



THE CITY OF SAN DIEGO

## Report to the Planning Commission

DATE ISSUED: November 21, 2018 REPORT NO. PC-18-070

HEARING DATE: November 29, 2018

SUBJECT: VERIZON WIRELESS BANKERS HILL, Process Four Decision

PROJECT NUMBER: [577788](#)

OWNER/APPLICANT: St Paul's Senior Home and Services/Verizon Wireless (VAW), LLC

### SUMMARY

Issue: Should the Planning Commission approve a modification to an existing Wireless Communication Facility (WCF) located at 111 Elm Street in the Uptown Community Planning area?

Staff Recommendation: Approve Planned Development Permit No. 2192364.

Community Planning Group Recommendation: On May 1, 2018, the Uptown Planners voted 14-0-1 to recommend support of the Verizon Wireless Bankers Hill Project with no conditions (Attachment 8).

Environmental Review: This project was determined to be categorically exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15301 (Existing Facility). This project is not pending an appeal of the environmental determination. The [environmental exemption determination](#) for this project was made on August 31, 2018, and the opportunity to appeal that determination ended September 14, 2018 (Attachment 7).

Fiscal Impact Statement: None.

Code Enforcement Impact: None.

### BACKGROUND

This Wireless Communication Facility (WCF) is located at 111 Elm Street (St. Paul's PACE -Program for All Inclusive Care for the Elderly) in the CC-3-4 zone of the Uptown Community Planning area where the site is designated for [Office Commercial \(O-29Du/Ac\)](#) (Attachments 1 and 2). The site is surrounded by Interstate-5 to the west and the south, Elm Street Family Health Center to the north,

and multi-unit residences to the east (Attachment 1). Verizon's WCF was originally approved on July 15, 2005 supporting eight (8) antennas behind Fiberglass Reinforced Panel (FRP) screen walls and three (3) rooftop equipment cabinets. Subsequently, multiple modifications were permitted to accommodate the current technology at the time which consisted of replacement antennas and new Remote Radio Units (RRUs).

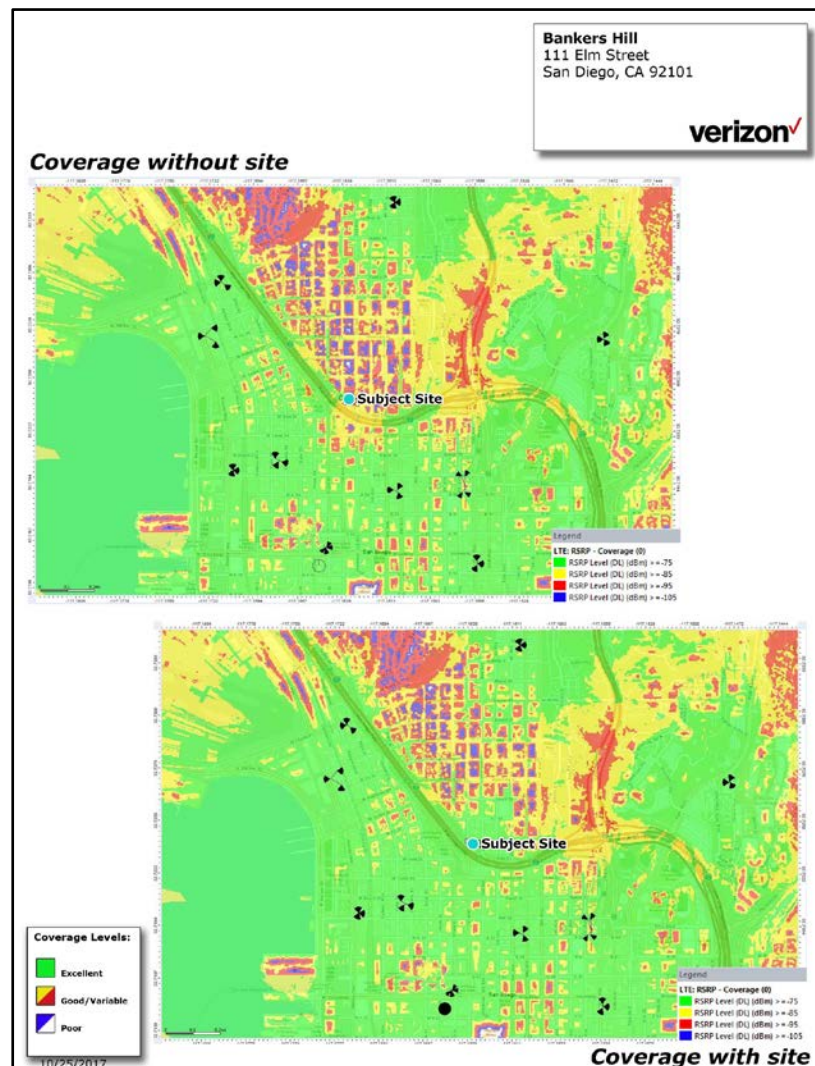
As part of the original approval, the City imposed a ten-year term on all WCFs to allow for future review of the facility to determine whether technology advancements can eliminate components of the facility or eliminate the facility altogether. This facility remains essential to Verizon's coverage objective to the surrounding area which includes heavily traveled north and south bound Interstate-5 (Attachments 9 and 10).

The WCF regulations have changed over the years; however, the key requirement to architecturally integrate a facility into a building or the environment remains to be the purpose and intent of the regulations. Staff has reviewed the existing facility and has determined that the proposed rooftop screen boxes with the sixteen new antennas inside have been designed to replicate the existing mechanical equipment screen walls. The overall design complies with the [WCF Regulations Land Development Code Section 141.0420](#), [the City's General Plan for Wireless Facilities](#) and [the WCF Design Guidelines](#).

## DISCUSSION

### Project Description:

The project consists of sixteen new antennas concealed inside two new rooftop screening elements, designed to replicate the existing mechanical screen walls (Attachment 12). The WCF equipment



associated with this project is located on an existing rooftop equipment platform behind a four-sided screen wall, painted to match the surface of the building. The existing antennas previously located on the façade behind the FRP screen walls shall be removed and the area shall be restored back to its original condition. Verizon's preference for a complete rooftop redesign was heavily influenced by the overall size, number and separation requirements associated with the proposed antennas and current technology. However, the new rooftop box design exceeds the CC-3-4 height limit of 30-feet and therefore, requires a Planned Development Permit, Process Four.

#### Community Plan Analysis:

The Uptown Community Plan relies on the City's General Plan for design and placement locations for all wireless facilities. Consistent with the Urban Design Element Section UD-A.15, the Verizon WCF is camouflaged and screened behind FRP rooftop elements designed to replicate the existing mechanical screen walls. This design continues to be aesthetically pleasing and scaled in proportion with the existing building. The equipment associated with this WCF will continue to operate on the rooftop, behind a screen wall on a raised equipment platform.

#### Council Policy 600-43:

According to [Council Policy 600-43](#), this location is the most preferred location and is classified a Preference 1 location. Since the site is a commercial use, no other lower preference level sites are required. However, since the project requires a height deviation, a PDP is required.



#### Conclusion:

The project has been determined by staff to be consistent with the purpose and intent of the applicable development regulations of the San Diego Municipal Code, which includes the development regulations of the CC-3-4 zone (with exception to the 30-foot height limit) and the [SDMC Section 141.0420](#). The antennas associated with this design will be concealed behind two new rooftop screening elements replicated to match the rooftop mechanical screen walls. No exterior changes are proposed to the equipment area. Staff recommends approval of the proposed Verizon Wireless Banker Hills project and the findings of approval are located in Attachment 5 of this report.

#### ALTERNATIVES

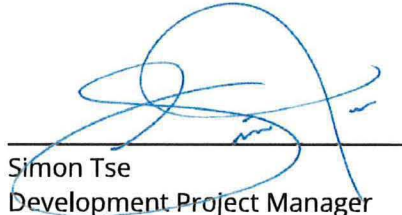
1. Approve Planned Development Permit No. 2192364, with modifications.

2. Deny Planned Development Permit No. 2192364, if the Planning Commission makes findings based on substantial evidence that the approval is not authorized by state or local zoning law.

Respectfully submitted,



Patricia J. Fitzgerald  
Assistant Deputy Director  
Development Services Department

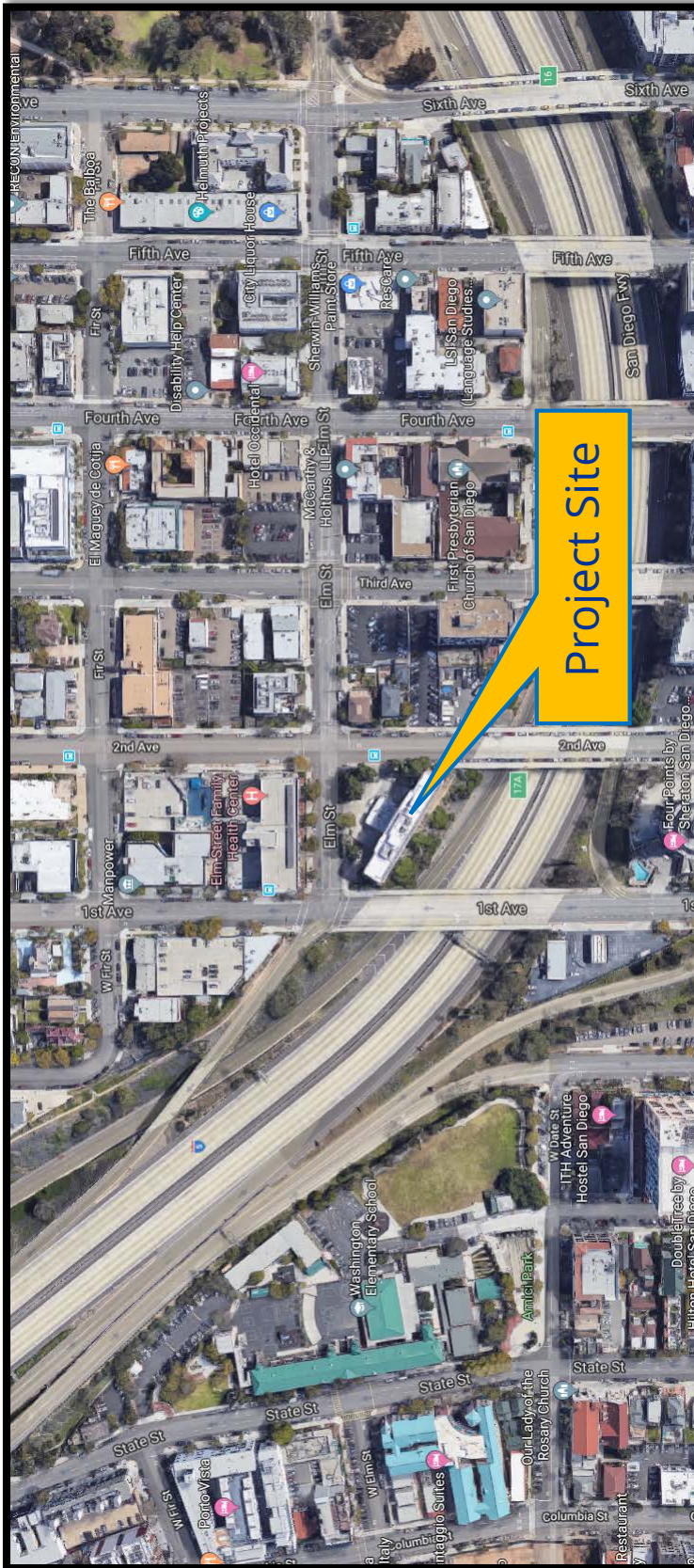
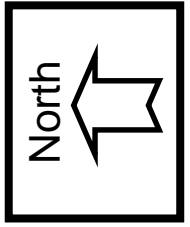


Simon Tse  
Development Project Manager  
Development Services Department

Attachments:

1. Aerial Photograph
2. Community Plan Land Use Map
3. Project Location Map
4. Project Data Sheet
5. Draft Permit Resolution with Findings
6. Draft Permit with Conditions
7. Environmental Exemption
8. Community Planning Group Recommendation
9. Site Justification
10. Coverage Maps
11. Photo Survey
12. Photo Simulations
13. Project Plans





## Aerial Photo

Verizon Wireless Banker's Hill / 111 Elm Street

PROJECT NO. 577788

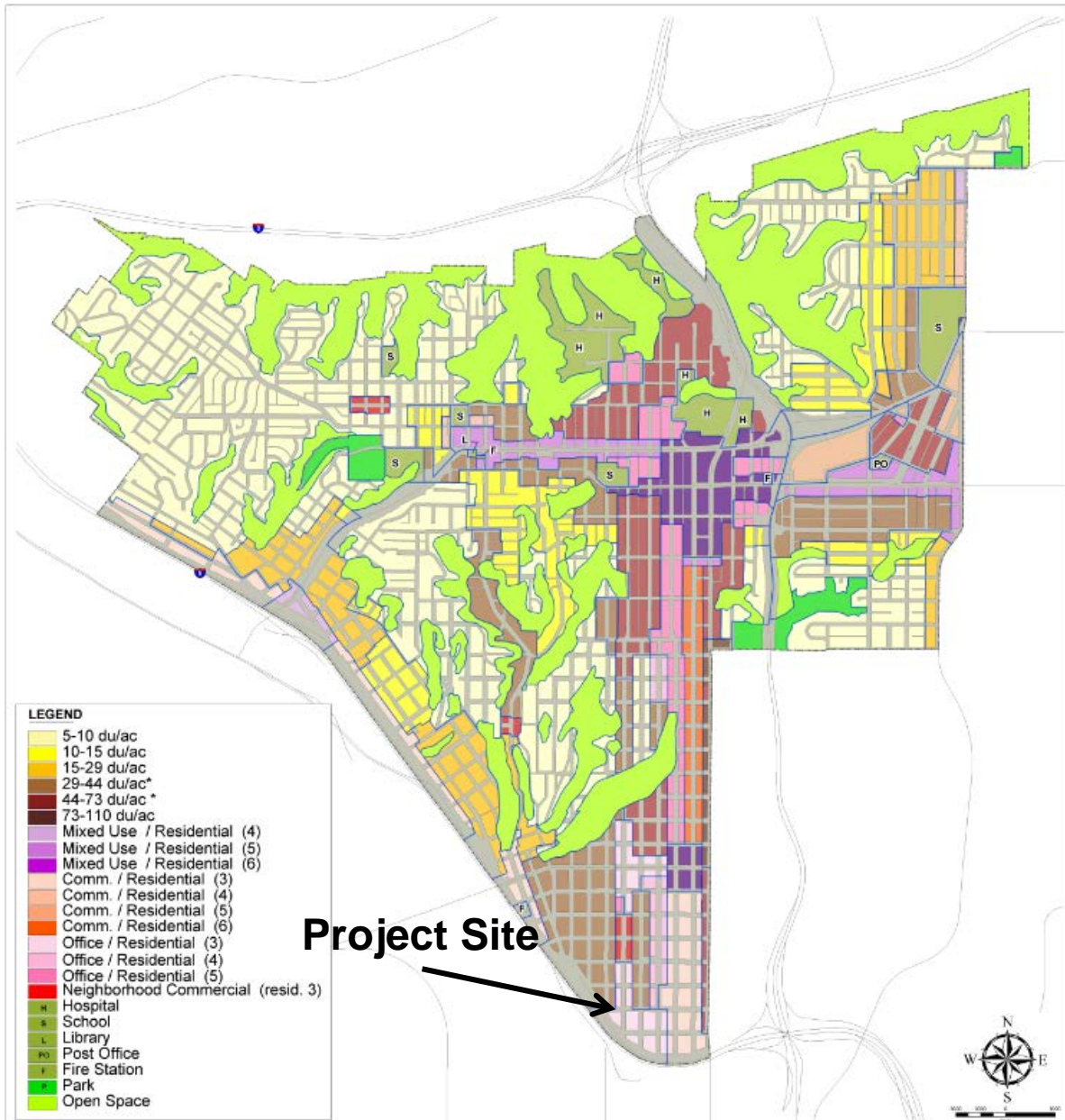






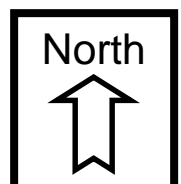
City of San Diego Planning Department

## Uptown Community Plan Land Use



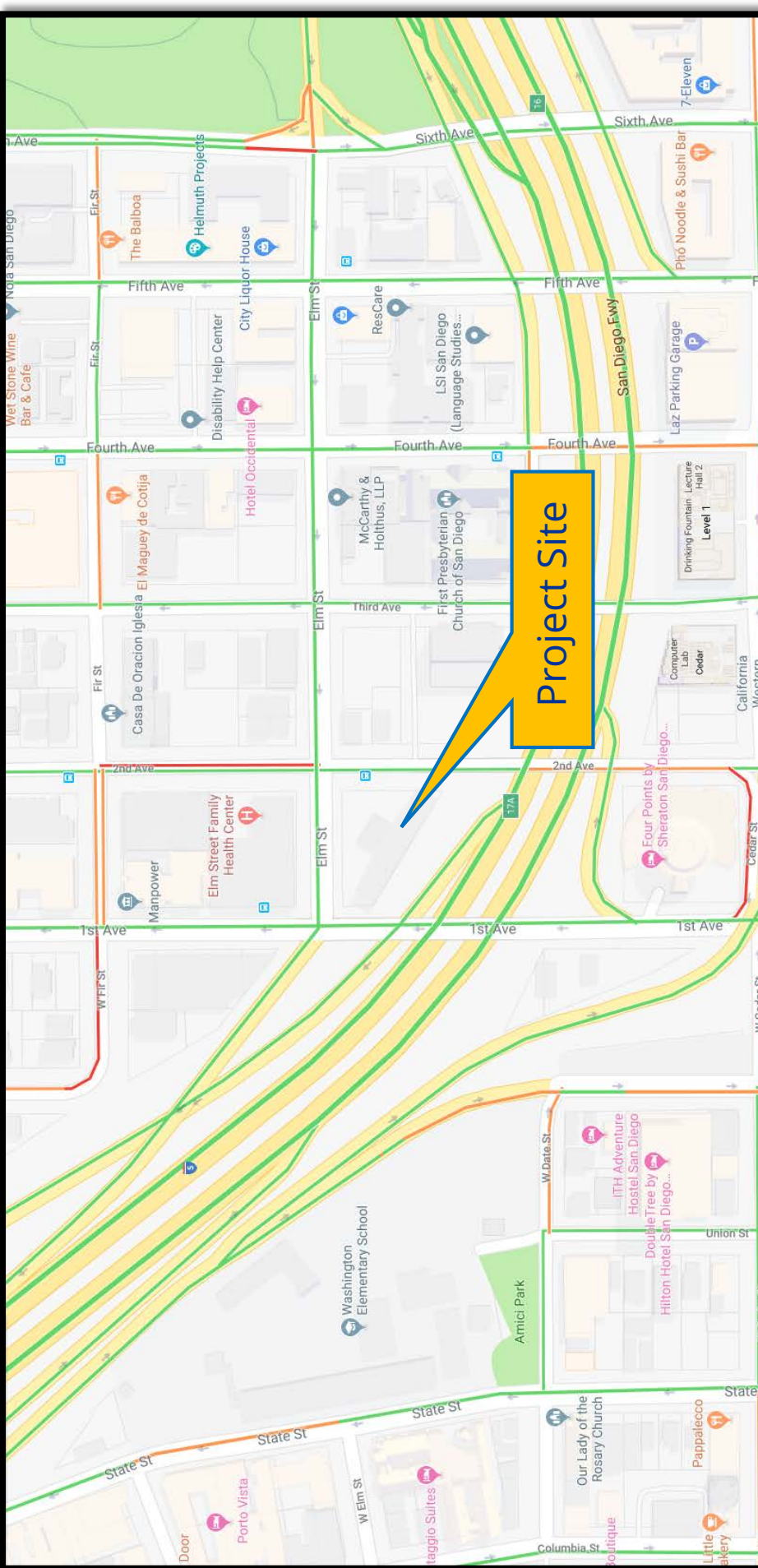
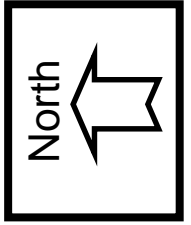
## Land Use Map

Verizon Wireless Banker's Hill / 111 Elm Street  
PROJECT NO. 577788









## Project Location Map

Verizon Wireless Banker's Hill / 111 Elm Street  
PROJECT NO. 577788





# PROJECT DATA SHEET

|   |  |                                 |
|---|--|---------------------------------|
| <b>PROJECT NAME:</b>  | Verizon Wireless Banker's Hill   |                                 |
| <b>PROJECT DESCRIPTION:</b>   | Process Four: Planned Development Permit for a modification to an existing Wireless Communication Facility (WCF) located at 111 Elm Street in the CC-3-4 zone of the Uptown Community Planning area. The project consists of relocating the existing façade concealed antennas to the roof behind two new Fiberglass Reinforced Panel (FRP) screen boxes, painted and designed to match the rooftop mechanical screen wall. The equipment associated with this WCF will continue to operate on the rooftop platform and screened behind a rooftop screen wall. |                                 |
| <b>COMMUNITY PLAN AREA:</b>   | Uptown Community Plan  |                                 |
| <b>DISCRETIONARY ACTIONS:</b>   | Planned Development Permit   |                                 |
| <b>COMMUNITY PLAN LAND USE DESIGNATION:</b>   | Commercial   |                                 |
| <b>ZONING INFORMATION:</b><br><br><b>ZONE:</b> CC-3-4<br><b>HEIGHT LIMIT:</b> 30'-0"<br><b>PROPOSED HEIGHT:</b> 68'-6"<br><b>FRONT SETBACK:</b> --<br><b>SIDE SETBACK:</b> 10'-0"<br><b>STREETSIDE SETBACK:</b> --<br><b>REAR SETBACK:</b> 10'-0" |  |                                 |
| <b>ADJACENT PROPERTIES:</b>   | <b>LAND USE DESIGNATION &amp; ZONE</b>   | <b>EXISTING LAND USE</b>        |
| <b>NORTH:</b>   | Commercial/CC-3-4  | Elm Street Family Health Center |
| <b>SOUTH:</b>   | Commercial/CC-3-4  | Interstate 5                    |
| <b>EAST:</b>  | Commercial/CC-3-4  | Multi-unit residences           |
| <b>WEST:</b>  | Commercial/CC-3-4  | Interstate 5                    |
| <b>DEVIATION REQUESTED:</b>   | The new rooftop box design exceeds the CC-3-4 height limit of 30-feet, with a total overall height of 68'-6".  |                                 |
| <b>COMMUNITY PLANNING GROUP RECOMMENDATION:</b>   | On May 1, 2018, the Uptown Planners voted 14-0-1 to recommend support of the Verizon Bankers Hill Project with no conditions   |                                 |





PLANNING COMMISSION RESOLUTION NO. \_\_\_\_\_  
PLANNED DEVELOPMENT PERMIT NO. 2192364  
**VERIZON WIRELESS BANKERS HILL – PROJECT NO. 577788**

WHEREAS, ST PAULS SENIOR HOME AND SERVICES, Owner, and VERIZON WIRELESS (VAW) LLC., Permittee, filed an application with the City of San Diego for a permit to modify an existing Wireless Communication Facility (as described in and by reference to the approved Exhibits "A" and corresponding conditions of approval for the associated Planned Development Permit (PDP) No. 2192364); and

WHEREAS, the project site is located at 111 Elm Street in the CC-3-4 zone of the Uptown Community Plan;

WHEREAS, the project site is legally described as all that certain real property situated in the County of San Diego, State of California, described as follows: All that portion of Block 219 of Horton's Additions, in the City of San Diego, County of San Diego, State of California, according to Map thereof made by L.L. Lockling on file in the County Recorder of said County, lying Northerly of the following described line: Beginning at a point on the Easterly line of said Block 219, said point being distant North 00° 06' 30" East, 126.68 feet from the Southeasterly corner of said Block; Thence North 58° 06' 20" West, 236.02 feet to a point on the Westerly line of said block, said point being distant South 00° 06' 20" West, 50.00 feet from the Northwesterly corner of said Block 219; and

WHEREAS, on August 31, 2018, the City of San Diego, as Lead Agency, through the Development Services Department, made and issued an Environmental Determination that the project is exempt from the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) under CEQA Guideline Section 15301 [Existing Facilities] and there was no appeal of the Environmental Determination filed within the time period provided by San Diego Municipal Code Section 112.0520; and

WHEREAS, on November 29, 2018 the PLANNING COMMISSION of the City of San Diego considered PLANNED DEVELOPMENT PERMIT No. 2192364 pursuant to the Land Development Code of the City of San Diego;

NOW, THEREFORE,

BE IT RESOLVED by the PLANNING COMMISSION of the City of San Diego, that it adopts the following findings with respect to PLANNED DEVELOPMENT PERMIT No. 2192364:

**A. PLANNED DEVELOPMENT PERMIT [SDMC Section 126.0605]**

**1. Findings for all Planned Development Permits:**

**a. The proposed development will not adversely affect the applicable land use plan.**

The Verizon Wireless Banker's Hill project proposes to remove eight existing antennas and install sixteen new antennas concealed inside two new rooftop screening elements, designed to replicate the existing mechanical screen walls. The WCF equipment associated with this project is located on an existing rooftop equipment platform behind a four-sided screen wall, painted to match the surface of the building. The existing antennas previously located on the façade behind the Fiberglass Reinforced Panel (FRP) screen boxes shall be removed and the building facade shall be restored back to its original condition.

St. Paul's PACE (Program for All-Inclusive Care for the Elderly), which provides senior health care is located on the property. The Uptown Community Plan designates the current site as Office Commercial (O-29 Du/Ac) and is currently zoned CC-3-4 (Commercial Community).

The Uptown Community Plan relies on the City's General Plan (GP) for Wireless Facilities. The GP contains the following recommendations: 1) Conceal wireless facilities in existing structures when possible, otherwise use camouflage and screening techniques to hide or blend them into the surrounding area; 2) Design facilities to be aesthetically pleasing and respectful of the neighborhood context; and 3) Conceal mechanical equipment and devices associated with wireless facilities in underground vaults or unobtrusive structures. Consistent with the GP, Verizon's proposed design will conceal a total of sixteen antennas inside two new rooftop elements behind FRP screening. The existing rooftop equipment is set back from the edge of the roof and located behind a rooftop screen wall, painted and textured to match the surface of the building. The rooftop screen walls will have the appearance of mechanical penthouses. The proposed project is therefore consistent with both the Uptown Community Plan and the City's General Plan policies for wireless facilities.

**b. The proposed development will not be detrimental to the public health, safety, and welfare.**

The project modification consists of the removal of eight existing antennas from the façade of the building. The project will replace these antennas with the installation of sixteen new antennas concealed behind two FRP rooftop screening elements designed to match existing mechanical screen walls. The equipment will continue to operate on a rooftop platform, set back from the edge of the building and behind a screen wall. The project as designed requires a new permit and shall be reviewed in accordance under the current regulations which requires a PDP for the proposed height deviation to exceed the CC-3-4 zoning height limit of 30-feet.

The project will not have a significant effect on the environment, as was concluded in the initial study and then determined to be categorically exempt from the California Environmental Quality Act pursuant to Sections 15301 (Existing Facility). This project is not pending an appeal of the environmental determination. The environmental exemption determination for this project was made on August 31, 2018 and the opportunity to appeal that determination ended September 14, 2018.

The conditions of approval for the project will require compliance with several operational constraints and development controls intended to assure the continued public health, safety and welfare, including the requirement to obtain building permits which requires compliance with the applicable building, fire, mechanical, and plumbing codes and State and Federal disability access laws.

Additionally, the Telecommunication Act of 1996 preempts local governments from regulating the “placement, construction and modification of wireless communication facilities on the basis of the environmental effects of Radio Frequency (RF) emissions to the extent that such facilities comply with the Federal Communication Commission’s (FCC) standards for such emissions.” Verizon submitted an Electro-Magnetic Emission Analysis, which concluded that the project complies with FCC RF standards. Therefore, the project will not result in any significant health or safety risks to the surrounding area within matters of the City’s jurisdiction. In conclusion, the proposed project will not be detrimental to the public health, safety, and welfare.

**c. The proposed development will comply with the regulations of the Land Development Code including any proposed deviations pursuant to Section 126.0602(b)(1) that are appropriate for this location and will result in a more desirable project than would be achieved if designed in strict conformance with the development regulations of the applicable zone, and any allowable deviations that are otherwise authorized pursuant to the Land Development Code.**

Wireless Communication Facilities (WCF) are permitted on premises with non-residential uses in commercial zones with the processing of a Limited Use Permit (Process One application) however the project is proposing a height deviation, which requires a Planned Development Permit, Process Four. The WCF Design

Requirements [LDC Section 141.0420(g)(2)] state that WCFs “shall utilize all reasonable means to conceal or minimize the visual impacts of the WCF through integration. Integration with existing structures or with existing uses shall be accomplished through the use of architecture, landscape, and siting solutions.

The project modification consists of the removal of eight existing antennas from the façade of the building. The project will replace these antennas with the installation of sixteen new antennas concealed behind two FRP rooftop screening elements designed to match the existing mechanical screen wall. The equipment will continue to operate on a rooftop platform, set back from the edge of the building and behind a screen wall. The project pursuant to San Diego Municipal Code Section 126.0113(c) would result in an amendment to the original permit which under the current regulations requires a PDP for the proposed height deviation to exceed the CC-3-4 zoning height limit of 30-feet.

Previously, Verizon’s design utilized the existing façade elements to conceal their antennas. However, due to the number of antennas required and the propagation for each sector, Verizon’s Radio Frequency Engineers have determined that a rooftop site would result in a better solution to address the current coverage and capacity demand. Designing this site to comply with the CC-3-4 height limit would further limit Verizon’s coverage objective and their ability to meet their capacity demand. The capacity demand will most likely impact commuters using both north and south bound Interstate 5. Furthermore, reducing the height to comply with the CC-3-4 zone could affect emergency calls if the network is overwhelmed and/or is out of the range as a result of lowering the height of the WCF.

By allowing the height deviation, the project becomes more desirable for the City as it will result in an increase in coverage footprint and would therefore reduce any drop calls and/or poor signals during emergency situations. Equally important is that the design continues to be compatible with the existing building which already contains several rooftop elements. The design specifically matches a mechanical screen wall and would appear as part of the building with no visual impact.

The project, as designed, complies with SDMC Section 141.0420 and the zoning regulations for CC-3-4 with exception to the height increase for the reasons listed above. The combination of the stealth design and the increase in coverage and capacity footprint are reasons why this WCF is appropriate for this location and will result in a more desirable project than would be achieved if designed in strict conformance with the development regulations of the applicable zone, and any allowable deviations that are otherwise authorized pursuant to the Land Development Code.

The above findings are supported by the minutes, maps and exhibits, all of which are incorporated herein by this reference.



## **ATTACHMENT 5**

BE IT FURTHER RESOLVED that, based on the findings hereinbefore adopted by the PLANNING COMMISSION, PLANNED DEVELOPMENT PERMIT No. 2192364 is hereby GRANTED by the PLANNING COMMISSION to the referenced Owner/Permittee, in the form, exhibits, terms and conditions as set forth in PLANNED DEVELOPMENT PERMIT No. 2192364, a copy of which is attached hereto and made a part hereof.

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Simon Tse  
Development Project Manager  
Development Services

Adopted on: November 29, 2018

IO#: 11003679

fm 7-17-17



**RECORDING REQUESTED BY**  
CITY OF SAN DIEGO  
DEVELOPMENT SERVICES  
PERMIT INTAKE, MAIL STATION  
501

**WHEN RECORDED MAIL TO**  
**PROJECT MANAGEMENT**  
**PERMIT CLERK**  
**MAIL STATION 501**

INTERNAL ORDER NUMBER: 11003679

SPACE ABOVE THIS LINE FOR RECORDER'S USE

PLANNED DEVELOPMENT PERMIT NO. 2192364  
**VERIZON WIRELESS BANKER'S HILL PROJECT NO. 577788**  
PLANNING COMMISSION

This Planned Development Permit No. 2192364 is granted by the Planning Commission of the City of San Diego to St Paul's Senior Home and Services, Owner, and Verizon Wireless (VAW), LLC., Permittee, pursuant to San Diego Municipal Code [SDMC] sections 126.0601, 131.0501, and 141.0420. The site is located at 111 Elm Street in the CC-3-4 zone of the Uptown Community Plan. The project site is legally described as all that portion of Block 219 of Horton's Additions, in the City of San Diego, County of San Diego, State of California, according to Map thereof made by L.L. Lockling on file in the County Recorder of said County, lying Northerly of the following described line: Beginning at a point on the Easterly line of said Block 219, said point being distant North 00° 06' 30" East, 126.68 feet from the Southeasterly corner of said Block; Thence North 58° 06' 20" West, 236.02 feet to a point on the Westerly line of said block, said point being distant South 00° 06' 20" West, 50.00 feet from the Northwesterly corner of said Block 219.

Subject to the terms and conditions set forth in this Permit, permission is granted to Owner and Permittee to modify an existing Wireless Communication Facility described and identified by size, dimension, quantity, type, and location on the approved exhibits [Exhibit "A"] dated November 29, 2018, on file in the Development Services Department.

The project shall include:

- a. A modification to an existing Wireless Communication Facility that consists of sixteen panel antennas concealed inside two new rooftop elements behind Fiberglass Reinforced Panel (FRP) screening, designed to replicate the existing mechanical screen wall; and
- b. The equipment associated with this project will continue to be located on an existing rooftop equipment platform, set back from the edge of the building and behind a screen wall, painted to match the surface of the building; and
- c. Removal of eight existing antennas from the building façade, which includes restoration of the area back to its original condition to the satisfaction of the Development Services Department; and

- d. This approval includes a height deviation to allow two new rooftop screen box elements to exceed the 30-foot height limit by 38 feet, 6 inches.
- e. Public and private accessory improvements determined by the Development Services Department to be consistent with the land use and development standards for this site in accordance with the adopted community plan, the California Environmental Quality Act [CEQA] and the CEQA Guidelines, the City Engineer's requirements, zoning regulations, conditions of this Permit, and any other applicable regulations of the SDMC.

**STANDARD REQUIREMENTS:**

1. This permit must be utilized within thirty-six (36) months after the date on which all rights of appeal have expired. If this permit is not utilized in accordance with Chapter 12, Article 6, Division 1 of the SDMC within the 36 month period, this permit shall be void unless an Extension of Time has been granted. Any such Extension of Time must meet all SDMC requirements and applicable guidelines in effect at the time the extension is considered by the appropriate decision maker. This permit must be utilized by **December 13, 2021**.
2. This Planned Development Permit [PDP] and corresponding use of this site shall expire on **December 13, 2028**. Upon expiration of this approval, the facilities and improvements described herein shall be removed from this site and the property shall be restored to its original condition preceding approval of this permit unless the applicant of record files a new application for a facility which will be subject to compliance with all regulations in effect at the time.
3. No later than ninety (90) days prior to the expiration of this approval, the Permittee may submit a new application to the Development Services Department for consideration with review and a decision by the appropriate decision maker at that time. Failure to submit prior to the deadline will be cause for enforcement for noncompliance, which may include penalties and fines.
4. Under no circumstances, does approval of this permit authorize the Permittee to utilize this site for WCF purposes beyond the permit expiration date. Use of this Permit approval beyond the expiration date of this Permit is prohibited.
5. No permit for the construction, occupancy, or operation of any facility or improvement described herein shall be granted, nor shall any activity authorized by this Permit be conducted on the premises until:
  - a. The Owner/Permittee signs and returns the Permit to the Development Services Department; and
  - b. The Permit is recorded in the Office of the San Diego County Recorder.
6. While this Permit is in effect, the subject property shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the appropriate City decision maker.



7. This Permit is a covenant running with the subject property and all of the requirements and conditions of this Permit and related documents shall be binding upon the Owner/Permittee and any successor(s) in interest.
  8. The continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.
  9. Issuance of this Permit by the City of San Diego does not authorize the Owner/Permittee for this Permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).
  10. The Owner/Permittee shall secure all necessary building permits. The Owner/Permittee is informed that to secure these permits, substantial building modifications and site improvements may be required to comply with applicable building, fire, mechanical, and plumbing codes, and State and Federal disability access laws.
  11. Construction plans shall be in substantial conformity to Exhibit "A." Changes, modifications, or alterations to the construction plans are prohibited unless appropriate application(s) or amendment(s) to this Permit have been granted.
  12. All of the conditions contained in this Permit have been considered and were determined necessary to make the findings required for approval of this Permit. The Permit holder is required to comply with each and every condition in order to maintain the entitlements that are granted by this Permit.
- If any condition of this Permit, on a legal challenge by the Owner/Permittee of this Permit, is found or held by a court of competent jurisdiction to be invalid, unenforceable, or unreasonable, this Permit shall be void. However, in such an event, the Owner/Permittee shall have the right, by paying applicable processing fees, to bring a request for a new permit without the "invalid" conditions(s) back to the discretionary body which approved the Permit for a determination by that body as to whether all of the findings necessary for the issuance of the proposed permit can still be made in the absence of the "invalid" condition(s). Such hearing shall be a hearing de novo, and the discretionary body shall have the absolute right to approve, disapprove, or modify the proposed permit and the condition(s) contained therein.
13. The Owner/Permittee shall defend, indemnify, and hold harmless the City, its agents, officers, and employees from any and all claims, actions, proceedings, damages, judgments, or costs, including attorney's fees, against the City or its agents, officers, or employees, relating to the issuance of this permit including, but not limited to, any action to attack, set aside, void, challenge, or annul this development approval and any environmental document or decision. The City will promptly notify Owner/Permittee of any claim, action, or proceeding and, if the City should fail to cooperate fully in the defense, the Owner/Permittee shall not thereafter be responsible to defend, indemnify, and hold harmless the City or its agents, officers, and employees. The City may elect to conduct its own defense, participate in its own defense, or obtain independent legal counsel in defense of any claim related to this indemnification. In the event of such election, Owner/Permittee

shall pay all of the costs related thereto, including without limitation reasonable attorney's fees and costs. In the event of a disagreement between the City and Owner/Permittee regarding litigation issues, the City shall have the authority to control the litigation and make litigation related decisions, including, but not limited to, settlement or other disposition of the matter. However, the Owner/Permittee shall not be required to pay or perform any settlement unless such settlement is approved by Owner/Permittee.

**AIRPORT REQUIREMENTS:**

14. Prior to the issuance of any building permits, the Owner/Permittee shall provide a copy of the signed agreement [DS-503] and show certification on the building plans verifying that the structures do not require Federal Aviation Administration [FAA] notice for Determination of No Hazard to Air Navigation, or provide an FAA Determination of No Hazard to Air Navigation as specified in Information Bulletin 520.

**ENGINEERING REQUIREMENTS:**

15. Prior to the issuance of any construction permit, the Permittee shall incorporate any construction Best Management Practices necessary to comply with Chapter 14, Article 2, Division 1 (Grading Regulations) of the San Diego Municipal Code, into the construction plans or specifications.

16. Prior to the issuance of any construction permit the Permittee shall submit a Water Pollution Control Plan (WPCP). The WPCP shall be prepared in accordance with the guidelines in Appendix G of the City's Storm Water Standards.

**PLANNING/DESIGN REQUIREMENTS:**

17. This approval permits the following as illustrated on the approved Exhibit "A":

- a. Sixteen (16) antennas with the following dimensions: 72" by 13.8" by 8.2"; and
- b. Twenty-four remote radio units; and
- c. Two raycaps mounted to existing cable tray; and
- d. Two 12' by 14' by 10' rooftop equipment screening elements, designed to replicate the existing mechanical screen wall; and
- e. One surge suppressor mounted to existing equipment platform.

18. Any future modifications to the antennas must be approved by Development Services Department. Antennas deviating up to the approved size (length, width, or height), must include screening designed to create the appearance of uniformity among the antennas to the satisfaction of the Development Services Department. At that time, the Permittee shall provide evidence demonstrating compliance with Federal standards for radio frequency emissions in accordance with the Telecommunications Act of 1996 and any subsequent amendments.

19. Every aspect of this project is considered an element of concealment including but not limited to the dimensions, bulk and scale, color, materials and texture. Any future modifications to this Permit must not defeat concealment.
20. Photo simulations shall be printed on the construction plans.
21. The Owner/Permittee shall install and maintain appropriate warning signage on the WCF as required by State and Federal regulations. The Owner/Permittee shall be responsible for complying with all State and Federal regulations.
22. Use of or replacement of any building façade or mechanical screen with RF-transparent material for purposes of concealing antennas shall not result in any noticeable lines or edges in the transition to the original building. All RF-transparent material shall be painted and textured to match the original building and adjacent building surfaces.

### INFORMATION ONLY:

- A Telecom Inspection is required prior to construction permit completion.
- The City of San Diego reserves the right to rescind any approval made under Section 6409(a) or the Spectrum Act should any portion of Section 6409(a) or the Spectrum Act, of the FCC's interpretation thereof, be deemed unconstitutional by a court of law, the FCC or any other competent authority.
- The issuance of this development permit alone does not allow the immediate commencement or continued operation of the proposed use on site. Any operation allowed by this discretionary permit may only begin or recommence after all conditions listed on this permit are fully completed and all required ministerial permits have been issued and received final inspection.
- Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this Permit, may protest the imposition within ninety days of the approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code-section 66020.
- This development may be subject to impact fees at the time of construction permit issuance.

APPROVED by the Planning Commission of the City of San Diego on November 29, 2018 and [Approved Resolution Number].

**ATTACHMENT 6**

Planned Development Permit No. 2192364  
November 29, 2018

AUTHENTICATED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES DEPARTMENT

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Simon Tse  
Development Project Manager

**NOTE: Notary acknowledgment  
must be attached per Civil Code  
section 1189 et seq.**

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**The undersigned Owner/Permittee**, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Owner/Permittee hereunder.

**ST PAULS SENIOR HOME AND SERVICES**  
Owner

By \_\_\_\_\_  
NAME  
TITLE

**VERIZON WIRELESS (VAW) LLC.**  
Permittee

By \_\_\_\_\_  
NAME  
TITLE

**NOTE: Notary acknowledgments  
must be attached per Civil Code  
section 1189 et seq.**

**NOTICE OF EXEMPTION**

(Check one or both)

TO: ☒ Recorder/County Clerk  
 P.O. Box 1750, MS A-33  
 1600 Pacific Hwy, Room 260  
 San Diego, CA 92101-2400

FROM: City of San Diego  
 Development Services Department  
 1222 First Avenue, MS 501  
 San Diego, CA 92101

☐ Office of Planning and Research  
 1400 Tenth Street, Room 121  
 Sacramento, CA 95814

**Project Name:** Verizon Wireless Bankers Hill

**Project No. :** 577788

**Project Location-Specific:** The project is located at 111 Elm Street, San Diego, CA 9210.

**Project Location-City/County:** San Diego/San Diego

**Description of nature and purpose of the Project:** Verizon Wireless proposes a Planned Development Permit (PDP) for the modification of an existing Wireless Communication Facility (WCF) to include sixteen new antennas and new remote radio units, all concealed inside new rooftop boxes on an existing building. The equipment associated with this WCF will continue to operate inside the rooftop equipment area with minor equipment updates. All existing antennas and remote radio units shall be removed as part of this modification. The building which supports the WCF is previously conforming, but the proposed additional height associated with the project will require a height deviation that can be potentially approved with the PDP. The project is located on 0.51-acre site and is in the CC-2-3 zone of the Uptown Community Planning area.

**Name of Public Agency Approving Project:** City of San Diego

**Name of Person or Agency Carrying Out Project:** Shelly Kilbourn,  
 Agent for Verizon Wireless  
 PlanCom, Inc.  
 302 State Place, Second Floor  
 Escondido, CA 92029  
 (619) 208-4865

Exempt Status: (CHECK ONE)

- ( ) Ministerial (Sec. 21080(b)(1); 15268);
- ( ) Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ( ) Emergency Project (Sec. 21080(b)(4); 15269 (b)(c))
- (X) Categorical Exemption: CEQA Sections 15301 (Existing Facilities)

Reasons why project is exempt: The City conducted an environmental review which determined that the proposed project, as described above, qualifies to be exempt from CEQA pursuant to CEQA Guidelines Section 15301, which allows for the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing facilities (public or private), involving negligible or no expansion of use beyond that existing at the time of the determination. No environmental impacts were identified for the proposed project. Additionally, none of the exceptions described in CEQA Guidelines Section 15300.2 apply.

Lead Agency Contact Person: Anna L. McPherson AICP

Telephone: (619) 446-5276

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a notice of exemption been filed by the public agency approving the project? ( ) Yes ( ) No

It is hereby certified that the City of San Diego has determined the above activity to be exempt from CEQA



/Program Manager

August 31, 2018

Signature/Title

Date

Check One:

(X) Signed By Lead Agency

Date Received for Filing with County Clerk or OPR:

( ) Signed by Applicant



## UPTOWN PLANNERS

### MEMORANDUM OF MOTION

MOTION APPROVED ON MAY 1, 2018

#### Motion Approved By Uptown Planners on May 7, 2018:

Uptown Planners heard the 111 Elm “Verizon Bankers Hill PDP” application at its May 1, 2018 meeting; which was described on the agenda for the meeting as follows:

**111 ELM (“VERIZON BANKERS HILL PDP”) – Process Four – Bankers Hill/Park West** – A Planned Development application for a modification to an existing WCF located at 111 Elm Street in the CC-2-3 zone. The WCF supports 16 panel antennas and 24 RRUs, concealed inside two new FRP screen walls on the rooftop of the building. The equipment is located on the roof. FAA Part 77.

The board of Uptown Planners voted 13-0-1 to move the project to the Consent Agenda for the meeting. The motion was made by Wahlstrom, and seconded by Newington. No member of the public objected to the motion. The Consent Agenda was subsequently approved by unanimous vote of the board, with no member of the public requesting the project be removed.

Voting YES 14      Voting NO 0      Abstain 1 (non-voting chair)

Respectfully Submitted

*Leo Wilson*

Leo Wilson  
Chair, Uptown Planners





**Telecommunications Project Management****VERIZON WIRELESS – Bankers Hill  
SITE JUSTIFICATION REPORT  
111 Elm Street****PROJECT DESCRIPTION**

Verizon Wireless is requesting approval to modify and continue operating of an existing wireless communication facility on a commercial property located at 111 Elm Street in the Uptown community. The property is located at the corner of Elm Street and 1<sup>st</sup> Street with the I-5 freeway along the southern property line. The surrounding area is mixed with commercial office and some residential development. An aerial photograph of the property and surrounding area has been provided behind Tab 1.

The Bankers Hill property is a Preference 1 location under Council Policy 600-43. It is zoned CC-3-4 and designated in the community plan for commercial uses. A zoning justification map has been provided behind Tab 2 to demonstrate the commercial zone of the subject property. A Limited Use Permit is required for the operation of the Bankers Hill site; however, due to height of the proposed modifications, a Planned Development Permit (Process 4) is also required.

The existing wireless facility consists of screened façade mounted antennas with rooftop equipment. Verizon Wireless is proposing to remove the existing antennas from the building façade and locate them in rooftop screens. The purpose of the modifications is to provide updated antennas and equipment. Additionally, removing the antennas from the building façade to the rooftop will allow continued access of a building balcony whose use is currently restricted by the location of the antennas. The existing wireless facility currently houses 6 directional antennas and 3 RRUs and provides service to the surrounding commercial, residential and freeway areas.

Verizon Wireless is proposing to remove the 6 existing antennas and 3 RRUs and replace them with 16 antennas and 24 RRUs. The replacement antennas and RRUs will be located inside two rooftop screen boxes designed to match existing mechanical screens on the roof. The revised wireless facility has been designed to allow the additional antennas and RRUs to preserve and expand existing coverage while concealing the antennas from view.

**COVERAGE CONSIDERATIONS**

The existing wireless facility has been located on this property since 2005, providing critical voice and data service throughout the surrounding area including the I-5 freeway. Continued operation of the Bankers Hill site is necessary to maintain the existing levels of service to these areas. The site is an integral part of Verizon's network, as the site's operation is closely coordinated with a number of other Verizon Wireless sites in the downtown and Uptown areas.

**Bankers Hill Site Justification****Page 2**

Coverage maps have been provided behind Tab 3 to demonstrate the existing coverage provided by the Bankers Hill site and the predicted loss of coverage without the site. As indicated on the maps, loss of the existing coverage footprint from the Bankers Hill site could result in significant impacts to those living and working within the surrounding area as well as those traveling through this area along the I-5 freeway. Moreover, over one-quarter of US households are “wireless-only,” and thus this degradation of service would have a significant impact on customers’ essential communications services.

**SITE CONSIDERATIONS**

The Bankers Hill site is an existing site and any change in location would negatively impact customers’ existing service. Alternative sites have not been considered because replicating the exact coverage footprint from a different location is not possible. The resulting degradation in service would directly contravene Verizon Wireless’ commitment to improving the reliability and performance of its network and its customers’ wireless experience. Allowing the Bankers Hill site to be modified and continue operating will ensure that existing customers are not impacted and services to those customers are enhanced.

**Attachments:**

Tab 1 – Aerial photograph of existing facility

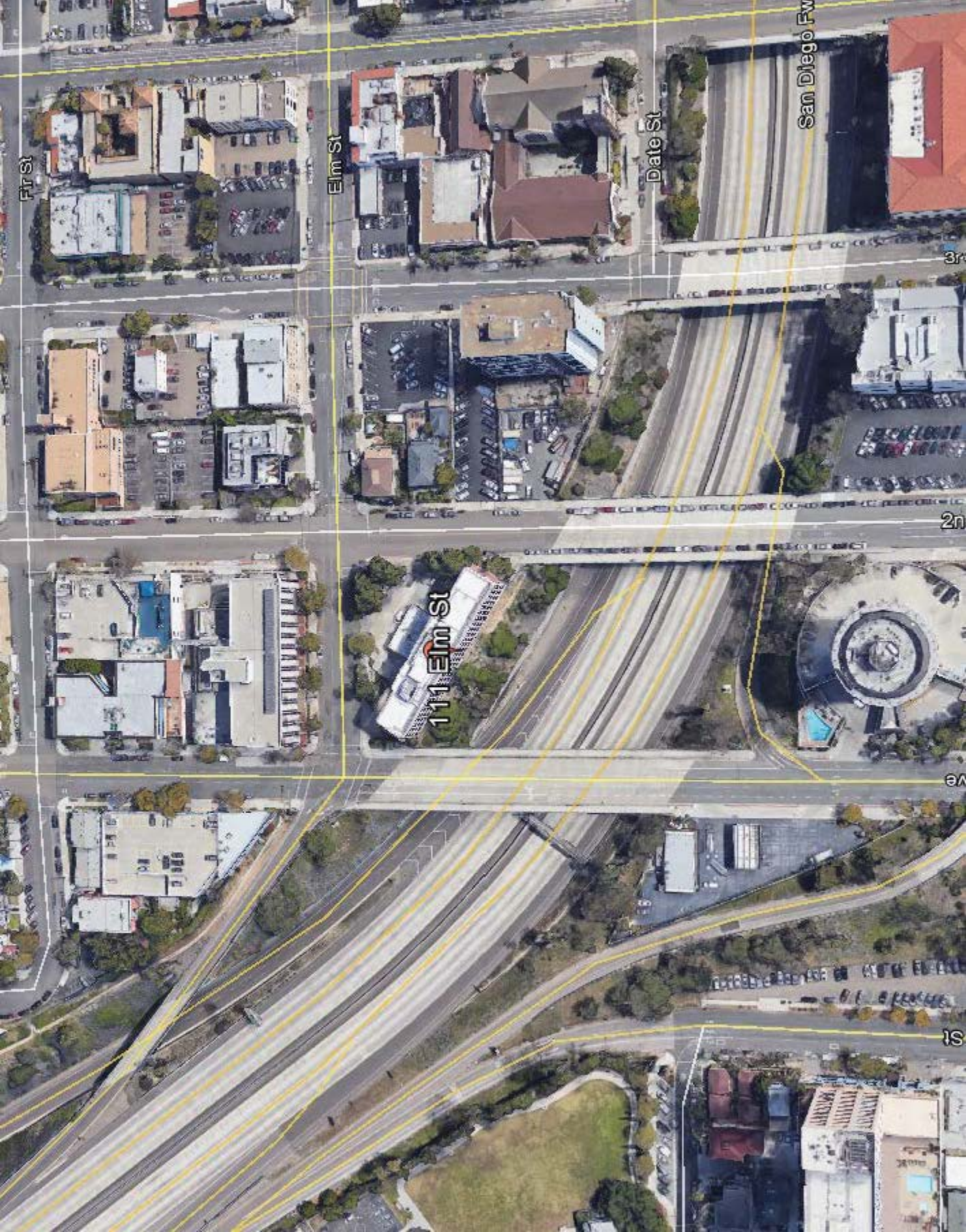
Tab 2 – Zoning Justification Map

Tab 3 – Radio Frequency Coverage Map

Aerial Photograph of Project Site  
Tab 1











# Zoning Justification Map

Tab 2



**verizon**✓

GRID TILE: 15  
GRID SCALE: 800  
DATE: 3/27/2017 10:05:22 AM

10/30/2017



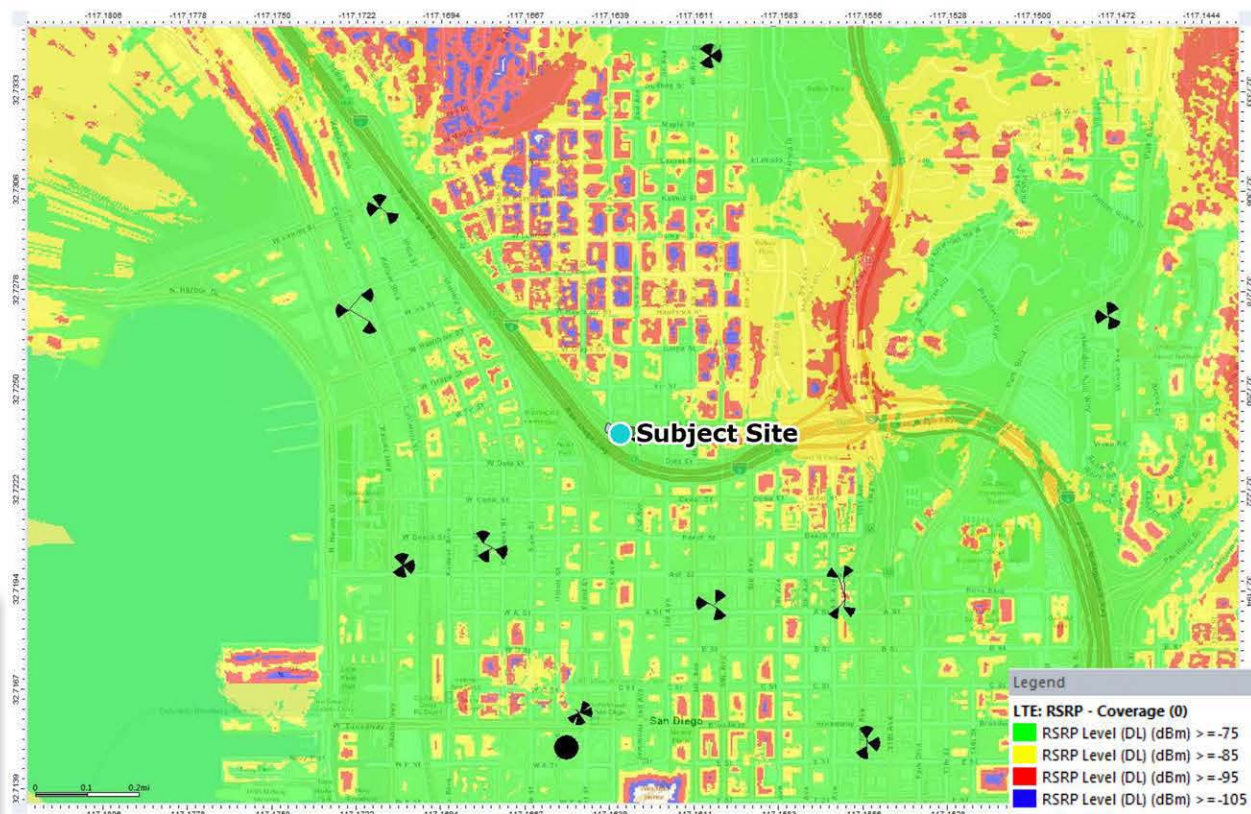
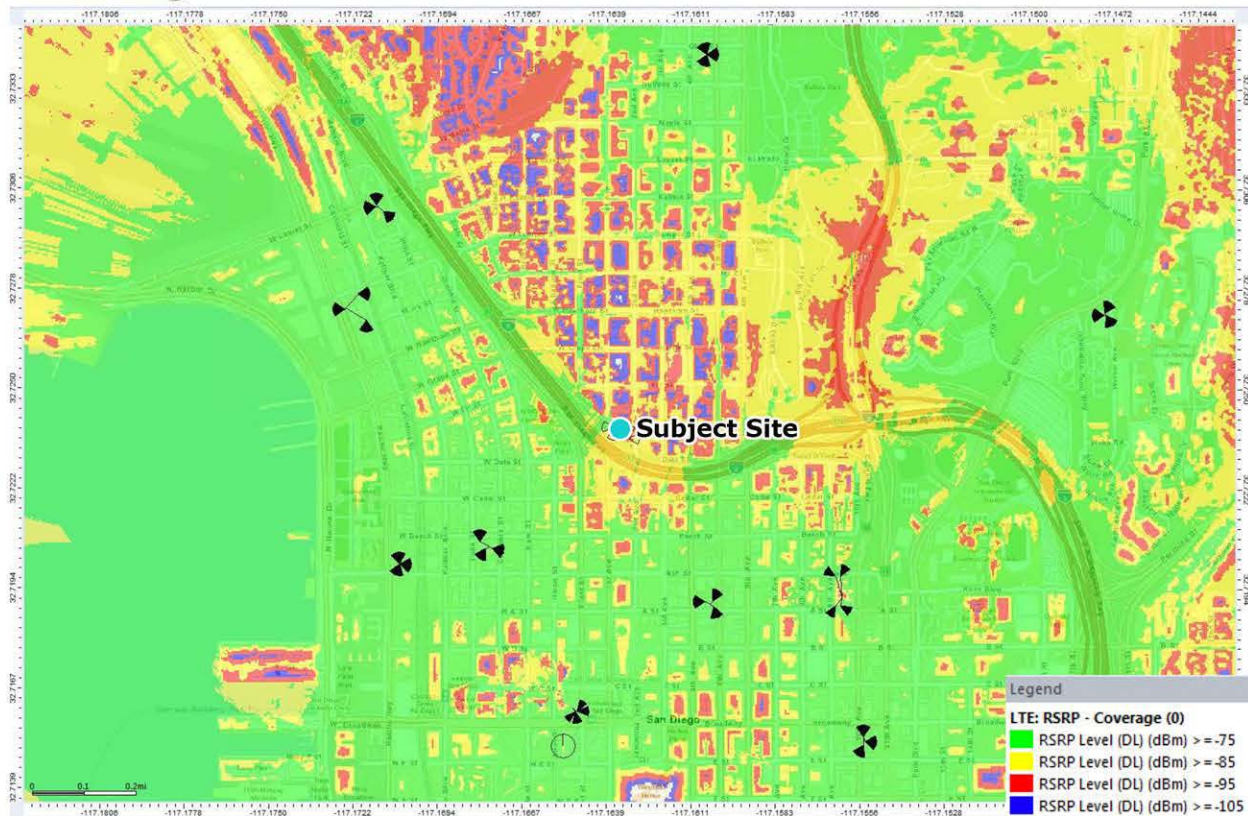
## Coverage Maps

Tab 3





## Coverage without site

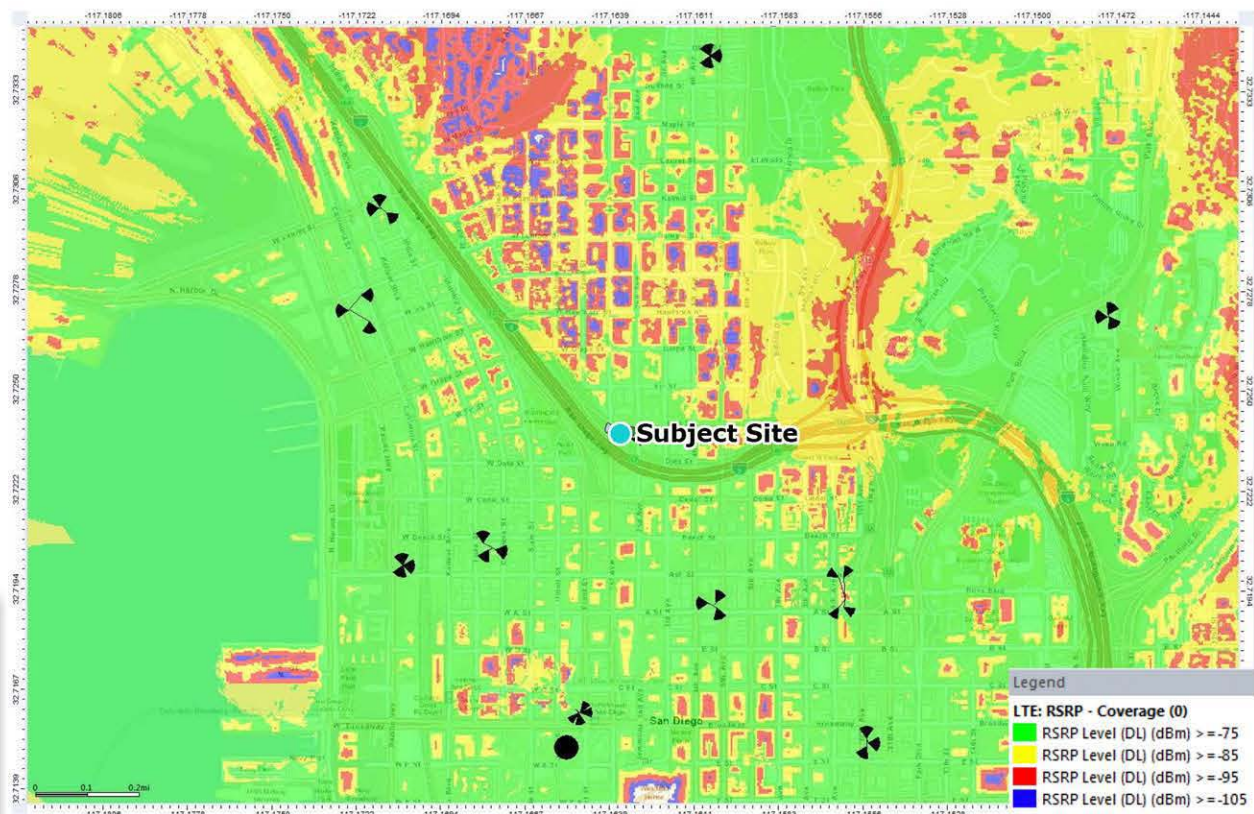
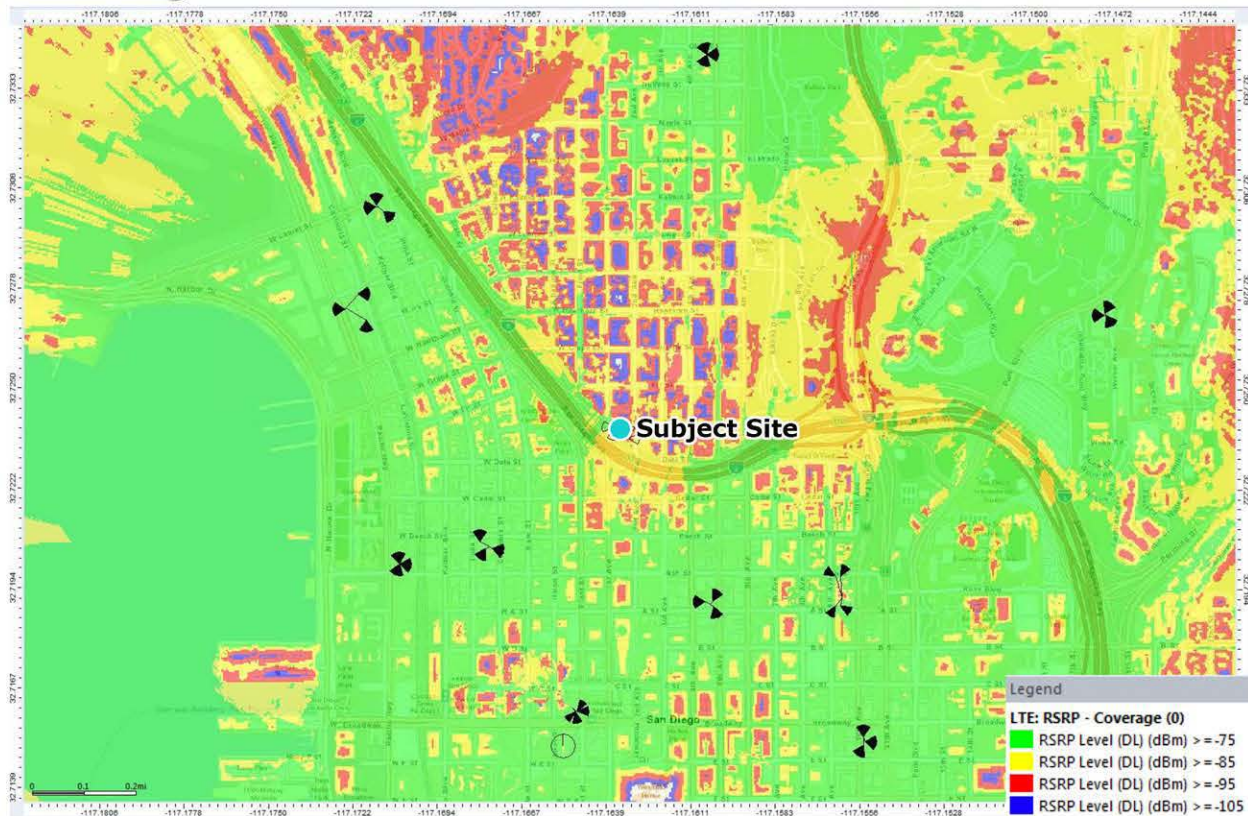


### Coverage Levels:







**Coverage without site****Coverage Levels:**



## **PHOTOGRAPHIC STUDY AND KEY MAP**

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**Verizon Wireless**  
**"Bankers Hill"**  
111 Elm Street  
San Diego, CA 92101

Prepared for:  
**City of San Diego**  
1222 First Avenue  
San Diego, CA 92101

Prepared by:

**PlanCom, Inc.**  
*Contractor Representatives for*  
**Verizon Wireless**

302 State Place  
Escondido, CA 92029  
Contact: Shelly Kilbourn, Land Use Consultant  
(619) 208-4685

October 5, 2017







North Elevation of the Building – Photo 1



South Elevation – Photo 2







East Elevation -Photo 3



West Elevation – Photo 4





View to the West



View to the South





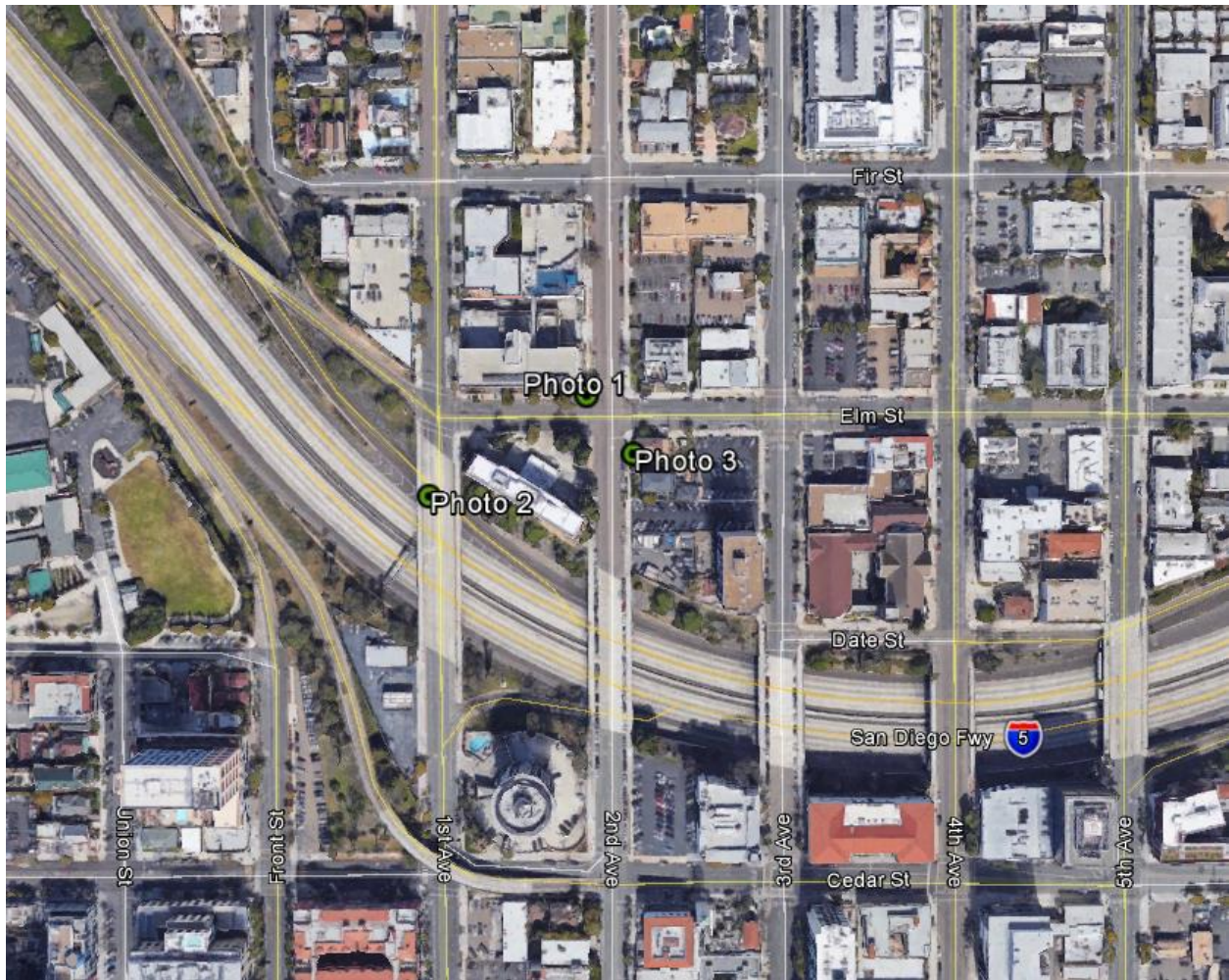


View to the North



View to the East





Aerial Photograph







Proposed antennas mounted behind  
proposed FRP screen wall finished  
to match existing building











Proposed antennas mounted behind  
proposed FRP screen walls finished  
to match existing building



PROPOSED







EXISTING

Attachment 12

Bankers Hill  
111 Elm Street  
San Diego, CA 92101



Proposed antennas mounted behind  
proposed FRP screen wall finished  
to match existing building



PROPOSED

These simulations are intended for graphical purposes only and not intended to be part of or to replace the information provided on the construction drawings

3/27/2018

Photosimulation of proposed telecommunications site





| CODE COMPLIANCE  |  |
|--|--|
| 2016 CALIFORNIA BUILDING CODE<br>2016 CALIFORNIA TITLE 24<br>2016 CALIFORNIA FIRE CODE<br>2016 CALIFORNIA RESIDENTIAL CODE<br>2016 CALIFORNIA ENERGY CODE<br>2016 CALIFORNIA PLUMBING CODE | 2016 CALIFORNIA MECHANICAL CODE<br>2016 CALIFORNIA ELECTRIC CODE<br>2016 CALIFORNIA EXISTING BUILDING CODE<br>2016 CALIFORNIA GREEN BUILDING STANDARD CODE<br>ANSI/TIA-222-G OR LATEST EDITION<br>LOCAL CODES AND AMENDMENTS |

| 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. |



DIAL TOLL FREE  
811


AT LEAST TWO WORKING  
DAYS BEFORE YOU DIG

USA NORTH UNDERGROUND SERVICE ALERT SERVING CALIFORNIA AND NEVADA

| SITE INFORMATION   |  |
|--|--|
| PROPERTY OWNER:<br>ADDRESS:  | SAINT PAUL'S SENIOR HOME AND SERVICES<br>4275 EXECUTIVE SQUARE, SUITE 100<br>SAN DIEGO, CA 92037<br>CONTACT: STEVE DOK (BROKER)<br>PHONE: (858) 450-3000 |
| APPLICANT:<br>ADDRESS:   | VERIZON WIRELESS<br>15505 SAND CANYON AVE.<br>IRVINE, CA 92618   |
| APPLICANT REPRESENTATIVE:<br>ADDRESS:  | PLANCOM, INC.<br>302 STATE PL.<br>ESCONDIDO, CA 92029<br>CONTACT: JILL CLEVELAND<br>PHONE: (760) 420-4833<br>EMAIL: Jill.Cleveland@plancominc.com        |
| LATITUDE (NAD 83):<br>LONGITUDE (NAD 83):<br>GROUND ELEVATION:<br>APN #:<br>ZONING JURISDICTION:<br>CURRENT ZONING:<br>BUILDING USE: | 32° 43' 24.90" N<br>117° 09' 47.10" W<br>±111'<br>533-271-06-00<br>CITY OF SAN DIEGO<br>-<br>RETIREMENT COMMUNITY  |
| YEAR BUILT:<br>CONSTRUCTION TYPE:  | 1970<br>(E) 1 FR<br>(P) 1 FR   |
| OCCUPANCY:<br>LEASE AREA:  | U-UNMANNED TELECOMMUNICATIONS FACILITY<br>±352 SQ. FT.   |

| PROJECT TEAM  |   |
|---|---|
| PROJECT MANAGER:<br>VERIZON WIRELESS<br>15505 SAND CANYON AVE.<br>IRVINE, CA 92618<br>CONTACT: SHAWN GRACE<br>EMAIL:<br>Shawn.Grace@verizonwireless.com                         | ENGINEERING:<br>NATIONAL ENGINEERING & CONSULTING, INC.<br>27 ORCHARD<br>LAKE FOREST, CA 92630<br>PHONE: (949) 716-9990<br>FAX: (949) 716-9997                            |
| ZONING:<br>PLANCOM, INC.<br>302 STATE PL.<br>ESCONDIDO, CA 92029<br>CONTACT: JILL CLEVELAND<br>PHONE: (760) 420-4833<br>EMAIL:<br>Jill.Cleveland@plancominc.com                 | SITE ACQUISITION:<br>PLANCOM, INC.<br>302 STATE PL.<br>ESCONDIDO, CA 92029<br>CONTACT: JILL CLEVELAND<br>PHONE: (760) 420-4833<br>EMAIL:<br>Jill.Cleveland@plancominc.com |
| RF ENGINEER:<br>VERIZON WIRELESS<br>15505 SAND CANYON AVE.<br>IRVINE, CA 92618<br>CONTACT: MIKE ZELLER<br>PHONE: (619) 787-4940<br>EMAIL:<br>Michael.Zeller@verizonwireless.com | CONSTRUCTION:<br>VERIZON WIRELESS<br>15505 SAND CANYON AVE.<br>IRVINE, CA 92618   |

VICINITY MAP



NO SCALE

| DRIVING DIRECTIONS   |
|--|
| DIRECTIONS FROM VERIZON WIRELESS OFFICE:   |
| 1. HEAD SOUTHEAST TOWARD SAND CANYON TRAIL<br>2. TURN RIGHT ONTO SAND CANYON AVE<br>3. MERGE ONTO I-405 S VIA THE RAMP TO SAN DIEGO<br>4. MERGE ONTO I-5 S<br>5. TAKE THE FRONT ST EXIT TOWARD CIVIC CENTER<br>6. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR 2ND AVE AND MERGE ONTO CEDAR ST<br>7. TURN LEFT ONTO 3RD AVE<br>8. TURN LEFT ONTO ELM ST |
| DESTINATION WILL BE ON THE LEFT:<br>111 ELM ST<br>SAN DIEGO, CA 92101  |

| CONSTRUCTION DRAWING                               |
|--|
| IF USING 11"x17" PLOT, DRAWINGS WILL BE HALF SCALE |

| APPROVALS  |
|--|
| THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS & AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT & MAY IMPOSE CHANGES OR MODIFICATIONS. |
| VERIZON WIRELESS RF ENGINEER: _____  |
| VERIZON WIRELESS OPERATIONS: _____   |
| SITE ACQUISITION MANAGER: _____  |
| PROJECT MANAGER: _____   |
| ZONING VENDOR: _____   |
| LEASING VENDOR: _____  |
| CONSTRUCTION MANAGER: _____  |
| A/E MANAGER: _____   |
| PROPERTY OWNER: _____  |

| SCOPE OF WORK  |
|--|
| VERIZON WIRELESS PROPOSES THE MODIFICATION OF AN EXISTING TELECOMMUNICATIONS FACILITY. THE SCOPE WILL CONSIST OF THE FOLLOWING:  |
| <ul style="list-style-type: none"><li>• REMOVE (6) EXISTING VERIZON WIRELESS 4' PANEL ANTENNAS</li><li>• REMOVE (4) EXISTING VERIZON WIRELESS RRUS</li><li>• INSTALL (2) PROPOSED VERIZON WIRELESS FRP SCREEN BOX PLATFORMS.</li><li>• INSTALL (16) PROPOSED VERIZON WIRELESS 6' PANEL ANTENNAS</li><li>• INSTALL (16) PROPOSED VERIZON WIRELESS RRUS</li><li>• INSTALL (4) PROPOSED VERIZON WIRELESS DUAL-MOUNT BRACKETS</li><li>• INSTALL (2) PROPOSED VERIZON WIRELESS DC SURGE PROTECTORS</li><li>• INSTALL (16) PROPOSED VERIZON WIRELESS DIPLEXERS</li><li>• INSTALL (7) PROPOSED VERIZON WIRELESS CONDUIT ENTRY PORTS</li><li>• INSTALL (2) PROPOSED VERIZON WIRELESS ROOF MOUNTED COAX CABLE TRAY</li><li>• INSTALL (2) PROPOSED VERIZON WIRELESS SPLITTERS</li><li>• INSTALL YELLOW PAINT STRIPING FOR EME SAFETY ZONES</li></ul> |
| NOTE:<br>NO NEW BATTERIES ARE TO BE ADDED AS PART OF THIS PROJECT.   |

| DRAWING INDEX |  |
|---------------|--|
| SHEET NO:     | SHEET TITLE                                |
| T-1           | TITLE SHEET                                |
| T-2           | GENERAL NOTES AND SPECIFICATIONS           |
| T-3           | GENERAL NOTES AND SPECIFICATIONS           |
| T-4           | GENERAL NOTES AND SPECIFICATIONS           |
| C-1           | TOPOGRAPHIC SURVEY                         |
| C-2           | TOPOGRAPHIC SURVEY                         |
| A-1           | SITE PLAN                                  |
| A-1.1         | EXISTING/DEMO & PROPOSED ROOF PLANS        |
| A-2           | EXISTING & PROPOSED ANTENNA LAYOUT PLANS   |
| A-2.1         | EXISTING & PROPOSED EQUIPMENT LAYOUT PLANS |
| A-3           | EXISTING & PROPOSED ELEVATIONS             |
| A-4           | EXISTING & PROPOSED ELEVATIONS             |
| A-5           | EXISTING & PROPOSED ELEVATIONS             |
| A-6           | EXISTING & PROPOSED ELEVATIONS             |
| A-7           | ARCHITECTURAL DETAILS                      |
| A-8           | ARCHITECTURAL DETAILS                      |
| S-1           | STRUCTURAL ROOF PLAN                       |
| S-2           | STRUCTURAL FRP UPPER SCREEN PLANS          |
| S-3           | STRUCTURAL BASE PLANS                      |
| S-4           | STRUCTURAL ELEVATIONS                      |
| SD-1          | STRUCTURAL DETAILS                         |
| SD-2          | STRUCTURAL DETAILS                         |
| E-1           | ANTENNA GROUNDING, SCHEMATIC, AND DETAILS  |

| DO NOT SCALE DRAWINGS   |
|---|
| SUBCONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME. |



15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



ENGINEERING & CONSULTING, INC.  
27 ORCHARD, LAKE FOREST, CA 92630  
PHONE: (949) 716-9990 | FAX: (949) 716-9997

CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

BANKERS HILL

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1



ABBREVIATIONS

|          |                                |        |                         |
|----------|--------------------------------|--------|-------------------------|
| AB       | ANCHOR BOLT                    | JT     | JOINT                   |
| AC       | ASPHALTIC CONCRETE             |        |                         |
| A/C      | AIR CONDITIONING               | LAM    | LAMINATED               |
| ADJ      | ADJUSTABLE                     | LBS    | POUNDS                  |
| A.F.F.   | ABOVE FINISH FLOOR             | LT     | LIGHT                   |
| ARCH     | ARCHITECTURAL                  | LA     | LIGHTNING ARRESTOR      |
| APPROX   | APPROXIMATELY                  | LNA    | LOW NOISE AMPLIFIER     |
| A.G.L    | ABOVE GRADE LEVEL              |        |                         |
| A.M.S.L. | ABOVE MEAN SEA LEVEL           | MFR    | MANUFACTURER            |
|          |                                | MAT    | MATERIAL                |
| BD       | BOARD                          | MAX    | MAXIMUM                 |
| BLDG     | BUILDING                       | MECH   | MECHANICAL              |
| BLKG     | BLOCKING                       | MIN    | MINIMUM                 |
| BOT      | BOTTOM                         | MISC   | MISCELLANEOUS           |
| BSMT     | BASEMENT                       | ML     | METAL LATH              |
| BTS      | BASE TRANSCIVER STATION        | MO     | MASONRY OPENING         |
|          |                                | MS     | MACHINE SCREW           |
|          |                                | MTD    | MOUNTED                 |
|          |                                | MTL    | METAL                   |
| C        | COURSE(S)                      |        |                         |
| CEM      | CEMENT                         | (N)    | NEW                     |
| CL       | CHAIN LINK                     | NIC    | NOT IN CONTRACT         |
| CLG      | CEILING                        | NO     | NUMBER                  |
| CLR      | CLEAR                          | NTS    | NOT TO SCALE            |
| COL      | COLUMN                         |        |                         |
| CONC     | CONCRETE                       |        |                         |
| CONC     | CONSTRUCTION                   | OA     | OVERALL                 |
| CONT     | CONTINUOUS                     | O.C.   | ON CENTER               |
| CORR     | CORRIDOR                       | OPNG   | OPENING                 |
| CO       | CONDUIT ONLY                   | OPP    | OPPOSITE                |
|          |                                |        |                         |
| DIA      | DIAMETER                       | PARTN  | PARTITION               |
| DBL      | DOUBLE                         | PL     | PLATE                   |
| DEPT     | DEPARTMENT                     | PLAS   | PLASTER                 |
| DEMO     | DEMOLITION                     | PLYWD  | PLYWOOD                 |
| DM       | DIVISION                       | POC    | POINT OF CONNECTION     |
| DN       | DOWN                           | PROP   | PT                      |
| DR       | DOOR                           |        |                         |
| DTL      | DETAIL                         | R      | RISER                   |
| DWG      | DRAWING                        | REQD   | REQUIRED                |
|          |                                | RD     | ROOF DRAIN              |
| (E)      | EXISTING                       | RM     | ROOM                    |
| EA       | EACH                           | RMS    | ROOMS                   |
| ELEC     | ELECTRIC                       |        | ROUGH OPENING           |
| ELEV     | ELEVATION                      | SC     | SOLID CORE              |
| EQUIP    | EQUIPMENT                      | SCHED  | SCHEDULE                |
| EXP      | EXPANSION                      | SECT   | SECTION                 |
| EXT      | EXTERIOR                       | SH     | SHEET                   |
|          |                                | SIM    | SIMILAR                 |
| FA       | FIRE ALARM                     | SPECS  | SPECIFICATIONS          |
| FB       | FLAT BAR                       | SS     | STAINLESS STEEL         |
| FF       | FINISH FLOOR                   | STL    | STEEL                   |
| FH       | FLAT HEAD                      | STOR   | STORAGE                 |
| FIN      | FINISH(ED)                     | STRUCT | STRUCTURAL              |
| FLR      | FLOOR                          | SUSP   | SUSPENDED               |
| FOS      | FACE OF STUDS                  | SW     | SWITCH                  |
| FS       | FINISH SURFACE                 | SWBO   | SWITCHBOARD             |
| FT       | FOOT, FEET                     |        |                         |
| FTG      | FOOTING                        | THK    | THICK                   |
| FW       | FINISH WALL                    | TI     | TENANT IMPROVEMENT      |
| F.G.     | FINISH GRADE                   | TMA    | TOWER MOUNTED AMPLIFIER |
| FUT      | FUTURE                         | TOS    | TOP OF SURFACE          |
|          |                                | TS     | TUBE STEEL              |
| GA       | GAUGE                          | TYP    | TYPICAL                 |
| GALV     | GALVANIZED                     | UNO    | UNLESS NOTED OTHERWISE  |
| GL       | GLASS                          |        |                         |
| GR       | GRADE                          |        |                         |
| GYP      | GYPSON                         |        |                         |
| GFCI     | GROUND FAULT CIRCUIT INTERRUPT | VCT    | VINYL COMPOSITION TILE  |
| GND      | GROUND                         | VERT   | VERTICAL                |
|          |                                | V.I.F. | VERIFY IN FIELD         |
|          |                                | VG     | VERTICAL GRAIN          |
|          |                                |        |                         |
| HC       | HOLLOW CORE                    | W/     | WITH                    |
| HDW      | HARDWARE                       | WD     | WOOD                    |
| HTR      | HEATER                         | WR     | WATER RESISTANT         |
| HM       | HOLLOW METAL                   | WT     | WEIGHT                  |
| HORIZ    | HORIZONTAL                     |        |                         |
| HR       | HOUR                           |        |                         |
| HSS      | HOLLOW STRUCTURAL SECTION      | XFMR   | TRANSFORMER             |
|          |                                |        |                         |
| HT       | HEIGHT                         | @      | AT                      |
| HV       | HIGH VOLTAGE                   | L      | CHANNEL                 |
|          |                                | ℄      | CENTERLINE              |
| ID       | INSIDE DIMENSION               | ℄      | ANGLE                   |
| INS      | INSULATION                     | Z      | PROPERTY LINE           |
| INT      | INTERIOR                       |        |                         |

SYMBOLS:

|  |                         |       |                              |
|--|-------------------------|-------|------------------------------|
|  | SECTION NUMBER          |       |                              |
|  | SHEET NUMBER            |       | BUILDING SECTION REFERENCE   |
|  | DETAIL NUMBER           |       |                              |
|  | DETAIL NUMBER           |       | DETAIL REFERENCE             |
|  | SECTION NUMBER          |       |                              |
|  | SHEET NUMBER            |       | DETAIL SECTION REFERENCE     |
|  | DETAIL NUMBER           |       |                              |
|  | DETAIL NUMBER           |       | EXTERIOR ELEVATION REFERENCE |
|  | KEY NOTE REFERENCE      | ----- | PROPERTY LINE                |
|  | DOOR NUMBER             | ----- | FENCING                      |
|  | AREA AND/OR ROOM NUMBER | ----- | ELECTRICAL SERVICE           |
|  | MECHANICAL UNIT         | ----- | TELCO SERVICE                |
|  |                         | ----- | ELECTRICAL/TELCO SERVICE     |

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GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE BUILDING CODE AND ALL OTHER GOVERNING CODES. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.

2. THE CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES AS THEY MAY BE DISCOVERED IN THE PLANS, SPECIFICATIONS, & NOTES PRIOR TO STARTING CONSTRUCTION, INCLUDING BUT NOT LIMITED BY DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERROR, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE METHOD OF CORRECTION SHALL BE APPROVED BY THE ARCHITECT/ENGINEER.

3. PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR HAS THE RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR OR SUBCONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGE TO THE UTILITIES CAUSED DURING THE EXECUTION OF THE WORK. WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, UTILITIES SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW.

4. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND SHALL BE CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF THE ENGINEER.

5. A COPY OF THE APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL CONSTRUCTION SETS REFLECT THE SAME INFORMATION AS THE APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS AT THE SITE FOR THE PURPOSE OF DOCUMENTING ALL AS-BUILT CHANGES, REVISIONS, ADDENDUMS, OR CHANGE ORDERS. THE CONTRACTOR SHALL FORWARD THE AS-BUILT/DOOR DRAWINGS TO THE ARCHITECT/ENGINEER AT THE CONCLUSION OF THE PROJECT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE.

7. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY POWER, WATER, AND TOILET FACILITIES AS REQUIRED BY THE PROPERTY OWNER OR GOVERNING AGENCY.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON, NOR PROVIDE DIRECTION, AS TO SAFETY PRECAUTIONS AND PROGRAMS.

9. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCING AND COORDINATING ALL PORTIONS OF THE WORK UNDER THE PROJECT. FURTHERMORE, THE STRUCTURE IS DESIGNED AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF BRACING, SHORING, TEMPORARY SUPPORTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

10. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR HIS REPRESENTATIVE. CONTRACTOR SHALL OBTAIN THE PERMIT AND MAKE FINAL PAYMENT OF SAID DOCUMENT(S).

11. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF LOAD IMPOSED ON THE STRUCTURAL FRAMING AND STRUCTURE DURING CONSTRUCTION. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE APPLIED. TEMPORARY SHORING OR BRACING SHALL BE PROVIDED WHERE THE STRUCTURE OR SOIL HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT. THE CONTRACTOR SHALL ALSO RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

12. ALL DIMENSIONS TAKE PRECEDENCE OVER SCALE UNLESS OTHERWISE NOTED.

13. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY FRAMING, BACKING, HANGERS, BLOCKING OR SUPPORTS FOR INSTALLATION OF ITEMS INDICATED ON THE DRAWINGS.

14. THE CONTRACTOR SHALL PROVIDE FIRE MARSHALL APPROVED MATERIALS TO FILL/SEAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.

15. NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL BE MATCHED IN FORM, TEXTURE, MATERIAL AND PAINT COLOR EXCEPT AS NOTED IN THE PLANS.

16. WHERE SPECIFIED, MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AVAILABLE AS REQUIRED BY THE LOCAL GOVERNING AGENCY RESPONSIBLE FOR RECORDING THE RESULTS.

17. ALL GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.

18. ALL DEBRIS AND REFUGE IS TO BE REMOVED FROM THE PROJECT. PREMISES SHALL BE LEFT IN A CLEAN BROOM FINISHED CONDITION AT ALL TIMES.

19. ALL SYMBOLS AND ABBREVIATIONS ARE CONSIDERED CONSTRUCTION INDUSTRY STANDARDS. IF A CONTRACTOR HAS A QUESTION REGARDING THEIR EXACT MEANING, THE ARCHITECT/ENGINEER SHALL BE NOTIFIED FOR CLARIFICATIONS.

20. CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID TO ASCERTAIN CONDITIONS WHICH MAY ADVERSELY AFFECT THE WORK OR COST THEREOF.

21. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTION OF THE WORK TO THE EXISTING WORK. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

22. REPRESENTATIONS OF TRUE NORTH, OTHER THAN THOSE FOUND ON THE PLOT OF SURVEY DRAWING (SHEET LS1), SHALL NOT BE USED TO IDENTIFY OR ESTABLISH THE BEARING OF TRUE NORTH AT THE SITE. THE CONTRACTOR SHALL RELY SOLELY ON THE PLOT OF SURVEY DRAWING AND ANY SURVEYOR'S MARKINGS AT THE SITE FOR THE ESTABLISHMENT OF TRUE NORTH, AND SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK. IF ANY DISCREPANCY IS FOUND BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND THE TRUE NORTH ORIENTATION AS DEPICTED ON THE CIVIL SURVEY, THE CONTRACTOR SHALL ASSUME SOLE LIABILITY FOR ANY FAILURE TO NOTIFY THE ARCHITECT/ENGINEER.

23. NO CHANGES ARE TO BE MADE TO THESE PLANS WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE ARCHITECT/ENGINEER. UNAUTHORIZED CHANGES RENDER THESE DRAWINGS VOID. THIS INCLUDES THAT THE CONTRACTOR SHALL NOT BE RELIEVED OF ANY DEVIATION FROM THE PLANS BY THE PROFESSIONAL'S OF RECORD REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC. UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE PROFESSIONAL OF RECORD OF SUCH DEVIATION IN WRITING AT THE TIME OF SUBMISSION, AND THE PROFESSIONAL OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.

24. ANY REFERENCE TO THE WORDS "APPROVED" OR "APPROVAL" IN THESE DOCUMENTS SHALL BE HERE DEFINED TO MEAN GENERAL ACCEPTANCE OR REVIEW AND SHALL NOT RELIEVE THE CONTRACTOR AND/OR HIS SUB-CONTRACTORS OF ANY LIABILITY IN FURNISHING THE REQUIRED MATERIALS OR LABOR SPECIFIED.

25. STAIR TREADS SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2-INCHES WIDE AND PLACED PARALLEL TO AND NOT MORE THAN 1 INCH FROM THE NOSE OF THE STEP. ALL TREAD SURFACES SHALL BE SLIP RESISTANCE. NOSING SHALL NOT PROJECT MORE THAN 1-1/2 INCHES PAST THE FACE OF THE RISER BELOW.

SITE PREPARATION NOTES:

1. THE PREPARATION OF THE SITE FOR CONSTRUCTION SHALL INCLUDE THE REMOVAL OF ALL BROKEN CONCRETE, TREE TRUNKS AND ANY OTHER DEBRIS THAT WOULD BE DAMAGING TO THE FOOTINGS OF THE NEW STRUCTURE.

2. ALL FOUNDATION FOOTINGS SHALL EXTEND INTO AND BEAR AGAINST NATURAL UNDISTURBED SOIL OR APPROVED COMPACTED FILL. FOOTINGS SHALL EXTEND INTO SOIL DEPTH INDICATED ON DETAILS.

3. SHOULD ANY LOOSE FILL, EXPANSIVE SOIL, GROUND WATER OR ANY OTHER DANGEROUS CONDITIONS BE ENCOUNTERED DURING THE EXCAVATION FOR THE FOUNDATION, THE ARCHITECT/ENGINEER SHALL BE NOTIFIED AND ALL FOUNDATION WORK SHALL CEASE IMMEDIATELY.

4. THE SURFACE OF THE EXPOSED SUBGRADE SHALL BE INSPECTED BY PROBING OR TESTING TO CHECK FOR POCKETS OF SOFT OR UNSUITABLE MATERIAL. EXCAVATE UNSUITABLE SOIL AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.

5. PROOFROLL THE SURFACE OF THE EXPOSED SUBGRADE WITH A LOADED TANDEM AXLE DUMP TRUCK. REMOVE ALL SOILS WHICH PUMP OR DO NOT COMPACT PROPERLY AS DIRECTED BY THE GEOTECHNICAL ENGINEER/TESTING AGENCY.

6. FILL ALL EXCAVATED AREAS WITH APPROVED CONTROLLED FILL. PLACE IN 8" LOOSE LIFTS AND THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-698. COMPACT TO A MINIMUM OF 90% RELATIVE COMPACTION. ADEQUATE DRAINAGE SHALL BE PROVIDED SUCH THAT NO PONDING OCCURS AFTER THESE RECOMMENDATIONS ARE APPROVED BY THE ARCHITECT/ENGINEER.

7. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIRING OR REPLACING ANY DAMAGED AREAS.

8. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY BRACING, SHORING AND OTHER SAFEGUARDS TO MAINTAIN ALL PARTS OF THE EXISTING WORK IN A SAFE CONDITION DURING THE PROCESS OF DEMOLITION AND CONSTRUCTION AND TO PROTECT FROM DAMAGE THOSE PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN.

SUBMITTALS

SUBMITTALS: SUBMITTALS FOR SHOP DRAWINGS, MILL TESTS, PRODUCT DATA, ETC. FOR ITEMS DESIGNED BY THE ARCHITECT/ENGINEER OF RECORD SHALL BE MADE TO THE ARCHITECT/ENGINEER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW THE SUBMITTAL BEFORE FORWARDING TO THE ARCHITECT. SUBMITTALS SHALL BE MADE IN TIME TO PROVIDE A TWO-WEEK REVIEW PERIOD FOR THE ARCHITECT/ENGINEER. SUBMITTALS REQUIRED FOR EACH SECTION OF THESE NOTES ARE SPECIFIED IN THAT SECTION.

SHOP DRAWING REVIEW

REVIEW BY THE ARCHITECT/ENGINEER IS FOR GENERAL COMPLIANCE WITH THE DESIGN CONCEPT AND THE CONTRACT DOCUMENTS. MARKINGS OR COMMENTS SHALL NOT BE CONSTRUED AS RELIEVING THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, NOR DEPARTURES THEREFROM. THE CONTRACTOR REMAINS RESPONSIBLE FOR DETAILS AND ACCURACY, FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FOR SELECTING FABRICATION PROCESSES, ETC. WHEN SHOP DRAWINGS DIFFER FROM OR ADD TO THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS THEY SHALL BE DESIGNED AND STAMPED BY A SPECIALTY STRUCTURAL ENGINEER (SSE)

FIRE DEPARTMENT NOTES

1. SCHEDULE REQUIRED FINAL FIRE DEPARTMENT INSPECTION 2 DAYS IN ADVANCE.

2. A UNIFORM FIRE CODE PERMIT TO OPERATE BATTERY SYSTEMS WITH STATIONARY LEAD-ACID BATTERIES MAY BE REQUIRED AND ISSUED BY FIRE INSPECTOR.

3. AN APPROVED METHOD TO NEUTRALIZE SPILLED ELECTROLYTE SHALL BE PROVIDED IN THE BATTERY ROOM (IF APPLICABLE)

4. LOCATIONS AND CLASSIFICATIONS OF FIRE EXTINGUISHERS SHALL BE IN ACCORDANCE WITH THE UNIFORM FIRE CODE STANDARD 10-1 AND PLACEMENT IS SUBJECT TO THE APPROVAL OF THE FIRE INSPECTOR.

5. CONTRACTOR SHALL POST PERMANENT SIGNAGE IN A CONSPICUOUS LOCATION AT THE SITE IDENTIFYING WHOM SHOULD BE CALLED IN AN EMERGENCY WITH PHONE NUMBERS AND SITE-IDENTIFYING INFORMATION (SUCH AS ADDRESS, SITE #, ETC.) FOR FIRE DEPARTMENT EMERGENCY USE.

6. A HAZARDOUS MATERIALS IDENTIFICATION SIGN IS REQUIRED FOR ALL ENTRANCES INTO BATTERY STORAGE AREAS. LETTERS MUST BE 1" IN HEIGHT AND IN A COLOR WHICH CONTRASTS WITH THE BACKGROUND OF THE SIGN AND LIST THE FOLLOWING: "BATTERY CABINET, LEAD ACID BATTERIES INSIDE"

7. PROVIDE 2A:40BC FIRE EXTINGUISHER, OR OTHER EQUIVALENT, IN RECESSED OR SEMI-RECESSED CABINET MOUNTED AT 48" AFF MAXIMUM TO TOP OF CABINET. IF CONSTRUCTION MATERIALS ARE NOT AMENABLE TO RECESSING THE CABINET, SURFACE MOUNTED CABINETS MAY BE APPROVED. CABINETS SHALL HAVE AN OPENABLE DOOR THAT DOES NOT REQUIRE BREAKAGE OF GLASS. EXTINGUISHERS SHALL BE HUNG ON THEIR HOOKS IN THE CABINETS.

FLASHING AND SHEET METAL

1. ALL FLASHING, COUNTER FLASHING, COPING AND ALL OTHER SHEET METAL SHALL BE OF NOT LESS THAN NO. 20 U.S. GAUGE CORROSION-RESISTANT METAL U.N.O. ALL METAL MUST BE GALVANIZED AFTER FABRICATION.

2. FLASH AND COUNTER FLASH AT ALL ROOF TO WALL CONDITIONS. G.I. FLASH AND CAULK WOOD BEAMS AND OUTLOOKERS PROJECTING THROUGH EXTERIOR WALLS OR ROOF SURFACES.

3. FLASH ALL EXTERIOR OPENINGS WITH APPROVED WATERPROOFING, WHICH CONFORMS TO THE STANDARDS OF LOCAL AND STATE CODES.

4. ALL CONNECTIONS TO BUILDING WALLS OR ROOFS MUST BE FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM ARCHITECT/ENGINEER, IF NECESSARY, BEFORE PROCEEDING. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.

THERMAL & MOISTURE PROTECTION INSULATION

1. COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE STATE ENERGY REGULATIONS.

2. PROVIDE R-13 MINIMUM KRAFT-FACED BATT. INSULATION AT WALLS UNLESS NOTED OTHERWISE, AND R-19 MINIMUM AT CEILINGS TO COMPLETELY ENCLOSE EQUIPMENT ROOM. PLACE VAPOR BARRIERS ON WARM SIDE OF WALL.

3. INSULATE WALLS BETWEEN EQUIPMENT ROOM AND ADJACENT ROOMS. INSULATE BETWEEN JAMBS AND FRAMING, BEHIND HEADER JOISTS AND IN SOFFITS OVER EXTERIOR SPACE.

4. PENETRATIONS OF ROOF MEMBRANES SHALL BE PATCHED/FLASHED AND MADE WATERTIGHT USING LIKE MATERIALS IN ACCORDANCE WITH NRCA ROOFING STANDARDS AND DETAILS. CONTRACTOR SHALL OBTAIN DETAILING CLARIFICATION FOR SITE-SPECIFIC CONDITIONS FROM ARCHITECT/ENGINEER, IF NECESSARY, BEFORE PROCEEDING. PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE.

GYP BOARD SHEATHING NOTES

1. 5/8" TYPE "X" FIRE RESISTANT TAPERED EDGE BOARDS SHALL BE USED WHERE REQUIRED FOR RATED FIRE PROTECTION.

2. CORNER BEADS: STANDARD WALLBOARD CORNER BEADS MANUFACTURED OF GALVANIZED STEEL WITH PRE FORMED FLANGES, ANSI-CB-PF.

3. EDGE TRIM OR CASTING: STANDARD WALLBOARD EDGE TRIM 126 MANUFACTURED OF GALVANIZED STEEL WITH PERFORATED FLANGES, ANSI-US, SQUARE NOSE, SIZE AS REQUIRED FOR THICKNESS OF WALLBOARD.

4. FASTENERS: 1-1/4" USG OR EQUAL TYPE W BUGLE HEAD DRYWALL SCREWS, 1-1/4" GWB-54 ANNULAR RING NAILS, OR 1-5/8" COOLER NAILS.

5. INSTALLATION SHALL CONFORM TO REQUIREMENTS OF GYPSUM ASSOCIATION "GA-216-78R". ELECTRICAL BOX AND OTHER ROUGH-IN OPENINGS MUST BE CLEANED OF EXCESS SPACKLE BEFORE PAINTER STARTS. USE METAL CORNER BEAD ON OUTSIDE CORNERS. USE METAL EDGE BEAD ON UNEXPOSED EDGES. BENT OR RUSTY MATERIAL IS NOT ACCEPTABLE. SPACKLED AREAS SHALL BE SANDED SMOOTH AND EVEN.

6. DRYWALL TEXTURE SHALL BE SPRAY-ON SPATTER/KNOCKDOWN TYPE.

7. TAPING AND FINISHING: APPLY JOINT TAPE AND JOINT COMPOUND AT JOINTS (BOTH DIRECTIONS). APPLY COMPOUND AT NECESSARY FLANGES, PENETRATIONS, FASTENERS, HEADS, AND SURFACE DEFECTS. INSTALL COMPOUND IN 3 COATS, SANDING AFTER EACH OF LAST 2 COATS.

8. WALLS AND CEILINGS SHALL BE PRIMED AND PAINTED WITH (2) COATS OF FRAZEE SEMI-GLOSS PRIOR TO WALL ATTACHMENT OF ANY EQUIPMENT OR ELECTRICAL CONDUITS. (U.N.O.)

CLIENTS

NO. DATE DESCRIPTION BY

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|---|----------|--------------------|----|
| 1 | 02/22/17 | 90% CD             | JY |
| 2 | 04/25/17 | 100% CD            | AE |
| 3 | 11/16/17 | PLANNING REVISIONS | SV |
| 4 | 06/06/18 | RFDS REVISIONS     | JV |
| 5 | 07/12/18 | EME REQUIREMENTS   | JV |
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SITE INFORMATION:

BANKERS HILL

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

GENERAL NOTES & SPECIFICATIONS

SHEET NUMBER:

SCALE:

N.T.S.

1

verizon

15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:

NATIONAL

ENGINEERING & CONSULTING, INC  
27 ORCHARD LAKE FOREST, CA 92630  
PHONE: (949) 716-9990 | FAX: (949) 716-9997

CLIENTS

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FRAMING

1. ALL LUMBER SHALL BE GRADE MARKED DOUGLAS FIR–LARCH AND SHALL HAVE THE FOLLOWING MINIMUM GRADES:
- |                           |    |
|---------------------------|----|
| JOISTS AND RAFTERS        | #1 |
| BEAMS AND STRINGERS       | #1 |
| PLATES                    | #2 |
| STUDS (2x4, 3x4, 2x6)     | #1 |
| POSTS, COLUMNS AND TIMBER | #1 |
2. ALL FRAMING EXPOSED TO THE WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS. WHERE POSSIBLE, ALL CUTS AND HOLES SHOULD BE COMPLETED BEFORE TREATMENT. CUTS AND HOLES DUE TO ON–SITE FABRICATION SHALL BE BRUSHED WITH 2 COATS OF COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2% METALLIC COPPER IN SOLUTION (PER AWWA STD. M4).
3. CUTTING OR NOTCHING OF WOOD STUDS OR PLATES SHALL NOT EXCEED 25% OF THE STUD/PLATE WIDTH AT EXTERIOR OR BEARING WALLS AND SHALL NOT EXCEED 40% OF THE STUD/PLATE WIDTH IN NONBEARING PARTITIONS. BORED HOLE DIAMETERS ARE LIMITED TO 40% OF THE STUD WIDTH IN ANY STUD AND MAY BE 60% IN NONBEARING PARTITIONS OR WHEN THE BORED STUD IS DOUBLED.
4. DO NOT NOTCH JOISTS, RAFTERS, OR BEAMS EXCEPT WHERE SHOWN ON THE DETAILS. BORED HOLES THROUGH JOISTS SHALL NOT EXCEED 1/3 OF MEMBER DEPTH AND BE LOCATED AT LEAST 2" FROM THE TOP AND BOTTOM OF THE MEMBER.
5. ALL BLOCKING AND BRIDGING SHALL BE PROVIDED AS REQUIRED PER GOVERNING CODE OR STANDARD OF PRACTICE.
6. ALL JOIST, RAFTER & MISC. FRAMING SHALL HAVE FULL-DEPTH (OR METAL) BRIDGING AT ALL SUPPORTS, MIDSPAN AND AT A MAXIMUM SPACING OF 8'-0" O/C IN BETWEEN UNLESS NOTED OTHERWISE.
7. PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS THAT ARE PARALLEL TO JOISTS. USE 2–16d NAILS AT 16" O.C. TO NAIL DOUBLE JOISTS TOGETHER.
8. THE CONTRACTOR SHALL CAREFULLY SELECT LUMBER TO BE USED IN LOADBEARING APPLICATIONS. THE LENGTH OF SPLIT ON THE WIDE FACE OF 2" NOMINAL LOADBEARING FRAMING SHALL BE LIMITED TO LESS THAN 1/2 OF THE WIDE FACE DIMENSION. THE LENGTH OF SPLIT ON THE WIDE FACE OF 3" (NOMINAL) AND THICKER LUMBER SHALL BE LIMITED TO 1/2 OF THE NARROW FACE DIMENSION.
9. BOLT HOLES SHALL BE CAREFULLY CENTERED AND DRILLED NOT MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. PROVIDE WASHERS BETWEEN BOLT HEADS OR NUTS AND WOOD. BOLTED CONNECTIONS SHALL BE SNUGGED TIGHT BUT NOT TO THE EXTENT OF CRUSHING WOOD UNDER WASHERS.
10. ALL BOLTS SHALL BE RE-TIGHTENED PRIOR TO APPLICATION OF PLASTER, PLYWOOD, ETC. AND BEFORE CLOSING IN COMPLETION OF THE JOB.
11. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR APPROVED EQUAL. INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS. ALL STEEL SHALL HAVE A MINIMUM THICKNESS OF 0.04 INCHES (PER ASTM A446, GRADE A) AND BE GALVANIZED (COATING G60).
12. STRUCTURAL STEEL PLATE CONNECTORS SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND BE 1/4" THICK UNLESS OTHERWISE INDICATED.
13. ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS, AND OTHER MISCELLANEOUS HARDWARE THAT ARE EXPOSED OR IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED.
14. BOLTS IN WOOD SHALL BE A MINIMUM OF 7 BOLT DIAMETERS FROM THE ENDS AND 4 BOLT DIAMETERS FROM THE EDGES.
15. ALL SILL BOLTS SHALL BE PLACED STARTING 9" FROM THE ENDS OF A BOARD OR FROM A NOTCH AND SPACED AT INTERVALS AS NOTED ON THE PLANS.
16. ALL SILL PLATE ANCHOR BOLTS AND HOLD-DOWN CONNECTOR BOLTS AT ALL PLYWOOD SHEAR PANELS SHALL HAVE THE FOLLOWING PLATE WASHERS.
- |           |                               |
|-----------|-------------------------------|
| BOLT SIZE | PLATE WASHER SIZE (ASTM A-36) |
| 5/8"      | 0.229" x 3" x 3"              |
| 3/4"      | 5/16" x 3" x 3"               |
| 7/8"      | 5/16" x 3" x 3"               |
| 1"        | 3/8" x 3-1/2" x 3-1/2"        |
17. TOP PLATES FOR ALL STUD WALLS SHALL BE 2–2x. MINIMUM TOP PLATE LAP SHALL BE 48" WITH 16d NAILS AT 4" O.C. EACH SIDE OF SPLICE U.N.O. SPLICES IN UPPER AND LOWER PLATES SHALL BE STAGGERED 10" MINIMUM.
18. ALL WOOD STUD WALLS SHALL HAVE 2x4 STUDS AT 16" O.C. WHEN HEIGHT BETWEEN LATERAL SUPPORTS IS LESS THAN 10'-0". WHEN HEIGHT BETWEEN LATERAL SUPPORTS MORE THAN 10'-0", USE 2x6 STUDS AT 16" O.C. WITH FULL DEPTH BLOCKING AT NOT MORE THAN 8' VERTICAL INTERVAL.
19. ALL NAILS SHALL BE COMMON WIRE NAILS U.N.O. SEE FRAMING PLANS OR DETAILS FOR NAIL SIZES AND SPACING. NAILS THAT ARE NOT DETAILED OR NOTED SHALL BE IN ACCORDANCE WITH IBC TABLE 2304.9.1. FASTENING SCHEDULE. HOLES FOR NAILS SHALL BE PREDRILLED AT A SMALLER DIAMETER THAN THE NAIL WHERE NECESSARY TO PREVENT SPLITTING.
20. LAG BOLTS SHALL HAVE LEAD HOLES BORED AS FOLLOWS:
- |                  |                                   |
|------------------|-----------------------------------|
| SHANK PORTION    | SAME DIAMETER AND LENGTH AS SHANK |
| THREADED PORTION | 0.6–0.75 OF DIAMETER OF THREAD    |

PLYWOOD SHEATHING NOTES

1. ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH (APA) AMERICAN PLYWOOD ASSOCIATION SPECIFICATIONS AND COMPLY WITH PS1–95 OR PS2–92.
2. ALL ROOF PANEL SHEATHING SHALL BE 5/8" (NOM.) TYPE CDX. EXP. 1 APA RATED SHEATHING. SUITABLE EDGE SUPPORT SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING. CONNECT ROOF SHEATHING WITH 8d COMMON NAILS AT 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS U.N.O.
3. ALL WALL PANEL SHEATHING SHALL BE 1/2" (NOM.) TYPE CDX. EXP. 1 APA RATED SHEATHING ATTACHED WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS U.N.O.
4. INSTALL ALL PLYWOOD SHEATHING WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS. ALLOW 1/8" SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.
5. ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF STAPLES AND PNEUMATIC NAIL GUNS ARE PROHIBITED FROM USE.
6. ALL EXTERIOR EXPOSED PLYWOOD SHALL BE MARINE GRADE.
- FIRE RESISTANCE REQUIREMENTS**
1. CONTRACTOR TO PROVIDE FLAME STOP I–DS (OR OTHER APPROVED METHOD OF FIRE PREVENTION) TO TOWER, BRANCHES, AND/ OR OTHER COMBUSTIBLE MATERIALS AS OUTLINED IN SECTIONS 602 & 603 OF 2016 CBC.

MASONRY

1. ALL MASONRY SHALL HAVE MINIMUM COMPRESSIVE STRENGTH f'm OF 1,500 PSI.
2. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90, GRADE N, TYPE 1, AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1900 PSI. CONCRETE MASONRY UNITS MUST BE TESTED IN ACCORDANCE WITH ASTM C140.
3. MORTAR SHALL BE MACHINE MIXED CONFORMING TO ASTM C270, TYPE S. MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MIXED AND SHALL BE TO BUILDING CODE SECTION 2103.9.
4. GROUT SHALL CONFORM TO ASTM C476 AND BE PROPORTIONED PER BUILDING CODE TABLE 2103.13. MINIMUM GROUT COMPRESSIVE STRENGTH SHALL EQUAL OR EXCEED THE GREATER OF 2,000 PSI OR THE REQUIRED f'm.
5. REINFC G BARS SHALL CONFORM TO ASTM A706 OR ASTM A615, GRADE 60 U.N.O.
6. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS OR LADDER TYPE FORMED FROM 9 GAUGE COLD-DRAWN STEEL WIRE COMPLYING WITH ASTM A82.
7. ALL MASONRY BLOCKS SHALL CONFORM WITH EACH OTHER IN COLOR, TEXTURE AND SIZE WHERE APPLICABLE. BLOCK SIZE, COLOR, TYPE AND TEXTURE SHALL BE AS INDICATED ON THE DRAWINGS. PROVIDE ACCESSORY BLOCKS AS INDICATED AND REQUIRED. WHERE CUTTING IS REQUIRED, BLOCKS SHALL BE SAWCUT.
8. COURSING SHALL BE COMMON RUNNING BOND (UNLESS NOTED OTHERWISE), WITH 3/8" GROUT JOINT. JOINTS SHALL BE TOOLED CONCAVE AND BE UNIFORM IN SIZE. USE CARE TO PREVENT MORTAR AND GROUT SPILLAGE ON THE FACE OF THE MASONRY. CLEAN SUCH SPILLAGE IMMEDIATELY. REPAIR ANY DAMAGE OR INTERSTICES BETWEEN BLOCKS AND REMOVE STAINS AT THE COMPLETION OF WORK.
9. TIE INTERSECTING WALLS BY OVERLAPPING UNITS IN ALTERNATE COURSES. ROUGHEN AND CLEAN CONCRETE BEARING SURFACES FOR THE PLACEMENT OF THE FIRST COURSE. VERTICAL HEAD JOINTS SHALL BE FILLED SOLID AND SHOVED TIGHTLY TO PROVIDE BOND TO BOTH BLOCKS.
10. AT VERTICAL REINFORCING LOCATIONS, PROVIDE DOWELS FROM FOOTING TO MATCH SIZE AND SPACING OF VERTICAL WALL REINFORCING. DOWELS SHALL BE EMBEDDED INTO THE FOOTING A MINIMUM OF 9" AND SHALL HAVE A 90 DEGREE HOOK. DEEPEN FOOTING WHERE REQUIRED FOR DOWEL. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL.
11. SPLICED BARS (INCLUDING DOWELS) SHALL BE LAPPED 48 BAR DIAMETERS MINIMUM OR 24", WHICHEVER IS GREATER. SPLICED BARS SHALL BE WIRE-TIED.
12. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4" FROM THE MASONRY AND NOT LESS THAN ONE DIAMETER BETWEEN BARS.
13. BOND BEAMS WITH A HORIZONTAL BAR OR BARS SHALL BE PROVIDED AT 48 INCHES ON CENTER AND AT ALL FLOOR AND ROOF LINES AND AT THE TOP OF THE WALL. PROVIDE A BOND BEAM WITH A HORIZONTAL BAR OR BARS OVER ALL OPENINGS, AND EXTEND THESE BARS 2'-0" PAST THE OPENING AT EACH SIDE. PROVIDE A BAR OR BARS VERTICALLY FOR THE FULL HEIGHT OF THE WALL AT EACH SIDE OF OPENINGS, WALL ENDS AND INTERSECTIONS. PROVIDE CORNER BARS TO MATCH THE HORIZONTAL WALL REINFORCING AT WALL INTERSECTIONS.
14. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING BEGINS. VERTICAL BARS SHALL BE HELD IN POSITION AT THE TOP, BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING BAR, NOR 10 FEET.
15. SEE DRAWINGS FOR LOCATION OF VERTICAL CONTROL JOINTS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS.
16. ALL CELLS SHALL BE GROUTED SOLID. GROUTING OF MASONRY BEAMS AND LINTELS SHALL BE DONE IN ONE CONTINUOUS OPERATION. GROUTING SHALL BE STOPPED 1–1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT. FILL CELLS WITH GROUT WITH MAXIMUM 4'-0" LIFTS. VERTICAL CELLS SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 3"x4".
17. ALL ISOLATED BOLTS EMBEDDED IN MASONRY SHALL BE GROUTED SOLIDLY IN PLACE WITH NOT LESS THAN 2" OF GROUT SURROUNDING THE BOLT.
18. PROVIDE BOND BEAM LINTELS AND BRICK SHELF ANGLES ABOVE ALL WALL OPENINGS PER DETAILS. SEE THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL OPENINGS.
19. THE MASONRY CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY WALL BRACING DURING CONSTRUCTION
20. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANULAR BACKFILL, FULL HEIGHT OF WALL. PROVIDE CONTROL JOINTS IN RETAINING WALLS AT APPROXIMATELY EQUAL INTERVALS NOT TO EXCEED 25 FEET NOR 3 TIMES THE WALL HEIGHT. PROVIDE EXPANSION JOINTS AT EVERY FOURTH CONTROL JOINT, UNLESS OTHERWISE INDICATED. SEAL RETAINING FACE OF WALL AND FOOTING WITH 2 COATS OF HENRY'S 502 ASPHALTIC MASTIC. PROVIDE CONTINUOUS INSPECTION.

FOUNDATIONS – GENERAL

1. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 18" BELOW FINAL GRADE AND BEAR ON FIRM NATIVE OR PROPERLY COMPACTED SOILS.
2. FOOTINGS MAY BE POURED INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.
3. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.
4. FOUNDATION CONCRETE SHALL HAVE REACHED A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI BEFORE BEING LOADED. STRENGTHS SHALL BE VERIFIED BY TEST.
5. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL THE SLABS AT TOP AND BOTTOM ARE IN PLACE AND CURED AS REQUIRED.
6. WHERE WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, SIMULTANEOUSLY PLACE FILL SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF WALL.
7. CONTRACTOR SHALL PROVIDE ALL SHORING AS REQUIRED.
8. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANULAR BACKFILL FULL HEIGHT OF WALL. SEAL RETAINING FACE OF WALL AND FOOTING WITH 2 COATS OF HENRY'S 502 ASPHALTIC MASTIC. PROVIDE CONTINUOUS INSPECTION.
9. CONTRACTOR SHALL PROVIDE TEMPORARY AND PERMANENT DEWATERING FOR SURFACE WATER, GROUND WATER AND SEEPAGE WATER AS REQUIRED.
10. CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC ENCOUNTERED DURING EXCAVATIONS AND BACKFILLING. ALL BACKFILL SHALL BE PROPERLY COMPACTED.
11. ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 1,000 PSF UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST REVISED EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION, WHICH INCLUDES SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, CODE OF STANDARD PRACTICE AND AWS STRUCTURAL WELDING CODE. IDENTIFY AND MARK STEEL PER CBC 2203.
2. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER/ ARCHITECT PRIOR TO FABRICATION.
3. GROUTING OF COLUMN BASE PLATES: BASE PLATES SHALL BE DRYPACKED OR GROUTED WITH NON-SHRINK, NON-FERROUS GROUT. MINIMUM COMPRESSIVE STRENGTH SHALL BE 4,000 PSI AT 28 DAYS. ALL SURFACES SHALL BE PROPERLY CLEANED OF FOREIGN MATERIAL PRIOR TO GROUTING.
4. ALL EXPOSED WELDS SHALL BE FILLED AND GROUND SMOOTH WHERE METAL COULD COME IN CONTACT WITH THE PUBLIC.
5. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THRU STRUCTURAL STEEL MEMBERS. BOLT HOLES SHALL CONFORM TO AISC SPECIFICATION, AND SHALL BE STANDARD HOLES UNLESS OTHERWISE NOTED. NO CUTTING OR BURNING OF STRUCTURAL STEEL WILL BE PERMITTED WITHOUT PRIOR CONSENT OF THIS ENGINEER. HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED.
6. WELDING: CONFORM TO AWS D1.1. WELDERS SHALL BE CERTIFIED
7. BOLTING: ASTM A307 BOLTS SHALL BE INSTALLED "SNUG TIGHT" PER AISC SECTION RCSC 8(C). ASTM A325 BOLTS SHALL CONFORM TO RCSC SECTION 8 (D).
8. FABRICATION: CONFORM TO AISC SPECIFICATION SEC M2 "FABRICATION" AND AISC CODE SEC 6 "FABRICATION AND DELIVERY" PERFORM WORK ON PREMISES OF A FABRICATOR APPROVED BY THE BUILDING OFFICIAL.
9. GALVANIZING: ALL EXPOSED STEEL OUTSIDE THE BUILDING ENVELOPE SHALL BE HOT-DIPPED GALVANIZED. APPLY FIELD TOUCH-UPS PER ASTM A153.
10. ALL FRAMING CONNECTORS SUCH AS CONCRETE ANCHORS, HOLD-DOWNS, POST BASES, FRAMING CAPS, HANGER AND OTHER MISCELLANEOUS STRUCTURAL METALS SHALL BE AS MANUFACTURED BY SIMPSON STRONG TIE CO. OR APPROVED EQUAL.
11. ALL STRUCTURAL STEEL EXPOSED TO EARTH SHALL HAVE 3" CONCRETE COVER.
12. MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
- ANCHOR BOLTS/ RODS: ASTM F1554, GRADE 36
- BARS & PLATES: ASTM A36
- BOLTS IN WOOD: ASTM A307  
BOLTS – HIGH STRENGTH: ASTM A325SC OR A325N
- C-, M-, AND ANGLE SHAPES: ASTM A36
- DEFORMED WELDED WIRE FABRIC: ASTM A497
- GROUT: EMBECO OR EQUIVALENT
- OTHER STRUCTURAL SHAPES: ASTM A36
- REINFORCING BARS (WELDED): ASTM A706, GRADE 60, DEFORMED BARS  
REINFORCING BARS (REGULAR): ASTM A615, GRADE 60, DEFORMED BARS
- SMOOTH WELDED WIRE FABRIC: ASTM A185
- STEEL GRATING: ANSI/NAAMM MBG 531-00
- STEEL PIPE: ASTM A53, GRADE B
- TIE WIRE: 16.5 GAGE OR HEAVIER, BLACK ANNEALED
- TUBE STEEL & PIPE COLUMNS: ASTM A500, GRADE B
- W – SHAPES: ASTM A992, GRADE 50
- WELDING ELECTRODES: E70XX FOR STRUCTURAL STEEL  
E80XX FOR REINFORCING BARS  
E60XX FOR LIGHT GAUGE AND METAL DECK

EPOXY AND EXPANSION ANCHORS

1. EPOXY OR EXPANSION ANCHORS SHALL NOT BE USED EXCEPT WHERE SPECIFICALLY SHOWN ON THE PLANS OR WHEN APPROVED IN ADVANCE BY THE STRUCTURAL ENGINEER.
2. DRILLED HOLES SHALL BE PREPARED AND ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE CURRENT ICC REPORT.
3. SPECIAL INSPECTION SHALL BE DONE IN ACCORDANCE WITH BUILDING CODE AND THE SPECIFIC INSPECTION REQUIREMENTS SET FORTH IN THE CURRENT ICC REPORT.
4. ANCHOR RODS USED FOR EPOXY ANCHORS SHALL BE THE TYPE SPECIFIED IN THE REFERENCED ICC REPORT.
5. THE ANCHOR SIZE AND EMBEDMENT SHALL BE AS INDICATED ON THE PLANS.
6. WHERE PERMITTED, EPOXY ANCHORING SHALL BE COMPLETED WITH THE FOLLOWING ALLOWED PRODUCT(S):  
HILTI RE-500 SD (ICC# ESR-2322, LARR-25700) – CONCRETE ONLY  
HILTI HIT-HY 150 (ICC# ER-5193, LARR-25652M) – MASONRY WALL ONLY.  
HILTI HIT-HY 20 (ICC# ER-4815, LARR-24564) – BRICK WALL ONLY.
7. WHERE PERMITTED, THE FOLLOWING EXPANSION ANCHORS MAY BE USED:  
HILTI KWIK BOLT 12 (ICC# ESR-1917, LARR-25701) – CONCRETE ONLY.  
SIMPSON STONG-BOLT (ICC# ESR-1771, LARR-25705) – CONCRETE ONLY.  
HILTI KWIK BOLT 3 (ICC#ESR-1385, LARR-25577)GROUTFILLED MASONRY ONLY  
SIMPSON WEDGE-ALL (ICC# ESR-1396, LARR-24682) – GROUT FILLED MASONRY ONLY.

SEISMIC GAS SHUT-OFF VALVE

1. WHEN THE LOCAL JURISDICTION REQUIRES, THE CONTRACTOR SHALL SUPPLY A "GAS SHUTOFF DEVICE" DOWNSTREAM OF GAS UTILITY METER(S) OR LIQUID PETROLEUM GAS STORAGE TANK(S) AT NO ADDITIONAL CHARGE TO THE OWNER.
2. "GAS SHUTOFF DEVICE" MAY CONSIST OF A "SEISMIC GAS SHUTOFF DEVICE "OR AN "EXCESS FLOW GAS SHUTOFF DEVICE". CONSULT WITH LOCAL JURISDICTION FOR THEIR REQUIREMENTS.
3. GAS SHUTOFF DEVICES SHALL BE CERTIFIED BY THE STATE ARCHITECT AND BE LISTED BY AN APPROVED LISTING AND TESTING AGENCY SUCH AS IAS, IAPMO, UL OR THE OFFICE OR THE STATE ARCHITECT. THE GAS SHUTOFF DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND HAVE A THIRTY (30) YEAR WARRANTY WHICH WARRANTS THAT THE VALVE OR DEVICE IS FREE FROM DEFECT AND WILL CONTINUE TO PROPERLY OPERATE FOR THIRTY (30) YEARS FROM THE DATE OF INSTALLATION.
4. IN THE CASE OF SEISMIC GAS-SHUT-OFF DEVICES (MOTION SENSITIVE) ONLY, SUCH DEVICES MUST BE MOUNTED RIGIDLY TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING. THIS REQUIREMENT NEED NOT APPLY IF THE BUILDING AND SAFETY DIVISION DETERMINES THAT THE SEISMIC GAS SHUTOFF DEVICE (MOTION SENSITIVE) HAS BEEN TESTED AND LISTED FOR AN ALTERNATE METHOD OF INSTALLATION.

REINFORCING STEEL

1. ALL REINFORCING SHALL BE NEW DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR ASTM A706, GRADE 60. ALL WELDED REINFORCING BARS SHALL CONFORM TO ASTM A706.
2. REINFORCING STEEL SPLICE/DEVELOPMENT LENGTHS SHALL CONFORM TO THE FOLLOWING MINIMUM LENGTHS UNLESS NOTED OTHERWISE: SPLICED BARS SHALL BE WIRE TOGETHER.
- | SPLICE/DEVELOPMENT LENGTH (INCHES) |         |           |  |
|------------------------------------|---------|-----------|--|
| BAR SIZE                           | TOP BAR | OTHER BAR |  |
| #3                                 | 28      | 22        |  |
| #4                                 | 37      | 29        |  |
| #5                                 | 47      | 36        |  |
| #6                                 | 56      | 43        |  |
| #7                                 | 81      | 63        |  |
| #8                                 | 93      | 72        |  |
| #9                                 | 105     | 81        |  |
| #10                                | 116     | 89        |  |
- TOP BAR LENGTHS APPLY TO HORIZONTAL REINFORCEMENT PLACED WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW THE SPLICE OR DEVELOP LENGTH. COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS.  
LAP WELDED WIRE FABRIC ONE SPACING OF CROSS WIRES PLUS 2".
3. MINIMUM CONCRETE COVER UNLESS NOTED OTHERWISE:
- |  |       |
|--|-------|
| UNFORMED SURFACE IN CONTACT WITH THE GROUND: FORMED SURFACES EXPOSED TO EARTH OR WEATHER | 3"    |
| #6 BARS AND LARGER:  | 2"    |
| #5 BARS AND SMALLER: FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER                     | 1.5"  |
| BEAMS, GIRDERS AND COLUMNS: SLABS, WALLS AND JOISTS                                      | 1.5"  |
| #11 BARS AND SMALLER:  | 0.75" |
4. BARS SHALL BE CLEAN OF MUD, OIL, OR OTHER COATINGS LIKELY TO IMPAIR BONDING.
5. ALL REINFORCING SHALL BE SECURED IN PLACE PRIOR TO INSPECTIONS, PLACING CONCRETE, OR GROUTING MASONRY.
6. WELDING: BARS SHALL NOT BE WELDED UNLESS AUTHORIZED. WHEN AUTHORIZED, CONFORM TO ACI 301 SEC 3.2, 2.2, AND AWS D1.4 "WELDING" AND PROVIDE ASTM A706, GRADE 60 REINFORCEMENT.
7. FIELD BENDING: CONFORM TO ACI 301 SEC 3.3.2.8 "FIELD BENDING OR STRAIGHTENING". BAR SIZES #3 THROUGH #5 MAY BE FIELD BENT COLD THE FIRST TIME. OTHER BARS REQUIRE PREHEATING. DO NOT TWIST BARS
8. SPLICE ALL BARS IN MASONRY WITH A MINIMUM OF 48 BAR DIAMETER LAPS (2'-0" MINIMUM).
9. ALL VERTICAL WALL REINFORCEMENT SHALL BE CONTINUOUS BETWEEN SPLICE LOCATIONS SHOWN IN THE DETAILS.
- CONCRETE**
1. MIX DESIGN REQUIREMENTS: (UNLESS NOTED OTHERWISE)  
A. CEMENT SHALL CONFORM TO ASTM C-150, TYPE V.  
B. COMPRESSIVE STRENGTH = 3,000 PSI  
C. CONCRETE SLUMP SHALL BE 3"+/-1" FOR SLABS AND 4"+/-1" FOR ALL OTHER WORK.  
D. WATER CEMENT RATIO = 0.45 MAX
2. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33 (1" MAXIMUM SIZE), AND ASTM C-330 FOR STRUCTURAL LIGHT WEIGHT CONCRETE.
3. WHERE CONCRETE WILL BE IN CONTACT WITH NATIVE OR IMPORTED SOIL WHICH HAS A VERY SEVERE SULFATE CONTENT, POZZOLAN SHALL BE ADDED AS REQUIRED.
4. EXTERIOR CONCRETE EXPOSED TO FREEZING TEMPERATURES AND/OR SALT OR DEICING CHEMICALS SHALL HAVE AIR ENTRAINMENT AND THE CEMENT CONTENT APPROPRIATE FOR THE EXPECTED EXPOSURE.
5. WATER SHALL BE POTABLE OR CLEAN, FREE FROM DELETERIOUS AMOUNTS OF ACIDS, ALKALIS OR ORGANIC MATERIALS, OILS, AND SALTS.
6. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94.
7. FLOOR SLABS SHALL CONFORM TO ASTM C-38 STANDARDS AND SHALL BE AT LEAST 3 1/2 INCHES THICK– SEE FOUNDATION PLANS FOR REINFORCEMENT, BASE, UNDERLAYMENT, VAPOR BARRIER OR OTHER SPECIFIC REQUIREMENTS.
8. FLOOR SLABS SHALL BE LEVEL OR TRUE SLOPES AS SHOWN ON DRAWINGS. TOLERANCE: 1/8 INCH IN 10 FEET.
9. PROVIDE LIGHT BROOM FINISH ON ALL EXPOSED CONCRETE UNLESS NOTED OTHERWISE.
10. PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.
11. ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4" UNLESS NOTED OTHERWISE.
12. FORMWORK SHALL REMAIN IN PLACE UNTIL CONCRETE HAS OBTAINED AT LEAST 90% OF COMPRESSIVE STRENGTH. THE CONTRACTOR SHALL PROVIDE ALL SHORING AND RESHORING.
13. PROVIDE CONCRETE SLABS OVER A 10 MIL POLYETHYLENE VAPOR BARRIER OVER 4" OF POROUS FILL UNLESS NOTED OTHERWISE.
14. ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR MATERIAL. POROUS FILL SHALL BE COMPACTED TO 90% MAX. DRY DENSITY .
15. WALKWAYS AND OTHER EXTERIOR SLABS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. SEE THE SITE PLAN AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, ELEVATIONS, JOINTING DETAILS AND FINISH DETAILS. PROVIDE 4" WALKS REINFORCED WITH 6x6 – W1.4xW1.4 WWF UNLESS OTHERWISE NOTED.
16. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO CHAPTER 19 OF THE CBC AND TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS SPECIFIED HEREIN.
17. ALL FOOTINGS SHALL REST ON FIRM NATURAL SOIL OR APPROVED COMPACTED FILL.
18. MONOPOLE CAISSONS ARE DESIGNED BY OTHERS. PROVIDE ADEQUATE SEPARATION AND/OR COMPRESSIBLE MATERIAL AROUND THE TOP OF THE CAISSON AS DIRECTED BY THE CAISSON ENGINEER TO PROTECT ADJACENT NEW AND EXISTING FOUNDATIONS AND OTHER ELEMENTS.
19. CONTROL JOINTS SHALL BE PLACED IN ALL CONCRETE SLABS PER THE SCHEDULE BELOW. SAWCUT WITHIN 4 HOURS AFTER THE POUR USING THE "SOFT-CUT" PROCEDURE.
- | SLAB THICKNESS | MAXIMUM SPACING |
|----------------|-----------------|
| 4"             | 10'-0"          |
| 5"             | 12'-0"          |
| 6" AND LARGER  | 15'-0"          |



15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

BANKERS HILL

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

GENERAL NOTES & SPECIFICATIONS

SHEET NUMBER:

T-3

GENERAL NOTES AND SPECIFICATIONS

SCALE:  
N.T.S.

1



STATEMENT OF SPECIAL INSPECTIONS PER THE 2016 CBC

1. THE OWNER OR REGISTERED DESIGN PROFESSIONAL OF RECORD WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE ITEMS IN THE SPECIAL INSPECTION TABLE BELOW.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.

B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL OF RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.

C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
4. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.
5. OBSERVATIONS OR SITE VISITS PERFORMED BY THE ENGINEER OR ARCHITECT DUE NOT CONSTITUTE SPECIAL INSPECTIONS.
6. THE CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION OF SCHEDULE OF WORK REQUIRING INSPECTION OR TESTING TO THE SPECIAL INSPECTION TO ALLOW COORDINATION.
7. THE MATERIALS, SYSTEMS, COMPONENTS AND WORK REQUIRED TO HAVE SPECIAL INSPECTION OR TESTING ARE OUTLINED ON THESE DRAWINGS ALONG WITH THE TYPE AND EXTENT OF EACH INSPECTION AND TEST AND WHETHER IT IS CONTINUOUS OR PERIODIC IN NATURE. IF IT IS NOT INDICATED OTHERWISE, INSPECTION SHALL BE CONTINUOUS.
8. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT SHALL PROVIDE A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT AS REQUIRED BY CBC SECTION 1704.4.

ADDITIONAL SEISMIC RESISTANCE CASES:

| SEISMIC DESIGN CATEGORIES REQUIRED IN | THE FOLLOWING IS A SUMMARY OF THE SEISMIC SYSTEMS, SEISMIC COMPONENTS AND SEISMIC-FORCE-RESISTING SYSTEMS                                  |
|---------------------------------------|--|
| SEISMIC FORCE RESISTING SYSTEMS       |  |
| C, D, E, F                            | A. ALL MOMENT FRAMES, BRACED FRAMES, CANTILEVERED COLUMNS, SHEARWALLS, AND THEIR FOUNDATIONS, AND DRAGS, CHORDS, FLOOR AND ROOF DIAPHRAGMS |
| C, D, E, F                            | B. ALL DRAGS, CHORDS, FLOOR AND ROOF DIAPHRAGMS  |
| D, E, F                               | C. ALL FREE STANDING MASONRY WALLS   |
| ADDITIONAL SYSTEMS AND COMPONENTS     |  |
| C, D, E, F                            | A. ANCHORAGE OF ELECTRICAL EQUIPMENT USED FOR EMERGENCY OR STANDBY POWER SYSTEMS INCLUDING TELECOM CABINETS                                |
| D, E, F                               | B. EXTERIOR WALL PANELS AND THEIR ANCHORAGE  |
| D, E, F                               | C. SUSPENDED CEILING SYSTEMS AND THEIR ANCHORAGE   |

| SPECIAL INSPECTION  | FREQUENCY | REFERENCED STANDARD |
|---|-----------|---------------------|
| COLD-FORMED STEEL FRAMING   |           |                     |
| 1. DURING WELDING OPERATIONS OF ELEMENTS OF THE SEISMIC-FORCE-RESISTING SYSTEM.   | PERIODIC  | CBC 1705.10.2       |
| 2. SCREW ATTACHMENT, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM, INCLUDING STRUTS, BRACES & HOLD-DOWNS. | PERIODIC  |                     |

| SPECIAL INSPECTION   | FREQUENCY  | REFERENCED STANDARD   |
|--|------------|-----------------------|
| CONCRETE (APPLICABLE TO STRUCTURAL CONCRETE OVER F'C = 2,500 PSI)  |            |                       |
| 1. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED | CONTINUOUS |                       |
| 2. INSPECT EPOXY ANCHORS AND EXPANSION ANCHORS INSTALLED IN HARDENED CONCRETE.   | CONTINUOUS | PRODUCT ICC-ES REPORT |

SPECIAL INSPECTION PER CITY OF SAN DIEGO:

1. NOTICE TO THE APPLICANT/OWNER/OWNER'S AGENT/ ARCHITECT OR ENGINEER OF RECORD: BY USING THIS PERMITTED CONSTRUCTION DRAWINGS FOR THE CONSTRUCTION /INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF SAN DIEGO FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENTS, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND, AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODES.
2. NOTICE TO THE CONTRACTOR/ BUILDER/ INSTALLER/ SUB-CONTRACTOR/ OWNER-BUILDER: BY USING THESE PERMITTED CONSTRUCTION DRAWINGS FOR CONSTRUCTION/ INSTALLATION OF THE WORK SPECIFIED HEREIN, YOU ACKNOWLEDGE AND ARE AWARE OF, THE REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS. YOU AGREE TO COMPLY WITH THE REQUIREMENTS OF THE CITY OF SAN DIEGO FOR SPECIAL INSPECTIONS, STRUCTURAL OBSERVATIONS, CONSTRUCTION MATERIAL TESTING AND OFF-SITE FABRICATION OF BUILDING COMPONENT, CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS AND, AS REQUIRED BY THE CALIFORNIA CONSTRUCTION CODES.
3. THE SPECIAL INSPECTOR MUST BE CERTIFIED BY THE CITY OF SAN DIEGO, DEVELOPMENT SERVICES, IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION.
4. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES, FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND EQUIPMENT.
5. FABRICATOR MUST BE APPROVED BY THE CITY OF SAN DIEGO, DEVELOPMENT SERVICES FOR THE FABRICATION OF MEMBERS AND ASSEMBLIES ON THE PREMISES OF THE FABRICATOR'S SHOP.
6. FABRICATOR SHALL SUBMIT AN 'APPLICATION TO PERFORM OFF-SITE FABRICATION' TO THE INSPECTION SERVICES DIVISION FOR APPROVAL PRIOR TO COMMENCEMENT OF FABRICATION.
7. THE SPECIAL INSPECTIONS IDENTIFIED ON PLANS ARE, IN ADDITION TO, AND NOT A SUBSTITUTE FOR, THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A CITY'S BUILDING INSPECTOR.

STRUCTURAL OBSERVATION:

STRUCTURAL OBSERVATIONS BY AN INDEPENDENT ENGINEER OR THE ENGINEER OF RECORD SHALL BE MADE IN ACCORDANCE WITH SECTION 1704.5 OF THE 2016 CALIFORNIA BUILDING CODE AT THE EXPENSE OF THE OWNER TO REVIEW THE CONSTRUCTION OF THE PROJECT. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES, AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR(S).

THE OWNER SHALL EMPLOY THE CIVIL OR STRUCTURAL ENGINEER OR THE ARCHITECT OF RECORD OR THEIR DESIGNATED AGENT TO PERFORM THE STRUCTURAL OBSERVATION.

EVIDENCE OF EMPLOYMENT BY THE OWNER SHALL BE PROVIDED TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT.

WHEN A PRECONSTRUCTION MEETING IS REQUIRED, IT SHALL BE ATTENDED BY THE GENERAL CONTRACTOR, APPROPRIATE SUBCONTRACTORS, AND DEPUTY INSPECTORS. THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS WHICH REQUIRE STRUCTURAL OBSERVATION WILL BE IDENTIFIED. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT.

REQUIRED OBSERVATIONS ARE TO OCCUR AT THE FOLLOWING STAGES OF CONSTRUCTION AS A MINIMUM, FOR EACH BUILDING OR STRUCTURE AS APPLICABLE. NOTIFY THE ENGINEER 72 HOURS PRIOR TO EACH OBSERVATION.

| REQUIRED IF CHECKED | ITEMS   |
|---------------------|---|
|                     | A. PRECONSTRUCTION MEETING SHALL BE ATTENDED BY THE STRUCTURAL OBSERVER OF RECORD.  |
|                     | B. PRIOR TO PLACEMENT OF CONCRETE FOR THE FIRST FOUNDATION POUR.  |
|                     | C. PRIOR TO PLACEMENT OF CONCRETE IN WALL FRAMES.   |
|                     | D. UPON COMPLETION OF WELDING AT STEEL MOMENT FRAMES.   |
|                     | E. UPON COMPLETED ERECTION OF ALL STRUCTURAL STEEL.   |
|                     | F. PRIOR TO PLACEMENT OF GROUT IN FIRST LIFT.   |
|                     | G. PRIOR TO GROUTING THE TOP 48" OF MASONRY WALLS AT FLOOR AND ROOF LINE. (CHORD REINFORCING)   |
|                     | H. AFTER NAILING OF ALL PLYWOOD SHEAR WALLS AND ALL HOLDOWNS, DRAGS, STRAPS ARE IN PLACE, AND PRIOR TO COVERING ANY OF THE SHEAR WALLS. |
|                     | K. AFTER NAILING OF FLOOR PLYWOOD DIAPHRAGM(S); PRIOR TO COVERING.  |
|                     | J. AFTER NAILING OF ROOF PLYWOOD DIAPHRAGM(S); PRIOR TO COVERING.   |
|                     | K. PRIOR TO ROOFING OR PLACEMENT OF CONCRETE FILL OVER METAL DECK ROOFS OR FLOORS.  |
|                     | L. FINAL WALK THROUGH UPON COMPLETION OF ALL STRUCTURAL ASPECTS OF THE PROJECT PRIOR TO ARCHITECTURAL FINISHES.                         |
| ●                   | M. NO STRUCTURAL OBSERVATION REQUIRED   |

6. A REPORT PREPARED ON DEPARTMENT FORMS OR FORMS PREPARED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED, SHALL BE LEFT AT THE PROJECT SITE FOR THE CONTRACTOR TO FORWARD TO THE BUILDING INSPECTOR. THE FORMS SHALL BE WET SIGNED AND SEALED BY THE RESPONSIBLE STRUCTURAL OBSERVER, ONE SIGNED COPY OF THE REPORT SHALL BE PROVIDED TO THE OWNER, CONTRACTOR, AND DEPUTY INSPECTOR, AS REQUESTED.
7. A FINAL OBSERVATION REPORT MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STRUCTURAL SYSTEM GENERALLY CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS.
8. IF THE OWNER ELECTS TO CHANGE THE STRUCTURAL OBSERVER OF RECORD, THE OWNER SHALL:

A. NOTIFY BUILDING INSPECTOR IN WRITING BEFORE THE NEXT INSPECTION.

B. CALL AN ADDITIONAL PRECONSTRUCTION MEETING, AND FURNISH THE REPLACEMENT STRUCTURAL OBSERVER WITH A COPY OF PREVIOUS OBSERVER'S REPORTS.

C. THE NEW OBSERVER SHALL BE RESPONSIBLE FOR APPROVAL OF THE CORRECTION OF ALL THE ORIGINAL OBSERVED NOTED DEFICIENCIES.
9. THE ENGINEER OR ARCHITECT OF RECORD SHALL DEVELOP ALL CHANGES TO THE STRUCTURAL SYSTEMS AT THE CONTRACTOR'S EXPENSE.
10. STRUCTURAL OBSERVATION SHALL BE PERFORMED BY NATIONAL ENGINEERING & CONSULTING, INC.

FAA PART 77 REQUIREMENTS:

1. A PRE-CONSTRUCTION INSPECTION IS REQUIRED DUE TO THE HEIGHT OF THE PROPOSED STRUCTURE IN RELATION TO THE FAA PART 77 NOTIFICATION SURFACE REQUIREMENTS. THE PRE-CONSTRUCTION INSPECTION MUST BE SCHEDULED AND CLEARED BY THE FIELD INSPECTOR BEFORE ANY SUBSEQUENT INSPECTIONS CAN BE SCHEDULED. CALL (858) 581-7111 TO SCHEDULE THE PRE-CONSTRUCTION INSPECTION. CONTACT THE INSPECTION SERVICES OFFICE AT (858) 492-5070, IF YOU HAVE ANY QUESTIONS PERTAINING TO THE PRE-CONSTRUCTION INSPECTION.

| SPECIAL INSPECTION   | FREQUENCY  | REFERENCED STANDARD  |
|--|------------|--|
| STEEL CONSTRUCTION   |            |  |
| 1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:  | PERIODIC   | APPLICABLE ASTM MATERIAL SPECIFICATIONS: AISC ASD SECTION A3.4; AISC LRFD SECTION A3.3 |
| a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.  |            |  |
| b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.  |            |  |
| 2. INSPECTION OF HIGH-STRENGTH BOLTING:  |            |  |
| a. BEARING TYPE CONNECTIONS  | PERIODIC   | AISC LRFD SECTION M2.5   |
| b. SLIP-CRITICAL CONNECTIONS   | CONTINUOUS |  |
| 3. MATERIAL VERIFICATION OF STRUCTURAL STEEL:  |            |  |
| a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.  |            | ASTM A 6 OR ASTM A 568   |
| b. MANUFACTURER'S CERTIFIED MILL TEST REPORTS. REQUIRED  |            |  |
| 4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:   |            |  |
| a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.   |            | AISC. ASD. SECTION A3.6 AISC LRFD SECTION A3.5   |
| b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED   |            |  |
| 5. INSPECTION OF WELDING:  |            |  |
| a. STRUCTURAL STEEL  |            |  |
| 1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS   | CONTINUOUS | AWS D1.1   |
| 2) MULTI-PASS FILLET WELDS   | CONTINUOUS |  |
| 3) SINGLE-PASS FILLET WELDS GREATER THAN 5/16" (7.9mm)   | CONTINUOUS |  |
| 4) SINGLE-PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16" (7.9mm)  | PERIODIC   | AWS D1.3   |
| 5) FLOOR AND DECK WELDS  | PERIODIC   |  |
| 6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS:  | PERIODIC   |  |
| a. DETAILS SUCH AS BRACING AND STIFFENING  |            |  |
| b. MEMBER LOCATIONS.   |            |  |
| c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.  |            |  |
| INSPECTION OF FABRICATORS  | PERIODIC   |  |
| 1. APPLICABLE ELEMENT (FABRICATOR CERTIFICATION REQUIREMENTS)  |            |  |
| a. STRUCTURAL STEEL (AISC CERTIFIED FOR CONVENTIONAL STEEL BUILDING)   |            |  |
| b. STEEL JOISTS/ JOIST GIRDERS (SJI MEMBER)  |            |  |
| c. STEEL ROOF DECK (SDI MEMBER)  |            |  |
| d. PRECAST CONCRETE WALLS PANELS (PCI GROUP C MANUFACTURER WITH C3 CERTIFICATION)  |            |  |
| e. LOAD BEARING CONCRETE MASONRY (NCMA MEMBER)   |            |  |
| 2. WHEN SPECIAL INSPECTIONS ARE REQUIRED BY BUILDING OFFICIAL  |            |  |
| a) FABRICATION AND IMPLEMENTATION PROCEDURES: THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION, CONTROL OF THE WORKMANSHIP, AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. |            |  |
| 3. WHEN SPECIAL INSPECTIONS ARE NOT REQUIRED BY THE BUILDING OFFICIAL  |            |  |
| a) UPON COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF THE COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.   |            |  |

GENERAL NOTES AND SPECIFICATIONS



15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
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|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

BANKERS  
HILL

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

GENERAL NOTES &  
SPECIFICATIONS

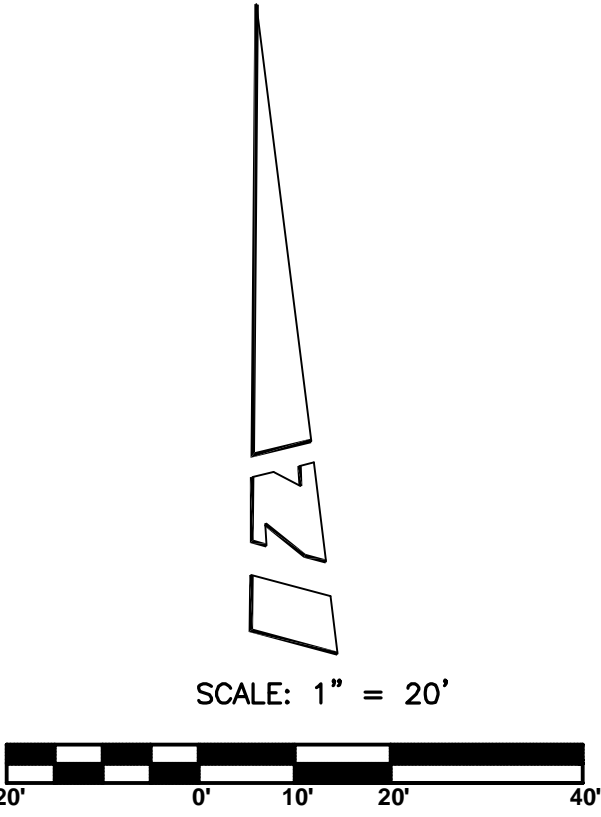
SHEET NUMBER:

T-4

SCALE:

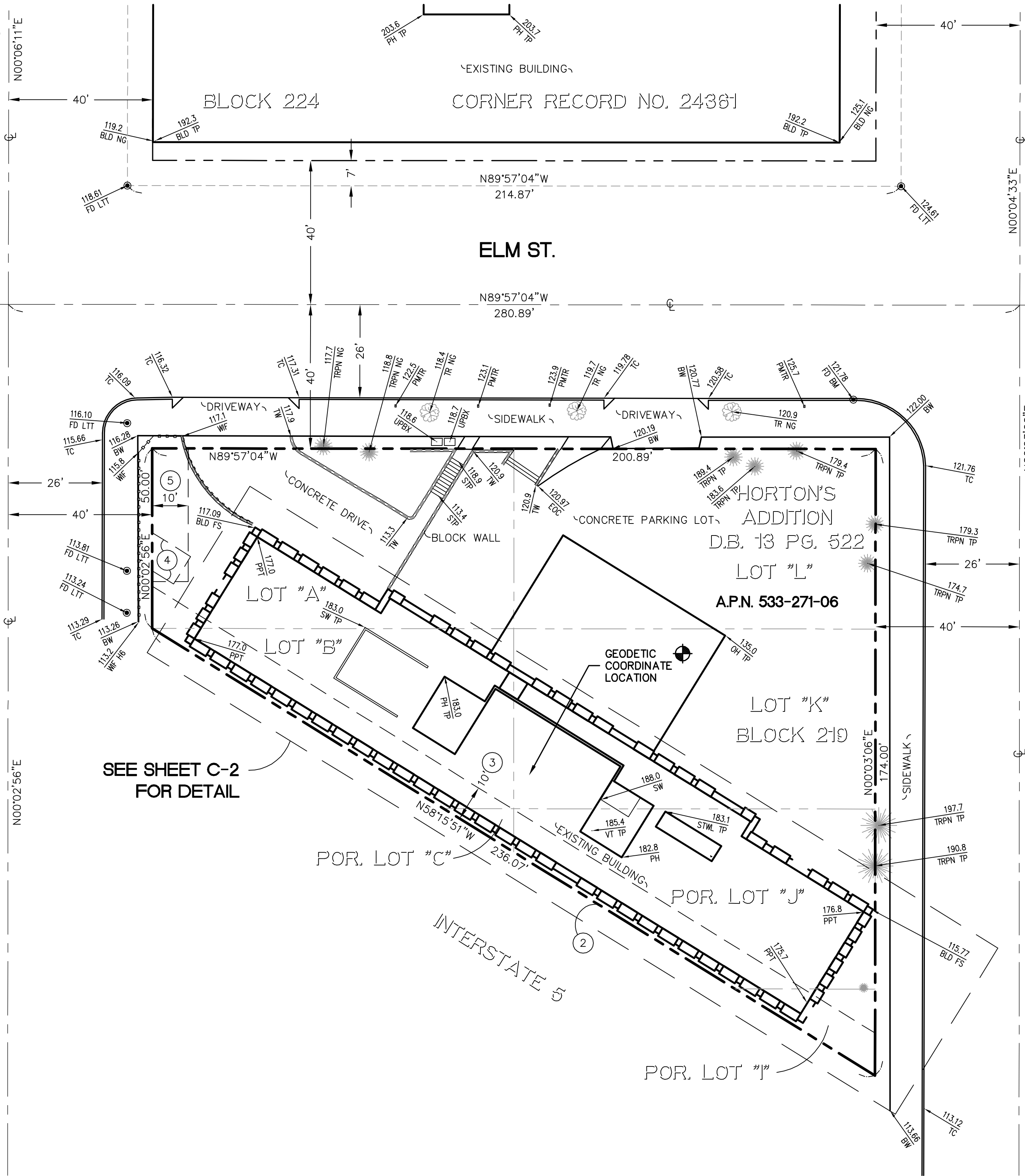
N.T.S.

1



- LEGEND:**
- ACU AIR CONDITIONING UNIT
  - ANTBX ANTENNA BOX
  - BCN BEACON
  - BLD BUILDING
  - BLWR BLOWER
  - BM BENCH MARK
  - BTS BTS UNIT
  - BW BACK OF WALK
  - CDT CONDUIT
  - CT CABLE TRAY
  - DK DECK
  - DR DOOR
  - EOC EDGE OF CONCRETE
  - FD FOUND
  - FF FINISHED FLOOR
  - FS FINISHED SURFACE
  - FSR FIRE SERVICE
  - GPS GPS ANTENNA
  - GV GAS VENT
  - H HEIGHT
  - IBeam I-BEAM
  - ISFPPT INSIDE FACE OF PARAPET
  - JBX JUNCTION BOX
  - LDR LADDER
  - LT LIGHT
  - LTT LEAD, TACK, AND TAG
  - NG NATURAL GROUND
  - OH OVERHANG
  - PH PENTHOUSE
  - PMTR PARKING METER
  - PO POP OUT
  - PPT PARAPET
  - RRD RAISED ROOF DECK
  - RRU RADIO REPEATING UNIT
  - STP STEP
  - STWL STAIRWELL
  - SW SCREEN WALL
  - TC TOP OF CURB
  - TG TOP OF GRATE
  - TP TOP
  - TR TREE
  - TRPN PINE TREE
  - TW TOP OF WALL
  - UA UTILITY AREA
  - UBX UTILITY BOX
  - UCAB UTILITY CABINET
  - UPBX UTILITY PULLBOX
  - UR UTILITY RACK
  - VT VENT
  - WIF WROUGHT IRON FENCE
  - BLOCK WALL
  - CENTERLINE
  - FIRE SERVICE
  - FOUND MONUMENT
  - GAS VENT
  - GPS ANTENNA
  - GRATE
  - ROOF VENT
  - WROUGHT IRON FENCE

FIRST AVE.



ASSESSOR'S IDENTIFICATION:

SAN DIEGO COUNTY A.P.N. 533-271-06

AREA:

0.51± ACRES PER SAN DIEGO COUNTY ASSESSOR

BENCH MARK REFERENCE:

CITY OF SAN DIEGO, CALIFORNIA, BENCH MARK, VERTICAL CONTROL (E16-010), INDEX NO. 2040 17194.

BRASS PLUG LOCATED ON SOUTHWEST CURB RETURN OF ELM STREET AND SECOND AVENUE.

ELEVATION: 121.787 FEET A.M.S.L.

LEGAL DESCRIPTION:

ALL THAT PORTION OF BLOCK 219 OF HORTON'S ADDITIONS, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF MADE BY L.L. LOCKLING ON FILE IN THE COUNTY RECORDER OF SAID COUNTY, LYING NORTHERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE EASTERLY LINE OF SAID BLOCK 219, SAID POINT BEING DISTANT NORTH 00° 06' 30" EAST, 126.68 FEET FROM THE SOUTHEASTERLY CORNER OF SAID BLOCK; THENCE NORTH 58° 12' 00" WEST, 236.02 FEET TO A POINT ON THE WESTERLY LINE OF SAID BLOCK, SAID POINT BEING DISTANT SOUTH 00° 06' 20" WEST, 50.00 FEET FROM THE NORTHWESTERLY CORNER OF SAID BLOCK 219.

TITLE REPORT IDENTIFICATION:

COMMONWEALTH LAND TITLE COMPANY, PRELIMINARY TITLE REPORT NO. 09200803, DATED AS OF MARCH 29, 2016.

DATE OF SURVEY:

APRIL 07, 2016

LIVING PLANTS STATEMENT:

THE HEIGHTS AND ELEVATIONS FOR THE TREES, BUSHES AND OTHER LIVING PLANTS SHOWN HEREON, SHOULD BE CONSIDERED APPROXIMATE (+/-) AND ONLY VALID FOR THE DATE OF THIS SURVEY. THEY ARE PROVIDED AS A GENERAL REFERENCE AND SHOULD NOT BE USED FOR DESIGN PURPOSES.

EASEMENT NOTES:

- EASEMENT(S) SHOWN HEREON ARE PER COMMONWEALTH LAND TITLE COMPANY, PRELIMINARY TITLE REPORT NO. 09200803, DATED AS OF MARCH 29, 2016.
- THE FACT THAT THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM INTERSTATE HIGHWAY 5, SEVERED FROM SAID LAND BY DOCUMENT RECORDED AUGUST 2, 1963, AS INSTRUMENT NO. 136216 AND MARCH 23, 1964, AS INSTRUMENT NO. 52725, BOTH OF OFFICIAL RECORDS.
  - AN EASEMENT GRANTED TO STATE OF CALIFORNIA FOR SEWER, RECORDED AUGUST 2, 1963 AS INSTRUMENT NO. 136216 OF OFFICIAL RECORDS.
  - AN EASEMENT GRANTED TO SAN DIEGO GAS & ELECTRIC COMPANY FOR PUBLIC UTILITIES, INGRESS AND EGRESS, RECORDED MARCH 22, 1970 AS INSTRUMENT NO. 89189 OF OFFICIAL RECORDS.
  - AN EASEMENT GRANTED TO SAN DIEGO GAS & ELECTRIC COMPANY FOR PUBLIC UTILITIES, INGRESS AND EGRESS, RECORDED JULY 7, 1970 AS INSTRUMENT NO. 118526 OF OFFICIAL RECORDS.
  - A MEMORANDUM OF LEASE TO VERIZON WIRELESS, RECORDED MAY 18, 2006, AS INSTRUMENT NO. 2006-0351003 OF OFFICIAL RECORDS. (EXACT LOCATION NOT GIVEN IN DOCUMENT)
- DENOTES ITEM PLOTTED HEREON

ISSUE STATUS

| REV. | DATE     | DESCRIPTION       | BY  |
|------|----------|-------------------|-----|
| 0    | 04/13/16 | ISSUED FOR REVIEW | MDL |
| 1    | 05/03/16 | ADDED TITLE INFO. | JA  |
|      |          |                   |     |
|      |          |                   |     |
|      |          |                   |     |
|      |          |                   |     |
|      |          |                   |     |
|      |          |                   |     |
|      |          |                   |     |
|      |          |                   |     |

**BERT HAZE**  
AND ASSOCIATES, INC.  
LAND SURVEYING & MAPPING  
3188 AIRWAY AVENUE, SUITE K1  
COSTA MESA, CALIFORNIA 92626  
714 557-1567 OFFICE  
JN. 1502.031

PROPRIETARY INFORMATION

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS PROPRIETARY & CONFIDENTIAL TO VERIZON WIRELESS  
ANY USE OR DISCLOSURE OTHER THAN AS IT RELATES TO VERIZON WIRELESS IS STRICTLY PROHIBITED

**verizon**  
15505 SAND CANYON AVENUE, D1  
IRVINE, CA 92618



**BANKERS HILL**  
111 ELM ST.  
SAN DIEGO, CA 92101

SHEET TITLE:  
TOPOGRAPHIC SURVEY

C-1

SEE SHEET C-2 FOR SITE DETAILS

ISSUE STATUS

| REV. | DATE     | DESCRIPTION       | BY  |
|------|----------|-------------------|-----|
| 0    | 04/13/16 | ISSUED FOR REVIEW | MDL |
| 1    | 05/03/16 | ADDED TITLE INFO. | JA  |
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714 557-1567 OFFICE  
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VERIZON WIRELESS

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TO VERIZON WIRELESS IS STRICTLY PROHIBITED

**verizon**

15505 SAND CANYON AVENUE, D1  
IRVINE, CA 92618

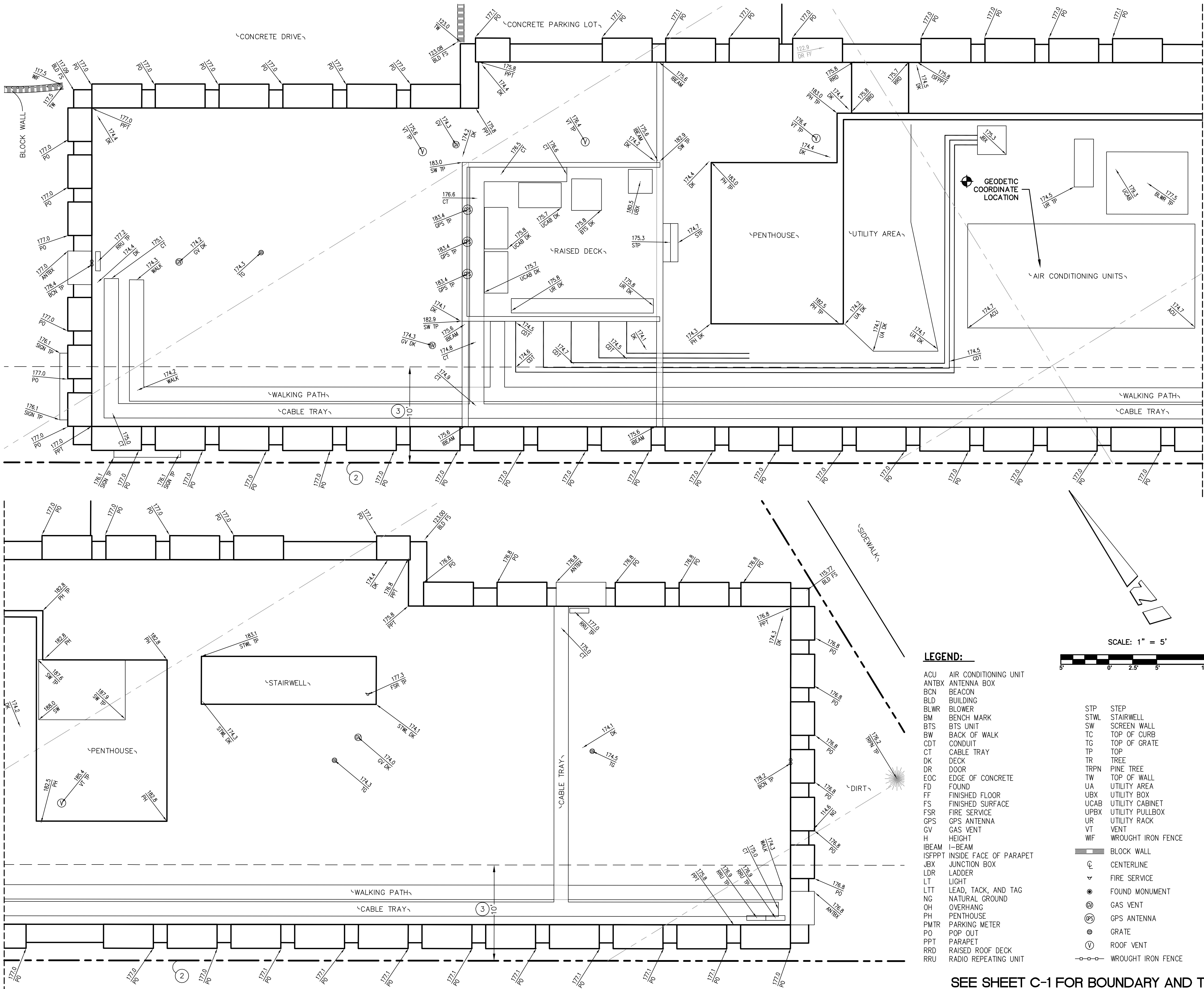


**BANKERS HILL**

111 ELM ST.  
SAN DIEGO, CA 92101

SHEET TITLE:  
TOPOGRAPHIC SURVEY

**C-2**



MATCH LINE - SEE BELOW

MATCH LINE - SEE ABOVE

LEGEND:

- |        |                        |      |                    |
|--------|------------------------|------|--------------------|
| ACU    | AIR CONDITIONING UNIT  | STP  | STEP               |
| ANTBX  | ANTENNA BOX            | STWL | STAIRWELL          |
| BCN    | BEACON                 | SW   | SCREEN WALL        |
| BLD    | BUILDING               | TC   | TOP OF CURB        |
| BLWR   | BLOWER                 | TG   | TOP OF GRATE       |
| BM     | BENCH MARK             | TP   | TOP                |
| BTS    | BTS UNIT               | TR   | TREE               |
| BW     | BACK OF WALK           | TRPN | PINE TREE          |
| CDT    | CONDUIT                | TW   | TOP OF WALL        |
| CT     | CABLE TRAY             | UA   | UTILITY AREA       |
| DK     | DECK                   | UBX  | UTILITY BOX        |
| DR     | DOOR                   | UCAB | UTILITY CABINET    |
| EOC    | EDGE OF CONCRETE       | UPBX | UTILITY PULLBOX    |
| FD     | FOUND                  | UR   | UTILITY RACK       |
| FF     | FINISHED FLOOR         | VT   | VENT               |
| FS     | FINISHED SURFACE       | WIF  | WROUGHT IRON FENCE |
| FSR    | FIRE SERVICE           |      |                    |
| GPS    | GPS ANTENNA            |      |                    |
| GV     | GAS VENT               |      |                    |
| H      | HEIGHT                 |      |                    |
| IBeam  | I-BEAM                 |      |                    |
| ISFPPT | INSIDE FACE OF PARAPET |      |                    |
| JBX    | JUNCTION BOX           |      |                    |
| LDR    | LADDER                 |      |                    |
| LT     | LIGHT                  |      |                    |
| LTT    | LEAD, TACK, AND TAG    |      |                    |
| NG     | NATURAL GROUND         |      |                    |
| OH     | OVERHANG               |      |                    |
| PH     | PENTHOUSE              |      |                    |
| PMTR   | PARKING METER          |      |                    |
| PO     | POP OUT                |      |                    |
| PPT    | PARAPET                |      |                    |
| RRD    | RAISED ROOF DECK       |      |                    |
| RRU    | RADIO REPEATING UNIT   |      |                    |

SEE SHEET C-1 FOR BOUNDARY AND TITLE INFO.





15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

**BANKERS HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

A-1

NOTES:

1. THIS PROJECT PROPOSES NO DEVELOPMENT IMPROVEMENTS OUTSIDE THE EXISTING BUILDING FOOTPRINT FOR THIS DISCRETIONARY REVIEW AND THEREFORE DOES NOT REQUIRE ANY PERMANENT WATER BEST MANAGEMENT PRACTICES.
2. NO EXISTING PARKING SPACES WILL BE USED OR REMOVED BY THIS PROJECT.
3. THIS IS ROOF TOP INSTALLATION ON AN EXISTING FACILITY AND NO GROUND DISTURBANCE OR TRENCHING IS PROPOSED BY THIS PROJECT.
4. TOPOGRAPHY WAS OBTAINED BY BERT HAZE AND ASSOCIATES, INC., DATED APRIL 07, 2016, NORTH AMERICAN DATUM 1983.
5. THIS PROJECT PROPOSES NO WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
6. PRIOR TO ISSUANCE OF ANY CONSTRUCTION PERMIT, THE PERMITTEE SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH CHAPTER 14, ARTICLE 2, DIVISION 1 (GRADING REGULATIONS) OF THE SAN DIEGO MUNICIPAL CODE, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.
7. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT THE PERMITTEE SHALL SUBMIT A WATER POLLUTION CONTROL PLAN (WPCP). THE WPCP SHALL BE PREPARED IN ACCORDANCE WITH THE GUIDELINES IN APPENDIX G OF THE CITY'S STORM WATER STANDARDS.

DAMAGE TO EXISTING CURB, GUTTER, AND SIDEWALK ALONG ELM STREET TO BE REPAIRED AND BROUGHT INTO ADA COMPLIANCE BY VERIZON WIRELESS AS PART OF PROPOSED SCOPE OF CONSTRUCTION WORK.

EXISTING PROPERTY LINE  
N89°57'04"W. 200.89'

EXISTING PARKING LOT AREA

1  
A-3

2  
A-3

APN: 533-271-06-00

TOPOGRAPHY WAS OBTAIN BY BERT HAZE AND ASSOCIATES, INC., DATED APRIL 07, 2016, DATUM

EXISTING PROPERTY LINE  
N0°03'16"W. 174.00'

SECTOR "C"  
0°  
AZIMUTH

SECTOR "A"  
90°  
AZIMUTH

1  
A-4

2  
A-4

SECTOR "A2"  
120°  
AZIMUTH

SECTOR "B"  
275°  
AZIMUTH

1  
A-5

2  
A-5

1  
A-6

2  
A-6

EXISTING VERIZON WIRELESS ANTENNA  
SECTOR 'B' EQUIPMENT  
TO BE REMOVED  
REFER TO SECTOR 'B' DEMO PLAN ON  
SHEET A-1.1 FOR MORE INFORMATION

EXISTING VERIZON WIRELESS ANTENNA  
SECTOR 'C' EQUIPMENT  
TO BE REMOVED  
REFER TO SECTOR 'C' DEMO PLAN ON  
SHEET A-1.1 FOR MORE INFORMATION

EXISTING VERIZON WIRELESS ANTENNA  
SECTOR 'A' EQUIPMENT  
TO BE REMOVED  
REFER TO SECTOR 'A' DEMO PLAN ON  
SHEET A-1.1 FOR MORE INFORMATION

EXISTING BUILDING &  
LOCATION OF  
VERIZON WIRELESS  
LEASE AREAS  
REFER TO ROOF PLAN ON  
SHEET A-1.1 FOR MORE INFORMATION

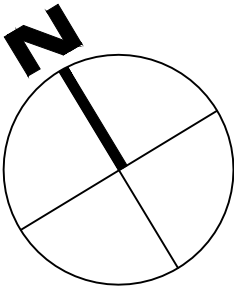
EXISTING BLOCK WALL

EXISTING PORTE COCHERE

EXISTING CONCRETE DRIVE

EXISTING PROPERTY LINE  
N00°02'56"E. 50.00'

EXISTING PROPERTY LINE  
N58°15'51"W. 236.07'



0 5' 10'

SCALE:

1"=10'

1

SITE PLAN



15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

**BANKERS HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

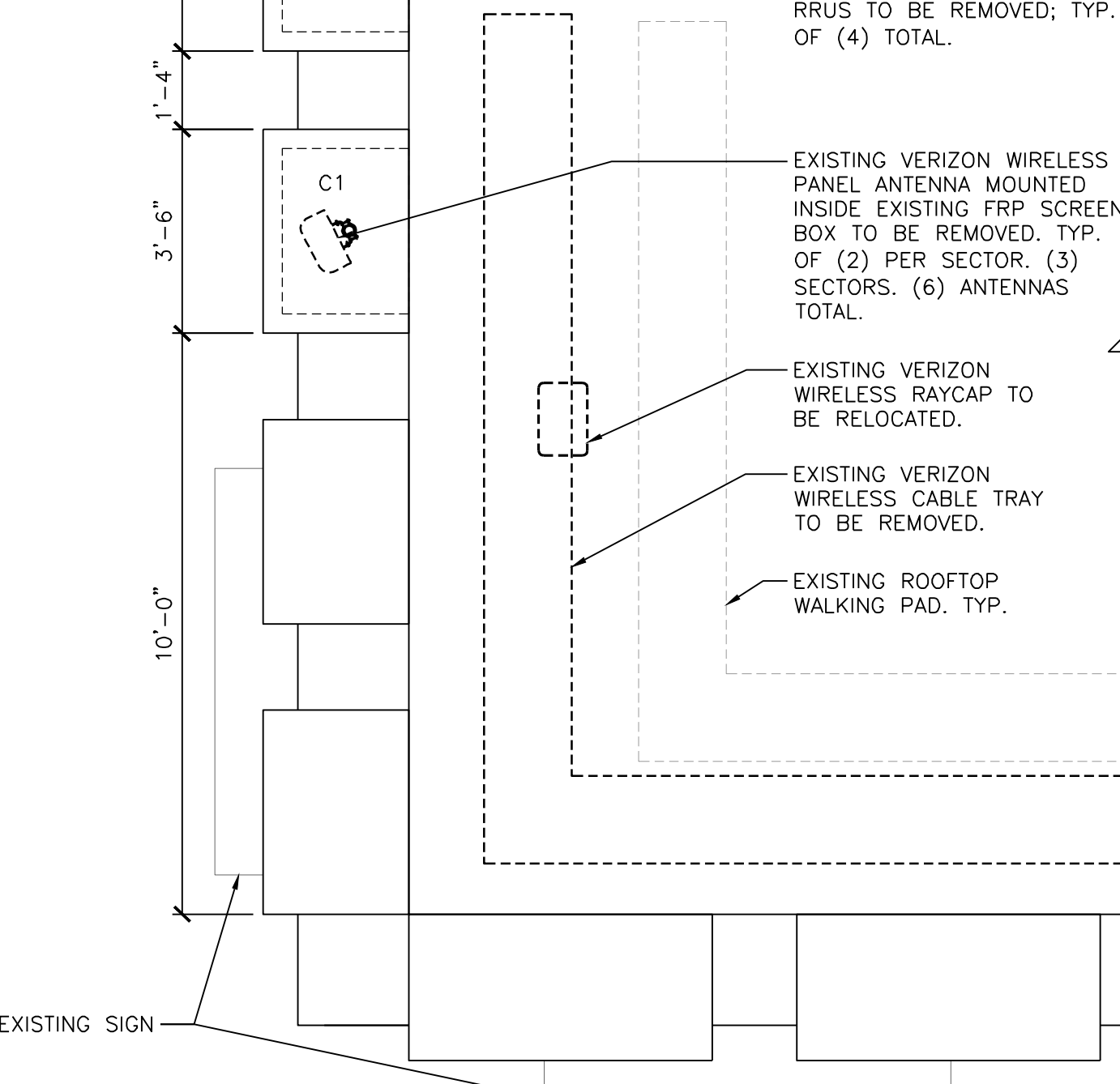
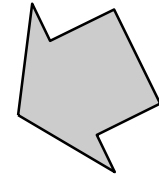
SHEET TITLE:

**EXISTING/DEMO &  
PROPOSED  
ROOF PLANS**

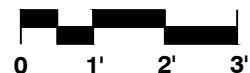
SHEET NUMBER:

**A-1.1**

**SECTOR "B"**  
**275°**  
**AZIMUTH**



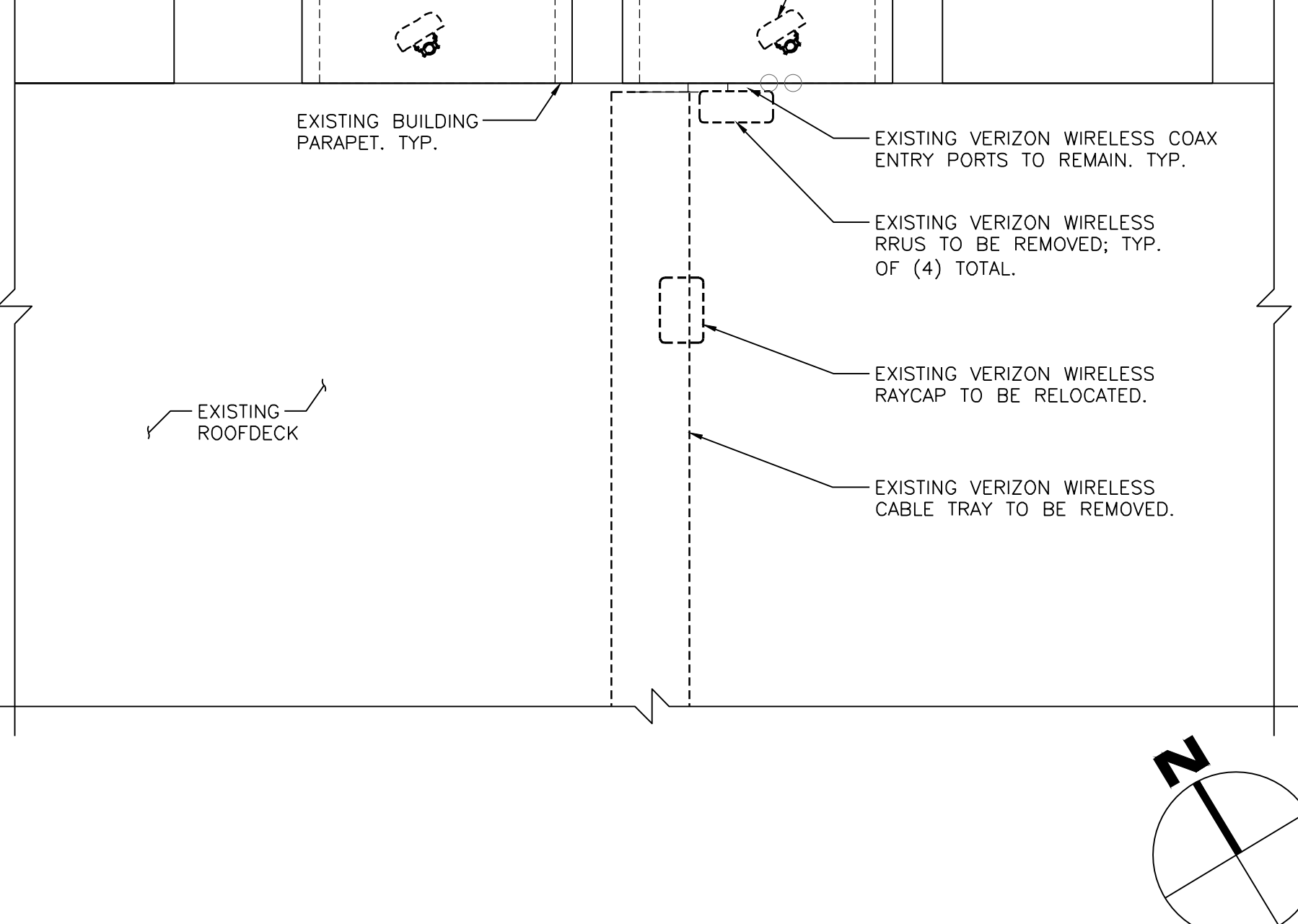
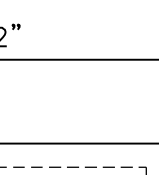
EXISTING SECTOR 'B' - DEMO PLAN



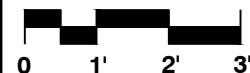
SCALE:  
3/8"=1'-0"

1

**SECTOR "C"**  
**0°**  
**AZIMUTH**



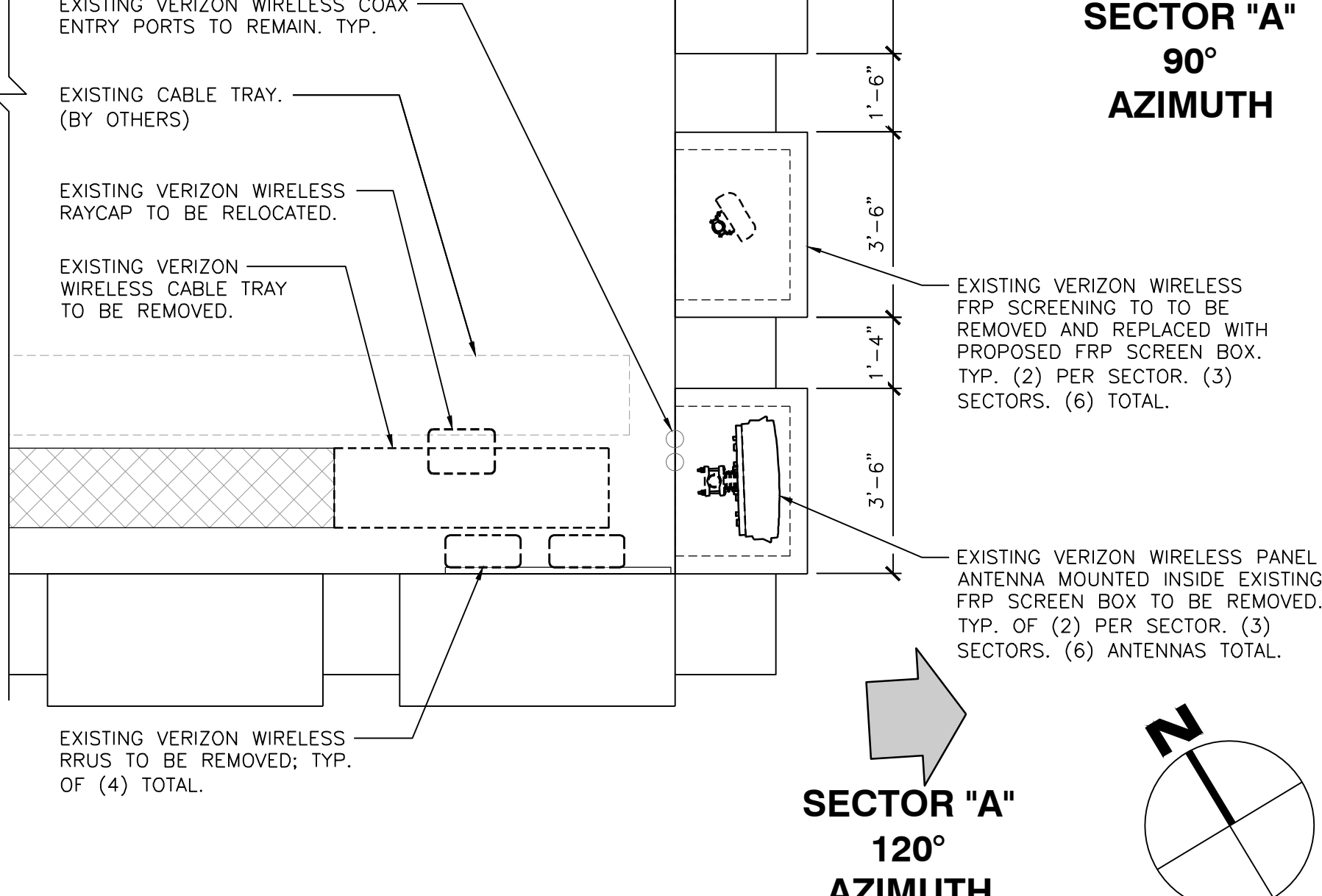
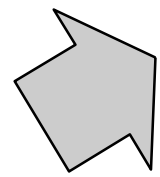
EXISTING SECTOR 'C' - DEMO PLAN



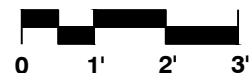
SCALE:  
3/8"=1'-0"

2

**SECTOR "A"**  
**90°**  
**AZIMUTH**



EXISTING SECTOR 'A' - DEMO PLAN

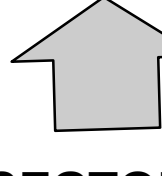


SCALE:  
3/8"=1'-0"

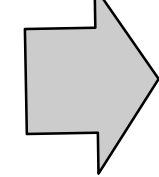
3

**EXISTING VERIZON  
WIRELESS EQUIPMENT  
LEASE AREA**  
REFER SHEET A-2.1 FOR MORE INFORMATION

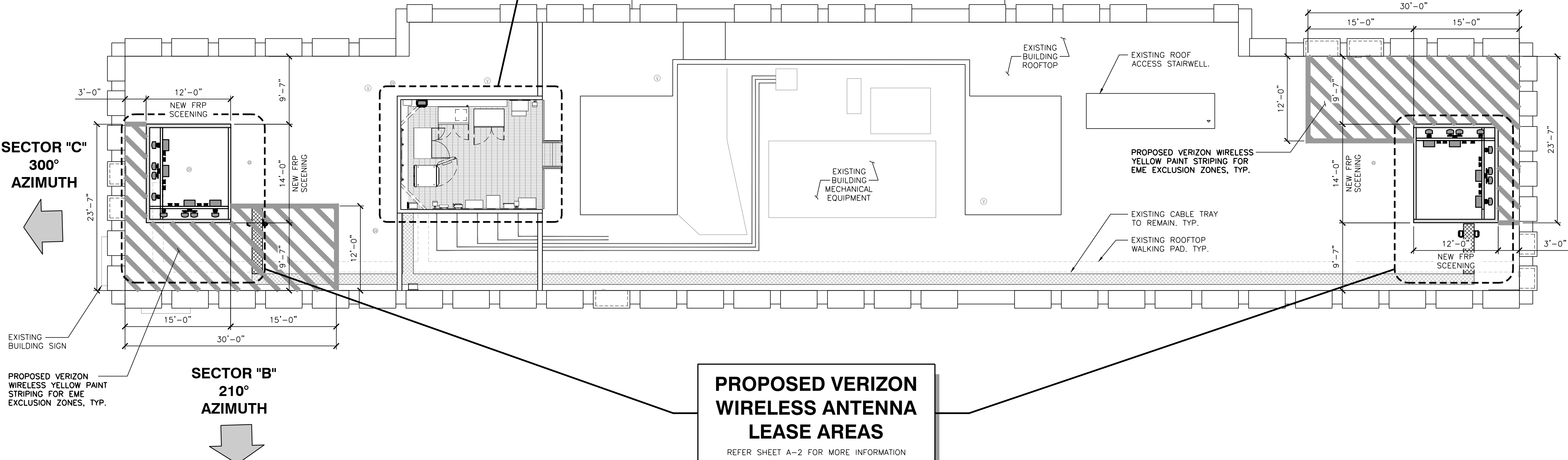
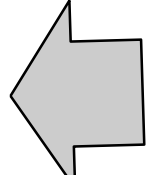
**SECTOR "D"**  
**30°**  
**AZIMUTH**



**SECTOR "A"**  
**120°**  
**AZIMUTH**

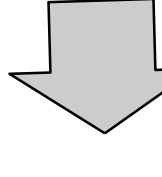


**SECTOR "C"**  
**300°**  
**AZIMUTH**



**PROPOSED VERIZON  
WIRELESS ANTENNA  
LEASE AREAS**  
REFER SHEET A-2 FOR MORE INFORMATION

**SECTOR "B"**  
**210°**  
**AZIMUTH**



PROPOSED ROOF PLAN



SCALE:  
1"=10'

1



15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

**BANKERS HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

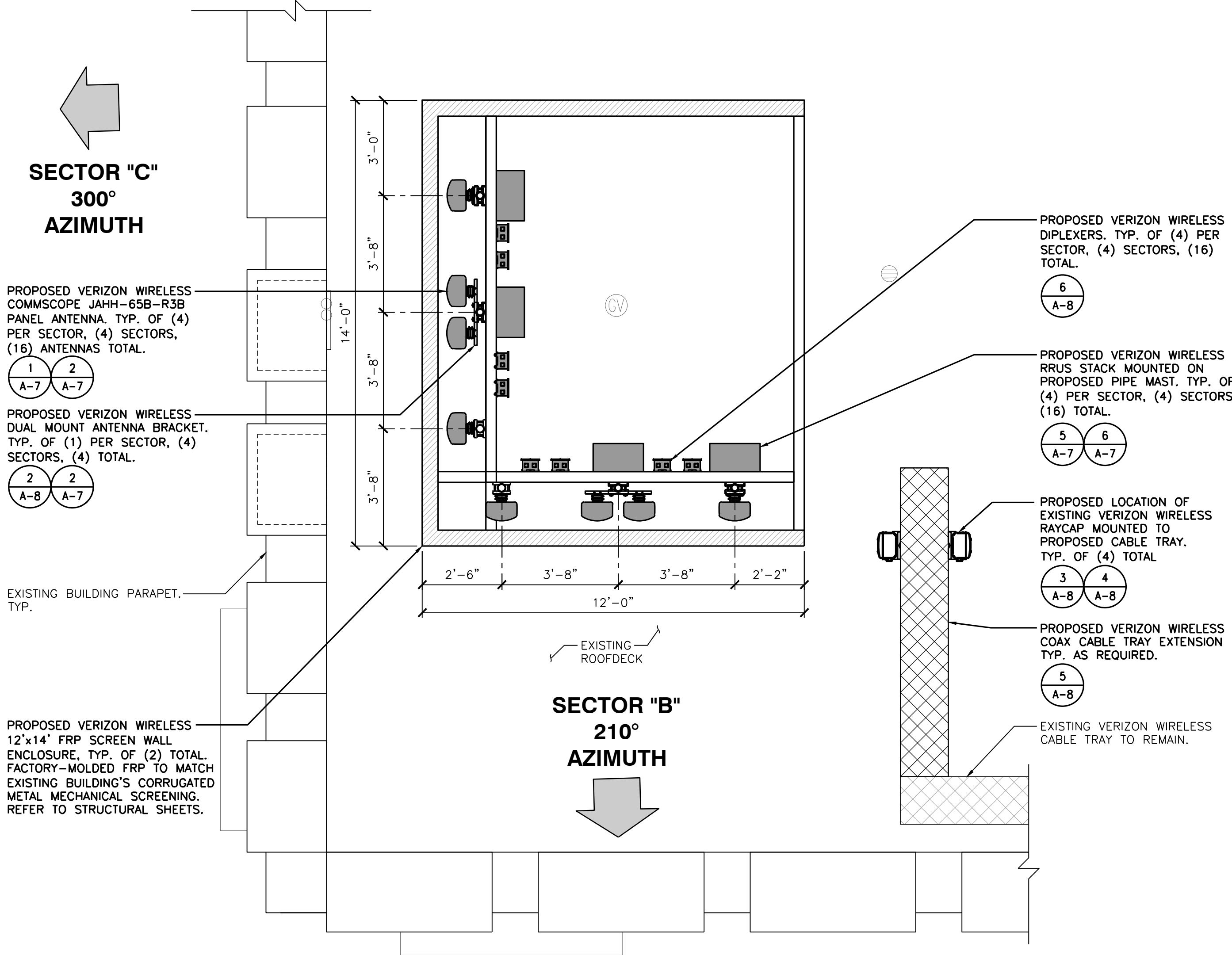
SEAL:

SHEET TITLE:

**EXISTING & PROPOSED  
ANTENNA LAYOUT  
PLANS**

SHEET NUMBER:

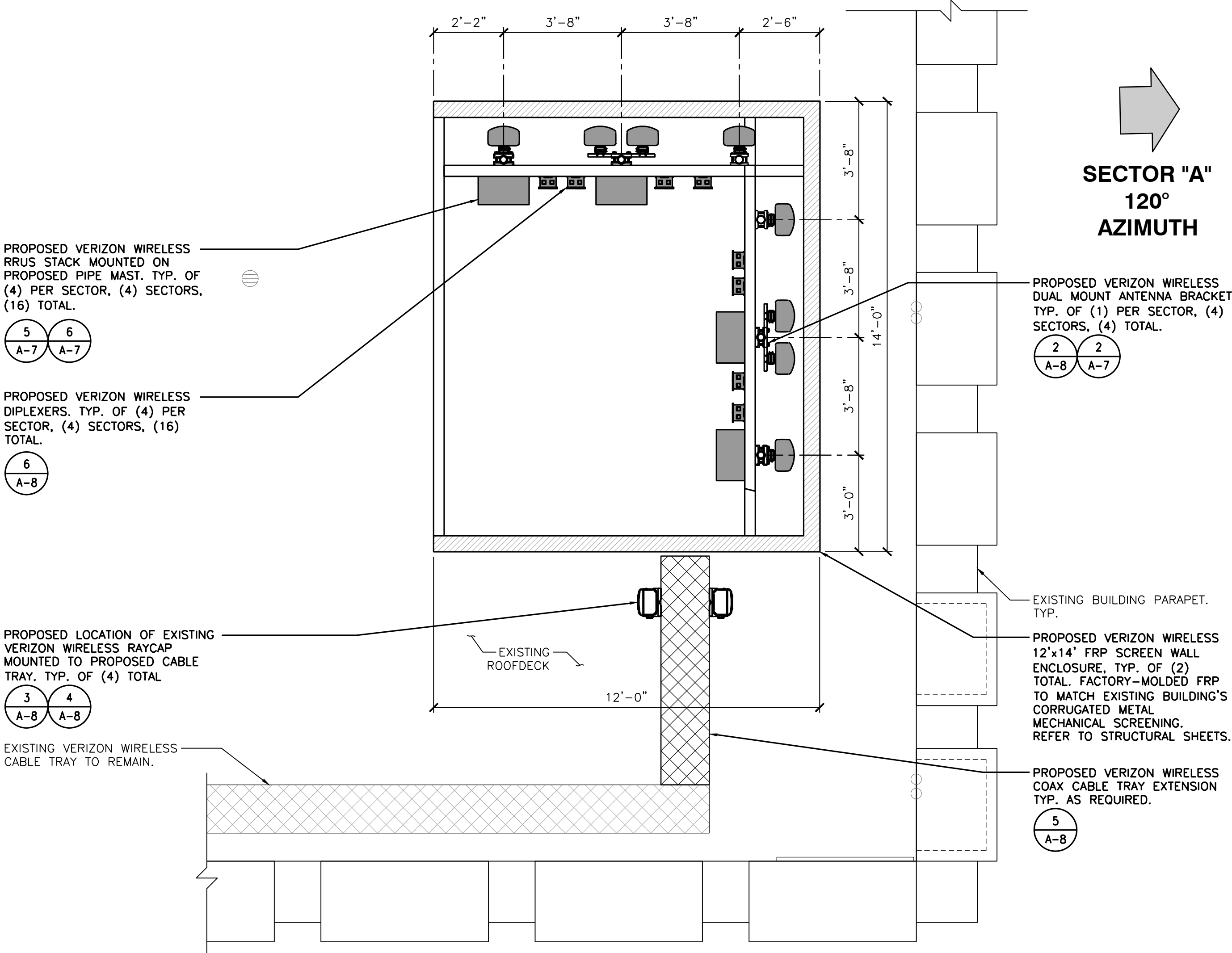
**A-2**



PROPOSED ANTENNA LAYOUT - SECTORS 'B' AND 'C'



1



PROPOSED ANTENNA LAYOUT - SECTORS 'A' AND 'D'



2





15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



27 ORCHARD LAKE FOREST, CA 92630  
PHONE: (949) 716-9990 | FAX: (949) 716-9997

CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

**BANKERS HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

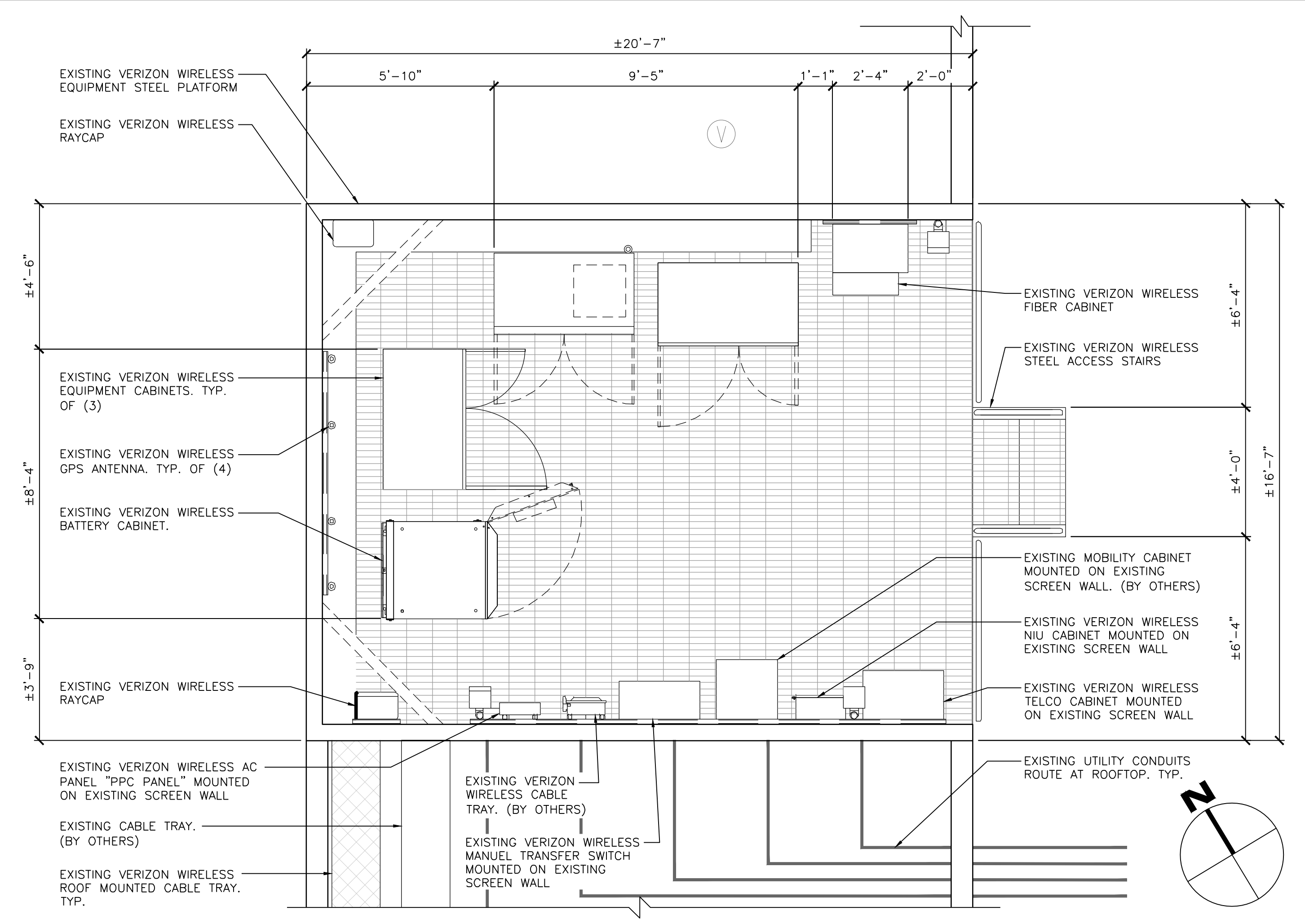
SHEET TITLE:

EXISTING & PROPOSED  
EQUIPMENT LAYOUT  
PLANS

SHEET NUMBER:

A-2.1

NOT USED



NOT USED

SCALE: N.T.S. 1

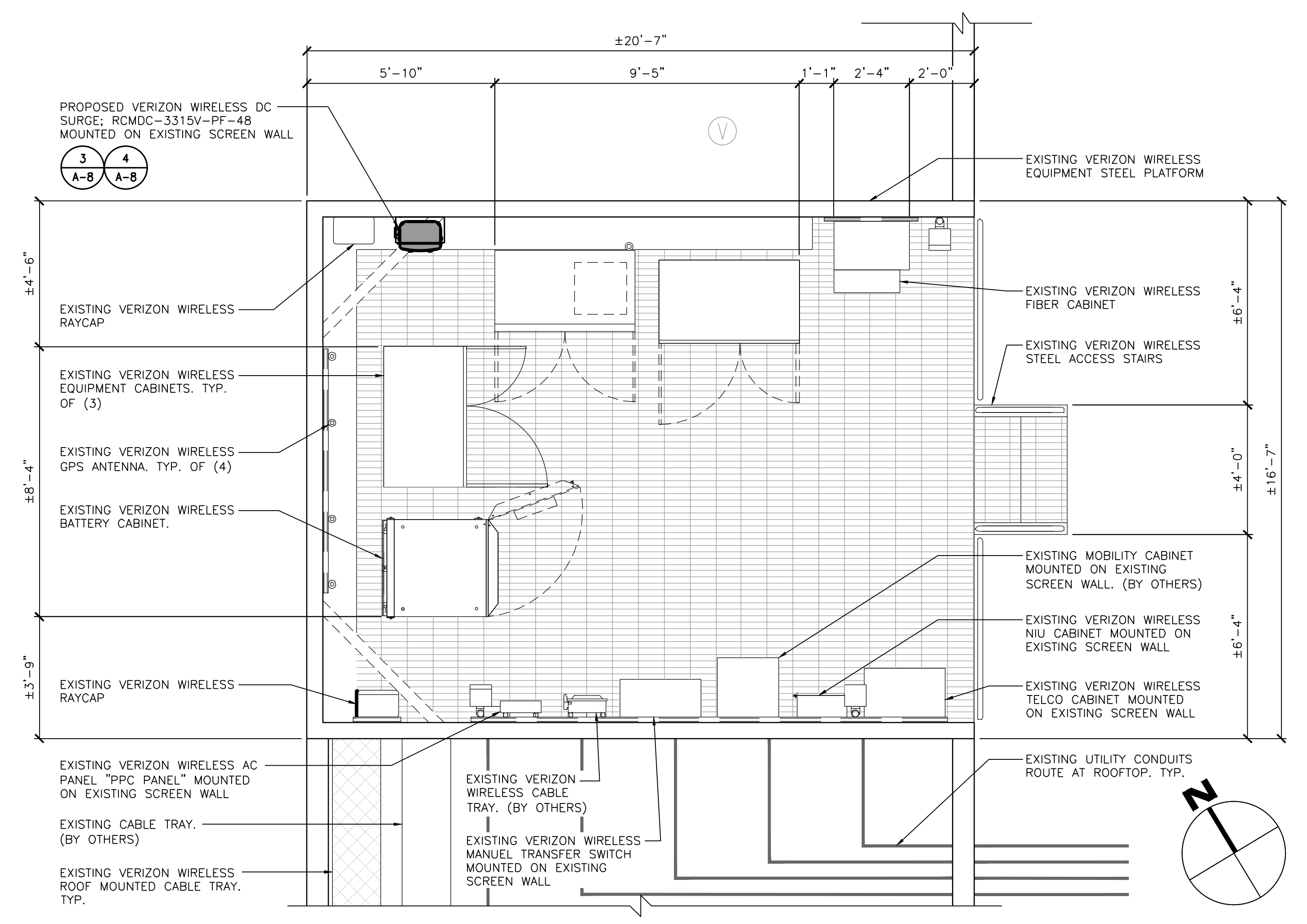
EXISTING EQUIPMENT LAYOUT PLAN



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

3

NOT USED



NOT USED

SCALE: N.T.S. 2

PROPOSED EQUIPMENT LAYOUT PLAN



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

4



15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

**BANKERS  
HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

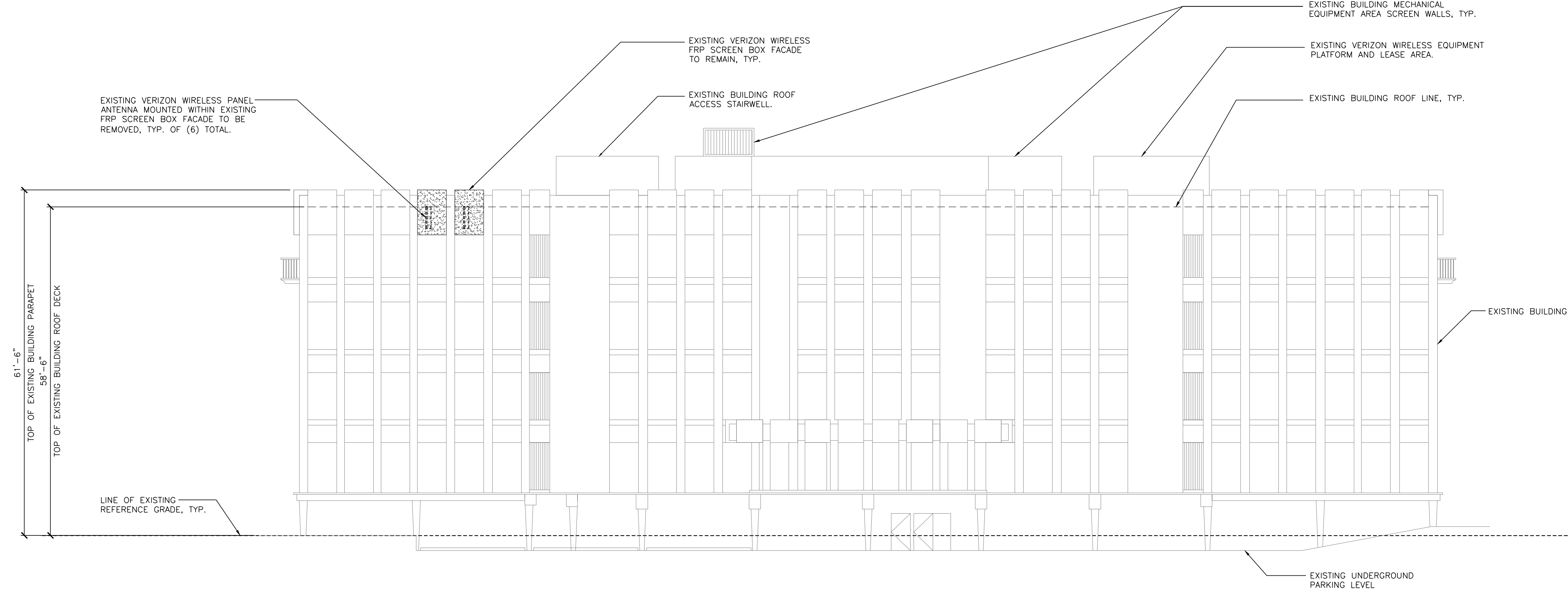
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SHEET TITLE:

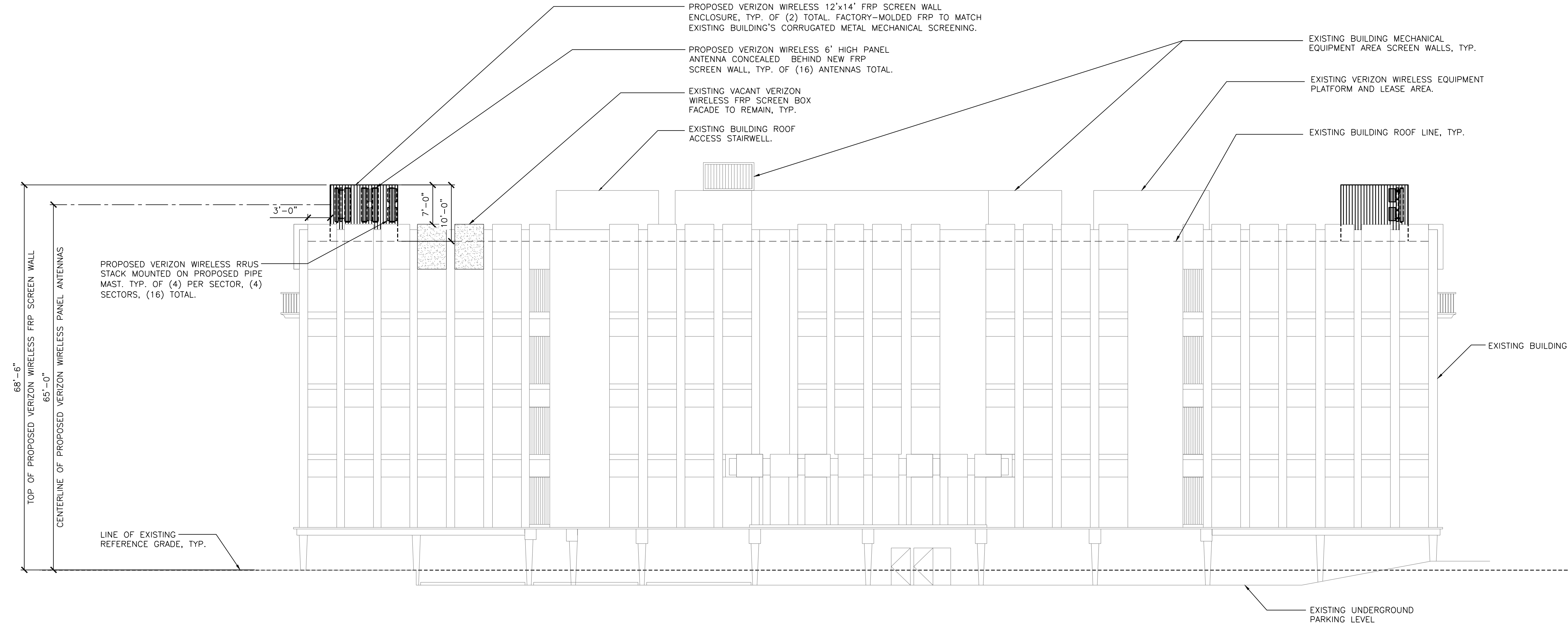
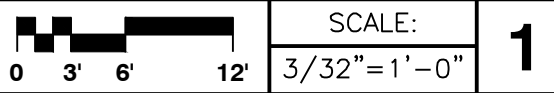
**EXISTING & PROPOSED  
ELEVATIONS**

SHEET NUMBER:

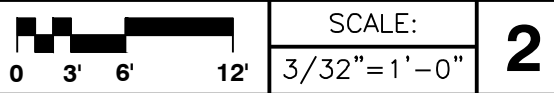
**A-3**



EXISTING NORTHEAST ELEVATION



PROPOSED NORTHEAST ELEVATION



verizon

15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:

**NATIONAL**  
ENGINEERING & CONSULTING, INC.  
27 ORCHARD, LAKE FOREST, CA 92630  
PHONE: (949) 716-9990 | FAX: (949) 716-9997

CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

**BANKERS  
HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

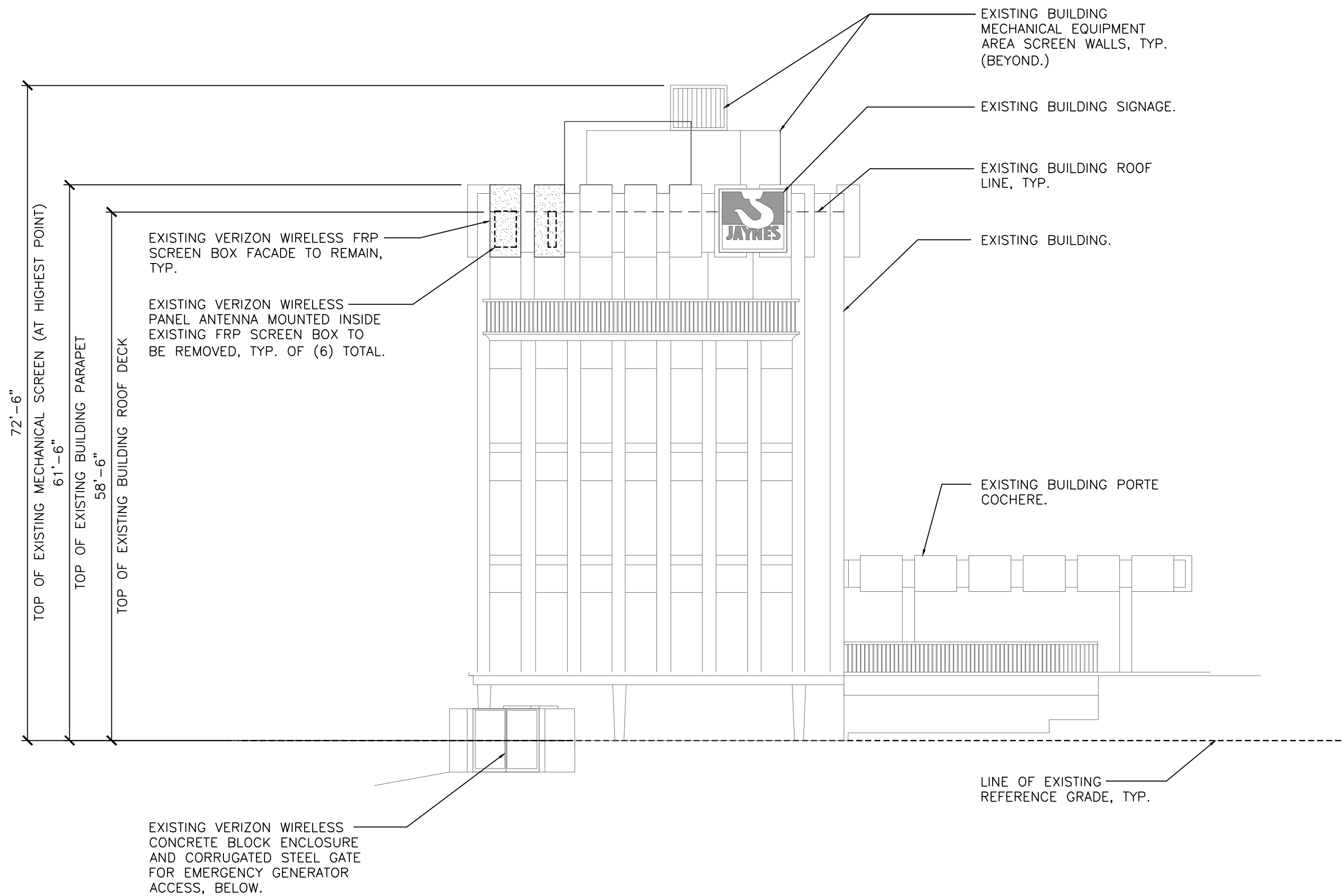
SEAL:

SHEET TITLE:

**EXISTING & PROPOSED  
ELEVATIONS**

SHEET NUMBER:

**A-4**

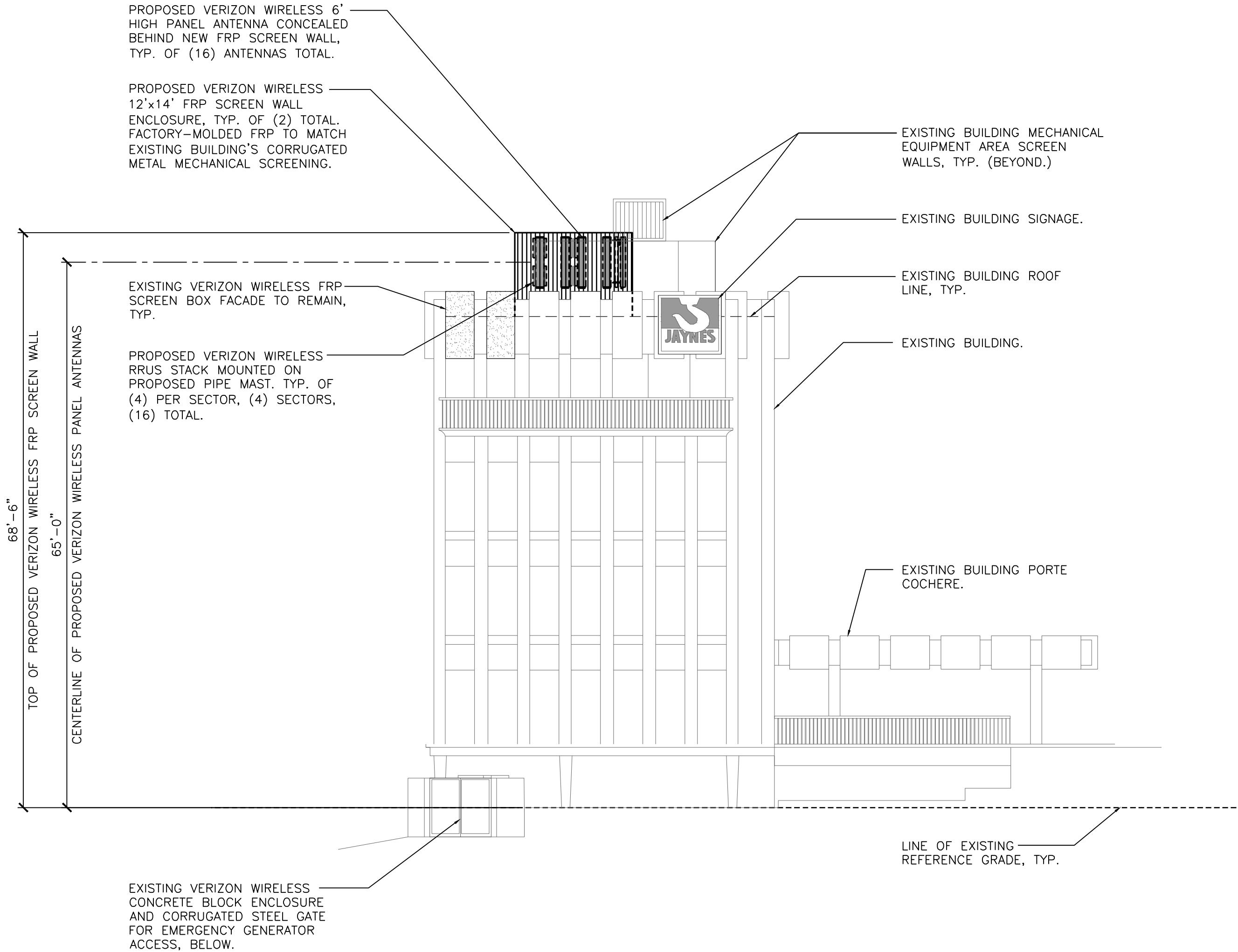


EXISTING SOUTHEAST ELEVATION



SCALE:  
3/32"=1'-0"

1



PROPOSED SOUTHEAST ELEVATION



SCALE:  
3/32"=1'-0"

2



15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |
|     |          |                    |     |

SITE INFORMATION:

**BANKERS  
HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

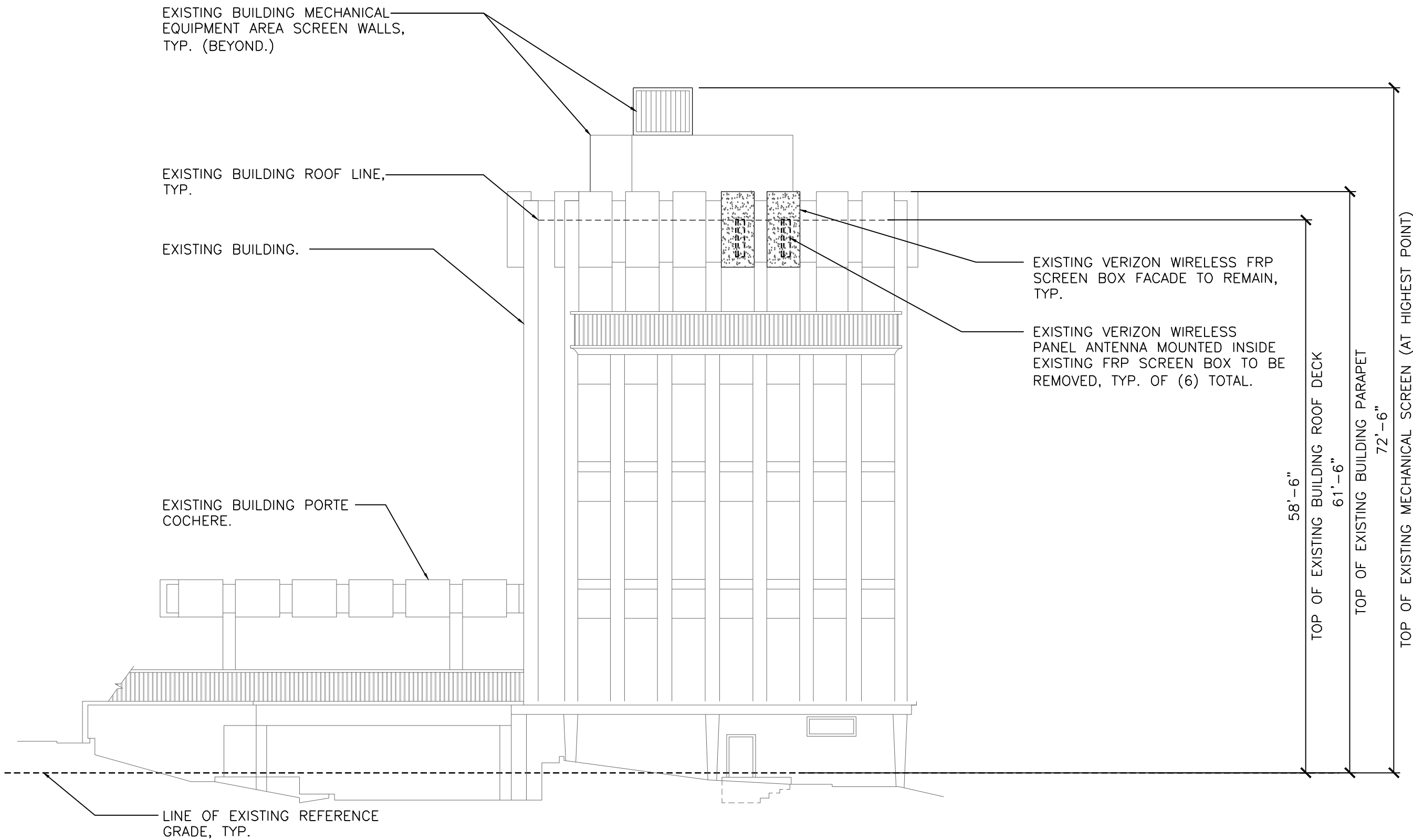
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SHEET TITLE:

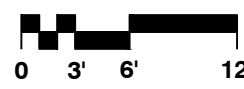
**EXISTING & PROPOSED  
ELEVATIONS**

SHEET NUMBER:

**A-5**



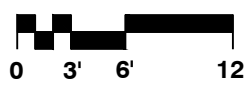
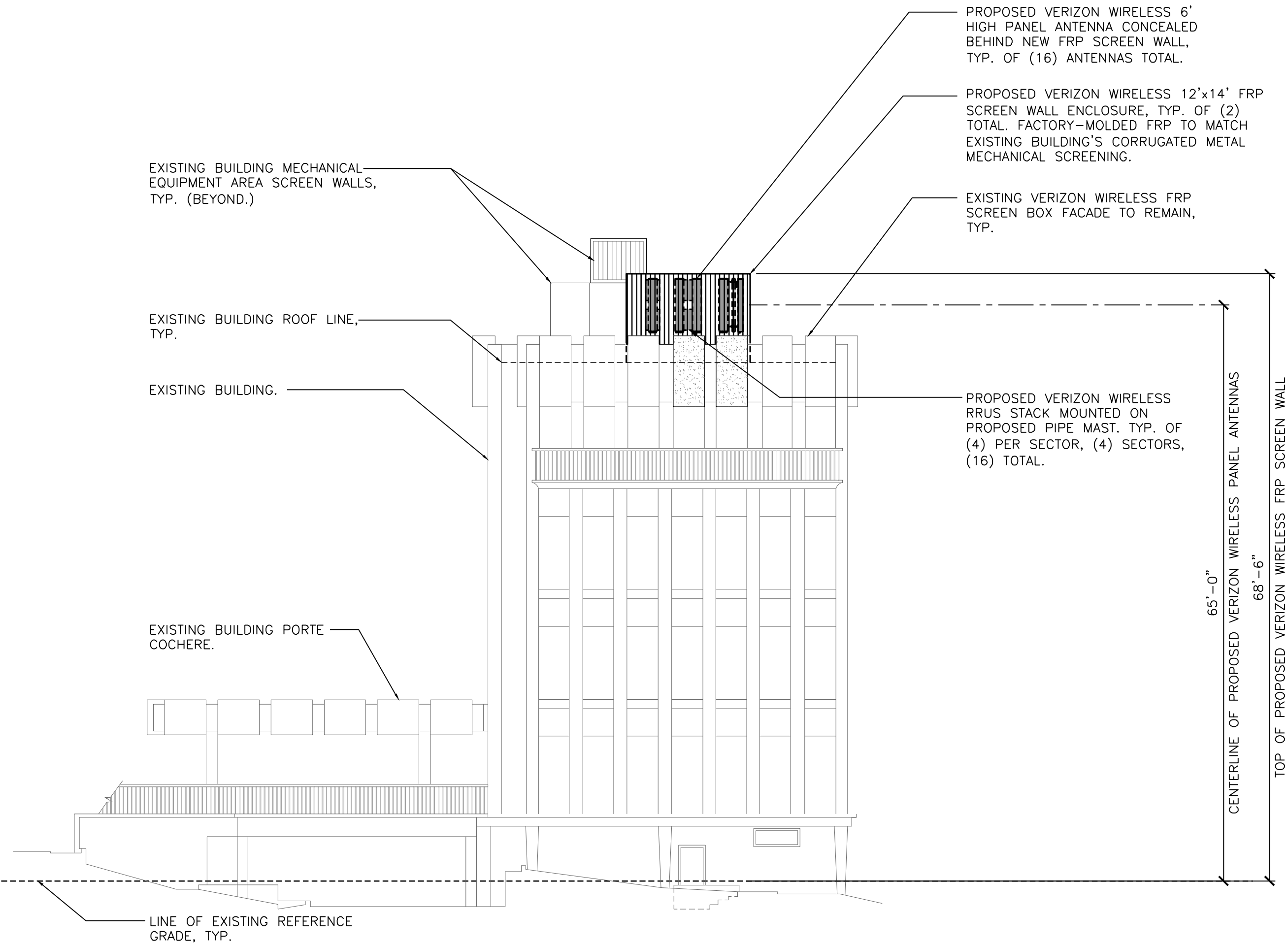
EXISTING NORTHWEST ELEVATION



SCALE:  
3/32"=1'-0"

1

PROPOSED NORTHWEST ELEVATION



SCALE:  
3/32"=1'-0"

2

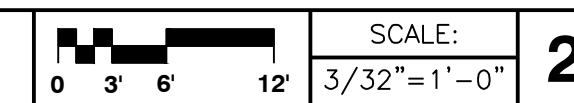
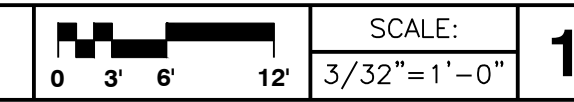


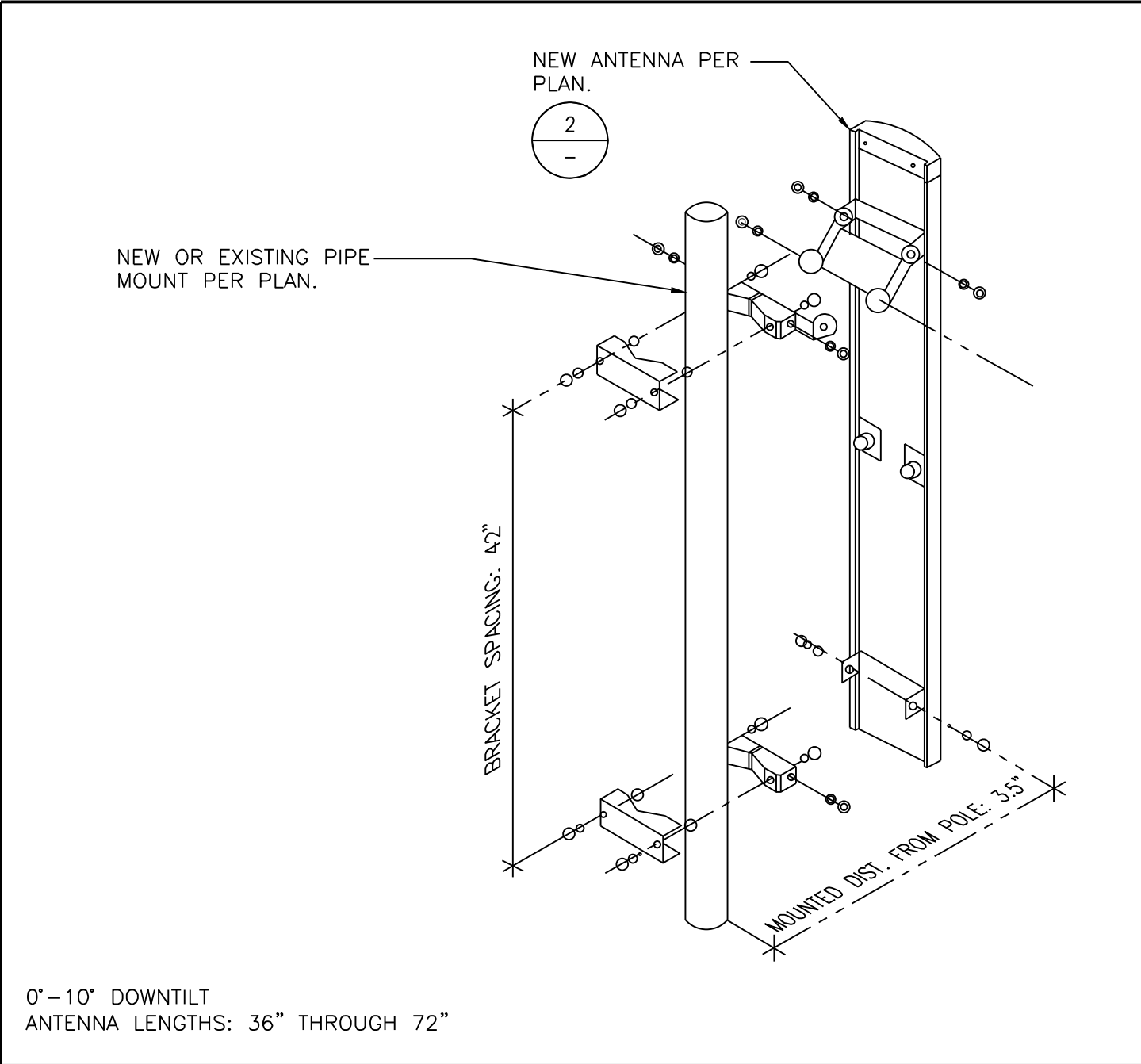
**NATIONAL**  
ENGINEERING & CONSULTING, INC  
27 ORCHARD, LAKE FOREST, CA 92630  
PHONE: (949) 716-9990 | FAX: (949) 716-9997

[illegible]

111 ELM STREET  
SAN DIEGO, CA 92101

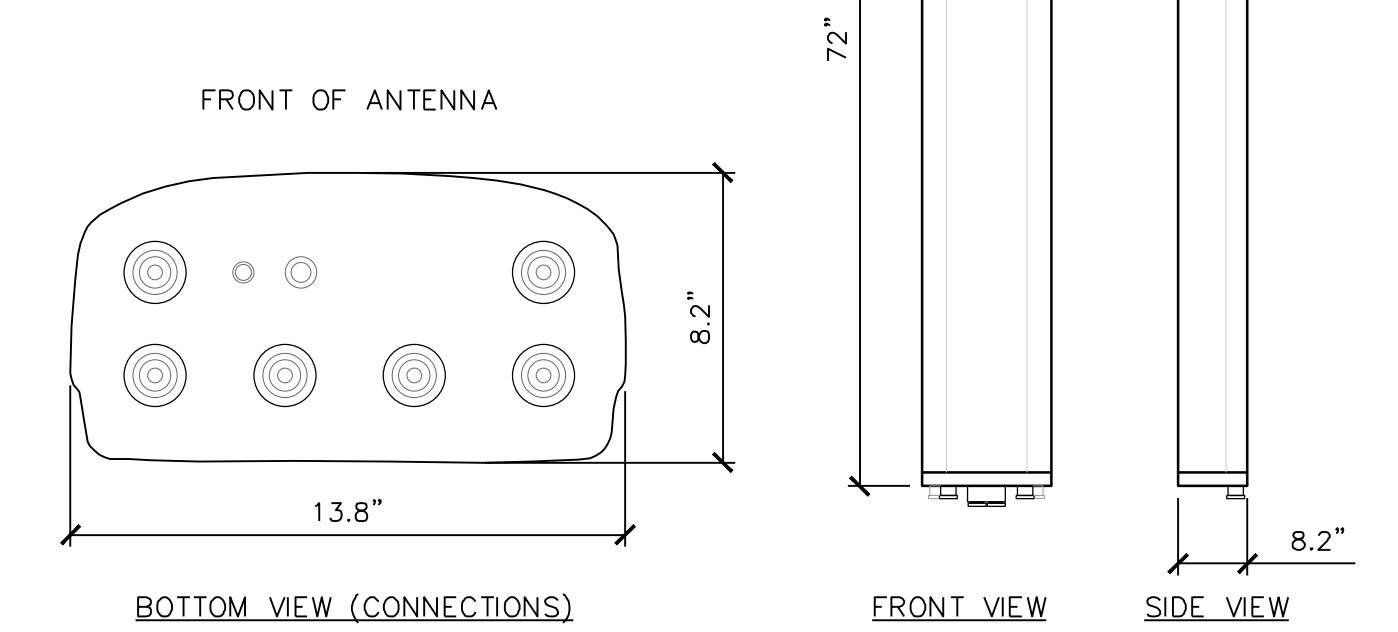
**A-6**





JAHH-65B-R3B

COLOR | RADOME MATERIAL: LIGHT GRAY | FIBERGLASS, UV RESISTANT  
DIMENSIONS, HxWxD: 1828x350x208mm (72"x13.8"x8.2")  
NET WEIGHT: 63.3 lbs  
WIND LOAD, MAXIMUM: 746.0 N @ 150 KM/H  
167.7 LBF @ 150 KM/H  
WIND SPEED, MAXIMUM: 241.0 KM/H | 150.0 MPH  
CONNECTOR INTERFACE, LOCATION, QUANTITY: 4.3-10 FEMALE, BOTTOM, 8



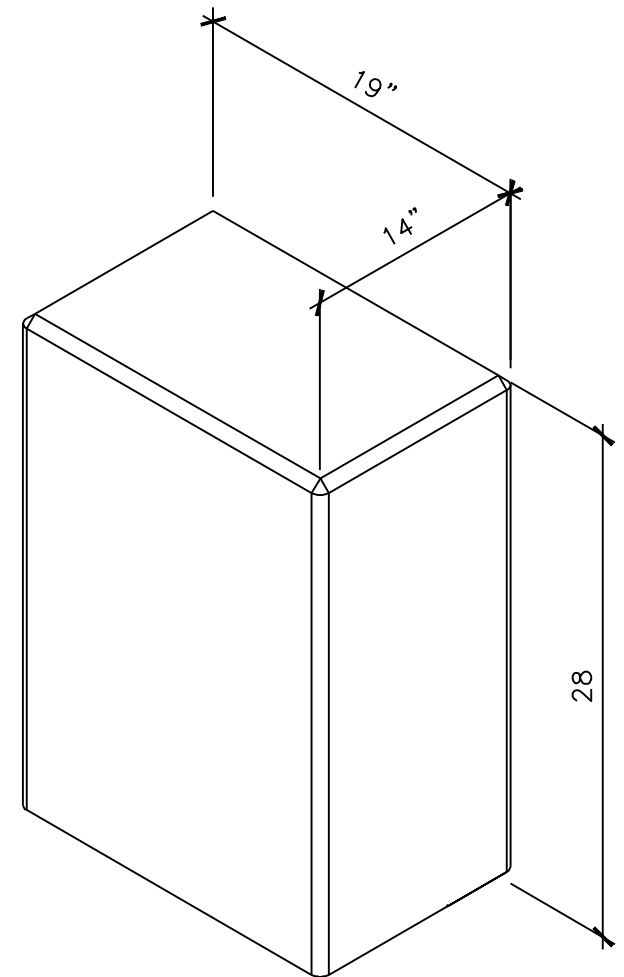
ANTENNA MOUNT

SCALE: N.T.S. 1

JAHH-65B SPECIFICATIONS

SCALE: N.T.S. 2

REMOTE RADIO UNIT SPECIFICATIONS  
-DIMENSIONS (H x W x D): 28" x 19" x 14"  
-WEIGHT: 105 LBS (FULLY EQUIPPED)



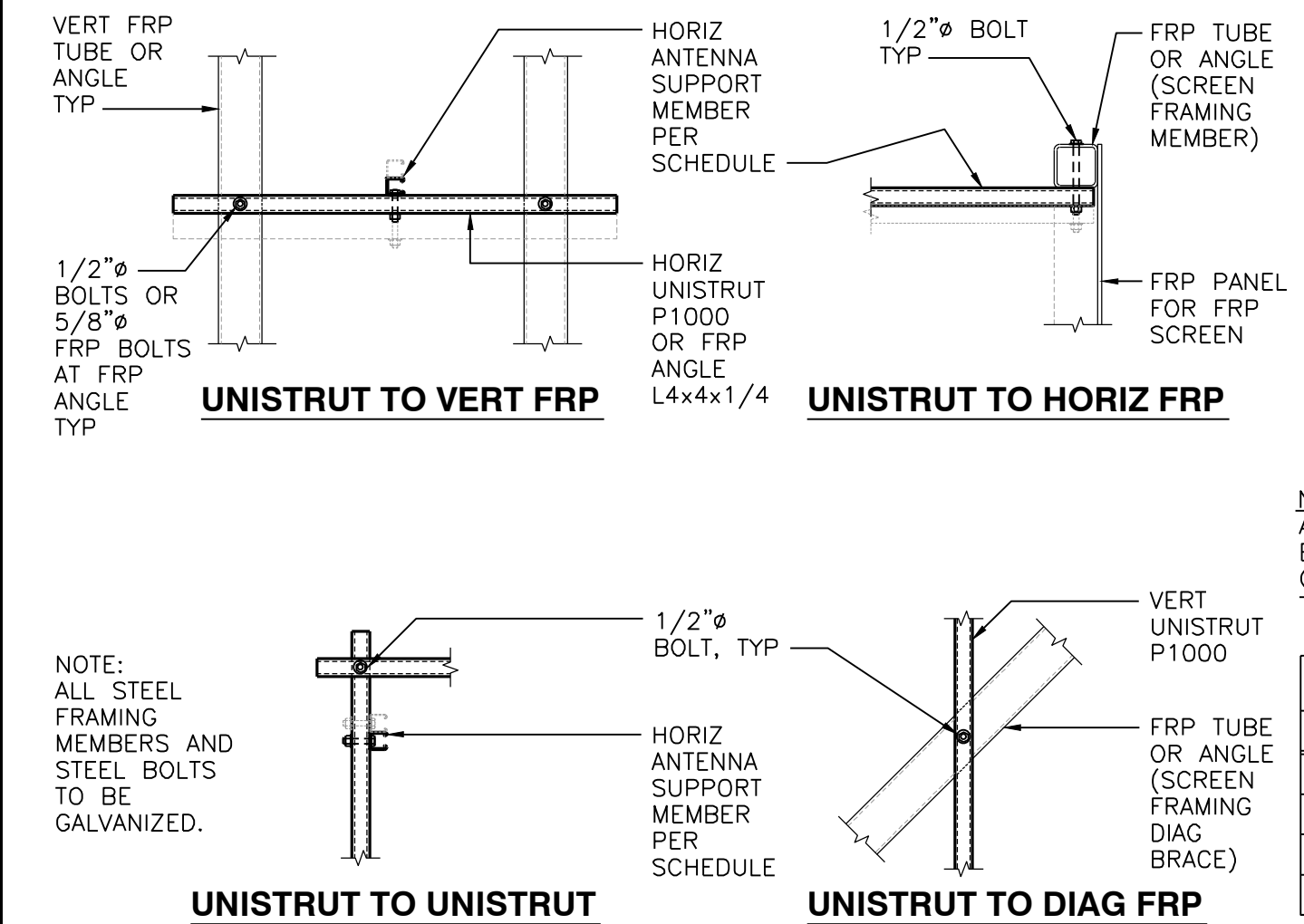
NOTE: THIS BLACK BOX COVERS EVERY CONCEIVABLE CONFIGURATION FOR AWS AND PCS.

RRUS SPECIFICATIONS

SCALE: N.T.S. 5

RRUS STACK-MOUNTING DETAIL

SCALE: N.T.S. 6



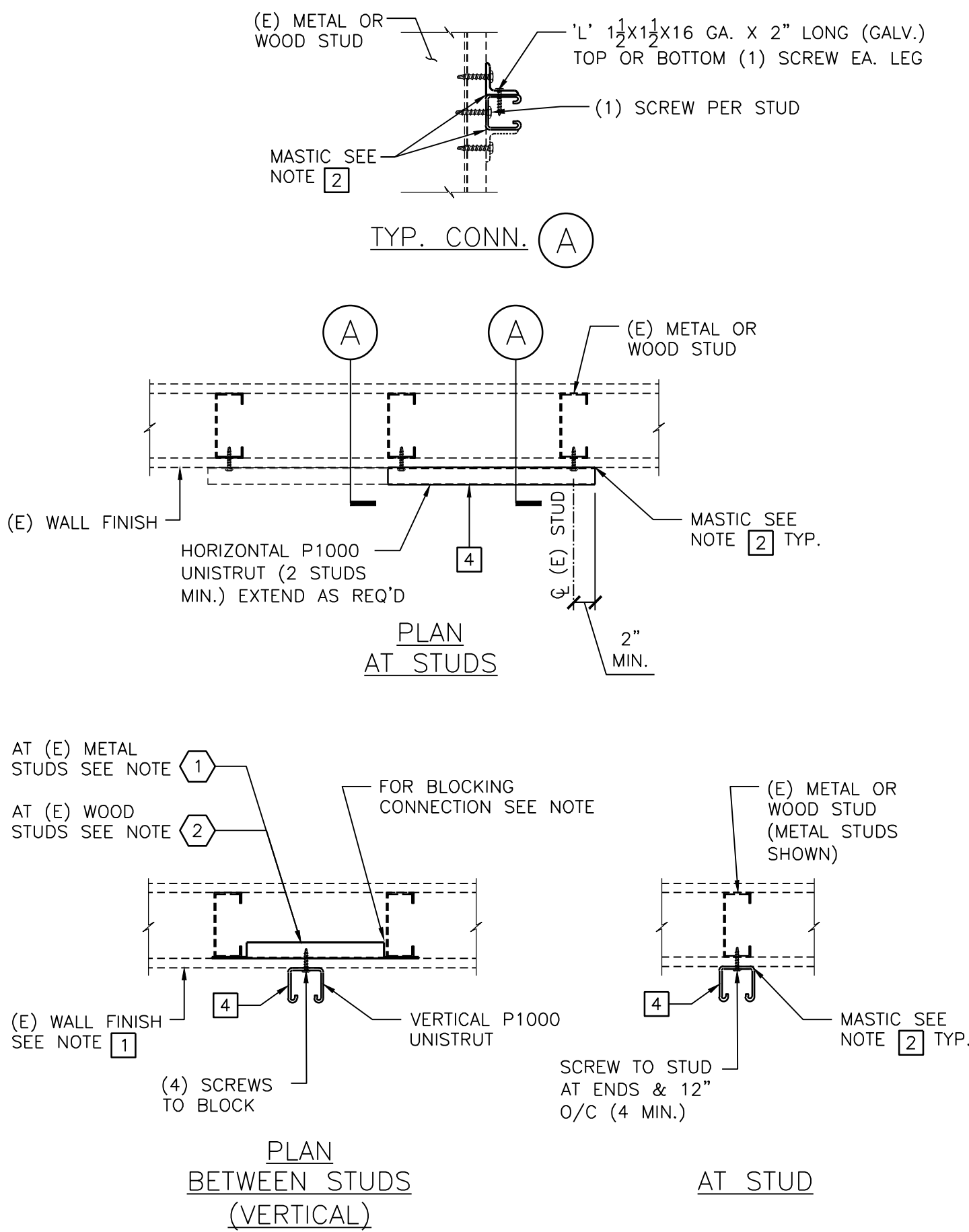
NOTE: ALL ANTENNA SUPPORT FRAMING TO BE A MINIMUM OF 2 BOLTED CONNECTION POINTS FOR EACH SUPPORT FRAME. MAXIMUM HORIZ SPAN BETWEEN VERT SUPPORTS PER SCHEDULE. CONTRACTOR TO NOTIFY ENGINEER OF RECORD IF FIELD CONDITIONS DO NOT ALLOW FOR THE MINIMUM SUPPORT AND/OR CONNECTIONS REQUIRED TO SUPPORT ANTENNAS.

| HORIZ ANTENNA SUPPORT MEMBER SCHEDULE |          |          |            |          |            |
|---------------------------------------|----------|----------|------------|----------|------------|
| MEMBER TYPE                           | SIZE     | MAX SPAN | MAX WEIGHT | MAX SPAN | MAX WEIGHT |
| FRP                                   | L4x4x1/4 | 6'-0"    | 100#       | 10'-0"   | 60#        |
| UNISTRUT                              | P1000    | 6'-0"    | 340#       | 10'-0"   | 100#       |
| UNISTRUT                              | P1001    | 8'-0"    | 600#       | 12'-0"   | 420#       |
| STEEL                                 | L4x4x1/4 | -        | -          | 12'-0"   | 600#       |

TYPICAL UNISTRUT FRAMING CONNECTIONS

SCALE: N.T.S. 10

WALL ANCHORAGE DETAILS

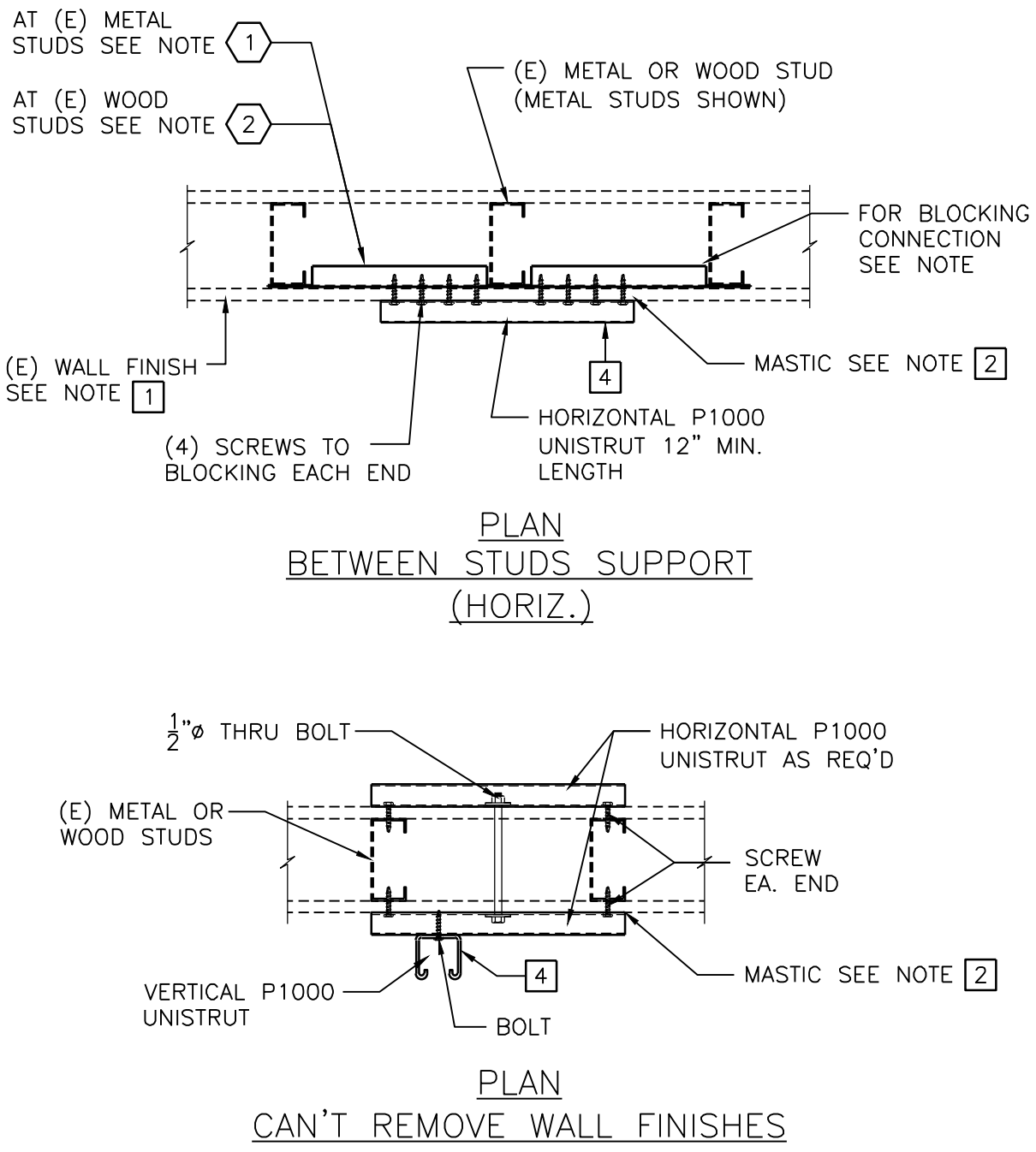
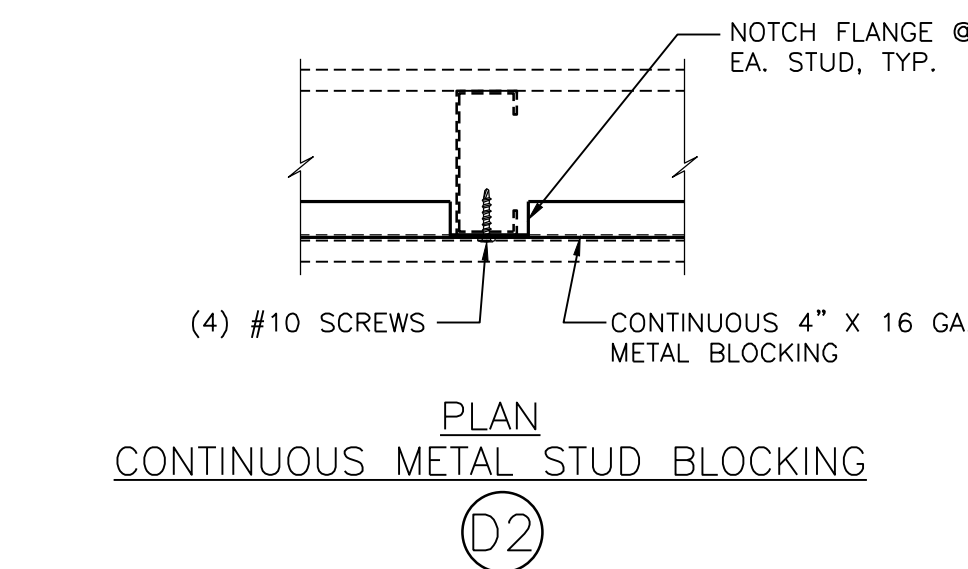
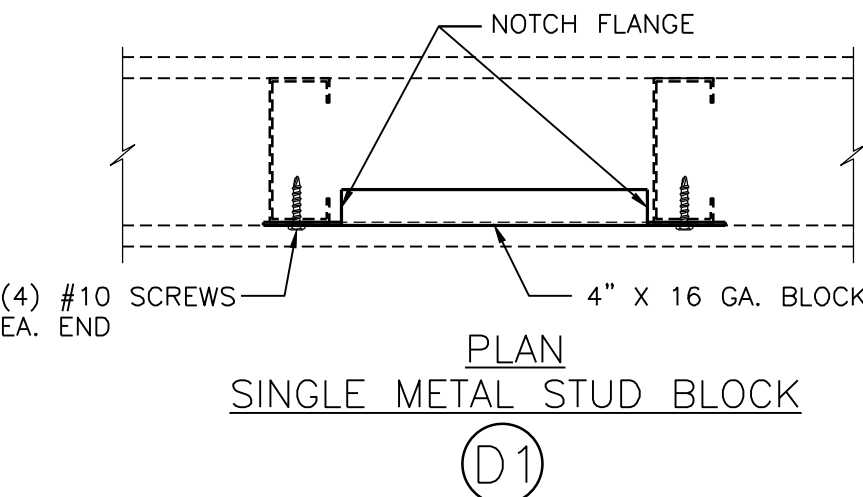


NOTES

- REMOVE (E) WALL FINISH FOR INSTALLATION OF NEW BLOCKING. PATCH & REPAIR WALL FINISH PRIOR TO INSTALLATION OF NEW ATTACHMENTS.
- APPLY MASTIC BEHIND ALL ANGLES, UNISTRUTS, ETC. APPLIED OVER (E) OR REPAIRED WALL SURFACES PRIOR TO APPLYING SCREWS, BOLTS, ETC.
- SCREWS TO STEEL: SHALL BE #10 SMS AS SHOWN. SCREW LENGTH SHALL BE SUFFICIENT TO PROVIDE (3) THREAD PITCHES BEYOND THE STEEL SUBSTRATE.  
SCREWS TO WOOD: SHALL BE #10 WOOD SCREWS. SCREW LENGTH SHALL BE SUFFICIENT TO PROVIDE 1 1/4" PENETRATION INTO WOOD SUBSTRATE.
- IN LIEU OF UNISTRUT, ANGLE MAY BE USED

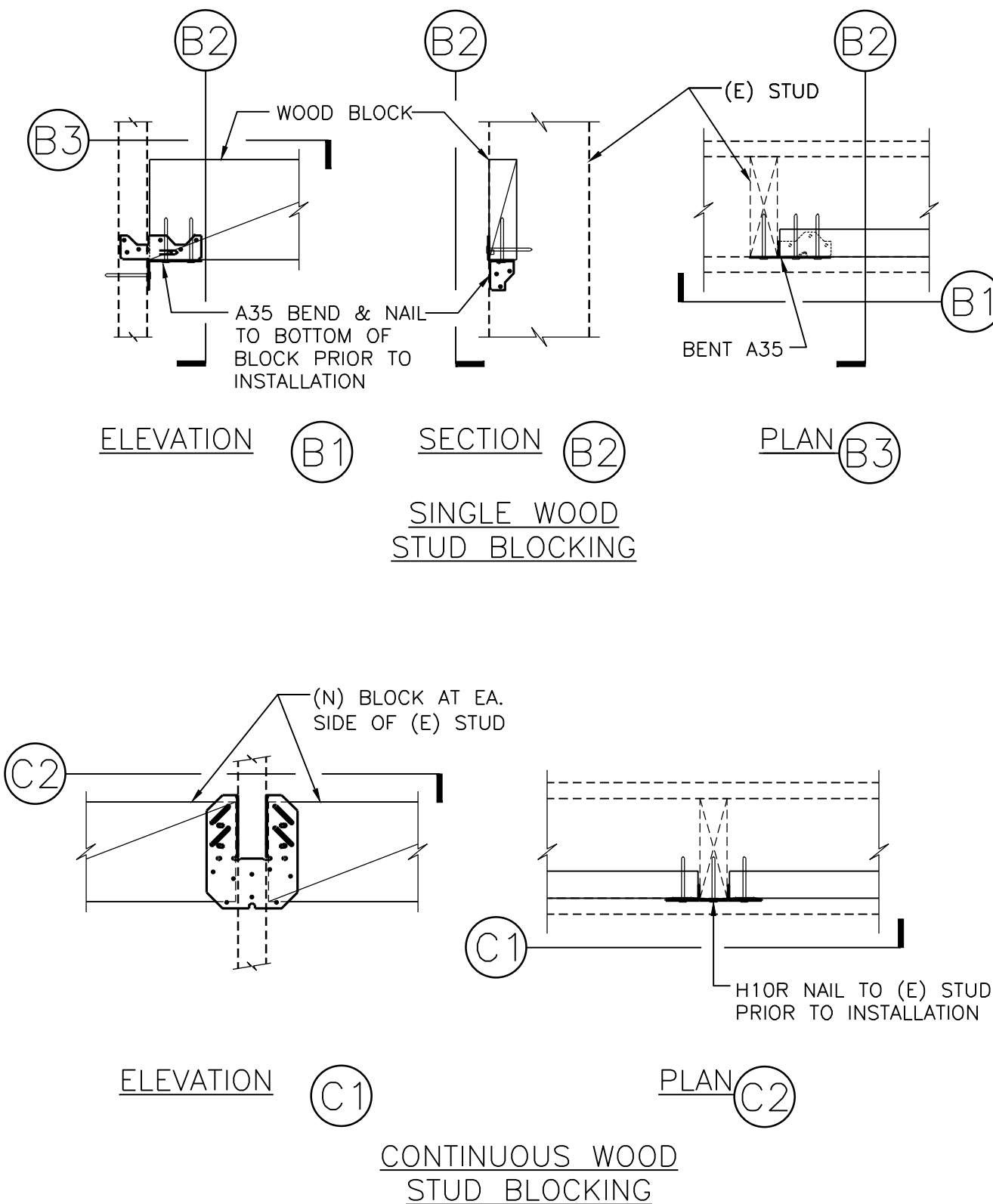
CONNECTION NOTES

- AT (E) METAL STUD WALL: PROVIDE 4" X 16 GA. METAL STUD BLOCKING TOP, BOTTOM & 24" O/C MAX. FOR (N) BLOCKING ATTACHMENTS TO (E) STUDS, SEE DETAILS D1 & D2
- AT (E) WOOD STUD WALL: PROVIDE 2X4 BLOCKING ON EDGE, TOP, BOTTOM, & 24" O/C MAX. FOR (N) BLOCKING ATTACHMENT TO (E) STUDS, SEE DETAILS B1, B2, B3, C1 & C2



NOTES:

- SPECIAL INSPECTION REQUIRED
- EPOXY SHALL BE: HILTI RE-500 SD (ICC# ESR-2322, LARR-25700) AT CONCRETE  
HILTI HIT HY-150 (ICC# ER-5193, LARR-25257) AT MASONRY  
HILTI HIT HY-20 (ICC# ER-4815, LARR-24564) AT BRICK



**verizon**  
15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:

**NATIONAL**  
ENGINEERING & CONSULTING, INC.  
27 ORCHARD LAKE FOREST, CA 92630  
PHONE: (949) 716-9990 | FAX: (949) 716-9997

CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
| 1   | 02/22/17 | 90% CD             | JY  |
| 2   | 04/25/17 | 100% CD            | AE  |
| 3   | 11/16/17 | PLANNING REVISIONS | SV  |
| 4   | 06/06/18 | RFDS REVISIONS     | JV  |
| 5   | 07/12/18 | EME REQUIREMENTS   | JV  |
|     |          |                    |     |
|     |          |                    |     |
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|     |          |                    |     |

SITE INFORMATION:

**BANKERS HILL**  
111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

ARCHITECTURAL DETAILS

SHEET NUMBER:

A-7



MANUFACTURER: JMA WIRELESS  
MODEL #: 91900314

| MECHANICAL SPECIFICATIONS                  |  |
|--|--|
| NET WEIGHT PER BRACKET, LB. (KG)           | 22.3 LB (10KG) – DOES NOT INCLUDE BRACKETS INCLUDED WITH ANTENNA |
| RANGE OF ALLOWABLE MECHANICAL UP/DOWN TILT | –2° TO 14°   |
| RATE WIND SURVIVAL SPEED, MPH (KM/H)       | 150 MPH (24A KM/H)   |
| MATERIAL SPECIFICATION                     | .16" TO .25" THICK HOT-DIPPED GALVANIZED STEEL                   |

DUAL-MOUNT BRACKET

ANTENNA PIPE MAST

TOP BRACKET

NEW VERIZON WIRELESS  
PANEL ANTENNAS, TYP.

2  
A-7

BOTTOM BRACKET

| BRACKETS NEEDED PER ANTENNA SIZE |                   |
|----------------------------------|-------------------|
| 4'–6' ANTENNAS                   | 2 BRACKETS NEEDED |
| >6'–8' ANTENNAS                  | 3 BRACKETS NEEDED |

RAYCAP SURGE SUPPRESSION UNIT

4

MOUNTING BASE

MOUNTING BASE W/  
HARDWARE

ANTENNA MOUNTING PIPE

EXISTING ATTACHMENT

EXISTING WALL

WALL MOUNTING

PIPE MAST MOUNTING

RCMDC-3315V-PF-48

SPECIFICATIONS: DC SURGE PROTECTION FOR RRU/INTEGRATED

ANTENNA RADIO HEAD

APPLICATION: TOWER I BASE I ROOFTOP I ROOFTOP DISTRIBUTION MODELS

WEIGHT: 32 LBS (14.51 KG)  
(PROVIDED WITH MOUNTING BRACKET)

MOUNTING BRACKET INCLUDED

25.66"

19.16"

10.25"

1.61"

15.73"

22.98"

19.16"

verizon

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SITE INFORMATION:

BANKERS HILL

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

ARCHITECTURAL DETAILS

SHEET NUMBER:

A-8

DUAL-MOUNT BRACKET ASSEMBLY

SCALE: N.T.S.

2

CABLE TRAY WITH COVER, SOLID BOTTOM, 4" LOADING DEPTH. SUPPORT CABLES WITH TIE-WRAPPS OR STAINLESS STEEL CLAMP EVERY 6 FT.

HOLD DOWN CLAMP FASTED TO 4" SQUARE ROOF SLEEPERS WITH 3/8"x2-1/2" LONG LAG SCREWS.

5"

WIDTH AS SHOWN ON DWG.

4"x4"x24" (FOR 18" TRAY)  
4"x4"x18" (FOR 12" TRAY)  
4"x4"x12" (FOR 6" TRAY)

NOTE:

1. RUN #2 AWG BCW GROUND CONDUCTOR ALONG CABLE TRAY PER CABLE TRAY GROUNDING DETAIL, GROUND AT BOTH ENDS.

2. CABLE TRAYS SHALL BE FREE OF SHARP OBJECTS AND BURRS WHICH COULD INJURE CABLES. COVERS SHALL BE FASTENED USING HOLD DOWN CLIPS. SHEET METAL SCREWS ARE NOT ACCEPTABLE.

3. CONTRACTOR TO PROVIDE SHARP EDGE PROTECTION THROUGHOUT.

DIPLEXER MOUNTING DETAIL

SCALE: N.T.S.

5

MOUNTING PIPE (TYP)

JUMPER TO ANTENNA

METAL STRAP SUBCONTRACTOR TO PROVIDE (TYP)

DIPLEXER

GROUND SCREW

GROUND WIRE TO GROUND BAR

JUMPER TO MAIN COAX

FRONT VIEW

DIPLEXER

JUMPER TO ANTENNA

METAL STRAP SUBCONTRACTOR TO PROVIDE (TYP)

MOUNTING PIPE (TYP)

GROUND WIRE TO GROUND BAR

JUMPER TO MAIN COAX

SIDE VIEW

NOT USED

SCALE: N.T.S.

6

NOT USED

SCALE: N.T.S.

7

NOT USED

SCALE: N.T.S.

8

NOT USED

SCALE: N.T.S.

9

NOT USED

SCALE: N.T.S.

10

NOT USED

SCALE: N.T.S.

11

NOT USED

SCALE: N.T.S.

12





15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

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SITE INFORMATION:

BANKERS HILL

111 ELM STREET  
SAN DIEGO, CA 92101

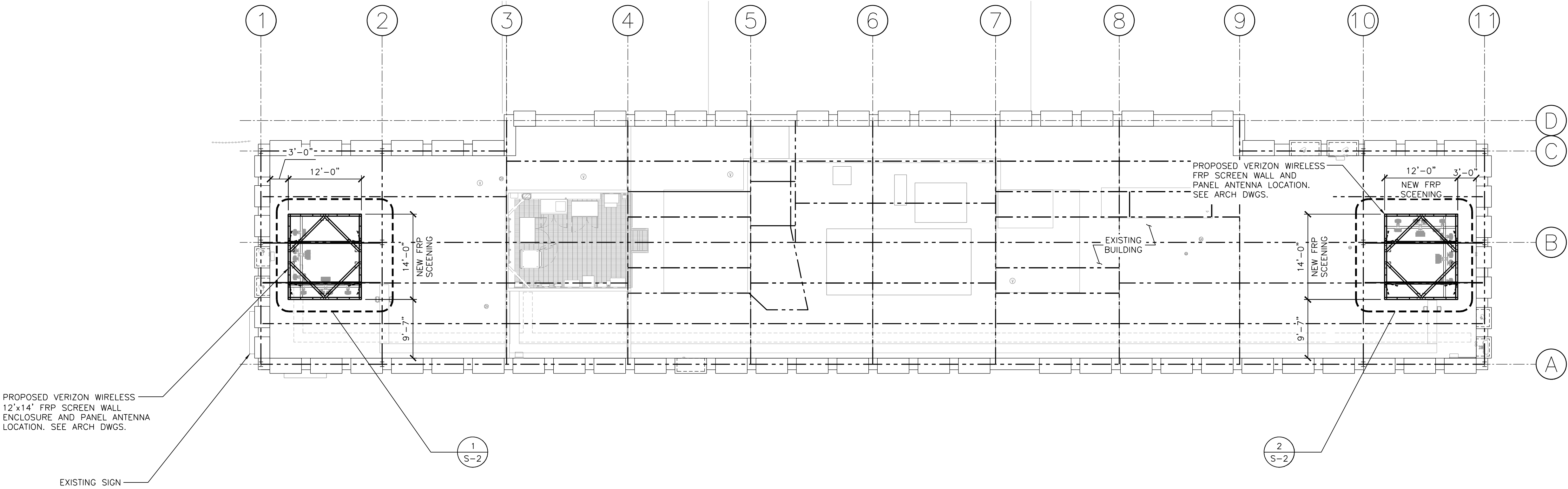
SEAL:

SHEET TITLE:

STRUCTURAL  
ROOF PLAN

SHEET NUMBER:

S-1





15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

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SITE INFORMATION:

**BANKERS HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

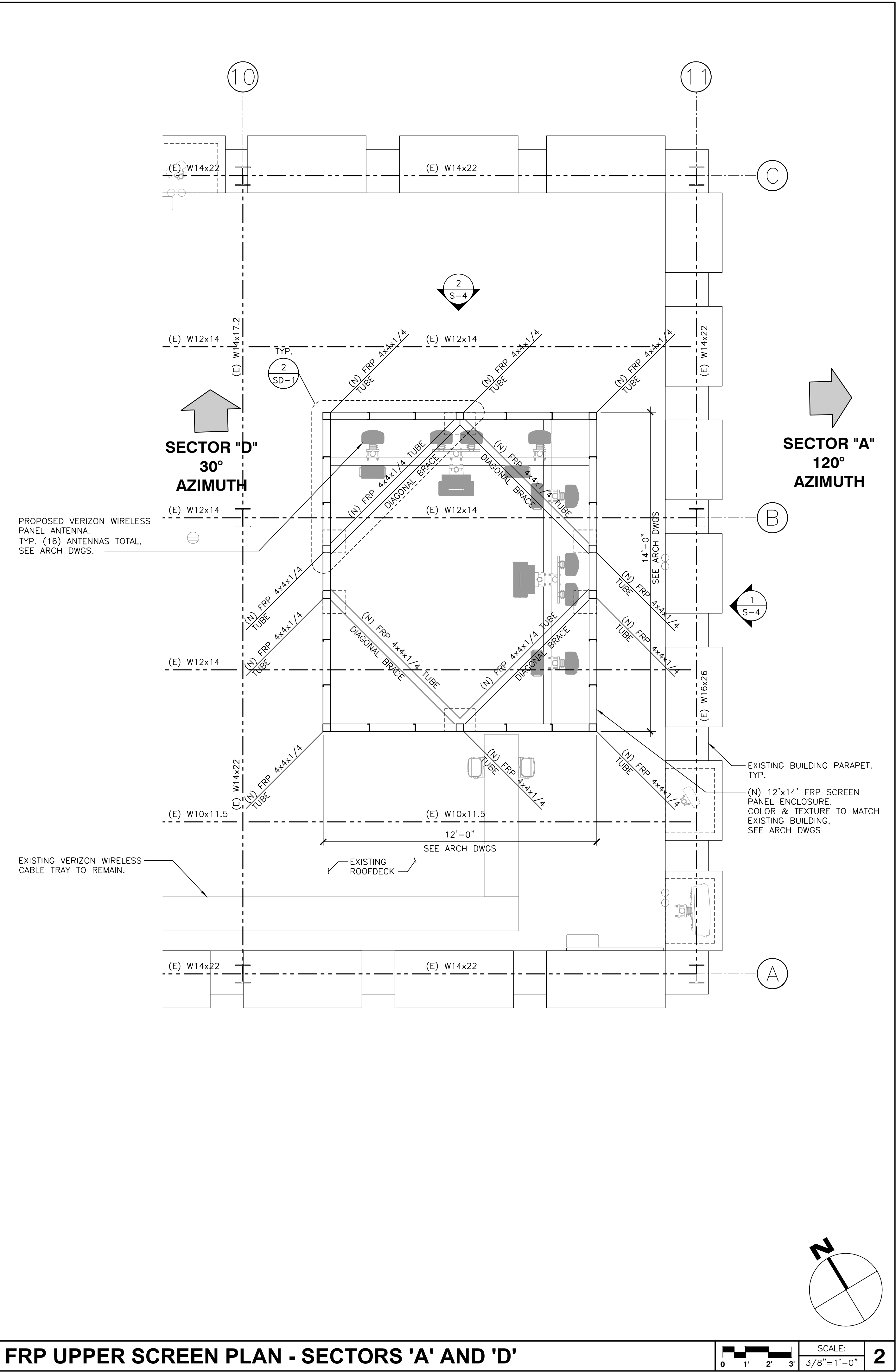
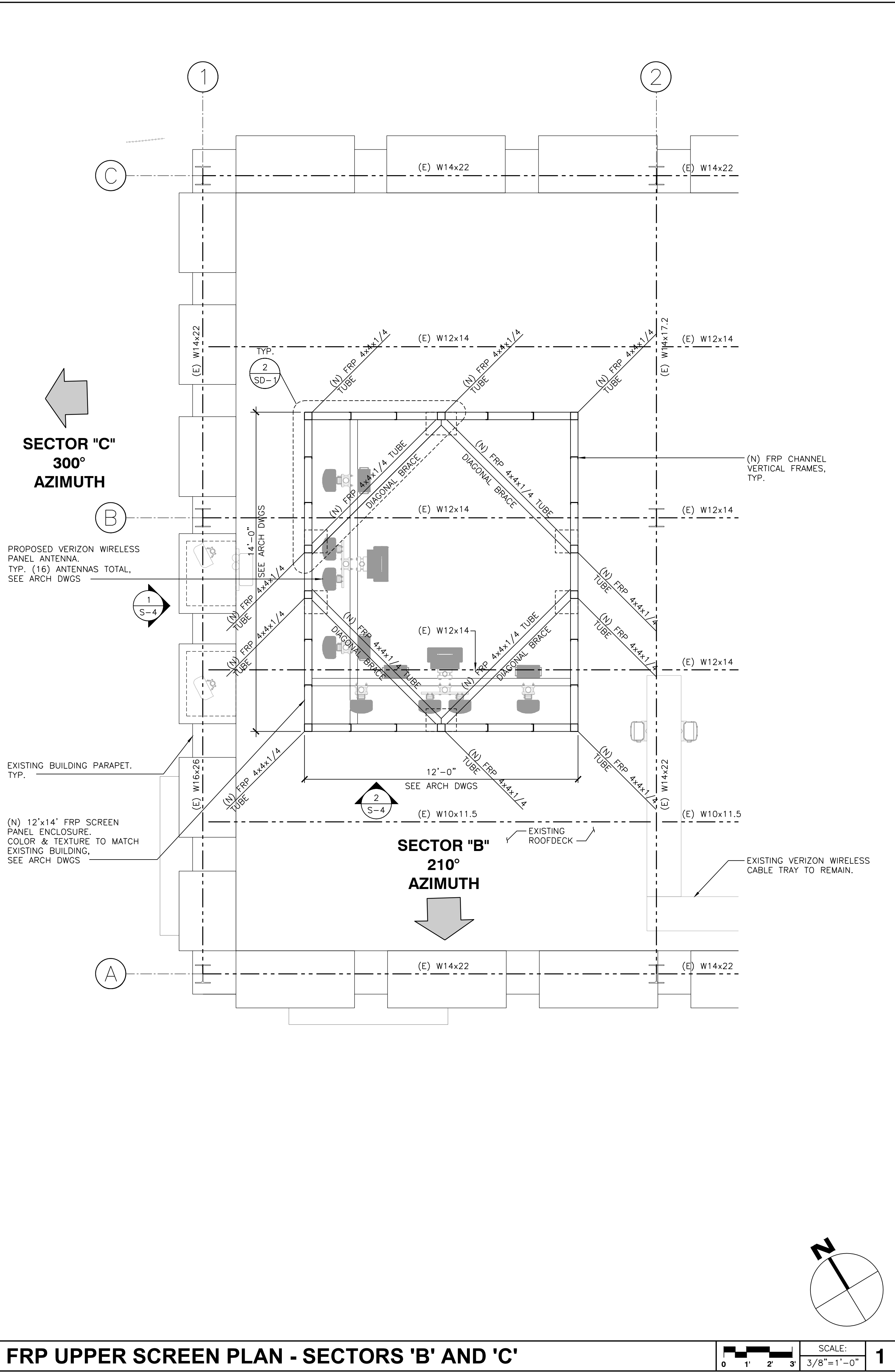
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SHEET TITLE:

**STRUCTURAL  
FRP UPPER SCREEN  
PLANS**

SHEET NUMBER:

**S-2**



PLANS PREPARED BY: —



## CLIENTS

[illegible]

**SITE INFORMATION:**

# BANKERS HILL

111 ELM STREET  
SAN DIEGO, CA 92101

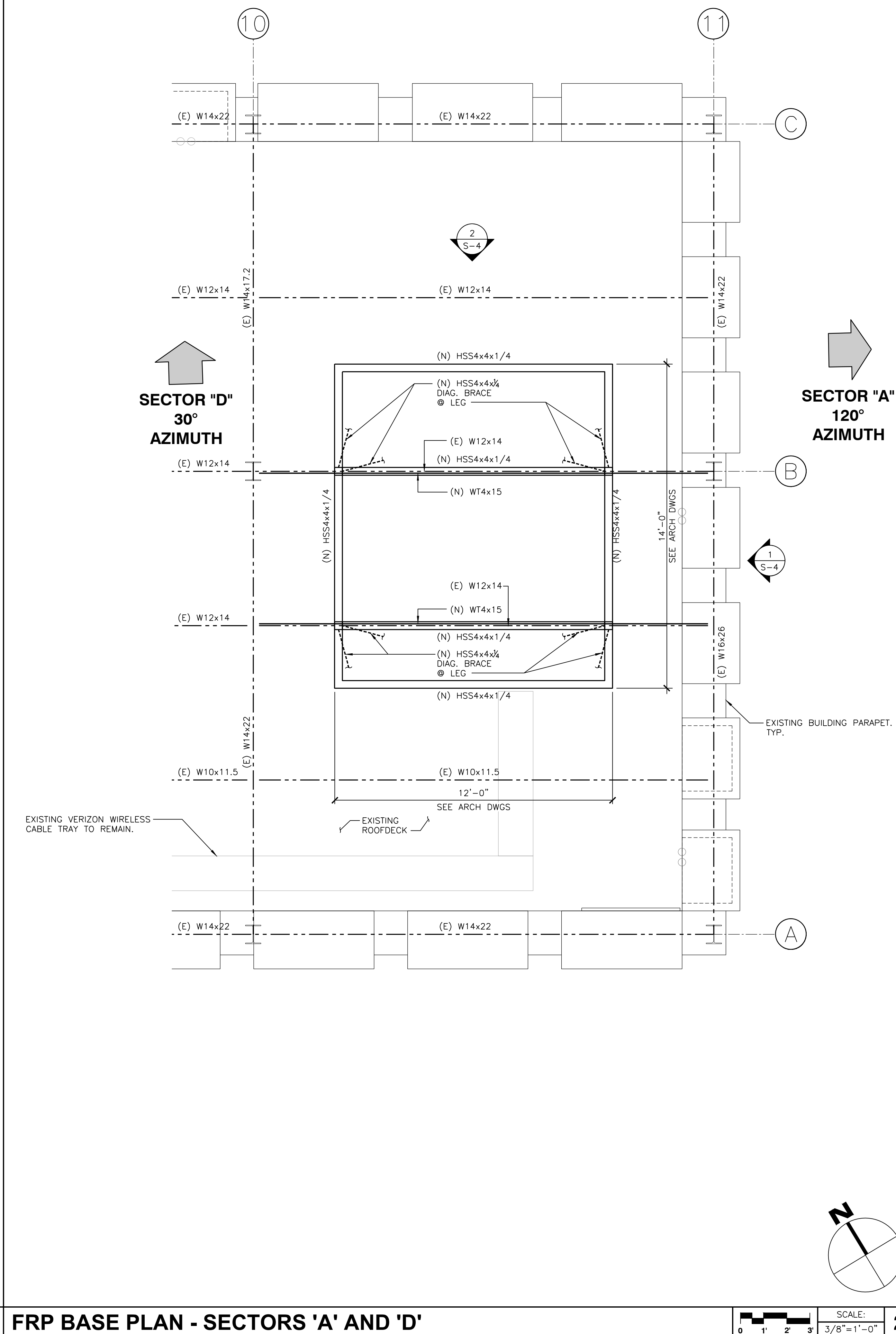
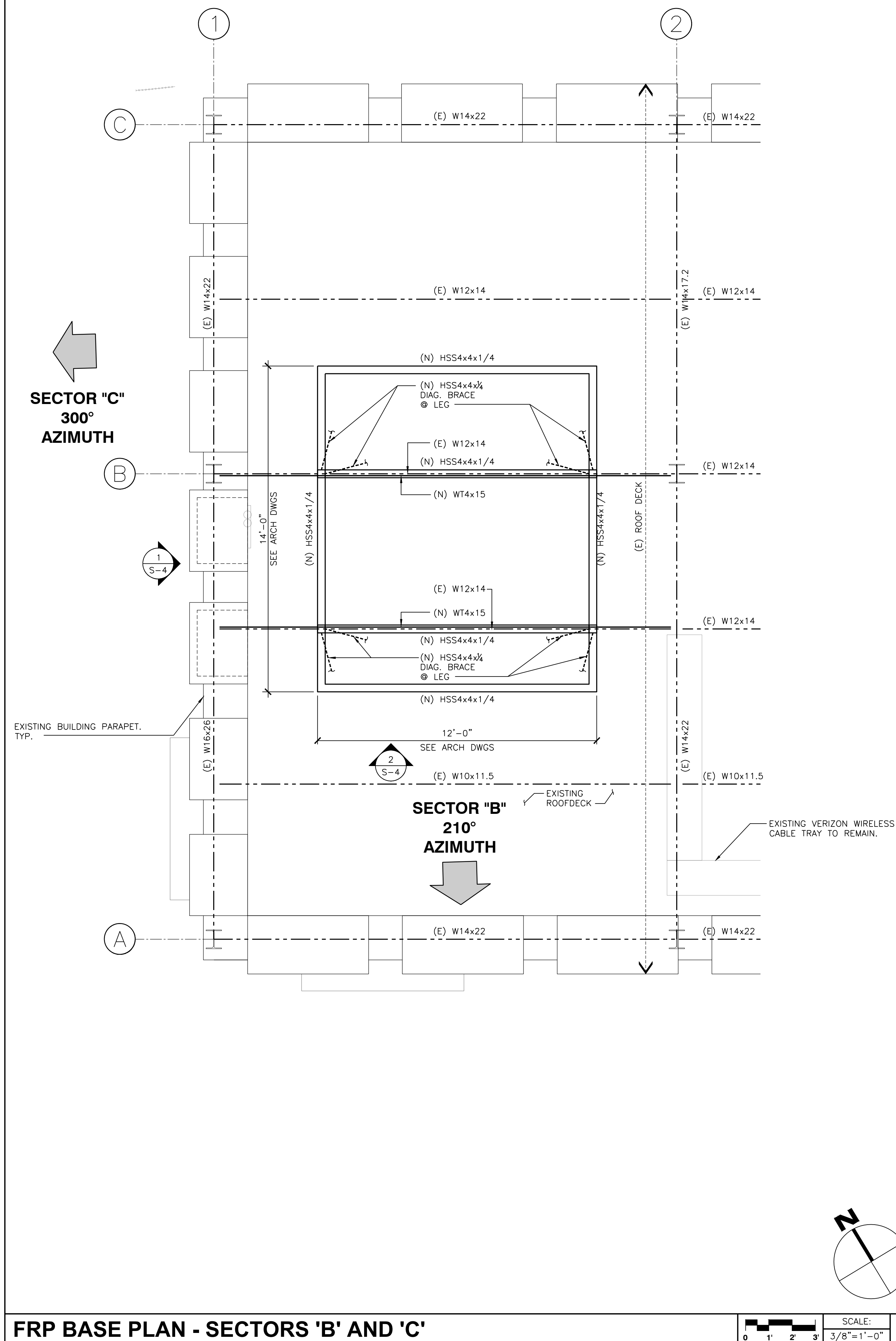
SEAL: -

**SHEET TITLE: —**

## STRUCTURAL FRP BASE PLANS

**SHEET NUMBER: —**

**S-3**





15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

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SITE INFORMATION:

**BANKERS  
HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

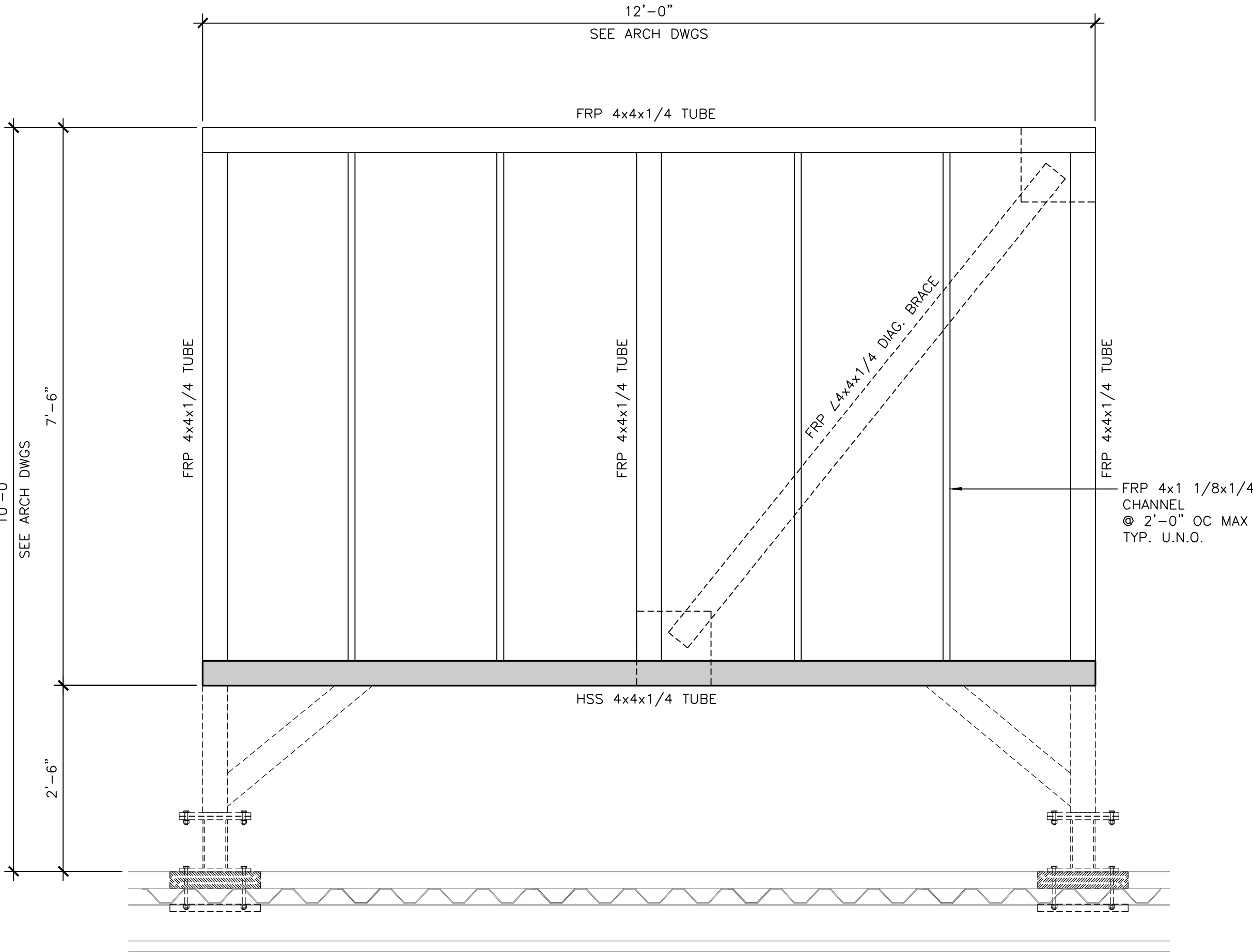
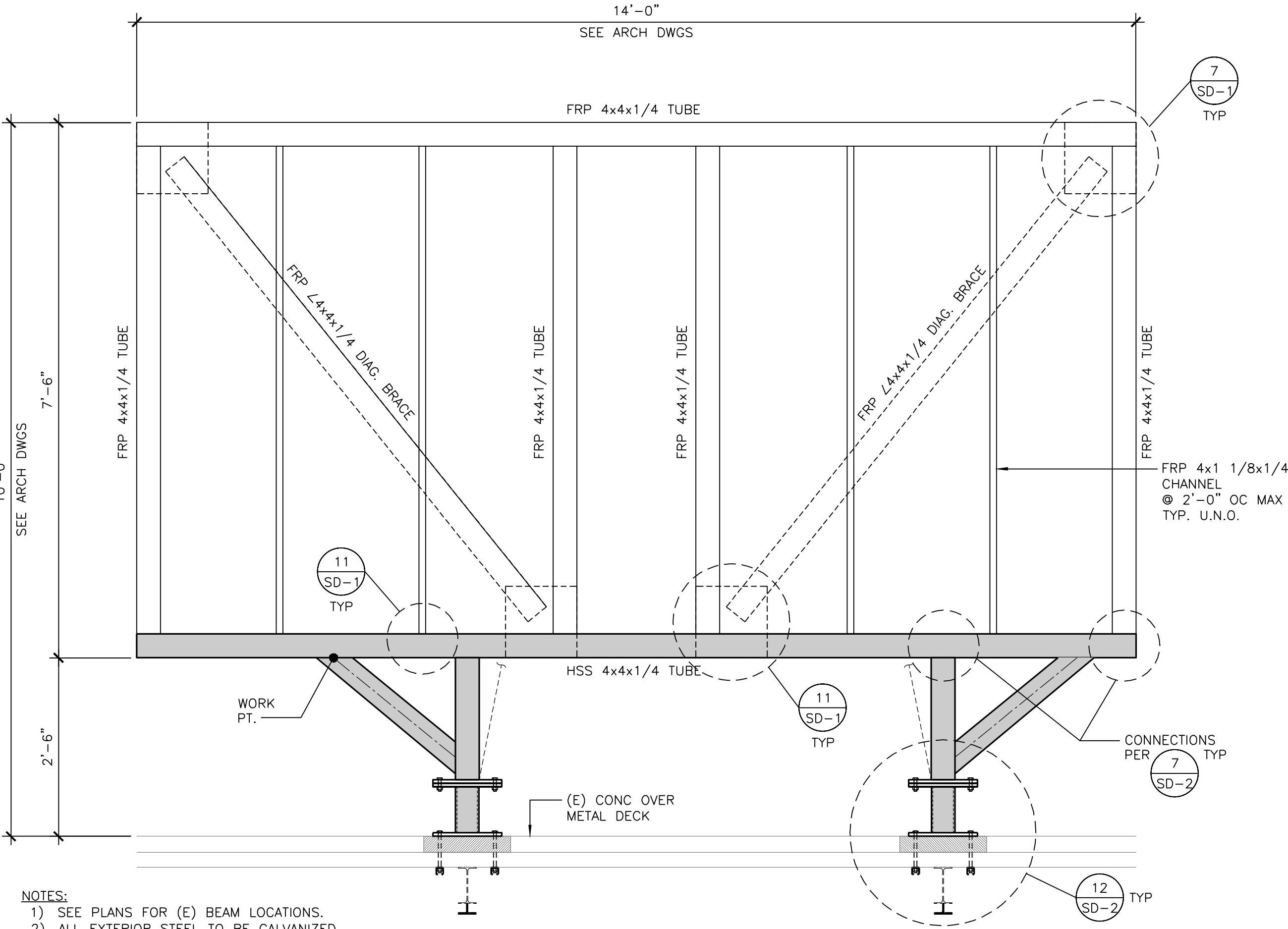
SEAL:

SHEET TITLE:

**STRUCTURAL  
ELEVATIONS**

SHEET NUMBER:

**S-4**

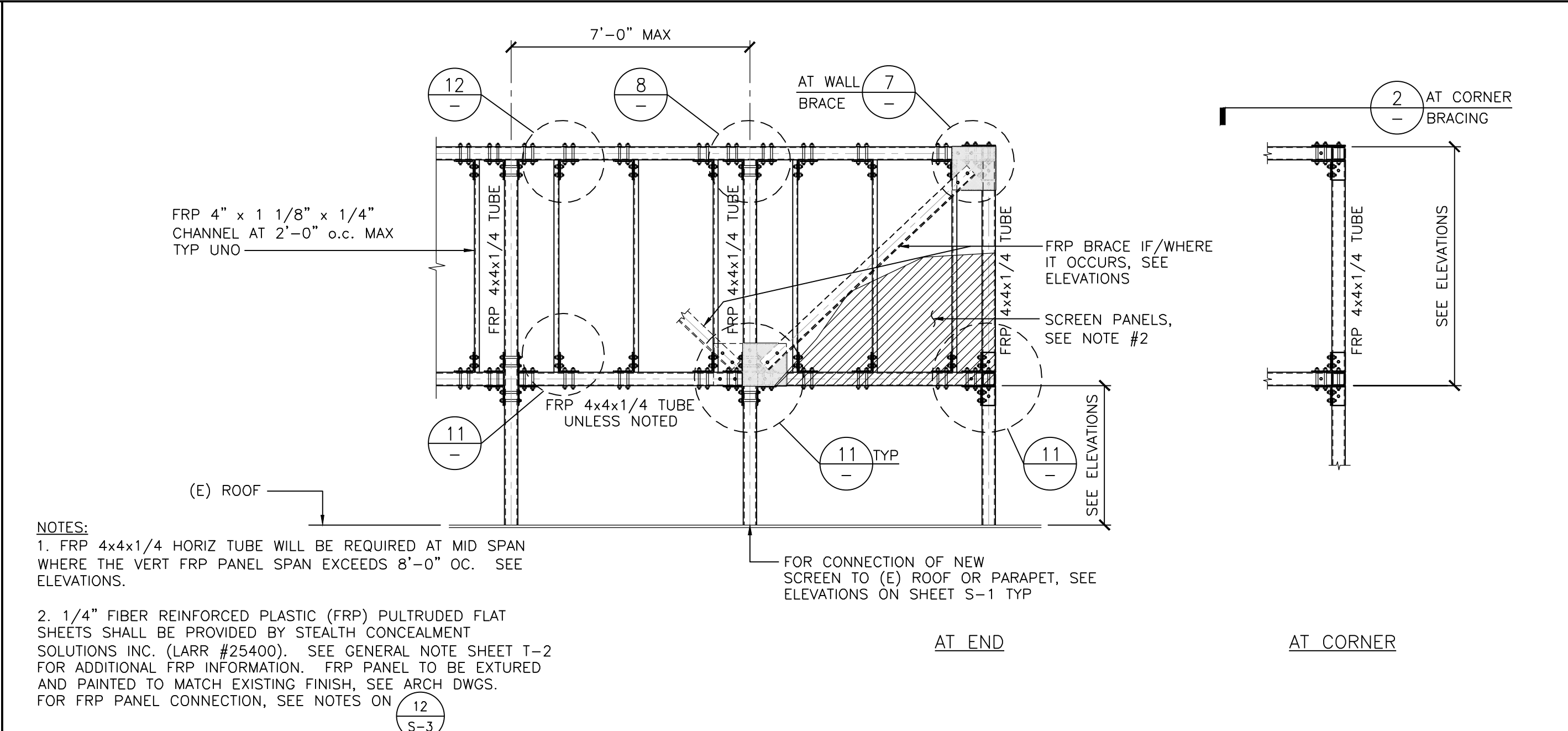
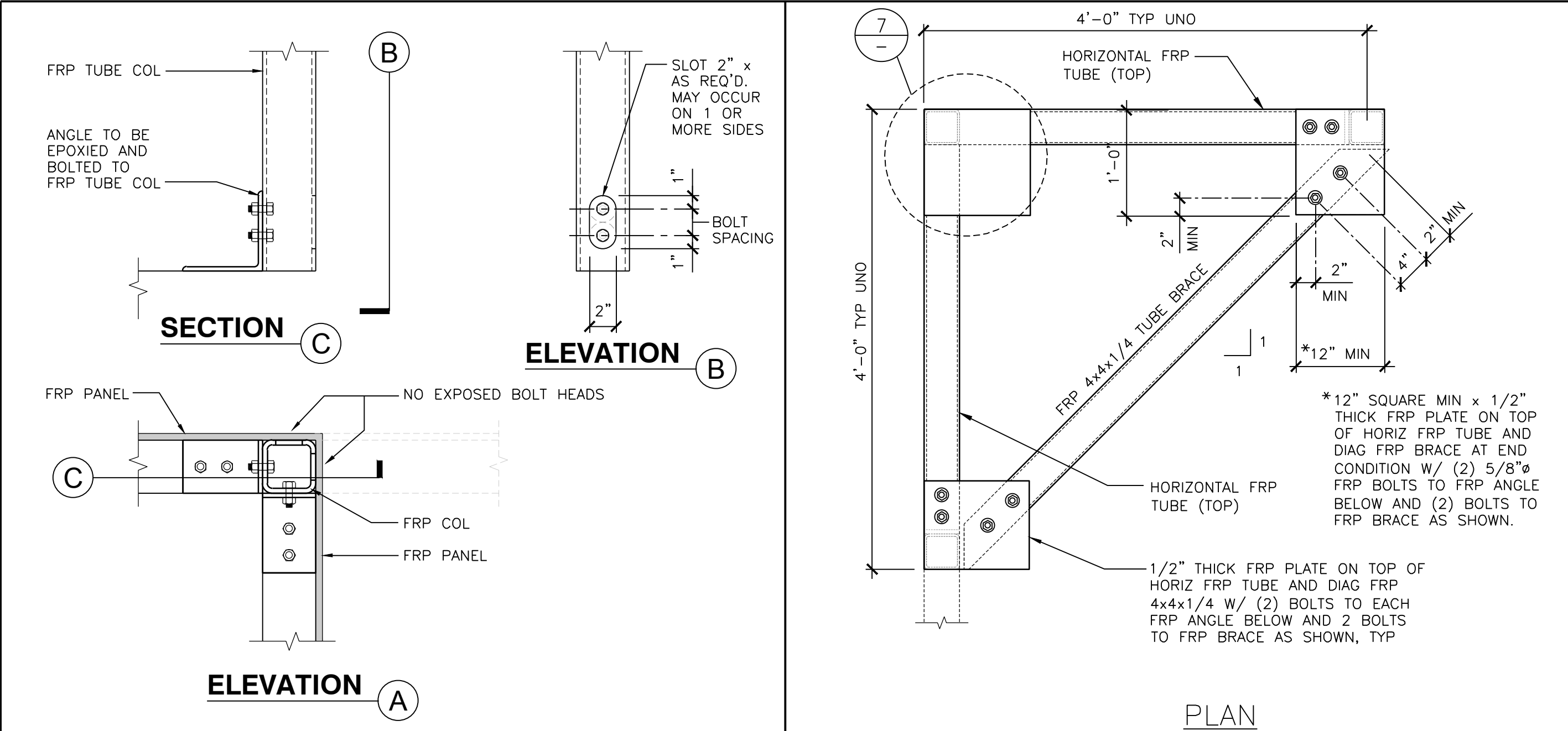


ELEVATION

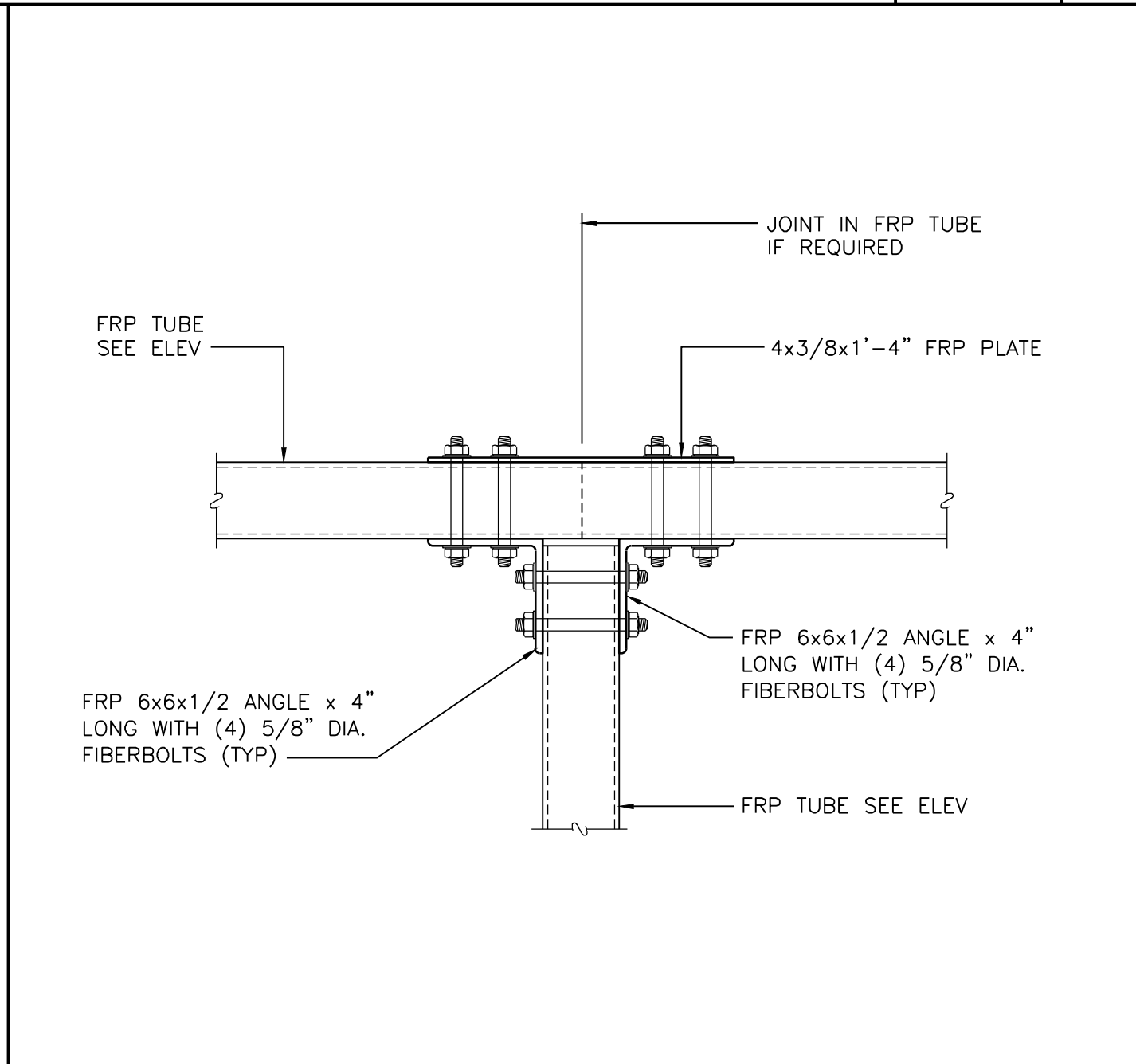
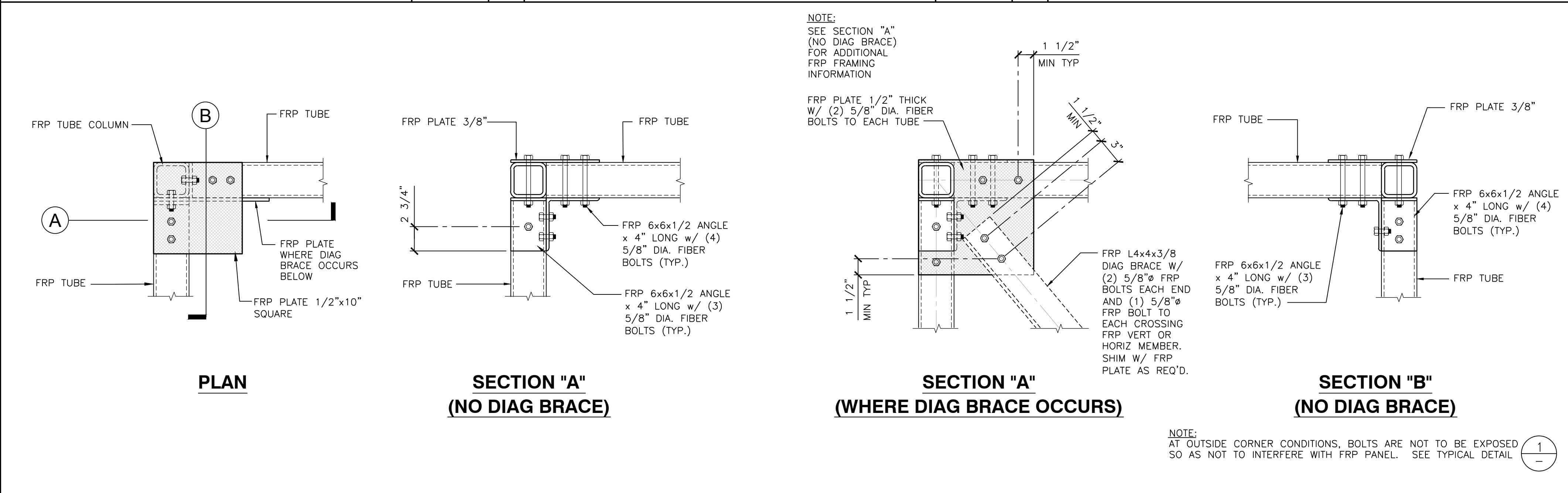
ELEVATION

NOT USED

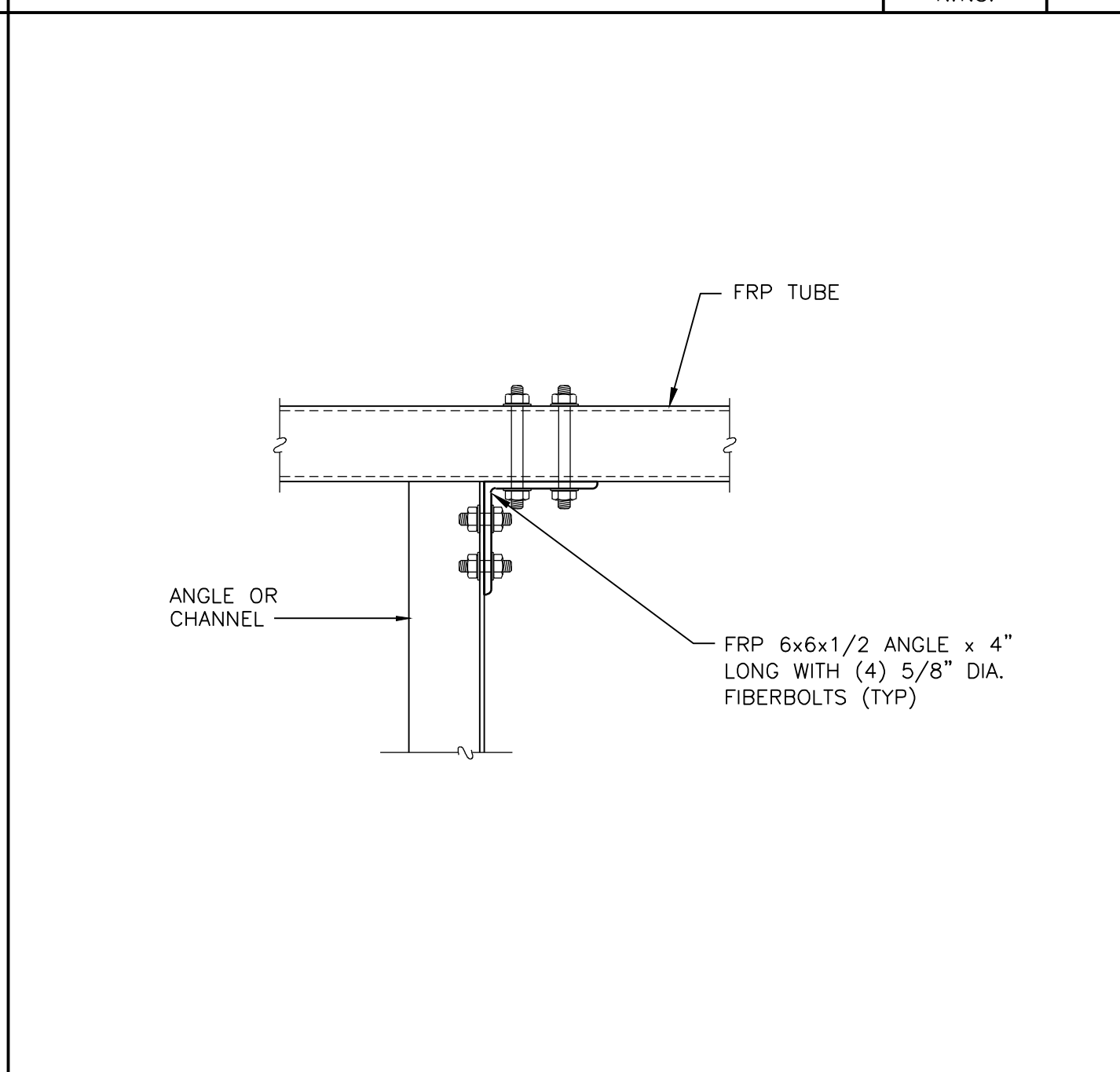
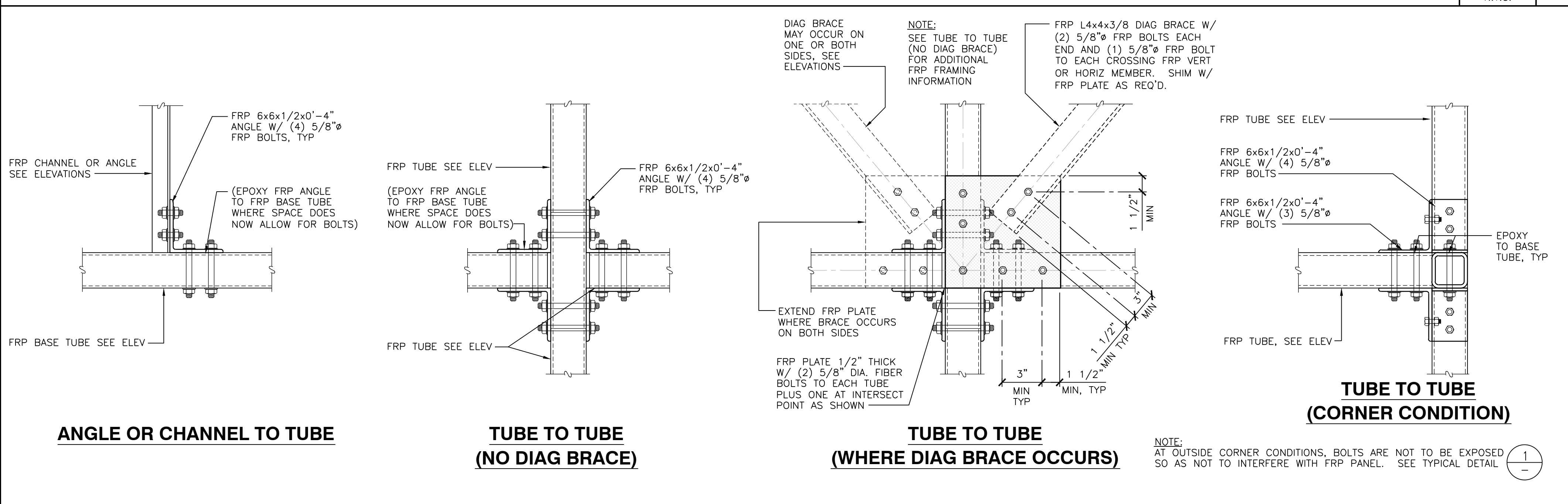
NOT USED



|        |               |   |                         |               |   |                       |               |   |
|--------|---------------|---|-------------------------|---------------|---|-----------------------|---------------|---|
| DETAIL | SCALE: N.T.S. | 1 | TYPICAL FRP HORIZ BRACE | SCALE: N.T.S. | 2 | TYPICAL FRP ELEVATION | SCALE: N.T.S. | 4 |
|--------|---------------|---|-------------------------|---------------|---|-----------------------|---------------|---|



|  |               |   |                  |               |   |
|--|---------------|---|------------------|---------------|---|
| TYPICAL FRP TUBE TO TUBE AT CORNER DETAILS | SCALE: N.T.S. | 7 | FRP TUBE TO TUBE | SCALE: N.T.S. | 8 |
|--|---------------|---|------------------|---------------|---|



|                     |               |    |                        |               |    |
|---------------------|---------------|----|------------------------|---------------|----|
| TYPICAL FRP DETAILS | SCALE: N.T.S. | 11 | FRP OR CHANNEL TO TUBE | SCALE: N.T.S. | 12 |
|---------------------|---------------|----|------------------------|---------------|----|

15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:

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ENGINEERING & CONSULTING, INC.  
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PHONE: (949) 716-9990 | FAX: (949) 716-9997

CLIENTS:

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|     |          |                    |     |
|     |          |                    |     |
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|     |          |                    |     |

SITE INFORMATION:

# BANKERS HILL

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

STRUCTURAL DETAILS

SHEET NUMBER:

SD-1





15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

| NO. | DATE:    | DESCRIPTION:       | BY: |
|-----|----------|--------------------|-----|
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SITE INFORMATION:

**BANKERS  
HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

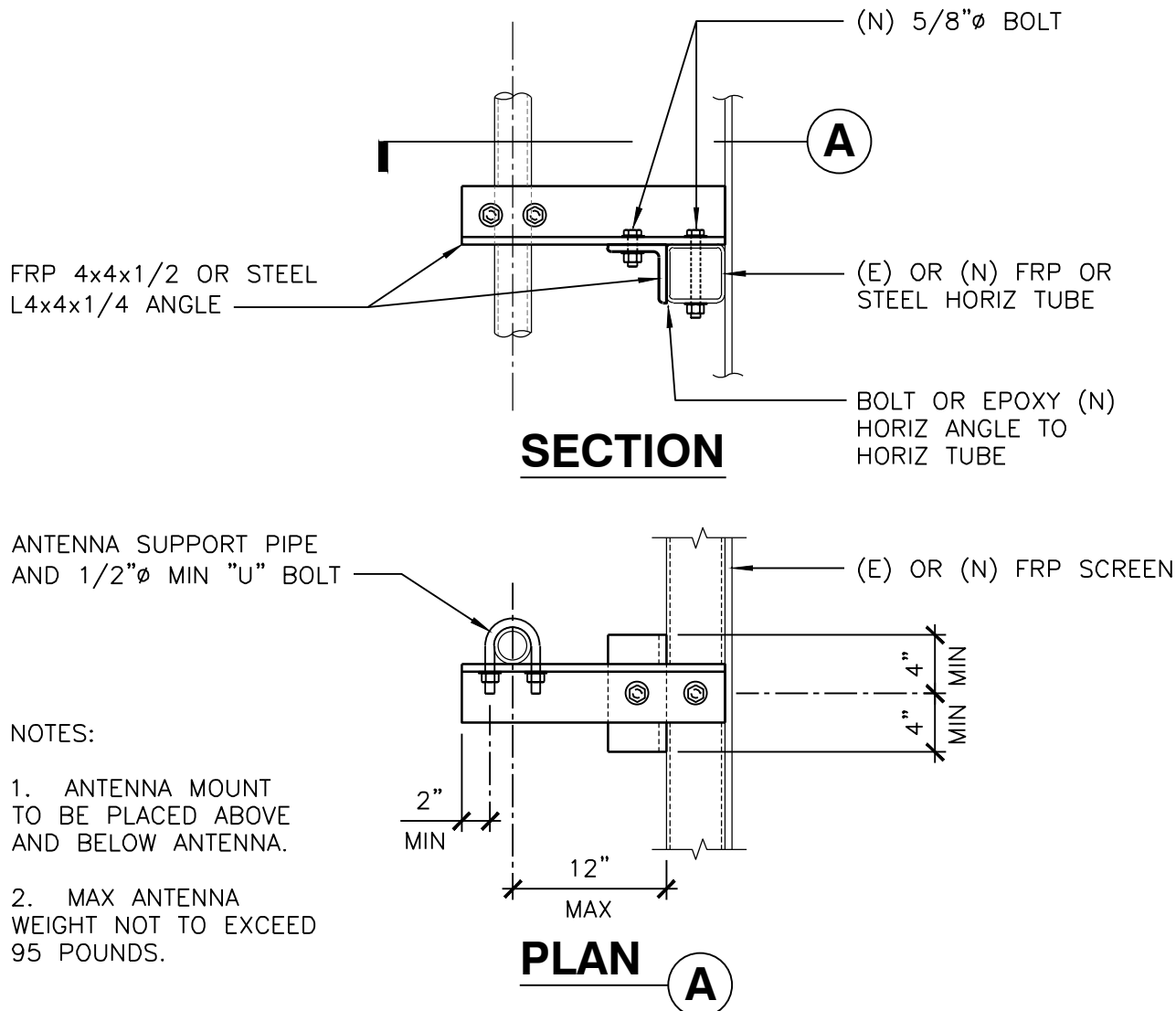
**STRUCTURAL  
DETAILS**

SHEET NUMBER:

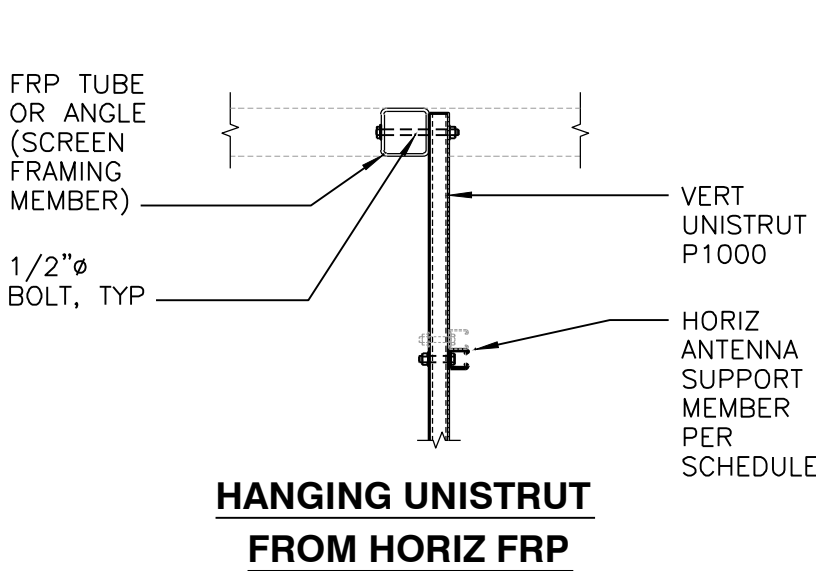
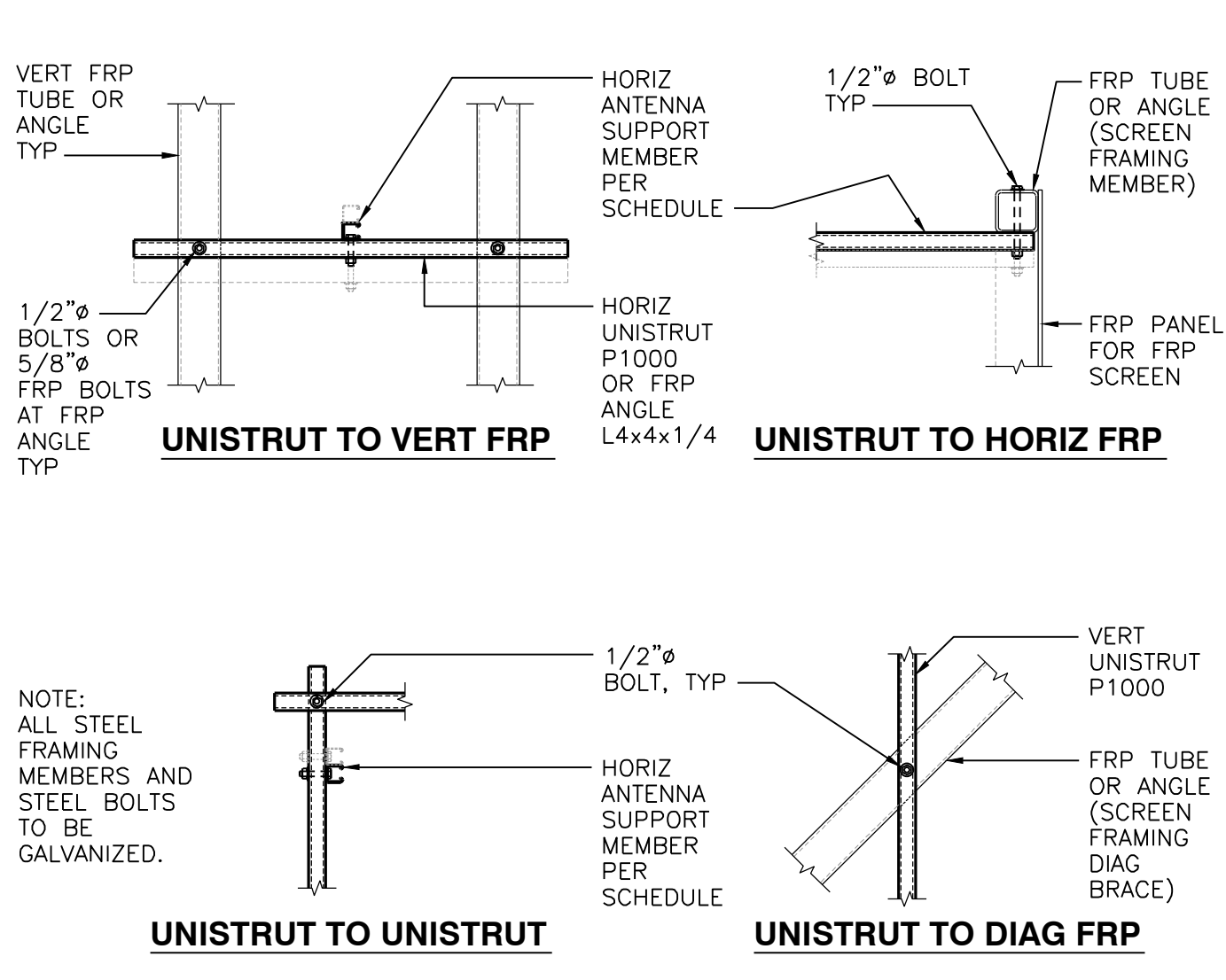
**SD-2**

NOTE:

FRP PANEL CONNECTION:  
AS NOTED IN THE LARR REPORT, PANELS SHALL BE BONDED TO THE SUPPORTING FRAME USING A QUICKSET URETHANE CONTINUOUS BEAD ADHESIVE AROUND THE ENTIRE PERIMETER OF THE PANEL, AND ATTACHED TO THE PERIMETER FRAME VIA #8 STEEL SCREWS AT 12" OR LESS SPACING AROUND THE PERIMETER OF THE PANEL (24 MIN SCREWS PER 4' X 8' PANEL). DO NOT LOCATED STEEL SCREWS IN FRONT OF AN ANTENNA. ALTERNATIVELY, THE PANELS SHALL BE BONDED TO THE SUPPORTING FRAME USING A QUICKSET URETHANE CONTINUOUS BEAD ADHESIVE AROUND THE ENTIRE PERIMETER OF THE PANEL, AND ATTACHED PER THE LARR REPORT WITH 1/2" DIAMETER THREADED FRP RODS CUT TO LENGTH AND INSERTED THROUGH 9/16" DIAMETER HOLES DRILLED AT 24" OR LESS SPACING AROUND THE PERIMETER OF THE PANEL (12 MINIMUM PER 4' X 8' PANEL). THE FRP RODS SHALL HAVE AN FRP NUT PLACED ON EACH END. ALL PANEL EDGES SHALL BE BLOCKED.



OPTIONAL ANTENNA MOUNTING DETAIL



NOTE:  
ALL ANTENNA SUPPORT FRAMING TO BE A MINIMUM OF 2 BOLTED CONNECTION POINTS FOR EACH SUPPORT FRAME. MAXIMUM HORIZ SPAN BETWEEN VERT SUPPORTS PER SCHEDULE. CONTRACTOR TO NOTIFY ENGINEER OF RECORD IF FIELD CONDITIONS DO NOT ALLOW FOR THE MINIMUM SUPPORT AND/OR CONNECTIONS REQUIRED TO SUPPORT ANTENNAS.

| HORIZ ANTENNA SUPPORT MEMBER SCHEDULE |             |          |            |          |            |
|---------------------------------------|-------------|----------|------------|----------|------------|
| MEMBER TYPE                           | SIZE        | MAX SPAN | MAX WEIGHT | MAX SPAN | MAX WEIGHT |
| FRP                                   | L4x4x1/4    | 6'-0"    | 100#       | 10'-0"   | 60#        |
| UNISTRUT                              | P1000       | 6'-0"    | 340#       | 10'-0"   | 100#       |
| UNISTRUT                              | P1001       | 8'-0"    | 600#       | 12'-0"   | 420#       |
| STEEL                                 | L4x4x1/4    | -        | -          | 12'-0"   | 600#       |
| STEEL                                 | HSS 4x4x1/4 | -        | -          | 20'-0"   | 1000#      |

TYPICAL FRP PANEL NOTES

SCALE:  
N.T.S.

1

DETAIL

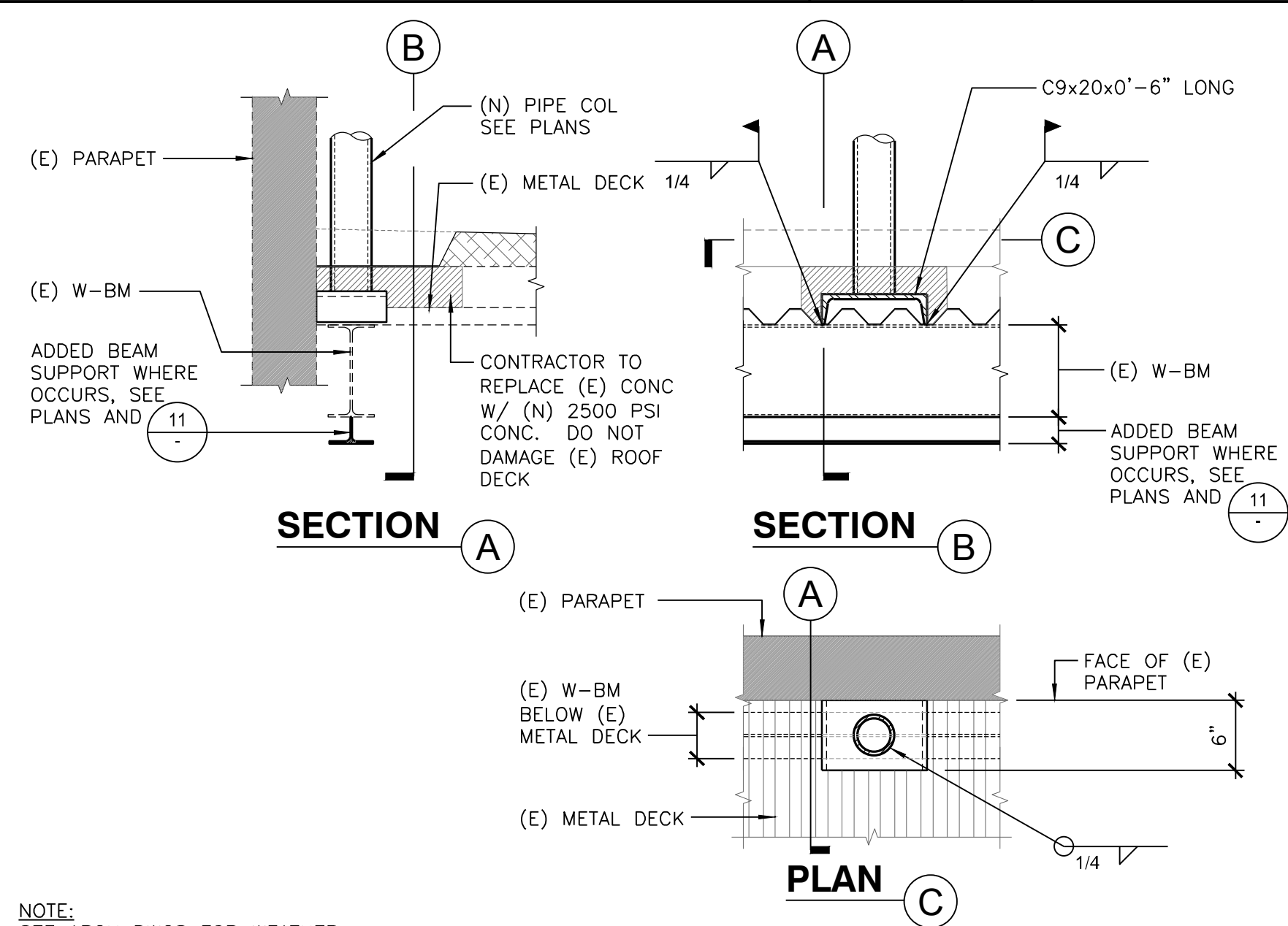


NOT USED

SCALE:  
N.T.S.

5

TYPICAL HSS TO HSS WELDED CONNECTIONS



NOTE:  
SEE ARCH DWGS FOR WEATHER FLASHING AND WEATHER PROOFING ETC.

DETAIL

SCALE:  
N.T.S.

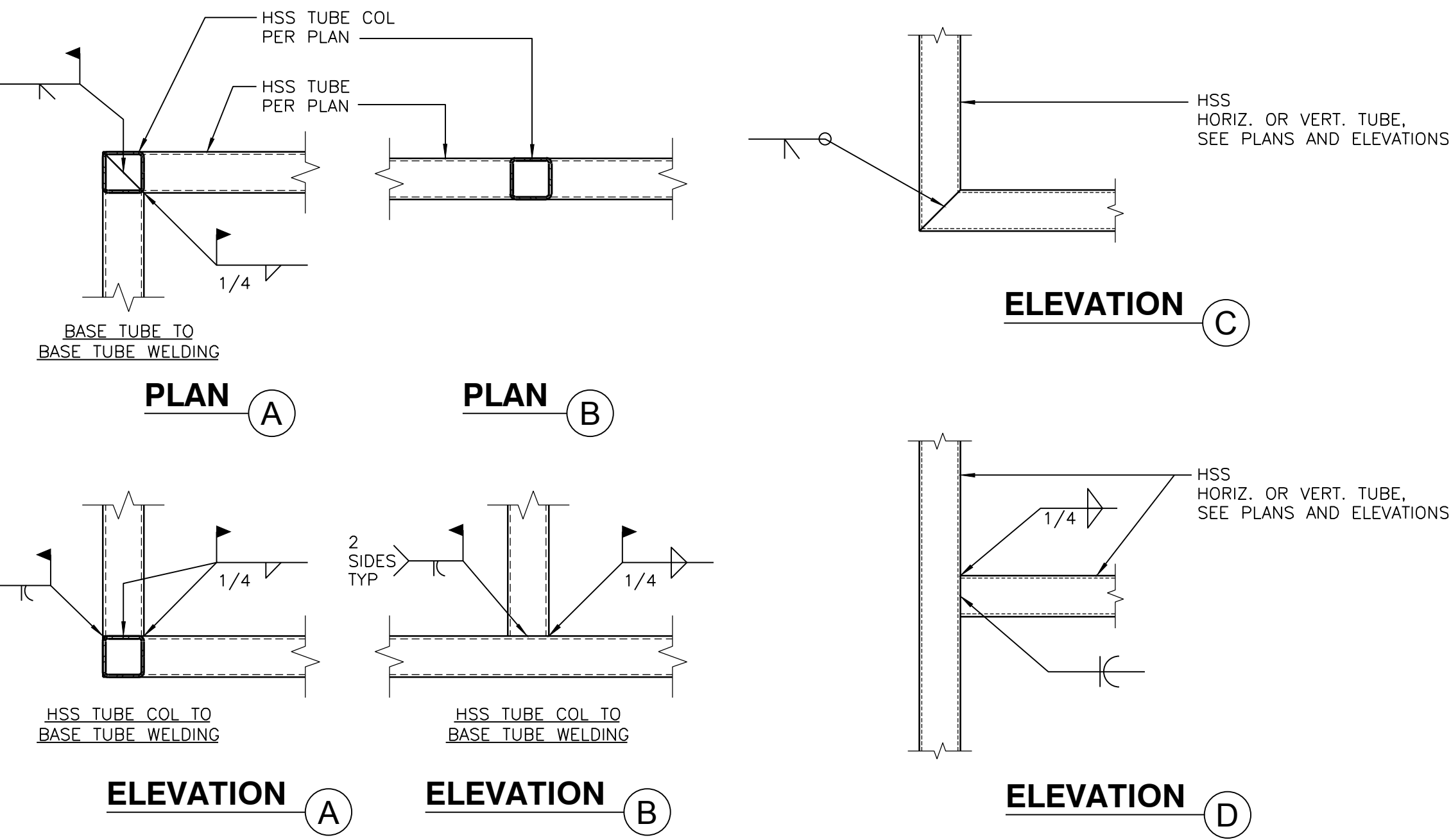
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DETAIL

SCALE:  
N.T.S.

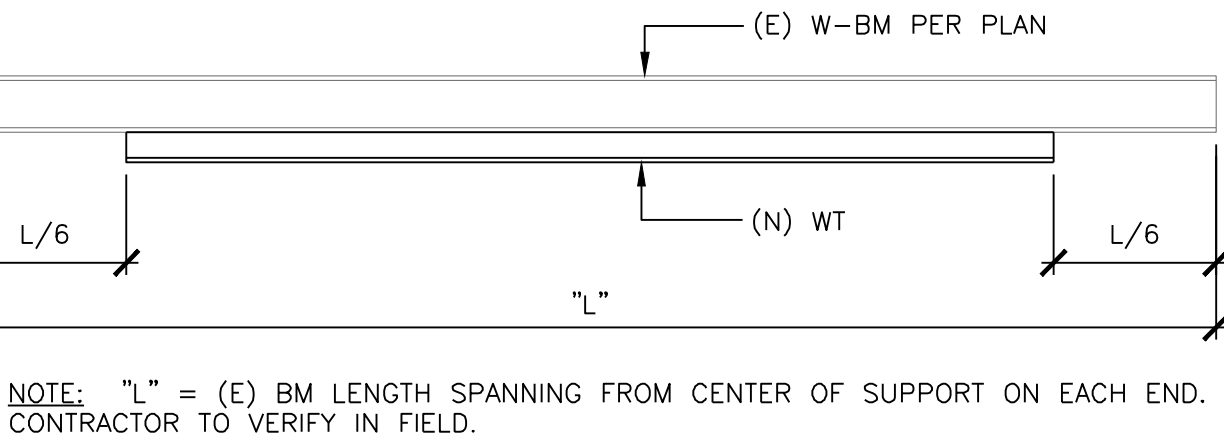
2

TYPICAL DETAIL



SCALE:  
N.T.S.

7



NOTE: "L" = (E) BM LENGTH SPANNING FROM CENTER OF SUPPORT ON EACH END. CONTRACTOR TO VERIFY IN FIELD.

ELEVATION

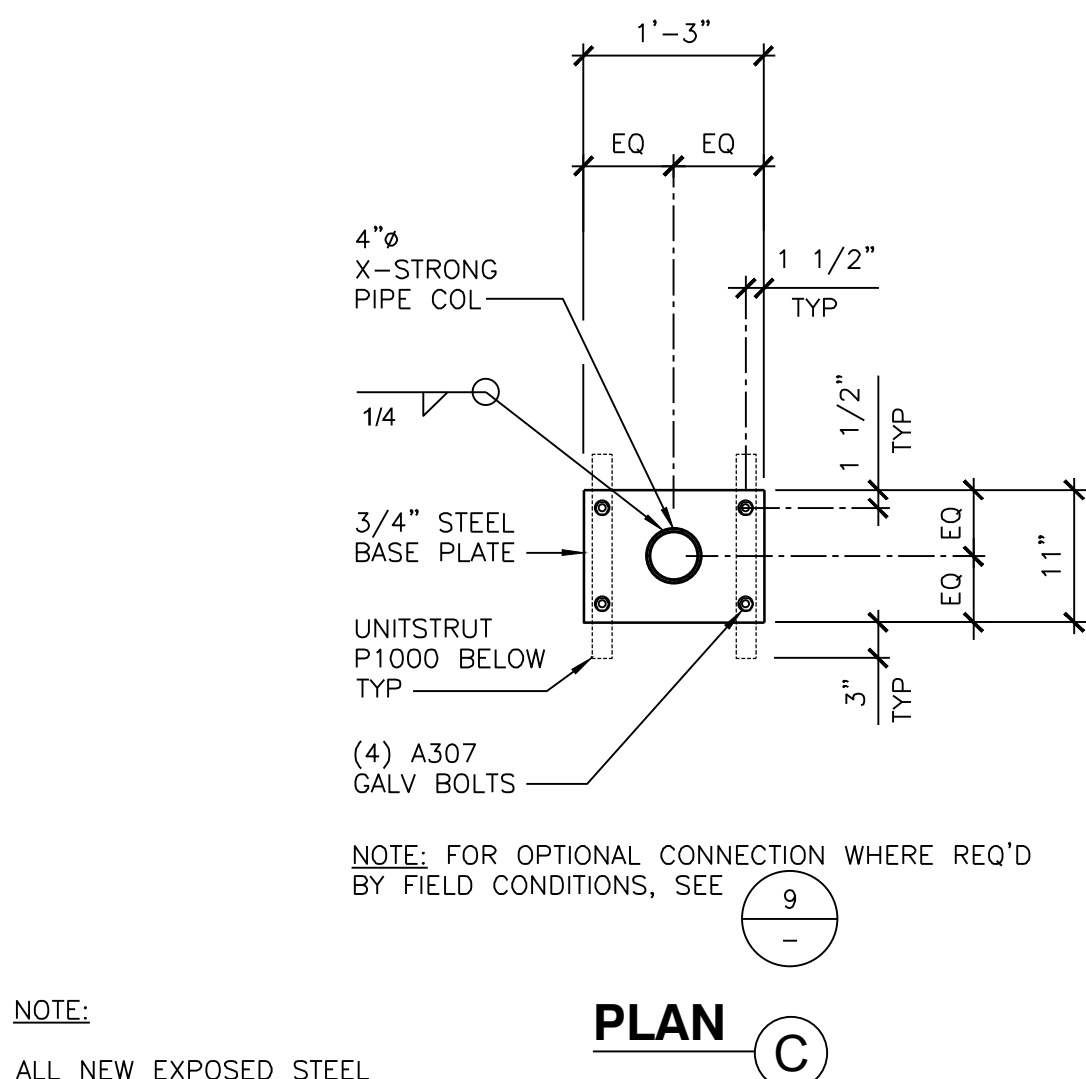
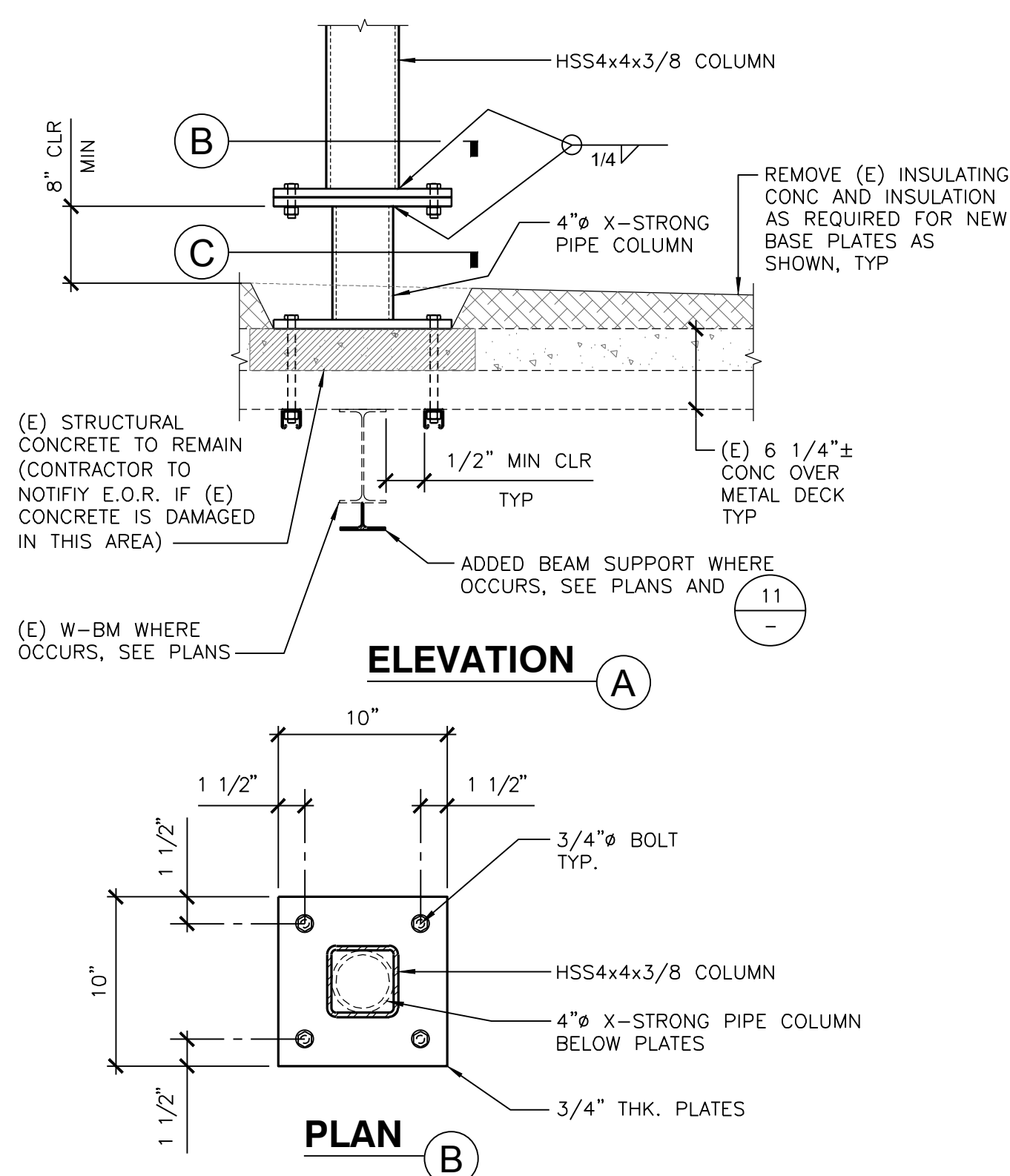
| SCHEDULE |                |               |                      |
|----------|----------------|---------------|----------------------|
| (E) BEAM | (N) WT REINF'G | WELD          | END WELD             |
| W8x10    | WT4x9          | 3/16" 3 IN 12 | 3/16"-12" BOTH SIDES |

NOTES:

- CONTRACTOR TO LAYOUT REINF'G EXTENT AS SHOWN U.N.O. ON PLANS.
- A W8x18 CAN BE SPLIT AND USED AS ALT TO WT4x9.

NOTE:

ALL NEW EXPOSED STEEL TO BE GALVANIZED.



SCALE:  
N.T.S.

11

TYP CONN TO ROOF DETAIL

SCALE:  
N.T.S.

12





15505 SAND CANYON AVE.  
IRVINE, CA 92618

PLANS PREPARED BY:



CLIENTS

NOTES:

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
- WEATHER PROOFING SHALL BE ANDREW TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

SCALE:

N.T.S.

CALDWELD & MECH. CONNECTIONS

SCALE:

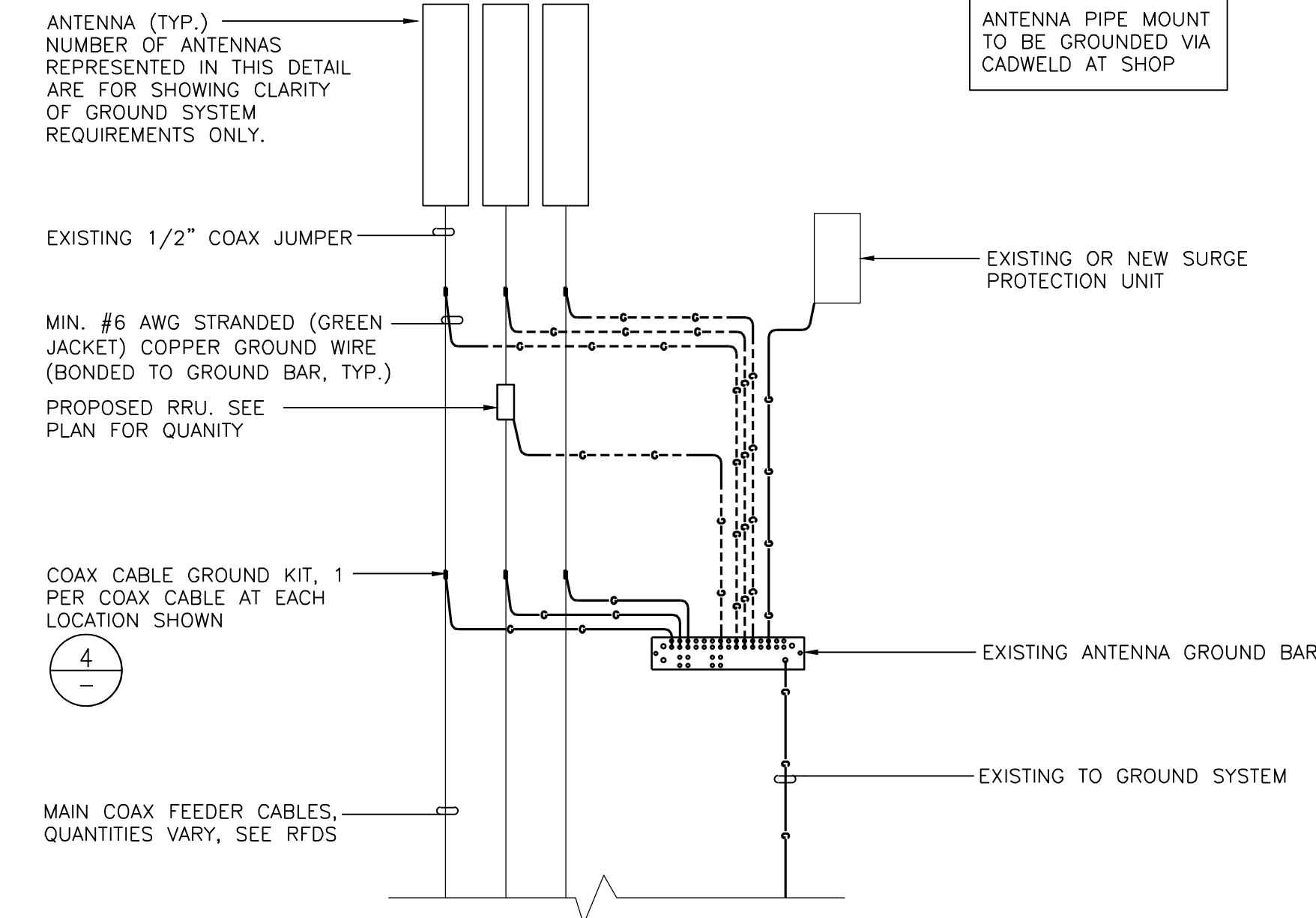
N.T.S.

3 CABLE GROUNDING

SCALE:

N.T.S.

4



SCALE:

SCALE:

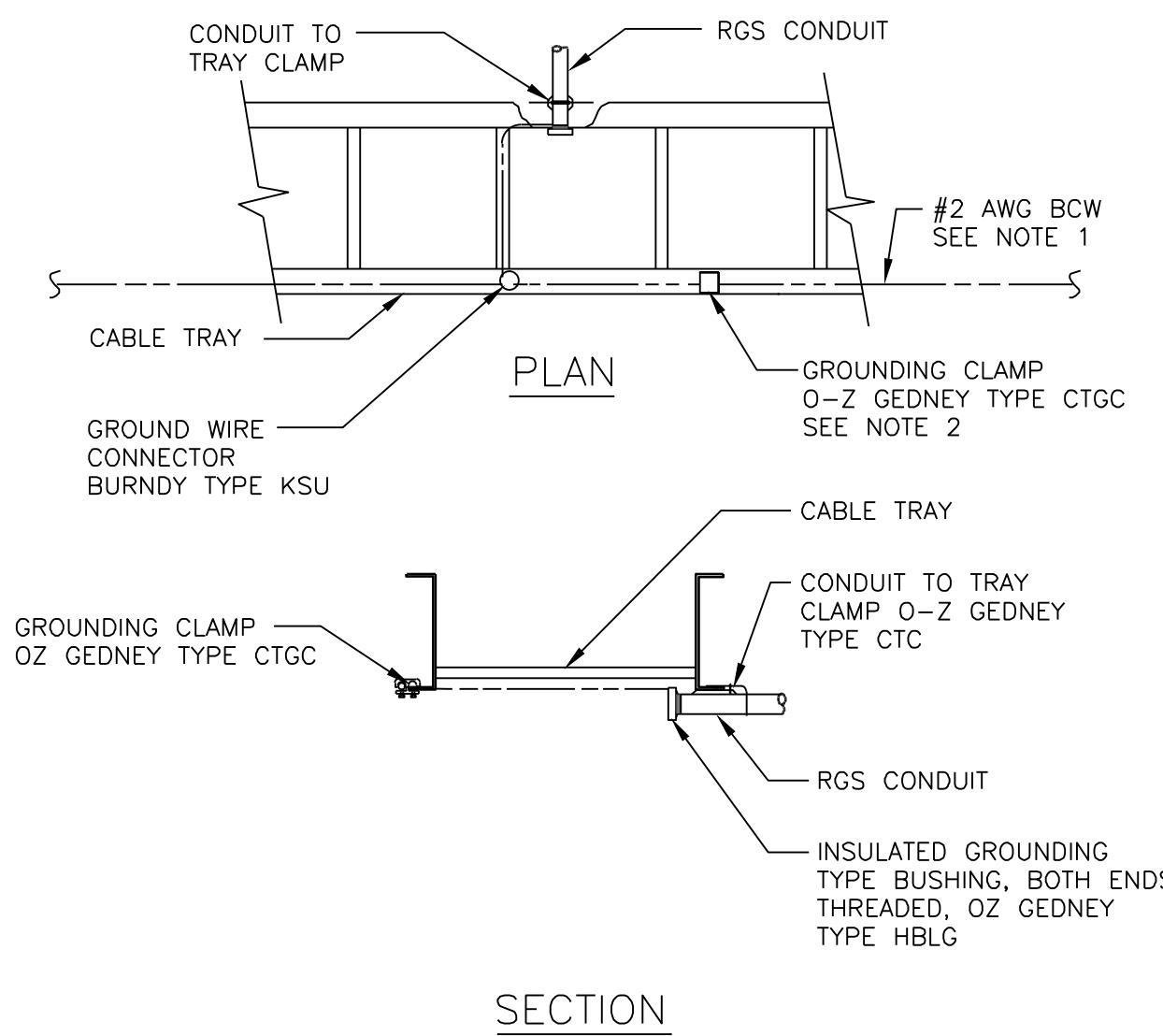
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3 CABLE GROUNDING

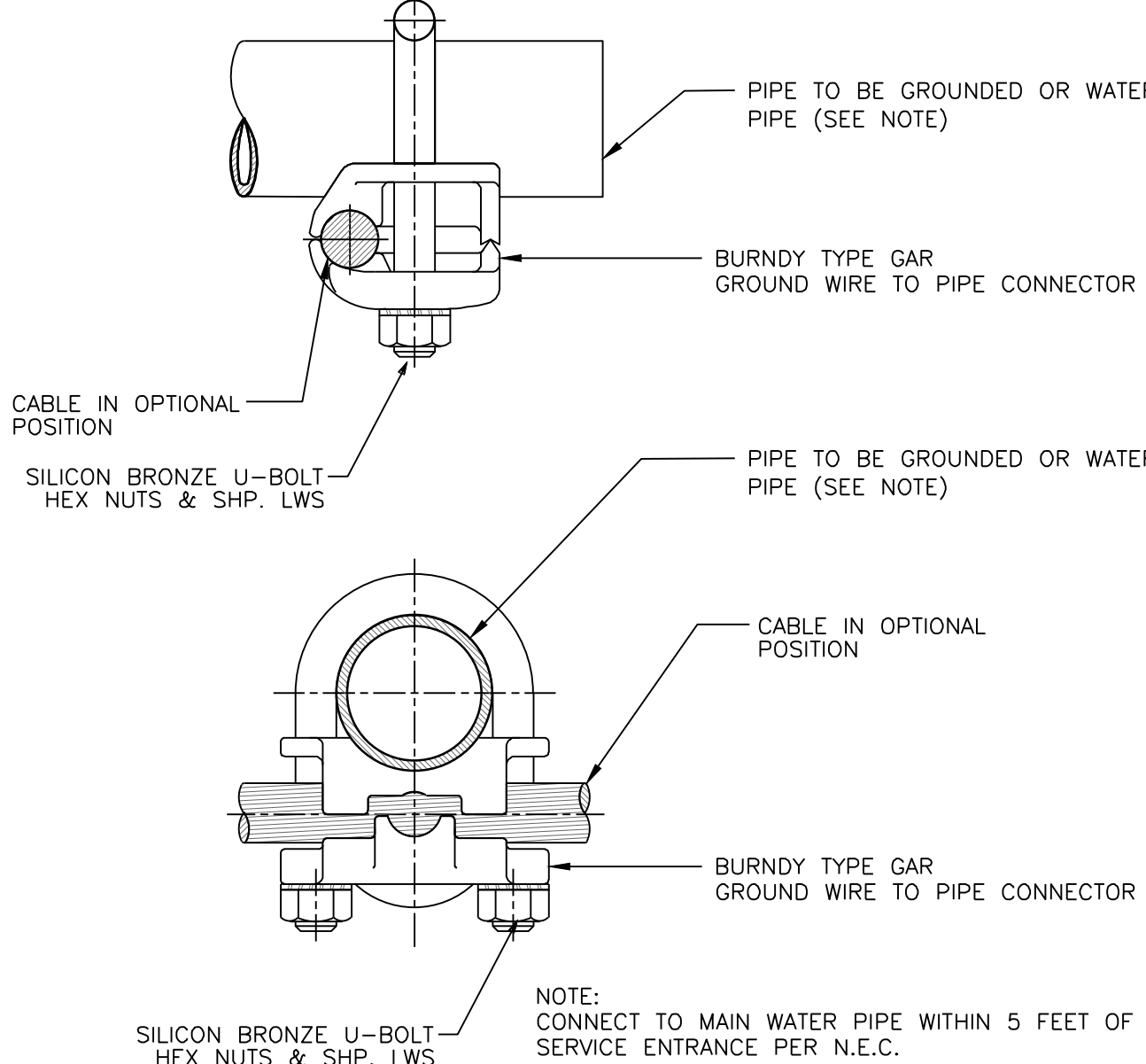
SCALE:

N.T.S.

4



- NOTES
- GROUND WIRE CONNECTED TO RING GROUND.
  - TYPICAL FOR EACH SECTION OF TRAY.



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SITE INFORMATION:

**BANKERS  
HILL**

111 ELM STREET  
SAN DIEGO, CA 92101

SEAL:

SHEET TITLE:

**ANTENNA GROUNDING,  
SCHEMATIC & DETAILS**

SHEET NUMBER:

**E-1**

GROUNDING SCHEMATIC

SCALE:

N.T.S.

6 CABLE TRAY GROUNDING

SCALE:

N.T.S.

7 PIPE GROUNDING CONNECTION

SCALE:

N.T.S.

8

NOTES:

- NEW PANEL ANTENNAS AND EQUIPMENT QUANTITY, AZIMUTH PER PLAN.
- #2 AWG SOLID BARE COPPER GROUND TO EXISTING BUILDING STEEL OR WATER PIPE.
- ANTENNA GROUND BAR, 16"Lx4"Wx1/4"T, TYP.
- #6 THHN GROUND CONDUCTORS TO ANTENNAS & EQUIPMENTS TYP.
- NEW VERIZON WIRELESS CABLE TRAY TYP. PER PLAN
- MECHANICAL CONNECTION, TYP.
- NEW SURGE PROTECTION UNIT
- NEW RRUS PER PLAN

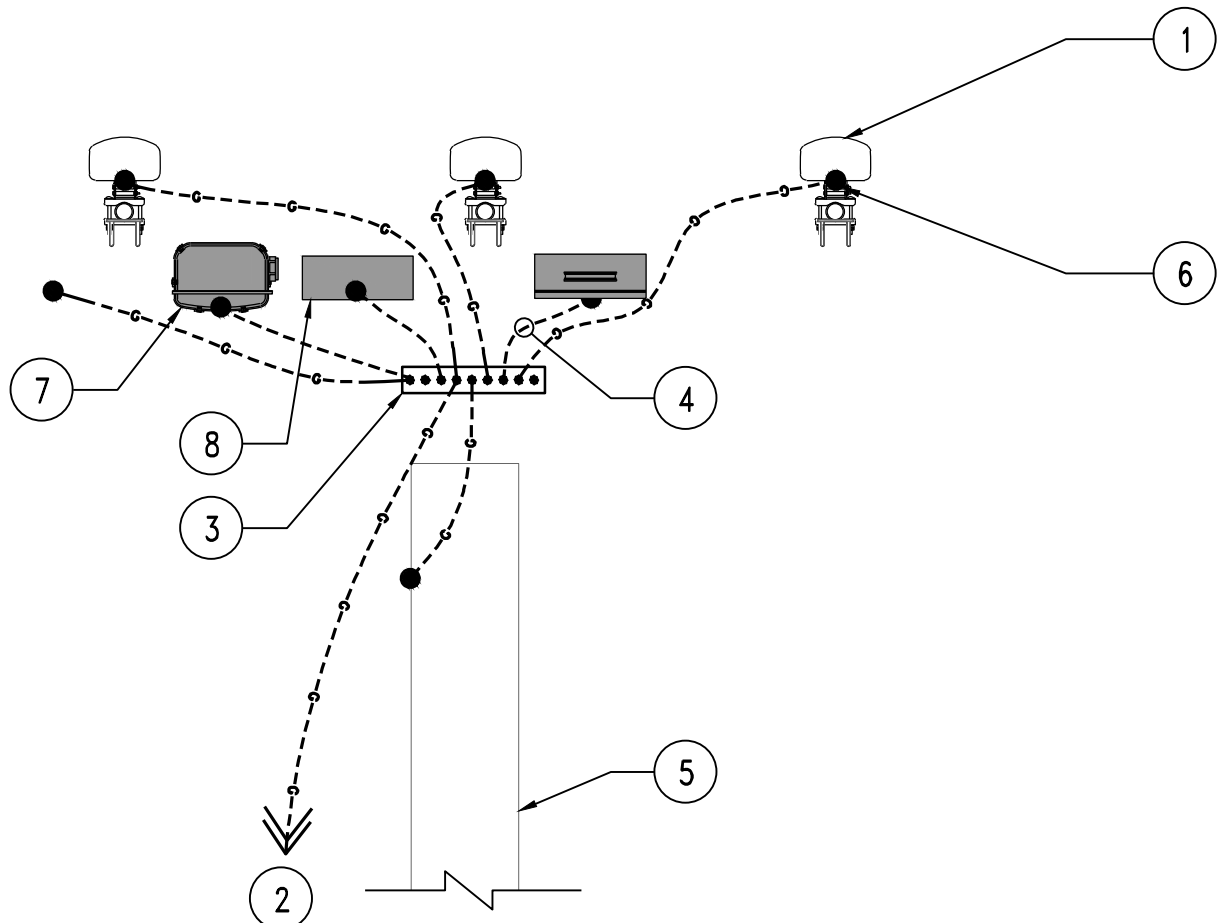
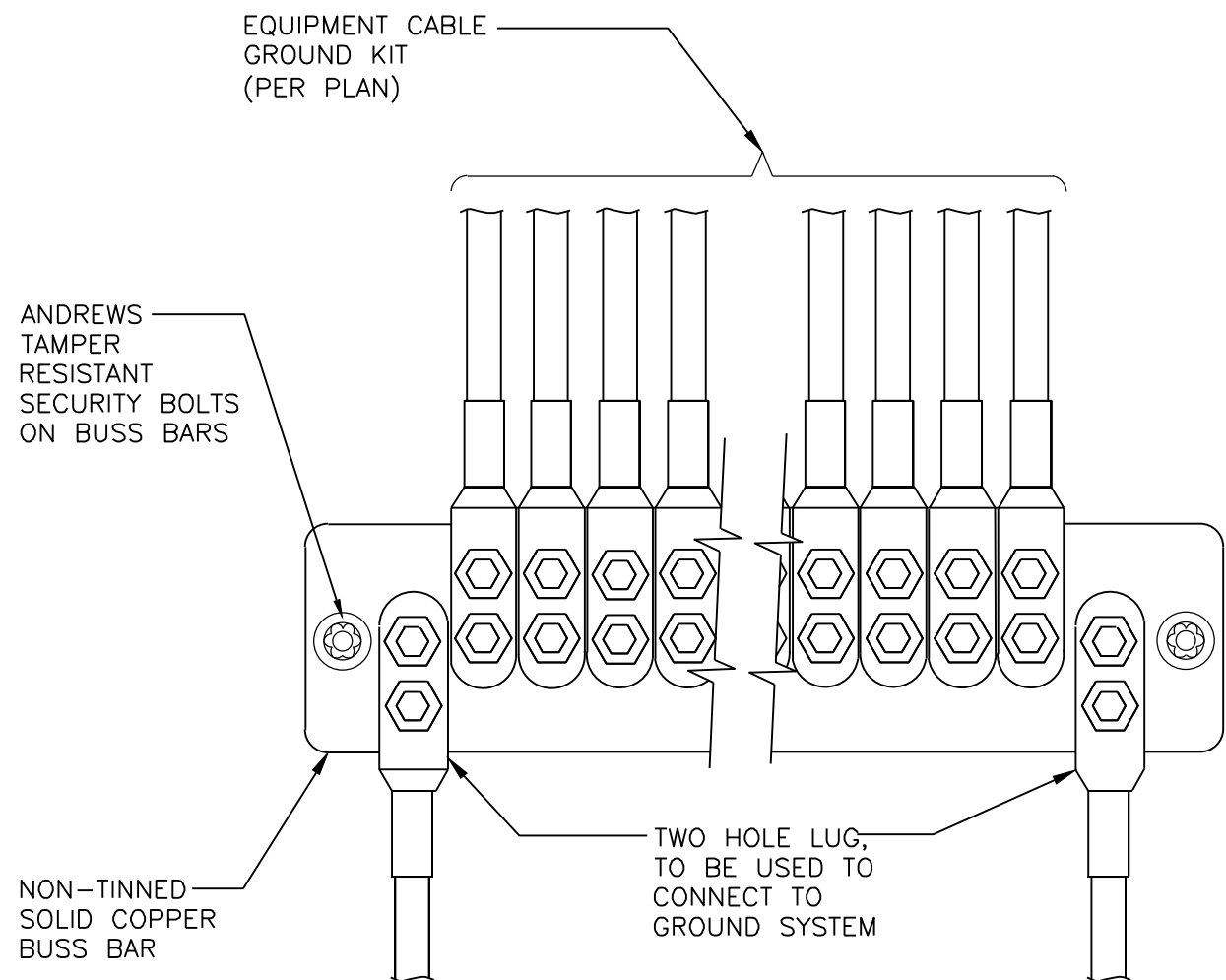


DIAGRAM SHOWN IS FOR ONE SECTOR, SIMILAR GROUNDING ANTENNA FOR OTHER SECTORS. SEE ARCH. DWG.



- NOTE:
- CONTRACTOR TO UTILIZE KOPR-SHIELD (THOMAS & BETTS) OR EQUIVALENT ON ALL LUG CONNECTIONS
  - SIZE GROUND BUSS BAR AS REQUIRED FOR SITE CONDITION

ANTENNA GROUNDING

SCALE:

N.T.S.

10 GROUND BUSS BAR

SCALE:

N.T.S.

11 NOT USED

SCALE:

N.T.S.

12