



A G E N D A

CITY OF SEASIDE
PLANNING COMMISSION

MEETING
COUNCIL CHAMBER
440 Harcourt Avenue
Wednesday, November 18, 2015
7:00 PM

PLEASE TURN OFF YOUR CELL PHONES UPON ENTERING THE MEETING

1. **CALL TO ORDER**

2. **ROLL CALL - ESTABLISHMENT OF QUORUM**

John Owens
Michael Lechman
Keith Dodson
Margaret Leighton
Denise Ross

Chair
Vice Chair
Commissioner
Commissioner
Commissioner

3. **REVIEW OF AGENDA**

If there are any items that arose after the 72-hour posting deadline, this is the point in the meeting where a vote may be taken to add the item to the agenda. (A 2/3-majority vote is required).

4. **PUBLIC COMMENT**

5. **APPROVAL OF MINUTES**

6. **BUSINESS ITEMS**

- A. **FENCE EXCEPTION APPLICATION NO. FE-15-01: VIRGINIA MCCORMICK, PROPERTY OWNER, AND RAY RAMSEY, APPLICANT, ARE REQUESTING APPROVAL OF A FENCE EXCEPTION TO ALLOW FOR A TWENTY FOOT EXTENSION TO AN EXISTING SIX FOOT HIGH WOOD FENCE LOCATED WITHIN THE TEN FOOT STREET SIDE SETBACK OF A CORNER LOT LOCATED AT 2090 CROSS STREET IN THE RS-8 (SINGLE FAMILY RESIDENTIAL) ZONING DISTRICT. PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES, THE PROJECT IS CATEGORICALLY EXEMPT, CLASS 3, SECTION 153039(e), NEW CONSTRUCTION OF SMALL STRUCTURES. (CONTINUED FROM OCTOBER 28, 2015).**

PURPOSE: In accordance with Section 17.30.020(F) of the Seaside Municipal Code

(SMC) the applicant is requesting approval of a fence exception for a twenty foot extension to an existing six-foot high wood fence located within the ten foot street side setback of a corner lot. The property is located at 2090 Cross Street in the RS-8 (Single Family Residential) Zoning District.

RECOMMENDATION: Staff recommends denial of the Fence Exception based upon the findings and evidence in the draft Resolution provided as Attachment 1.

B. Monterey County (Applicant) and Marina Coast Water District (Property Owner) are requesting the approval of a Use Permit and Variance as described below to allow for the co-location of the following telecommunication improvements onto an existing freestanding 78-foot tall telecommunication tower currently being used to support an unmanned Sprint Wireless telecommunication facility on a parcel located in the former Fort Ord Army Base at 4602 Parker Flats Road, north of Eucalyptus Road, within the RS-12 Single-Family Residential Zoning District (APN 031-151-047).

PURPOSE:

Use Permit

A. The Use Permit is for the addition of the following antennas onto the existing 78-foot tall telecommunication tower:

- 1) Two (2) very high frequency (VHF) Omni multi-channel radio transmit (Tx) antennas mounted at an elevation of 47 feet;
- 2) An Omni receive (Rx) antenna mounted at an elevation of 99 feet, and;
- 3) Two microwave system parabolic antennas mounted at an elevation of 65 feet.

Variance

- B. The Variance is for the granting of an increase in the functional antenna height from the permitted maximum height of 80 feet to an elevation of 99 feet for a Rx Omni antenna into an existing freestanding telecommunication tower.

RECOMMENDATION:

Staff recommends that the Planning Commission approve the Use Permit and Variance application for the proposed co-location onto the existing telecommunication facility based on the findings, evidence, and subject to conditions of approval in the Draft Resolution attached as Attachment 1 (Variance Application) and Attachment 2 (Use Permit Application).

7. REPORTS FROM COMMISSIONERS

8. REPORTS FROM STAFF

9. ADJOURNMENT

The City of Seaside is an ADA accessible facility and is committed to include the disabled in all of its services, programs and activities. Any person who requires accommodation to be able to participate in this meeting is asked to contact the office of the City Clerk at 899-6707, no fewer than two business days prior to the meeting to allow for reasonable arrangements.

The City Council Chambers is equipped with a portable microphone for anyone unable to come to the podium. Assisted listening devices are also available.

Meetings that are held in the City Council Chambers are broadcast live to all Seaside residents on Comcast Channel 25 and U-verse Channel 99. Meetings are also available through live streaming at: <http://cvp.telvue.com/player?id=T01629&video=52314&noplaylists=1&width=400&height=300> Videos of past meetings are available on demand through the City's website: <http://www.ci.seaside.ca.us>

Agenda-related writings or documents provided during public meetings are available for public inspection during the meeting or from the office of the City Clerk. This agenda is posted in compliance with California Government Code Section 54954.2(a) or Section 54956.



**CITY OF SEASIDE
STAFF REPORT**

Item No.: 6.A.

TO: Planning Commission

BY: Lisa Brinton, Community and Economic Development Services Manager
Bob Larsen, Associate Planner

DATE: November 18, 2015

SUBJECT: **FENCE EXCEPTION APPLICATION NO. FE-15-01: VIRGINIA MCCORMICK, PROPERTY OWNER, AND RAY RAMSEY, APPLICANT, ARE REQUESTING APPROVAL OF A FENCE EXCEPTION TO ALLOW FOR A TWENTY FOOT EXTENSION TO AN EXISTING SIX FOOT HIGH WOOD FENCE LOCATED WITHIN THE TEN FOOT STREET SIDE SETBACK OF A CORNER LOT LOCATED AT 2090 CROSS STREET IN THE RS-8 (SINGLE FAMILY RESIDENTIAL) ZONING DISTRICT. PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES, THE PROJECT IS CATEGORICALLY EXEMPT, CLASS 3, SECTION 153039(e), NEW CONSTRUCTION OF SMALL STRUCTURES. (CONTINUED FROM OCTOBER 28, 2015).**

PURPOSE

In accordance with Section 17.30.020(F) of the Seaside Municipal Code (SMC) the applicant is requesting approval of a fence exception for a twenty foot extension to an existing six-foot high wood fence located within the ten foot street side setback of a corner lot. The property is located at 2090 Cross Street in the RS-8 (Single Family Residential) Zoning District.

RECOMMENDATION

Staff recommends denial of the Fence Exception based upon the findings and evidence in the draft Resolution provided as Attachment 1.

BACKGROUND

The project site is located at the southeast corner of Cross Street and Military Avenue. The parcel is approximately 14,888 square feet in area and developed with a 1,506 square foot three bedroom, two-bath house and detached 640 square foot accessory unit with a two car garage. The main dwelling was constructed in 1952 and the accessory unit was constructed in 2014. Adjacent land uses are all single-family residential in nature. See Figure 1: Site Adjacent Land

Uses. Project Plans are provided as Exhibit A to Attachment 1. A Location Map is provided as Attachment 2. An Aerial Photo is provided as Attachment 3. Site Photographs are provided as Attachment 4. The Applicant's Statement is provided as Attachment 5.

Figure 1: Adjacent Land Uses

NW	N			NE
	Single Family Dwelling	Single Family Dwelling	Single Family Dwelling	
W	Single Family Dwelling	Project Site	Single Family Dwelling	E
	Single Family Dwelling	Single Family Dwelling	Single Family Dwelling	
SW	S			SE

PROJECT DESCRIPTION

On August 5, 2009, the applicant received design review approval for the construction of a detached residential second unit above a new two-car garage at the east portion of the property facing Military Avenue. To accommodate a new driveway and associated on-site parking for the main dwelling and second unit, the easterly 52 feet of an 80 foot long, six foot high wood fence in front of the new garage along the Military Avenue frontage was removed. The westerly 28 feet of the six foot high fence remained in place and currently terminates with a 90 degree return to the northeasterly corner of the existing attached garage. The previously approved plans indicate that the attached garage is to be converted into a family room with the completion of the new garage. The approved plans also show that the 20 foot wide concrete driveway pad in front of the garage is to be removed and replaced with landscaping while the existing driveway approach is to be removed and replaced with standard curb, gutter, and sidewalk to match the existing improvements on Military Avenue.

The SMC states that a fence located within the street side setback (10 feet from property line along the Military Avenue frontage) shall have a maximum height of four feet. The applicant is requesting a fence exception to allow for a six foot high fence along Military Avenue and a six foot high fence that would be located in the ten foot street side setback as it returns towards the corner of the garage for a distance of approximately eighteen feet, eight of which is within the setback.

In lieu of the proposed landscaping and removal of the existing concrete driveway pad, the applicant is now proposing to retain the concrete pad and continue the six foot fence on Military Avenue twenty feet in a westerly direction in front of the concrete driveway to terminate at the northwesterly corner of the garage. The six foot fence currently located along the eastern edge of the driveway pad will be relocated to the western edge of the driveway pad. The existing concrete driveway pad would be combined with the existing patio located between the garage

and the two-story second unit to create a large outdoor patio area on the north side of the house. The applicant has stated that they would prefer a larger patio area in lieu of an additional 360 square feet of landscaping which would require water and maintenance. The area between the back of sidewalk and the existing six foot fence that is currently landscaped with large succulents spaced approximately 10 feet apart will remain.

The applicant's statement in support of a fence exception is provided as Attachment 6 and provides the following reasons to support the approval of the fence exception.

1. Due to the property being a large corner lot, they consider this portion of the lot as part of their back yard,
2. For aesthetic reasons, they would like to keep the fences along Military Avenue at the same height,
3. A six foot fence is needed for privacy into the bedroom windows on that side of the house,
4. Due to the slope of the property, people can look into their yard,
5. People walking by their property cause problems with their dogs and throw trash into their yard.

ENVIRONMENTAL REVIEW

This project is Categorically Exempt from the California Environmental Quality Act pursuant to Section 15303(e): New Construction of Small Structures. Class 3 categorical exemptions consist of the construction of small structures including fences.

Evidence: Approval of the proposed fence exception would result in the construction of a new six foot high wood fence on Military Avenue. A fence consists of a minor improvement that is categorically exempt from CEQA.

STAFF ANALYSIS AND FINDINGS

Fence exception rules are listed under SMC Section 17.30.020.F.1 and 2. The process mandates that where a physical hardship exists because of unique or unusual topographic conditions or structure location, the commission may approve a fence exception subject to the following findings:

- A general safety hazard to City residents and/or the general public would not be created.
- A traffic-related safety hazard would not be created.
- The fence or wall will not impair visibility at an intersection or traffic safety visibility area.
- The fence or wall will not obstruct vision from an adjoining driveway.
- The fence or wall is compatible with the surrounding neighborhood.

Traffic Safety

The Public Works and Police Departments have reviewed this application and have offered no objections to the proposed fence based on the findings listed above.

Physical Hardship

Primary issues relate to whether a physical hardship (e.g. irregular lot size, slope, building placement, utilities) exist which would preclude the property owner from the reasonable use of their property if the fence exception is not granted.

Staff is unable to justify the request based upon the code's requirement to meet a physical hardship associated with this site which would allow for an exception. The size of the lot provides alternate locations for patios as well as the keeping of dogs away from pedestrians on the sidewalk. The slope of the lot is fairly gentle in all directions. There is no evidence of a physical hardship to support the applicant's request.

Findings for Denial of the Fence Exception Application:

1. Physical hardships do not exist based upon unique or unusual topographic conditions or structure location.

Evidence: The lot does not contain sufficient cross slope or other unique or unusual topographic conditions, irregular lot size, or building placement to establish a physical hardship to justify the issuance of a Fence Exception.

Evidence: The 14,888 square foot lot provides opportunities to create secure yard areas without the need to construct a six foot fence within the ten foot street side setback to create additional private open space.

Evidence: The size of the lot offers alternate locations away from the sidewalk for the keeping of dogs.

CONCLUSION

Based on the above analysis, staff recommends denial of Fence Exception Application No. FE-15-01. The proposed fence exception request does not offer compelling evidence in support of a physical hardship due to unique or unusual topographic conditions or structure location.

FISCAL IMPACT

There is no fiscal impact associated with this item.

ATTACHMENTS

1. Attachment 1 - Draft Resolution
2. Attachment 1 - Exhibit A - Project Plans
3. Attachment 2 - Location Map
4. Attachment 3 - Aerial View
5. Attachment 4 - Site Photographs
6. Attachment 5 - Applicant's Statement

Reviewed for Submission to the
City Council by:



Meeting Date: November 18, 2015

John Dunn, City Manager

Attachment 1

**PLANNING COMMISSION
RESOLUTION NO. 15-XX**

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SEASIDE, STATE OF CALIFORNIA, DENYING FENCE EXCEPTION APPLICATION NO. FE-15-01 TO ALLOW FOR A TWENTY FOOT EXTENSION TO AN EXISTING SIX FOOT HIGH WOOD FENCE WHICH EXCEEDS THE MAXIMUM HEIGHT REQUIREMENTS OF ZONING CODE SECTIONS 17.30.020.B.1 WITHIN THE REQUIRED STREET SIDE SETBACK LOCATED AT 2090 CROSS STREET (APN: 011-042-001).

WHEREAS, Virginia McCormick, property owner, and Ray Ramsey, applicant, have applied for approval of a Fence Exception permit to allow for a twenty foot extension to an existing six foot high wood fence located within the ten foot street side setback of a corner lot thereby exceeding the maximum height requirements of Zoning Code Section 17.30.020.B.1 within the required street side setback; and

WHEREAS, the proposed project requires approval by the Planning Commission, and based on the fact that a portion of the six foot wood fence has already been constructed; and

WHEREAS, it is the responsibility of the Planning Commission to consider and weigh the merits of the application and public input in relation to the policies, standards and intent of the Seaside General Plan and Seaside Municipal Code in relation to the proposed Fence Exception; and

WHEREAS, the Planning Commission considered written information concerning the proposed exception at a duly noticed public hearing held on November 18, 2015; and

WHEREAS, the project is exempt from environmental review subject to Class 3, Section 15303(e): New Construction of Small Structures:

Evidence: Approval of the proposed fence exception would result in the retention on an existing six foot high wood fence and the construction of thirty feet (twenty feet along Military Avenue and 10 foot return towards the garage) of new six foot high wood fence.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission adopts the following findings for the denial of Fence Exemption Application No. FE-15-01:

1. Physical hardships do not exist based upon unique or unusual topographic conditions or structure location.

Evidence: The lot does not contain sufficient cross slope or other unique or unusual topographic conditions, irregular lot size, or building placement to establish a physical hardship to justify the issuance of a Fence Exception.

Evidence: The 14,888 square foot lot provides opportunities to create secure yard areas without the need to construct a six foot fence within the ten foot street side setback to create additional private open space.

Evidence: The size of the lot offers alternate locations away from the sidewalk for the keeping of dogs.

NOW BE IT FURTHER RESOLVED, the Planning Commission hereby denies Fence Exception Application No. FE-15-01.

AYES:

NOES:

ABSENT:

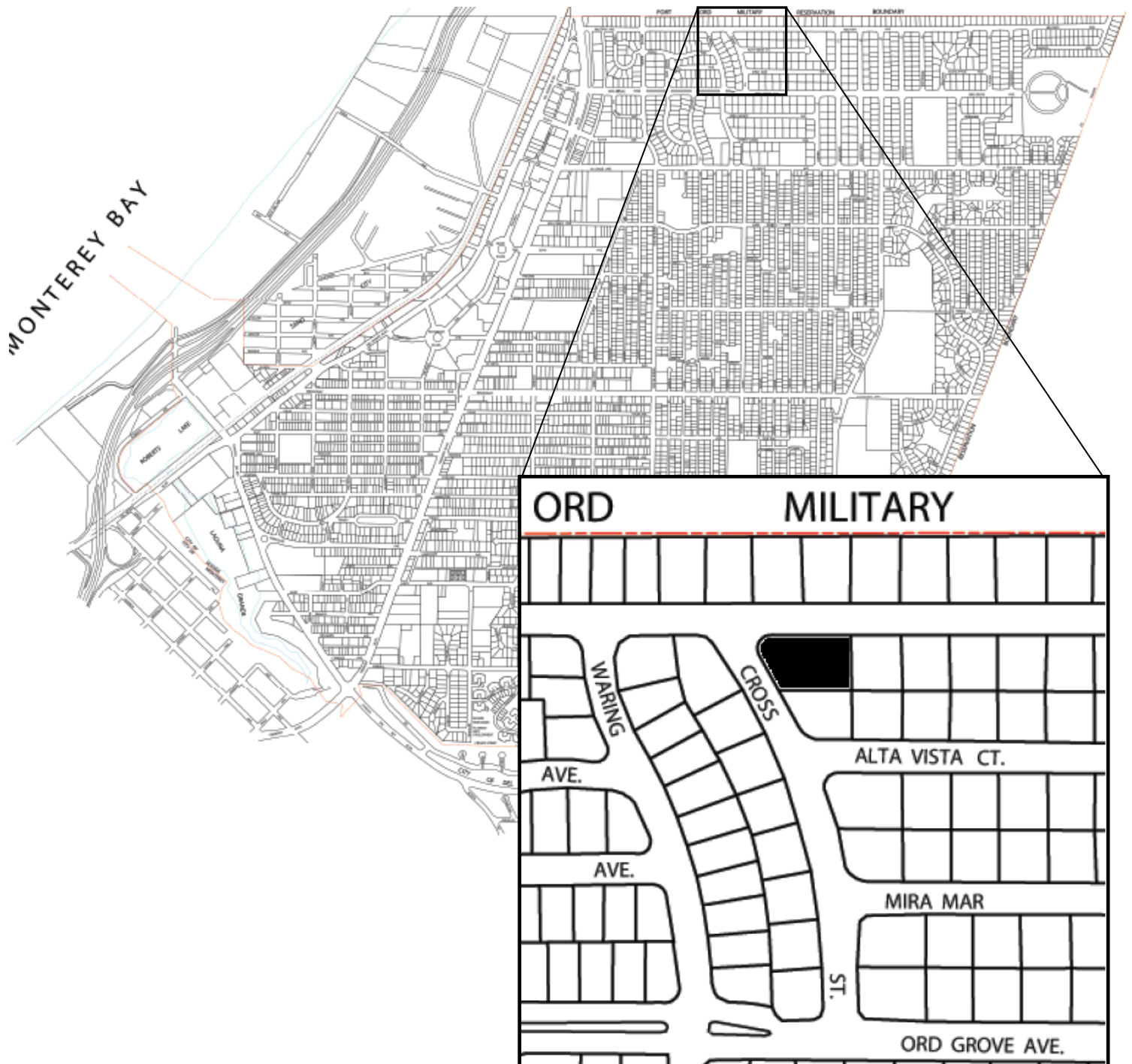
ABSTAIN:

John Owens, Chairperson

ATTEST:

Planning Commission Secretary

Location Map: 2090 Cross St.



Aerial Photo

2090 Cross Street



Aerial View

2090 Cross Street
Site Photographs



Existing Fence looking west from new driveway



Existing and Proposed Fence



View towards front yard and Cross Street



Looking east from Cross Street

LISA

To whom it may Concern,

My name is Virginia McCormick and I live at 2090 Cross St. My son in law, daughter and I are applying for a fence exception from the city of Seaside. We are applying due to the several hardships that exist. First, we are on a large corner lot and the site in question is part of our back yard. Esthetically we would like to elongate the existing fence across the old driveway leaving it the same height with no cut in as required by the city. This would make it look like the existing fence that was granted to us several years ago through a fence exception. Second, there is a privacy issue due to the placement of the windows and door of my daughter's bedroom. The bedroom would visible to the people that walk up and down Military Ave. Lastly, and the most important problem is the safety factor for our backyard. When I put up the new fence several years ago I was permitted by the city to put the fence height at six feet at all levels because the property goes uphill at quite an angle. I need to keep the fence as high as possible in the backyard because of the trouble I have had with the people walking by, particularly the Jr. High and High School students. Before I had a shorter fence and my dogs were constantly teased. They through firecrackers into the backyard that resulted in a fire that required the fire department to put out. I wasn't even home at the time.

We have removed approximately 52 feet of the existing six-foot-tall fence to make room for the new driveway and additional parking space on the lot required by the city. Our proposed extension adds approximately 20 feet to the west side of the existing fence and encloses the existing driveway to make a patio. To remove this driveway and plant 3 trees and 20 new plants as required by the city due to our original plans also seems to be a hardship to us and the city due to water rationing.

Thank you very much for considering this fence exception. We look forward to meeting with you on October 14th. I'm confident that together we can come up with a solution.

Sincerely,

Virginia McCormick

Virginia McCormick

RECEIVED
CITY OF SEASIDE

SEP 21 2015

RESOURCE MANAGEMENT
SERVICES



**CITY OF SEASIDE
STAFF REPORT**

Item No.: 6.B.

TO: Planning Commission

BY: Lisa Brinton, Community and Economic Development Services Manager
Rick Medina, Senior Planner

DATE: November 18, 2015

SUBJECT: **Monterey County (Applicant) and Marina Coast Water District (Property Owner) are requesting the approval of a Use Permit and Variance as described below to allow for the co-location of the following telecommunication improvements onto an existing freestanding 78-foot tall telecommunication tower currently being used to support an unmanned Sprint Wireless telecommunication facility on a parcel located in the former Fort Ord Army Base at 4602 Parker Flats Road, north of Eucalyptus Road, within the RS-12 Single-Family Residential Zoning District (APN 031-151-047).**

PURPOSE

Use Permit

A. The Use Permit is for the addition of the following antennas onto the existing 78-foot tall telecommunication tower:

- 1) Two (2) very high frequency (VHF) Omni multi-channel radio transmit (Tx) antennas mounted at an elevation of 47 feet;
- 2) An Omni receive (Rx) antenna mounted at an elevation of 99 feet, and;
- 3) Two microwave system parabolic antennas mounted at an elevation of 65 feet.

Variance

- B. The Variance is for the granting of an increase in the functional antenna height from the permitted maximum height of 80 feet to an elevation of 99 feet for a Rx Omni antenna into an existing freestanding telecommunication tower.

RECOMMENDATION

Staff recommends that the Planning Commission approve the Use Permit and Variance application for the proposed co-location onto the existing telecommunication facility based on the findings, evidence, and subject to conditions of approval in the Draft Resolution attached as Attachment 1 (Variance Application) and Attachment 2 (Use Permit Application).

BACKGROUND

The project application for the modifications to the existing wireless telecommunication facility is being submitted by Monterey County to complete its final coverage needs for the full implementation of the Next Generation (NGEN) Public Safety Radio System project. The current NGEN system design has been optimized to meet a number of competing criteria including performance, functionality, frequency spectrum and cost constraints. Additionally, site location for the various radio tower locations has been one of the factors the project has had to balance to achieve its objectives.

Over the past year the NGEN design team has also made a number of design changes in order to mitigate anticipated planning challenges. The NGEN system efficiently spreads sites throughout the County to match service levels with population density and terrain. The current design consists of eleven digital radio sites. A map identifying the project locations is provided as Attachment 5. The project site would serve to fill the gap in coverage between Penion Peak to the south and the 911 Emergency Center in the City of Salinas to the north. The other locations listed on Attachment 5 have received their necessary project entitlements and lease agreements.

The NGEN radio system will replace and upgrade regional public safety wireless voice communication systems for the following public/regional agencies within Monterey County: The County of Monterey, Carmel-by-the-Sea, Del Rey Oaks, Gonzales, Greenfield, King City, Marina, Monterey, Pacific Grove, Salinas, Seaside, Sand City and Soledad, Monterey County Regional Fire District, North County Fire Protection District, North County Fire Protection District, Spreckels Volunteer Fire Company, and Big Sur Volunteer Fire Brigade. Governance of the NGEN radio system is facilitated through the member advisory groups. The NGEN radio system will be managed by the Monterey County Emergency Communications Department on behalf of the members.

Currently, member agencies operate a number of separate systems with redundant service areas. NGEN project is an upgrade and consolidation of radio communication systems used by its member agencies. The NGEN system will support mission critical communications of first responders. Successful implementation of the NGEN system is a top priority for local law enforcement and fire protection agencies.

In April 2006, a "Monterey County Operational Area Emergency Communications System Strategic Plan" (ECUAC) was completed and presented to the County Board of Supervisors. One of the main drivers for this plan was to address a mandate from the Federal Communications Commission (FCC) that requires all existing radios systems to operate in a new "narrowband" format by January 1, 2012. The plan recommended regionalization of all local public safety radio systems. Local agencies formed an NGEN Task Force as a subcommittee to the ECUAC, an existing governing body of the regionalized Public Safety Answering Point (PSAP) and dispatch center.

As the next phase of the strategic plan, a Request for Proposal (RFP) #9997 was issued seeking

consultants to develop a functional design, study of requirements for a new regional system, and provide assistance with drafting of an RFP for the design / build of a next generation radio system. After a detailed evaluation process of that RFP, the NGEN Task Force recommended accepting the bid of DELTAWRX as the lowest, most-responsive bidder for the RFP Consulting Services from four responses received. That Agreement was approved by the Board of Supervisors on May 22, 2007.

Throughout 2007 and 2008, the NGEN system requirements were developed based on user needs for a regional system. The economic downturn in 2008 caused significant disruption to the project and called into question the overall financial viability of a regional system and commitment of member agencies. On May 12, 2009 a "Memorandum of Agreement re: Next Generation Radio System Joint Governance and Financing" (the "NGEN Financing Agreement") was executed. This agreement included a commitment from all of the member agencies to fund a regional radio system.

On June 1, 2009, the County, on behalf of all of the project stakeholders, released RFP #10122 soliciting turnkey proposals for the design and implementation of the NGEN radio system. Several proposals were received and evaluated. The selection team conducted an extensive evaluation process, which included site visits, oral presentations and a best and final offer solicitation. On December 7, 2010 the County Board of Supervisors approved the negotiated contract for the NGEN Regional radio system with an award to Harris Corporation.

Most of 2011 was spent optimizing the system design to meet performance and contract criteria. The final detailed system design was accepted by NGEN Oversight Committee and approved by the Emergency Communications Department on December 22, 2011. Prior to acceptance, preliminary construction designs were submitted to the Monterey County Planning Department and site walks were conducted for the sites requiring planning permits.

In 2010, the Marina Airport Tower was listed as a site in the initial design. It had to be discarded due to the status and condition of the building not meeting the needed public safety radio site standards. Given the need for a centrally located site that had sufficient elevation to meet the public safety coverage requirements, DMDC was selected.

In 2012, NGEN moved forward with applications and/or leases and licenses for sites that were part of the overall system design to provide adequate coverage for our public safety stakeholders. An Air Force site, referred to as the Defense Manpower Data Center (DMDC) site, located at 400 Gigling Road, Seaside was one of such sites. The DMDC site, in addition to being part of the collective of sites, would have provided the necessary coverage and functionality in the surrounding areas. DMDC would have supplied specific coverage to the Seaside, Marina, CSUMB, and Fort Ord areas. The coverage profile afforded by the DMDC site was based on its elevation and location which is central to the areas listed. It should be noted that the DMDC site was not the original site for the area.

The DMDC site was later determined to be unusable since the Department of Defense developed design plans for the rooftop that conflicted with the requirements for a public safety radio project. In 2013, after review and analysis of potential alternative sites for the Monterey Peninsula, the Marietta Coast Water Tower Site, located at 4601 Parker Flats Cutoff Seaside, CA 93933, was identified as an exceptional alternative to the original Defense Manpower Data Center site. Among the other site

reviewed during an analysis of sites in the Monterey Peninsula included Devil's Peak, Jack's Peak, Presidio Hill, and Embassy Suites hotel.

The Marina Coast Water Tower Site was selected as the alternative to the DMDC Site because of geographic location and elevation, and given that it is an existing telecommunications site which would allow NGEN to co-locate rather than erect a new tower in the area. Marina Coast Water Tower Site's geographic location and elevation provide very similar coverage outputs to the DMDC site. There were no other alternatives found that provided public safety partners with the coverage needed for the Seaside, Marina, CSUMB, Fort Ord, and adjoining areas.

In 2015 an Amendment to the Harris contract was approved by the Board of Supervisors that recognized changes in the radio site and radio frequency acquisition. This amendment provided for an upgrade to system infrastructure, enhancing maintenance support, increasing system reliability, and widening the user base through smartphone technology.

ENVIRONMENTAL REVIEW

This project qualifies as a Class 3 exemption from the California Environmental Quality Act (CEQA) pursuant to Section 15303 (New Construction or Conversion of Small Structures). Class 3 exemptions consist of the construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure. The key consideration for this exemption is that the project is considered to be of a size that would not cause significant environmental impacts.

Evidence: The proposed telecommunications facility would include the addition of two multi-channel transmit antennas, a single Omni receive antenna, and two microwave antennas on an unmanned 78-foot tall wireless telecommunications tower that is currently used by Sprint Communications for the operation of four (4) panel antennas, associated support equipment, and a 12- by 20-foot equipment shelter. Since the proposed improvements would blend with the existing camouflage elements on the monopole which resemble a coniferous tree, the visual impact of this co-location project would be less than significant.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission approve the Use Permit and Variance application for the proposed colocation onto the existing telecommunication facility based on the findings, evidence, and subject to conditions of approval in the Draft Resolution attached as Attachment 1 (Variance Application) and Attachment 2 (Use Permit Application).

SITE LOCATION

The proposed project is located on a 2.33-acre parcel owned by the Marina Coast Water District on a hilltop known as Welsh Ridge in the former Fort Ord Army Base. The site is being used by Marina Coast Water District for the storage and distribution of a municipal water source. The

parcel is accessible by an unimproved dirt road off of Eucalyptus Road (See Location Map and Aerial Map included as Attachment 3 and 4, respectively).

The parcel is split between two Zoning Districts and General Plan Land Use designations. The land use for the location of the telecommunication tower at the southwest corner is Medium Density Residential. The location of the water tanks on the east side of the site is Open Space-Recreational. According to Seaside Municipal Code (S.M.C.) Section 17.14.020.B.2 (Interpretation of Zone Boundaries), uncertainty about zone boundaries shall be determined such that if a district boundary divides a parcel and the boundary line location is not specified by distances printed on the Zoning Map, the location of the boundary shall be determined by using the delineation of boundary lines appearing on the Zoning map. Applying this criterion, the location of the existing telecommunication tower and equipment shelter fall into the RS-12 (Single-Family Residential) Zoning District and RMS (Medium Density Single-Family Residential) land use designation. Figure 1 illustrates this methodology.

Currently, the project parcel is developed with single telecommunication tower camouflaged as a pine tree located on the southwest corner of the parcel, and is across a dirt access road from the three existing ground-level water reservoirs being used by Marina Coast Water District.

The faux tree pole currently contains four (4) panel antennas for use by Sprint Wireless Communications.

Adjacent land uses to the project include, clockwise from the north: abandoned former Fort Ord officer's barracks owned by Chartwell School; a future Veterans Cemetery property; existing undeveloped land anticipated for future residential development by the City of Seaside; a military residential community; and a special education school (Chartwell School) and public elementary school (Marshall Elementary School) (See Figure 2). An aerial map of surrounding uses is included as Attachment 4.

Figure 2: Adjacent Land Uses to Project Site

NW	Future residential development (0 ft) + Chartwell School (~2,000 ft) + Marshall Elementary School (~2,500 ft)	Future residential development (0 ft) + Abandoned Fort Ord officer's barracks (800 ft)	Future Veterans Cemetery property (0 ft)	NE
W	Future residential development (0 ft) + Military residential community (~800 ft)	Project Site	Future Veterans Cemetery property (0 ft)	E
SW	Future residential development (0 ft) + Military residential community (~300 ft)	Future residential development (0 ft)	Future residential development (0 ft)	SE
		S		

PROJECT DESCRIPTION

Proposed Use

The existing 78-foot telecommunication monopole was constructed in 2008 under Use Permit No. UP-10-07 for a wireless telecommunication carrier (Sprint Communications). The existing telecommunication facility has been designed to accommodate a total of twelve (12) eight-foot panel antennas (each 5 inches wide by 96 inches tall) and two (2) four-foot diameter microwave dish. A total of four (4) panel antennas currently exist on the monopole that are mounted on a single bracket at the 74-foot tower level. The existing antennas are hidden within the faux tree branches of the tree-pole for visual screening. The proposed NGEN radio system would include a single Omni pole mounted receive (Rx) only antenna at the top of the 78-foot tall permanent steel tree-pole which will extend to a height of 99 feet, with two (2) very high frequency (VHF) Omni multi-channel radio transmit (Tx) antennas mounted on a stand-off bracket at an elevation of 47 feet, and two (2) directional microwave dishes at an elevation of 60 feet. The antennas and microwave dishes would be concealed within the faux tree branches of the tree-pole for visual screening. The upper Omni antenna that would extend above the mono-pole would be painted sky blue to the blend with the background horizon. The lower antennas and microwave dishes would be painted green to match the faux branches on the monopole.

The project facility includes a 12- by 20-foot equipment shelter located immediately adjacent to

the existing tree-pole. The equipment shelter is a state-approved design, not subject to local design review. All necessary electronic radio equipment for the facility would be enclosed in this shelter, except for a portable gas operated backup generator that would be mounted on a portable trailer on wheels within boundaries of the utility facility. The generator would be tested once a month at mid-day during the week day.

The facility would be unmanned and operated 24 hours per day, seven days per week. Access to the project would be made along an existing dirt access road by agreement with the property lease holder, Marina Coast Water District, via Parker Flats Road. No roadway or access additions are required.

The project plans are provided as Attachment 6. A photo simulation of the proposed antennas on the existing monopole is provided as Attachment 7. Generator Specification is provided as Attachment 8. Report on the Alcatel Lucent Microwave Path Study is provided as Attachment 9.

STAFF ANALYSIS AND FINDINGS

California Government Code Section 65850.6 states that telecommunications facilities shall be a permitted use, not subject to city discretionary review, if the facility qualifies as a co-located facility as defined by Section 65850.6(a). The proposed project is a modification to an existing facility that does not qualify as a co-located facility due to the expansion of the proposed antenna above the top existing monopole and is therefore subject to City discretionary review in accordance with Section 17.54.030.A of the Seaside Municipal Code. The discretionary review of the application will include both a use permit for the major modifications being made to accommodate the new antennas and a variance for the increase in height of the antenna above the maximum height limit of 80 feet for a telecommunication tower.

VARIANCE

A variance may be granted to waive or modify any requirement of the Zoning Ordinance except for allowed land uses. The requested variance is for the installation of a spire shaped Rx Omni antenna that would extend to an elevation of 99 feet above the existing 78 foot tall telecommunication monopole. Telecommunications facilities are allowed as a utility facility in RS-12 (Single-Family Residential) Zoning Districts with Use Permit approval. The variance to the height limit may be allowed subject to the review authority making the following findings:

Finding No. 1

1. *There are special circumstances applicable to the property, including size, shape, topography, location, or surroundings, so that the strict application of this Zoning Ordinance deprives the property of privileges enjoyed by other property in the vicinity*

and within the same zone

Discussion of facts:

The primary issues associated with the project site relate to its location and topography. In the original NGEN system design, the NGEN Project Team had selected the Marina Airport Tower as the location for a radio site to complete the connection between Penion Point to the south and the 911 Emergency Call Center. Upon further review, this site was forced to be discarded due to its status and condition. An alternatives search was conducted and the NGEN Project Team had then selected the DMDC Site, located at 400 Gigling Road, Seaside, as the location for a radio tower site. However, as a result of the substantial intermodulation interference with the Army frequencies present at the DMDC site, the NGEN Project Team reviewed alternative site locations and consequently selected the Marina Coast Water Tower Site as a viable radio site. Among the other sites reviewed during the analysis of sites in the Monterey Peninsula area, these included Devil's Peak, Jack's Peak, Presidio Hill, and the Embassy Suites hotel. The figures on Attachment 10 illustrate the reviewed alternatives within the Monterey Peninsula region.

The Marina Coast Water Tower Site has been selected as the replacement for the DMDC Site because of its proximity to the DMDC site and elevation, and given that it is an existing telecommunications site which would allow NGEN to co-locate rather than erect a new tower in the area. The site will provide sufficient radio coverage to meet the needs of the public safety community.

Evidence

The location of the site contains unique locational and topographical features that provides the NGEN radio system with the necessary coverage requirements to provide the necessary radio coverage to enable the full integration of all 11 NGEN radio towers within Monterey County and would provide the least intrusive visual impact to the surrounding area as a collocation on an existing telecommunication tower.

Evidence

The mounting location for the receive (Rx) and the transmit (Tx) antennas requires physical separation relative to the existing Sprint antennas on the existing monopole. The physical separation is required to minimize radio frequency interference from existing antennae and to maximize the radio frequency coverage necessary for the public safety community of Monterey County.

Finding No. 2

2. The approval of the Variance includes conditions of approval as necessary to ensure that the adjustment granted does not constitute a grant of special privileges inconsistent with the limitations.

Discussion of facts

The project will require the submission of a Radio Frequency (RF) Report to verify that the cumulative operation of the proposed Tx antennae in conjunction with the Sprint antennas will not exceed maximum allowed Federal Communication Commission (FCC) standards.

Evidence

Monterey County has performed a compliance review of the radio system equipment proposed for the Marina Coast Water District site and the with the FCC radio frequency maximum permitted exposure (MPE) requirements (See Attachment 11). The review indicates that the cumulative MPE transmission for the NGEN radio equipment (25%), Sprint (13%), and Marina Coast Water District (1%) systems, will be less than 39% of the FCC guidelines. Therefore, given the heights proposed for mounting the radio antennas and microwave dishes, the intermittent operation of radio system equipment and review results set forth above, the radio system equipment proposed for the Marina Coast Water District site satisfies the FCC requirements for MPE RF exposure.

Finding No. 3

3. The variance is consistent with the General Plan

Discussion of Fact

The project site is designated as Medium Density Single Family on the Seaside General Plan Land Use map. Telecommunication facilities and utility facilities are permitted with the issuance of a use permit.

Evidence

The project site is owned and operated by Marina Coast Water District as a public utility for water storage. The project site also includes an ancillary telecommunication monopole approved by Use Permit No. UP-10-07. The Marina Coast Water Tower Site has been selected as the replacement for the DMDC Site because of its proximity to the DMDC site and elevation, and given that it is an existing telecommunications site which would allow NGEN to co-locate rather than erect a new tower in the area. The site will provide sufficient radio coverage to meet the needs of the public safety community. This site will provide enhanced coverage to the Seaside, Marina, CSUMB, Fort Ord, and adjoining areas.

USE PERMIT FINDINGS

In accordance with S.M.C. Section 17.62.070 (Use Permit and Minor Use Permit), an application for a use that requires a Use Permit in the City of Seaside shall be filed under the Use Permit process to determine whether the following findings can be made concerning the proposed project:

- 1) The proposed use is allowed within the applicable zone and complies with all other applicable provisions of this Zoning Ordinance and the Municipal Code.**

Zoning Ordinance Conformance

The parcel on which the proposed telecommunications facility is located is split between two Zoning Districts. According to S.M.C. Section 17.06.020.B.2 (Interpretation of Zone Boundaries), if a district boundary divides a parcel and the boundary line location is not specified by distances printed on the Zoning Map, the location of the boundary shall be determined by using the scale appearing on the Zoning Map. Figure 1, illustrates the approximate location of the proposed telecommunications facility based on the location of existing Zoning District boundaries. Applying this method, staff finds that the proposed project is located within the RS-12 (Single-Family Residential) Zoning District. Utility facilities are permitted in the RS-12 Zoning District with Use Permit approval (S.M.C. Section 17.22.030, Table 2-4). Staff finds that the proposed telecommunications facility qualifies as a utility facility and is therefore a permitted use within the RS-12 Single-Family Residential Zoning District with Use Permit approval.

Telecommunications Facility Chapter Conformance

In accordance with S.M.C Section 17.54.040 (Permit Requirements), an application for a telecommunications facility shall be filed under the Use Permit process to determine whether the following findings can be made concerning the proposed project:

- a) The communication facility complies with all applicable requirements of this Chapter.

The following requirements of Chapter 17.54 of the Seaside Municipal Code are applicable to the proposed project:

Zoning District Priority

Seaside Municipal Code Section 17.44.050.A requires that:

“Telecommunications facilities shall be located only within a PI (Public Facility) zone; except that the review authority may approve a facility within a commercial zone if it first determines that the applicant has demonstrated that all PI-zoned sites are infeasible, and that there is no site within a PF zone where the communication facility would provide adequate coverage.”

Y

Evidence: The project parcel is owned and operated by the Marina Coast Water District as a public utility use for water storage. Telecommunications facilities are allowed as a utility facility in RS-12 (Single-Family Residential) Zoning Districts with Use Permit approval. Further, staff finds that the zone priority of PI zones as stated in this Section is satisfied by the use of the project site as a public utility.

Co-location

Seaside Municipal Code Section 17.54.050.B states that:

“A new communication facility shall be co-located with existing facilities and with other planned new facilities whenever feasible, and whenever determined by the review authority to be aesthetically desirable. A service provider shall co-locate a new communication facility with non-communications utility facilities (e.g., light standards, water tanks, and other utility structures) where the review authority determines that this co-location will minimize the overall visual impact.

- 1. A service provider shall exhaust all reasonable measures to co-locate their communications facilities on existing towers or with or within existing ancillary support equipment facilities before applying for a new communication facility site.*
- 2. Each service provider shall provide the City with evidence that they have contacted all other potential providers who have, or who are reasonably likely to be installing facilities within the vicinity of the proposed facility and have offered to participate in a joint installation project on reasonable terms.*
- 3. In order to facilitate co-location, Use Permit conditions of approval for a new facility shall require each service provider to cooperate in the siting of equipment and antennas to accommodate the maximum number of operators at a given site where determined by the review authority to be feasible and aesthetically desirable.”*

Evidence: The Applicant proposes to add one Rx Antenna, two Tx antennas and two microwave dishes onto an existing telecommunication facility. The existing facility consists of four (4) panel antennas, on a 78-foot tall monopole.

In an effort to exhaust other potential co-location sites, the Applicant conducted a survey of signal coverage from other sites offering co-location throughout the Monterey Peninsula (included as Attachment 10). Due to the results of this study, staff finds that the proposed project site is the best location for the intended service coverage. That the project site is one of the highest points in Seaside supports this finding as well. There are currently no existing service providers in the immediate vicinity of the proposed project on which to co-locate the proposed facility, however, as a condition of approval, other service providers shall be allowed to install subsequent co-located facilities on the proposed permanent tree-pole in compliance with FCC RF standards.

Facility Placement

Seaside Municipal Code Section 17.54.060.A.1.b and .c states:

“A ground-mounted communications facility shall be located as far as possible from all property boundaries, and set back from the property line at a ratio of 1.5 horizontal feet for every one foot of height, where feasible.”

and

“A tower or antenna shall be set back from any site boundary or public right-of-way by a minimum of 25 feet. No part of any tower shall extend into a required front setback or beyond a property line of the site.”

Evidence: By the first requirement, a facility set back from the property line at a ratio of 1.5 horizontal feet for every foot of height would require a 148-foot setback from the property line for the proposed antenna height of 99 feet tall. The existing telecommunication monopole is located within 10 feet of the property line. Staff finds that this location is the only feasible location that would be accessible from an existing access road to the project location and would not interfere with planned ground-level water supply reservoirs. Furthermore, the immediate adjacent land use is an undeveloped hillside zoned as RS-12 (Single-Family Residential), yet the hillside is at such a slope that future development immediately below the proposed project would be infeasible. Considering these conditions, staff finds that compliance with the 1.5 ratio set back requirement would be infeasible for the proposed project. The proposed project is located approximately 1,800 feet from the

nearest public right-of-way, Eucalyptus Road.

The proposed portable generator would be located within the Marina Coast Water District utility yard. Since the utility yard is remotely located and surrounded by dense chaparral and oak woodland that is not proximate to existing development, staff finds that the placement requirements for a portable generator are not applicable and would not have any detrimental impact on the nearby residential community to the south.

Height Limitations

Seaside Municipal Code Section 175.4.060.B states that:

“All ground mounted communications equipment, antennas, poles or towers shall be of a minimum functional height.”

and

“The height of a tower located on the ground shall not exceed 60 feet in the PF zone and 40 feet in a commercial zone. The review authority may grant an exception to allow towers of up to 80 feet where the review authority determines that the increased height is necessary for adequate coverage, and the tower will co-locate service providers.”

Evidence: Coverage maps have been provided as Attachment 12 to show the composite coverage for the VHF Simulcast, VHF multicast sites and the VHF 700 multicast sites. As can be seen, the Marina Coast Water Tower site is an instrumental site to support all of Monterey County’s public safety partners. Based on these maps, staff finds that the proposed extension of the maximum height limit to 99 feet for the spire shaped Rx Omni antenna onto the 78-foot tall monopole would be necessary to provide adequate service coverage for the intended service area. This height would also allow for the subsequent co-located telecommunications facilities from other service providers. As a condition of approval for this project, the Applicant shall accommodate subsequent co-locations from other service providers on the 78-foot tall monopole.

Color and Materials

Seaside Municipal Code Section 17.44.060.C states that:

“All antennas, poles, towers, or equipment, including ancillary support equipment,

shall have a non-reflective finish and shall be painted or otherwise treated to match or blend with the primary background and minimize visual impacts.”

Evidence: In addition to designs included on project plans (included as Exhibit A to Attachment 1), the Applicant submitted a photo simulation that show how the proposed antennas will blend within the faux branches of the monopole that has been camouflaged to resemble a coniferous tree (photo simulation included as Attachment 7). Staff finds that the tree-pole treatment would minimize the visual impact of the new antennas and would blend with the surrounding natural tree canopy. The antennas on the lower portion of the pole will be painted green to blend with the faux branches. The upper Rx spire antenna will be painted sky blue to blend with the horizon. As a condition of approval for this project, all antennas, poles, and towers would conform to the colors and materials of a typical tree-pole facility as indicated in the photo simulation.

Screening and Landscaping

Seaside Municipal Code Section 17.44.060.D states that:

“All ground-mounted equipment, antennas, poles or towers shall be sited to be screened by existing development, topography, or vegetation. Ground mounted facilities shall be located within structures, underground, or in areas where substantial screening by existing structures or vegetation can be achieved.”

Evidence: The existing facility includes landscaping to screen the equipment cabinet on all sides with 15-gallon Hollywood Junipers that completely conceal the ground equipment from view at ground level. The existing monopole is camouflaged to resemble a coniferous tree.

Power Lines

Seaside Municipal Code Section 17.54.060.F states that:

“All power lines to and within a communication facility site shall be underground.”

Evidence: An underground trench has been installed for main power and telephone

feed from the north side of the project parcel to the southern property line, then westward along the southern property line to the proposed shelter location at the southwest corner of the property.

- b) The communication facility will not adversely impact the character and aesthetics of the public right-of-way.

The proposed modification to the existing 78-foot tall telecommunication facility would be located on a hilltop, known as Welsh Ridge, in the former Fort Ord Army Base. The existing facility has been constructed to resemble a coniferous tree. Based on the Alacatel Lucent Microwave Path Study provided as Attachment 9 and the required separation that must be met between the Rx and Tx antennas from the existing cellular panel antennas, the Applicant has shown that an antenna at an elevation of 99-feet tall facility is necessary to provide adequate service coverage. At this height, the proposed facility would allow continued wireless service in the surrounding area, including most of northern Seaside above Military Avenue, and a portion of the California Highway 1 right-of-way from the Imjin Parkway exit in Marina to the Del Monte Boulevard exit into Sand City and Seaside while providing the enhanced public safety communication network. Staff finds that the proposed monopole would not adversely impact the character and aesthetics of the public right-of-way from wherever the facility would be visible within the service area.

2) The proposed use is consistent with the General Plan and any applicable specific plan.

General Plan Conformance

The Seaside General Plan Land Use Designation for the parcel on which the project is proposed is not specifically identified in the Seaside Land Use Policy Map. Applying the method discussed above to determine the Zoning classification, by scaled location on the Land Use map for the actual project location, the project would fall into the RMS (Medium Density Single Family Residential) land use designation. According to the Seaside General Plan, the RMS land use classification is intended to include detached single-family dwellings at densities of up to 12 dwelling units per acre. Currently there is no development on the area identified as RMS where the project site is located. Staff finds that the proposed use as a telecommunications facility is consistent with the existing use of the property for municipal water supply under the Public/Institutional land use intended for public utilities.

Land Use Element

Goals, Policies and Implementation Plans

Goal LU-1: Promote a mixture of land uses and a balance of jobs and housing to support a community in which people can live, work, shop, and play

Policy LU-1.6: Integrate Seaside with North Seaside

Evidence: The proposed project would provide enhanced public safety communication on a regional level while continuing to provide public communication services to the developed areas in Seaside and Monterey County. Providing an opportunity for co-location of other telecommunications facilities on the project site would minimize the proliferation of future monopoles in the City.

3) The design, location, size, and operating characteristics of the proposed activity are compatible with the existing and planned future land uses in the vicinity.

Immediate existing land uses include a single-family military residential community to the southwest and a future Veterans Cemetery to the northeast. The surrounding topography is mainly undeveloped, hilly-forested terrain. Single-family residential development is planned for the area immediately west and south of the project site. Since the immediately adjacent land under this planned development is steep hillside, it is not likely that the proposed improvements would have any impact and or interfere with future development opportunities.

Design

The proposed project would be collocation on an existing 78-foot tall monopole that has been camouflaged to resemble a coniferous tree. Low-profile coniferous trees cover the immediate vicinity such that the proposed facility would be visible above the natural tree line. However, staff finds that the stealth design of the camouflaged tower would continue to screen the new antennas to ensure that the new improvements would not result in a significant visual impact to surrounding land uses.

Location

The existing monopole is located at the southwest corner of a parcel owned and operated by the Marina Coast Water District for public water supply storage. Adjoining parcels are zoned for single-family residential development to the southwest and open space/recreation to the northeast of the project site. Staff finds that the proposed NGEN project would serve to enhance public safety communications in the vicinity and Monterey County and would not cause a detriment to existing and planned future land uses in the vicinity.

Operating Characteristics

The proposed project would be an unmanned facility, operating 24-hours per day. After initial construction, no more than two routine maintenance visits would be required per month. Staff finds that the operating characteristics for the proposed project would not interfere with the existing and proposed land uses in the vicinity.

- 4) The site is physically suitable for the type, density and intensity of use being proposed, including access, utilities, and the absence of physical constraints.**

The project site is currently owned and operated by the Marina Coast Water District as a public water supply storage facility. Electricity and telephone connections to serve the facility have been constructed underground to serve the project site. Access to the site would be made along an existing unimproved dirt road that currently serves the parcel. There are no physical constraints to the development of this facility as proposed.

- 5) Granting the permit would not be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property, or improvements in the vicinity and zone district in which the property is located.**

According to a radio frequency (RF) emissions report prepared by the Monterey County Information Technology Department, as submitted by the Applicant, the proposed project complies with the prevailing standards for limiting public exposure to radio frequency energy and, therefore, would not cause a significant impact on the environment (RF report included as Attachment 11). Staff finds that the granting of this Use Permit would not otherwise create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other permitted uses in the vicinity or adverse to the public interest, health, safety, convenience, or welfare of the City.

CONCLUSION

Based on the analysis and findings for this project, staff recommends approval of the Variance and Use Permit. The proposed modifications to the existing telecommunication facility comply with the intent of the Seaside General Plan and the requirements of Title 17 of the Seaside Municipal Code.

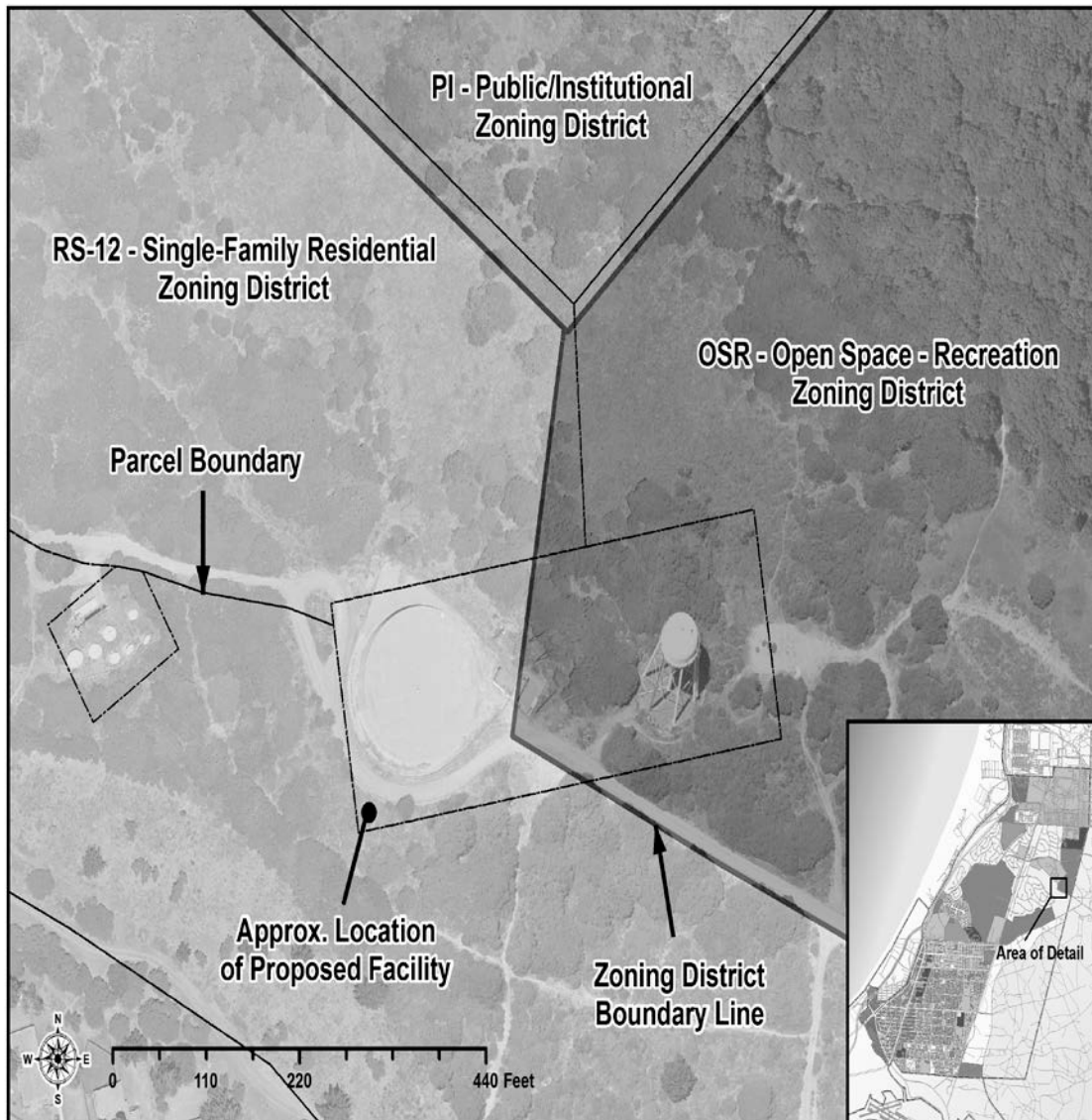
FISCAL IMPACT

There is no fiscal impact associated with this item.

ATTACHMENTS

1. Figure 1: Zoning District Map
 2. Attachment 1 - Variance Resolution
 3. Attachment 2 - Use Permit Resolution
 4. Attachment 3 - Location Map
 5. Attachment 4 - Aerial Map
 6. Attachment 5 - Regional Site Map
 7. Attachment 6 - Project Plans
 8. Attachment 7 - Photo Simulation
 9. Attachment 8 - Generator Specifications
 10. Attachment 9 - Microwave Line of Site Study
 11. Attachment 10 - Alternative Site Location
 12. Attachment 11 - Radio Frequency Report
 13. Attachment 12 - Coverage Maps
-

Figure 1: Zoning District Map



RESOLUTION NO. 15-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SEASIDE, CALIFORNIA, APPROVING A VARIANCE TO ALLOW AN INCREASE IN THE MAXIMUM HEIGHT LIMIT FOR AN ANTENNA MODIFICATION TO AN EXISTING TELECOMMUNICATION FACILITY IN THE RS-12 SINGLE-FAMILY RESIDENTIAL ZONING DISTRICT OF THE FORMER FORT ORD.

WHEREAS, Monterey County (Applicant), and Marina Coast Water District, property owner, have applied for a Variance for:

- A. Increasing the height limitations for a freestanding telecommunication tower to allow for an antenna height at an elevation of 99 feet above the maximum height of 80 feet for a Rx Omni antenna.

WHEREAS, the proposed project requires discretionary approval, and it is the responsibility of the Planning Commission to consider and weigh the merits of the application and public input in relation to the policies, standards and intent of the Seaside General Plan and Seaside Municipal Code; and

WHEREAS, the Seaside Planning Commission considered oral comments and written information concerning the proposed project at a duly noticed public hearing held at a Special Meeting on November 18, 2015; and

WHEREAS, the project is a Categorically Exempt, Class 3, Section 15303 (New Construction of Conversion of Small Structures) project that meets the following conditions:

Evidence: The proposed telecommunications facility would include the addition of two multi-channel transmit antennas, a single Omni receive antenna, and two microwave antennas on an unmanned 80-foot tall wireless telecommunications tower that is currently used by Sprint Communications the operation of eight panel antennas, associated support equipment, and a 12-by 20-foot equipment shelter. Since the facility would continue to utilize camouflage elements to resemble a coniferous tree, the visual impact of this colocation project would be less than significant.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission adopts the following findings for Use Permit Application No. V-15-01:

1. **There are special circumstances applicable to the property, including size, shape, topography, location, or surroundings, so that the strict application of this Zoning Ordinance deprives the property of privileges enjoyed by other property in the vicinity and within the same zone.**

Evidence: The location of the site contains unique locational and topographical features that provides the NGEN radio system with the necessary coverage requirements to provide the radio coverage to enable the full integration of all 11 NGEN radio towers within Monterey County and will provide the least intrusive visual impact to the surrounding area as a collocation on an existing telecommunication tower.

Evidence: The mounting location for the receive (Rx) and the transmit (Tx) antennas requires physical separation relative to the existing Sprint panel antennas on the monopole. The physical separation is required to minimize radio frequency interference from existing antennae on the monopole to maximize the radio frequency coverage necessary for the public safety community of Monterey County.

2. **The approval of the Variance includes conditions of approval as necessary to ensure that the adjustment granted does not constitute a grant of special privileges inconsistent with the limitations**

Evidence: Monterey County performed a compliance review of the radio system equipment proposed for the Marina Coast Water District site and the with the FCC radio frequency maximum permitted exposure (MPE) requirements (See Attachment 11). The review indicates that the MPE transmission for the Monterey County NGEN radio equipment (two microwave systems and the two VHF transmitters) will be less than 25% of the FCC maximum limit. The cumulative site MPE, based on the additive effect of the NGEN radio equipment (25%), Sprint (13%), and Marina Coast Water District (1%) systems, will be less than 39% of the FCC guidelines. Therefore, given the heights proposed for mounting the radio antennas and microwave dishes, the intermittent operation of radio system equipment and review results set forth above, the radio system equipment proposed for the Marina Coast Water District site satisfies the FCC requirements for RF exposure.

3. **The proposed use is allowed within the applicable zone and complies with all other applicable provisions of this Zoning Ordinance and the Municipal Code.**

Evidence: The proposed project is a permitted use in the RS-12 (Single-Family Residential) Zoning District as a utility facility subject to a Use Permit under Seaside Municipal Code (S.M.C.) Section 17.12.030, Table 2-1: Allowed Land Uses and Permit Requirements.

Evidence: The proposed facility complies with all applicable requirements Chapter 17.54 (Telecommunications Facilities) of the Seaside Municipal Code and would not adversely impact the character and aesthetics of the public right-of-way.

- 4 **The proposed use is consistent with the General Plan and any applicable specific plan.**

Evidence: The proposed use as a telecommunications facility is consistent with the existing use of the property for municipal water supply under the Public/Institutional land use, intended for public utilities.

Evidence: The NGEN radio system project serves to provide a public safety communication network to serve Seaside and surrounding areas of Monterey County.

Evidence: Providing an opportunity for co-location of other telecommunications facilities on the proposed permanent facility would minimize the proliferation of future monopoles in the City.

Evidence: The proposed use is not subject to any applicable specific plan.

5. **Granting the permit would not be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property, or improvements in the vicinity and zone district in which the property is located.**

Evidence: The granting of a Variance would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other permitted uses in the vicinity or adverse to the public interest, health, safety, convenience, or welfare of the City. Radio frequency emissions from the proposed project are well below federally regulated maximum emission levels and would not cause significant public health effects.

BE IT FURTHER RESOLVED, that the Planning Commission approves Variance Application No. V-15-01 subject to the following conditions:

Project Specific

Planning:

1. The Applicant shall submit an application for a Building Permit for the construction of the permanent telecommunications facility as approved by this Permit. Plans submitted for a Building Permit shall substantially conform to plans stamped "Received September 25, 2015 Community Development Department", included as Exhibit A.
2. The Applicant shall cooperate with other service providers in the siting of equipment and antennas at this telecommunications facility to allow co-location of subsequent wireless communication facilities. The Applicant shall provide access to the facility for initial construction and routine maintenance by other co-located service providers as would be necessary for commercially viable wireless service. The Applicant shall accommodate the maximum number of operators at a given site, given minimum vertical spacing considerations for the facility (S.M.C. Section 17.54.050.B.3)

3. The owner or operator of the facility shall submit and maintain current at all times basic contact and site information for the facility. The Applicant shall notify the City of any changes to the information submitted within 30 days of any change, including change of the name or legal status of the owner or operator of the facility (S.M.C. Section 17.44.070.A)
4. The communication facility and related equipment, including lighting, fences, and landscaping shall be maintained in good condition, free from trash, debris, graffiti, and other forms of vandalism by the service provider. Graffiti shall be removed by the service provider from any facility or equipment as soon as practicable, and in no instances more than 48 hours from the time of notification by the City. (S.M.C. Section 17.54.070.B)
5. All trees, foliage, and other landscaping elements on the communication facility site, whether or not used as screening, shall be maintained in good condition at all times in compliance with the approved landscape plan on project plans. The facility owner shall be responsible for replacing any damaged, dead, or decaying landscaping as promptly as reasonable possible. Amendments or modifications to the landscape plan shall require approval by the Director. (S.M.C. Section 17.54.070.C)
6. At no times shall equipment noise from any source exceed an exterior noise level of 60 dB at the property line. (S.M.C. Section 17.54.070.D)
7. The Applicant, and any subsequent facility owners, shall routinely and regularly inspect the site to ensure compliance with the standards identified in these Conditions. (S.M.C. Section 17.54.070.E)
8. Any exterior lighting shall be manually operated and used only during night maintenance or in the event of emergencies. The lighting shall be constructed or located such that only the intended area is illuminated and off-site glare is fully controlled. Light fixtures shall be low-wattage, hooded and downward directed. (S.M.C. Section 17.54.070.F)
9. All antennas, poles, and towers shall conform to the colors and materials of a typical tree-pole facility. All exterior materials shall be painted with non-reflective finishes. (S.M.C. Section 17.54.060.C)
10. All equipment associated with a communications facility shall be removed within 30 days of the discontinuance of the use and the site shall be restored to its original pre-construction conditions for the telecommunications facility, subject to the approval of the Zoning Administrator. The City shall provide the City with a notice of intent to vacate the site a minimum of 30 days before the site vacation. (S.M.C. Section 17.54.080)
11. Prior to final Building Permit approval, the Applicant shall submit an application with the Federal Aviation Administration via Form 7460-1 to determine if the facility requires marking and lighting under FAA regulations.

Building Department:

1. The project shall adhere to and be constructed in accordance with the 2013 California Building Code

Fire Department

1. The project shall adhere to and be constructed in accordance with the 2013 California Fire Code.

Standard

1. The Use Permit approval is subject to revocation procedures contained in S.M.C.S. 17.69.060 in the event that any of the conditions of this approval are violated, this discretionary permit was granted on the basis of false or misleading information, written or oral, given willingly or negligently by the applicant or property owner, and/or there has been a discontinuance of the use, or purposed for which the permit was issued, for a period of 180 days or more.
2. This Use Permit is subject to procedures and requirements of Chapter 17.54 (Permit Implementation, Time Limits, and Extensions), and those related to appeals and revocation in Article 6 (Zoning Ordinance Administration) of Title 17 of the Municipal.
3. The applicant agrees as a condition and in consideration of the approval of this discretionary permit that they will, pursuant to agreement and/or statutory provisions as applicable, including but not limited to Government Code Section 66474.9, defend, indemnify and hold harmless the City of Seaside or its agents, officers and employees from any claim, action or proceeding against the City or its agents, officers or employees to attack, set aside, void or annul this approval, which action is brought within the time period provided for under law, including but not limited to, Government Code Section 66499.37, as applicable. The applicant will reimburse the City for any court costs and attorney's fees, which the City may be required by a court to pay as a result of such action. The City may, at its sole discretion, participate in the defense of such action; but such participation shall not relieve applicant of his obligations under this condition. An agreement to this effect shall be recorded upon demand of City Counsel or concurrent with the issuance of permits, use of the property, whichever occurs first and as applicable. The City shall promptly notify the applicant of any such claim, action, or proceeding and the City shall cooperate fully in the defense thereof. If the City fails to promptly notify the applicant of any such claim, action or proceeding or fails to cooperate fully in the defense thereof, the applicant shall not thereafter be responsible to defend, indemnify or hold the City harmless.
4. The project shall comply with the requirements and the applicable ordinances of the Marina Coast Water District (MCWD).
5. The permit shall have no force or effect unless and until accepted, and the terms thereof agreed to, in writing, by the applicant and property owner within fifteen (15) days from the date of its approval.
6. This Use Permit shall expire and become void 12 months from the date of approval, or upon the expiration of another time limit established by the review authority, unless project construction has commenced within the required time limit, and construction continues thereafter under a valid Building Permit, or the Zoning Administrator has granted an extension of time.

7. For purposes of assuring compliance, the applicant, agents, representatives or their assignees agree not to deny or impede access to the subject property by City employees in the performance of their duties.

PASSED AND ADOPTED at the regular meeting of the Planning Commission of the City of Seaside, State of California, on the 18th day of November 2015, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

John Owens, Chairperson

ATTEST:

Planning Commission Secretary

VARIANCE APPLICATION NO. V-15-01

These permits are hereby accepted upon the express terms and conditions hereof, and shall have no force or effect unless and until agreed to, in writing, by the applicant and property owner(s).

The undersigned hereby acknowledge the approved terms and conditions and agree to fully conform to, and comply with, said terms and conditions within the time frames approved by the City of Seaside Planning Commission.

Applicant's Signature

Date

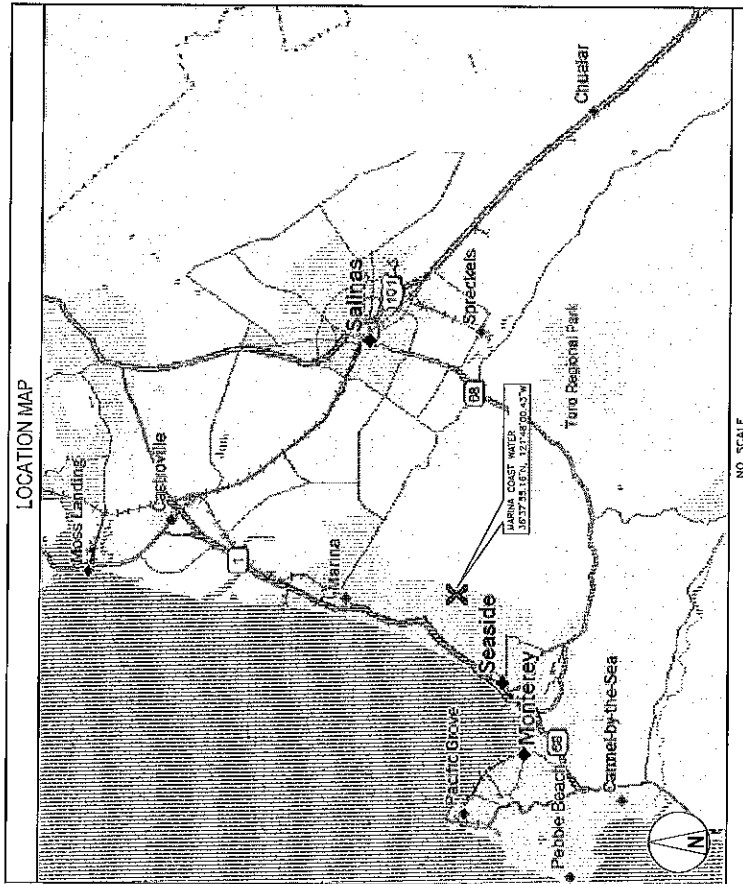
Property Owner's Signature

Date

MARINA COAST WATER

MONTEREY COUNTY RADIO NETWORK

LOCATION:
4601 PARKER FLATS CUTOFF, SEASIDE, CA 93933



SITE INFORMATION	
PROPERTY OWNER:	MARINA COAST WATER DISTRICT (MCDWD)
ADDRESS:	111 RESERVATION ROAD MARINA, CA 93933
TOWER OWNER:	SPRINT
SITE NAME:	MARINA COAST WATER
SITE NUMBER:	SF25010311
SITE CONTACT:	(813) 384-6131
SITE ADDRESS:	4601 PARKER FLATS CUTOFF SEASIDE, CA 93933
COUNTY:	MONTEREY COUNTY, CA
SECTION, T&R:	"CITY LANDS OF MONTEREY" LANDGRANT
LATITUDE (NAD 83):	PRELIMINARY COORDINATE 36° 37' 55.18" N
LONGITUDE (NAD 83):	PRELIMINARY COORDINATE 121° 48' 00.43" W
AWFL:	483
ZONING JURISDICTION:	" "
ZONING DISTRICT:	" "
TELCO PROVIDER:	AT&T
POWER PROVIDER:	PACIFIC GAS & ELECTRIC
TAX ACCOUNT & 912:	035-131-047-000
W&D TIER/DI:	2.1.3 ADP
SIT. ACQUISITION CONTACT:	GRANER MOYALD / DELTA WRX (916) 227-5300
CONSTRUCTION MANAGER:	JOHN CONLEY (503) 510-2020

PROJECT DESCRIPTION	
MONTEREY COUNTY RADIO NETWORK PROPOSES TO LOCATE IN AN EXISTING EQUIPMENT SHELTER WITH RADIO EQUIPMENT AND MOUNTING NEW ANTENNAS ON EXISTING 67 FT. TOWER.	

CONTACT INFORMATION	
ENGINEER:	BLACK & VEATCH CORPORATION, LAME OREGON, OR 97033
CONTACT:	SHAN MOG, PE
PHONE:	(503) 443-4433 OFFICE

CONSTRUCTION DRAWING APPROVALS	
SITE ACQUISITION:	DATE
ZONING:	DATE
RF ENGINEER:	DATE
P.A.D. REVIEW:	DATE
CONSTRUCTION MGR:	DATE
HARRIS SYSTEM ENGINEER: RANDY DAVISO	

DESIGN CRITERIA	
1. ANSI/EIA-738-222-C	
2. CALIFORNIA ELECTRIC CODE 2013	
3. NATIONAL ELECTRIC CODE 2013	

DRAWING INDEX	
SHEET NO:	SHEET TITLE
2-1	TITLE SHEET
2-2	OVERALL SITE PLAN
2-3	SITE PLAN
2-4	SHELTER/EQUIPMENT LAYOUT
2-5	SITE ELEVATION
2-6	SITE DETAILS

DO NOT SCALE DRAWINGS	
CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & LOCATIONS OF ALL UTILITIES BEFORE ANY CONSTRUCTION. THE ENGINEER IN CHARGE OF ANY DISCREPANCY SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY UPON THE DISCOVERY OF ANY DISCREPANCY.	

UNDERGROUND SERVICE ALERT	
USA NORTH	
1-800-222-2899 / 811	
CALL 48 HOURS BEFORE YOU DIG	

RF COMMUNICATIONS DIVISION 221 JEFFERSON RIDGE PARKWAY LYNCHBURG, VA 24501-6852 (816) 434-4000

BLACK & VEATCH
5803 MEADOWS ROAD, SUITE 200 LAKE OREGON, OR 97033 (503) 443-4400

PROJECT NO:	179059
DRAWN BY:	PAJ
CHECKED BY:	MBG

REV	DATE	DESCRIPTION
1	05/24/11	ISSUED FOR REVIEW
2	05/24/11	ISSUED FOR REVIEW

NOT TO BE USED FOR CONSTRUCTION	
--	--

IT IS A VIOLATION OF LAW FOR ANY PERSON TO ALTER THIS DOCUMENT.

MARINA COAST WATER 4601 PARKER FLATS CUTOFF SEASIDE, CA 93933 MONTEREY COUNTY
--

SHEET TITLE
TITLE SHEET

SHEET NUMBER
Z-1

RF COMMUNICATIONS DIVISION
221 JEFFERSON RIDGE PARKWAY
LYNDHURST, CA 94031-4852
(415) 434-4800



BLACK & VEATCH
5885 MIDWAY ROAD, SUITE 700
LAKE MARY, CA 95035
(925) 433-4444

PROJECT NO: 179056
DRAWN BY: JAC
CHECKED BY: MRC

REV	DATE	DESCRIPTION
B	09/24/15	REDESIGN FOR REVIEW
A	08/26/15	ISSUED FOR REVIEW

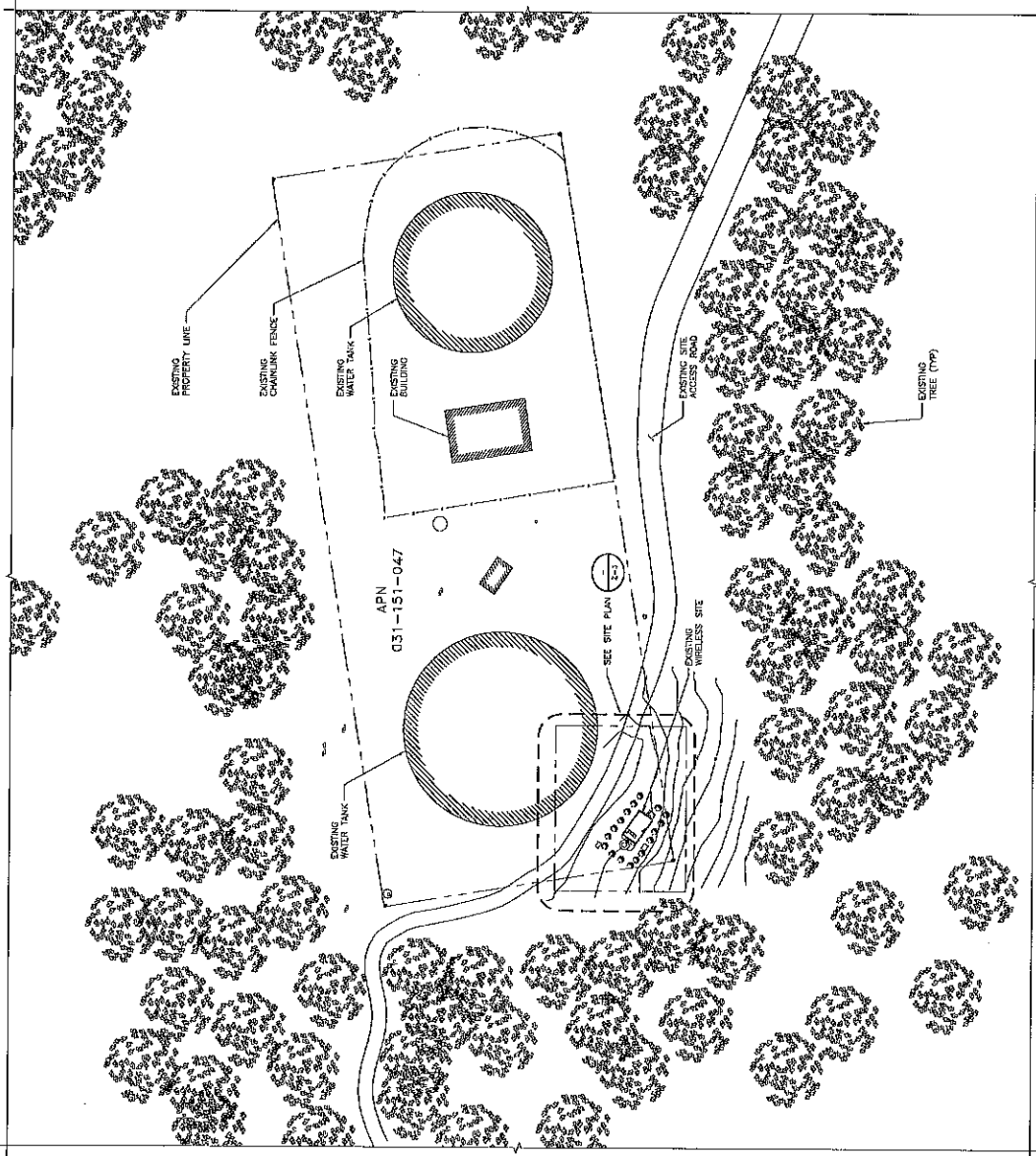
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MARINA COAST WATER
4801 PARKER PLATS CUTOFF
SEASIDE, CA 94933
MONTEREY COUNTY

SHEET TITLE
OVERALL
SITE PLAN

SHEET NUMBER
Z-2



OVERALL SITE PLAN 1" = 80'-0" 22x34 SCALE 1" = 40'-0" 1

RF COMMUNICATIONS DIVISION
271 JEFFERSON ROAD, PARKWAY
CUNNINGHAM, CA 93933
(816) 434-4000



BLACK & VEATCH

5895 MEADOWS ROAD, SUITE 700
LAKE ELSINORE, CA 92530
(951) 433-4400

PROJECT NO: 179056

DRAWN BY: ACJ

CHECKED BY: WEG

REV	DATE	DESCRIPTION
B	10/29/13	REDESIGN FOR REVIEW
A	10/29/13	ISSUED FOR REVIEW

NOT TO BE USED
FOR CONSTRUCTION

IT IS THE POLICY OF BLACK & VEATCH, INC. TO PROVIDE THE BEST QUALITY DESIGN AND CONSTRUCTION SERVICES TO ITS CLIENTS. THE DESIGN AND CONSTRUCTION OF THIS PROJECT IS THE RESPONSIBILITY OF THE CLIENT AND THE DESIGNER. BLACK & VEATCH, INC. IS NOT RESPONSIBLE FOR THE CONSTRUCTION OF THIS PROJECT.

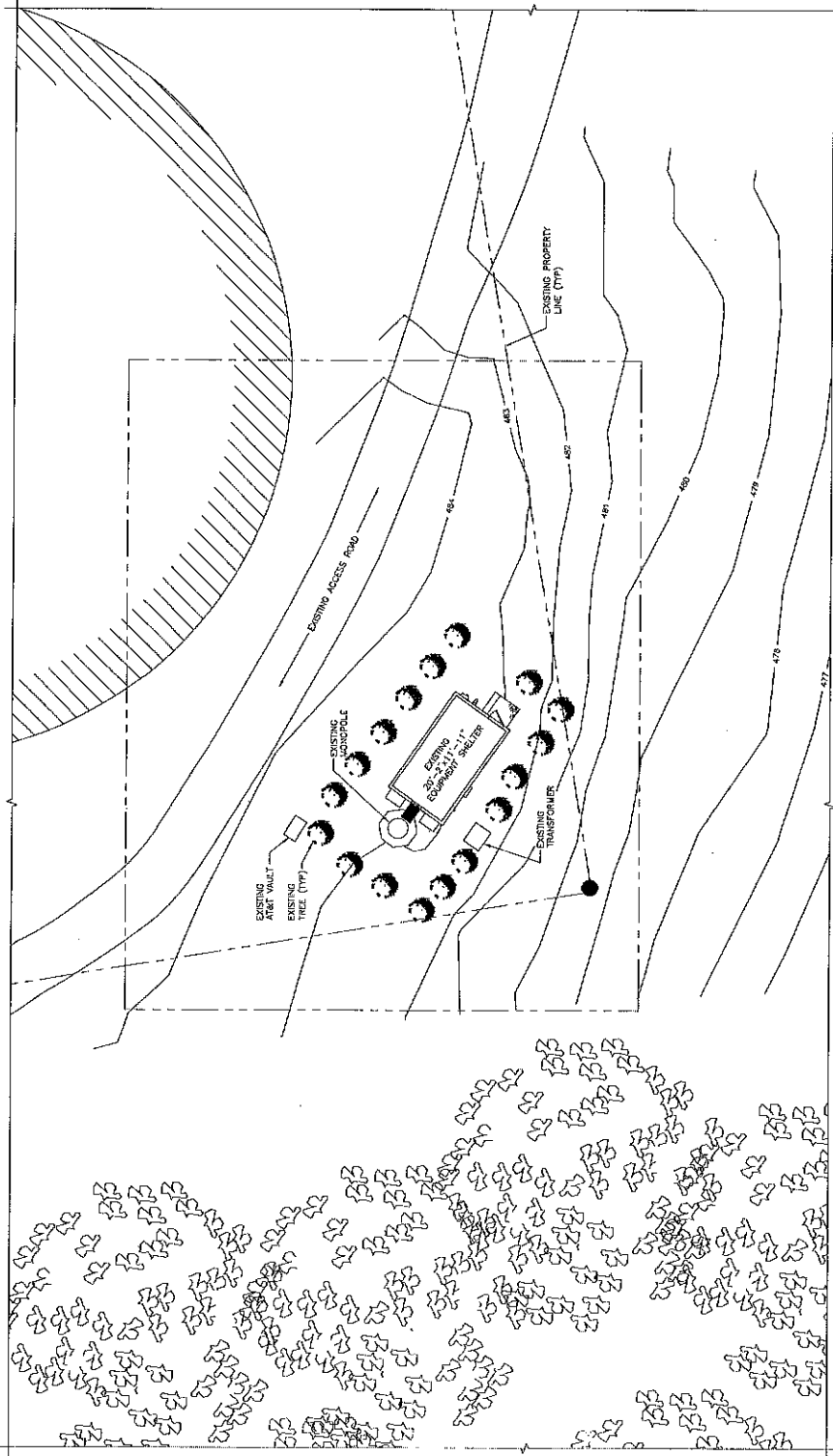
MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

SHEET TITLE

SITE PLAN

SHEET NUMBER

Z-3



SITE PLAN 11x17 SCALE: 1" = 20' 22x34 SCALE: 1" = 10' 1



BLACK & VEATCH
5885 MEADOWS ROAD, SUITE 700
LAKE OSWEGO, OR 97035
(503) 433-4400

PROJECT NO:	179056
DRAWN BY:	AKJ
CHECKED BY:	MBG

REV	DATE	DESCRIPTION
A	08/25/15	ISSUED FOR REVIEW
B	08/26/15	RECEIVED FOR REVIEW

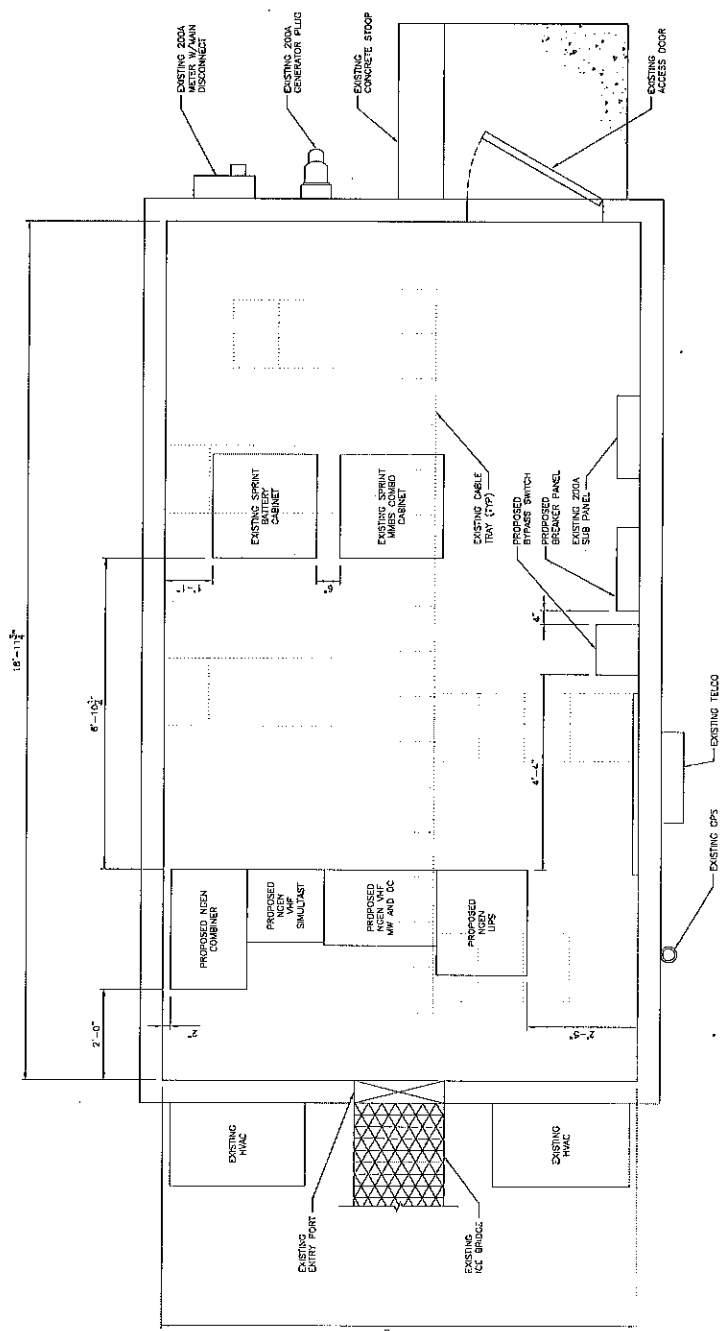
NOT TO BE USED
FOR CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS SEAL PLANT

MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

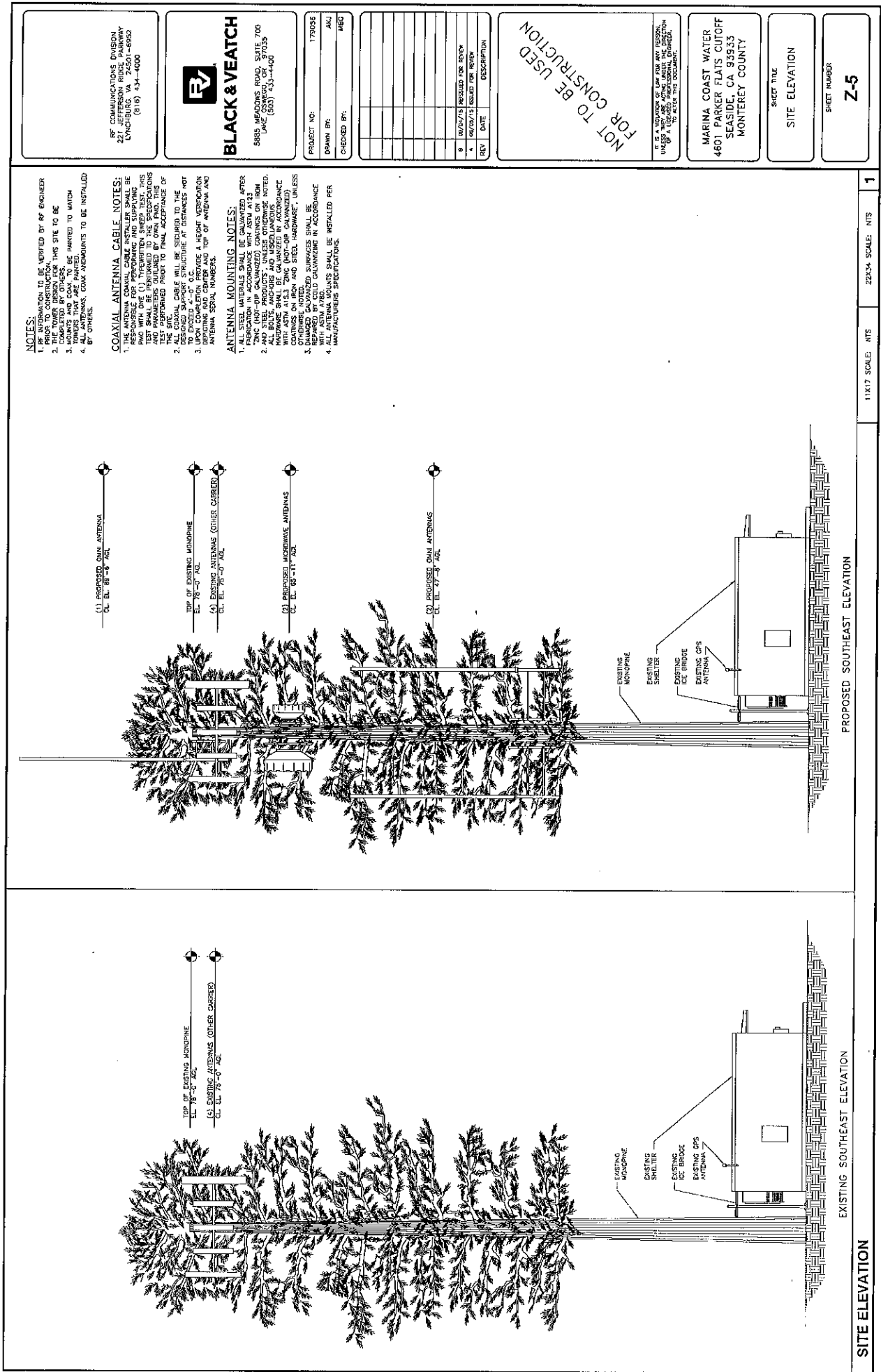
SHEET TITLE
SHELTER/EQUIPMENT
LAYOUT

HEET NUMBER
Z-4



11x17 SCALE: 3/8" = 1'-0"	22x34 SCALE: 3/4" = 1'-0"	1
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EQUIPMENT LAYOUT



NOTES:

1. ALL WORK SHALL BE VERIFIED BY RF ENGINEER PRIOR TO CONSTRUCTION.
2. THE TOWER DESIGN FOR THIS SITE TO BE CONSIDERED FOR CONSTRUCTION.
3. MONOPOLAR AND GPS TO BE INSTALLED TO MATCH TOWERS THAT ARE PAINTED.
4. ALL ANTENNAS, COMB ANTENNAS TO BE INSTALLED BY OTHERS.

COAXIAL ANTENNA CABLE NOTES:

1. THE ANTENNA COAXIAL CABLE SHALL BE RESPONSIBLE FOR PERFORMING AND SUPPLYING THE CABLE AND THE ANTENNA SHALL BE RESPONSIBLE FOR TESTING THE CABLE. THE ANTENNA SHALL BE RESPONSIBLE FOR TESTING THE CABLE AND THE ANTENNA SHALL BE RESPONSIBLE FOR TESTING THE CABLE.
2. ALL COAXIAL CABLE SHALL BE SECURED TO THE TOWER AND THE ANTENNA SHALL BE RESPONSIBLE FOR TESTING THE CABLE.
3. UPON COMPLETION PROVIDE A HEIGHT VERIFICATION OF THE ANTENNA AND THE ANTENNA SERIAL NUMBERS.

ANTENNA MOUNTING NOTES:

1. ALL ANTENNAS SHALL BE MOUNTED AFTER INSPECTION IN ACCORDANCE WITH ASTM A193.
2. ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL SHALL BE MAINTAINED AND NOTED. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A193.
3. OTHERS, NOTED, SHALL BE MAINTAINED AND NOTED. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A193.
4. REPAIRS BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.

RF COMMUNICATIONS DIVISION
221 JEFFERSON RIDGE PARKWAY
LYNDHURST, CA 94025
(415) 434-4000



BLACK & VEATCH

5885 MEADOWS ROAD, SUITE 700
LAKE (503) 433-4400

PROJECT NO: 175005

DRAWN BY: AGL

CHECKED BY: MGS

REV	DATE	DESCRIPTION
0	06/24/15	ISSUED FOR REVIEW
1	06/24/15	ISSUED FOR REVIEW

NOT TO BE USED
FOR CONSTRUCTION

IT IS THE RESPONSIBILITY OF THE USER TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED HEREIN. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

SHEET TITLE
SITE ELEVATION

SHEET NUMBER
Z-5

11X17 SCALE: NTS 22X34 SCALE: NTS 1

RESOLUTION NO. 15-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SEASIDE, CALIFORNIA, APPROVING A USE PERMIT TO ALLOW A MODIFICATION TO AN EXISTING TELECOMMUNICATION FACILITY IN THE RS-12 SINGLE-FAMILY RESIDENTIAL ZONING DISTRICT OF THE FORMER FORT ORD.

WHEREAS, Monterey County (Applicant), and Marina Coast Water District, property owner, have applied for a Use Permit for:

- A. The installation of the following antennas onto the an existing 78-foot tall telecommunication tower:
- 1) Two (2) very high frequency (VHF) Omni multi-channel radio transmit (Tx) antennas mounted at an elevation of 47 feet;
 - 2) An Omni receive (Rx) antenna mounted at an elevation of 99 feet, and;
 - 3) Two microwave system parabolic antennas mounted at an elevation of 65 feet.

WHEREAS, the proposed project requires discretionary approval, and it is the responsibility of the Planning Commission to consider and weigh the merits of the application and public input in relation to the policies, standards and intent of the Seaside General Plan and Seaside Municipal Code; and

WHEREAS, the Seaside Planning Commission considered oral comments and written information concerning the proposed project at a duly noticed public hearing held at a Special Meeting on November 18, 2015; and

WHEREAS, the project is a Categorically Exempt, Class 3, Section 15303 (New Construction of Conversion of Small Structures) project that meets the following conditions:

Evidence: The proposed telecommunications facility would include the addition of two multi-channel transmit antennas, a single Omni receive antenna, and two microwave antennas on an unmanned 80-foot tall wireless telecommunications tower that is currently used by Sprint Communications the operation of eight panel antennas, associated support equipment, and a 12-by 20-foot equipment shelter. Since the facility would continue to utilize camouflage elements to resemble a coniferous tree, the visual impact of this colocation project would be less than significant.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission adopts the following findings for Use Permit Application No. UP-15-06

- 1) The proposed use is allowed within the applicable zone and complies with all other applicable provisions of this Zoning Ordinance and the Municipal Code.**

Evidence: The proposed project is a permitted use in the RS-12 (Single-Family Residential) Zoning District as a utility facility subject to a Use Permit under Seaside Municipal Code (S.M.C.) Section 17.12.030, Table 2-1: Allowed Land Uses and Permit Requirements.

Evidence: The proposed facility complies with all applicable requirements Chapter 17.54 (Telecommunications Facilities) of the Seaside Municipal Code and would not adversely impact the character and aesthetics of the public right-of-way.

- 2) The proposed use is consistent with the General Plan and any applicable specific plan.**

Evidence: The proposed use as a telecommunications facility is consistent with the existing use of the property for municipal water supply under the Public/Institutional land use, intended for public utilities.

Evidence: The NGEN radio system project serves to provide a public safety communication network to serve Seaside and surrounding areas of Monterey County.

Evidence: Providing an opportunity for co-location of other telecommunications facilities on the proposed permanent facility would minimize the proliferation of future monopolies in the City.

Evidence: The proposed use is not subject to any applicable specific plan.

- 3) The design, location, size, and operating characteristics of the proposed activity are compatible with the existing and planned future land uses in the vicinity.**

Evidence: The existing monopole is of stealth design camouflaged as a coniferous Pine tree. The proposed improvements would be design to blend with the faux tree and would not present a significant visual impact to surrounding land uses from its design.

Evidence: The project would be contained to the southwest corner of the project parcel, next to the existing access easement utilized by the Marina Coast Water District and would be compatible with existing and planned future land uses in the vicinity due to its size.

Evidence: The proposed project would be an unmanned facility, operating 24-hours per day. After the initial construction, no more than two routine maintenance visits would be required per month. The operating characteristics for the proposed project would not interfere with the existing and proposed land uses in the vicinity.

- 4) **The site is physically suitable for the type, density and intensity of use being proposed, including access, utilities, and the absence of physical constraints.**

Evidence: The project site is served by existing water, wastewater, and electrical infrastructure and facilities with adequate capacity to serve the proposed project.

- 5) **Granting the permit would not be detrimental to the public interest, health, safety, convenience, or welfare, or materially injurious to persons, property, or improvements in the vicinity and zone district in which the property is located.**

Evidence: The granting of a Use Permit would not create significant noise, traffic, or other conditions or situations that may be objectionable or detrimental to other permitted uses in the vicinity or adverse to the public interest, health, safety, convenience, or welfare of the City. Radio frequency emissions from the proposed project are well below federally regulated maximum emission levels and would not cause significant public health effects.

BE IT FURTHER RESOLVED, that the Planning Commission approves Use Permit Application No. UP-15-06 subject to the following conditions:

Project Specific

Planning:

1. The Applicant shall submit an application for a Building Permit for the construction of the permanent telecommunications facility as approved by this Permit. Plans submitted for a Building Permit shall substantially conform to plans stamped "Received September 25, 2015 Community Development Department", included as Exhibit A.
2. The Applicant shall cooperate with other service providers in the siting of equipment and antennas at this telecommunications facility to allow co-location of subsequent wireless communication facilities. The Applicant shall provide access to the facility for initial construction and routine maintenance by other co-located service providers as would be necessary for commercially viable wireless service. The Applicant shall accommodate the maximum number of operators at a given site, given minimum vertical spacing considerations for the facility (S.M.C. Section 17.54.050.B.3)
3. The owner or operator of the facility shall submit and maintain current at all times basic contact and site information for the facility. The Applicant shall notify the City of any changes to the information submitted within 30 days of any change, including change of the name or legal status of the owner or operator of the facility (S.M.C. Section 17.44.070.A)
4. The communication facility and related equipment, including lighting, fences, and landscaping shall be maintained in good condition, free from trash, debris, graffiti, and other forms of vandalism by the service provider. Graffiti shall be removed by the service provider from any facility or equipment as soon as practicable, and in no instances more than 48 hours from the time of notification by the City. (S.M.C. Section 17.54.070.B)

5. All trees, foliage, and other landscaping elements on the communication facility site, whether or not used as screening, shall be maintained in good condition at all times in compliance with the approved landscape plan on project plans. The facility owner shall be responsible for replacing any damaged, dead, or decaying landscaping as promptly as reasonable possible. Amendments or modifications to the landscape plan shall require approval by the Director. (S.M.C. Section 17.54.070.C)
6. At no times shall equipment noise from any source exceed an exterior noise level of 60 dB at the property line. (S.M.C. Section 17.54.070.D)
7. The Applicant, and any subsequent facility owners, shall routinely and regularly inspect the site to ensure compliance with the standards identified in these Conditions. (S.M.C. Section 17.54.070.E)
8. Any exterior lighting shall be manually operated and used only during night maintenance or in the event of emergencies. The lighting shall be constructed or located such that only the intended area is illuminated and off-site glare is fully controlled. Light fixtures shall be low-wattage, hooded and downward directed. (S.M.C. Section 17.54.070.F)
9. All antennas, poles, and towers shall conform to the colors and materials of a typical tree-pole facility. All exterior materials shall be painted with non-reflective finishes. (S.M.C. Section 17.54.060.C)
10. All equipment associated with a communications facility shall be removed within 30 days of the discontinuance of the use and the site shall be restored to its original pre-construction conditions for the telecommunications facility, subject to the approval of the Zoning Administrator. The City shall provide the City with a notice of intent to vacate the site a minimum of 30 days before the site vacation. (S.M.C. Section 17.54.080)
11. Prior to final Building Permit approval, the Applicant shall submit an application with the Federal Aviation Administration via Form 7460-1 to determine if the facility requires marking and lighting under FAA regulations.

Building Department:

1. The project shall adhere to and be constructed in accordance with the 2013 California Building Code

Fire Department

1. The project shall adhere to and be constructed in accordance with the 2013 California Fire Code.

Standard

1. The Use Permit approval is subject to revocation procedures contained in S.M.C.S. 17.69.060 in the event that any of the conditions of this approval are violated, this discretionary permit was granted on the basis of false or misleading information, written or oral, given willingly or negligently by the applicant or property owner, and/or there has been a discontinuance of the use, or purposed for which the permit was issued, for a period of 180 days or more.

2. This Use Permit is subject to procedures and requirements of Chapter 17.54 (Permit Implementation, Time Limits, and Extensions), and those related to appeals and revocation in Article 6 (Zoning Ordinance Administration) of Title 17 of the Municipal.
3. The applicant agrees as a condition and in consideration of the approval of this discretionary permit that they will, pursuant to agreement and/or statutory provisions as applicable, including but not limited to Government Code Section 66474.9, defend, indemnify and hold harmless the City of Seaside or its agents, officers and employees from any claim, action or proceeding against the City or its agents, officers or employees to attack, set aside, void or annul this approval, which action is brought within the time period provided for under law, including but not limited to, Government Code Section 66499.37, as applicable. The applicant will reimburse the City for any court costs and attorney's fees, which the City may be required by a court to pay as a result of such action. The City may, at its sole discretion, participate in the defense of such action; but such participation shall not relieve applicant of his obligations under this condition. An agreement to this effect shall be recorded upon demand of City Counsel or concurrent with the issuance of permits, use of the property, whichever occurs first and as applicable. The City shall promptly notify the applicant of any such claim, action, or proceeding and the City shall cooperate fully in the defense thereof. If the City fails to promptly notify the applicant of any such claim, action or proceeding or fails to cooperate fully in the defense thereof, the applicant shall not thereafter be responsible to defend, indemnify or hold the City harmless.
4. The project shall comply with the requirements and the applicable ordinances of the Marina Coast Water District (MCWD).
5. The permit shall have no force or effect unless and until accepted, and the terms thereof agreed to, in writing, by the applicant and property owner within fifteen (15) days from the date of its approval.
6. This Use Permit shall expire and become void 12 months from the date of approval, or upon the expiration of another time limit established by the review authority, unless project construction has commenced within the required time limit, and construction continues thereafter under a valid Building Permit, or the Zoning Administrator has granted an extension of time.
7. For purposes of assuring compliance, the applicant, agents, representatives or their assignees agree not to deny or impede access to the subject property by City employees in the performance of their duties.

PASSED AND ADOPTED at the regular meeting of the Planning Commission of the City of Seaside, State of California, on the 18th day of November 2015, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

John Owens, Chairperson

ATTEST:

Planning Commission Secretary

USE PERMIT APPLICATION NO. UP-15-06

These permits are hereby accepted upon the express terms and conditions hereof, and shall have no force or effect unless and until agreed to, in writing, by the applicant and property owner(s).

The undersigned hereby acknowledge the approved terms and conditions and agree to fully conform to, and comply with, said terms and conditions within the time frames approved by the City of Seaside Planning Commission.

Applicant's Signature

Date

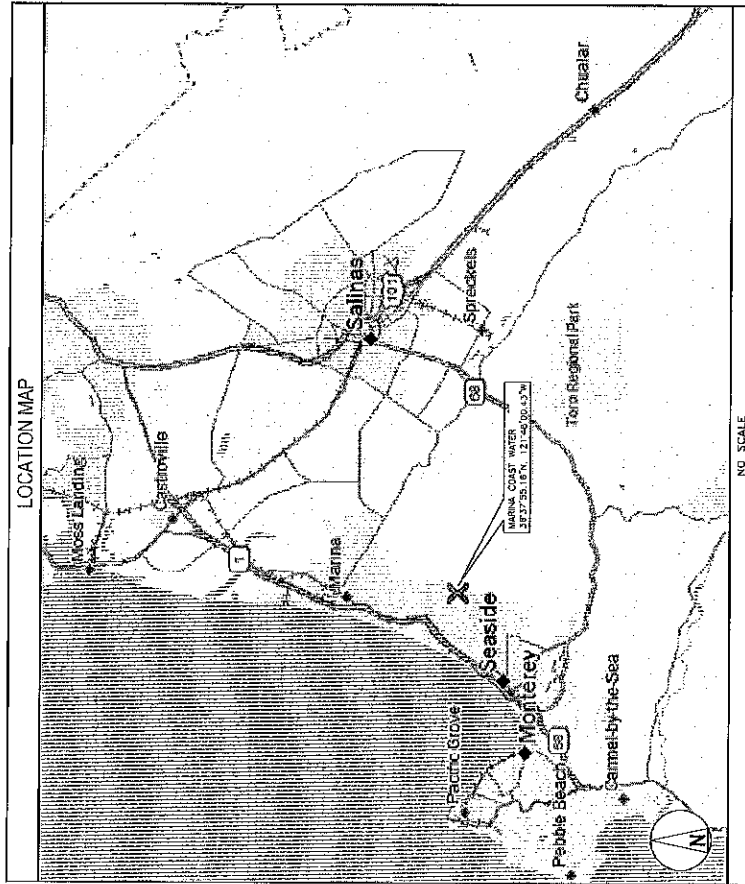
Property Owner's Signature

Date

MARINA COAST WATER

MONTEREY COUNTY RADIO NETWORK

LOCATION:
4601 PARKER FLATS CUTOFF, SEASIDE, CA 93933



SITE INFORMATION	
PROPERTY OWNER:	MARINA COAST WATER DISTRICT (MCD)
ADDRESS:	111 RESERVATION ROAD MARINA, CA 93933
TOWER OWNER:	SPRINT
SITE NAME:	MARINA COAST WATER
SITE NUMBER:	SP250X211
SITE CONTACT:	(831) 384-6131
SITE ADDRESS:	4601 PARKER FLATS CUTOFF SEASIDE, CA 93933
COUNTY:	MONTEREY COUNTY, CA
SECTION, T&E:	"CITY LANDS OF MONTEREY" LANDGRANT
LATITUDE (NAD 83):	38° 37' 53.18" N
LONGITUDE (NAD 83):	121° 48' 03.43" W
AMPL:	46.5
ZONING JURISDICTION:	" "
ZONING DISTRICT:	" "
POWER PROVIDER:	PACIFIC GAS & ELECTRIC
T&E ACCOUNT & SIZE:	0.33-151-047-000 2.15 ACRES
WSP TAG/DT:	" "
SITE ACQUISITION CONTACT:	CEANER MOYAR / DELTA WRX (916) 227-5300
CONSTRUCTION MANAGER:	JOHN CONLEY BLACK & VEATCH (920) 510-2020

PROJECT DESCRIPTION
MONTEREY COUNTY RADIO NETWORK PROPOSES TO LOCATE IN AN EXISTING EQUIPMENT SHELTER WITH RADIO EQUIPMENT AND MOUNTING NEW ANTENNAS ON EXISTING 62 FT MONITORING TOWER.

CONTACT INFORMATION	
ENGINEER:	BLACK & VEATCH CORPORATION LANS OREGON, OR 97035
CONTACT:	BRIAN HUGO, PE
PHONE:	(503) 443-4455 OFFICE

DRIVING DIRECTIONS
DIRECTIONS FROM NEAREST INTERSTATE: US-101, EXIT 350 (0.2 MILES), LEFT W LAUREL DR (0.3 MILES), LEFT N DAVIS RD (2.4 MILES), RIGHT W BLANCO RD (4.8 MILES), RIGHT CO. RD 17/RESERVATION RD (0.7 MILES), LEFT INJIN RD (1.6 MILES), LEFT 6TH AVE (0.3 MILES), LEFT 8TH ST (0.2 MILES), LEFT INTER-4-GARRISON RD (138 FT), RIGHT 7TH AVE (0.7 MILES), RIGHT GIGING RD (0.5 MILES), RIGHT PARKER FLATS CUTOFF RD (1.6 MILES), RIGHT EUCALYPTUS RD (0.8 MILES), SPRINT CELL SITE IS LOCATED ON THE WEST SIDE OF THE ROAD.
IF USING 11"x17" PLOT, DRAWINGS WILL BE HALF SCALE

CONSTRUCTION DRAWING APPROVALS	
SITE ACQUISITION:	DATE
ZONING:	DATE
RF ENGINEER:	DATE
P.O.D. REVIEW:	DATE
CONSTRUCTION MGR:	DATE
HARRIS SYSTEM ENGINEER RANDY ANDISO	

DESIGN CRITERIA
1. ANSI/IEEE 222-2
2. IEEE 685-2002
3. CALIFORNIA ELECTRICAL CODE 2013
4. NATIONAL ELECTRIC CODE 2013

DRAWING INDEX	
SHEET NO:	TITLE
2-1	TITLE SHEET
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2-6	SITE DETAILS

DO NOT SCALE DRAWINGS
CONTRACTOR SHALL VERIFY ALL PLANS & LISTING DIMENSIONS & LOCATIONS OF ALL STRUCTURES & UTILITIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

UNDERGROUND SERVICE ALERT
USA NORTH
1-800-277-2888 / 811
CALL 48 HOURS BEFORE YOU DIG

RF COMMUNICATIONS DIVISION 221 JEFFERSON RIDGE PARKWAY LINCOLN, CA 95020-8952 (916) 431-4604

BLACK & VEATCH
5885 MEADOWS ROAD, SUITE 700 LAKE OREGON, OR 97035 (503) 433-4400

PROJECT NO:	179058
DRAWN BY:	JAL
CHECKED BY:	MBG

REV	DATE	DESCRIPTION
0	06/07/15	ISSUED FOR REVIEW
1	06/07/15	ISSUED FOR REVIEW

NOT TO BE USED FOR CONSTRUCTION	
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MARINA COAST WATER 4601 PARKER FLATS CUIT SEASIDE, CA 93933 MONTEREY COUNTY
--

SHEET TITLE
TITLE SHEET

SHEET NUMBER
Z-1

RF COMMUNICATIONS DIVISION
221 JEFFERSON ROAD PARKWAY
LYNDHURST, N.J. 07036
(818) 434-4800



BLACK & VEATCH
5885 MEADOWS ROAD, SUITE 700
LAKE ARROWHEAD, CA 97035
(805) 434-4400

PROJECT NO: 179059
DESIGN BY: JAD
CHECKED BY: MBS

REV	DATE	DESCRIPTION
B	06/24/15	REDESIGN AND RENEW
A	05/26/15	DESIGN FOR REVIEW

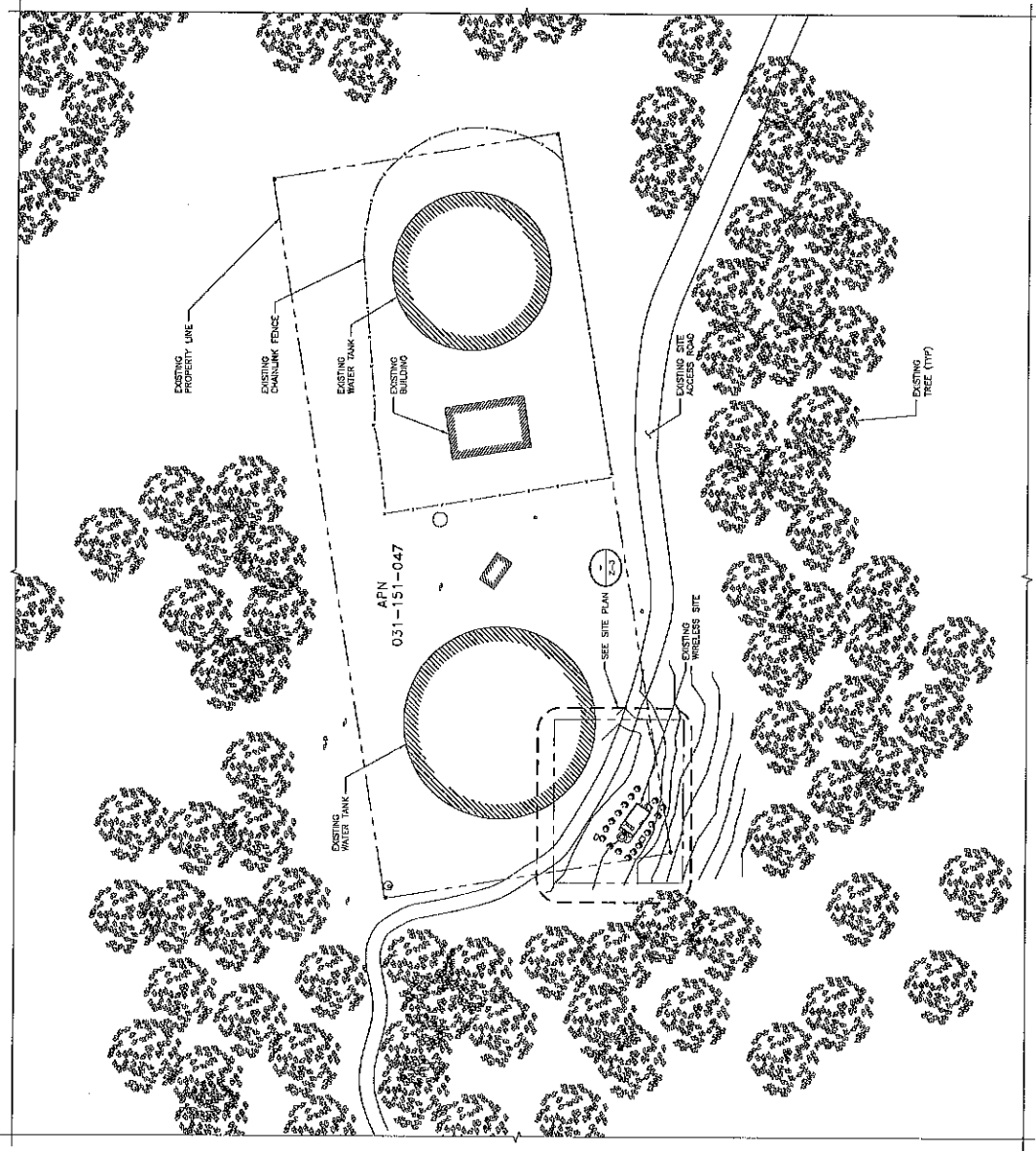
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WITHOUT THE WRITTEN PERMISSION
OF A LICENSED PROFESSIONAL ENGINEER
OR ARCHITECT.

MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

SHEET TITLE
OVERALL
SITE PLAN

SHEET NUMBER
Z-2



OVERALL SITE PLAN 11x17 SCALE: 1" = 80'-0" 22x34 SCALE: 1" = 40'-0" 1

RF COMMUNICATIONS DIVISION
221 JEFFERSON RIDE PARKWAY
LINCOLN, CA 95020-8852
(916) 434-4629



BLACK & VEATCH

5685 MEADOWS ROAD, SUITE 700
DUBLIN, CA 94568
(916) 433-4400

PROJECT NO. 179056

DRAWN BY: AGJ

CHECKED BY: MGS

REV	DATE	DESCRIPTION
B	06/24/15	REVISOR FOR REVIEW
A	06/24/15	ISSUED FOR REVIEW

NOT TO BE USED
FOR CONSTRUCTION

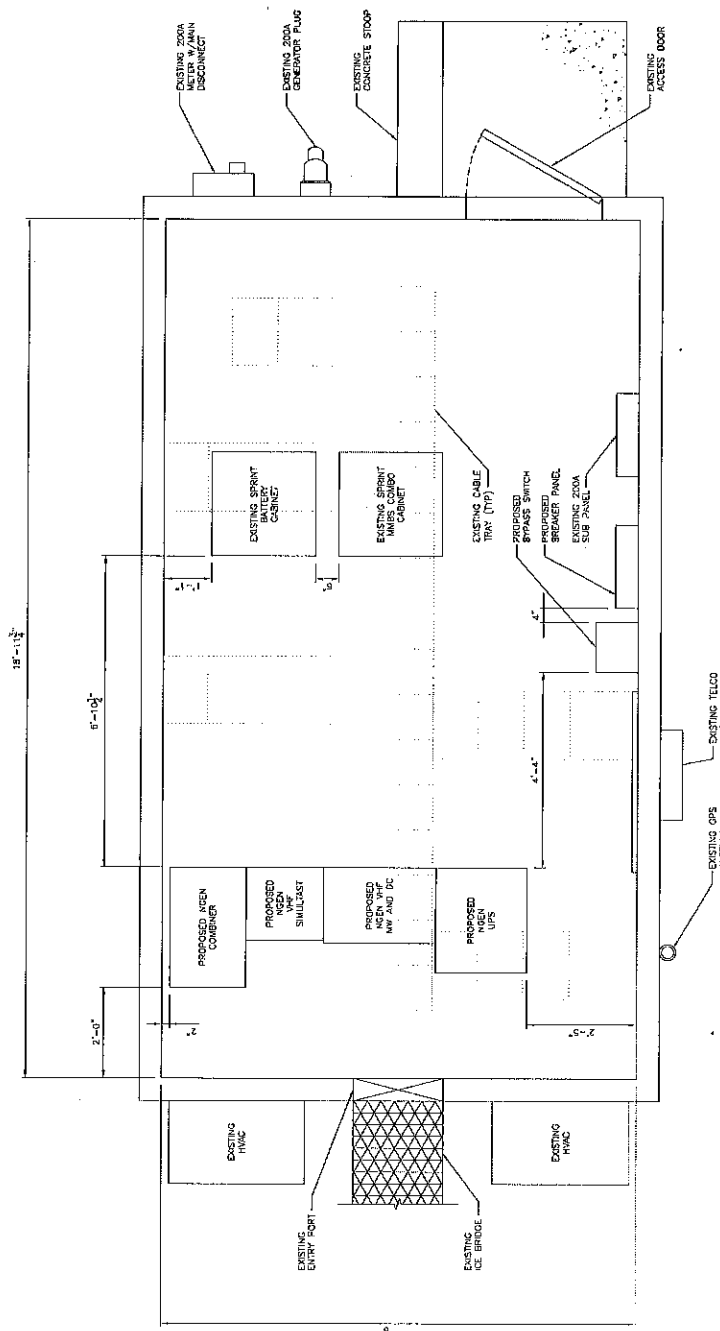
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MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

SHEET TITLE
SHELTER/EQUIPMENT
LAYOUT

SHEET NUMBER

Z-4



EQUIPMENT LAYOUT 11x17 SCALE: 3/8" = 1'-0" 22x34 SCALE: 3/4" = 1'-0" 1

NOTES:
 1. THE TOWER SHALL BE VERIFIED BY RF ENGINEER PRIOR TO CONSTRUCTION.
 2. THE TOWER DESIGN FOR THIS SITE TO BE CONSIDERED FOR THE TOWER'S OWNERS.
 3. MOUNTS AND COAX. TO BE PAINTED TO MATCH TOWERS THAT ARE PAINTED.
 4. ALL COAXIAL CABLE ANTI-ROCKS TO BE INSTALLED BY OTHERS.

COAXIAL ANTENNA CABLE NOTES:
 1. THE ANTENNA COAXIAL CABLE INSTALLER SHALL BE RESPONSIBLE FOR PERFORMING AND SUPPLYING THE COAXIAL CABLE. THE COAXIAL CABLE SHALL BE 1/2" DIA. (1/2" DIA. COAXIAL CABLE SHALL BE USED FOR THE COAXIAL CABLES TO THE TOWERS AND PARAMETERS OBTAINED BY OWN PHOTO. THE COAXIAL CABLE SHALL BE INSTALLED PRIOR TO FINAL ACCEPTANCE OF THE SITE.
 2. ALL COAXIAL CABLE WILL BE SECURED TO THE TOWER STRUCTURE AT SPACES NOT TO EXCEED 4'-0" O.C.
 3. UPON COMPLETION PROVIDE A HEAVY VERIFICATION OF THE COAXIAL CABLE AT TOP OF ANTENNA AND ANTENNA SERIAL NUMBERS.

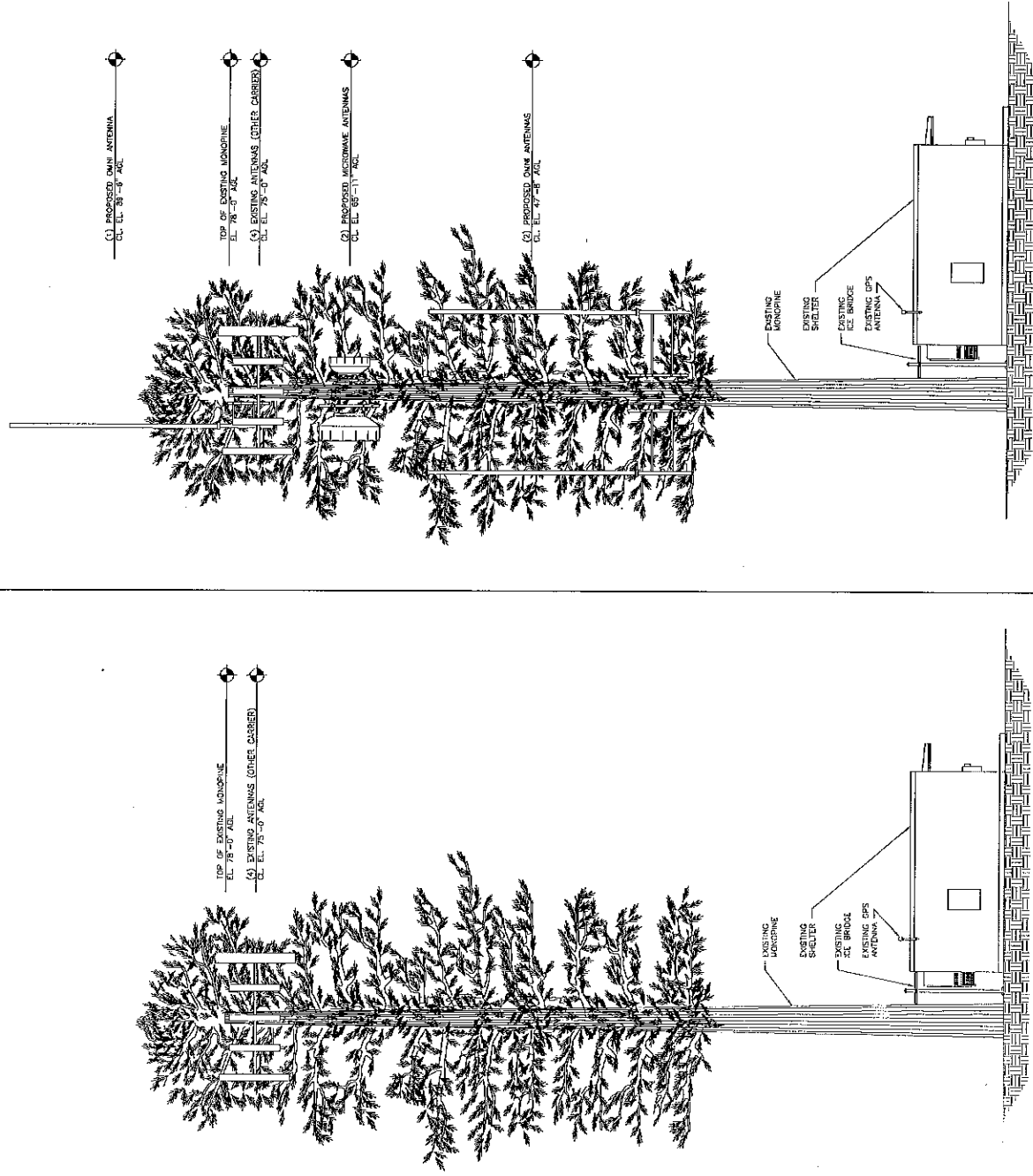
ANTENNA MOUNTING NOTES:
 1. THE ANTENNA SHALL BE MOUNTED ON THE TOWER IN ACCORDANCE WITH ASTM A173.
 2. ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON SHALL BE IN ACCORDANCE WITH ASTM A173.
 3. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A173.
 4. ALL COAXIAL CABLES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. UNLESS OTHERWISE NOTED, COAXIAL CABLES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
 5. ALL COAXIAL CABLES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

(1) PROPOSED OMNI ANTENNA
 CL. EL. 38'-0" AGL

TOP OF EXISTING MONOPINE
 EL. 78'-0" AGL
 (4) EXISTING ANTENNAS (OTHER CARRIERS)
 CL. EL. 75'-0" AGL

(2) PROPOSED MIDWAVE ANTENNAS
 CL. EL. 65'-11" AGL

(3) PROPOSED OMNI ANTENNAS
 CL. EL. 47'-0" AGL



PROPOSED SOUTHEAST ELEVATION

EXISTING SOUTHEAST ELEVATION

SITE ELEVATION

1:1/17 SCALE: NTS 22x34 SCALE: NTS 1

RF COMMUNICATIONS DIVISION
 221 JEFFERSON RIDGE PARKWAY
 UNION CITY, CA 94586-8632
 (916) 434-4000



BLACK & VEATCH

5885 MEADOWS ROAD, SUITE 700
 UNION CITY, CA 94586-8632
 (916) 434-4000

PROJECT NO. 179056
 DRAWN BY: JAC
 CHECKED BY: NED

REV	DATE	DESCRIPTION
9	05/04/15	ISSUED FOR REVIEW
10	04/09/15	ISSUED FOR REVIEW

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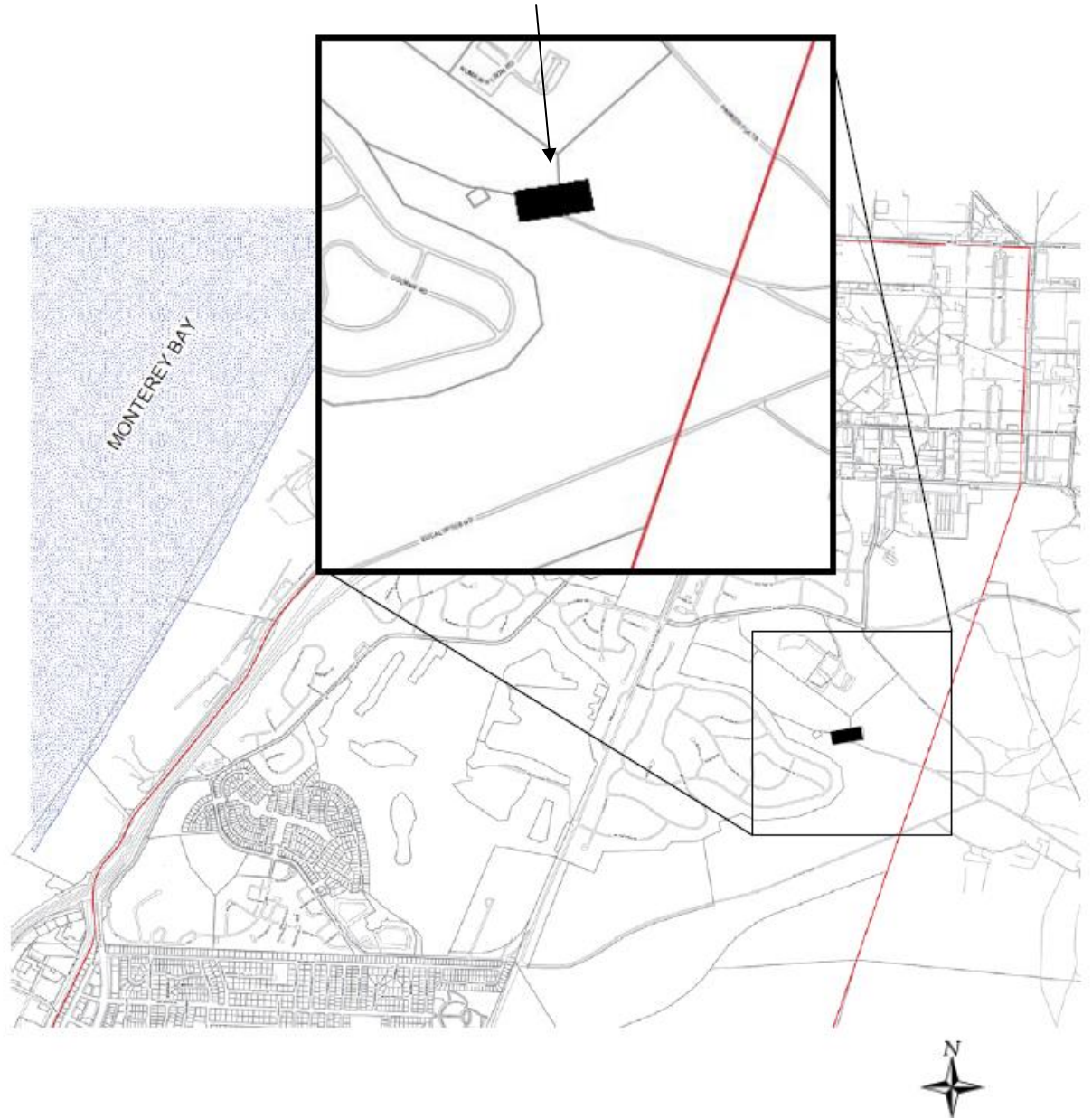
MARINA COAST WATER
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 SEASIDE, CA 93933
 MONTEREY COUNTY

SHEET TITLE
 SITE ELEVATION

SHEET NUMBER
 Z-5

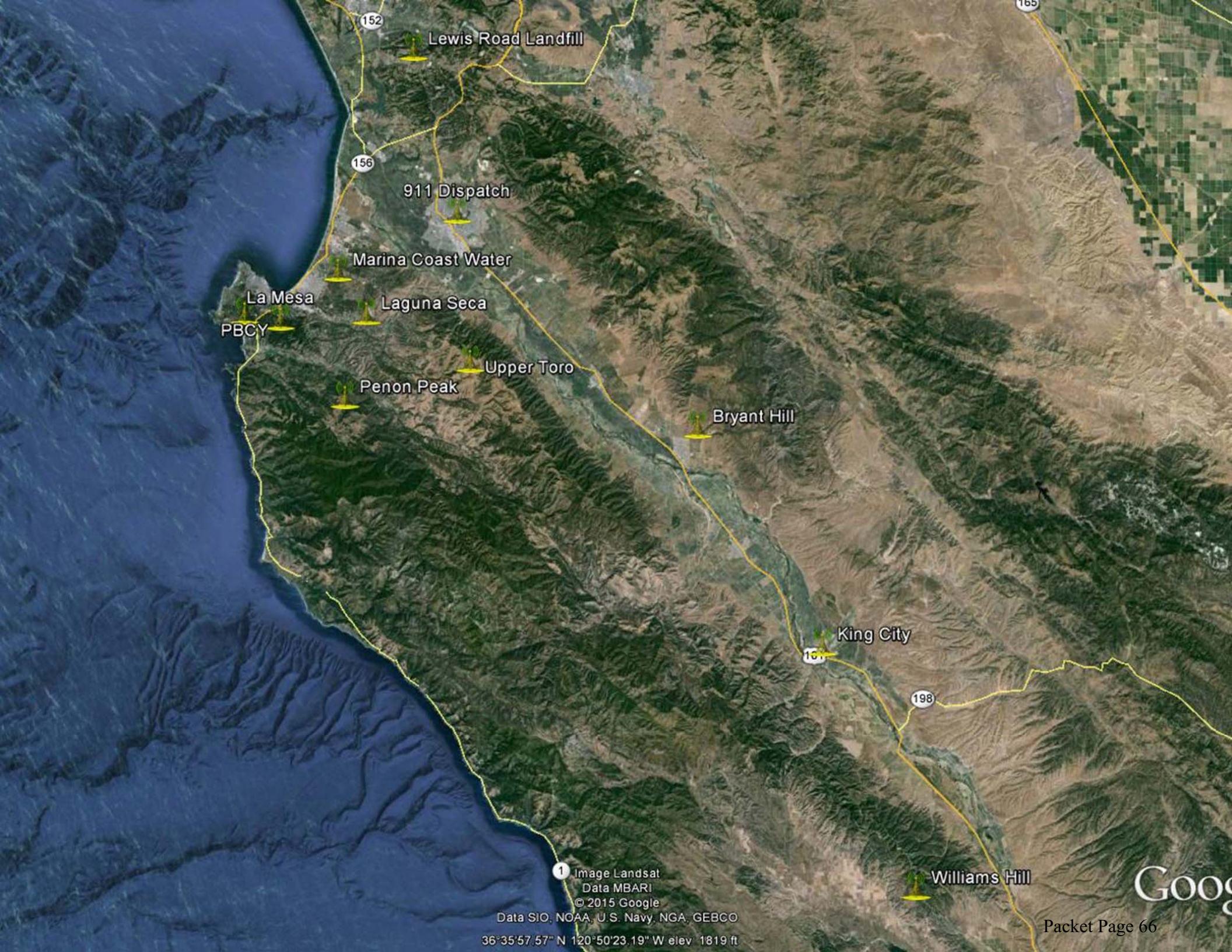
Location Map

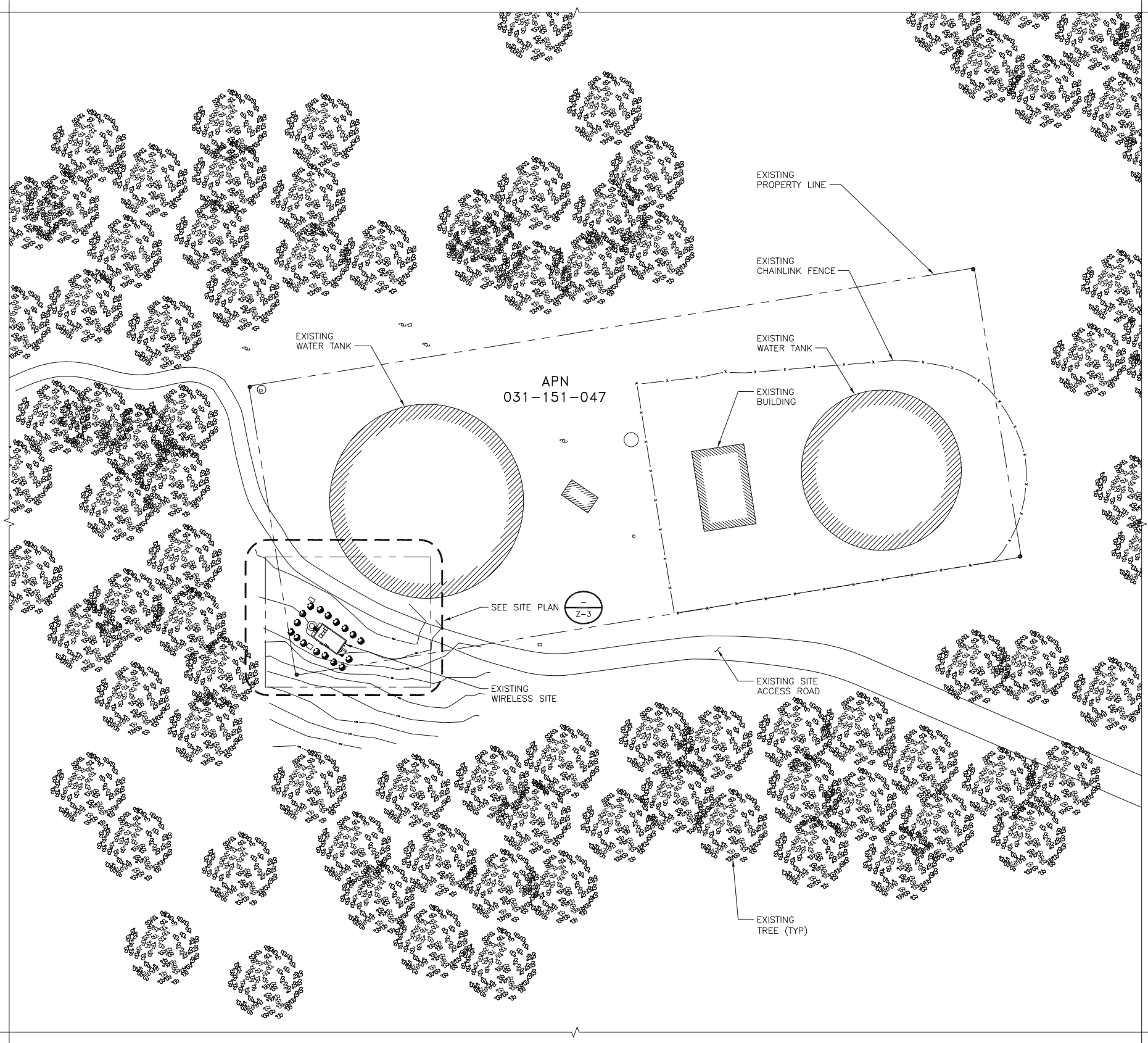
4602 Parker Flats Road



AERIAL MAP







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(816) 434-4000



BLACK & VEATCH

5885 MEADOWS ROAD, SUITE 700
LAKE OSWEGO, OR 97035
(503) 433-4400

PROJECT NO:	179056
DRAWN BY:	AKJ
CHECKED BY:	MBG

B	09/04/15	REISSUED FOR REVIEW
A	08/05/15	ISSUED FOR REVIEW
REV	DATE	DESCRIPTION

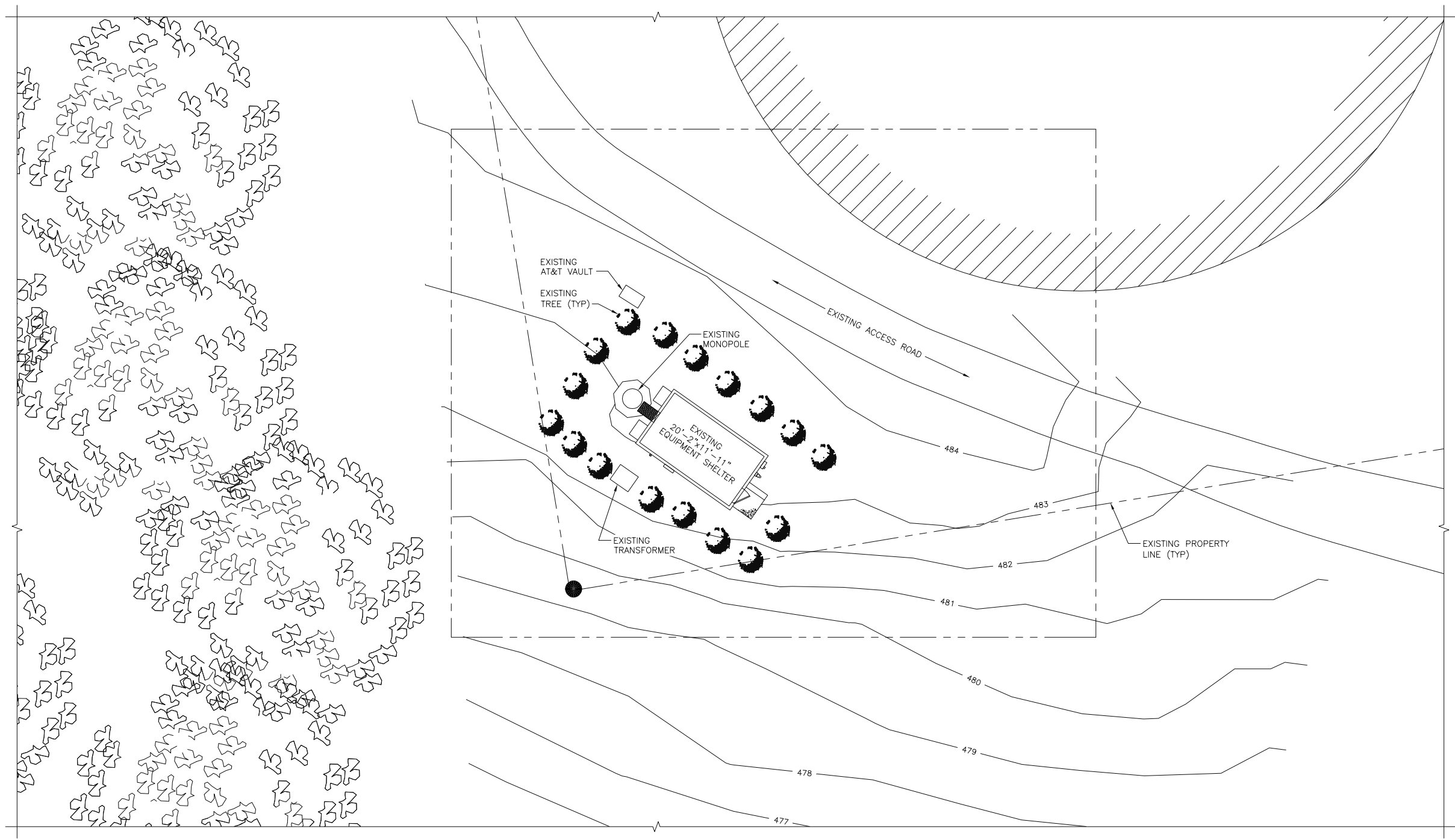
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MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

SHEET TITLE
**OVERALL
SITE PLAN**

SHEET NUMBER
Z-2



RF COMMUNICATIONS DIVISION
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BLACK & VEATCH

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(503) 433-4400

PROJECT NO: 179056

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MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

SHEET TITLE
SITE PLAN

SHEET NUMBER
Z-3

SITE PLAN

11x17 SCALE: 1" = 20' 22x34 SCALE: 1" = 10'

1

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BLACK & VEATCH

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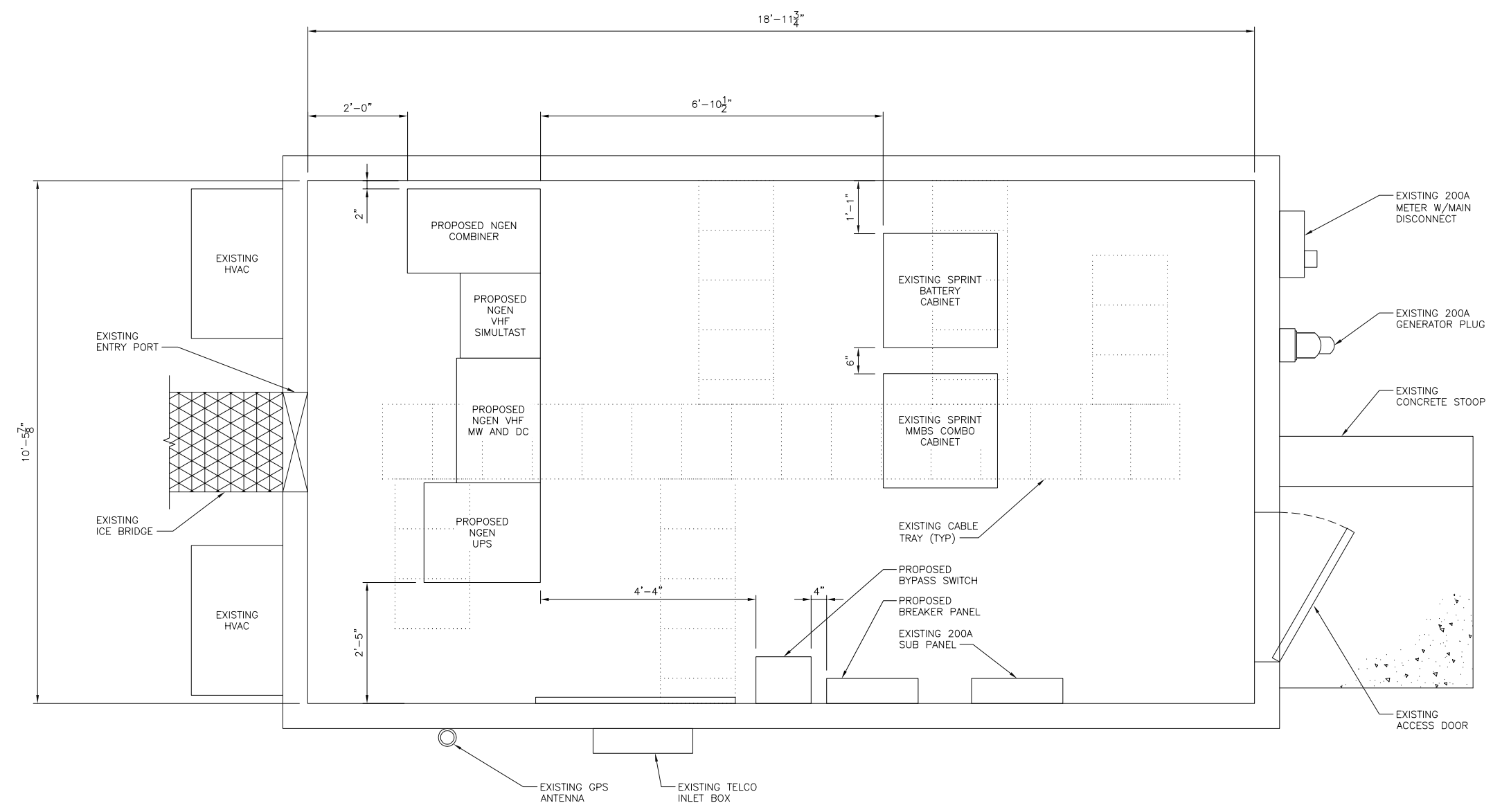
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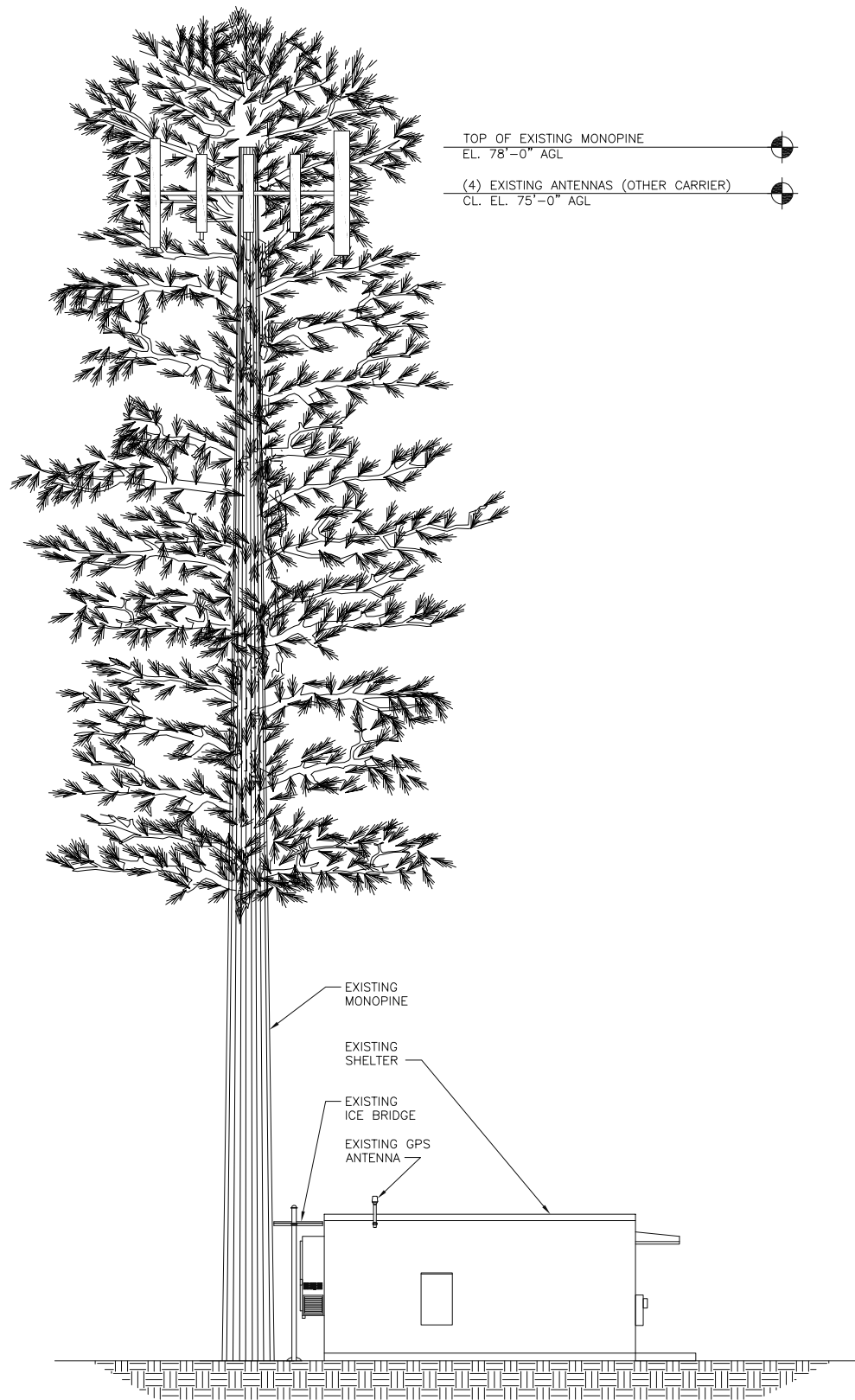
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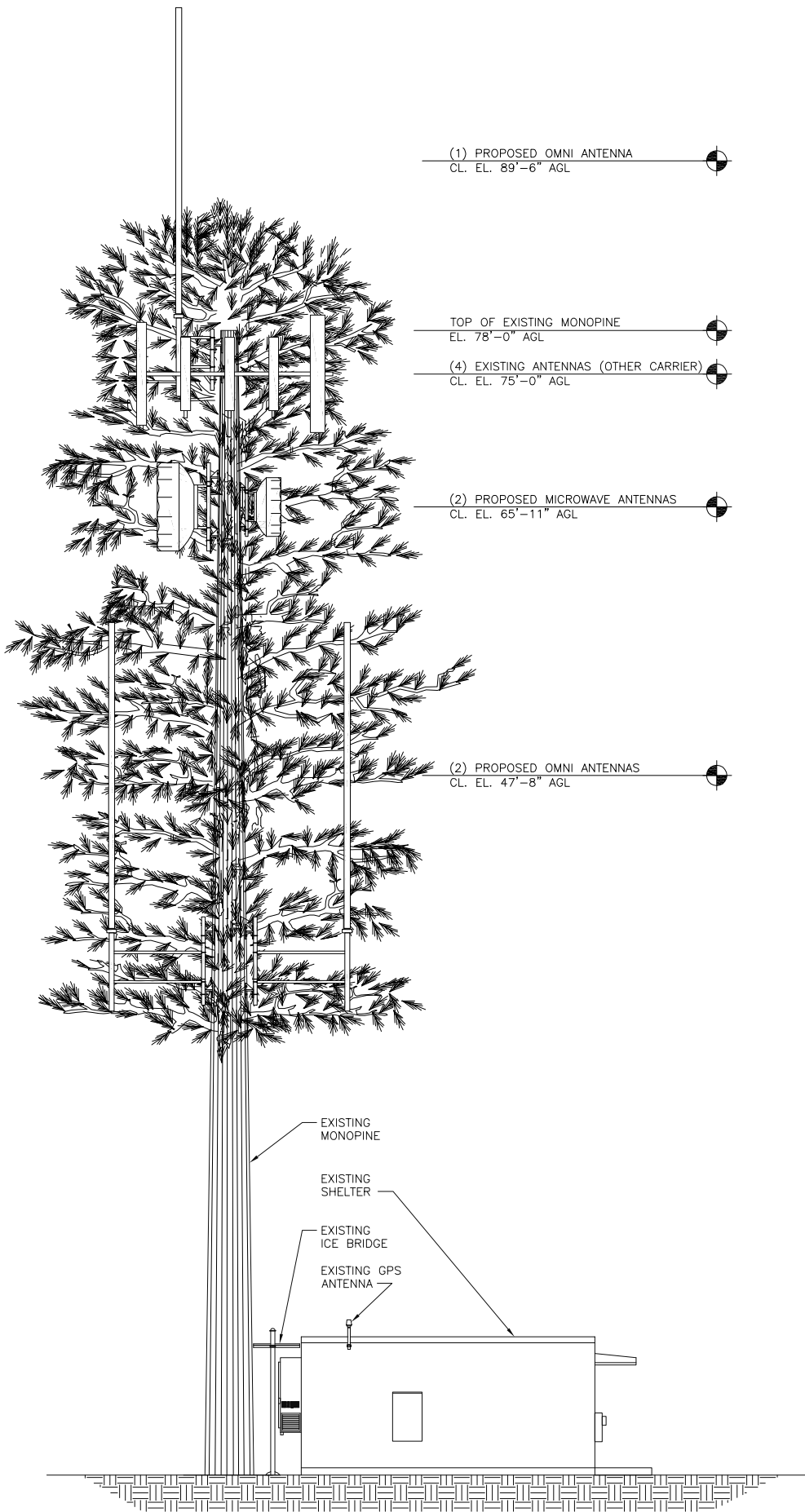
SHEET TITLE
SHELTER/EQUIPMENT
LAYOUT

SHEET NUMBER
Z-4





EXISTING SOUTHEAST ELEVATION



PROPOSED SOUTHEAST ELEVATION

- NOTES:
1. RF INFORMATION TO BE VERIFIED BY RF ENGINEER PRIOR TO CONSTRUCTION.
 2. THE TOWER DESIGN FOR THIS SITE TO BE COMPLETED BY OTHERS.
 3. MOUNTS AND COAX, TO BE PAINTED TO MATCH TOWERS THAT ARE PAINTED.
 4. ALL ANTENNAS, COAX ANDMOUNTS TO BE INSTALLED BY OTHERS.

- COAXIAL ANTENNA CABLE NOTES:
1. THE ANTENNA COAXIAL CABLE INSTALLER SHALL BE RESPONSIBLE FOR PERFORMING AND SUPPLYING PMO WITH ONE (1) TYPEWRITTEN SWEEP TEST. THIS TEST SHALL BE PERFORMED TO THE SPECIFICATIONS AND PARAMETERS OUTLINED BY OWIN PMO. THIS TEST PERFORMED PRIOR TO FINAL ACCEPTANCE OF THE SITE.
 2. ALL COAXIAL CABLE WILL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE AT DISTANCES NOT TO EXCEED 4'-0" O.C.
 3. UPON COMPLETION PROVIDE A HEIGHT VERIFICATION DEPICTING RAD CENTER AND TOP OF ANTENNA AND ANTENNA SERIAL NUMBERS.

- ANTENNA MOUNTING NOTES:
1. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A15.3 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
 3. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
 4. ALL ANTENNA MOUNTS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.

RF COMMUNICATIONS DIVISION
221 JEFFERSON RIDGE PARKWAY
LYNCHBURG, VA 24501-6952
(816) 434-4000



BLACK & VEATCH

5885 MEADOWS ROAD, SUITE 700
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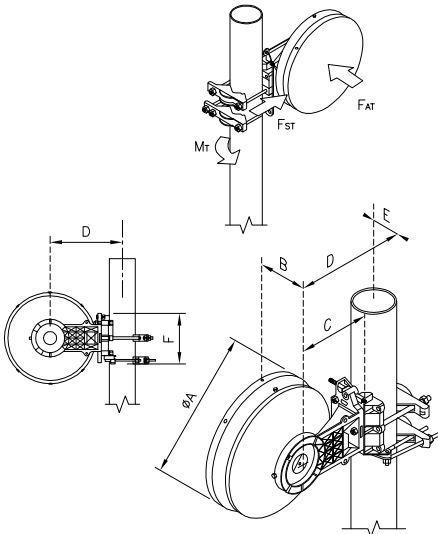
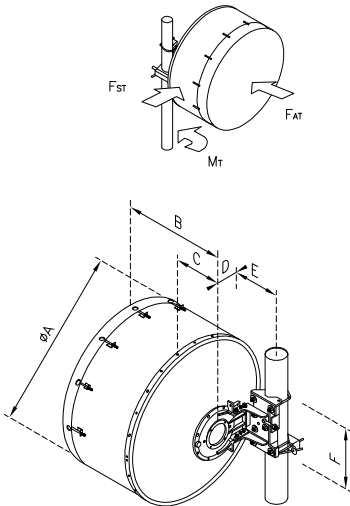
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MARINA COAST WATER
4601 PARKER FLATS CUTOFF
SEASIDE, CA 93933
MONTEREY COUNTY

SHEET TITLE
SITE ELEVATION

SHEET NUMBER
Z-5

ALL VALUES @ SURVIVAL WIND SPEED F_{ST} SIDE FORCE MAX, N (lb) = 354 (80) F_{AT} FA AXIAL FORCE MAX, N (lb) = 715 (161) M TORQUE MAX., Nm (lb*FT) = 230 (52) DIMENSIONS MM (IN) ØA = 388 (15.3) B = 170 (6.7) C = 220 (8.7) D @ MOUNTING PIPE Ø 219 (8.5): = NA D @ MOUNTING PIPE Ø 114 (4.5): = 308 (12.1) D @ MOUNTING PIPE Ø 89 (3.5): = 295 (11.6) D @ MOUNTING PIPE Ø 48 (1.9): = 275 (10.8) E = 50 (2) F = 212 (8.3) G = NA H = NA 			ALL VALUES @ SURVIVAL WIND SPEED F_{ST} SIDE FORCE MAX, N (lb) = 890 (200) F_{AT} FA AXIAL FORCE MAX, N (lb) = 1800 (403) M TORQUE MAX., Nm (lb*FT) = 600 (455) DIMENSIONS MM (IN) ØA = 970 (38.3) B = 620 (24.5) C = 170 (6.8) D @ MOUNTING PIPE Ø 219 (8.5): = NA D @ MOUNTING PIPE Ø 114 (4.5): = 317 (12.5) D @ MOUNTING PIPE Ø 89 (3.5): = 299 (11.8) D @ MOUNTING PIPE Ø 48 (1.9): = NA E = 100 (3.9) F = 365 (14.4) G = NA H = NA 			ALPHA = VHF HORIZONTAL BANDWIDTH (FEG) = 360 DEG MOUNTING HDW. INCLUDED (Y/N) = Y MAXIMUM POWER INPUT (W) = 500W POLARIZATION = VERTICAL LIGHTNING PROTECTION = DC GROUND VERTICAL TILT (DEG) = 3 DEG GAIN = 6 DBD FREQUENCY (BANDWIDTH) = 150–164 MHZ VSWR = <1.5:1 CONNECTOR = N(F) WIND SURVIVAL W/O ICE (MPH) = 150 MPH VERTICAL BEAMWIDTH (DEG) = 16 DEG DEPTH = 5" WIDTH = 5" HEIGHT = 250" WEIGHT = 61 LB SHIPPING* = HEAVY FREIGHT * A PRODUCT IS USUALLY ASSOCIATED WITH ONE OF THE FOLLOWING 1. PARCEL FREIGHT: INDICATES THAT SHIPPING WILL TYPICALLY BE COMPLETED VIA UPS, FEDEX, USPS OR OTHER CARRIERS THAT TYPICALLY TRANSPORT SMALLER ITEMS. 2. HEAVY FREIGHT: INDICATES THAT SHIPPING WILL TYPICALLY BE COMPLETED VIA TRUCK. 3. CALL FOR QUOTE: INDICATES A PRODUCT THAT REQUIRES US TO DETERMINE THE SHIPPING METHOD AND PRICING. 			RF COMMUNICATIONS DIVISION 221 JEFFERSON RIDGE PARKWAY LYNCHBURG, VA 24501–6952 (816) 434–4000  BLACK & VEATCH 5885 MEADOWS ROAD, SUITE 700 LAKE OSWEGO, OR 97035 (503) 433–4400																																									
PROPOSED ANTENNA SPECIFICATION	SCALE: NTS	A	PROPOSED ANTENNA SPECIFICATION	SCALE: NTS	B	PROPOSED ANTENNA SPECIFICATION	SCALE: NTS	C	<table><tr><td>PROJECT NO:</td><td colspan="2">179056</td></tr><tr><td>DRAWN BY:</td><td colspan="2">AKJ</td></tr><tr><td>CHECKED BY:</td><td colspan="2">MBG</td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td>B</td><td>09/04/15</td><td>REISSUED FOR REVIEW</td></tr><tr><td>A</td><td>08/05/15</td><td>ISSUED FOR REVIEW</td></tr><tr><td>REV</td><td>DATE</td><td>DESCRIPTION</td></tr></table>			PROJECT NO:	179056		DRAWN BY:	AKJ		CHECKED BY:	MBG																							B	09/04/15	REISSUED FOR REVIEW	A	08/05/15	ISSUED FOR REVIEW	REV	DATE	DESCRIPTION
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DETAIL NOT USED	SCALE: NTS	G	DETAIL NOT USED	SCALE: NTS	H	DETAIL NOT USED	SCALE: NTS	J																																										



PHOTOGRAPHIC SIMULATION



SITE NUMBER:	29194
SITE NAME:	MARINA COAST WATER
SITE ADDRESS:	4601 PARKER FLATS CUTOFF SEASIDE, CA 93533
DATE:	08/03/15
APPLICANT:	HARRIS INC.
CONTACT:	BRIAN NIGG BLACK & VEATCH (503) 443-4455

The included Photographic Simulation(s) are intended as visual representations only and should not be used for construction purposes. The materials represented within the included Photographic Simulation(s) are subject to change.



EXISTING CONDITIONS

(1) PROPOSED OMNI ANTENNA
@ 89.52' ACL (PAINT SKY BLUE)

(2) PROPOSED MICROWAVE
ANTENNAS @ 65.94' ACL
(PAINT TO MATCH MONOPINE)

(2) PROPOSED OMNI
ANTENNAS 47.65' @ ACL
(PAINT TO MATCH MONOPINE)



PHOTOGRAPHIC SIMULATION



EXISTING CONDITIONS

(1) PROPOSED OMNI ANTENNA
@ 89.52' ACL (PAINT SKY BLUE)

(2) PROPOSED MICROWAVE
ANTENNAS @ 65.94' ACL
(PAINT TO MATCH MONOPINE)

(2) PROPOSED OMNI
ANTENNAS 47.65' @ ACL
(PAINT TO MATCH MONOPINE)



PHOTOGRAPHIC SIMULATION

MGG100

Gaseous Generators

1 of 2



Engine

Generac® - Naturally aspirated, gaseous engine
 Standby - 149 hp @ 1800 rpm
 8 cylinder
 8.9 L displacement
 EPA certified mobile & stationary
 Fuel consumption rates (natural gas):
 100% - 1116 ft³/hr (31.6 m³/hr)
 75% - 904 ft³/hr (25.6 m³/hr)
 50% - 669 ft³/hr (19.0 m³/hr)
 Inlet fuel regulator
 Gas/water separator

Cooling system capable of operating at 120°F ambient

Clutch fan (option)

Low coolant shutdown

Oil drain plumbed to exterior

Kenco oil level controller with 16 gallon reservoir

Rubber vibration dampers isolate engine/generator from frame

Generators

Marathon Electric®
 Brushless
 4 pole
 Class H insulation
 Voltage regulation +/- 1%
 Permanent Magnet Generator (PMG)

System

Three phase – 277 / 480V High Wye, Natural Gas

100 kW – standby, three phase

Output

60 kW – continuous, three phase

Performance on non-standard gas will vary. Gas content must be approved by Magnum.

System Controls

Generac® H-100 controller
 Encapsulated board with sealed harness
 4-20mA voltage-to-current sensors
 Advanced diagnostics and communications



MGG100



Gaseous Generators

2 of 2

Electrical Controls

- Eaton DH364URK safety disconnect
- NEMA 3R rainproof enclosure
- Lockable lug box with safety switch
- Cable entry guides to the lug box
- Restricts access of foreign objects
- Output ground connection lug inside lug box
- 200A/600V rating
- UL listed
- Main breaker
- 720 CCA liquid acid battery
- Battery charger
- Battery disconnect

Enclosure

- Aluminum, sound attenuated enclosure
- 80.5 dB(A) at 23 feet – prime power
- Fully lockable enclosure
- Emergency stop switch located on outside of enclosure
- Central lifting point
- Multi-lingual operating/safety decals
- Document holder with operating manual including AC/DC wiring diagrams

Trailer

- DOT approved tail, side, brake, and directional lights
- Recessed rear lights
- Transportation tie downs
- Safety chains with spring loaded safety hooks
- 3" lunette ring hitch (2 5/16" ball option)
- (1) 6000 lb. axle with surge brakes (tandem option) (electric option)
- 2000 lb. tongue jack with footplate
- ST225/75R15 tubeless tires – 8 ply
- NATM compliant

Weight & Dimensions

- Skid mounted
 - Operating weight: TBD lbs plus well gas equipment (TBD kg)
 - 119 x 40 x 62 in (3.02 x 1.02 x 1.57 m)
- Trailer mounted
 - Operating weight: TBD lbs plus well gas equipment (TBD kg)
 - 170 x 69 x 80 in (4.32 x 1.75 x 2.03 m)

Warranty

- 1 year/2000 hours



Microwave System Path Survey Report

Harris Corp. – Monterey County CA; 6 & 11 GHz MDR-8000E-50

DMDC – E911
Laguna Seca – Lower Toro
Laguna Seca – Mt. Toro
MCW – Peñon Peak
Pebble Beach Corp. – Peñon Peak
Peñon Peak – Laguna Seca

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Alcatel-Lucent
601 Data Drive
Plano, Texas 75075

Printed in the United States of America

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- 1.1 Scope of work
- 1.2 Method of survey
- 1.3 Construction of path profiles

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- Topographic map
- Site location map
- Microwave site information
- Site plot plan
- Tower elevation
- Site photographs
 - DMDC
 - E911
 - Laguna Seca
 - Lower Toro
 - Mt. Toro
 - Pebble Beach Corp
 - Peñon Peak

PATH DESCRIPTIONS

- Path description
- Terrain data
- Path photographs
 - DMDC – E911
 - Laguna Seca – Lower Toro
 - Laguna Seca – Mt. Toro
 - MCW – Peñon Peak
 - Pebble Beach Corp – Peñon Peak
 - Peñon Peak – Laguna Seca

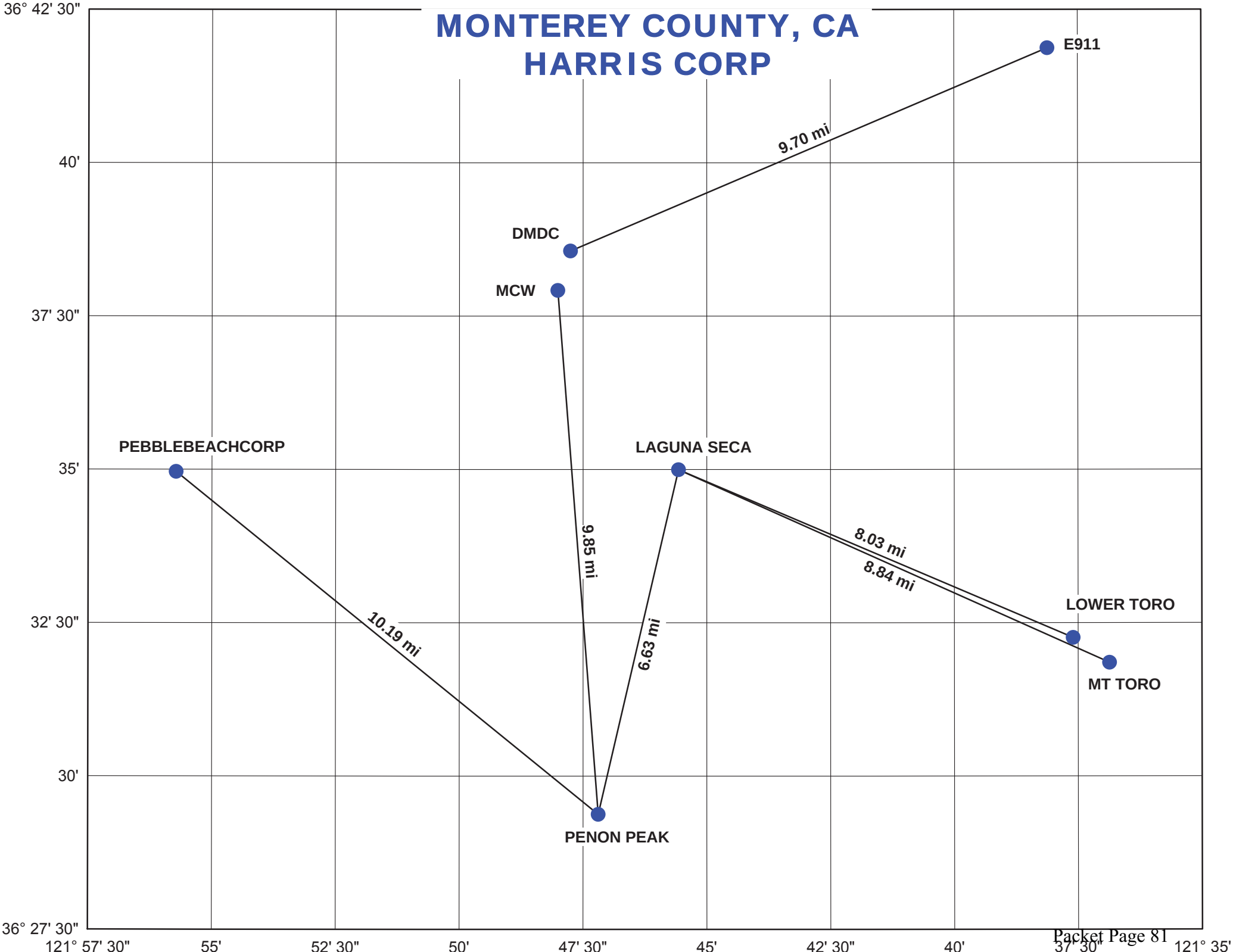
PATH DESIGN

- Engineering notes
- Path profiles and calculations

MICROWAVE PATH ENGINEERING WARRANTY

MONTEREY COUNTY, CA

HARRIS CORP



Harris-Monterey County, CA

MICROWAVE SYSTEM DATA



July 2015

Bryan Kagel

Project #9689

GEODETIC COORDINATES NAD83

STATION	FCC NUMBER	LATITUDE (DMS)	LONGITUDE (DMS)	ELEVATION (FEET)	TOWER (FEET)	TO STATION	FREQUENCY (GHZ)	ANTENNA CENTERLINE (FEET)	ESTIMATED WAVEGUIDE (FEET)	FORWARD AZIMUTH (DMS)	DISTANCE (MILES)
DMDC	NA	36 38 33.8 N	121 47 45.3 W	340	EXISTING 118' BLDG MOUNT	E911	11.200	116	120	66 52 12	9.703
E911	1240998	36 41 52.4 N	121 38 06.8 W	74	EXISTING 110' S/S	DMDC	11.200	99	160	246 57 58	9.703
LAGUNA SECA	1277834	36 34 59.8 N	121 45 34.3 W	883	EXISTING 100' S/S	MT TORO LOWER TORO PENON PEAK	11.200 11.200 11.200	60 60 60	100 100 100	114 04 51 113 01 30 193 06 58	8.843 8.033 6.632
LOWER TORO	NA	36 32 15.5 N	121 37 36.0 W	3147	EXISTING 40' S/S	* LAGUNA SECA	11.200	22	42	293 06 15	8.033
MCW	1266987	36 37 55.2 N	121 48 00.6 W	484	EXISTING 75' PINE M/P	PENON PEAK	11.200	26	46	175 35 11	9.848
MT TORO	NA	36 31 51.0 N	121 36 52.0 W	3435	EXISTING 188' S/S	LAGUNA SECA	11.200	82	132	294 10 02	8.843
PEBBLEBEACH CORP	NA	36 34 57.8 N	121 55 43.4 W	649	EXISTING 100' M/P	PENON PEAK	11.200	** 117	137	129 01 14	10.188
PENON PEAK	NA	36 29 22.6 N	121 47 11.6 W	2246	EXISTING 42' BLDG	LAGUNA SECA MCW PEBBLEBEACH CORP	11.200 11.200 11.200	32 32 32	52 52 52	13 06 00 355 35 40 309 06 18	6.632 9.848 10.188
* NEARBY EARTH STATION CREATES SIGNIFICANT NOISE ** STRUCTURE HEIGHT EXCEEDED REMOVE/RELOCATE MOUNTS OR ANTENNAS											

1.1 SCOPE OF WORK

This report describes a system path survey that was performed by Alcatel-Lucent in July 2015 for Monterey County, CA.

The survey was conducted in order to obtain the data necessary to provide a preliminary transmission design which would meet the criteria for Monterey, CA.

The data contained in this report reflects the path designs as known at the time of the survey, but may not reflect subsequent or final designs dictated by other factors such as environmental, construction, tower/zoning restrictions, FAA clearance, performance calculations, frequency coordination, anomalous fading conditions, etc.

1.2 METHOD OF SURVEY

Prior to beginning the actual field survey, available topographic maps for the area are obtained. These are supplemented by city, county and aeronautical maps where topographic mapping is unavailable or insufficient. The survey team selects and marks suitable locations in the area desired by the customer, and the site coordinates are accurately determined by hand held GPS and checked by plotting on the topographic maps data obtained from triangulation bearings to nearby trigonometric monuments or other prominent features. The elevations of the sites are determined using differential leveling, vertical angle trigonometric leveling or barometric altimetry techniques. When the vertical angle-trigonometric leveling technique is employed, the vertical angle from a known elevation to an identifiable object or flash is measured with a theodolite and the distance may be obtained using either electronic distance measuring equipment or map scaling. Using this data, the elevation of the object or flash can be calculated by trigonometric methods. The barometric altimetry technique uses precision surveying altimeters for which temperature and pressure corrections are applied.

Site features are noted with a sketch of the site area and then the proposed paths are traversed to determine the elevation and locations of the critical points. Critical point elevations are determined using the same techniques as those used for measuring the elevations of the sites. Terrain features of path areas that might affect propagation, both man-made and naturally occurring, are noted so that the maximum expected future height can be plotted on the path profiles.

The specific methods that were used to survey the locations and paths for this report have been indicated on the site and path information sheets.

I.3 CONSTRUCTION OF PATH PROFILES

To provide a precise analysis of the clearance available over obstacles, path data was compiled on a Path Data Sheet. This was then transferred to a computer generated profile which was used to plot terrain features, vegetation, and man-made obstructions in the area of the sites as well as underlying the path line. Structures shown with dotted lines are off-path obstructions (listed on the path data sheets in lower case letters as follows: T = trees, W - water, B = building, M = Mast, R = Water Tower. On-path and off-path obstructions are noted under comments as follows: - ON = on-path, - OFF = off-path). In cases where effectively transparent obstructions such as power lines were located on-path, they were shown as off-path obstructions on the path profiles, but noted as on-path in the path data sheets.

MAIN ANTENNAS:

The greater of:

100% Fresnel at $K = 4/3$

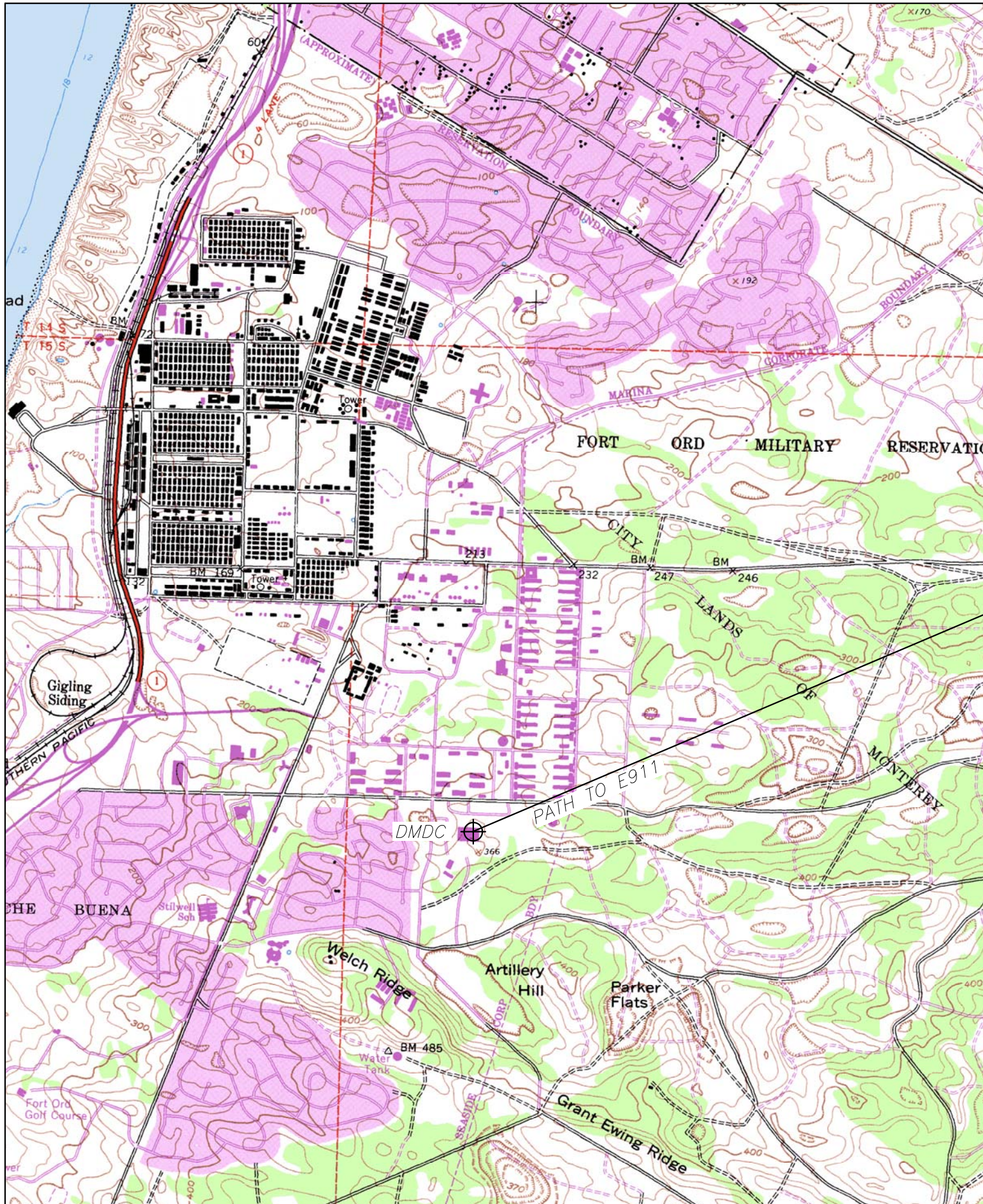
DIVERSITY ANTENNA: (if applicable)

60%FRESNEL at $K=1.333$

Where applicable, an additional 10' or greater feet are allowed for future tree growth. The amount of future growth is at the discretion of the surveyor.

**SITE
DESCRIPTIONS**

DMDC



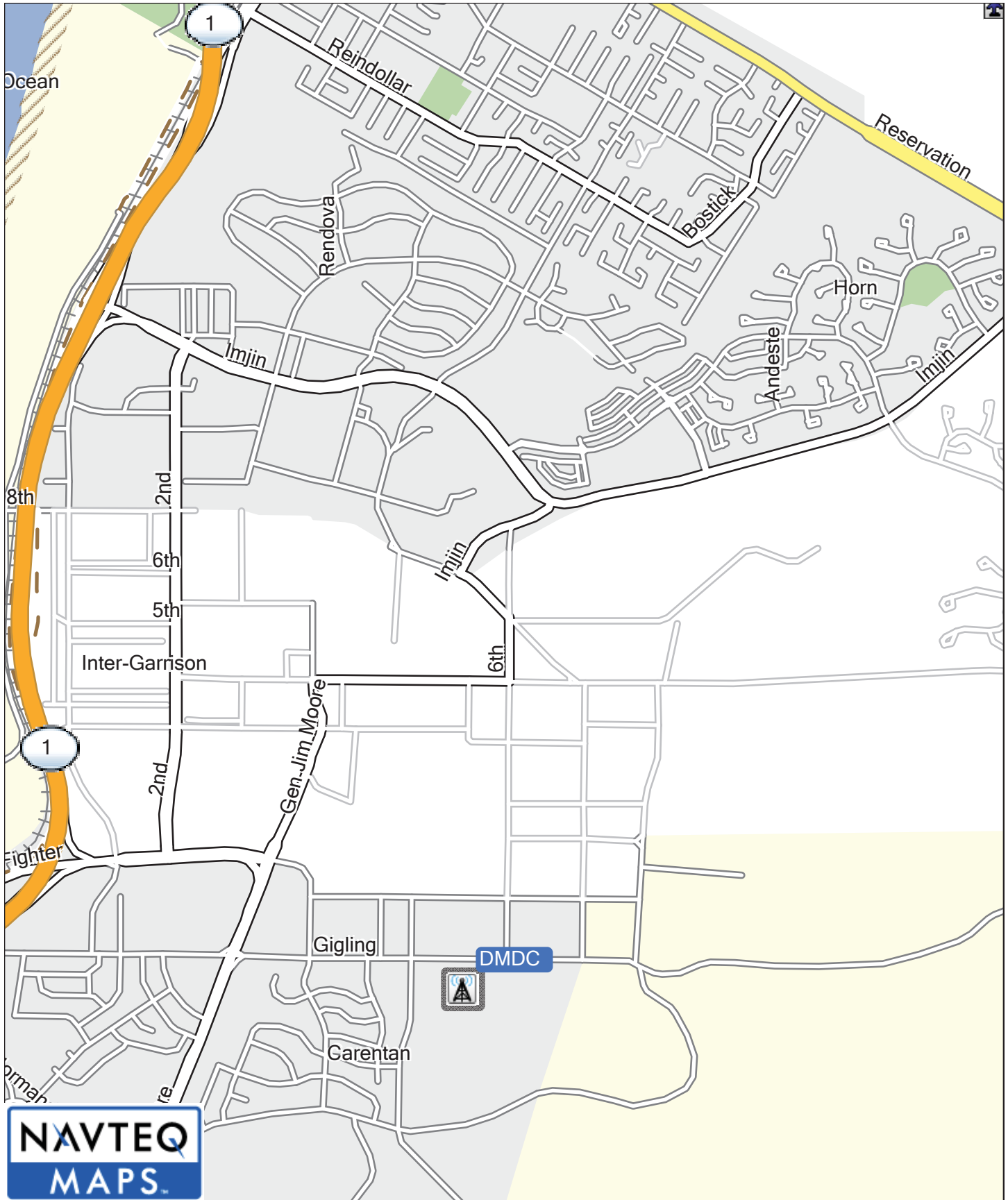
SCALE 1:24000
REF: MONTEREY COUNTY, CA

DMDC SITE TOPOGRAPHIC MAP

Alcatel-Lucent 

PATHFINDER SURVEYS INC.
REF: PAK JULY 2015
Packet Page 87

DMDC SITE LOCATION MAP



**PATHFINDER
SURVEYS**

0 mi 0.25 mi 0.5 mi 0.75 mi 1 mi

TN MN
14.0°
1/1/2010

MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: DMDC

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: 400 GIGLING ROAD

CITY: SEASIDE

STATE: CA

COUNTY: MONTEREY

COUNTRY: USA

IF NOT IN A CITY: DISTANCE: 1.94 MILES

AZIMUTH (TRUE): 220

TO CITY OF: SEASIDE, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 38 33.8 N

LONGITUDE: 121 47 45.3 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 340' AMSL

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING BUILDING TOP SITE

PROPOSED LOCATION IS TOP PENTHOUSE LEVEL

SITE ACCESS DESCRIPTION: DOD BUILDING (HIGH SECURITY)

MAKE AN APPOINTMENT WITH MONTEREY COUNTY

*CAMERAS ARE NOT ALLOWED

BUILDING INFORMATION: PROPOSED EQUIPMENT RACK

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110

HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 118' AGL

TYPE: BUILDING MOUNT

AREA REQUIRED FOR 80% GUYING: N/A

COMMENTS: BUILDING PIPE MOUNT TO INSIDE OF UPPER PENTHOUSE (N.E. CORNER)

SEE SITE PLOT PLAN

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT	AZIMUTH TO AIRPORT (TRUE)	DISTANCE TO NEAREST RUNWAY
EXISTING SITE	NA	NA

GENERAL COMMENTS: DOD BUILDING - CAMERAS NOT ALLOWED



GROUND LEVEL: 340' AMSL
GROUND: 0' AGL

ROOF LEVEL MAIN BUILDING
PARAPET: 97' AGL
ROOF: 95' AGL

PATH TO 911 DISPATCH

114' BUILDING WITH PROPOSED
ROOF/PARAPET MOUNTING POLE

ROOF LEVEL
UPPER PENTHOUSE
PARAPET: 114' AGL
ROOF: 112' AGL

MOUNTING POLE
ON INSIDE FACE
OF PENTHOUSE
STRUCTURE

WHIP
WHIP

ROOF LEVEL
LOWER PENTHOUSE
PARAPET: 108' AGL
ROOF: 106' AGL

PROPOSED W/G ROUTING

HATCH

W.G. ROOF
PENETRATION
EXISTING

PROPOSED
EQUIPMENT
FINISHED FLOOR LEVEL
95' AGL

ROOF LEVEL MAIN BUILDING
PARAPET: 97' AGL
ROOF: 95' AGL

ENTRY DOOR TO MAIN ROOF LEVEL/EQUIPMENT ROOM

Alcatel-Lucent 

20 0 20
SCALE IN FEET

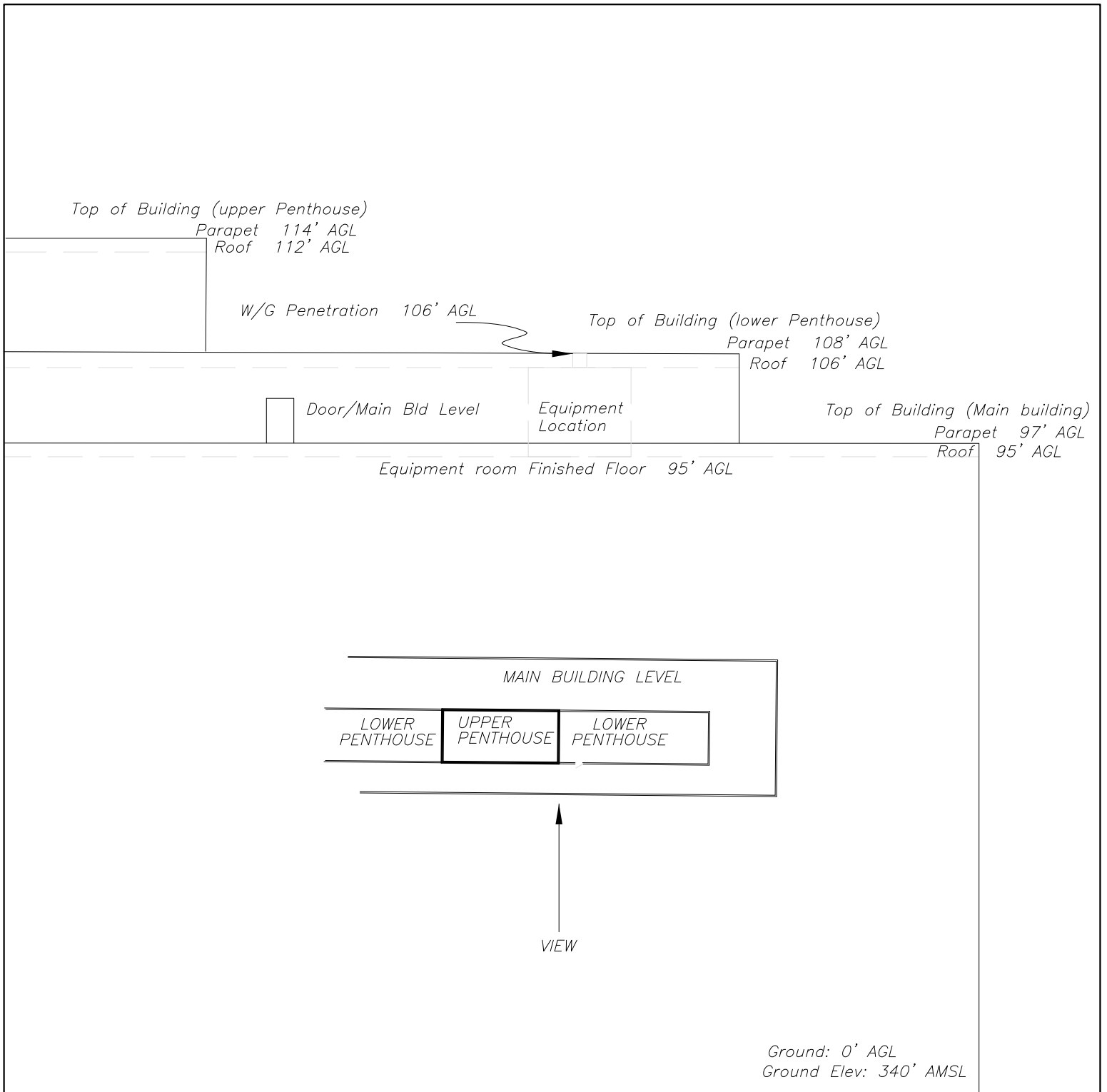
AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY DMDC SITE PLOT PLAN

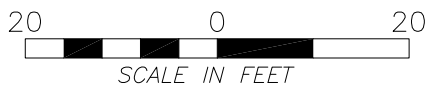
Pathfinder Surveys
Santa Fe, New Mexico
(505) 471-6660

SCALE AS SHOWN
DRAWN BY BAK
DATE JULY 2015

PROJECT
9689



SOUTH ELEVATION VIEW
LOOKING NORTHERLY



AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
DMDC		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689

DMDC



View looking westerly at east end of DOD building



View looking northerly at south face of DOD building

DMDC



View looking south west at penthouse standing on main roof level
*Arrow points to proposed location for antenna to E911



View looking south east at penthouse standing on main roof level

DMDC



View looking westerly standing on upper penthouse
*Red arrows point to proposed antenna location



View looking northerly on upper penthouse level

DMDC



View looking northerly -arrow points to penetration



Arrow points to proposed pad for equipment

E911

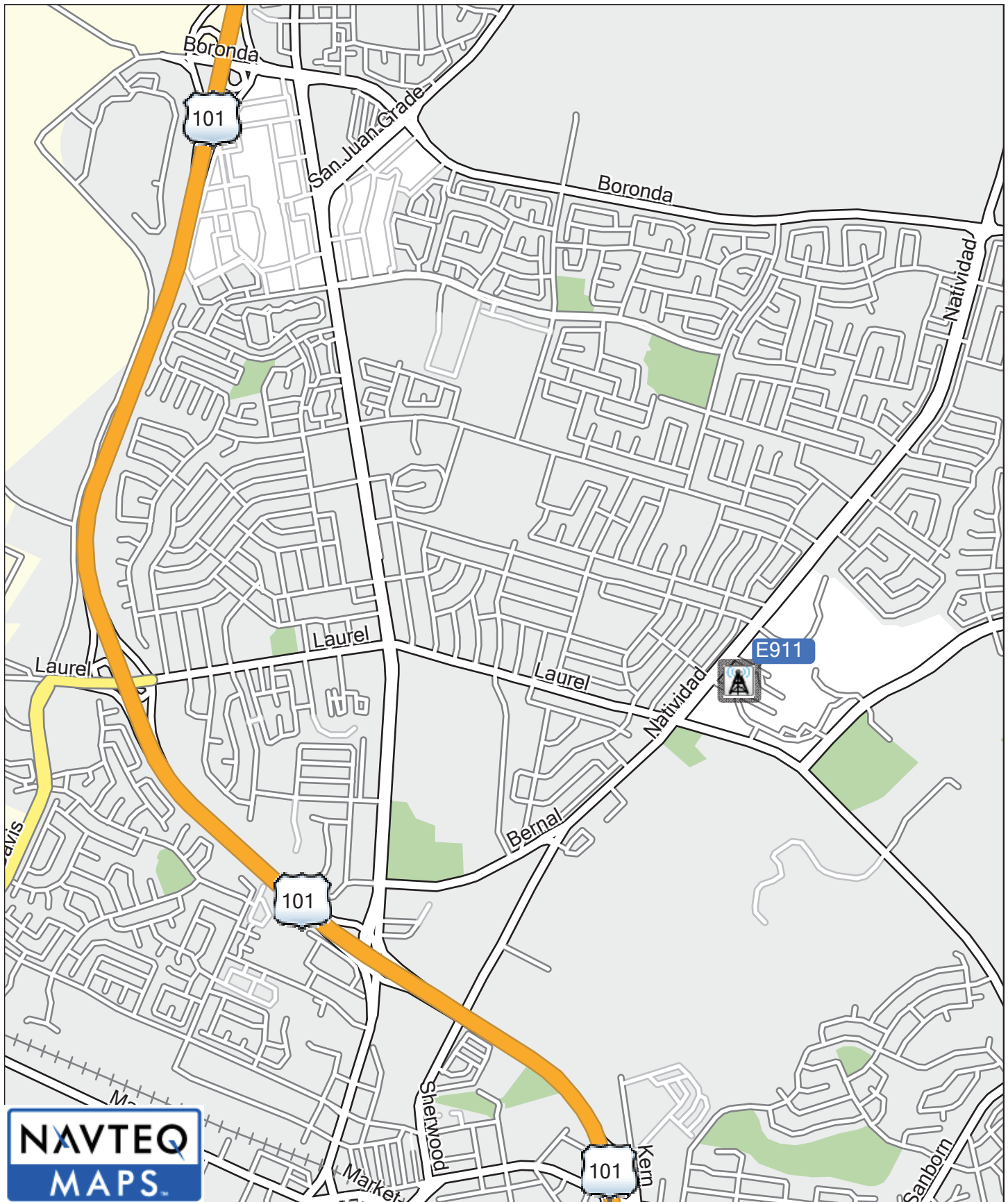


Alcatel-Lucent 

PATHFINDER SURVEYS INC.
REF. BAK JULY 2015

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E911 SITE LOCATION MAP



**PATHFINDER
SURVEYS**

0 mi 0.25 mi 0.5 mi 0.75 mi 1 mi

TN MN
13.9°
1/1/2010

MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: E911

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: 1322 NATIVIDAD RD

CITY: SALINAS

STATE: CA

COUNTY: MONTEREY

COUNTRY: USA

IF NOT IN A CITY: DISTANCE: 1.80 MILES

AZIMUTH (TRUE): 218

TO CITY OF: SALINAS, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 41 52.4 N

LONGITUDE: 121 38 06.8 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 74' AMSL

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING COMMUNICATION SITE

EAST SIDE OF BUILDING IN GATED PARKING LOT

SITE ACCESS DESCRIPTION: MAKE AN APPOINTMENT WITH MONTEREY COUNTY 911

HID LOCKED GATED ACCESS

BUILDING INFORMATION: EXISTING

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110 HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 110' AGL TYPE: SELF SUPPORT

AREA REQUIRED FOR 80% GUYING: N/A

COMMENTS: ANTENNA RELOCATION NEEDED FOR ANTENNA TO DMDC

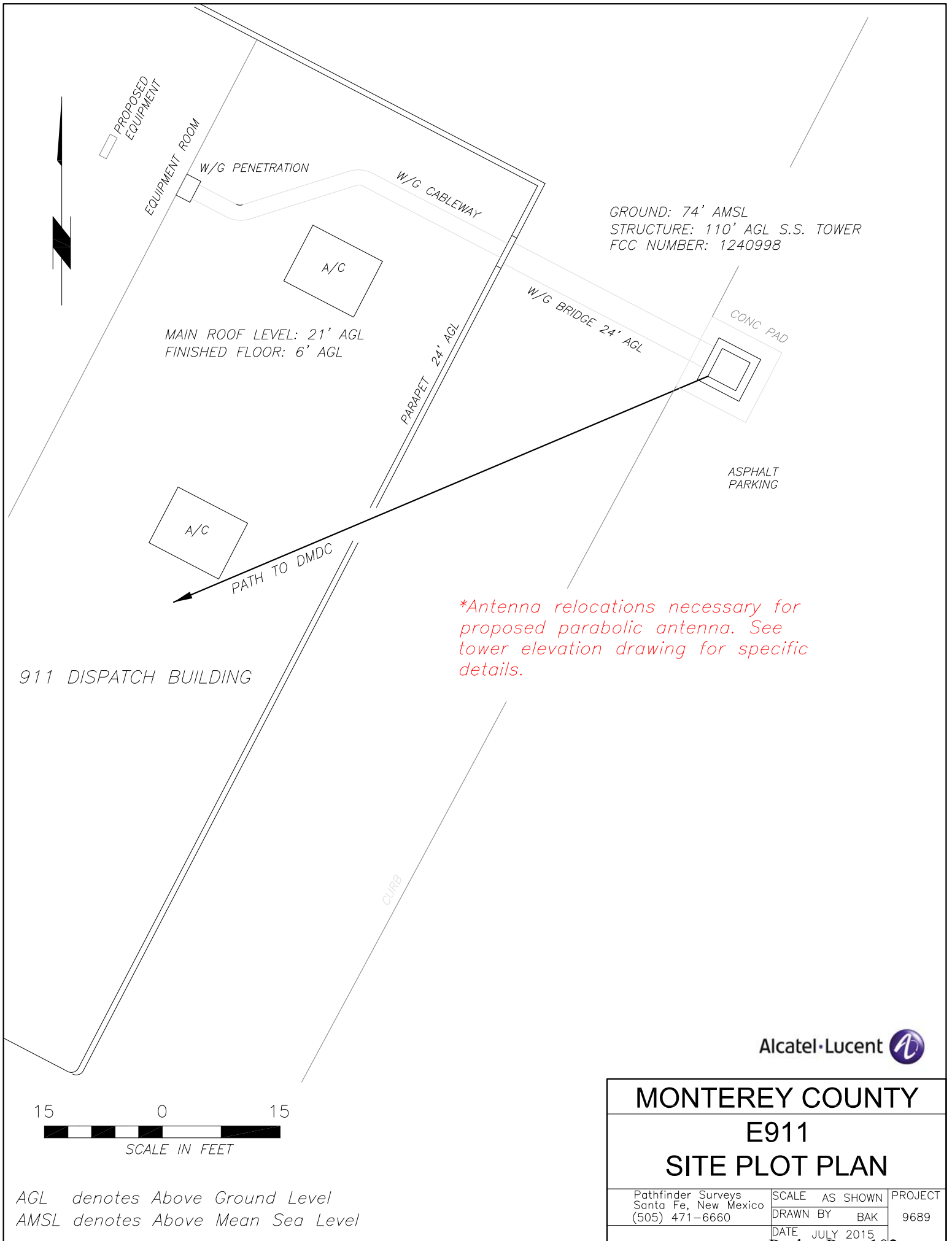
FCC NUMBER: 1240998

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT	AZIMUTH TO AIRPORT (TRUE)	DISTANCE TO NEAREST RUNWAY
EXISTING SITE	NA	NA

GENERAL COMMENTS: *ANTENNA RELOCATION NEEDED



GROUND: 74' AMSL
STRUCTURE: 110' AGL S.S. TOWER
FCC NUMBER: 1240998

MAIN ROOF LEVEL: 21' AGL
FINISHED FLOOR: 6' AGL

ASPHALT
PARKING

**Antenna relocations necessary for
proposed parabolic antenna. See
tower elevation drawing for specific
details.*

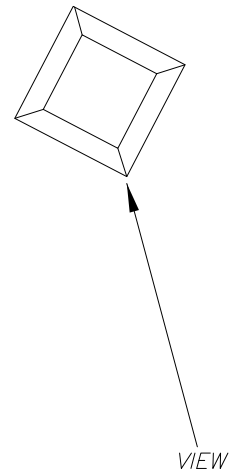
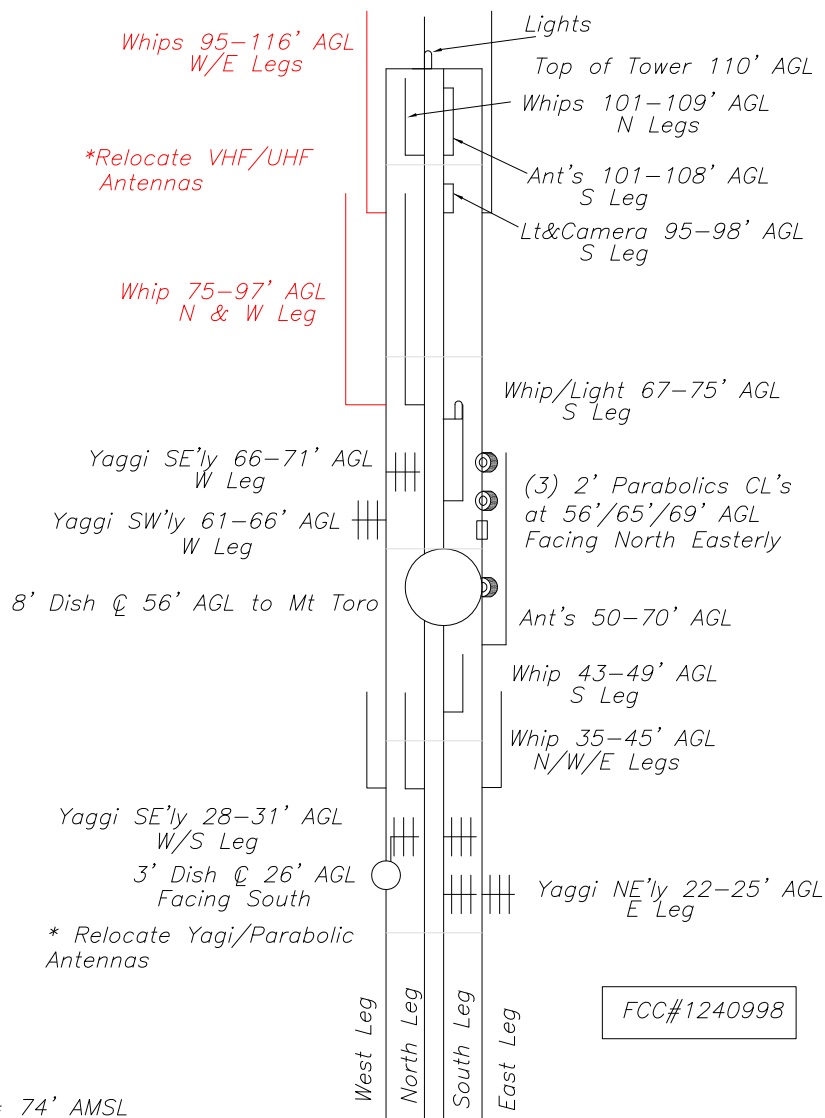
911 DISPATCH BUILDING

Alcatel-Lucent 

15 0 15
SCALE IN FEET

AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
E911		
SITE PLOT PLAN		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689



SOUTH ELEVATION VIEW
LOOKING NORTHERLY

Alcatel-Lucent 

20 0 20
SCALE IN FEET

AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
E911		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689

E911



View looking westerly



View looking northerly

E911

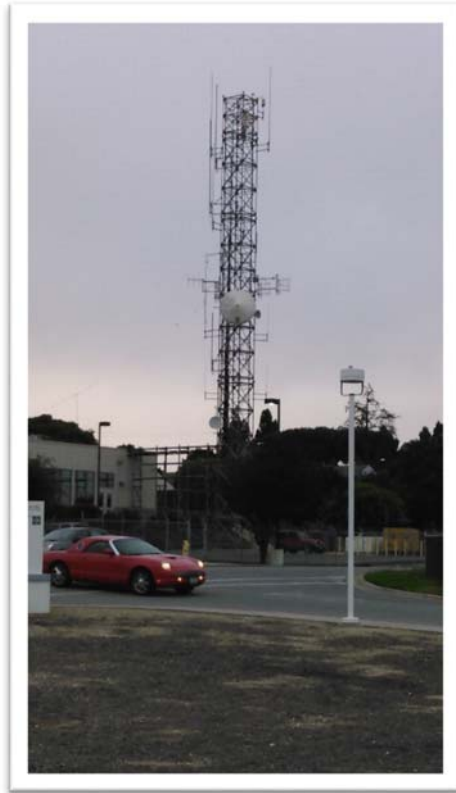


View looking northerly



View looking north westerly

E911



View looking north westerly



View looking southerly

E911



View looking easterly

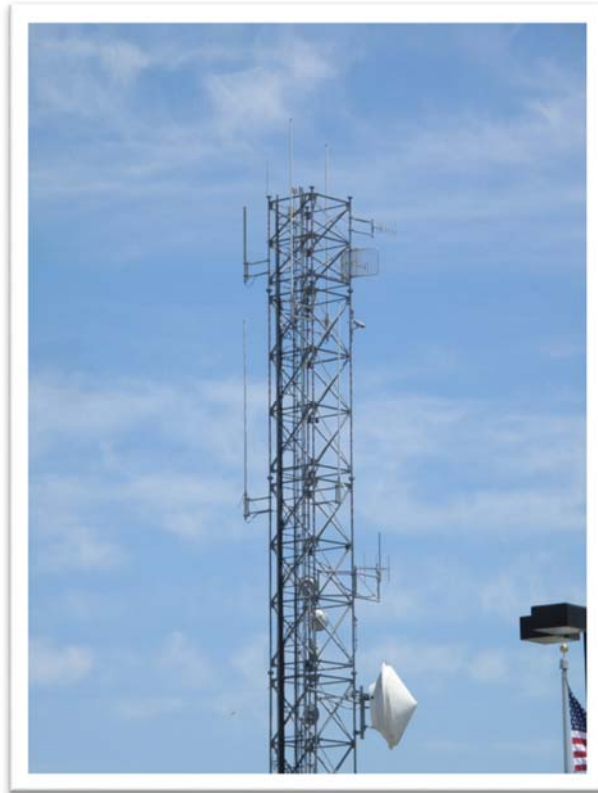


W.G. bridge



View looking north easterly

E911



View looking north easterly

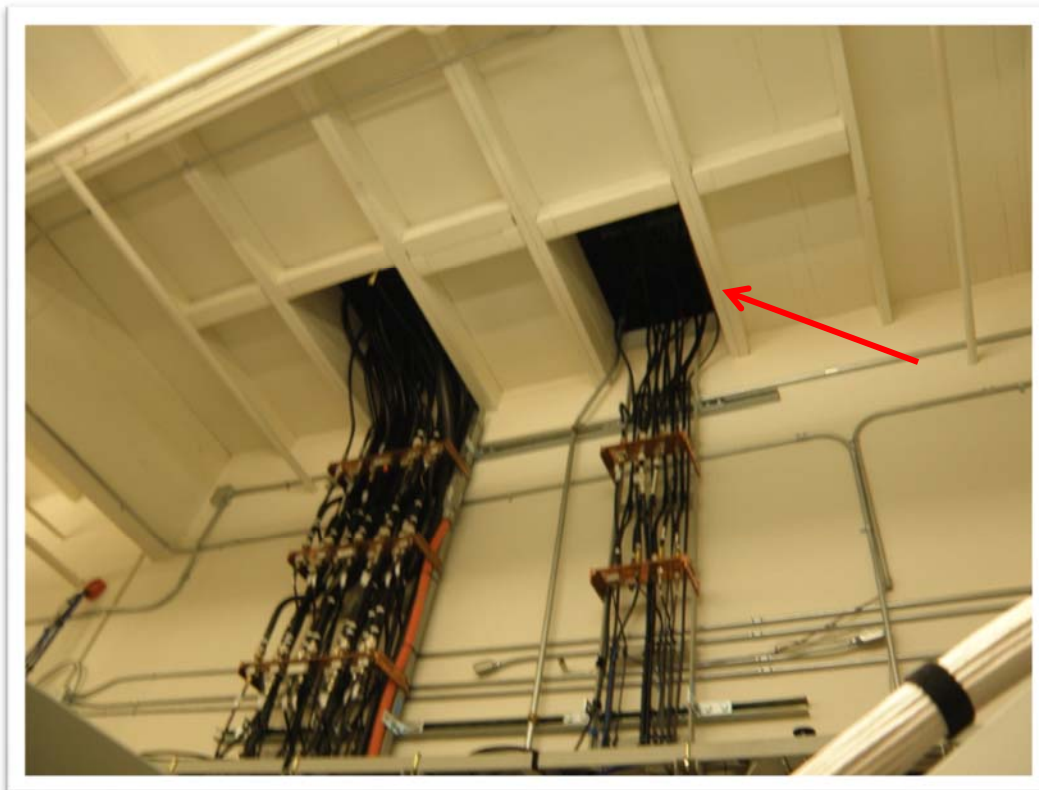


Central Tower badge

E911

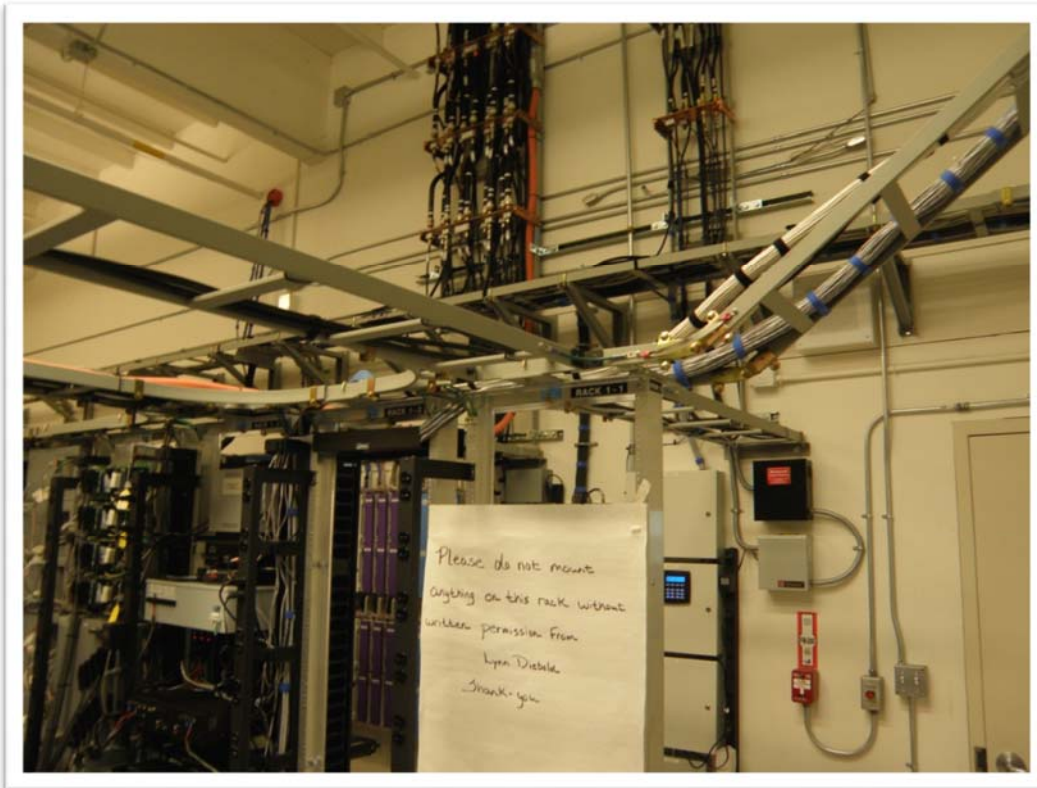


View looking down from 86' agl
*Penetration point

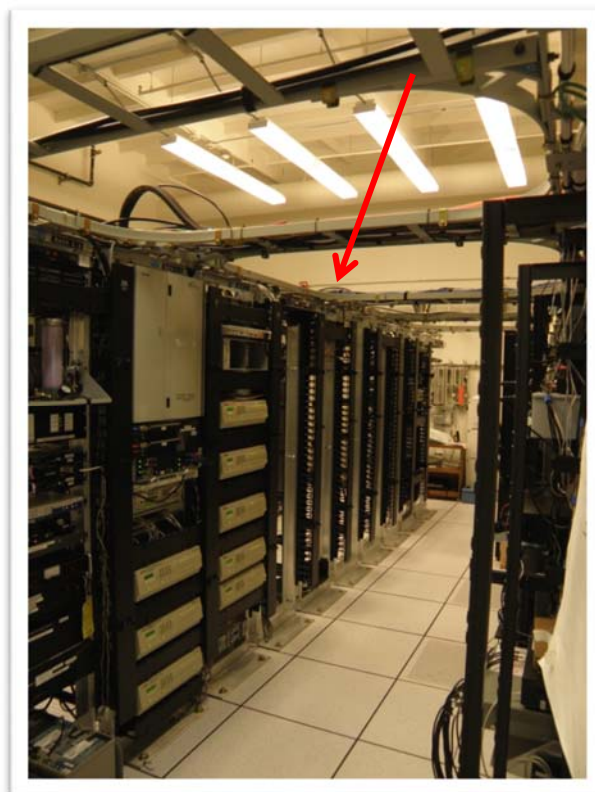


W.G. penetration inside equipment

E911



W.G. trays run above racks



Available space for new equipment

E911



View looking northerly



FCC Badge

LAGUNA SECA

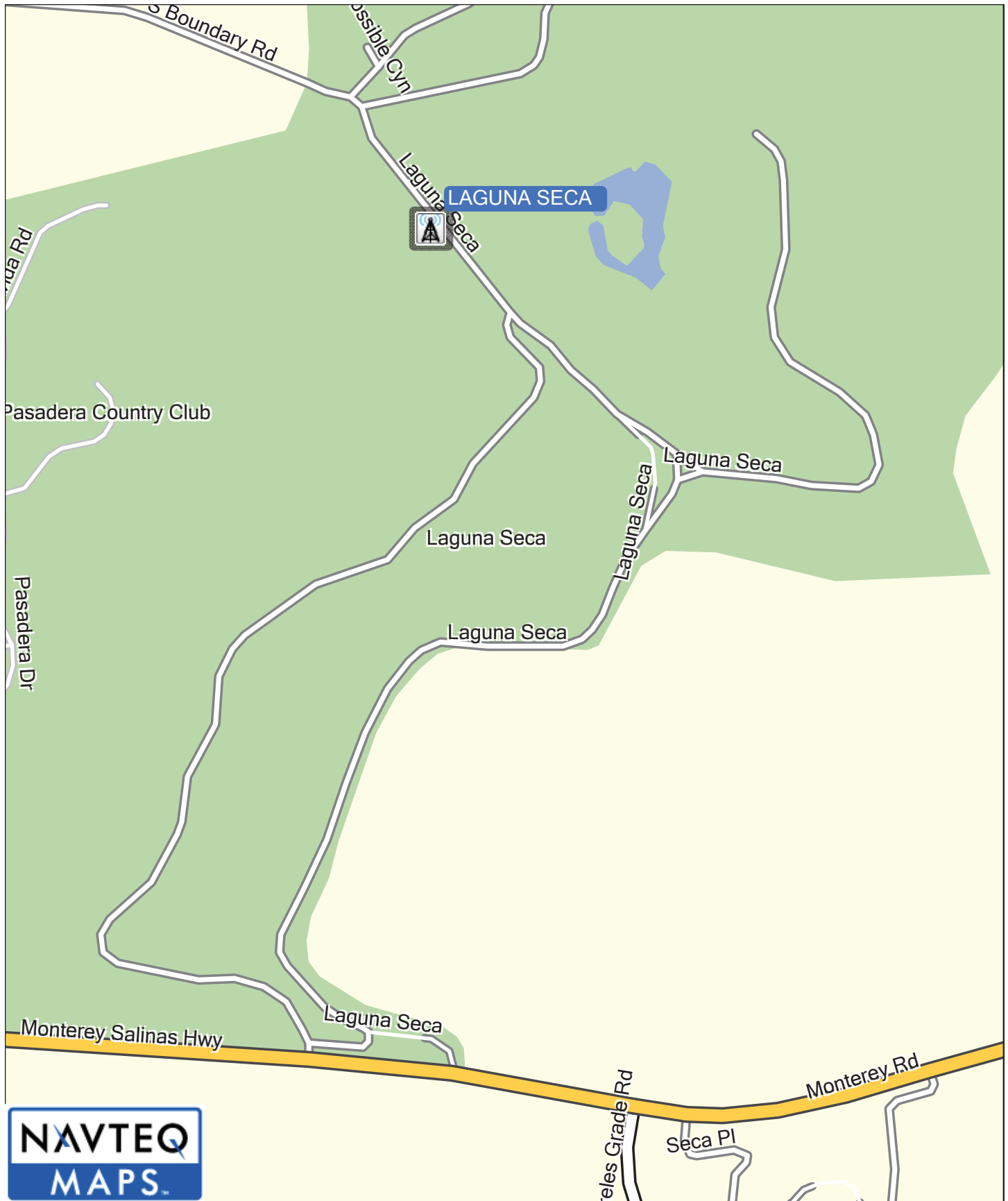


Alcatel-Lucent 

PATHFINDER SURVEYS INC.
REF: BAK JULY 2015

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LAGUNA SECA SITE LOCATION MAP



***PATHFINDER
SURVEYS***

0 mi 0.1 mi 0.2 mi 0.3 mi 0.4 mi

TN MN
13.9°
1/1/2010

MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: LAGUNA SECA

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: HWY 68 LAGUNA SECA RACEWAY

CITY: SALINAS

STATE: CA

COUNTY: MONTEREY

COUNTRY: USA

IF NOT IN A CITY: DISTANCE: 8.73 MILES

AZIMUTH (TRUE): 41

TO CITY OF: SALINAS, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 34 59.8 N

LONGITUDE: 121 45 34.3 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 883' AMSL

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING COMMUNICATION SITE

SITE ACCESS DESCRIPTION: OPEN SITE ACCESS WITHIN LAGUNA SECA RACEWAY CONFINES

BUILDING INFORMATION: EXISTING

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110

HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 100' AGL

TYPE: SELF SUPPORT

AREA REQUIRED FOR 80% GUYING: N/A

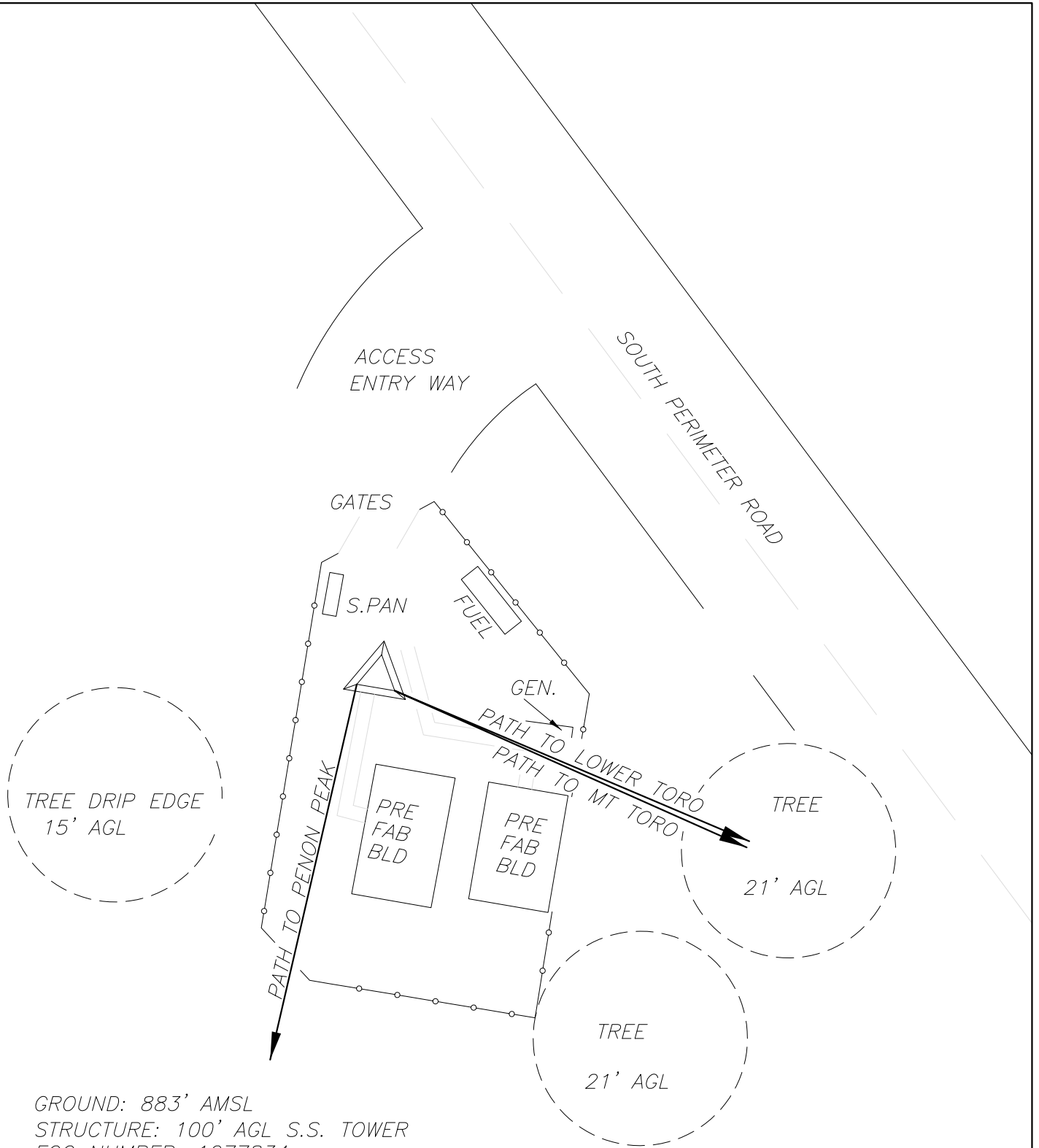
COMMENTS: FCC NUMBER: 1277834

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT	AZIMUTH TO AIRPORT (TRUE)	DISTANCE TO NEAREST RUNWAY
MONTEREY (MRY)	271	4.30 MILES
SALINAS MUNI	55	9.65 MILES
FRITZSCHE AAF	359	6.83 MILES

GENERAL COMMENTS: ALL ANTENNAS SET ABOVE EXISTING CELL ARRAY

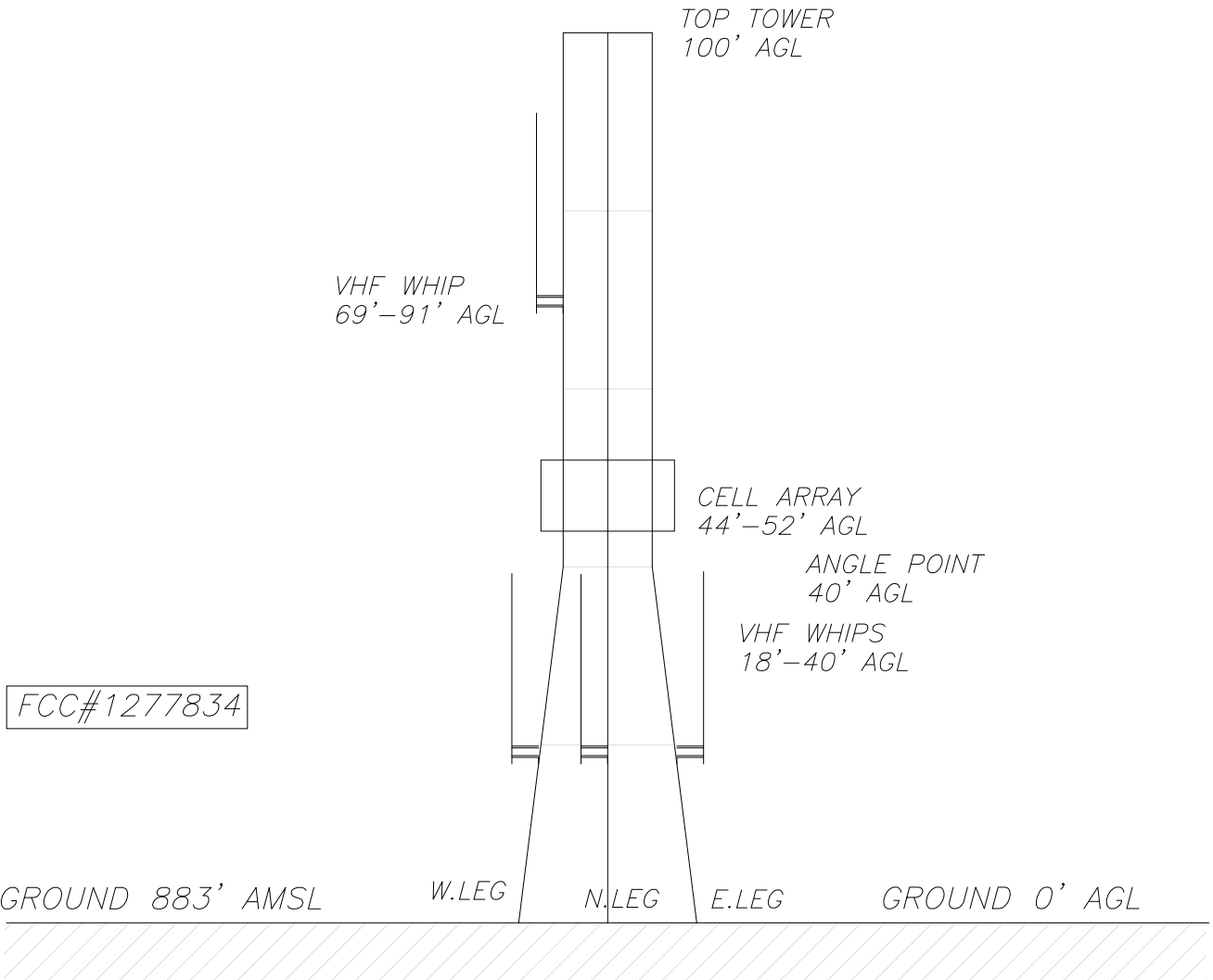


GROUND: 883' AMSL
STRUCTURE: 100' AGL S.S. TOWER
FCC NUMBER: 1277834

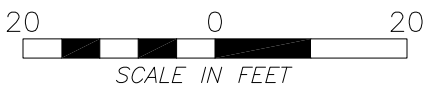
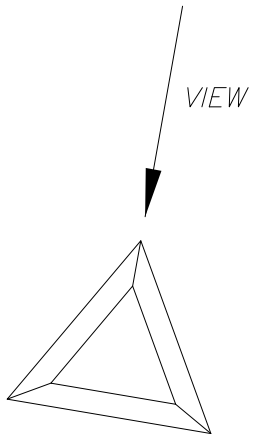


AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
LAGUNA SECA		
SITE PLOT PLAN		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689



NORTH ELEVATION VIEW
LOOKING SOUTH



AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
LAGUNA SECA		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2014	PROJECT 9689

LAGUNA SECA



View looking northerly



View looking northerly

LAGUNA SECA

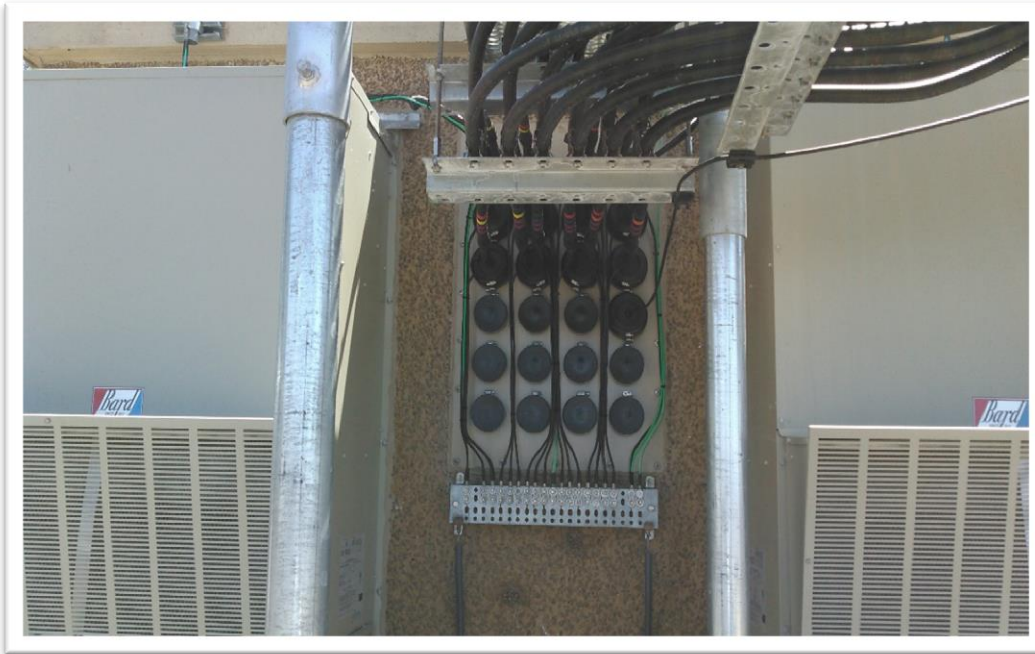


View looking easterly

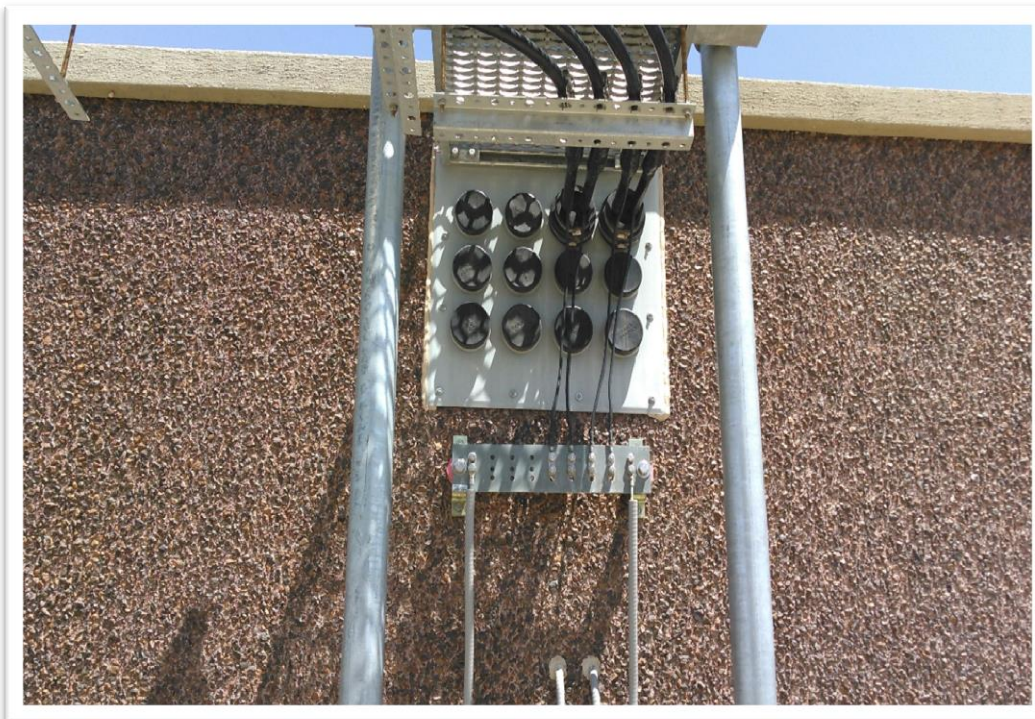


View looking southerly at w.g. bridges

LAGUNA SECA



View of east shelter w.g. ports



View of west shelter w.g. ports

LAGUNA SECA



FCC Badge



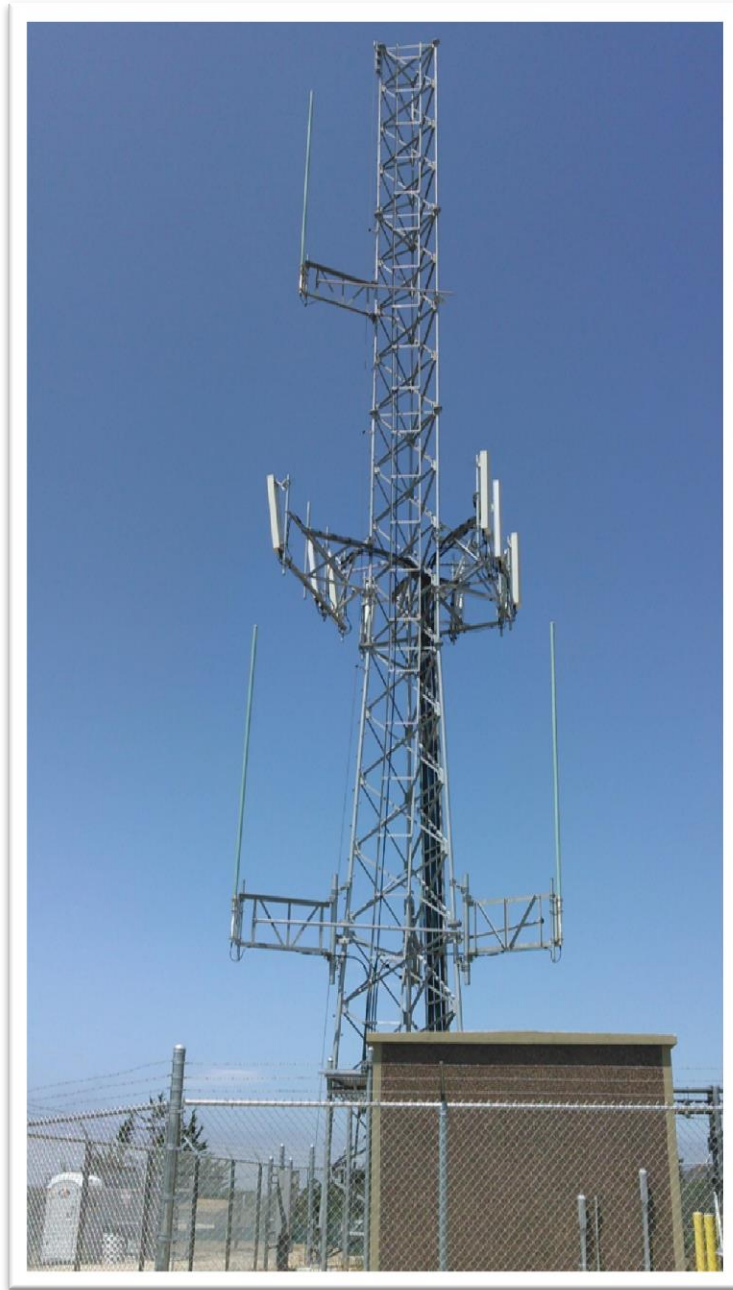
Monterey County Badge

LAGUNA SECA



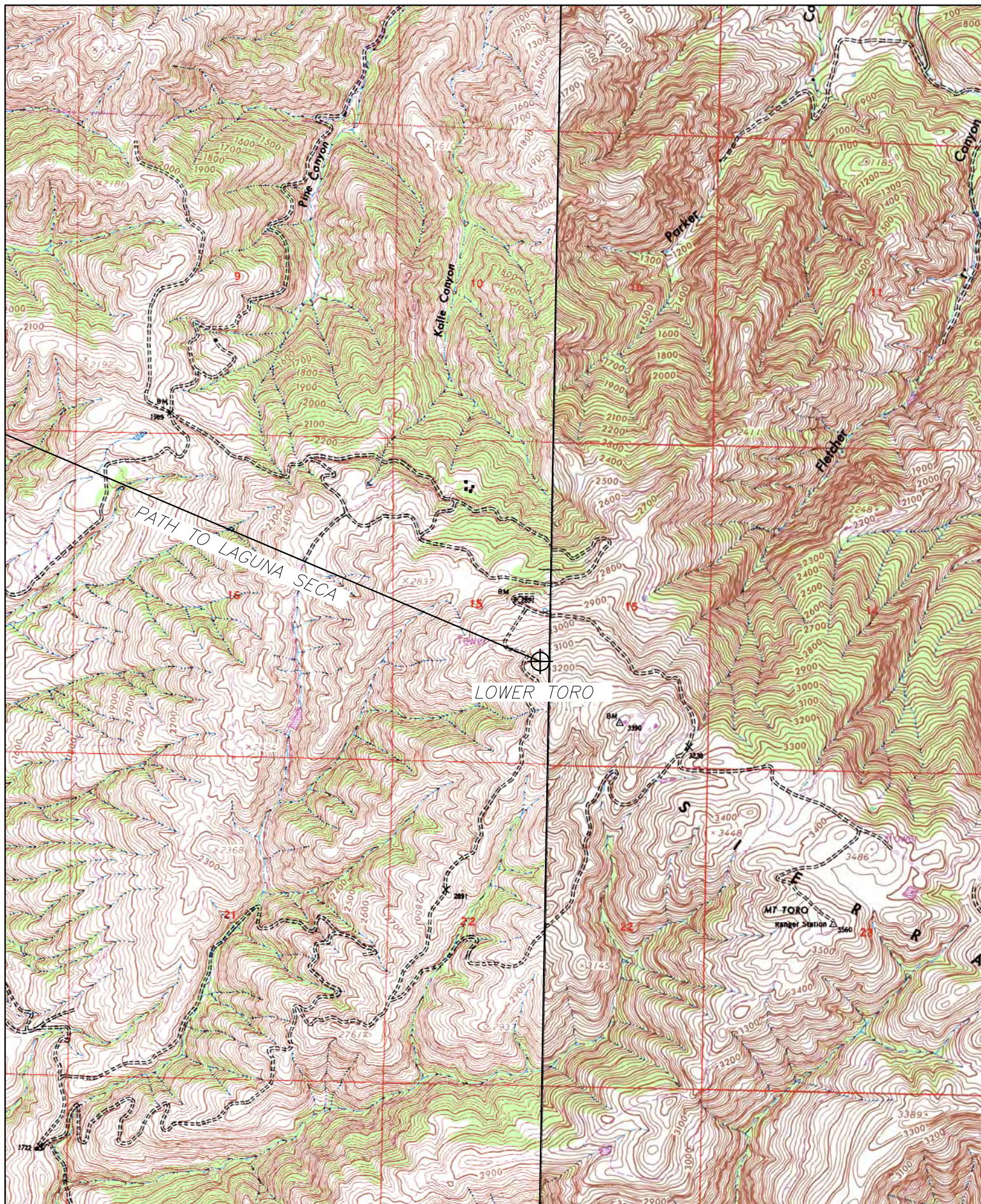
View looking south

LAGUNA SECA



View looking northerly

LOWER TORO



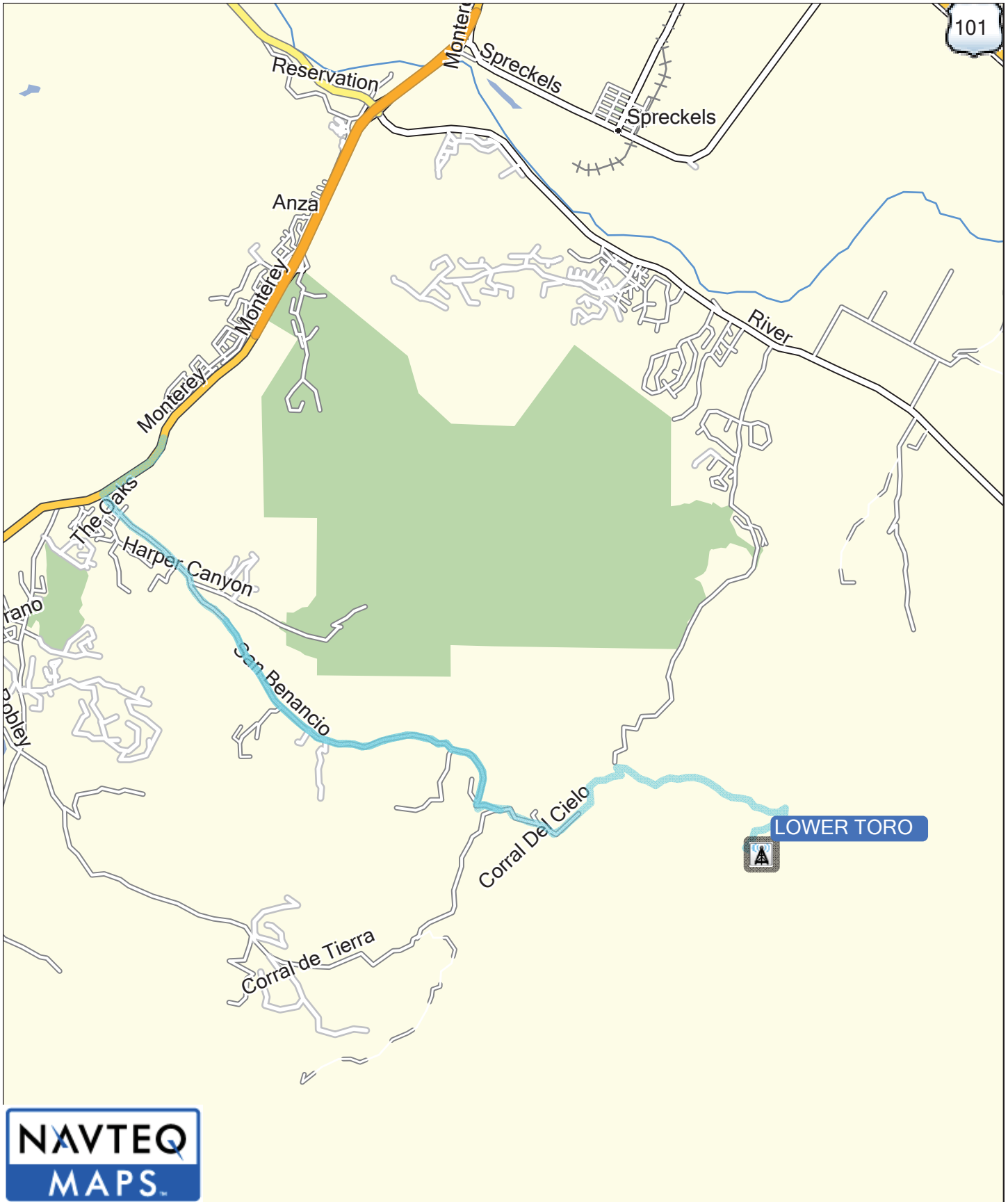
SCALE 1:24000
REF: MONTEREY COUNTY, CA

LOWER TORO SITE TOPOGRAPHIC MAP

Alcatel-Lucent 

PATHFINDER SURVEYS INC.
REF: BAK JULY 2015
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LOWER TORO SITE LOCATION MAP



***PATHFINDER
SURVEYS***

0 mi 0.75 mi 1.5 mi 2.25 mi 3 mi

TN MN
13.9°
1/1/2010

MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: LOWER TORO

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: CORRAL DEL CIELO RD (GATE)- TO HUGHES RD TO ACCESS RD (MT TORO)

CITY: SALINAS

STATE: CA

COUNTY: MONTEREY COUNTY

COUNTRY: U.S.A.

IF NOT IN A CITY: DISTANCE: 9.80 MILES

AZIMUTH (TRUE): 351

TO CITY OF: SALINAS, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 32 15.5 N

LONGITUDE: 121 37 36.0 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 3147'

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING COMMUNICATION

LARGE EARTH STATION DUE NORTH OF SITE

SITE ACCESS DESCRIPTION: COMBINATION LOCKED GATED ACCESS ROAD

BUILDING INFORMATION: EXISTING

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110

HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 40

TYPE: SELF SUPPORT

AREA REQUIRED FOR 80% GUYING: N/A

COMMENTS: FCC NUMBER NOT AVAILABLE

LARGE EARTH STATION DUE NORTH OF EXISTING SITE

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT

NA

AZIMUTH TO AIRPORT
(TRUE)

NA

DISTANCE TO
NEAREST RUNWAY

NA

NA

NA

NA

GENERAL COMMENTS: LARGE EARTH STATION WHICH EMITS SIGNIFICANT NOISE. EXTREMELY NOISY ENVIRONMENT.

EARTH STATION
NUMEROUS LARGE
PARABOLIC ANTENNAS
(EXTREMELY NOISY ENVIRONMENT)

UNIMPROVED SERVICE ROAD

PATH TO LAGUNA SECA

GATE

WOOD
SHELTER

FUEL

GEN.

GATE

GROUND: 3147' AMSL
STRUCTURE: 40' S.S. TOWER
FCC NUMBER: NA

15 0 15
SCALE IN FEET

AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

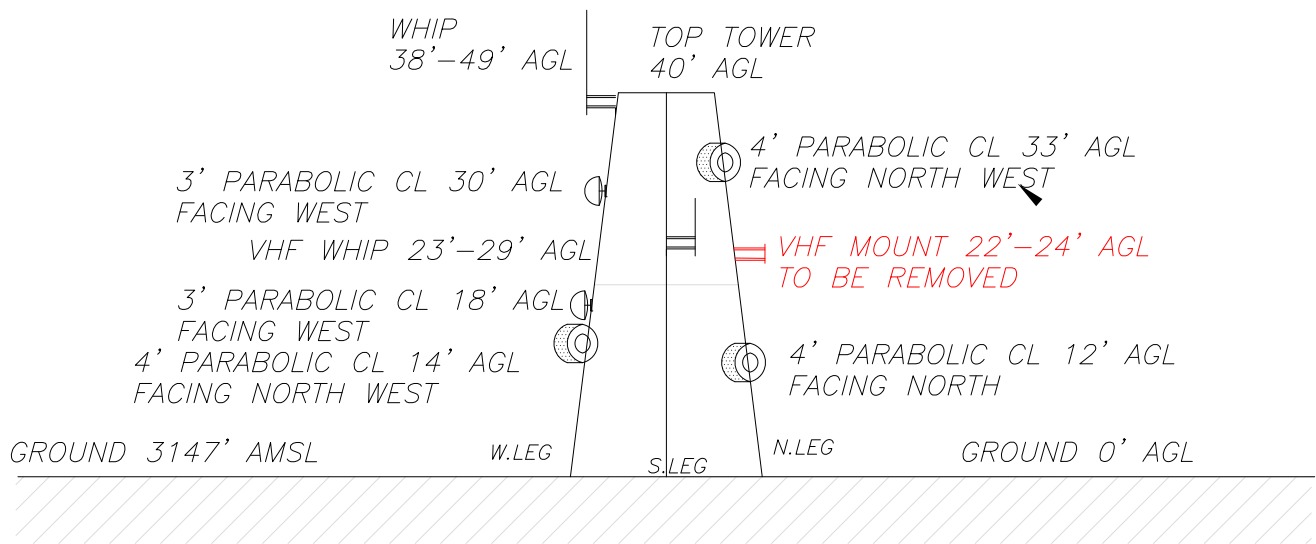
Alcatel-Lucent

MONTEREY COUNTY LOWER TORO SITE PLOT PLAN

Pathfinder Surveys
Santa Fe, New Mexico
(505) 471-6660

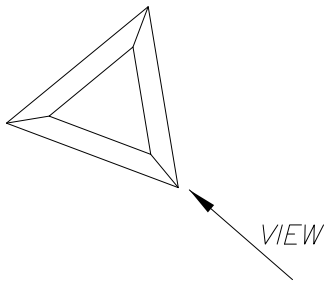
SCALE AS SHOWN
DRAWN BY BAK
DATE JULY 2015

PROJECT
9689

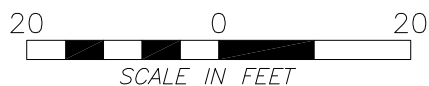


NORTH WEST ELEVATION VIEW
LOOKING SOUTH EAST

FCC#NA



Alcatel-Lucent 



AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
LOWER TORO		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2014	PROJECT 9689

LOWER TORO



View looking westerly



View looking westerly

*Arrow points to vhf mount needing removal

LOWER TORO



View looking easterly



View looking northerly

LOWER TORO

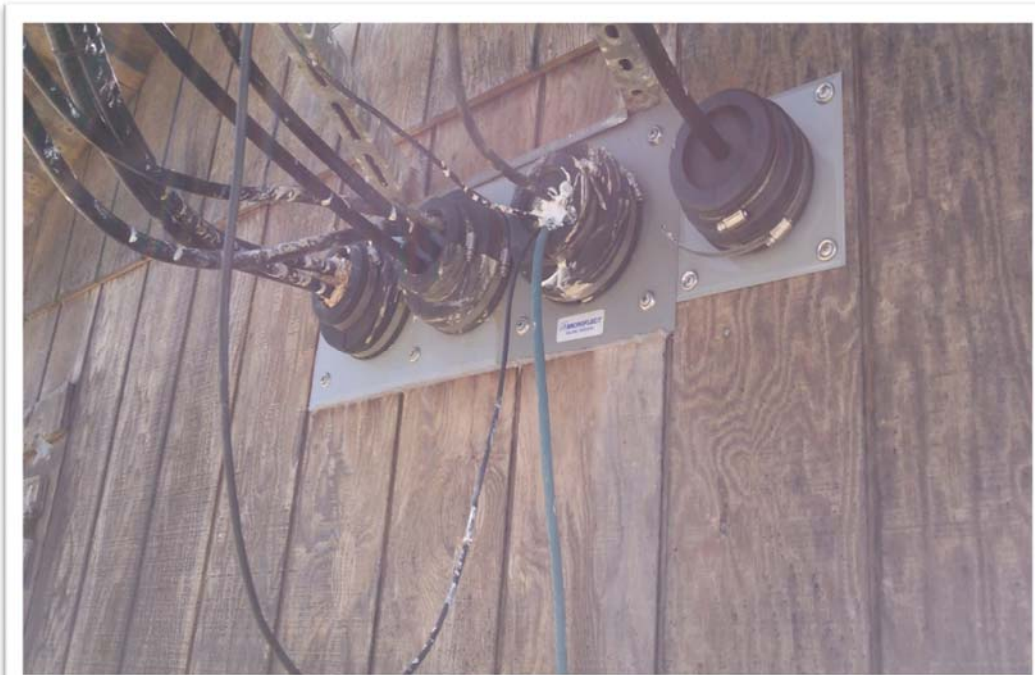


View looking westerly
*Arrow points to vhf mount needing removal

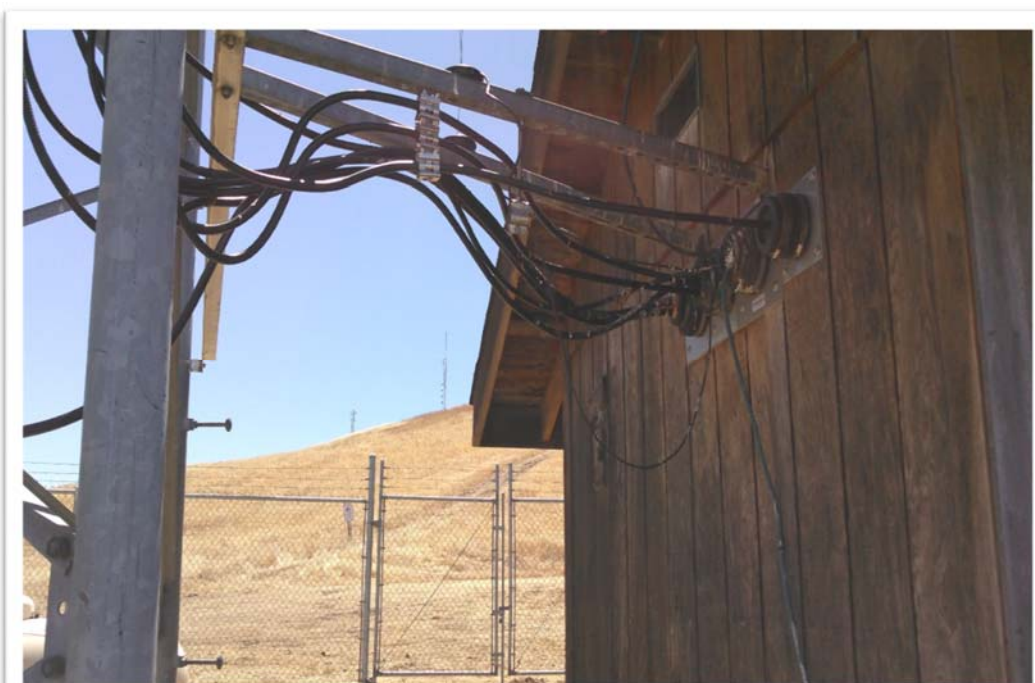


View looking north easterly

LOWER TORO



W.G. ports



W.G. bridge

LOWER TORO



Monterey County Badge



View looking south easterly

LOWER TORO



View looking northerly

LOWER TORO



Arrow points to nearby Earth Station which emits significant noise.

MCW



MCW SITE LOCATION MAP



**PATHFINDER
SURVEYS**

0 mi 0.35 mi 0.7 mi 1.05 mi 1.4 mi

TN MN
14.0°
1/1/2010

MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: MCW

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: EUCALYPTUS RD, CA4230

CITY: SEASIDE

STATE: CA

COUNTY: MONTEREY COUNTY

COUNTRY: U.S.A.

IF NOT IN A CITY: DISTANCE: 1.69 MILES

AZIMUTH (TRUE): 226

TO CITY OF: SEASIDE, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 37 55.2 N

LONGITUDE: 121 48 00.6 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 484'

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING COMMUNICATION SITE

STRUCTURE IS MONOPINE

SITE ACCESS DESCRIPTION: OPEN SITE ACCESS

BUILDING INFORMATION: EXISTING

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110

HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 75

TYPE: MONOPINE

AREA REQUIRED FOR 80% GUYING: N/A

COMMENTS: FCC NUMBER: 1266987

MONOPINE

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT

AZIMUTH TO AIRPORT
(TRUE)

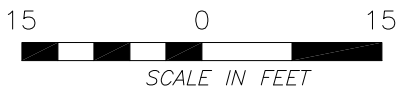
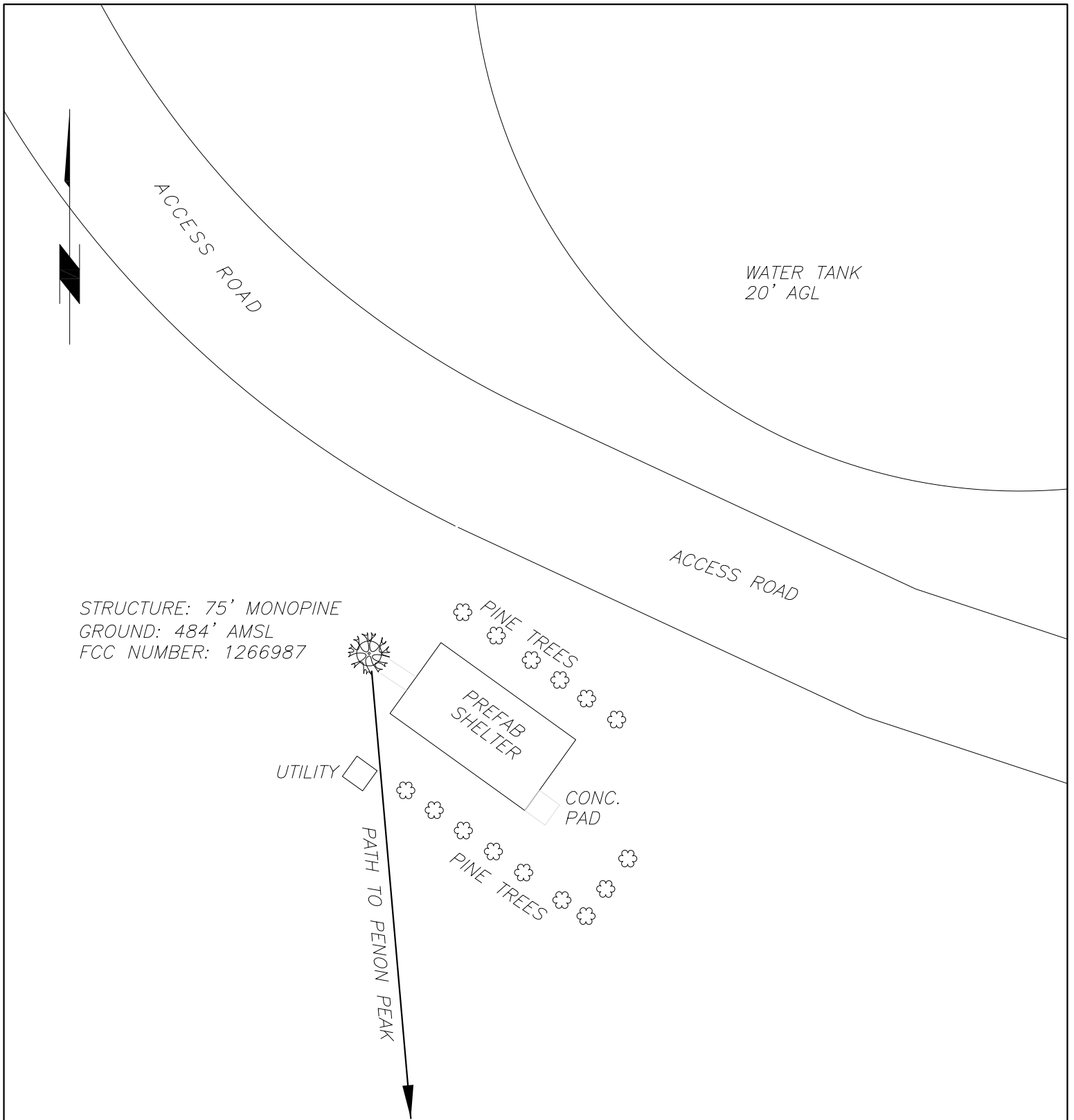
DISTANCE TO
NEAREST RUNWAY

NA

NA

NA

GENERAL COMMENTS: LIMBS WILL NEED REMOVAL TO ACCOMMODATE PROPOSED ANTENNA



AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
MCW		
SITE PLOT PLAN		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689

HIGHEST APPENDAGE 81' AGL

TOP MONOPINE 75' AGL

CELL ARRAY
6' PANELS

ARTIFICIAL PINE LIMBS
24'-75' AGL

LIMBS WILL NEED REMOVAL TO
ACCOMMODATE PROPOSED ANTENNA

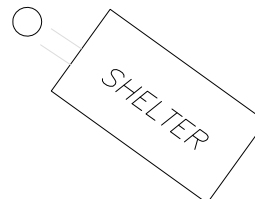
FCC#1266987

GROUND 484' AMSL

GROUND 0' AGL

NORTH WEST ELEVATION VIEW
LOOKING SOUTH EASTERLY

VIEW



Alcatel-Lucent 

20 0 20
SCALE IN FEET

AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
MCW		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2014	PROJECT 9689

MCW

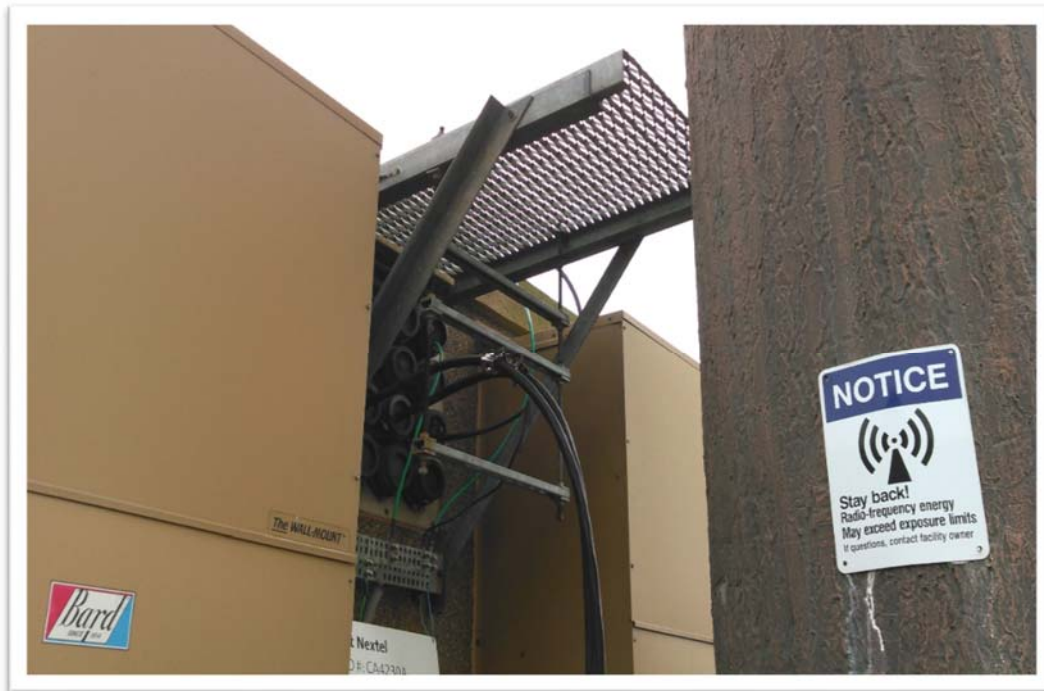


FCC Badge



View looking south east

MCW



W.G. bridge



W.G. ports

MCW



View looking north easterly



View looking north westerly

MCW



View looking north westerly



View looking westerly

MCW



View looking south easterly

*Arrow points to branches that will need removal to accommodate new antenna

MT TORO



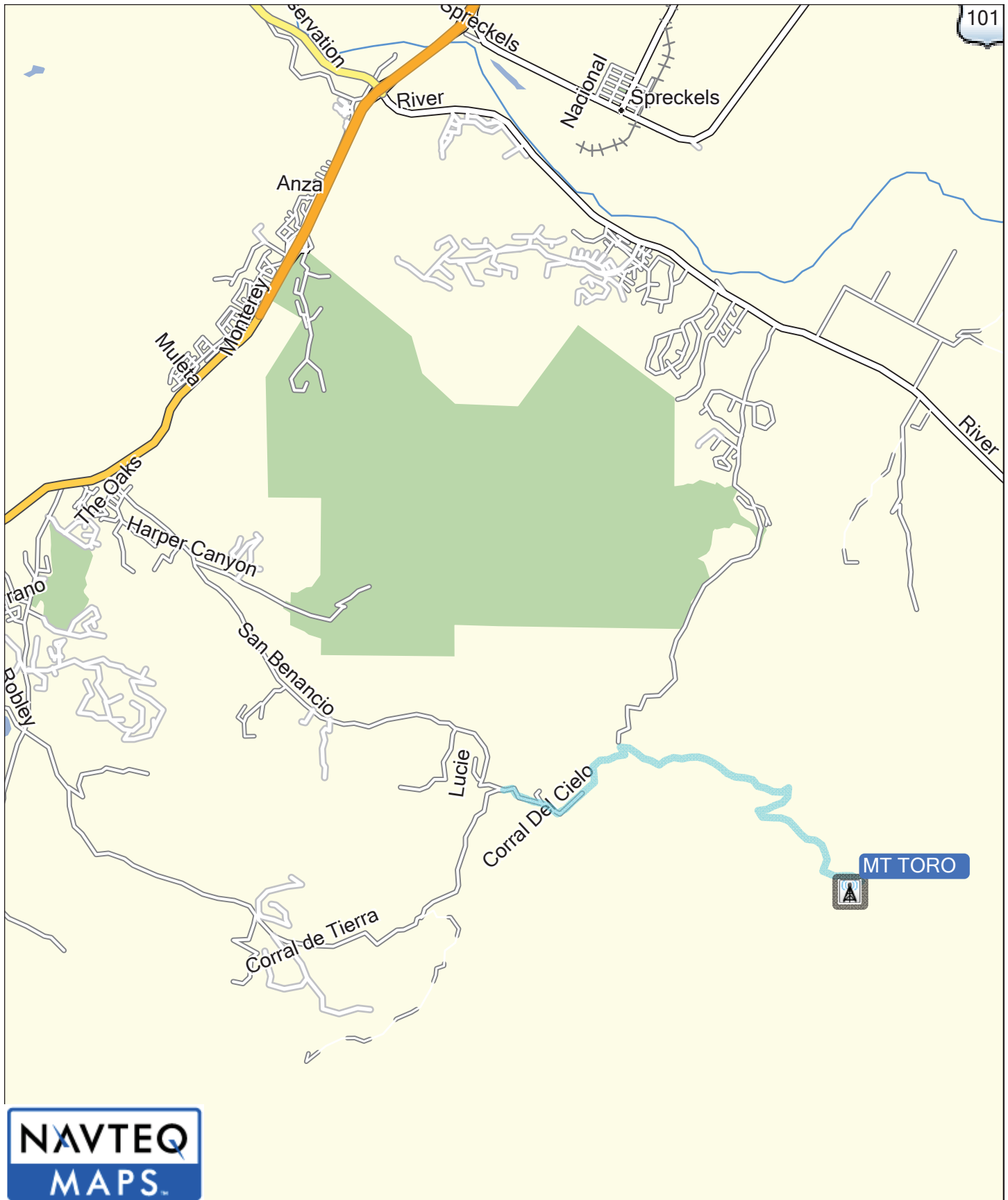
SCALE 1:24000
REF: MONTEREY COUNTY, CA

MT TORO SITE TOPOGRAPHIC MAP

Alcatel-Lucent 

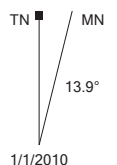
PATHFINDER SURVEYS INC.
REF: BAK JULY 2015

MT TORO SITE LOCATION MAP



***PATHFINDER
SURVEYS***

0 mi 0.75 mi 1.5 mi 2.25 mi 3 mi



MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: MT TORO

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: CORRAL DEL CIELO RD (GATE)- TO RANA CREEK RD TO ACCESS RD (MT TORO)

CITY: SALINAS

STATE: CA

COUNTY: MONTEREY COUNTY

COUNTRY: U.S.A.

IF NOT IN A CITY: DISTANCE: 10.40 MILES

AZIMUTH (TRUE): 347

TO CITY OF: SALINAS, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 31 51.0 N

LONGITUDE: 121 36 52.0 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 3435

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING COMMUNICATION SITE

SITE ACCESS DESCRIPTION: COMBINATION LOCKED GATED ACCESS ROAD

BUILDING INFORMATION: EXISTING

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110

HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 188

TYPE: SELF SUPPORT

AREA REQUIRED FOR 80% GUYING: N/A

COMMENTS: FCC NUMBER NOT AVAILABLE

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT

AZIMUTH TO AIRPORT
(TRUE)

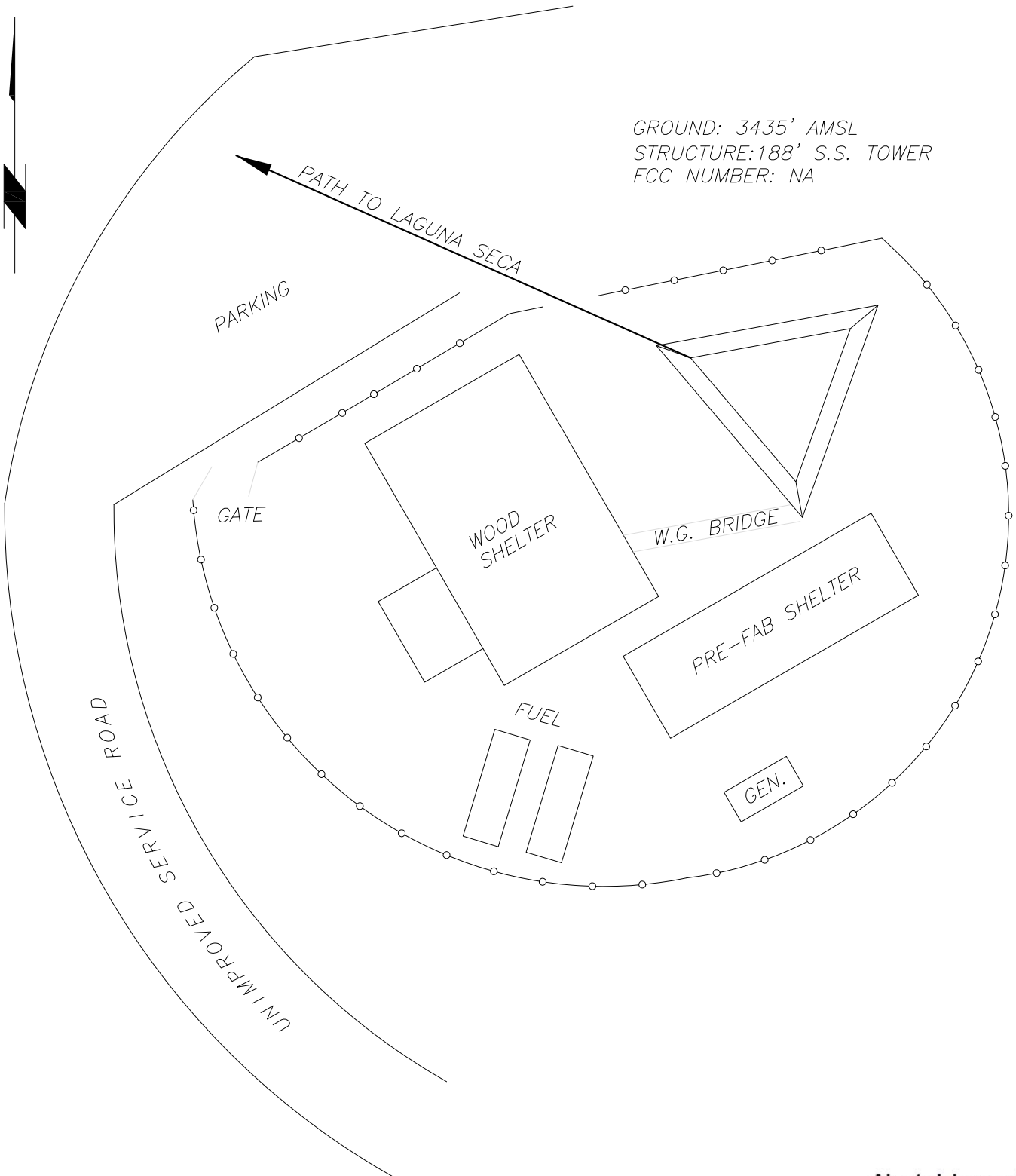
DISTANCE TO
NEAREST RUNWAY

NA

NA

NA

GENERAL COMMENTS: NA

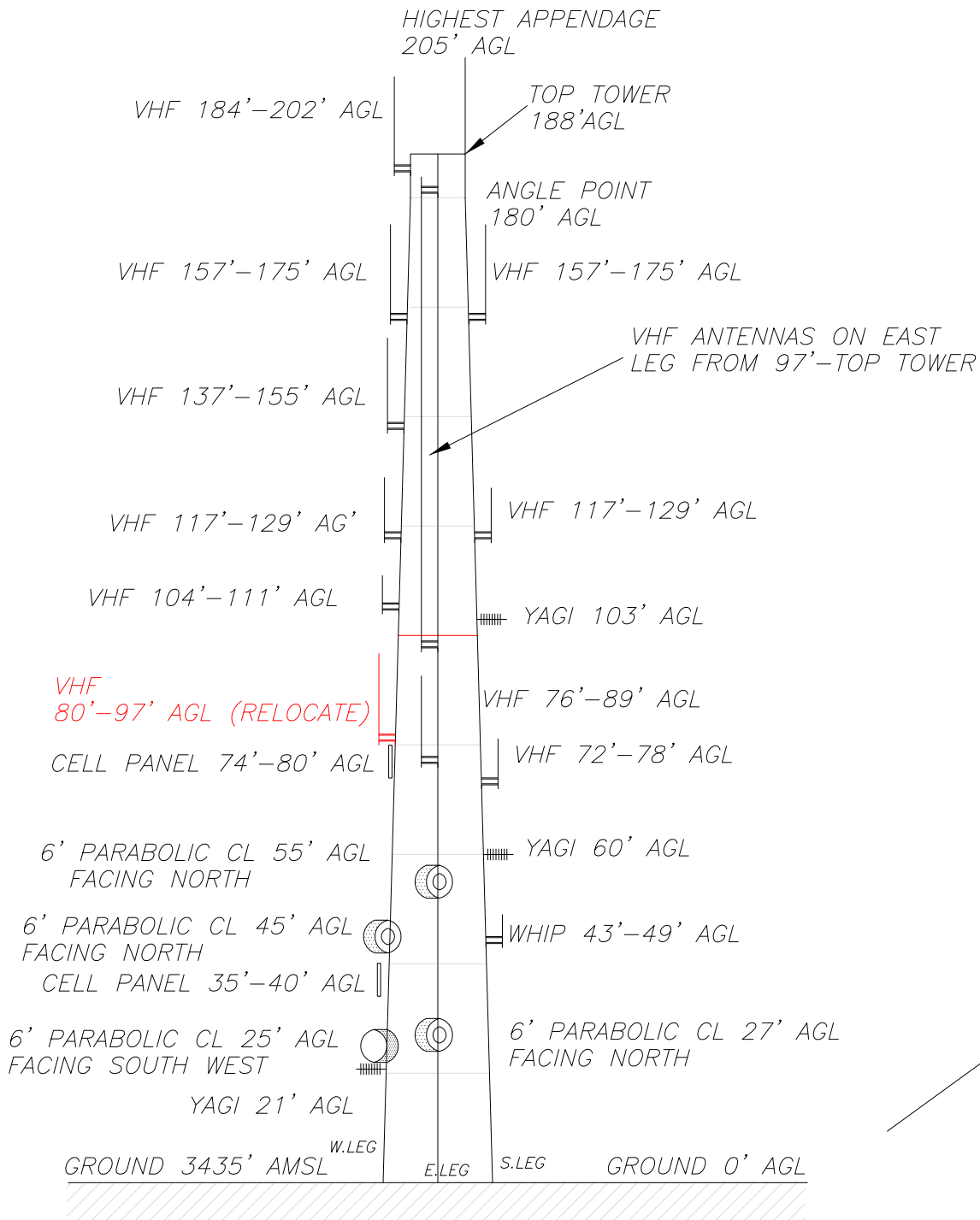


Alcatel-Lucent 

15 0 15
SCALE IN FEET

AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

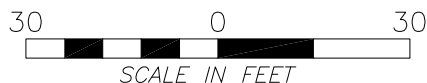
MONTEREY COUNTY		
MT TORO		
SITE PLOT PLAN		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689



SOUTH WEST ELEVATION VIEW
LOOKING NORTH EAST

FCC#NA

Alcatel-Lucent



AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
MT TORO		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2014	PROJECT 9689

MT TORO



Monterey County Badge



View looking southerly

MT TORO



View looking south

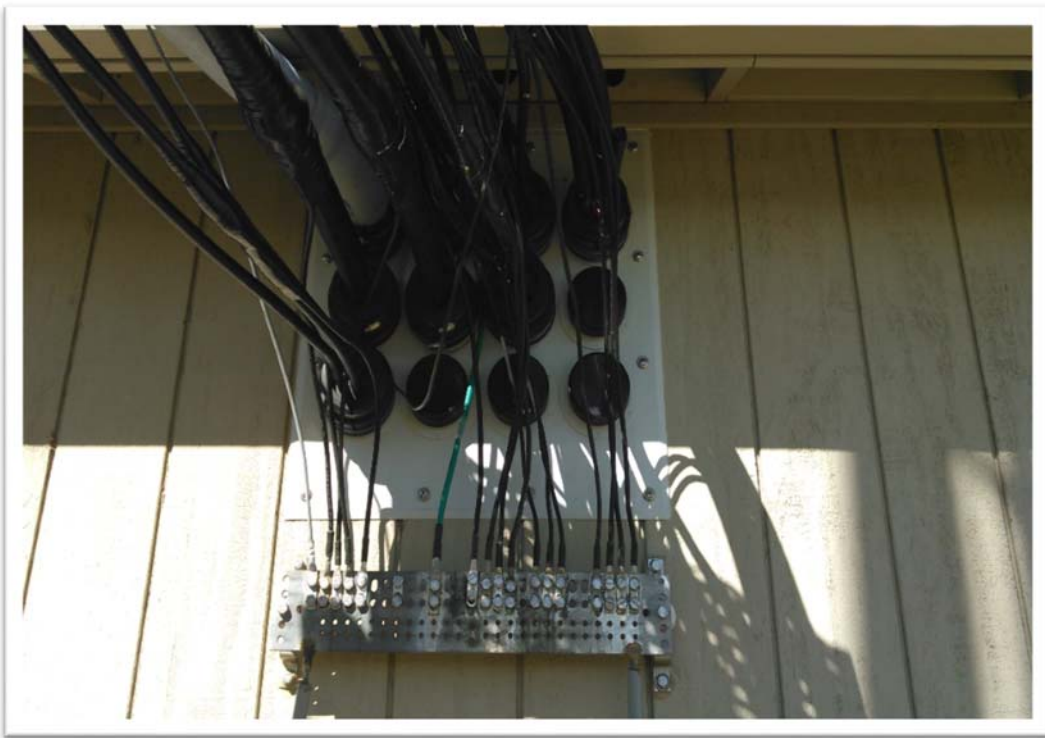


View looking south westerly

MT TORO



W.G. bridge to wood shelter



W.G. ports

MT TORO



View looking north easterly of tower

MT TORO



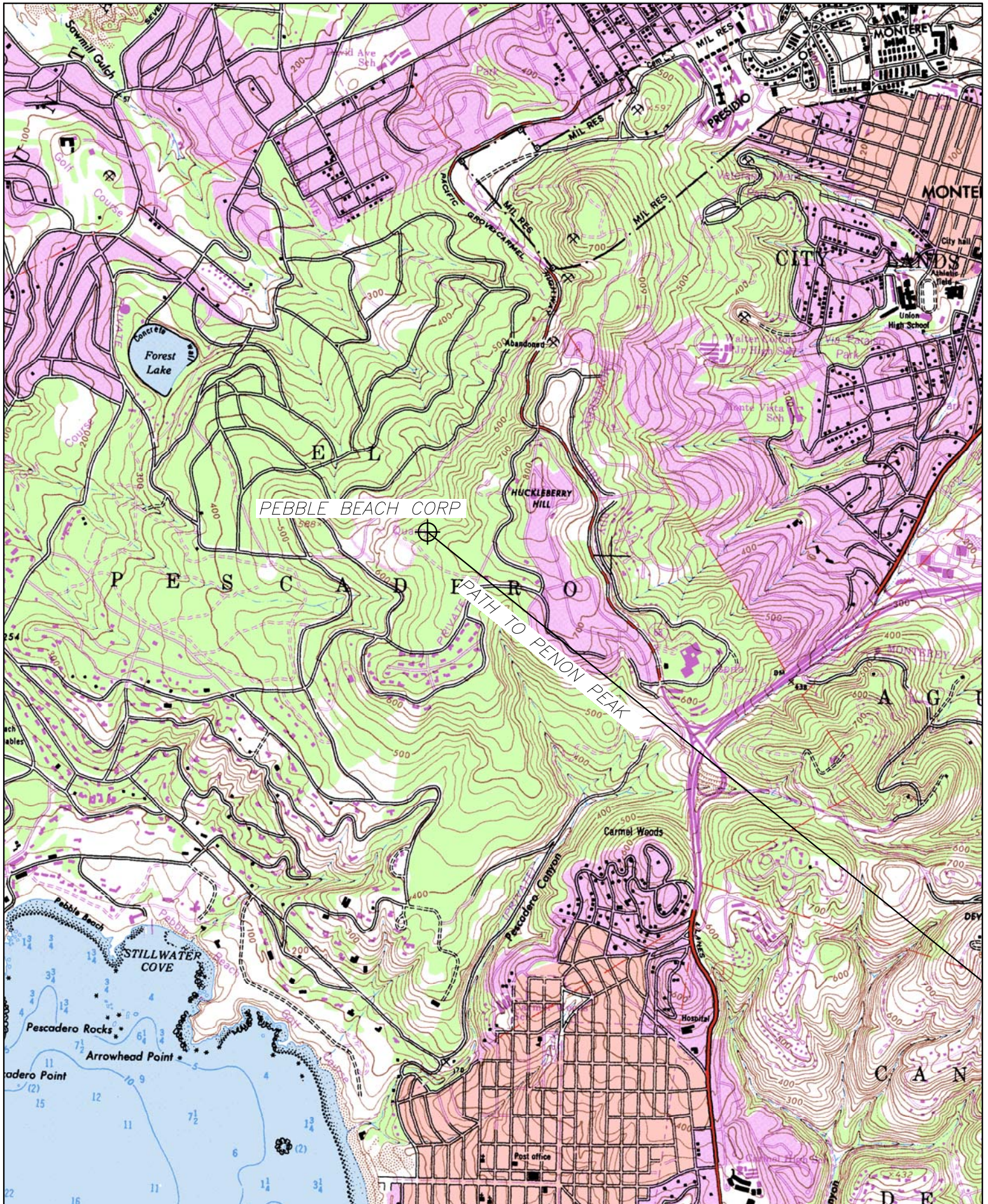
View looking north easterly lower tower
*Arrow points to dipole needing relocation

MT TORO



View looking westerly

**PEBBLE BEACH
CORP**



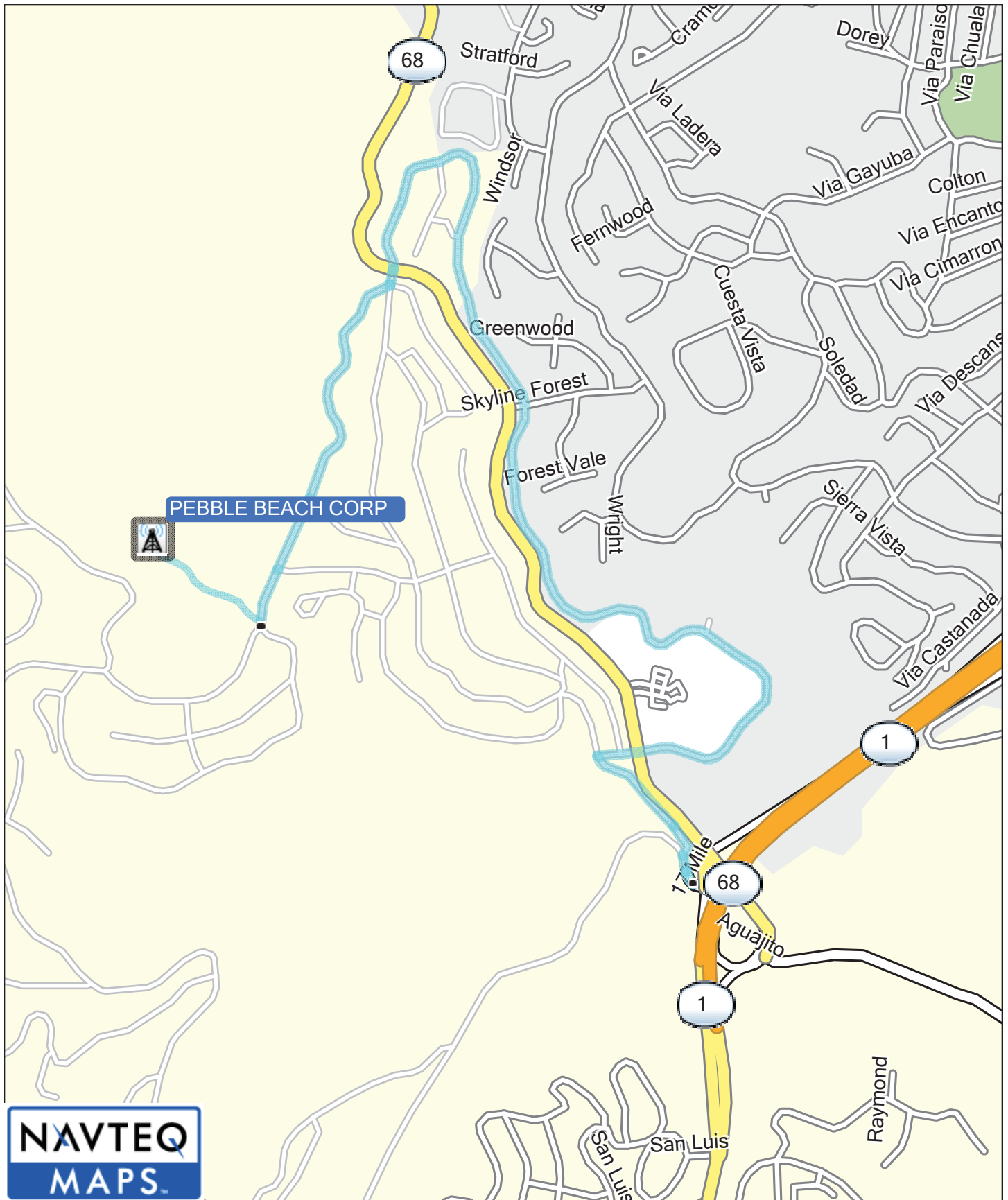
SCALE 1:24000
REF: MONTEREY COUNTY, CA

PEBBLE BEACH CORP SITE TOPOGRAPHIC MAP

Alcatel-Lucent 

PATHFINDER SURVEYS INC.
REF: BAK JULY 2015
Packet Page 167

PEBBLE BEACH CORP SITE LOCATION MAP



**PATHFINDER
SURVEYS**

MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: PEBBLE BEACH CORP

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: 4099 RONDA RD (INTERSECTION OF RONDA & SUNRIDGE RD) TO ACCESS GATE

CITY: MONTEREY

STATE: CA

COUNTY: MONTEREY COUNTY

COUNTRY: U.S.A.

IF NOT IN A CITY: DISTANCE: 2.26 MILES

AZIMUTH (TRUE): 57

TO CITY OF: MONTEREY, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 34 57.8 N

LONGITUDE: 121 55 43.4 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 649

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING AT&T COMMUNICATION FACILITY

SITE ACCESS DESCRIPTION: COMBINATION LOCKED ACCESS GATE AND FACILITY

BUILDING INFORMATION: EXISTING

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110

HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 100'

TYPE: MONOPOLE

AREA REQUIRED FOR 80% GUYING: N/A

COMMENTS: FCC NUMBER NOT AVAILABLE

TOWER HEIGHT EXCEEDED

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT

NA

AZIMUTH TO AIRPORT
(TRUE)

NA

DISTANCE TO
NEAREST RUNWAY

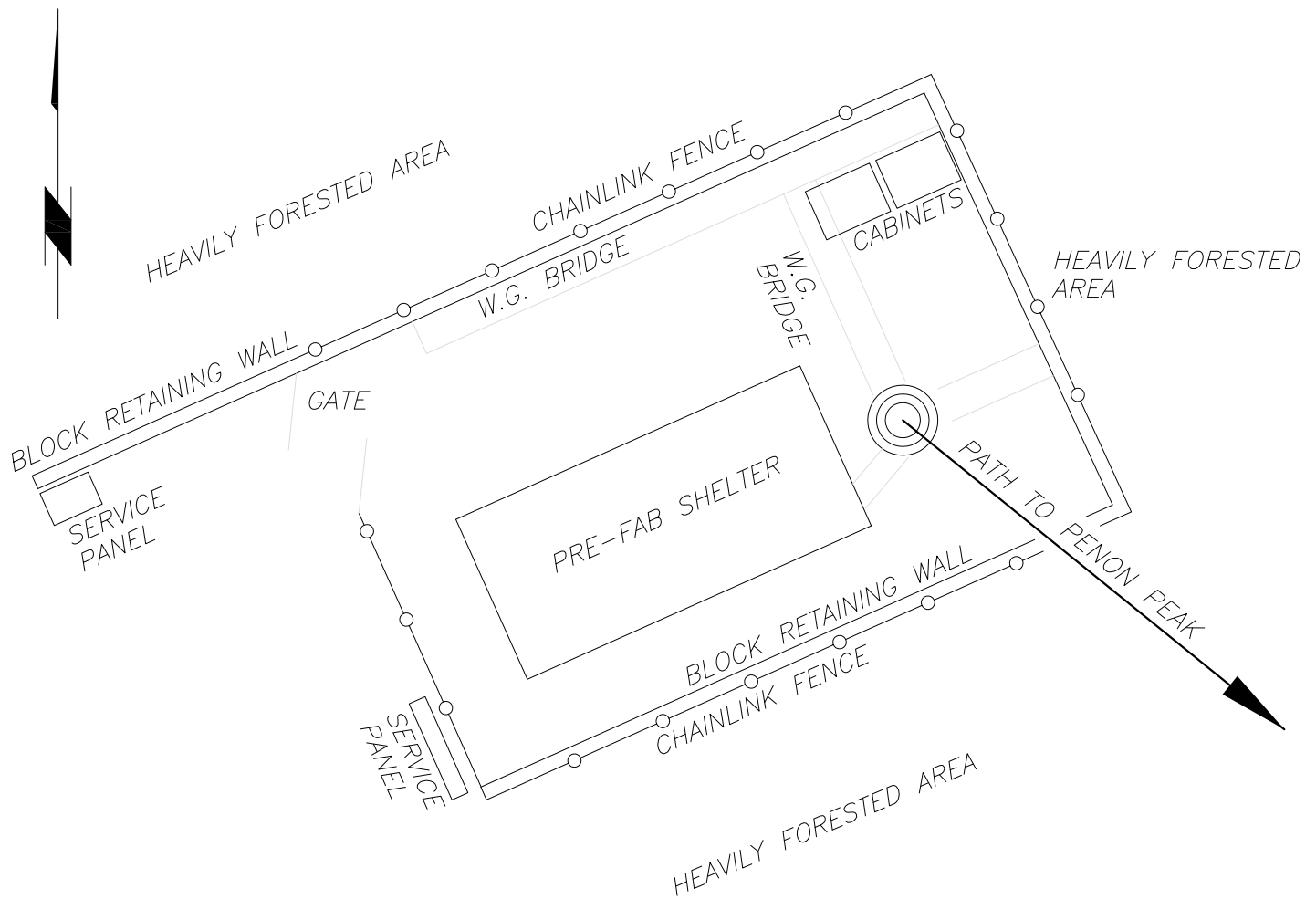
NA

NA

NA

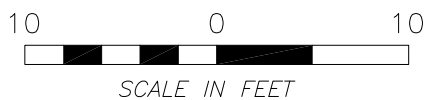
NA

GENERAL COMMENTS: TOWER HEIGHT EXCEEDED



GROUND: 649' AMSL
 STRUCTURE: 100' AGL MONOPOLE
 FCC NUMBER: NA

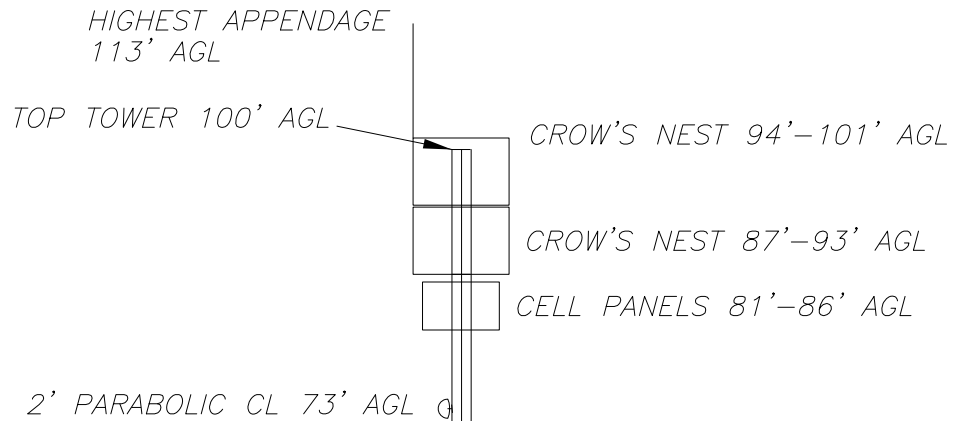
**STRUCTURE HEIGHT EXCEEDED*



AGL denotes Above Ground Level
 AMSL denotes Above Mean Sea Level

MONTEREY COUNTY PEBBLE BEACH CORP SITE PLOT PLAN		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689

TOWER HEIGHT EXCEEDED

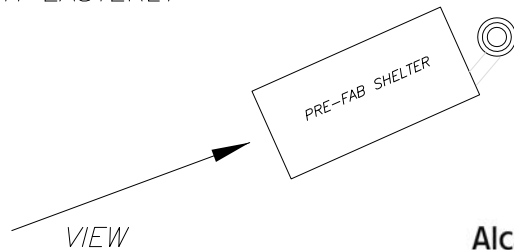


FCC#NA

GROUND 649' AMSL

GROUND 0' AGL

SOUTH WEST ELEVATION VIEW
LOOKING NORTH EASTERLY



Alcatel-Lucent



AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY PEBBLE BEACH CORP STRUCTURE ELEVATION

Pathfinder Surveys
Santa Fe, New Mexico
(505) 471-6660

SCALE AS SHOWN
DRAWN BY BAK
DATE JULY 2014

PROJECT
9689

PEBBLE BEACH CORP



View looking north east



View looking north east

PEBBLE BEACH CORP

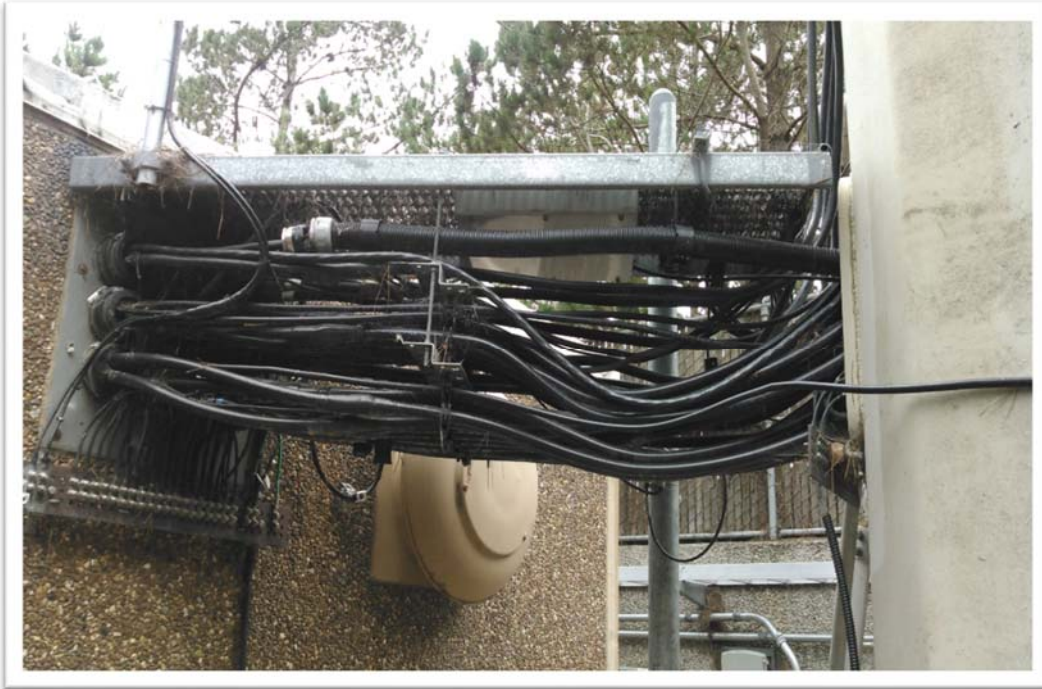


View looking south west

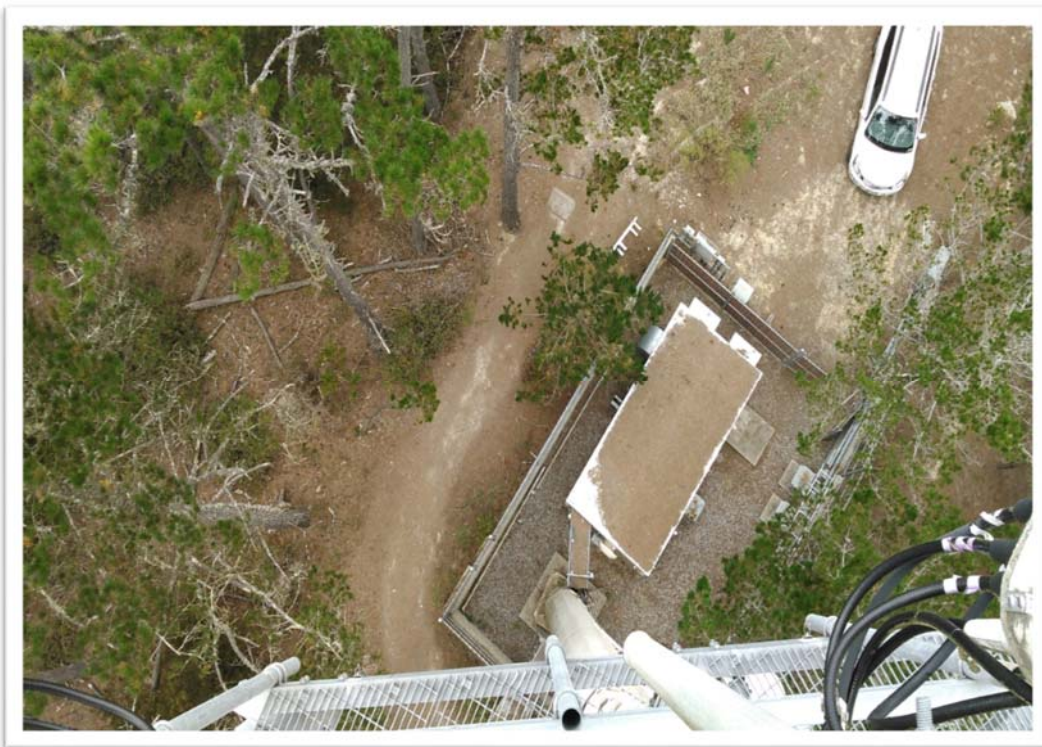


View looking south
*Arrow points to shelter and W.G. bridge

PEBBLE BEACH CORP



View of W.G. bridge



View looking down from top of crow's nest at 105' agl

PEBBLE BEACH CORP

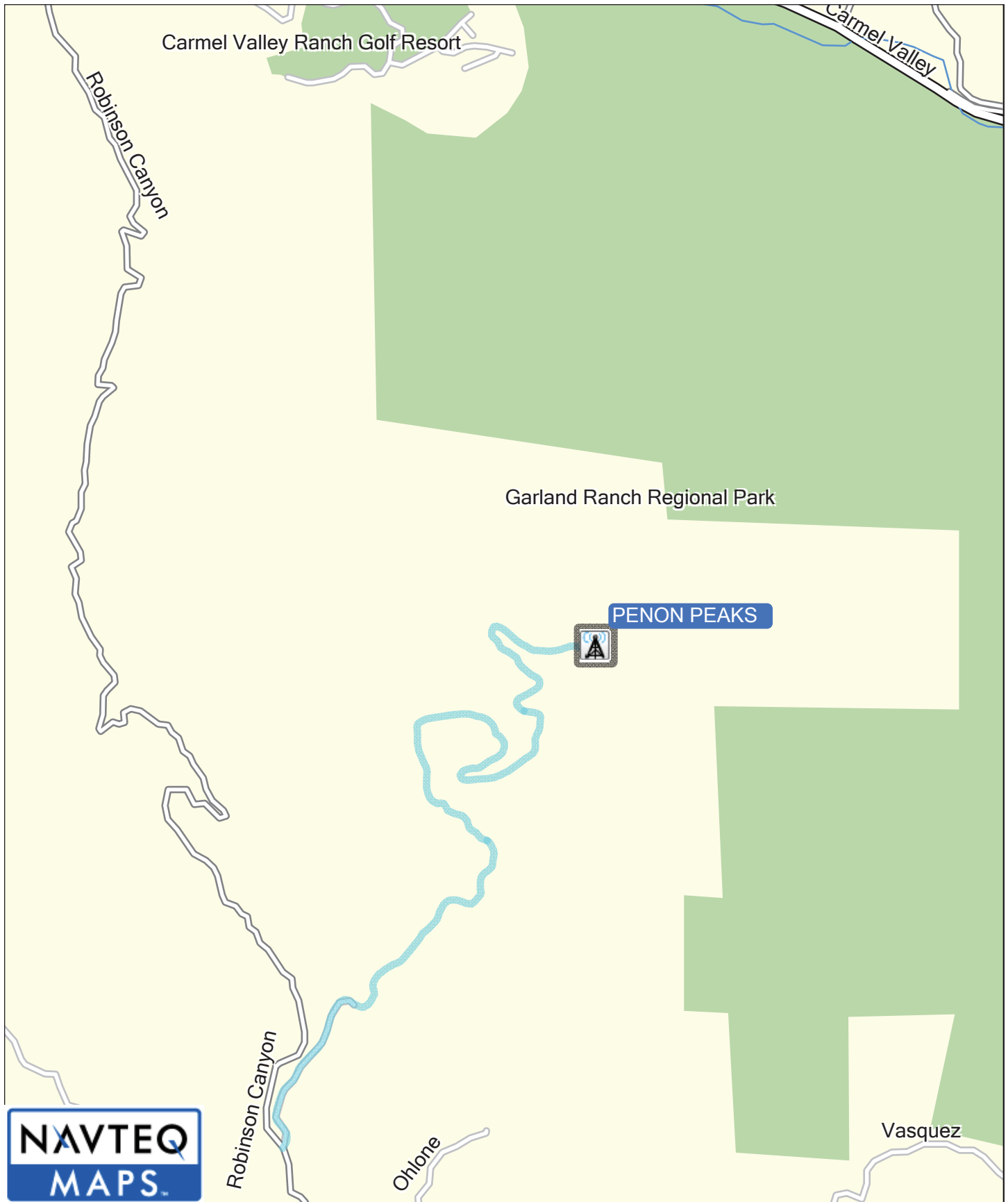


View looking north east

PENON PEAK



PENON PEAK SITE LOCATION MAP



***PATHFINDER
SURVEYS***

0 mi 0.25 mi 0.5 mi 0.75 mi 1 mi

TN MN
13.9°
1/1/2010

MICROWAVE SITE INFORMATION



Alcatel-Lucent

SITE NAME: PENON PEAK

SURVEYOR: BRYAN KAGEL

DATE: JULY 2015

STREET ADDRESS: PENON TRAIL ROAD (HILL TOP)

CITY: CARMEL VALLEY

STATE: CA

COUNTY: MONTEREY

COUNTRY: USA

IF NOT IN A CITY: DISTANCE: 3.06 MILES

AZIMUTH (TRUE): 103

TO CITY OF: CARMEL VALLEY, CA

**GEODETIC COORDINATES (NAD 83)

LATITUDE: 36 29 22.6 N

LONGITUDE: 121 47 11.6 W

HOW DETERMINED: POSITION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE ELEVATION AMSL: 2246' AMSL

HOW DETERMINED: ELEVATION DETERMINED BY GPS STATIC SESSION DERIVED BY NGS-OPUS

CHECKED AGAINST 7.5 MINUTE USGS QUADRANGLE CONTOUR MAP

SITE DESCRIPTION: EXISTING LOOKOUT BUILDING

SITE LOCATED AT END OF PENON PEAK TRAIL

SITE ACCESS DESCRIPTION: 4X4 REQUIRED

GATED ACCESS ROAD- MAKE APPOINTMENT WITH MONTEREY COUNTY

BUILDING INFORMATION: EXISTING

COMMENTS: SEE SITE PLOT PLAN FOR DETAILS

ELECTRIC POWER: EXISTING

VOLTS: 110

HERTZ: 60

TOWER INFORMATION: EXISTING

HEIGHT: 42' AGL

TYPE: BUILDING MOUNT

AREA REQUIRED FOR 80% GUYING: N/A

COMMENTS: BUILDING PIPE MOUNT FOR ALL ANTENNAS

USE WOODEN RAILING AT 32' AGL FOR ANTENNA MOUNTING

EQUIPMENT/TOWER DISTANCE (WAVEGUIDE RUN): SEE SYSTEM DATA SHEET

AIRPORT INFORMATION: (ALL AIRPORTS WITHIN 10 MILES)

AIRPORT

AZIMUTH TO AIRPORT
(TRUE)

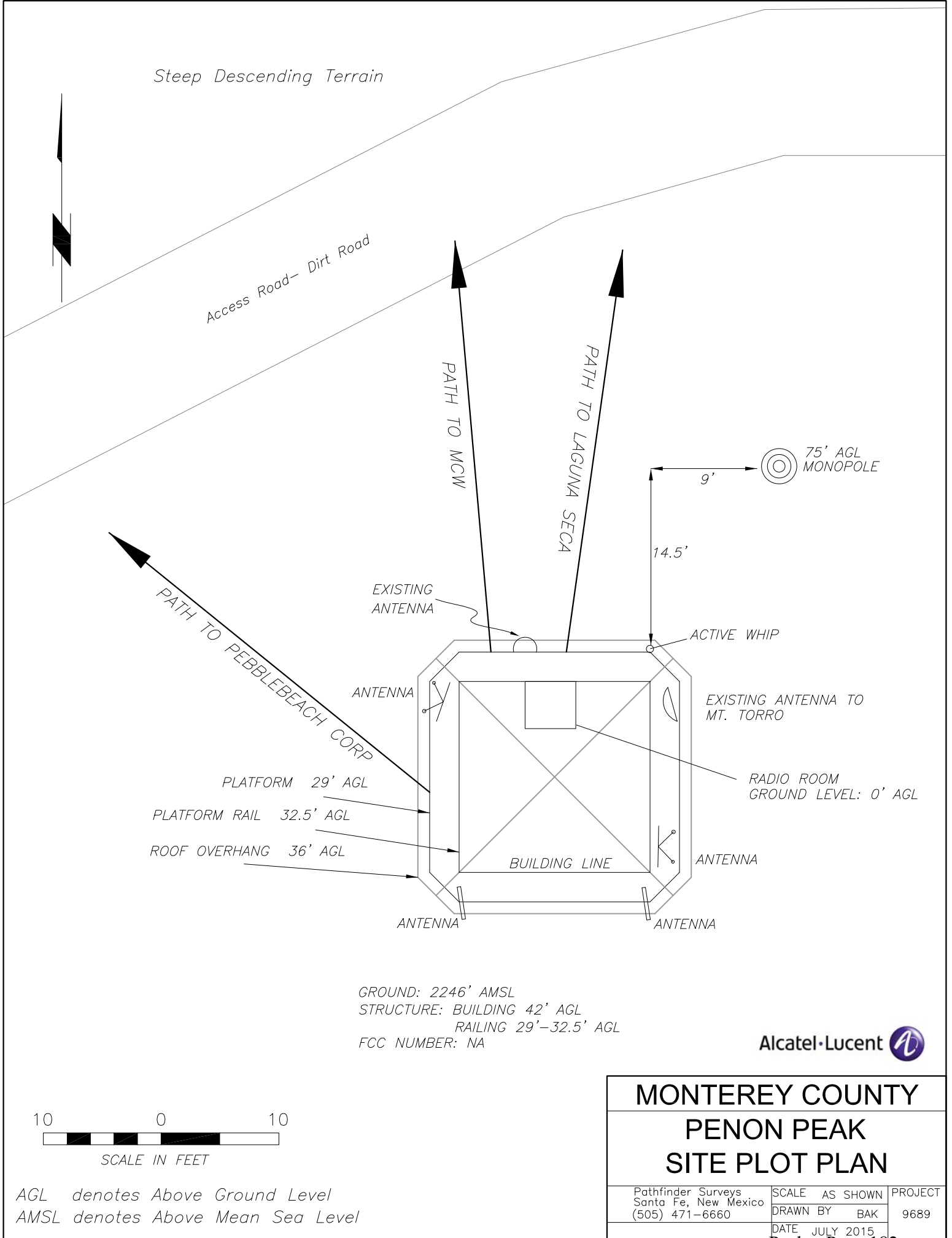
DISTANCE TO
NEAREST RUNWAY

EXISTING SITE

NA

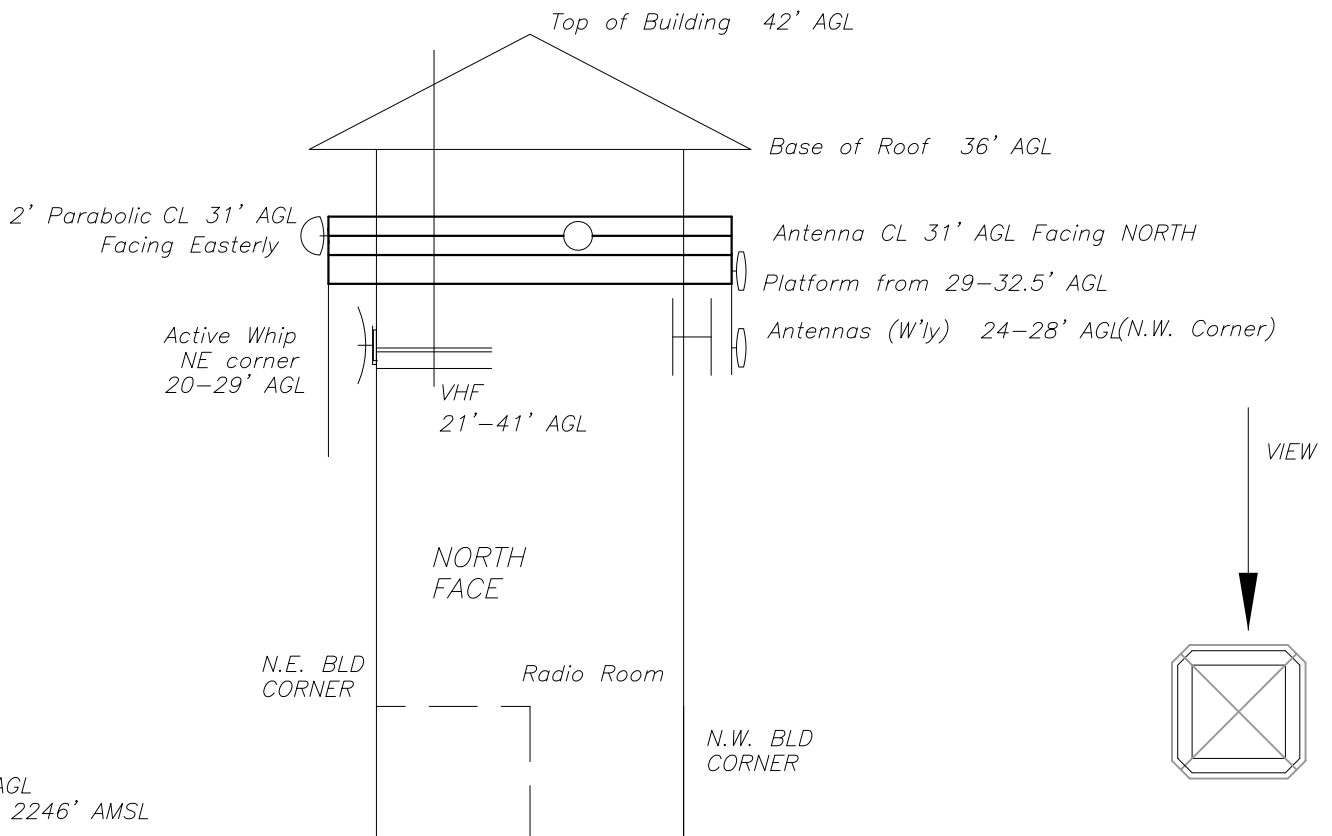
NA

GENERAL COMMENTS:



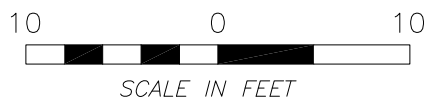
AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
PENON PEAK		
SITE PLOT PLAN		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689



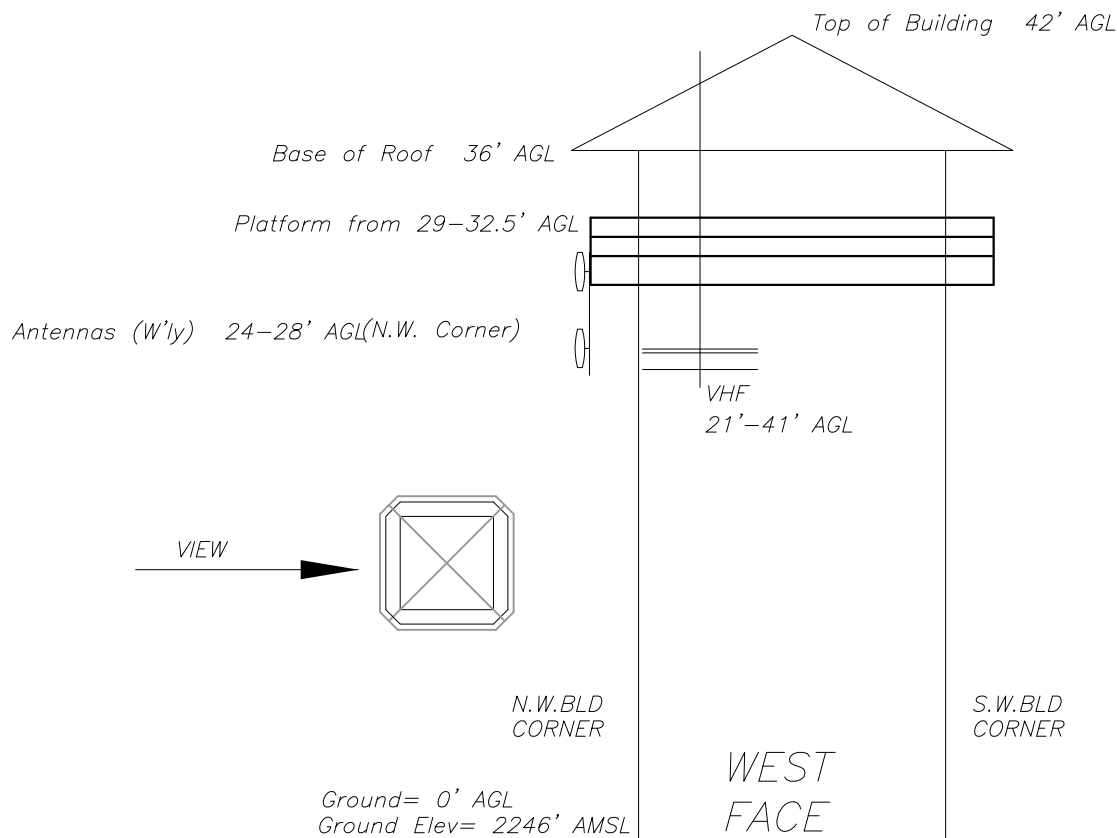
NORTH ELEVATION VIEW
LOOKING SOUTH

Alcatel-Lucent 



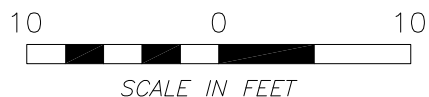
AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
PENON PEAK		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689



WEST ELEVATION VIEW
LOOKING EAST

Alcatel-Lucent 



AGL denotes Above Ground Level
AMSL denotes Above Mean Sea Level

MONTEREY COUNTY		
PENON PEAK		
STRUCTURE ELEVATION		
Pathfinder Surveys Santa Fe, New Mexico (505) 471-6660	SCALE AS SHOWN DRAWN BY BAK DATE JULY 2015	PROJECT 9689

PENON PEAK

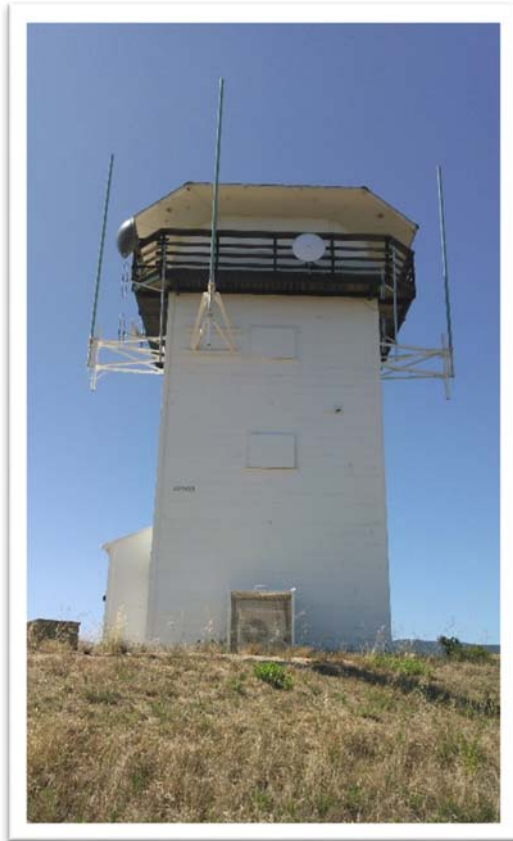


View looking west at east face of building



View looking south west at north face of building

PENON PEAK



View looking south at north face of building



View looking east at west face of building

PENON PEAK



View looking north at south face of building



View looking east at west face of building

PENON PEAK



View looking west standing at access door



View looking northerly at north face of building, standing inside equipment room

PATH DESCRIPTION(S)

DMDC

TO

E911

PATH DESCRIPTION

GENERAL DESCRIPTION OF TERRAIN FEATURES:

This path passes from an existing existing building top (Department of Defense) at DMDC to an existing self-support tower at E911. The terrain traverses from ridge top to valley lowland through suburban to rural environment. Near field transmission line monopoles are directly in path at DMDC. These poles are newly erected for local sub-station.

DETAILED DESCRIPTION OF TERRAIN FEATURES AND CRITICAL POINTS:

PATH DMDC TO E911

<u>MILEAGE</u>	<u>DESCRIPTION</u>
0.00	Existing building top at DMDC (N.E. corner of upper penthouse).
0.00-3.12	Gently descending terrain towards valley lowland.
.213	95' agl transmission line monopole. This pole is directly in path and has been newly erected since previous path survey.
.297	108' agl Eucalyptus tree. This tree is 22' south of path azimuth.
3.30-3.38	Steep descending terrain to valley lowland.
3.39-9.70	Relatively flat terrain through residential/sub-urban features to agricultural farm fields.
8.683/8.791	Extremely large non-native Eucalyptus trees. These trees are 105' agl with 10' of future growth added. Trees are 20' north of path azimuth which puts them within the 1st Fresnel zone. These are the controlling feature near this end of path and centerlines are set to clear these monsters.
9.703	Existing self-support tower at E911.
	*Several whip antennas need relocation at E911

	DMDC	E911
State	CA	CA
Latitude	36 38 33.80 N	36 41 52.40 N
Longitude	121 47 45.30 W	121 38 06.80 W
True azimuth (°)	066 52 12.32	246 57 57.81
Calculated Distance (mi)	9.703	
Profile Distance (mi)	9.703	
Datum	North American 1983	
UTM zone	10N	10N
Easting (km)	607.636	621.915
Northing (km)	4055.915	4062.227
Elevation (ft)	340.00	74.00

Distance (mi)	Elevation (ft)	Ground	Structure (ft)
0.000	340.00	AG	
0.013	340.00	AG	97.0 ft Building - BLD PARAPET
0.023	347.00	AG	
0.143	334.00	AG	
0.213	352.00	AG	95.0 ft Building - MONOPOLE/3' N. PATH AZ
0.215	352.00	AG	95.0 ft Building - Off Path Structure
0.297	340.00	AG	111.0 ft Tree - Off Path Structure
0.403	341.00	AG	
0.473	357.00	AG	56.0 ft Tree - 46' + 10' FG
0.563	360.00	AG	
0.663	336.00	AG	40.0 ft Building - BLD
0.743	359.00	AG	
0.863	353.00	AG	
0.983	341.00	AG	
1.043	347.00	AG	
1.163	319.00	AG	
1.223	336.00	AG	
1.283	343.00	AG	
1.343	314.00	AG	
1.440	345.00	AG	80.0 ft Building - Off Path Structure
1.483	356.00	AG	27.0 ft Tree - 17' + 10' FG
1.563	308.00	AG	
1.663	281.00	AG	
1.883	312.00	AG	30.0 ft Tree - 20' + 10' FG
2.083	283.00	AG	
2.383	224.00	AG	
2.443	238.00	AG	
2.643	202.00	AG	
2.783	229.00	AG	
2.943	217.00	AG	
3.043	185.00	AG	
3.123	204.00	AG	33.0 ft Tree - 23' + 10' FG
3.303	173.00	AG	
3.383	47.00	AG	
4.023	33.00	AG	45.0 ft Tree

4.061	21.00	FW	
4.063	21.00	FW	
4.071	21.00	AG	
4.073	21.00	AG	
4.223	32.00	AG	45.0 ft Tree
4.703	35.00	AG	0.0 ft Tree - OPEN AG FIELDS
6.063	40.00	AG	
6.903	43.00	AG	
7.043	59.00	AG	0.0 ft Tree - OPEN AG FIELDS
7.083	43.00	AG	
7.413	45.00	AG	38.0 ft Building - BLD APEX
7.903	43.00	AG	
8.083	54.00	AG	
8.163	51.00	AG	
8.283	70.00	AG	
8.343	64.00	AG	
8.403	37.00	AG	
8.543	66.00	AG	
8.683	65.00	AG	122.0 ft Tree - Off Path Structure
8.791	65.00	AG	115.0 ft Tree - 10' FG/ 20' off azimuth
8.793	65.00	AG	70.0 ft Tree - 60' + 10' FG
8.983	67.00	AG	
9.103	64.00	AG	
9.323	63.00	AG	
9.363	68.00	AG	
9.643	75.00	AG	
9.693	80.00	AG	30.0 ft Building
9.703	74.00	AG	

Ground Elevations - AMSL, Structure & Antenna Heights - AGL

Ground Type

PG - Poor, AG - Average, GG - Good, FW - Fresh Water, SW - Salt Water

Off Path Building at 0.215 mi - 14' N. PATH AZ/TRAN POL

Distance Off Path (ft)	14.0
Ground Elevation (ft)	352.0
Structure Height (ft)	95.0

Off Path Tree at 0.297 mi - S. PATH AZ/ EUCAL TREE

Distance Off Path (ft)	18.0
Ground Elevation (ft)	340.0
Structure Height (ft)	111.0

Off Path Building at 1.440 mi - TRANS TWR/N. PATH

Distance Off Path (ft)	80.0
Ground Elevation (ft)	345.0
Structure Height (ft)	80.0

Off Path Tree at 8.683 mi - 10' FG/S. PATH AZIMUTH

Distance Off Path (ft)	62.0
Ground Elevation (ft)	65.0
Structure Height (ft)	122.0

PATH DMDC TO E911
Path mile 0.00 (DMDC Upper penthouse)



View looking to E911 standing at upper Penthouse
*95' agl monopole 3' north of path azimuth



View looking to E911 standing at upper Penthouse

PATH DMDC TO E911
Path mile 0.00 (DMDC main roof level)



View looking to E911 standing on main roof



View looking to E911 standing on main roof

PATH DMDC TO E911
Path mile 9.703 (E911)



View looking to DMDC standing at 86' agl



View looking to DMDC standing at 86' agl

PATH DMDC TO E911

Path mile 9.703 (E911)



View looking to DMDC standing at 86' agl

Yellow arrow points to large 115' agl Eucalyptus tree 20' north of path azimuth. This tree is within the 1st Fresnel zone with centerlines set to clear this obstruction.

**LAGUNA SECA
TO
LOWER TORO**

PATH DESCRIPTION

GENERAL DESCRIPTION OF TERRAIN FEATURES:

This path passes from an existing self-support tower at Laguna Seca to an existing self-support tower at Lower Toro. The path traverses over extremely rural undulating terrain over mostly rural environment. A larger nearby Earth Station at Lower Toro emits significant noise.

DETAILED DESCRIPTION OF TERRAIN FEATURES AND CRITICAL POINTS:

PATH LAGUNA SECA TO LOWER TORO

<u>MILEAGE</u>	<u>DESCRIPTION</u>
0.00	Existing self-support tower at Laguna Seca.
0.00-3.42	Lowland valley terrain.
.009	Critical trees found near field. These deciduous oak trees are 21' agl with an additional 10' of future growth added.
3.43-8.03	Steep ascending terrain from lowland to mountain top.
8.033	Existing self-support tower at Lower Toro.
	*Large Earth Station nearby Lower Toro emits significant noise.

	LAGUNA SECA		LOWER TORO	
State	CA		CA	
Latitude	36 34 59.80 N		36 32 15.50 N	
Longitude	121 45 34.30 W		121 37 36.00 W	
True azimuth (°)	113 01 30.38		293 06 15.28	
Calculated Distance (mi)	8.033			
Profile Distance (mi)	8.033			
Datum	North American 1983			
UTM zone	10N		10N	
Easting (km)	610.974		622.933	
Northing (km)	4049.362		4044.460	
Elevation (ft)	883.00		3147.00	
Distance (mi)	Elevation (ft)	Ground	Structure (ft)	
0.000	883.00	AG		
0.009	882.00	AG	31.0 ft Tree - 21+10FG/OAK TREES	
0.140	742.00	AG		
0.300	742.00	AG		
0.560	855.00	AG	10.0 ft Tree - SHRUBBERY	
0.920	592.00	AG		
1.080	665.00	AG	0.0 ft Tree - OPEN FIELDS	
1.420	438.00	AG		
1.480	380.00	AG		
1.580	437.00	AG	20.0 ft Tree - DECIDUOUS TREES	
1.680	382.00	AG		
1.860	305.00	AG		
2.200	324.00	AG		
2.280	461.00	AG		
2.490	658.00	AG	20.0 ft Tree - OAK TREES	
2.660	673.00	AG		
2.740	598.00	AG		
2.780	673.00	AG	10.0 ft Tree - SHRUBBERY	
2.860	533.00	AG		
2.940	610.00	AG		
3.080	638.00	AG	15.0 ft Tree - PINON PINES	
3.320	463.00	AG		
3.420	463.00	AG		
3.620	714.00	AG		
3.840	872.00	AG		
3.920	904.00	AG	10.0 ft Tree - SHRUBBERY	
4.140	922.00	AG		
4.220	1018.00	AG		
4.360	1079.00	AG		
4.460	1112.00	AG		
4.560	1135.00	AG	10.0 ft Tree - SHRUBBERY	
4.720	1012.00	AG		
4.860	1250.00	AG	10.0 ft Tree - SHRUBBERY	
4.920	1229.00	AG		
5.000	1109.00	AG		

5.080	1179.00	AG	
5.160	1225.00	AG	
5.280	1319.00	AG	
5.400	1354.00	AG	
5.480	1370.00	AG	
5.540	1434.00	AG	0.0 ft Tree - OPEN FIELDS
5.660	1219.00	AG	
5.920	1610.00	AG	
6.080	1868.00	AG	10.0 ft Tree - SHRUBBERY
6.180	1748.00	AG	
6.260	1871.00	AG	0.0 ft Tree - OPEN FIELDS
6.340	1680.00	AG	
6.440	1905.00	AG	0.0 ft Tree - OPEN FIELDS
6.680	1741.00	AG	
6.960	2127.00	AG	
7.160	2450.00	AG	0.0 ft Tree - OPEN FIELDS
7.280	2428.00	AG	
7.520	2812.00	AG	0.0 ft Tree - OPEN FIELD
7.660	2642.00	AG	
7.820	2938.00	AG	0.0 ft Tree - OPEN FIELDS
7.960	3047.00	AG	
8.030	3145.00	AG	10.0 ft Building - SERVICE TRUCKS
8.031	3135.00	AG	20.0 ft Building - Off Path Structure
8.033	3147.00	AG	

Ground Elevations - AMSL, Structure & Antenna Heights - AGL

Ground Type

PG - Poor, AG - Average, GG - Good, FW - Fresh Water, SW - Salt Water

Off Path Building at 8.031 mi - EARTH STATION -NOISY

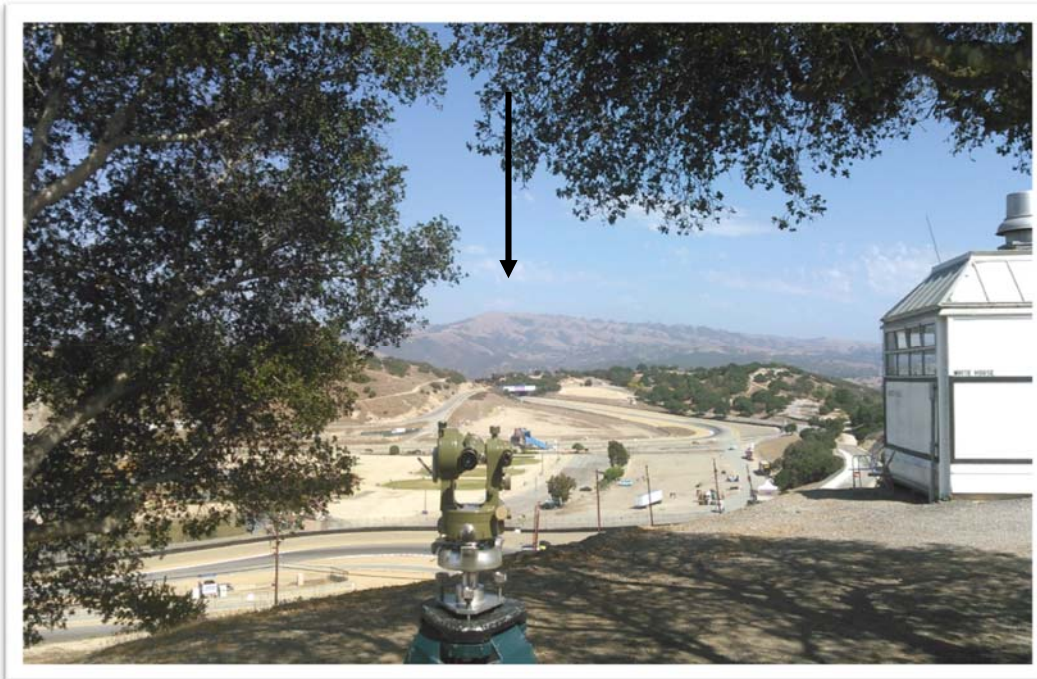
Distance Off Path (ft) 65.0

Ground Elevation (ft) 3135.0

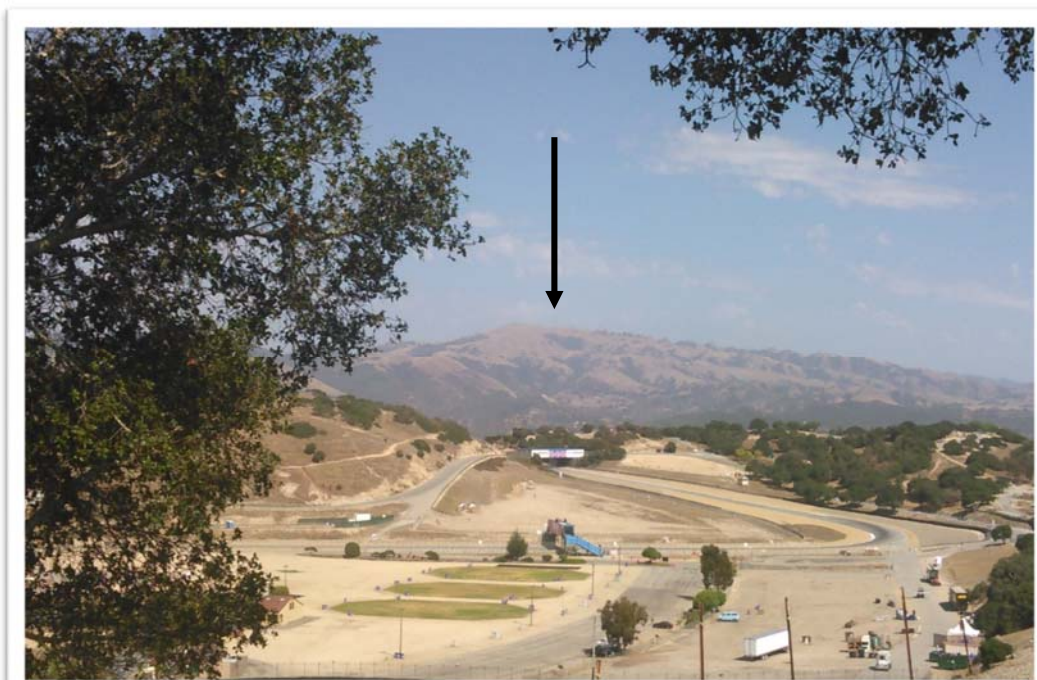
Structure Height (ft) 20.0

PATH LAGUNA SECA TO MT TORO

Path mile 0.00 (Laguna Seca)



View looking to Mt Toro standing 60' from tower base at 5' AGL



View looking to Mt Toro standing 60' from tower base at 5' AGL

PATH LAGUNA SECA TO MT TORO

Path mile 0.00 (Laguna Seca)



View looking to Mt Toro standing 60' from tower base at 5' AGL

PATH LAGUNA SECA TO MT TORO

Path mile 8.843 (Mt Toro)



View looking to Laguna Seca standing at tower base. Low fog prevents visibility to Laguna Seca site.



View looking to Laguna Seca standing at tower base. Low fog prevents visibility to Laguna Seca site.

LAGUNA SECA

TO

MT TORO

PATH DESCRIPTION

GENERAL DESCRIPTION OF TERRAIN FEATURES:

This path passes from existing self-support tower at Laguna Seca to an existing self-support tower at Mt Toro. The terrain traverses from valley lowland to mountain top peak over extremely rural environment. Dense fog exists near Laguna Seca site.

DETAILED DESCRIPTION OF TERRAIN FEATURES AND CRITICAL POINTS:

PATH LAGUNA SECA TO MT TORO

<u>MILEAGE</u>	<u>DESCRIPTION</u>
0.00	Existing self-support tower at Laguna Seca.
0.00-3.48	Lowland valley terrain.
.009	Near field deciduous oak trees at 21' agl with an additional 10' of future growth added. These trees are controlling feature near this end of path.
3.49-8.376	Steep ascending terrain towards critical ridge.
8.376	Critical ridge. This ridge has no trees however, service road crosses over critical point so an additional 10' added for service trucks etc.
8.40-8.84	Gentle ascending terrain towards end of path.
8.843	Existing self-support tower at Mt Toro.

	LAGUNA SECA	MT TORO
State	CA	CA
Latitude	36 34 59.80 N	36 31 51.00 N
Longitude	121 45 34.30 W	121 36 52.00 W
True azimuth (°)	114 05 31.81	294 10 42.90
Calculated Distance (mi)	8.844	
Profile Distance (mi)	8.844	
Datum	North American 1983	
UTM zone	10N	10N
Easting (km)	610.974	624.038
Northing (km)	4049.362	4043.721
Elevation (ft)	883.00	3435.00

Distance (mi)	Elevation (ft)	Ground	Structure (ft)
0.000	883.00	AG	
0.009	882.00	AG	31.0 ft Tree - 21+10 FG/OAK TREES
0.040	834.00	AG	
0.120	748.00	AG	5.0 ft Building - LAGUNA SECA RACEWAY
0.300	743.00	AG	
0.580	855.00	AG	15.0 ft Tree - 10+5 FG/ PINON PINES
0.940	603.00	AG	
1.060	670.00	AG	10.0 ft Tree - SHRUBBERY
1.480	378.00	AG	
1.580	429.00	AG	25.0 ft Tree - PINON PINES
1.860	306.00	AG	
2.180	321.00	AG	
2.320	528.00	AG	
2.650	768.00	AG	55.0 ft Tree - 45+10 FG/DECIDUOUS
2.940	708.00	AG	
3.060	704.00	AG	
3.200	508.00	AG	
3.260	647.00	AG	
3.480	492.00	AG	
3.680	720.00	AG	
3.940	890.00	AG	
4.120	925.00	AG	
4.240	1104.00	AG	10.0 ft Tree - SHRUBBERY
4.460	1200.00	AG	
4.600	1214.00	AG	10.0 ft Tree - SHRUBBERY
4.780	1176.00	AG	10.0 ft Tree - SHRUBBERY
4.980	1000.00	AG	
5.320	1118.00	AG	
5.520	1179.00	AG	
5.840	1445.00	AG	
6.080	1830.00	AG	10.0 ft Tree - SHRUBBERY
6.100	1821.00	AG	
6.180	1710.00	AG	
6.280	1508.00	AG	
6.420	1794.00	AG	0.0 ft Tree - OPEN FIELD

6.640	1664.00	AG	
6.840	1914.00	AG	
7.100	2353.00	AG	
7.180	2462.00	AG	0.0 ft Tree - OPEN GRASS FIELD
7.280	2360.00	AG	
7.520	2697.00	AG	0.0 ft Tree - OPEN GRASS FIELD
7.600	2531.00	AG	
7.820	2958.00	AG	0.0 ft Tree - OPEN GRASS FIELD
7.880	2949.00	AG	0.0 ft Tree - OPEN GRASS FIELD
7.940	2835.00	AG	
8.180	3275.00	AG	0.0 ft Tree - OPEN FIELD
8.376	3355.00	AG	8.0 ft Building - TRUCKS-SERVICE ROAD
8.400	3303.00	AG	
8.440	3350.00	AG	0.0 ft Tree - OPEN FIELD
8.520	3240.00	AG	
8.680	3304.00	AG	0.0 ft Tree - OPEN FIELD
8.840	3435.00	AG	10.0 ft Building - SERVICE TRUCKS
8.844	3435.00	AG	

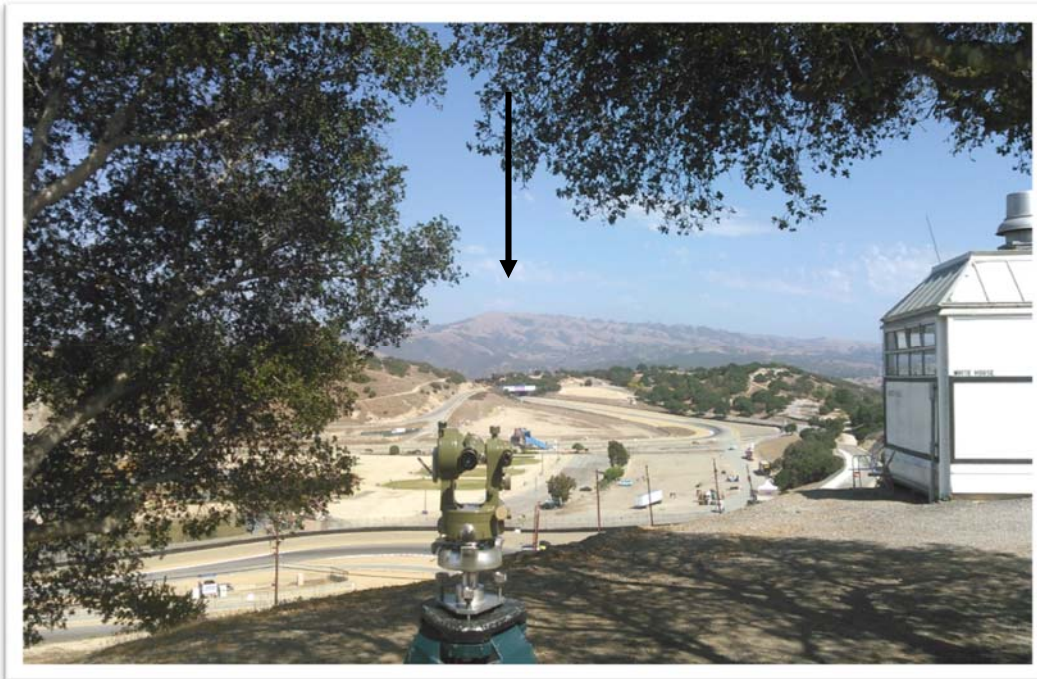
Ground Elevations - AMSL, Structure & Antenna Heights - AGL

Ground Type

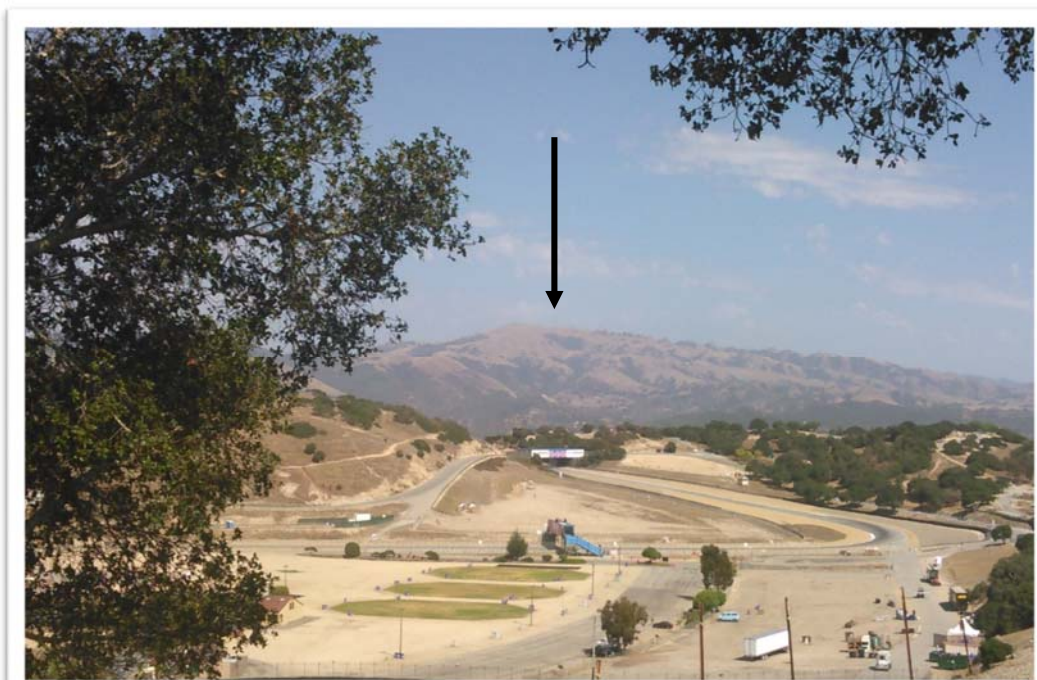
PG - Poor, AG - Average, GG - Good, FW - Fresh Water, SW - Salt Water

PATH LAGUNA SECA TO MT TORO

Path mile 0.00 (Laguna Seca)



View looking to Mt Toro standing 60' from tower base at 5' agl



View looking to Mt Toro standing 60' from tower base at 5' agl

PATH LAGUNA SECA TO MT TORO

Path mile 0.00 (Laguna Seca)



View looking to Mt Toro standing 60' from tower base at 5' agl

PATH LAGUNA SECA TO MT TORO

Path mile 8.843 (Mt Toro)



View looking to Laguna Seca standing at tower base. Low fog prevents visibility to Laguna Seca site.



View looking to Laguna Seca standing at tower base. Log fog prevents visibility to Laguna Seca site.

**MCW
TO
PENON PEAK**

PATH DESCRIPTION

GENERAL DESCRIPTION OF TERRAIN FEATURES:

This path passes from an existing Monopine at MCW to an existing wood look-out tower at Penon Peak. The terrain traverses over extremely rural environment with large pines found near MCW. Artificial limbs need to be removed to accommodate new antenna.

DETAILED DESCRIPTION OF TERRAIN FEATURES AND CRITICAL POINTS:

PATH MCW TO PENON PEAK

<u>MILEAGE</u>	<u>DESCRIPTION</u>
0.00	Existing monopine at MCW.
0.00-4.34	Relatively flat terrain over rural ground.
.108	Large Pine trees found in this area. These trees are 71' agl with an additional 10' of future growth added.
4.35-8.00	Undulating terrain over rugged terrain.
8.01-9.84	Steep ascending terrain up mountain top. No critical trees found.
9.848	Existing wood look-out tower at Penon Peak.

	MCW	PENON PEAK
State	CA	CA
Latitude	36 37 55.20 N	36 29 22.60 N
Longitude	121 48 00.60 W	121 47 11.60 W
True azimuth (°)	175 35 10.78	355 35 39.96
Calculated Distance (mi)	9.848	
Profile Distance (mi)	9.848	
Datum	North American 1983	
UTM zone	10N	10N
Easting (km)	607.271	608.687
Northing (km)	4054.720	4038.940
Elevation (ft)	484.00	2246.00

Distance (mi)	Elevation (ft)	Ground	Structure (ft)
0.000	484.00	AG	
0.032	468.00	AG	39.0 ft Tree - 29+10'FG/PINES
0.108	440.00	AG	81.0 ft Tree - 71+10FG/PINES
0.280	461.00	AG	
0.540	465.00	AG	
0.640	487.00	AG	10.0 ft Tree - SHRUBBERY
0.780	456.00	AG	
1.320	534.00	AG	
1.660	572.00	AG	8.0 ft Tree - SHRUBBERY
1.820	491.00	AG	
2.060	486.00	AG	8.0 ft Tree - SHRUBBERY
2.320	545.00	AG	
2.480	525.00	AG	
2.660	448.00	AG	
2.780	523.00	AG	8.0 ft Tree - SHRUBBERY
2.920	470.00	AG	
3.080	507.00	AG	
3.500	605.00	AG	5.0 ft Tree - SHRUBBERY
3.680	557.00	AG	
3.760	604.00	AG	20.0 ft Tree - PINON PINE
3.860	570.00	AG	
4.160	307.00	AG	
4.280	298.00	AG	
4.340	299.00	AG	
4.580	838.00	AG	0.0 ft Tree - OPEN FIELDS
4.740	779.00	AG	
4.812	885.00	AG	45.0 ft Tree - PINES
4.940	677.00	AG	88.0 ft Tree - PINES
5.060	840.00	AG	
5.200	954.00	AG	0.0 ft Tree - OPEN FIELD
5.360	837.00	AG	
5.560	1161.00	AG	
5.578	1175.00	AG	64.0 ft Tree - 54+10fg/DECIDUOUS
5.720	1116.00	AG	
5.880	828.00	AG	

5.960	863.00	AG	
6.200	703.00	AG	
6.300	570.00	AG	
6.540	766.00	AG	
6.680	886.00	AG	
6.780	908.00	AG	0.0 ft Tree - OPEN FIELDS
6.960	751.00	AG	
7.060	452.00	AG	
7.200	547.00	AG	
7.260	553.00	AG	0.0 ft Tree - OPEN FIELDS
7.340	330.00	AG	
7.520	386.00	AG	
7.600	269.00	AG	
8.000	138.00	AG	
8.380	923.00	AG	
8.480	999.00	AG	
8.740	1327.00	AG	
8.918	1680.00	AG	51.0 ft Tree - 41+10FG/PINON
8.938	1720.00	AG	
9.040	1650.00	AG	
9.100	1531.00	AG	
9.220	1589.00	AG	
9.380	1609.00	AG	10.0 ft Tree - SHRUBBERY
9.460	1519.00	AG	
9.640	1734.00	AG	10.0 ft Tree - SHRUBBERY
9.823	2184.00	AG	
9.842	2240.00	AG	
9.848	2246.00	AG	

Ground Elevations - AMSL, Structure & Antenna Heights - AGL

Ground Type

PG - Poor, AG - Average, GG - Good, FW - Fresh Water, SW - Salt Water

PATH MCW TO PENON PEAK

Path mile 0.00 (MCW)



View looking to Penon Peak standing at 5' agl



View looking to Penon Peak standing at 5' agl

PATH MCW TO PENON PEAK

Path mile 9.848 (Penon Peak)



View looking to MCW standing at 5' agl



View looking to MCW standing at 5' agl

PATH MCW TO PENON PEAK

Path mile 9.848 (Penon Peak)



View looking to MCW standing at 5' agl

**PEBBLE BEACH
CORP**

TO

PENON PEAK

PATH DESCRIPTION

GENERAL DESCRIPTION OF TERRAIN FEATURES:

This path passes from an existing monopole at Pebble Beach Corp to an existing wood look-out tower at Penon Peak. The terrain traverses over extremely rural environment from valley lowland to mountain top site. Extremely dense fog exists near Pebble Beach Corp. **The tower height is exceeded at Pebble Beach Corp.**

DETAILED DESCRIPTION OF TERRAIN FEATURES AND CRITICAL POINTS:

PATH PEBBLE BEACH CORP TO PENON PEAK

<u>MILEAGE</u>	<u>DESCRIPTION</u>
0.00	Existing monopole at Pebble Beach Corp (Tower height exceeded).
0.00-6.82	Gently rolling to relative flat lowland valley terrain.
.124/.145	Tall Conifer trees found at these mile markers. These trees are 85' and 82' agl respectively with an additional 10' of future growth added.
6.83-8.54	Rugged undulating terrain over rural environment.
8.55-10.18	Steep ascending terrain towards mountain top peak.
10.188	Existing wood look-out tower at Penon Peak.

PEBBLE BEACH CORP			PENON PEAK
State	CA		CA
Latitude	36 34 57.80 N		36 29 22.60 N
Longitude	121 55 43.40 W		121 47 11.60 W
True azimuth (°)	129 01 13.73		309 06 18.42
Calculated Distance (mi)	10.188		
Profile Distance (mi)	10.188		
Datum	North American 1983		
UTM zone	10N		10N
Easting (km)	595.838		608.687
Northing (km)	4049.118		4038.940
Elevation (ft)	649.00		2246.00

Distance (mi)	Elevation (ft)	Ground	Structure (ft)
0.000	649.00	AG	
0.006	653.00	AG	98.0 ft Tree - 88+10FG/PINES
0.020	600.00	AG	
0.100	669.00	AG	
0.124	679.00	AG	95.0 ft Tree - 85+10FG/PINES
0.145	686.00	AG	92.0 ft Tree - 82+10FG/5'NORTH/PINES
0.160	689.00	AG	
0.256	665.00	AG	96.0 ft Tree - Off Path Structure
0.280	659.00	AG	
0.360	572.00	AG	
0.560	556.00	AG	
0.900	465.00	AG	
1.100	429.00	AG	
1.340	730.00	AG	
1.440	784.00	AG	108.0 ft Tree - 98+10FG/EUCALYPTUS
1.640	718.00	AG	
1.920	487.00	AG	
2.020	669.00	AG	88.0 ft Tree - DECIDUOUS
2.180	649.00	AG	
2.250	640.00	AG	88.0 ft Tree - DECIDUOUS
2.320	638.00	AG	
2.400	473.00	AG	
2.480	612.00	AG	75.0 ft Tree
2.580	513.00	AG	
2.800	274.00	AG	
2.920	454.00	AG	
2.980	460.00	AG	
3.080	522.00	AG	79.0 ft Tree
3.180	471.00	AG	
3.280	403.00	AG	88.0 ft Tree
3.400	243.00	AG	
3.500	455.00	AG	74.0 ft Tree
3.600	436.00	AG	
3.660	332.00	AG	
3.720	448.00	AG	70.0 ft Tree

3.820	439.00	AG	
3.960	273.00	AG	
4.040	391.00	AG	78.0 ft Tree
4.200	349.00	AG	
4.340	101.00	AG	
4.460	265.00	AG	67.0 ft Tree
4.660	86.00	AG	85.0 ft Tree
5.200	149.00	AG	
5.300	193.00	AG	0.0 ft Tree - OPEN FIELDS
5.380	94.00	AG	
6.280	92.00	AG	
6.480	521.00	AG	15.0 ft Tree
6.600	556.00	AG	
6.900	570.00	AG	
6.940	612.00	AG	
6.980	606.00	AG	
7.020	600.00	AG	55.0 ft Tree
7.240	539.00	AG	
7.320	615.00	AG	
7.460	675.00	AG	
7.600	913.00	AG	15.0 ft Tree - PINON PINES
7.820	668.00	AG	
7.940	449.00	AG	
8.060	648.00	AG	
8.140	702.00	AG	
8.320	707.00	AG	20.0 ft Tree
8.540	304.00	AG	200.0 ft Tree - REDWOODS
8.900	855.00	AG	
9.080	1038.00	AG	10.0 ft Tree - SHRUBBERY
9.240	1347.00	AG	
9.480	1576.00	AG	45.0 ft Tree - PINES
9.680	1362.00	AG	
9.800	1566.00	AG	
10.040	2006.00	AG	
10.112	2143.00	AG	10.0 ft Tree - SHRUBBERY
10.180	2239.00	AG	
10.188	2246.00	AG	

Ground Elevations - AMSL, Structure & Antenna Heights - AGL

Ground Type

PG - Poor, AG - Average, GG - Good, FW - Fresh Water, SW - Salt Water

Off Path Tree at 0.256 mi - 86+10FG/SOUTH/PINES

Distance Off Path (ft) 17.0

Ground Elevation (ft) 700.0

Structure Height (ft) 96.0

PATH PEBBLE BEACH CORP TO PENON PEAK

Path mile 0.00 (Pebble Beach Corp)



View looking to Penon Peak standing at 105' agl (Top Crow's Nest)



View looking to Penon Peak standing at 105' agl (Top Crow's Nest)

PATH PEBBLE BEACH CORP TO PENON PEAK

Path mile 10.188 (Penon Peak)



View looking to Pebble Beach Corp standing at 5' agl



View looking to Pebble Beach Corp standing at 5' agl

**PENON PEAK
TO
LAGUNA SECA**

PATH DESCRIPTION

GENERAL DESCRIPTION OF TERRAIN FEATURES:

This path passes from existing wood look-out tower to an existing self-support tower at Laguna Seca. The path traverses from valley lowland to mountain top over extremely rural environment. Near field obstacles are controlling features of this path. Dense fog exists near Laguna Seca.

DETAILED DESCRIPTION OF TERRAIN FEATURES AND CRITICAL POINTS:

PATH PENON PEAK TO LAGUNA SECA

<u>MILEAGE</u>	<u>DESCRIPTION</u>
0.00	Existing wood look-out tower at Penon Peak.
0.00-1.72	Steep descending terrain from mountain top look-out tower to lowland foothills.
1.73-4.20	Gently ascending terrain towards ridge top. No critical trees found.
4.30-5.80	Gently descending terrain.
5.81-6.63	Gradually ascending terrain towards end of path.
6.632	Existing self-support tower at Laguna Seca.

	PENON PEAK	LAGUNA SECA
State	CA	CA
Latitude	36 29 22.60 N	36 34 59.80 N
Longitude	121 47 11.60 W	121 45 34.30 W
True azimuth (°)	013 05 59.66	193 06 57.59
Calculated Distance (mi)	6.632	
Profile Distance (mi)	6.632	
Datum	North American 1983	
UTM zone	10N	10N
Easting (km)	608.687	610.974
Northing (km)	4038.940	4049.362
Elevation (ft)	2246.00	883.00

Distance (mi)	Elevation (ft)	Ground	Structure (ft)
0.000	2246.00	AG	
0.011	2240.00	AG	10.0 ft Building - SERVICE TRUCKS
0.240	1711.00	AG	
0.280	1727.00	AG	
0.440	1645.00	AG	
0.480	1686.00	AG	
0.620	1806.00	AG	5.0 ft Tree - SHRUBBERY
0.760	1723.00	AG	
0.860	1781.00	AG	10.0 ft Tree - SHRUBBERY
1.040	1448.00	AG	
1.100	1349.00	AG	
1.180	1123.00	AG	
1.300	719.00	AG	
1.460	654.00	AG	
1.720	150.00	AG	
1.860	350.00	AG	
1.980	522.00	AG	
2.200	757.00	AG	15.0 ft Tree
2.340	722.00	AG	
2.460	807.00	AG	20.0 ft Tree
2.560	665.00	AG	
2.780	930.00	AG	
2.840	972.00	AG	25.0 ft Tree - PINONS
2.940	688.00	AG	
2.980	731.00	AG	
3.180	734.00	AG	
3.220	658.00	AG	
3.380	915.00	AG	
3.400	926.00	AG	
3.440	896.00	AG	35.0 ft Tree - PINES
3.580	722.00	AG	
3.700	829.00	AG	
3.800	1026.00	AG	
3.940	1197.00	AG	
3.970	1200.00	AG	20.0 ft Tree

4.040	1200.00	AG	
4.100	1180.00	AG	
4.180	1307.00	AG	35.0 ft Tree
4.200	1290.00	AG	76.0 ft Tree - 66+10FG/LARGE PINES
4.300	1204.00	AG	
4.400	1068.00	AG	
4.520	1174.00	AG	25.0 ft Tree
4.760	1126.00	AG	26.0 ft Tree
4.920	905.00	AG	
4.980	937.00	AG	0.0 ft Tree - OPEN FIELDS
5.200	524.00	AG	
5.380	459.00	AG	
5.520	617.00	AG	18.0 ft Tree
5.700	456.00	AG	
5.740	390.00	AG	
5.800	400.00	AG	
5.980	573.00	AG	
6.120	627.00	AG	15.0 ft Tree
6.280	536.00	AG	
6.480	742.00	AG	
6.616	873.00	AG	30.0 ft Tree - 20+10FG/OAK TREES
6.632	883.00	AG	

Ground Elevations - AMSL, Structure & Antenna Heights - AGL

Ground Type

PG - Poor, AG - Average, GG - Good, FW - Fresh Water, SW - Salt Water

PATH PENON PEAK TO LAGUNA SECA

Path mile 0.00 (Penon Peak)



View looking to Laguna Seca standing at 5'agl



View looking to Laguna Seca standing at 5'agl

PATH PENON PEAK TO LAGUNA SECA

Path mile 0.00 (Penon Peak)



View looking to Laguna Seca standing at 5'agl

PATH PENON PEAK TO LAGUNA SECA

Path mile 6.632 (Laguna Seca)



View looking to Penon Peak standing 70' from tower base at 5' agl



View looking to Penon Peak standing 70' from tower base at 5' agl

**PATH
DESIGN**

ENGINEERING NOTES

Propagation

The climatic conditions observations recorded by weather stations deployed worldwide allows a general classification of propagation areas as good, average, poor and very poor, the microwave transmission engineer uses this classification in designing the microwave radio path. The paths included in this report are in a good propagation area.

Antenna centerlines

The vegetation heights, including an allowance for future growth plus any other obstruction over the topographic profile, are considered in selecting the antenna centerlines.

The minimum clearance criteria we recommend for the main path of MW links with frequencies above 2 GHz in good propagation areas is 0.6 F1 at K=1. This minimum for space diversity paths is 0.6 F1 @ K=4/3.

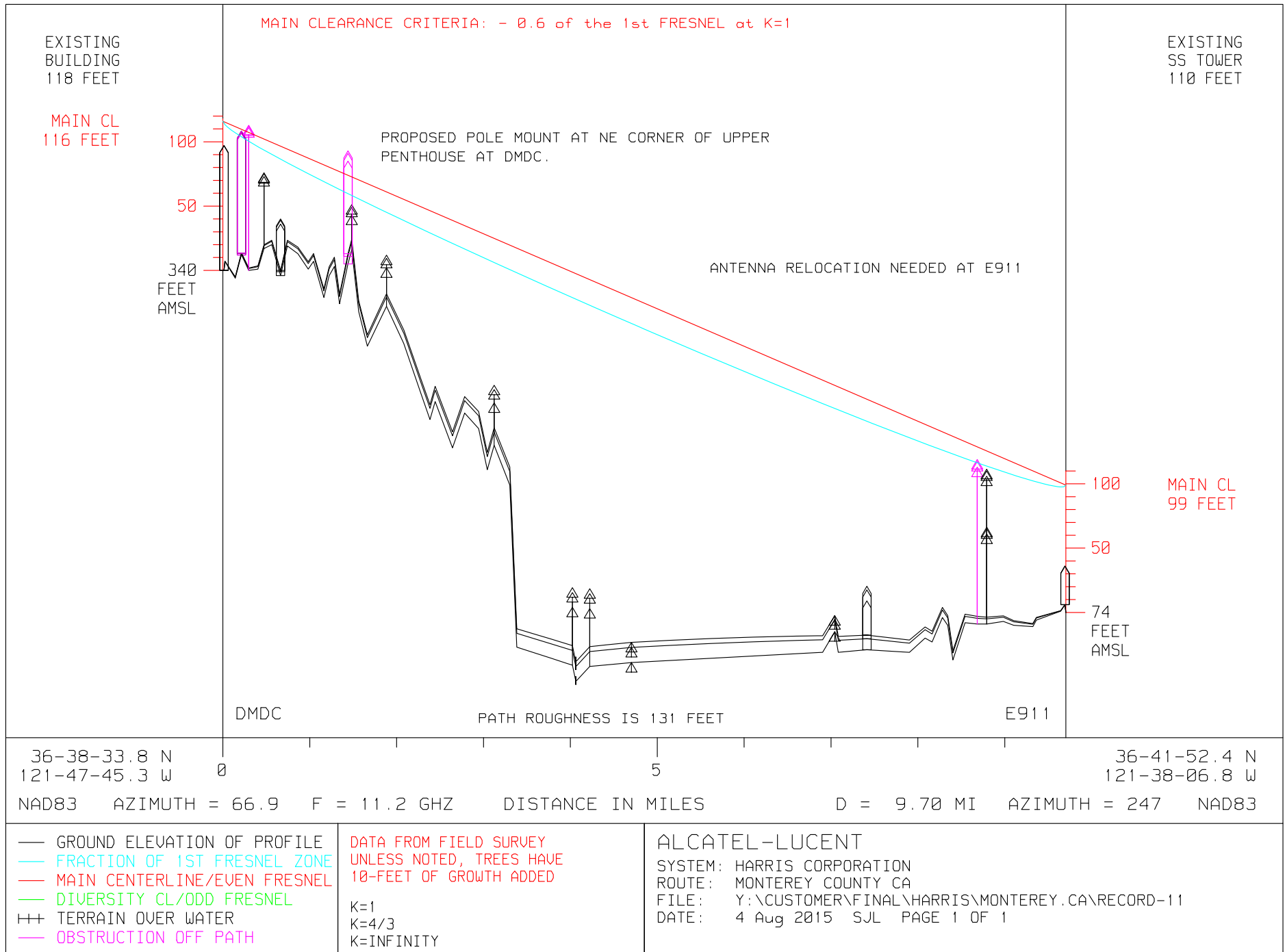
The antenna centerlines obtained under these guidelines are then optimized;

- The selected antenna centerlines are optimized to minimize the possibility of fades by selecting heights where an odd Fresnel zone meets the calculated reflection point at K=4/3.
- The recommended antenna centerlines are chosen to minimize conflicts with existing antennas, guys, stabilizers, beacons, etc. Please review the complete report before implementing this system to validate if these centerlines are feasible.
- The antenna centerlines could be reduced on longer paths based on the fact that the weather parameter extremes recorded at a particular station do not represent the average weather conditions along the entire path. This consideration leads to the calculation of a relaxed minimum value of the K factor that allows the selection of lower antenna centerlines. This condition is not applicable to the MW paths in this report.
- Rare cases require higher antenna centerlines to protect against obstruction fading. In some areas the antenna centerlines calculated using the basic clearance criteria are inadequate, especially in poor and very poor propagation areas. Higher antenna centerlines are then selected based on results of obstruction fading calculations.

Path Performance Calculations

Path performance calculations are included in this report following this page. Each of these paths has been designed for the Alcatel-Lucent MDR-8000E Series radios in hot-standby configuration. RFS antenna systems and waveguide have been employed.

The calculated path fade margin for these paths meet or exceed all prescribed and typical design parameters with the selected centerlines and radio capacities shown except for the path between Peñon Peak and Laguna Seca, the obtained fade margin is short by 0.1 dB, which, at the discretion of Harris Corporation, could be acceptable. Otherwise, an antenna size or the radio TX output power could be increased.



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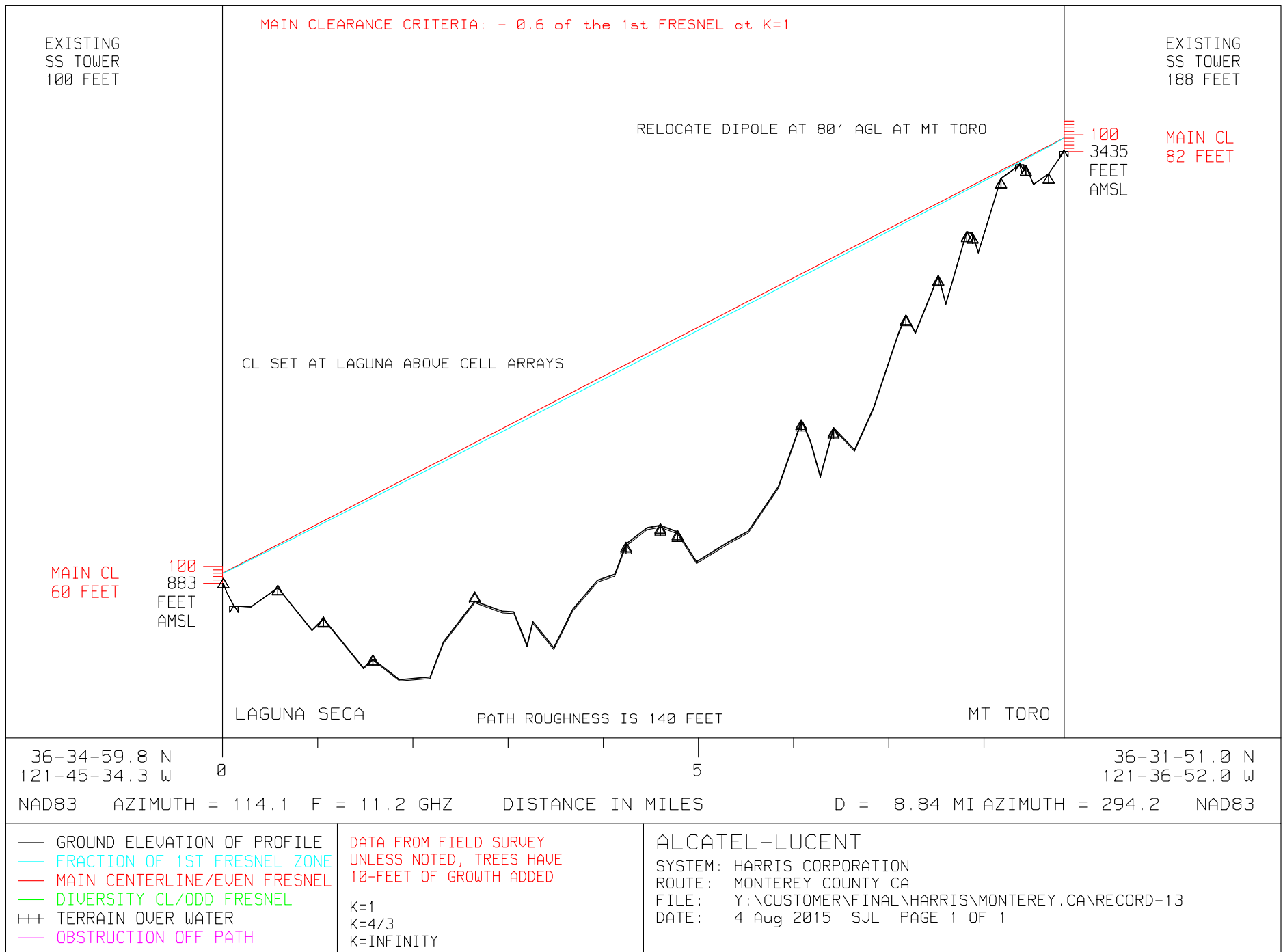
Alcatel-Lucent	Final Design	DMD	E911
SAMUEL LOZANO		NAD83 36 38 33.8 N	NAD83 36 41 52.4 N
		121 47 45.3 W	121 38 06.8 W
GROUND ELEVATION	Feet	340.0	74.0
MAIN ANTENNA TYPE		SUX3-107BFC	SU4-107BB
MAIN ANTENNA SIZE	Feet	3.0	4.0
MAIN ANTENNA GAIN	dBi	37.4	40.5
MAIN RADOME LOSS	dB	0.0 PLASTIC	0.0 PLASTIC
MAIN CENTERLINE	Feet	116.0	99.0
MAIN FEEDER LENGTH	Feet	120.0	160.0
MAIN FEED LOSS IN dB/100	Feet	2.8 E-105	2.8 E-105
MAIN FEEDER LOSS	dB	3.4	4.5
PROTECT CHANNEL LOSS	dB	10.0	10.0
OTHER FEEDER LOSSES	dB	1.5	1.5
OTHER TRANSMIT LOSSES	dB	0.0	0.0
OTHER RECEIVE LOSSES	dB	1.0	1.0
CALCULATED EIRP	dBm	59.5	61.5
MAXIMUM EIRP (PART 101)	dBm	85.0	85.0
RADIO TYPE and FCC ID		MDR-8711E-50	
FREQUENCY BAND	MHz	11200	10M0D7W
PATH LENGTH	Miles	9.7	
MEAN ANNUAL TEMPERATURE	Deg F	57.1	
ABSOLUTE HUMIDITY	g/m^3	10.0	
CLIMATE FACTOR		1.0	
ROUGHNESS FACTOR	Feet	131.0	
POLARIZATION		HORIZONTAL	
FREE SPACE LOSS	dB	137.3	
ABSORPTION LOSS	dB	.3	
DISPERSIVE FADE MARGIN	dB	62.0	
TRANSMIT POWER	dBm	27.0	HOT-STANDBY
ATPC POWER REDUCTION	dB	0.0	
MAXIMUM RECEIVED SIGNAL	dBm	-17.0	
RECEIVER THRESHOLD	dBm	-73.5	BER= 10-6
MAIN RECEIVED SIGNAL	dBm	-44.6	-44.6
THERMAL FADE MARGIN	dB	28.9	28.9
MINIMUM FADE MARGIN	dB	27.0	27.0
EXTERNAL INTERFERENCE FM	dB	N/A	N/A
FLAT FADE MARGIN	dB	28.9	28.9
SPACE DIV IMPROVE FACTOR	THERMAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	THERMAL	85.5	85.5
SPACE DIV IMPROVE FACTOR	DIGITAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	DIGITAL	0.0	0.0
TOTAL MULTIPATH 2-WAY	seconds	171.1	
UPFADE OUTAGE 2-WAY	seconds	0.0	
CRANE RAIN OUTAGE 2-WAY	seconds	.5	
PATH AVAILABILITY 2-WAY	percent	99.9994558	171.6 sec
OUTAGE OBJECTIVE YEAR	percent	99.9990000	315.4 sec

- CALCULATIONS VALID ONLY IF PATH HAS ADEQUATE CLEARANCE

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Alcatel-Lucent	Final Design	LAGUNA SECA	LOWER TORO
SAMUEL LOZANO		NAD83 36 34 59.8 N	NAD83 36 32 15.5 N
		121 45 34.3 W	121 37 36.0 W
GROUND ELEVATION	Feet	883.0	3147.0
MAIN ANTENNA TYPE		SUX3-107BFC	SUX3-107BFC
MAIN ANTENNA SIZE	Feet	3.0	3.0
MAIN ANTENNA GAIN	dBi	37.4	37.4
MAIN RADOME LOSS	dB	0.0 PLASTIC	0.0 PLASTIC
MAIN CENTERLINE	Feet	60.0	22.0
MAIN FEEDER LENGTH	Feet	100.0	42.0
MAIN FEED LOSS IN dB/100	Feet	2.8 E-105	2.8 E-105
MAIN FEEDER LOSS	dB	2.8	1.2
PROTECT CHANNEL LOSS	dB	10.0	10.0
OTHER FEEDER LOSSES	dB	1.5	1.5
OTHER TRANSMIT LOSSES	dB	0.0	0.0
OTHER RECEIVE LOSSES	dB	1.0	1.0
CALCULATED EIRP	dBm	60.1	61.7
MAXIMUM EIRP (PART 101)	dBm	85.0	85.0
RADIO TYPE and FCC ID		MDR-8711E-50	
FREQUENCY BAND	MHz	11200	10M0D7W
PATH LENGTH	Miles	8.0	
MEAN ANNUAL TEMPERATURE	Deg F	57.1	
ABSOLUTE HUMIDITY	g/m^3	10.0	
CLIMATE FACTOR		1.0	
ROUGHNESS FACTOR	Feet	140.0	
POLARIZATION		HORIZONTAL	
FREE SPACE LOSS	dB	135.7	
ABSORPTION LOSS	dB	.3	
DISPERSIVE FADE MARGIN	dB	62.0	
TRANSMIT POWER	dBm	27.0	HOT-STANDBY
ATPC POWER REDUCTION	dB	0.0	
MAXIMUM RECEIVED SIGNAL	dBm	-17.0	
RECEIVER THRESHOLD	dBm	-73.5	BER= 10-6
MAIN RECEIVED SIGNAL	dBm	-42.1	-42.1
THERMAL FADE MARGIN	dB	31.4	31.4
MINIMUM FADE MARGIN	dB	27.0	27.0
EXTERNAL INTERFERENCE FM	dB	N/A	N/A
FLAT FADE MARGIN	dB	31.4	31.4
SPACE DIV IMPROVE FACTOR	THERMAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	THERMAL	25.3	25.3
SPACE DIV IMPROVE FACTOR	DIGITAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	DIGITAL	0.0	0.0
TOTAL MULTIPATH 2-WAY	seconds	50.6	
UPFADE OUTAGE 2-WAY	seconds	0.0	
CRANE RAIN OUTAGE 2-WAY	seconds	.1	
PATH AVAILABILITY 2-WAY	percent	99.9998393	50.7 sec
OUTAGE OBJECTIVE YEAR	percent	99.9990000	315.4 sec

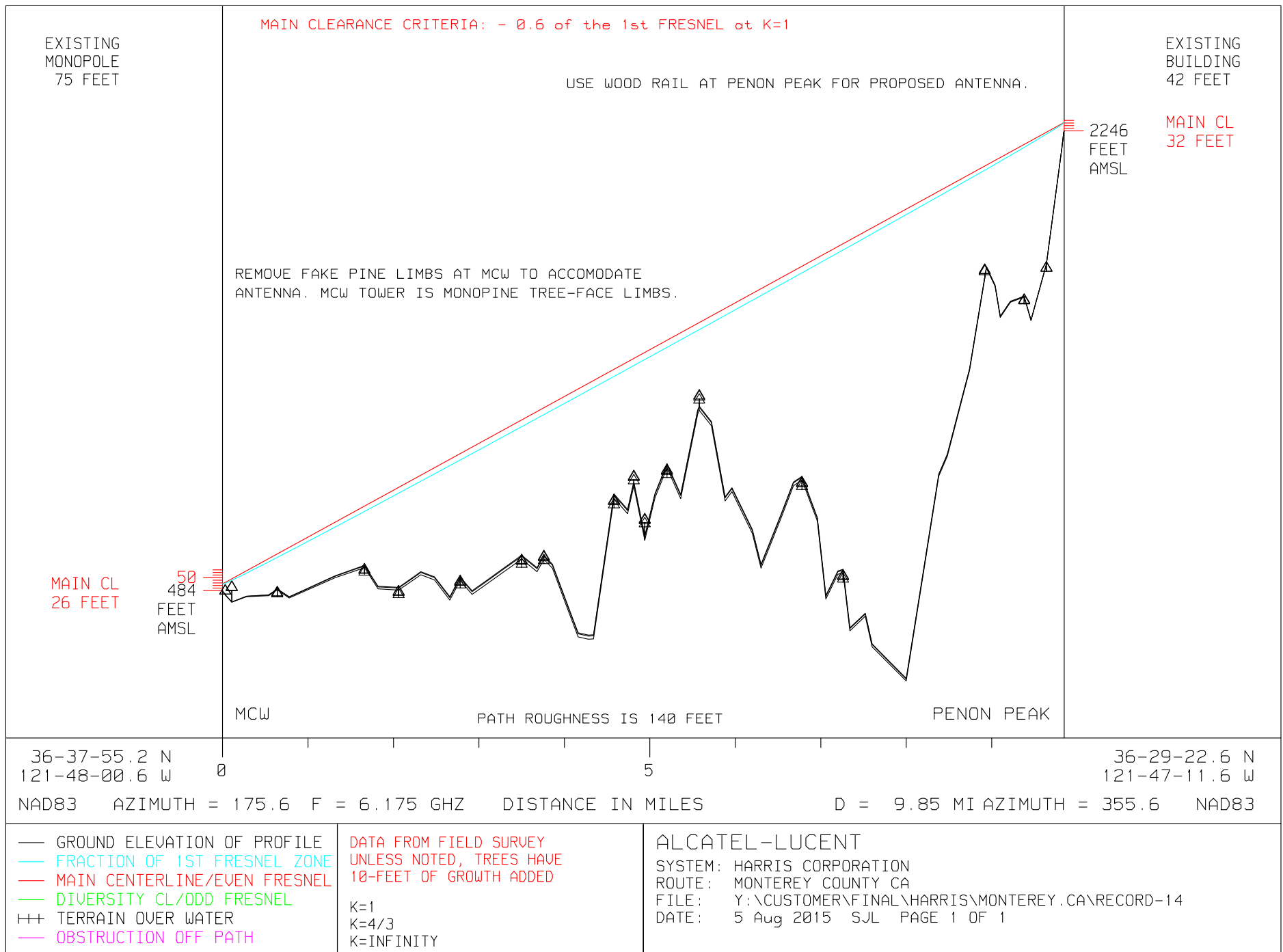
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Alcatel-Lucent	Final Design	LAGUNA SECA	MT TORO
SAMUEL LOZANO		NAD83 36 34 59.8 N	NAD83 36 31 51.0 N
		121 45 34.3 W	121 36 52.0 W
GROUND ELEVATION	Feet	883.0	3435.0
MAIN ANTENNA TYPE		SUX3-107BFC	SUX3-107BFC
MAIN ANTENNA SIZE	Feet	3.0	3.0
MAIN ANTENNA GAIN	dBi	37.4	37.4
MAIN RADOME LOSS	dB	0.0 PLASTIC	0.0 PLASTIC
MAIN CENTERLINE	Feet	60.0	82.0
MAIN FEEDER LENGTH	Feet	100.0	132.0
MAIN FEED LOSS IN dB/100	Feet	2.8 E-105	2.8 E-105
MAIN FEEDER LOSS	dB	2.8	3.7
PROTECT CHANNEL LOSS	dB	10.0	10.0
OTHER FEEDER LOSSES	dB	1.5	1.5
OTHER TRANSMIT LOSSES	dB	0.0	0.0
OTHER RECEIVE LOSSES	dB	1.0	1.0
CALCULATED EIRP	dBm	60.1	59.2
MAXIMUM EIRP (PART 101)	dBm	85.0	85.0
RADIO TYPE and FCC ID		MDR-8711E-50	
FREQUENCY BAND	MHz	11200	10M0D7W
PATH LENGTH	Miles	8.8	
MEAN ANNUAL TEMPERATURE	Deg F	57.5	
ABSOLUTE HUMIDITY	g/m^3	10.0	
CLIMATE FACTOR		1.0	
ROUGHNESS FACTOR	Feet	140.0	
POLARIZATION		HORIZONTAL	
FREE SPACE LOSS	dB	136.5	
ABSORPTION LOSS	dB	.3	
DISPERSIVE FADE MARGIN	dB	62.0	
TRANSMIT POWER	dBm	27.0	HOT-STANDBY
ATPC POWER REDUCTION	dB	0.0	
MAXIMUM RECEIVED SIGNAL	dBm	-17.0	
RECEIVER THRESHOLD	dBm	-73.5	BER= 10-6
MAIN RECEIVED SIGNAL	dBm	-45.5	-45.5
THERMAL FADE MARGIN	dB	28.0	28.0
MINIMUM FADE MARGIN	dB	27.0	27.0
EXTERNAL INTERFERENCE FM	dB	N/A	N/A
FLAT FADE MARGIN	dB	28.0	28.0
SPACE DIV IMPROVE FACTOR	THERMAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	THERMAL	73.9	73.9
SPACE DIV IMPROVE FACTOR	DIGITAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	DIGITAL	0.0	0.0
TOTAL MULTIPATH 2-WAY	seconds	147.9	
UPFADE OUTAGE 2-WAY	seconds	0.0	
CRANE RAIN OUTAGE 2-WAY	seconds	.5	
PATH AVAILABILITY 2-WAY	percent	99.9995292	148.5 sec
OUTAGE OBJECTIVE YEAR	percent	99.9990000	315.4 sec

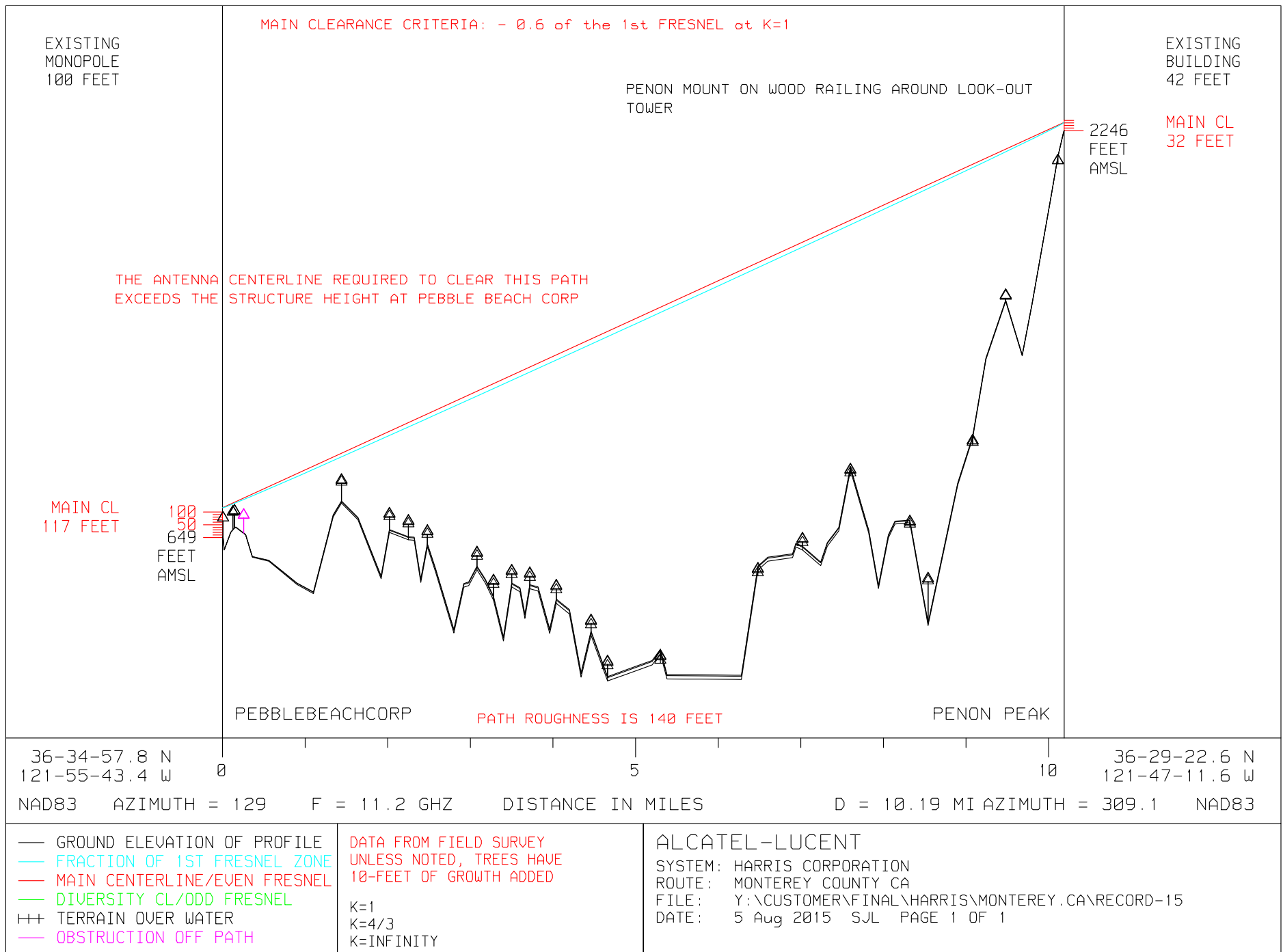
- CALCULATIONS VALID ONLY IF PATH HAS ADEQUATE CLEARANCE



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Alcatel-Lucent	Final Design	MCW	PENON PEAK
SAMUEL LOZANO		NAD83 36 37 55.2 N	NAD83 36 29 22.6 N
		121 48 00.6 W	121 47 11.6 W
GROUND ELEVATION	Feet	484.0	2246.0
MAIN ANTENNA SIZE	Feet	6.0 PAD6-W57BC	6.0 PAD6-W57BC
MAIN ANTENNA GAIN	dBi	38.7	38.7
MAIN RADOME LOSS	dB	.4 FIBERGLASS	.4 FIBERGLASS
MAIN CENTERLINE	Feet	26.0	32.0
MAIN FEEDER LENGTH	Feet	46.0	52.0
MAIN FEED LOSS IN dB/100	Feet	1.2 E-60	1.2 E-60
MAIN FEEDER LOSS	dB	.6	.6
PROTECT CHANNEL LOSS	dB	10.0	10.0
OTHER FEEDER LOSSES	dB	1.0	1.0
OTHER TRANSMIT LOSSES	dB	0.0	0.0
OTHER RECEIVE LOSSES	dB	1.0	1.0
CALCULATED EIRP	dBm	65.8	65.7
MAXIMUM EIRP (PART 101)	dBm	83.8	83.8
RADIO TYPE and FCC ID		MDR-8706E-50	
FREQUENCY BAND	MHz	6175	10M0D7W
PATH LENGTH	Miles	9.8	
MEAN ANNUAL TEMPERATURE	Deg F	57.1	
ABSOLUTE HUMIDITY	g/m^3	10.0	
CLIMATE FACTOR		1.0	
ROUGHNESS FACTOR	Feet	140.0	
POLARIZATION		HORIZONTAL	
FREE SPACE LOSS	dB	132.3	
ABSORPTION LOSS	dB	.2	
DISPERSIVE FADE MARGIN	dB	62.0	
TRANSMIT POWER	dBm	29.0	HOT-STANDBY
ATPC POWER REDUCTION	dB	0.0	
MAXIMUM RECEIVED SIGNAL	dBm	-17.0	
RECEIVER THRESHOLD	dBm	-74.5	BER= 10-6
MAIN RECEIVED SIGNAL	dBm	-30.9	-30.9
THERMAL FADE MARGIN	dB	43.6	43.6
MINIMUM FADE MARGIN	dB	27.0	27.0
EXTERNAL INTERFERENCE FM	dB	N/A	N/A
FLAT FADE MARGIN	dB	43.6	43.6
SPACE DIV IMPROVE FACTOR	THERMAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	THERMAL	1.6	1.6
SPACE DIV IMPROVE FACTOR	DIGITAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	DIGITAL	0.0	0.0
TOTAL MULTIPATH 2-WAY	seconds	3.2	
UPFADE OUTAGE 2-WAY	seconds	0.0	
CRANE RAIN OUTAGE 2-WAY	seconds	0.0	
PATH AVAILABILITY 2-WAY	percent	99.9999900	3.2 sec
OUTAGE OBJECTIVE YEAR	percent	99.9990000	315.4 sec

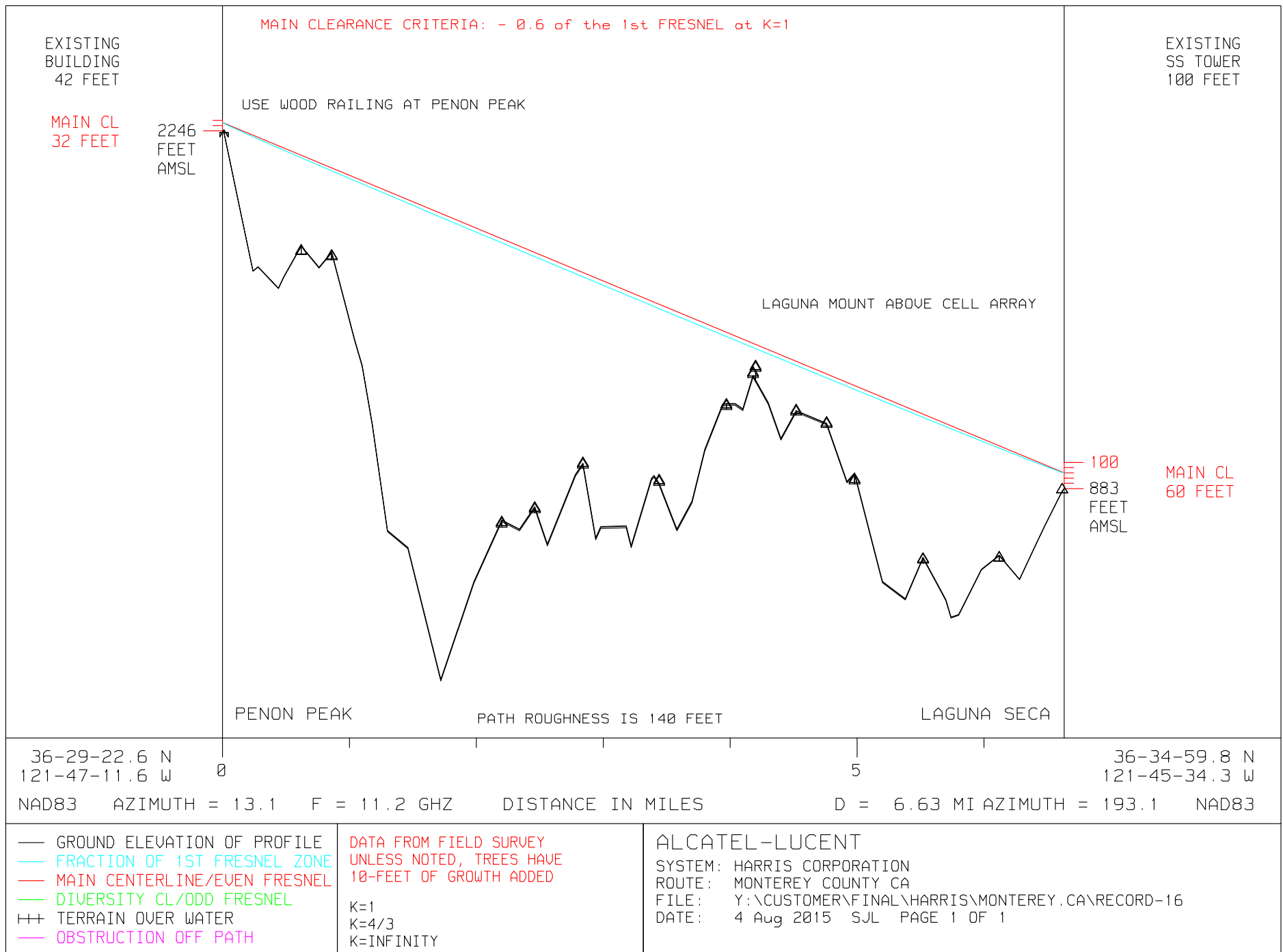
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Alcatel-Lucent	Final Design	PEBBLEBEACHCORP	PENON PEAK
SAMUEL LOZANO		NAD83 36 34 57.8 N	NAD83 36 29 22.6 N
		121 55 43.4 W	121 47 11.6 W
GROUND ELEVATION	Feet	649.0	2246.0
MAIN ANTENNA TYPE		SUX3-107BFC	SU4-107BB
MAIN ANTENNA SIZE	Feet	3.0	4.0
MAIN ANTENNA GAIN	dBi	37.4	40.5
MAIN RADOME LOSS	dB	0.0 PLASTIC	0.0 PLASTIC
MAIN CENTERLINE	Feet	117.0	32.0
MAIN FEEDER LENGTH	Feet	137.0	52.0
MAIN FEED LOSS IN dB/100	Feet	2.8 E-105	2.8 E-105
MAIN FEEDER LOSS	dB	3.8	1.5
PROTECT CHANNEL LOSS	dB	10.0	10.0
OTHER FEEDER LOSSES	dB	1.5	1.5
OTHER TRANSMIT LOSSES	dB	0.0	0.0
OTHER RECEIVE LOSSES	dB	1.0	1.0
CALCULATED EIRP	dBm	59.1	64.5
MAXIMUM EIRP (PART 101)	dBm	85.0	85.0
RADIO TYPE and FCC ID		MDR-8711E-50	
FREQUENCY BAND	MHz	11200	10M0D7W
PATH LENGTH	Miles	10.2	
MEAN ANNUAL TEMPERATURE	Deg F	57.1	
ABSOLUTE HUMIDITY	g/m^3	10.0	
CLIMATE FACTOR		1.0	
ROUGHNESS FACTOR	Feet	140.0	
POLARIZATION		HORIZONTAL	
FREE SPACE LOSS	dB	137.7	
ABSORPTION LOSS	dB	.3	
DISPERSIVE FADE MARGIN	dB	62.0	
TRANSMIT POWER	dBm	27.0	HOT-STANDBY
ATPC POWER REDUCTION	dB	0.0	
MAXIMUM RECEIVED SIGNAL	dBm	-17.0	
RECEIVER THRESHOLD	dBm	-73.5	BER= 10-6
MAIN RECEIVED SIGNAL	dBm	-42.5	-42.5
THERMAL FADE MARGIN	dB	31.0	31.0
MINIMUM FADE MARGIN	dB	30.0	30.0
EXTERNAL INTERFERENCE FM	dB	N/A	N/A
FLAT FADE MARGIN	dB	31.0	31.0
SPACE DIV IMPROVE FACTOR	THERMAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	THERMAL	55.9	55.9
SPACE DIV IMPROVE FACTOR	DIGITAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	DIGITAL	0.0	0.0
TOTAL MULTIPATH 2-WAY	seconds	111.9	
UPFADE OUTAGE 2-WAY	seconds	0.0	
CRANE RAIN OUTAGE 2-WAY	seconds	.3	
PATH AVAILABILITY 2-WAY	percent	99.9996445	112.1 sec
OUTAGE OBJECTIVE YEAR	percent	99.9990000	315.4 sec

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Alcatel-Lucent	Final Design	PENON PEAK	LAGUNA SECA
SAMUEL LOZANO		NAD83 36 29 22.6 N	NAD83 36 34 59.8 N
		121 47 11.6 W	121 45 34.3 W
GROUND ELEVATION	Feet	2246.0	883.0
MAIN ANTENNA TYPE		SU4-107BB	SUX3-107BFC
MAIN ANTENNA SIZE	Feet	4.0	3.0
MAIN ANTENNA GAIN	dBi	40.5	37.4
MAIN RADOME LOSS	dB	0.0 PLASTIC	0.0 PLASTIC
MAIN CENTERLINE	Feet	32.0	60.0
MAIN FEEDER LENGTH	Feet	52.0	100.0
MAIN FEED LOSS IN dB/100	Feet	2.8 E-105	2.8 E-105
MAIN FEEDER LOSS	dB	1.5	2.8
PROTECT CHANNEL LOSS	dB	10.0	10.0
OTHER FEEDER LOSSES	dB	1.5	1.5
OTHER TRANSMIT LOSSES	dB	0.0	0.0
OTHER RECEIVE LOSSES	dB	1.0	1.0
CALCULATED EIRP	dBm	52.5	48.1
MAXIMUM EIRP (PART 101)	dBm	85.0	85.0
RADIO TYPE and FCC ID		MDR-8711E-50	
FREQUENCY BAND	MHz	11200	10M0D7W
PATH LENGTH	Miles	6.6	
MEAN ANNUAL TEMPERATURE	Deg F	57.1	
ABSOLUTE HUMIDITY	g/m^3	10.0	
CLIMATE FACTOR		1.0	
ROUGHNESS FACTOR	Feet	140.0	
POLARIZATION		HORIZONTAL	
FREE SPACE LOSS	dB	134.0	
ABSORPTION LOSS	dB	.2	
DISPERSIVE FADE MARGIN	dB	62.0	
TRANSMIT POWER	dBm	15.0	HOT-STANDBY
ATPC POWER REDUCTION	dB	0.0	
MAXIMUM RECEIVED SIGNAL	dBm	-17.0	
RECEIVER THRESHOLD	dBm	-73.5	BER= 10-6
MAIN RECEIVED SIGNAL	dBm	-49.6	-49.6
THERMAL FADE MARGIN	dB	23.9	23.9
MINIMUM FADE MARGIN	dB	24.0	24.0
EXTERNAL INTERFERENCE FM	dB	N/A	N/A
FLAT FADE MARGIN	dB	23.9	23.9

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Alcatel-Lucent	Final Design	PENON PEAK	LAGUNA SECA
SAMUEL LOZANO		NAD83 36 29 22.6 N	NAD83 36 34 59.8 N
		121 47 11.6 W	121 45 34.3 W
SPACE DIV IMPROVE FACTOR	THERMAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	THERMAL	79.4	79.4
SPACE DIV IMPROVE FACTOR	DIGITAL	1.0	1.0
MULTIPATH OUTAGE SECONDS	DIGITAL	0.0	0.0
TOTAL MULTIPATH	2-WAY	seconds	158.9
UPFADE OUTAGE	2-WAY	seconds	0.0
CRANE RAIN OUTAGE	2-WAY	seconds	.8
PATH AVAILABILITY	2-WAY	percent	99.9994935 159.7 sec
OUTAGE OBJECTIVE	YEAR	percent	99.9990000 315.4 sec

- CALCULATIONS VALID ONLY IF PATH HAS ADEQUATE CLEARANCE
- **PATH DOES NOT MEET THE MINIMUM RECOMMENDED FADE MARGIN BY 0.1 dB**



MICROWAVE PATH ENGINEERING WARRANTY

FEASIBILITY STUDIES

Alcatel-Lucent provides feasibility studies of microwave radio paths in support of bidding efforts or when purchased by the Customer. Feasibility studies are performed using information provided by or on behalf of the Customer. Results of the feasibility study are provided to the Customer and may include (i) a system map, (ii) a path profile, (iii) path performance calculations, and (iv) a technical report.

Feasibility studies are preliminary in nature and are not intended to represent a final design. Therefore no representations, warranty or guarantee is implied or provided. Customer agrees to assume all risks associated with installing any equipment based on spiderweb maps, preliminary network and system maps, preliminary path profiles (including antenna size and location), path calculations (estimated performance), Google Earth, and topology studies normally presented with a feasibility study.

PATH SURVEYS (DETAILED SURVEY WITH REPORT)

Alcatel-Lucent offers detailed path surveying services to determine or verify site coordinates, site access, location, ground elevation, on-path obstruction location and height, tower information, proposed antenna centerline information, and other parameters required to engineer and implement a microwave radio link. The present and anticipated future effect of observable on-path obstructions, such as vegetation and buildings, are also evaluated and incorporated into the path design where applicable. Where appropriate, roof top access may be utilized in the survey effort. Existing towers are not climbed as a part of this activity.

The results of the path survey are documented and presented in a formal survey report or technical report, as required, to the Customer. Some items performed and included in a formal survey report may include: site location map, site topographic map, access information, site plot plans, existing tower elevation profile, site photographs, site and path observations, path terrain feature descriptions, critical point data, engineering notes, path profiles, and proposed performance calculations.

For detailed Path Surveys, Alcatel-Lucent warrants that geodetic coordinates are accurate to within +/- 1-second of latitude, +/- 1-second of longitude, ground elevations are accurate to within +/- 1 meter, and that heights of identified on-path obstructions at critical points are accurate to within 5-feet. Alcatel-Lucent warrants only the actual paths surveyed.

LINE OF SIGHT SURVEYS (LOS - CLEARANCE VERIFICATION)

Alcatel-Lucent offers a simplified microwave path survey service (from that described above) to determine "line of sight" (LOS) and adequate clearance conditions exist for a planned microwave link. This survey approach is best suited for urban and suburban environments. It can include driving the path as done in a traditional path survey, flashing the path, mirrors, or binoculars methodology. The line of sight survey may also ascertain site coordinates, site access and location, ground elevation, on-path obstruction location and height, tower information, proposed antenna centerline information, and other basic parameters required to evaluate and design a microwave radio link. The present and anticipated future effect of observable on-path obstructions, such as existing vegetation and existing buildings, are evaluated and incorporated into the path design where applicable and appropriate. Where appropriate,

roof top access may be utilized in the survey effort. Existing towers are not climbed as a part of this activity.

For line of sight (LOS) surveys, Alcatel-Lucent warrants that geodetic coordinates are accurate to within +/- 1-second of latitude, +/- 1-second of longitude, and ground elevations are accurate to within +/- 1 meter. Alcatel-Lucent warrants only the actual paths surveyed.

PATH DESIGN

Alcatel-Lucent offers path design services. Path design services are based on formal field survey data gathered by Alcatel-Lucent path surveyors and is warranted. Path designs include profiling a path to determine antenna centerline requirements, and path calculations to determine the antenna and radio types necessary to meet the Customer's microwave link performance and availability objectives. Recommended antenna centerlines are determined for a range of K-factors expected to occur during an average year and by the Fresnel zone clearance criteria stipulated by Bell Laboratories. For areas where poor propagation conditions are known to exist, paths are assessed for susceptibility to obstruction fading outages using the Bell Laboratories Obstruction Fading (OBSFAD) model. Additionally, paths are analyzed for ground-based reflections.

Microwave link availability (path availability) is evaluated using current North American industry accepted models for predicting outage times and diversity improvement factors associated with normal atmospheric multipath fading (flat and dispersive), rain fading, and obstruction fading. Every effort is made by Alcatel-Lucent to anticipate the probable occurrence of abnormal propagation conditions based on historical documentation, experience, geographical location, and field survey data.

The final path design documentation will include one or more of the following, depending on the services purchased by the Customer: (i) a system map, (ii) a final path profile, (iii) final path performance calculations, and (iv) a technical report.

If a radio path using Alcatel-Lucent equipment is installed based on Alcatel-Lucent's recommended path design, then Alcatel-Lucent warrants the radio path calculations shall conform to the Customer's availability objective for normal atmospheric multipath fading. Alcatel-Lucent will not be held responsible for excessive outages or degraded performance due to abnormal fading conditions. Abnormal fading conditions include, but are not limited to:

Formation of extreme radio refractivity gradients associated with:

- Exceptionally large temperature inversions
- Abnormal temperature/humidity layers
- Fog formation
- Signal trapping caused by surface or atmospheric ducting

Reflections from unusual or unidentifiable on-path or off-path terrain features, physical structures, or atmospheric layers.

Rain fading due to rainfall rates that are in excess of the published rates or charts used to predict rain induced outages.

If Alcatel-Lucent suspects that abnormal propagation conditions are the cause of degraded system performance, Alcatel-Lucent will assist the Customer in verifying the conditions leading to the degraded system performance. After the problem has been identified, Alcatel-Lucent will support the Customer in identifying possible solutions to the problem and assess the incremental improvement expected from corrective actions. Any Implementation of corrective action to remedy this type of problem shall be the sole responsibility of the Customer.

FREQUENCY PLANNING

Alcatel-Lucent offers frequency planning services including frequency selection, prior coordination process, interference case resolution, and FCC license application documentation preparation and submittal. Alcatel-Lucent warrants that the interference studies will be conducted using industry-accepted North American methods, hardware, software and algorithms; and that the frequency database will be maintained as accurately as possible at the time of the study. Alcatel-Lucent will not be held responsible for interference cases that arise due to errors or omissions in the database. Upon completion of the frequency planning services, some or all of the following documentation is provided to the Customer:

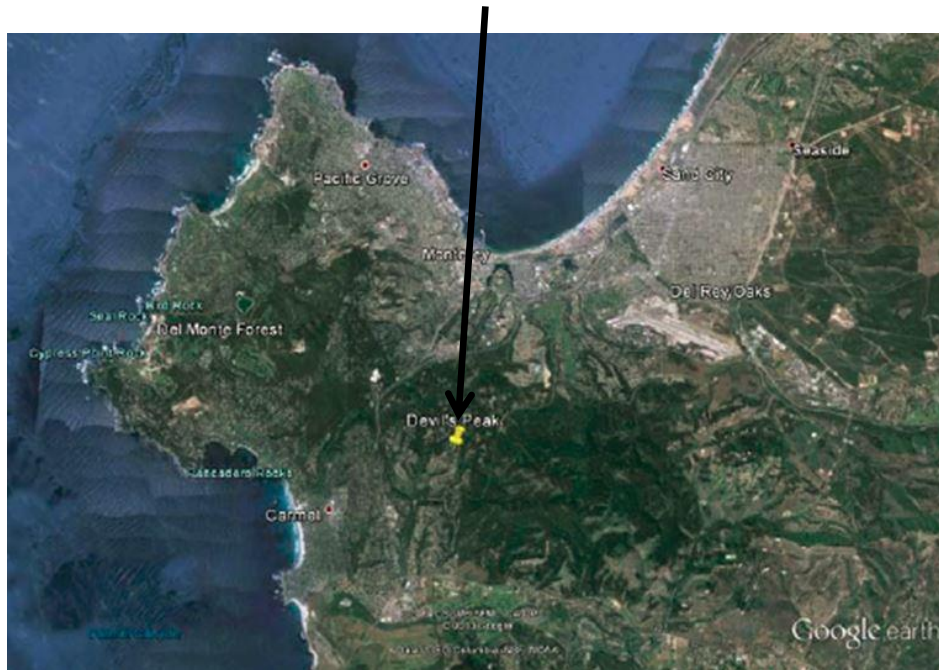
- Prior Coordination Notice
- Frequency Coordination Data Sheet
- Supplemental Showing pursuant to FCC Rules Part 101.103(d)
- Completed FCC Form 601 License Application and Preparation

In the event harmful frequency interference is detected during the implementation of a microwave line in which Alcatel-Lucent provided the frequency planning services, Alcatel-Lucent's total liability is limited to selection of an alternate frequency or frequencies. Should harmful interference occur after the microwave link is deemed operational and accepted, corrective action is the sole responsibility of the Customer.

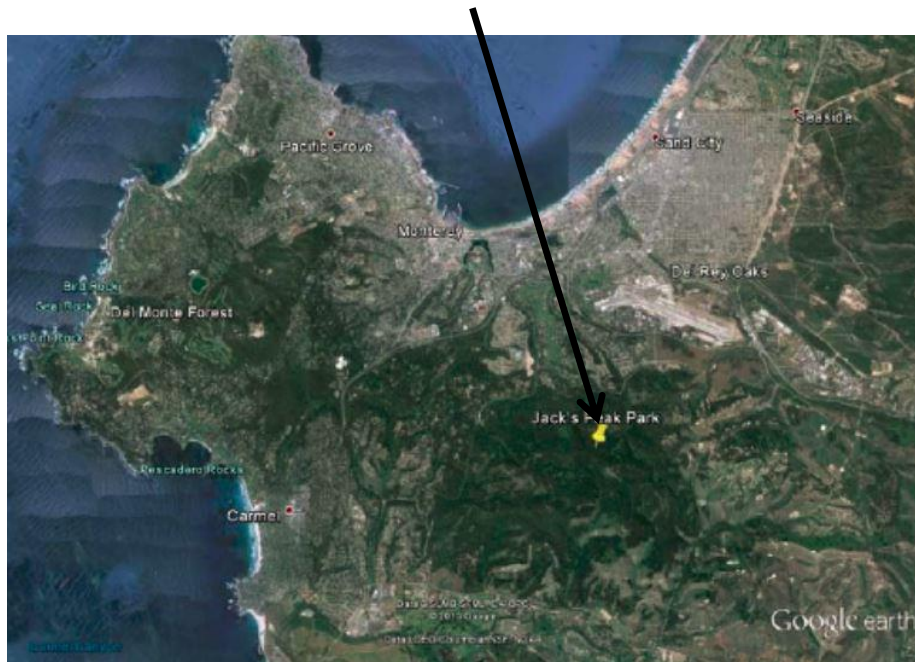
WARRANTY

Alcatel-Lucent warrants its path surveys and path designs to be substantially free of engineering defects and errors for a period of 12 months from the date of delivery of the study to the Customer. Alcatel-Lucent warrants its line of sight surveys to be substantially free of engineering defects and errors for a period of 6 months from the date of delivery of the study to the Customer. Alcatel-Lucent warrants its frequency planning and Form 601 License Application preparation to be substantially free of engineering defects and errors for a period of 6 months from the date the path was prior coordinated. Except as further limited above, in the event of a proven breach of warranty, the Customer's sole remedy under this warranty shall be that Alcatel-Lucent will provide the incremental labor and material beyond what would have been required during initial installation to correct for the particular error in the path survey or path design. In no case shall Alcatel-Lucent be held liable for any indirect damages including but not limited to incidental, consequential or loss of capital, data, revenue or profit. In the event that such error is not solely and directly related to Alcatel-Lucent's path engineering efforts, expenses for such labor and material shall be borne by the Customer.

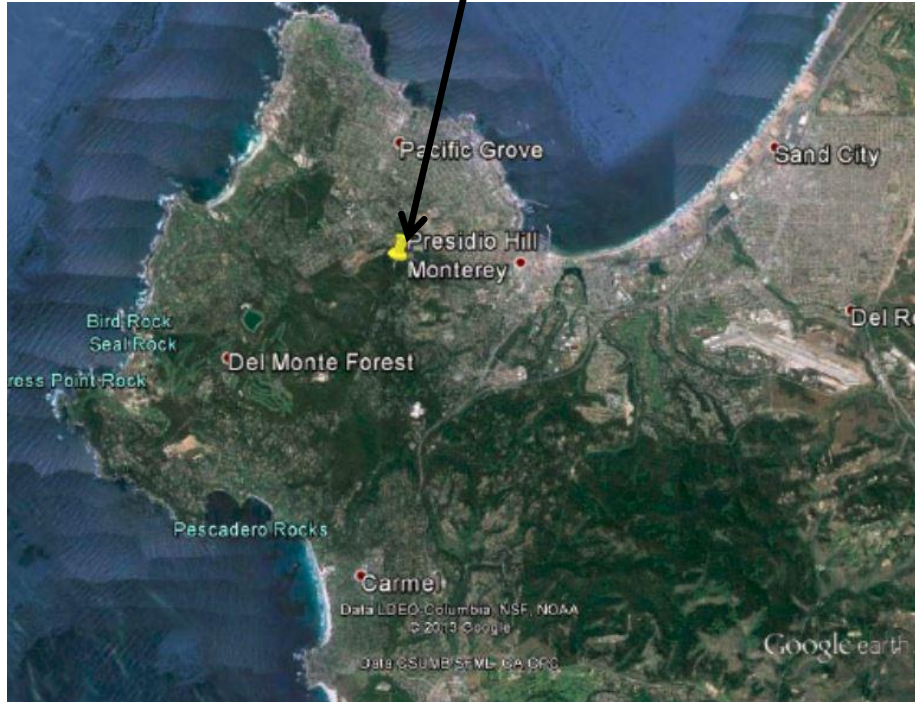
Devils Peak



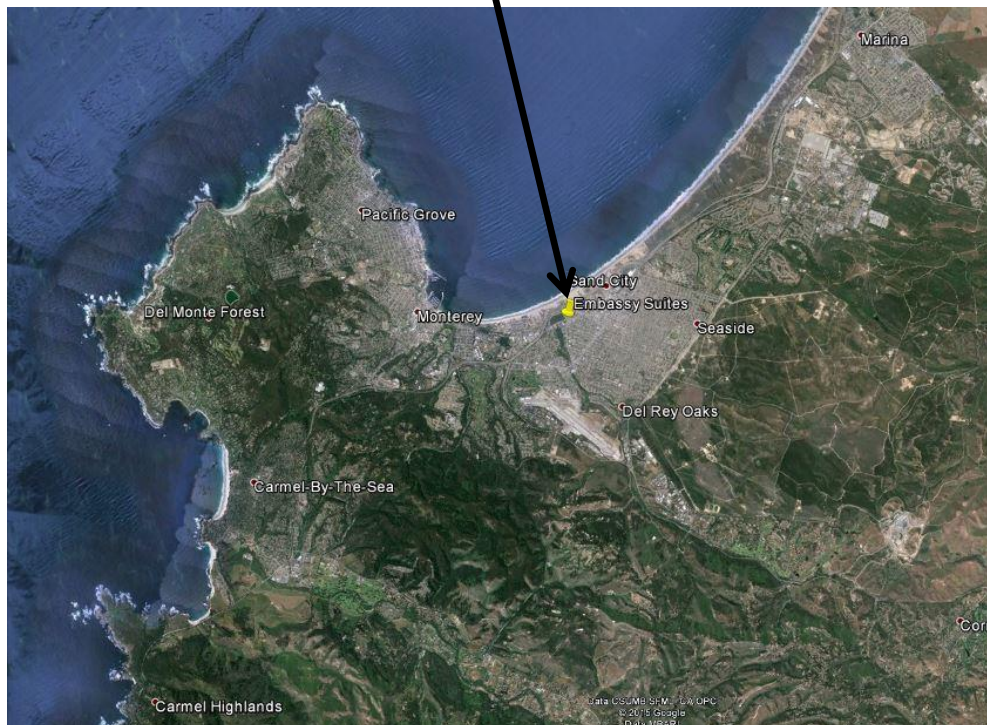
Jacks Peak



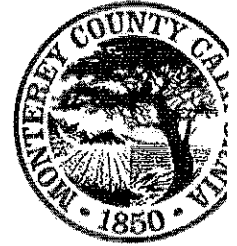
Presidio Hill



Embassy Suites



MONTEREY COUNTY



Information Technology

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October 23, 2015

Memorandum for: Rick Medina
Resource Management Services | Planning Division
440 Harcourt Ave
Seaside, CA 93955

Subject: Radio Frequency Emissions Analysis for Microwave System at "Marina Coast Water" (4601 Parker Flats Cutoff location)

Monterey County, along with its prime contractor Harris Corporation is deploying a "Next Generation" radio system throughout Monterey County to provide enhanced Public Safety communications for law enforcement, fire, EMS and other public safety agencies serving the county, cities and special service districts therein. The Marina Coast Water site is a critical node in the radio system architecture covering the Seaside and surrounding area, acting as both a radio transmission and microwave relay point. Monterey County will be installing a two microwave dishes and two Very High Frequency (VHF) radio transmitters between 47 and 66 feet elevation on the mono-pine communications tower. The VHF system will also include the installation of a receive only (no RF energy transmitted) antenna mounted at 80' elevation which is not included in this RF analysis.

The FCC has worked with a number of environmental and industry experts to establish its radio frequency exposure requirements. The FCC has codified the requirements regarding the preparation of environmental assessments in CFR Title 47, Chapter I, Subchapter A, Part 1, Subpart I, §1.1307 "Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared." Many types of communication facilities are exempt, by category, from the requirement to prepare routine environmental evaluations (§1.1307(b) (1)). The FCC publishes a guideline document OET Bulletin 65 (Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields) ("OET-65"), which is intended to facilitate the determination whether a proposed communications facility is in compliance with radio frequency exposure limits. Under OET-65, certain radio systems and microwave networks operating under Parts 22 and 101 of FCC rules are exempt by category from routine environmental evaluation and analysis. The FCC's practice in this

regard recognizes that systems such as public safety radio systems transmit at power density levels significantly below the maximum permissible exposure limit for their frequencies of operation based on the heights at which antennas are typically mounted and the intermittent transmissions through the antennas.

Monterey County proposes the installation of two microwave systems and a VHF simulcast system on the mono-pine antenna structure. The microwave systems will provide connectivity to the county-wide NGEN radio system via radio relay for the VHF radio system. One of the microwaves will be transmitting at 239.89 Watts Effective Isotropic Radiated Power (EIRP) at 23 GHz, using a directional parabolic antenna mounted at 65.94' antenna center line (ACL), oriented towards 17.455°. The second microwave will be transmitting 1,584.9 Watts EIRP at 11 GHz, also using a directional parabolic antenna mounted at 65.94' ACL and oriented towards 175.603°. The VHF simulcast system consists of two multi-channel transmit antennas mounted at 47.65' ACL and a single receive antenna mounted at 89.5' ACL. The VHF transmitters have an EIRP of 95.5 Watts (per channel) using omni-directional antennas in the 150 MHz range which will extend to 58.1' elevation. The receive antenna, which will extend to 99.9' elevation, does not transmit RF energy and is not included in the site MPE calculation.

Monterey County performed a compliance review of the radio system equipment proposed for the MCW site with the FCC radio frequency exposure requirements. The review indicates that the cumulative MPE for the Monterey County NGEN radio equipment (two microwave systems and the two VHF transmitters) is less than 25%. The cumulative site MPE, based on the additive effect of Monterey County's (< 25%), Sprint's (< 13%), and Marina Coast Water District's (<1%) MPE values, is less than 39% of the FCC guidelines. Therefore, given the heights proposed for mounting the radio antennas and microwave dishes, the intermittent operation of radio system equipment and the review results set forth above, the radio system equipment proposed for the MCW site satisfies the FCC requirements for radio frequency exposure.



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Radio Manager
Monterey County, Information Technology

