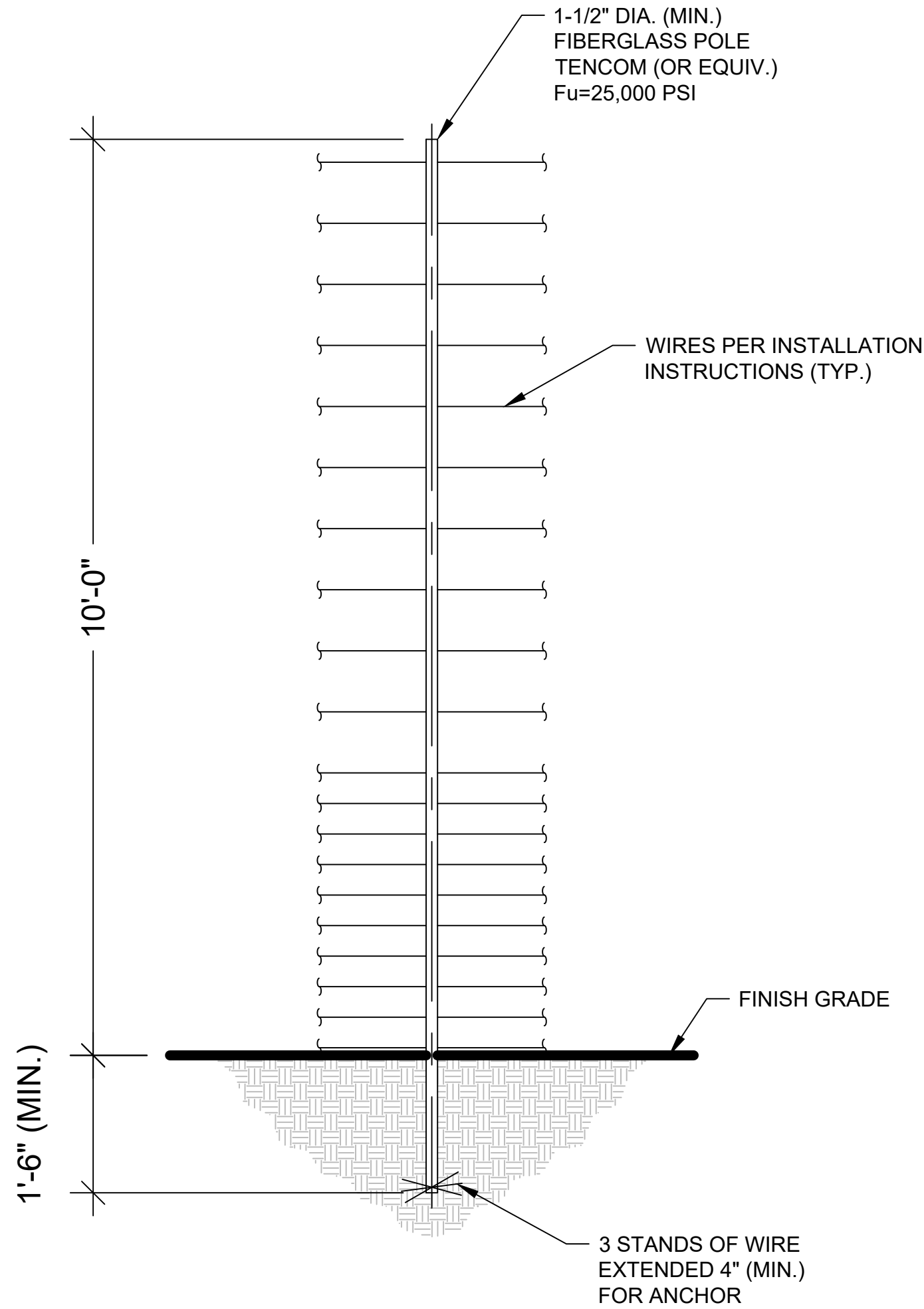


STEEL POLE DETAIL
SCALE: NONE
(STRUCTURAL)



WARNING SIGNS SHALL BE PLACED AT EACH ENTRANCE OF THE PROPERTY AND MAX 30 FEET ON CENTER THEREAFTER

EXAMPLE WARNING SIGN @ 9"x12"



FIBERGLASS POLE DETAIL

SCALE: NONE
(NON-STRUCTURAL, NON-LOAD BEARING WIRE SEPARATOR)

GATE DETAIL NOTES:

- BRACE BANDS ARE INSTALLED AS HIGH AS POSSIBLE UNDER #3 AND #9, 2" (MIN.) UNDER #12, #15, AND #17, UNDER #19 AND AS HIGH ON THE GATE AS POSSIBLE. MAXIMUM DISTANCE OF 2' BETWEEN BRACE BANDS.
- SPRINGS ARE LOCATED ON HINGE SIDE OF SWING GATE AND REAR OF SLIDE GATE.
- ALL CONTACTS MUST INCLUDE SPRINGS.
- ALL CONTACTS MUST HAVE BOLT THROUGH FIBERGLASS (NO SET SCREWS).
- ALL BRACE BANDS HOOKED TO CHAIN LINK MUST HAVE SET SCREW.
- EVERY GATE PANEL MUST HAVE A SIGN.
- ALL GATE CONTACTS MUST BE SECURE IN A MANOR THAT ENSURES CONTACT WILL EASILY BE MADE.
- GATE MOUNTS WILL NOT IMPACT THE FUNCTIONALITY OF THE GATE.

RAPID TIGHTENERS

RAPID TIGHTENERS ARE INSTALLED IN EVERY SECTION - BETWEEN 6" INCHES AND 3 FEET FROM A FIBERGLASS POLE - TOWARD THE CENTER OF THE RUN.

THE TIGHTENERS ARE ALTERNATED ON OPPOSITE SIDES OF THE POLE TO PREVENT GROUNDS FROM HITTING WIRES WITH CURRENT.

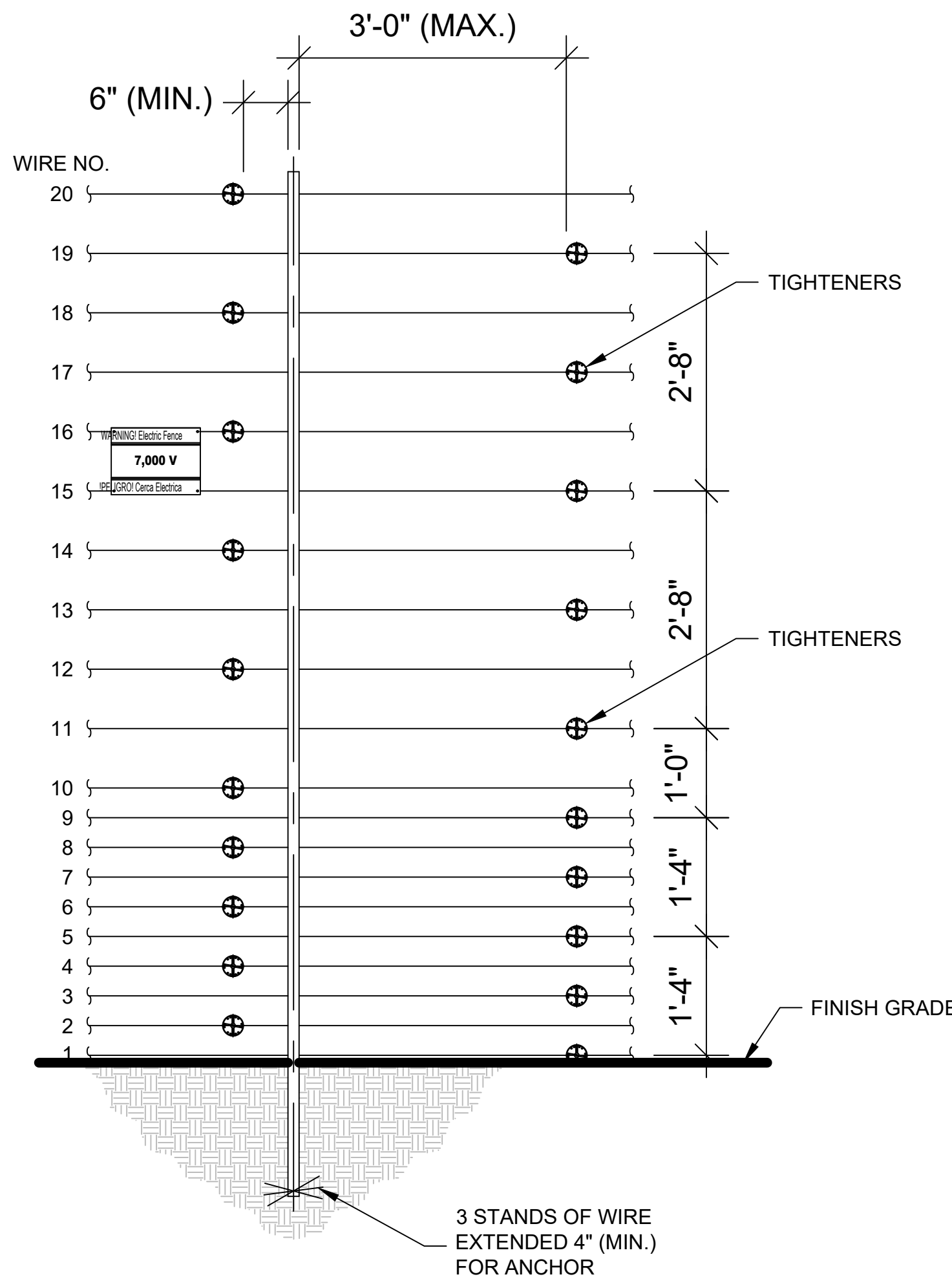
WIRE SHOULD BE WRAPPED TWO OR THREE TIMES AROUND EACH TIGHTENER.

WARNING SIGNS

WARNING SIGNS MUST BE INSTALLED EVERY 30 FEET, WHICH IS THE MAXIMUM DISTANCE BETWEEN SIGNS.

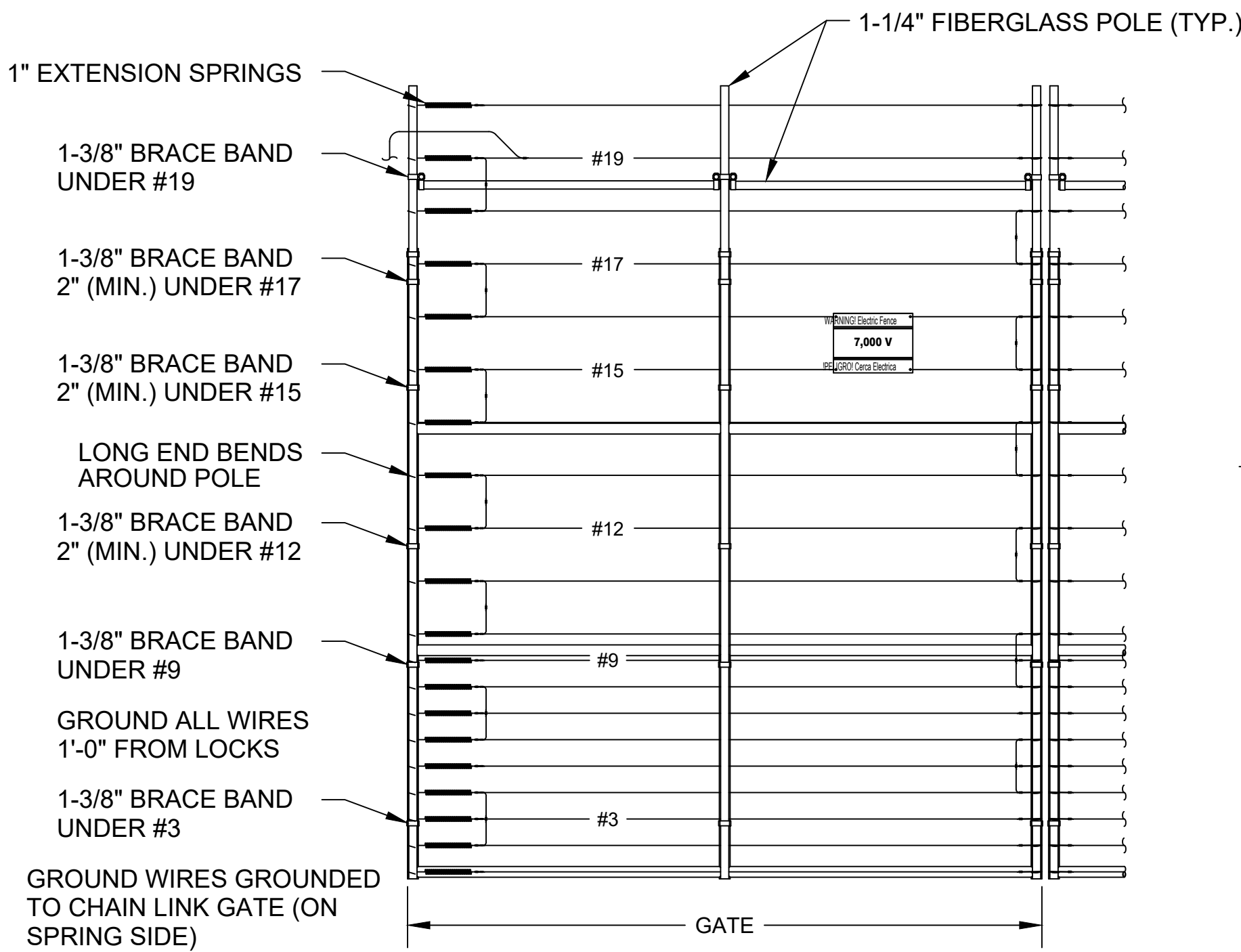
ALL WARNING SIGNS SHOULD BE MOUNTED EITHER BETWEEN WIRES 15 & 16 OR AT BEST VISIBLE HEIGHT.

IF INSTALLED BEHIND A SOLID FENCE, WARNING SIGNS SHOULD ALSO BE PLACED ON OR ABOVE THE PERIMETER FENCE.



WIRE CONNECTIONS

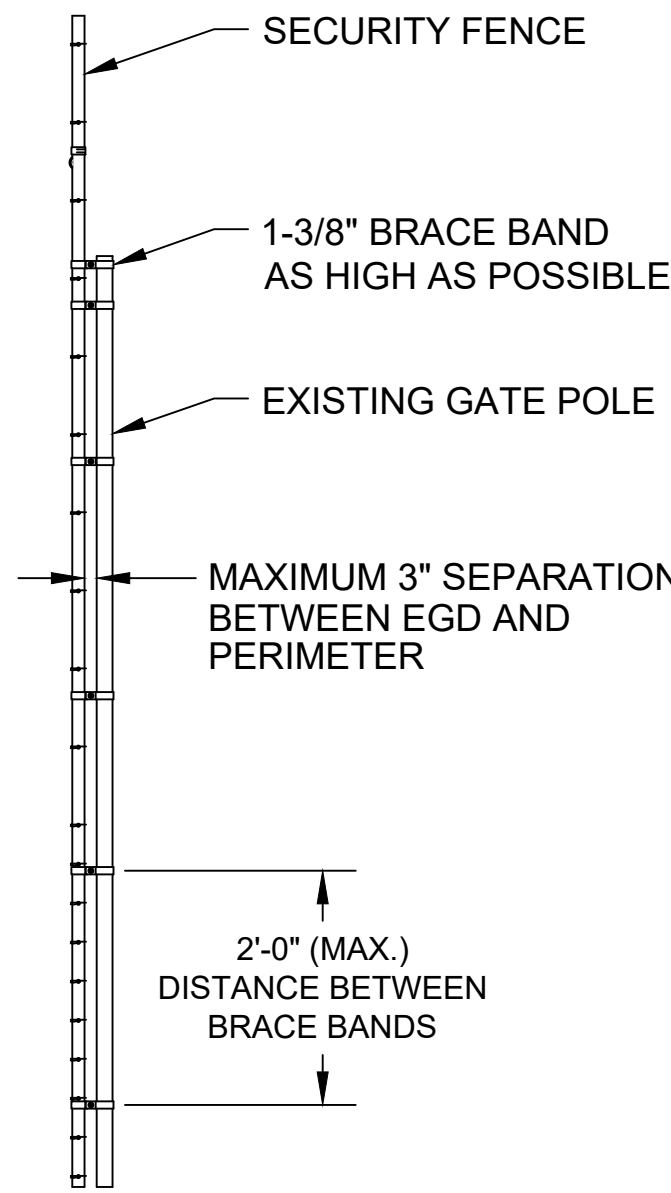
SCALE: NONE
(FIBERGLASS POLE)



DOUBLE PANEL GATE

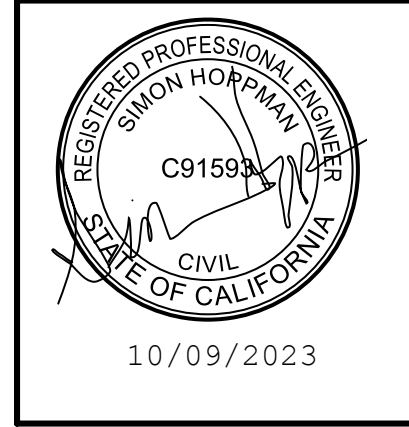
GATE DETAIL

SCALE: NONE

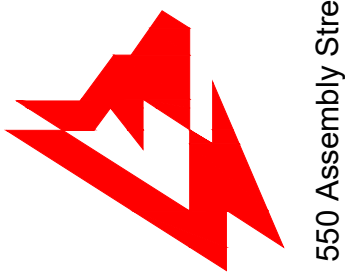


SIDE VIEW

#	DATE / DESCRIPTION



AMAROK
ULTIMATE PERIMETER SECURITY


550 Assembly Street, 5th Floor Columbia, SC 29201 PH: 803-786-6333

PROJECT:
BOTTOM LINE SERVICES
494 & 498 E 10TH ST
PITTSBURG CA 94565

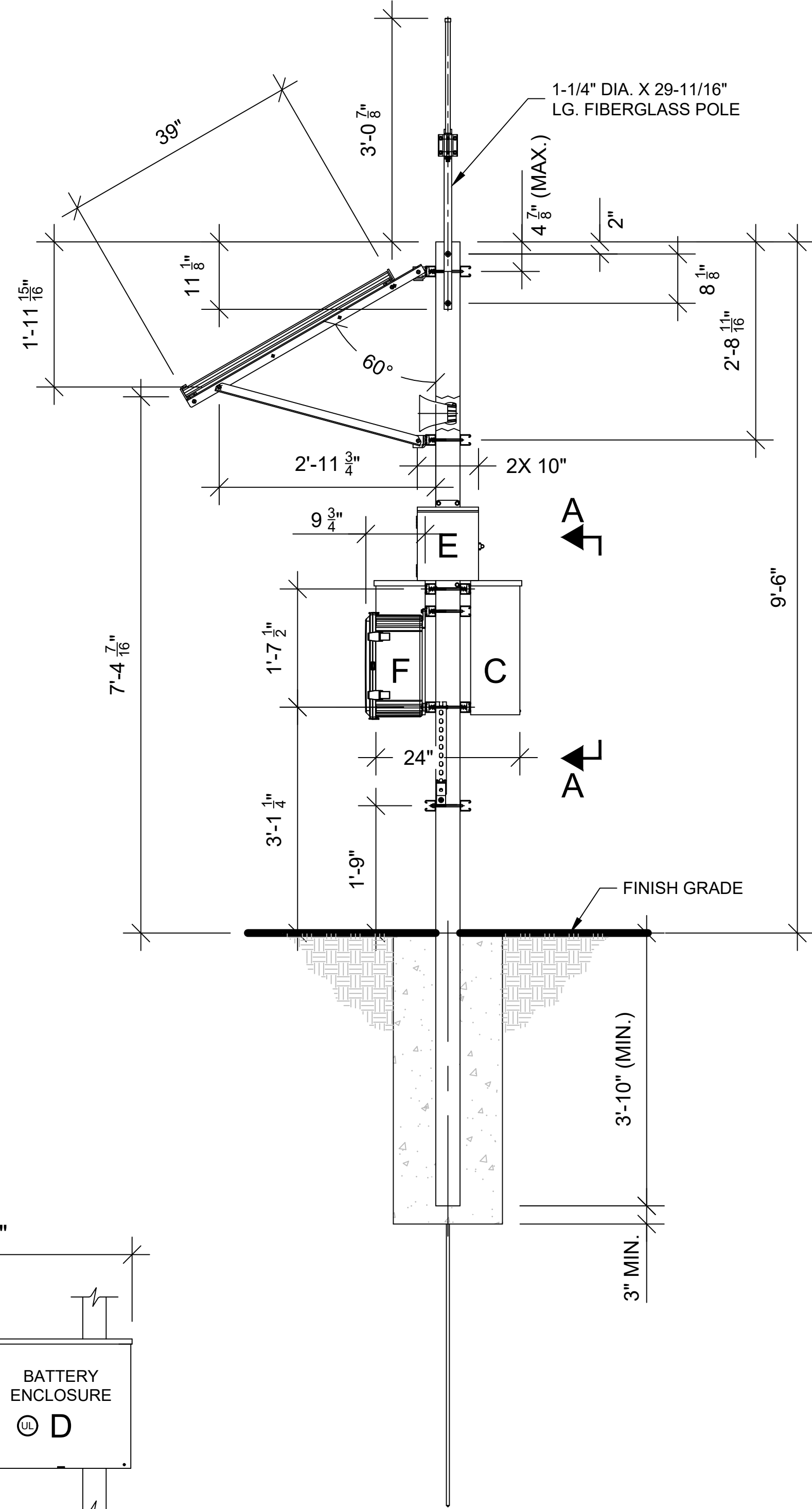
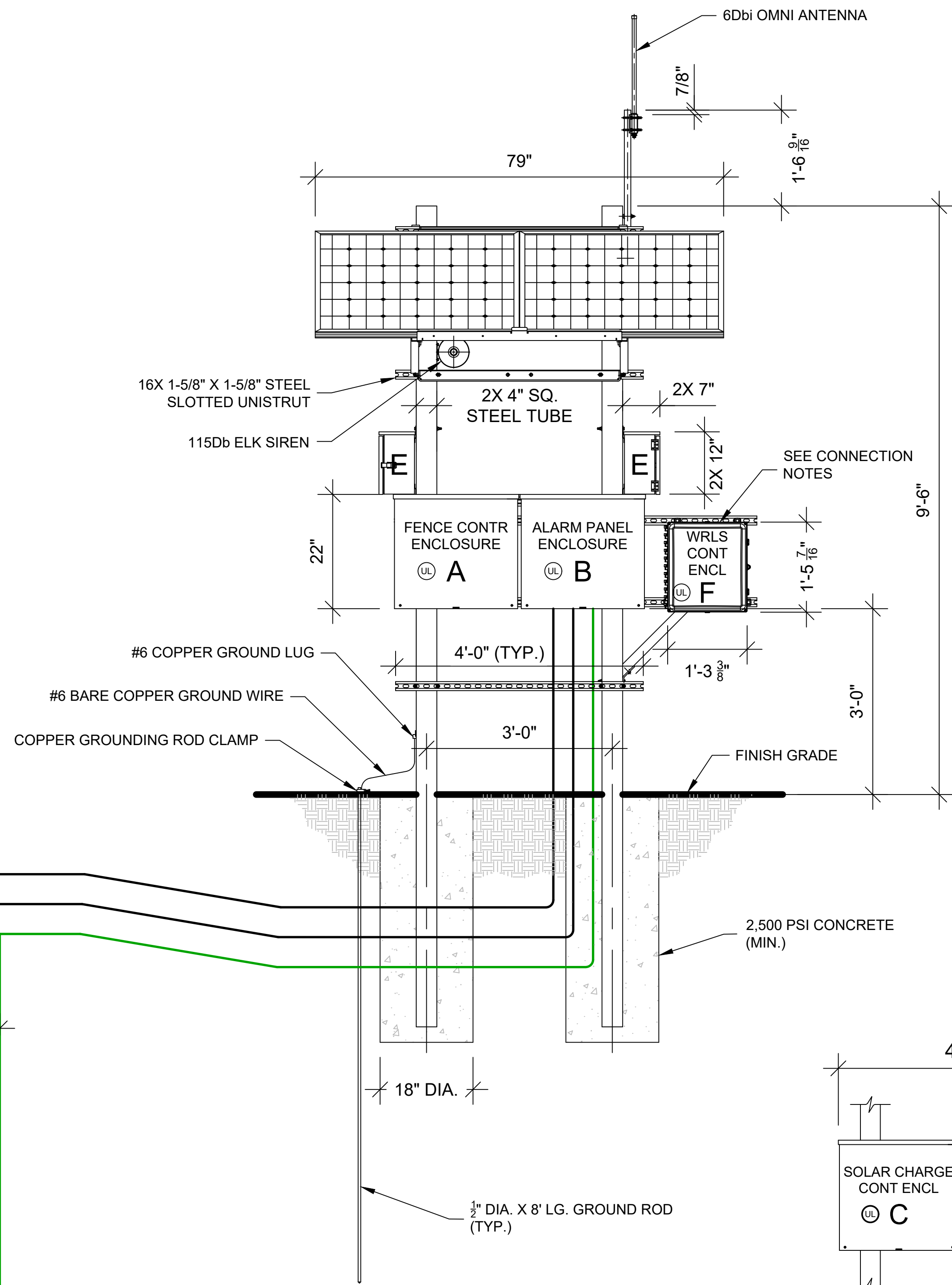
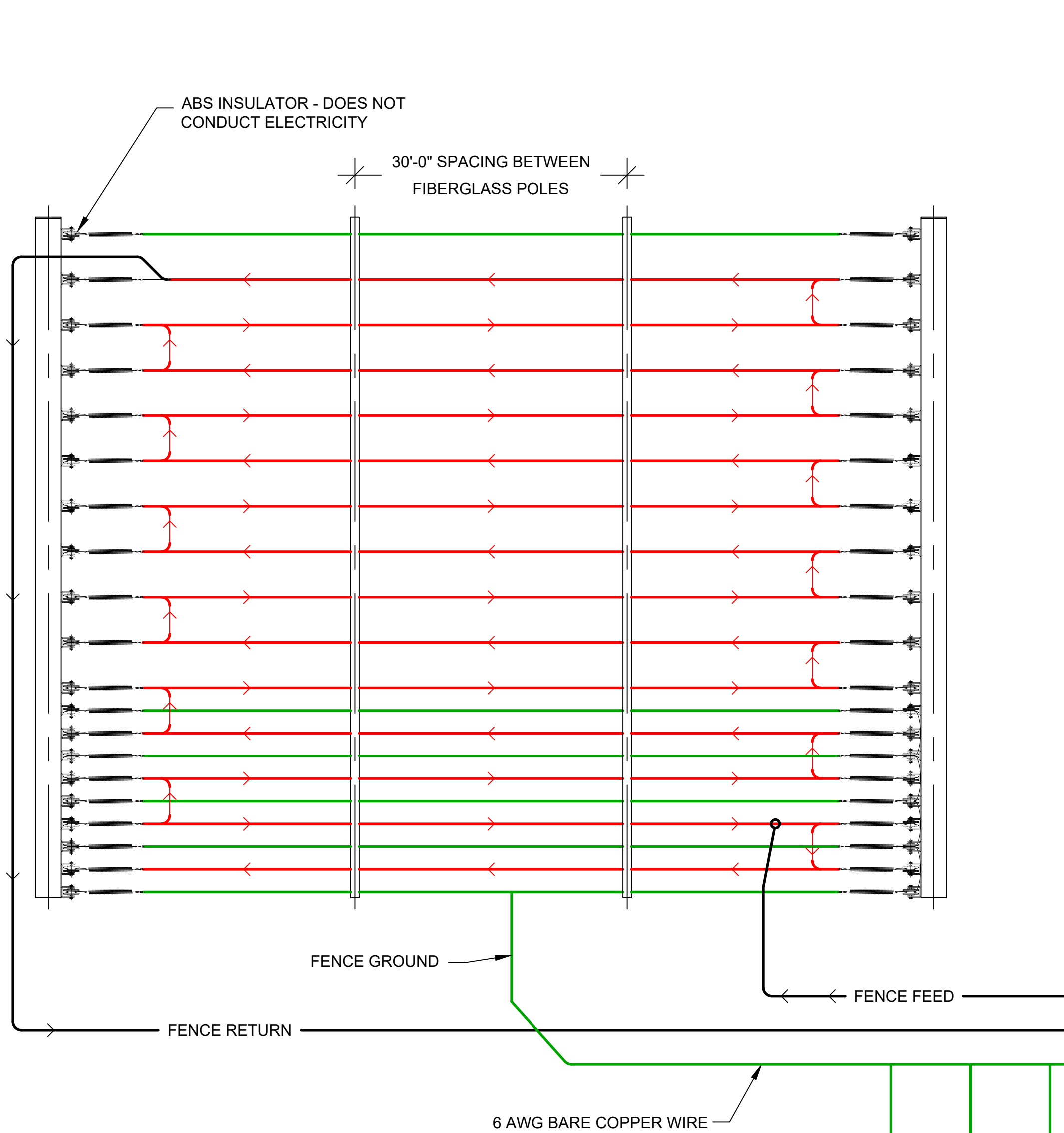
SHEET TITLE:
TYPICAL DETAILS

APPLICANT: AMAROK
550 ASSEMBLY ST 5TH FL
COLUMBIA SC 29201
803-404-6189

ENGINEER: FDR ENGINEERS PLLC
121 KITTY HAWK DRIVE
MORRISVILLE, NC 27560
919-857-5100

DATE: 08/18/2023
SCALE: SEE PLAN

SHEET
C-2
2 of 3



GENERAL NOTE:

EQUIPMENT ARRANGEMENT AND ELEVATION SHOWN ARE FOR REFERENCE ONLY. ACTUAL EQUIPMENT ARRANGEMENT, SHAPE, SIZE, LOCATION, AND QUANTITY ARE CUSTOMER SITE SPECIFIC AND CAN VARY FROM DRAWING DEPICTION.

CONNECTION NOTES:

A: FENCE CONTROLLER ENCLOSURE - HOUSES THE FENCE ENERGIZER OR EQUIVALENT. THIS BOX CONNECTS TO "A" / ALARM PANEL ENCLOSURE USING THE APS WHIP / 10 CONDUCTOR CABLE. ENCLOSURE WEIGHT 22 LBS. (MAX.).

B: ALARM PANEL ENCLOSURE - HOUSES THE ALARM CONTROL PANEL. THIS BOX INTERCONNECTS TO "B" / FENCE CONTROLLER ENCLOSURE USING THE APS WHIP / 10 CONDUCTOR CABLE AND "C" / SOLAR CHARGE CONTROLLER USING TWO CONDUCTOR CABLE. ENCLOSURE WEIGHT 21 LBS. (MAX.).

C: SOLAR CHARGE CONTROLLER ENCLOSURE - HOUSES POWER ELEMENTS FOR SOLAR CHARGE CONTROLLER AND DISCONNECTS FOR SOLAR, BATTERY, AND LOAD CONNECTIONS. POWER UP PROCEDURE: TURN ON BATTERY BREAKER FIRST, THEN TURN ON SOLAR BREAKER. THE ELECTRONICS POWER IS CONTROLLED BY THE LOAD BREAKER. ENCLOSURE WEIGHT 25 LBS. (MAX.).

D: BATTERY ENCLOSURE - HOUSES THE BATTERIES AND INTERCONNECTS TO "C" / SOLAR CHARGE CONTROLLER ENCLOSURE USING TWO CONDUCTOR 14G AND 10G THWN WIRES. ENCLOSURE WEIGHT 145 LBS. (MAX.).

E: KEYPAD ENCLOSURE - HOUSES THE KEYPAD. THIS BOX INTERCONNECTS TO "B" USING 10 CONDUCTOR / 18 AWG WIRE. ENCLOSURE WEIGHT 12 LBS. (MAX.).

F: WIRELESS CONTROLLER ENCLOSURE - HOUSES THE WIRELESS RADIO CONTROLLER AND RELAYS. CONNECTS TO "A" / SOLAR CHARGE CONTROLLER ENCLOSURE USING TWO CONDUCTOR 14G THWN WIRES. ENCLOSURE WEIGHT 21 LBS. (MAX.).

NOTES:

MOUNT 4 SILVER BOXES TO A PAIR OF HSS TUBE 4"x4"x10 GA (0.134" WALL THICKNESS) ASTM A500 GRADE B OR C 55 KSI YIELD (MIN.) STEEL POLES. BOTTOM OF THE LOWEST BOX MUST BE A MINIMUM OF 3 FEET ABOVE GROUND LEVEL. THE SUPPORT POLES MUST BE EMBEDDED AT A MINIMUM OF 3'-10" BELOW GROUND LEVEL.

ASSEMBLY WEIGHT CHART

DESCRIPTION	WEIGHT (LBS.)
SOLAR PANELS	61.6
SOLAR PANEL MTG. KIT	27.0
UNISTRUT	108.8
OMNI ANTENNA ASSEMBLY	3.59
SIREN	1.5

ELECTRONICS ARMATURE

LOCATION	DESCRIPTIVE NAME
MAIN GATE	HEAD-END ELECTRONICS

FRONT ELEVATION

VIEW A-A
(KEYPAD/WIRELESS CONTROLLER ENCLOSURES REMOVED FOR CLARITY)

RIGHT SIDE ELEVATION

DATE / DESCRIPTION



10/09/2023

AMAROK
ULTIMATE PERIMETER SECURITY



550 Assembly Street, 5th Floor Columbia, SC 29201 PH: 803-786-6333

PROJECT: BOTTOM LINE SERVICES
494 & 498 E 10TH ST
PITTSBURG CA 94565

SHEET TITLE: TYPICAL DETAILS

APPLICANT: AMAROK
550 ASSEMBLY ST 5TH FL
COLUMBIA SC 29201
803-404-6189

ENGINEER: FDR ENGINEERS PLLC
121 KITTY HAWK DRIVE
MORRISVILLE, NC 27560
919-857-5100

DATE: 08/18/2023
SCALE: SEE PLAN

SHEET

C-3

3 of 3



City of Pittsburg

Community and Economic Development Department – Planning Division

65 Civic Avenue, Pittsburg, CA 94565 | Tel: (925) 252-4920 | Fax: (925) 252-4814

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the **PLANNING COMMISSION** of the City of Pittsburg will conduct a public hearing on:

DATE: October 24, 2023
TIME: 7:00 p.m.
PLACE: Marina Community Center
340 Marina Boulevard, Pittsburg, California 94565

Concerning the following matter:

Bottom Line Services, AP-23-0097 (UP, FHE)

This is a public hearing on a request for approval of a Use Permit and Fence Height Exception to install a 10-foot-tall, electrically-charged security fence four to eight inches behind an existing, eight-foot-tall, slatted chain link fence, in order to provide additional security and deter theft and vandalism. The proposed electric fence would be installed along the east and south sides of the building located at 498 East 10th Street in the CS-D (Service Commercial – Downtown Overlay) District. Assessor Parcel No. 085-184-014.

Environmental Determination

The proposed project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) under Class 3, 'New Construction or Conversion of Small Structures' of the State CEQA Guidelines, section 15303(e).

PROJECT PLANNER: Alison Hodgkin, (925) 252-6987 or ahodgkin@pittsburgca.gov

Why am I receiving this notice?

You are receiving this notice because you have either previously requested notifications from the Planning Division, or a project has been proposed in your neighborhood and all property owners within a minimum 300-foot radius of the project site are required to be notified under the Pittsburg Municipal Code.

Where can I get more information about this project?

The complete file for this project is available for public inspection; please contact the project planner listed above to make necessary arrangements.

What can I do if I have comments on the project?

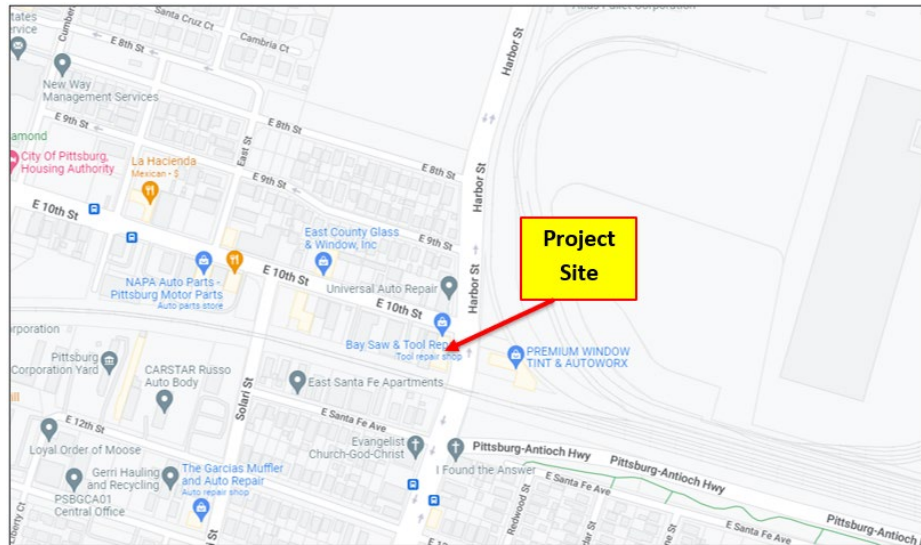
Comments or objections to the project can be made by writing or through e-mailed testimony prior to the meeting or provided orally during the meeting. Written comments citing the project name may be emailed to the project planner listed above or may be mailed or delivered to Pittsburg Planning Division, 65 Civic Avenue, Pittsburg, CA 94565.

Pursuant to Section 65009 of the California Government Code, if you challenge this matter in court, you may be limited to those issues you or someone else raised at the public hearing described in this notice, or in written correspondence on the matter delivered to this agency at, or prior to the public hearing. Any written correspondence delivered to the Planning Division before the hearing body's action on the matter will become a part of the administrative record.

*Para información en
español:
(925) 252-4920*

JOHN FUNDERBURG, SECRETARY
PITTSBURG PLANNING COMMISSION

Project Title: Bottom Line Services – Electric Fence, AP-23-0097 (UP, FHE)
Location: 498 East 10th Street, APN: 085-184-014



City of Pittsburg

Community and Economic Development Department - Planning
Division
65 Civic Avenue
Pittsburg, CA 94565



NOTICE OF PUBLIC HEARING

**CITY OF PITTSBURG
PLANNING COMMISSION
STAFF REPORT
October 24, 2023**

ITEM: Notice of Intent to Conduct a Zoning Administrator Public Hearing and Exercise Delegated Design Review Authority

ORIGINATED BY: City of Pittsburgh, Zoning Administrator, 65 Civic Avenue, Pittsburgh, CA 94565

SUBJECT: The Zoning Administrator submits two notices of intent to conduct a Zoning Administrator public hearing one to establish the sale of beer and wine at an existing, legally established, full-service restaurant located at 260 Diane Avenue; and one Variance application for exceptions to setbacks pursuant to PMC Section 18.10.050 and 18.28.020.B. The Zoning Administrator also submits five notices of intent to Exercise Delegated Design Review Authority.

RECOMMENDATION:

Staff recommends that the Commission acknowledge receipt of the attached Notices of Intent to Conduct a Zoning Administrator Public Hearing and Notice of Intent to Exercise Delegated Design Review Authority.

BACKGROUND:

Setback Exceptions

The project applicant is requesting approval of a Variance application to legalize two (2) unpermitted structures that do not meet required setbacks at 74 Lorraine Avenue. The first structure is an attached patio cover, which requires a five-foot (5') side setback. The applicant proposes a three-inch (3") side setback from the posts of the structure and a one-inch (1") side setback from the overhang. The second structure is an attached Accessory Dwelling Unit, which requires a four-foot (4') side and rear setback. The applicant proposed a three-foot, seven-inch (3'7") side setback and a three-foot (3') rear setback.

Beer and Wine Service

The existing Pittsburgh Taqueria restaurant at 260 Diane Avenue was previously established with application number AP-16-1117 (ZA Approval). Within the existing conditions of approval, Condition No. 9 strictly prohibited the sale of beer, wine, and any other alcoholic beverage. Pittsburgh Taqueria is requesting Zoning Administrator approval to modify the previously approved Conditions of Approval, and to permit the sale of beer and wine at Pittsburgh Taqueria. The project is located within the Single Family Residential, 5,000 square-foot lot minimum (RS-5) Zoning District.

Planning Commission Staff Report

Delegated Design Review Authority

Delegated Design Review Authority: Planning Commission Resolution No. 9444, as later amended by Resolution No. 9918, allows for delegation of nine categories of design review applications from the Planning Commission to the Zoning Administrator, as follows:

1. Freestanding signs: Applicable to signs not already part of a sign program; must be consistent with sign standards and architecturally compatible with associated building.
2. Wireless Communication Equipment: New or replacement antennas on existing poles and their related equipment.
3. Minor Building Remodels: Limited to changes in building colors, awnings, fenestration, and finishes.
4. Changes to Existing Parking Lots.
5. Changes to Existing Landscaping.
6. Additions to Existing Buildings: Additions must be smaller than 2,500 square feet and designed to complement existing building architecture.
7. New Model Homes in Approved Subdivisions. Must be consistent with the general size, quality of architecture and materials, and general character of the originally approved models. Must comply with approved zoning development standards.
8. Ancillary Structures: Structures in any district where visual impacts are minimal, including miscellaneous mechanical equipment associated with legal uses in the Industrial Districts.

The intent of the delegation is to allow a more efficient approval process for non-controversial design review applications, without compromising the integrity of the design review process or removing from public scrutiny those projects that would be most visible or of high interest to the general public. Prior to approving any delegated design review application, the Zoning Administrator must notify the Commission of his or their intent to exercise delegated design review authority. Copies of resolutions approving any delegated design review application must also be provided to the Commission.

PROJECT DESCRIPTION:

Since the last Commission meeting, staff has received two applications requiring a Zoning Administrator public hearing:

- 1. Pittsburg Taqueria Beer and Wine Sales- (AP-23-0134, ZA Approval).**

Planning Commission Staff Report

This is a request for Zoning Administrator approval to establish the sale of beer and wine at an existing, legally established, full-service restaurant located at 260 Diane Avenue. The restaurant was previously established with application number AP-16-1117 (ZA Approval). Within the Conditions of Approval for the application, Condition #9 strictly prohibited the sale of beer, wine, and any other alcoholic beverage. Pittsburg Taqueria is requesting Zoning Administrator approval to modify the previously approved Conditions of Approval, and to permit the sale of beer and wine at Pittsburg Taqueria. The project is located in the Single Family Residential, 5,000 square-foot lot minimum (RS-5) Zoning District. Assessor's Parcel Number 073-181-011.

This project is delegated to the Zoning Administrator under PMC section 18.32.010(B)(9) and 18.10.050.

2. 74 Lorraine Avenue Variance – (AP-23-0077 (VA)).

This is a request for Zoning Administrator approval of a Variance to legalize two (2) unpermitted structures that do not meet required setbacks at 74 Lorraine Avenue. The first structure is an attached patio cover, which requires a five-foot (5') side setback. The applicant proposes a three-inch (3") side setback from the posts of the structure and a one-inch (1") side setback from the overhang. The second structure is an attached Accessory Dwelling Unit, which requires a four-foot (4') side and rear setback. The applicant proposed a three-foot, seven-inch (3'7") side setback and a three-foot (3') rear setback. The property is located within the RS-5 (Single-Family Residential, 5,000 Square Feet Minimum) Zoning District. Assessor's Parcel Number: 087-122-014.

This project is delegated to the Zoning Administrator under PMC Section 18.28.020(B).

Since the last Commission meeting, staff has received five applications requiring Delegated Design Review Authority under Resolution No. 9918:

3. Verizon Wireless Telecommunications Facility – Addition of a Solar Canopy Atop an Existing Enclosure – (AP-23-0114 (ADR)).

This is an application filed by Eric Waldspurger on behalf of Verizon Wireless requesting Administrative Design Review approval to install new equipment for an existing wireless facility, including a solar canopy covering an existing telecommunications enclosure. The project is located at 1100 Bailey Road in the Open Space Zoning District and Open Space General Plan Designation. APN: 092-030-011.

This project is delegated to staff under Category 3 (Minor Building Remodels) of Planning Commission Resolution No. 9918.

4. Fire Water Tank – Pittsburg Solar Boat/RV Storage, AP-23-0127 (ADR).

This is an application requesting Administrative Design Review approval to install a 90,000-gallon fire-protection water tank to satisfy Contra Costa County Fire Protection District (CCCFPD) requirements for Pittsburg Solar RV & Boat Storage (approved on

Planning Commission Staff Report

June 14, 2022, under Planning Commission Resolution No. 10191) at the property located at 3468 Pittsburg-Antioch Highway in the CS (Service Commercial) Zoning District. Assessor's Parcel No. 074-100-018.

The water tank is required by the California Fire and Building Codes to ensure water is available for emergency fire response at the project site. The water tank will be constructed with corrugated steel, 10-feet, 7-inches in height, 39-feet, 6-inches in diameter (roughly 1,600 square feet) and will be anchored to a concrete foundation.

This project is delegated to staff under Category 8 (Ancillary Structures) of Planning Commission Resolution No. 9918.

5. 2501 Railroad Avenue, Façade Enhancements, AP-23-0129 (ADR).

This is a Zoning Administrator consideration of an Administrative Design Review application by Melissa Vai Lee of Gensler Architects, for proposed façade enhancements to the existing Bank of America office building located at 2501 Railroad Avenue, Pittsburg, California, 94565.

The site is classified Community Commercial in the Pittsburg General Plan land use map and zoned CC - Community Commercial where pursuant to PMC Section 18.52.100, all projects require design review. Assessor's Parcel No. 088-640-012.

This project is delegated to staff under Category 3 – Minor Building Remodels of Planning Commission Resolution No. 9918.

6. DISH Network Installation of Telecommunications Equipment on Existing PG&E Power Pole, and new equipment enclosure, AP-23-0133 (ADR and MM).

This is an application filed by Alex Herrera, on behalf of DISH Network, requesting Administrative Design Review and Minor Modification approval to install new equipment for a wireless facility on an existing PG&E power pole located along State Route 4 on Assessor's Parcel No. 095-130-029. The parcel is located in the RS-5 (Single Family Residential, 5,000 Square-Foot Lot Minimum) and LDR (Low Density Residential) Districts.

The referral for an earlier version of this project was sent out on June 14, 2022, and included: a new 100 square-foot (sq. ft.) enclosure area for telecommunication equipment, the installation of a 12-foot "top hat" mounted to the top of the existing power pole, and the addition of antennas and other telecommunication equipment onto the power pole.

The project (Planning Application No. AP-22-0020) was approved by the Zoning Administrator on June 29, 2022, under Resolution No. 385. The Planning Division did not receive a written request for an extension prior to the June 29, 2023, expiration date in Standard Condition No. 4 in Resolution No. 385. Additionally, on July 10, 2023, the

Planning Commission Staff Report

applicant contacted the Planning Division indicating minor changes had been made to the project including: 1) a change from chain-link to fiber for the enclosure fencing, 2) the addition of a 20-sq. ft. concrete stoop to the enclosure area, 3) reorganization of the equipment area layout, 4) the addition of a PG&E pad-mounted transformer and approximately 35 feet of climbing ladder, and 5) a revision to the fiber/power design routes.

For these reasons, the Planning Division requested submittal of a new application.

This project is delegated to staff under Category 2 (Wireless Communication Equipment), pursuant to Planning Commission Resolution No. 9918. Projects eligible for delegation under this category are limited to new or replacement antennas on existing poles and their related equipment.

7. Car Wash Equipment Enclosure – 7-Eleven, AP-23-0139 (ADR).

This is an application requesting Administrative Design Review approval to construct a six-foot-tall, concrete block wall and gate on the west side of the existing convenience store and car wash located at 2253 Loveridge Road. The wall and gate would create an approximately 60-square foot outdoor enclosure to house/screen car wash equipment (irrigation control panel, compressor, and fluid/soap storage tanks) formerly stored indoors. Project includes improvements to walking surfaces and ramps surrounding the convenience store, a new accessible route from the public right-of-way (Loveridge Road), updated striping and parking signage per California Building Code. The project site is in the CC (Community Commercial) District. Assessor's Parcel Number: 088-630-011.

The concrete masonry units (CMU) block wall will be painted white to match the existing building. Existing parking stalls (standard and ADA) will be restriped and the existing ADA sign in the access aisle will be repainted. Public access to the business from the sidewalk on Loveridge Road will be updated per CBC requirements and include a new curb ramp, a new 48-inch-wide accessible path, a new "No Parking" sign painted in the access aisle in white letters and a new "Unauthorized Vehicles Will Be Towed" sign.

This project is delegated to staff under Category 4 (Changes to Existing Parking Lots) and Category 8 (Ancillary Structures) of Planning Commission Resolution No. 9918.

GENERAL PLAN/CODE COMPLIANCE:

Zoning Administrator Public Hearings: PMC sections 18.32.010 and 18.850.C., authorize the Zoning Administrator to hear and decide on applications for approval of variances, exceptions to fence regulations, tree removal permits, large day care homes, small recycling facilities, and wireless telecommunications collocation facilities. PMC section 18.10.100 directs the Zoning Administrator to notify the Planning Commission of his or her intent to schedule and conduct a public hearing on any application for which the Zoning Administrator is authorized to act, prior to the Zoning Administrator acting on the application.

Planning Commission Staff Report

Delegated Design Review Authority: Resolution No. 9918 established nine categories of design review applications upon which the Commission would authorize the Zoning Administrator to act. Resolution No. 9918, and PMC section 18.10.100, direct staff to notify the Planning Commission of intent to exercise delegated design review authority on any application that falls within one of those nine categories, prior to approving the application. Upon receiving such notification, a majority of the Commission may direct that the matter be scheduled for future consideration by the entire Commission.

Resolution No. 9918 also directs staff to keep the Commission informed about delegated design review application approvals by providing copies of resolutions adopted by the Zoning Administrator.

ANALYSIS:

Not applicable.

ACTION REQUIRED:

Acknowledge receipt of the attached Notices of Intent.

ATTACHMENTS:

1. 260 Diane Avenue Pittsburg Taqueria Beer and Wine Sales- (AP-23-0134, ZA Approval), NOI
2. 74 Lorraine Avenue Variance – (AP-23-0077, (VA)), NOI
3. Verizon Wireless Telecommunications Facility – Addition of a Solar Canopy Atop an Existing Enclosure – (AP-23-0114, (ADR)), NOI
4. Fire Water Tank – Pittsburg Solar Boat/RV Storage - (AP-23-0127, (ADR)), NOI
5. 2501 Railroad Avenue, Façade Enhancements - (AP-23-0129, (ADR)), NOI
6. DISH Network Installation of Telecommunications Equipment on Existing PG&E Power Pole, and new equipment enclosure – (AP-23-0133 (ADR and MM)), NOI
7. Car Wash Equipment Enclosure – 7-Eleven – (AP-23-0139 (ADR)), NOI
8. PC Resolution No. 9918

Prepared by: John Funderburg, Zoning Administrator

**NOTICE OF INTENT
TO CONDUCT A ZONING ADMINISTRATOR PUBLIC HEARING
PURSUANT TO PMC 18.10.050**

Pittsburg Taqueria Beer and Wine Sales; AP-23-0134 (ZA Approval).

This is a request for Zoning Administrator approval to establish the sale of beer and wine at an existing, legally established, full-service restaurant located at 260 Diane Avenue. The restaurant was previously established with application number AP-16-1117 (ZA Approval). Within the Conditions of Approval for the application, Condition #9 strictly prohibited the sale of beer, wine, and any other alcoholic beverage. Pittsburg Taqueria is requesting Zoning Administrator approval to modify the previously approved Conditions of Approval, and to permit the sale of beer and wine at Pittsburg Taqueria. The project is located in the Single Family Residential, 5,000 square-foot lot minimum (RS-5) Zoning District. Assessor's Parcel Number 073-181-011.

This project is delegated to the Zoning Administrator under PMC section 18.32.010(B)(9) and 18.10.050.

NOTICE OF INTENT
TO CONDUCT A ZONING ADMINSTATOR HEARING PURSUANT TO PMC
18.28.020 (B).

74 Lorraine Avenue Variance – (AP-23-0077 [VA]).

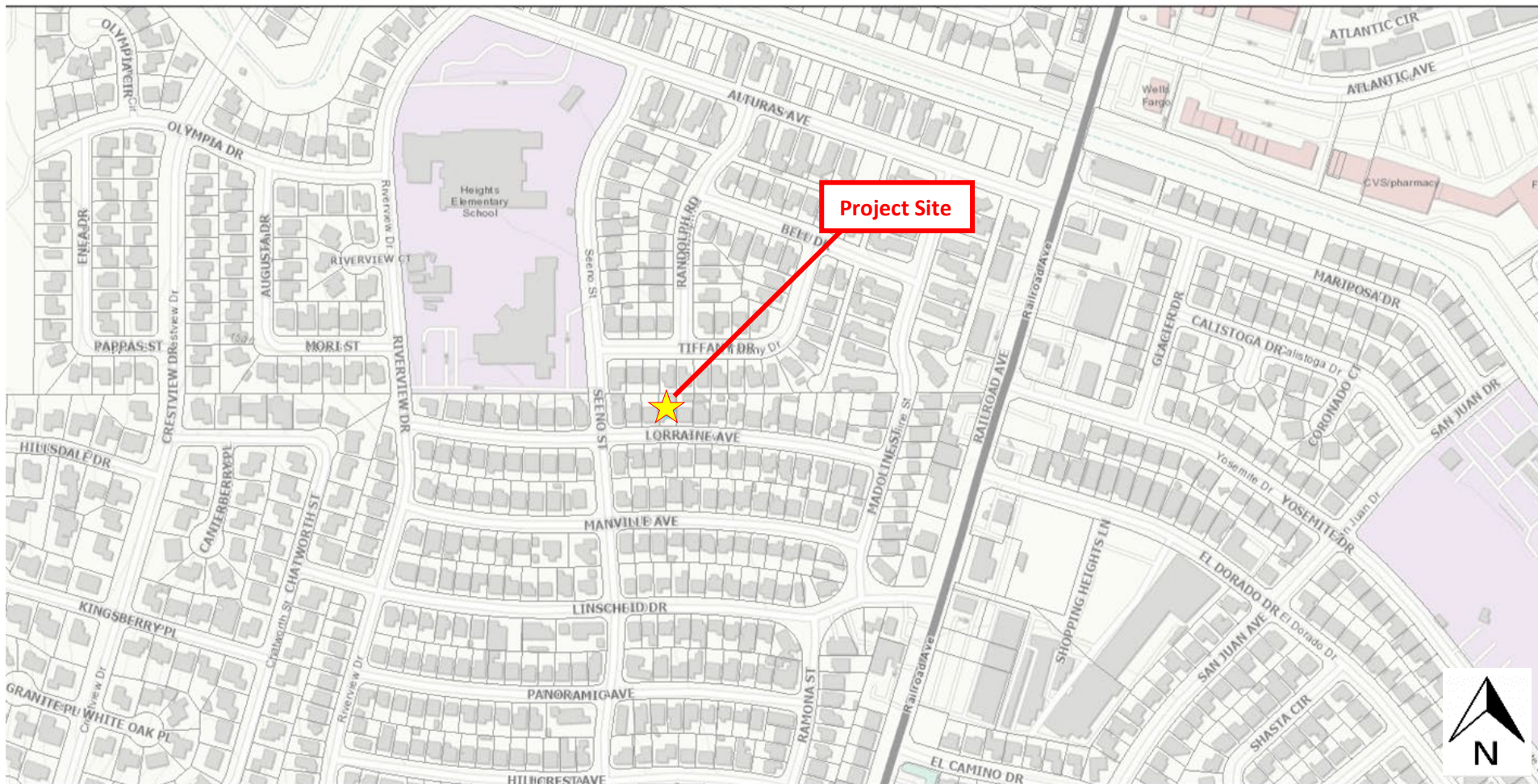
This is a request for Zoning Administrator approval of a Variance to legalize two (2) unpermitted structures that do not meet required setbacks at 74 Lorraine Avenue. The first structure is an attached patio cover, which requires a five-foot (5') side setback. The applicant proposes a three-inch (3") side setback from the posts of the structure and a one-inch (1") side setback from the overhang. The second structure is an attached Accessory Dwelling Unit, which requires a four-foot (4') side and rear setback. The applicant proposed a three-foot, seven-inch (3'7") side setback and a three-foot (3') rear setback. The property is located within the RS-5 (Single-Family Residential, 5,000 Square Feet Minimum) Zoning District. Assessor's Parcel Number: 087-122-014.

This project is delegated to the Zoning Administrator under PMC Section 18.28.020(B).

74 Lorraine Avenue Setback Variance –Vicinity Map

Variance (VA)

AP-23-0077	74 Lorraine Avenue, Pittsburg, California 94565
Variance	Assessor's Parcel No. 087-122-014



74 Lorraine Avenue Setback Variance –Vicinity Map

Variance (VA)

AP-23-0077	74 Lorraine Avenue, Pittsburg, California 94565
Variance	Assessor's Parcel No. 087-122-014



74 Lorraine Avenue Variance – Aerial Map

AP-23-0077	74 Lorraine Avenue
Variance	APN: 087-122-014



APPLICABLE CONSTRUCTION CODES:

2019 CALIF. BUILDING CODE (C.B.C.)
2019 CALIF. RESIDENTIAL CODE (C.R.C.)
2019 CALIF. PLUMBING CODE (C.P.C.)
2019 CALIF. ELECTRICAL CODE (C.E.C.)
2019 CALIF. MECHANICAL CODE (C.M.C.)
2019 CALIF. GREEN BUILDING STANDARD CODE (C.G.B.S.C.)
2019 CALIF. ENERGY EFFICIENCY STANDARDS (C.E.E.S.)
2019 CALIF. FIRE CODE (C.F.C.)

SHEET INDEX:

A.0	NOTES
A.01	SITE PLAN
A.1	PROPOSED FLOOR PLAN
	FOUNDATION PLAN
A.2	RAISED FOUNDATION FLOOR PLAN
	ROOF FRAMING PLAN
A.3	EXISTING ELEVATION
	PROPOSED ELEVATION
A.4	ELEVATION / DETAILS
A.5	PLUMBING PLAN
	/ DECK PLAN
A.6	COVERED PATIO/ ELECTRICAL LOAD CALC.
A.7	NAILING SCHEDULE
	SHEET ONE
	2019 CALIF. GREEN BUILDING SHEET 2
	2019 CALIF. GREEN BUILDING SHEET 2
T-24	TITLE 24

GENERAL NOTES:

- DETAILS AND NOTES INDICATED ON THIS SHEET ARE TYPICAL AND SHALL APPLY UNLESS OTHERWISE DRAWN OR NOTED. DETAILS OF CONSTRUCTION NOT FULLY SHOWN, SHALL BE OF THE SAME NATURE AS SHOWN FOR SIMILAR CONDITIONS.
- COMPARISON OF STRUCTURAL DRAWINGS WITH REFERENCE TO MATERIALS, LAYOUT DIMENSIONS AND ELEVATIONS SHALL BE MADE BY THE GENERAL CONTRACTOR BEFORE STARTING WORK ANY DISCREPANCIES SHALL BE REFERRED TO THE DESIGNER OR ENGINEER FOR REVISED DIRECTION.
- CONTRACTOR SHALL CAREFULLY CHECK THE STABILITY OF ALL ELEMENTS BEFORE REMOVING ANY EXISTING CONSTRUCTION AND PROVIDE SHORING, BRACING, AND OR SUPPORT AS REQUIRED TO MAINTAIN SAFE CONDITIONS AT ALL TIMES DURING AND AFTER CONSTRUCTION.
- CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE DURING THE CONSTRUCTION PERIOD FOR ALL CONDITIONS AT THE CONSTRUCTION SITE INCLUDING SAFETY OF PROPERTY AND PERSONS. THE DESIGNER OR ENGINEER VISITS TO THE CONSTRUCTION SITE ARE NOT INTENDED, NOR THEY BE CONSTRUED TO INCLUDE A REVIEW OF THE ADEQUACY OF THE CONTRACTORS SAFETY MEASURES.
- ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE CALIFORNIA BUILDING CODES LATEST EDITION AS ADOPTED BY THE CONTROLLING JURISDICTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL WORK AND MATERIALS IN ACCORDANCE WITH ALL LOCAL AND OR CITY BUILDING CODES AND REQUIREMENTS.
- CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS AND CONDITIONS AND REPORT DISCREPANCIES TO THE DESIGNER OR ENGINEER.

CONCRETE:

- CONCRETE SHALL DEVELOP FOLLOWING MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS : PIERS, GRADE BEAMS, INTERIOR SLABS ON GRADE AND FOOTINGS FC= 2500 PSI.
- CONCRETE SHALL BE PLACED IN CONTINUOUS OPERATION UNTIL THE SECTION IS COMPLETED BETWEEN PREDETERMINED CONSTRUCTION JOINTS.
- CONCRETE SHALL BE A CONSISTENCY TO PERMIT PLACING INTIMATELY AROUND REINFORCING BARS AND AGAINST FORMS.
- EXPOSED SURFACES OF CONCRETE SHALL BE KEPT MOIST OR CURED BY PROTECTIVE COVERINGS AS NOTED IN SPECIFICATIONS.
- FORMS SHALL BE TIGHT AND CLEAN BEFORE PLACING CONCRETE.
- CHAMFER EDGES OF CONCRETE EXPOSED $\frac{3}{4}$ ", UNLESS OTHERWISE NOTED.

REINFORCEMENT:

- REINFORCEMENTS SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF ASTM A615 GRADE 60 FOR #5 BARS AND LARGER, GRADE 40 FOR #4 BARS AND SMALLER.
- REINFORCING BARS SHALL BE FREE FROM LOOSE RUST AND OF ANY OTHER COATING WHICH WILL DESTROY OR REDUCE BOND.
- REINFORCING BARS SHALL NOT BE BENT OR STRAIGHTEN IN A MANNER WHICH WILL INJURE THE MATERIAL AND SHALL BE ACCURATELY PLACED AND POSITIVELY SECURED.
- THE CLEAR DISTANCE BETWEEN PARALLEL BARS IN A LAYER SHALL NOT BE LESS THAN 1 TIMES THE NOMINAL DIAMETER OF THE BARS, OR $1\frac{1}{3}$ TIMES THE MAXIMUM SIZE AGGREGATE NOR LESS THAN 1".

SPECIAL INSPECTION:

- THE SPECIAL INSPECTION FOR STEEL ELEMENTS OF BUILDING AND STRUCTURES PER PER CBC SECTION 1704.3 AND TABLE 1704.3 IS NOT REQUIRED.
- THE SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION PER CBC SECTION 1704.4 AND TABLE 1704.4 IS NOT X REQUIRED.
- THE SPECIAL INSPECTION FOR MASONRY CONSTRUCTION PER CBC SECTION 1704.5.1 AND 1704.5.3 IS NOT X REQUIRED.
- SPECIAL INSPECTIONS SHALL BE PERFORMED DURING INSTALLATION AND TESTING OF PILE FOUNDATION AS REQUIRED BY TABLE 1704.8 AND 1704.9.
- PERIODIC SPECIAL INSPECTION IS REQUIRED DURING PLACEMENT OF REINFORCEMENT AND CONTINUOUS SPECIAL INSPECTION IS REQUIRED DURING PLACEMENT OF CONCRETE IN PIER FOUNDATION.
- PERIODIC SPECIAL INSPECTIONS IS NOT X REQUIRED FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE-RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAFRAM, DRAG STRUTS, BRACES, SHEAR PANELS, AND HOLDOWNS AS REQUIRED.
- SPECIAL INSPECTION IS REQUIRED FOR THE EPOXY OF BOLTS AND REBAR INTO EXISTING CONCRETE.

ROOF:

- ATTIC VENTS SHALL EQUAL 1 / 150 OF ATTIC AREA
- VENTILATION OF CONCEALED ROOF SPACES SHALL BE MAINTAINED IN ACCORDANCE WITH C.R.C. R806.4
- DRAFT STOP SHALL BE INSTALLED IN ATTICS, OVERHANGS AND SIMILAR CONCEALED SPACES OF THE BUILDING CONTAINING MORE THAN ONE DWELLING UNIT, SUCH DRAFT STOPS SHALL BE ABOVE AND IN LINE WITH THE WALLS SEPARATING INDIVIDUAL DWELLING UNITS FROM EACH OTHER SECTION 708.3.1.
- EAVE VENTS= 3.5" X 22.5" AND SHALL BE CORROSION RESISTANT WITH WIRE MESH CLOTH SCREEN, HARDWARE CLOTH OR SIMILAR MATERIAL WITH OPENINGS HAVING AT LEAST DIMENSIONS OF MIN. $\frac{1}{8}$ " AND MAX. $\frac{3}{4}$ " PER C.R.C.R806.1, OR 2" DIA. HOLES.
- UNVENTED ATTIC ASSEMBLIES SHALL COMPLY WITH C.R.C. R806.4 (ALL CONDITION MUST BE MET).
- ALL NAILING MUST COMPLY WITH C.B.C.
- ENCLOSED ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENING PROTECTED AGAINST THE ENTRANCE OF RAIN PER C.R.C. R806.2.
- ATTIC ACCESS SHALL BE A MIN. OF 22" X 30" PROVIDE WEATHSTRIPPED.
- A MIN. OF 1" AIR SPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING AT THE EAVE VENT LOCATION PER C.R.C. R806.3

WOOD:

- LUMBER USED FOR STRUCTURAL PURPOSES SHALL BE DOUGLAS FIR CONFORMING TO THE FOLLOWING MINIMUM GRADES, SHALL HAVE 19% MAXIMUM MOISTURE CONTENT AT THE TIME OF INSTALLATION, AND BE FREE OF HEART CENTER.
 - STUDS, PLATES, BLOCKING. D.F. NO. 2.
 - CONCEALED POST, HEADER (U.N.O.) D. F. NO. 2
 - JOISTS AND BEAMS. D.F. NO 1
 - SILL PLATES, DECK BEAMS, DECK JOISTS, DECK POSTS, AND DECK LEDGERS P.T.D.F. NO 2 OR BETTER.
 - PARALLAM SHALL BE 2.0E WS PARALLAM PSL
 - MICROLAM SHALL BE 1 $\frac{3}{4}$ " 1.8E WS MICRO-LAM LVL
 - ROOF SHEATHING SHALL BE $\frac{3}{4}$ " CDX APA 24/0 PLYWOOD INSTALLED WITH FACE GRAIN PERPENDICULAR TO FRAMING AND WITH END JOINTS STAGGERED. NAILING SHALL BE 8D NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. IN FIELD. THE ROOF SHEATHING SHALL BE BLOCKED AT PANEL EDGES WITH 2X4'S INSTALLED FLATWISE.
 - GLU-LAM SHALL BE 24F-3V DF/DF (A.A.G.) ARCHITECTURAL APPEARANCE GRADE.
 - SUBFLOORING SHALL BE $\frac{3}{4}$ " CDX APA $\frac{3}{4}$ " PLYWOOD INSTALLED WITH FACE GRAIN PERPENDICULAR TO FRAMING AND WITH END JOINTS STAGGERED. NAILING SHALL BE 10D NAILS @ 6" O.C. AT PANEL EDGES AND @ 10" O.C. IN THE FIELD.
- PLYWOOD SHALL BE DOUGLAS FIR STRUCTURAL II CDX OR BETTER.
- TIMBER FASTENERS INDICATED ON DRAWINGS SHALL BE IDENTIFIED BY PROPRIETARY NAMES, OR EQUAL, AND SHALL BE FASTENED IN ACCORDANCE WITH MANUFACTURE'S SPECIFICATIONS. FASTENERS ARE REFERRED TO BY SIMPSON STRONG-TIE COMPANY DESIGNATION. FOR GENERAL CHARACTERISTICS, SUBSTITUTE FASTENERS MUST HAVE EQUAL OR BETTER STRUCTURAL PROPERTIES.
- NATURALLY DURABLE OR PERSERVATIVE-TREATED WOOD SHALL BE UTILIZED FOR THOSE PORTIONS OF WOOD MEMBERS THAT ARE EXPOSED TO THE WEATHER.

BATHROOMS:

- WATER CLOSET SHALL HAVE A MAX. FLUSHING CAPACITY OF 1.28 GALLONS PER C.P.C. 402.2
- BATHTUB AND SHOWERS FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.
 - GYPSUM BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY. CRC R702.3.7
- SHOWERS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIX TYPE (ANTI-SCALD) C.P.C. SECTION 410.7
- WINDOWS IN BATHROOMS TO HAVE A MINIMUM NET OPENABLE AREA OF 1.5 SQ. FT.
- BATHROOM RECEPTACLES SHALL BE SUPPLIED BY A 20 AMPERE BRANCH CIRCUIT EXCLUSIVE TO THE BATHROOM.
- INSTALL PRESSURE RELIEF VALVE PER C.P.C. SECTION 608.3
- GLAZING IN THE WALL ENCLOSING TUB AND SHOWER LESS THAN 60" ABOVE STANDING SURFACE AND DRAIN INLET.
- SHOWER VALVES SHALL BE AN INDIVIDUAL CONTROL VALVE OF THE PRESSURE BALANCE OR THERMOSTATIC MIXING VALVE TYPE. HANDLE POSITION STOPS SHALL BE PROVIDED ON SUCH VALVES TO LIMIT THE MIXED WATER TO A MAX. TEMPERTURE OF 120 DEG. FAHRENHEIT C.P.C.
- THE MAIN AREA OF LIGHT FIXTURES IN THE KITCHEN AND IN ROOMS AND SPACES WITH A SHOWER OR BATHTUBS SHALL BE FLOURESCENT OR OTHER APPROVED TYPE PROVIDING AT LEAST 40 LUMENS PER WATT, ALSO THAT SUCH FIXTURES ARE OPERATED BY THE FIRST SWITCH AT THE ENTRY TO THE SPACE.
- PROVIDE G.F.C.I. PROTECTED RECEPTACLE IN BATHROOMS PER C.E.C. ART. 210.8.
- PROVIDE REQUIRED FLOURESCENT FIXTURES IN BATHROOMS PER CALIF. ENERGY STANDARDS SECTION 150 (k) 2.3.
- SHOWER DOORS MUST BE 22" CLEAR OPENING.
- PROVIDE MECHANICAL VENTILATION CONNECTED DIRECTLY TO THE OUTSIDE CAPABLE OF PROVIDING FIVE AIR CHANGES PER HOUR IN BATHROOM, IF OPENABLE WINDOW IS NOT PROVIDED. DUCTLESS FANS ARE NOT ACCEPTABLE IN ROOMS CONTAINING TUBS OR SHOWERS, SECTION 1203.3.
- EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING:
 - EXHAUST FAN ENERGY STAR CERTIFIED AND HAS HUMIDISTAT CONTROL AND BE DUCTED TO TERMINATE OUTSIDE OF THE BUILDING.
- SHOWER HEADS = 1.8 GPM @ 80 PSI
- PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIF. PLUMBING CODE, AND SHALL MEET APPLICABLE STANDARDS REFERENCED IN TABLE 1701.1 OF THE CALIF. PLUMBING CODE.
- EACH BATHROOM CONTAINING A BATHTUB, SHOWER OR COMBINATION TUB/SHOWER SHALL BE MECHANICALLY VENTILATED FOR PURPOSES OF HUMIDITY CONTROL PER CRC R303.3.1.
- IN BATHROOMS, GARAGES, LAUNDRY ROOM, AND UTILITY ROOMS, AT LEAST ON LUMINAIRE IN EACH OF THESE SPACES SHALL BE CONTROLLED BY A VACANCY SENSOR (C.E.C.150.0)
- EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL BE CONTROLLED BY A HUMIDITY SENSOR, UNLESS FUNCTIONING AS INDOOR AIR QUALITY VENTILATION (CGBSC 4.506.1)
- SAFETY GLAZING SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS: (CRC R308.4.1. AND R308.3)
 - GLAZING IN ALL FIXED AND OPENABLE PANELS OF SWINGING, SLIDING AND BIFOLD DOORS.
 - GLAZING IN AN INDIVIDUAL FIXED OR OPENABLE ADJACENT TO A DOOR SHALL BE CONSIDERED TO BE A HAZARDOUS LOCATION WHERE THE BOTTOM EXPOSED THAN 60" ABOVE THE FLOOR OR WALKING SURFACE AND IT MEETS EITHER OF THE FOLLOWING CONDITIONS.
 - WHERE THE GLAZING IS WITHIN 24" OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION.
 - WHERE THE GLAZING IS ON A WALL PERPENDICULAR TO THE PLANE OF DOOR IN A CLOSED AND WITHIN 24" OF THE HINGE SIDE OF AN IN SWINGING DOORS.
 - GLAZING IN WALLS ENCLOSURES CONTAINING OR FACING HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS, AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE, THIS SHALL APPLY TO SINGLE GLAZING AND EACH PANE IN MULTIPLE GLAZING.
- AT LEAST ONE LUMINAIRE IN THE BATHROOM, GARAGE, LAUNDRY ROOM, AND UTILITY ROOM, MUST BE CONTROLLED BY A VACANCY SENSOR. PRESET SCENE CONTROLLED AND EMCS CAN TAKE THE PLACE OF DIMMERS AS LONG AS THE FUNCTIONALITY MEETS CODE REQUIREMENTS.

General Notes

NOTES

No.	Revision/Issue	Date

Firm Name and Address

JAVIER GARCIA
P.O.BOX 2024
MANTECA,CA. 95336
(209)351-2595

Project Name and Address

ANTONIO GUTIERREZ
74 LORRAINE AVE.
PITTSBURG, CA.

Project	Sheet
Date	A.0
Scale	

OCCUPANCY GROUP= R-3

SCOPE OF WORK:

- PLUMBING
- ELECTRICAL
- MECHANICAL
- LEGALIZE UNPERMITTED ATTACHED ADU
- LEGALIZE UNPERMITTED CONVERT ONE CAR GARAGE TO BEDROOM #3
- LEGALIZE UNPERMITTED UTILITY ROOM
- LEGALIZE UNPERMITTED COVERED PATIO
- AT (E) RESIDENCE (N) RESTROOM

TYPE OF CONSTRUCTION= V-B

SPRINKLERS= NONE

STORIES= SINGLE STORY

LOT SIZE= 5,096 SQ. FT.

ROOF LIVE LOAD= 20 LB

LEGALIZE UNPERMITTED ATTACHED ADU= 539 SQ.FT.

FLOOR LIVE LOAD= 40 LB

SEISMIC DESIGN CATAGORY B

AT (E) RESIDENCE NEW RESTROOM= 60 SQ. FT.

ALLOWABLE SOIL BEARING
PRESSURE= 1500 PSF

EXISTING RESIDENCE = 1,117 SQ. FT.

EXISTING COVERED FRONT PORCH= 70 SQ. FT.

EXISTING STORAGE TO BE REMOVED FOR NEW ATTACHED ADU

LEGALIZE UNPERMITTED ATTACHED ADU

LEGALIZE UNPERMITTED ONE CAR GARAGE CONVERT TO
BEDROOM #3= 159 SQ. FT.

LEGALIZE UNPERMTTED UTILITY ROOM= 35 SQ. FT.

LEGALIZE UNPERMITTED COVERED PATIO= 300 SQ. FT.

PROPOSED LOT COVERAGE= 2,083 SQ. FT.

ELECTRICAL:

E1. KITCHEN

- A MIN. OF TWO 20 AMP DEDICATED CIRCUITS SHALL BE PROVIDED FOR SMALL APPLIANCES. CEC.210.52(C)(3)
- WALL SPACES ALONG THE KITCHEN COUNTERTOP SHALL BE PROVIDED WITH RECEPTACLES SUCH THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24 INCHES, MEASURED HORIZONTALLY FROM A RECEPTACLE OUTLET IN THAT SPACE. CEC 210.52(C)(1).

E2.

ALL 120-VOLT, SINGLE PHASE,15-AND 20- AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION -TYPE INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. CEC210.12

E3.

IN DWELLING UNITS, ALL 125-VOLT, SINGLE-PHASE , 15-AND 20- AMP RECEPTACLES OUTLETS SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES PER CEC 406.12

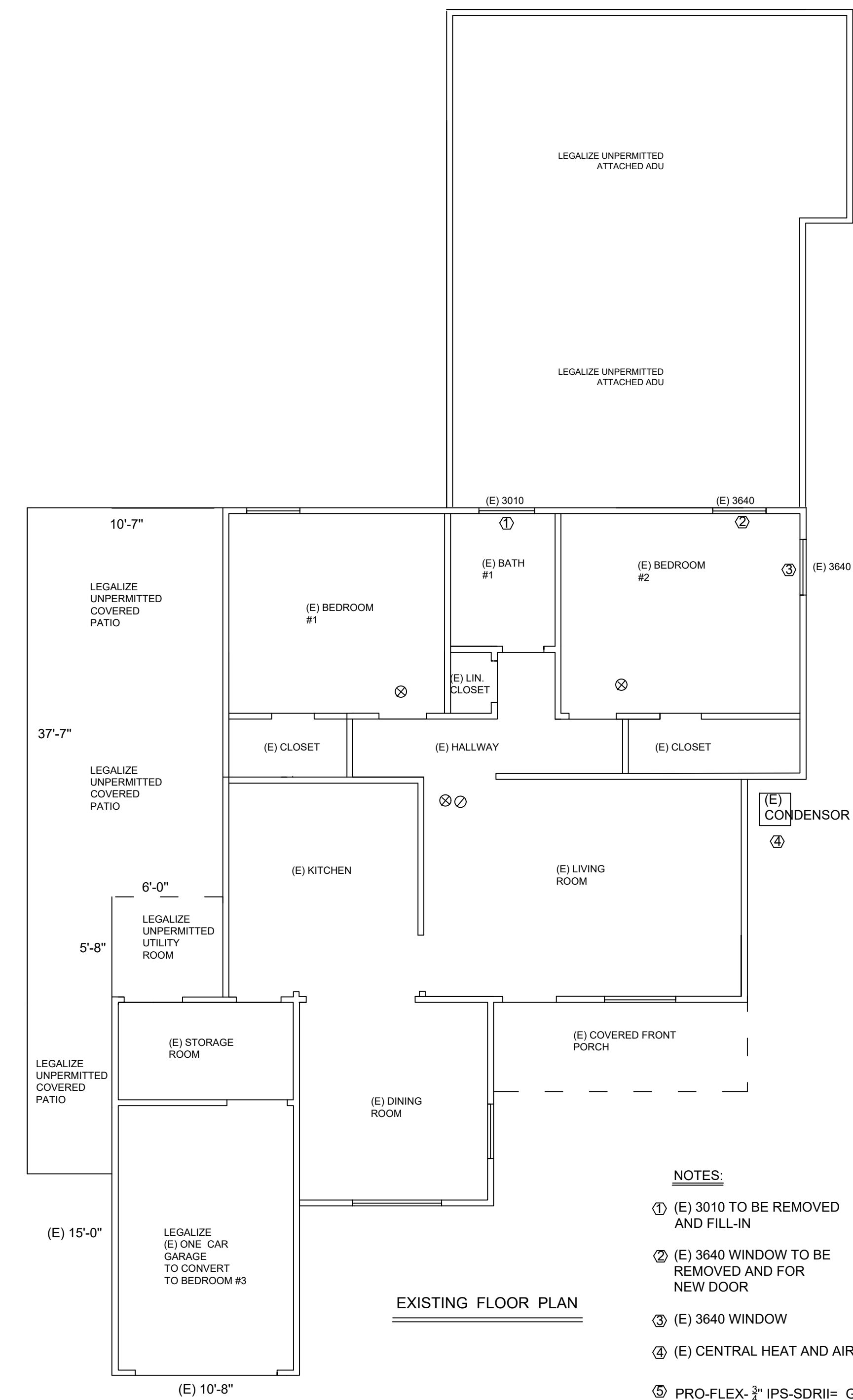
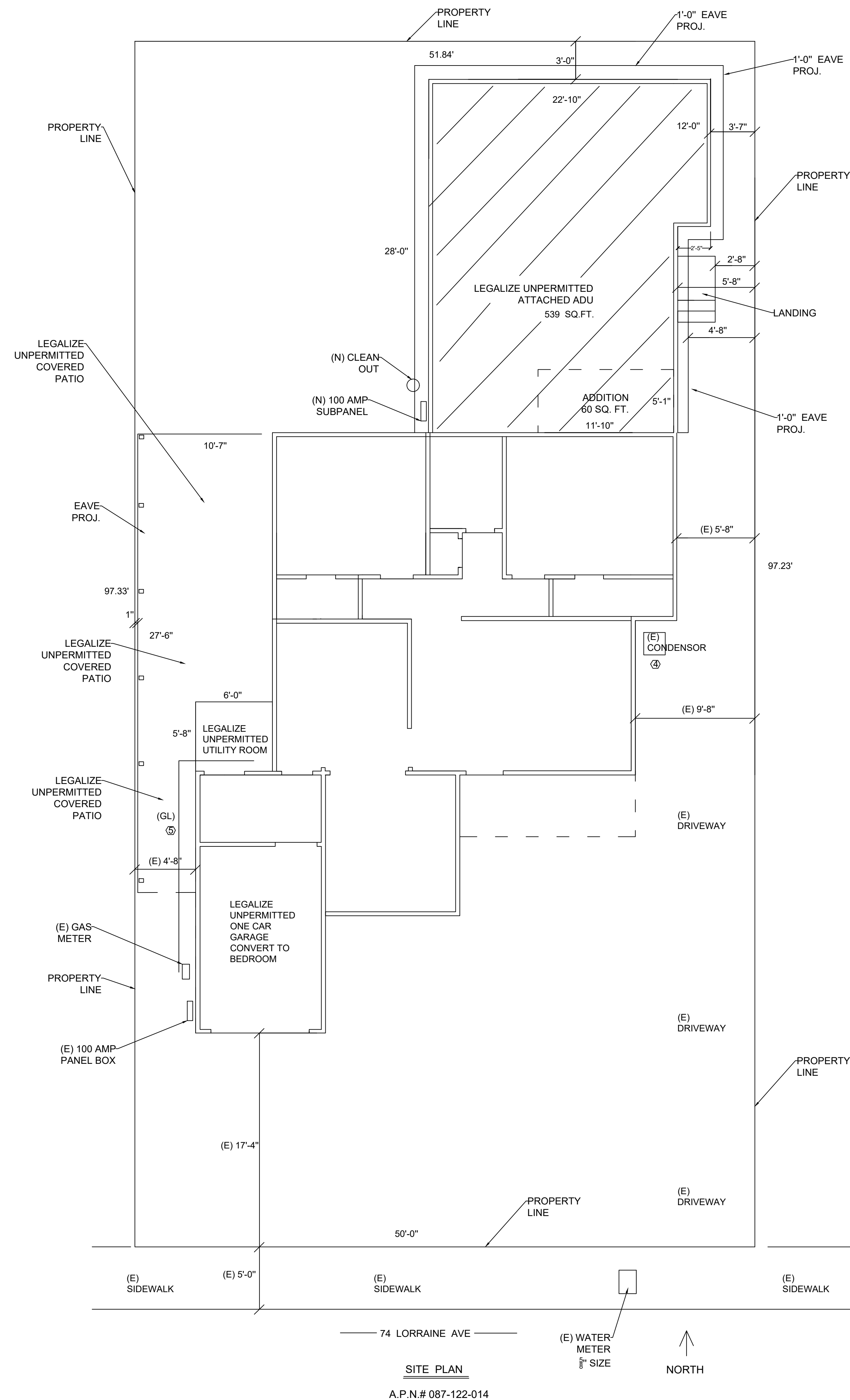
IF HERS VERIFICATION IS REQUIRED PER THE T-24 DOCUMENTS WHEN PROVIDED, PLEASE REVISE THE COVER SHEET TO NOTE THIS REQUIREMENT.

EMAIL: javiergarciadetailing@yahoo.com

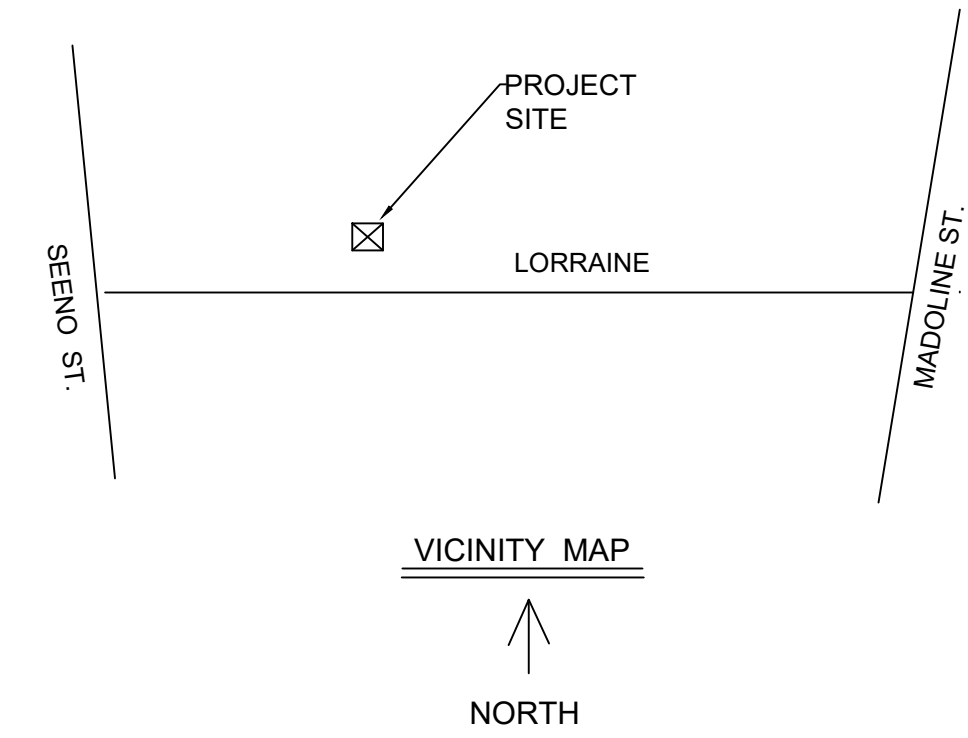
9-4-2023

PC1

10-10-2022



- NOTES:
- ① (E) 3010 TO BE REMOVED AND FILL-IN
 - ② (E) 3640 WINDOW TO BE REMOVED AND FOR NEW DOOR
 - ③ (E) 3640 WINDOW
 - ④ (E) CENTRAL HEAT AND AIR
 - ⑤ PRO-FLEX- $\frac{3}{4}$ " IPS-SDRII= GAS LINE (GL) 25' LONG



9-4-2023
PC1
10-10-2022

General Notes

SITE PLAN /
EXISTING FLOOR PLAN

No.	Revision/Issue	Date

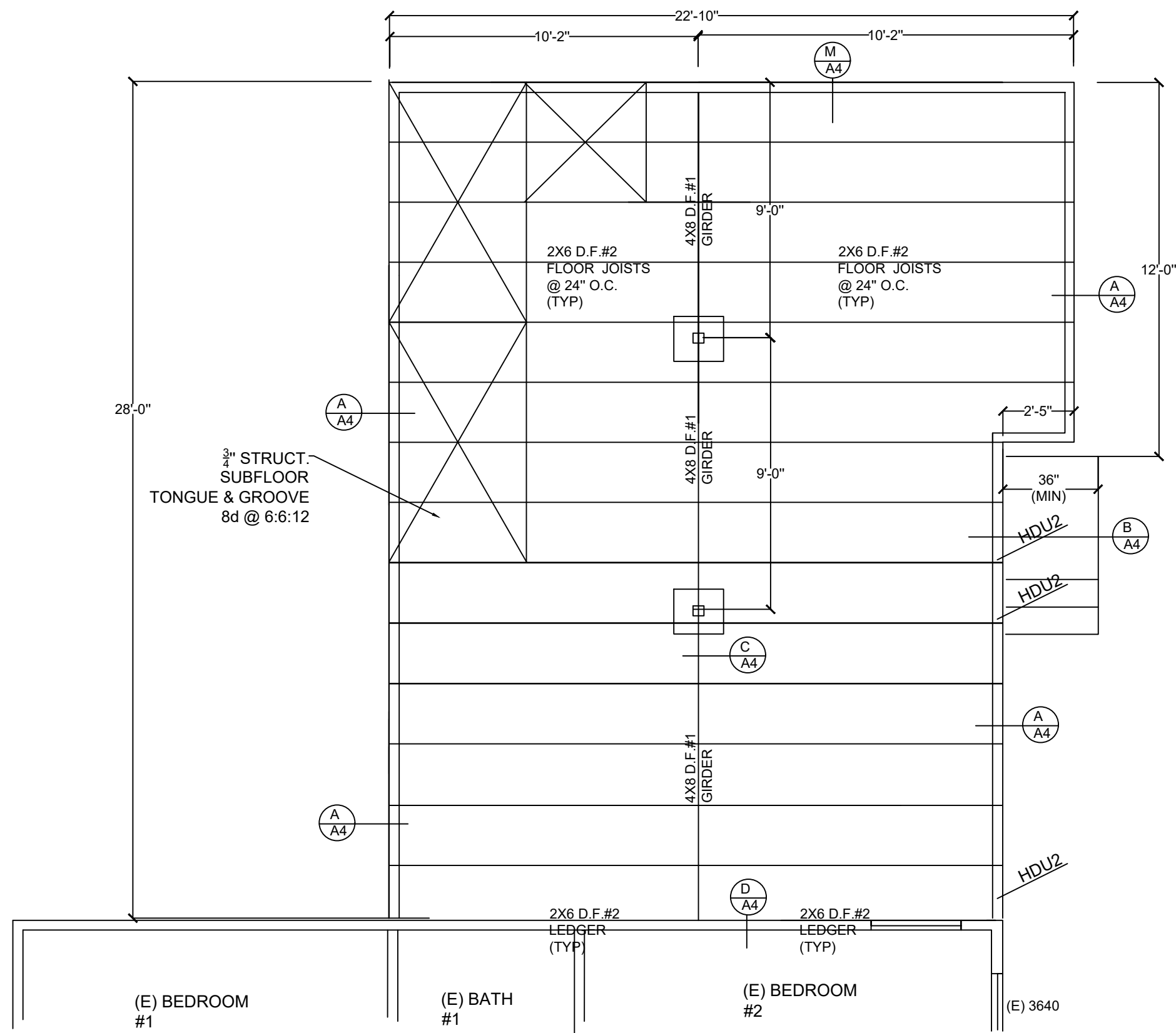
Firm Name and Address

JAVIER GARCIA
P.O.BOX 2024
MANTECA, CA. 95336
(209)351-2595

Project Name and Address

ANTONIO GUTIERREZ
74 LORRAINE AVE
PITTSBURG, CA. 94565

Project	Sheet
Date 8-5-2022	A0.1
Scale $\frac{3}{16}$ "=1'-0"	

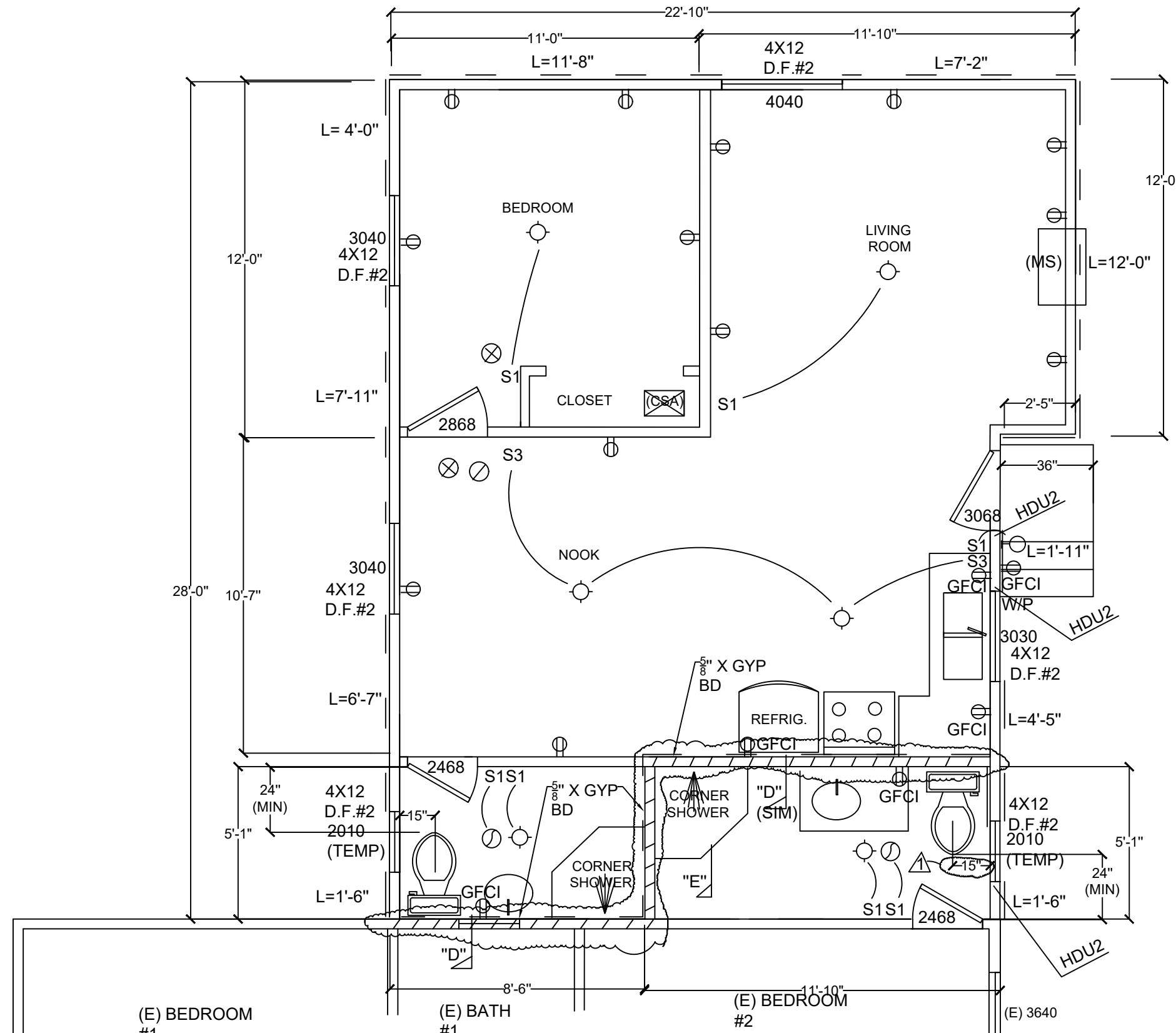


ALL HOLDOWNS MUST BE TIED IN PLACE PRIOR TO INSPECTION

HDU2-SDS-2.5- SSTB16

RAISED FOUNDATION PLAN

UNDERFLOOR VENTILATION
601 SQ. FT. / 150= 4.0 S.F. X144"
= 576.9 SQ. INCHES / 72"
= 8 VENTS (MIN) REQ'D
SCREEN VENTS
6" X 12" = 72 SQ. IN.



4X12 D.F.#2
HEADERS (TYP)
ADU ALL APPLIANCES
ARE TO BE ELECTRIC.

FLOOR PLAN

539 SQ. FT. ADU

60 SQ. FT. ADDITION

SYMBOL IDENTIFICATION

- S1 SINGLE POLE SWITCH
- S3 THREE WAY SWITCH
- OUTDOOR LIGHT
- ⊙ CEILING LIGHT
- ⊖ DUPLEX OUTLET
- ⊖ DUPLEX OUTLET (GFCI)
- ⊖ DUPLEX OUTLET WEATHER PROOF (GFCI) W/P
- ⊖ DUPLEX OUTLET 220 VOLTS
- ⊗ ATTIC ACCESS 22" X 30" MIN. (AA)
CRAW L SPACE ACCESS 18" X 24" (CSA)
- ⊗ SMOKE DETECTOR HARDWIRE W/
BATTERY-BACKUP PER CRC R314
- ⊗ CARBON MONOXIDE DETECTOR
- ⊗ EXHAUST FAN
- MINI-SPLIT UNIT (MS)
(SEE SPECIFICATIONS)

1 HR FIRE WALL

NOTES1:

- THE SHOWER STALL TO BE 1024 SQUARE INCHES MINIMUM AND CAPABLE OF ENCOMPASSING A 30" DIAMETER CIRCLE CPC 408.6.
- WATER CLOSET TO HAVE A SIDE CLEARANCE OF 15" ON EACH SIDE MEASURED FROM THE CENTERLINE OF THE WATER CLOSET TO THE WALLS AND 24 INCHES IN FRONT. CPC 402.5

WATER CONSERVING PLUMBING FIXTURES:

- WATER CLOSET TO BE 1.28 GALLONS PER FLUSH MAX. OR DUAL FLUSH PER CPC 403.2.1.
- KITCHEN FAUCET TO BE 1.8 GALLONS PER MINUTE, MAX. PER CPC 403.6
- LAVATORY FAUCET TO BE 1.2 GALLONS PER MINUTE, MAX. PER CPC 403.7
- SHOWERHEADS TO BE 1.8 GALLONS PER MINUTE, MAX. PER CPC 408.2

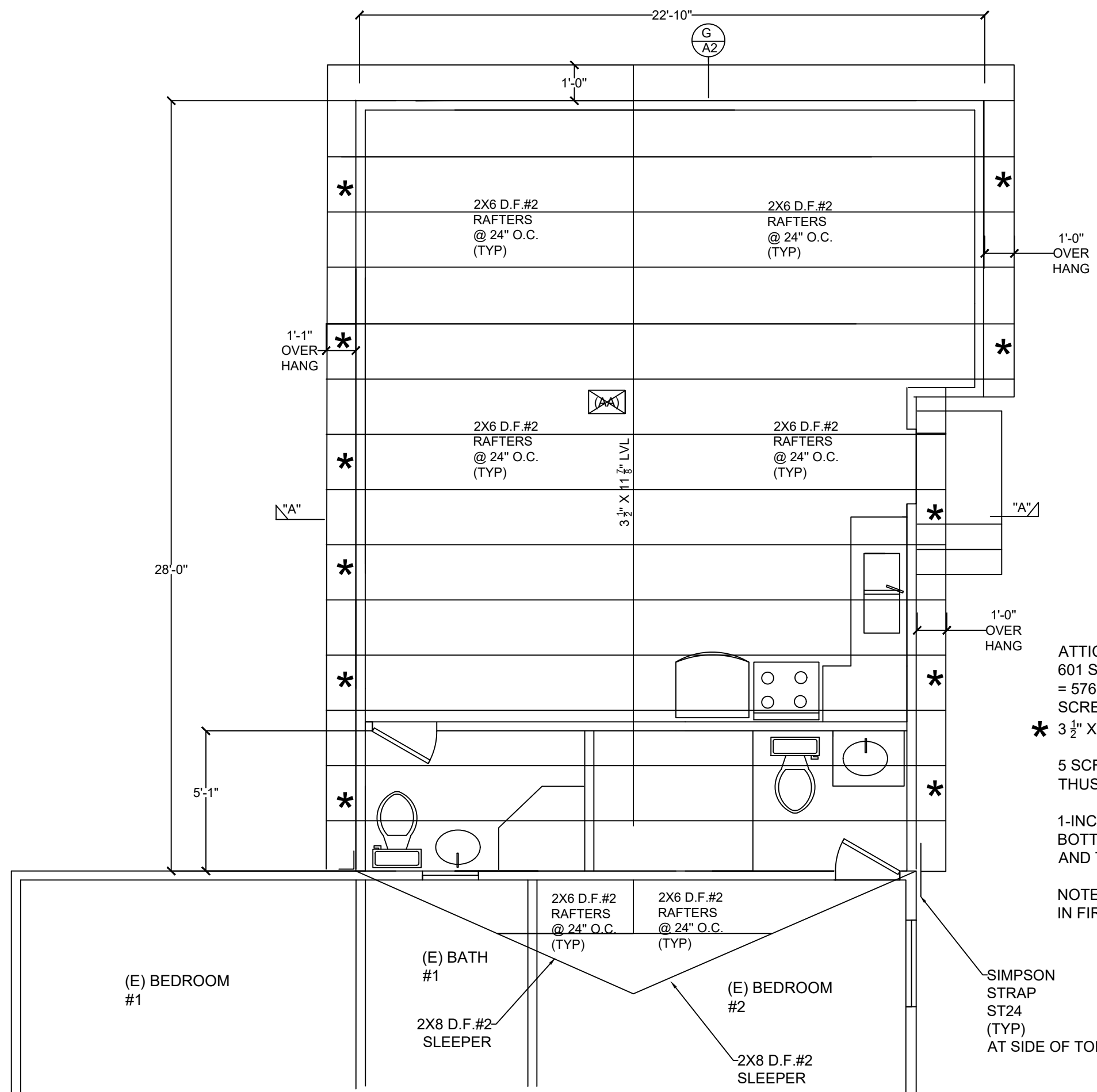
- KITCHEN EXHAUST HOOD MIN. 100 CFM EXHAUST RATE PER CENC 150.0 (0) & ASHRAE 62.2.
- ELECTRIC POWERED APPLIANCE A 30 AMP CIRCUIT PER CEC 220.54.

EMERGENCY ESCAPE:

- OPENING SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44 INCHES, MEASURED FROM THE FLOOR.
- THE NET CLEAR OPENING SHALL BE 5.7 SQUARE FEET MIN, (GRADE FLOOR OPENINGS MAY HAVE A NET CLEAR OF 5.0 SQUARE FEET MIN.)
- THE NET CLEAR HEIGHT SHALL BE 24" MIN.
- THE NET CLEAR WIDTH SHALL BE 20" MIN.

SMOKE AND CARBON MONOXIDE ALARMS:

- WHERE NEW CONSTRUCTION OR ELECTRICAL WORK OCCURS, THE SMOKE ALARMS AND CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED AND HARDWIRED AND PROVIDED WITH BATTERY BACKUP PER CRC R314.4, R314.6, R315.5, AND R315.6.

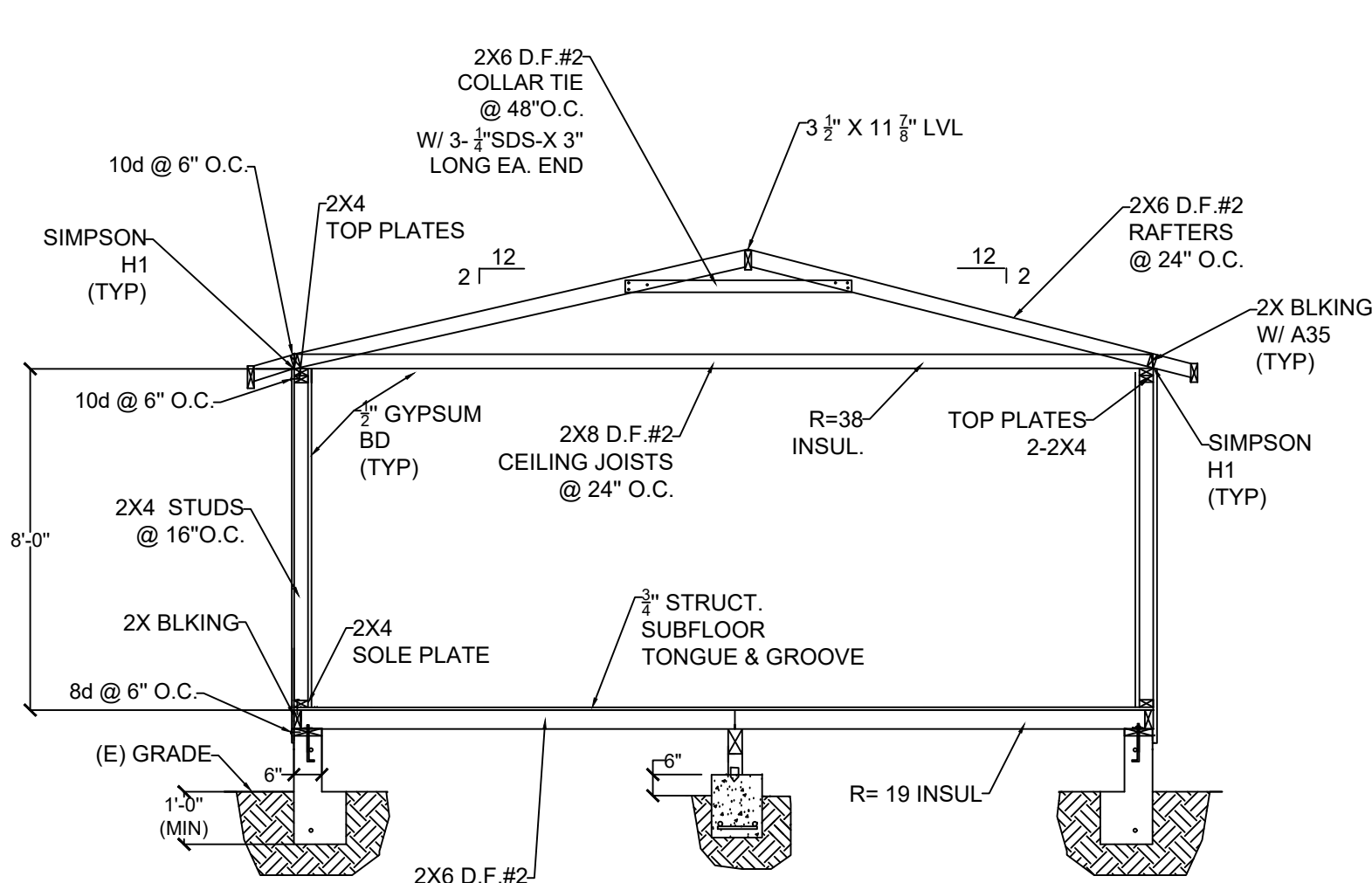


ATTIC AREA
601 SQ. FT. / 150= 4.0 S.F. X144"
= 576.9 SQ. INCHES / 77"= 7 VENTS MIN REQ'D
SCREEN VENTS
3 1/2" X 22" = 77 SQ. IN.

5 SCREEN VENTS (MIN)
THUS NOTED

1-INCH MIN. SPACE BETWEEN THE BOTTOM OF THE ROOF SHEATHING AND THE INSULATION. CRC R806.3

NOTE EAVE VENTS ARE NOT PERMITTED IN FIRE RATED EAVES. CRC TABLE 302.1 (1).



CROSS SECT. "A-A"

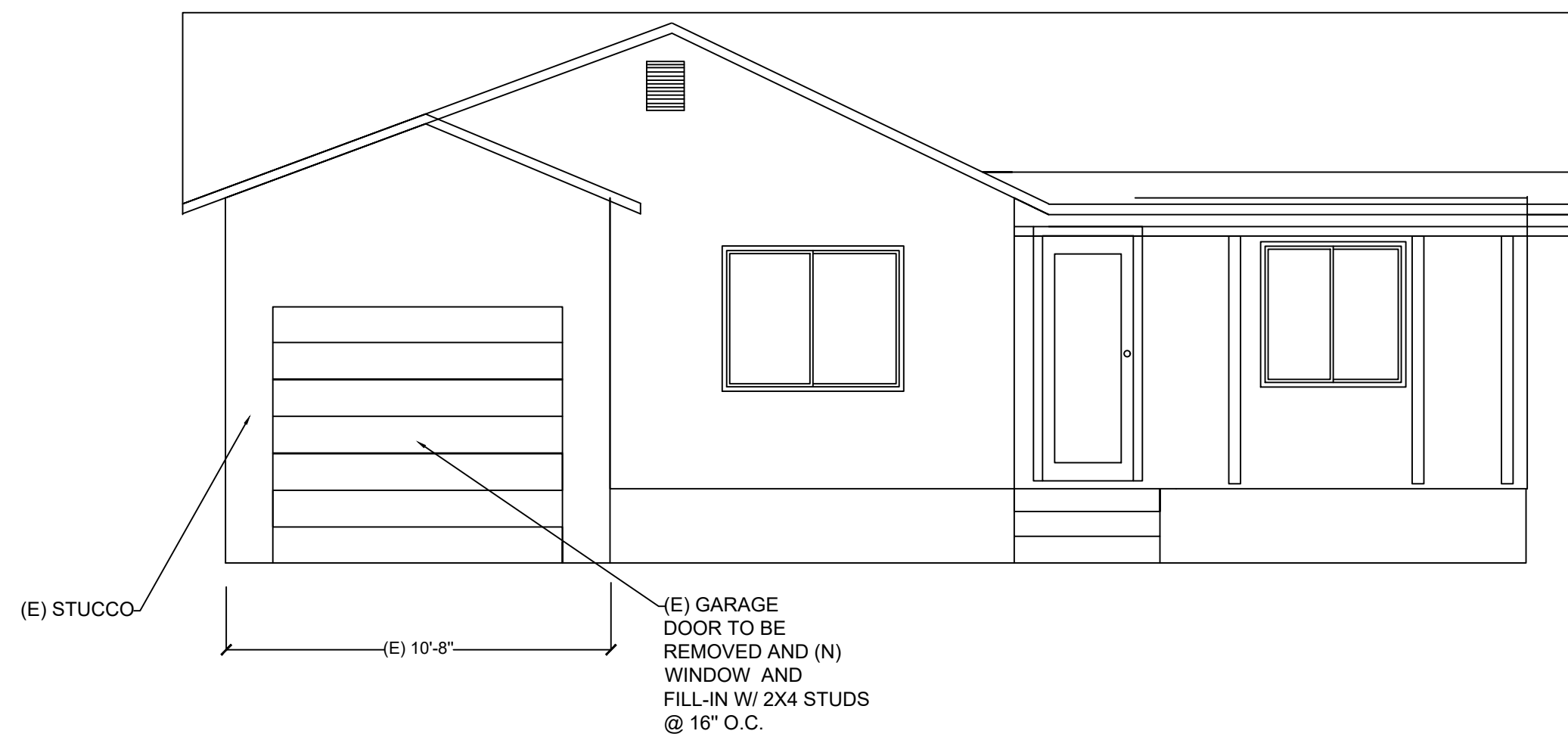
ELECTRICAL BOX PENETRATION:

- FIRESTOP PUTTY PADS, FIRESTOP BOX INSERTS FIRESTOP COVER PLATES GASKETS AND ENDOTHERMIC MATS ARE PRODUCTS THAT ARE OFTEN CHOSEN FOR RECESSED BOX PROTECTION. PER CRC R302.4.2.
- PIPE AND CONDUIT PENETRATIONS: USE SOLBERG VERSGUARD AS-100, ALCOHOL-RESISTANT FLUORINE FREE FOAM.

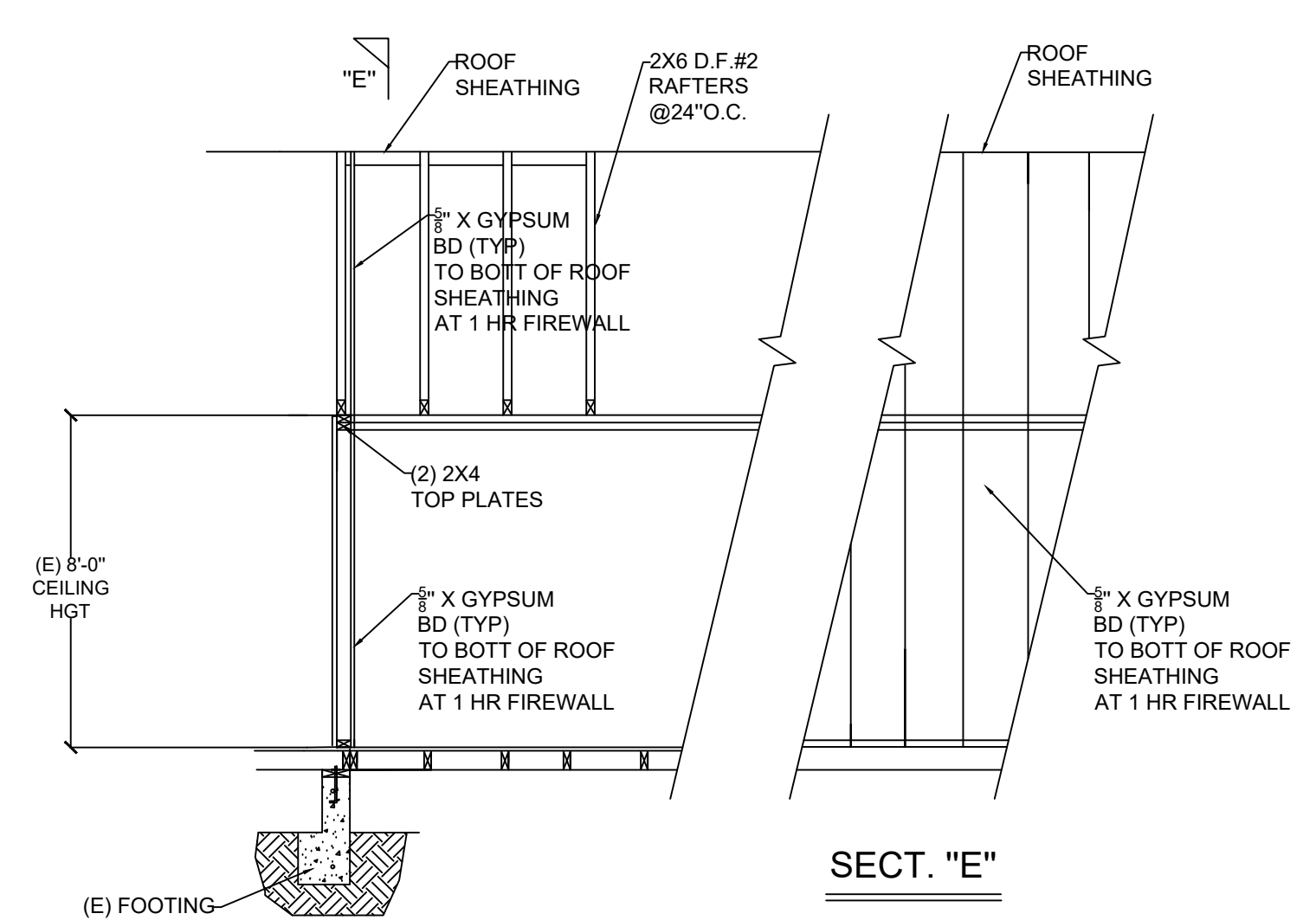
General Notes		
EXISTING ELEVATION PROPOSED ELEVATION		
No.	Revision/Issue	Date
Firm Name and Address JAVIER GARCIA P.O.BOX 2024 MANTECA, CA. 95336 (209)351-2595		
Project Name and Address ANTONIO GUTIERREZ 74 LORRAINE AVE PITTSBURG, CA. 94565		
Project	Date	Sheet
	8-5-2022	A.2
Scale	1"=1'-0"	

9-4-2023

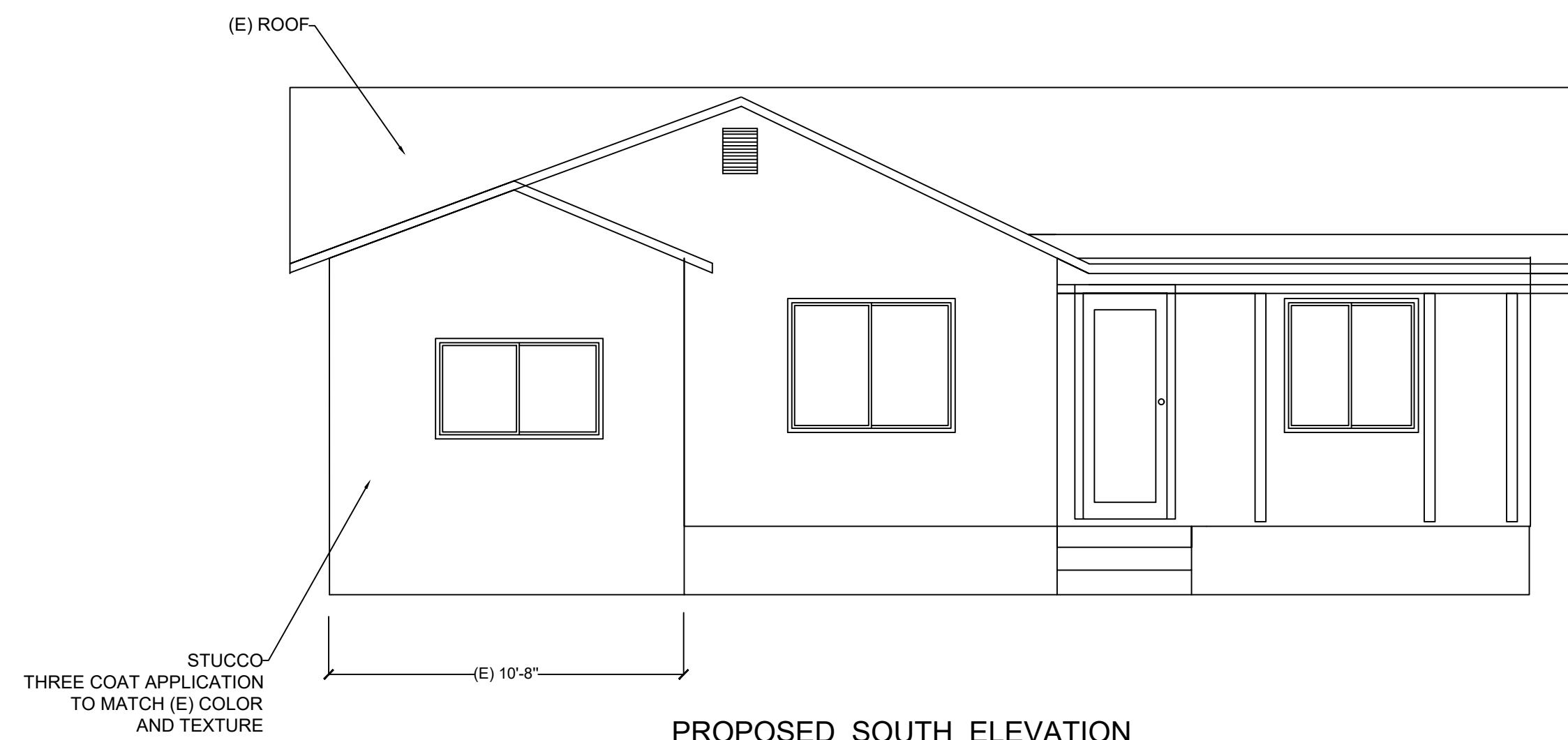
PC1
10-10-2022



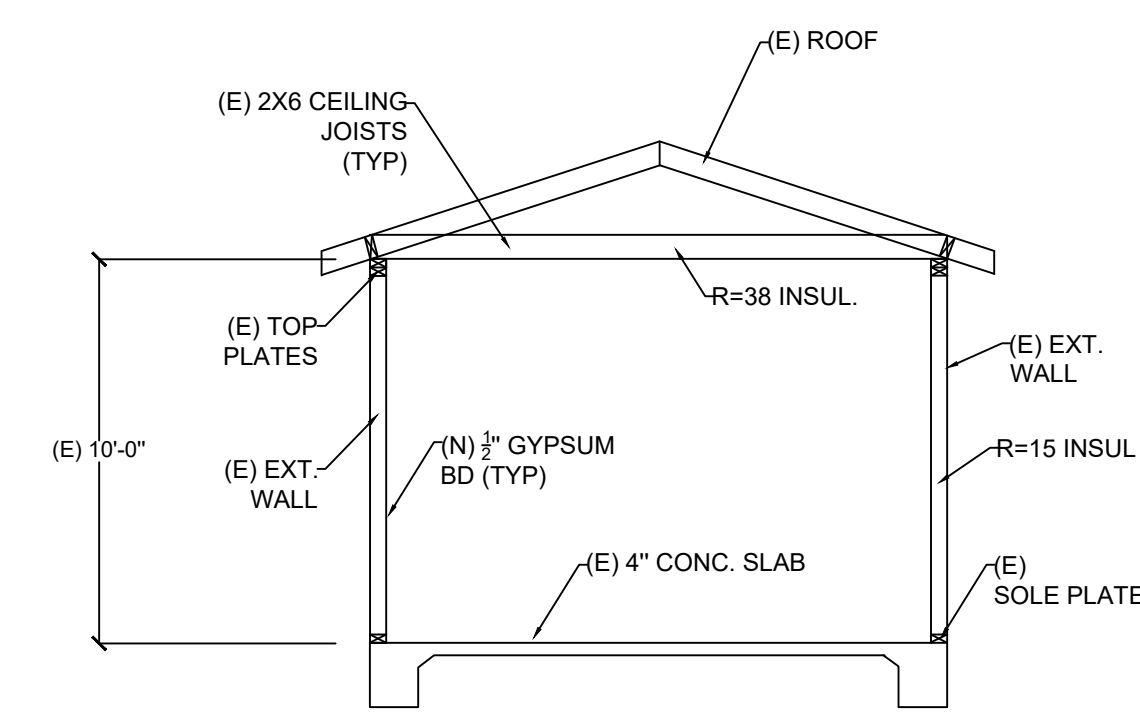
EXISTING SOUTH ELEVATION



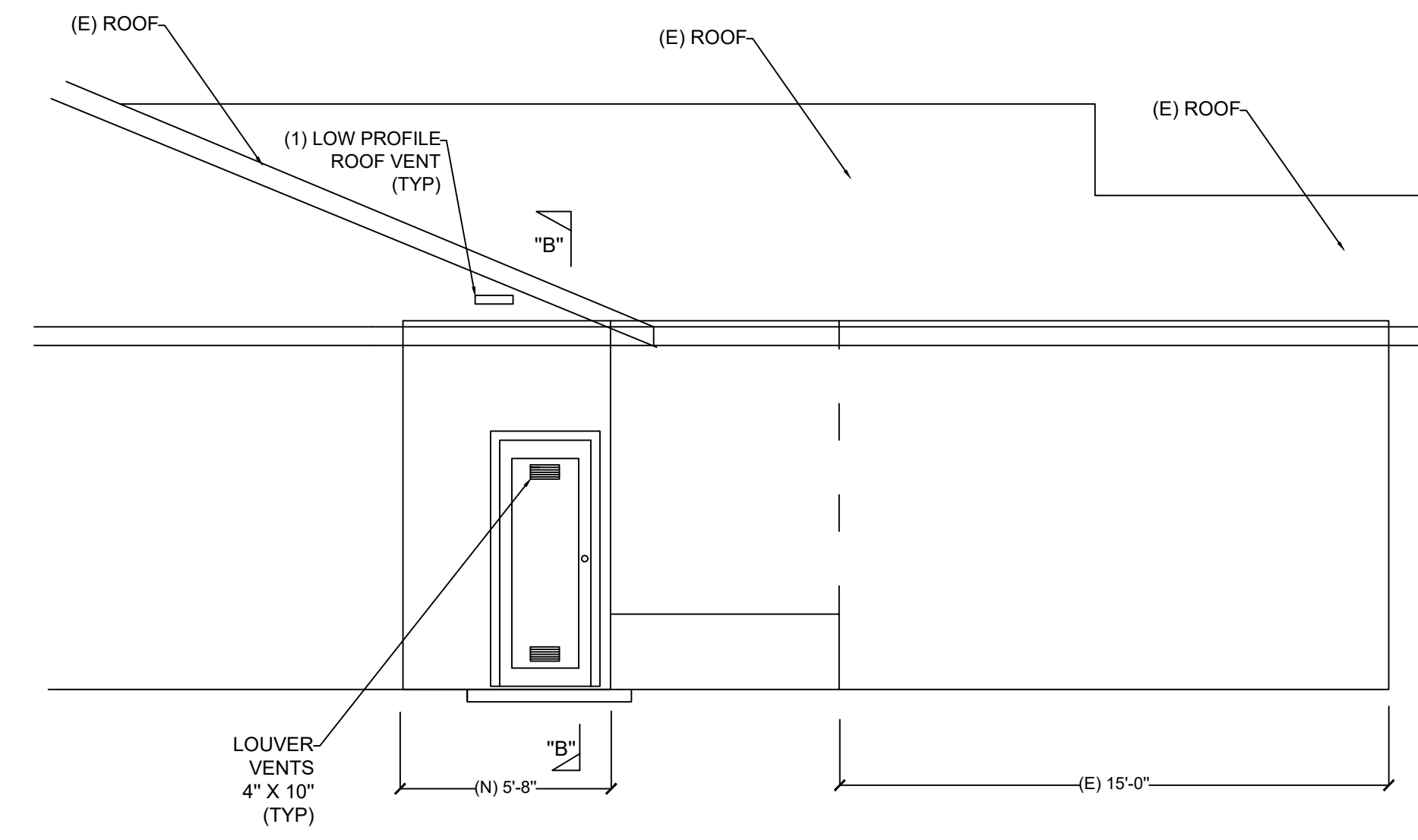
CROSS SECT. "D"-"D"



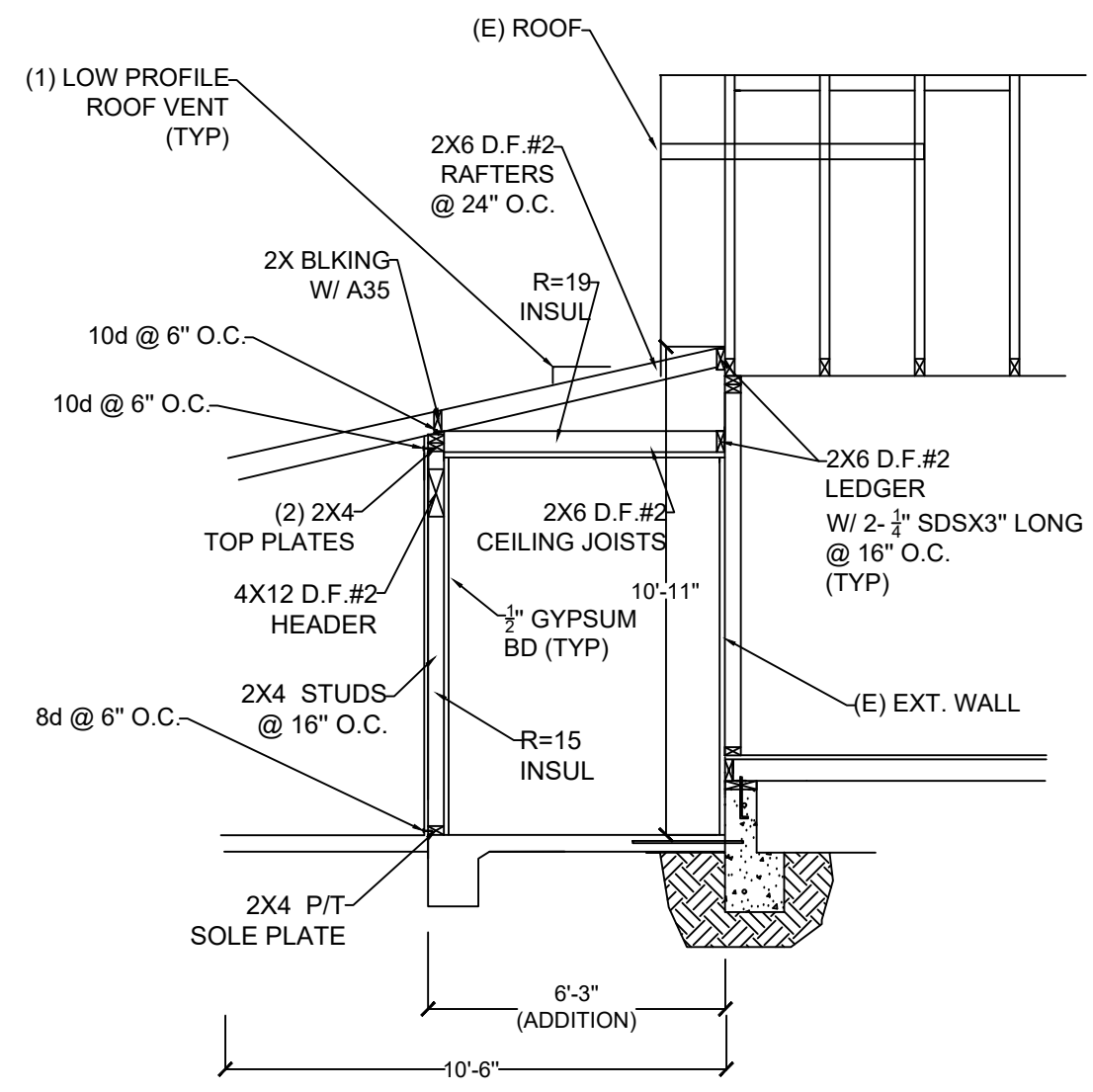
PROPOSED SOUTH ELEVATION



CROSS SECT. "C"-"C"



PROPOSED WEST ELEVATION



CROSS SECT. "B"-"B"

9-4-2023
PC1
10-10-2022

General Notes

EXISTING ELEVATIONS
PROPOSED ELEVATION

No.	Revision/Issue	Date

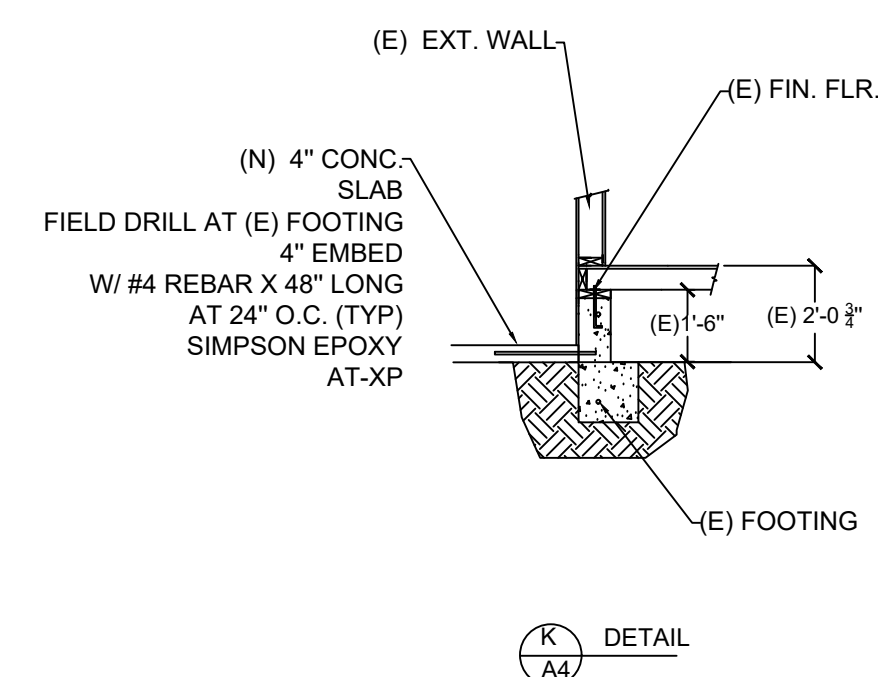
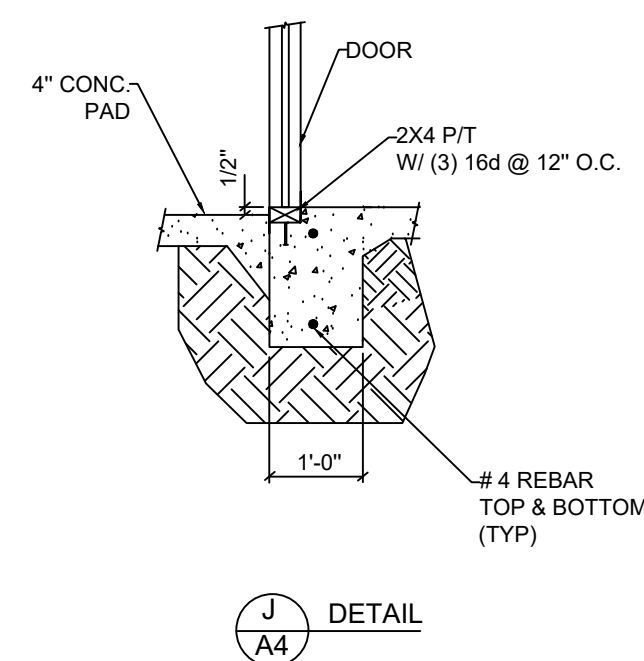
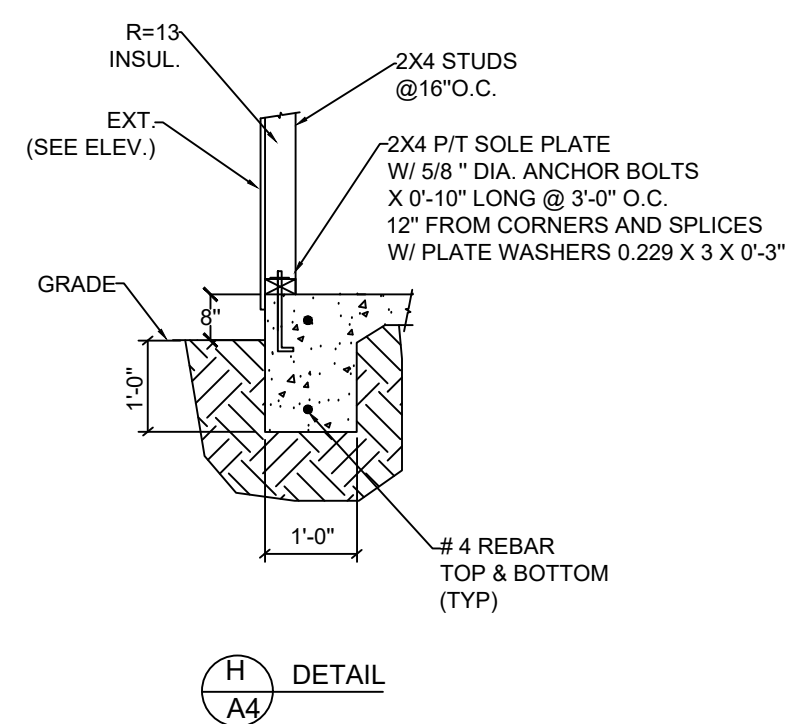
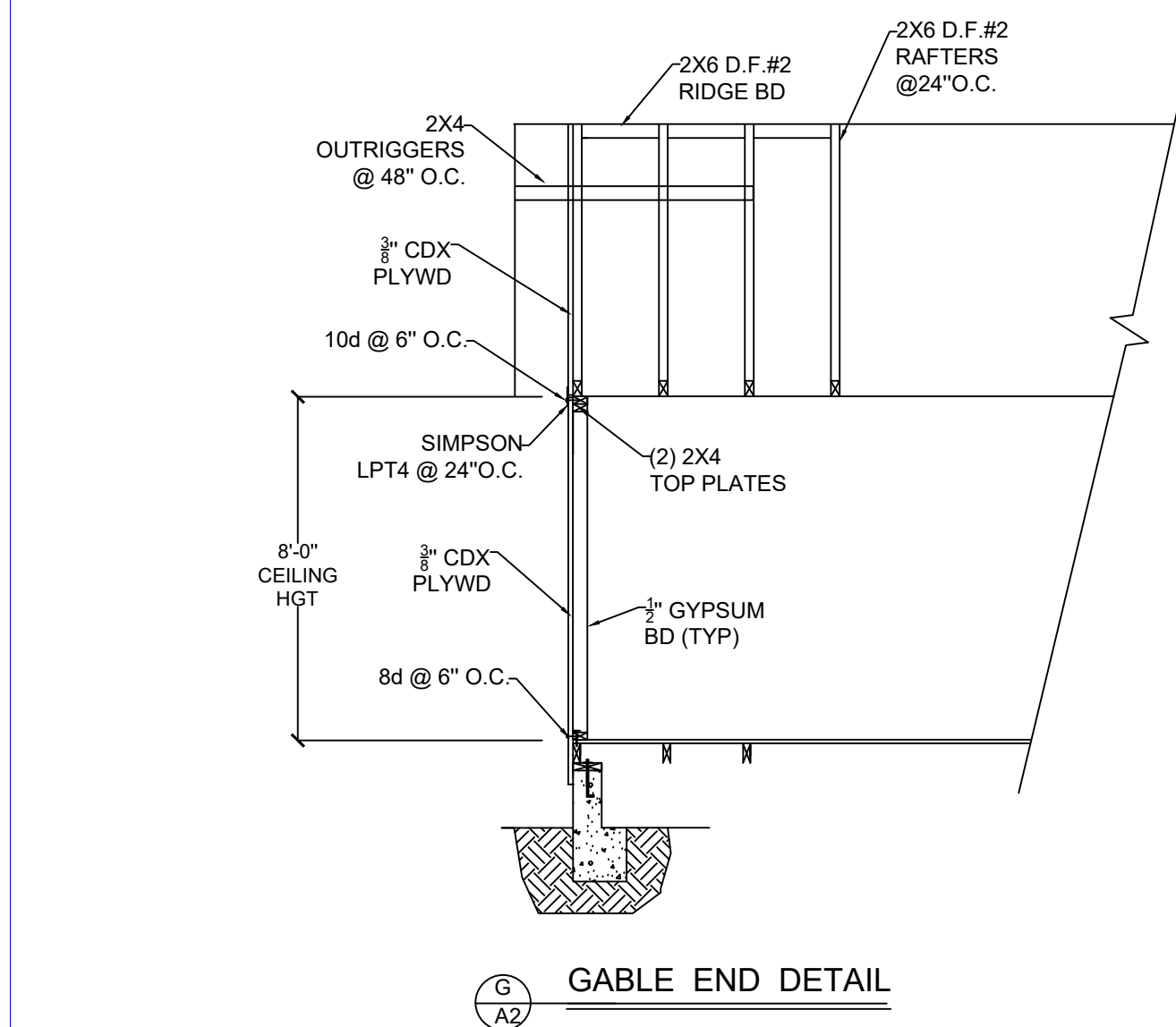
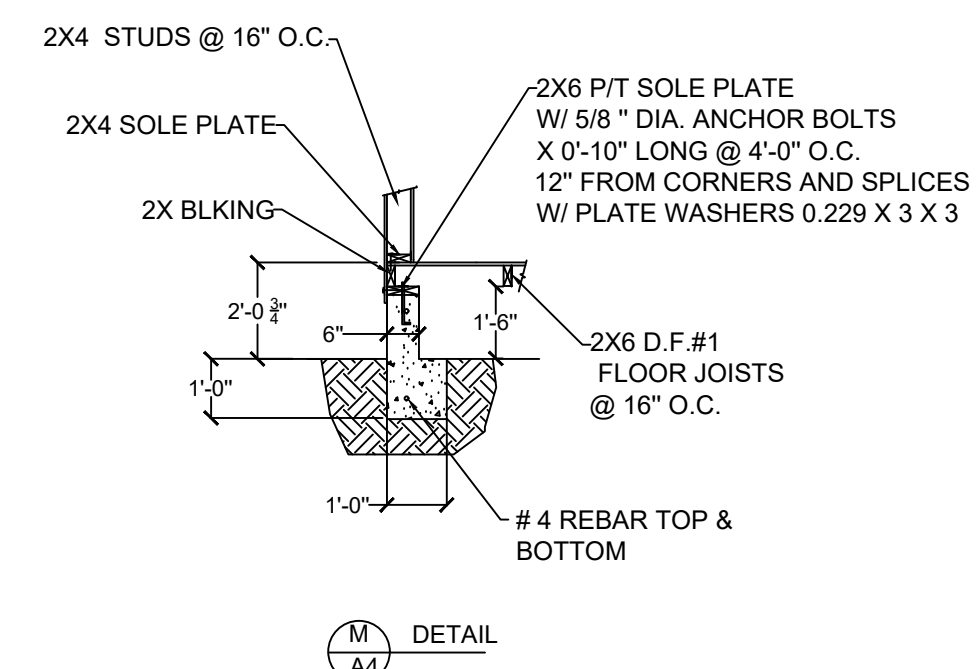
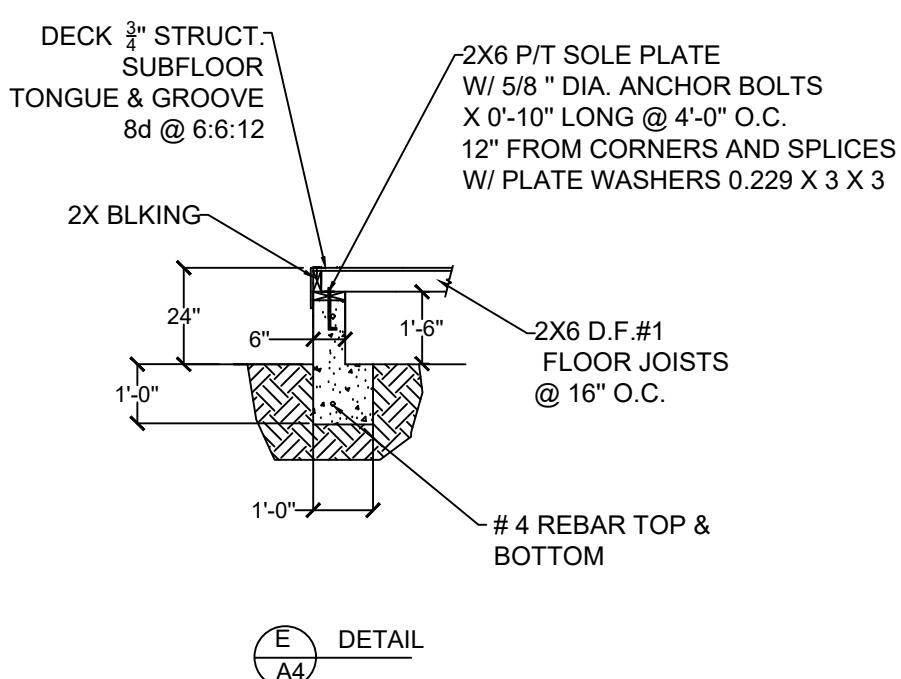
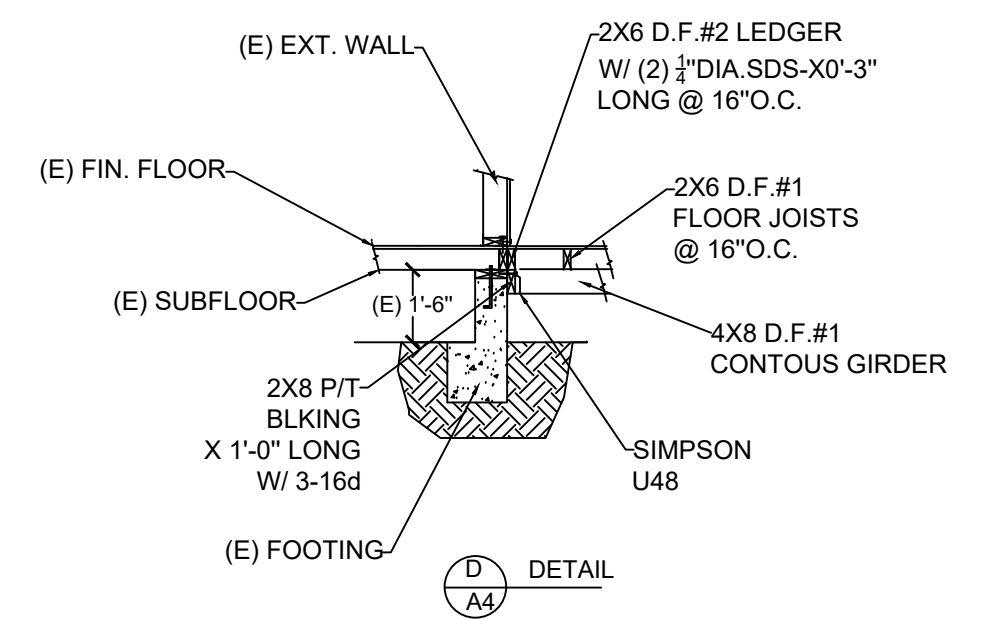
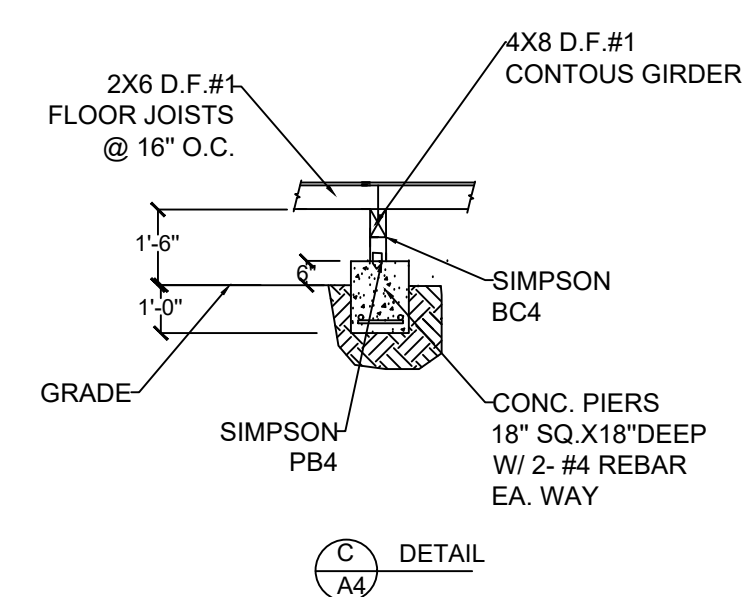
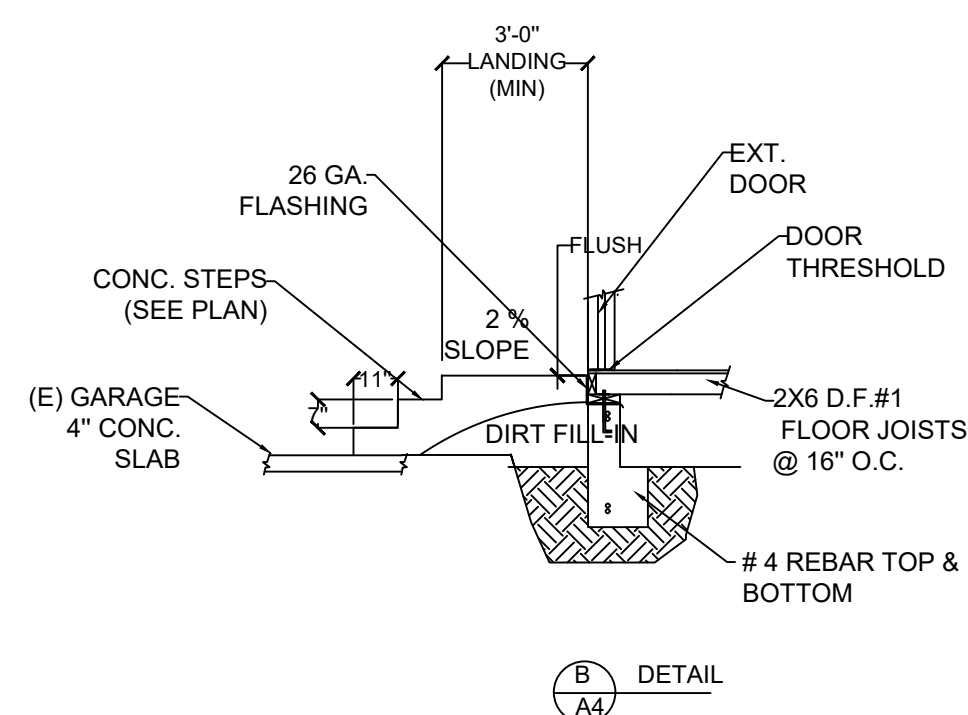
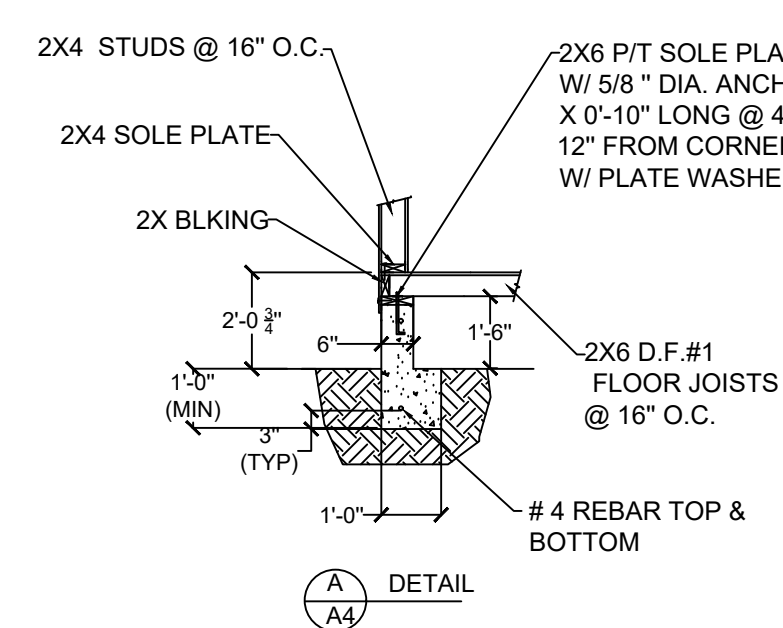
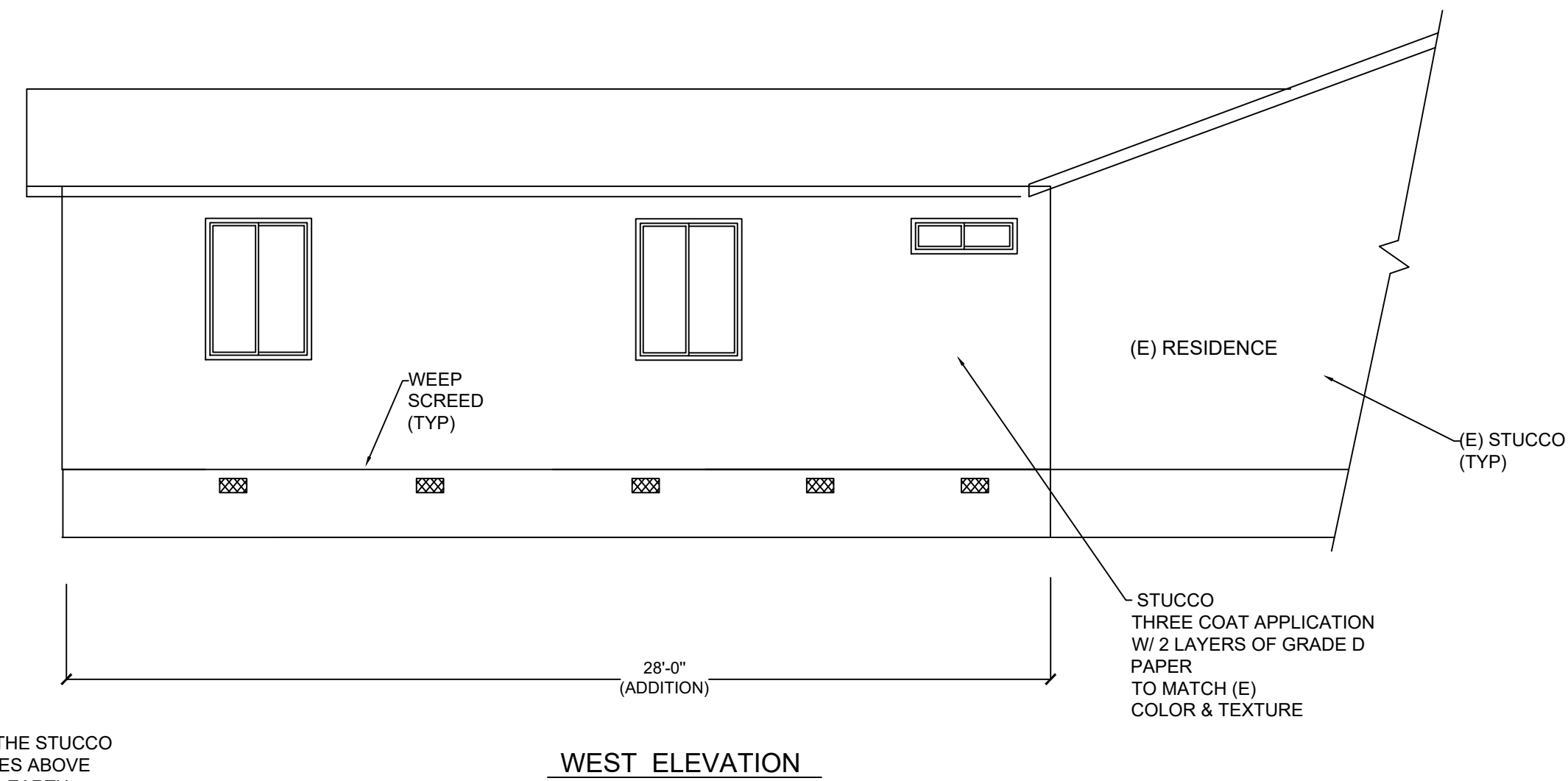
Firm Name and Address

JAVIER GARCIA
P.O.BOX 2024
MANTECA,CA. 95336
(209)351-2595

Project Name and Address

ANTONIO GUTIERREZ
74 LORRAINE AVE
PITTSBURG, CA. 94565

Project	Sheet
Date 8-5-2022	A.3
Scale 1/4"=1'-0"	



ELEVATIONS
DETAILS

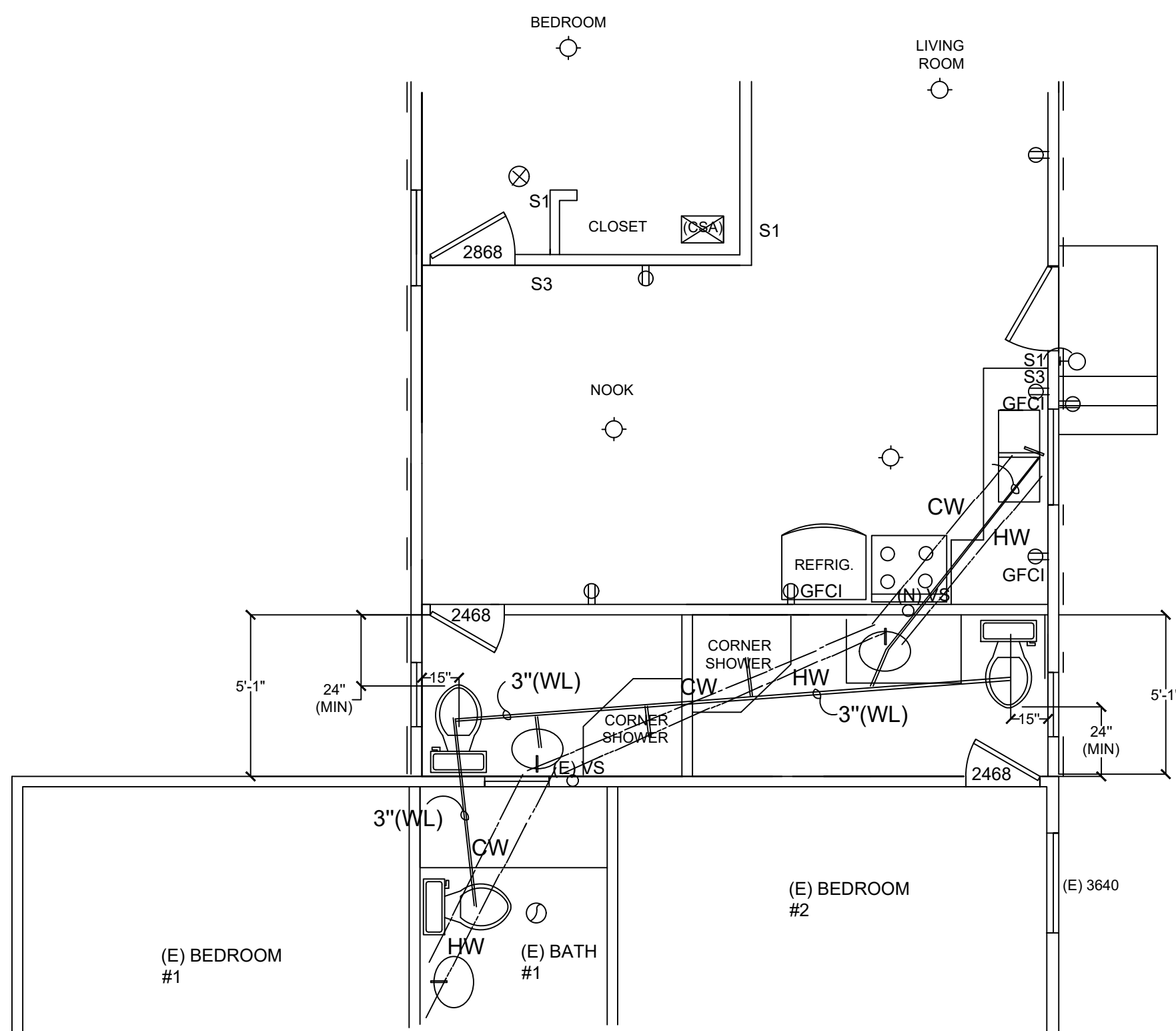
No.	Revision/Issue	Date

JAVIER GARCIA
P.O.BOX 2024
MANTECA,CA. 95336
(209)351-2595

ANTONIO GUTIERREZ
74 LORRAINE AVE
PITTSBURG, CA. 94565

Project	Sheet A.4
Date 8-5-2022	
Scale $\frac{1}{4}"=1'-0"$	

PC1
10-10-2022



PLUMBING PLAN

(N) PEX MATERIAL:

(N) 1/2" PEX TUBING IS A CROSS LINKED POLYETHYLENE PIPE TO CONNECT TO EXISTING COPPER TUBING.

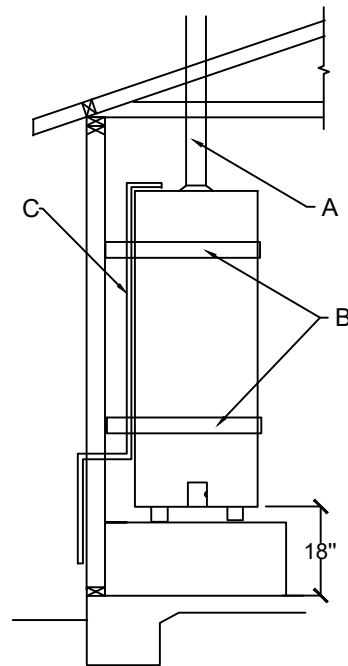
EXISTING 1/2" DIA. COPPER TUBING

- CW ——— 1/2" PEX TUBING COLD WATER (CW)
HW ——— 1/2" PEX TUBING HOT WATER (HW)
2" (VS) ——— 2" DIA. ABS VENT STACK
2" (WL) ——— 2" DIA. ABS WASTE LINE
3" (WL) ——— 3" DIA. ABS WASTE LINE

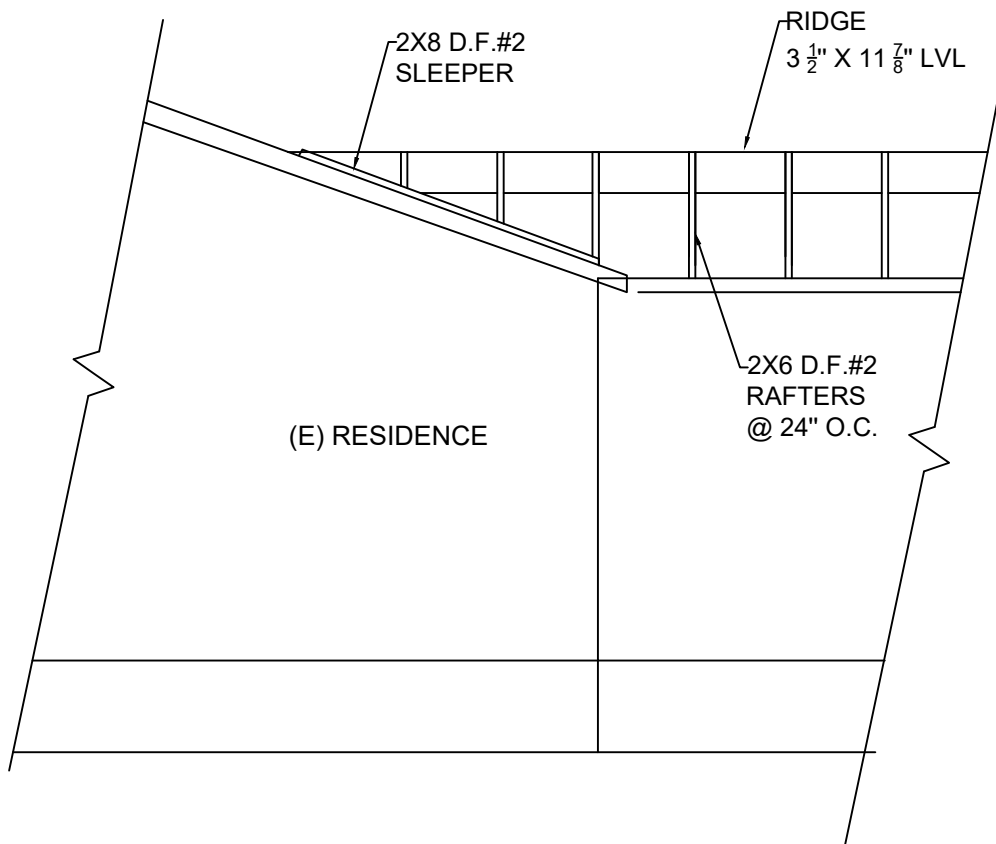
EXHAUST DUCT TERMINATION IS AS FOLLOWS PER CMC 502.2:

1. 3 FEET FROM PROPERTY LINE
2. 10 FEET FROM A FORCED AIR INLET.
3. 3 FEET FROM OPENINGS INTO THE BUILDING.
4. EXHAUST DUCT SHALL NOT DISCHARGE ONTO A PUBLIC WAY. CMC 502.2

- A. LISTED TYPE "B" VENT MAINTAIN 1" MIN. CLEARANCE FROM COMBUSTIBLES WITH NON-COMBUSTIBLE SEAL.
B. 1 1/2" X 16 GAGE METAL STRAP WITH 3/8" X 3" LAG SCREWS WITH WASHERS TO WALL STUD (STRAPS SHALL BE WITHIN UPPER 1/2 AND LOWER 1/2, BUT 4" ABOVE CONTROLS
C. PRESSURE VALVE RELIEF LINE TO EXTERIOR MUST RUN LEVEL OR SLOPE DOWNWARD TERMINATE BETWEEN 6" & 24" ABOVE GRADE POINTED DOWN WITHOUT THREADED END.
- 60 GALLON WATER HEATER



WATER HEATER REQUIREMENTS
(N.T.S.)



CALIF. FRAMING PLAN
(N.T.S.)

9-4-2023

PC1
10-10-2022

General Notes

PLUMBING PLAN

No.	Revision/Issue	Date

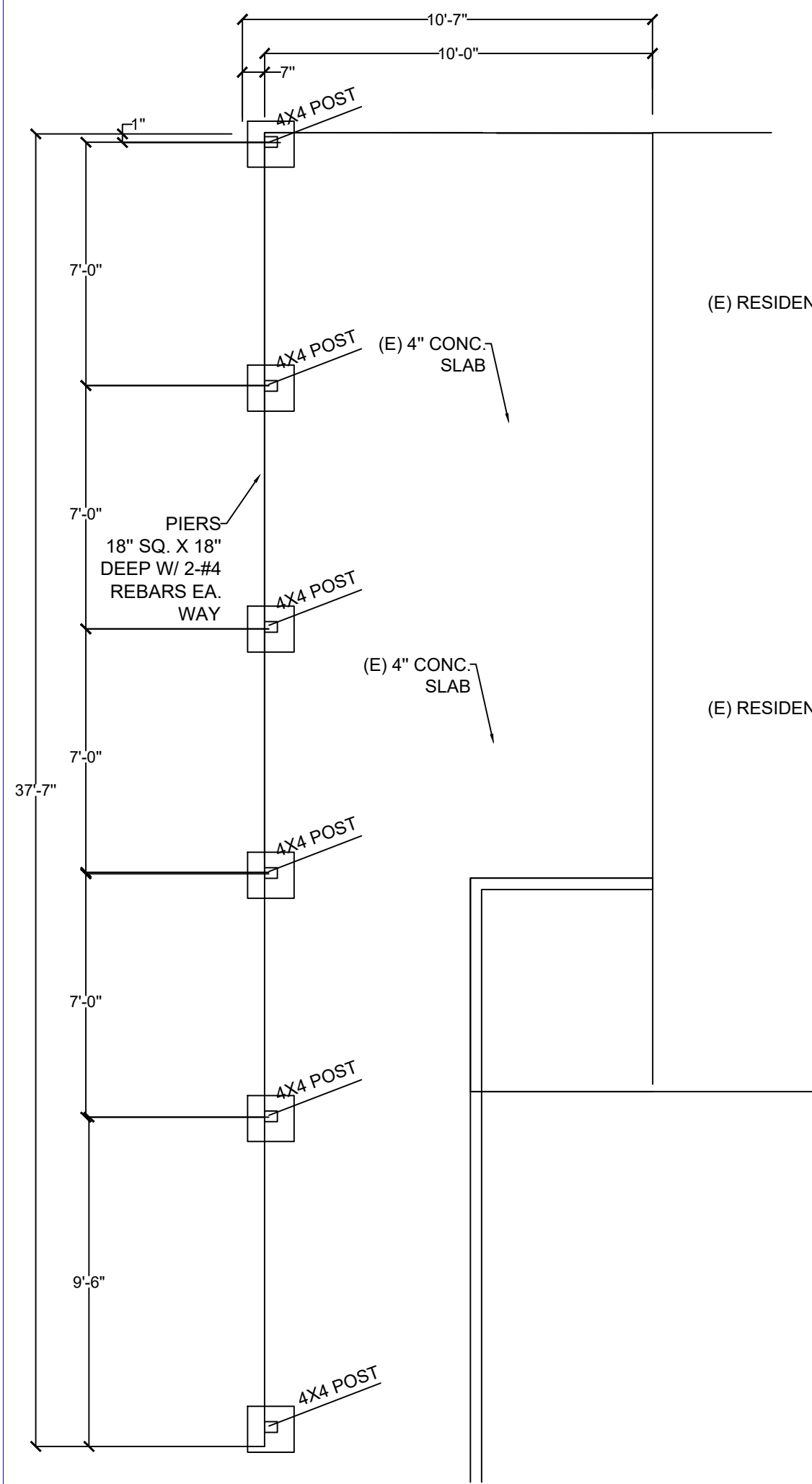
Firm Name and Address

JAVIER GARCIA
P.O.BOX 2024
MANTECA, CA. 95336
(209)351-2595

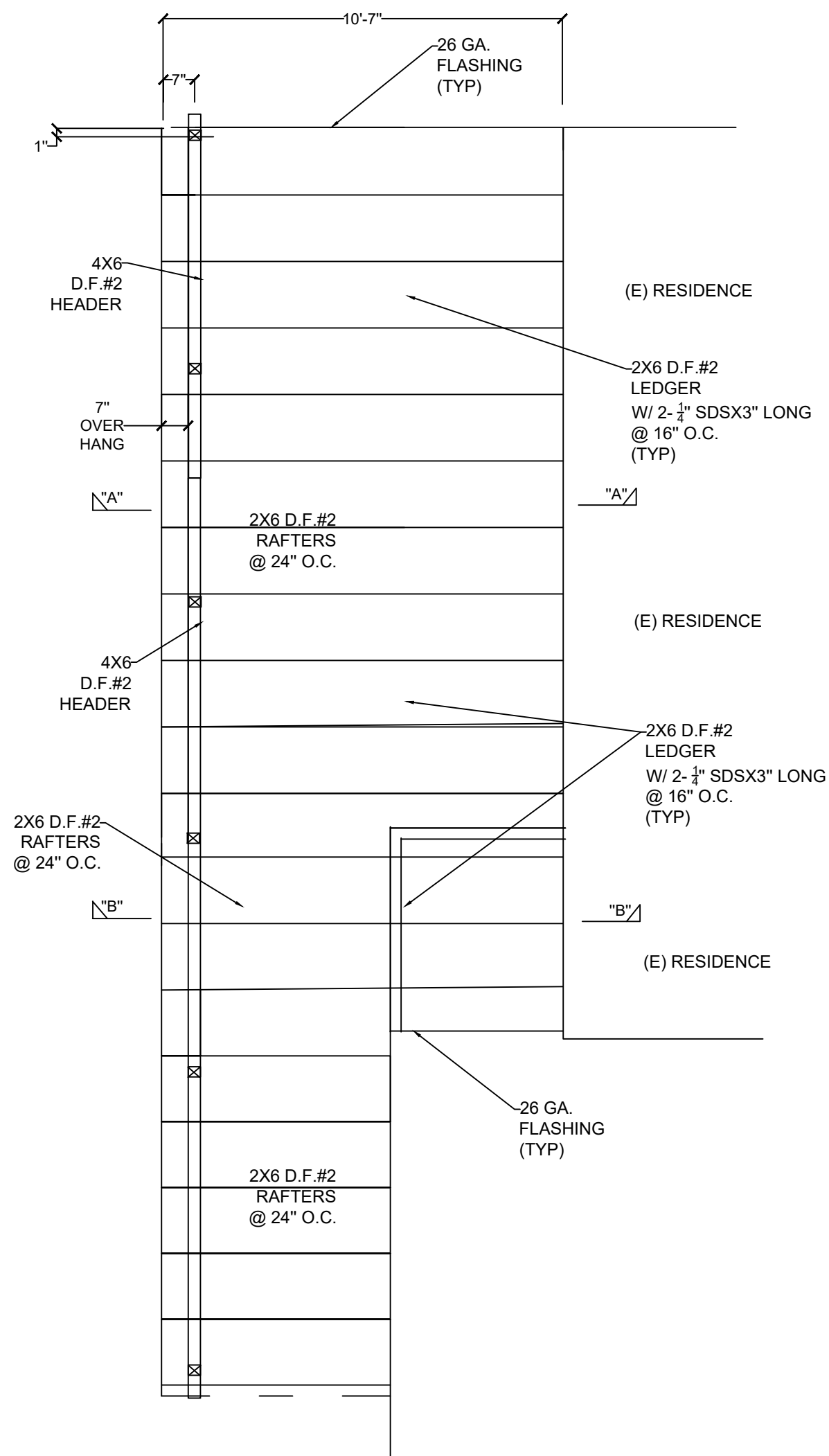
Project Name and Address

ANTONIO GUTIERREZ
74 LORRAINE AVE
PITTSBURG, CA. 94565

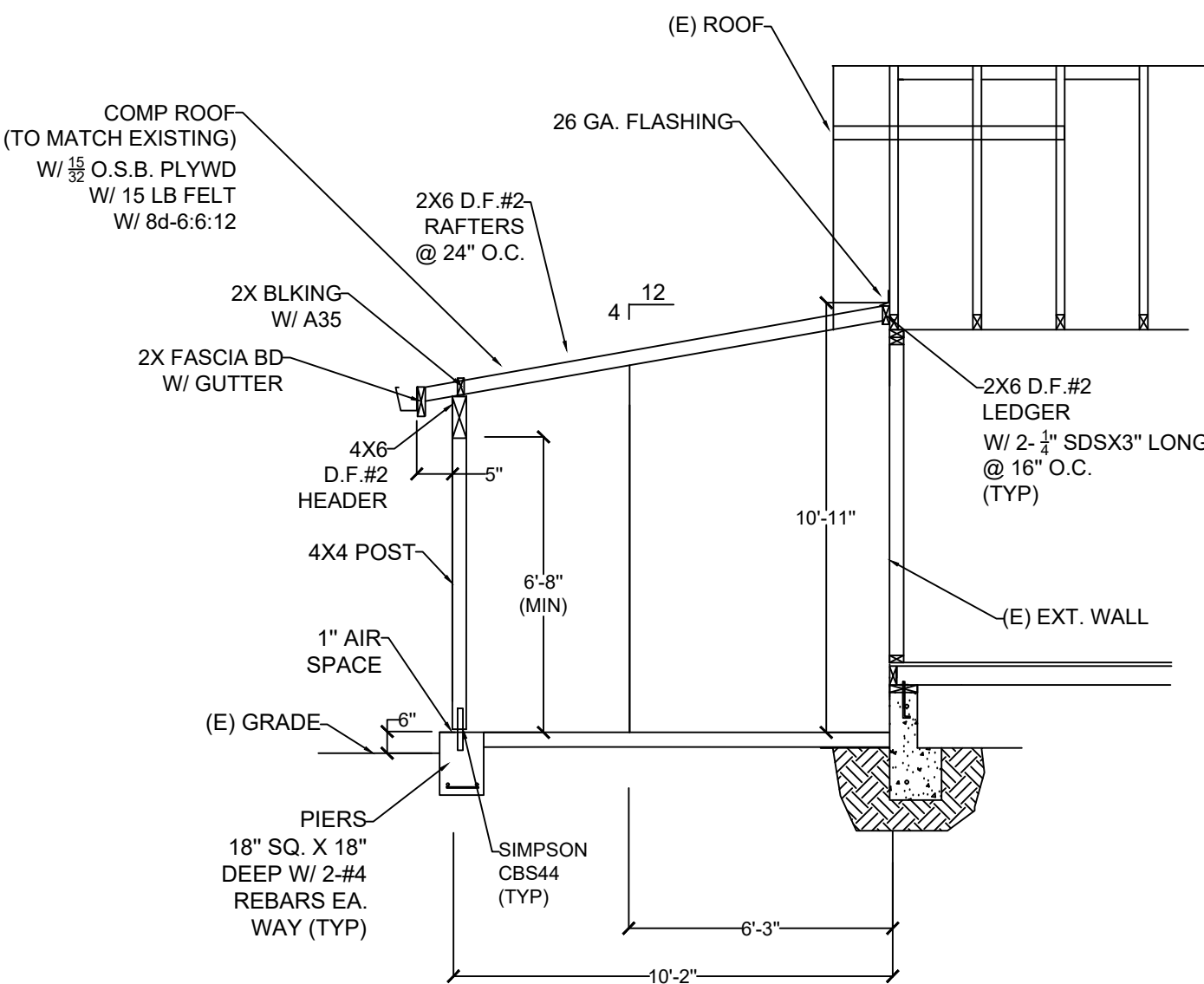
Project	Sheet
Date 8-5-2022	A.5
Scale 1/4" = 1'-0"	



(E) PIER PLAN



(E) ROOF FRAMING PLAN



CROSS SECT. "A"-"A"

NOTE DRAWING REFERENCING THE CRC 2019 TABLES, CODE SECTIONS OR FIGURES OF THESE REQUIREMENTS:

A. HOLES AND NOTCHES
B. HOLES AND NOTCHES AT STUDS
C. HOLES AND NOTCHES AT ROOF AND FLOOR FRAMING MEMBERS.
D. PIPES THROUGH, UNDER, AND PARALLEL TO FOOTINGS.
E. FOOTING LONGITUDINAL REINFORCING CONFIGURATION AT CORNERS.
F. BRACED WALL PANEL ELEVATION.
G. FRAMING AT WALL OPENINGS.
H. TOP PLATE SPLICES.

ELECTRICAL LOAD CALCULATION

JOB ADDRESS: 74 LORRAINE AVE

GENERAL LIGHTING
SQ. FT. OF THE EXISTING HOUSE 1,311 X 3 VOLTS AMPS= 3,933 VA

THE NUMBER OF THE SMALL APPLIANCE CIRCUIT X 1,500 VA
(A MINIMUM OF TWO REQUIRED) = 3,000 VA

LAUNDRY CIRCUIT = 3,000 VA
RANGE LOAD = 8,000 VA
WATER HEATER = 5,500 VA
OVEN / MICROWAVE = 1,000 VA

AIR CONDITION OR HEATER (WHICH EVER IS LARGER) = 3,800 VA
DRYER = 5,400 VA
DISHWASHER = 0 VA
GARBAGE DISPOSAL = 0 VA
ANY MISC. LOADS= 0 VA

SUB TOTALS = 33,633 VA

FIRST 8,000 AT 100% - 8,000 VA

SUB TOTALS = 25,633 VA

BALANCE OF REST AT 40% = 10,253 VA

ADD THE 8,000 + 8,000 VA

TOTAL= 18,253 VA

DIVIDE THE TOTAL BY 240 = 76 + 6.86 = 82 AMPS NEEDED

ELECTRICAL LOAD CALCULATION

JOB ADDRESS: JR ADU 74 LORRAINE AVE

GENERAL LIGHTING
SQ. FT. OF JR ADU 430 X 3 VOLTS AMPS= 1,290 VA

THE NUMBER OF THE SMALL APPLIANCE CIRCUIT X 1,500 VA
(A MINIMUM OF TWO REQUIRED) = 3,000 VA

LAUNDRY CIRCUIT = 0 VA
RANGE LOAD = 8,000 VA
WATER HEATER = 0 VA
OVEN / MICROWAVE = 5,000 VA

DRYER = 0 VA
DISHWASHER = 0 VA
GARBAGE DISPOSAL = 0 VA
ANY MISC. LOADS= 0 VA

SUB TOTALS = 17,290 VA

FIRST 8,000 AT 100% - 8,000 VA

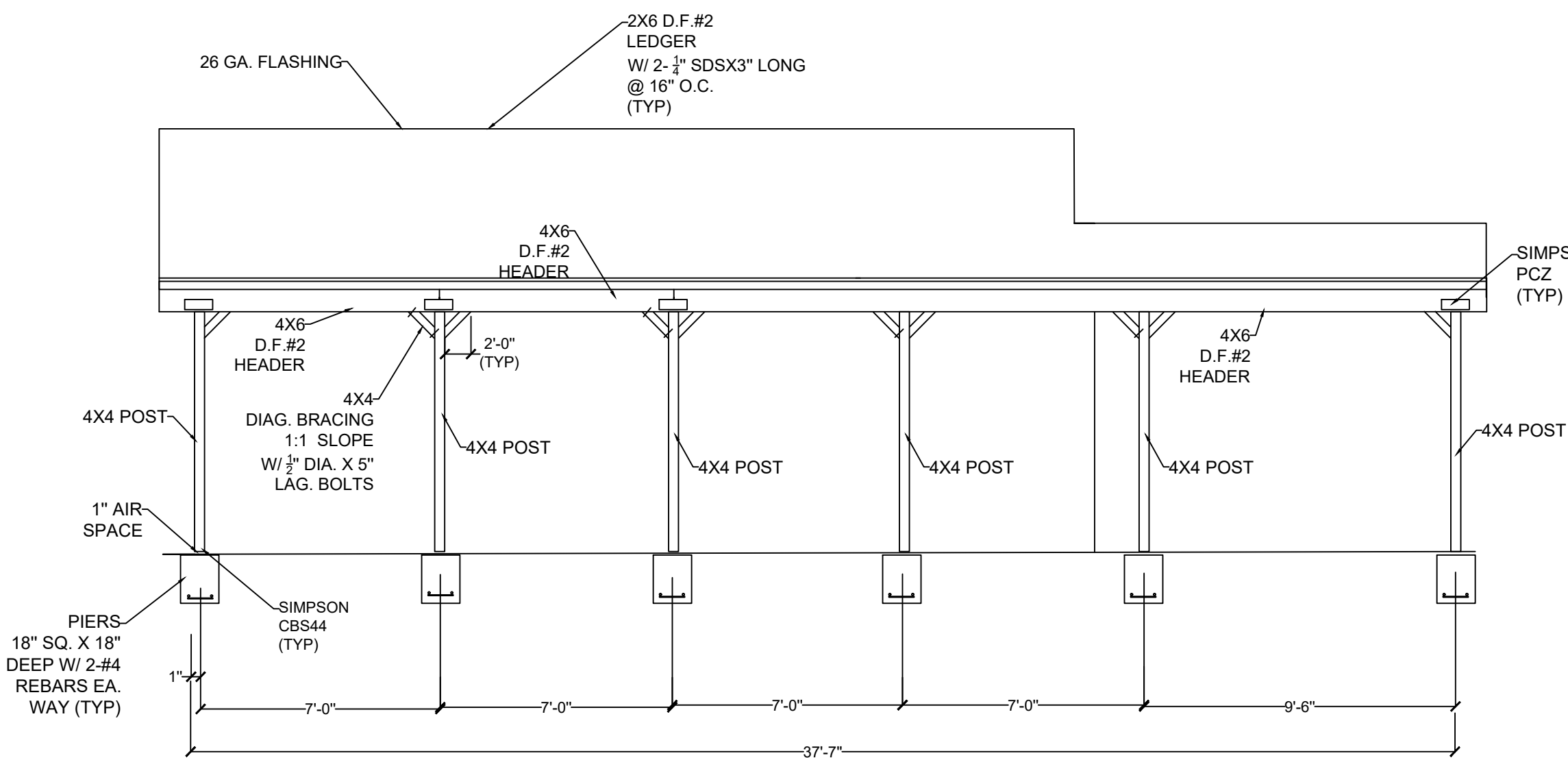
SUB TOTALS = 9,290 VA

BALANCE OF REST AT 40% = 3,716 VA

ADD THE 8,000 + 8,000 VA

TOTAL= 11,716 VA

DIVIDE THE TOTAL BY 240 = 48 + 6.86 = 55 AMPS NEEDED



(E) FRONT ELEVATION

(EXPOSED LUMBER SHALL BE PTDF OR REDWOOD)

General Notes

COVERED PATIO
ELECTRICAL LOAD CALC.

No.	Revision/Issue	Date

Firm Name and Address
JAVIER GARCIA
P.O.BOX 2024
MANTECA,CA. 95336
(209)351-2595

Project Name and Address
ANTONIO GUTIERREZ
74 LORRAINE AVE
PITTSBURG, CA. 94565

Project	Sheet
Date 8-5-2022	A.6
Scale 1/4"=1'-0"	

9-4-2023

PC1
10-10-2022

AP-23-0077 - Gutierrez

Menu Help

File Date: 05/31/2023

Application Type: Planning Project

Application Status: In Review

Description of Work: Legalize garage conversion to bedroom Legalize ADU setbacks Legalize covered patio setbacks Legalize covered patio

Assigned To: Ariana Ruiz

Address: 74 S Lorraine Ave, N/A Pittsburg, CA 94565

Owner Name: Antonio Gutierrez

Owner Address: Pittsburg, Ca. 94565

Application Name: Gutierrez

Parcel No: 087-122-014

Contact Info:	Name	Organization Name	Contact Type	Status
	JAVIER GARCIA		Applicant	Active
	JAVIER GARCIA		Architect	Active
	Antonio Gutierrez	N/A	Property Owner	Active
	Alondra Cervantes		Individual	Active

Licensed Professionals Info:	Primary	License Number	License Type	Name	Business Name	Business License #
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Total Fee Assessed: \$1,522.00

Total Fee Invoiced: \$1,522.00

Balance: \$0.00

Workflow Status:	Task	Assigned To	Status	Status Date	Action By
	Application Intake		Accepted	06/08/2023	Ariana Ruiz
	Building Review			09/21/2023	
	Engineering Review			09/21/2023	
	Transporation Review			09/21/2023	
	External Agencies Review			09/21/2023	
	Public Works Review			09/21/2023	
	Planning Review		Referral Per...	09/21/2023	Ariana Ruiz
	Review Consolidation				
	Staff Report				
	Plans Distribution		Ready for Re...	09/14/2023	Ariana Ruiz
	Public Meeting				
	Decision Notification				
	Appeal Period				
	Case Complete				

Scheduled/Pending Inspections:	Inspection Type	Scheduled Date	Inspector	Status	Comments
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Resulted Inspections:	Inspection Type	Inspection Date	Inspector	Status	Comments
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Documents:	File Name	Document Group	Category	Description	Type	Document Status	Document Status Date
	74 LORRAINE AVE.pdf	PLANNING	Project Plans	Complete set of plans	application/pdf	Uploaded	05/31/2023
	74LorraineVerificati.pdf	PLANNING	Owner's Authori...	Owner Verification ...	application/pdf	Uploaded	05/31/2023
	74 LORRAINE AVE.pdf	PLANNING	Project Plans	REVISED SITE PLAN P...	application/pdf	Uploaded	08/15/2023
	74LorraineVariaApp2.pdf	PLANNING	Project Plans	VARIANCE APPLICAT...	application/pdf	Uploaded	08/15/2023
	Revised Plans dated 9/...	PLANNING			application/pdf	Uploaded	09/20/2023
	Show all						

NOTICE OF INTENT

TO EXERCISE DESIGN REVIEW AUTHORITY DELEGATED TO STAFF PURSUANT TO PLANNING COMMISSION RESOLUTION NO. 9918

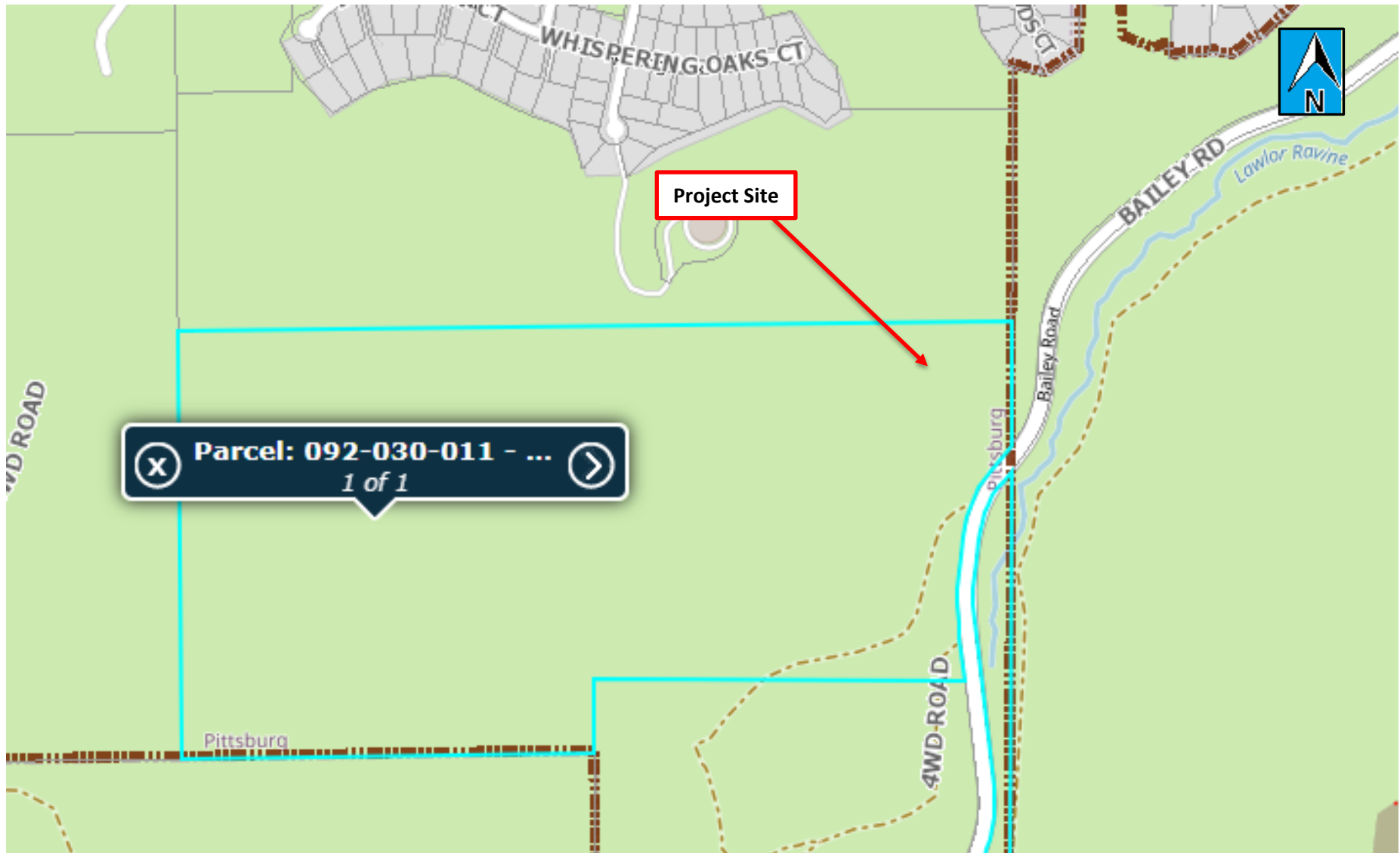
Verizon Wireless Telecommunications Facility – Addition of a Solar Canopy Atop an Existing Enclosure – (AP-23-0114 [ADR]).

This is an application filed by Eric Waldspurger on behalf of Verizon Wireless requesting Administrative Design Review approval to install new equipment for an existing wireless facility, including a solar canopy cover over an existing telecommunications enclosure. The project is located at 1100 Bailey Road in the Open Space Zoning District and Open Space General Plan Designation. APN: 092-030-011.

This project is delegated to staff under Category 3 (Minor Building Remodels) of Planning Commission Resolution No. 9918.

Verizon (ADR and MM) – Vicinity Map

AP-23-0114	1100 Bailey Road, Pittsburg
Administrative Design Review and Minor Modification Approval	APN: 092-030-011



Verizon (MM and ADR) – Aerial Map

AP-23-0114	1100 Bailey Road
Administrative Design Review and Minor Modification Approval	APN: 092-030-011



verizon

SOLAR CANOPY PROJECT BAILEY RD

1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565
SITE #: 193569
PROJECT #: 20141071324

PROJECT DESCRIPTION	PROJECT INFORMATION	PROJECT TEAM	SHEET INDEX
VERIZON PROPOSED TO INSTALL THE FOLLOWING TO AN EXISTING TELECOMMUNICATIONS FACILITY WHICH INCLUDES THE FOLLOWING: - PROPOSED INSTALLATION OF SOLAR PANELS AND ASSOCIATED ELECTRICAL COMPONENTS, BOXES AND CONDUITS, etc. - INSTALLATION OF (1) UTILITY H-FRAME.	SITE ADDRESS: 1100 BAILEY ROAD PITTSBURG, CALIFORNIA 94565 PROPERTY OWNER: SERENA PACIFIC PROPERTIES, LLC AKA HILLYVIEW LAND INVESTORS, LLC 1800 WILLOW PASS COURT CONCORD, CA 94520 CONTACT: MARK WICKHAM PHONE: (925) 609-6200 A.P.N. NUMBER: 097-210-011 COORDINATES: LATITUDE: 38° 00' 11.09" N 38.003081° LONGITUDE: -121° 56' 51.33" W -121.947892°	ZONING: OS (OPEN SPACE) JURISDICTION: CITY OF PITTSBURG OCCUPANCY: UNOCCUPIED CONSTRUCTION TYPE: V-N APPLICANT/LESSEE: VERIZON WIRELESS ADDRESS: 2785 MITCHELL DRIVE WALNUT CREEK, CALIFORNIA 94598 CONTACT: JULIE SKIDMORE EMAIL: JULIE.SKIDMORE@VERIZONWIRELESS.COM PHONE: (925) 895-4195 ENGINEERING: MOTIVE ADDRESS: 17260 NEWHOPE STREET FOUNTAIN VALLEY, CALIFORNIA 92708 CONTACT: MARK EAST EMAIL: MEAST@MOTIVES.COM PHONE: (818) 898-2352 CONSTRUCTION MANAGER: VERIZON WIRELESS ADDRESS: 2785 MITCHELL DRIVE WALNUT CREEK, CALIFORNIA 94598 CONTACT: DAVID ROBERTSON EMAIL: DAVID.ROBERTSON@VERIZONWIRELESS.COM PHONE: (925) 279-6355 SITE ACQUISITION: SEQUOIA DEPLOYMENT SERVICES ADDRESS: 1 SPECTRUM POINT DRIVE, SUITE 130 LAKE FOREST, CALIFORNIA 92630 CONTACT: PETE SHUBIN EMAIL: PETE.SHUBIN@SEQUOIA-DS.COM PHONE: (714) 478-3197	T-1 TITLE SHEET T-2 GENERAL NOTES A-0 OVERALL SITE PLAN A-1 SOLAR CANOPY EQUIPMENT PLAN A-2 DETAILS A-3 ELEVATION A-4 SPECIFICATIONS A-4.1 SPECIFICATIONS A-5 SPECIFICATIONS S-1 STRUCTURAL PLAN S-2 STRUCTURAL PLAN S-3 STRUCTURAL SECTION S-4 STRUCTURAL SECTION (ALTERNATE DETAIL) S-5 PIPE CAP DETAIL S-6 PLATE DETAIL BM-1 BILL OF MATERIALS E-1 SINGLE LINE DIAGRAM
DRAWING NOTES			
CONTRACTORS SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & FIELD CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR THE SAME. DRAWINGS THAT ARE NOT 24X36 ARE NOT TO BE SCALED.			
CODE COMPLIANCE	VICINITY MAP	AREA OF WORK	DIG ALERT
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 2022 CALIFORNIA BUILDING CODE. 2022 MECHANICAL CALIFORNIA CODE. 2022 CALIFORNIA PLUMBING CODE. 2022 CALIFORNIA FIRE CODE. 2023 NATIONAL ELECTRICAL CODE, NFPA 70. 2022 CALIFORNIA BUILDING STANDARDS CODE, TITLE 24, CCR ANSI/ TIA-222-H BUILDING OFFICIALS & CODE ADMINISTRATORS (BOCA). CITY OF PITTSBURG ORDINANCES. ADA COMPLIANCE- INSTALLATION IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED PER ADA.			CALL CALIFORNIA ONE CALL (800) 227-2600 CALL 3 WORKING DAYS BEFORE YOU DIG!
SPECIAL INSPECTION			
TBD			



PROJECT TEAM
CONSTRUCTION: MOTIVE INFRASTRUCTURE SOLUTIONS ADDRESS: 765 TRADEMARK CIRCLE, CORONA CALIFORNIA 92879 PHONE: (951) 284-0189



REVISIONS			
REV.	DATE	DESCRIPTION	INIT.
A	11/22/21	90% CD PRELIM	ASU
0	06/14/22	100% CD PRELIM	ASU
1	02/06/23	REVISED 100% CD	ASU

SITE INFORMATION:
BAILEY ROAD 1100 BAILEY ROAD PITTSBURG, CALIFORNIA 94565

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

ABBREVIATIONS

A	.....	AMPS
AC	.....	ALTERNATING CURRENT
AL	.....	ALUMINUM
ATS	.....	AUTOMATED TRANSFER SWITCH
CB	.....	COMBINER BOX
CKT	.....	CIRCUIT
CU	.....	COPPER
DC	.....	DIRECT CURRENT
DISCO	.....	DISCONNECT
E	.....	EXISTING
EGC	.....	EQUIPMENT GROUNDING CONDUCTOR
FG	.....	FINISH GRADE
G	.....	GENERATOR
GEC	.....	GROUNDING ELECTRODE CONDUCTOR
GND	.....	GROUND
JBOX	.....	JUNCTION BOX
M	.....	METER
MDB	.....	MAIN DISTRIBUTION BOARD
N	.....	NEW (PROPOSED)
PB	.....	PULL BOX
PE	.....	POSITIVE EARTH
XFMR	.....	TRANSFORMER

SYMBOLS LIBRARY

	NORTH ARROW		EXISTING GENERATOR
	KEYED NOTE		JUNCTION BOX
	DRAWING TITLE		ELEVATION CONTROL
	DETAIL CALLOUT		DETAIL REFERENCE
	SECTION CALLOUT		GRIDLINE REFERENCE
	ELEVATION CALLOUT		BUILDING SECTION
	DISCONNECT		NORTH ARROW
	CIRCUIT BREAKER		COMBINER BOX
	CIRCUIT BREAKER W/ KNIFE BLADE		DISCONNECT
	FUSED DISCONNECT		FUSE
	DISCONNECT		CIRCUIT BREAKER
	UTILITY METER WITH CIRCUIT TRANSFORMERS (CTS) METER		
	POWER TRANSFORMER		
	FEEDER SPECIFICATION		
	CONDUIT TURNED DOWN		
	CONDUIT TURNED UP		
	CONDUIT STUBBED AND CAPPED		
	UTILITY COMPANY PULL SECTION LUGS		
	GROUNDING CONNECTION TO MAIN BUILDING GROUND SYSTEM U.O.N.		
	GROUNDING CONNECTION AT SWITCHGEAR / DISTRIBUTION BOARD WITH NEUTRAL BONDING		
	EXISTING UNDERGROUND CONDUIT RUNS		
	INDOOR / ROOF CONDUIT RUNS		
	EXISTING EQUIPMENT		
	NEW EQUIPMENT		

DBS REQUIRED NOTES

1. ALL PV SYSTEM COMPONENTS SHALL BE LISTED BY CITY RECOGNIZED TESTING AGENCY (I.E. UL1741, ETC.)
2. THE WIRING MATERIAL SHALL BE SUITABLE FOR THE SUN EXPOSURE AND WET LOCATIONS. FIELD APPLIED COATINGS ARE NOT ACCEPTABLE.
3. ALL FIELD INSTALLED JUNCTION, PULL AND OUTLET BOXES LOCATED BEHIND MODULES OR PANELS SHALL BE ACCESSIBLE DIRECTLY OR BY DISPLACEMENT OF A MODULE(S) OR PANEL(S) SECURED BY REMOVABLE FASTENERS.
4. SINGLE CONDUCTOR CABLE TYPE USE 2 AND PV WIRES THAT ARE APPROVED BY THE HAWAII ELECTRICAL TESTING LABORATORY ARE PERMITTED TO BE USED IN THE SOURCE CIRCUITS.
5. REMOVAL OF A UTILITY INTERACTIVE INVERTER OF OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PV SOURCE.
6. CONDUCTOR TO PROVIDE EXPANSION FITTINGS EVERY 30' ON EXPOSED CONDUITS.

GENERAL NOTES

GENERAL CONSTRUCTION NOTES:

1. THE JOBSITE SHALL BE MAINTAINED IN A CLEAN ORDERLY CONDITION FREE OF DEBRIS AND LITTER AND SHALL NOT BE UNREASONABLY ENCLOSED WITH ANY MATERIALS OR EQUIPMENT AND SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
2. CONSTRUCTION AND MATERIALS SHALL BE AS SPECIFIED AND AS REQUIRED BY THE ALTEST EDITION OF THE BUILDING CODE CURRENTLY ADOPTED BY THE AHI INCLUDING ANY ALL LOCALLY ENFORCED CODES AND AUTHORITIES. ALL ARTICLES, MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND CONNECTED AS DIRECTED BY THE MANUFACTURER'S LATEST WRITTEN SPECIFICATIONS EXCEPT WHERE OTHERWISE NOTED. MATERIALS NOTED ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THESE SPECIFICATIONS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.
4. IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING AND BRACING REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING INSTALLATION.
5. G.F.P. AND ARC REDUCTION REQUIRED FOR THE MAIN FIT SERVICE.

PHOTOVOLTAIC INSTALLATION:

1. ALL PV MODULES AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED FROM ANY FIRE DAMAGE.
2. LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED.
3. THE MOUNTED PV MODULES SHALL HAVE THE SAME OR BETTER LISTED FIRE RESISTANCE RATING THAN THAT OF THE BUILDING MATERIAL.
4. NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.
5. ALL CONNECTORS AND COUPLERS ARE SET SCREW TYPE UNLESS OTHERWISE NOTED WHEN RUN INSIDE A BUILDING. ALL EXTERIOR CONNECTORS AND COUPLERS SHALL BE RAIN TIGHT.

GROUNDING:

1. ALL SERVICES SUPPLYING THE BUILDING SHALL HAVE THE SAME GROUNDING ELECTRODE SYSTEM.
2. REMOVAL OF A GRID INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDING CONDUCTOR.
3. GROUND BOND CONDUCTOR SHALL NOT BE SPLICED.
4. USE EQUAL OR APPROVED 'LAY IN LUG' LSC0, UL-467 RATED FOR GROUNDING AND BONDING, HIGH STRENGTHS COPPER ALLOY W/ SS SCREWS (AS NECESSARY).
5. DC EQUIPMENT GROUND SHALL BE MINIMUM #8 AWG SOLID CU WIRE TO BOND MODULE FRAMES AND RACKING WHEN INTEGRATED OR W/EEB GROUNDING IS NOT AVAILABLE.
6. CONTRACTOR SHALL CONFIRM EXISTING BUILDING AND PANEL GROUNDING PRIOR TO INSTALLATION.

PV SYSTEM COMPONENTS:

1. ALL CONDUIT RUNS SHALL BE SPECIFICALLY REVIEWED IN THE FIELD WITH THE ARCHITECT FOR APPROVAL OF MOUNTING, ROUTING AND EXPOSURE PRIOR TO INSTALLATION.
2. ALL PV SYSTEM COMPONENTS SHALL BE LISTED BY A RECOGNIZED TESTING AGENCY, I.e. UL1741, etc.
3. INVERTER SHALL BE EQUIPPED WITH INTEGRATED GFD, THUS PROVIDING GROUND FAULT PROTECTION.
4. ALL ENCLOSURES MOUNTED TO EXTERIOR WALLS SHALL BE MIN. NEMA 3R RATED.
5. ALL COMBINER BOXES SHALL BE MIN. NEMA 4x.
6. ALL REQUIRED CONDUCTOR SPLICES SHALL BE MADE WITH UL LISTED 'POLARIS LUG' IN AN APPROPRIATELY SIZED JUNCTION/ GUTTER BOX.
7. ALL PV MODULES AND INVERTERS SHALL BE RECOGNIZED AND APPROVED BY THE HAWAII ENERGY COMMISSION.
8. ALL MOUNTING CONDUITS, EXTERIOR AND INTERIOR SHALL BE EMT OR RIGID PVC IF UNDERGROUND UNLESS NOTED OTHERWISE.

CONDUCTORS:

1. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.

2. ALL PROPOSED CONDUCTORS RATED FOR 90°C. HOWEVER EQUIPMENT RATINGS SHALL BE ASSUMED TO BE 75°C FOR ALL BUILDING FEEDERS AND THEREFORE TERMINATIONS PRIOR TO CONNECTION. INTERMEDIATE JUNCTION BOX MAY BE REQUIRED TO CHANGE FROM 90°C TO 75°C WIRING. MATERIAL SHALL BE COPPER AND 90°C RATED. SUITABLE FOR SUN EXPOSURE AND WET LOCATIONS. FIELD APPLIED COATINGS ARE NOT ACCEPTABLE.
2. ALL PROPOSED CONDUCTORS RATED FOR 90°C. HOWEVER EQUIPMENT RATINGS SHALL BE ASSUMED TO BE 75°C FOR ALL BUILDING FEEDERS AND THEREFORE TERMINATIONS PRIOR TO CONNECTION. INTERMEDIATE JUNCTION BOX MAY BE REQUIRED TO CHANGE FROM 90°C TO 75°C WIRING. MATERIAL SHALL BE COPPER AND 90°C RATED. SUITABLE FOR SUN EXPOSURE AND WET LOCATIONS. FIELD APPLIED COATINGS ARE NOT ACCEPTABLE.
3. ALL WIRE INSULATION TYPE SHALL BE PV WIRE FOR DC SOLAR CIRCUITS.
4. EACH SOLAR PHOTOVOLTAIC MODULE HAS A POSITIVE AND NEGATIVE PV WIRE "SUNLIGHT RESISTANT" QUICK CONNECT PLUG IN LEAD. VERIFY COMPATIBLE EXTENSION WIRES PRIOR TO INSTALLATION.
5. ALL INTER-MODULE SERIES CONNECTIONS TO BE TIE STRAPPED (WITH BLACK UV RESISTANT TIE STRAPS) AND OR PRE-FABRICATED OR EQUAL APPROVED WIRE ROUTING TRAY SO AS TO BEST CONCEAL AND PROTECT INTER-MODULE HOMERUN WIRING. ALL WIRING TO BE CONCEALED UNDER ARRAY AND/OR IN CONDUIT.
6. ALL HOMERUN WIRE RUNS BETWEEN ROWS SHALL BE MADE IN CONDUIT WITH STRAIN RELIEF FITTING OR WIRE COMPRESSION CLAMP AND CONDUIT PUTTY TO ACT AS BARRIER TO MOISTURE.
7. ALL HOMERUN WIRE RUNS OF LENGTH GREATER THAN 20' SHALL BE MADE FROM NEMA 3R RATED JBOX WITH THINWJ CONDUCTORS IN CONDUIT. CONTRACTOR SHALL VERIFY PROPER VOLTAGE RATINGS OF CONDUCTORS.

FIRE NOTES:

PHOTOVOLTAIC SYSTEMS (SOLAR POWER) REQUIREMENTS.

MAIN SERVICE DISCONNECT:

MARKING SHALL BE PALCED ADJACENT TO THE MAIN SERVICE DISCONNECT IN A LOCATION CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVEL IS OPERATED.

MARKING CONTENT AND FORMAT:

- CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED.
- RED BACKGROUND
- WHITE LETTERING
- MINIMUM 3/16" LETTER HEIGHT
- ALL CAPITAL LETTERS
- AERIAL OR SIMILAR FONT, NON-BOLD
- REFLECTIVE, WEATHER RESISTANT MATERIAL
- SUITABLE FOR THE ENVIRONMENT

CAUTION: SOLAR ELECTRIC SYSTEM

PV SYSTEM MUST BE MARKED. ALL ELECTRICAL PANELS, SHUT-OFFS SHALL BE DESIGNED TO SHUT OFF ALL POWER (SOLAR AND DOMESTIC) AFTER THE PANEL. ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES AND JUNCTION BOXES TO ALERT THE FIRE SERVICES TO AVOID CUTTING THEM. THESE MARKING SHALL BE PLACED EVERY 10 FEET ABOVE OR BELOW PENETRATIONS AND ON ALL DC COMBINER BOXES AND JUNCTION BOXES REQUIRED FOR EACH INVERTER.

- CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED.
- RED BACKGROUND
- WHITE LETTERING
- MINIMUM 3/16" LETTER HEIGHT
- ALL CAPITAL LETTERS
- AERIAL OR SIMILAR FONT, NON-BOLD
- REFLECTIVE, WEATHER RESISTANT MATERIAL
- SUITABLE FOR THE ENVIRONMENT

CAUTION: SOLAR CIRCUIT

ACCESS, PATHWAYS AND SMOKE VENTILATION
ACCESS AND SPACING REQUIREMENTS SHOULD BE OBSERVED IN ORDER TO:

- ENSURE SOLAR PATHWAY ACCESS
- PROVIDE PATHWAYS TO SPECIFIC AREAS TO THE SOLAR PANEL STRUCTURE.
- PROVIDE FOR SMOKE VENTILATION OPPORTUNITIES AREA.
- PROVIDE EMERGENCY EGRESS.

EXCEPTIONS TO THESE REQUIREMENTS MAY BE ALLOWED ON CASE BY CASE BASIS. COMMERCIAL BUILDINGS AND RESIDENTIAL HOUSING COMPRISED OF 3 OR MORE UNITS.

LOCATION OF DIRECT CURRENT (DC) CONDUCTORS

CONDUIT, WIRING SYSTEMS AND RACEWAYS FOR PHOTOVOLTAIC CIRCUITS SHOULD BE LOCATED AS CLOSE AS POSSIBLE TO THE RIDGE OF THE HP OR VALLEY AND FROM THE HP OR VALLEY AS DIRECTED AS POSSIBLE TO THE OUTSIDE WALL TO REDUCE TRIP HAZZARDS AND MAXIMIZE VENTILATION OPPORTUNITIES.

CONDUIT RUNS BETWEEN SUB ARRAYS AND TO DC COMBINER BOXES SHOULD USE DESIGN GUIDELINES THAT MINIMIZE TOTAL AMOUNT OF CONDUIT. BE TAKING THE SHORTEST ROUTE PATH FROM THE ARRAY TO THE DC COMBINER BOX. THE DC COMBINER BOXES ARE TO BE LOCATED SUCH THAT THE CONDUIT RUNS ARE MINIMIZED IN THE PATHWAYS BETWEEN ARRAYS.

MARKINGS AND WARNING LABELS (REQUIREMENTS)

A. PURPOSE: PROVIDES EMERGENCY RESPONDERS WITH APPROPRIATE WARNING AND GUIDANCE WITH RESPECT TO ISOLATING THE SOLAR ELECTRICAL SYSTEM. THIS CAN FACILITATE IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR PANELS TO THE INVERTER AS THESE SHOULD NOT BE CUT WHEN VENTING FOR SMOKE REMOVAL.

B. MAIN SERVICE DISCONNECT:

1. MARKINGS: VERBIAGE, FORMAT AND TYPE OF MATERIAL.

- a. VERBIAGE: CAUTION: SOLAR ELECTRIC SYSTEM CONNECTED.
- b. FORMAT:
 1. WHITE LETTERING ON A RED BACKGROUND.
 2. MINIMUM 3/16 INCHES LETTER HEIGHT.
 3. ALL LETTERS SHALL BE CAPITALIZED.
 4. AERIAL OR SIMILAR FONT, NON-BOLD.
- c. MATERIAL:
 1. REFLECTIVE, WEATHER RESISTANT MATERIAL, SUITABLE FOR THE ENVIRONMENT (USE UL-969 AS STANDARD FOR WEATHER RATING).

REQUIREMENT:

C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, DC COMBINERS AND JUNCTION BOXES.

1. MARKINGS: PLACEMENT, VERBIAGE, FORMAT AND TYPE OF MATERIAL.

D. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES AND CABLE ASSEMBLIES AT TURNS ABOVE AND FOR BELOW PENETRATIONS. ALL DC COMBINERS AND JUNCTION BOXES.

E. VERBIAGE: CAUTION: SOLAR CIRCUIT NOTE: THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO "V.B.3B, C" OF THIS REQUIREMENT.

F. INVERTERS - ARE NOT REQUIRED TO HAVE CAUTION MARKINGS.

ADDITIONAL LABELING NOTES:

1. LABEL: "WARNING:" PHOTOVOLTAIC POWER SOURCE" ON ALL EXPOSED CONDUIT, ENCLOSURES, CABLE ASSEMBLIES, JUNCTION BOXES.
2. LABELS SHALL HAVE WHITE LETTERING WITH RED BACKGROUND.
3. LABELS LETTERING SHALL BE IN ALL CAPITAL LETTERS, AERIAL FONT AND MINIMUM OF 3/16" HEIGHT AND SIZE.
4. MINIMUM SIZE FOR LABELS SHALL BE 4"x4".
5. LABELS SHALL BE REFLECTIVE, WEATHER RESISTANT MATERIAL.
6. ALL PV SYSTEM COMPONENTS SHALL BE LISTED BY A RECOGNIZED TESTING AGENCY.
7. SIGNS SHALL BE POSTED ADJACENT TO EACH PV DISCONNECT AND INVERTER TO INDICATE "PHOTOVOLTAIC SYSTEM".
8. ALL PV MODULES AND ASSOCIATED EQUIPMENT AND WIRING SHALL BE PROTECTED FROM ANY PHYSICAL DAMAGE.
9. ALL FIELD INSTALLED JUNCTION, PULL AND OUTLET BOXES LOCATED BEHIND MODULES OR PANELS SHALL BE ACCESSIBLE DIRECTLY OR BY THE DISPLACEMENT OF ONE MODULE SECURED BY REMOVABLE FASTENERS.

PLUMB PROVIDED FOR

verizon

2785 MITCHELL DRIVE
WALNUT CREEK, CALIFORNIA 94598

PLUMB PROVIDED BY:

MOTIVE
INFRASTRUCTURE
SOLUTIONS

17260 Newhope Street
Fountain Valley, California 92708
tel: 714.752.4262 | fax 949.760.3931

PROJECT TEAM

CONSTRUCTION:
MOTIVE INFRASTRUCTURE SOLUTIONS
ADDRESS: 756 TRADEMARK CIRCLE,
CORONA CALIFORNIA 92879
PHONE: (951) 284-0189

LICENSE #



REVISIONS

REV.	DATE	DESCRIPTION	INIT.
A	11/22/21	90% CD PRELIM	ASU
0	06/14/22	100% CD PRELIM	ASU
1	02/06/23	REVISED 100% CD	ASU

SITE INFORMATION:

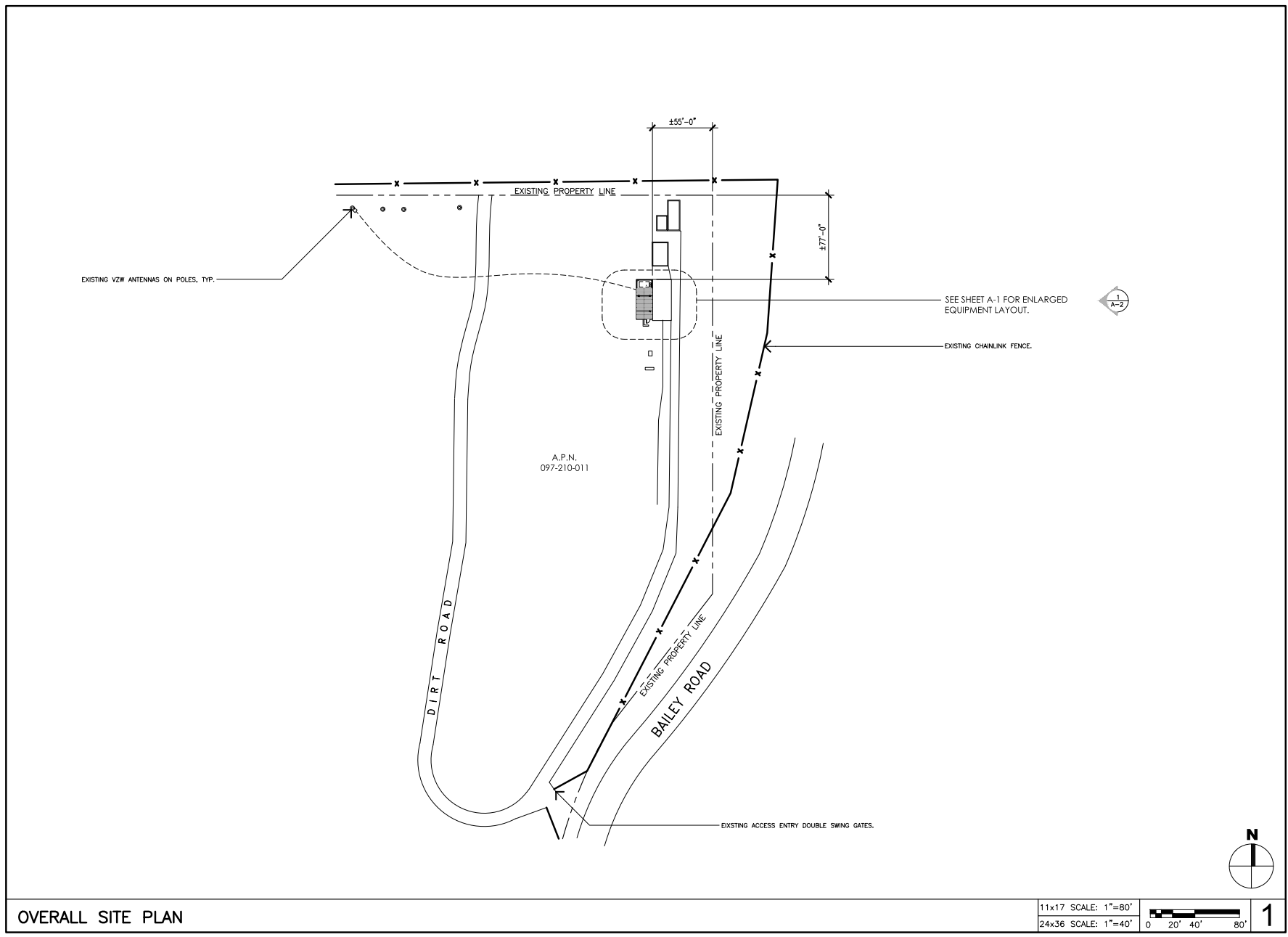
BAILEY ROAD
11000 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

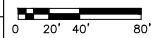
T-2



OVERALL SITE PLAN

11x17 SCALE: 1"=80'

24x36 SCALE: 1"=40'



1

verizon

2785 MITCHELLE DRIVE
WALNUT CREEK, CALIFORNIA 94598

MOTIVE
INFRASTRUCTURE SOLUTIONS

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CORONA CALIFORNIA 92879
PHONE: (951) 284-0189

LICENSED CIVIL ENGINEER

REVISIONS				
REV.	DATE	DESCRIPTION	INIT.	
A	11/22/21	90% CD PRELIM	ASU	
0	06/14/22	100% CD PRELIM	ASU	
1	02/06/23	REVISED 100% CD	ASU	

SITE INFORMATION:

BAILEY ROAD
1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

OVERALL SITE PLAN

SHEET NUMBER:

A-0

EQUIPMENT PLAN KEYNOTES

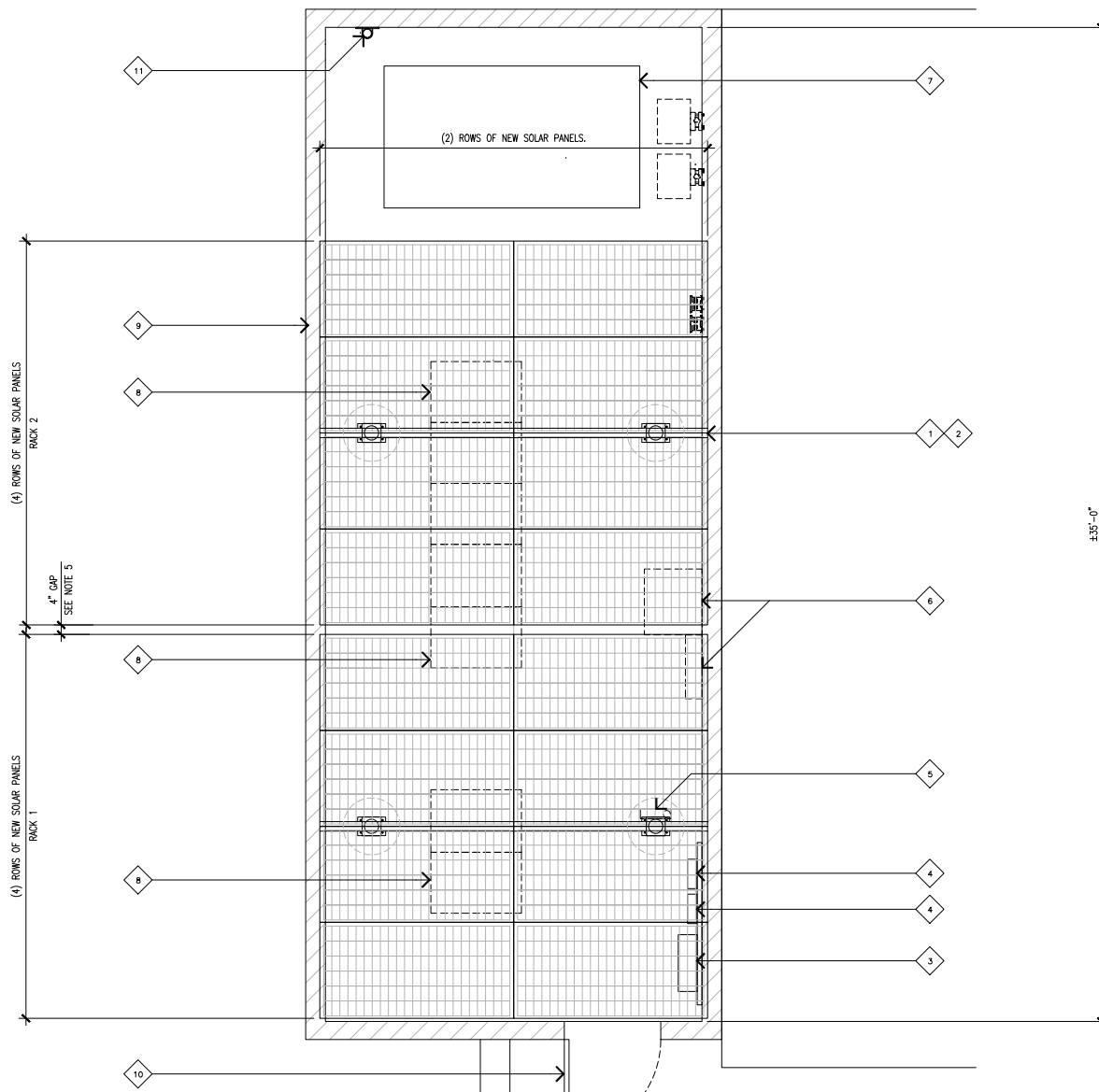
- 1 NEW SOLAR PANELS ABOVE; SEE MANUFACTURER SPECIFICATIONS; SEE DETAIL 1/A-5.
- 2 NEW SOLAR PANEL FRAMING SUPPORT, POST & BRACKETS (BY PREFORMED LINE PRODUCTS) OR APPROVED EQUIVALENT; SEE MANUFACTURER'S SPECIFICATIONS.
- 3 NEW (1) NEMA 3R 24x24x8" TELCO CABINET WITH DIN MOUNTED DC BREAKERS INSIDE, MOUNTED ON NEW H-FRAME; SEE DETAIL 1/A-3.
- 4 NEW (2) SOLAR CHARGE CONTROLLER, MOUNTED ON UNISTRUTS ALONGSIDE NEW TELCO CABINET; SEE DETAIL 1/A-5.
- 5 NEW NEMA 3R COMBINER (MNPV12-250) CABINET WITH SURGE SUPPRESSOR, SEE MANUFACTURER'S SPECIFICATIONS; MOUNTED ON NEW SOLAR CANOPY SUPPORT POST, TYP.; SEE DETAILS 2 & 3/ A-5.
- 6 EXISTING VZW POWER & TELCO CABINETS MOUNTED ON EXISTING H-FRAME.
- 7 EXISTING VZW GENERATOR MOUNTED ON CONCRETE PAD; SEE NOTE 6 BELOW.
- 8 EXISTING VZW BTS EQUIPMENT CABINETS, MOUNTED ON (E) CONC. PAD, TYP.
- 9 (E) CMU BLOCK WALL EQUIPMENT COMPOUND ENCLOSURE.
- 10 (E) SINGLE SWING ACCESS DOOR.
- 11 (E) VZW GPS ANTENNA TO BE RELOCATED TO THIS POSITION (V.I.F.) MUST BE VERTICALLY CLEAR OPEN TO SKY AND MAKE SURE NOT COVERED BY SOLAR PANELS ABOVE.

PROPOSED SOLAR PANELS:

TOTAL NUMBERS: 16
 TOTAL WATTAGE: $430 \times 16 = 6,880$ WATTS
 TOTAL KW: 6.8 KW
 P.V. ARRAY LEASE AREA: 373. SQ. FT.
 (E) VZW LEASE AREA: 531.12 SQ. FT.

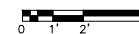
NOTES:

1. EXISTING GPS ANTENNA TO BE RELOCATED & TO BE CLEAR AND MOUNTED ABOVE NEW SOLAR PANELS
2. SOLAR PANEL MOUNTING BRACKETS ARE ONLY GRAPHICAL ILLUSTRATION & FOR REFERENCE ONLY. CONTRACTOR TO REFER TO SOLAR PANEL MANUFACTURER SPECIFICATIONS, BRACKET SUPPORTS & HORIZ. POST WITH CONC. FOOTING TO BE VERIFIED IN FIELD & WITH MANUFACTURER'S RECOMMENDATIONS.
3. SOLAR PANEL ARRAY TILT ANGLE TO BE APPROXIMATELY 10 DEG TOWARDS THE SOUTH.
 * 5 DEG. (MIN)
 * 15 DEG. (MAX)
4. SOLAR PANEL ARRAY TO COMPLETELY COVER ALL OF THE NETWORK EQUIPMENT CABINETS SO AS TO PROTECT THEM FROM WEATHER.
5. CONTRACTOR SHALL CHECK FOR DRAINAGE AND SUPPLY AND INSTALL VINYL GUTTER AS NEEDED OR REQUIRED ALONG THE LOWER EDGE OF THE TRANSITION FROM THE HIGHER ARRAY TO THE LOWER ARRAY SO THAT WATER DOES NOT DRAIN BETWEEN THE ARRAYS.
6. CONTRACTOR SHALL RE-ROUTE GENERATOR EXHAUST SYSTEM, AS REQUIRED, HORIZ. TO AVOID DIRECT UPWARD EXHAUST TO NEW SOLAR PANELS.
7. CONTRACTOR TO VERIFY ALL FIELD DIMENSIONS BEFORE START OF CONSTRUCTION AND MATERIALS FABRICATION.



PROPOSED SOLAR CANOPY EQUIPMENT PLAN

11X17 SCALE: 1/4"=1'-0"
 24X36 SCALE: 1/2"=1'-0"



PLANS PREPARED FOR

verizon

2785 MITCHELLE DRIVE
 WALNUT CREEK, CALIFORNIA 94598

PLANS PREPARED BY

MOTIVE
 INFRASTRUCTURE SOLUTIONS

17260 Newhope Street
 Fountain Valley, California 92708
 tel 714.752.4262 | fax 949.760.3931

PROJECT TEAM

CONSTRUCTION:
 MOTIVE INFRASTRUCTURE SOLUTIONS
 ADDRESS: 755 TRADEMARK CIRCLE,
 CORONA CALIFORNIA 92879
 PHONE: (951) 284-0189

LICENSE STAMP

REGISTERED PROFESSIONAL ENGINEER
 NISAM ZALZAL
 C 71655
 CIVIL
 STATE OF CALIFORNIA

REVISIONS				
REV.	DATE	DESCRIPTION	INIT.	
A	11/22/21	90% CD PRELIM	ASU	
0	06/14/22	100% CD PRELIM	ASU	
1	02/06/23	REVISED 100% CD	ASU	

SITE INFORMATION:

BAILEY ROAD
 1100 BAILEY ROAD
 PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

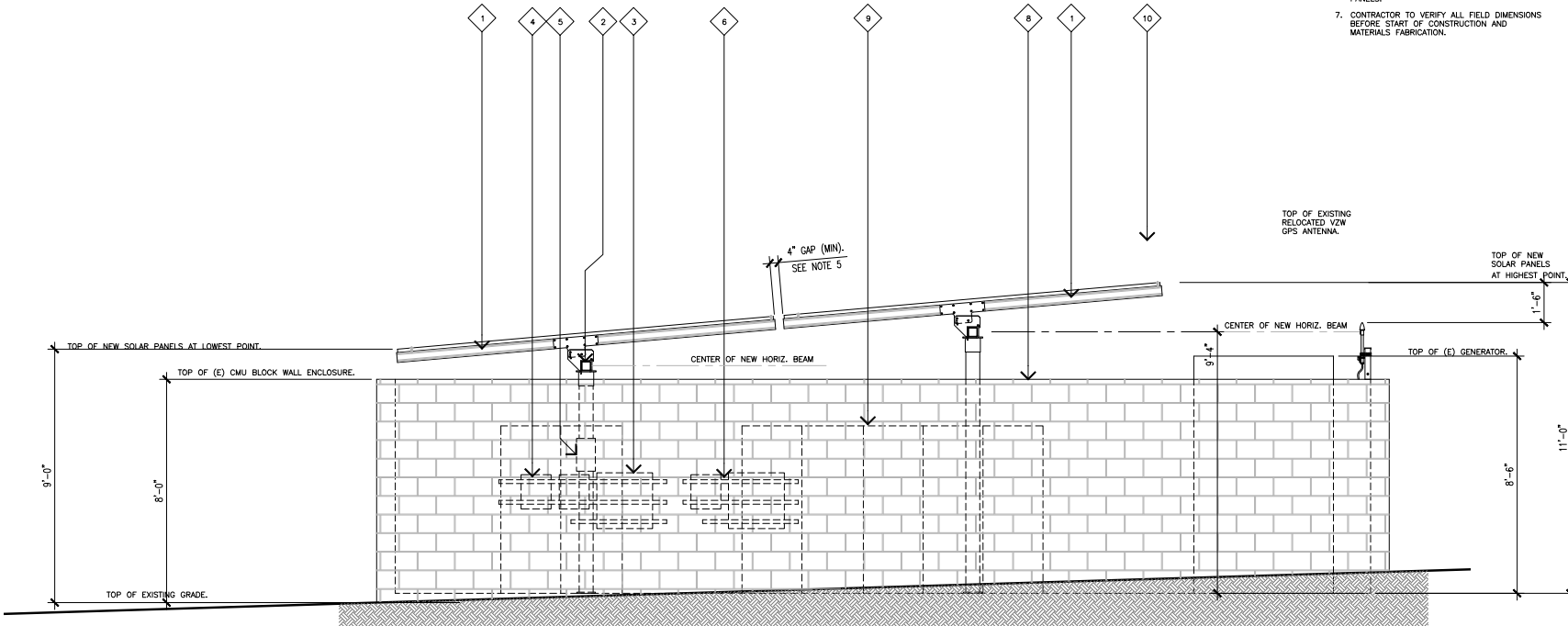
**SOLAR CANOPY
 EQUIPMENT PLAN**

SHEET NUMBER:

A-1

ELEVATION KEYNOTES

- 1 NEW SOLAR PANELS ABOVE; SEE MANUFACTURER SPECIFICATIONS; SEE DETAIL 1/A-5.
- 2 NEW SOLAR PANEL FRAMING SUPPORT, POST & BRACKETS (BY PREFORMED LINE PRODUCTS) OR APPROVED EQUIVALENT; SEE MANUFACTURER'S SPECIFICATIONS.
- 3 NEW (1) NEMA 3R 24x24x8" TELCO CABINET WITH DIN MOUNTED DC BREAKERS INSIDE, MOUNTED ON NEW H-FRAME; SEE DETAIL 1/A-3.
- 4 NEW (2) SOLAR CHARGE CONTROLLER, MOUNTED ON UNISTRUTS ALONGSIDE NEW TELCO CABINET; SEE DETAIL 1/A-5.
- 5 NEW NEMA 3R COMBINER (MNPV12-250) CABINET WITH SURGE SUPPRESSOR, SEE MANUFACTURER'S SPECIFICATIONS; MOUNTED ON NEW SOLAR CANOPY SUPPORT POST, TYP.; SEE DETAILS 2 & 3/ A-5.
- 6 EXISTING VZW POWER & TELCO CABINETS MOUNTED ON EXISTING H-FRAME.
- 7 EXISTING VZW GENERATOR MOUNTED ON CONCRETE PAD; SEE NOTE 6.
- 8 EXISTING CMU BLOCK WALL EQUIPMENT COMPOUND ENCLOSURE.
- 9 EXISTING VZW BTS EQUIPMENT CABINETS, MOUNTED ON EXISTING CONC. PAD, TYP.
- 10 EXISTING VZW RELOCATED GPS ANTENNA.



EAST ELEVATION

PROPOSED SOLAR PANELS:

TOTAL NUMBERS: 16
TOTAL WATTAGE: 430x16 = 6,880 WATTS
TOTAL KW: 6.8 KW
P.V. ARRAY LEASE AREA: 373. SQ. FT.
(E) VZW LEASE AREA: 531.12 SQ. FT.

NOTES:

1. EXISTING GPS ANTENNA TO BE RELOCATED & TO BE CLEAR AND MOUNTED ABOVE NEW SOLAR PANELS
2. SOLAR PANEL MOUNTING BRACKETS ARE ONLY GRAPHICAL ILLUSTRATION & FOR REFERENCE ONLY. CONTRACTOR TO REFER TO SOLAR PANEL MANUFACTURER SPECIFICATIONS, BRACKET SUPPORTS & HORIZ. POST WITH CONC. FOOTING TO BE VERIFIED IN FIELD & WITH MANUFACTURER'S RECOMMENDATIONS.
3. SOLAR PANEL ARRAY TILT ANGLE TO BE APPROXIMATELY 10 DEG TOWARDS THE SOUTH.
* 5 DEG. (MIN)
* 15 DEG. (MAX)
4. SOLAR PANEL ARRAY TO COMPLETELY COVER ALL OF THE NETWORK EQUIPMENT CABINETS SO AS TO PROTECT THEM FROM WEATHER.
5. CONTRACTOR SHALL CHECK FOR DRAINAGE AND SUPPLY AND INSTALL VINYL GUTTER AS NEEDED OR REQUIRED ALONG THE LOWER EDGE OF THE TRANSITION FROM THE HIGHER ARRAY TO THE LOWER ARRAY SO THAT WATER DOES NOT DRAIN BETWEEN THE ARRAYS.
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7. CONTRACTOR TO VERIFY ALL FIELD DIMENSIONS BEFORE START OF CONSTRUCTION AND MATERIALS FABRICATION.

PLANT PROVIDED FOR

verizon

2785 MITCHELL DRIVE
WALNUT CREEK, CALIFORNIA 94598

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BAILEY ROAD
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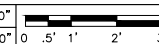
DETAILS

SHEET NUMBER:

A-2

11x17 SCALE: 3/8"=1'-0"

24x36 SCALE: 3/4"=1'-0"



1

EQUIPMENT PLAN KEYNOTES

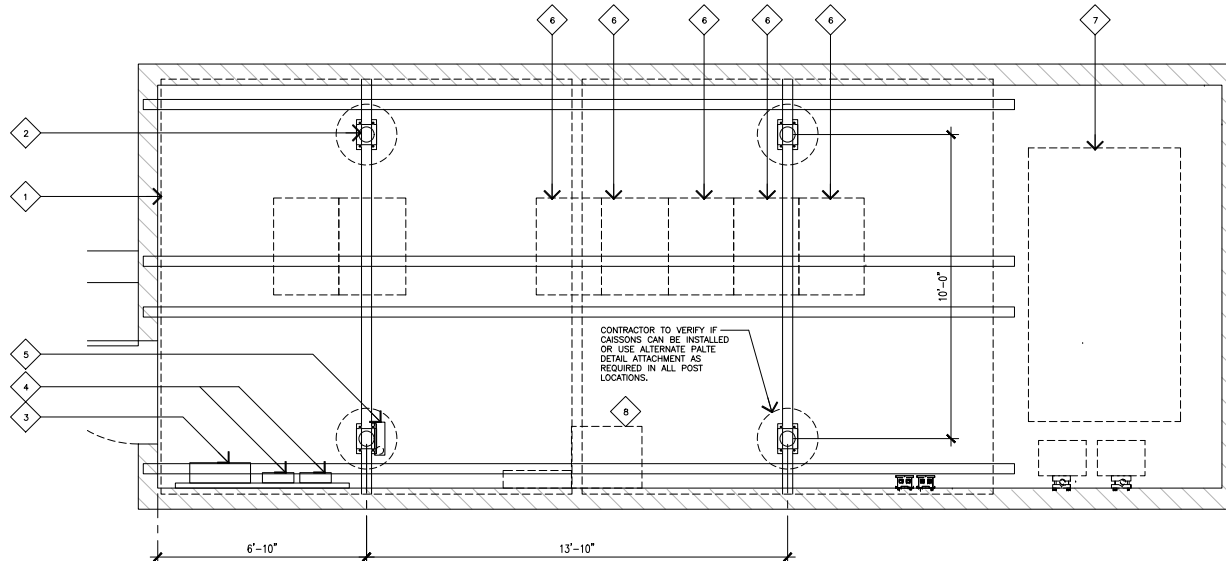
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- 6 EXISTING VZW BTS EQUIPMENT CABINETS, MOUNTED ON EXISTING CONC. PAD, TYP.
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- 8 EXISTING VZW POWER & TELCO CABINETS MOUNTED ON EXISTING H-FRAME.
- 9 EXISTING CMU BLOCK WALL EQUIPMENT ENCLOSURE.

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TOTAL NUMBERS: 16
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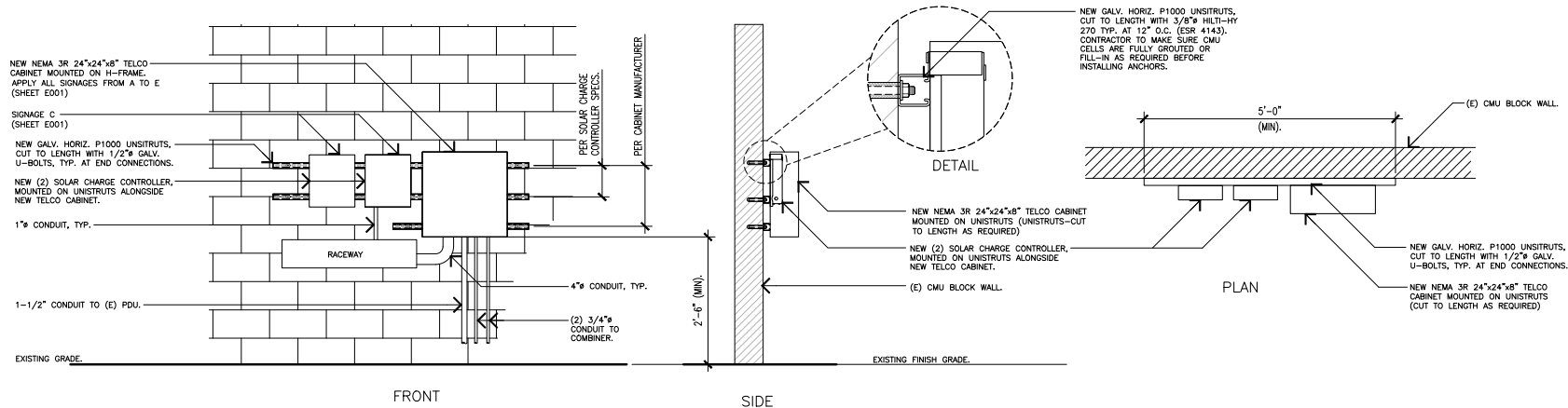
1. EXISTING GPS ANTENNA TO BE RELOCATED & TO BE CLEAR AND MOUNTED ABOVE NEW SOLAR PANELS
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7. CONTRACTOR TO VERIFY ALL FIELD DIMENSIONS BEFORE START OF CONSTRUCTION AND MATERIALS FABRICATION.



FRAMING SUPPORT PLAN

11X17 SCALE: 1/4"=1'-0"
 24X36 SCALE: 1/2"=1'-0"

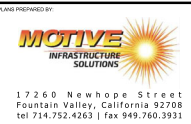
ALL NEW SOLAR MEMBERS WILL BE HOT DIPPED.
 2



H-FRAME DETAIL

11X17 SCALE: 1/4"=1'-0"
 24X36 SCALE: 1/2"=1'-0"

0 1' 2' 4'
 1



PROJECT TEAM

CONSTRUCTION:
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1	02/06/23	REVISED 100% CD	ASU

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BAILEY ROAD
 1100 BAILEY ROAD
 PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

DETAILS

SHEET NUMBER:

A-3



MULTI-POLE MOUNT - G2

ASSEMBLY INSTRUCTIONS

step-by-step
assembly and installation

STEP 3: ASSEMBLE THE RAIL SET ASSEMBLIES
RAIL SET ASSEMBLIES INCLUDE A POWER RAIL, RAIL
BRACKET, AND A STRONGBACK BRACKET (SEE FIG. 3-1).

ATTACH THE RAIL BRACKETS TO THE RAIL

THE POWER RAIL IS SECURED TO THE RAIL
BRACKETS USING 5/16" x 1" CARRIAGE BOLTS
AND FLANGE NUTS. BE CERTAIN TO ORIENT THE
RAIL BRACKET TO THE POWER RAIL AS SHOWN IN
FIG. 3-2. IN PARTICULAR, TAKE NOTE ON THE
RELATIONSHIP OF THE PIVOT HOLE TO THE N-S
DIRECTIONS.

- ALONG ITS LENGTH, MEASURE AND MARK THE
CENTERS OF THE POWER RAIL AND THE RAIL
BRACKET (SEE FIG. 3-4).
- PRE-LOAD EIGHT 5/16" x 1" CARRIAGE BOLTS
INTO THE CHANNELS OF THE POWER RAIL (FOUR
IN THE UPPER CHANNEL AND FOUR IN THE
LOWER CHANNEL). SEE FIG. 3-3.
- MOUNT THE RAIL BRACKET ONTO THE EIGHT
CARRIAGE BOLTS ALONGING THE CENTER MARK ON
THE RAIL BRACKET TO THE CENTER MARK ON THE
POWER RAIL. SECURE WITH FLANGE NUTS. TORQUE
TO 14-16FT.-lbs. (SEE FIG. 3-4).

CAUTION:
USE CARE WHILE WORKING AROUND THE STRUCTURE
DURING ASSEMBLY. THERE COULD BE COMPONENTS
THAT CREATE HAZZARDS OR OBSTRUCT FREE
MOVEMENT CAUSING SERIOUS BODILY INJURY. MANY ARE
AT HEAD/EYE LEVEL. MOVE SLOWLY AND WITH CARE
AROUND THE WORK AREA.

NOTE:
BE SURE THAT THE RAIL BRACKET IS PROPERLY
ORIENTED TO THE POWER RAIL.

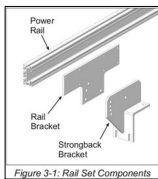


Figure 3-1: Rail Set Components

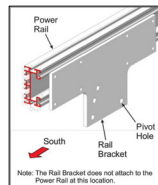


Figure 3-2: Orientation of Power Rail to Rail Bracket

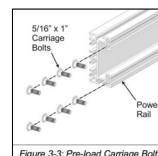


Figure 3-3: Pre-load Carriage Bolts

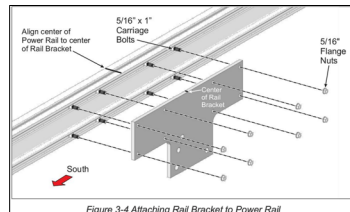


Figure 3-4: Attaching Rail Bracket to Power Rail

ATTACH THE STRONGBACK BRACKET TO THE RAIL BRACKET
ALTHOUGH THE DESIGN OF THE RAIL AND STRONGBACK
BRACKETS ALLOWS FOR NINE TILT ANGLES
ACCOMMODATING SEASONAL TILT ADJUSTMENTS (10
THROUGH 85 DEGREES), FOR EASE OF ASSEMBLY AND
SAFETY, IT'S RECOMMENDED TO SET THE TILT AT 0 DEG.
DURING THE ASSEMBLY PROCESS. AFTER THE ASSEMBLY
IS COMPLETE, THE TILT ANGLE CAN BE ADJUSTED TO
THE INSTALLATION/ SEASON SPECIFIC TILT. THE
TILT ANGLES ARE SET BY THE USE OF A
COMBINATION OF NINE DIFFERENT CLOCK SETTINGS VIA
SEVEN HOLES (USED TO LOCK THE TILT) AND
ORIGINATING FROM THE PIVOT BOLT HOLES OF THE
STRONGBACK AND RAIL BRACKETS. FIGURE 3-5
DEMONSTRATES THIS BY SHOWING THE HOLE
COMBINATION 3 & 5 WHICH CREATES A 0-DEG TILT.
MORE INFORMATION ON TILT ANGLES CAN BE FOUND IN
THE FINAL SECTION OF THESE INSTRUCTIONS.
THE STRONGBACK BRACKET IS ATTACHED TO THE RAIL
BRACKET USING A PIVOT BOLT AND FLANGE NUT AND A
LOCK BOLT AND HARDWARE.

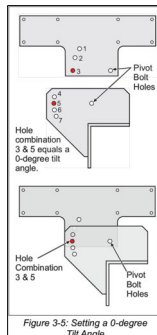


Figure 3-5: Setting a 0-degree Tilt Angle

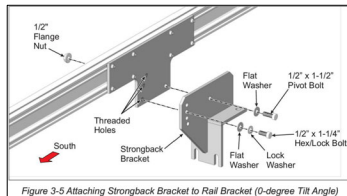


Figure 3-5: Attaching Strongback Bracket to Rail Bracket (0-degree Tilt Angle)

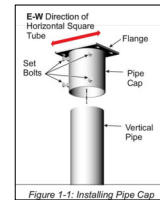


Figure 1-1: Installing Pipe Cap

ASSEMBLY INSTRUCTION:

STEP 1: INSTALL PIPE CAP ON VERTICAL PIPES

BEFORE INSTALLING PIPE CAPS, VERIFY THAT ALL
VERTICAL PIPES ARE LEVEL TO ONE ANOTHER.
INSTALL ONE PIPE CAP ON EACH VERTICAL PIPE. THE PIPE
CAPS HAVE THREE OR FOUR SET BOLTS EACH TO SECURE
THE PIPE CAPS TO THE VERTICAL PIPE. (SEE FIG. 1-1).

- SLIP THE PIPE CAP ON TOP OF THE VERTICAL
PIPE AND SLIDE IT DOWN UNTIL IT RESTS/
BOTTOMS OUT ON TOP OF THE VERTICAL PIPE.
- ROTATE THE PIPE CAP SO THAT THE LONG DIMENSION
OF THE FLANGE IS ALIGNED IN THE E-W DIRECTION.
- FOR NOW, FINGER TIGHTEN THE THREE OR FOUR SET
BOLTS SO THAT THE PIPE CAP IS FREE TO ROTATE
AS NEEDED FOR STEP 2.

CAUTION:
BEFORE ASSEMBLY, BE CERTAIN THAT THE VERTICAL
PIPE INSTALLATION HAS MET THE PROJECT
REQUIREMENTS AND THE CONCRETE FOOTINGS HAVE
FULLY CURED.

NOTE:
FOR FOUNDATION AND PIPE RECOMMENDATIONS, FILL
OUT THE MPM RFO FORM AND EMAIL TO:
INFO@PLSOLAR.COM

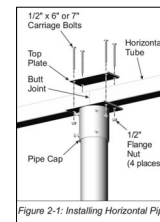


Figure 2-1: Installing Horizontal Pipe

STEP 2: INSTALL THE HORIZONTAL TUBE

THE HORIZONTAL TUBES ARE SECURED TO THE PIPE
CAPS USING A TOP PLATE ALONG WITH FOUR CARRIAGE
BOLTS AND FLANGE NUTS. THE TUBES HAVE BEEN CUT
TO LENGTH TO MATCH THE SPANS OF THE PREVIOUSLY
INSTALLED VERTICAL PIPES. THE ENDS OF THE TUBES
ARE BUTTED TO EACH OTHER ON TOP OF EACH PIPE
CAP (SEE FIG. 2-1).

- LIFT AND POSITION THE HORIZONTAL TUBES ONTO
THE PIPE CAPS, CREATING A BUTT JOINT
CENTERED (+/- 1") OVER THE PIPE CAP.
- INSTALL THE TOP PLATE, SECURING IT TO
THE PIPE CAP WITH FOUR 1/2" x 6" OR 7"
CARRIAGE BOLTS AND FLANGE NUTS. TORQUE
TO 55-60FT.-lbs.
- TIGHTEN THE THREE OR FOUR SET BOLTS ON
EACH PIPE CAP. TORQUE TO 32-34FT.-lbs. FOR
3/8" HARDWARE OR 55-60FT.-lbs FOR 1/2"
HARDWARE.
- REPEAT FOR ALL REMAINING PIPE CAPS.

WARNING:
THIS IS A 2 PERSON ACTIVITY. THE HORIZONTAL
SQUARE PIPES ARE HEAVY AND UNSTABLE BEFORE
SECURED. ONE PERSON SHOULD HOLD THE PIPE
WHILE THE OTHER SECURES IT TO THE MOUNTING
SLEEVES. FAILURE TO DO SO COULD LEAD TO
SERIOUS PERSONAL INJURY.

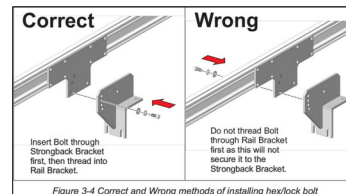


Figure 3-4: Correct and Wrong methods of installing hex/lock bolt

BE CERTAIN TO INSERT 1/2" x 1-1/4" HEX/LOCK BOLT
AS SHOWN IN FIG. 3-4. IF THE HEX/LOCK BOLT IS
INSERTED FROM THE OPPOSITE SIDE, IT WILL NOT
SECURE THE RAIL BRACKET TO THE STRONGBACK
BRACKET CREATING AN UNSTABLE RACK.

WARNING:
THE RAIL BRACKET MUST BE SECURED TO THE
STRONGBACK BRACKET USING THE HEX/LOCK BOLT AS
SHOWN IN FIGURE 3-4. FAILURE TO DO SO COULD
LEAD TO STRUCTURAL FAILURE AND/OR PERSONAL
INJURY.

- ALIGN THE PIVOT BOLT HOLES AND INSERT THE
1/2" x 1-1/2" PIVOT BOLT WITH FLAT WASHER,
SECURING WITH A 1/2" FLANGE NUT. FINGER
TIGHTEN ONLY FOR NOW. (SEE FIG. 3-5).
- ROTATE THE STRONGBACK BRACKET TO ALIGN THE
3 & 5 HOLE COMBINATION. REFERRING TO
FIGURES 3-4 AND 3-5, INSERT THE 1/2" x
1-1/4" HEX/LOCK BOLT WITH FLAT LOCK
WASHERS AND TIGHTEN SECURELY. TORQUE TO
45-50FT.-lbs.
- RETURN AND TIGHTEN THE PIVOT BOLT. TORQUE
TO 45-50FT.-lbs.

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REGISTERED PROFESSIONAL ENGINEER
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SHEET TITLE:

SPECIFICATIONS

SHEET NUMBER:

A-4

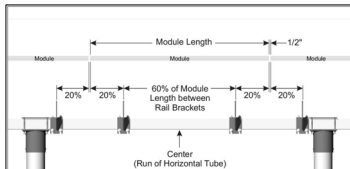


Figure 4-2: Establishing Position and Spacing of Rail Set Assemblies - for an install with an Odd number of Rail Sets

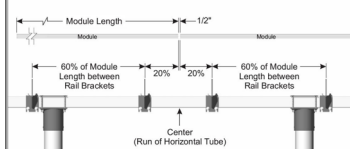


Figure 4-3: Establishing Position and Spacing of Rail Set Assemblies - for an install with an Even number of Rail Sets

HOW TO WORK AROUND THE PIPE CAPS:

THERE WILL LIKELY BE SITUATIONS WHERE THE PLACEMENT OF THE RAIL SET ASSEMBLY (USING THE GUIDELINES ABOVE) IS SUCH THAT THE ASSEMBLY LANDS TOO CLOSE TO OR ON TOP OF A PIPE CAP/ TOP PLATE IN SUCH A MANNER AS TO PREVENT THE ASSEMBLY FROM BEING PROPERLY INSTALLED. IF THIS OCCURS, THE RAIL SET ASSEMBLY MUST BE REPOSITIONED IN ORDER TO AVOID THE PIPE CAP AND ALLOW PROPER ATTACHMENT OF THE ASSEMBLY TO THE HORIZONTAL PIPE. IF REPOSITIONING IS REQUIRED, IT MUST BE DONE IN SUCH A WAY THAT THE RAIL SET ASSEMBLY IS REPOSITIONED AS CLOSE AS IS POSSIBLE TO THE PIPE CAP WHILE STILL ALLOWING FOR PROPER ATTACHMENT TO THE HORIZONTAL TUBE. (SEE FIG. 4-4).

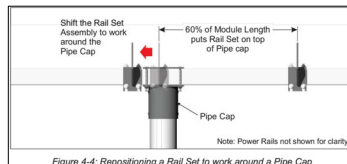


Figure 4-4: Repositioning a Rail Set to work around a Pipe Cap

ATTACHING THE RAIL SETS TO THE HORIZONTAL TUBE: BEFORE INSTALLING PIPE CAPS, VERIFY THAT ALL VERTICAL PIPES ARE LEVEL TO ONE ANOTHER.

- USING THE TAPE MEASURE, MARK THE PRE-DETERMINED LOCATIONS OF THE RAIL SETS ON THE HORIZONTAL TUBE USING THE INSTRUCTIONS OUTLINED ABOVE. (SEE FIG. 4-5).
- PLACE THE RAIL SET ON TOP OF THE HORIZONTAL TUBE, ALIGNING IT TO ITS MARK MADE IN STEP A. ABOVE.
- FROM BELOW, INSERT THE TWO 1/2" L-BOLTS INTO THE TWO HOLES OF THE RAIL BRACKET GUIDING THE OPPOSITE ENDS INTO THE TWO NOTCHES ON THE OPPOSITE SIDE OF THE RAIL BRACKET, LOOSELY THREAD TWO 1/2" FLANGE NUTS ON EACH OF THE L-BOLTS.
- CONTINUE TO TIGHTEN THE FLANGE NUTS, ALTERING BETWEEN THE FOUR SO THE L-BOLTS AND RAIL BRACKET ARE DRAWN EVENLY AGAINST THE HORIZONTAL PIPE. (SEE FIG. 4-6) TORQUE ALL FOUR TO 45-50ft-lbs.

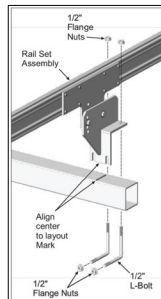


Figure 4-5: Attaching the Rail Set to the Horizontal Tube

WARNING:
THIS IS A 2 PERSON ACTIVITY. THE HORIZONTAL SQUARE PIPES ARE HEAVY AND UNSTABLE BEFORE SECURED. ONE PERSON SHOULD HOLD THE PIPE WHILE THE OTHER SECURES IT TO THE MOUNTING SLEEVES. FAILURE TO DO SO COULD LEAD TO SERIOUS PERSONAL INJURY.

STEP 6: CHANGE THE TILT ANGLE OF THE ARRAY

THIS PROCEDURE CAN BE DANGEROUS IF IT IS NOT COMPLETED AS DESCRIBED WITH A MINIMUM OF TWO PEOPLE SO USE GREAT CARE. THE PROCESS INVOLVES LOOSENING THE PIVOT BOLT AND THE TEMPORARY REMOVAL OF THE LOCK BOLT. WHEN THE LOCK BOLT IS REMOVED, THE RACK BECOMES UNSTABLE AND MUST BE HELD IN PLACE BY A SECOND PERSON. AS DISCUSSED IN STEP 3, THE TILT ANGLE IS SET BY A SPECIFIC HOLE COMBINATION WHICH IS UNIQUE TO THE DESIRED TILT ANGLE. THE HOLE COMBINATION IS DERIVED BY A SERIES OF THREE THREADED HOLES IN THE RAIL BRACKET AND FOUR HOLES IN THE STRONGBACK BRACKET (SEE FIGURE 6-1). FOR EXAMPLE, IF A 40-DEGREE TILT IS DESIRED, THE HOLE COMBINATION WOULD BE 2 & 7. THE TABLE IN FIGURE 6-1 DEFINES THE NINE POSSIBLE TILT ANGLES AND THEIR RESPECTIVE HOLE COMBINATIONS.

Set	Hole Combination	Tilt Angle in Degrees
1	3 & 5	0 (used during assembly of rack)
2	2 & 4	10
3	2 & 5	20
4	1 & 4	25
5	2 & 6	30
6	1 & 5	35
7	2 & 7	40
8	1 & 6	45
9	1 & 7	55

Figure 6-1: Determining Hole Combinations for Specific Tilt Angles

- WHILE ONE PERSON HOLDS THE SOUTH EDGE OF RACK, THE OTHER LOOSENS THE PIVOT BOLT AND REMOVES THE 1/2" LOCK BOLT AND HARDWARE FROM THE STRONGBACK BRACKET. (SEE FIGURE 6-2)
- TLT THE RACK TO THE APPROPRIATE HOLE COMBINATION MATCHING THE DESIRED TILT AND RE-INSTALL THE 1/2" LOCK BOLT AND HARDWARE, PASSING IT THROUGH THE STRONGBACK BRACKET AND INTO THE THREADED HOLE OF THE RAIL BRACKET. TORQUE TO 45-50 FT-LBS.
- RE-TIGHTEN THE PIVOT BOLT AS THE PIVOT BOLT CANNOT BE LEFT LOOSE. THE RAIL BRACKET AND STRONGBACK BRACKET MUST BE FIRMLY CLAMPED TO ONE ANOTHER ELIMINATING ANY GAPS BETWEEN THEM. TORQUE TO 45-50 FT-LBS.

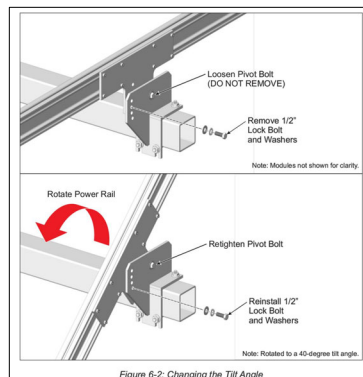


Figure 6-2: Changing the Tilt Angle

WARNING:
DO NOT ATTEMPT TO REMOVE THE PIVOT BOLT DURING TILT ADJUSTMENT! REMOVAL COULD LEAD TO SERIOUS PERSONAL INJURY OR DEATH. ADJUSTMENTS ARE MADE WITH THE PIVOT BOLT HARDWARE LOOSEENED BUT IN PLACE.

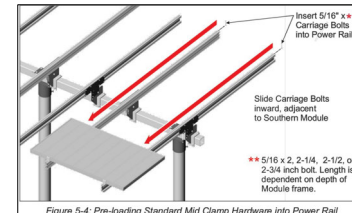


Figure 5-4: Pre-loading Standard Mid Clamp Hardware into Power Rail

NOW INSTALL THE NEXT IN-LINE MODULE USING MID CLAMPS:

- BEFORE PLACING THE INTERIOR MODULE ONTO THE POWER RAILS, FIRST INSERT TWO (ONE IN EACH POWER RAIL CHANNEL) 5/16" x 2, 2-1/4, 2-1/2, OR 2-3/4" CARRIAGE BOLTS (BOLT LENGTH IS DEPENDENT ON DEPTH OF MODULE FRAME) INTO THE MODULE RAIL, SLIDING THE BOLTS INWARD NEXT TO THE PREVIOUSLY INSTALLED EXTERIOR MODULE. (SEE FIG. 5-4).
- INSTALL A MID CLAMP ONTO EACH CARRIAGE BOLT MAKING CERTAIN THAT THE MID CLAMP TABS REST BETWEEN THE TWO MODULES.
- PUSH MODULES AGAINST MID CLAMP TABS AND SECURE MID CLAMP WITH 5/16" FLANGE NUT. TORQUE TO 14-16ft-lbs. (SEE FIG 5-2 AND 5-5).

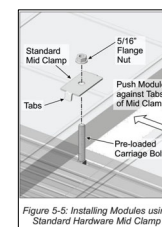


Figure 5-5: Installing Modules using Standard Hardware Mid Clamp

WARNING:
THE TABS OF THE MID CLAMPS MUST REST BETWEEN THE MODULES. FAILURES TO DO SO COULD LEAD TO SERIOUS PERSONAL INJURY AND/OR DAMAGED COMPONENTS AND PROPERTY.

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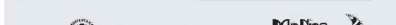
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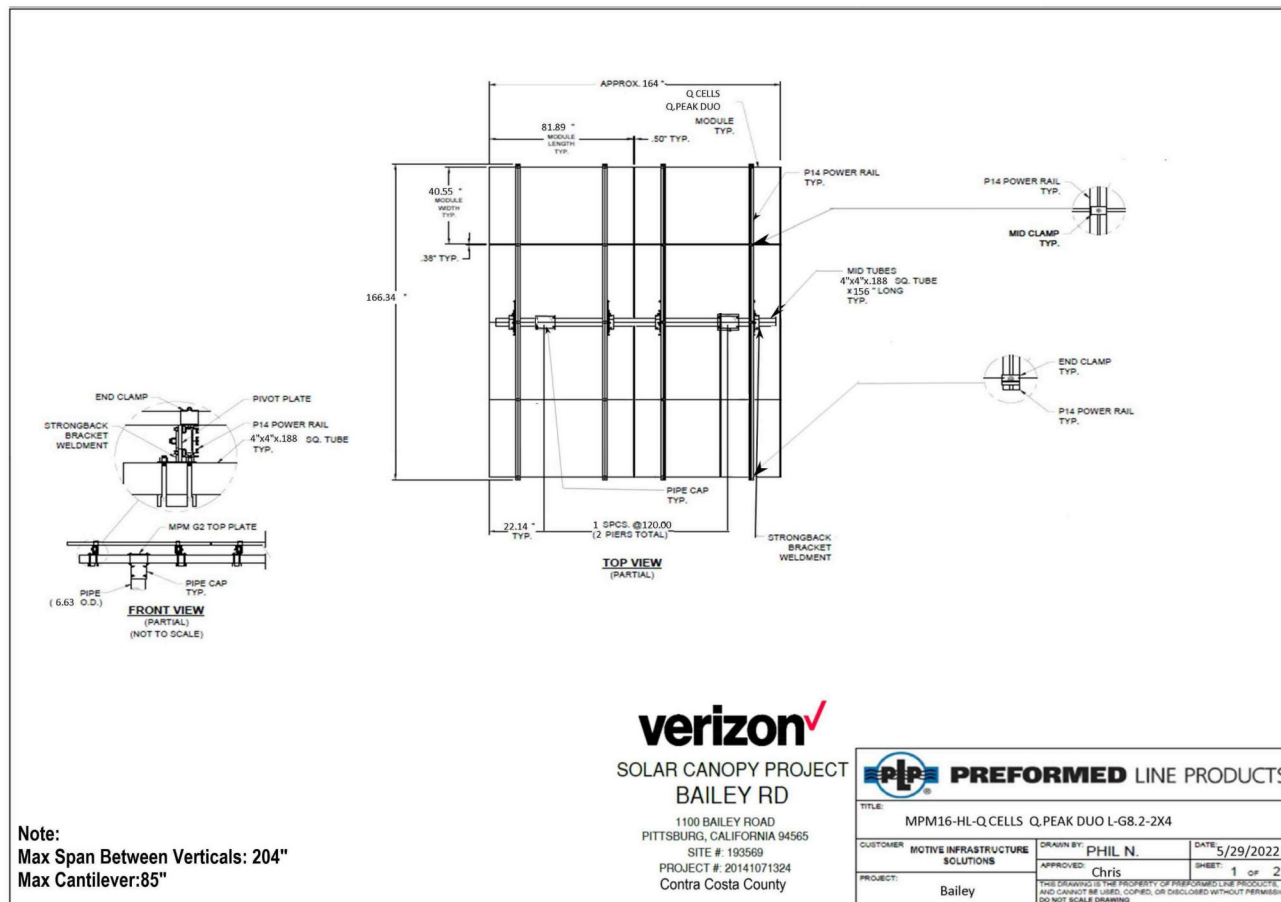
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The diagram illustrates the FLEXmax 100 power system architecture. At the top, a solar panel is connected to a 'PV MODULE'. This module is connected to a 'MAX POWER POINT TRACKER' (MPPT) box. The MPPT box is connected to a 'DC/AC INVERTER' box. The inverter is connected to a 'GRID' (represented by a lightning bolt icon) and a 'NEW FURNACE' (represented by a furnace icon). The inverter also has a 'LOAD' and 'SUN PANEL' connected to it. A 'REVERSE' arrow points from the inverter back to the PV module.

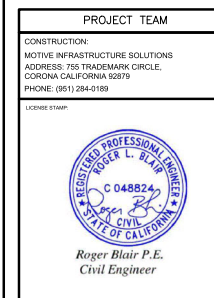
Midstate Surge Protection Devices				
SPR-100	MSPPD-115 0 to 115 VDC	MSPPD-300-AC 0 to 310 VAC	MSPPD-300-DC 0 to 300 VDC	MSPPD-2400 0 to 2400 VDC
Normal Voltage	100 VDC	300 VAC	300 VDC	2400 VDC
MOV	750V (145-175)	475V (425-517)	475V (425-517)	1200V (1000-1500)
Clamp Voltage @ 100A	205V	775V	775V	1260V
Energy Absorption	205 J (Block Device)	3130 J (Full Device)	3130 J (Block Device)	4220 J (Full Device)
Energy Inlet	205 J (Block Device)	1550 J (Block Device)	1550 J (Block Device)	2140 J (Block Device)
Up to 100 VDC circuits	120 to 100 VDC	120 to 100 VDC	Off-line or combines Charge controller up to 300 VDC	2140 VDC circuits Off-line or combines Charge controller up to 2400 VDC
Supported Placement	120, 240, 480 VDC battery or solar			2140 VDC inverters Non-isolated inverters
Diagnostic: 100 mA LED MSPPD-115, MSPPD-300-AC, and MSPPD-300-DC LED indicates when voltage is present between L1-Ground and L2-Ground MSPPD-2400 LED indicates when voltage is present between L1-L2 (P-N)				
Thermal Dissipation: Indefinite				
Response time	< 1 micro sec.			

300VDC breakers are available from Altkidite Solar up to 50 amps per string.





Note:
Max Span Between Verticals: 204"
Max Cantilever: 85"

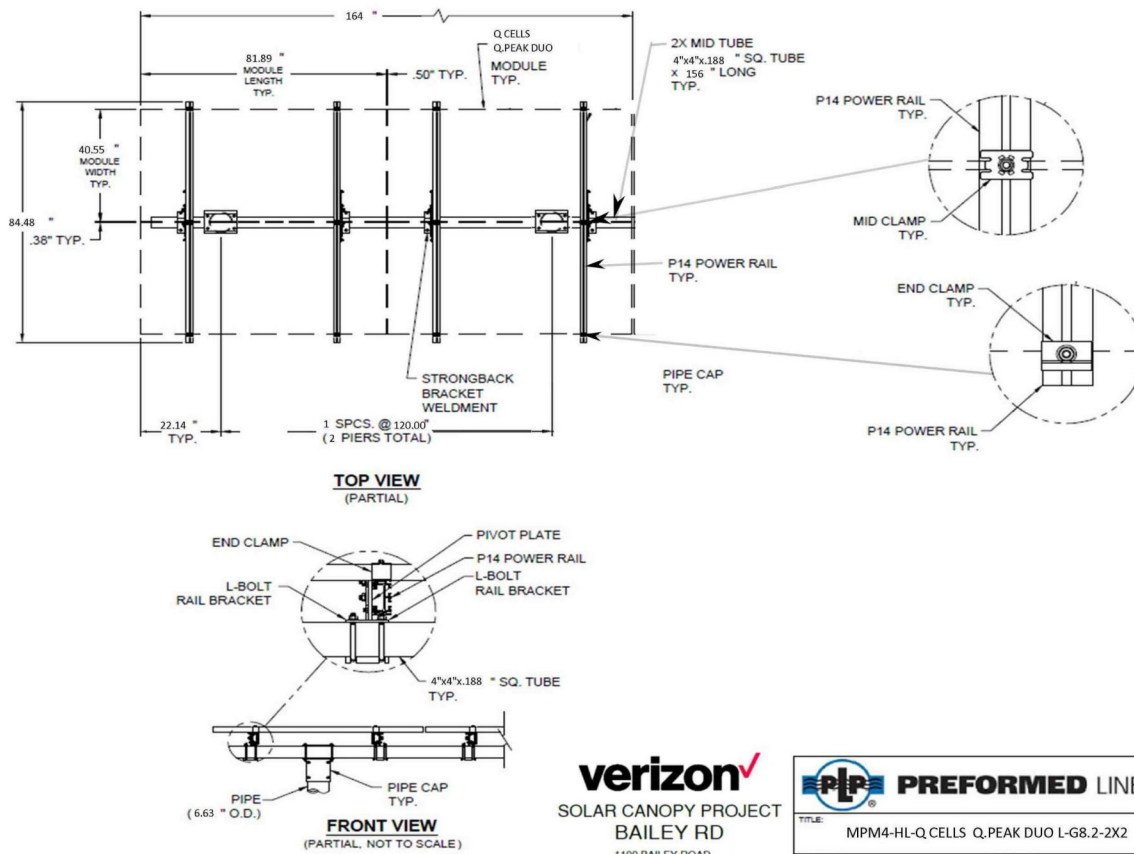


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1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:
SOLAR ARRAY
(RACK No. 1)

SHEET NUMBER:
S-1



Note:
 Max Span Between Verticals: 201"
 Max Cantilever: 84"

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 SOLAR CANOPY PROJECT
 BAILEY RD
 1100 BAILEY ROAD
 PITTSBURG, CALIFORNIA 94565
 SITE #: 190569
 PROJECT #: 20141071394
 Contra Costa County

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TITLE: MPM4-HL-Q CELLS Q.PEAK DUO L-G8.2-2X2		
CUSTOMER: Motive Infrastructure	DRAWN BY: PHIL N.	DATE: 5/29/2022
PROJECT: Bailey	APPROVED: Chris	SHEET: 2 OF 2
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LICENSED CLAMP



Roger Blair P.E.
 Civil Engineer

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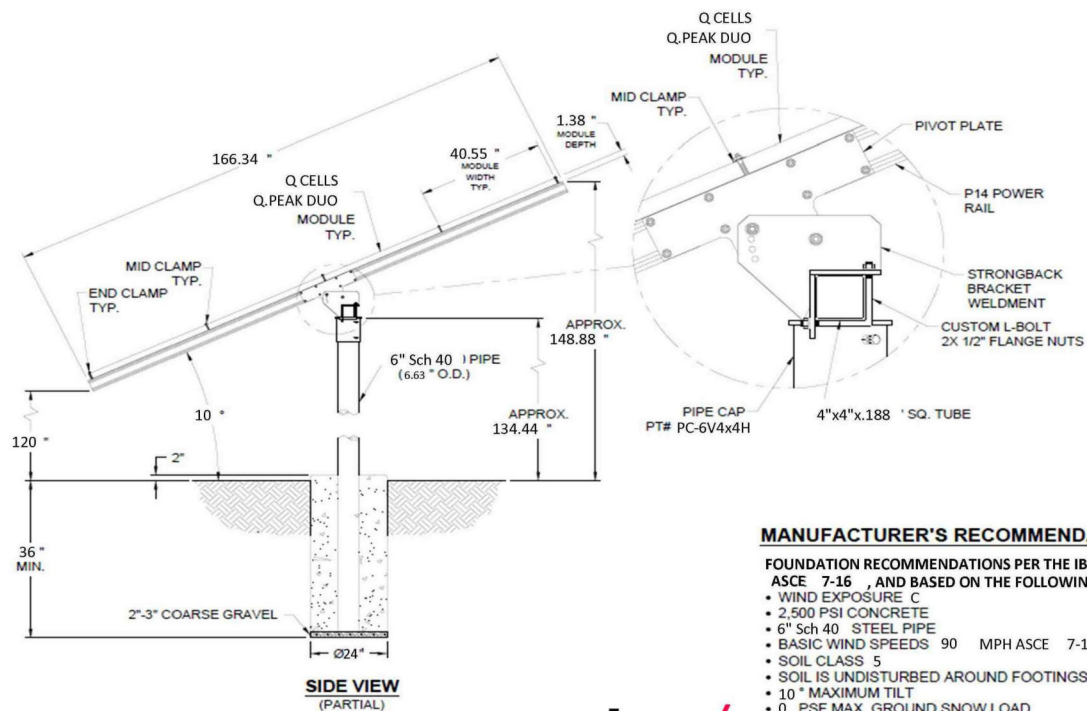
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SHEET TITLE:

**SOLAR ARRAY
 (RACK No. 2)**

SHEET NUMBER:

S-2



**ALTERNATIVE POLE CONNECTION:

CONNECT POLE TO EXISTING SLAB VIA PREMANUFACTURED POST BASE CONNECTED TO THE SLAB USING FOUR 1/2" ALL-THREAD RODS WITH A MINIMUM EMBEDMENT OF 6" INTO THE SLAB USING SET AT-XP EPOXY ADHESIVE. FIELD VERIFY THAT THE SLAB IS AT LEAST 8" THICK AND IS UNCRACKED WITHIN 24" OF THE BOLTS.

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SOLAR CANOPY PROJECT BAILEY RD

1100 BAILEY ROAD
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SITE # 193569
PROJECT # 20141071324
Contra Costa County

MANUFACTURER'S RECOMMENDATIONS

FOUNDATION RECOMMENDATIONS PER THE IBC 2015, ASCE 7-16, AND BASED ON THE FOLLOWING ASSUMPTIONS:

- WIND EXPOSURE C
- 2,500 PSI CONCRETE
- 6" Sch 40 STEEL PIPE
- BASIC WIND SPEEDS 90 MPH ASCE 7-16
- SOIL CLASS 5
- SOIL IS UNDISTURBED AROUND FOOTINGS
- 10° MAXIMUM TILT
- 0 PSF MAX. GROUND SNOW LOAD

P-L-P PREFORMED LINE PRODUCTS			
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CUSTOMER	MOTIVE INFRASTRUCTURE SOLUTIONS	DRAWN BY:	PHIL N.
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		SHEET:	1 OF 2
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verizon

2785 MITCHELLE DRIVE
WALNUT CREEK, CALIFORNIA 94598

PLANS PREPARED FOR:
MOTIVE
INFRASTRUCTURE SOLUTIONS
17260 Newhope Street
Fountain Valley, California 92708
tel 714.752.4262 | fax 949.760.3931

PROJECT TEAM

CONSTRUCTION:
MOTIVE INFRASTRUCTURE SOLUTIONS
ADDRESS: 755 TRADEMARK CIRCLE,
CORONA CALIFORNIA 92879
PHONE: (951) 284-0189

LICENSED STAMP

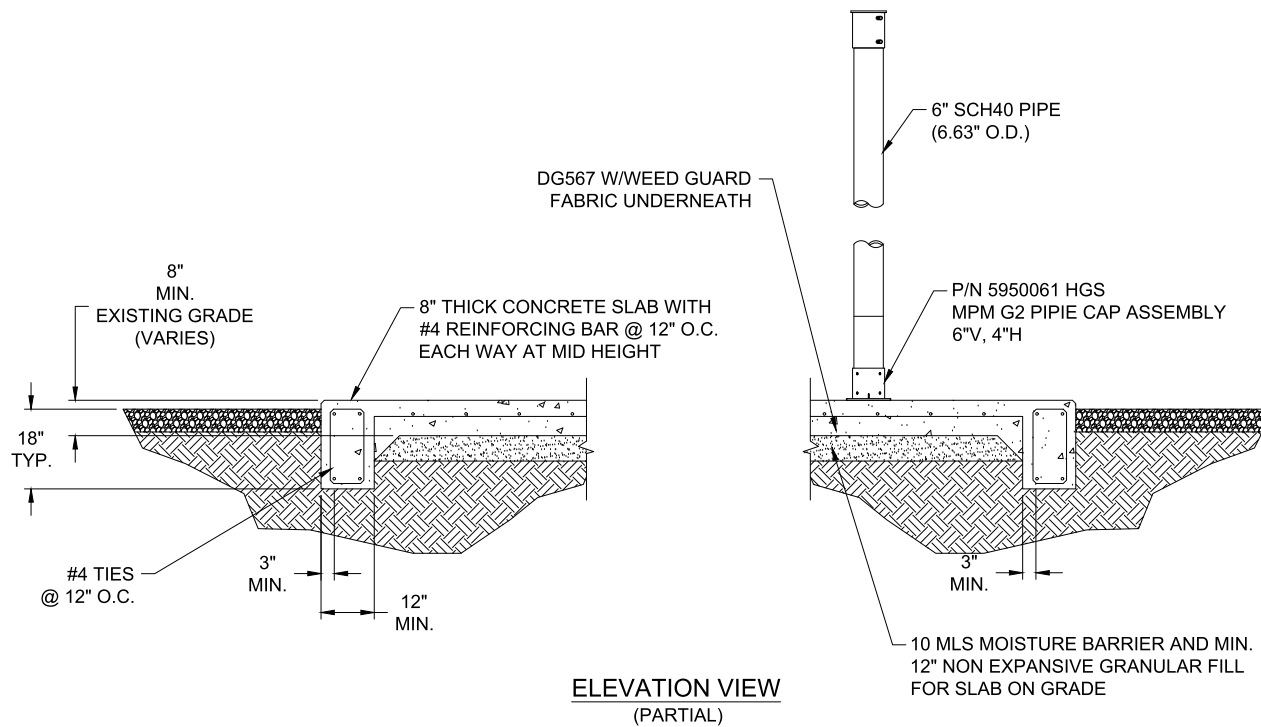
Roger Blair P.E.
Civil Engineer

REVISIONS			
REV.	DATE	DESCRIPTION	INIT.
A	11/22/21	90% CD PRELIM	ASU
0	06/14/22	100% CD PRELIM	ASU
1	02/06/23	REVISED 100% CD	ASU

SITE INFORMATION:
BAILEY ROAD
1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

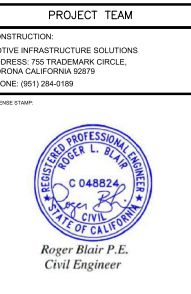
SHEET TITLE:
**SOLAR ARRAY
(SECTION)**

SHEET NUMBER:
S-3



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2785 MITCHELLE DRIVE
WALNUT CREEK, CALIFORNIA 94598



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SITE INFORMATION:

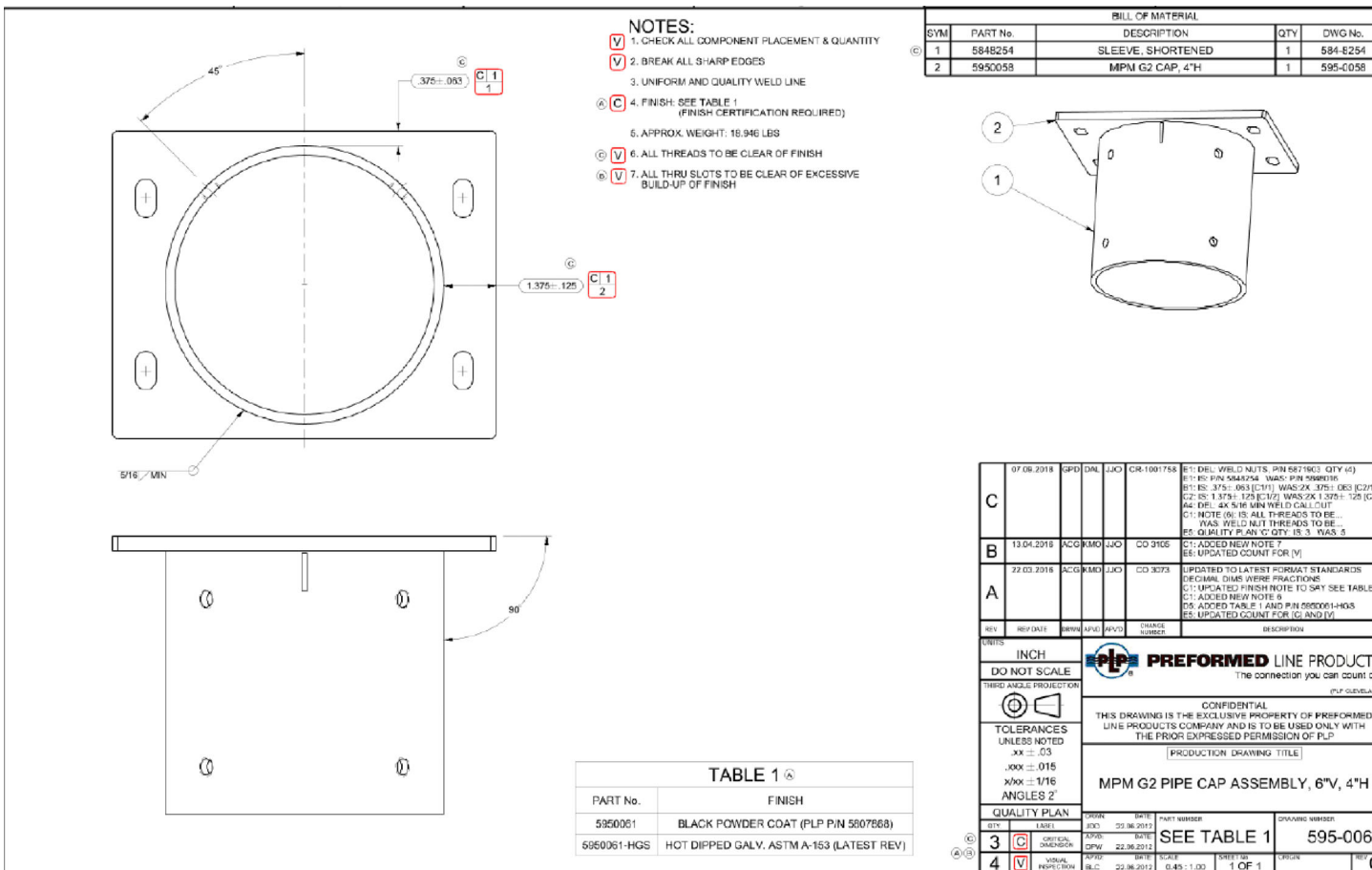
BAILEY ROAD
1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

**SOLAR ARRAY
SECTION
(ALTERNATE DETAIL)**

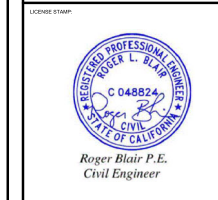
SHEET NUMBER:

S-3



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MOTIVE INFRASTRUCTURE SOLUTIONS
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CORONA CALIFORNIA 92879
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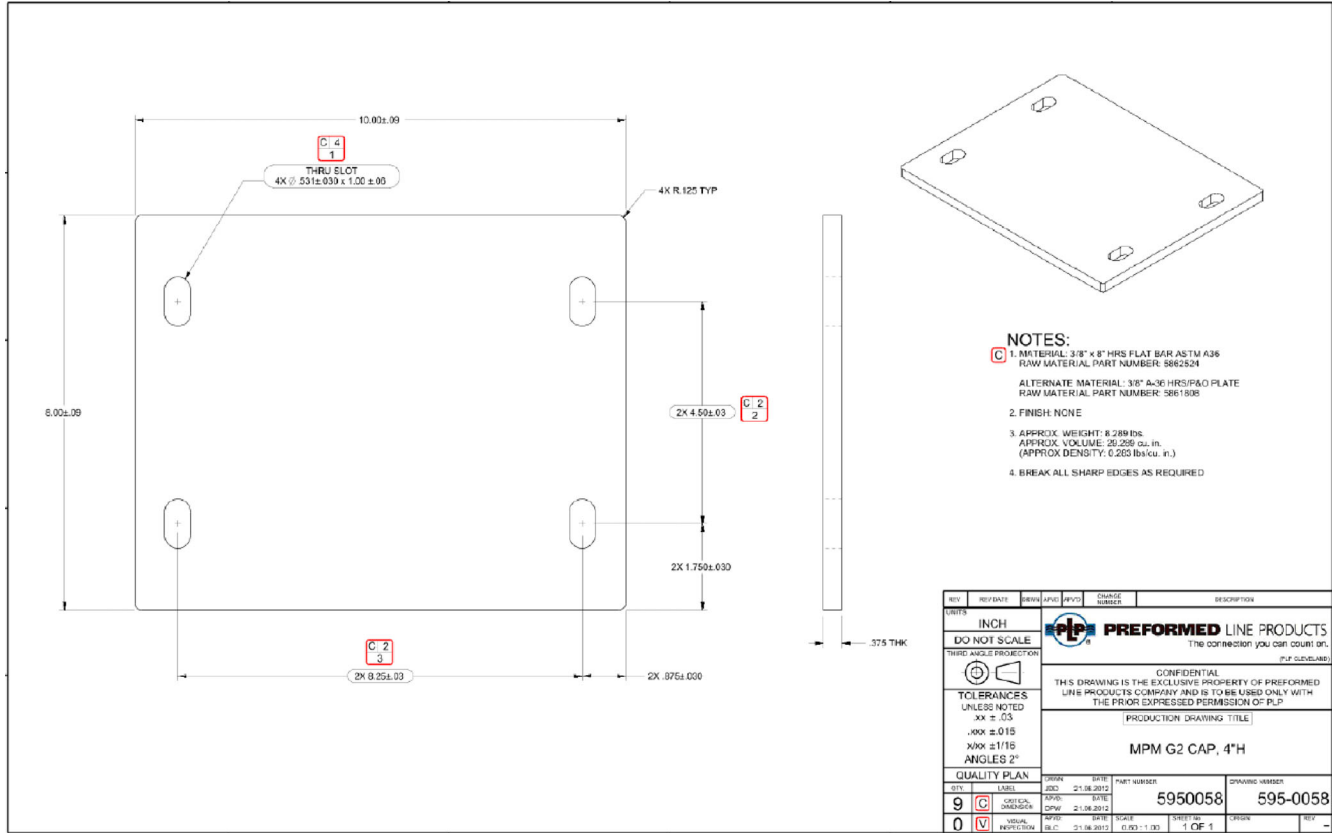
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1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

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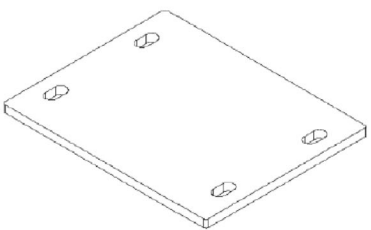
PIPE CAP DETAIL

SHEET NUMBER:

S-4



ALTERNATE PLATE
DETAIL



- NOTES:**
1. MATERIAL: 3/8" x 8" HRS FLAT BAR ASTM A36
RAW MATERIAL PART NUMBER: 8862524
ALTERNATE MATERIAL: 3/8" A-36 HRS/PLA PLATE
RAW MATERIAL PART NUMBER: 8861806
 2. FINISH: NONE
 3. APPROX. WEIGHT: 8.289 LBS
APPROX. VOLUME: 20.256 CU. IN.
(APPROX. DENSITY: 0.253 lb/cu. in.)
 4. BREAK ALL SHARP EDGES AS REQUIRED

REV.	REVISION	DATE	BY	CHKD.	DATE	DESCRIPTION
1	ISSUED FOR CONSTRUCTION	11/22/21	PLP	PLP	11/22/21	90% CD PRELIM
2	REVISED	06/14/22	PLP	PLP	06/14/22	100% CD PRELIM
3	REVISED	02/06/23	PLP	PLP	02/06/23	REVISED 100% CD

INCH
DO NOT SCALE

THIRD ANGLE PROJECTION

TOLERANCES UNLESS NOTED
XX ± .03
.100 ± .015
.300 ± .015
ANGLES 2°

QUALITY PLAN

QTY.	UNITS	REV.	DATE	PART NUMBER	DRAWING NUMBER
9	C	1	11/22/21	5950058	595-0058
0	V	1	11/22/21	5950058	595-0058

CONFIDENTIAL
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PRODUCTION DRAWING TITLE
MPM G2 CAP, 4"H

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2785 MITCHELLE DRIVE
WALNUT CREEK, CALIFORNIA 94598

MOTIVE
INFRASTRUCTURE SOLUTIONS
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tel: 714.752.4262 | fax: 949.760.3931

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PHONE: (951) 284-0189

LICENSE STAMP:

Roger Blair P.E.
Civil Engineer

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0	06/14/22	100% CD PRELIM	ASU	
1	02/06/23	REVISED 100% CD	ASU	

SITE INFORMATION:

BAILEY ROAD
1100 - BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

PLATE DETAIL

SHEET NUMBER:

S-5



CUSTOMER PROJECT REPORT

Project ID:
Project Title: Bailey
Address: 1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565
Customer Name: Motive Infrastructure Solutions

Project Date: 5/29/2022

PROJECT SUMMARY

20

Total Modules

8.6

Total Wattage kW

TOTAL BILL OF MATERIALS

Part Number	Name	Quantity
MPM4-HL-4x4	Strongback Brackets	4
MPM2-HL-4x4	Strongback Brackets	2
PC-6V4xH	Pipe Cap for Vertical Poles	6
PA-GMC-34-39-RAD-SS	Mid Clamps	28
PA-EC-35-RAD-SS	End Clamps	24
WEEBL-8.0-KIT-SS	Weeb Grounding Lugs	10

**ALTERNATIVE POLE CONNECTION:

CONNECT POLE TO EXISTING SLAB VIA PREMANUFACTURED POST BASE CONNECTED TO THE SLAB USING FOUR 1/2" ALL-THREAD RODS WITH A MINIMUM EMBEDMENT OF 6" INTO THE SLAB USING SET AT-XP EPOXY ADHESIVE. FIELD VERIFY THAT THE SLAB IS AT LEAST 8" THICK AND IS UNCRACKED WITHIN 24" OF THE BOLTS.

Prices are valid for 30 days from the date of the quotation. Prices are subject to revision after the quote expiration date and/or design changes.

Preformed Line Products Standard Terms and Conditions apply.

Bill of Materials and all attached project parameters and layouts have been reviewed and are approved.

SIGNED: _____ DATE: _____



PRODUCT DESCRIPTIONS

Part #	Description
MPM4-HL-4x4 MPM2-HL-4x4	Strongback bracket kit. Includes P14 rails and mounting Hardware.
PC-6V4xH	Pipe Cap kit. Includes top strap plate for securing horizontal square tube and associated hardware.
PA-GMC-34-39-RAD-SS	Pre-assembled module clamps for middle modules featuring integrated bonding. The low profile clamp design sets a 3/8" gap between solar modules.
PA-EC-35-RAD-SS	Pre-assembled module clamps for modules at the end of the arrays. Each clamp includes integrated bonding features.
WEEBL-8.0-KIT-SS	WEEB Lug grounding kits includes grounding washer, tin plated copper lug, turn bolt and flange nut for mounting to P14 rail.
Horizontal Tube	4"x4"x.188 Horizontal steel tube needed for assembly. NOT PROVIDED BY PLP SOLAR.
Vertical Pole	6" Sch 40 Vertical steel pole needed for assembly. NOT PROVIDED BY PLP SOLAR.



PIV MODULE INFORMATION

Manufacturer	Q CELLS
Model	Q.PEAK DUO L-G8.2
Wattage (W)	430
Length (in)	81.89
Width (in)	40.55
Depth (in)	1.38
Weight (lbs)	55.13
Orientation	Landscape

ARRAYS 1 AND 2 CONFIGURATION DESIGN REVIEW

Total Number of Modules	16
Total Wattage (kW)	6.88
Tilt Angle (deg)	10
Total Module Weight (lbs)	220.52
Total Module Area (sq. ft)	92.24
Number of Vertical Poles	6
Number of Tables	3

Installer to supply:

- (4) vertical pipes - 6" Sch 40 - approximately 171" long
- (2) vertical pipes - 6" Sch 40 - approximately 158" long
- (3) horizontal tube - 4"x4"x.188 - approximately 156" long
- (4) Concrete Foundations: Approx. 36" deep x 24" dia.
- (2) Concrete Foundations: Approx. 30" deep x 24" dia.

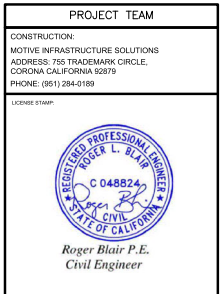
Vertical pipe East/West spacing approx. 120 in. on center

CONFIGURATION PARAMETERS

Code	ASCE 7-16
Max Wind Speed (mph)	90
Wind Exposure Category	C
Snow Load (psf)	0
Ground Clearance (in)	120
Soil Type	5

ARRAY 3 CONFIGURATION DESIGN REVIEW

Total Number of Modules	4
Total Wattage (kW)	1.72
Tilt Angle (deg)	10
Total Module Weight (lbs)	110.26
Total Module Area (sq. ft)	46.12
Number of Vertical Poles	2
Number of Tables	1



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1	02/06/23	REVISED 100% CD	ASU

SITE INFORMATION:

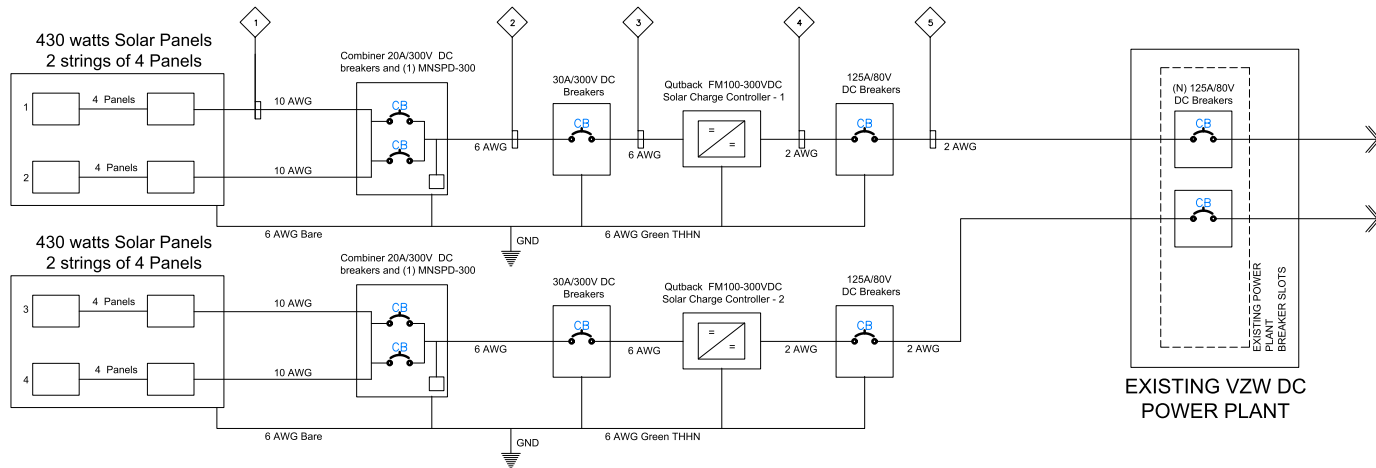
BAILEY ROAD
1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

BILL OF MATERIALS

SHEET NUMBER:

BM-1



1 SINGLE LINE DIAGRAM

KEY NOTES

CONDUCTORS

- ALL CONDUCTORS SHALL BE COPPER.
- ALL WIRING TERMINALS WILL ALSO HAVE TO BE 75°C. ORIGINAL FEEDER SPECIFICATIONS WAS FOR 75°C CABLES FOR ALL BUILDING FEEDERS AND THEREFORE TERMINATIONS PRIOR TO CONNECTION. INTERMEDIATE JUNCTION BOX MAY BE REQUIRED TO CHANGE FROM 90°C TO 75°C WIRING. MATERIAL SHALL BE COPPER AND 90°C RATED, SUITABLE FOR SUN EXPOSURE AND WET LOCATIONS. FIELD APPLIED COATINGS ARE NOT ACCEPTABLE.
- EACH SOLAR PHOTOVOLTAIC MODULE HAS A POSITIVE AND NEGATIVE USE-2RHW-2 "SUNLIGHT RESISTANT" QUICK CONNECT PLUG IN LEAD. VERIFY COMPATIBLE EXTENSION WIRES PRIOR TO INSTALLATION.
- ALL INTER-MODULE SERIES CONNECTIONS TO BE THE STRAPPED (W/ BLACK UV RESISTANT TIE STRAPS) AND/OR PRE-FABRICATED OR EQUAL APPROVED WIRE ROUTING TRAY SO AS TO BEST CONCEAL AND PROTECT INTER-MODULE HOMERUN WIRING. ALL WIRING TO BE CONCEALED UNDER ARRAY AND/OR IN CONDUIT.
- ALL HOMERUN WIRE RUNS BETWEEN ROWS SHALL BE MADE IN CONDUIT W/ STRAIN RELIEF FITTING OR WIRE COMPRESSION CLAMP AND CONDUIT PUTTY TO ACT AS BARRIER TO MOISTURE.
- ALL HOMERUN WIRE RUNS OF LENGTH GREATER THAN 20' SHALL BE MADE FROM NEMA 3R MIN. RATED JBX WITH THW-2 CONDUCTORS IN CONDUIT.

CONSTRUCTION NOTES

- ALL PV MODULES AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED FROM ANY PHYSICAL DAMAGE.
- LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED.
- NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.
- ALL CONNECTORS AND COUPLERS ARE SET SCREW TYPE UNLESS OTHERWISE NOTED.

GENERAL

- ALL WORK SHALL CONFORM TO 2019 NEC W/ SPECIAL EMPHASIS ON ARTICLE 690 & 2019 CEC, AND ALL LOCAL CODE(S).
- INSTALLATION SHALL COMPLY WITH MANUFACTURERS' RECOMMENDATIONS AND INSTRUCTIONS.
- LABELS SHALL BE INSTALLED PER 2019 NEC AND STATE OF CALIFORNIA FIRE DEPARTMENT RECOMMENDATIONS.

GROUNDING

- ALL SERVICES SUPPLYING THE EXISTING COMPOUND SHALL HAVE THE SAME GROUNDING ELECTRODE SYSTEM.
- REMOVAL OF A GRID INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND / OR OUTPUT CIRCUIT GROUNDING CONDUCTOR.
- GROUND BOND CONDUCTOR SHALL NOT BE SPLICED.
- USE EQUAL OR APPROVED ILSCO "LAY IN LUG" UL-487 RATED FOR GROUNDING AND BONDING. HIGH STRENGTH COPPER ALLOY W/ SS SCREW.
- DC EQUIPMENT GROUND SHALL BE MINIMUM #6AWG SOLID CU WIRE TO BOND RACKING SET.
- CONTRACTOR SHALL CONFIRM EXISTING BUILDING AND PANEL GROUNDING PRIOR TO INSTALLATION.

PV SYSTEM COMPONENTS

- ALL CONDUIT RUNS SHALL BE SPECIFICALLY REVIEWED IN THE FIELD WITH THE ARCHITECT FOR APPROVAL OF MOUNTING, ROUTING, AND EXPOSURE PRIOR TO INSTALLATION.
- ALL PV SYSTEM COMPONENTS SHALL BE LISTED BY A RECOGNIZED TESTING AGENCY, i.e. UL1741, etc.
- INVERTER SHALL BE EQUIPPED WITH INTEGRATED GFD, THUS PROVIDING GROUND FAULT PROTECTION.
- ALL ENCLOSURES MOUNTED TO EXTERIOR WALLS SHALL BE MIN. NEMA 3R RATED.
- ALL PIPE WILL BE GALVANIZED RIGID CONDUIT.

PV Module Ratings@STC		PV Array Information			Solar Charge Controller Ratings			Combiner		Conduit Schedule						
Module Manufacturer	Qcell	Overall System Power	6880W	SCC Make	Outback	Manufacturer	Midnite Solar	Tag ID	Conduit Size	Conductor	Neutral	Ground	Approx Length			
Module Model#	L-G8.2	Total Number of Solar Panels <td>16</td> <td>SCC Model<td>Flexmax 100</td><td>Model<td>MNPV12</td><td>1</td><td>1/2" EMT or Equiv (2)</td><td>10AWG PV Wire 1k</td><td>None</td><td>(1) 6 AWG Bare Copper</td><td>50'</td></td></td>	16	SCC Model <td>Flexmax 100</td> <td>Model<td>MNPV12</td><td>1</td><td>1/2" EMT or Equiv (2)</td><td>10AWG PV Wire 1k</td><td>None</td><td>(1) 6 AWG Bare Copper</td><td>50'</td></td>	Flexmax 100	Model <td>MNPV12</td> <td>1</td> <td>1/2" EMT or Equiv (2)</td> <td>10AWG PV Wire 1k</td> <td>None</td> <td>(1) 6 AWG Bare Copper</td> <td>50'</td>	MNPV12	1	1/2" EMT or Equiv (2)	10AWG PV Wire 1k	None	(1) 6 AWG Bare Copper	50'			
Max Power-Point Current (Imp)	10.31V	Number of Modules in Series	4	Max PV System Voltage	300VDC			2	3/4" EMT or Equiv (4)	6 AWG THHN	None		50'			
Max Power-Point Voltage (Vmp)	41.7V	Number of Parallel Circuits	2	Operating Input Voltage Range	30 - 250VDC			3	1" EMT or Equiv (2)	6 AWG THHN	None		15'			
Open-Circuit Voltage (Voc)	49.33V	Number of Solar Chargers	2	Max. PV Input Current (Short Circuit)	64A			4	1" EMT or Equiv (2)	2 AWG THHN	None		15'			
Short-Circuit Current (Isc)	10.83V	Total Number of Strings	4	Nominal Battery Voltage	48V			5	1-1/2" EMT or Equiv (6)	2 AWG THHN	None		40'			
Max Series Fuse (OCPD)	20A	Lowest Expected Ambient Temp (°C)		Max Charge Current	100A											
Maximum Power (Pmax)	430W	Highest Continuous Temperature (°C)	45	Max Charging Power	6000W											
Max System Voltage (25° C)	300V			Max Power Conversion Efficiency	97%											
Voc Temp COEFF (%/K)	0.27															

2 TABLE OF MATERIALS

NOTE:

THIS IS A STAND ALONE SYSTEM AND NOT TIED TO THE EXISTING ELECTRICAL GRID.

SINGLE LINE SUBCONTRACTOR NOTE:

WIRING DIAGRAM IS SUGGESTED PRACTICE ONLY. REFER TO INSTALLATION MANUALS FOR PROPER INSTALLATION PROCEDURES AND WIRING FOR ALL COMPONENTS. IT IS THE RESPONSIBILITY OF THE INSTALLER TO MEET ALL CODES APPLICABLE TO THE INSTALLATION OF THIS SYSTEM.

verizon

2785 MITCHELLE DRIVE
WALNUT CREEK, CALIFORNIA 94598

DESIGNED BY:

MOTIVE
INFRASTRUCTURE SOLUTIONS

17260 Newhope Street
Fountain Valley, California 92708
tel 714.752.4262 | fax 949.760.3931

PROJECT TEAM

CONSTRUCTION:
MOTIVE INFRASTRUCTURE SOLUTIONS
ADDRESS: 765 TRADEMARK CIRCLE,
CORONA CALIFORNIA 92879
PHONE: (951) 284-0189

LICENSE STAMP

REGISTERED PROFESSIONAL ENGINEER
ANDREW R. BALKWELL
No. E18563
Exp. 12/31/2024
STATE OF CALIFORNIA
ELECTRICAL

REVISIONS			
REV.	DATE	DESCRIPTION	INIT.
A	11/22/21	90% CD PRELIM	ASU
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SITE INFORMATION:

BAILEY ROAD
1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

SINGLE LINE DIAGRAM

SHEET NUMBER:

E-1

SIGNAGE REQUIREMENTS: WARNING LABELS AND PLACARDS

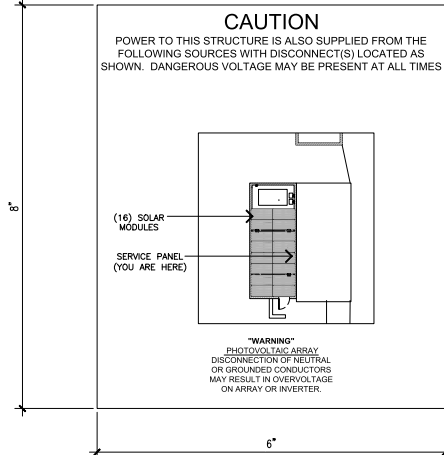
EQUIPMENT MARKING SHALL COMPLY WITH STATE FIRE MARSHALL GUIDELINES & SCE DECALS TO BE INSTALLED ON THE GENERATING FACILITIES. THE DISTRIBUTION ENGINEER MAY REQUIRE DECALS TO BE INSTALLED AS REQUIREMENTS. SCE MAY VERIFY THE DECAL INSTALLATION DURING THE FINAL TECHNICAL APPROVAL COMMISSIONING IF REQUIRED.

- A. DECALS THAT WILL BE INSTALLED ON CUSTOMER'S MAIN SERVICE PANEL.
- B. DECALS THAT WILL BE INSTALLED ON AC TO BE USED FOR UTILITY ISOLATION OF THE GENERATOR.

2 SIGNAGE NOTES

JOB SITE PLACARDS

LOCATION: MAIN SERVICE PANEL DOOR - QUANTITY: ONE



3 JOB SITE PLACARD

PER NEC SECTION 690.56 (B)

MAIN PHOTOVOLTAIC SYSTEM DISCONNECT

A PV SYSTEM DISCONNECT

PER NEC SECTION 690.13(B)

"WARNING"
ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS.
TERMINALS ON BOTH THE
LINE AND LOAD SIDES MAY
BE ENERGIZED IN THE
OPEN POSITION.

PLACED ON INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, JUNCTION BOXES, AND DISCONNECTS. MARKING SHALL BE PLACED ON INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES AND CABLE ASSEMBLIES EVERY 10 FEET (3048 MM), 1 FOOT OF TURNS OR BENDS AND WITHIN 1 FOOT ABOVE AND BELOW PENETRATIONS OF ROOF/CILING ASSEMBLIES, WALLS OR BARRIERS. QUANTITY: AS NEEDED

B WARNING SIGNAGE

PER NEC SECTION 690.5(C)

WARNING: PHOTOVOLTAIC POWER SOURCE

C WARNING SIGNAGE

PER NEC 690.31 (D)(2)

MAXIMUM DC VOLTAGE OF PV SYSTEM

D MAX. DC VOLTAGE SIGN

PER NEC SECTION 690.53

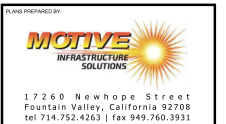
WARNING: PHOTOVOLTAIC DC DISCONNECT

E PV SYSTEM DISCONNECT

PER NEC SECTION 690.15/ 705.20

NOTE:
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BAILEY ROAD
1100 BAILEY ROAD
PITTSBURG, CALIFORNIA 94565

SHEET TITLE:

SIGNAGES

SHEET NUMBER:

E-2

VIEW 1



EXISTING



PROPOSED

LOOKING WEST FROM BAILEY ROAD



EXISTING



PROPOSED

LOOKING SOUTHWEST FROM BAILEY ROAD

VIEW 3



EXISTING



PROPOSED

LOOKING SOUTHWEST FROM BAILEY ROAD

**NOTICE OF INTENT
TO EXERCISE DESIGN REVIEW AUTHORITY DELEGATED TO STAFF PURSUANT
TO PLANNING COMMISSION RESOLUTION NO. 9918**

Fire Water Tank – Pittsburg Solar Boat/RV Storage, AP-23-0127 (ADR).

This is an application requesting Administrative Design Review approval to install a 90,000-gallon fire-protection water tank to satisfy Contra Costa County Fire Protection District (CCCYPD) requirements for Pittsburg Solar RV & Boat Storage (approved on June 14, 2022, under Planning Commission Resolution No. 10191) at the property located at 3468 Pittsburg-Antioch Highway in the CS (Service Commercial) Zoning District. Assessor's Parcel No. 074-100-018.

The water tank is required by the California Fire and Building Codes to ensure water is available for emergency fire response at the project site. The water tank will be constructed with corrugated steel, 10-feet, 7-inches in height, 39-feet, 6-inches in diameter (roughly 1,600 square feet) and will be anchored to a concrete foundation.

This project is delegated to staff under Category 8 (Ancillary Structures) of Planning Commission Resolution No. 9918.

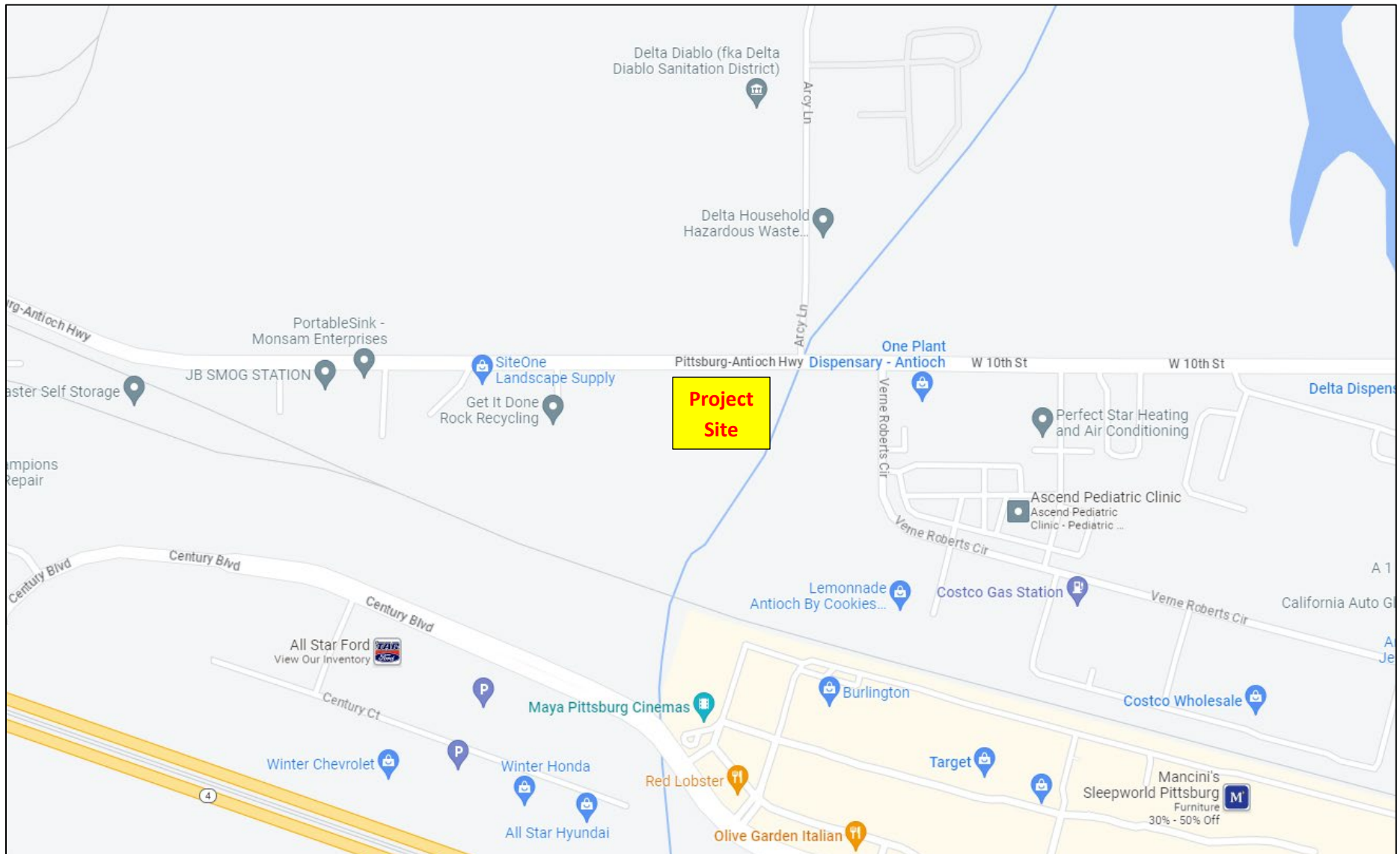
Pittsburg Solar RV & Boat Storage Fire Water Tank – Aerial Map

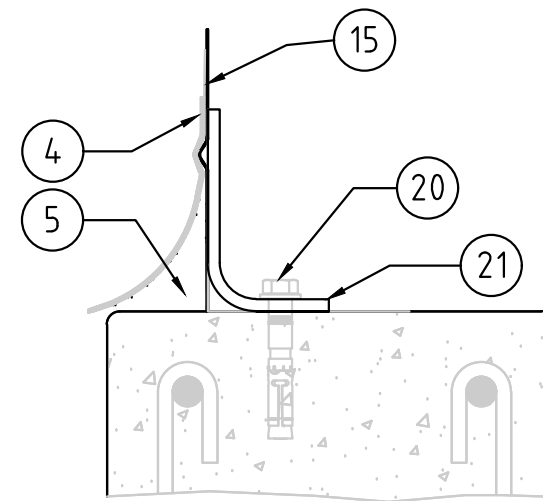
AP-23-0127 (ADR)	3468 Pittsburg-Antioch Highway
Administrative Design Review	APN: 074-100-018



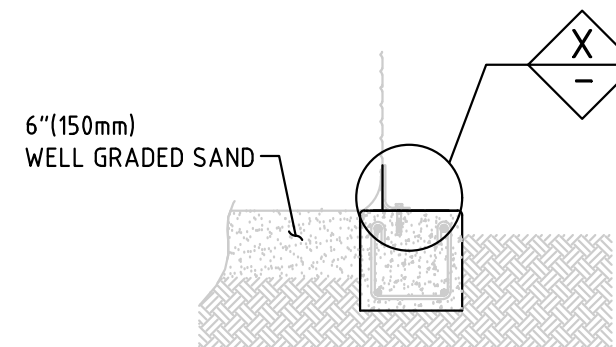
Pittsburg Solar RV & Boat Storage Fire Water Tank – Vicinity Map

AP-23-0072	3468 Pittsburg-Antioch Highway
Fence Height Exception	APN: 074-100-018

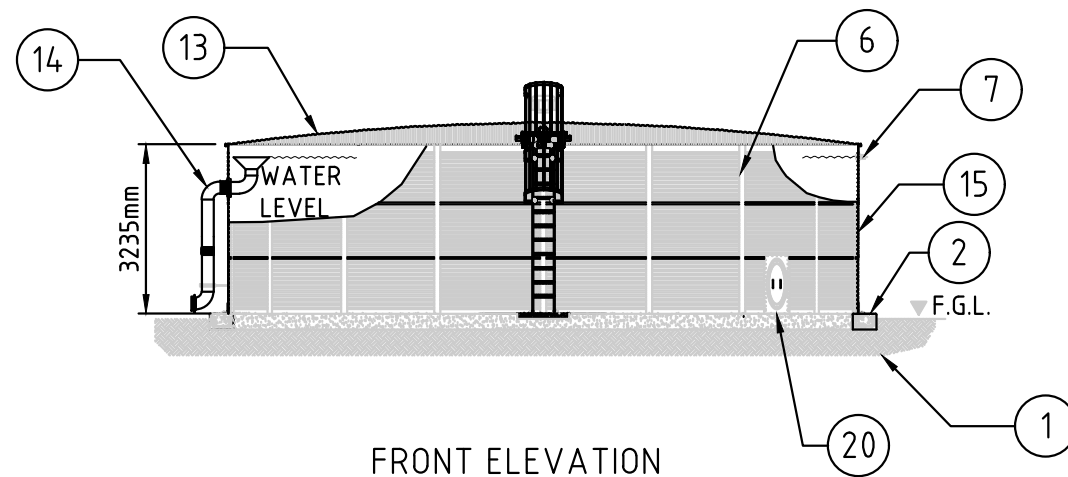




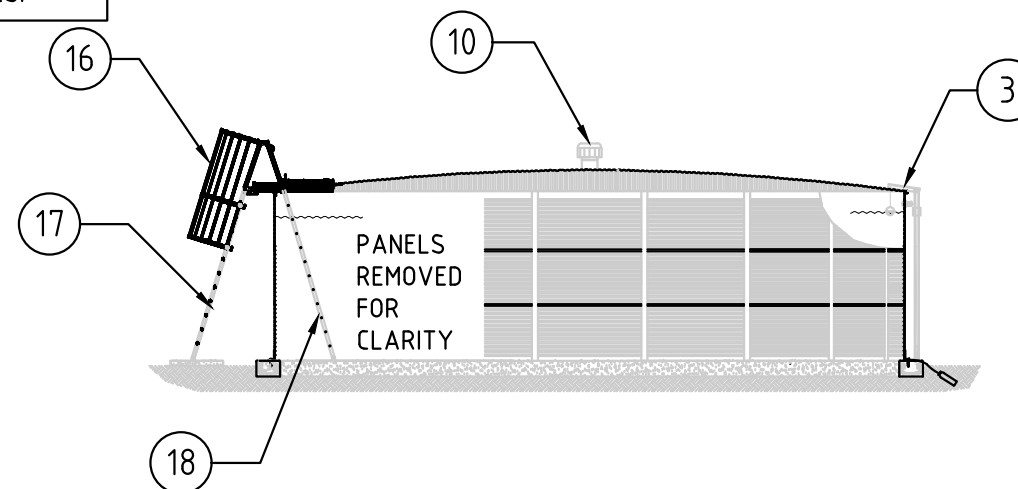
DETAIL  X
N.T.S. -



SECTION A
N.T.S. -



FRONT ELEVATION



SIDE VIEW

PIONEER WATER TANK TECHNICAL DATA	
TANK WALL MATERIAL	ZINCALUME STEEL PANELS, GRADE 300 TO AS1397
TANK WALL THICKNESS	VARIES WITH TANK SIZE
PROTECTIVE COATING TYPE	ZINCALUME (ZINC AND ALUMINIUM ALLOY)
PROTECTIVE COATING CLASS	AZ 150 TO AS1397 (COLORBOND - OPTIONAL)
BOLT SIZING	M10 TO M16 DEPENDING ON TANK SIZE
BOLT SPECIFICATIONS	GRADE 8.8 HIGH STRENGTH STEEL BOLTS - AS1110 GALVANISED - AS1214
ROOF SHEETING	ZINCALUME CUSTOM ORB BMT - 0.42mm , G 550
LINER MATERIAL	INDUSTRATEX OR AQUALINER
LINER THICKNESS	0.6mm
LINER COLOUR	GREEN OR WHITE/BLACK
NET USABLE GALLONS	87,848

NOTE: SOME ITEMS SHOWN ARE OPTIONAL,
DEPENDING ON CLIENT REQUIREMENTS.

21	HOLD DOWN BRACKET
20	MECHANICAL ANCHOR
19	COMMERCIAL ACCESS HATCH
18	INTERNAL ACCESS LADDER
17	EXTERNAL PLATFORM LADDER
16	LADDER SAFETY CAGE
15	TANK WALL PANELS
14	OVERFLOW 6 IN.
13	DOMES ROOF SHEETS
12	INDUSTRY STANDARD TRUSSES
11	CONCRETE APRON FOR LADDER
10	COMMERCIAL ROOF VENTILATORS
9	ANTI-CORROSION ANODE TAGS
8	TRUSS FOOT
7	INLET
6	PANEL CONNECTION WIND GIRTS
5	SAND COVE
4	TANK LINER
3	COMMERCIAL LEVEL INDICATOR
2	RING BEAM
1	EARTHWORKS (BY OTHERS)
ITEM	COMPONENT DESCRIPTION

REVISIONS								DRAWN	XXX
								DATE	XXX
								CHECKED	XXX
								DATE	XXX
								APPROVD	XXX
	DATE	REV	DESCRIPTION	GRID	BY	CHK	APP	DATE	XXX



SCALE	1:1 PS
SHEET SIZE	A3

E	TITLE		GENERAL ARRANGEMENT COMMERCIAL TANK GALAXY XLE50/03	
	DWG NO.		XLE50-R3-63-001	REV -
	CAD FILE SITE & MARKETING GAS\COMMERCIAL\XLE50			NXT SHEET: -

Contra Costa County**Fire Protection District****APPLICATION FOR ALTERNATIVE MATERIALS AND METHODS****COMPLETE THIS SIDE ONLY**

Project Name: Pittsburg RV Boat Storage FD Permit #: 2023-003692
 Project Location: 2515 Pittsburg Antioch Highway
 City: Pittsburg Date: 8-11-2023

As provided for by the California Code of Regulations, Title 19, §2.01 and the currently adopted California Fire Code, I hereby make application for approval of the use of alternative materials and methods as outlined below. In the opinion of the applicant, the proposed design is satisfactory and complies with the intent of the regulations and the material, assembly of materials, equipment, methods of construction or methods of installation of equipment, or means of protection offered is, for the purpose intended, at least equivalent to that prescribed in the regulations in quality, strength, effectiveness, fire resistance, durability and safety.

Applicable Code Section(s):

- (1.) Fire Flow Requirements - 2022 CFC: 507.3-AHJ specified 3,500-GPM; Appendix B; B102.1 Definition 20-psi; Table B105.1(2) - duration 3-hours.
 (2.) Appendix C Fire Hydrant Locations and Distribution

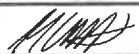
Proposal for Alternative:

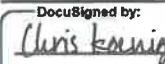
FPS-013 (5/23/23) Rural Water Supply Requirements for Fire Suppression
 2022 CFC Sections 507.5 Fire Hydrant Systems; Appendix C104.1 Existing fire hydrants.
 Please see the attached drawing.

Argument for Code Equivalency (Attach any supporting documentation):

The project is in Rural Pittsburg at the border Antioch and does not have access to a municipal water supply within the city limits and relies on a small water well.
 The project proposes to utilize CCCFPD FPS-013 to provide the required Fire Flow water availability via a private fire water underground to supply a 70,000-gallon NFPA 22 Water Tank and Fire Hydrant system (4 hydrants), with a FDC near an existing fire hydrant located approximately 115-feet east of the project boundary on the Pittsburg-Antioch Hwy for additional water supply. The fire dept. will draft supply from the 70,000-gallon tank or supply the FDC and project's fire hydrant system for the required pressure and flow. Any occupied buildings will be provided a NFPA 13 fire sprinkler system that will be connected/supplied by the private fire hydrant system and water tank, NFPA 20 fire pump. All proposed items shall be designed in accordance with this AMMR, applicable codes and standards. The plans and calculations shall be submitted with a copy of the approved AMMR for review, acceptance and permit.

THIS SECTION MUST BE COMPLETED AND SIGNED

Requestor	
Name:	Jon Corbett FPE 1683
Address:	25 Crescent Dr A138 Pleasant Hill, CA 94523
Phone:	(925) 566-4160
Email:	jon@lockedinfire.com
Signature:	 Digitally signed by Jon Corbett Date: 2023.08.11 11:07:38 -0700

Property Owner	
Name:	Pittsburg RV & Boat Storage, LLC
Address:	2515 Pittsburg Antioch Hwy Pittsburg CA 94565
Phone:	925-984-5683
Email:	chris@pacificprop.net
Signature:	DocuSigned by:  58165E80D933483...

OFFICE USE ONLY: DO NOT COMPLETE BELOW THIS LINE**APPLICATION FOR ALTERNATIVE MATERIALS AND METHODS**Project Name: Pittsburg RV Boat StorageFD Permit #: 2023-003692**STAFF REVIEW**Reviewed by: M. CAMERON
Fire InspectorDate: 8/23/23

Comments or Concerns:

1. Proposed system provides required Fire Flow from tank for 20 minutes to allow time to utilize fire hydrant to supply ON SITE Hydrants.
2. Small office building will also have Fire Sprinklers

Reviewed by: [Signature]
Fire Prevention CaptainDate: 8/24/23

Comments or Concerns:

- A) Submit to CCCFPD: 1. Revised UG plans approved under permit # 2023-003101. 2. Rural water supply tank plan.
- B. Water supply system to be inspected, tested & maintained per NFPA 25. 2. Water supply system shall be accessible at all times.

An approval of alternative materials and methods of construction (AMM) does not abrogate requirements or approval by other agencies having jurisdiction or responsibility.

Approval, if granted, is specific to the project or process in question and shall not be construed as approval or acceptance of this application on future projects, and is specific to the address under which the AMM was approved.

AMM approvals shall only remain valid within the currently adopted Building and Fire Code cycle in which they were reviewed and approved. AMM approvals will expire upon adoption of subsequent editions of the Code.

The proposal for alternate means and materials to meet the intent of the code is hereby:

☐ Approved☐ Denied☒ Approved with Conditions

Conditions:

Conditions listed above, in addition install either NFPA 13 sprinkler system or an automatic fire alarm system that is monitored for the office building

[Signature]
Fire Marshal
Contra Costa County Fire Protection District

Date

8/24/23



Discover the [difference](#)



FIRE PROTECTION WATER TANKS



The designs of Pioneer fire-protection tanks comply with NFPA 22 standards for fire-water storage and come with a complete set of engineer-approved drawings and calculations.

APPROVED FOR USE IN CALIFORNIA

We offer water storage solutions that comply with California Fire Code and California Building Standards Code. Pioneer Water Tanks are backed by our 20-year warranty for residential projects and a 10-year warranty for commercial installations.

TESTED AND PROVEN

- Corrugated ZINCALUME® steel construction outlasts galvanized steel 200% longer for an extended life without corrosion
- Anchoring to a reinforced concrete ring beam foundation, with engineering documentation available for the permit process
- NFPA-22 Anti-Vortex Options for local fire authority requirements as well as a wide range of other commercial accessories
- Water is stored within the exclusive AQUALINER® Fresh tank liner so that it can double as potable water storage



TANK DIMENSIONS AND CAPACITIES

Pioneer Models	Diameter	Height	Capacity (Gallons)	Net Usable Gallons*
XLR 04/02	11'	7' 2"	4,990	4,340
XLR 08/02	15' 5"	7' 2"	9,907	8,510
XLE 10/02	17' 7"	7' 2"	12,946	11,200
XLE 13/02	19' 9"	7' 2"	16,392	14,150
XLE 15/02	22'	7' 2"	20,243	17,500
XLE 23/02	26' 4"	7' 2"	29,093	25,200
XLE 30/02	30' 9"	7' 2"	39,626	34,300
XLE 40/02	35' 2"	7' 2"	51,785	44,850
XLE 50/02	39' 6"	7' 2"	65,567	56,750
XLE 50/03	39' 6"	10' 7"	97,148	88,000

*For fire protection



Special Order Tank Sizes Available

Special order tank sizes up to 700,000-gallons with a wide variety of accessories and COLORBOND® steel colors available for residential, agricultural, commercial, and fire protection applications.

STANDARD INCLUSIONS

Pioneer Water Tanks XLE models include the following standard features.



Vertical Bolt Covers

Concealed bolts reinforce strength and prevent tampering.



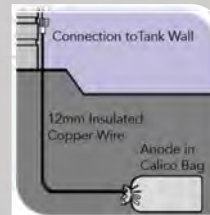
6-Inch Overflow Drainage Pipe

PVC drainage pipe with a flapper valve to channel excess water away.



AQUALINER® Fresh Tank Liner

The antimicrobial, BPA-free, NSF-61 certified tank liner is exclusive to Pioneer.



Sacrificial Magnesium Anodes

One set of anodes for additional corrosion protection through electrolysis.



20-Year Conditional Warranty

Conditional warranty on the tank and liner against leakage for up to 20-years.



Access Hatch and Removable Ladder

Lockable access hatch and removable galvanized steel ladder.



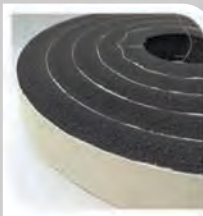
Support Brackets

Anchor a Pioneer Water Tank to a concrete ring beam.



Geotextile Protection

Commercial grade geotextile protection for under the water tank liner.



Super Sealant Food Grade Foam

Seal goes in between the tank roof and body to prevent contamination.



XLE 15/02 Pioneer Water Tank for Fire Protection and Domestic Use by Cen Cal Steel Erectors



Choose Your Preferred COLORBOND® Steel Color
Aesthetically Designed for Durability

Only Pioneer invests in everything that goes into your water storage.



Pioneer Water Tanks' Standard COLORBOND® Steel Colors:



MANGROVE®



PAPERBARK®



SURFMIST®



WOODLAND GREY®



CLASSIC CREAM™



BASALT®



MONUMENT®



PALE EUCALYPT®



WALLABY®



XLE 23/03 Pioneer Water Tank in Monument® COLORBOND® Steel Finish



PROJECT REFERRAL & REQUEST FOR COMMENTS/CONDITIONS

Project Name:	2501 Railroad Avenue Façade Enhancements
Project No: AP-23-0129	Application Type: Administrative Design Review (ADR)
Project Description: Zoning Administrator consideration of an Administrative Design Review application by Melissa Vai Lee of Gensler Architects, for proposed façade enhancements to existing Bank of America office building located at 2501 Railroad Avenue, Pittsburgh, California, 94565. The site is classified “Community Commercial” in the Pittsburgh General Plan land use map and zoned “CC - Community Commercial” where pursuant to PMC Section 18.52.100, all projects require design review. Assessor’s Parcel No. 088-640-012	
Applicant:	Melissa Vai Lee, Gensler Architects
Mailing Address:	2101 Webster Street, Suite 2000, Oakland, CA 94010
Phone: (510)652-1752	E-mail: melissav_lee@gensler.com

Instructions for the Referral Agency:

Enclosed are plans for the project identified above which is proposed in the City of Pittsburgh. Please review these plans and provide this office with your feedback on availability of services/potential design or code conflicts/requirements for additional permits and recommended conditions of project approval.

Deadline for Comments:

Please submit your comments no later than Friday, October 6, 2023.

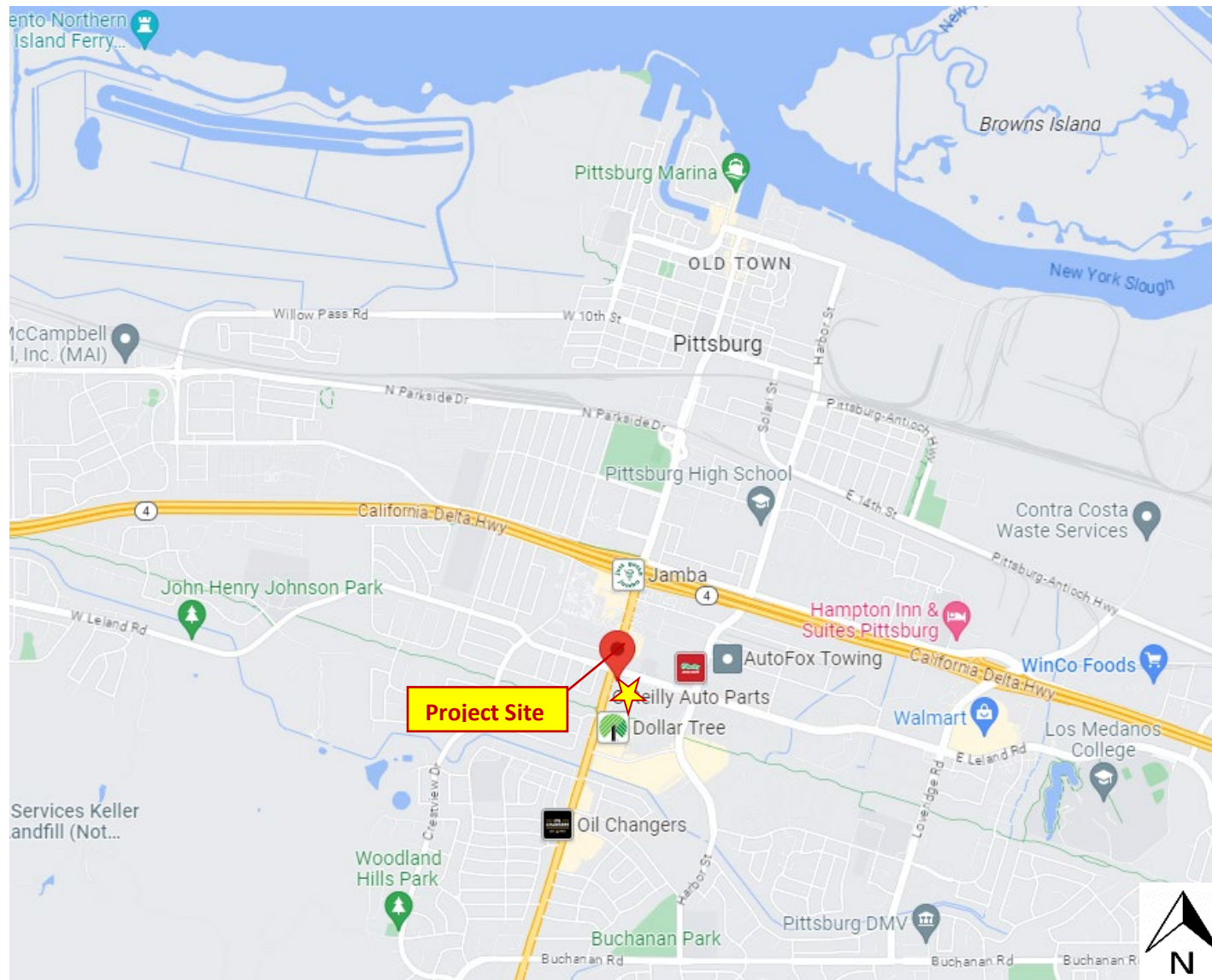
Comments should be sent to **Maurice Brenyah-Addow** at the mailing address noted above, through e-mail at: mbrenyah-addow@pittsburgca.gov, or by fax at: (925) 252-4814. If you have any questions regarding this project, please call **Maurice Brenyah-Addow** at (925)252-4261. A list of referral agencies for this project is provided on the next page of this referral.

List of Referral Agencies:

Federal/State/Regional	☐ Ambrose Recreation & Park District
☐ US Army Corps of Engineers	☐ Contra Costa Mosquito & Vector Control District
☐ US Fish and Wildlife Service	☐ Bay Point Municipal Advisory Comm.
☐ Dept. of Fish and Game – Region 3	☐ City of Antioch Community Development Department
☐ State RWQCB	☐ City of Concord Planning Division
☐ US Postal Service – Pittsburg	☐ City of Concord Transportation Department
☐ Caltrans - District 4	☐ Antioch Unified School District
☐ Sonoma State - Historical/Archaeological	☐ Mt. Diablo Unified School District
☐ Association of Bay Area Governments	☐ Pittsburg Unified School District
☐ Bay Area Air Quality Management District	City of Pittsburg
☐ East Bay Regional Park District	☒ Planning Division
☐ Native American Heritage Commission	☒ Building Division
Contra Costa County	☒ Engineering Division
☐ Assessor's Office	☒ Transportation Division
☐ Community Development Department	☒ Public Works Division
☒ Environmental Health	☒ Waste Reduction Coordinator
☒ Fire Protection District	☐ Successor Agency
☒ Flood Control District	☒ Economic Development
☒ Health Services Department	☒ City Attorney
☒ Hazardous Materials Programs	☒ City Manager
☐ LAFCO	☒ Police Dept.
☐ Library (Pittsburg Branch)	☐ HCP Coordinator
☒ Public Works Dept. (Transportation Eng.)	☒ NPDES Coordinator
Transportation	Utilities
☐ BART Planning/Environmental Compliance Division	☒ Contra Costa Water District
☐ Central Contra Costa Transit Authority	☒ Delta Diablo Sanitation District
☐ Metropolitan Transportation Commission	☐ AT&T
☐ Tri-Delta Transit	☒ PG&E – 1-877-259-8314 for utility easements
☐ TRANSPLAN	☒ Pittsburg Disposal Service
☐ Contra Costa Transportation Authority	☐ Comcast Cable Communications, Inc.
☐ TRANSPAC	☒ Other: Additional External Agencies
Local	☐ Other:
☒ Supervisor Federal Glover	☐ Other:

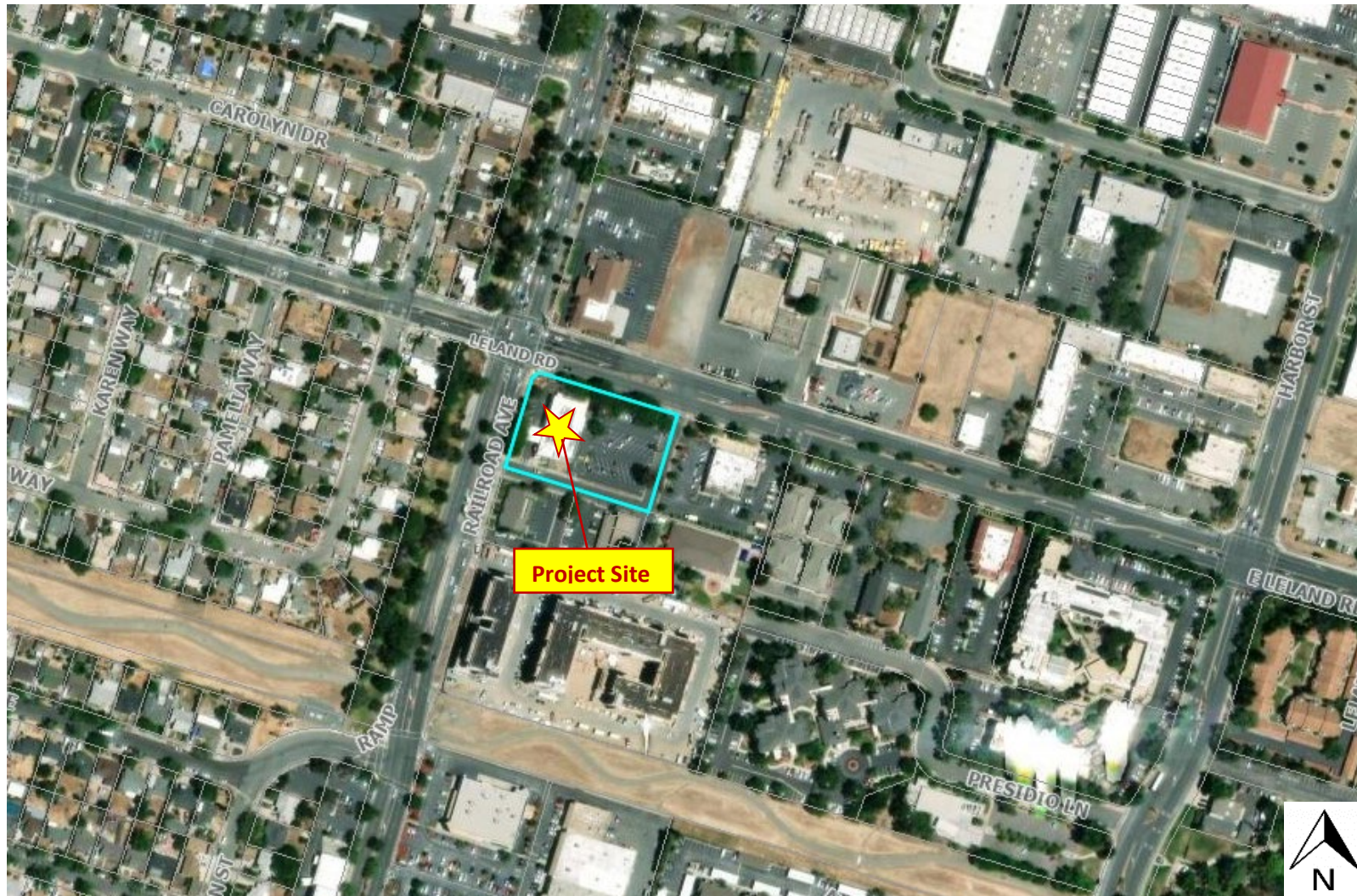
Bank of America - 2501 Railroad Avenue Façade Improvements- Vicinity Map

AP-23-0129	2501 Railroad Avenue, Pittsburg, CA 94565
Administrative Design Review (ADR)	Assessor's Parcel No. 088-640-012



Bank of America - 2501 Railroad Avenue Façade Improvements- Vicinity Map

AP-23-0129	2501 Railroad Avenue, Pittsburg, CA 94565
Administrative Design Review (ADR)	Assessor's Parcel No. 088-640-012





EXTERIOR RENOVATION

PITTSBURG
BUILDING ID: CA4-107

2501 RAILROAD AVE
PITTSBURG, CA 94565

PROJECT NUMBER: 033.2237.022

ISSUE FOR PLANNING REVIEW
09/07/2023

CUSHMAN &
WAKEFIELD
Third Party Project Management
Attn: Vlad Oleshko
201 California Street, Suite 800
San Francisco, CA 94111

Tel: 831.821.3778
Email: Vlad.Oleshko@cushwake.com

GENSLER
Architect
Attn: Jeffrey Schmierer
2101 Webster Street, Suite 2000
Oakland, CA 94612

Tel: 510.625.7467
Email: jeffrey_schmierer@gensler.com

CALLANDER
Landscape Architect
Attn: Zach Katz
1633 Bayshore Highway, Suite 133
Burlingame, CA 94010

Tel: 650.375.1313
Email: zkatz@callanderassociates.com

CODE AND LIFE SAFETY DATA

PROJECT INFORMATION

Project Name :

PITTSBURG

Project Address:

2501 RAILROAD AVE
PITTSBURG, CA 94565

Proposed Use/
Occupancy :

NO CHANGE, BUSINESS (B)

Owner/Autorized Agent: Vlad Oleshko

Email: Vlad.Oleshko@cushwake.com

Phone: 831.821.3778

Proptery Owned by:

☐ City/County

☐ Private

☐ State

Code Enforcement Jurisdiction:

☐ City

PITTSBURG

☐ County

☐ State

CA

BASIC BUILDING DATA SUMMARY

Construction Type:

☐ I-A

☐ II-A

☐ III-A

☐ IV

☐ V-A

☐ I-B

☐ II-B

☐ III-B

☐ V-B

Sprinklers: (Chapter 9)

☐ No

☐ Partial

☐ Yes

☐ NFPA 13

☐ NFPA 13R

☐ NFPA 13D

Building Height: (Stories) 1-STORY + MEZZANINE

Gross Building Area: 8,172 SF

PROJECT SUMMARY

Building Description:

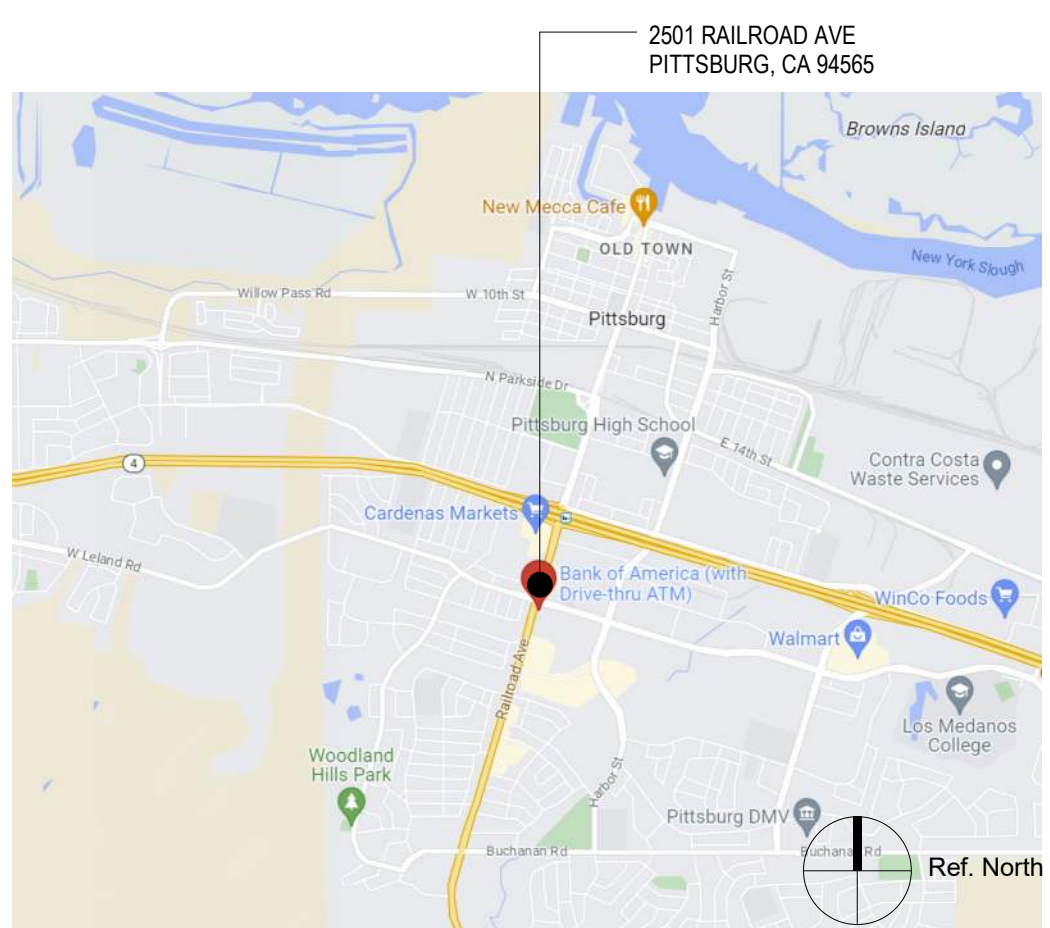
Zoning: CC,COMMUNITY COMMERCIAL

APN#: 088-640-012

Scope of Work Details:
PROJECT IS AN EXTERIOR IMPROVEMENT OF AN EXISTING BANK, NO ADDITIONAL AREA OR HEIGHT IS PART OF THE SCOPE. SCOPE IS LIMITED TO EXTERIOR ONLY INCLUDING BUT NOT LIMITED TO REPLACEMENT OF EXISTING WOOD SIDING WITH NEW HARDIE PANELS, PAINTING OF EXISTING DRIVE-THRU CANOPY, REMOVAL OF EXISTING WOOD TRELLISES, NEW METAL CLAD CANOPY, NEW AND REPLACEMENT OF LIGHT FIXTURES, REMOVAL OF EXISTING WOOD PLANTER BOX AND REPLACEMENT WITH NEW CONCRETE PLANTER BOX, REPLACEMENT OF GUARDRAILS, AND NEW BOLLARDS.

Separate Submittals:
1. SIGNAGE REPLACEMENT

VICINITY MAP



APPLICABLE CODES

CALIFORNIA BUILDING CODE	2022
CALIFORNIA PLUMBING CODE	2022
CALIFORNIA MECHANICAL CODE	2022
CALIFORNIA ELECTRICAL CODE	2022
CALIFORNIA FIRE CODE	2022
CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS	2022
CALIFORNIA GREEN BUILDING STANDARDS CODE	2022

ALL APPLICABLE CITY OF PITTSBURG, LOCAL, AND STATE LAWS AND REGULATIONS

ABBREVIATIONS

A	ACCESSORY	J	JANITOR
ACCES	ACOUSTIC(AL)	K	KIT
AFF	ABOVE FINISHED FLOOR	L	KITCHEN
AL	ALUMINUM	LAV	LAVATORY
ALT	ALTERNATE	LB	POUND
ANNUNC	ANNUNCIATOR	LOUVER	LOUVER
ANOD	ANODIZED	LT	LIGHT
APPL	APPLIANCE	LVLG	LEVELING
AUTO	AUTOMATIC	M	
AVG	AVERAGE	M.E.	MATCH EXISTING
B		MAX	MAXIMUM
BD	BOARD	MECH	MECHANICAL
BLDG	BUILDING	MEMB	MEMBRANE
BLKG	BLOCKING	MET	METAL
BOLL	BOLLARD	MEZZ	MEZZANINE
BRDLM	BROADLOOM	MFD	MANUFACTURED
BU	BUILT UP	MFR	MANUFACTURER
C		MIN	MINIMUM
CAB	CABINET	MISC	MISCELLANEOUS
CEM	CEMENT(ITIOUS)	MLWK	MILLWORK
CER	CERAMIC	MOIST	MOISTURE
CI	CONTINUOUS INSULATION	MOT	MOTORIZED
CLG	CEILING	MTD	MOUNTED
CMU	CONCRETE MASONRY UNIT	N	
	COATING	NIC	NOT IN CONTRACT
COATG	COILING	NO	NUMBER
COLG	CONCRETE	NTS	NOT TO SCALE
CONC	CONSTRUCTION	O	
CONSTR	CONTINUOUS(ATION)	OH	OPPOSITE HAND
CONT	CONTRACT(OR)	OPNG	OPENING(S)
CONTR	COVER	OPP	OPPOSITE
COV	CARPET	OPR	OPERABLE
CPT		ORNA	ORNAMENTAL
D	DOUBLE	OS	OCCUPANCY SENSOR
DBL	DEPARTMENT	OVFL	OVERFLOW
DEPT	DESIGNED	O'HD	OVERHEAD
DES	DETAIL	P	
DET	DRINKING FOUNTAIN	PBD	PARTICLE BOARD
DF	DIAMETER	PEDTR	PEDESTRIAN
DIA	DIFFUSER	PLAM	PLASTIC LAMINATE
DIFF	DIMENSION	PLAS	PLASTER
DIM	DISPENSER	PLSTC	PLASTIC
DISP	DIVISION	PLYWD	PLYWOOD
DIV	DOWN	PNL	PANEL
DN	DOOR	POLYST	POLYSTYRENE
DR	DISCONNECT	PORT	PORTABLE
DSCON	DRAWER	PREFAB	PREFABRICATED
DWR	ELASTOMERIC	PREFIN	PREFINISHED
E	ELECTRICAL	PRTECN	PROTECTION
ELAST	EMBEDD(ED)(ING)	PT'N	PARTITION
ELEC	ENGINEER(ED)	R	
EMBED	ENTRANCE	RDR	READER
ENGR	EQUAL	REC	RECOMMENDED
ENTR	EQUIPMENT	RECES	RECESS(ED)
EQ	EXISTING	RECP	RECEPTACLE
EQIP	EXPANSION JOINT	REF	REFER(ENCE)
EX	EXPOSE(D)	REFL	REFLECTED
EXP JT	EXT	REFR	REFRIGERATOR
EXPS	FABRICATION	REQD	REQUIRED
EXT	FLOOR DRAIN	RESIS	RESISTANT(IVE)
F	FIRE EXTINGUISHER	RFG	ROOFING
FAB	FIRE EXTINGUISHER AND CABINET	RM	ROOM
FD	FIRE EXTINGUISHER	RO	ROUGH OPENING
FE	FIRE EXTINGUISHER AND CABINET	S	
FE&C	FIRE HOSE CABINET	SCR	SCRIBE
FHC	FINISH	SECUR	SECURITY
FH	FOLDING	SF	SQUARE FEET
FLDG	FLR	SGL	SINGLE
FLR	FLOOR(ING)	SHORG	SHORING
FOS	FACE OF STUD	SIM	SIMILAR
FPLC	FIREPLACE	SST	STAINLESS STEEL
FR	FIRE RAT(ING)(ED)	STD	STANDARD
FRMO	FRAMING	STL	STEEL
FURN	FURNITURE	STRFR	STOREFRONT
FWC	FABRIC WALL COVERING	STRUCT	STRUCTURAL
FXD	FIXED	SURF	SURFACE
FXTR	FIXTURE	SUSP	SUSPENDED
G	GAUGE	SYS	SYSTEM(S)
GA	GROUND FAULT CIRCUIT INTERRUPTER	T	
GFCI	GLASS FIBER	T&G	TONQUE AND GROOVE
GFR	REINFORCED CONCRETE	TG	TEMPERED GLASS
GFRG	GLASS FIBER	THK	THICK
GFRP	REINFORCED GYPSUM	TLT	TOILET
	REINFORCED PLASTER	TRAF	TRAFFIC
GL	GLASS	TRANS	TRANSPARENT
GR	GRAD(E)(ING)	TRTD	TREATED
GYP	GYPSUM	TYP	TYPICAL
		U	
H	HEAD	UNDRLAY	UNDERLAYMENT
HD	HARDWARE	UCON	UNLESS OTHERWISE NOTED
HDWD	HOLLOW METAL	UTIL	UTILITY
HM	HORIZONTAL	V	
HORIZ	HEATING, VENTILATING, AND AIR CONDITIONING	VEH	VEHICLE
HVAC		VERT	VERTICLE
		VIF	VERIFY IN FIELD
I		W	
INFILTR	INFILTRATION	W/	WITH
INFO	INFORMATION	W/O	WITHOUT
INSTRUM	INSTRUMENT(ATION)	WC	WATER CLOSET
INSUL	INSULATION	WD	WOOD
INT	INTERIOR	WDW	WINDOW
INTLK	INTERLOCK(ING)	WT	WEIGHT
		WTRPRF	WATERPROOFING

ARCHITECTURAL

SHEET NUMBER	SHEET NAME	REVISIONS		
		LATEST	DATE	DESCRIPTION
***	COVER SHEET			
A00.00	DRAWING INDEX, PROJECT INFORMATION AND ABBREVIATIONS			
A00.60	DEMOLITION SITE PLAN			
A00.61	PROPOSED SITE PLAN			
A04.00	DEMOLITION REFLECTED CEILING PLAN			
A04.01	PROPOSED REFLECTED CEILING PLAN			
A09.00	EXTERIOR ELEVATIONS			
A09.02	EXTERIOR RENDERINGS			

LANDSCAPE

SHEET NUMBER	SHEET NAME	REVISIONS		
		LATEST	DATE	DESCRIPTION
L1.0	LANDSCAPE PLAN			



EXTERIOR RENOVATION

2501 RAILROAD AVE
PITTSBURG, CA 94565

BUILDING ID: CA4-107



2101 Webster Street
Suite 2000
Oakland, CA 94612
United States

Tel 510.625.7400

△	Date	Description
	09/07/2023	ISSUE FOR PLANNING REVIEW

Seal / Signature

Project Name
PITTSBURG

Project Number
033.2237.022

Description
DRAWING INDEX, PROJECT INFORMATION AND ABBREVIATIONS

Scale
NOT TO SCALE

A00.00



A. NORTHWEST ELEVATION



B. SOUTH ELEVATION



C. EAST ELEVATION

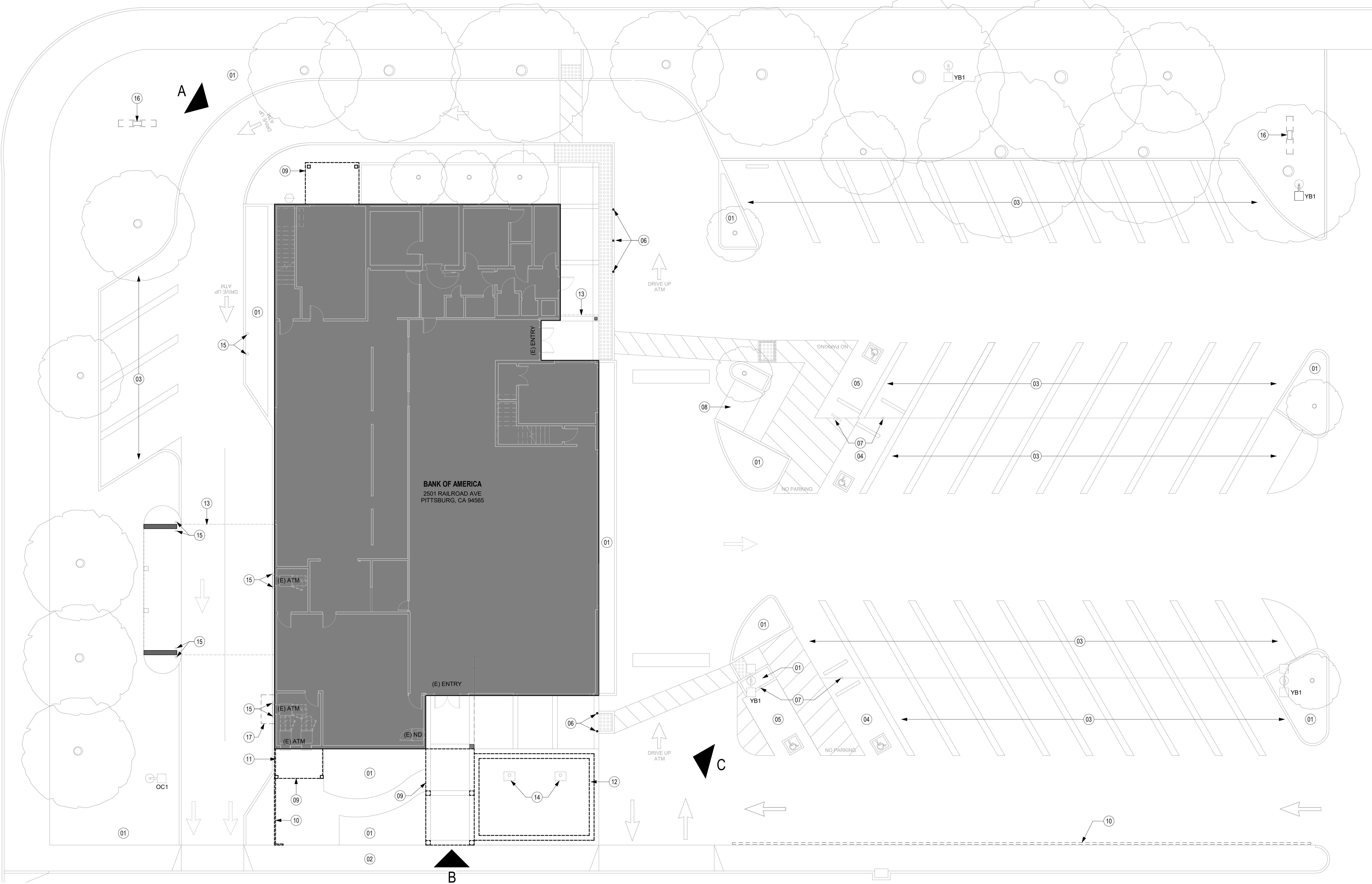
EXISTING CONDITION PHOTOS

SCALE: NTS

02

E LELAND ROAD

RAIL ROAD AVE



DEMOLITION SITE PLAN

SCALE: 1" = 10'-0"

01

SHEET NOTES

- 01 EXISTING LANDSCAPE AREA TO REMAIN
- 02 EXISTING SIDEWALK TO REMAIN
- 03 EXISTING PARKING TO REMAIN
- 04 EXISTING ACCESSIBLE PARKING STALL TO REMAIN
- 05 EXISTING ACCESSIBLE VAN PARKING STALL TO REMAIN
- 06 EXISTING BOLLARD TO BE REMOVED
- 07 EXISTING ACCESSIBLE SIGN TO REMAIN
- 08 EXISTING DUMPSTER ENCLOSURE TO REMAIN
- 09 EXISTING WOOD TRELLIS TO BE REMOVED
- 10 EXISTING GUARDRAIL TO BE REMOVED
- 11 EXISTING ATM SCREEN TO BE REMOVED
- 12 EXISTING WOOD PLANTER TO BE REMOVED
- 13 OUTLINE OF EXISTING ROOF OVERHANG SHOWN DASHED
- 14 EXISTING FLAG POLES TO REMAIN
- 15 EXISTING BOLLARD TO REMAIN
- 16 EXISTING MONUMENT SIGN TO BE REMOVED UNDER SEPARATE PERMIT BY OTHERS. SHOWN FOR REFERENCE ONLY
- 17 EXISTING ATM AWNING TO BE REMOVED

GENERAL NOTES

- A. SITE INFORMATION BELIEVED TO BE ACCURATE BUT ACCURACY IS NOT GUARANTEED. INFORMATION IS SHOWN FOR ILLUSTRATIVE PURPOSES AND TO BE USED FOR REFERENCE ONLY.
- B. ALL DIMENSIONS TO BE FIELD VERIFIED BY THE GC.
- C. COORDINATE EXTENT OF DEMOLITION WITH NEW PROPOSED SCOPE.
- D. EXISTING SECURITY CAMERAS AND BOLLARDS TO REMAIN UNLESS OTHERWISE NOTED.
- E. ANY REQUIRED SIGNS, EXTERIOR LIGHTING OR SURFACE APPLIED FITMENTS TO HAVE INTERNALLY ROUTED CONDUITS. NO EXTERNAL ELECTRICAL CONDUITS TO BE APPLIED.
- F. ALL EXTERIOR WAYFINDING TO BE UPDATED TO NEW STANDARDS. REFER TO SEPARATE PACKAGE BY SIGNAGE VENDOR. GC TO COORDINATE BUILDING PATCHING AS REQUIRED.
- G. LIGHT FIXTURE HOUSINGS TO COORDINATION WITH SCHEDULED FINISH.
- H. CLEAN, PREP AND REPAIR SURFACES AS NECESSARY TO RECEIVE NEW PAINT.
- I. BOLLARDS IN PARKING SPACES TO BE CENTERED ON THE STALL AND ADJACENT TO PARKING STRIPES.

LEGEND

- EXISTING BUILDING
- 01 SHEET NOTES
- ITEM TO BE DEMOLISHED
- EXISTING TREE

BANK OF AMERICA

EXTERIOR RENOVATION

2501 RAILROAD AVE
PITTSBURG, CA 94565

BUILDING ID: CA4-107

Gensler

2101 Webster Street
Suite 2000
Oakland, CA 94612
United States

Tel 510.625.7400

Seal / Signature

Project Name

PITTSBURG

Project Number

033.2237.022

Description

DEMOLITION SITE PLAN

Scale

As indicated

A00.60

© 2023 Gensler



01 EXISTING LIGHT FIXTURE TO REMAIN
02 EXISTING LIGHT FIXTURE TO BE REMOVED
AND REPLACED. SEE PROPOSED REFLECTED
CEILING PLAN
03 EXISTING LIGHT FIXTURE TO BE REMOVED
04 EXISTING SKYLIGHT TO REMAIN
05 OUTLINE OF EXISTING TRELLIS TO BE
DEMOLISHED

Gensler

2101 Webster Street
Suite 2000
Oakland, CA 94612
United States

- A. ALL DIMENSIONS TO BE FIELD VERIFIED BY THE GC.
- B. COORDINATE EXTENT OF DEMOLITION WITH NEW PROPOSED SCOPE.
- C. CLEAN, PREP AND REPAIR SURFACES AS NECESSARY TO RECEIVE NEW PAINT.

△ Date	Description
09/07/2023	ISSUE FOR PLANNING REVIEW

 EXISTING BUILDING
 SHEET NOTES
 ITEM TO BE DEMOLISHED
 SOFFIT/CEILING

Seal / Signature

Project Name

PITTSBURG

Project Number
033.2237.022

Description
DEMOLITION REFLECTED CEILING PLAN

Scale
 $3/16" = 1'-0"$

A04.00



01 PAINT EXISTING SIDING AND DECORATIVE
TRIM. REPAIR OR REPLACE PORTIONS OF
TRIM WHERE NECESSARY

02 CLEAN EXISTING LENS, TYPE

03 PAINT UNDERSIDE OF EXISTING CANOPY

04 NEW DRY JOINT METAL PANEL CANOPY
SYSTEM

05 PAINT EXISTING WOOD STRUCTURE

06 NEW OR REPLACED LIGHT FIXTURE. SEE
LUMINAIRE SCHEDULE ON SHEET A00.61

07 1/2" REVEAL

BUILDING ID: CA4-107

Tel 510.625.7400

- A. ALL DIMENSIONS TO BE FIELD VERIFIED BY THE GC.
- B. COORDINATE EXTENT OF DEMOLITION WITH NEW PROPOSED SCOPE.
- C. CLEAN, PREP AND REPAIR SURFACES AS NECESSARY TO RECEIVE NEW PAINT.

△ Date	Description
09/07/2023	ISSUE FOR PLANNING REVIEW

	EXISTING BUILDING
	SHEET NOTES
	FINISH TAG
	SOFFIT/CEILING

Seal / Signature

Project Name

PITTSBURG

Project Number

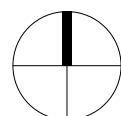
033.2237.022

Description
PROPOSED REFLECTED CEILING PLAN

Scale

$$3/16'' = 1'-0''$$

A04.01



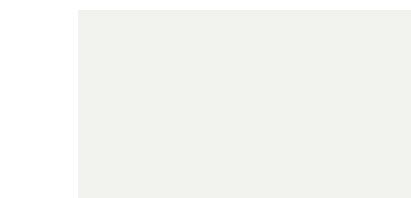
SHEET NOTES

- 01 REPLACE EXISTING WOOD SIDING WITH NEW HARDIE ARTISAN GROOVE SIDING SYSTEM. PREP SUB-SURFACE AND STRUCTURE AS REQUIRED. PAINT FACADE AS SCHEDULED
- 02 PAINT EXISTING WOOD STRUCTURE
- 03 REPLACE EXISTING WINDOW TRIM WITH NEW HARDIE TRIM BOARD. PREP SUB-SURFACE AND STRUCTURE AS REQUIRED. PAINT TRIM BOARD AS SCHEDULED. TYPICAL WHERE WINDOW TRIM EXISTS
- 04 NEW SIGNAGE UNDER SEPARATE PERMIT BY OTHERS. SHOWN FOR REFERENCE ONLY
- 05 NOT USED
- 06 PAINT NEW METAL FLASHING AS SCHEDULED. TYPICAL WHERE FLASHING EXISTS
- 07 PAINT DOOR AND FRAME AS SCHEDULED
- 08 REPLACE EXISTING WOOD SIDING WITH NEW HARDIE PANEL SYSTEM. PREP SUB-SURFACE AND STRUCTURE AS REQUIRED. PAINT FACADE AS SCHEDULED
- 09 NEW OR REPLACED LIGHT FIXTURE. SEE LUMINAIRE SCHEDULE ON SHEET A00.61
- 10 NOT USED
- 11 NEW DRY JOINT METAL PANEL CANOPY SYSTEM
- 12 PAINT EXISTING LOUVER AS SCHEDULED
- 13 PAINT EXISTING WOOD STRUCTURE AS SCHEDULED

GENERAL NOTES

- A. ALL DIMENSIONS TO BE FIELD VERIFIED BY THE GC.
- B. COORDINATE EXTENT OF DEMOLITION WITH NEW PROPOSED SCOPE.
- C. EXISTING SECURITY CAMERAS AND BOLLARDS TO REMAIN UNLESS OTHERWISE NOTED.
- D. ANY REQUIRED SIGNS, EXTERIOR LIGHTING OR SURFACE APPLIED FITMENTS TO HAVE INTERNALLY ROUTED CONDUITS. NO EXTERNAL ELECTRICAL CONDUITS TO BE APPLIED.
- E. LIGHT FIXTURE HOUSINGS TO COORDINATE WITH SCHEDULED FINISH.
- F. CLEAN, PREP AND REPAIR SURFACES AS NECESSARY TO RECEIVE NEW PAINT.

EXTERIOR FINISH SCHEDULE



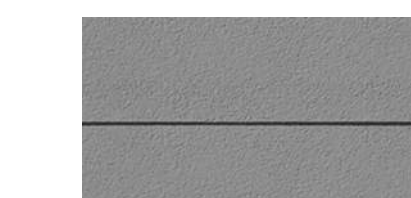
EXPT-15
MATERIAL: WHITE PAINT
MFR: BENJAMIN MOORE
COLOR: SUPER WHITE OC-152
FINISH: FLAT

EXPT-15B
MATERIAL: WHITE PAINT OVER METAL SURFACES
MFR: PPG PSX 805
COLOR: MOONLIT SNOW 1041-1 LRV: 85
FINISH: SATIN

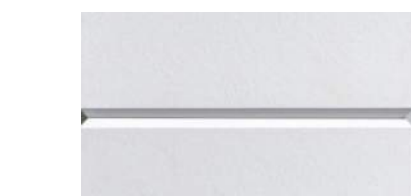


EXPT-17
MATERIAL: GRAY PAINT
MFR: BENJAMIN MOORE
COLOR: CHARCOAL SLATE HC-178
FINISH: FLAT

EXPT-17B
MATERIAL: GRAY PAINT OVER METAL SURFACES
MFR: PPG PSX 805
COLOR: GLAZED GRANITE 1011-6 LRV: 11
FINISH: SATIN



HARDIE PANEL
MATERIAL: HARDIE PANEL
MFR: JAMES HARDIE
FINISH: FINE SAND-GROOVED



ARTISAN GROOVE SIDING
MATERIAL: V-GROOVE SIDING
MFR: JAMES HARDIE
FINISH: ARTISAN ASPYRE



EPS-01
MATERIAL: METAL COMPOSITE (MCM)
MFR: CITADEL
SPEC: ENVELOPE 2000 RAINSCREEN (RS) PANEL
COLOR: CLEAR SATIN ANODIZED

BANK OF AMERICA

EXTERIOR RENOVATION

2501 RAILROAD AVE
PITTSBURG, CA 94565

BUILDING ID: CA4-107

Gensler

2101 Webster Street
Suite 2000
Oakland, CA 94612
United States

Tel 510.625.7400

Date	Description
09/07/2023	ISSUE FOR PLANNING REVIEW

Seal / Signature

Project Name

PITTSBURG

Project Number

033.2237.022

Description

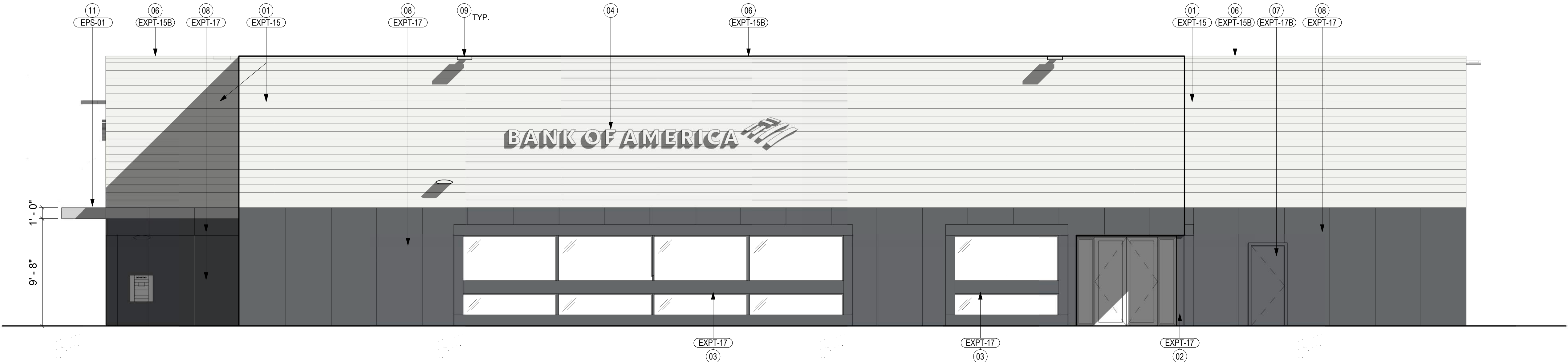
EXTERIOR ELEVATIONS

Scale

As indicated

A09.00

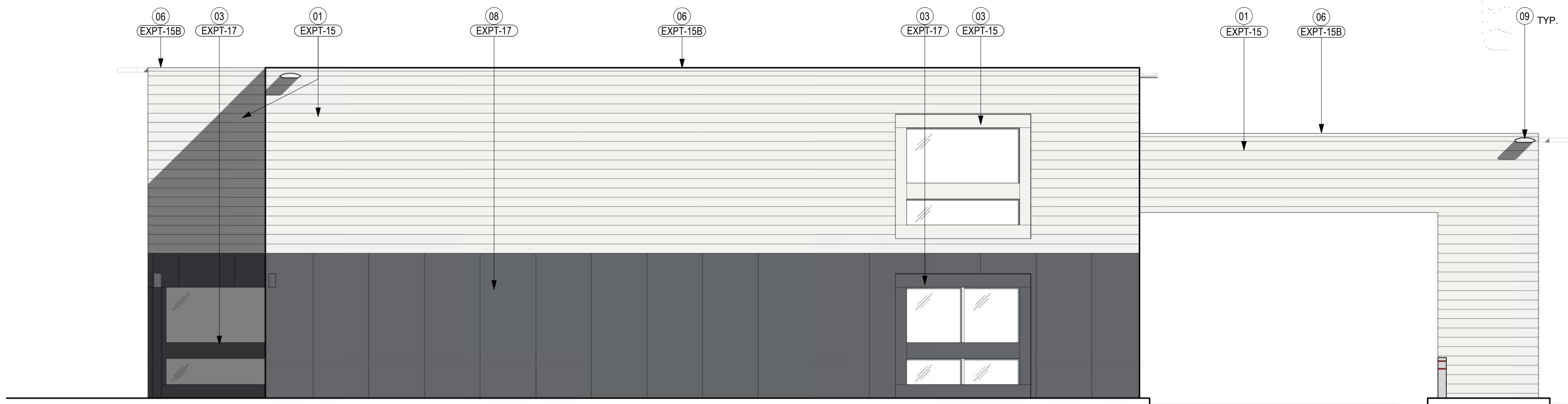
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EAST ELEVATION

SCALE: 3/16" = 1'-0"

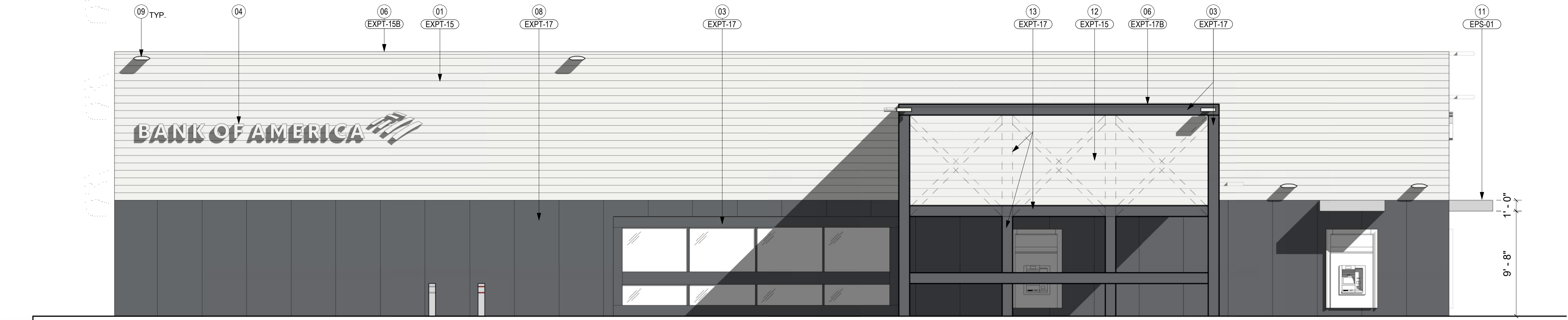
01



NORTH ELEVATION

SCALE: 3/16" = 1'-0"

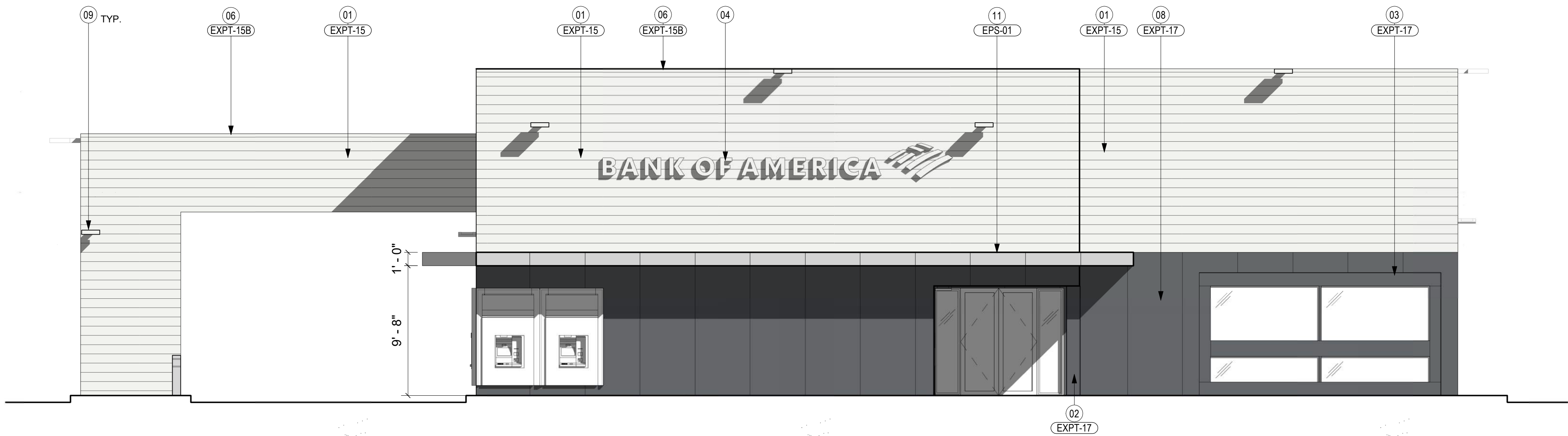
02



WEST ELEVATION

SCALE: 3/16" = 1'-0"

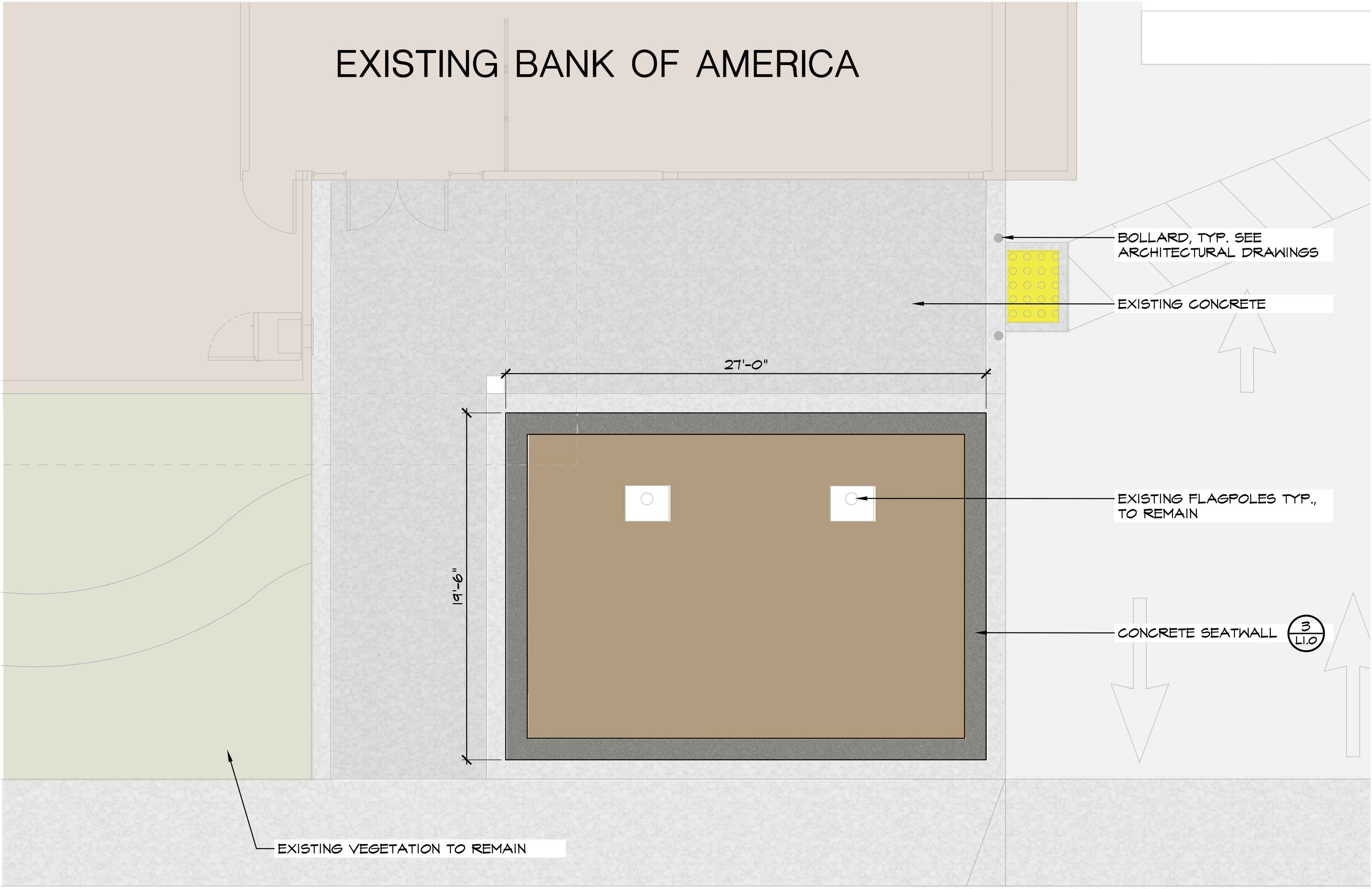
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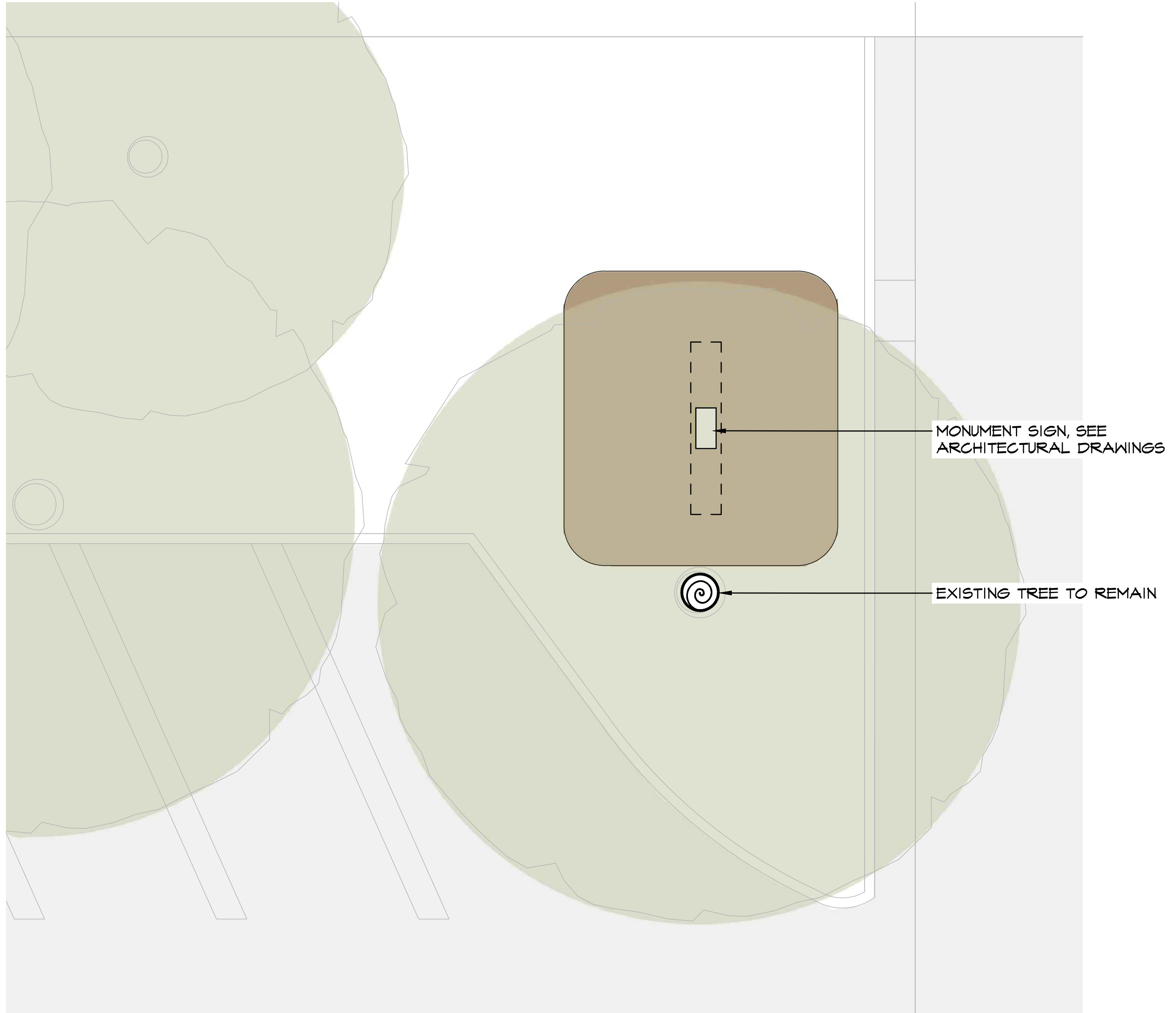
SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

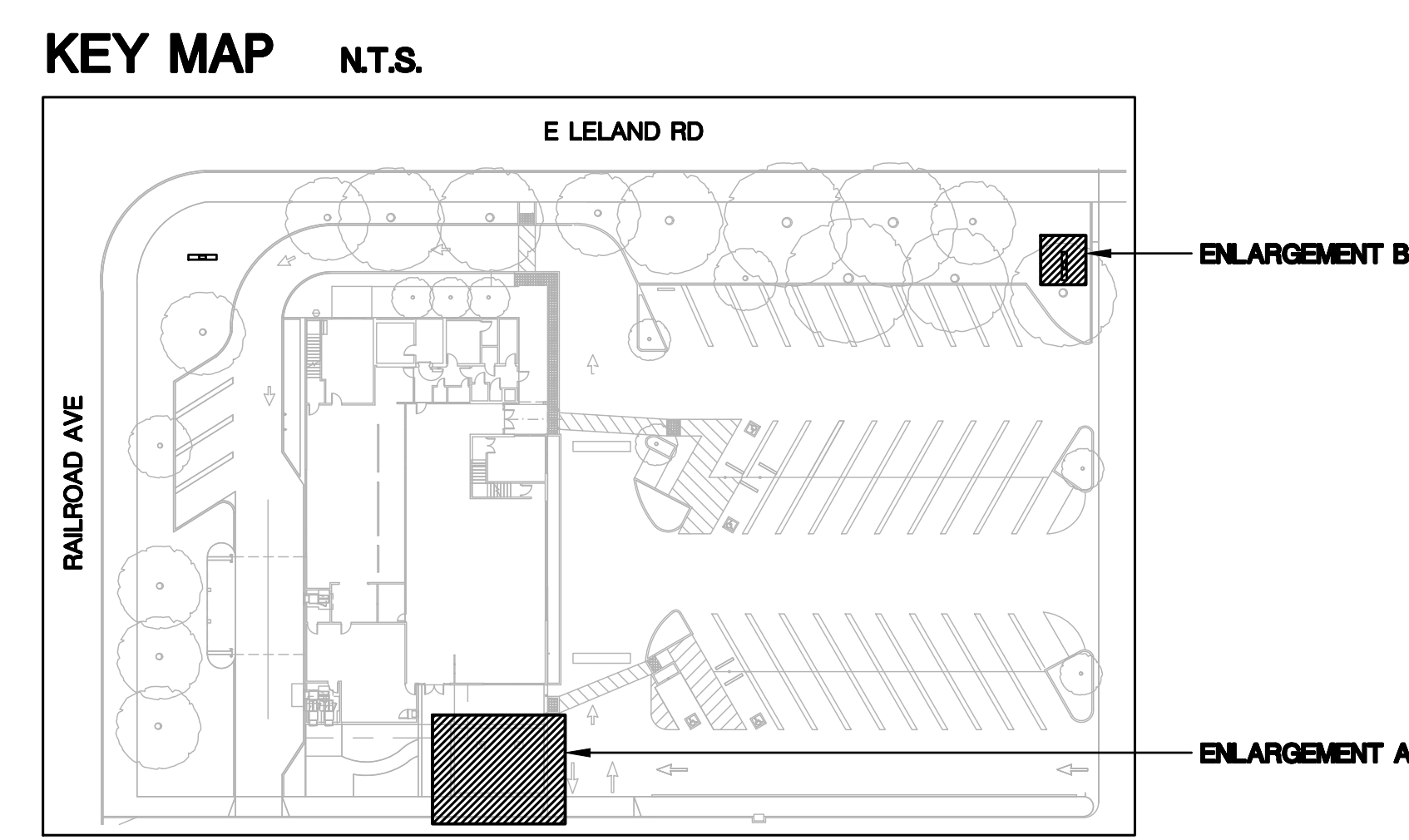
04



1 ENLARGEMENT A
L1.0 PLAN



2 ENLARGEMENT B
L1.0 PLAN



LANDSCAPE PLAN LEGEND

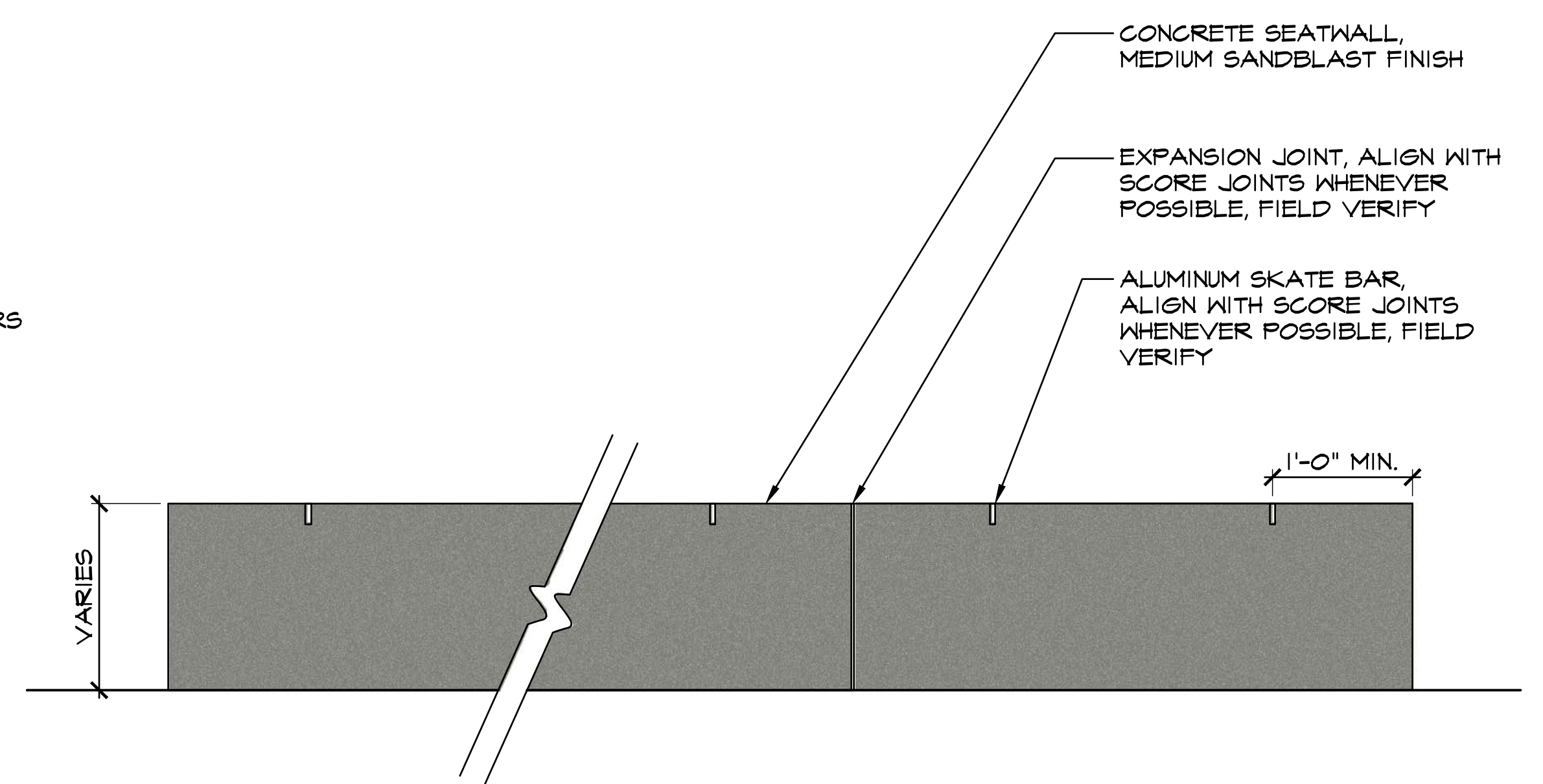
MULCH, SEE NOTE #1 BELOW

LANDSCAPE PLAN NOTES

MULCH: INSTALL A UNIFORM THREE INCH COVERING OF WALK-ON MULCH, 1-1/2" PARTICLE SIZE IN LOCATION AS SHOWN ON PLAN



COLOR: 'OUTBACK 6T1', DAVIS COLORS
MATERIAL: CONCRETE
FINISH: MEDIUM SANDBLAST



3 CONCRETE SEATWALL
L1.0 ELEVATION



1633 Bayshore Highway, Suite 133
Burlingame, CA 94010
1.650.375.1313
www.callanderassociates.com

DRAWN BY: AD

CHECKED BY: ZK
#23024

Date	Description
09/07/2023	ISSUE FOR PLANNING REVIEW

Seal / Signature

Project Name
PITTSBURG

Project Number
033.2237.022

Description
LANDSCAPE PLAN

Scale
As indicated

L1.0

**NOTICE OF INTENT
TO EXERCISE DESIGN REVIEW AUTHORITY DELEGATED TO STAFF PURSUANT
TO PLANNING COMMISSION RESOLUTION NO. 9918**

Car Wash Equipment Enclosure – 7-Eleven, AP-23-0139 (ADR).

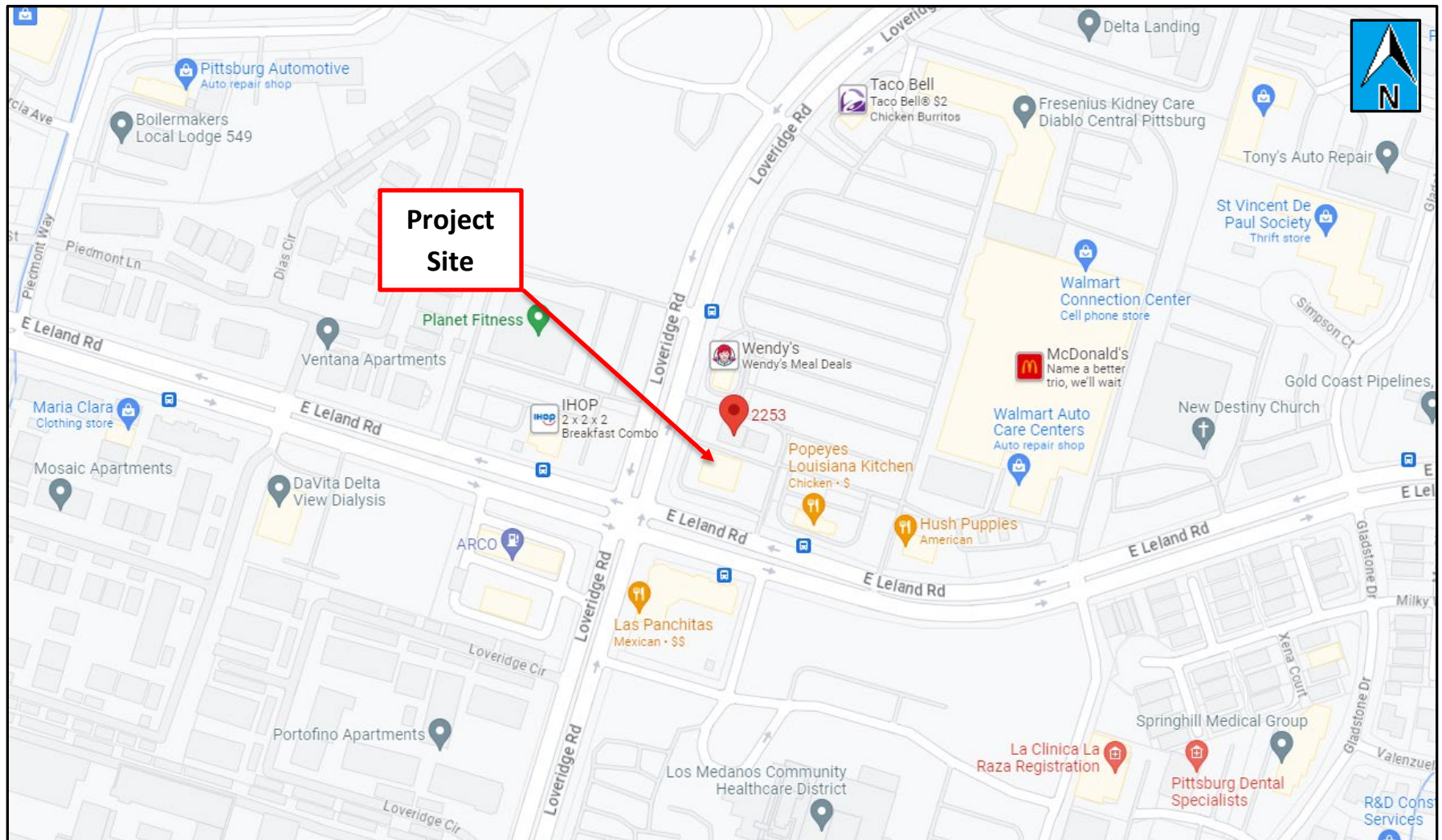
This is an application requesting Administrative Design Review approval to construct a six-foot-tall, concrete block wall and gate on the west side of the existing convenience store and car wash located at 2253 Loveridge Road. The wall and gate would create an approximately 60-square foot outdoor enclosure to house/screen car wash equipment (irrigation control panel, compressor and fluid/soap storage tanks) formerly stored indoors. Project includes improvements to walking surfaces and ramps surrounding the convenience store, a new accessible route from the public right-of-way (Loveridge Road), updated striping and parking signage per California Building Code. The project site is in the CC (Community Commercial) District. Assessor's Parcel Number: 088-630-011.

The concrete masonry units (CMU) block wall will be painted white to match the existing building. Existing parking stalls (standard and ADA) will be restriped and the existing ADA sign in the access aisle will be repainted. Public access to the business from the sidewalk on Loveridge Road will be updated per CBC requirements and include a new curb ramp, a new 48-inch-wide accessible path, a new "No Parking" sign painted in the access aisle in white letters and a new "Unauthorized Vehicles Will Be Towed" sign.

This project is delegated to staff under Category 4 (Changes to Existing Parking Lots) and Category 8 (Ancillary Structures) of Planning Commission Resolution No. 9918.

7-Eleven Screening Wall and Gate (ADR) – Vicinity Map

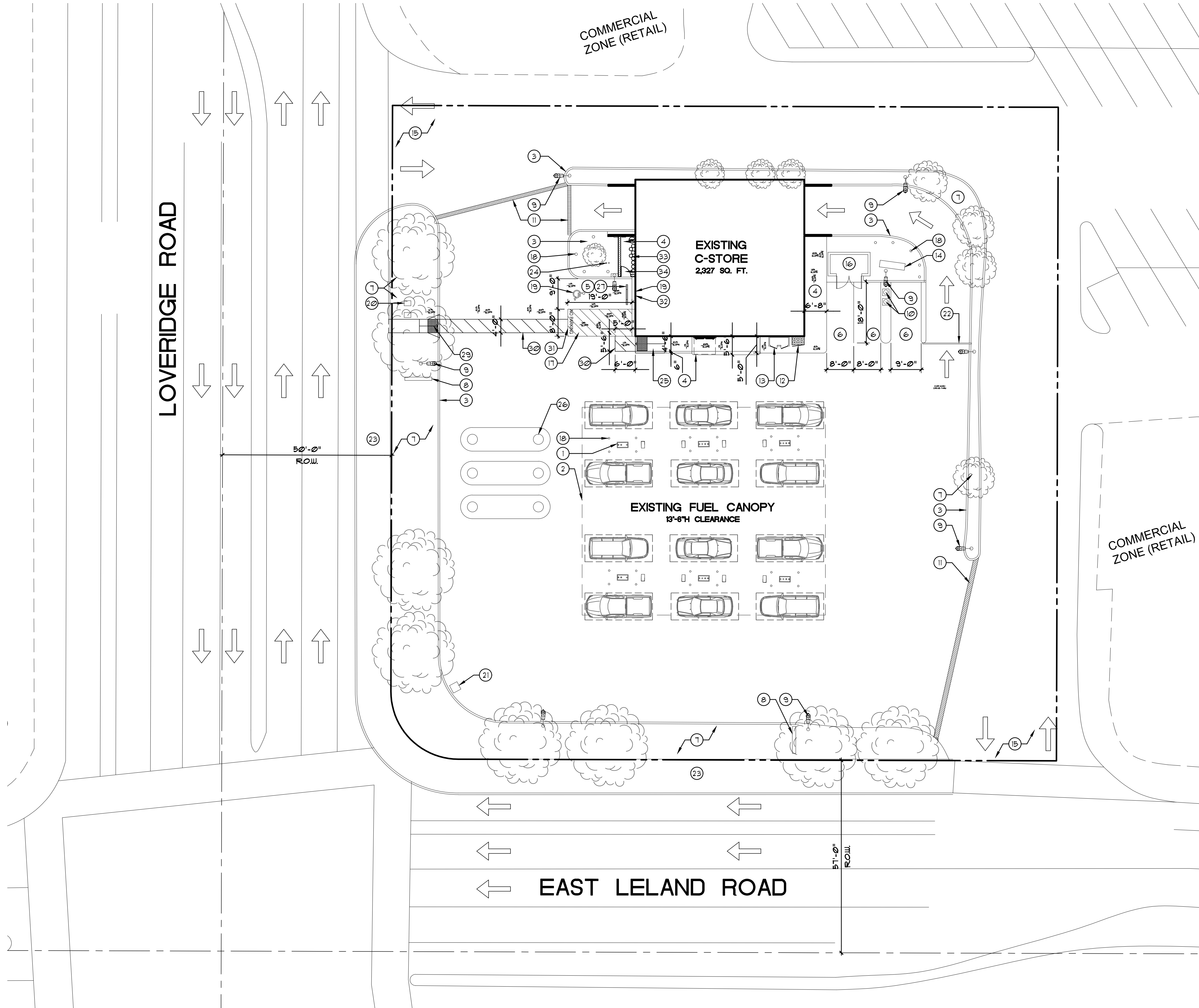
AP-23-0139	2253 Loveridge Rd., Pittsburg
Administrative Design Review	APN: 088-630-011



7-Eleven Screening Wall and Gate (ADR) – Aerial Map

AP-23-0139	2253 Loveridge Rd., Pittsburg
Administrative Design Review	APN: 088-630-011

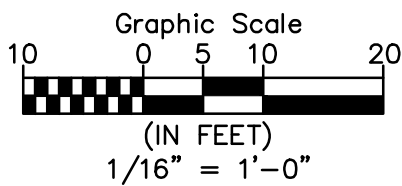
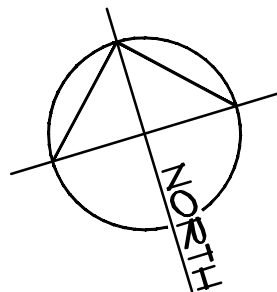




SITE PLAN

SCALE: 1/16"=1'-0"

1



SITE INFORMATION

PROPERTY LOCATION:
SHELL STATION
2253 LOVERIDGE ROAD
PITTSBURG, CA 94565

SITE INFORMATION:
APN: 085-630-011
ZONING: COMMUNITY COMMERCIAL (CC)
NUMBER OF STORIES: ONE
CONSTRUCTION TYPE: V-B (NO SPRINKLERS)
OCCUPANCY TYPE: M1 - MERCANTILE
SITE AREA: 38,034 SQ. FT.

BUILDING FOOTPRINT:
EXISTING C-STORE: +/- 2,321 SQ. FT.
EXISTING FUEL CANOPY: +/- 4,428 SQ. FT.
OUTDOOR SCREENING: +/- 60 SQ. FT.
TOTAL BUILDING FOOTPRINT: +/- 6,815 SQ. FT.

% OF SITE COVERED BY BUILDING:
BUILDING FOOTPRINT SQ. FT. / PROPERTY SQ. FT.
6,815 SQ. FT. / 38,034 SQ. FT. = .179 = 18%

EXISTING BUILDING SQUARE FOOTAGE BREAKDOWN:
CAR WASH: 321 SQ. FT.
MERCHANDISE: 554 SQ. FT.
SALES: 209 SQ. FT.
OFFICE: 38 SQ. FT.
RESTROOM: 64 SQ. FT.
BACKROOM (BOH): 342 SQ. FT.
WALK-IN COOLER: 152 SQ. FT.
WAITING: 41 SQ. FT.

EXISTING PARKING CALCULATION:
GENERAL MERCHANDISE, RETAIL SALES (18,180.40):
1 PER 250 SQ. FT. UP TO 50,000 SQ. FT.

EXISTING C-STORE: 2,321 SQ. FT.
2,321 SQ. FT. / 250 = 10 PARKING SPACES

TOTAL EXISTING PARKING REQUIRED:
10 PARKING SPACES

TOTAL EXISTING PARKING PROVIDED:
16 PARKING SPACES (3 STANDARD, 1 ADA, 4
12 UNDER FUEL CANOPY)

NOTE: NO CHANGES TO BUILDING FOOTPRINT OR USE
BEING PROPOSED WITH THIS TENANT IMPROVEMENT.
REQUIRED AND PROVIDED PARKING REMAIN THE SAME.

KEYNOTES

THESE KEYNOTES APPLY ONLY TO THIS SHEET

1 EXISTING FUEL DISPENSER ISLANDS: TO REMAIN

2 DASHED LINE SHOWS EXISTING FUEL CANOPY ABOVE: TO REMAIN

3 EXISTING CONCRETE CURBED LANDSCAPE AREA: TO REMAIN

4 EXISTING 6" HIGH CONCRETE CURB & WALKWAY: TO REMAIN

5 EXISTING HANDICAP PARKING TO REMAIN AND RESTRIPTED AS REQUIRED.

6 EXISTING STANDARD PARKING TO REMAIN AND RESTRIPTED AS REQUIRED.

7 EXISTING LANDSCAPING: TO REMAIN

8 EXISTING MONUMENT SIGN: TO REMAIN

9 EXISTING SITE LIGHTING: TO REMAIN

10 EXISTING AIR, WATER, & VACUUM UNITS: TO REMAIN

11 EXISTING TRENCH DRAINS: TO REMAIN

12 EXISTING PROPANE TANK: TO REMAIN

13 EXISTING ICE MERCHANDISER: TO REMAIN

14 EXISTING TRANSFORMER: TO REMAIN

15 EXISTING DRIVEWAY: TO REMAIN

16 EXISTING TRASH ENCLOSURE: TO REMAIN

17 EXISTING ADA LOADING AREA TO REMAIN AND BE RE-STRIPED.

18 EXISTING BOLLARDS: TO REMAIN

19 EXISTING ADA SIGN TO BE REPLACED WITH NEW AS PLANS INDICATE.

20 EXISTING WATER METER: TO REMAIN

21 EXISTING CATCH BASIN: TO REMAIN

22 EXISTING 110"H CLEARANCE SIGN: TO REMAIN

23 EXISTING CONCRETE SIDEWALK: TO REMAIN

24 EXISTING VENT STACKS: TO REMAIN

25 EXISTING RAMP TO BE MODIFIED AS PLANS INDICATE.

26 EXISTING FUEL TANK COVERS: TO REMAIN

27 EXISTING WHEEL STOP: TO REMAIN

28 NOT USED.

29 NEW CURB RAMP PER CBC REQUIREMENTS.

30 NEW ACCESSIBLE ROUTE FROM PUBLIC ROW PER CBC REQUIREMENTS.
- ACCESSIBLE PATH CLEAR WIDTH 48" MIN.
REQUIRED PER CBC 11B-403.3.1, EXCEPTION 3.
- MAXIMUM RUNNING SLOPE 5% PER CBC 11B-403.3.
- MAXIMUM CROSS SLOPE 2% PER CBC 11B-403.3.
- CHANGES IN LEVEL TO COMPLY WITH CBC 11B-303.3.

31 NEW "NO PARKING" SIGN PAINTED IN THE ACCESS AISLE IN WHITE LETTERS A MIN. 12 INCHES HIGH PER CBC 11B-502.3.3.

32 NEW "UNAUTHORIZED VEHICLES WILL BE TOWED" SIGN PER CBC 11B-502.8.

33 NEW LOCATION FOR CAR WASH EQUIPMENT.
- SEE NEW FLOOR PLAN ON SHEET A11.

34 NEW 6'-0" CHU WALL AND 3060 GATE FOR SCREENING EQUIPMENT.
- PAINTED WHITE TO MATCH EXISTING BUILDING.
- VERIFY WITH OWNER.

DATE: 03.23.2023

JOB NO: 21198

DRAWN: STAFF

CHECKED: CM

711 N. FIELDER RD.
ARLINGTON, TX 76012
PH: (817) 635-5696
FAX: (817) 635-5699

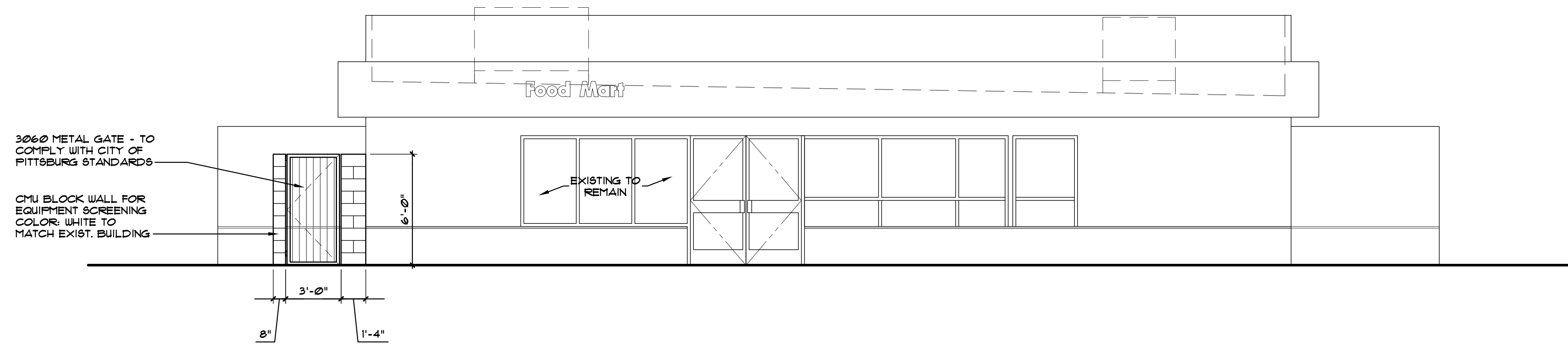
T.I. FOR 7-ELEVEN
STORE NO. 39379
2253 LOVERIDGE RD.
PITTSBURG, CA

REVISIONS

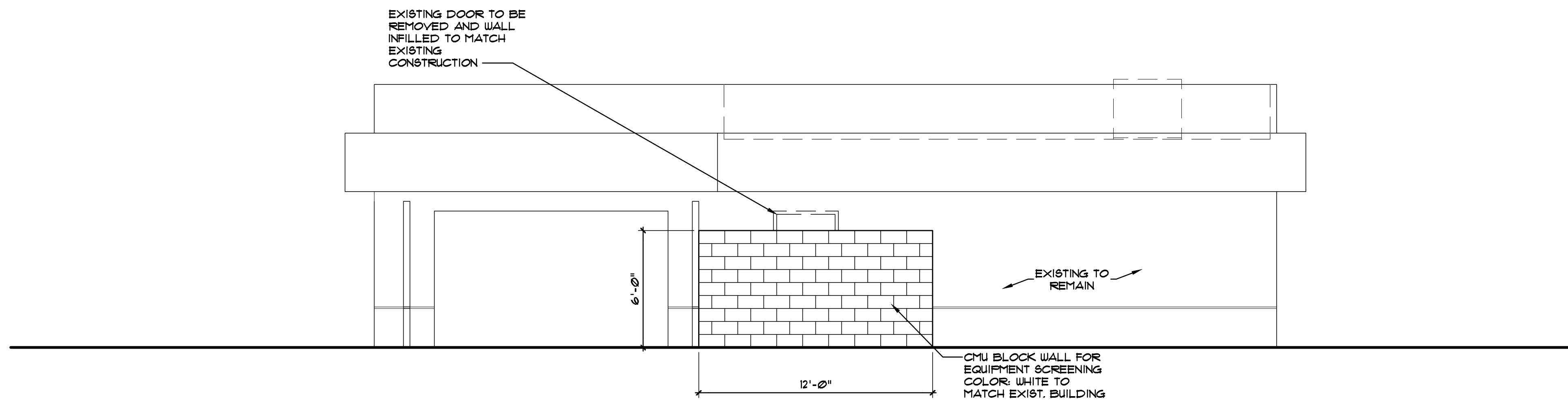
SITE PLAN

SHEET NUMBER

AS1



SOUTH EXTERIOR ELEVATION 1
SCALE: 1/8"=1'-0"



WEST EXTERIOR ELEVATION 2
SCALE: 1/8"=1'-0"

T.I. FOR 7-ELEVEN
STORE NO. 39379
2253 LOVERIDGE RD.
PITTSBURG, CA



REVISIONS

**EXTERIOR
ELEVATIONS**

SHEET NUMBER

A2

BEFORE THE PLANNING COMMISSION OF THE CITY OF PITTSBURG

In the Matter of:

Resolution Amending the Categories of Eligible)
Projects and Revising the Procedures for) Resolution No. 9918
Delegating Design Review Authority of Certain)
Types of Projects to the Zoning Administrator)

The Planning Commission DOES RESOLVE as follows:

Section 1. Background

- A. On August 26, 2003, the Planning Commission adopted Resolution No. 9444 in an effort to streamline the planning review process for certain projects that the Commission had determined to be routine in nature and have minimal visual impacts on the surrounding community. This resolution authorized various types of projects to be reviewed by the Zoning Administrator rather than the Planning Commission, including "Wireless Communication Antennas, Monopoles and Related Structures and Equipment."
- B. On August 14, 2012, in response to recent Commission concerns regarding the approval process for wireless telecommunication equipment, a study session was conducted with the Planning Commission to review proposed updates to the existing design review delegation procedures. At this study session, the consensus of a majority of Commissioners was to keep all staff proposed changes, with an added clarification on the recommended voting process (Section B) for calling up items to be reviewed by the Commission.
- C. Proposed changes to the existing staff delegated design review authority (as presented during the August 14, 2012, study session) generally include: 1) a modification to the text of category 2, "Wireless Communication Antennas, Monopoles and Related Structures and Equipment," intended to separate out construction of new wireless telecommunications facilities from requests for modifications to existing facilities, with the only latter retaining eligibility for delegated review by the Zoning Administrator; 2) a revision to Category 3 to clarify that it applies to all minor building remodels and not just 'storefront' remodels; 3) a consolidation of Category 7 (changes in building colors) into Category 3; 4) a clarification to Category 9 to confirm application within all districts, not just Industrial areas; and 5) a clarification within Section B clarifying that a Commissioner's request to rescind delegated authority for a specific application, otherwise eligible for Zoning Administrator review, must be supported by a majority of the Commissioners present.
- D. Pittsburgh Municipal Code (PMC) Section 18.10.020, *Powers and Duties of the Planning Commission*, grants primary design review authority to the Planning

Commission. In 2003 the Planning Commission delegated its review and approval authority of certain routine and non-controversial application types to the Zoning Administrator through the adoption of Resolution No. 9444. Changes or revisions to Resolution No. 9444 fall within the same category as the original delegation, which the Commission has authority to approve under PMC 18.10.020.

- E. PMC Section 18.10.030 identifies the City Planner as the Zoning Administrator, and in accordance with PMC Section 18.10.100, the City Planner will continue to give notice to the Planning Commission of intent to exercise any authority that the Commission previously granted, including the authority to review and approve staff delegated design review applications.
- F. Staff would continue to be responsible for reviewing delegated applications for compliance with the General Plan, City Codes and adopted Design Guidelines, and the Zoning Administrator would continue to be required to make findings for approval and identify evidence to support the required findings, consistent with PMC Section 18.36.220(B). Approved resolutions would continue to be signed by the Zoning Administrator and no separate staff reports would be prepared on these items.
- G. Copies of all Zoning Administrator approved resolutions would continue to be forwarded to the Commission in its packet for the next regularly scheduled meeting.
- H. The proposed action delegating certain Planning Commission discretionary authority to the Zoning Administrator is not considered a project, as defined by the Public Resources Code section 21065, of the California Environmental Quality Act (CEQA).
- I. On September 25, 2012, the Planning Commission considered the proposed revisions to the staff delegated design review authority process as previously established by adoption of Resolution No. 9444.

Section 2. Decision

- A. The Planning Commission hereby delegates discretionary Design Review Authority to the Zoning Administrator, for the following types of applications, when categorically or statutorily exempt from the provisions of CEQA:
 - 1. Freestanding Signs. Applicable to signs not already part of a sign program; must be consistent with sign standards and architecturally compatible with associated building.
 - 2. Wireless Communication Equipment. New or replacement antennas on existing poles and their related equipment.

3. Minor Building Remodels. Limited to changes in building colors, awnings, fenestration, and finishes.
 4. Changes to Existing Parking Lots.
 5. Changes to Existing Landscaping.
 6. Additions to Existing Buildings. Additions must be smaller than 2,500 sq. ft. and designed to complement existing building architecture.
 7. New Model Homes in Approved Subdivisions. Must be consistent with the general size, quality of architecture and materials, and general character of the originally approved models. Must comply with approved zoning development standards.
 8. Ancillary Structures. Structures in any district where visual impacts are minimal, including miscellaneous mechanical equipment associated with legal uses in Industrial Districts.
- B. In compliance with PMC Section 18.10.100, staff shall prepare a list and brief description along with a copy of the project plans when applicable, of new pending applications for which the Zoning Administrator intends to exercise delegated design review authority, and submit it to the Commission at a Commission meeting prior to taking any action on the applications. Any member of the Planning Commission may then request at that time to have the matter scheduled for future consideration by the entire Commission. The Commission must approve the request as a group through a majority vote, prior to scheduling the item for future consideration.
- C. Staff shall continue to prepare resolutions of approval, when appropriate, describing the project, project location, applications being filed, required findings to approve the project and identifying evidence to support the required findings. Resolutions shall be signed by the Zoning Administrator and continue to have conditions of project approval, where applicable.
- D. To keep the Commission informed about what applications are processed under this proposal, copies of all Zoning Administrator approved resolutions shall be forwarded to the Commission in its packet for the next regularly scheduled meeting.
- E. If the Zoning Administrator does not believe he/she can make the required design review findings to approve a project, and the applicant is unwilling or unable to make the changes requested, the application shall automatically be referred to the Commission for action on the design review application.

Section 3. Effective Date

This resolution shall take effect immediately upon its adoption.

On motion by Commissioner Wirick, seconded by Commissioner Gargalikis, the foregoing resolution was passed and adopted the 25th day of September, 2012, by the Planning Commission of the City of Pittsburg, California by the following vote:

AYES: Fardella, Fogleman, Gargalikis, Kelley, Ohlson, Wirick

NAYES:

ABSTAIN:

ABSENT: Diokno

I hereby certify that the above Resolution No. 9918 was adopted by the Planning Commission of the City of Pittsburg on September 25, 2012.



KRISTIN VAHL POLLOT, SECRETARY
PITTSBURG PLANNING COMMISSION

NOTICE OF INTENT

TO EXERCISE DESIGN REVIEW AUTHORITY DELEGATED TO STAFF PURSUANT TO PLANNING COMMISSION RESOLUTION NO. 9918

DISH Network Installation of Telecommunications Equipment on Existing PG&E Power Pole, and new equipment enclosure, AP-23-0133 (ADR and MM).

This is an application filed by Alex Herrera, on behalf of DISH Network, requesting Administrative Design Review and Minor Modification approval to install new equipment for a wireless facility on an existing PG&E power pole located along State Route 4 on Assessor's Parcel No. 095-130-029. The parcel is located in the RS-5 (Single Family Residential, 5,000 Square-Foot Lot Minimum) and LDR (Low Density Residential) Districts.

The referral for an earlier version of this project was sent out on June 14, 2022, and included: a new 100 square-foot (sq. ft.) enclosure area for telecommunication equipment, the installation of a 12-foot "top hat" mounted to the top of the existing power pole, and the addition of antennas and other telecommunication equipment onto the power pole.

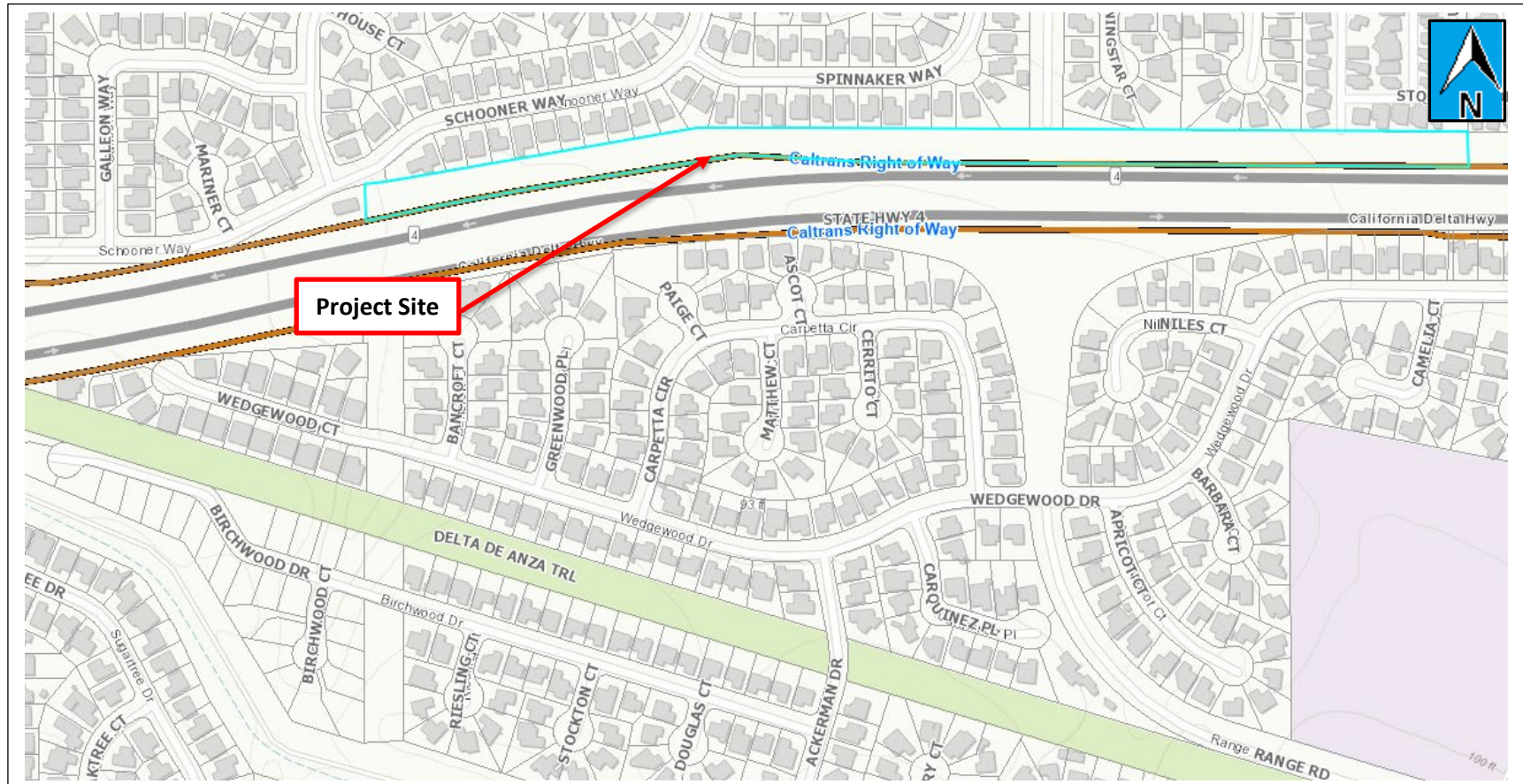
The project (Planning Application No. AP-22-0020) was approved by the Zoning Administrator on June 29, 2022, under Resolution No. 385. The Planning Division did not receive a written request for an extension prior to the June 29, 2023, expiration date in Standard Condition No. 4 in Resolution No. 385. Additionally, on July 10, 2023, the applicant contacted the Planning Division indicating minor changes had been made to the project including: 1) a change from chain-link to fiber for the enclosure fencing, 2) the addition of a 20-sq. ft. concrete stoop to the enclosure area, 3) reorganization of the equipment area layout, 4) the addition of a PG&E pad-mounted transformer and approximately 35 feet of climbing ladder, and 5) a revision to the fiber/power design routes.

For these reasons, the Planning Division requested submittal of a new application.

This project is delegated to staff under Category 2 (Wireless Communication Equipment), pursuant to Planning Commission Resolution No. 9918. Projects eligible for delegation under this category are limited to new or replacement antennas on existing poles and their related equipment.

DISH Network (ADR and MM) – Vicinity Map

AP-23-0133	North of California State Route 4
Administrative Design Review and Minor Modification Approval	APN: 095-130-029



DISH Network (MM and ADR) – Aerial Map

AP-23-0133	North of California State Route 4
Administrative Design Review and Minor Modification Approval	APN: 095-130-029





DISH WIRELESS SITE ID:
SFSFO00881A

SITE ADDRESS:
**STATE HWY RT 4
PITTSBURG, CA 94565**

**PG&E SITE ID: PITTSBURG-
TIDEWATER-230 kV_002/011**
SBA SITE ID: CA35740-L

SCOPE OF WORK

THIS IS NOT AN ALL INCLUSIVE LIST. CONTRACTOR SHALL UTILIZE SPECIFIED EQUIPMENT PART OR ENGINEER APPROVED EQUIVALENT. CONTRACTOR SHALL VERIFY ALL NEEDED EQUIPMENT TO PROVIDE A FUNCTIONAL SITE. THE PROJECT GENERALLY CONSISTS OF THE FOLLOWING:

- INSTALL PROPOSED TOWER TOP HAT ON (E) PG&E TOWER (BY PG&E)
- INSTALL (3) PROPOSED PANEL ANTENNAS (1 PER SECTOR)
- INSTALL (6) PROPOSED RRU'S (2 PER SECTOR)
- INSTALL (1) PROPOSED RAYCAP OVP SURGE SUPPRESSION DEVICE
- INSTALL (3) PROPOSED RRU H-FRAMES (1 PER SECTOR)
- INSTALL (1) 1.75"Ø HYBRID CABLE FROM EQUIPMENT TO SURGE SUPPRESSOR
- INSTALL (24) 1/2"Ø COAX JUMPERS, (3) RET CABLES FROM RRU'S TO ANTENNAS
- INSTALL +/- 35' OF CLIMBING LADDER (BY PG&E)

EQUIPMENT SCOPE OF WORK:

- INSTALL (1) PROPOSED FIBERFENCE EQUIPMENT ENCLOSURE WITH CONCRETE STOOP AND CHAIN LINK LID
- INSTALL (1) PROPOSED BBU IN CABINET
- INSTALL (1) PROPOSED EQUIPMENT CABINET
- INSTALL (1) PROPOSED POWER CONDUIT
- INSTALL (1) PROPOSED TELCO CONDUIT
- INSTALL (1) PROPOSED NEMA 3 TELCO-FIBER BOX
- INSTALL (1) PROPOSED GPS ANTENNA
- INSTALL (1) PPC CABINET WITH CAMLOCK GEN LUG INTERSECT
- INSTALL (1) PG&E SHUT-DOWN SWITCH
- INSTALL (1) PG&E PAD MOUNTED TRANSFORMER
- THERE ARE NO BATTERIES PROPOSED

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2022 CBC
MECHANICAL	2022 CMC
ELECTRICAL	2022 CEC

SHEET INDEX

SHEET NO.	SHEET TITLE
T-1	TITLE SHEET
LS-1	TOPOGRAPHIC SURVEY
LS-2	TOPOGRAPHIC SURVEY
A-1	OVERALL SITE PLAN AND EQUIPMENT PLAN
A-1.1	FIBER DESIGN SITE PLAN
A-2	ENLARGED PLANS
A-3	EQUIPMENT / ANTENNA PLANS, AND SCHEDULE
A-4	ELEVATIONS
A-5	ELEVATIONS
D-1	EQUIPMENT DETAILS
D-2	EQUIPMENT DETAILS
D-3	EQUIPMENT DETAILS
E-1	S.L.D., PANEL SCHEDULE & NOTES
E-2	ELECTRICAL DETAILS
E-3	PG&E POWER DESIGN
G-1	GROUNDING PLAN AND NOTES
G-2	GROUNDING DETAILS
G-3	PG&E GROUND GRID
G-4	PG&E GROUND GRID
RF-1	RF DATA
RF-2	RF-EME SIGNAGE REQUIREMENTS
CN-1	GENERAL NOTES
CN-2	GENERAL NOTES
CN-3	GENERAL NOTES
CN-4	GENERAL NOTES

SITE PHOTO



UNDERGROUND SERVICE ALERT
UTILITY NOTIFICATION CENTER OF CALIFORNIA
(800) 422-4133
WWW.CALIFORNIA811.ORG

CALL 2-14 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION



GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE. NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

SITE INFORMATION

PROPERTY OWNER: PACIFIC GAS AND ELECTRIC
ADDRESS: PO BOX 770000
SAN FRANCISCO, CA 94177

SITE TYPE: TRANSMISSION TOWER

COUNTY: CONTRA COSTA COUNTY

LATITUDE (NAD 83): 38.020410°

LONGITUDE (NAD 83): -121.921156°

ZONING JURISDICTION: CITY OF PITTSBURG

ZONING DISTRICT: RS-6

PARCEL NUMBER: 095-130-029

OCCUPANCY GROUP: U

CONSTRUCTION TYPE: V-B

POWER COMPANY: PG&E

FIBER COMPANY: AT&T

PROJECT DIRECTORY

APPLICANT: DISH WIRELESS
5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

SITE DESIGNER: CONNELL DESIGN GROUP
22431 ANTONIO PKWY., SUITE B160-131
RANCHO SANTA MARGARITA, CA 92688
DAN CONNELL
(949) 306-4644

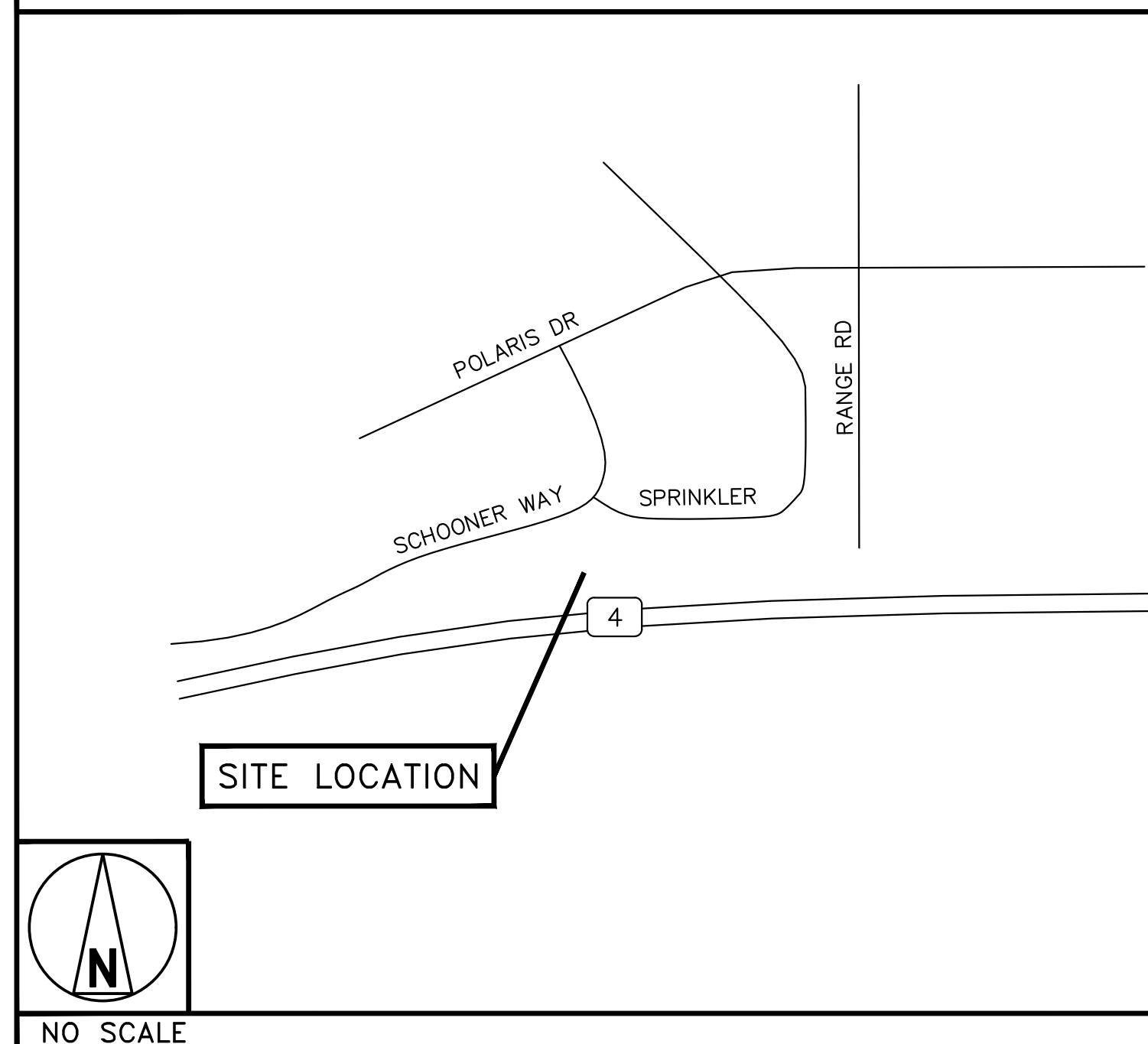
SITE ACQUISITION: BUTLER
1511 E. ORANGETHORPE AVE., SUITE D
FULLERTON, CA 92831
CYNTHIA SAPP
760-818-9526
csapp@butlertelecomllc.com

DIRECTIONS

DIRECTIONS FROM SFO AIRPORT:

- HEAD SOUTH. USE THE LEFT 2 LANES TO FOLLOW SIGNS FOR AIRPORT
- SAN FRANCISCO INTERNATIONAL AIRPORT, SAN FRANCISCO, CA, UNITED STATES
- HEAD WEST ON US-101 S / VAN NESS AVE TOWARD US-101 S / VAN NESS AVE
- TURN LEFT ONTO US-101 S / VAN NESS AVE
- TAKE THE RAMP ON THE RIGHT FOR US-101 SOUTH AND HEAD TOWARD OAKLAND / SAN JOSE
- TAKE THE RAMP ON THE LEFT FOR I-80 AND HEAD TOWARD BAY BRIDGE / OAKLAND
- AT EXIT 8B, HEAD RIGHT ON THE RAMP FOR I-580 EAST TOWARD DOWNTOWN OAKLAND / HAYWARD / STOCKTON
- AT EXIT 19B, HEAD RIGHT ON THE RAMP FOR CA-24 EAST TOWARD BERKELEY / WALNUT CREEK
- TAKE THE RAMP FOR I-680 N
- AT EXIT 50, HEAD RIGHT ON THE RAMP FOR CA-242 NORTH TOWARD CONCORD / PITTSBURG
- TAKE THE RAMP ON THE LEFT FOR CA-4 EAST AND HEAD TOWARD PITTSBURG / STOCKTON
- AT EXIT 20B, HEAD ON THE RAMP RIGHT AND FOLLOW SIGNS FOR BAILEY ROAD N
- TURN RIGHT ONTO CANAL RD TOWARD CANAL ROAD E
- ROAD NAME CHANGES TO SCHOONER WAY
- TURN LEFT ONTO POLARIS DR
- ARRIVE AT POLARIS DR TO RANGE RD
- FOLLOW RANGE ROAD TO THE END

VICINITY MAP



5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1511 E. ORANGETHORPE AVE., SUITE D
FULLERTON, CA 92831



22431 ANTONIO PKWY
SUITE B160-131
RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644



DATE STAMPED: 09/07/2023

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DRAWN BY: CHECKED BY: APPROVED BY:
LE JPC DC

RFDS REV #1 DATED 05/23/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
4	03/04/2023	ISSUED FOR 100% CD REVIEW
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6	06/19/2023	UPDATED POWER DESIGN
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9	08/22/2023	ISSUED FOR 100% CD
10	09/07/2023	ISSUED FOR 100% CD

(VENDOR) PROJECT NUMBER
SFSFO00881A

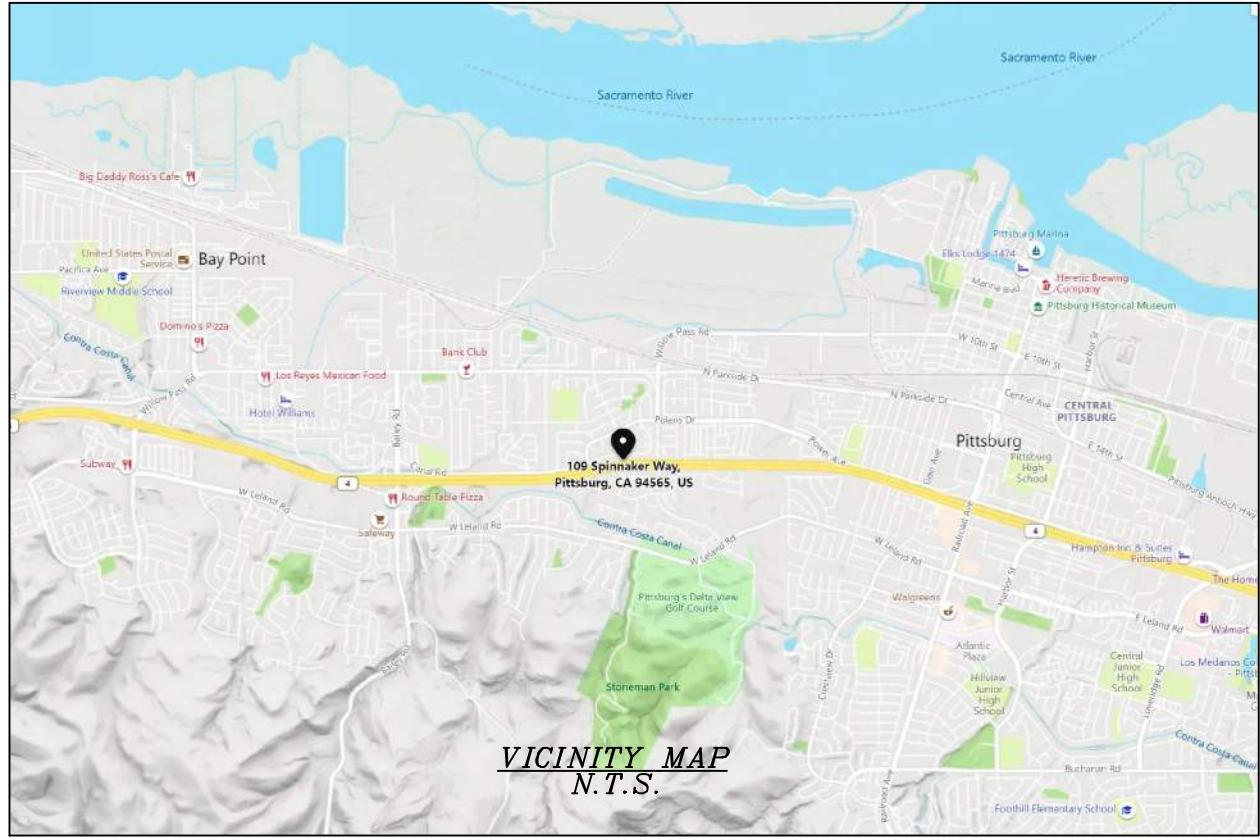
DISH WIRELESS PROJECT NUMBER
SFSFO00881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

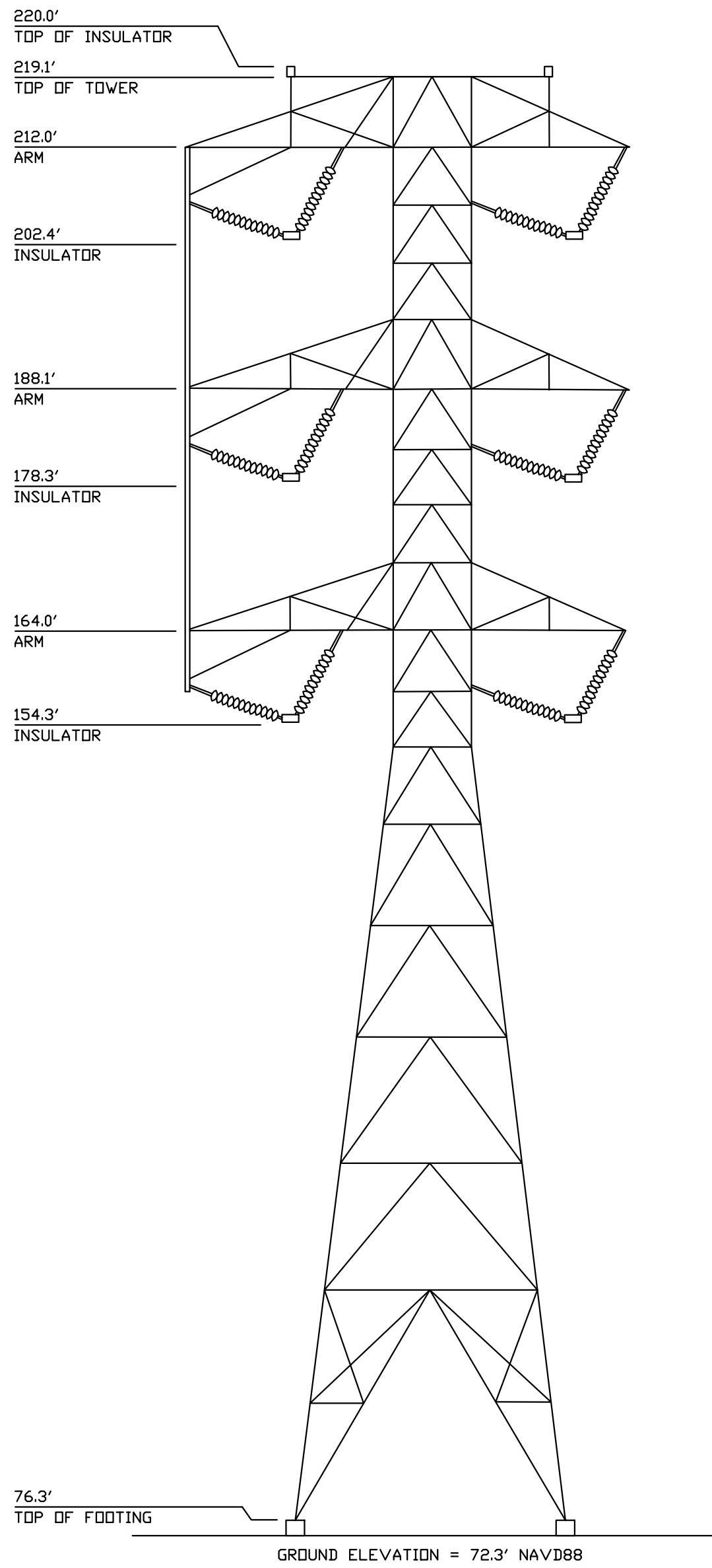
SHEET TITLE
TITLE SHEET

SHEET NUMBER

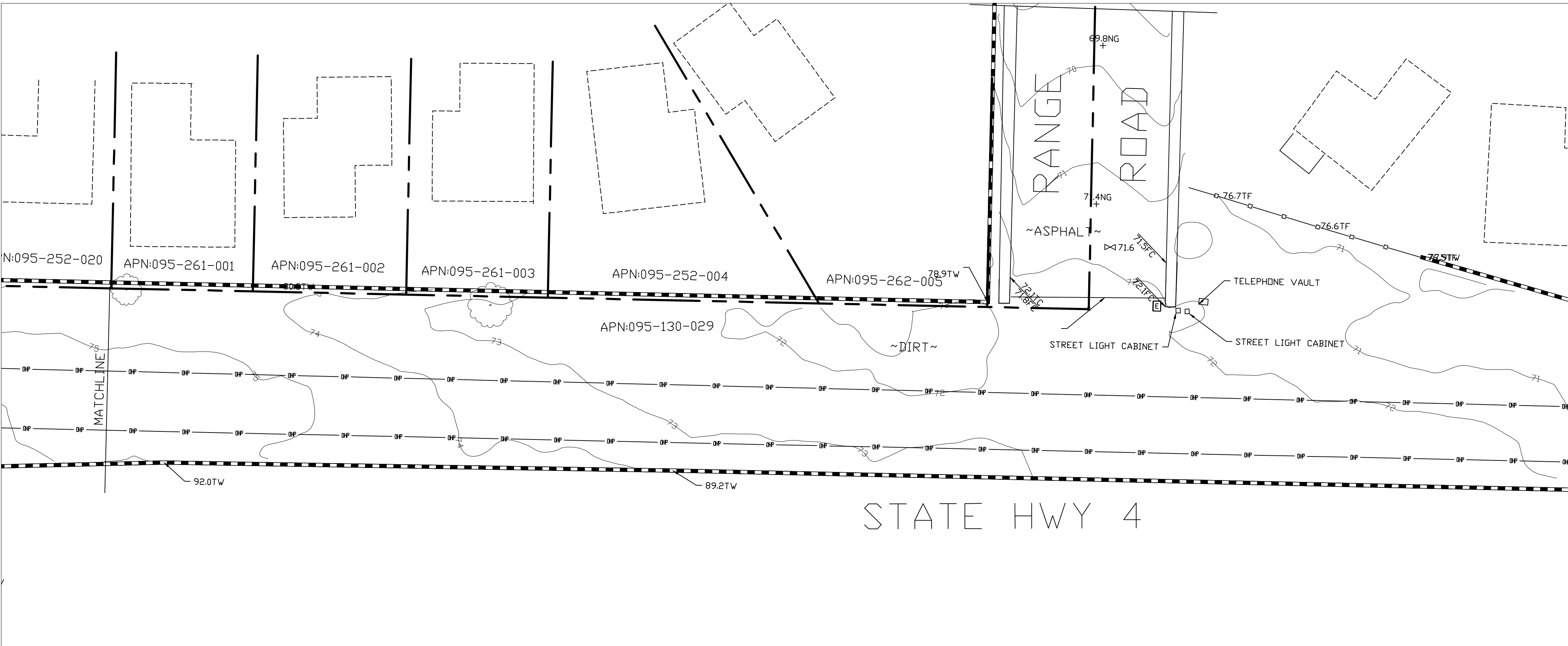
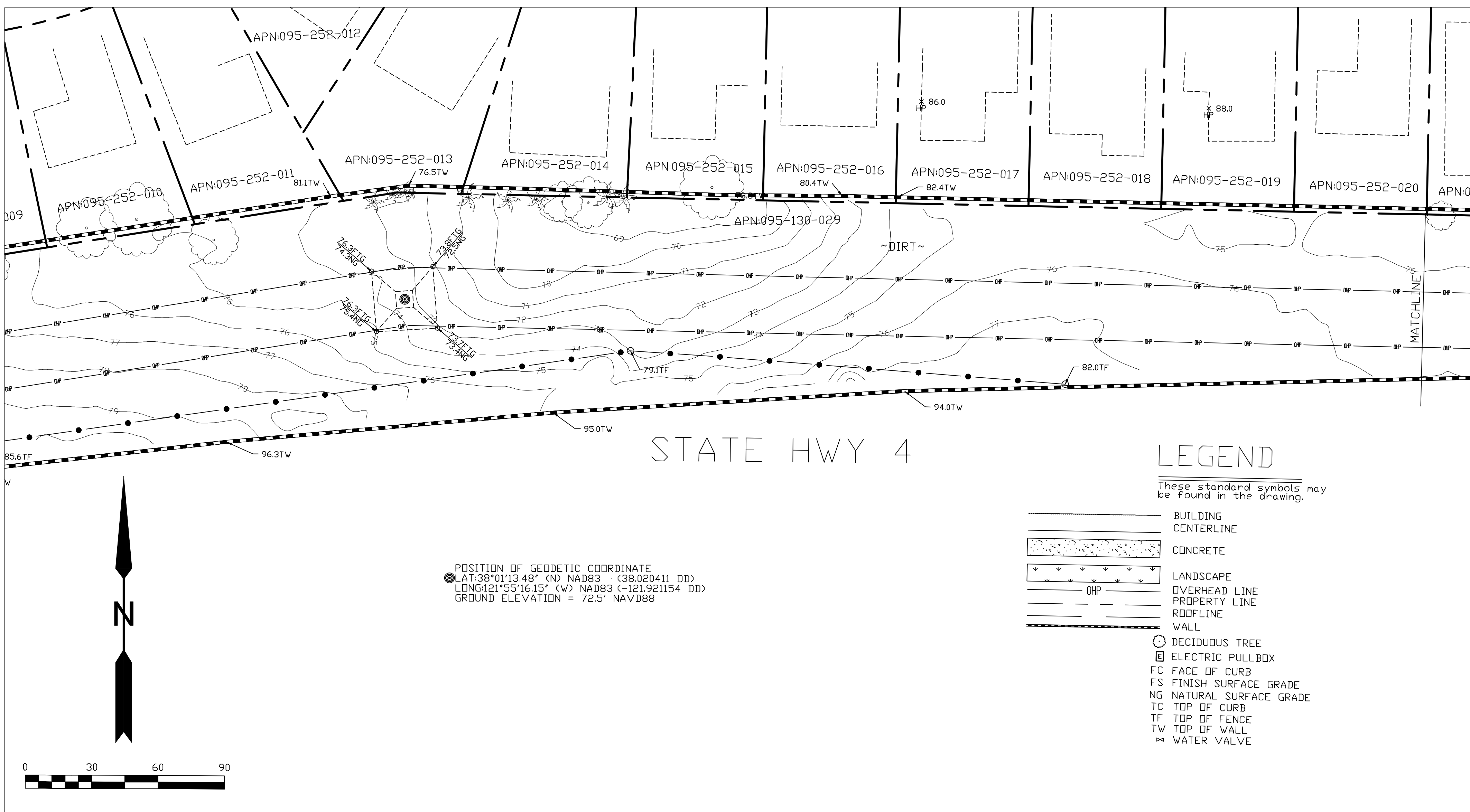
T-1



SURVEY DATE
08/23/2021

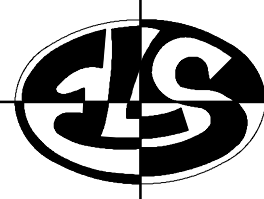


TOWER DETAIL
N.T.S.



dish
wireless.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



Eaton Land
Surveying, Inc.

15604 Magnolia Rd.
Grass Valley, CA. 95949
Ph. 530.830.0038

DRAWN BY: HE
CHECKED BY: SE

REVISIONS:		
0	11/19/21	SUBMITTAL
REV	DATE	DESCRIPTION



PROJECT INFORMATION:

SFSFO00881A

STATE HWY RT 4
PITTSBURG, CA. 94177
CONTRA COSTA COUNTY

SHEET TITLE:

SITE SURVEY

SHEET NUMBER:

LS-1

TAX PARCEL NO. 095-130-029

**5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120**



15604 Magnolia Rd.
Grass Valley, CA. 95949
Ph. 530.830.0038

DRAWN BY:	HE
CHECKED BY:	SE

REVISIONS:		
0	11/19/21	SUBMITTAL
REV	DATE	DESCRIPTION



EXP.12/31/2021

PROJECT INFORMATION:

SFSFO00881A

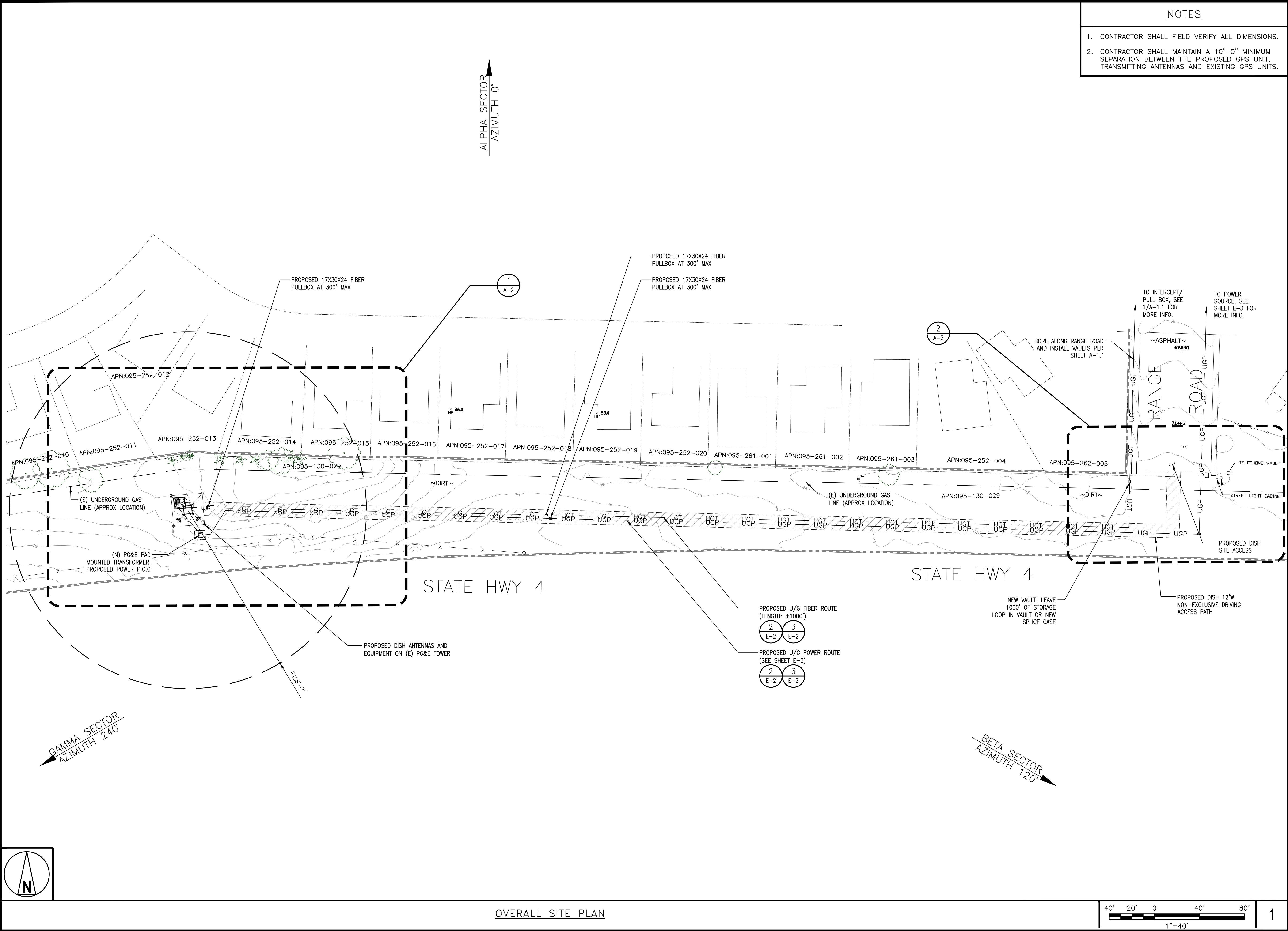
STATE HWY RT 4
PITTSBURG, CA. 94177
CONTRA COSTA COUNTY

SHEET TITLE:

NOTES

SHEET NUMBER:

LS-2

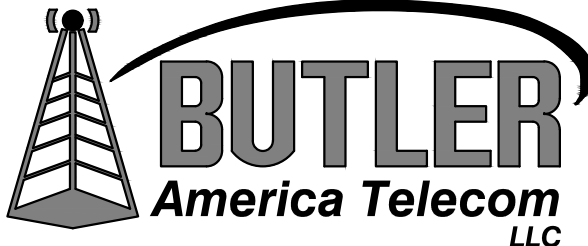


NOTES

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2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.

dish
WIRELESS

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1511 E. ORANGETHORPE AVE., SUITE D
FULLERTON, CA 92831

CDG

22431 ANTONIO PKWY
SUITE 8160-131
RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644



DATE STAMPED: 09/07/2023

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DRAWN BY: CHECKED BY: APPROVED BY:

LE

JPC

DC

RFDS REV #1 DATED 05/23/2023

CONSTRUCTION
DOCUMENTS

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10	09/07/2023	ISSUED FOR 100% CD

(VENDOR) PROJECT NUMBER

SFSF000881A

DISH WIRELESS PROJECT NUMBER
SFSF000881A

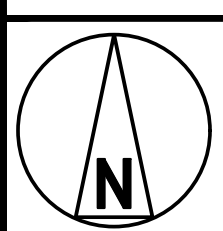
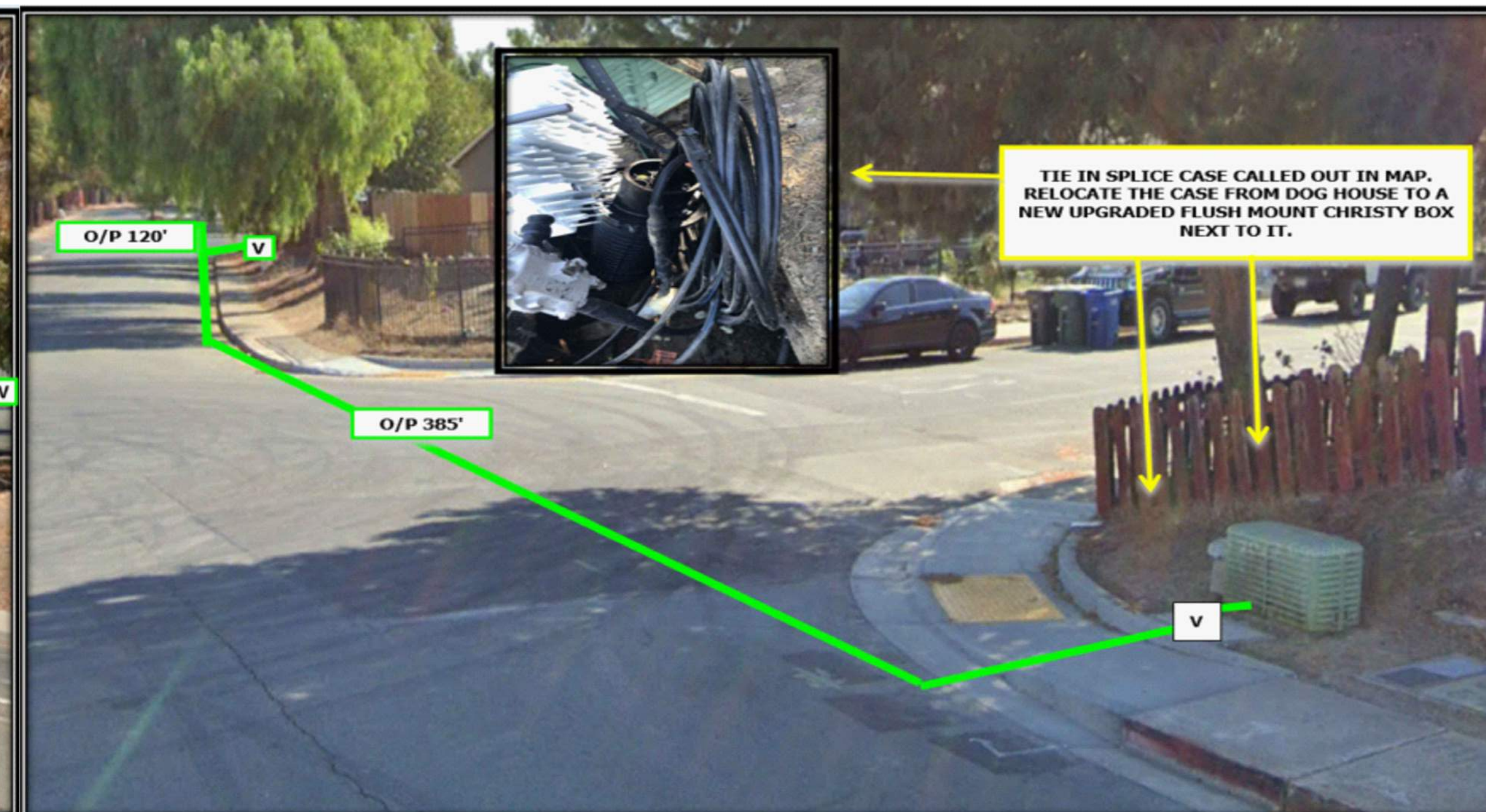
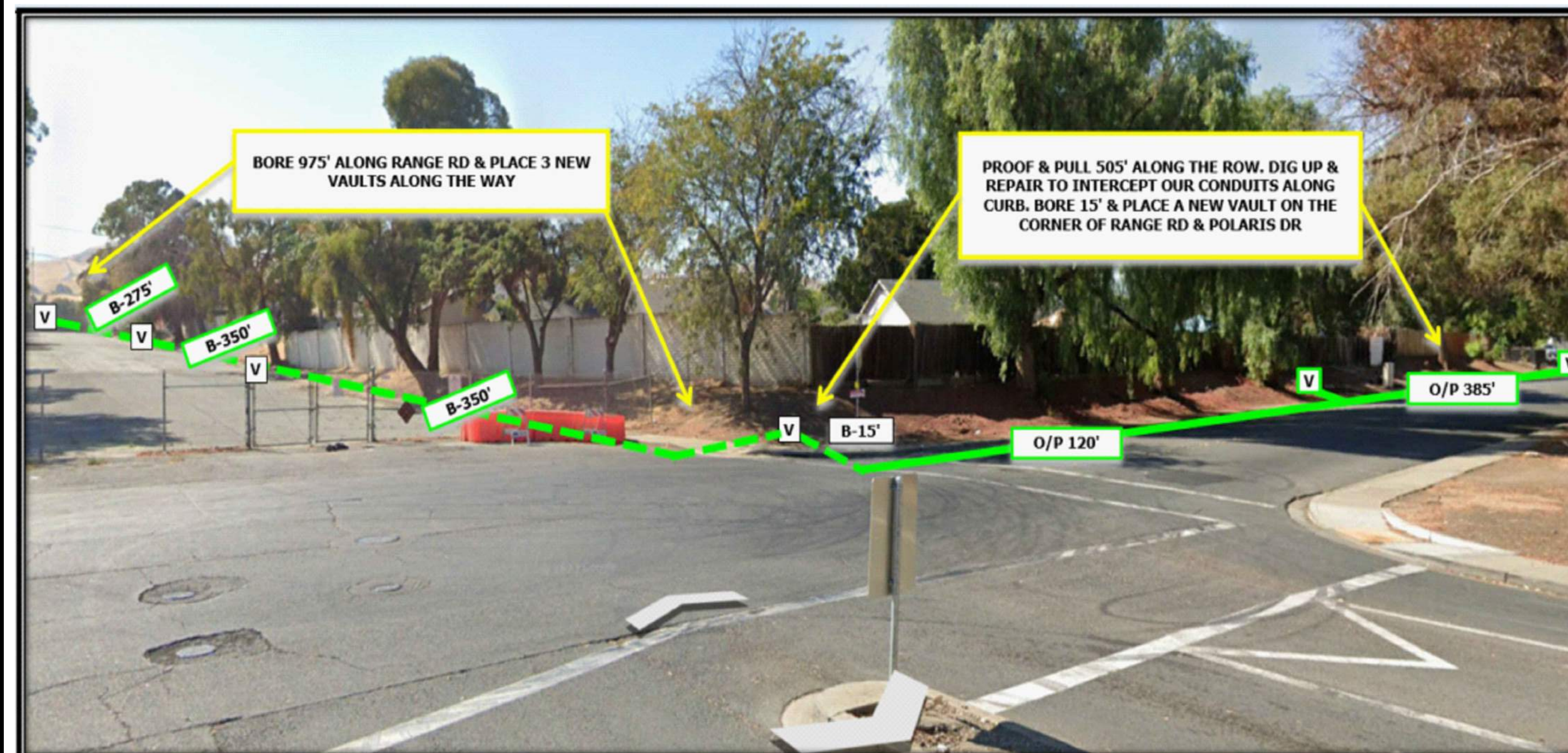
STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE

OVERALL
SITE PLAN

SHEET NUMBER

A-1



FIBER DESIGN SITE PLAN

dish
WIRELESS

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

BUTLER
America Telecom
LLC

1511 E. ORANGETHORPE AVE., SUITE D
FULLERTON, CA 92831

CDG

22431 ANTONIO PKWY
SUITE 8160-131
RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644



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LE

JPC

DC

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(VENDOR) PROJECT NUMBER

SFSF00881A

DISH WIRELESS PROJECT NUMBER
SFSF00881A

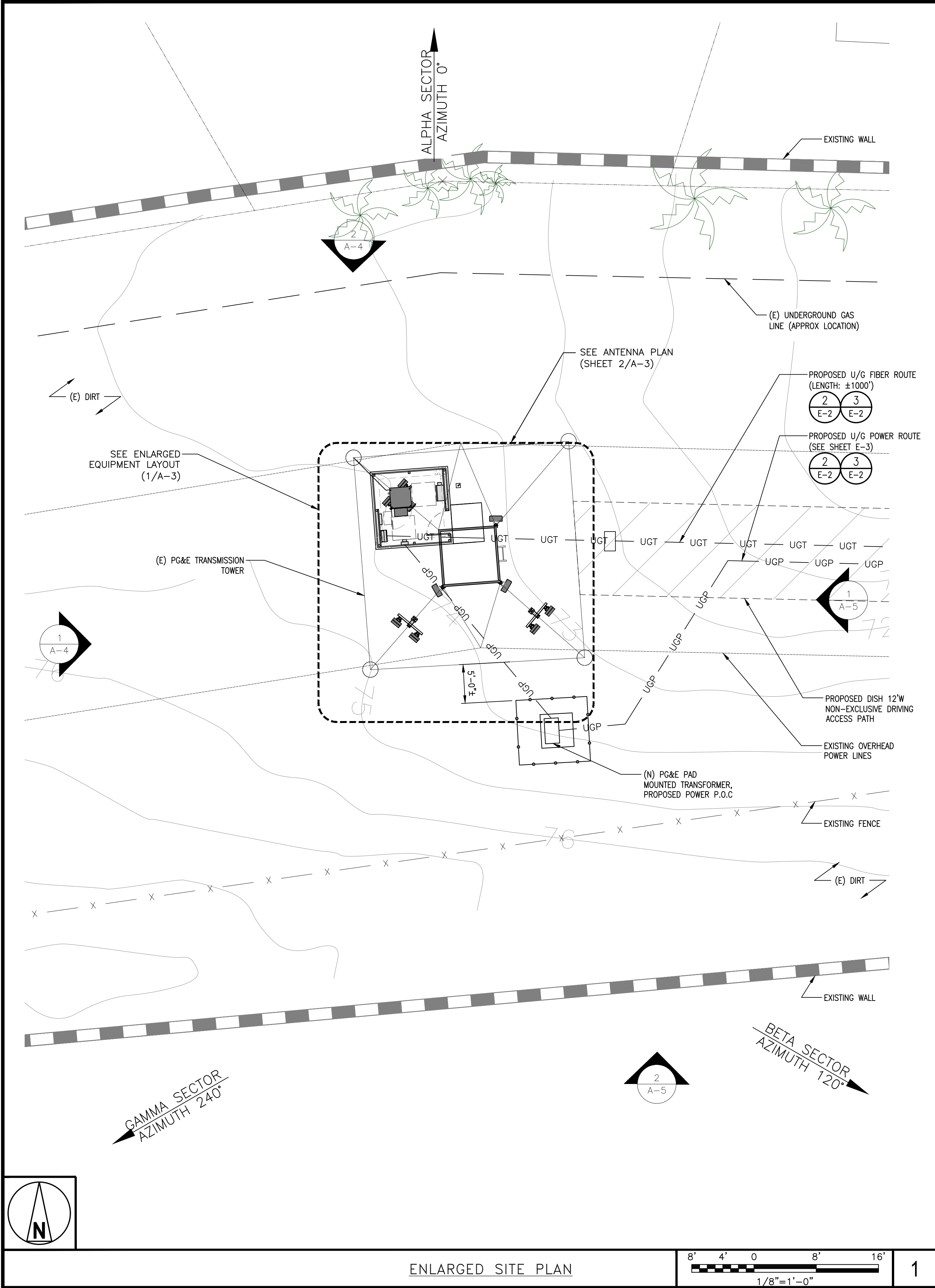
STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE

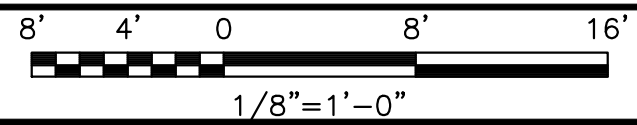
FIBER DESIGN
SITE PLAN

SHEET NUMBER

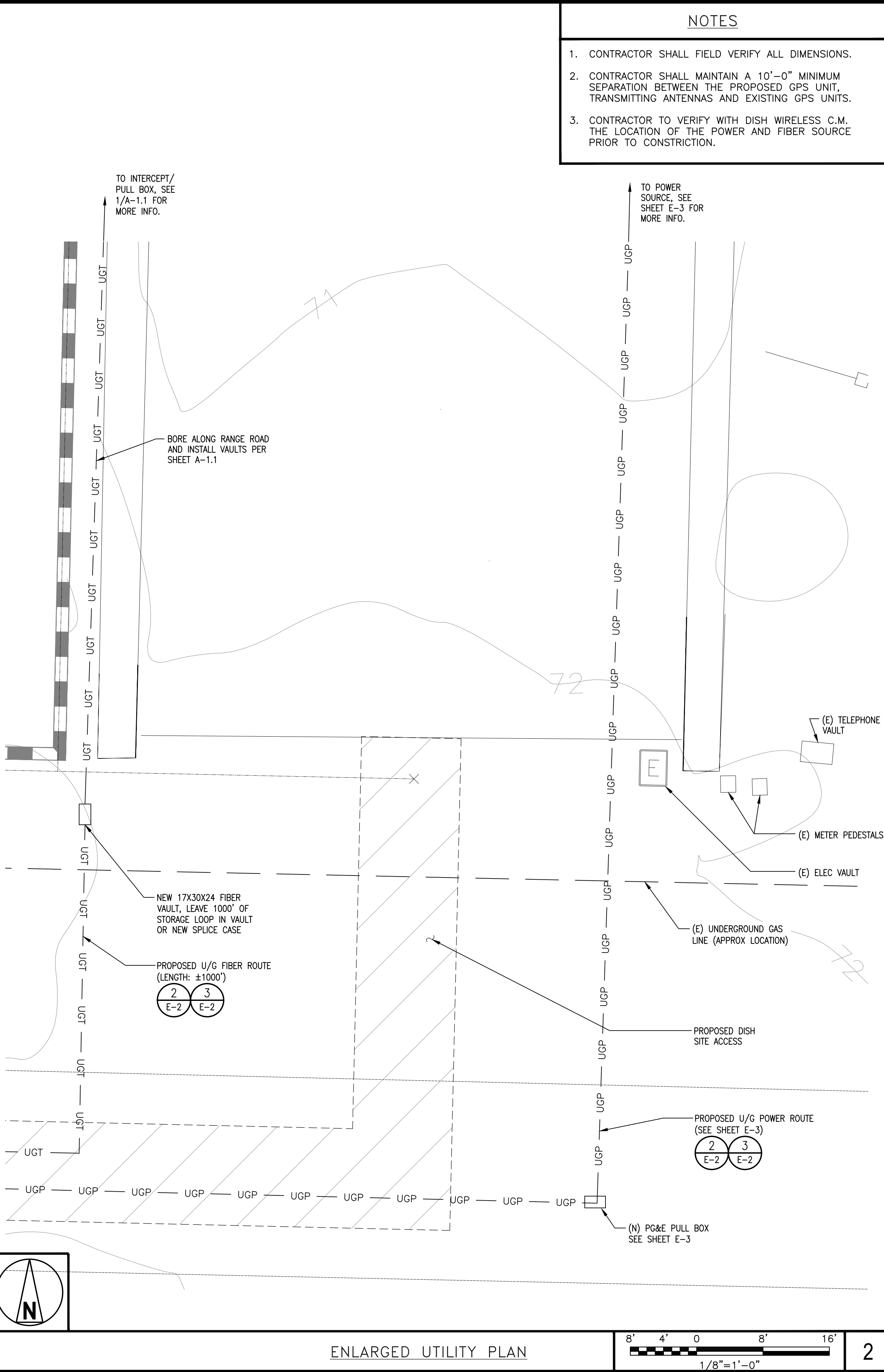
A-1.1



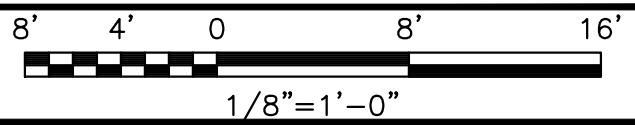
ENLARGED SITE PLAN



1



ENLARGED UTILITY PLAN



2

- NOTES
1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
 2. CONTRACTOR SHALL MAINTAIN A 10'-0" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS UNIT, TRANSMITTING ANTENNAS AND EXISTING GPS UNITS.
 3. CONTRACTOR TO VERIFY WITH DISH WIRELESS C.M. THE LOCATION OF THE POWER AND FIBER SOURCE PRIOR TO CONSTRUCTION.

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120

1511 E. ORANGETHORPE AVE., SUITE D
FULLERTON, CA 92831

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RANCHO SANTA MARGARITA CA 92688
dconnell@connelldesigngroup.com
949-306-4644

REGISTERED PROFESSIONAL ENGINEER
DANIEL MICHAEL CONNELL
NO. 62543
EXP. 12/31/23
CIVIL
STATE OF CALIFORNIA
DATE STAMPED: 09/07/2023

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DRAWN BY: LE CHECKED BY: JPC APPROVED BY: DC

RFDS REV #1 DATED 05/23/2023

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(VENDOR) PROJECT NUMBER
SFSF000881A

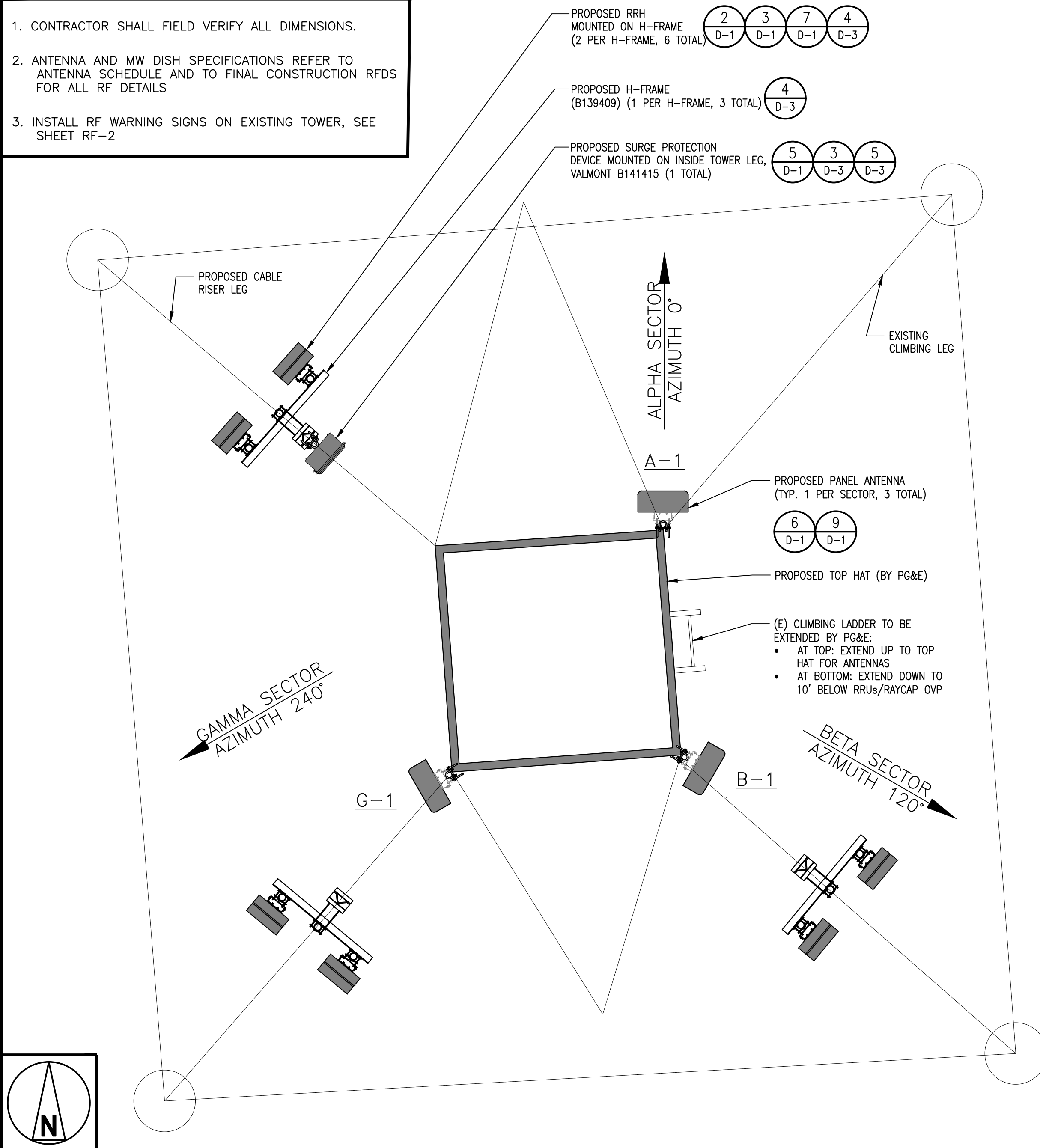
DISH WIRELESS PROJECT NUMBER
SFSF000881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE
ENLARGED PLANS

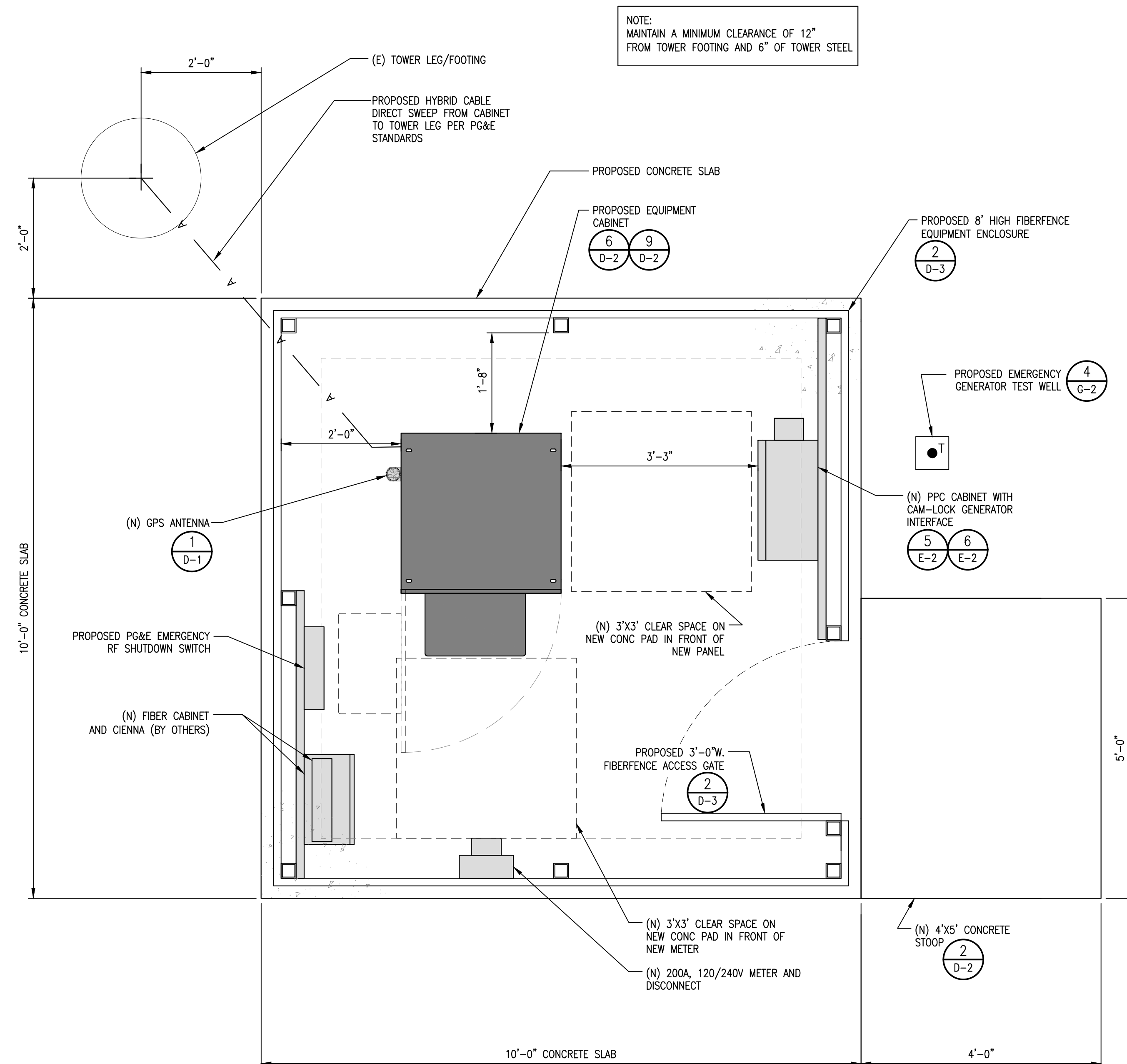
SHEET NUMBER
A-2

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. ANTENNA AND MW DISH SPECIFICATIONS REFER TO ANTENNA SCHEDULE AND TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS
3. INSTALL RF WARNING SIGNS ON EXISTING TOWER, SEE SHEET RF-2



SECTOR	ANTENNA						RADIO			
	POSITION	EXISTING OR PROPOSED	SIZE (HxWxD)	AZIMUTH	RAD CENTER	TRANSMISSION CABLE FEED LINE TYPE AND LENGTH	POSITION	EXISTING OR PROPOSED	SIZE (HxWxD)	TRANSMISSION CABLE FEED LINE TYPE AND LENGTH
ALPHA	A1	PROPOSED	KMW KE654L4H6-D 72"x18.1"x7.1"	0°	155°-4"	1/2" COAX JUMPERS (±90° LONG)	A1	PROPOSED	SAMSUNG RF4450t-71A 16.5"x15.0"x11.02"	(1) HIGH-CAPACITY HYBRID CABLE (90' LONG)
							A1	PROPOSED	SAMSUNG RF4451d-70A 15.0"x15.0"x8.9"	
BETA	B1	PROPOSED	KMW KE654L4H6-D 72"x18.1"x7.1"	120°	155°-4"	1/2" COAX JUMPERS (±90° LONG)	B1	PROPOSED	SAMSUNG RF4450t-71A 16.5"x15.0"x11.02"	
							B1	PROPOSED	SAMSUNG RF4451d-70A 15.0"x15.0"x8.9"	
GAMMA	C1	PROPOSED	KMW KE654L4H6-D 72"x18.1"x7.1"	240°	155°-4"	1/2" COAX JUMPERS (±90° LONG)	C1	PROPOSED	SAMSUNG RF4450t-71A 16.5"x15.0"x11.02"	
							C1	PROPOSED	SAMSUNG RF4451d-70A 15.0"x15.0"x8.9"	

1. CONTRACTOR TO REFER TO FINAL CONSTRUCTION RFDS FOR ALL RF DETAILS.
2. ANTENNA OR RRR MODELS MAY CHANGE DUE TO EQUIPMENT AVAILABILITY. ALL EQUIPMENT CHANGES MUST BE APPROVED AND REMAIN IN COMPLIANCE WITH THE PROPOSED DESIGN AND STRUCTURAL ANALYSES.



12" 6" 0' 1' 2' 3' 4' 5' 6' 7'

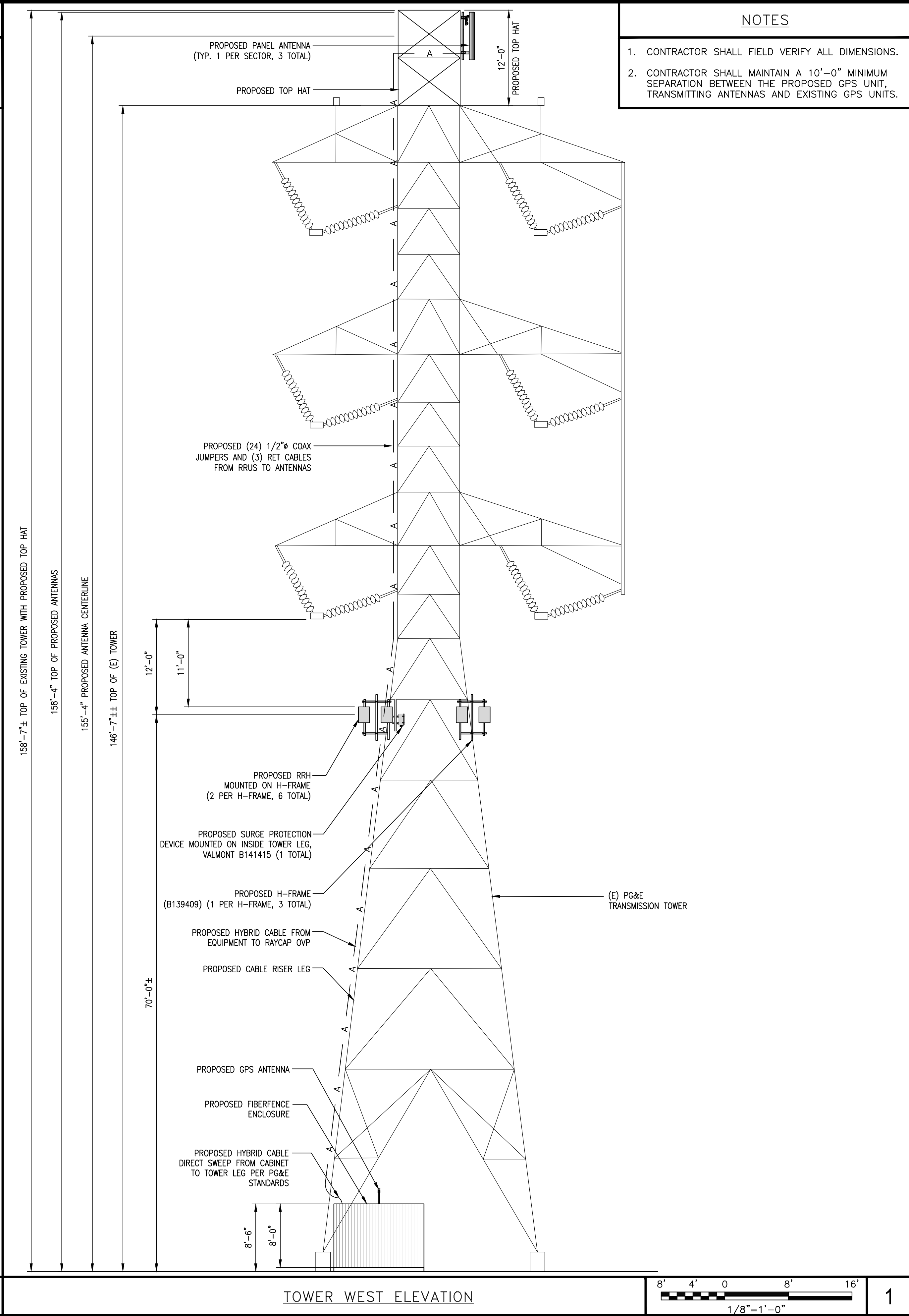
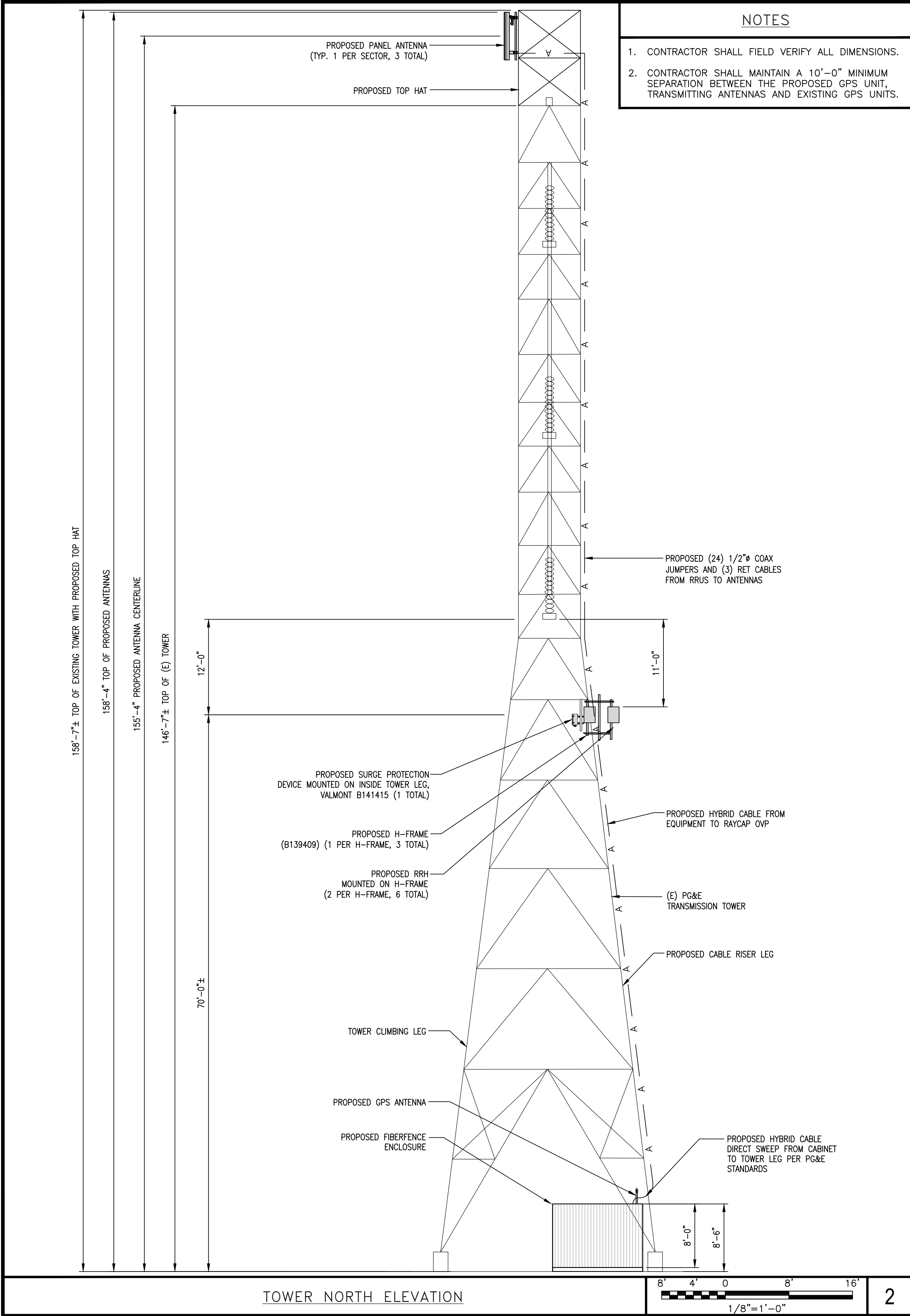
$\frac{3}{8}" = 1' - 0"$

2

12" 6" 0 1' 2' 3'

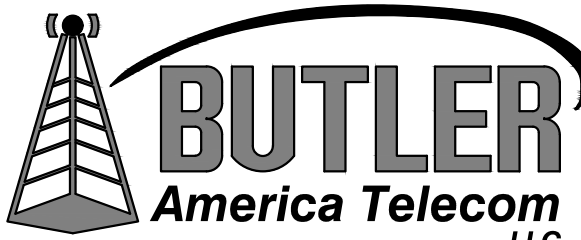
$\frac{3}{4}" = 1' - 0"$

1



dish
WIRELESS

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1511 E. ORANGETHORPE AVE., SUITE D
FULLERTON, CA 92831

CDG

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949-306-4644



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DRAWN BY: CHECKED BY: APPROVED BY:

LE

JPC

DC

RFDS REV #1 DATED 05/23/2023

CONSTRUCTION
DOCUMENTS

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(VENDOR) PROJECT NUMBER

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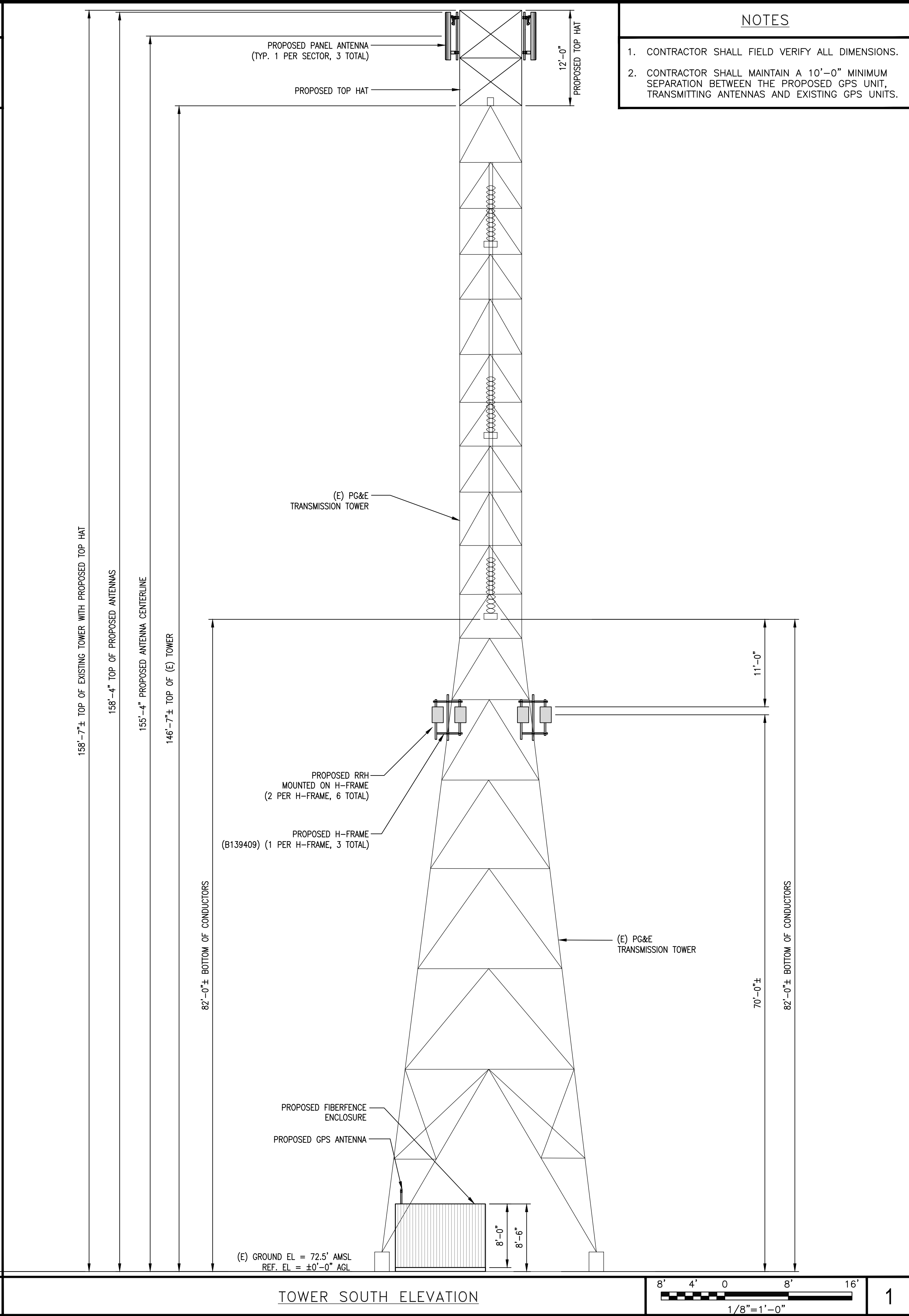
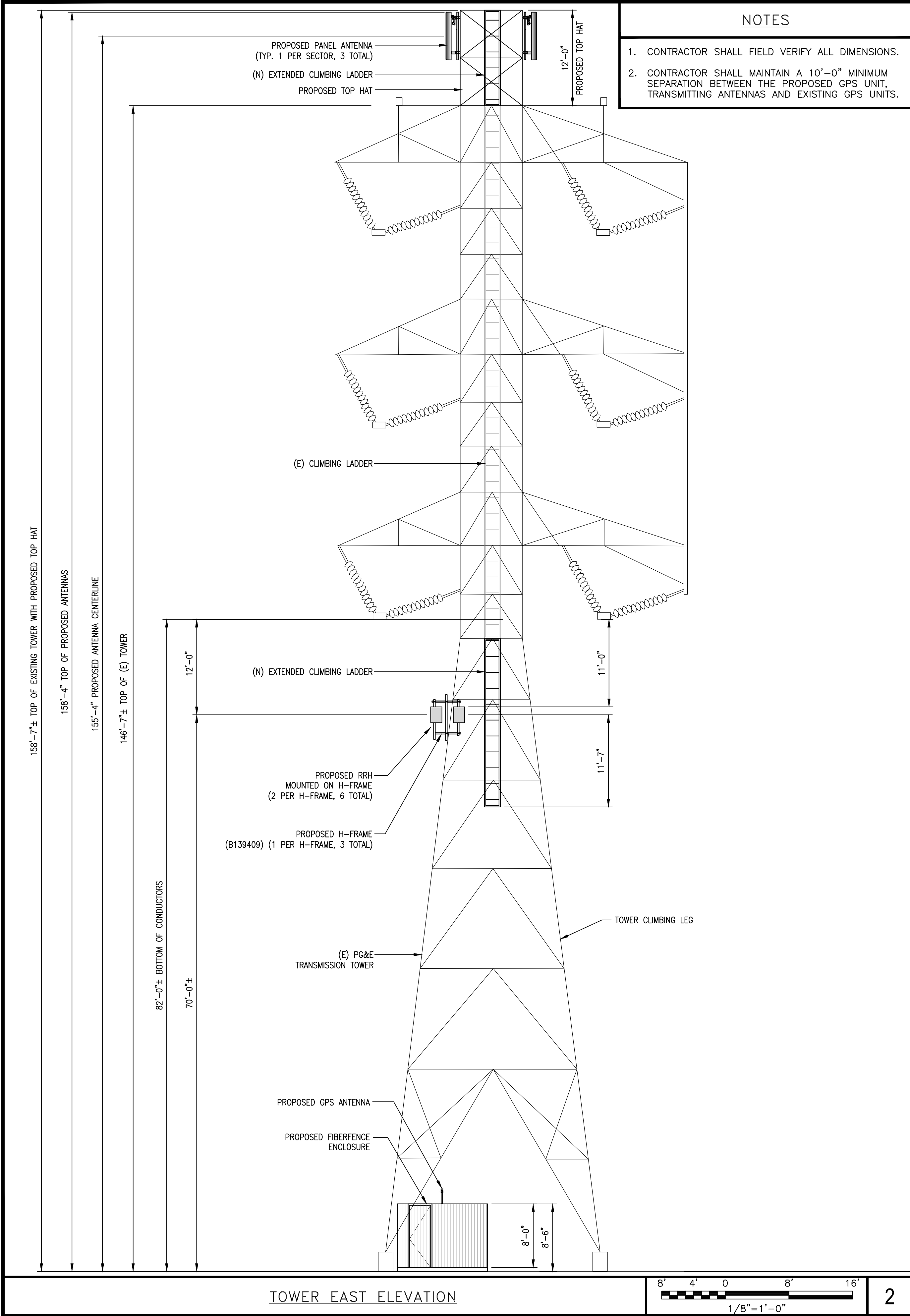
DISH WIRELESS PROJECT NUMBER
SFSF000881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE
ELEVATIONS

SHEET NUMBER

A-4



dish
WIRELESS

5701 SOUTH SANTA FE DRIVE
LITTLETON, CO 80120



1511 E. ORANGETHORPE AVE., SUITE D
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RFDS REV #1 DATED 05/23/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS

REV	DATE	DESCRIPTION
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(VENDOR) PROJECT NUMBER

SFSF000881A

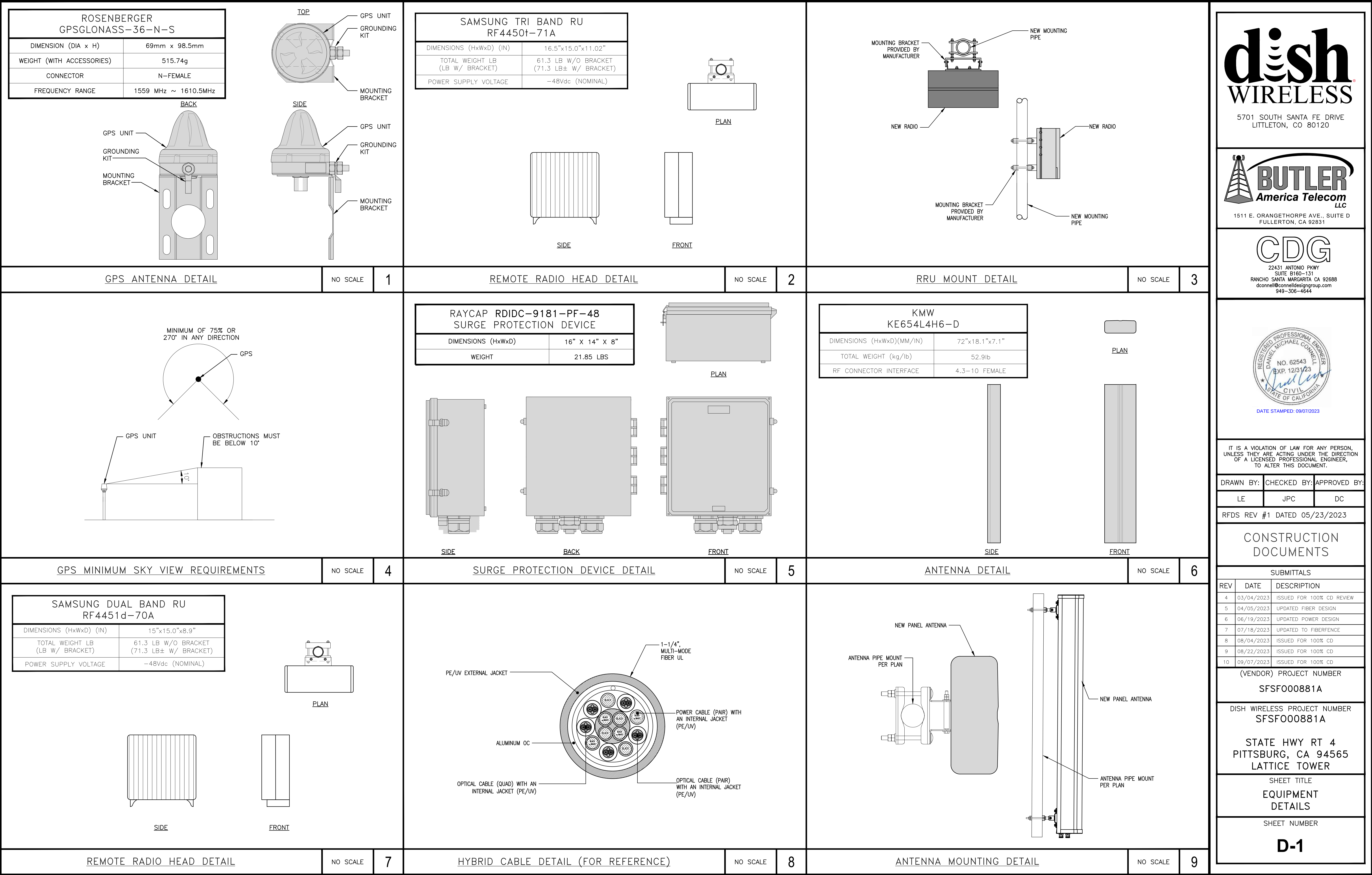
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SHEET TITLE
ELEVATIONS

SHEET NUMBER

A-5



KMW

KE654L4H6-D

DIMENSIONS (HxWxD)(MM/IN)	72"x18.1"x7.1"
TOTAL WEIGHT (kg/lb)	52.9lb
RF CONNECTOR INTERFACE	4.3-10 FEMALE

PLAN

SIDE

FRONT

ANTENNA DETAIL

NO SCALE

6

GPS

MINIMUM OF 75% OR 270° IN ANY DIRECTION

GPS UNIT

OBSTRUCTIONS MUST BE BELOW 10'

GPS MINIMUM SKY VIEW REQUIREMENTS

NO SCALE

4

SAMSUNG DUAL BAND RU

RF4451d-70A

DIMENSIONS (HxWxD) (IN)	15"x15.0"x8.9"
TOTAL WEIGHT LB (LB W/ BRACKET)	61.3 LB W/O BRACKET (71.3 LB± W/ BRACKET)
POWER SUPPLY VOLTAGE	-48Vdc (NOMINAL)

PLAN

SIDE

FRONT

REMOTE RADIO HEAD DETAIL

NO SCALE

7

PE/UV EXTERNAL JACKET

1-1/4" MULTI-MODE FIBER UL

POWER CABLE (PAIR) WITH AN INTERNAL JACKET (PE/UV)

ALUMINUM OC

OPTICAL CABLE (QUAD) WITH AN INTERNAL JACKET (PE/UV)

OPTICAL CABLE (PAIR) WITH AN INTERNAL JACKET (PE/UV)

HYBRID CABLE DETAIL (FOR REFERENCE)

NO SCALE

8

NEW PANEL ANTENNA

ANTENNA PIPE MOUNT PER PLAN

NEW PANEL ANTENNA

ANTENNA PIPE MOUNT PER PLAN

ANTENNA MOUNTING DETAIL

NO SCALE

9

dish
WIRELESS

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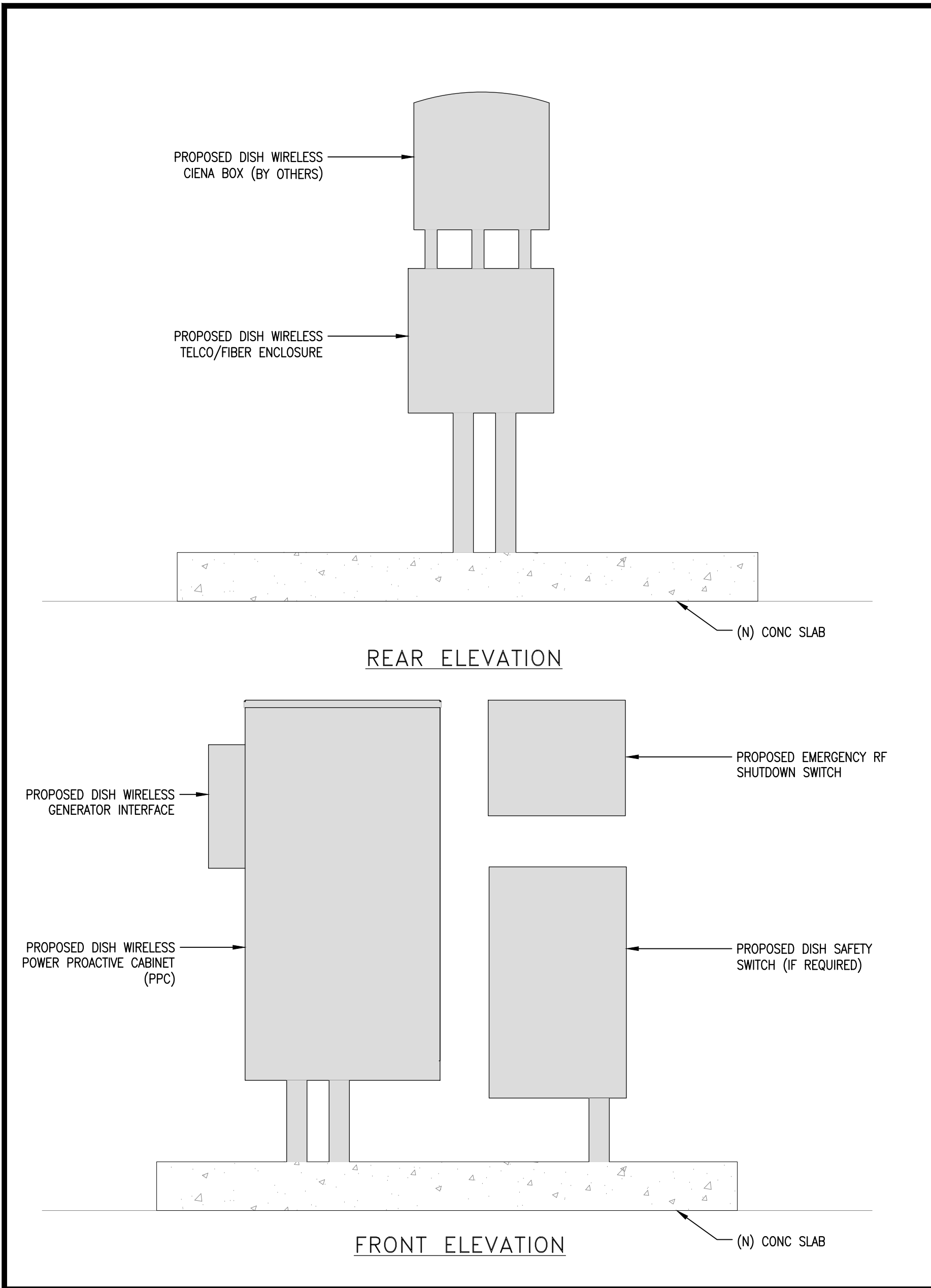
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LATTICE TOWER

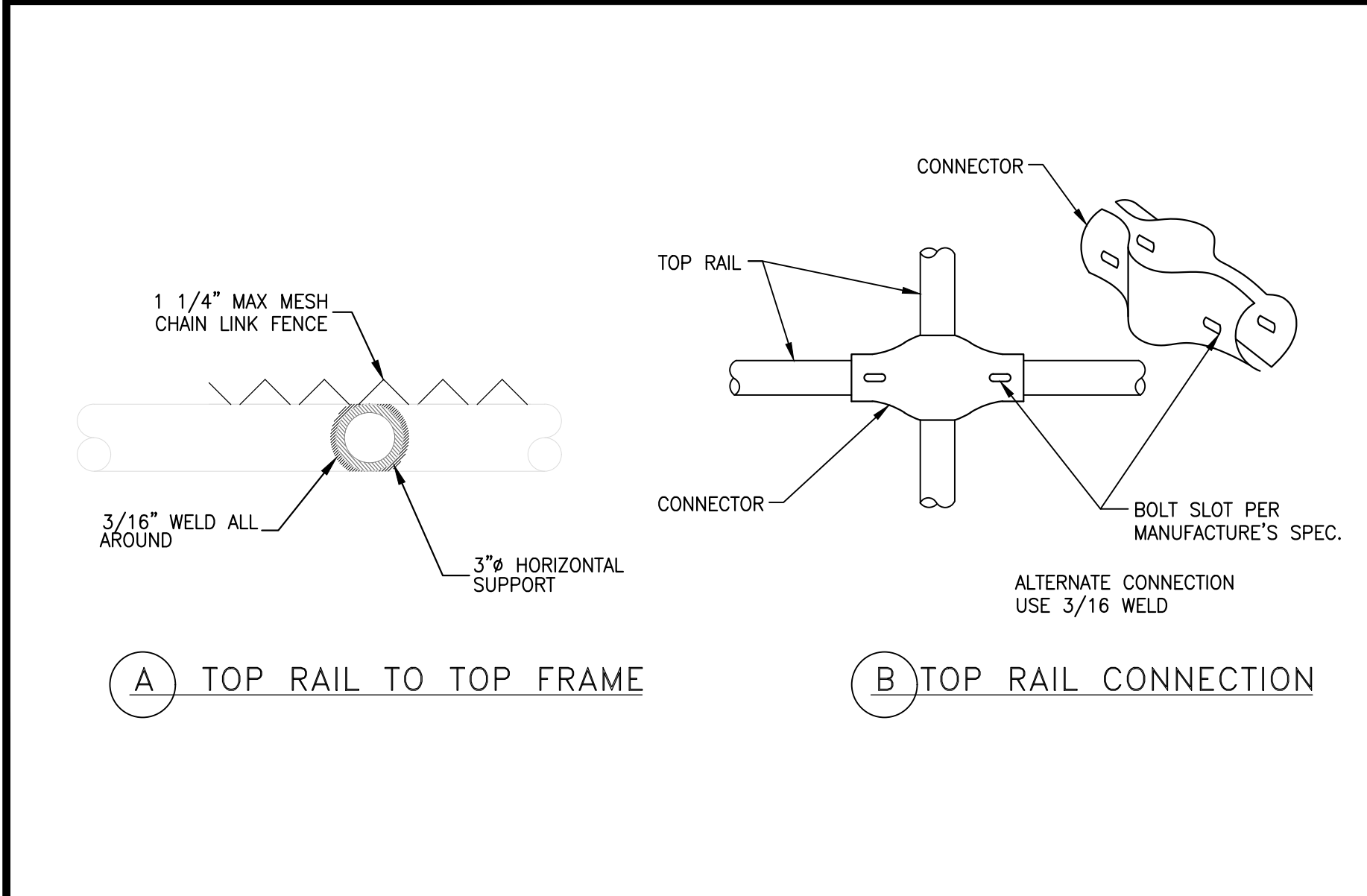
SHEET TITLE
EQUIPMENT
DETAILS

SHEET NUMBER

D-1



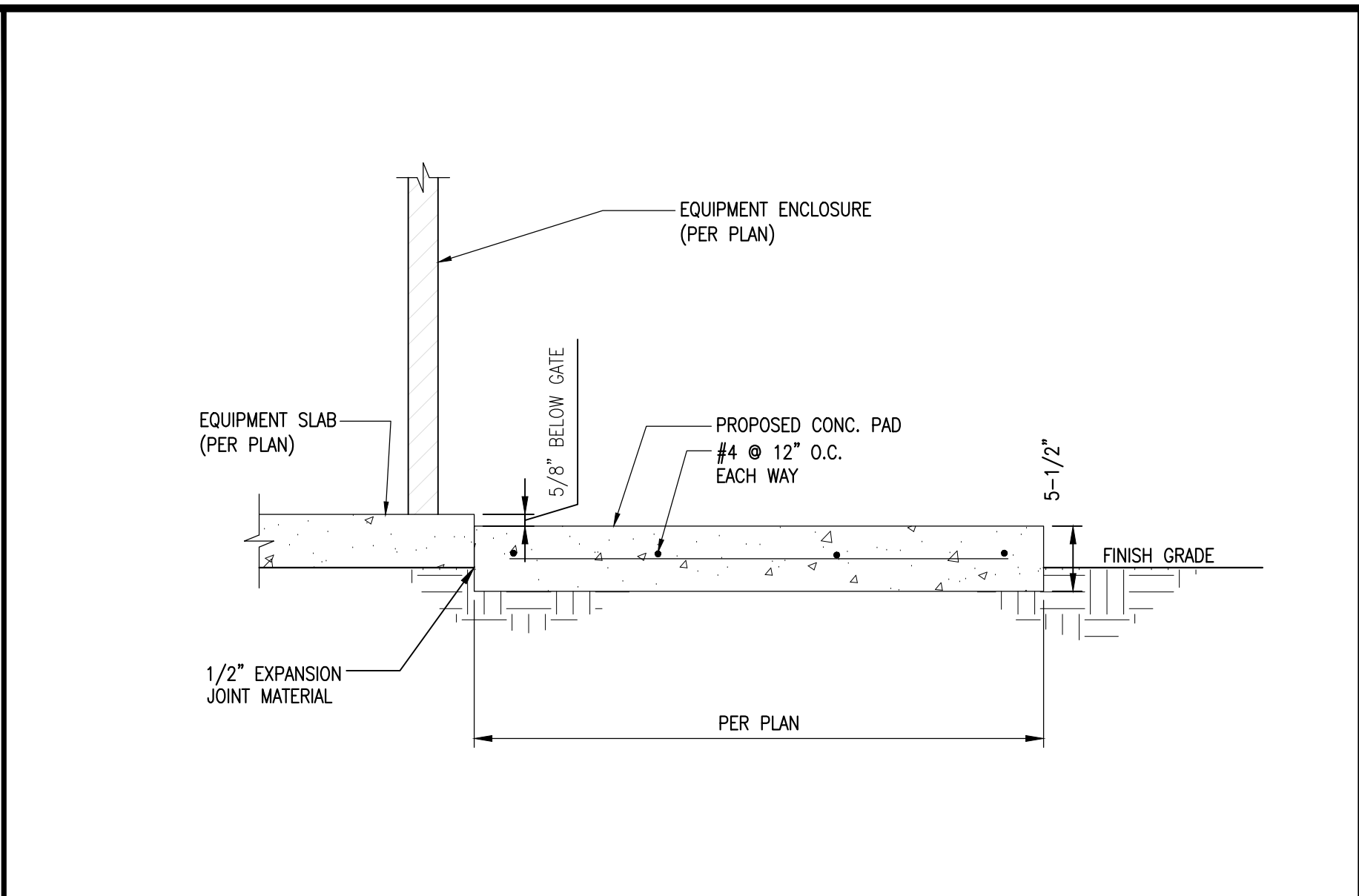
UTILITY ELEVATIONS



CHAINLINK LID CONNECTIONS AT TOP

NO SCALE

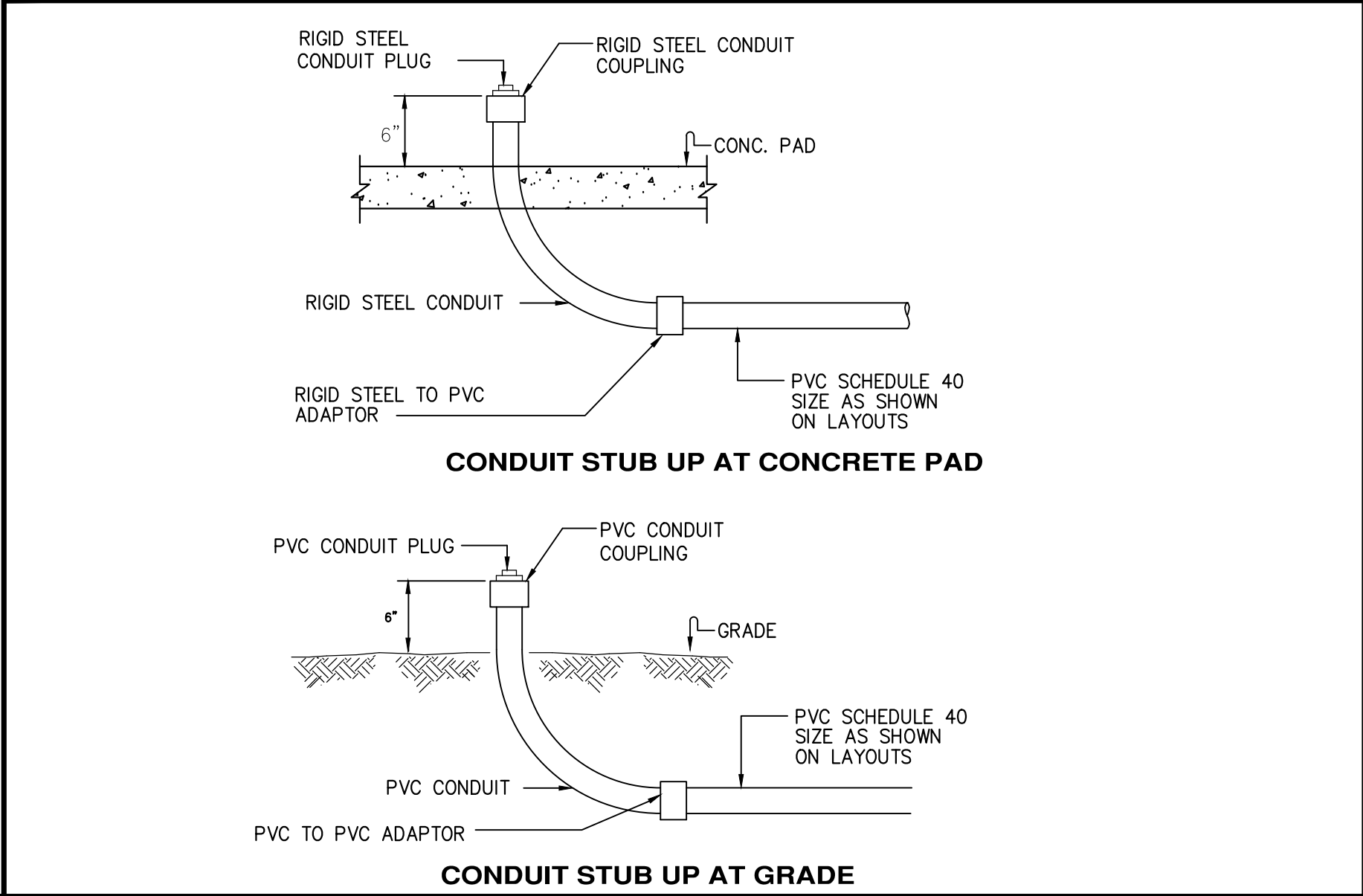
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CONC. STOOP DETAIL

NO SCALE

2



CONDUIT STUB-UPS

NO SCALE

5

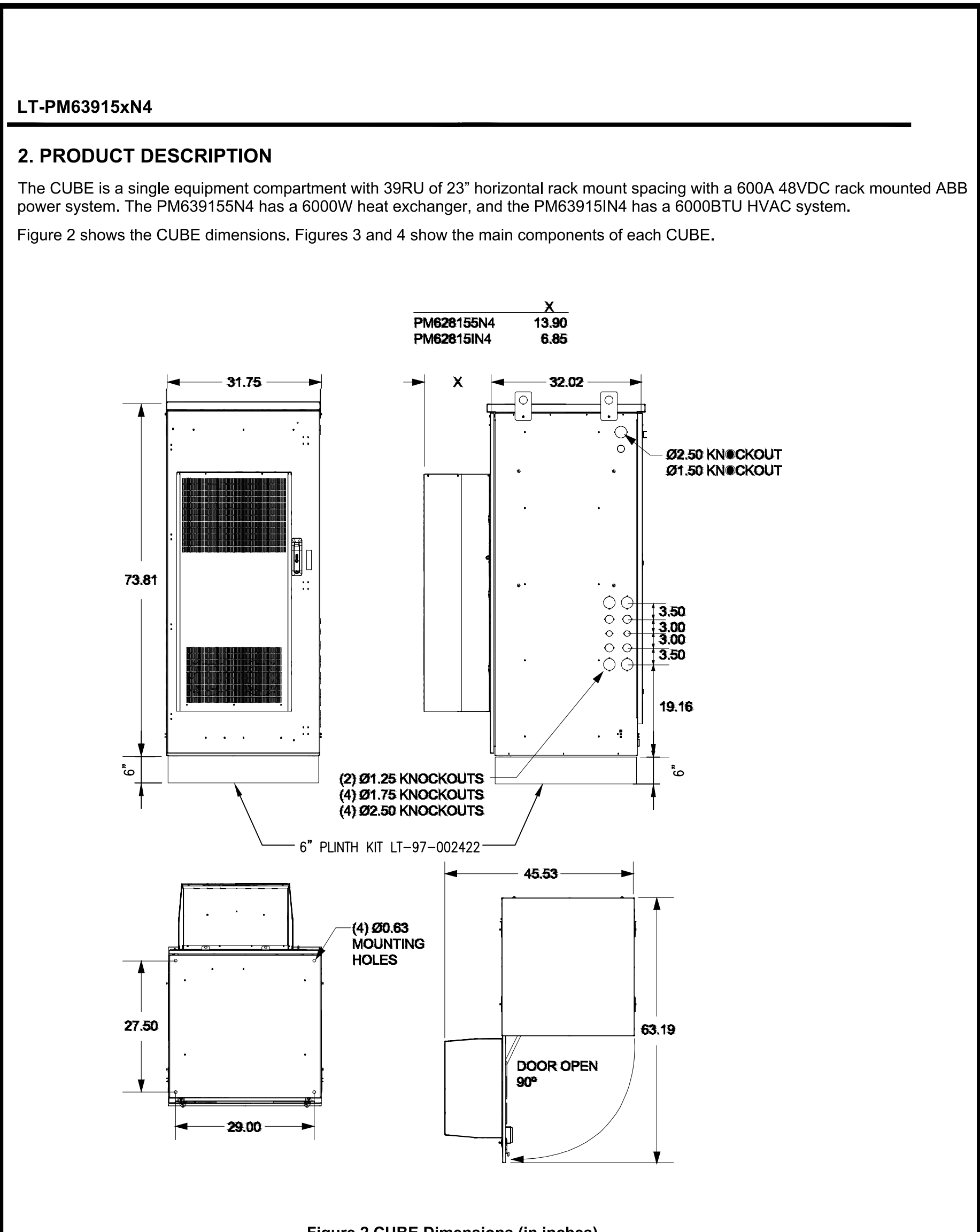
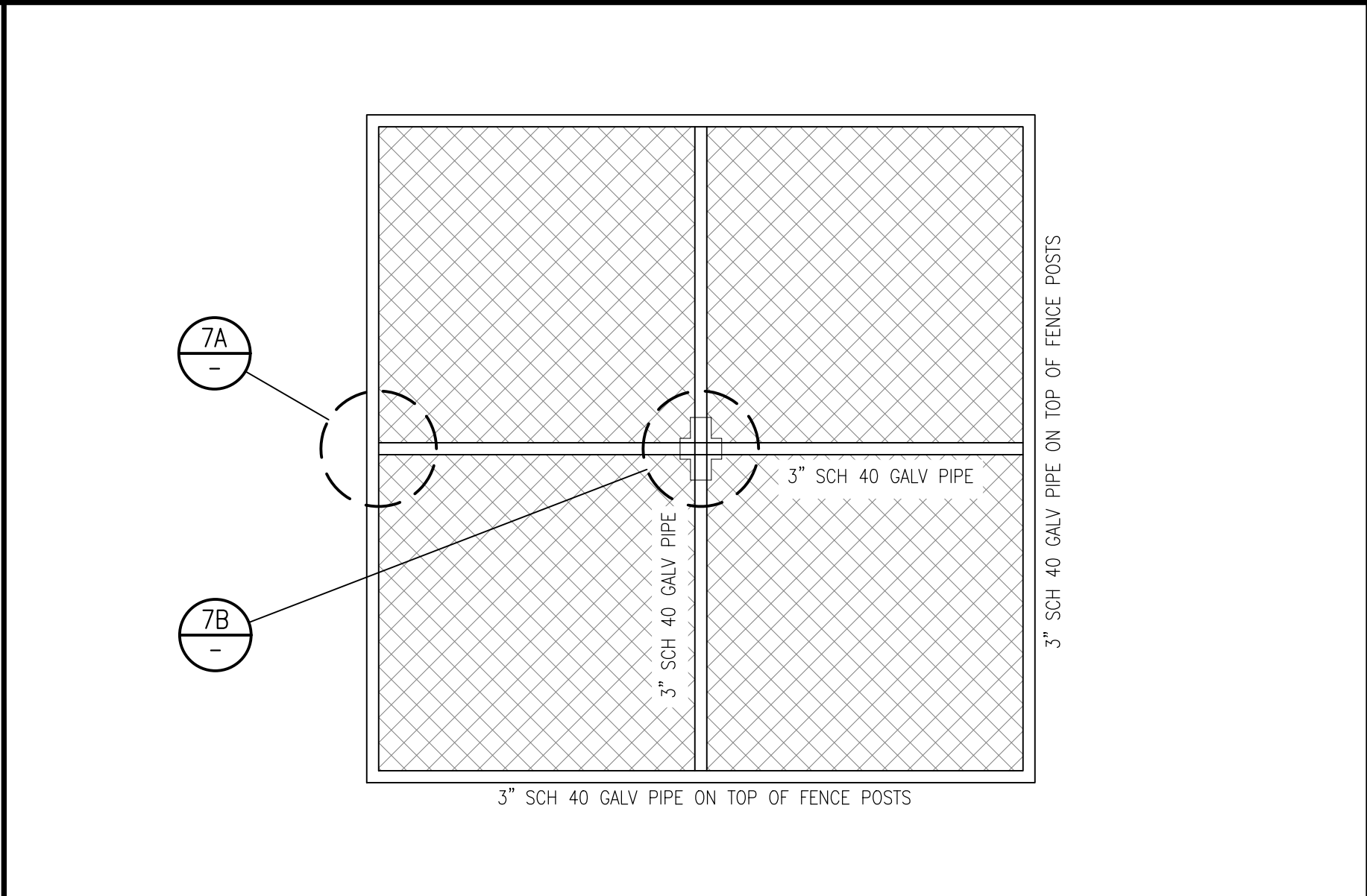


Figure 2 CUBE Dimensions (in inches)
All dimensions are common to both models except for depth of thermal unit.

CABINET DETAIL W/ PLINTH KIT

NO SCALE

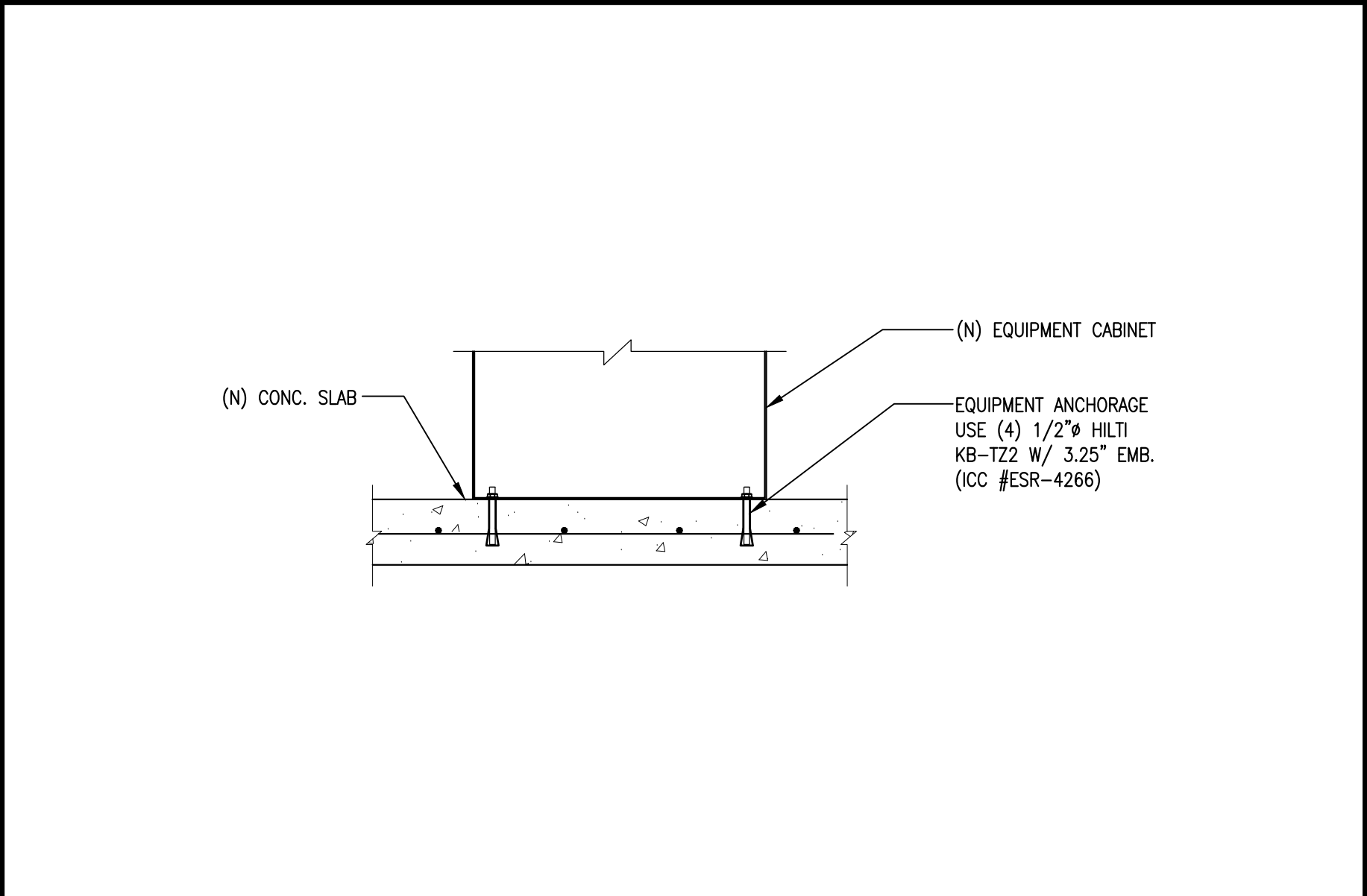
6



CHAINLINK LID PLAN

NO SCALE

8



CABINET MOUNT DETAIL

NO SCALE

9

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WIRELESS

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LITTLETON, CO 80120

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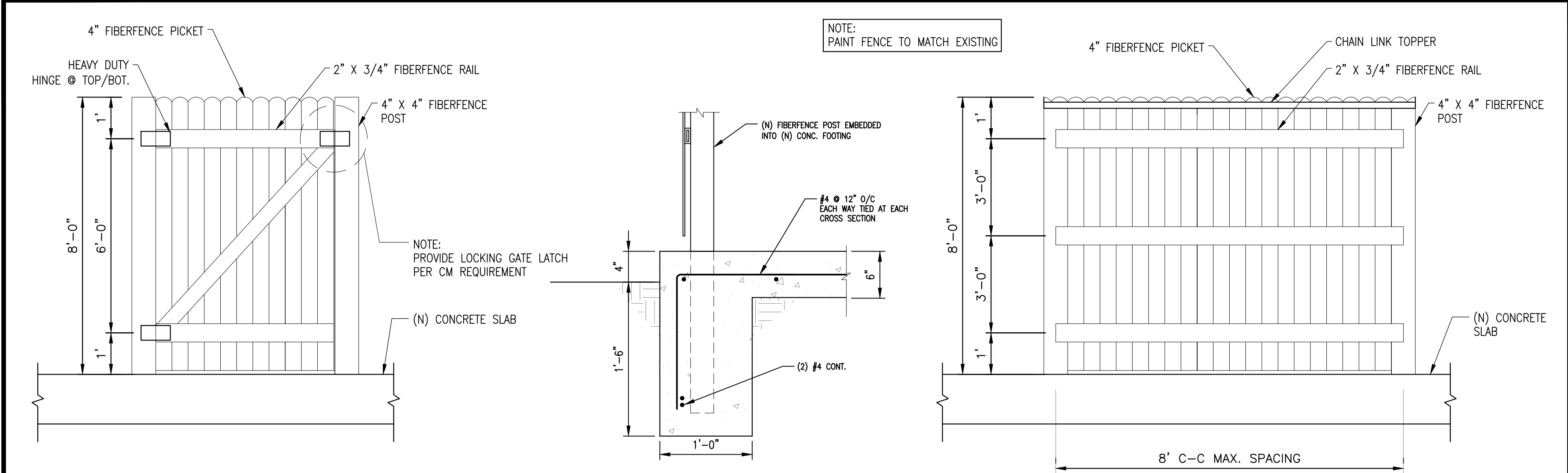
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STATE HWY RT 4
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LATTICE TOWER

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EQUIPMENT
DETAILS

SHEET NUMBER

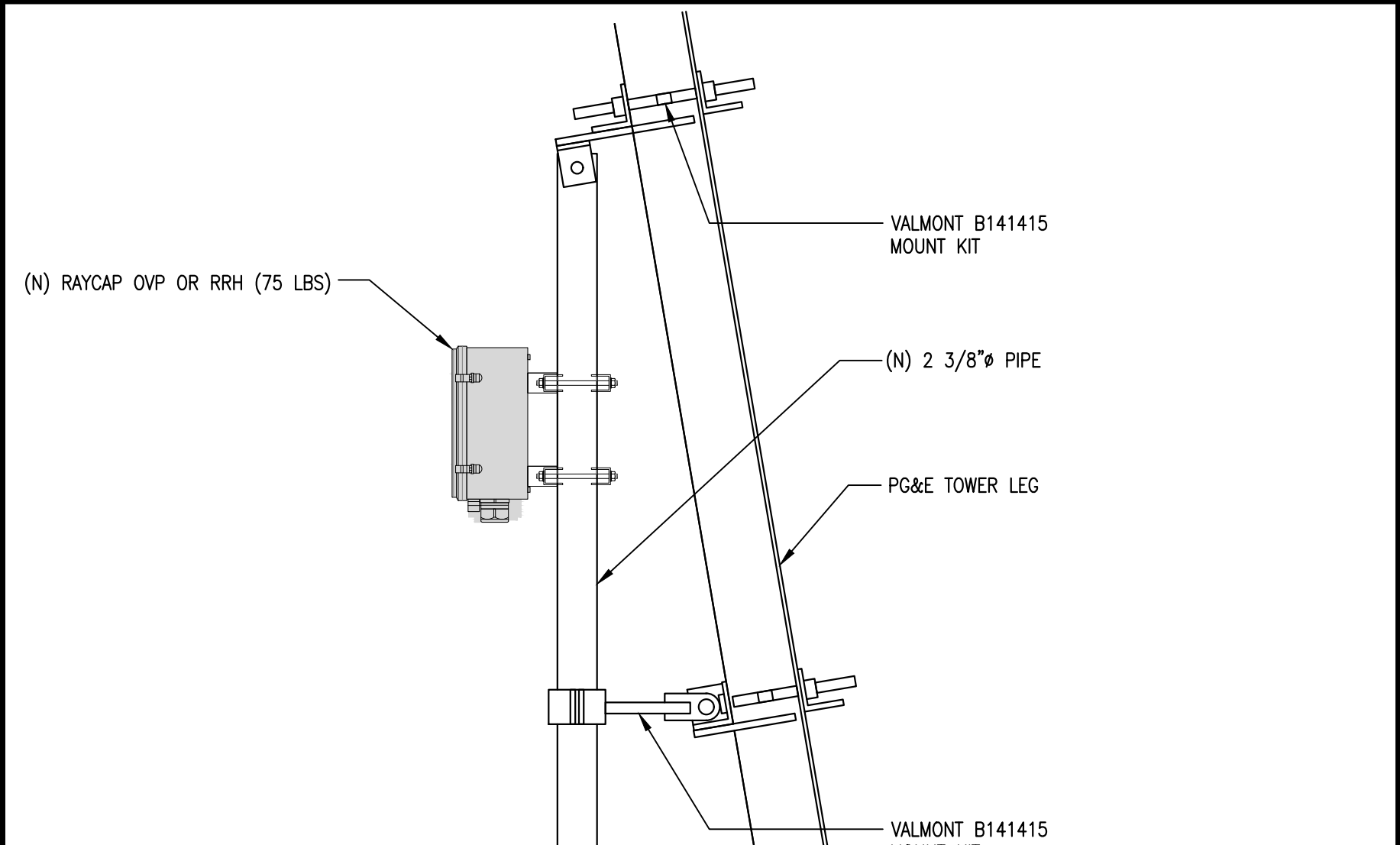
D-2



FIBERFENCE FENCE AND GATE DETAILS

NO SCALE

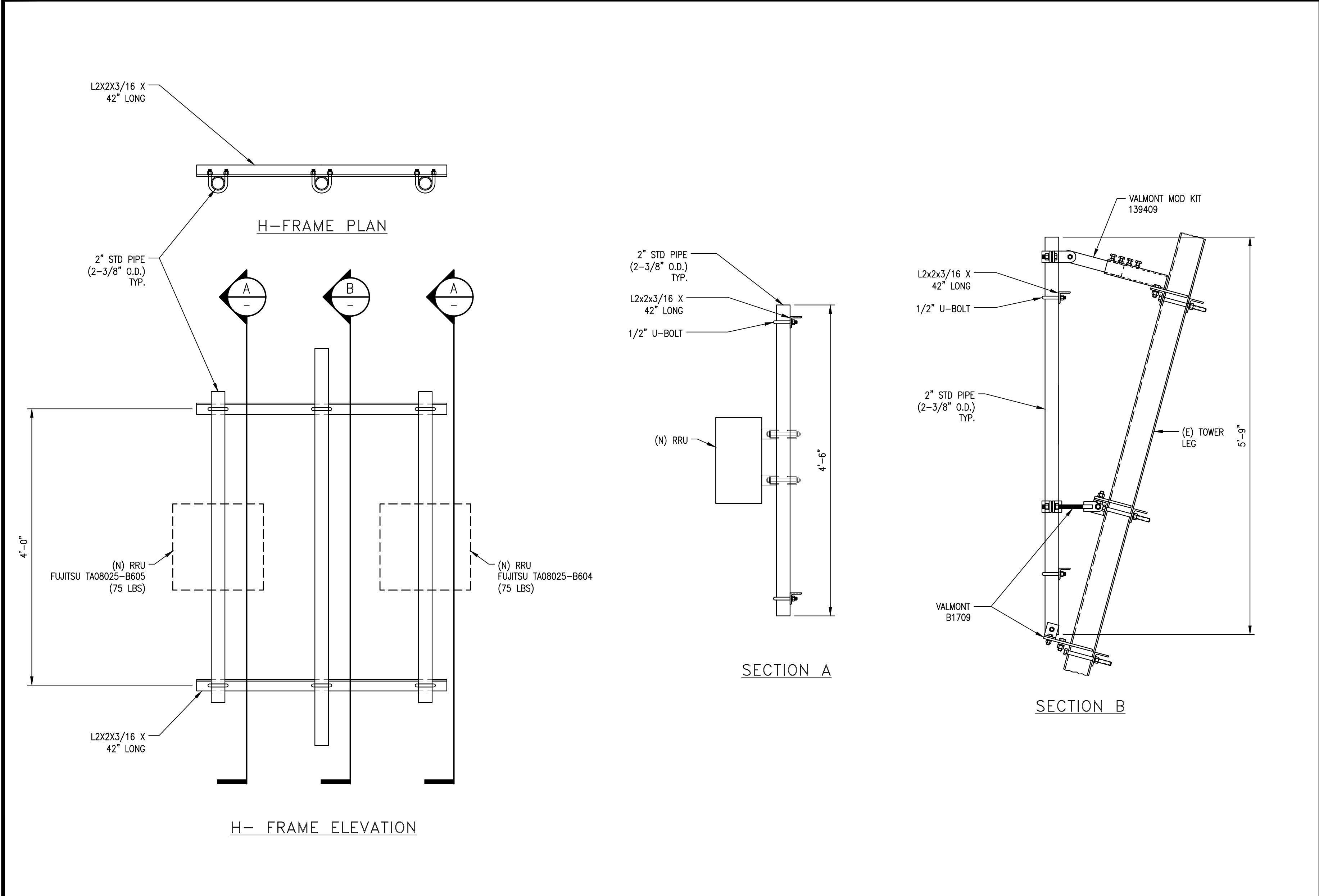
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PG&E TOWER INSIDE-MOUNT

NO SCALE

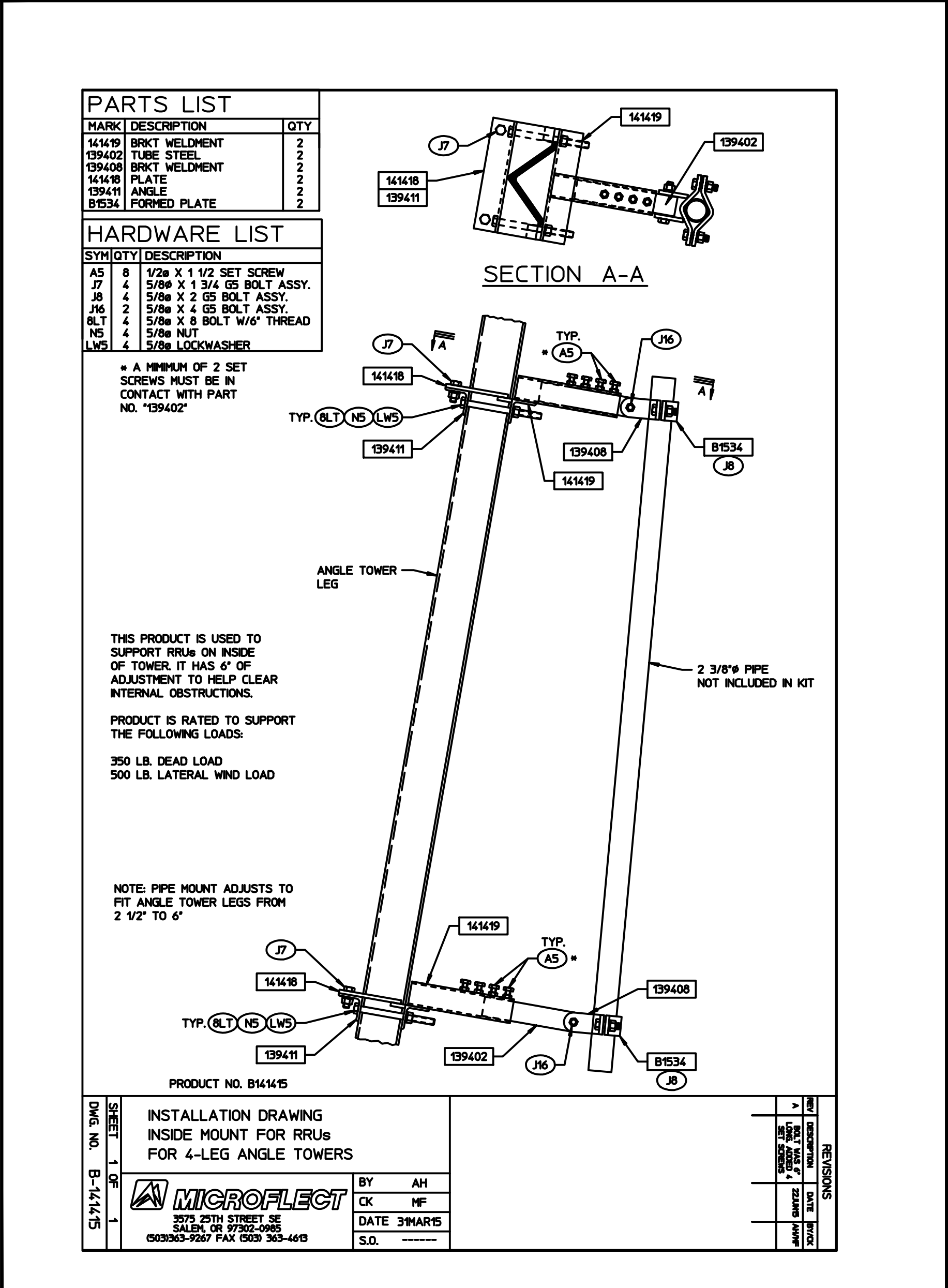
3



PG&E RRU H-FRAME (BELOW CONDUCTOR)

NO SCALE

4



VALMONT B141415

NO SCALE

5

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WIRELESS

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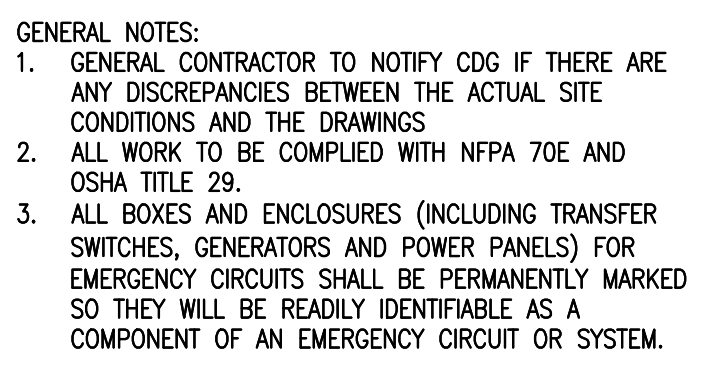
STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE
EQUIPMENT
DETAILS

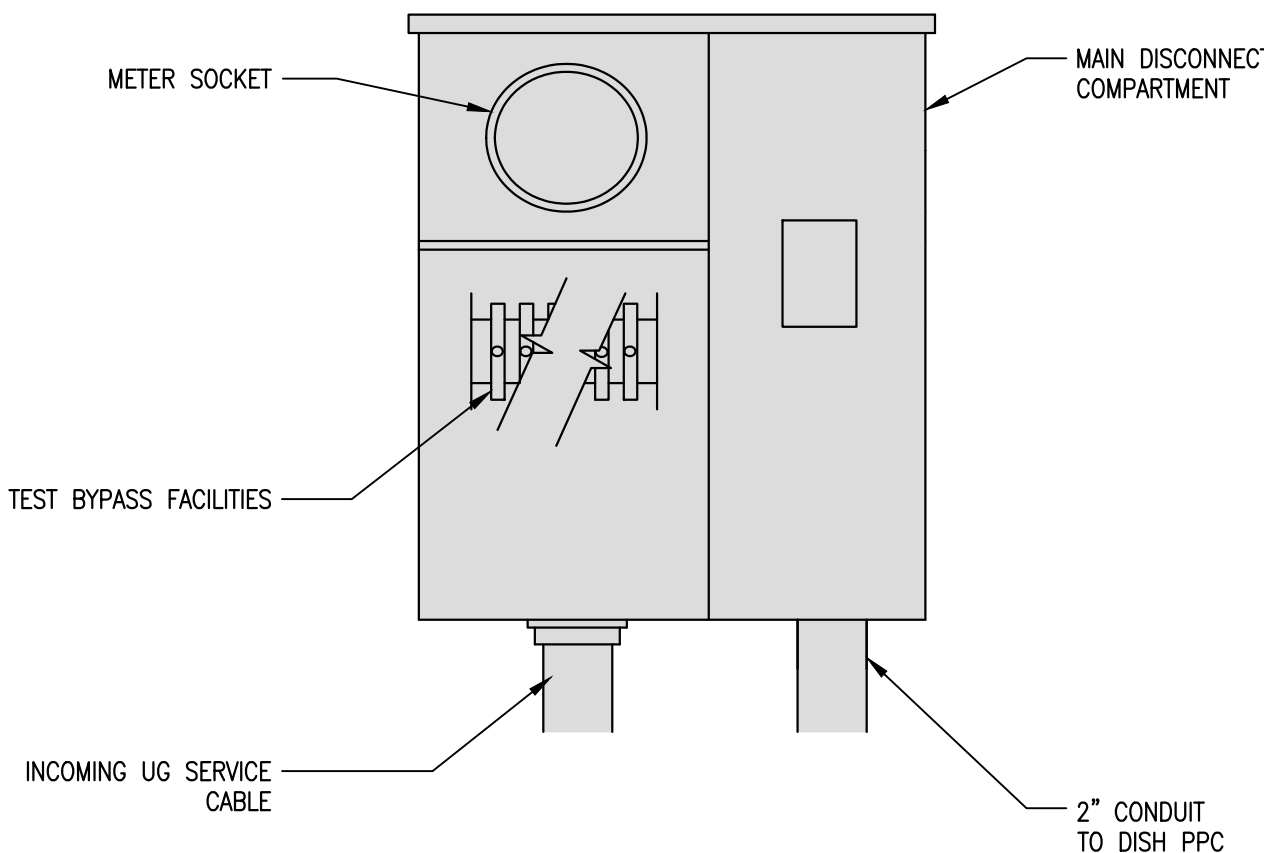
SHEET NUMBER

D-3

3. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL LOCAL AND STATE CODE, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
2. CONTRACTOR SHALL COORDINATE WITH LOCAL POWER COMPANY FOR REQUIREMENTS OF POWER SERVICE LINE TO THE METER BASE. POWER SERVICE REQUIREMENT IS COMMERCIAL AC NOMINAL 120/208 VOLT OR 120/240 VOLT, SINGLE PHASE WITH 200 AMP RATING.
3. CONTRACTOR SHALL COORDINATE WITH LOCAL TELEPHONE COMPANY FOR REQUIREMENTS OF "T1" SERVICE LINE TO TERMINATE AT THE PPC CABINET.
4. CONTRACTOR SHALL FURNISH AND INSTALL ELECTRIC METER BASE AND 200A DISCONNECT SWITCH PER SITE PLAN AND DETAIL DRAWINGS. THE METER BASE SHOULD BE LOCATED IN A MANNER WHERE ACCESSIBLE BY THE LOCAL POWER COMPANY.
5. LOCAL POWER COMPANY SHALL PROVIDE 200 AMP ELECTRIC METER. CONTRACTOR SHALL COORDINATE INSTALLATION OF METER WITH LOCAL POWER COMPANY.
6. UNDERGROUND POWER AND TELCO SERVICE LINES SHALL BE ROUTED IN A COMMON TRENCH. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 AND CONDUIT EXPOSED ABOVE GROUND SHALL BE RIGID GALVANIZED STEEL UNLESS OTHERWISE INDICATED.
7. ALL TELCO CONDUIT LINES SHALL BE 4" SCH. 40 PVC CONDUIT UNLESS OTHERWISE INDICATED. THE TELCO CONDUIT FROM THE PPC SHALL BE ROUTED AND TERMINATED AT DESIGNATED TELCO DEMARCATION OR 2-FEET OUTSIDE FENCED AREA, NEAR UTILITY POLE (IN FENCED AREA), OR END CAP OFF AND PROVIDE MARKER STAKE PAINTED BRIGHT ORANGE WITH DESIGNATION FOR TELCO SERVICE.
8. CONDUITS INSTALLED AT PCS EQUIPMENT ENDS PRIOR TO THE EQUIPMENT INSTALLATION SHALL BE STUBBED AND CAPPED AT 6" ABOVE GRADE OR PLATFORM. IF SERVICE LINES CAN'T BE INSTALLED INITIALLY, PROVIDE NYLON PULL CORD IN CONDUITS.
9. THE DISH WIRELESS CABINET, INCLUDING 200 AMP LOAD PANEL AND TELCO PANEL, SHALL BE PROVIDED BY OWNER AND INSTALLED BY THE CONTRACTOR. CONTRACTOR IS TO INSTALL BREAKER(S) NOT PROVIDED BY MANUFACTURER. SEE PANEL SCHEDULE ON THIS SHEET FOR BREAKER REQUIREMENTS.
10. LOCATION OF ELECTRIC METER AND DISCONNECT SWITCH TO BE COORDINATED BY ELECTRICAL CONTRACTOR AND FIELD CONSTRUCTION MANAGER.
11. #2 WIRE TO BE UTILIZED IN ELECTRIC SERVICE RUNS EXCEEDING 100'.
12. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS' FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
13. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO ROUGH-IN.
14. THE CONDUIT RUNS AS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATION AND ROUTING SHALL BE PER EXISTING FIELD CONDITIONS.
15. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.
16. ALL CONDUITS SHALL BE MET WITH BENDS MADE IN ACCORDANCE WITH NEC TABLE 346-10. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" OR LARGER.
17. ALL CONDUIT TERMINATIONS SHALL BE PROVIDED WITH PLASTIC THROAT INSULATING GROUNDING BUSHINGS.
18. ALL WIRE SHALL BE TYPE THWN, SOLID, ANNEALED COPPER UP TO SIZE #10 AWG (#8 AND LARGER SHALL BE CONCENTRIC STRANDED) 75 DEGREE C, (167 DEGREES F), 98% CONDUCTIVITY, MINIMUM #12.
19. ALL WIRES SHALL BE TAGGED AT ALL PULL BOXES, J-BOXES, EQUIPMENT BOXES AND CABINETS WITH APPROVED PLASTIC TAGS, ACTION CRAFT, BRADY, OR APPROVED EQUAL.
20. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
21. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION TO CONFLICTS. VERIFY WITH MECHANICAL CONTRACTOR AND COMPLY AS REQUIRED.
22. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN NOT HAND WRITTEN.



23. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.
24. THE CONTRACTOR SHALL PREPARE AS-BUILT DRAWINGS, DOCUMENT ANY AND ALL WIRING AND EQUIPMENT CONDITIONS AND CHANGES WHILE COMPLETING THIS CONTRACT. SUBMIT A SUBSTANTIAL COMPLETION.
25. ALL DISCONNECT SWITCHES AND OTHER CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM (NO EXCEPTIONS.)
26. ALL ELECTRICAL DEVICES AND INSTALLATIONS OF THE DEVICES SHALL COMPLY WITH (ADA) AMERICANS WITH DISABILITIES ACT AS ADOPTED BY THE APPLICABLE STATE.
27. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS OR RISERS THROUGH BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS WITHOUT CONSTRUCTION MANAGERS APPROVAL. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE PACKED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FILL FOR FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.
28. ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT (NEW AND EXISTING) SHALL BE FIELD VERIFIED WITH THE OWNER'S REPRESENTATIVE AND EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN OF CONDUIT AND WIRE. ALL EQUIPMENT SHALL BE PROPERLY CONNECTED ACCORDING TO THE NAMEPLATE DATA FURNISHED ON THE EQUIPMENT (THE DESIGN OF THESE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND SOME EQUIPMENT CHARACTERISTICS MAY VARY FROM DESIGN AS SHOWN ON THESE DRAWINGS).
29. LOCATION OF ALL OUTLET, BOXES, ETC., AND THE TYPE OF CONNECTION (PLUG OR DIRECT) SHALL BE CONFIRMED WITH THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN.



PROPOSED PANEL SCHEDULE
RAYCAP PPC CABINET
200A, 120/240V, 1Ø, 3W, 65kA

LOAD SERVED	VOLT AMPS (WATTS)		TRIP	CKT #	PHASE		CKT #	TRIP	VOLT AMPS (WATTS)		LOAD SERVED	
	L1	L2			L1	L2			L1	L2		
PPC GFCI	180		15A	1		A		2	30A	2880		RECTIFIER #1
SPACE				3		B		4			2880	
				5		A		6	30A	2880	2880	RECTIFIER #2
				7		B		8			2880	
				9		A		10		2880		RECTIFIER #3
				11		B		12	30A		2880	
				13		A		14		2880		RECTIFIER #4
				15		B		16	30A		2880	
				17		A		18	15A	180		CHARLES GFCI
				19		B		20				
				21		A		22				
				23		B		24				
				25		A		26				
				27		B		28				
				29		A		30				
VOLT AMPS	180	0								11700	11520	
200A MCB, 1ϕ, 3W, 120/240V				L1		L2						
MB RATING: 22,000 AIC				11880		11520		VOLT AMPS				
				49.5		48		AMPS				
					97.5			MAX AMPS				
					121.9			MAX 125%				

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED SHORT CIRCUIT CALCULATIONS AND THE AIC RATING FOR EACH DEVICE IS ADEQUATE TO PROTECT THE EQUIPMENT AND THE ELECTRICAL SYSTEM.

THE ENGINEER OF RECORD HAS PERFORMED ALL REQUIRED VOLTAGE DROP CALCULATIONS AND ALL BRANCH CIRCUIT AND FEEDERS COMPLY WITH NEC (LISTED ON T-1) ARTICLE 210.19(A)(1) FPN NO. 4.

THE (2) CONDUITS WITH (4) CURRENT CARRYING CONDUCTORS EACH, SHALL APPLY THE ADJUSTMENT FACTOR OF 80% PER 2014/17 NEC TABLE 310.15(B)(3)(A) OR 2020 NEC TABLE 310.15(C)(1) FOR UL1015 WIRE

#12 FOR 15A-20A/1P BREAKER: $0.8 \times 30A = 24.0A$
 #10 FOR 25A-30A/2P BREAKER: $0.8 \times 40A = 32.0A$
 #8 FOR 35A-40A/2P BREAKER: $0.8 \times 55A = 44.0A$
 #6 FOR 45A-60A/2P BREAKER: $0.8 \times 75A = 60.0A$

CONDUIT SIZING: AT 40% FILL PER NEC CHAPTER 9, TABLE 4, ARTICLE 358

0.5" CONDUIT - 0.122 SQ. IN AREA
0.75" CONDUIT - 0.213 SQ. IN AREA
2.0" CONDUIT - 1.316 SQ. IN AREA
3.0" CONDUIT - 2.907 SQ. IN AREA

CABINET CONVENIENCE OUTLET CONDUCTORS (1 CONDUIT): USING THWN-2, CU.

#10 - 0.0211 SQ. IN X 2 - 0.0422 SQ. IN	
#10 - 0.0211 SQ. IN X 1 - 0.0211 SQ. IN <GROUND	
TOTAL	- 0.0633 SQ. IN

0.5" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (3)
WIRES, INCLUDING GROUND WIRE, AS INDICATED ABOVE.

RECTIFIER CONDUCTORS (2 CONDUITS): USING UL1015, CU.

#10 - 0.0266 SQ. IN X 4 = 0.1064 SQ. IN	
#10 - 0.0082 SQ. IN X 1 = 0.0082 SQ. IN	<BARE GROUND
TOTAL	= 0.1146 SQ. IN

0.75" EMT CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF (5) WIRES, INCLUDING GROUND WIRES, AS INDICATED ABOVE.

PFC FEED CONDUCTORS (1 CONDUIT): USING THWN, CU.

#6	3/0 - 0.2679 SQ. IN X 3 - 0.8037 SQ. IN
	- 0.0507 SQ. IN X 1 - 0.0507 SQ. IN <GROUND
	TOTAL 0.8544 SQ. IN

3.0" SCH 40 PVC CONDUIT IS ADEQUATE TO HANDLE THE TOTAL OF
(4) WIRES INCLUDING GROUND WIRE AS INDICATED ABOVE

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(VENDOR) PROJECT NUMBER

SFSF000881A

DISH WIRELESS PROJECT NUMBER
SFSF000881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE

S.L.D., PANEL
SCHEDULE & NOTES

SHEET NUMBER

E-1

NO SCALE

4

PG&E METER DETAIL

NO SCALE

3

PANEL SCHEDULE

NO SCALE

2

1. CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTOR'S FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.
2. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT NATIONAL ELECTRICAL CODES AND ALL STATE AND LOCAL CODES, LAWS, AND ORDINANCES. PROVIDE ALL COMPONENTS AND WIRING SIZES AS REQUIRED TO MEET NEC STANDARDS.
3. LOCATION OF EQUIPMENT, CONDUIT AND DEVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND SHALL BE COORDINATED WITH FIELD CONDITIONS PRIOR TO CONSTRUCTION.
4. CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS. VERIFY WITH THE MECHANICAL EQUIPMENT CONTRACTOR AND COMPLY AS REQUIRED.
5. CONTRACTOR SHALL PROVIDE ALL BREAKERS, CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETE SYSTEM.
6. CONTRACTOR SHALL PROVIDE PULL BOXES AND JUNCTION BOXES AS REQUIRED BY THE NEC ARTICLE 314.
7. CONTRACTOR SHALL PROVIDE ALL STRAIN RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
8. ALL DISCONNECTS AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED PHENOLIC NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS INSTALLED ON, AND PANEL FIELD LOCATIONS FED FROM.
9. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS PER THE SPECIFICATIONS AND NEC 250. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULL BOXES, AND ALL DISCONNECT SWITCHES, AND EQUIPMENT CABINETS.
10. ALL NEW MATERIAL SHALL HAVE A U.L. LABEL.
11. PANEL SCHEDULE LOADING AND CIRCUIT ARRANGEMENTS REFLECT POST-CONSTRUCTION EQUIPMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR AS-BUILT PANEL SCHEDULE AND SITE DRAWINGS.

(E) FINISH SURFACE

PATCH AND REPAIR TO MATCH EXISTING/NEW PAVING

UNDISTURBED EARTH

WARNING TAPE 12" BELOW GRADE

90% COMPACTED FILL

ONE (1) SCH. 40 U.G. FIBER CONDUIT (SIZE PER PLAN)

ONE (1) SCH. 40 U.G. POWER CONDUIT (SIZE PER PLAN)

PROTECT-IN-PLACE (E) U.G. CONDUIT, TYP.

VARIES

2'-0" MIN

1'-0" MIN

4"

1'-6"

NO SCALE

2

(E) FINISH SURFACE

PATCH AND REPAIR TO MATCH EXISTING/NEW PAVING

UNDISTURBED EARTH

WARNING TAPE 12" BELOW GRADE

90% COMPACTED FILL

ONE (1) SCH. 40 U.S. FIBER OR FIBER CONDUIT (SIZE PER PLAN)

PROTECT-IN-PLACE (E) U.G. CONDUIT, TYP.

VARIABLES

2'-6"

2'-0" MIN.

4"

1'-6"

NO SCALE

3

NO SCALE

1

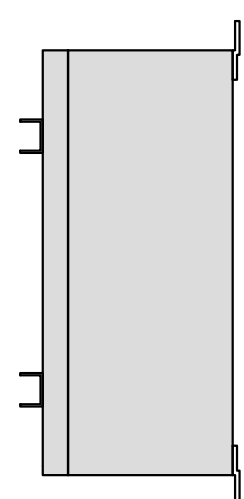
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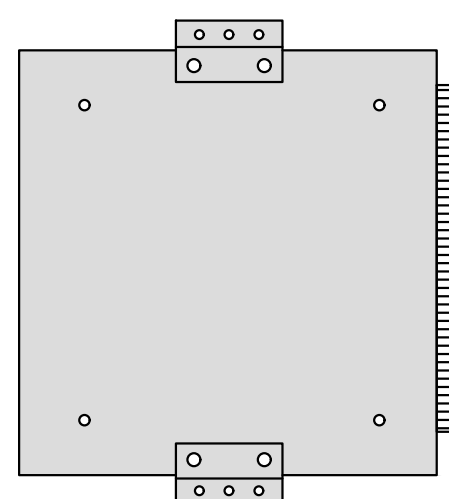
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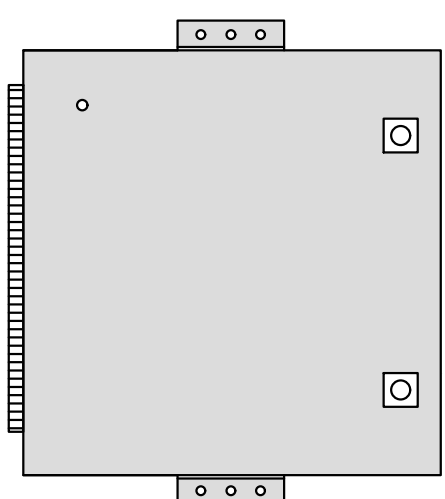
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SIDE



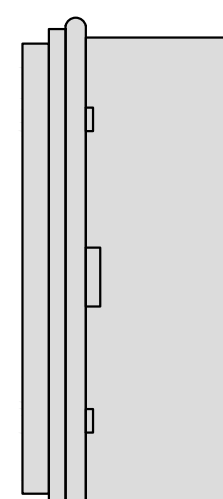
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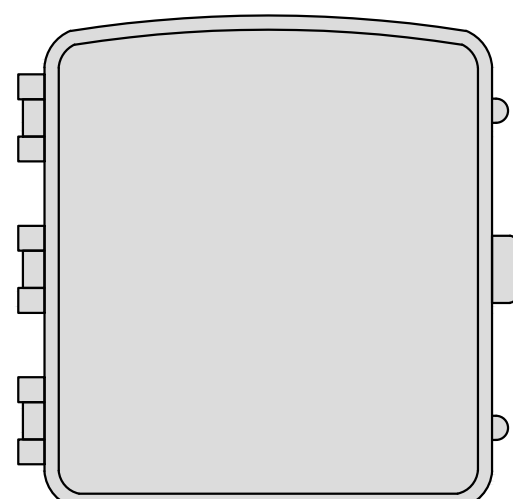
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TOP

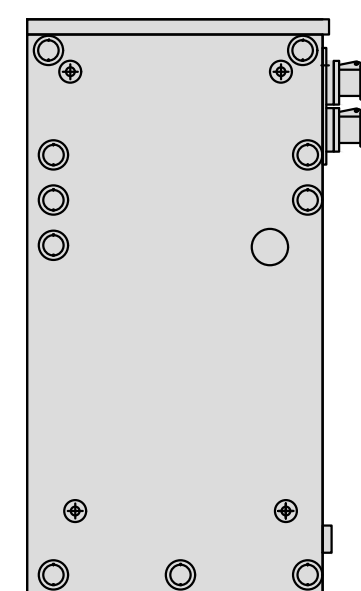


SIDE

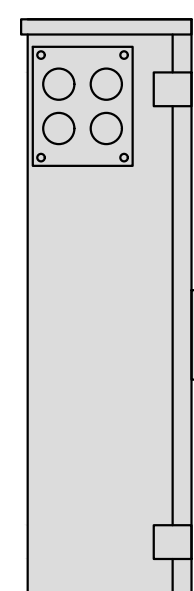


FRONT

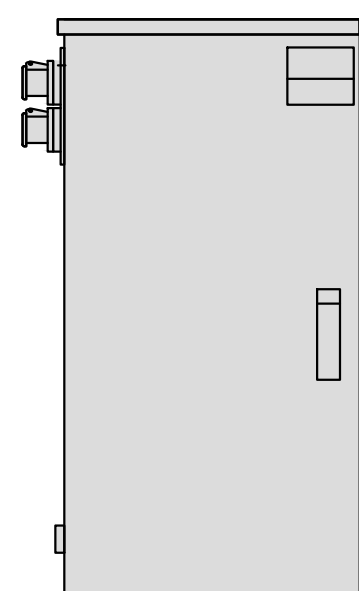
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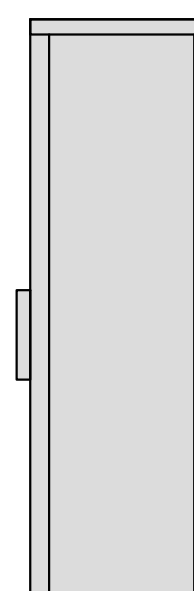
[BACK](#)



SIDE



FRONT



SIDE

NO SCALE

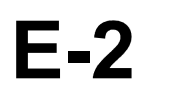
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7

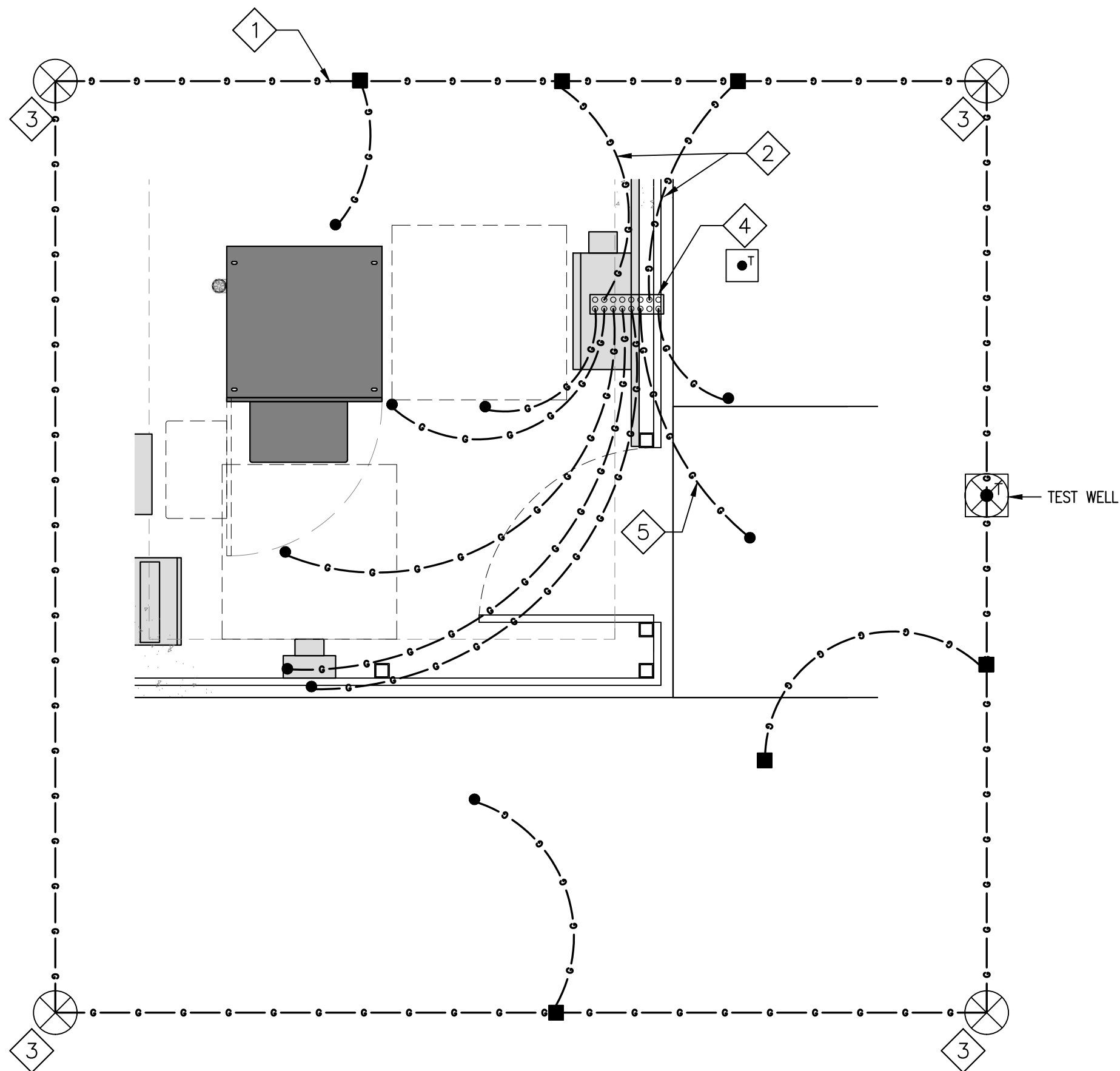
NO SCALE

6



GROUNDING NOTES

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL GROUND BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE." THE CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "I") WITH 1" HIGH LETTERS.
3. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
5. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUNDING BUS.
6. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE.
7. ALL GROUNDING PARTS AND EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
9. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).



KEY NOTES

- 1 (N) AWG 2 BCW GROUND RING BURIED 30" BELOW GRADE
- 2 (N) AWG 2 BCW
- 3 (N) GROUND ROD
- 4 (N) EQUIPMENT GROUND BAR
- 5 (N) AWG 2 INSULATED COPPER GROUND TO (N) EQUIP. GROUND BAR

*ACTUAL LAYOUT MAY VARY. SEE SITE PLAN FOR POSITIONS

PG&E GROUND GRID TO SUPERSEDE ALL OTHER GROUNDING, SEE SHEETS G-3 AND G-4

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- GROUND BUS BAR
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE
- #6 AWG STRANDED & INSULATED
- #2 AWG SOLID COPPER TINNED

GROUNDING LEGEND

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND DISH WIRELESS GROUNDING AND BONDING REQUIREMENTS AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.
4. NO EXOTHERMIC WELDING ON ROOFTOP

GROUNDING KEY NOTES

- A ROOF MOUNTED SUPPORT STRUCTURES: BOND ROOF-MOUNTED ANTENNA MASTS AND SUPPORT STRUCTURES TO THE EXISTING LIGHTNING PROTECTION SYSTEM, EXISTING BUILDING GROUND, NON-FIRE SUPPRESSION COLD WATER PIPE, OR GROUND RIN/ROD AT GROUND LEVEL USING #2 STRANDED GREEN INSULATED COPPER WIRE.
- B BONDING: ALL ROOFTOP GROUND CONNECTIONS SHALL BE MECHANICAL WITH ANTI OXIDIZING COMPOUND BETWEEN MATING SURFACES. EXOTHERMIC WELDS ARE NOT ALLOWED ON ROOFTOP OR IN-BUILDING APPLICATIONS UNLESS THE COMPONENT IS SUPPLIED FROM THE MANUFACTURER PRE-WELDED.
- C EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING.
- D INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR.
- E BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING.
- F GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 1/2" DIAMETER BY EIGHT FEET LONG. GROUND RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR. CHEMICAL GROUND RODS MAY BE USED WHEN APPLICABLE.
- G CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG UNLESS NOTED OTHERWISE STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING OR GROUND LEVEL GROUND ROD WITH (2) #2 SOLID TINNED COPPER CONDUCTORS.
- H HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS EACH.
- J EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE.
- K FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUSSBAR THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK. BOND THE FRAME GROUND TO THE "I" SECTION OF THE CELL REFERENCE GROUND BAR OR SUPPLEMENTARY CONDUCTOR. (SHEET G3 DETAIL1)
- L INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING.
- M FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS. IF THE FENCE AND GATE IS IN-BUILDING OR ON ROOF IT SHALL BE BONDED TO THE MAIN BUSSBAR GROUNDING SYSTEM. USING #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR
- N EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE MAIN BUSSBAR GROUNDING SYSTEM. USING #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR
- P CABLE TRAYS: EACH SECTION SHALL BE BONDED TO THE NEXT WITH #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR JUMPER. PROVIDE TWO HOLE LUGS AT BOTH ENDS OF THE JUMPER AND APPLY NO-OXIDIZING COMPOUND BETWEEN THE LUG AND CABLE TRAY. THE CABLE TRAY SHALL BE GROUNDED TO THE NEAREST BUSSBAR IN THE SAME MANNER.
- Q DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICE CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR
- R ALL ROOFTOP BUSSBARS ARE TO BE MECHANICALLY BONDED TO PROPOSED ANTENNA MOUNT.

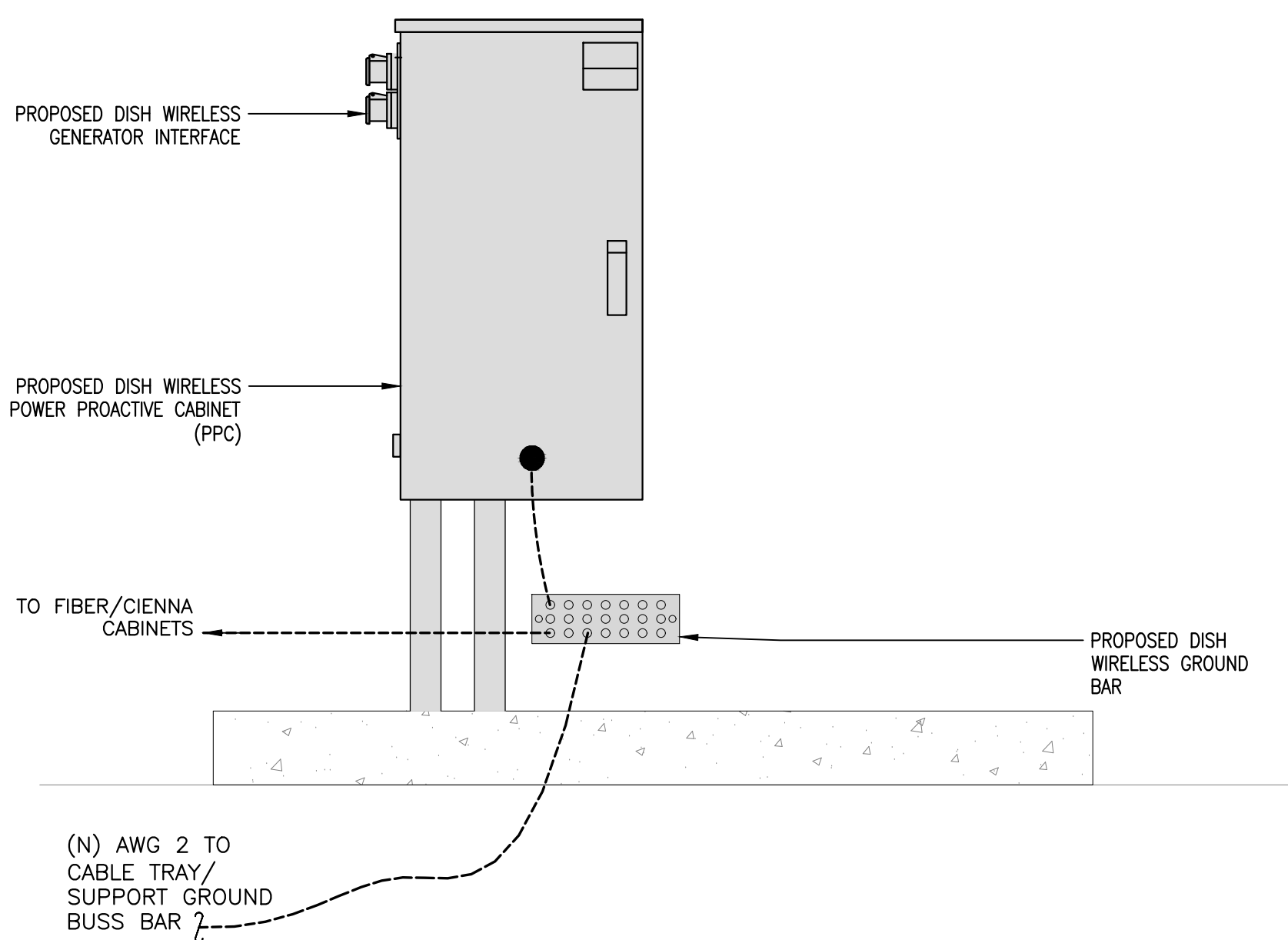
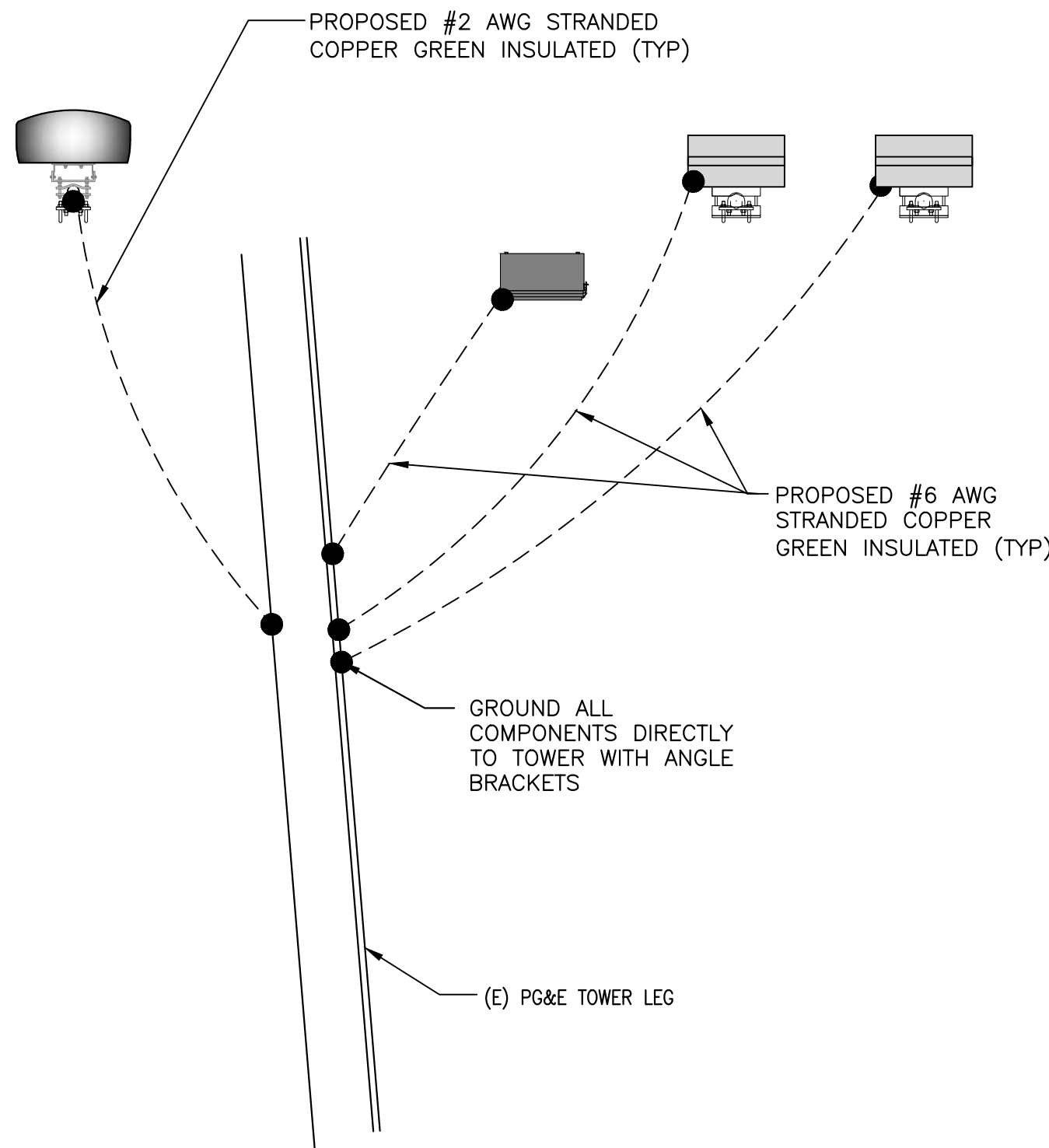
REFER TO DISH WIRELESS GROUNDING NOTES.

EQUIPMENT GROUNDING PLAN

NO SCALE

1

*ACTUAL LAYOUT MAY VARY. SEE SITE PLAN FOR POSITIONS



(N) AWG 2 TO CABLE TRAY/ SUPPORT GROUND BUSS BAR

TYPICAL ANTENNA GROUNDING PLAN

NO SCALE

4

UTILITY GROUNDING DETAIL

NO SCALE

3

GROUNDING KEY NOTES

NO SCALE

2

dish WIRELESS

5701 SOUTH SANTA FE DRIVE
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CDG

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SUITE 8160-131
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dconnell@connelldesigngroup.com
949-306-4644



DATE STAMPED: 09/07/2023

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DRAWN BY: LE CHECKED BY: JPC APPROVED BY: DC

RFDS REV #1 DATED 05/23/2023

CONSTRUCTION DOCUMENTS

SUBMITTALS		
REV	DATE	DESCRIPTION
4	03/04/2023	ISSUED FOR 100% CD REVIEW
5	04/05/2023	UPDATED FIBER DESIGN
6	06/19/2023	UPDATED POWER DESIGN
7	07/18/2023	UPDATED TO FIBERFENCE
8	08/04/2023	ISSUED FOR 100% CD
9	08/22/2023	ISSUED FOR 100% CD
10	09/07/2023	ISSUED FOR 100% CD

(VENDOR) PROJECT NUMBER

SFSF000881A

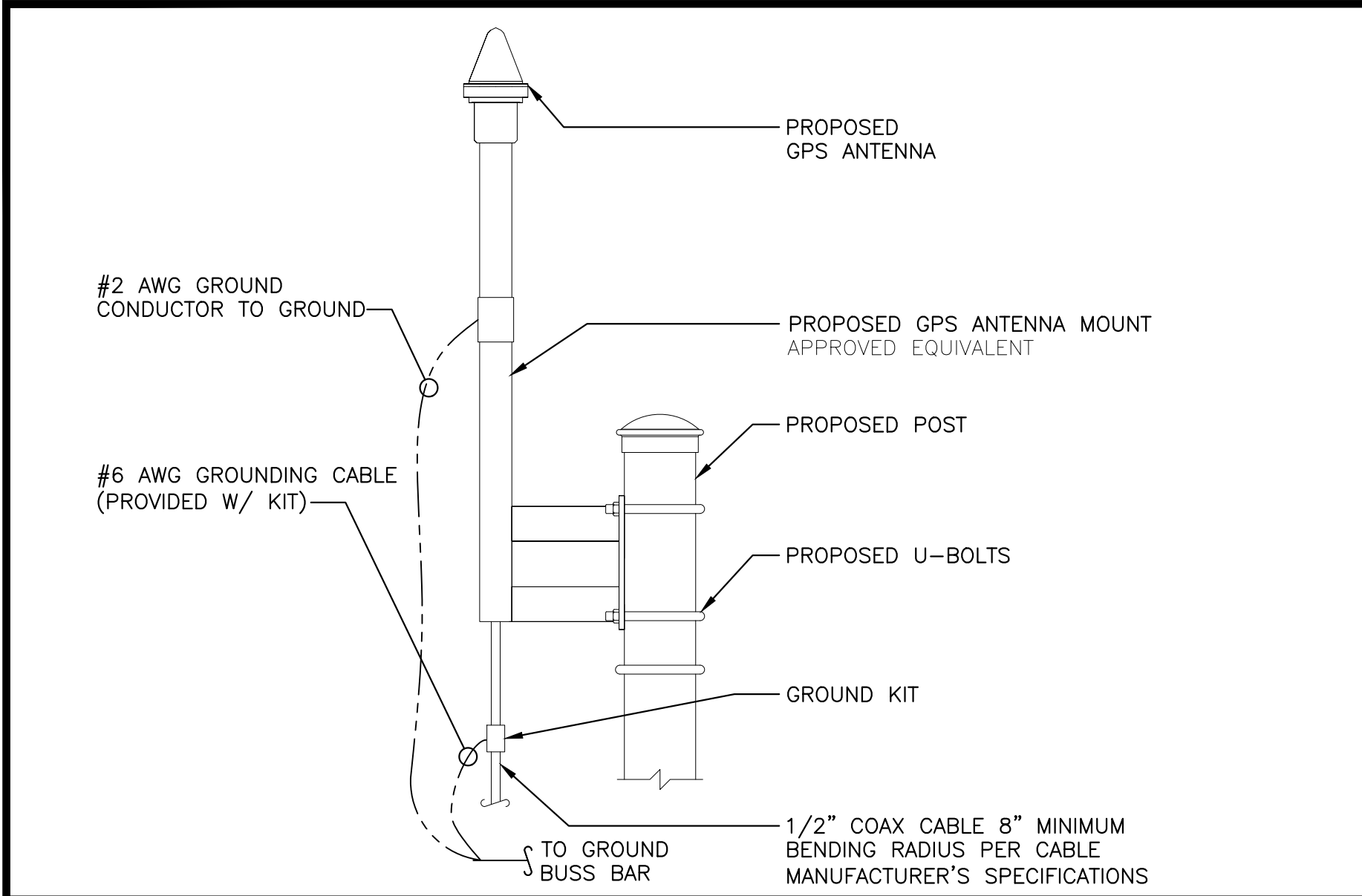
DISH WIRELESS PROJECT NUMBER
SFSF000881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE
GROUNDING PLANS
AND NOTES

SHEET NUMBER

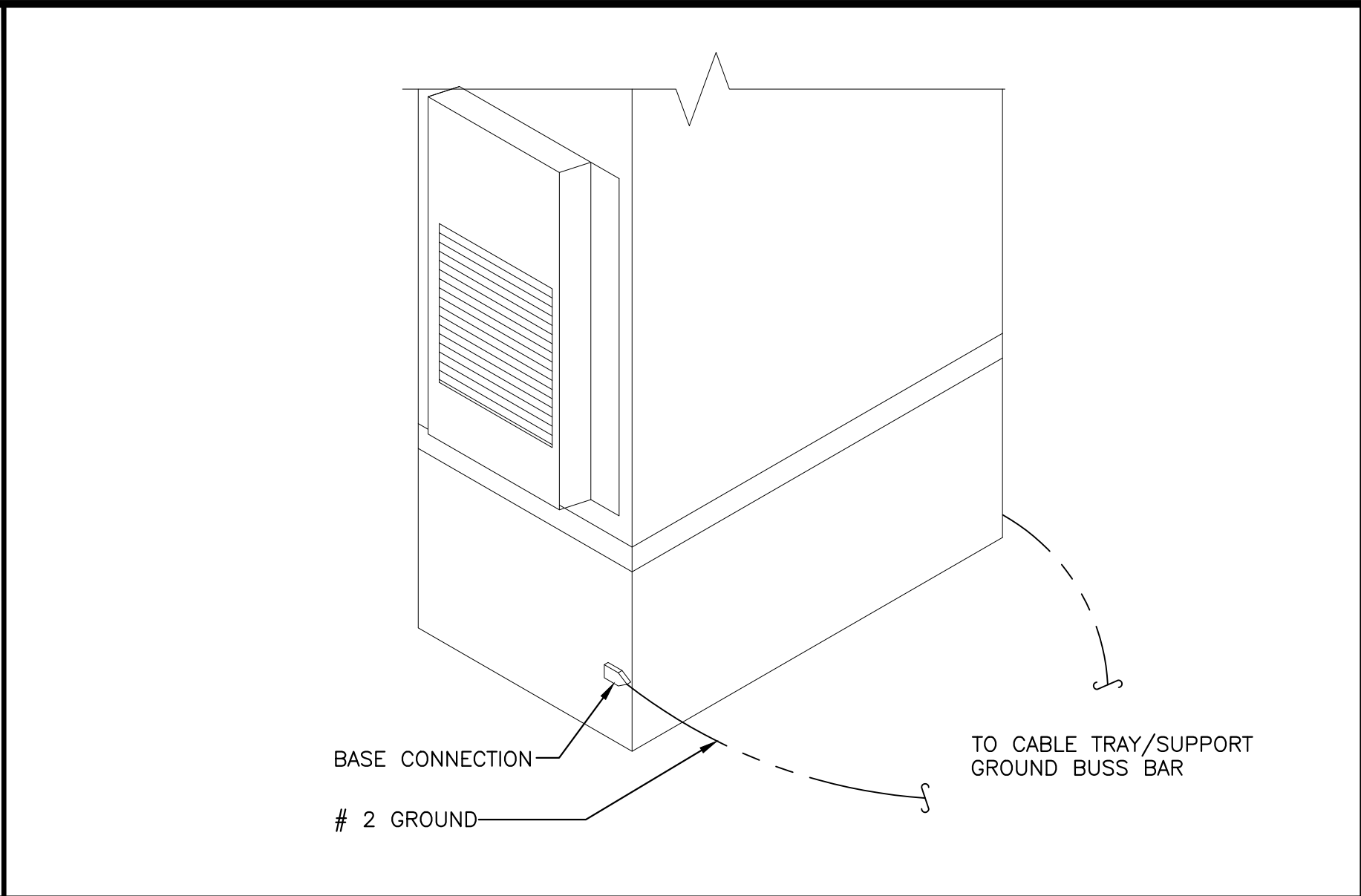
G-1



TYPICAL GPS UNIT GROUNDING

NO SCALE

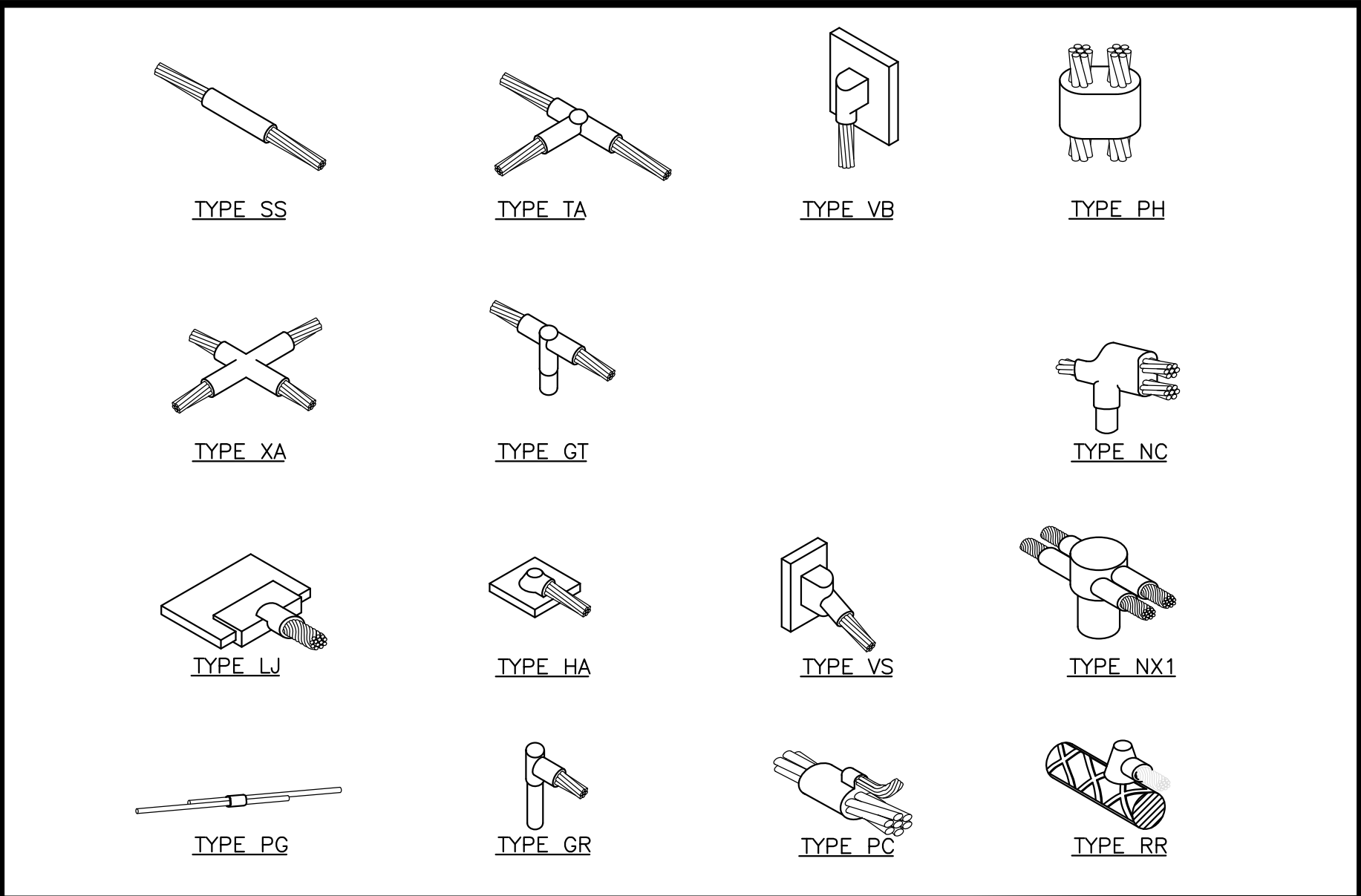
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OUTDOOR CABINET GROUNDING

NO SCALE

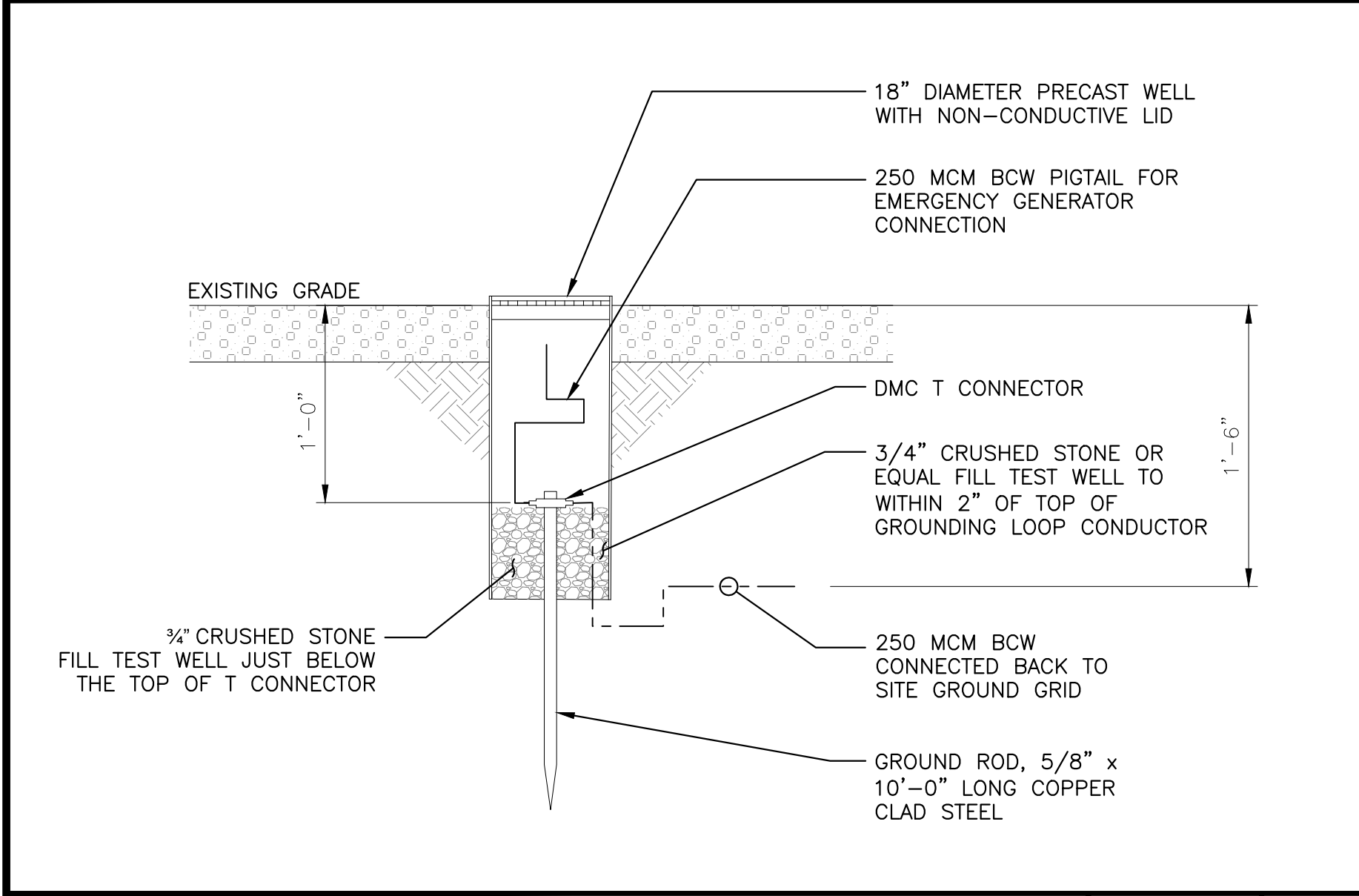
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CADWELD CONNECTIONS

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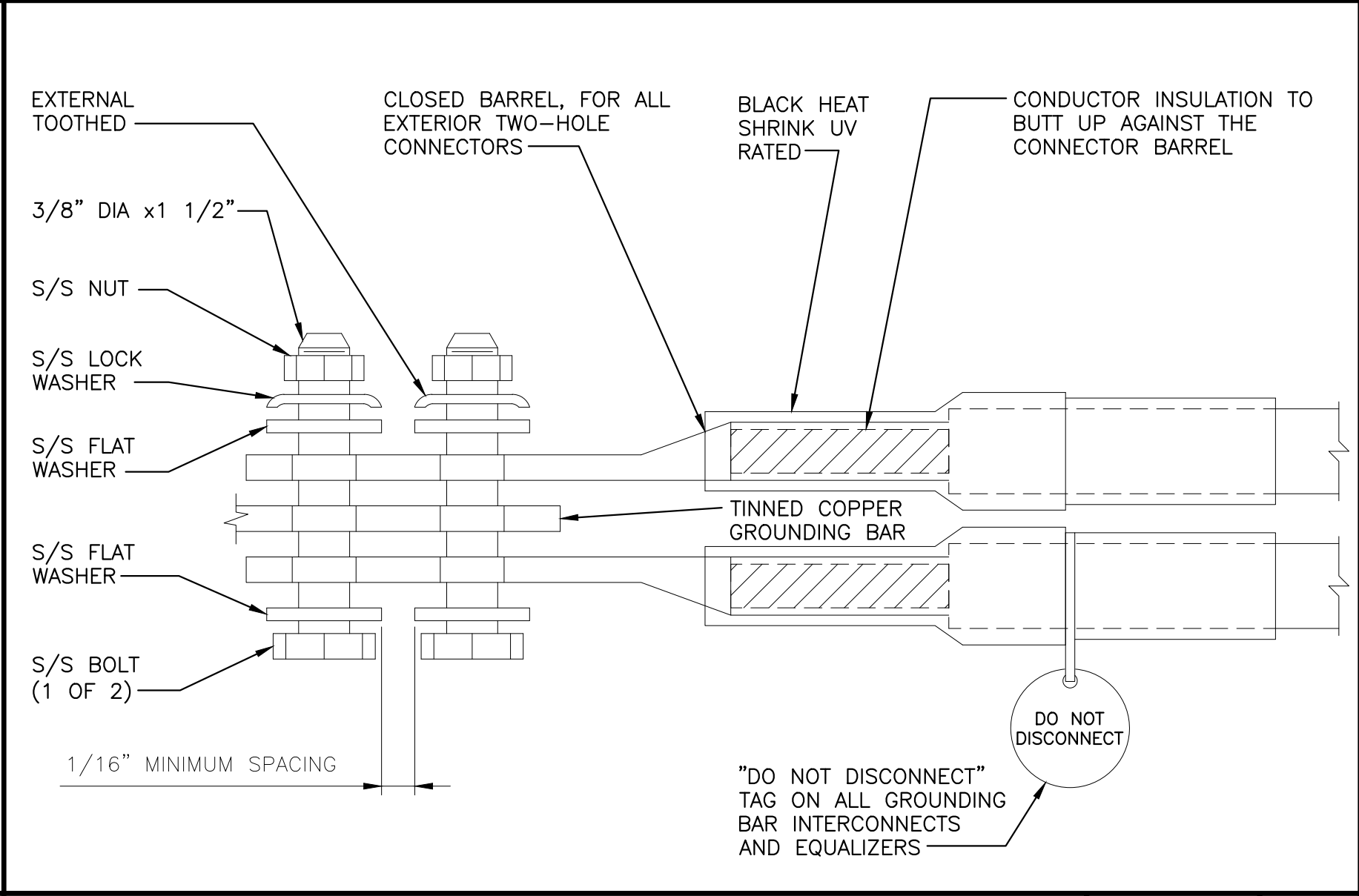
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EMERGENCY GENERATOR GROUND TEST WELL

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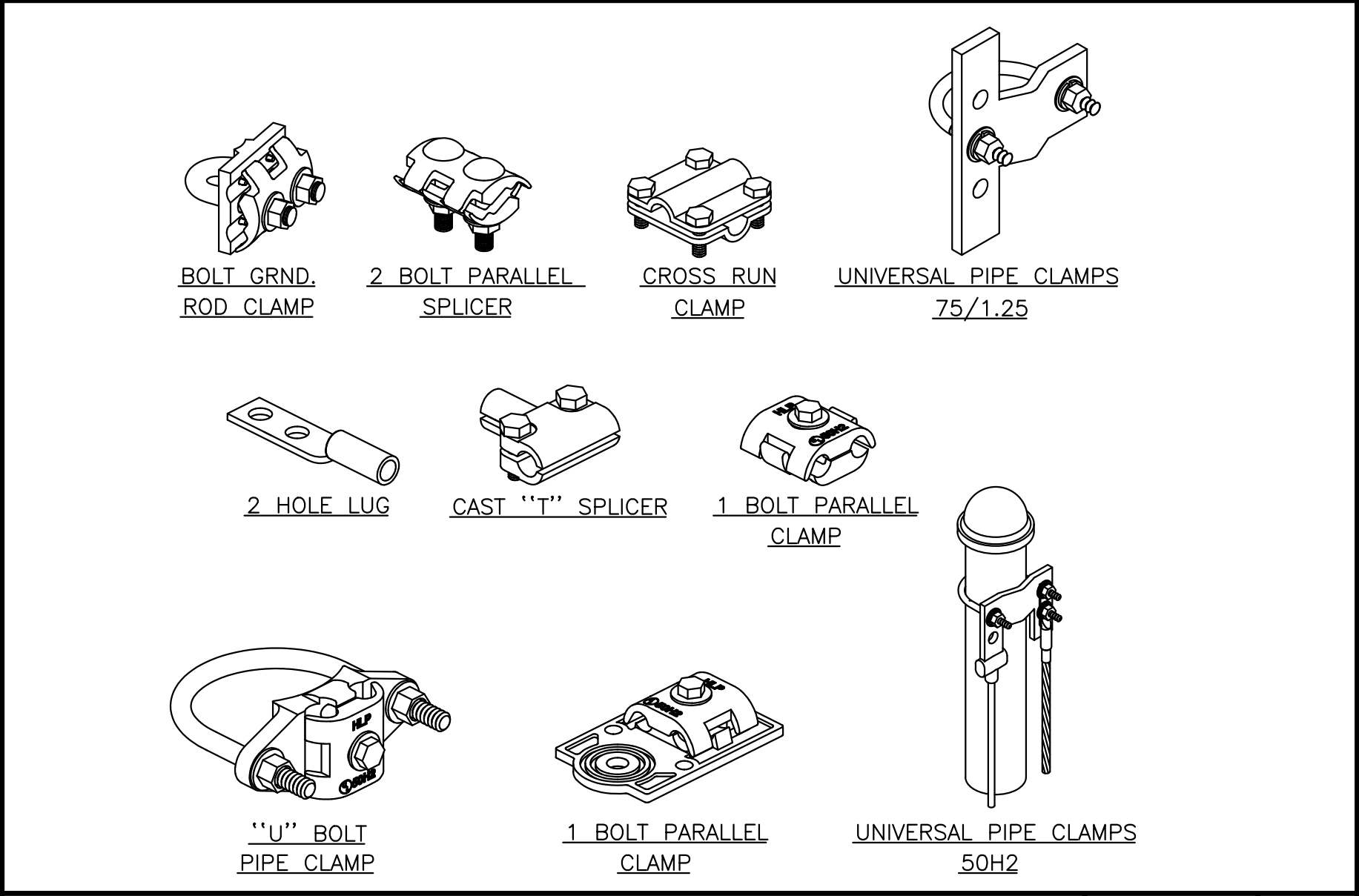
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TYPICAL EXTERIOR TWO HOLE LUG

NO SCALE

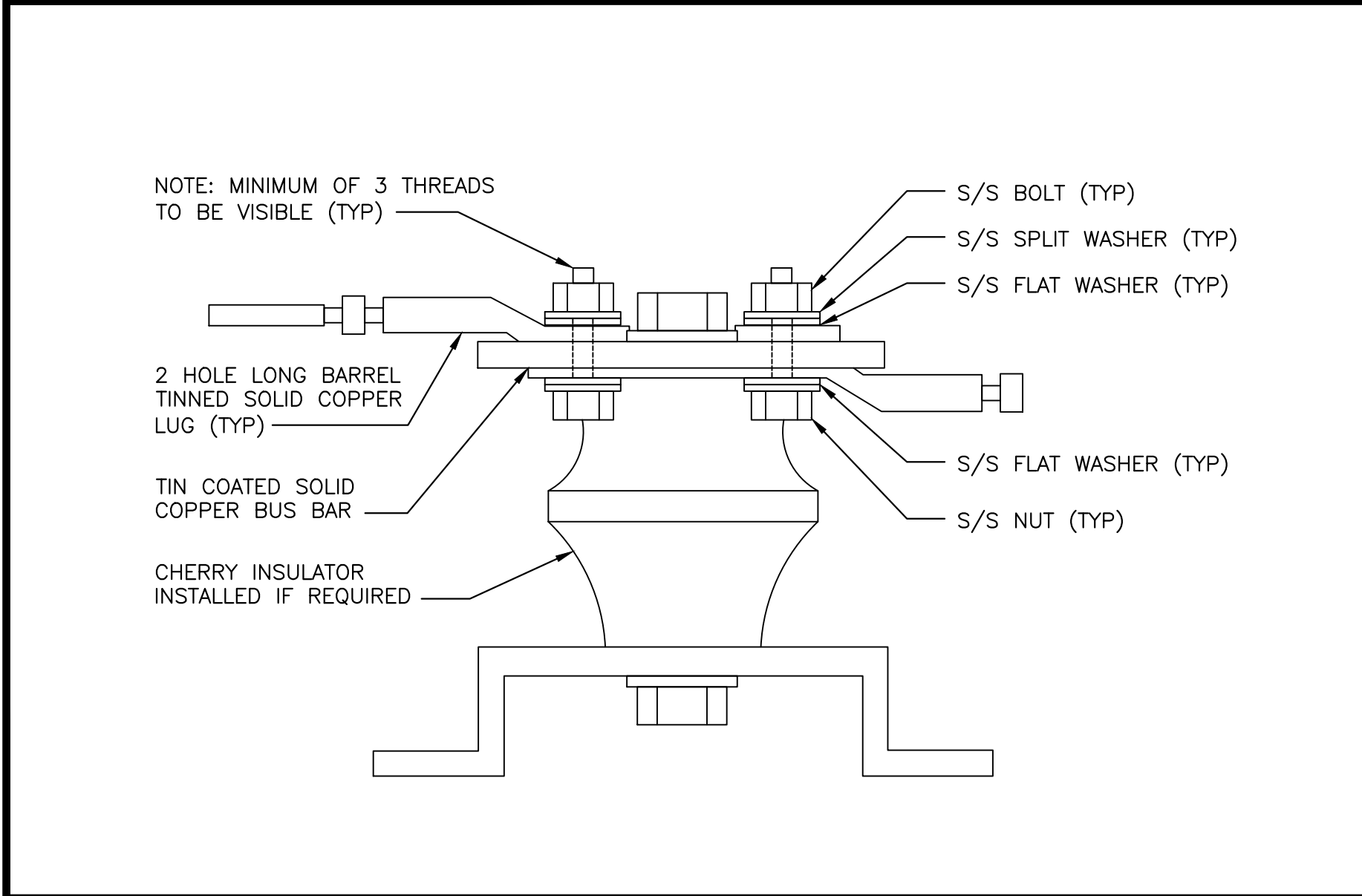
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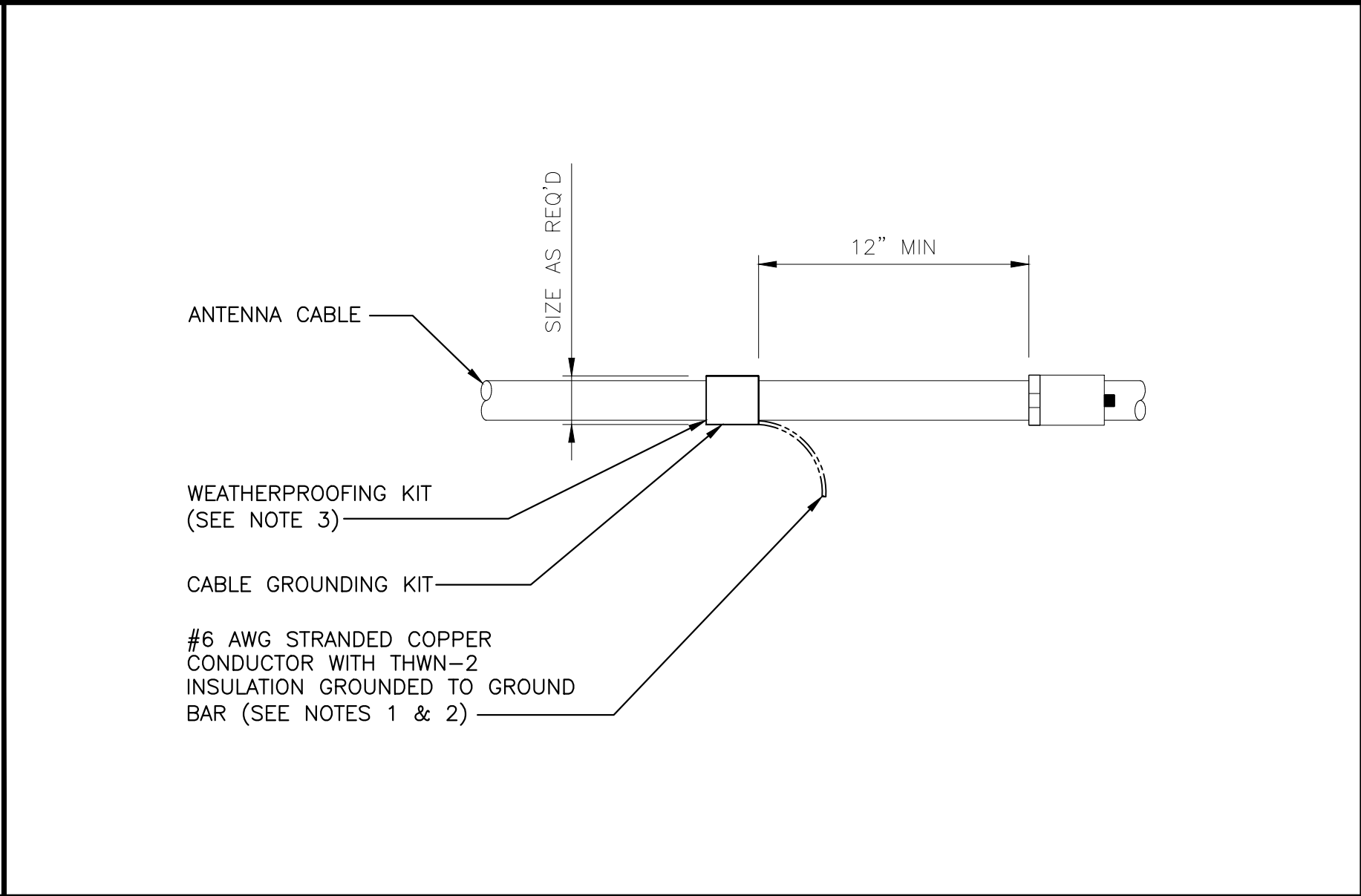
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LUG DETAIL

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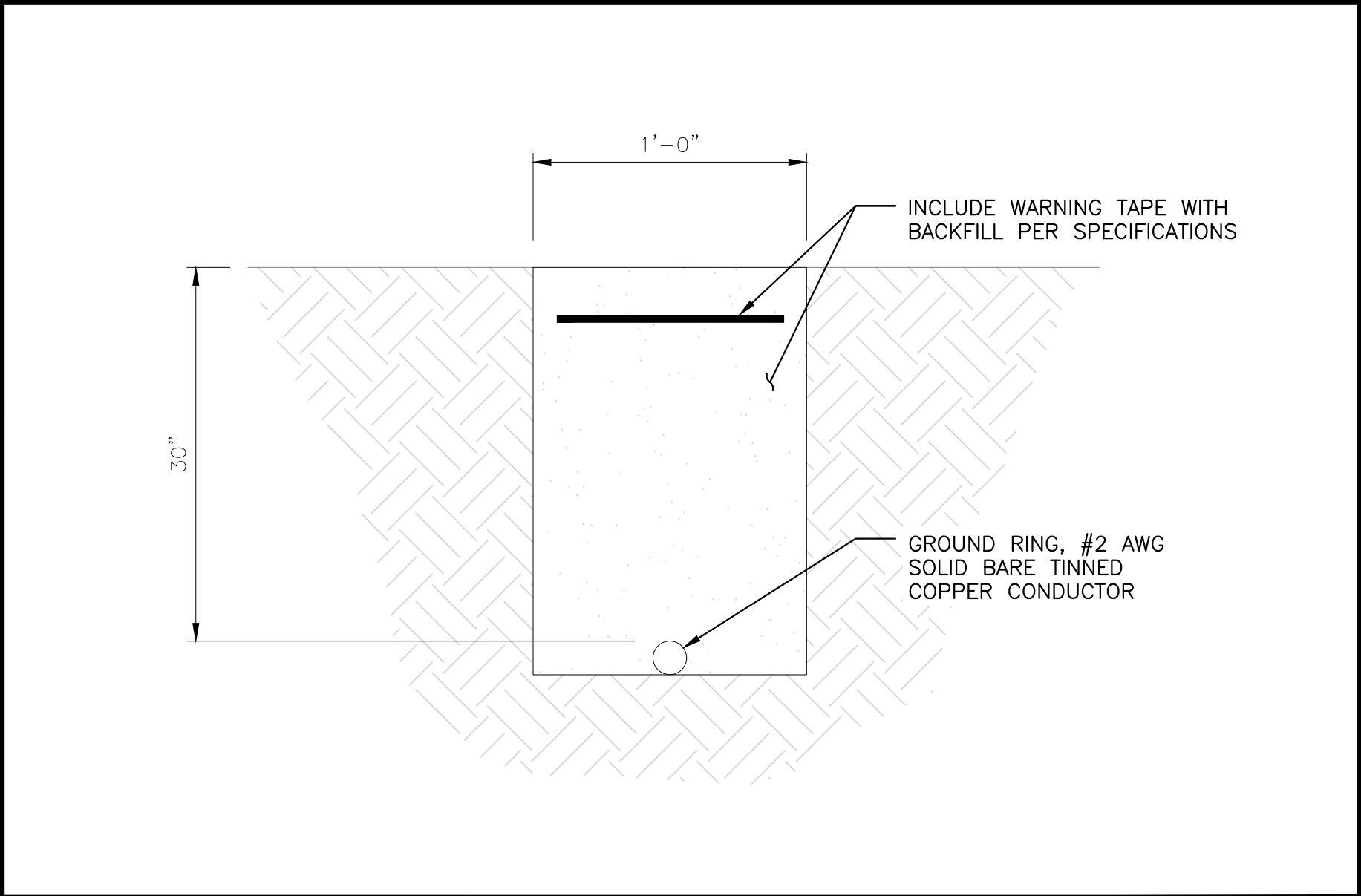
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CONNECTION OF HYBRID CABLE GROUNDING KIT TO HYBRID TRUNK

NO SCALE

8



TYPICAL GROUND RING TRENCH

NO SCALE

9

dish
WIRELESS

5701 SOUTH SANTA FE DRIVE
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BUTLER
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LLC

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TO ALTER THIS DOCUMENT.

DRAWN BY: CHECKED BY: APPROVED BY:

LE

JPC

DC

RFDS REV #1 DATED 05/23/2023

CONSTRUCTION
DOCUMENTS

SUBMITTALS

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(VENDOR) PROJECT NUMBER

SFSF00881A

DISH WIRELESS PROJECT NUMBER
SFSF00881A

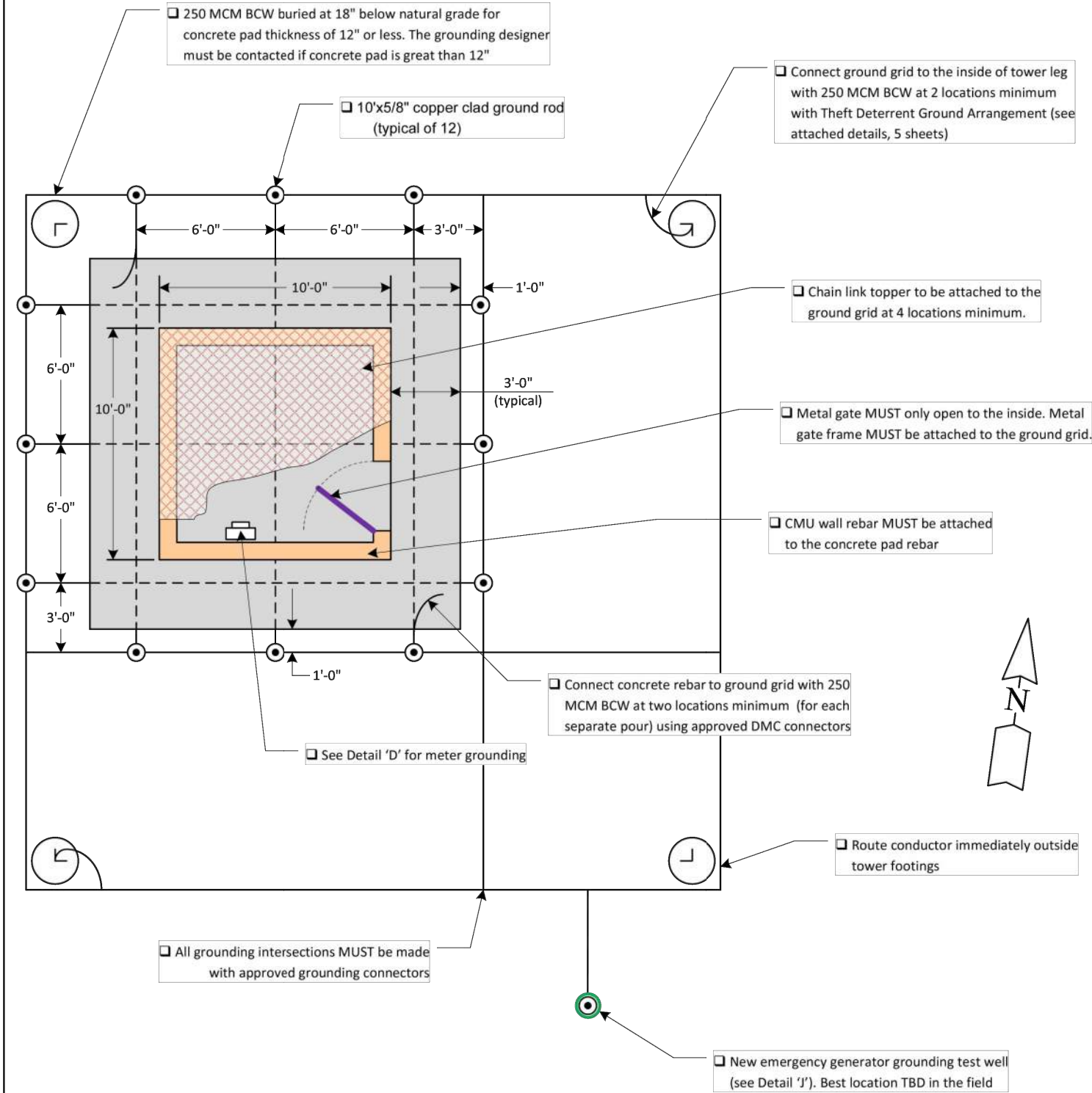
STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER

G-2

PG&E Grounding Requirements-Sheet 1
(Required Design Details are Located on Sheet 2)



Carrier: Dish Title: Pittsburg-Tidewater Site No.: SFSFO0881A Co-Location: None Line Name: Pittsburg-Tidewater / Pittsburg-Tesoro, 230 kV Tower No.: 002/011 Tower SAP No.: 40586678 Designed By: Steve Maddix E-mail: sgm3@pge.com	SIZE: 0 PG&E Proj Mgr: Steven Milliken Phone: 925-222-0536 From Drawings Dated: 1/25/2023	DWG NO: SFSFO0881A REV: 0 Issue Date: 3/21/2023 SHEET: 1 of 2
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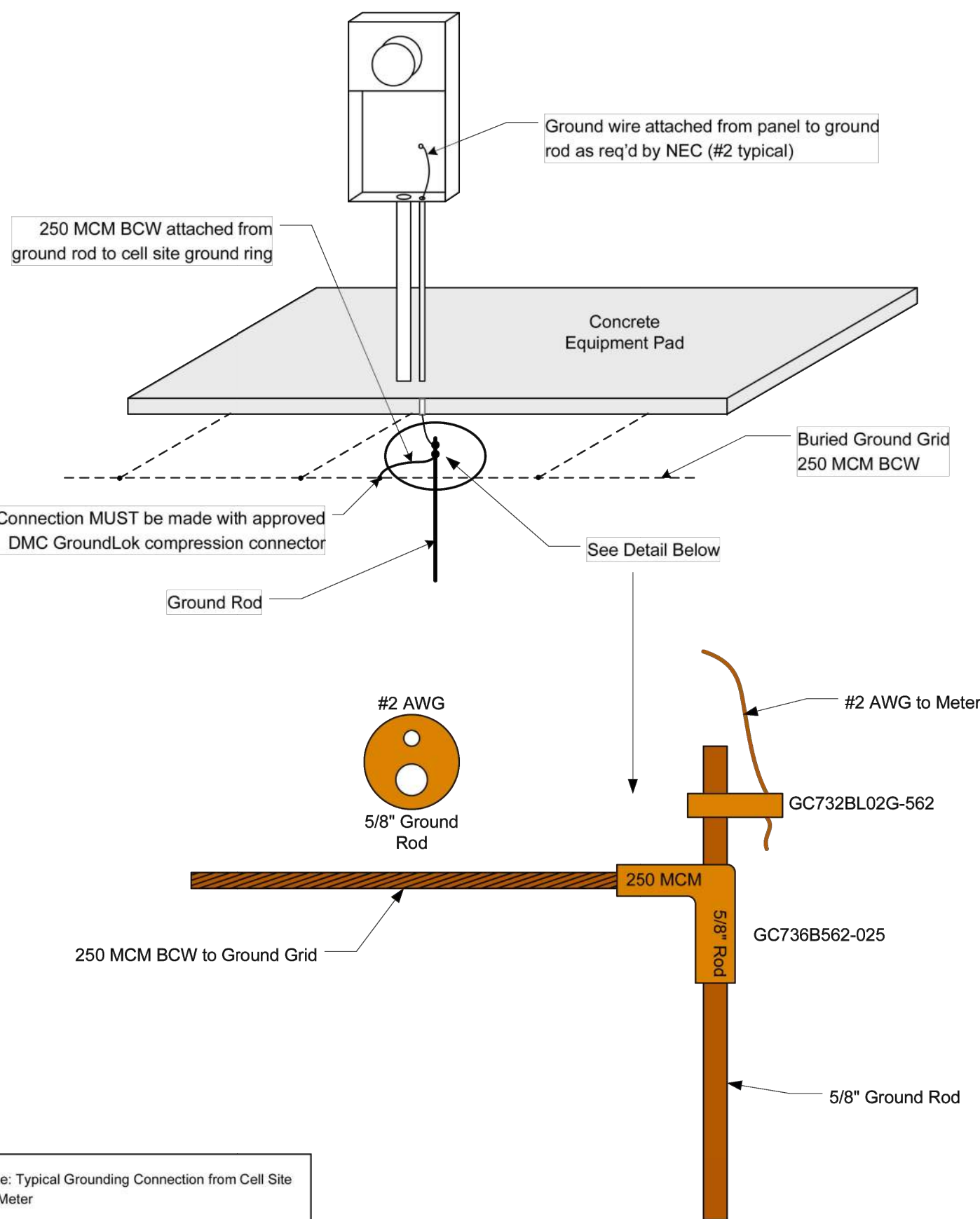
The following design details **MUST BE** incorporated into the final engineering and construction drawings for the cell site ground grid. Where conflicts arises between these details and cell vendor generic details, these details **SHALL** prevail.

REQUIRED DESIGN DETAILS:

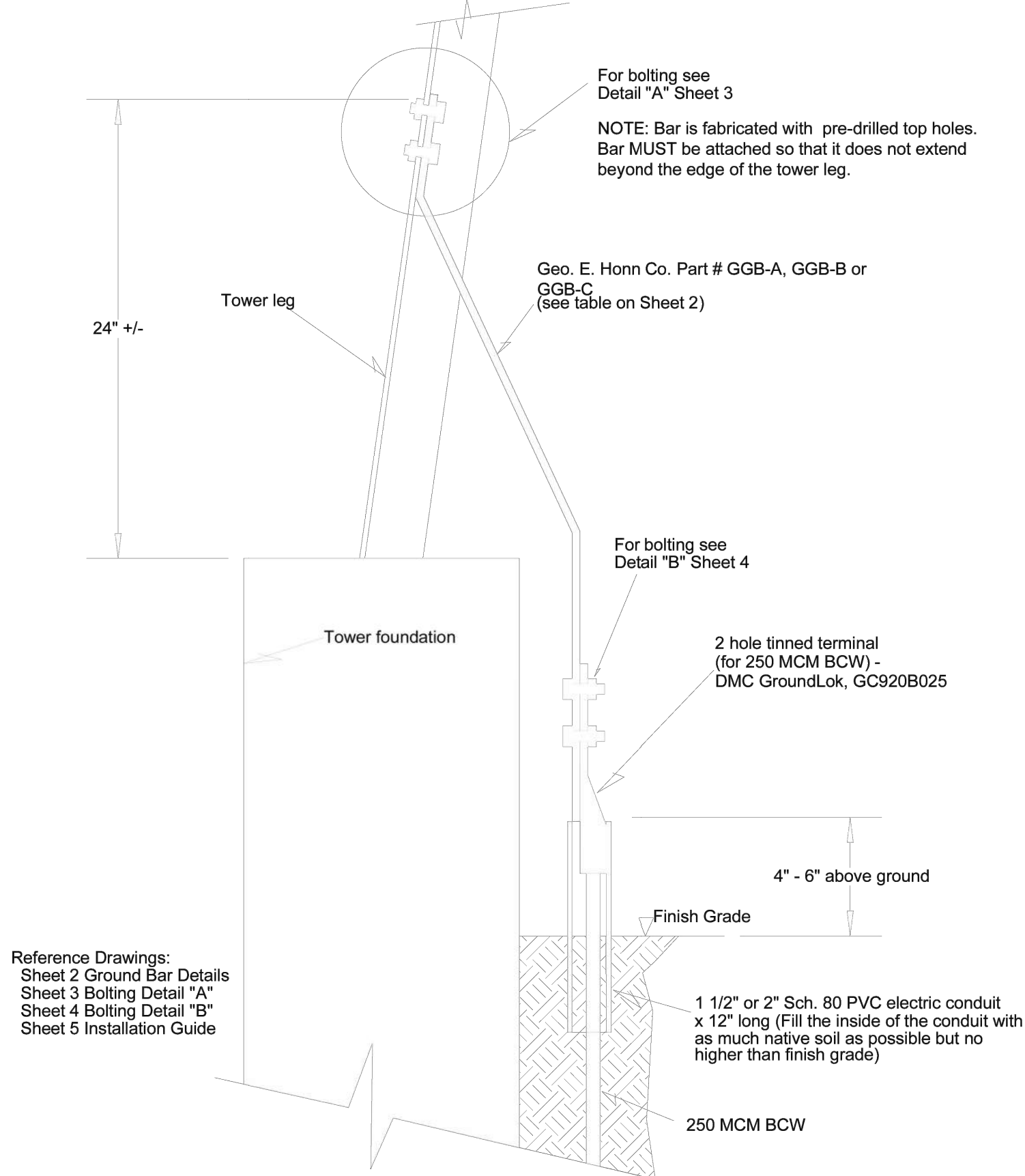
1. All grounding connections and grid intersections SHALL be made using approved 'DMC' GroundLok System' compression components. Carrier to supply 250MCM BCW pigtail with DMC 2-hole NEMA connector. Final connection to the tower legs SHALL be made per the Theft Deterrent Tower Ground Arrangement.
2. Ground grid safety calculations are based on the ground grid conductors being at 18" below natural grade with a concrete equipment pad of no more than 12" thick. Any pad thickness greater than 12" MUST be verified as acceptable by the grounding designer.
3. No metallic equipment SHALL be installed outside the CMU wall. At gate swing, metallic equipment must be 3'-0" minimum from edge of concrete pad.
4. All concrete SHALL contain #4 rebar with a 1'-0" maximum grid spacing. All rebar intersections MUST be securely tied together. If concrete is poured in separate sections, each section must be connected to ground grid with 2-250 MCM BCW or equivalent.
5. Coax ground MUST be connected to the ground grid with 2-250 MCM BCW or equivalent. If more than one ground bus is used, all ground buses must be either connected together or connected to ground grid separately with #2 BCW or larger.
6. CMU wall rebar MUST be attached to the concrete pad rebar.
7. Electric meter MUST be located within the boundary of the CMU wall on the concrete pad. Any exception to this MUST be cleared through Steve Maddix prior to construction. Special service requirements may be required to isolate ground grid from other customer neutral wires.
8. Meter ground rod MUST be attached to the cell site ground grid with a 250 MCM BCW or equivalent.
9. Ground grid backfill material (at least 6") covering the 250 MCM BCW MUST be clean loamy material (or conductive material) and be free of rocks and foreign material.
10. If drilling is required to achieve ground rod depth, a minimum 2" hole is required. The hole MUST be backfilled with bentonite (or equivalent) material.
11. For safety reasons, the ground grid MUST be completely installed (fully covered), the concrete pad MUST be completed before the ground grid is attached to the tower legs. Do not allow ground pigtails to come into contact with tower until the final connection is ready to be made.
12. Concrete pad size or any dimension stated on sheet 1 can not be changed without prior authorization from the grounding designer.

Carrier: Dish Title: Pittsburg-Tidewater Site No.: SFSFO0881A Co-Location: None Line Name: Pittsburg-Tidewater / Pittsburg-Tesoro, 230 kV Tower No.: 002/011 Tower SAP No.: 40586678 Designed By: Steve Maddix E-mail: sgm3@pge.com	SIZE: 0 PG&E Proj Mgr: Steven Milliken Phone: 925-222-0536 From Drawings Dated: 1/25/2023	DWG NO: SFSFO0881A REV: 0 Issue Date: 3/21/2023 SHEET: 2 of 2
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'DETAIL D'
Typical Meter Connection to Ground Grid

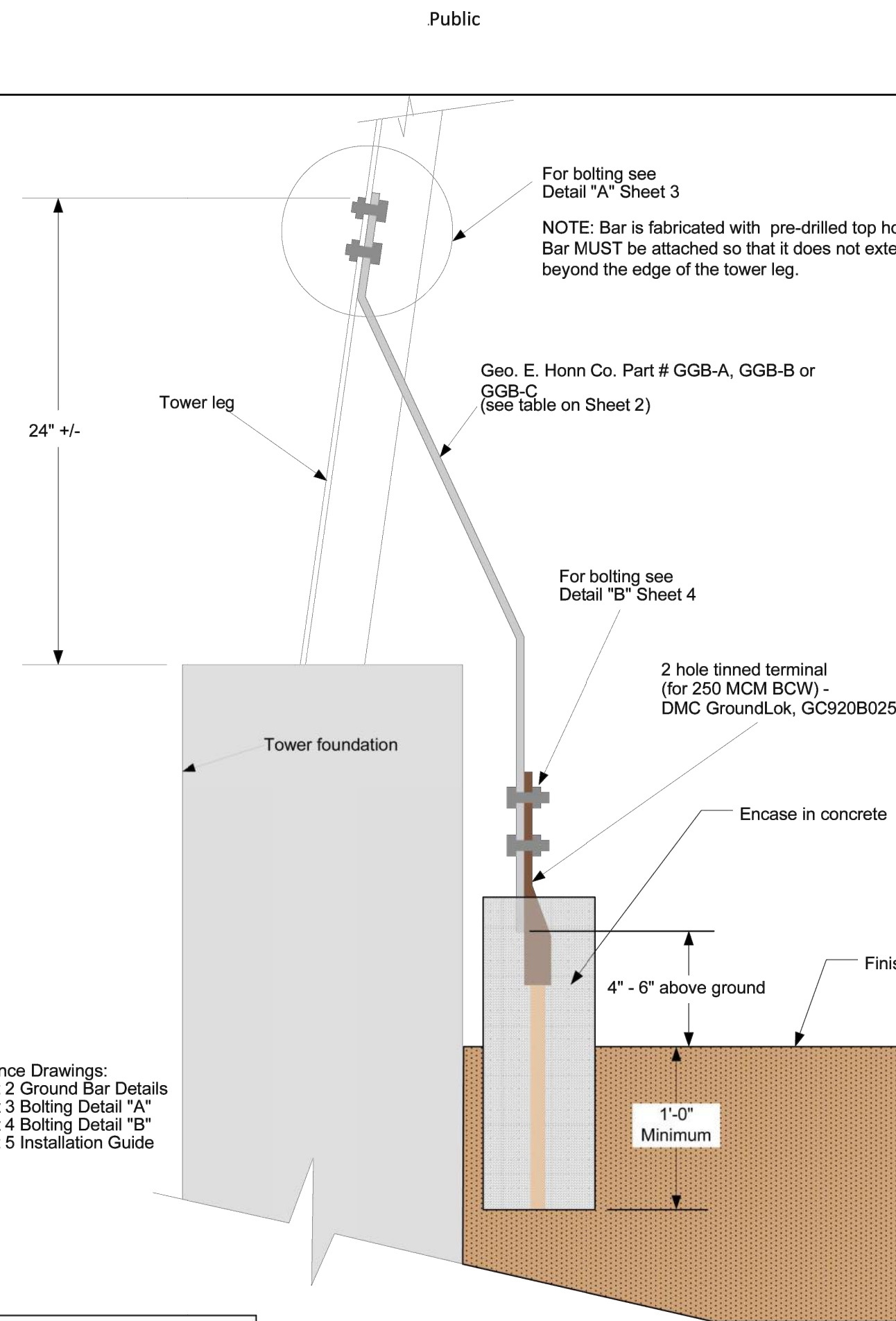


Title: Typical Grounding Connection from Cell Site to Meter	SIZE: 0 Revision Date: 8/4/2011 SCALE: none	DWG NO: Meter Connection - Detail 'D' REV: 3 SHEET: 1 of 1
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Title: Theft Deterrent Tower Ground Arrangement	SIZE: 0 Revision Date: 7/29/09 SCALE: none	DWG NO: Meter Connection - Detail 'D' REV: 5 SHEET: 1 of 5
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Pacific Gas and Electric Company	Report Date: 3/21/23 Revision: 0
High Voltage Transmission Tower Cell Site Datasheet	
Site Information	
Company: Dish	Site number: SFSFO0881A
Site name: Pittsburg-TideWater	Site address: Polaris Ave @ Range Rd, Pittsburg, CA
PG&E Contact: Steve Maddix	Phone: (925) 866-5410
Soil Data	
Soil Model: Horizontal 4 layer	
Top Layer	111.4 Ohm-meters 0.8 Feet
Middle 1	10.0 Ohm-meters 5.4 Feet
Middle 2	18.0 Ohm-meters 15.7 Feet
Bottom	9.1 Ohm-meters Infinite thickness
GPR Information	
Grid Area	900 Ft ²
Grid Resistance	0.402 Ohms
Ground Fault Duty	29,480 Amps RMS
X/R Ratio	12.2
Voltage (Line-Line)	230 kV RMS
DC Offset	1.77
GPR RMS	11,850 Volts RMS
GPR Peak Symmetrical	16,759 Volts (Peak Symmetrical)
GPR Peak with DC Offset	29,721 Volts (Peak Asymmetrical)
Steve Maddix PG&E Representative	3/21/2023 Date



Title: Theft Deterrent Tower Ground Arrangement	SIZE: 0 Revision Date: 7/29/09 SCALE: none	DWG NO: Meter Connection - Detail 'D' REV: 5 SHEET: 1 of 5
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dish WIRELESS

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BUTLER
America Telecom LLC

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CDG

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SUITE 8160-131
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dconnell@connelldesigngroup.com
949-306-4644

REGISTERED PROFESSIONAL ENGINEER
DANIEL MICHAEL CONNELL
NO. 62543
EXP. 12/31/23
CIVIL
STATE OF CALIFORNIA
DATE STAMPED: 09/07/2023

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CHECKED BY: JPC
APPROVED BY: DC

RFDS REV #1 DATED 05/23/2023

CONSTRUCTION DOCUMENTS

REV	DATE	DESCRIPTION
4	03/04/2023	ISSUED FOR 100% CD REVIEW
5	04/05/2023	UPDATED FIBER DESIGN
6	06/19/2023	UPDATED POWER DESIGN
7	07/18/2023	UPDATED TO FIBERFENCE
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9	08/22/2023	ISSUED FOR 100% CD
10	09/07/2023	ISSUED FOR 100% CD

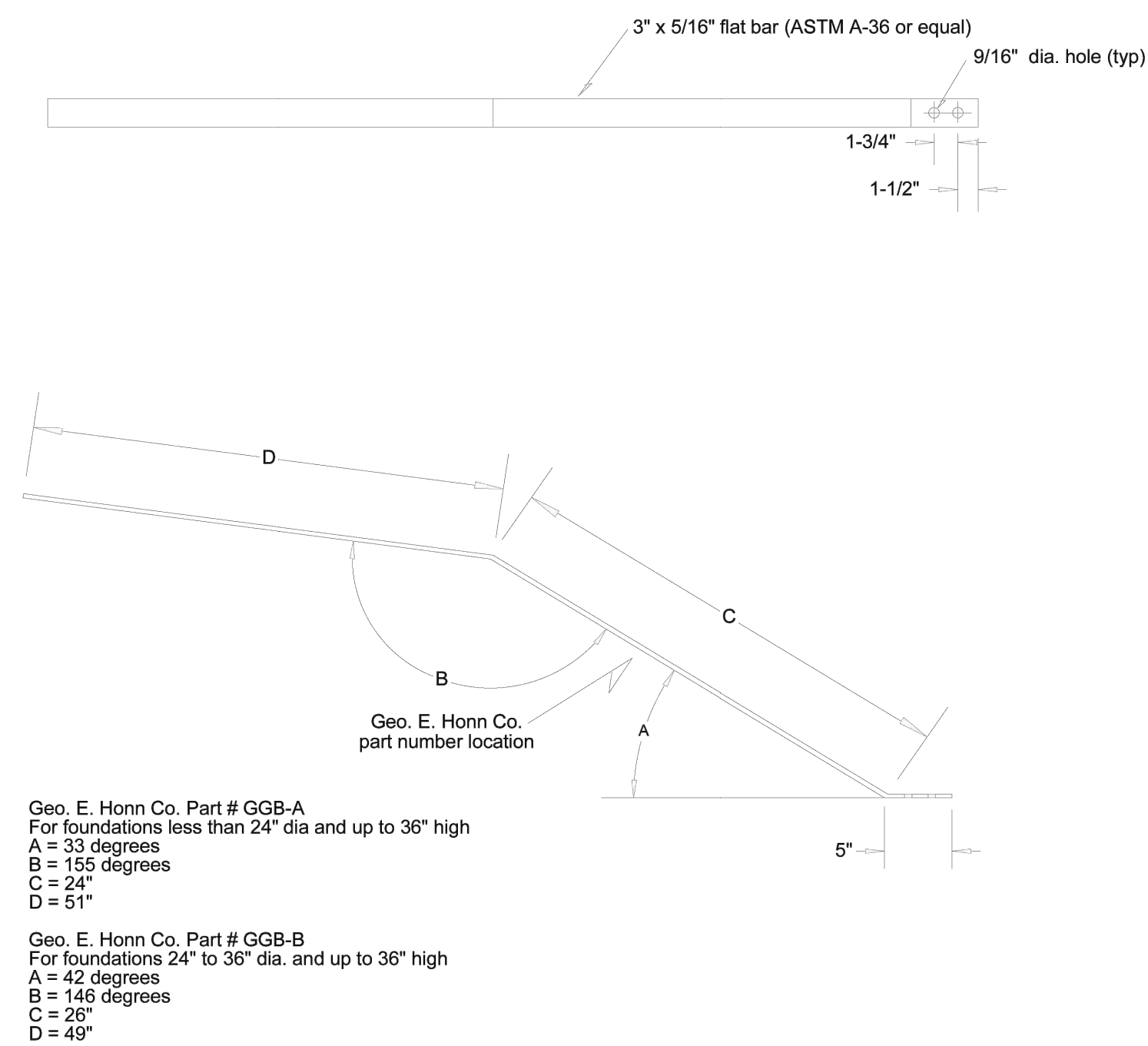
(VENDOR) PROJECT NUMBER
SFSFO0881A

DISH WIRELESS PROJECT NUMBER
SFSFO0881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE
PG&E GROUND GRID

SHEET NUMBER
G-3

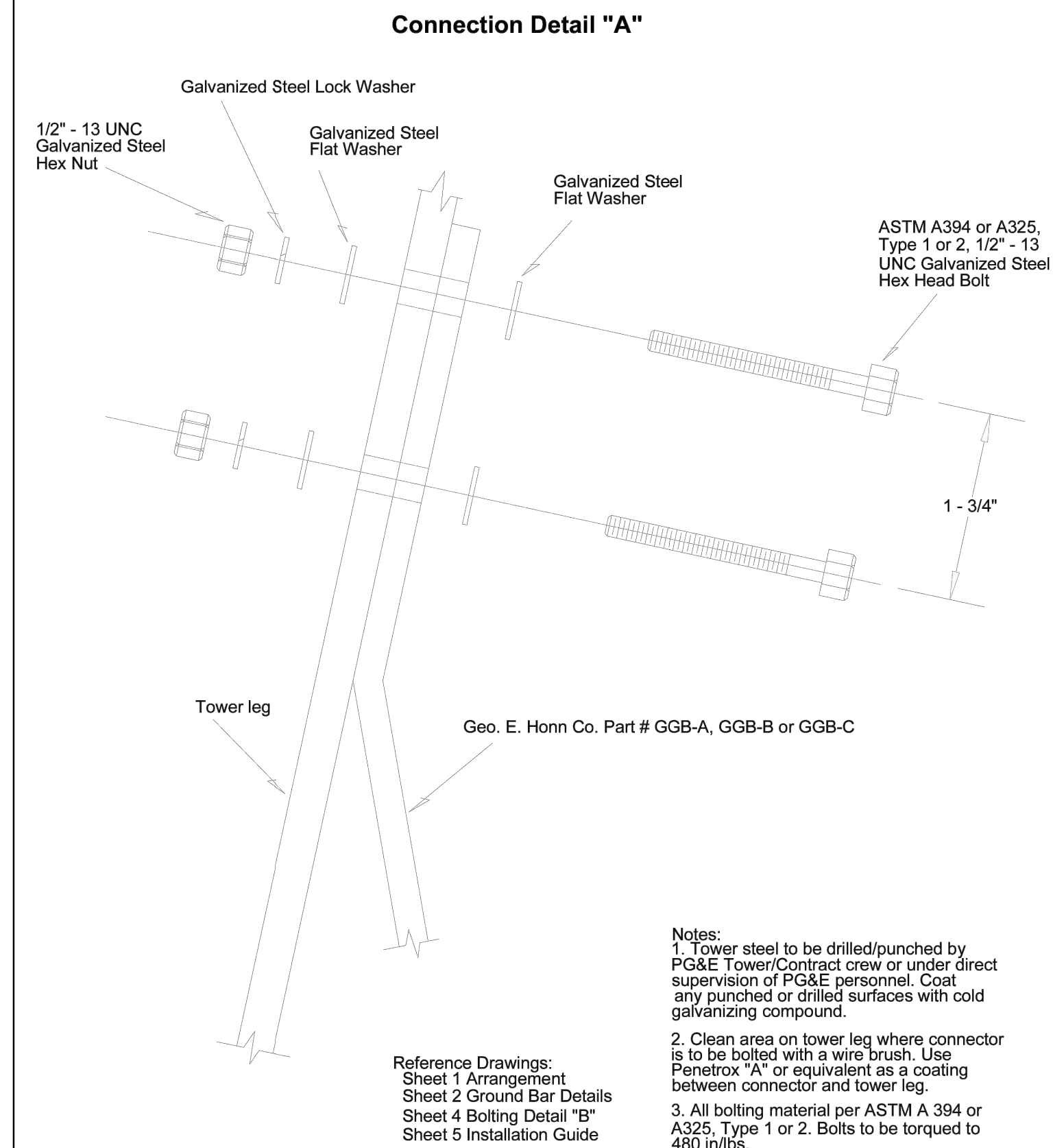


Title: Theft Deterrent Tower Ground Bar Details			
Drawn By: Bill DeHart Reviewed By: Steve Maddix	SIZE 0	Revision Date: 7/28/09	DWG NO REV 2
Approved By: Marcia Eblen	SCALE none		SHEET 2 of 5

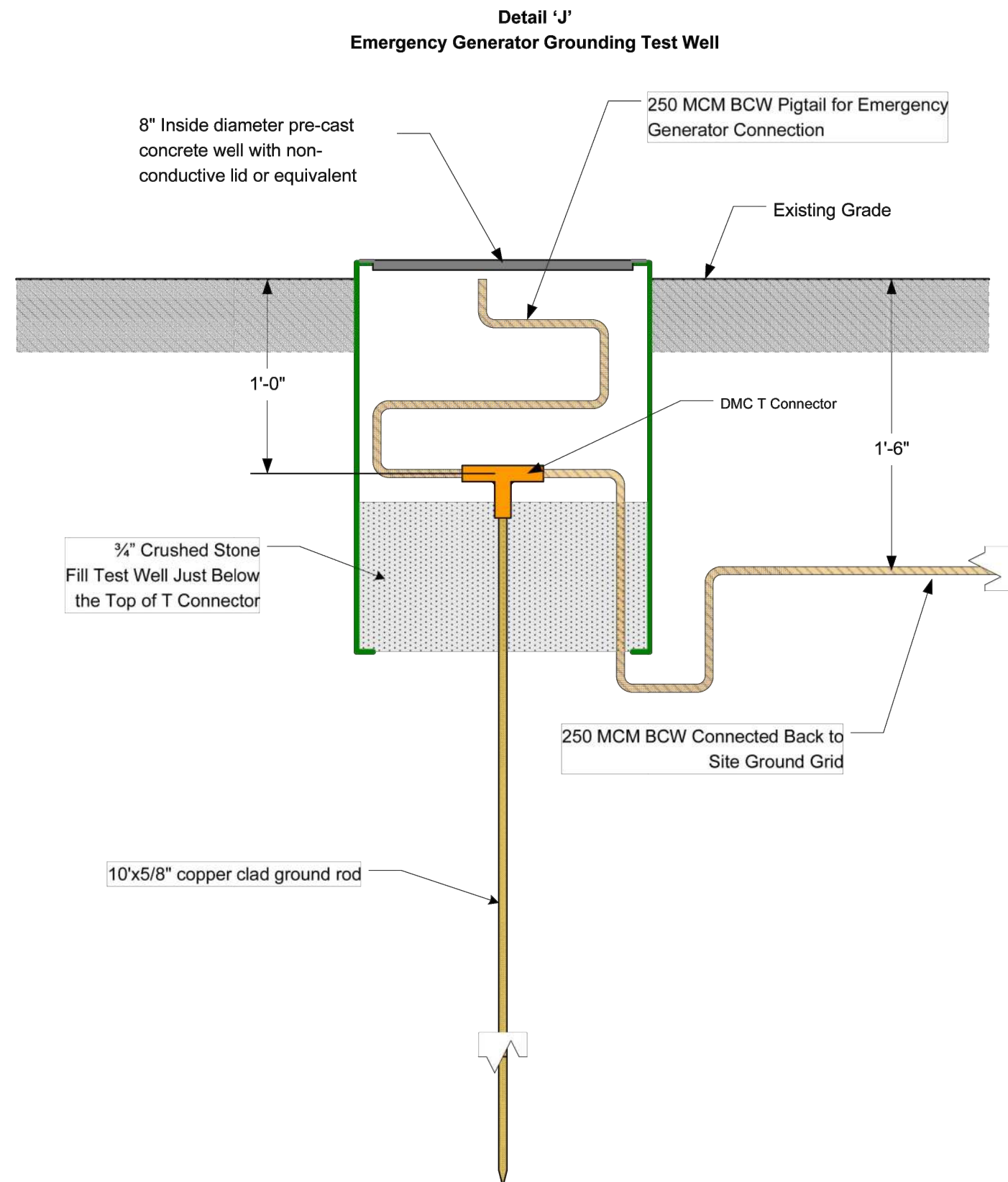
Installation Guide

1. Select connection bar that best fits site conditions (Geo. E. Hohn Co. Part # GGB-A, GGB-B or GGB-C). Use table on Sheet 2 as a guide.
 2. Install with pre-drilled holes at top. Fit bar to tower leg per arrangement on Sheet 1. If bar needs to be cut to fit, cut from bottom.
 3. Slip 1 1/2" or 2" Sch. 80 PVC sleeve over 250 MCM BCW (2" sleeve may be put on before Step 7).
 4. Attach DMC GroundLok to 250 MCM BCW per manufacturer's instructions.
 5. Drill or punch bar to accommodate DMC GroundLok fitting per Sheet 1. Coat any cut/punched/drilled surfaces with cold galvanizing compound per manufacturer's instructions.
 6. Using a wire brush, clean the GroundLok/bar contact surfaces. Coat the contact surfaces with Penetrox "A" or equivalent.
 7. Connect the DMC GroundLok to the bar with bolts, lock washers, flat washers and nuts per Sheet 4. Torque bolts to 480 in/lbs.
 8. Center punch the bolt threads in at least one location at the hex nut interface.
 9. Temporarily clamp bar to tower leg at the location determined in step 2.
 10. Backfill to finish grade keeping the top of the PVC sleeve against the bottom of the flat bar and 4" to 6" above grade.
 11. Remove the clamp holding the bar to the tower leg and insert a length of 4" PVC conduit over the bar conduit to the tower leg to temporarily insulate the bar from the tower leg until the ground grid system is completed. Secure the conduit to the tower leg.
- DO NOT PROCEED TO STEP 12 UNTIL GROUND GRID SYSTEM IS COMPLETED**
12. Punch or drill tower leg to accommodate the bar to tower connection. Tower steel to be drilled or punched by PG&E Tower/Contract crew or under direct supervision of PG&E personnel.
 13. Coat any punched or drilled surfaces with cold galvanizing compound per manufacturer's instructions.
 14. Using a wire brush, clean the bar/tower leg contact surfaces. Coat the contact surfaces with Penetrox "A" or equivalent.
 15. Connect the bar to the tower leg with bolts, lock washers, flat washers and nuts per Sheet 3. Torque bolts to 480 in/lbs.
 16. Center punch the bolt threads in at least one location at the hex nut interface

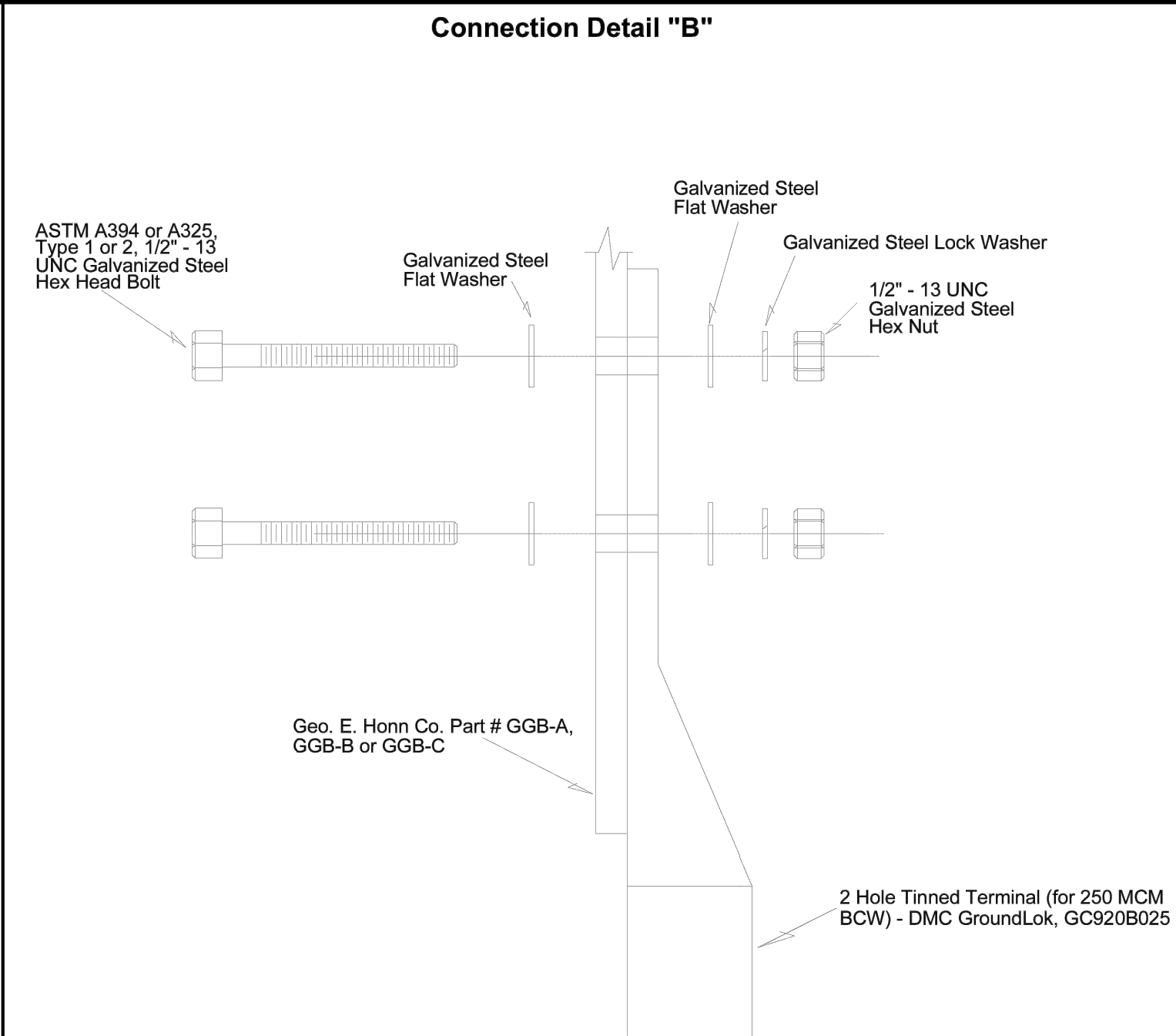
Title: Theft Deterrent Tower Ground Installation Guide				
Drawn By: Bill DeHart Revision Drawn By: Steve Maddix	SIZE	Revision Date:	DWG NO	REV
	0	7/29/09		5
Approved By: Marcia Eblen	SCALE none		SHEET	5 of 5



Title: Theft Deterrent Tower Ground Bolting Detail 'A'				the Hex Nut interface.	
Drawn By: Bill DeHart Revision Drawn By: Steve Maddix		SIZE 0	Revision Date: 7/29/09	DWG NO	REV 2
Approved By: Marcia Eblen		SCALE none		SHEET 3 of 5	



Title: Typical Test Well for Emergency Generator Connection			
Redrawn By: Greg Chang	SIZE 0	Revision Date: 3/24/2022	DWG NO Emergency Generator Grounding Test Well Detail 'J'
	SCALE none		SHEET 1 of 1



Title: Theft Deterrent Tower Ground Bolting Detail 'B'				location at the Hex Nut interface.	
Drawn By: Bill DeHart Revision Drawn By: Steve Maddix		SIZE 0	Revision Date: 7/29/09	DWG NO	REV 3
Approved By: Marcia Eblen		SCALE none		SHEET	4 of 5



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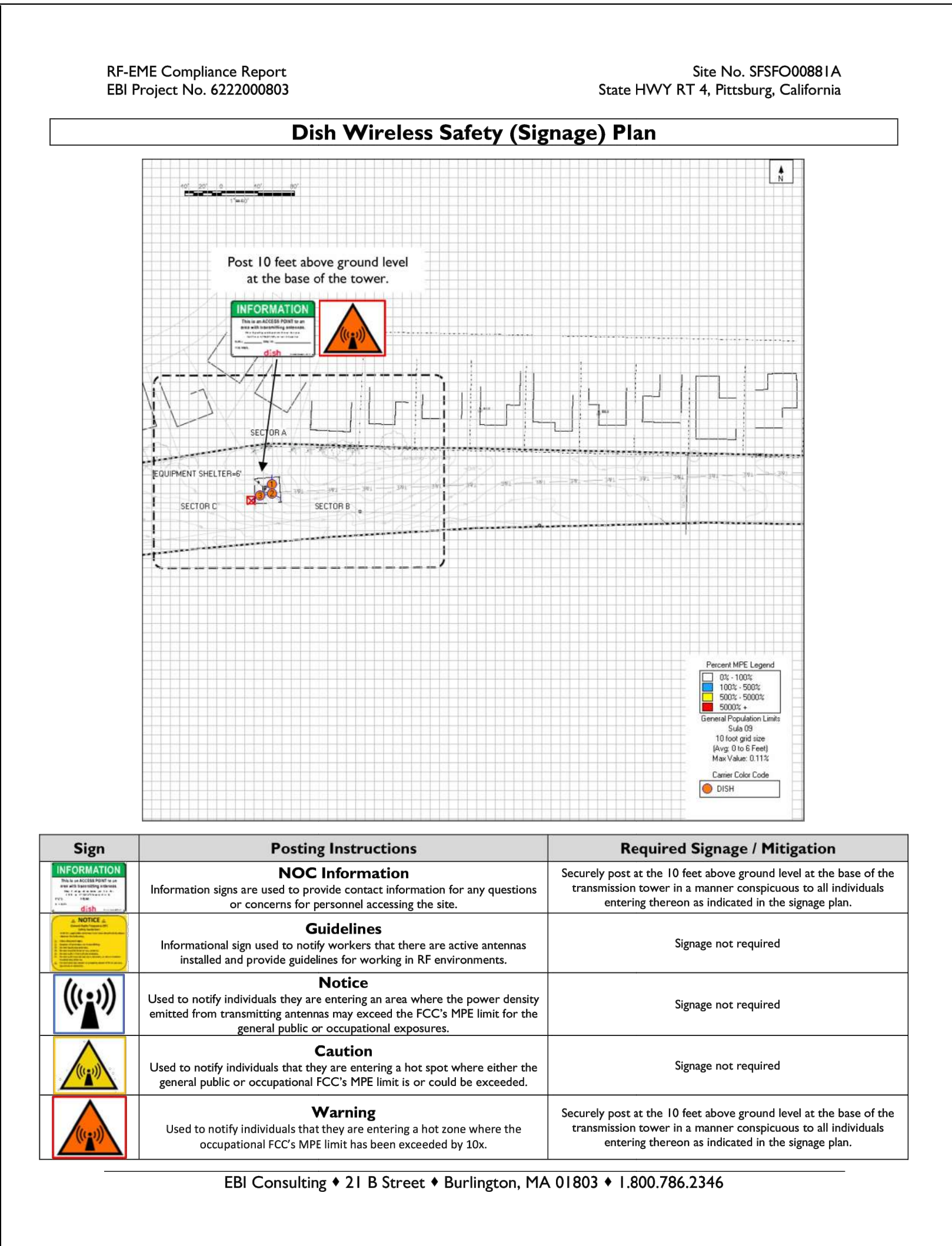
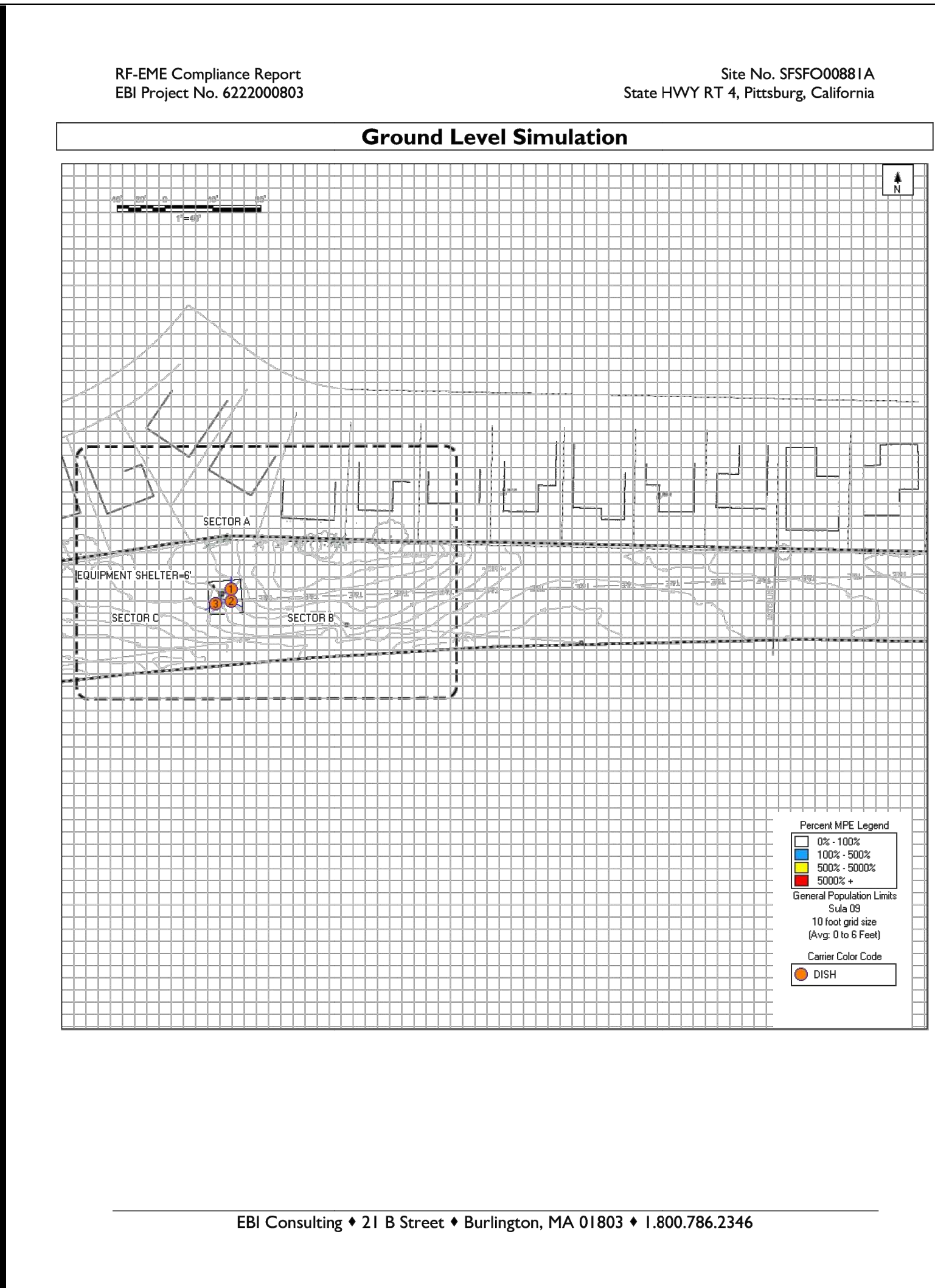
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LATTICE TOWER

SHEET TITLE
PG&E GROUND GRID

SHEET NUMBER

G-4



NOTE:
REFER TO RF-EME COMPLIANCE REPORT
BY EBI PROJECT NO. 6222000803
FEBRUARY 14, 2022 FOR ADDITIONAL
INFORMATION AND REQUIREMENTS

dish
WIRELESS

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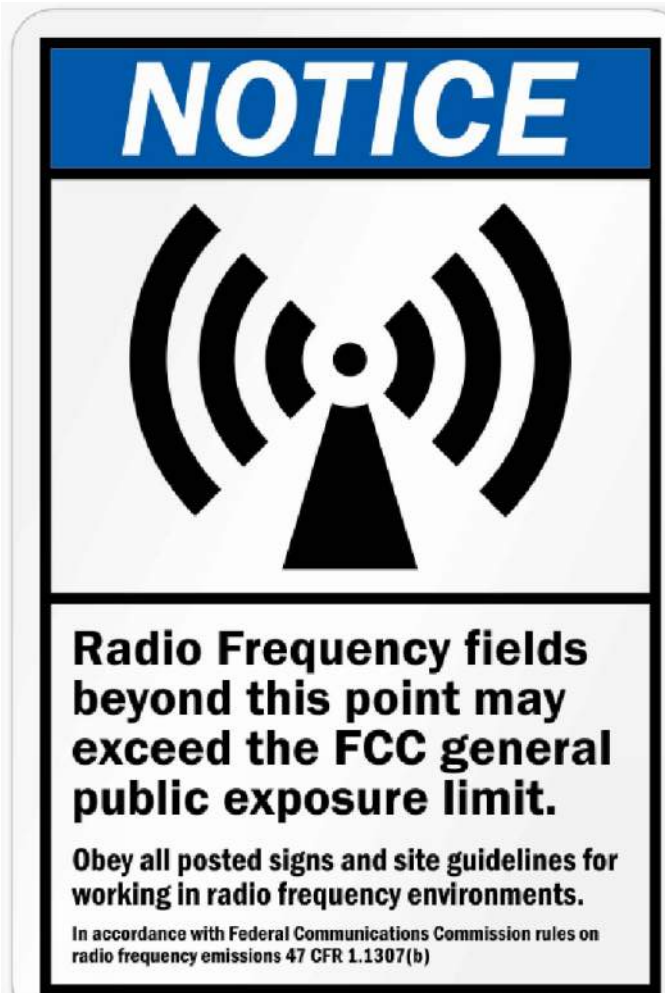
SHEET TITLE
RF-EME SIGNAGE
REQUIREMENTS

SHEET NUMBER

RF-2

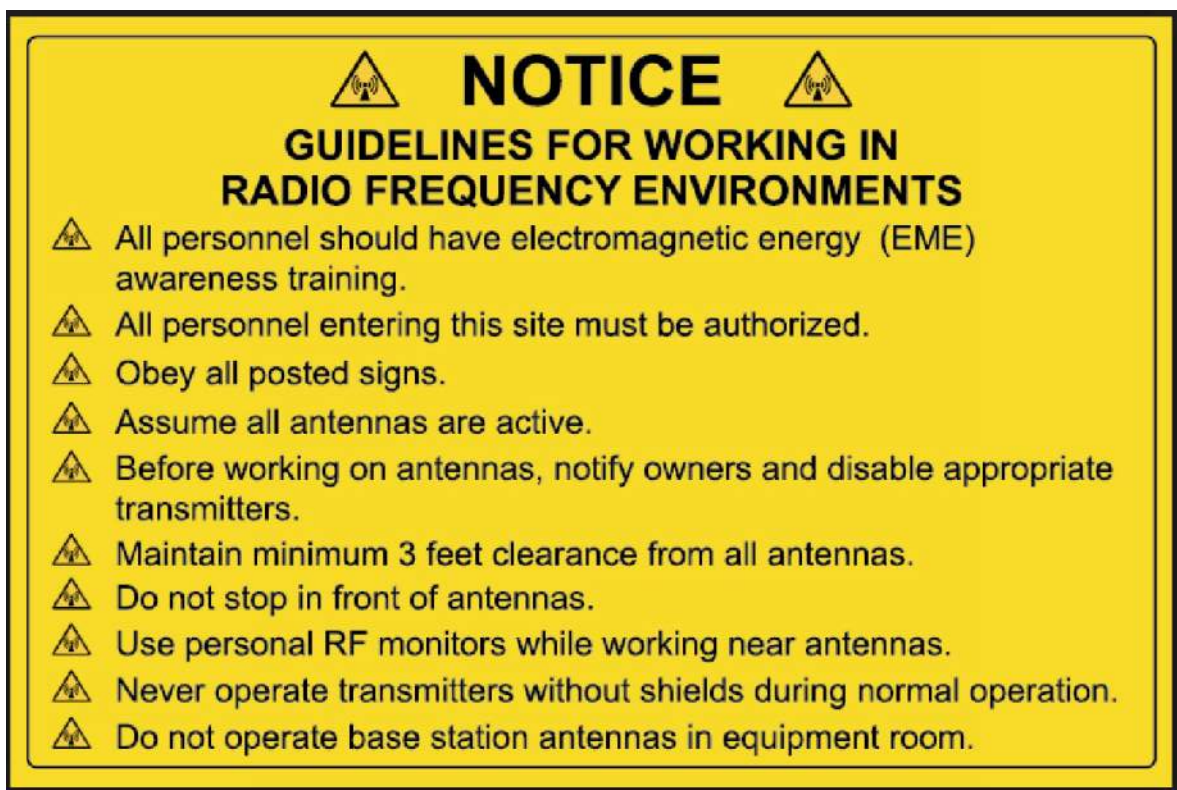
EME SIGNAGE DETAILS

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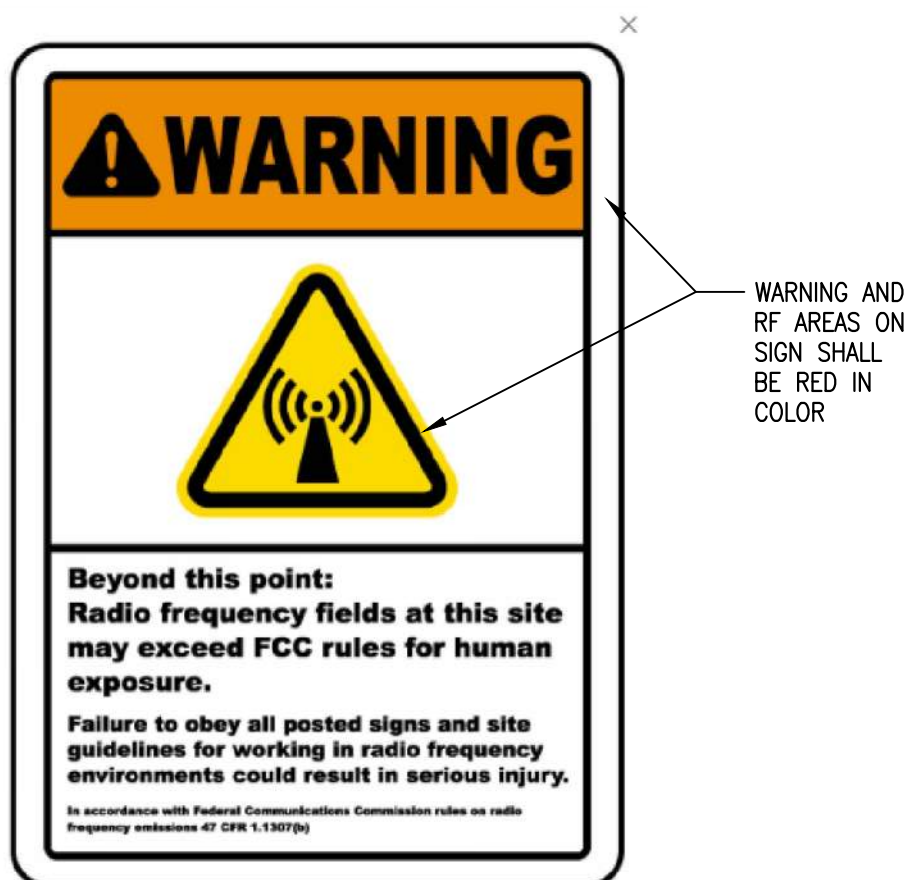
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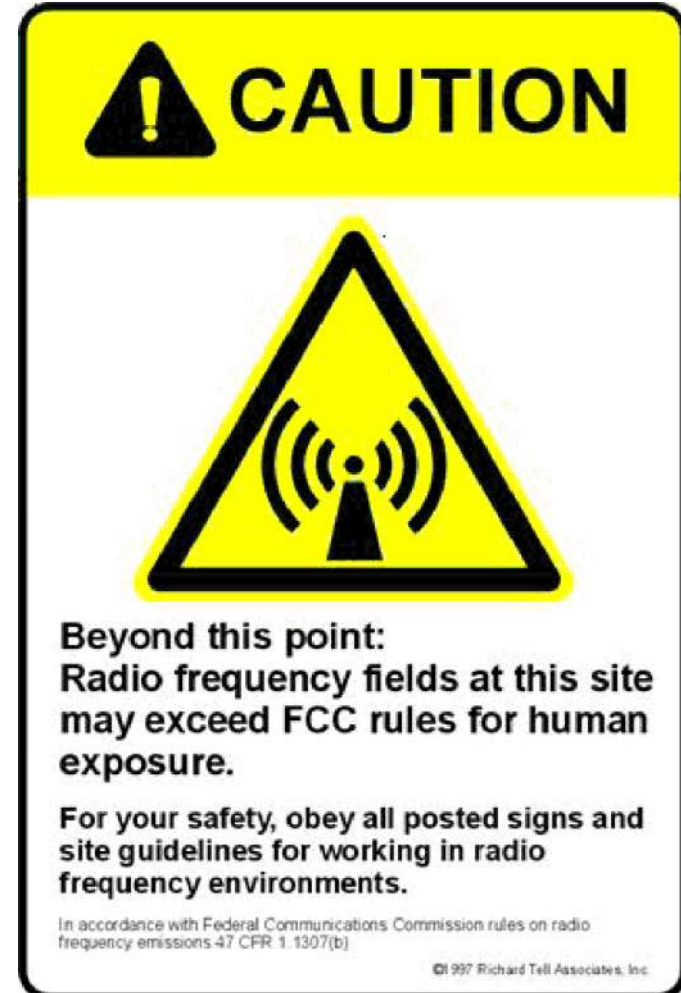
SIGN DETAIL

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SIGN DETAIL

3



SIGN DETAIL

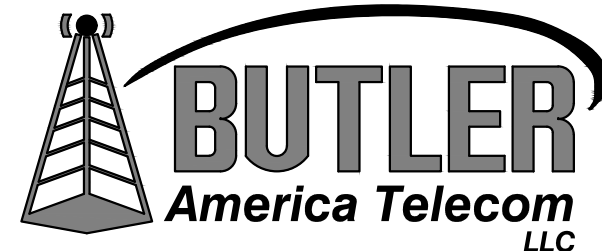
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EXOTHERMIC CONNECTION	
MECHANICAL CONNECTION	
CHEMICAL ELECTROLYTIC GROUNDING SYSTEM	
TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM	
EXOTHERMIC WITH INSPECTION SLEEVE	
GROUNDING BAR	
GROUND ROD	
TEST GROUND ROD WITH INSPECTION SLEEVE	
SINGLE POLE SWITCH	
DUPLEX RECEPTACLE	
DUPLEX GFCI RECEPTACLE	
FLUORESCENT LIGHTING FIXTURE (2) TWO LAMPS 48-T8	
SMOKE DETECTION (DC)	
EMERGENCY LIGHTING (DC)	
SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW LED-1-25A400/51K-SR4-120-PE-DBBTXD	
CHAIN LINK FENCE	
WOOD/WROUGHT IRON FENCE	
WALL STRUCTURE	
LEASE AREA	
PROPERTY LINE (PL)	
SETBACKS	
ICE BRIDGE	
CABLE TRAY	
WATER LINE	
UNDERGROUND POWER	
UNDERGROUND TELCO	
OVERHEAD POWER	
OVERHEAD TELCO	
UNDERGROUND TELCO/POWER	
ABOVE GROUND POWER	
ABOVE GROUND TELCO	
ABOVE GROUND TELCO/POWER	
WORKPOINT	
SECTION REFERENCE	
DETAIL REFERENCE	
LEGEND	

AB	ANCHOR BOLT	IN	INCH
ABV	ABOVE	INT	INTERIOR
AC	ALTERNATING CURRENT	LB(S)	POUND(S)
ADDL	ADDITIONAL	LF	LINEAR FEET
AFF	ABOVE FINISHED FLOOR	LTE	LONG TERM EVOLUTION
AFG	ABOVE FINISHED GRADE	MAS	MASONRY
AGL	ABOVE GROUND LEVEL	MAX	MAXIMUM
AIC	AMPERAGE INTERRUPTION CAPACITY	MB	MACHINE BOLT
ALUM	ALUMINUM	MECH	MECHANICAL
ALT	ALTERNATE	MFR	MANUFACTURER
ANT	ANTENNA	MGB	MASTER GROUND BAR
APPROX	APPROXIMATE	MIN	MINIMUM
ARCH	ARCHITECTURAL	MISC	MISCELLANEOUS
ATS	AUTOMATIC TRANSFER SWITCH	MTL	METAL
AWG	AMERICAN WIRE GAUGE	MTS	MANUAL TRANSFER SWITCH
BATT	BATTERY	MW	MICROWAVE
BLDG	BUILDING	NEC	NATIONAL ELECTRIC CODE
BLK	BLOCK	NM	NEWTON METERS
BLKG	BLOCKING	NO.	NUMBER
BM	BEAM	#	NUMBER
BTC	BARE TINNED COPPER CONDUCTOR	NTS	NOT TO SCALE
BOF	BOTTOM OF FOOTING	OC	ON-CENTER
CAB	CABINET	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CANT	CANTILEVERED	OPNG	OPENING
CHG	CHARGING	P/C	PRECAST CONCRETE
CLG	CEILING	PCS	PERSONAL COMMUNICATION SERVICES
CLR	CLEAR	PCU	PRIMARY CONTROL UNIT
COL	COLUMN	PRC	PRIMARY RADIO CABINET
COMM	COMMON	PP	POLARIZING PRESERVING
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
CONSTR	CONSTRUCTION	PSI	POUNDS PER SQUARE INCH
DBL	DOUBLE	PT	PRESSURE TREATED
DC	DIRECT CURRENT	PWR	POWER CABINET
DEPT	DEPARTMENT	QTY	QUANTITY
DF	DOUGLAS FIR	RAD	RADIUS
DIA	DIAMETER	RECT	RECTIFIER
DIAG	DIAGONAL	REF	REFERENCE
DIM	DIMENSION	REINF	REINFORCEMENT
DWG	DRAWING	REQ'D	REQUIRED
DWL	DOWEL	RET	REMOTE ELECTRIC TILT
EA	EACH	RF	RADIO FREQUENCY
EC	ELECTRICAL CONDUCTOR	RMC	RIGID METALLIC CONDUIT
EL.	ELEVATION	RRH	REMOTE RADIO HEAD
ELEC	ELECTRICAL	RRU	REMOTE RADIO UNIT
EMT	ELECTRICAL METALLIC TUBING	RWY	RACEWAY
ENG	ENGINEER	SCH	SCHEDULE
EQ	EQUAL	SHT	SHEET
EXP	EXPANSION	SIAD	SMART INTEGRATED ACCESS DEVICE
EXT	EXTERIOR	SIM	SIMILAR
EW	EACH WAY	SPEC	SPECIFICATION
FAB	FABRICATION	SQ	SQUARE
FF	FINISH FLOOR	SS	STAINLESS STEEL
FG	FINISH GRADE	STD	STANDARD
FIF	FACILITY INTERFACE FRAME	STL	STEEL
FIN	FINISH(ED)	TEMP	TEMPORARY
FLR	FLOOR	THK	THICKNESS
FDN	FOUNDATION	TMA	TOWER MOUNTED AMPLIFIER
FOC	FACE OF CONCRETE	TN	TOE NAIL
FOM	FACE OF MASONRY	TOA	TOP OF ANTENNA
FOS	FACE OF STUD	TOC	TOP OF CURB
FOW	FACE OF WALL	TOF	TOP OF FOUNDATION
FS	FINISH SURFACE	TOP	TOP OF PLATE (PARAPET)
FT	FOOT	TOS	TOP OF STEEL
FTG	FOOTING	TOW	TOP OF WALL
GA	GAUGE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
GEN	GENERATOR	TYP	TYPICAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UG	UNDERGROUND
GLB	GLUE LAMINATED BEAM	UL	UNDERWRITERS LABORATORY
GLV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE
GPS	GLOBAL POSITIONING SYSTEM	UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
GND	GROUND	UPS	UNINTERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
GSM	GLOBAL SYSTEM FOR MOBILE	VIF	VERIFIED IN FIELD
HDG	HOT DIPPED GALVANIZED	W	WIDE
HDR	HEADER	W/	WITH
HGR	HANGER	WD	WOOD
HVAC	HEAT/VENTILATION/AIR CONDITIONING	WP	WEATHERPROOF
HT	HEIGHT	WT	WEIGHT
IGR	INTERIOR GROUND RING		
		ABBREVIATIONS	

dish
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SHEET TITLE
LEGEND AND
ABBREVIATIONS

SHEET NUMBER

GN-1

SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED – NO WORK SHALL COMMENCE PRIOR TO CONTRACTOR RECEIVING A WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE DISH WIRELESS AND TOWER OWNER NOC & THE DISH WIRELESS AND TOWER OWNER CONSTRUCTION MANAGER.
2. "LOOK UP" – DISH WIRELESS AND TOWER OWNER SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR DISH WIRELESS AND DISH WIRELESS AND TOWER OWNER POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND DISH WIRELESS AND TOWER OWNER STANDARDS, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH DISH WIRELESS AND TOWER OWNER INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON DISH WIRELESS AND TOWER OWNER TOWER SITE AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY DISH WIRELESS AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES INCLUDING PRIVATE LOCATES SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND DISH PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF DISH WIRELESS AND TOWER OWNER, AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER’S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS AND RADIOS REMOVED SHALL BE RETURNED TO THE OWNER’S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

- 1.FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

CONTRACTOR:GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION

CARRIER:DISH WIRELESS

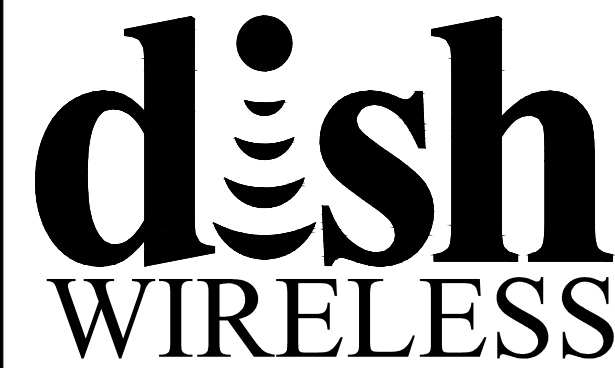
TOWER OWNER:TOWER OWNER
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CARRIER POC AND TOWER OWNER.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND TOWER OWNER PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION, BEFORE SUBMITTING BIDS, TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE TO THE SATISFACTION OF DISH WIRELESS AND TOWER OWNER
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER’S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

DISCLAIMER NOTE:

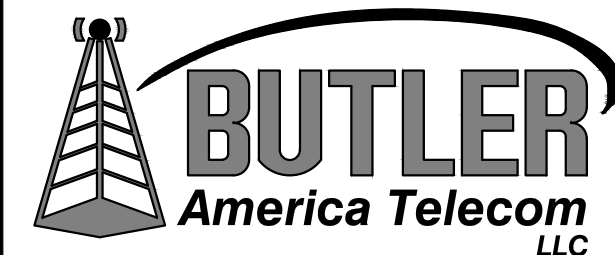
THE DESIGN SHOWN IN THESE PLANS ASSUME THAT ALL EXISTING STRUCTURAL ITEMS ARE IN "LIKE NEW" CONDITION AND THAT THE STRUCTURES HAVE BEEN PROPERLY MAINTAINED BY THE OWNER, INCLUDING ALL TOWER AND BUILDING COMPONENTS.

INSTALLATION PROCEDURES AND RELATED LOADINGS ARE NOT WITHIN THE SCOPE OF THIS DESIGN/DRAWING. A CONTRACTOR EXPERIENCED IN SIMILAR WORK SHOULD PERFORM ALL INSTALLATION WORK. THE ENGINEERING SERVICES PROVIDED BY CDG ARE LIMITED TO THE DESIGN OF THE STRUCTURE WITH THE PROPOSED AND EXISTING LOADS. THESE DRAWINGS ARE CONSIDERED VOID IF THE LOADING MENTIONED IN THESE DRAWINGS IS CHANGED OR IS DIFFERENT AS INSTALLED. IT IS ASSUMED THAT THE EXISTING STRUCTURE IS PROPERLY MAINTAINED AND IS IN GOOD CONDITION FREE OF ANY DEFECTS. ALSO THE VERIFICATION OF ANCHORAGE, PLATE AND BOLTS ARE NOT CHECKED AS COMPLETE ENGINEERING DATA IN NOT AVAILABLE FOR VERIFICATION. THE SCOPE OF THESE DRAWINGS DOES NOT INCLUDE EXISTING CONNECTIONS, EXCEPT AS NOTED. ALL EXISTING & PROPOSED ANTENNA/STRUCTURE DATA WAS PROVIDED BY OWNER. CDG IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY EXISTING DATA.

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(VENDOR) PROJECT NUMBER

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DISH WIRELESS PROJECT NUMBER
SFSF000881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-2

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:

#4 BARS AND SMALLER 40 ksi

#5 BARS AND LARGER 60 ksi

6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER:
- #6 BARS AND LARGER 2"
- #5 BARS AND SMALLER 1–1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLAB AND WALLS 3/4"
- BEAMS AND COLUMNS 1–1/2"

7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. TIE WRAPS ARE NOT ALLOWED.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3 (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR DISH WIRELESS AND TOWER OWNER BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "DISH WIRELESS".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

dish

WIRELESS

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BUTLER

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REGISTERED PROFESSIONAL ENGINEER
DANIEL MICHAEL CONNELL
NO. 62543
EXP. 12/31/23
CIVIL
STATE OF CALIFORNIA

DATE STAMPED: 09/07/2023

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STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-3

GROUNDING NOTES:

1.

ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2.

THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3.

THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4.

METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5.

METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6.

EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7.

CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8.

ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9.

ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10.

USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11.

EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12.

ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13.

COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14.

ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15.

APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16.

ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17.

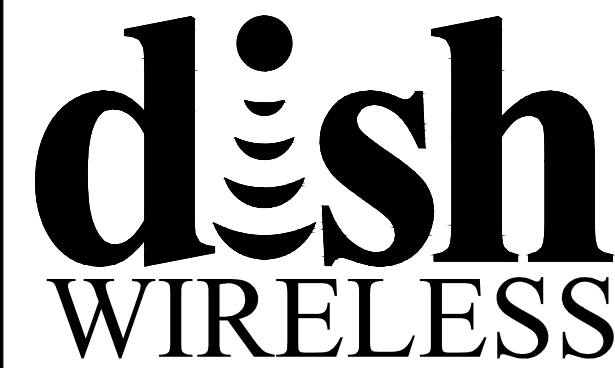
MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18.

BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19.

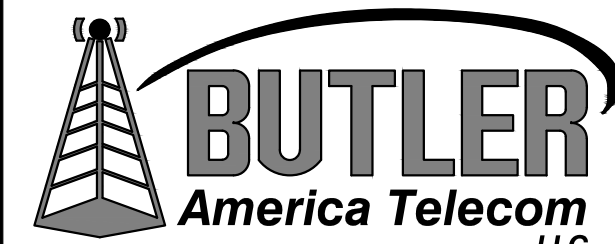
GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20.

ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21.

BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). DO NOT ATTACH GROUNDING TO FIRE SPRINKLER SYSTEM PIPES.



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(VENDOR) PROJECT NUMBER

SFSF000881A

DISH WIRELESS PROJECT NUMBER
SFSF000881A

STATE HWY RT 4
PITTSBURG, CA 94565
LATTICE TOWER

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-4