



# Board of Adjustment Staff Report

Meeting Date: June, 06, 2019

Agenda Item: 8K

SPECIAL USE PERMIT CASE NUMBER: WSUP19-0003 (Vya Monopole)

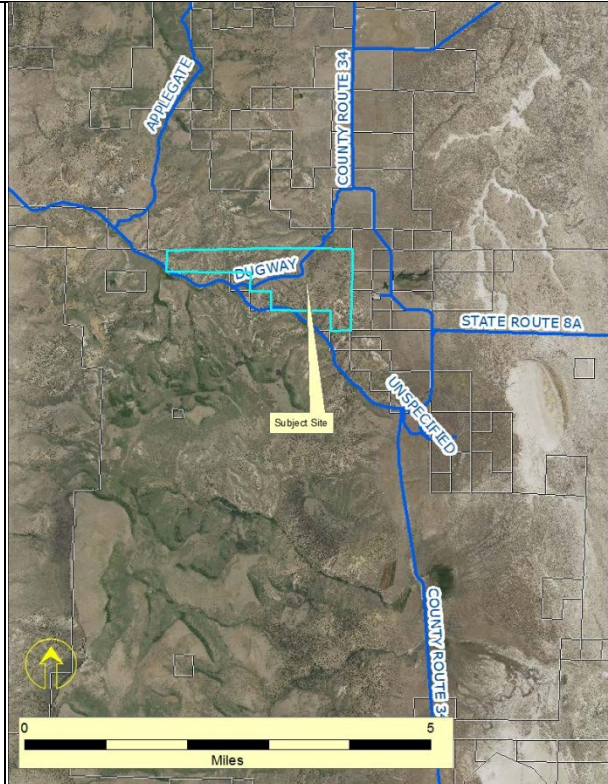
**BRIEF SUMMARY OF REQUEST:** To approve a special use permit for the construction of a new wireless cellular facility consisting of a 150 foot monopole tower.

**STAFF PLANNER:** Jacob Parker  
775.328.3628  
[jparker@washoecounty.us](mailto:jparker@washoecounty.us)

### CASE DESCRIPTION

For possible action, hearing, and discussion to approve a special use permit for the installation and operation of a 150-foot tall monopole telecommunication facility with all necessary appurtenances/supporting equipment and facilities and to vary development code requirements for landscaping for a commercial use by waiving them for this project.

Applicant:	Commnet of Nevada LLC
Property Owner:	United States of America
Location:	Immediately north of State Route 8A, ±2 miles west of Fortynine Lake
APN:	061-010-49
Parcel Size:	773.89 acres
Master Plan:	Rural (R)
Regulatory Zone:	General Rural (GR)
Area Plan:	High Desert
Citizen Advisory Board:	Gerlach/Empire
Development Code:	Authorized in Article 324, Communication Facilities and Article 810 Special Use Permits
Commission District:	5 – Commissioner Herman



### STAFF RECOMMENDATION

APPROVE

**APPROVE WITH CONDITIONS**

DENY

### POSSIBLE MOTION

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP19-0003 for Commnet of Nevada LLC, having made all five findings in accordance with Washoe County Code Section 110.810.30.

*(Motion with Findings on Page 12)*

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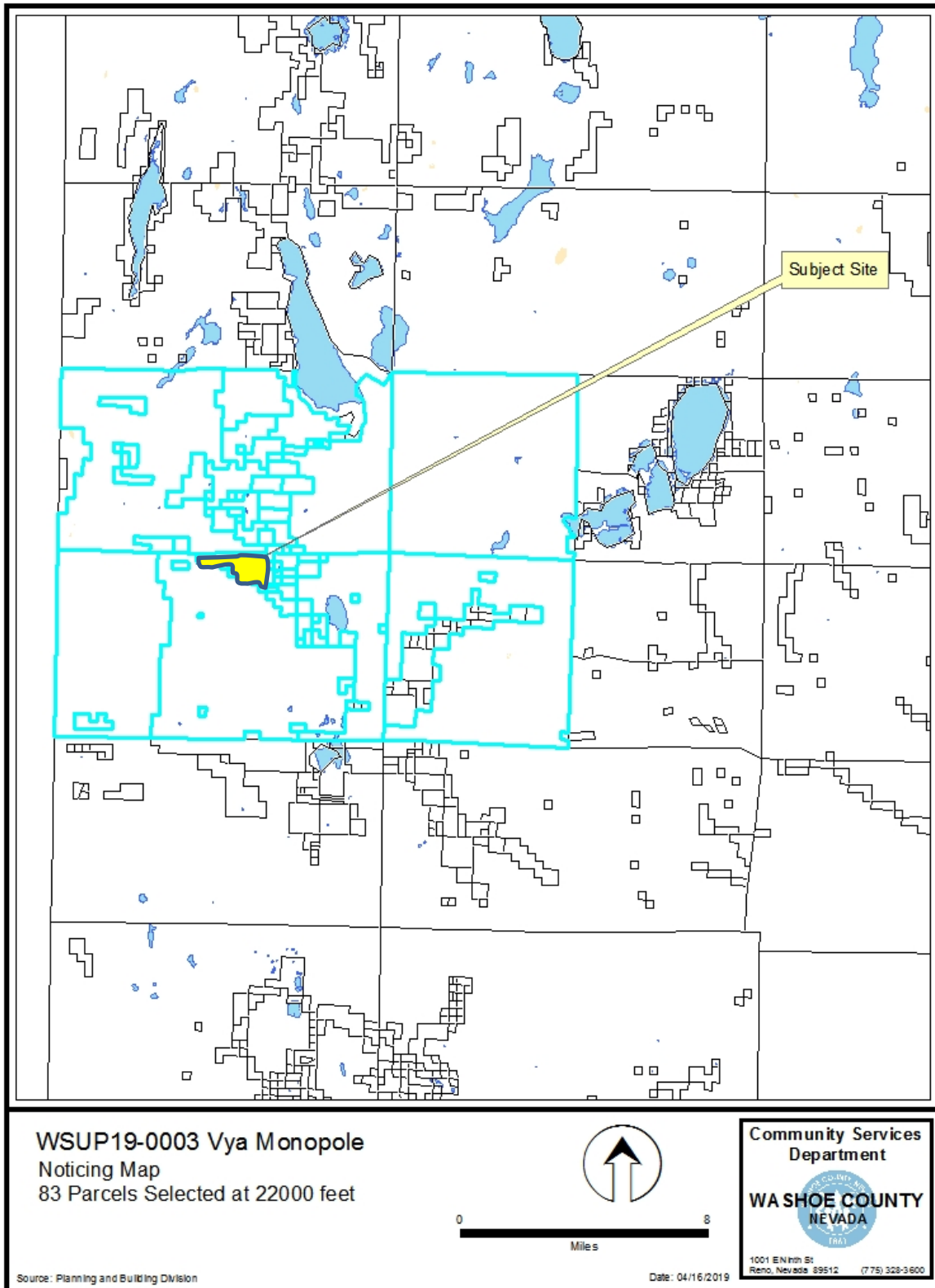
**Special Use Permit**

The purpose of a Special Use Permit is to allow a method of review to identify any potential harmful impacts on adjacent properties or surrounding areas for uses that may be appropriate within a regulatory zone; and to provide for a procedure whereby such uses might be permitted by further restricting or conditioning them so as to mitigate or eliminate possible adverse impacts. If the Board of Adjustment grants an approval of the Special Use Permit, that approval is subject to Conditions of Approval. Conditions of Approval are requirements that need to be completed during different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e. a grading permit, a building permit, etc.)
- Prior to obtaining a final inspection and/or a certificate of occupancy on a structure
- Prior to the issuance of a business license or other permits/licenses
- Some Conditions of Approval are referred to as “Operational Conditions.” These conditions must be continually complied with for the life of the business or project.

The Conditions of Approval for Special Use Permit Case Number WSUP19-0003 are attached to this staff report and will be included with the Action Order.

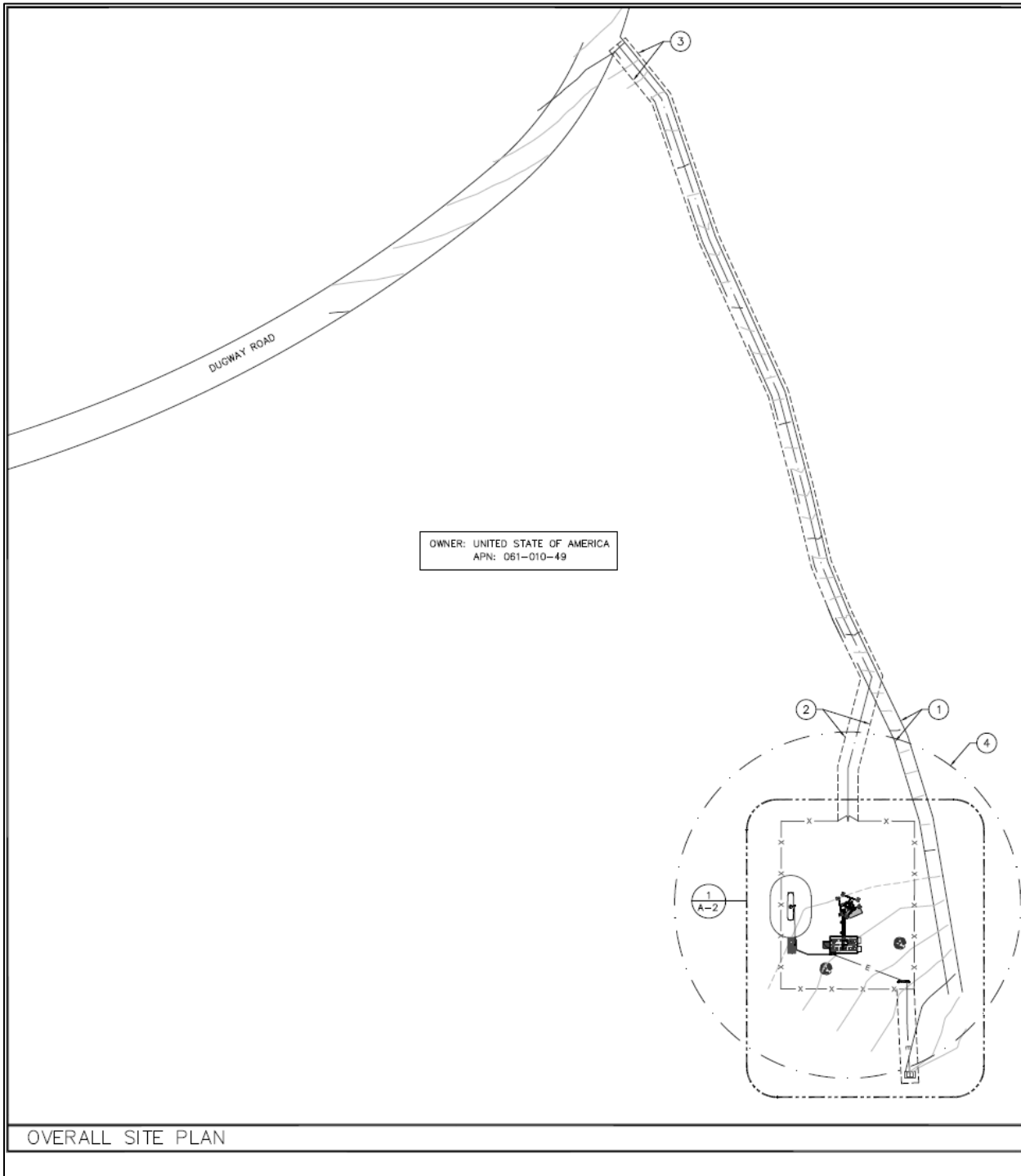
The subject property is designated as General Rural (GR). The proposed use of a 150 foot tall monopole which is classified as a Wireless Communication Facility per Article 324 of the Washoe County Development Code is permitted in GR with a Special Use Permit (SUP) per WCC Section 110.324.50(e)(2). Therefore, the applicant is seeking approval of this SUP from the Board of Adjustment.



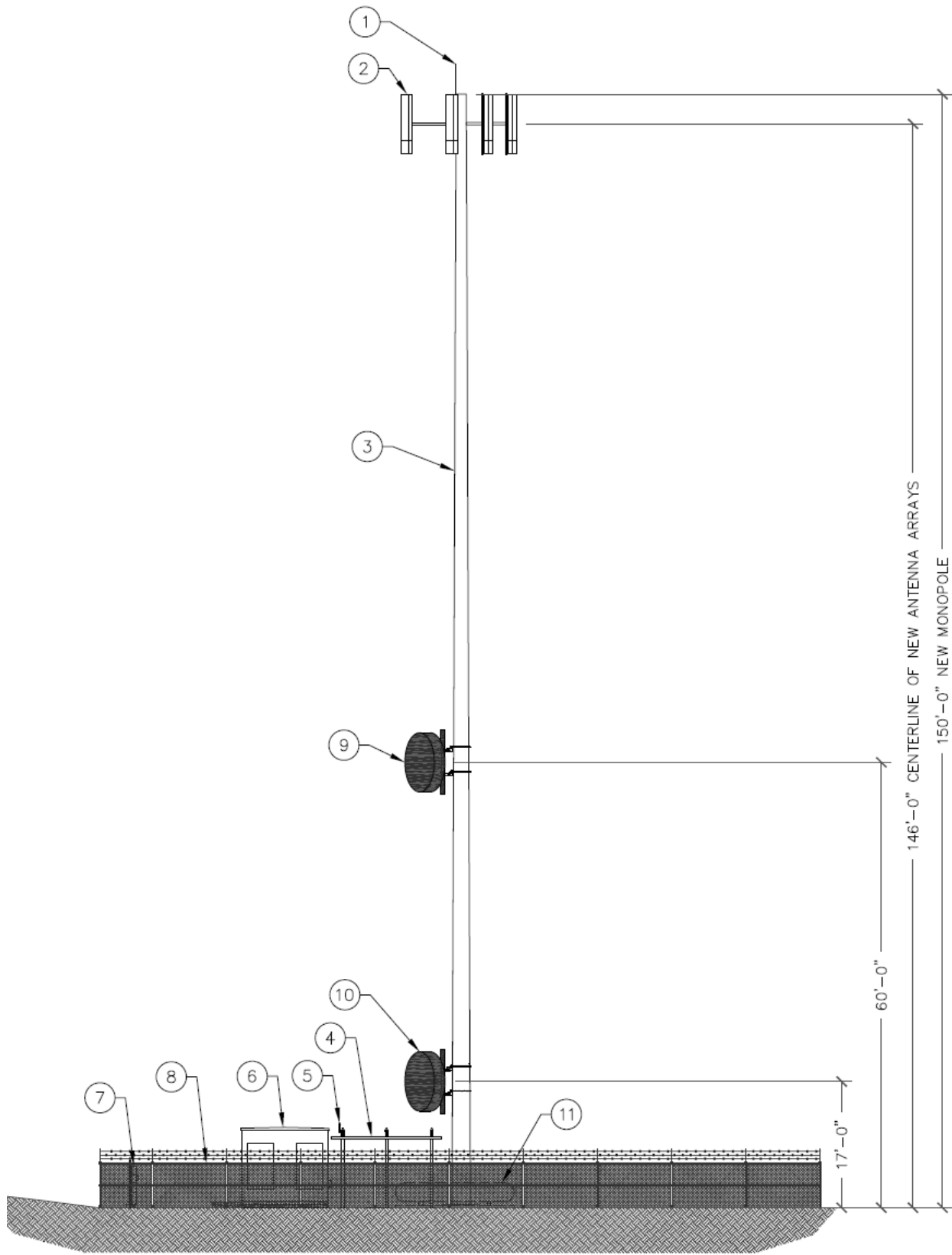
**Noticing Map**



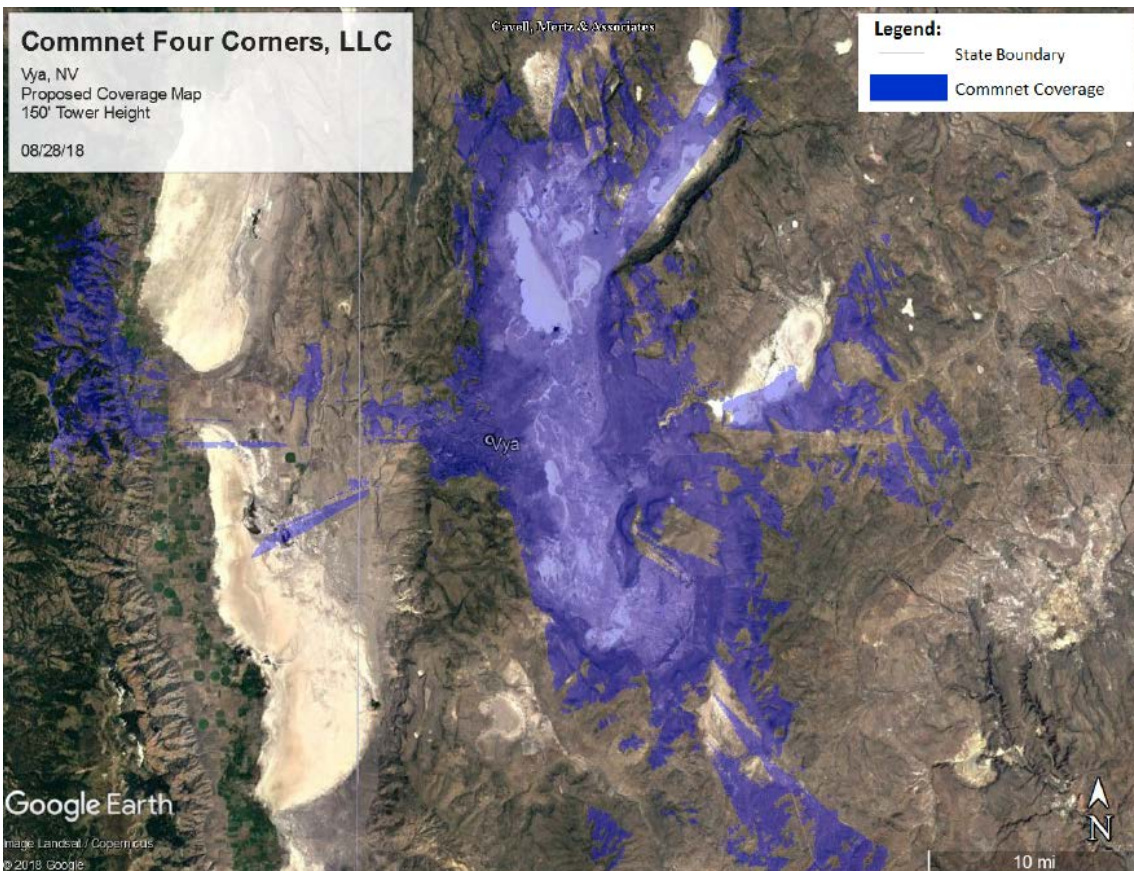
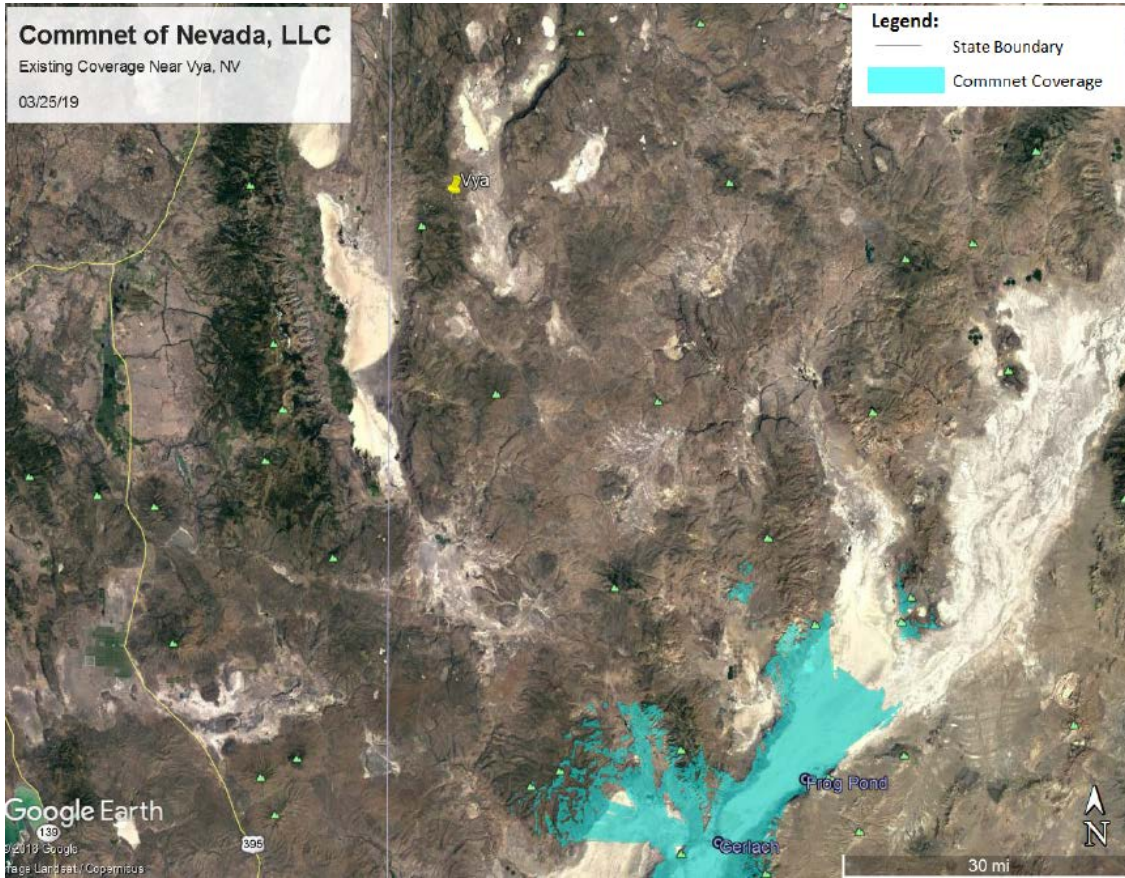








**Proposed Elevations**



**Coverage Map**



## **Project Evaluation**

Commnet of Nevada has requested this special use permit in order to place an unmanned wireless telecommunications monopole with all necessary appurtenances upon the subject property. The project site is located  $\pm 70$  miles northwest of Gerlach at 8900A Dugway Road, within the High Desert planning area. The 150-foot tall monopole will be equipped with 6 antennas and will be able to accommodate future collocations. Proposed are two (2) sectors, each accommodating two (2) antennas; six (6) remote radio heads (RRU), two (2) microwave dishes, a 10' x 16' pre-fabricated equipment shelter on a 10' x 16' concrete pad, and a 45kw stand-by backup diesel generator; and all necessary ancillary equipment thereto.

The applicant worked with the Bureau of Land Management (BLM) and explored the possibility of locating at three alternate sites as well as collocating existing sites. All alternate sites proved not to be viable.

The project area will encompass roughly 7,469 square feet with the monopole and all equipment placed within the enclosed/fenced project area. The enclosure will be screened with a chain link 6-foot fence with a 1-foot barbed wire topper. The project site is  $\pm 2,000$  feet from the State Route 8A,  $\pm 450$  feet from the nearest road and more than a mile from the nearest residence. The applicant states there are minimal effects to aesthetics for the area. The pole will be constructed of a non-reflective galvanized steel pole. The applicant is requesting to vary development code requirements to waive all landscaping requirements per Article 412 requires landscaping for commercial uses. Due to the remoteness of the project, water supply being difficult to attain and limited development in the area, the requirement for safety and aesthetic design are not reasonable.

The monopole overall height is proposed to be  $\pm 150.0$  feet tall to top of pole. Section 110.324.40 through 110.324.75 of the Washoe County Code (Table 110.324.50.1) allows heights of over 100 feet when the monopole is located over 2,000 feet from a residentially zoned property or public paved right of way.

## **Gerlach/Empire Citizen Advisory Board (GECAB)**

The proposed project was presented at the regularly scheduled Citizen Advisory Board meeting on May 09, 2019. The comment below reflects discussion on this item:

- The project received supporting comments.
- Commenters called for an increase to the proposed coverage

## **Reviewing Agencies**

The following agencies received a copy of the project application for review and evaluation.

- Washoe County Community Services Department
  - Planning and Building Division
  - Engineering and Capital Projects Division
  - Operations
- Washoe County Health District
  - Air Quality
  - Environmental Health Services Division
  - Emergency Medical Services
- Washoe County Regional Animal Services
- Washoe County Sheriff
- Truckee Meadows Fire Protection District
- Regional Transportation Commission
- Nevada Department of Wildlife

- Nevada Department of Environmental Protection
- Nevada Historic Preservation
- U.S. Fish and Wildlife

Five out of the ten above listed agencies/departments provided comments and/or recommended conditions of approval in response to their evaluation of the project application. A **summary** of each agency's comments and/or recommended conditions of approval and their contact information is provided. The Conditions of Approval document is attached to this staff report and will be included with the Action Order.

- Washoe County Planning and Building Division imposed operational conditions that will be in effect for the life of the project.  
**Contact: Jacob Parker, 775.328.3628, [jparker@washoecounty.us](mailto:jparker@washoecounty.us)**
- Washoe County Engineering and Capital Projects addressed the general requirements of building on the site and observing the easements on the parcel when placing the dwelling.  
**Contact: Leo Vesely, 775.328.2313, [ivesely@washoecounty.us](mailto:ivesely@washoecounty.us)**
- Washoe County Planning and Building Division: Parks and Open Space addressed revegetation of the developed site.  
**Contact: Sophia Kirschenman, 775.328.3623, [skirschenman@washoecounty.us](mailto:skirschenman@washoecounty.us)**
- Nevada Department of Wildlife expressed concerns about Sage Grouse in the area and avenues to address those concerns.  
**Contact: Mark Freese, 775.688.1145, [markfreese@ndow.org](mailto:markfreese@ndow.org)**
- United States Bureau of Land Management stated the agency would be coordinating with NDOW on monitoring plans for local wildlife, specifically Sage Grouse.  
**Contact: Craig Drake, 530.233.7904, [cdrake@blm.gov](mailto:cdrake@blm.gov)**

### **Staff Comment on Required Findings**

WCC Section 110.810.30, Article 810, *Special Use Permits*, requires that all of the following findings be made to the satisfaction of the Washoe County Board of Adjustment before granting approval of the request. Staff has completed an analysis of the special use permit application and has determined that the proposal is in compliance with the required findings as follows.

1. Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the High Desert Area Plan.  
*Staff Comment:* Staff has reviewed the Master Plan and the Forest Area Plan and has not identified any provisions that are offended by the project.
2. Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven.  
*Staff Comment:* *The proposed project is in compliance with Division Seven.*
3. Site Suitability. That the site is physically suitable for a telecommunications facility (monopole), and for the intensity of such a development.  
*Staff Comment:* *The site is suitable for a telecommunications facility.*
4. Issuance Not Detrimental. That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area.



Staff Comment: Based on the requirements of the FCC, the “Electromagnetic Frequency (RF) exposure level due to the proposed site is well below the maximum allowable by FCC Regulations. The site fully complies with FCC rules and regulations.

- 5. Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

Staff Comment: There is no military installation nearby.

**Recommendation**

Those agencies which reviewed the application recommended conditions in support of approval of the project. Therefore, after a thorough analysis and review, Special Use Permit Case Number WSUP19-0003 is being recommended for approval with conditions. Staff offers the following motion for the Board’s consideration.

**Motion**

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP19-0003 for Commnet of Nevada LLC, having made all five findings in accordance with Washoe County Code Section 110.810.30:

- 1. Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the High Desert Area Plan;
- 2. Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven;
- 3. Site Suitability. That the site is physically suitable for a telecommunications facility (monopole), and for the intensity of such a development;
- 4. Issuance Not Detrimental. That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area;
- 5. Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

**Appeal Process**

Board of Adjustment action will be effective 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant, unless the action is appealed to the Washoe County Board of County Commissioners, in which case the outcome of the appeal shall be determined by the Washoe County Board of County Commissioners. Any appeal must be filed in writing with the Planning and Building Division within 10 calendar days from the date the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant.

Applicant: Commnet of Nevada LLC  
1562 North Park St.  
Castle Rock, CO 80109

Owner: United States of America – BLM  
2550 Riverside Dr.  
Susanville, CA 96130



# Conditions of Approval

Special Use Permit Case Number WSUP19-0003

The project approved under Special Use Permit Case Number WSUP19-0003 shall be carried out in accordance with the Conditions of Approval granted by the Board of Adjustment on June, 06 2019. Conditions of Approval are requirements placed on a permit or development by each reviewing agency. These Conditions of Approval may require submittal of documents, applications, fees, inspections, amendments to plans, and more. These conditions do not relieve the applicant of the obligation to obtain any other approvals and licenses from relevant authorities required under any other act.

**Unless otherwise specified**, all conditions related to the approval of this Special Use Permit shall be met or financial assurance must be provided to satisfy the conditions of approval prior to issuance of a grading or building permit. The agency responsible for determining compliance with a specific condition shall determine whether the condition must be fully completed or whether the applicant shall be offered the option of providing financial assurance. All agreements, easements, or other documentation required by these conditions shall have a copy filed with the County Engineer and the Planning and Building Division.

Compliance with the conditions of approval related to this Special Use Permit is the responsibility of the applicant, his/her successor in interest, and all owners, assignees, and occupants of the property and their successors in interest. Failure to comply with any of the conditions imposed in the approval of the Special Use Permit may result in the institution of revocation procedures.

Washoe County reserves the right to review and revise the conditions of approval related to this Special Use Permit should it be determined that a subsequent license or permit issued by Washoe County violates the intent of this approval.

For the purpose of conditions imposed by Washoe County, "may" is permissive and "shall" or "must" is mandatory.

Conditions of Approval are usually complied with at different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e., grading permits, building permits, etc.).
- Prior to obtaining a final inspection and/or a certificate of occupancy.
- Prior to the issuance of a business license or other permits/licenses.
- Some "Conditions of Approval" are referred to as "Operational Conditions." These conditions must be continually complied with for the life of the project or business.

**The Washoe County Commission oversees many of the reviewing agencies/departments with the exception of the following agencies.**

- **The DISTRICT BOARD OF HEALTH, through the Washoe County Health District, has jurisdiction over all public health matters in the Health District. Any conditions set by the Health District must be appealed to the District Board of Health.**

- **The RENO-TAHOE AIRPORT AUTHORITY is directed and governed by its own Board. Therefore, any conditions set by the Reno-Tahoe Airport Authority must be appealed to their Board of Trustees.**
- **The REGIONAL TRANSPORTATION COMMISSION (RTC) is directed and governed by its own board. Therefore, any conditions set by the Regional Transportation Commission must be appealed to that Board.**

FOLLOWING ARE CONDITIONS OF APPROVAL REQUIRED BY THE REVIEWING AGENCIES. EACH CONDITION MUST BE MET TO THE SATISFACTION OF THE ISSUING AGENCY.

**Washoe County Planning and Building Division**

1. The following conditions are requirements of Planning and Building, which shall be responsible for determining compliance with these conditions.

**Contact Name – Jacob Parker (775) Phone Number, [jparker@washoecounty.us](mailto:jparker@washoecounty.us)**

- a. The applicant shall attach a copy of the Action Order approving this project to all administrative permit applications (including building permits) applied for as part of this special use permit.
- b. The applicant shall demonstrate substantial conformance to the plans approved as part of this special use permit. The Planning and Building Division shall determine compliance with this condition.
- c. The applicant shall demonstrate conformance to State of Nevada Executive Order 2018-32, Order Establishing Use of the Nevada Greater Sage-Grouse Conservation Plan and Credit System. The Planning and Building Division shall determine compliance with this condition.
- d. The applicant shall submit complete construction plans and building permits shall be issued within two years from the date of approval by Washoe County. The applicant shall complete construction within the time specified by the building permits. Compliance with this condition shall be determined by the Planning and Building Division.
- e. All existing trees and landscaping removed as part of the construction of this facility shall be replaced at the rate of two trees for each tree removed and two bushes for each bush removed.
- f. The monopole tower shall not exceed 150 feet in maximum height, as approved under this special use permit WSPU19-0003.
- g. A note shall be placed on all construction drawings and grading plans stating:

NOTE

Should any prehistoric or historic remains/artifacts be discovered during site development, work shall temporarily be halted at the specific site and the State Historic Preservation Office of the Department of Museums, Library and Arts shall be notified to record and photograph the site. The period of temporary delay shall be limited to a maximum of two (2) working days from the date of notification.

- h. Prior to the issuance of a building permit, the applicant shall provide a certification by a professional that the facility complies with Federal Communications Commission (FCC) regulations for Radio Frequency Emissions (RFE).
- i. Prior to the issuance of a building permit the applicant shall record a statement of assurance that the wireless communications facility shall be removed if the use of the facility is discontinued for a period of twelve (12) consecutive months.
- j. All new fencing installed as part of this project shall include slats and provide at least 75% visual screening. Slats shall be of a color to match the surrounding buildings. Fencing materials shall be non-reflective.
- k. The following **Operational Conditions** shall be required for the life of the unmanned wireless telecommunications monopole.
  - i. This special use permit shall remain in effect until or unless it is revoked or is inactive for one year.
  - ii. Failure to comply with the Conditions of Approval shall render this approval null and void. Compliance with this condition shall be determined by the Planning and Building Division.
  - iii. The applicant and any successors shall direct any potential purchaser/operator of the site and/or the special use permit to meet with the Planning and Building Division staff to review Conditions of Approval prior to the final sale of the site and/or the special use permit. Any subsequent purchaser/operator of the site and/or the special use permit shall notify the Planning and Building Division of the name, address, telephone number, and contact person of the new purchaser/operator within 30 days of the final sale.

**Washoe County Engineering and Capital Projects**

- 2. The following conditions are requirements of the Engineering Division, which shall be responsible for determining compliance with these conditions.

**Contact Name – Leo Vesely and (775) 328-2041, lvesely@washoecounty.us**

- a. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed onto adjacent property.
- b. The applicant shall provide documentation of easements for the lease area, access and utilities. A copy of the easements shall be submitted to the Engineering Division prior to the approval of a building permit.
- c. All existing and proposed easements shall be shown on the site and/or grading plan.

\*\*\* End of Conditions \*\*\*



# WASHOE COUNTY

## COMMUNITY SERVICES DEPARTMENT

### Engineering and Capital Projects

1001 EAST 9<sup>TH</sup> STREET  
RENO, NEVADA 89512  
PHONE (775) 328-3600  
FAX (775) 328.3699

Date: May 3, 2019

To: Jacob Parker, Planner

From: Leo Vesely, P.E., Licensed Engineer

Re: Special Use Permit Case **WSUP19-0003 – Vya Monopole**  
APN 061-010-49

### GENERAL PROJECT DISCUSSION

Washoe County Engineering staff has reviewed the above referenced application. The Special Use Permit is for the construction of a 150 foot high monopole on the site. The Engineering and Capital Projects Division recommends approval with the following comments and conditions of approval which supplement applicable County Code and are based upon our review of the site and the application prepared by the Rubicon Design Group. The County Engineer shall determine compliance with the following conditions of approval.

For questions related to sections below, please see the contact name provided.

### GENERAL CONDITIONS

Contact Information: Leo Vesely, P.E. (775) 328-2041

1. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMP's) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed onto adjacent property.
2. The applicant shall provide documentation of easements for the lease area, access and utilities. A copy of the easements shall be submitted to the Engineering Division prior to the approval of a building permit.
3. All existing and proposed easements shall be shown on the site and/or grading plan.



INTEGRITY



EFFECTIVE  
COMMUNICATION



QUALITY  
PUBLIC SERVICE

Subject: **WSUP19-0003 – Vya Monopole**  
Date: May 3, 2019  
Page: 2

**DRAINAGE (COUNTY CODE 110.416, 110.420, and 110.421)**

Contact Information: Walt West, P.E. (775) 328-2310

1. No comments.

**TRAFFIC AND ROADWAY (COUNTY CODE 110.436)**

Contact Information: Mitch Fink, (775) 328-2050

1. No comments.

**UTILITIES (County Code 422 & Sewer Ordinance)**

Contact Information: Tim Simpson, P.E. (775) 954-4648

1. No comments

**Truckee Meadows Fire Protection District (TMFPD)**

1. The following conditions are requirements of the Truckee Meadows Fire Protection District, which shall be responsible for determining compliance with these conditions. Unless otherwise stated, these conditions shall be met prior to the issuance of any building or grading permit or on an ongoing basis as determined by TMFPD.

**Contact Name – Don Coon, 775.326.6077, [Dcoon@tmfpd.us](mailto:Dcoon@tmfpd.us)**

- a. Fire protection of the new structures shall be as required by the current adopted International Fire Code, (*IFC*) International Wildland Urban Interface Code (*IWUIC*) 2012 *Ed*, with amendments and the requirements of the NFPA standard(s). (<https://codes.iccsafe.org/content/IWUIC2012> <https://codes.iccsafe.org/content/IFC2012>)
- b. Provide a Vegetation selection, installation, management and Defensible Space Plan as required for the project in accordance with the requirements of the *IWUIC*.
- c. The length of the road appears to be in excess of 200 feet and would require a 20' width as a Fire Apparatus Access Road, with no greater than 10% grade. *IWUIC* 403.3. and 403.7
- d. Provide a 20' gate opening with a TMFPF approved access gate locking device per *IFC* D103.5



**From:** [Katie Andrie](#)  
**To:** [Mark Freese](#); [Drake, Craig](#); [Parker, Jacob](#)  
**Cc:** [Timothy Bowden](#); [Jasmine Kleiber](#); [Lloyd, Trevor](#); [Ryan, Daniel](#)  
**Subject:** RE: [EXTERNAL] RE: April Agency Review Memo II - Vya Monopole  
**Date:** Friday, May 17, 2019 12:04:18 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)

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Thanks Mark,

The SETT has also develop Regulations to provide additional implementation guidance to the Executive Order that has been approved and will be filed with the Secretary of State in the next few weeks. I will forward the final regulations when they are available.

Thanks and have a great weekend!

Katie

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**From:** Mark Freese <markfreese@ndow.org>  
**Sent:** Friday, May 17, 2019 8:24 AM  
**To:** Drake, Craig <cdrake@blm.gov>; Parker, Jacob <JParker@washoecounty.us>  
**Cc:** Timothy Bowden <tbowden@blm.gov>; Katie Andrie <kandrie@sagebrushhco.nv.gov>; Jasmine Kleiber <jkleiber@ndow.org>; Lloyd, Trevor <TLloyd@washoecounty.us>; Ryan, Daniel <dryan@blm.gov>  
**Subject:** RE: [EXTERNAL] RE: April Agency Review Memo II - Vya Monopole

Thanks Craig and Jacob for your explanations.

Please find attached Executive Order 2018-32, requiring the proponent to work with the Sagebrush Ecosystem Program.

Thank you,  
Mark

**From:** Drake, Craig <cdrake@blm.gov>  
**Sent:** Wednesday, May 15, 2019 8:53 AM  
**To:** Parker, Jacob <JParker@washoecounty.us>  
**Cc:** Mark Freese <markfreese@ndow.org>; Timothy Bowden <tbowden@blm.gov>; Katie Andrie <kandrie@sagebrushhco.nv.gov>; Jasmine Kleiber <jkleiber@ndow.org>; Lloyd, Trevor <TLloyd@washoecounty.us>; Ryan, Daniel <dryan@blm.gov>  
**Subject:** Re: [EXTERNAL] RE: April Agency Review Memo II - Vya Monopole

All,

Some of the other sites considered would have been far more detrimental to Sage Grouse. The BLM will be working with the SETT on this project as we consider their right of way package. We have not yet received a completed application package from the company, but we have had a pre-application meeting with them and anticipate receiving the completed package soon.

Craig R. Drake  
Field Manager  
Applegate Field Office  
530-233-7904

On Wed, May 15, 2019 at 8:43 AM Parker, Jacob <[JParker@washoecounty.us](mailto:JParker@washoecounty.us)> wrote:

Thank you for your comments Mr. Freese.

I'll try to address everything you brought up. Forgive my stout language in below, the vernacular we use on these cases can sound sharp.

The applicant has attempted to locate on several alternate sites in coordination with BLM. This is the site that all parties determined filled the criteria. To be frank, unless an agency can provide grounds for denial, this case and special use permit is for the site as described.

Reading through your response, the only requirements I see you mention is that the applicant work with the SAGEBRUSH ECOSYSTEM PROGRAM through the state of Nevada, specifically Ms. Andrie. Am I on the mark there?

**Now is this a legal requirement?** In order to include this as a condition in the special use permit, I would need to reference what specific legal statute/code/etc. compels the applicant to comply.

Thanks,



**Jacob Parker**

**Planner | Planning and Building Division | Community Services Department**

[jparker@washoecounty.us](mailto:jparker@washoecounty.us) | Office: 775.328.3628 | Fax: 775.328.6133

1001 East Ninth Street, Reno, NV 89512



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**From:** Mark Freese [mailto:[markfreese@ndow.org](mailto:markfreese@ndow.org)]

**Sent:** Tuesday, May 07, 2019 10:11 AM

**To:** Parker, Jacob

**Cc:** Timothy Bowden; Drake, Craig; Katie Andrie; Jasmine Kleiber

**Subject:** RE: April Agency Review Memo II - Vya Monopole

**[NOTICE:** This message originated outside of Washoe County -- **DO NOT CLICK** on links or

**WSUP19-0003**  
**EXHIBIT B**

open attachments unless you are sure the content is safe.]

Mr. Parker,

The Vya monopole site is Greater Sage-grouse, bighorn sheep, mule deer and other wildlife habitat. Our knowledge of Greater sage-grouse use in this area is limited. We know the private meadows on the north side of Forty-nine Mountain are utilized by hundreds of sage-grouse during the brood-rearing season; however, the nearest known leks are greater than 10 miles away. As such, we believe we are missing lek(s) in this general area. Knowing that this area holds a high density of sage-grouse at least seasonally, we recommend exploring opportunities to site this project in another area of lesser value to sage-grouse as sage-grouse tend to avoid tall, vertical structures. We are available to help assist in the siting process to ensure it is sited to minimize impacts to sage-grouse and other wildlife. If you cannot relocate the project, we recommend monitoring, eliminating and reducing opportunities to attract and provide nesting, cover or perches for predators. Furthermore, The Sagebrush Ecosystem Technical Team (SETT) will require the project to be analyzed and mitigated using the Credit Conservation System. The SETT can also help run siting scenarios to minimize the threat and any subsequent mitigation. Please contact Katie Anderle at [kandrl@SagebrushEco.nv.gov](mailto:kandrl@SagebrushEco.nv.gov) -775 684-8600 for more information.

Thank you,

**Mark Freese, Habitat Biologist**  
Nevada Department of Wildlife  
1100 Valley Road  
Reno, Nevada 89512  
(775) 688-1145  
[markfreese@ndow.org](mailto:markfreese@ndow.org)

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**From:** Stark, Katherine <[KRStark@washoecounty.us](mailto:KRStark@washoecounty.us)>  
**Sent:** Thursday, April 18, 2019 3:45 PM  
**To:** Mark Freese <[markfreese@ndow.org](mailto:markfreese@ndow.org)>  
**Cc:** Stark, Katherine <[KRStark@washoecounty.us](mailto:KRStark@washoecounty.us)>; Emerson, Kathy <[KEmerson@washoecounty.us](mailto:KEmerson@washoecounty.us)>  
**Subject:** April Agency Review Memo II

Good afternoon,

Please find the attached Agency Review Memo with cases received in April by Washoe County Community Services Department, Planning and Building.

You've been asked to review the applications for **Items 1, 2 & 6**. The item descriptions and links to the applications are provided in the memo.

Please remember to send any agency review responses/comments directly to the Planner for the case, rather than replying to me.

Thank you!



**Katy Stark**

**Office Support Specialist, Planning and Building Division | Community Services  
Department**

[krstark@washoecounty.us](mailto:krstark@washoecounty.us) | Office: 775.328.3618 | Fax: 775.328.6133

1001 East Ninth Street, Bldg. A, Reno, NV 89512





## MEMORANDUM

WASHOE COUNTY REGIONAL PARKS AND OPEN SPACE  
PLANNING DIVISION



---

**TO:** Jacob Parker, Planner

**FROM:** Sophia Kirschenman, Park Planner

**DATE:** May 8, 2019

**SUBJECT:** Special Use Permit Case Number WSUP19-0003 (Vya Monopole)

---

Washoe County Regional Parks and Open Space has reviewed and prepared the following comments related to Special Use Permit Case Number WSUP19-0003:

The proposed monopole would be located in the area of Vya, Nevada and new development must conform to the policies included in the High Desert Area Plan. Due to the rural location of the proposed development, no parks or recreational amenities are proposed nearby. Staff notes that the applicant is requesting a variance to waive the traditional landscaping requirement due to the remote location of the subject parcel and lack of visibility to the general public. While those are important considerations, Washoe County Parks and Open Space would like to reiterate that landscaping requirements also serve to reduce heat, erosion, dust, and pollutants by increasing vegetation and to ensure that disturbed areas do not become populated with noxious weeds and invasive species. While irrigated landscaping may not be feasible in this location, **Washoe County Parks and Open Space recommends that the applicant still be required to revegetate at least 20% of the total developed land area, utilizing hydroseeding or another strategy that does not require temporary irrigation.** Hydroseed applications should occur in November or December and if the appropriate vegetative coverage requirements are not realized, further hydroseeding should be required.

**From:** [Anthony Stobiecki](#)  
**To:** [Parker, Jacob](#)  
**Cc:** [Diane](#); [Vya ConservationDistrict](#); [Herman, Jeanne](#)  
**Subject:** Vya/Fox Monop[ole]  
**Date:** Tuesday, April 30, 2019 8:40:06 AM

---

[**NOTICE:** This message originated outside of Washoe County -- **DO NOT CLICK** on **links** or open **attachments** unless you are sure the content is safe.]

Hello Mr. Parker,

This effort is great news! I/we have been working with the BLM, Washoe and Modoc County (emergency services) and Dan Ryan in particular to get a 21st Century communication service solution here in Long Valley (Vya) for several years. We had also offered space for such a tower on our personal property as we have SVE power here that we trenched in.

In addition to being a ranch owner with cattle, I am the Vya Conservation District Board President, and my wife Diane represents Ms. Jeanne Herman on the board. The VCD covers the areas down to Gerlach as part of the Conservation District, so this is very good news. If there is anything we can do to help the cause, please let us know.

We will be having a board meeting in May and will pass on this news and contact info to our supporters and landowners here in NV as well as folks that have property here but live in another state.

I have viewed the coverage area on the application. Is there a better resolution map of the coverage areas for both Fox Mtn. and Vya?

Best regards,

Tony

**Tony & Diane Stobiecki**

**Rockin' TD Ranch**

102645 State Rt. 34,  
Vya, NV 89412-6155  
775-557-4001

Mailing:

POB 280 Cedarville,  
CA 96104-0280

(m): 775-686-8518

(Diane m): 775-686-8102

[www.RockinTDRanch.com](http://www.RockinTDRanch.com)

# OFFICIAL NOTICE OF PUBLIC HEARING

DATE: May 24, 2019

You are hereby notified that the **Washoe County Board of Adjustment** will conduct a public hearing at the following time and location:

**1:30 p.m., Thursday, June 6, 2019**

**County Commission Chambers, 1001 East Ninth Street, Reno, NV 89512**

**Special Use Permit Case Number WSUP19-0003 (Vya Monopole)** – For possible action, hearing, and discussion to approve a special use permit for the installation and operation of a 150-foot tall monopole telecommunication facility with all necessary appurtenances/supporting equipment and facilities and to vary development code requirements for landscaping for a commercial use by waiving them for this project.

- Applicant: Commnet of Nevada LLC
- Property Owner: United States of America
- Location: Immediately north of State Route 8A, ±2 miles west of Fortynine Lake
- APN: 061-010-49
- Parcel Size: 773.89
- Master Plan: Rural (R)
- Regulatory Zone: General Rural (GR)
- Area Plan: High Desert
- Citizen Advisory Board: Gerlach/Empire
- Development Code: Authorized in Article 324, Communication Facilities and Article 810, Special Use Permits
- Commission District: 5 – Commissioner Herman
- Staff: Jacob Parker, Planner  
Washoe County Community Services Department  
Planning and Building Division
- Phone: 775-328-3628
- E-mail: jparker@washoecounty.us

As an owner of property in the vicinity, you are invited to present testimony relative to these matters.

To access additional information about this item, please visit our website at [www.washoecounty.us/csd/planning\\_and\\_development/](http://www.washoecounty.us/csd/planning_and_development/), choose **Boards and Commissions**, then **Board of Adjustment, Meetings, +2019**. Then click on the above referenced meeting date.





Original  
WSUP 19-0003

April 10, 2019

Washoe County  
Planning and Development Division  
1001 E. Ninth Street  
Reno, NV 89512  
Attn: Jacob Parker

**RE: Application for Special Use Permit and Director's Modification – Vya, NV 89000A Dugway Road, Gerlach, NV 89413**

Please find attached a Special Use Permit and Director's Modification submittal applications for a new Commnet Wireless telecommunications facility located at the above referenced location. The submittal contains the following documents.

**This application is for the April 15, 2109 submittal.**

1. Filing Fee Check
2. Development Application
3. Owner's Affidavit
4. Project Support Statement
5. Director's Modification Application and Memorandum
5. Site Plans
6. Photosimulations
7. Coverage Maps
8. Radio Frequency Statement
9. Treasurer Statement
10. Site Photos
11. Flash Drive containing Application materials

If you have any questions or need additional materials, I can be reached at (314) 640-5182.

Sincerely,

A handwritten signature in blue ink, appearing to read "Julie Krekeler", is written over a circular blue stamp. The stamp is partially obscured by the signature and the text below it.

Julie Krekeler  
General Manager

Attachments



April 10, 2019

Washoe County  
Planning and Development Division  
1001 E. Ninth Street  
Reno, NV 89512  
Attn: Jacob Parker

**RE: Application for Special Use Permit and Director's Modification – Vya, NV 89000A Dugway Road, Gerlach, NV 89413**

On behalf of Commnet of Nevada, LLC (dba Commnet Wireless), I am submitting a Special Use Permit and Director's Modification submittal application for a new telecommunications facility located at the above referenced location on April 10, 2109 prior to the April 15 submittal date. Please accept this waiver for the submittal time frames and the 3 day completeness check.

If you have any questions or need additional materials, I can be reached at (314) 640-5182.

Sincerely,

A handwritten signature in blue ink, appearing to read "Julie Krekeler", is written over the typed name and title.

Julie Krekeler  
General Manager

# Memorandum

**To:** Washoe County, NV  
**CC:** Commnet of Nevada, LLC  
**From:** Julie M. Hall, Senior RF Engineer, Centerline Solutions  
**Date:** 03/27/19  
**Re:** RF Emissions Analysis of Proposed Facility-Vya, NV

---

Commnet of Nevada is proposing to install a wireless telecommunications facility at Vya, NV, in Washoe County, at the following coordinates: 41° 35' 30.76" N, 119° 52' 47.15" W. The proposed installation was evaluated for RF Emissions compliance. The computations, analysis, and conclusions were based on applicable FCC guidelines and regulations for maximum permissible exposure to humans consistent with FCC OET Bulletin 65. At the time of installation, this facility will be transmitting at less than 2% of the applicable RF Emissions limits, thus the facility will be in compliance with applicable FCC regulations for RF Emissions. In addition, the analysis was completed with both existing capacity and future capacity, to insure compliance as the site grows in capacity.

Re-evaluation of the site for compliance would happen if other carriers locate at the facility, if the site grows beyond the capacity that the initial evaluation was completed for, or antennas at the site are changed or added to.

I certify that the analysis is correct to the best of my knowledge, and all calculations, assumptions and conclusions are based on generally acceptable engineering practices.



**Julie M. Hall**  
**Senior RF Engineer**  
**Centerline Solutions**





**CALIFORNIA JURAT WITH AFFIANT STATEMENT**

**GOVERNMENT CODE § 8202**

- See Attached Document (Notary to cross out lines 1-6 below)
- See Statement Below (Lines 1-6 to be completed only by document signer[s], *not* Notary)

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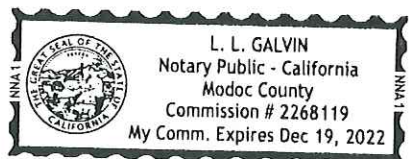
~~\_\_\_\_\_  
\_\_\_\_\_~~

~~Signature of Document Signer No. 1                      Signature of Document Signer No. 2 (if any)~~

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California  
County of Modoc

Subscribed and sworn to (or affirmed) before me  
on this 4 day of April, 2019,  
by                      Date                      Month                      Year



(1) Craig R. Drake  
(and (2) \_\_\_\_\_),  
Name(s) of Signer(s)

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature [Handwritten Signature]  
Signature of Notary Public

Seal  
Place Notary Seal Above

**OPTIONAL**

*Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_ Document Date: \_\_\_\_\_  
Number of Pages: \_\_\_\_\_ Signer(s) Other Than Named Above: \_\_\_\_\_

## Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Building staff at 775.328.6100.

<b>Project Information</b>		Staff Assigned Case No.: _____	
Project Name: <b>Commnet Wireless - Vya, NV</b>			
Project Description: Commnet Wireless proposes the construction of a new unmanned wireless communication facility serving the Vya and surrounding area.			
Project Address: Washoe County E911 Assigned address: 89000A Dugway Road, Gerlach, NV 89413			
Project Area (acres or square feet): 7,469 sf lease area along with access and utility easements			
Project Location (with point of reference to major cross streets <b>AND</b> area locator): From Vya, NV, head north on CR 34 N (1.4 miles) continue straight onto Dugway Road (1.5) miles. Turn left onto unnamed dirt road to site.			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
061-010-49	773.890015 acres		
Indicate any previous Washoe County approvals associated with this application: Case No.(s). NA			
<b>Applicant Information (attach additional sheets if necessary)</b>			
<b>Property Owner:</b>		<b>Professional Consultant:</b>	
Name: United States of America - BLM		Name: CIS Communications, LLC	
Address: 2550 Riverside Drive		Address: 749 Old Ballas Road	
Susanville, CA	Zip: 96130	Creve Coeur, MO	Zip: 63141
Phone: (530) 252-5321	Fax:	Phone: (314) 569-2275	Fax:
Email: dryan@blm.gov		Email: julie@ciscomm.com	
Cell: (530) 252-5321	Other:	Cell: (314) 640-5182	Other:
Contact Person: Daniel Ryan - Realty Specialist		Contact Person: Julie Krekeler - General Manager	
<b>Applicant/Developer:</b>		<b>Other Persons to be Contacted:</b>	
Name: Commnet of Nevada, LLC (dba Commnet Wireless)		Name:	
Address: 1562 North Park Street		Address:	
Castle Rock, CO	Zip: 80109		Zip:
Phone: (720) 733-7854	Fax:	Phone:	Fax:
Email: cphillips@atni.com		Email:	
Cell: (720) 733-7854	Other:	Cell:	Other:
Contact Person: Cindy Phillips - Director of Real Estate/Regulatory		Contact Person:	
<b>For Office Use Only</b>			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

## Special Use Permit Application Supplemental Information

(All required information may be separately attached)

1. What is the project being requested?

Commnet Wireless' proposed installation of a new unmanned telecommunications facility consisting of a 150' monopole tower with antennas/dishes, equipment shelter, outdoor generator and LP tank.

2. Provide a site plan with all existing and proposed structures (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.)

Refer to construction drawings attached.

3. What is the intended phasing schedule for the construction and completion of the project?

One phase - Construction would take between one and two months.

4. What physical characteristics of your location and/or premises are especially suited to deal with the impacts and the intensity of your proposed use?

Location is needed from an RF standpoint. Location is ideal from an impact standpoint as there is minimal to no visibility from any existing populated areas.

5. What are the anticipated beneficial aspects or affects your project will have on adjacent properties and the community?

Improved wireless coverage as well as wireless broadband coverage for the First Net emergency responders.

6. What are the anticipated negative impacts or affect your project will have on adjacent properties? How will you mitigate these impacts?

There are no negative impacts on adjacent properties or communities. Project is located in remote rural area.

7. Provide specific information on landscaping, parking, type of signs and lighting, and all other code requirements pertinent to the type of use being purposed. Show and indicate these requirements on submitted drawings with the application.

No landscaping, parking, or lighting proposed. All required signage to be attached to shelter door/fence. Please refer to Project Support Statement for explanations.



8. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that apply to the area subject to the special use permit request? (If so, please attach a copy.)

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

9. Utilities:

a. Sewer Service	NA
b. Electrical Service	Surprise Valley Electrification Corp.
c. Telephone Service	NA
d. LPG or Natural Gas Service	NA
e. Solid Waste Disposal Service	NA
f. Cable Television Service	NA
g. Water Service	NA

For most uses, Washoe County Code, Chapter 110, Article 422, Water and Sewer Resource Requirements, requires the dedication of water rights to Washoe County. Please indicate the type and quantity of water rights you have available should dedication be required.

h. Permit #		acre-feet per year	
i. Certificate #		acre-feet per year	
j. Surface Claim #		acre-feet per year	
k. Other #		acre-feet per year	

Title of those rights (as filed with the State Engineer in the Division of Water Resources of the Department of Conservation and Natural Resources).

**Not applicable.**

10. Community Services (provided and nearest facility):

a. Fire Station	Washoe Rural - Station T40
b. Health Care Facility	Nevada Health Center, Inc., Gerlach, NV
c. Elementary School	Gerlach K-12
d. Middle School	Gerlach K-12
e. High School	Gerlach K-12
f. Parks	Gerlach Community Park
g. Library	Gerlach Community Library
h. Citifare Bus Stop	NA

Account Detail

[Back to Account Detail](#)

[Change of Address](#)

[Print this Page](#)

CollectionCart			
Collection Cart	Items	Total	
Collection Cart	0	\$0.00	<a href="#">Checkout</a> <a href="#">View</a>

**Pay Online**

No payment due for this account.

**Washoe County Parcel Information**

Parcel ID	Status	Last Update
06101049	Active	4/4/2019 2:07:19 AM
<b>Current Owner:</b> UNITED STATES OF AMERICA		<b>SITUS:</b> 0 UNSPECIFIED WASHOE COUNTY NV
NONE RENO, NV 00000		
<b>Taxing District</b> 9000	<b>Geo CD:</b>	
Legal Description		
Township 42 Section Lot Block Range 19 SubdivisionName _UNSPECIFIED		

**Tax Bill (Click on desired tax year for due dates and further details)**

Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
<a href="#">2018</a>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<a href="#">2017</a>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<a href="#">2016</a>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<a href="#">2015</a>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<a href="#">2014</a>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total					\$0.00

**Disclaimer**

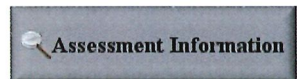
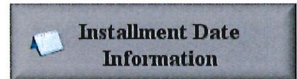
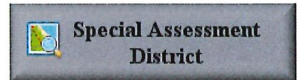
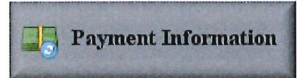
- ALERTS:** If your real property taxes are delinquent, the search results displayed may not reflect the correct amount owing. Please contact our office for the current amount due.
- For your convenience, online payment is available on this site. E-check payments are accepted without a fee. However, a service fee does apply for online credit card payments. See Payment Information for details.

**Pay By Check**

Please make checks payable to:  
WASHOE COUNTY TREASURER

Mailing Address:  
P.O. Box 30039  
Reno, NV 89520-3039

Overnight Address:  
1001 E. Ninth St., Ste D140  
Reno, NV 89512-2845



## **COMMNET WIRELESS PROJECT SUPPORT STATEMENT**

Project Name: Vya, NV  
Project Address: 89000A Dugway Road, Vya, NV 89413  
Project APN: 061-010-49

### **Introduction**

Commnet Wireless (Commnet) focuses on connecting rural America with affordable, carrier grade communications networks to improve safety and quality of life, and to promote economic development. The areas of focus are predominately small communities, state and national parks, seasonal areas, and the roadways that connect these areas to mainstream America. Commnet is seeking to improve cellular coverage within Vya, NV, as well as Hwy 34 north of Vya for approximately 12 miles. In addition, this site is needed to cover Hwy 8, west of the intersection of Hwy 8A/34, for approximately 7 miles, and Hwy 34 south of Vya for approximately 14 miles. Furthermore, this site will be utilized for the FirstNet nationwide emergency broadband network dedicated to first responders.

### **Location**

Commnet proposes the construction of a new wireless communications facility that consists of a 150' monopole located at Dugway Road in Vya, Nevada. The property is zoned General Rural (GR) and is owned by the United States of America and is managed by the Bureau of Land Management. The adjacent parcels are also owned by the United States of America as well as private landowners. The nearest residentially zoned property of medium density suburban residential development, is located mainly on the outskirts of the town of Gerlach, Nevada, which is approximately 70 miles away from the proposed facility.

### **Project Description/Design**

Commnet will be adding (6) antennas, (6) RRU's, (1) surge suppressor, (1) Fiber, (2) DC power lines, (2) microwave dishes along with (4) ½" coax lines on the tower. An outdoor shelter along with a generator and propane tank will be situated within a fenced 77' x 97' compound. This will be an unmanned facility providing cellular and First Net responders coverage 24 hours a day, 7 days a week.

### **Public and Safety Benefits of Improved Wireless Service**

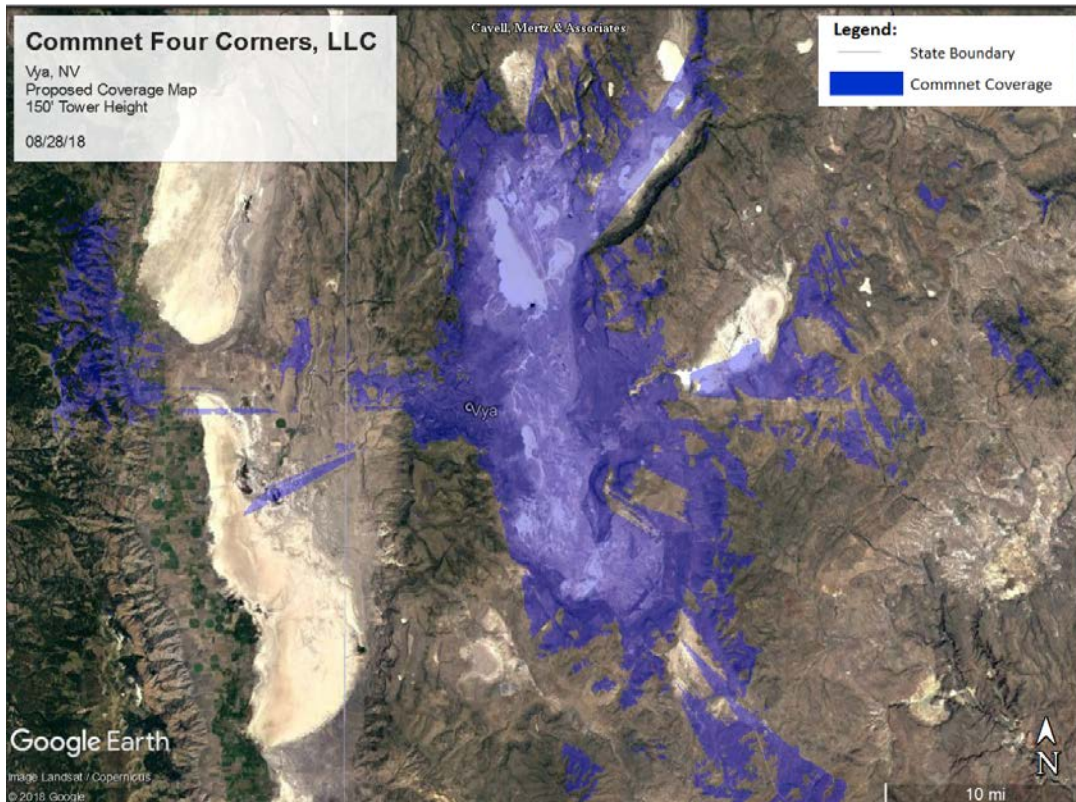
Today, more people are relying on wireless phones as their main form of communication; whether it be in their homes, businesses, and/or vehicles. This site will allow Commnet's customers to maintain cellular coverage as shown in the coverage map referenced below. Additionally, this site is also being utilized for the FirstNet nationwide emergency broadband network dedicated to first responders (ie Fire, Police, EMT) for the ability to communicate on a single network for any public safety needs in this area.



**Existing Coverage**



**Coverage with Proposed Tower**



### **Aesthetic Impacts**

Commnet proposes to install a 150' monopole. The proposed height was required due to the surrounding topography and meets the County's requirements for facilities in this zoning code. The facility will not have any negative impacts on this project or adjacent properties in the community as there is currently minimal visibility of the existing facilities from public roadways.



### **Alternative Site Analysis**

When searching for any new communication site location, Commnet's first goal is to try and secure space on an existing tower or tall structure at the height required. With this philosophy in mind, Commnet first evaluated the collocation opportunities in the search area that offered the height, ground space, access and utilities and other needs required for their system. Commnet's initial location was located at Fortynine Mountain. It was determined there were three (3) individual tower sites. The possibility of using any of the existing towers was ruled out due to an unwilling property owner.





In order to meet the required coverage objective, Commnet concluded that the construction of a new facility would be required. Commnet and the BLM worked together to layout an approved location for the proposed facility.

Below is a detailed explanation of why each existing facility at Fortynine Mountain would not be a viable collocation candidate.

1. Bureau of Land Management Tower (Option #1)– Site is located on BLM lands. The BLM stated that they cannot permit any new users at this location as access easements cross private lands and the property owner will not allow additional users. Commnet left multiple messages for the property owner without receiving any responses.
2. Bureau of Land Management Tower (Option #2)– Site is located on BLM lands . The BLM stated that they cannot permit any new users at this location as access easements cross private lands and the property owner will not allow additional users. Commnet left multiple messages for the property owner without receiving any responses.

3. Los Angeles Department of Water and Power (Option #3) – This site is located near the BLM tower (option #2); however, it is placed on the unwilling property owner’s parcel. Per the BLM, the property owner will not allow new users access on his property. Aside from the unwilling property owner, Commnet has tried to collocate on other LADWP towers, with no response.

**Statement of Commitment to Allow Collocation**

In addition to Commnet’s antenna loadings as proposed, this tower is also structurally designed to accommodate additional communication collocators.

**Lighting and Signage**

Unless required by the Federal Aviation Administration (FAA), no lighting is proposed at this facility. All required FCC and other regulatory notification signage will be attached to the shelter door and/or fence.

**Access/Utilities/Parking**

Access to the facility is by way of Dugway Road which is located off of County Road 8A, approximately 70+ miles northwest of Gerlach. No road improvements are planned as Commnet will utilize the existing dirt road. Power for the facility will be routed underground in a conduit from a nearby transformer to a new meter bank located within the fenced the facility as depicted in the site plan. Batteries and generator/propane tank will serve as back-up power supply. Parking is not proposed as this is an unmanned facility that will be visited by a cell tech once or twice a month. There is sufficient parking at the facility location.

**Maintenance and equipment back-up power.**

The proposed wireless communications facility is located in a remote rural location. Because First Net responder emergency equipment will be located at this facility, it is imperative that the facility is operable in the event of a power outage or a natural disaster. In the event of an outage, the battery power will operate the system. If the power outage is for an extended period, and the batteries are no longer effective, the generator will automatically power the site. This multi-layer back-up system is important for communications sites to ensure continued operation. A cell technician will visit the site approximately once or twice a month to perform regular equipment maintenance.

**Landscaping Variance**

Commnet is not proposing landscaping at this facility and is seeking a variance to obtain relief from the landscaping requirements. The subject property is located in a remote rural location, has restricted access to water resources, and will have limited monthly technician visits. The site is located approximately 2,000 feet from the nearest public roadway and landscaping would not be visible to the general public. There is natural landscaping surrounding the proposed facility that shields the site to public visibility. Commnet is requesting the Board of Adjustments to specifically waive landscaping requirements for the above stated reasons.

**Grading**

Not applicable. Grading is not anticipated for this project.

**Significant Hydrological Resources**

The subject site is located in the High Desert planning area. Per section Section 110.418.05 (e), the provisions of this article do not apply for development in the High Desert planning area.



# Commnet of Nevada, LLC

Existing Coverage Near Vya, NV

03/25/19

## Legend:

State Boundary

Commnet Coverage



30 mi

Google Earth

WSUP19-0003  
EXHIBIT E

Image Landsat / Copernicus  
© 2018 Google



# Commnet Four Corners, LLC

Vya, NV

Proposed Coverage Map

150' Tower Height

08/28/18

Cavell, Mertz & Associates

## Legend:

State Boundary



Commnet Coverage

WSUP19-0003  
EXHIBIT E

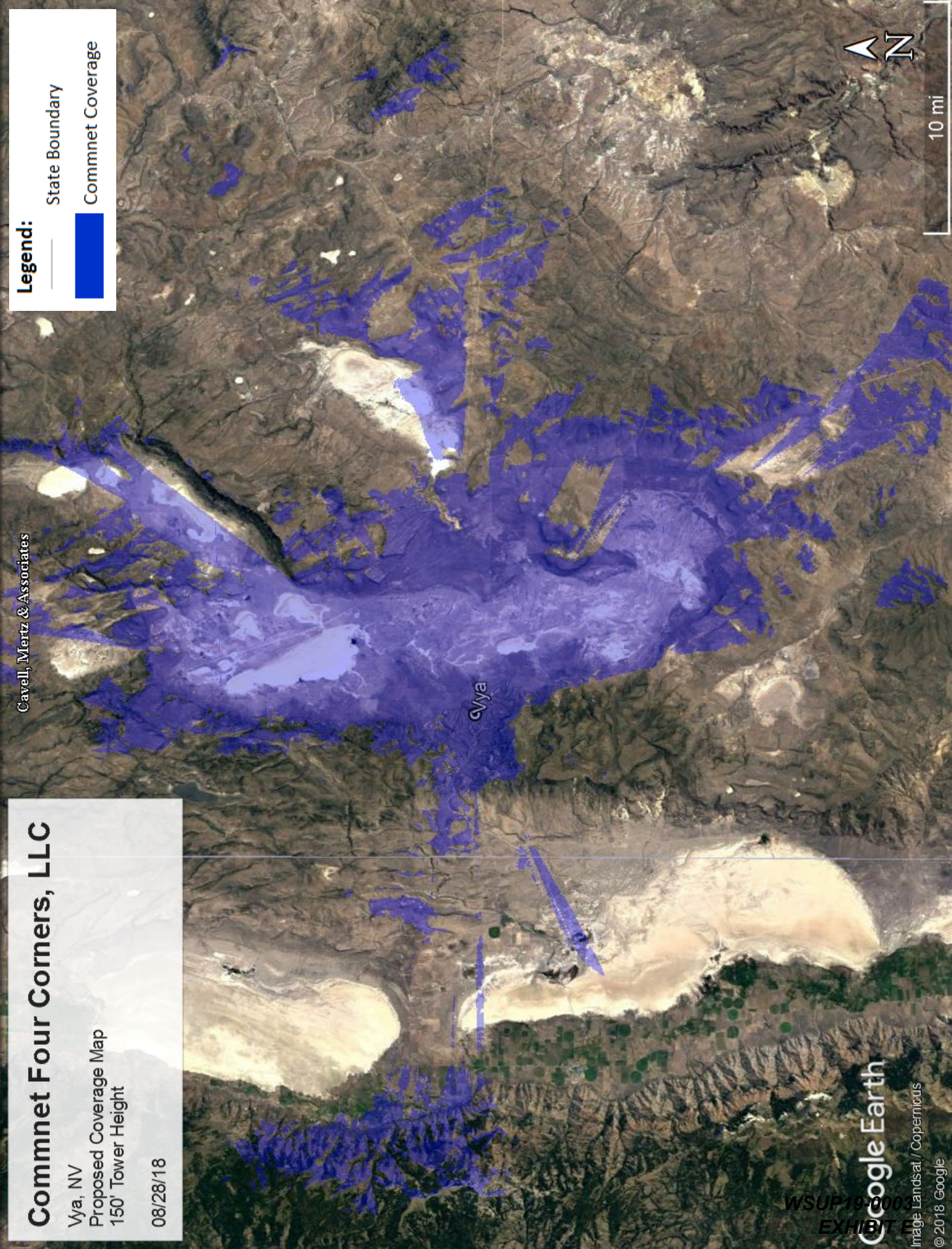
Google Earth

Image Landsat / Copernicus

© 2018 Google



10 mi





**PROJECT INFORMATION**

RAW LAND MONOPOLE

VYA, NEVADA

89000A DUGWAY RD  
GERLACH, NV 89413

**PROJECT OWNER**



**Commnet**  
Connecting Rural America

**ENGINEER**



**LOCATION MAP**





Looking North Toward Proposed  
Monopole Location (Before)



**PROJECT INFORMATION**  
RAW LAND MONOPOLE

VYA, NEVADA

89000A DUGWAY RD  
GERLACH, NV 89413

**PROJECT OWNER**

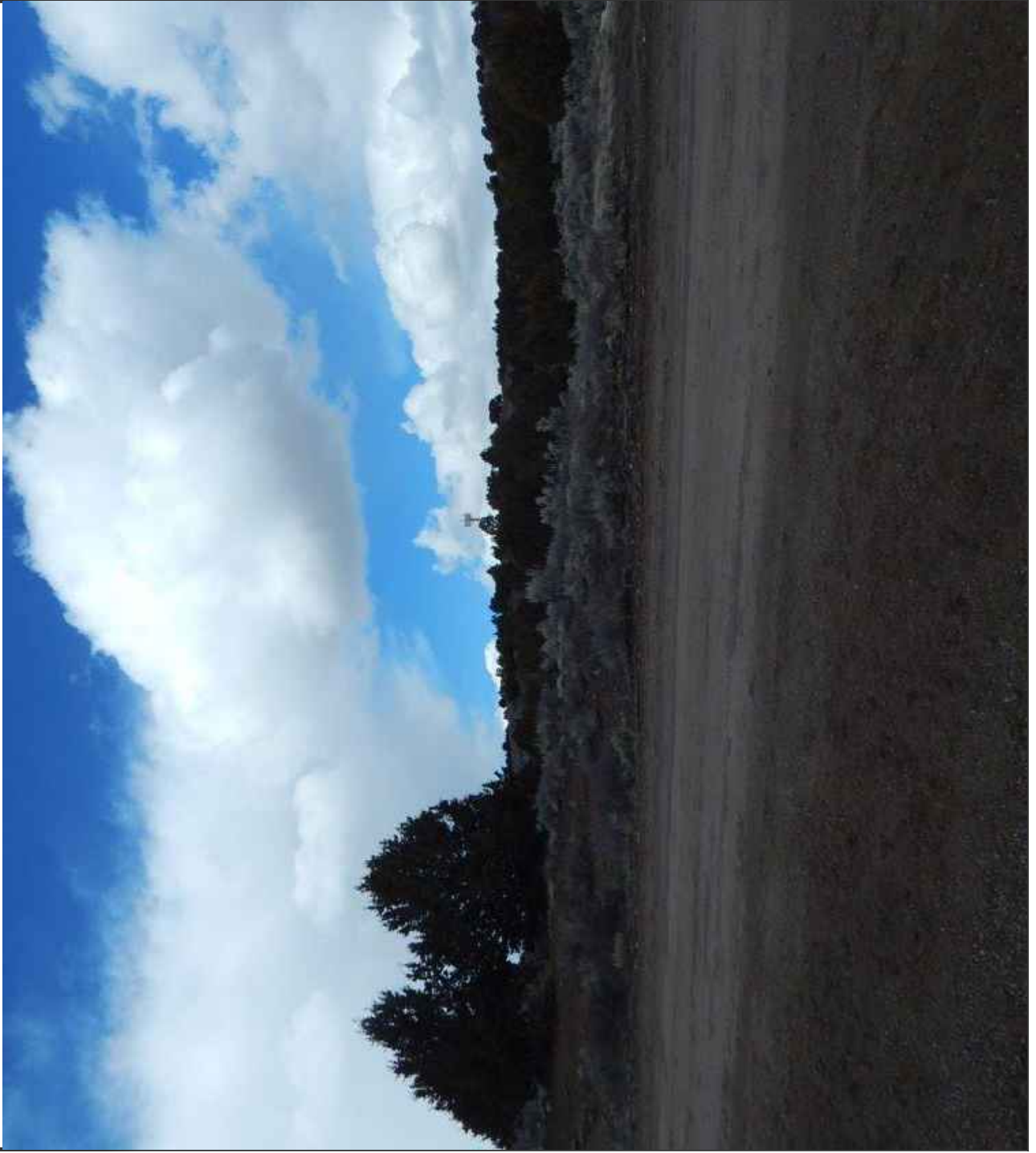


**Commnet**  
Connecting Rural America

**ENGINEER**



Looking North Toward Proposed  
Monopole Location (After)



**PROJECT INFORMATION**  
RAW LAND MONOPOLE

VYA, NEVADA

89000A DUGWAY RD  
GERLACH, NV 89413

**PROJECT OWNER**



**Commnet**  
Connecting Rural America

**ENGINEER**





PROJECT INFORMATION

RAW LAND MONOPOLE

VYA, NEVADA

89000A DUGWAY RD  
GERLACH, NV 89413

PROJECT OWNER

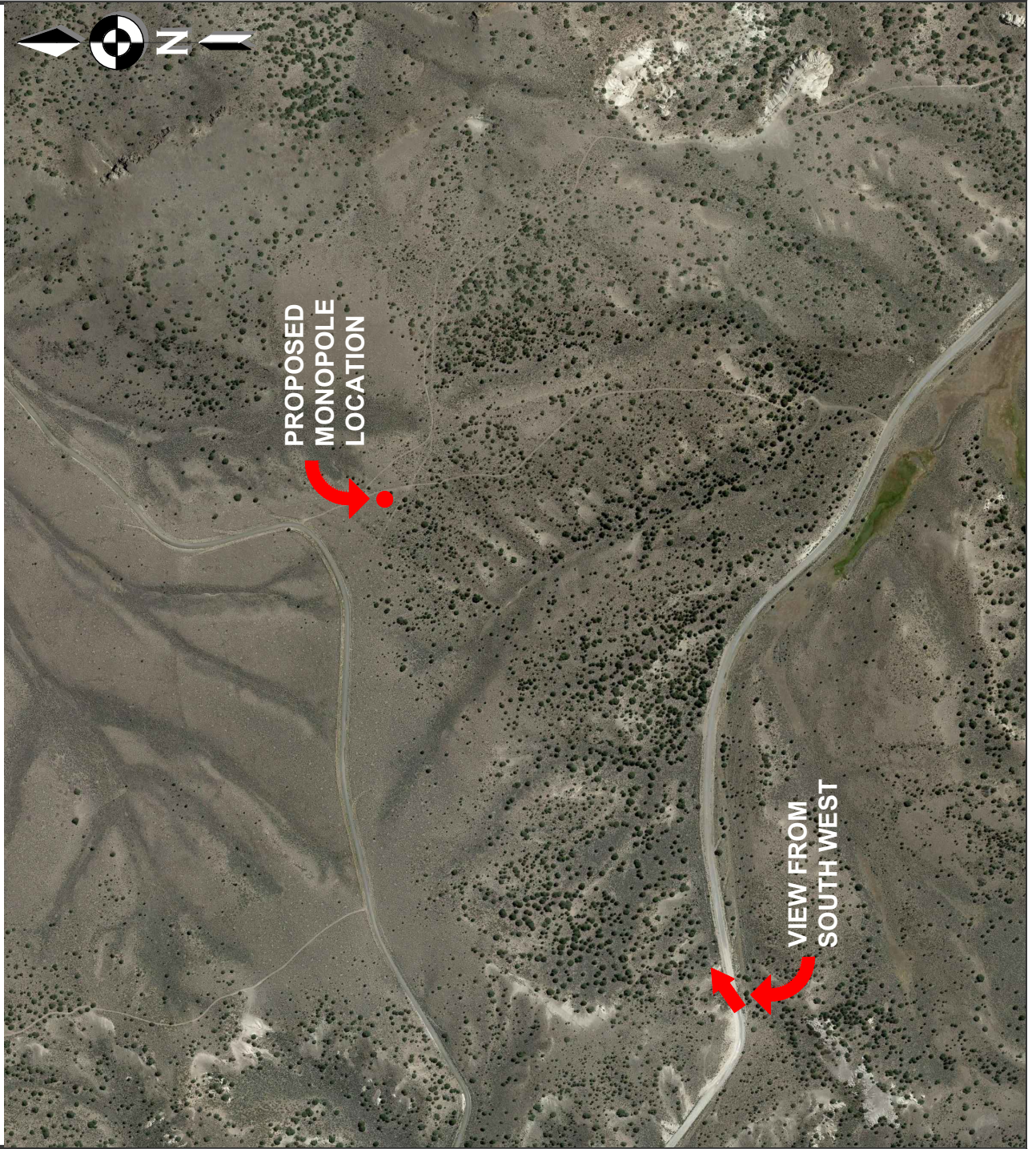


**Commnet**  
Connecting Rural America

ENGINEER



LOCATION MAP





**PROJECT INFORMATION**

RAW LAND MONOPOLE

VYA, NEVADA

89000A DUGWAY RD  
GERLACH, NV 89413

**PROJECT OWNER**



**Commnet**  
Connecting Rural America

**ENGINEER**



Looking North East Toward  
Monopole Location (Before)



**PROJECT INFORMATION**

RAW LAND MONOPOLE

VYA, NEVADA

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Monopole Location (After)





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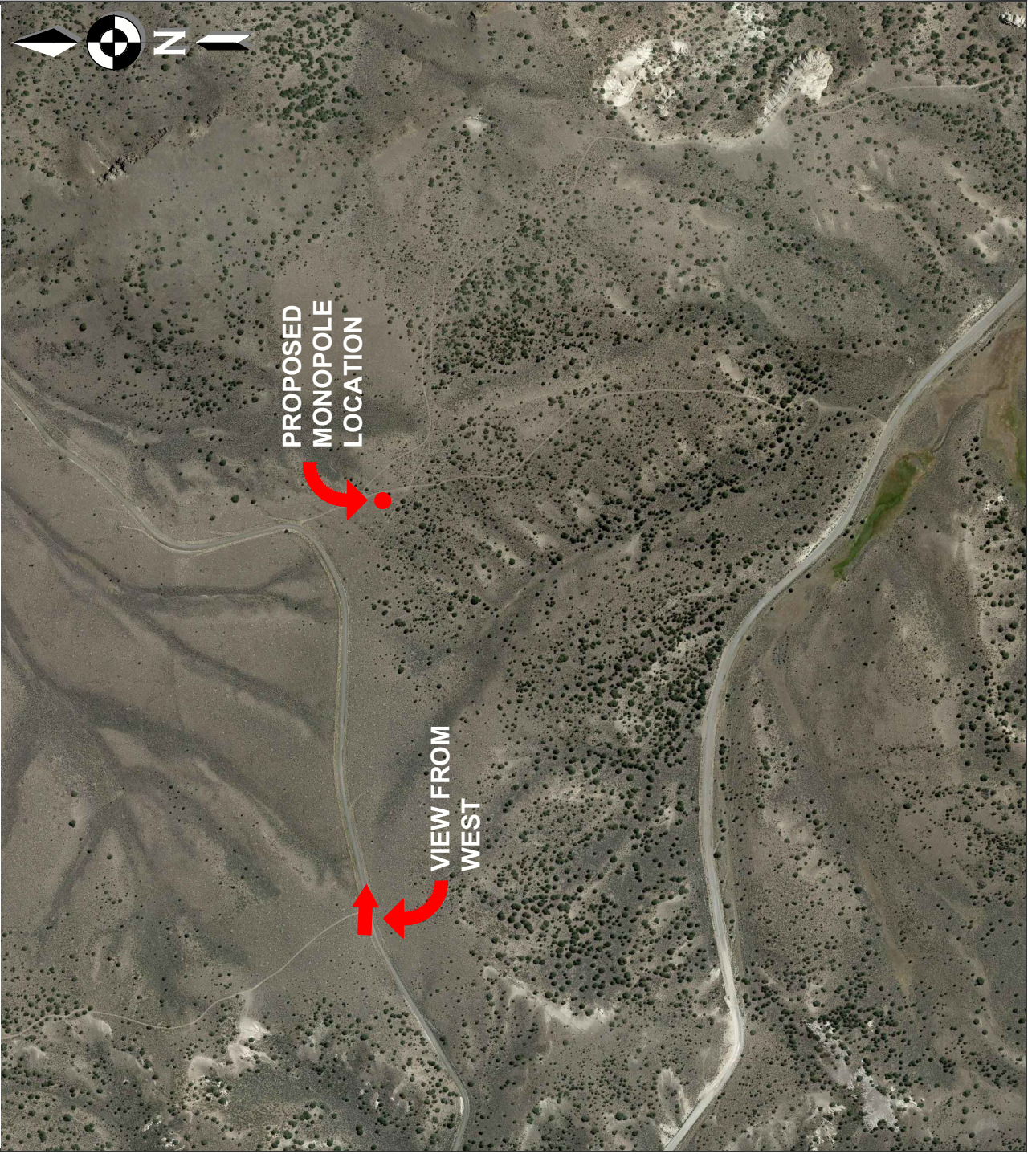


**Commnet**  
Connecting Rural America

ENGINEER

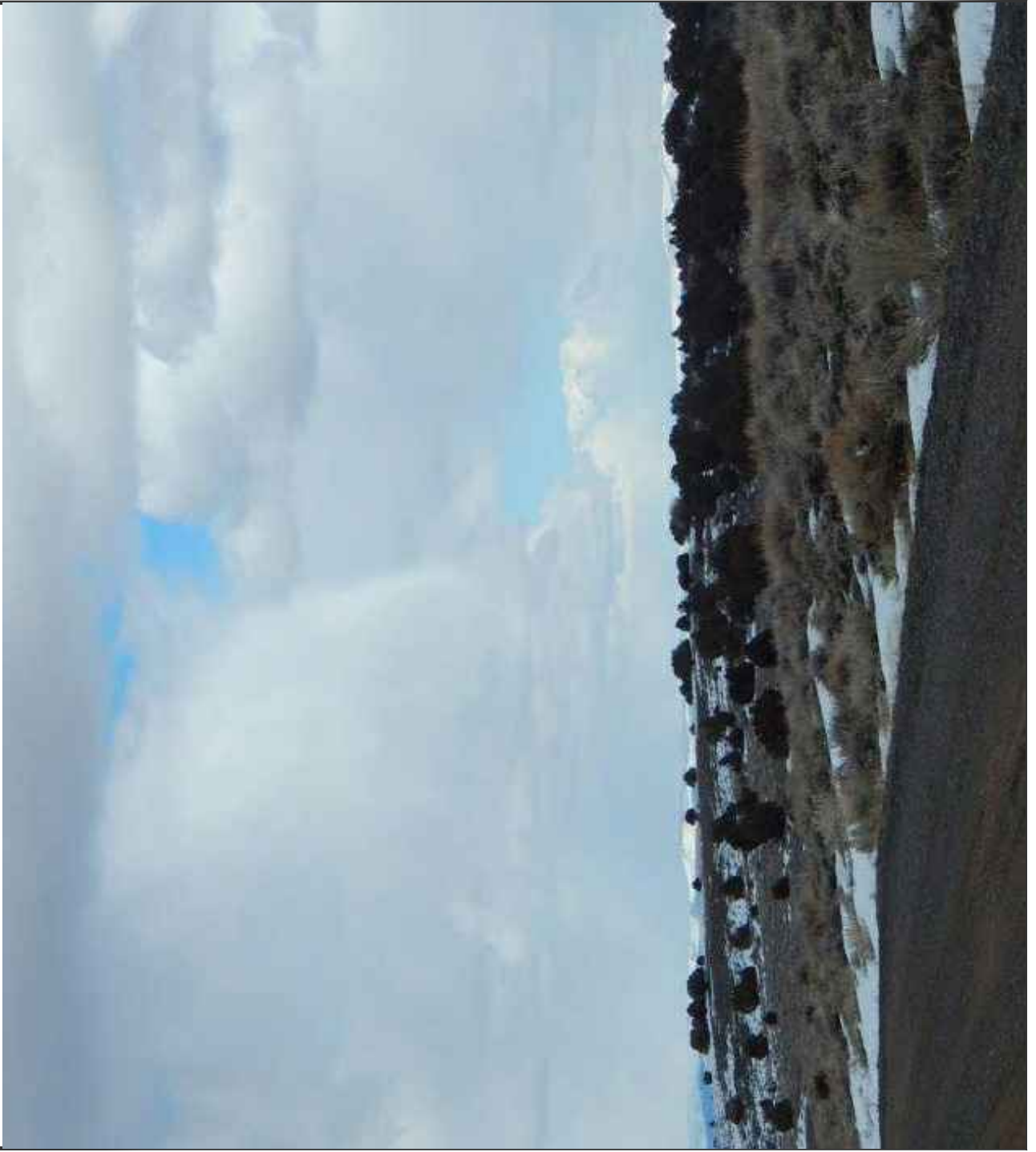


LOCATION MAP





Looking East Toward Proposed  
Monopole Location (Before)



**PROJECT INFORMATION**  
RAW LAND MONOPOLE

VYA, NEVADA

89000A DUGWAY RD  
GERLACH, NV 89413

**PROJECT OWNER**



**Commnet**  
Connecting Rural America

**ENGINEER**



**PROJECT INFORMATION**

RAW LAND MONOPOLE

VYA, NEVADA

89000A DUGWAY RD  
GERLACH, NV 89413

**PROJECT OWNER**

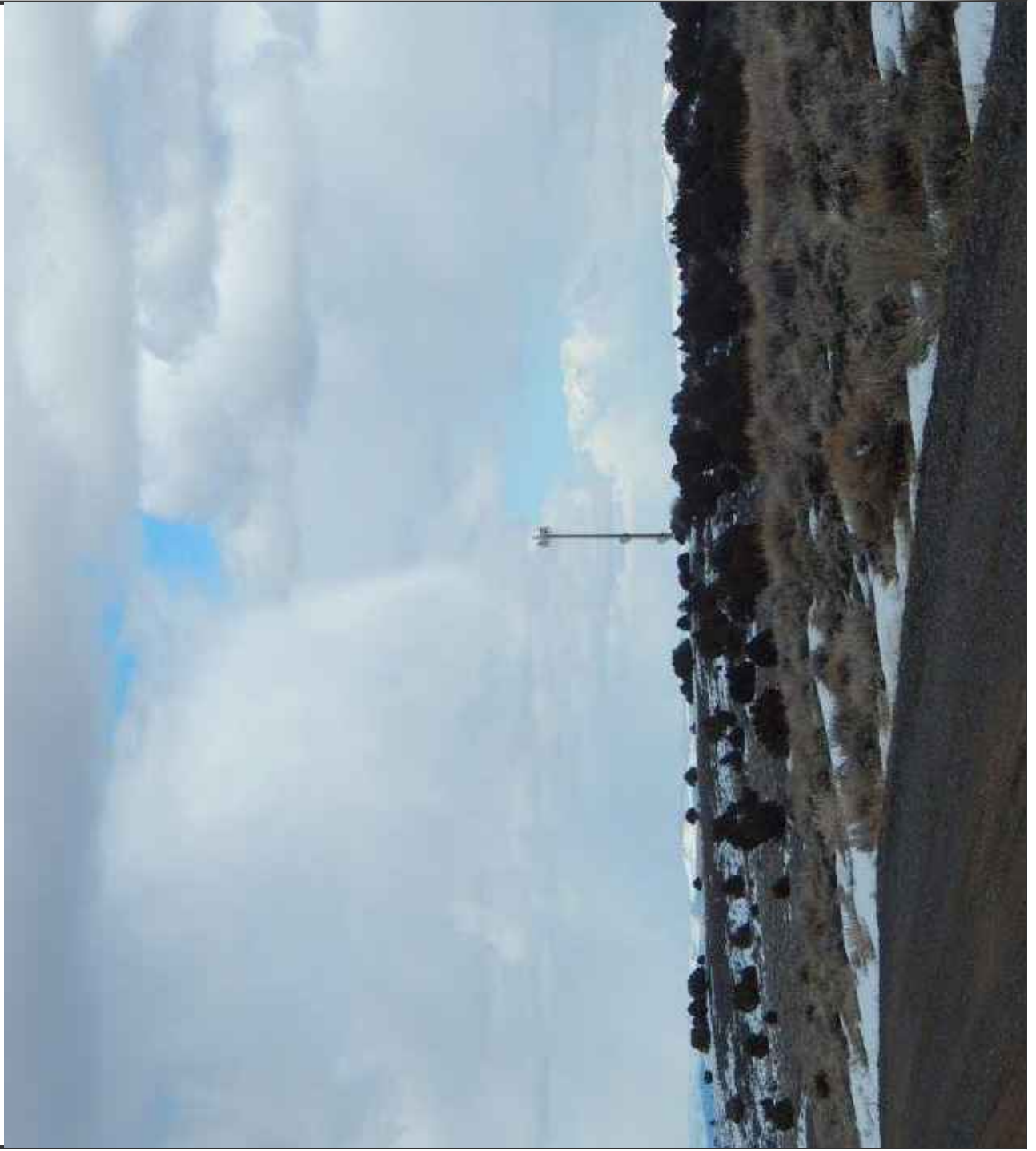


**Commnet**  
Connecting Rural America

**ENGINEER**



Looking East Toward Proposed  
Monopole Location (After)



**Vya, NV Photos**

\*Note that all photos may have not been attained due to exceptional conditions prohibiting travel to the site

**Vya Pre CX East looking West**





Vya Pre CX Tower Center looking West



Vya Pre CX Tower Center looking North





Vya Pre CX West looking East



Community Services Department  
Planning and Building  
DIRECTOR'S MODIFICATION OF  
PARKING/LANDSCAPING  
MINOR DEVIATION  
STANDARDS APPLICATION



Community Services Department  
Planning and Building  
1001 E. Ninth St., Bldg. A  
Reno, NV 89512-2845

Telephone: 775.328.6100



## Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Building staff at 775.328.6100.

<b>Project Information</b>		Staff Assigned Case No.: _____	
Project Name: <b>Commnet Wireless, Vya, NV</b>			
Project Description: Commnet Wireless proposed the construction of a new unmanned wireless communication facility serving the Vya and surrounding area.			
Project Address: Washoe County 911 Assigned address: 89000A Dugway Road, Gerlach, NV 89413			
Project Area (acres or square feet): 7,469 sf lease area along with access and utility easements			
Project Location (with point of reference to major cross streets <b>AND</b> area locator): From Vya, NV, head north on CR 34 N (1.4 miles) continue straight onto Dugway Road (1.5) miles. Turn left onto unmanned dirt road to site.			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
061-010-49	773.890015 acres		
<b>Indicate any previous Washoe County approvals associated with this application:</b> Case No.(s). NA			
<b>Applicant Information</b> (attach additional sheets if necessary)			
<b>Property Owner:</b>		<b>Professional Consultant:</b>	
Name: United States of America - BLM		Name: CIS Communications, LLC	
Address: 2550 Riverside Drive		Address: 749 Old Ballas Road	
Susanville, CA	Zip: 96130	Creve Coeur, MO	Zip: 63141
Phone: (530) 252-5321	Fax:	Phone: (314) 569-2275	Fax:
Email: dryan@blm.gov		Email: julie@ciscomm.com	
Cell: (530) 252-5321	Other:	Cell: (314) 640-5182	Other:
Contact Person: Daniel Ryan - Realty Specialist		Contact Person: Julie Krekeler - General Manager	
<b>Applicant/Developer:</b>		<b>Other Persons to be Contacted:</b>	
Name: Commnet of Nevada, LLC (dba Commnet Wireless)		Name:	
Address: 1562 North Park Street		Address:	
Castle Rock, CO	Zip: 80109		Zip:
Phone: (720) 733-7854	Fax:	Phone:	Fax:
Email: cphillips@atni.com		Email:	
Cell: (720) 733-7854	Other:	Cell:	Other:
Contact Person: Cindy Phillips - Director of Real Estate/Regulatory		Contact Person:	
<b>For Office Use Only</b>			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

# Director's Modification of Standards Supplemental Information

(All required information may be separately attached)

1. What modification or deviation are you requesting? **Be specific.**

Parking Standards - Article 110.410.00  
Landscaping Standards - Article 110.412.00  
Noise and Lighting - Article 110.414.00  
Minor deviation Standards - Section 110.804.35

2. Why is the modification or deviation necessary to the success of the project/development? **Be specific.** Are there any extenuating circumstances or physical conditions on the proposed project/development site?

Please refer to the attached Director's Memorandum for explanation

3. Are you proposing to mitigate the effect of the modification or reduction?

Please refer to the attached Director's Memorandum for explanation

4. What section of code are you requesting to modify or deviate? **Be specific.** List the code section and if there are specific requirements for the modification, provide detailed information. For deviation, provide the percentage of the deviation.

Parking Standards - Whole Section  
Landscaping Standards - Whole Section  
Noise and Lighting - Whole Section  
Minor Deviation Standards - Maximum height allowed (150' monopole) as stated per Washoe County Planning Department

5. For Minor Deviation request; list what properties/parcels are affected by the deviation? Explain if there will be any impacts to the affected neighboring properties. (At a minimum, affected property owners are those owners of parcels that immediately abut the location of the proposed minor deviation.)

Please refer to the Director's Memorandum for list of adjoining parcels and impact explanation.

**MEMORANDUM**

To: Washoe County

CC: Commnet of Nevada, LLC (Commnet Wireless)

From: Julie Krekeler, Site Acquisition, CIS Communications, LLC

Date: April 10, 2019

**Re: DIRECTORS MODIFICATION REQUEST CLARIFICATION – Special Use Permit - APN: 061-010-49 (Vya, NV)**

---

Dear Washoe County,

The subject application is for a Special Use Permit for the construction of a telecommunications facility consisting of a 150' monopole, outdoor shelter, and a generator and propane tank within a 77' x 97' fenced compound situated in rural Vya, Nevada. The parcel is located on property owned by the United States of America and is managed by the Bureau of Land Management. The parcel consists of 773.89 acres.

Upon review of Washoe County's Development Code Section 110, Commnet Wireless is hereby requesting certain specific conditions to be considered for Director's Modification due to the following.

**Article 110.410.00 Parking** –Commnet Wireless would like to modify Section 110.410.00 to allow for the request to waive parking. Due to the unusual nature of the establishment and the remote rural location of this proposed unmanned facility that will be visited by a cell tech once or twice a month, the standards set forth in this section such as parking design and access width would be excessive and unreasonable for Commnet Wireless. The secured proposed facility is not for the general public access and there is ample space for the technician to park either outside or inside of the fenced lease area.

**Article 110.412.00 Landscaping** - Commnet Wireless would like to modify Section 110.412.00 to allow for the request to waive the whole section of landscaping. The subject site is located in a remote unimproved area. In addition to being remote, the site is located 2000+ feet from the nearest gravel county road or adjoining parcel where there will be minimal visibility. Because this remote location and it is an unmanned facility, Commnet Wireless' policy is to avoid any landscaping to conserve water as well as the need for routine landscape maintenance. Additionally, because of the vast size of the parcel (773 acres), it is unreasonable for Commnet Wireless to meet Washoe County's requirement of landscape coverage of a minimum twenty (20) percent of the total developed land area as well as landscaped buffers at least one (1) tree every twenty (20) linear feet of property frontage as outlined in Sections 110.412.40 (a) and (c).

**Section 110.414.00 Noise and Lighting** - Commnet Wireless would like to modify the Section 110.414.00 to allow for the request to waive the entire section of Noise and Lighting. The site will be powered from a nearby transformer to a new meter bank located within the fenced compound. There will be a generator installed at the site in the event of extended power outages. First Net responder equipment is proposed at this site. Per Section 110.414.20 (b) emergency equipment is exempt from this section.

Unless lighting is required by the FAA, no lighting is proposed at the unmanned facility. Commnet proposes Washoe County's current best practice of "dark-sky" standards. There will be lighting inside the shelter that is turned on only during a technician's site visit.

**Section 110.804.35 Minor Deviations** – Commnet Wireless is proposing a 150' monopole and is seeking approval for the height deviation per table 110.324.55.1 . As stated, this site is located in a remote area of northern Nevada where there is currently limited to no cellular service. This site will include First Net responder emergency equipment as well as multi users and due to the diverse topography and the remoteness of the area, the height is needed to overcome that terrain to obtain optimal coverage.

The following is a list of parcels that abut the subject property parcel. The closets parcels to the proposed facility, as indicated by an asterisk, are at a distance of 2,000 feet. The nearest residence is approximately one (1) mile away and this facility will not impose any negative impacts. The impact this proposed facility will have is a communication source that is vital to today's safety and quality of life.

- 061-010-02 – Zoned GR
- \*061-010-03 – Zoned GR
- \*061-010-04 – Zoned GR
- 061-010-05 – Zoned GR
- 061-010-07 – Zoned GR
- \* 061-010-55 – Zoned GR
- 061-260-08 – Zoned GR
- 061-260-09 – Zoned GR
- 061-260-03 – Zoned GR
- 061-260-02– Zoned GR
- 061-260-01– Zoned GR
- 061-050-46 – Zoned GR
- 061-050-30– Zoned GR

**LEGAL DESCRIPTIONS**

BEING A PORTION OF SECTION 5, TOWNSHIP 42 NORTH, RANGE 19 EAST, MOB&M., WASHOE COUNTY, NEVADA, DESCRIBED AS FOLLOWS:

\*PARCEL A (LEASE AREA)

COMMENCING AT THE SOUTHWEST CORNER OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 5, TOWNSHIP 42 NORTH, RANGE 19 EAST, M.D.B.&M.;

THENCE NORTH 77°40'28" EAST, 2441.54 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 89°49'37" EAST, 72.00 FEET TO A POINT HEREINAFTER REFERRED TO AS POINT 'A';

THENCE CONTINUING, SOUTH 89°49'37" EAST, 5.00 FEET;

THENCE NORTH 00°10'23" EAST, 97.00 FEET;

THENCE NORTH 89°49'37" WEST, 38.50 FEET TO A POINT HEREINAFTER REFERRED TO AS POINT 'B';

THENCE CONTINUING, NORTH 89°49'37" WEST, 38.50 FEET;

SOUTH 00°10'23" WEST, 97.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 7,469 SQ.FT. MORE OR LESS.

\*PARCEL B (UTILITY EASEMENT)

BEING A STRIP OF LAND 10.00 FEET IN WIDTH, LYING 5.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT THE AFOREMENTIONED POINT 'A';

THENCE SOUTH 12°50'26" EAST, 54.25 FEET TO THE POINT OF TERMINATION.

THE SIDELINES OF THIS STRIP OF LAND ARE TO BE LENGTHENED OR SHORTENED TO INTERSECT AT ALL ANGLE POINTS, AND TO BEGIN ON THE SOUTH LINE OF \*PARCEL A';

CONTAINING 542 SQ.FT. MORE OR LESS.

\*PARCEL C (ACCESS EASEMENT)

BEING A STRIP OF LAND 12.00 FEET IN WIDTH, LYING 6.00 FEET ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE:

BEGINNING AT THE AFOREMENTIONED POINT 'B';

THENCE NORTH 00°00'00" EAST, 30.57 FEET;

THENCE NORTH 14°37'01" WEST, 54.43 FEET;

THENCE NORTH 25°42'37" WEST, 39.11 FEET;

THENCE NORTH 22°04'32" WEST, 32.34 FEET;

THENCE NORTH 13°24'41" WEST, 44.10 FEET;

THENCE NORTH 14°43'36" WEST, 57.25 FEET;

THENCE NORTH 24°09'51" WEST, 97.94 FEET;

THENCE NORTH 18°44'16" WEST, 85.71 FEET;

THENCE NORTH 39°03'24" WEST, 40.30 FEET TO THE POINT OF TERMINATION.

THE SIDELINES OF THIS STRIP OF LAND ARE TO BE LENGTHENED OR SHORTENED TO INTERSECT AT ALL ANGLE POINTS, AND TO BEGIN ON THE NORTH LINE OF \*PARCEL A';

CONTAINING 5,781 SQ.FT. MORE OR LESS.

**PARENT PARCEL LEGAL DESCRIPTION**

LYING WITHIN SECTION 5, TOWNSHIP 42 NORTH, RANGE 19 EAST, M.D.M., WASHOE COUNTY, NEVADA.

**OWNERSHIP INFORMATION**

OWNER = UNITED STATES OF AMERICA

CONTACT = N/A

ASSESSOR'S PARCEL NUMBER = 061-010-49

VESTING DOCUMENT = N/A

**TITLE REPORT DATA AND EXCEPTIONS**

NO TITLE REPORT PROVIDED.

**BASIS OF BEARINGS**

GRID NORTH BASED UPON THE NORTH AMERICAN DATUM OF 1983/94 (2011), NEVADA WEST ZONE (2703) COORDINATES PROVIDED BY OPUS SOLUTION; THE DISTANCES ARE BASED ON A GROUND SCALE FACTOR OF 1.0002506172 REFERENCED FROM A POINT NEAR THE PROJECT WITH A LATITUDE OF 41°35'30.19834" N AND A LONGITUDE OF 119°52'47.01529" W AND A NORTH AMERICAN VERTICAL DATUM OF 1988 HEIGHT OF 6167.50 FEET USING GEOID12A

**PROPOSED TOWER COORDINATES**

NAD 83 LATITUDE = 41°35'30.76358" N

LONGITUDE = 119°52'47.14752" W

SITE GROUND ELEVATION = 6236.20'

STATE PLANE COORDINATES NAD 83, NEVADA WEST ZONE

METERS (GROUND) = 4760184.649

EASTING = 694161.399

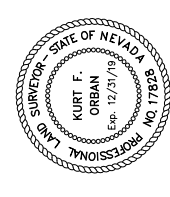
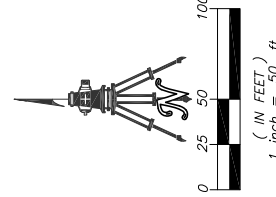
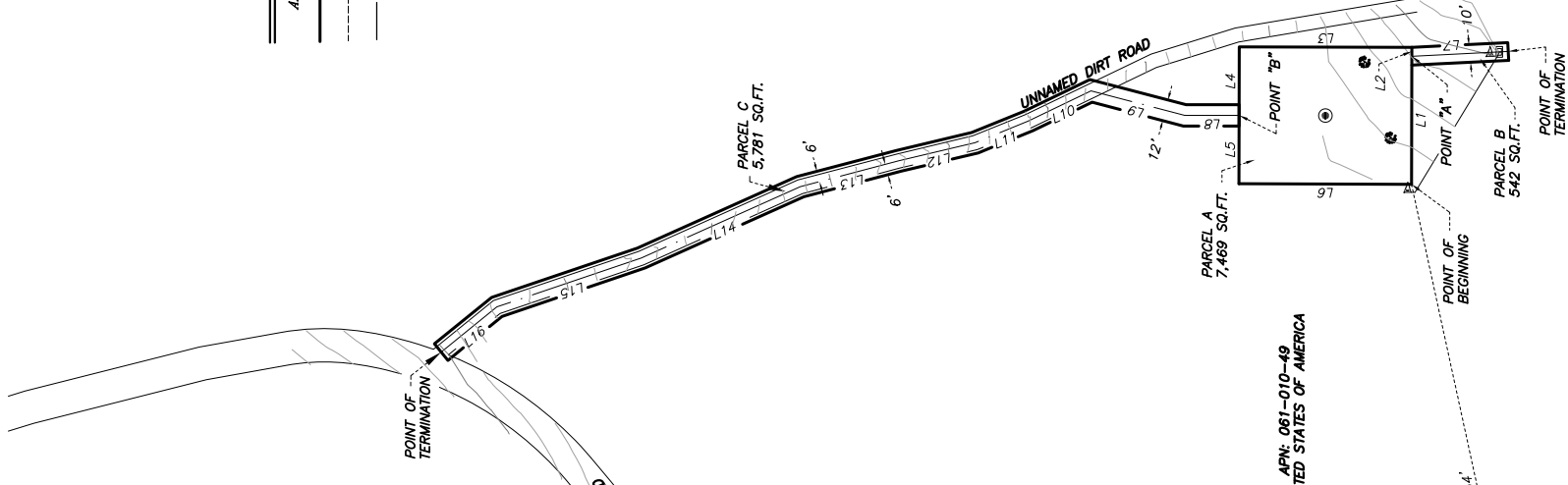
NORTHING = 1561379.47

FEET (GROUND) = 2270063.04

**LEGEND**

- APN ASSESSORS PARCEL NUMBER
- PROPOSED EASEMENT LINE
- EXISTING EASEMENT LINE
- SECTION LINE
- FOUND MONUMENTATION AS DESCRIBED
- ELECTRIC PULL BOX
- ELECTRIC MARKER

LINE	BEARING	DISTANCE
L1	N89°49'37"W	72.00'
L2	N89°49'37"W	5.00'
L3	S0°10'23"W	97.00'
L4	S89°49'37"E	38.50'
L5	S89°49'37"E	38.50'
L6	N0°10'23"E	97.00'
L7	S2°50'26"E	54.25'
L8	N0°00'00"E	30.57'
L9	N14°37'01"E	54.43'
L10	N25°42'37"W	39.11'
L11	N22°04'32"W	32.34'
L12	N13°24'41"W	44.10'
L13	N14°43'36"W	57.25'
L14	N24°09'51"W	97.94'
L15	N18°44'16"W	85.71'
L16	N39°03'24"W	40.30'



KURT F. ORBAN  
PROFESSIONAL LAND SURVEYOR  
NEVADA LICENSE NO. 17828

WALLACE MORRIS ORBAN  
SURVEYING, LLC.  
LAND SURVEY CONSULTING  
1250 LAMOLLE HIGHWAY, UNIT 628  
ELKO, NEVADA 89801  
PH: 775.753.3610 FX: 775-753-7078



DESCRIPTION:	
REV:	
DATE:	

COMMNET WIRELESS, LLC  
VYA SITE, WASHOE COUNTY, NEVADA  
TOPOGRAPHY MAP  
061-010-49  
DATE: 03/29/18  
DRAFTER: KFO  
FIELD: BH/CH  
CHECKED: KFO  
JOB NO: ECOM-18020  
SHEET 1  
OF 1 SHEETS



**GENERAL NOTES**

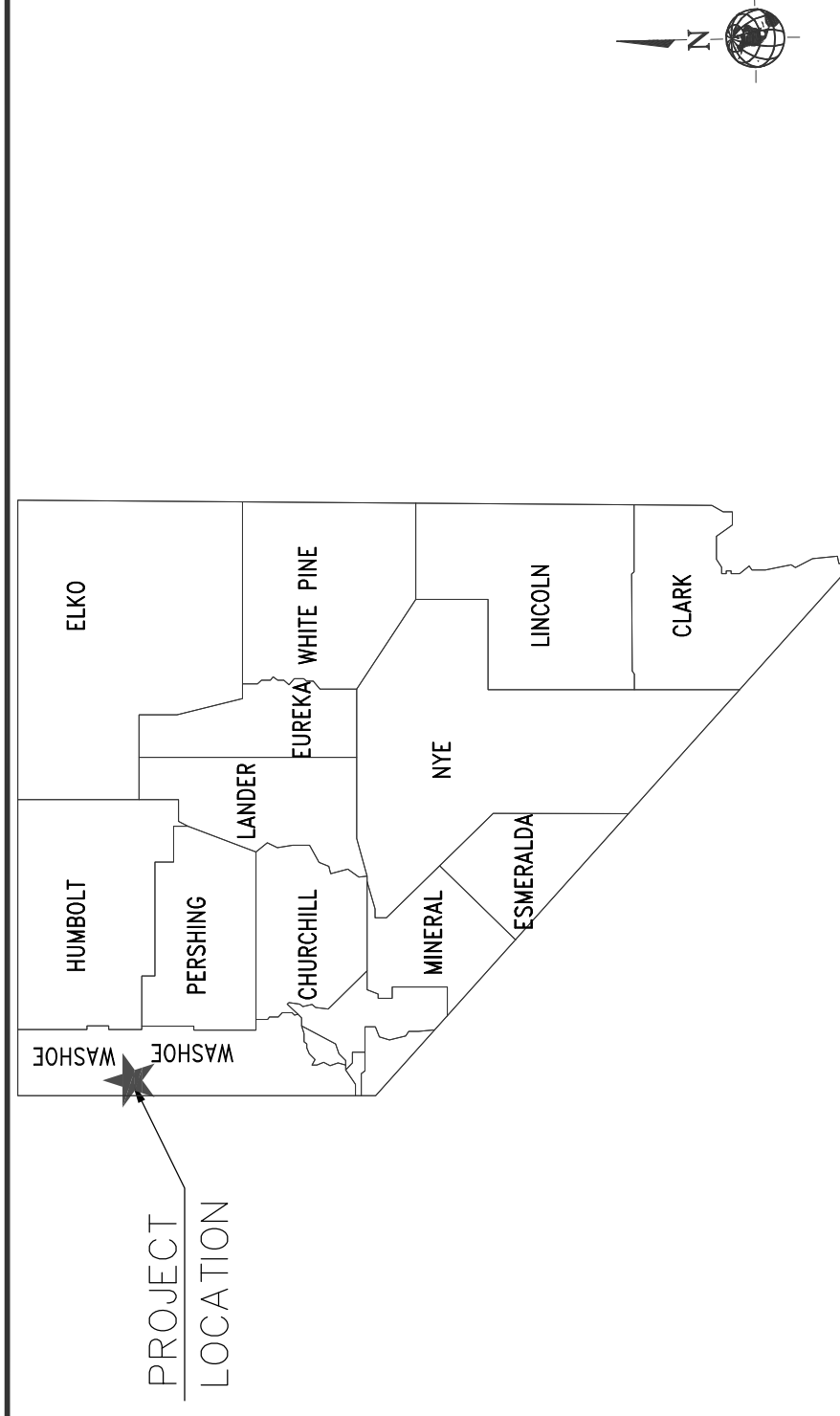
THE ARCHITECTS/ENGINEERS HAVE MADE EVERY EFFORT AS SET FORTH IN THE CONSTRUCTION DRAWINGS, CONTRACT DOCUMENTS AND THE COMPLETE SCOPE OF WORK. CONTRACTORS BIDDING THE JOB ARE NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS. THE BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE ARCHITECT/ENGINEER OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF THE CONTRACTOR'S PROPOSAL. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK UNLESS OTHERWISE DIRECTED.

**CODE COMPLIANCE**

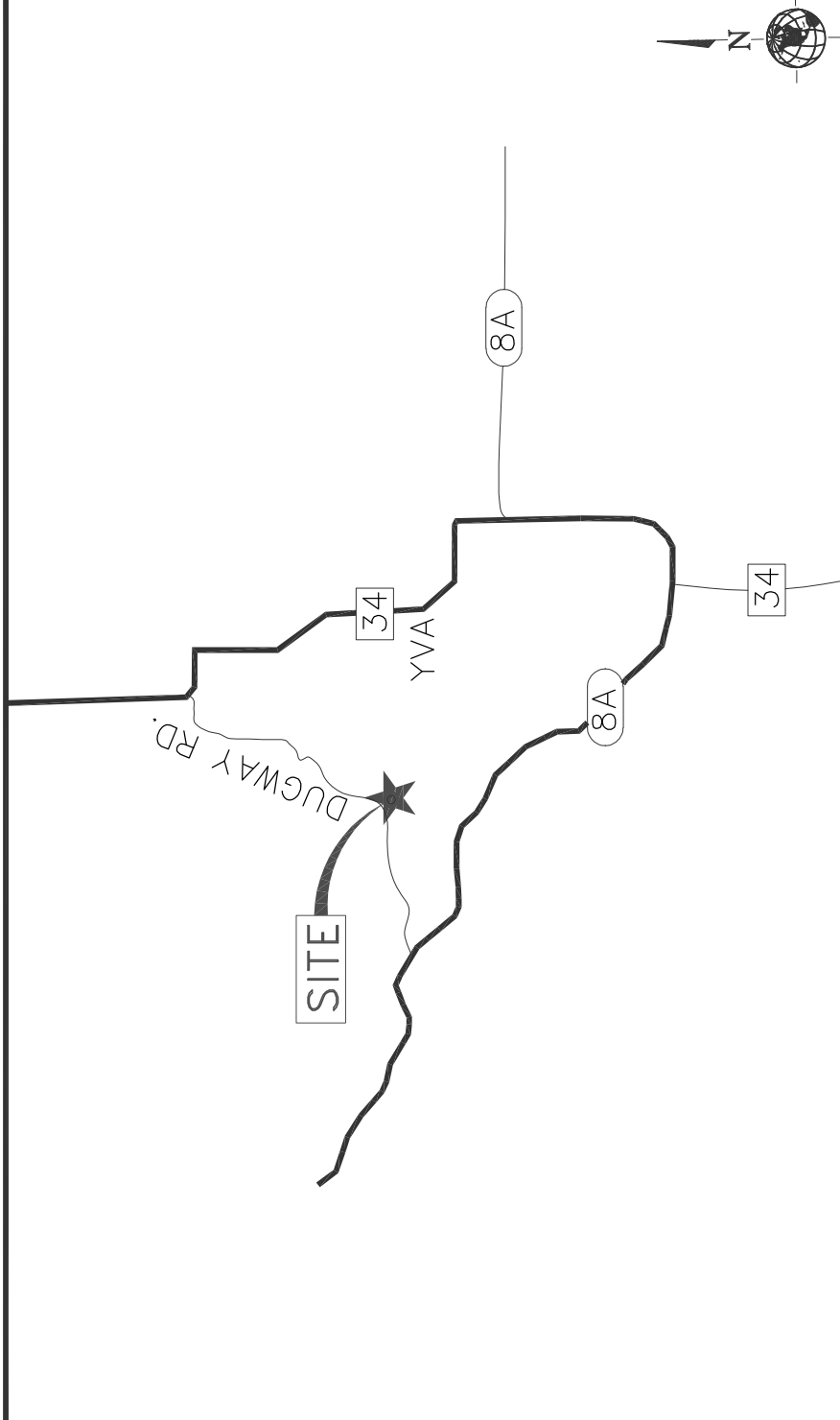
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.  
 2012 INTERNATIONAL BUILDING CODE (IBC)  
 2012 INTERNATIONAL MECHANICAL CODE (IMC)  
 2012 INTERNATIONAL PLUMBING CODE (IPC)  
 2011 NATIONAL ELECTRICAL CODE (NEC)  
 TIA/EIA-222-F STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES  
 LOCAL BUILDING CODE(S)  
 CITY AND/OR COUNTY AMENDED

**JURISDICTION: WASHOE COUNTY**

**STATE MAP**



**VICINITY MAP**



**DRIVING DIRECTIONS**

FROM VYA, NEVADA: HEAD NORTH ON COUNTY RD 34 N. (1.4 MILES) CONTINUE STRAIGHT ONTO DUGWAY RD. (1.5 MILES). TURN LEFT ONTO UNNAMED DIRT ROAD TO SITE.

SITE NAME:  
**VYA, NEVADA**

PROJECT:  
**RAW LAND MONOPOLE**

**PROJECT INFORMATION**

SITE NAME:	VYA, NEVADA
SITE ADDRESS:	89000A DUGWAY ROAD GERLACH, NV 89413
SITE COORDINATES:	LATITUDE: 41° 35' 30.76358" N (NAD 83) LONGITUDE: 119° 52' 47.14752" W (NAD 83) ELEVATION: ±6,236.20' (AMSL) (NAVD 88)
APPLICANT:	COMMNET WIRELESS, LLC 1562 NORTH PARK STREET CASTLE ROCK, COLORADO 80109
CONTACT:	DAVE TILLER (720) 357-5384
PROPERTY OWNER:	UNITED STATES OF AMERICA
APN NUMBER:	061-010-49
CURRENT ZONING:	BLM
CONSTRUCTION TYPE:	VB
NEW USE:	U
OCCUPANCY:	VACANT LAND
CURRENT USE:	UNMANNED TELECOMMUNICATIONS FACILITY
LEASE AREA:	7,469 SQ.FT.

**SHEET INDEX**

TITLE:	DESCRIPTION:
T-1	TITLE SHEET & PROJECT INFORMATION
GN-1	GENERAL NOTES
SN-1	SITE SIGNATE DETAILS
A-1	OVERALL SITE PLAN
A-2.0	ENLARGED SITE PLAN
A-2.1	SHELTER LAYOUT
A-3	SITE ELEVATION & DETAILS
A-4	NOT USED
A-5	CONSTRUCTION DETAILS
A-6	CONSTRUCTION DETAILS
A-7	CONSTRUCTION DETAILS
A-8	CONSTRUCTION DETAILS
S-1	SHELTER FOUNDATION DETAILS
E-1	OVERALL ELECTRICAL PLAN & ELECTRICAL NOTES
E-2	PANEL SCHEDULE & ONE LINE DIAGRAM
E-3	DETAILS
G-1	GROUNDING PLAN
G-2	GROUNDING DETAILS

**UTILITY TABLE**

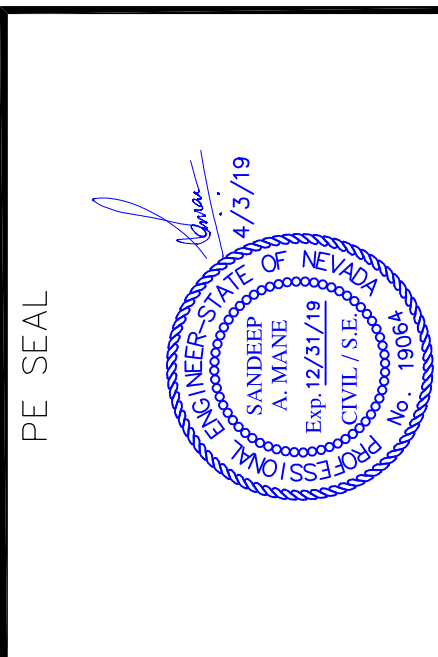
UTILITY:	PROVIDER:
WATER	N/A
SEWER	N/A
ELECTRICAL	NV ENERGY
TELEPHONE/FIBER	TBD
POLICE	WASHOE COUNTY
FIRE	WASHOE COUNTY

**APPROVAL BOX**

DEPARTMENT:	SIGNATURE:	DATE:
PROJECT MANAGER		
CONSTRUCTION MANAGER		
RF MANAGER		
PROPERTY OWNER REPRESENTATIVE		



1337 E DESERT FLOWER LANE  
 PHOENIX, AZ 85048  
 PHONE: (480) 213-8524



DESIGNER: JASON NGO  
 LEAD EE: SB  
 LEAD CE/SE: SAM

**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
H	1/25/19	COMMENTS	JN
I	2/13/19	COMMENTS	JN
J	2/18/19	COMMENTS	JN
K	2/19/19	FINAL CD	JN
L	4/3/19	REVISED CD	JN

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF COMMNET WIRELESS, LLC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF COMMNET WIRELESS, LLC.

SITE NAME  
 VYA, NEVADA

PROJECT  
 RAW LAND MONOPOLE

SITE ADDRESS  
 LAT: 41° 35' 30.76358" N  
 LONG: 119° 52' 47.14752" W  
 89000A DUGWAY ROAD  
 GERLACH, NV 89413

SHEET TITLE  
 TITLE SHEET

SHEET NUMBER  
 T-1



GENERAL NOTES – SCOPE OF WORK REVISION 9–19–16

THE CONTRACTOR SHALL CONDUCT ALL ACTIVITIES WHETHER CONSTRUCTION RELATED OR AFTER-HOURS WITH A HIGH DEGREE OF ETHICS AND APPROPRIATE BEHAVIOR.

THE CONTRACTOR SHALL PROVIDE A COMPLETE INSTALLATION IN ACCORDANCE WITH THE CONSTRUCTION PLANS PROVIDED AND DIRECTION OF THE CONSTRUCTION/PROJECT MANAGERS.

THE GC WILL NOT START CONSTRUCTION UNTIL EACH OF THE FOLLOWING HAS BEEN COMPLETED: PRE-CONSTRUCTION MEETING HAS BEEN HELD; BUILDING PERMIT HAS BEEN SECURED, AND THE PROJECT ENGINEER HAS AUTHORIZED START OF CONSTRUCTION.

THE CONTRACTOR SHALL NOT BE EXPECTED TO POWER-UP, COMMISSION OR BRING ON-LINE ANY EQUIPMENT.

THE CONTRACTOR SHALL ENSURE SITE AREA IS CLEAN AND FREE OF CONSTRUCTION DEBRIS ON A DAILY BASIS.

THE CONTRACTOR MAY BE REQUIRED TO ASSIST WITH PERMIT APPLICATIONS AND PLAN SUBMITTALS.

THE CONTRACTOR SHALL CALL-IN AND COORDINATES ALL NECESSARY INSPECTIONS WITH THE PROPER CITY, COUNTY, STATE AUTHORITY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IDENTIFIED BY OSHA REGULATIONS. UPON REQUEST, THE CONTRACTOR SHALL PROVIDE DOCUMENTS SHOWING COMPLIANCE.

THE CONTRACTOR SHALL SUPPLY ALL TOOLS NECESSARY TO COMPLETE CONSTRUCTION INCLUDING INSTALLATION OF GROUNDING SYSTEM, IN ACCORDANCE WITH THE PLANS.

THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS THAT DEMONSTRATE COMPLETION OF CONSTRUCTION AND THAT NOTE ANY DEVIATIONS FROM THE PLANS.

BID WALK

A BID WALK WILL BE HELD ON-SITE TO DISCUSS ANY QUESTIONS OR POSSIBLE SUGGESTIONS THAT GC'S MAY HAVE IN REGARDS TO THIS INSTALLATION. BID WALK IS OPTIONAL BUT NO CHANGE ORDERS WILL BE ALLOWED UNLESS APPROVED CM. BID WALK IS DESIGNED TO CLEAR UP ANY CONCERNS OR QUESTIONS THAT GC'S MAY HAVE ABOUT THE INSTALLATION.

DATE:

TIME:

GENERAL CONTRACTOR'S PROJECT MANAGER (CONTRACTOR PM) BEFORE THE COMMENCEMENT OF ANY WORK. THE GC WILL ASSIGN A CONTRACTOR PROJECT MANAGER (CONTRACTOR PM) WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS CONTRACTOR PM WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT, WHICH WILL BE SUBMITTED TO THE CWL CM PRIOR TO THE COMMENCEMENT OF ANY WORK. THIS CONTRACTOR PM WILL ALSO:

SCHEDULE AN ON-SITE MEETING PRIOR TO PROJECT START, WITH ALL MAJOR PARTIES PRESENT. APPROPRIATE PARTIES INCLUDE (BUT ARE NOT LIMITED TO) CWL CM, CWL LOCAL OPERATIONS POC (MANAGER, SUPERVISOR OR TECHNICIAN), LOCAL POWER COMPANY, DESIGNATED ELECTRICIAN, LOCAL TELEPHONE COMPANY, GC CREW CHIEF / FOREMAN. THE CONTRACTOR PM WILL PROVIDE DAILY VERBAL UPDATES ON SITE WORK PROGRESS TO THE CWL CM.

CIVIL

THE CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND PIPES/CONDUITS USING AN INDEPENDENT UNDERGROUND LOCATOR SERVICE.

THE CONTRACTOR SHALL COORDINATE EXCAVATION WORK WITH CM/OWNER SO AS NOT TO INTERFERE WITH COMPOUND ACCESS BY SITE OWNER AND/OR CURRENT TENANTS.

ALL EXCAVATION SHALL BE DONE WITH CARE TO AVOID DAMAGING UNDERGROUND PIPES/CONDUITS. ANY DAMAGE CAUSED BY CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY AND MONITORED BY THE CONTRACTOR UNTIL REPAIRS ARE COMPLETED. THE CONTRACTOR SHALL NOTIFY THE CM BY PHONE IMMEDIATELY IF DAMAGE TO UNDERGROUND FACILITIES IS CAUSED BY CONSTRUCTION AND THE CONTRACTOR SHALL SUBMIT A WRITTEN REPORT OF THE INCIDENT TO THE CM AND TO THE OWNER OF THE DAMAGED FACILITIES WITHIN 24 HOURS.

THE CONTRACTOR SHALL ENSURE THAT THE SITE IS GRADED PROPERLY DURING CONSTRUCTION TO AVOID STANDING WATER AND USE APPROVED BACKFILL METHODS FOR ANY TRENCH WORK REQUIRED. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITIONS USING LIKE MATERIALS.

ELECTRICAL  
THE CONTRACTOR SHALL INSTALL SECONDARY ELECTRICAL SERVICES ACCORDING TO THE PLANS AND CURRENT NEC AND LOCAL CODES. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED ELECTRICAL INSPECTIONS.

TELCO – SHELTER (IF APPLICABLE)

IT IS THE CONTRACTOR RESPONSIBILITY TO PROVIDE AND RUN TELEPHONE CABLE FROM THE TELCO BOX ON THE H-FRAME TO THE TELCO TERMINATION POINT INSIDE THE EQUIPMENT SHELTER. CABLE SHALL CONSIST OF TWO (2) EACH 25-PAIR SHIELDED TELEPHONE CABLES AND 1 PULL STRING. CABLE WILL BE RUN INSIDE A 3" PVC PIPE. CONDUITS WILL BE OUTFITTED WITH ABOVE-GROUND FROST-SLEEVES ON BOTH ENDS, AND INTERNAL CABLES MUST BE INSTALLED WITH ABOUT 8" OF SLACK TO ALLOW FOR POTENTIAL FROST-HEAVE RELIEF. ALSO, LEAVE ONE PULL-STRING INSIDE THE CONDUIT – TIED OFF AT BOTH ENDS – FOR POTENTIAL FUTURE USE.

TELCO – OUTDOOR EQUIPMENT (IF APPLICABLE)

IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL 2 TELEPHONE CABLE (CAT5) AND A PULL STRING FROM THE TELCO BOX ON THE H-FRAME TO THE TELCO TERMINATION POINT INSIDE THE EQUIPMENT CABINET OR DSX LOCATION.

EQUIPMENT SHELTER (IF APPLICABLE)

THE CONTRACTOR PM MUST PREPARE A "SPREAD-FOOTING AND PERIMETER-TYPE" (OR PERIMETER WITH SLAB) FOUNDATION FOR THE SHELTER BASED ON SITE PLANS. DIMENSIONS AND SPECIFICATIONS (INCLUDING REBAR PLAN) WILL BE AS INDICATED ON APPROVED FINAL SITE DRAWINGS.

ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AS SPECIFIED IN THE BUILDING SPECIFICATIONS. CONCRETE SAMPLES ARE TO BE TESTED AND THE RESULTS PROVIDED TO THE SITE DEVELOPMENT ENGINEER. IF THE RESULTS DO NOT MEET MINIMUM REQUIREMENTS AND IS DETERMINED TO BE UNACCEPTABLE, CONTRACTOR IS RESPONSIBLE FOR CORRECTING THE DEFICIENCIES.

THE GC'S FOUNDATION INSTALLATION SHALL INCLUDE:

- FOUNDATION LAYOUT
- EXCAVATION
- REINFORCING STEEL
- CONCRETE
- CONCRETE TESTING
- PITCHING TO PREVENT WATER COLLECTION ON THE 4' X 4' SHELTER ENTRANCE
- BACK FILL AND COMPACTION

COORDINATION OF SHELTER DELIVERY, OFFLOAD, AND SET, ALONG WITH ALL NECESSARY PERMITS TO TRAVERSE PUBLIC ROADS AND GAIN ACCESS TO THE SITE, AND APPROPRIATE OFFLOAD TOOLS, ARE THE RESPONSIBILITY OF THE CONTRACTOR PM (THIS APPLIES TO THINGS SUCH AS: SHELTER DELIVERY VEHICLE(S), CRANE, CULVERTS, CURB-CUTS, TRAFFIC CONTROL, ROAD RESTRICTIONS, ETC).

THE CONTRACTOR PM WILL COMMUNICATE DIRECTLY WITH THE DRIVER OF THE SHELTER DELIVERY VEHICLE TO VERIFY ACTUAL SHELTER AND CONTENTS WEIGHT – AS WEIGHED BY HIGHWAY SCALES. THE CONTRACTOR PM IS RESPONSIBLE TO COORDINATE THE APPROPRIATELY SIZED / RATED CRANE AND LIFTING EQUIPMENT (IE: SPREADER BARS, LIFTING CABLES, LIFTING SHACKLES, ETC), BASED ON THE ACTUAL WEIGHT OF SHELTER AND CONTENTS.

POWER AND EQUIPMENT BAYS (IF APPLICABLE)

THE CONTRACTOR SHALL INSTALL ALL INTER-BAY CONNECTIONS ACCORDING TO THE PLANS, WHICH INCLUDE TELCO, DC CIRCUITS, ALARM CABLES, AND BATTERIES.

ALL EQUIPMENT BAY CONTACT AND SECURE POINTS ARE MADE OF ALUMINUM. IT IS EXPECTED THAT NO POWER TOOLS SHALL BE UTILIZED TO SECURE THE CARDS AND CABLES IN TO PLACE.

ANTENNAS/COAX/POWER/FIBER

THE CONTRACTOR SHALL USE TRUE NORTH TO SET ALL ANTENNA AZIMUTHS.

THE CONTRACTOR, IN ORDER TO MEET THE PERFORMANCE REQUIREMENTS FOR E-911 FOR COMMNET, AND OTHER PERFORMANCE/QUALITY CONTROL, SHALL USE AN ANTENNA ALIGNMENT TOOL IN ORDER TO ACCURATELY CAPTURE ALIGNMENT IN AZIMUTH, TILT, ROLL AND (OPTIONALLY) AGL HEIGHT. THE CONTRACTOR SHOULD USE EQUIPMENT OF GOOD QUALITY AND PREFERRED THOUGHT THE WIRELESS INDUSTRY.

THE CONTRACTOR SHALL TRANSPORT ANTENNAS IN A MANNER THAT WILL NOT DAMAGE OR EFFECT THE ANTENNAS PERFORMANCE AND PRE-SWEEP OR IF AVAILABLE PIM TEST PRIOR TO INSTALL.

THE CONTRACTOR SHALL INSPECT, CLEAN AND TEST FIBER CABLES PRIOR TO INSTALLING AND RECORD THE RESULTS TO CWL CM.

THE CONTRACTOR SHALL BY USE OF A TORQUE WRENCH, PROPERLY TORQUE JUMPER, COAX ANTENNAS, CONNECTIONS TO INSURE A SECURE CONNECTION AND TO AVOID OVER TIGHTENING.

THE CONTRACTOR WILL ATTACH ANTENNAS USING PROPER MOUNTING BRACKETS.

THE CONTRACTOR SHALL VERIFY THAT PIPE MOUNTS ARE VERTICAL (PLUMB).

THE CONTRACTOR SHALL COLD GALVANIZE SPRAY ALL DAMAGED PARTS OF THE HOT DIP GALVANIZATION.

THE CONTRACTOR SHALL INSTALL GROUNDING IN ACCORDANCE WITH THE PLANS AND MANUFACTURER'S RECOMMENDATIONS. GROUNDING KITS TO BE INSTALLED AT INTERVALS OF 100' ON TOWER.

THE CONTRACTOR SHALL INSTALL ICE-BRIDGE FROM TOWER TO THE APPROPRIATE RF BAY OR EQUIPMENT SHELTER, IF REQUIRED.

THE CONTRACTOR SHALL ROUTE SPECIFIED COAX/POWER/FIBER CABLES ALONG CABLE TRAY/ICE-BRIDGE USING HANGERS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL MARK EACH COAXIAL/POWER/FIBER CABLE IN ACCORDANCE WITH THE ANTENNA/FEEDLINE COLOR CODE SHEET AS SHOWN IN THE PLANS.

THE CONTRACTOR SHALL INSTALL HOISTING GRIPS, ACCORDING TO MANUFACTURER'S RECOMMENDATIONS (AS APPLICABLE).

THE CONTRACTOR SHALL INSTALL SURGE ARRESTORS/BIAS-T, IF REQUIRED, AND BUSS BARS IN APPROVED LOCATIONS.

THE CONTRACTOR SHALL WEATHERPROOF ALL COAX CONNECTIONS IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL PERFORM A "TAPE DROP" MEASUREMENT TO CONFIRM / VALIDATE ANTENNA CENTER LINE (ACL) HEIGHT.

GROUNDING

THE CONTRACTOR SHALL INSTALL THE GROUNDING SYSTEM IN ACCORDANCE WITH THE PLAN.

THE CONTRACTOR SHALL ROUTE GROUND LEADS TO ALL GROUNDING POINTS AND GROUND LEADS BY USING EXOTHERMIC WELDS OR APPROVED MECHANICAL COMPRESSION CONNECTIONS.

THE CONTRACTOR SHALL APPLY OXIDE-INHIBITING COMPOUND IN ALL REQUIRED LOCATIONS.

FOR NEW CONSTRUCTION, THE CONTRACTOR SHALL PERFORM A MEGGER TEST AFTER ALL ATTACHMENTS HAVE BEEN MADE TO THE EQUIPMENT AND PROVIDE READINGS TO THE CM FOR CLOSE OUT REPORTS.

IF REQUIRED, THE CONTRACTOR SHALL PROVIDE PHOTOS VERIFYING THAT ALL GROUND LEADS ARE IN PLACE AND CONNECTED TO SUBSURFACE GROUND RING PRIOR TO BACKFILLING GROUND SYSTEM EXCAVATION (CAD WELD OR BURNDY HY-GROUND CONNECTIONS BELOW GRADE).

MATERIALS

SECURITY AND PRESERVATION OF SITE MATERIALS AND EQUIPMENT ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. IN THE EVENT OF DAMAGE, THE CONTRACTOR SHALL PRESERVE THE ORIGINAL CONTAINER AND CONTACT CWL/CWL CM IMMEDIATELY.

THE CONTRACTOR SHALL COMPLETE INVENTORY VERIFICATION NO LATER THAN ONE (1) BUSINESS DAY AFTER RECEIPT OF MATERIALS. TO INDICATE COMPLETION OF INVENTORY, THE CONTRACTOR SHALL SIGN AND DATE A COPY OF MATERIAL LIST AND GIVE TO THE CM. ANY MISSING MATERIAL SHALL BE REPORTED THE CM IMMEDIATELY.

NOTE: FAILURE TO PERFORM INVENTORY VERIFICATION AS REQUIRED INDICATES ACKNOWLEDGEMENT FROM THE CONTRACTOR THAT THE MATERIALS AND EQUIPMENT WERE RECEIVED IN THEIR ENTIRETY AND THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY AND REPLACEMENT COSTS FOR EQUIPMENT SHORTAGES.

MISCELLANEOUS NOTES

THE CONTRACTOR SHALL REQUEST APPROVAL FROM THE CM FOR ANY CHANGES OR DEVIATIONS FROM THE PLANS.

FOR CHANGES THAT REQUIRED ADDITIONAL COSTS, THE CM WILL COMPLETE A CHANGE ORDER FORM OUTLINE THE REASON FOR THE CHANGE AND ITS COSTS.

SWEEP/PIM/FIBER TEST

AFTER THE INSTALLATION OF ANTENNAS & LINES, THE GENERAL CONTRACTOR SHALL SWEEP AND TEST ALL COMPONENTS AND PROVIDE A HARD COPY REPORT OF THE RESULTS. A GRAPH PRINTOUT IS TO BE PROVIDED TO THE LOCAL NETWORK OPERATIONS MANAGER AND CM BY THE GC FOR APPROVAL. SWEEP TESTS SHOULD BE PERFORMED BY THE GC TERMINATING EACH RUN OF COAX WITH A SHORT, 50 OHM LOAD, AND ANTENNA WITH JUMPER AND PROVIDING RETURN LOSS RESULTS.

AFTER THE INSTALLATION OF FIBER TRUNKS AND JUMPERS, THE GC SHOULD PROPERLY RE-TEST THE FIBER TO CONFIRM THE RESULTS ARE WITHIN TOLERANCE OF THE MANUFACTURES SUGGESTED LIMITS.

IF CONTRACTORS OFFER PIM TESTING, PIM TEST SHOULD BE CONDUCTED ON JUMPERS AND ANTENNAS TO CONFIRM THEY ARE IN TOLERANCE AND WORKING PROPERLY.

PIM TESTING STANDARD

REQUIREMENTS FOR PIM TESTING TO A LOAD PASSING: -103DBM OR -146DBC TO A LOAD

REQUIRES APPROVAL: -102DBM TO -97DBM (-145DBC TO -140DBC) TO A LOAD

FAILING: BELOW -96DBM (-139DBC) TO A LOAD

SWEEP TEST REQUIRED PER EACH COAXIAL CABLE/ANTENNA SYSTEM

-ANTENNA ON GROUND BEFORE INSTALLING ON TOWER

-RETURN LOSS WITH 50 OHM LOAD CONNECTED TO MAIN COAXIAL LINE AND JUMPER

-DISTANCE TO FAULT (DTF) WITH 50 OHM LOAD CONNECTED TO MAIN COAXIAL LINE AND JUMPER

-RETURN LOSS WITH PRECISION SHORT CONNECTED TO MAIN COAXIAL LINE AND JUMPER

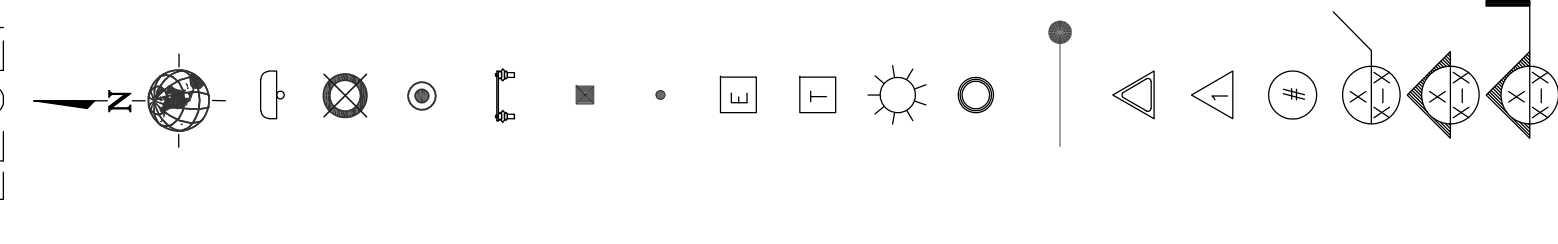
-DISTANCE TO FAULT (DTF) WITH PRECISION SHORT CONNECTED TO MAIN COAXIAL LINE AND JUMPER

-RETURN LOSS SYSTEM W/ANTENNA CONNECTED TO MAIN COAXIAL LINE AND JUMPER

-DISTANCE TO FAULT (DTF) SYSTEM W/ANTENNA CONNECTED TO MAIN COAXIAL LINE AND JUMPER

-18 IS THE PASS / FAIL LINE – ALL TESTS PERFORMED FROM THE POINT AT WHICH THE JUMPERS CONNECT TO THE DVPAS INSIDE THE GSM CABINET AND AT THE JUMPER GOING INTO THE CDMA CABINET. ALL LINES, REGARDLESS OF USE, ARE TO BE TESTED.

LEGEND



NORTH ARROW

ANTENNA

GROUND ACCESS WELL

GROUND ROD

GROUND BUSS BAR

MECHANICAL GRND. CONN.

EXOTHERMIC WELD

ELECTRIC BOX

TELEPHONE BOX

LIGHT POLE

FND. MONUMENT

SPOT ELEVATION

SET POINT

REVISION

KEYED NOTE

DETAIL REFERENCE

ELEVATION REFERENCE

SECTION REFERENCE

GROUT OR PLASTER

EXISTING BRICK

EXISTING MASONRY

CONCRETE

EARTH

GRAVEL

PLYWOOD

SAND

WOOD CONT.

WOOD BLOCKING

STEEL

CENTERLINE

PROPERTY/LEASE LINE

RIGHT OF WAY

MATCH LINE

WORK POINT

GROUND CONDUCTOR

TELEPHONE CONDUIT

ELECTRICAL CONDUIT

COAXIAL CABLE

OVERHEAD SERVICE CONDUCTORS

CHAIN LINK FENCING

RET (REMOTE ELECTRICAL TILT)

PDU (POWER DISTRIBUTION UNIT)

ALARM

RAILROAD TRACKS

DESIGNER: JASON NGO

LEAD EE: SB

LEAD CE/SE: SAM

REV.	DATE	DESCRIPTION	BY
H	1/25/19	COMMENTS	JN
I	2/13/19	COMMENTS	JN
J	2/18/19	COMMENTS	JN
K	2/19/19	FINAL CD	JN
L	4/3/19	REVISED CD	JN

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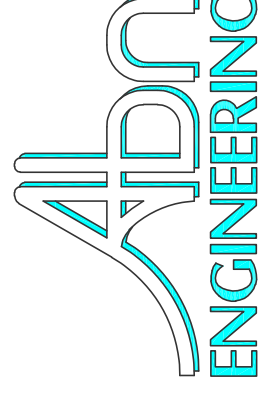
SITE NAME  
VYA, NEVADA

PROJECT  
RAW LAND MONOPOLE

SITE ADDRESS  
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LONG: 119° 52' 47.14752"W  
89000A DUGWAY ROAD  
GERLACH, NV 89413

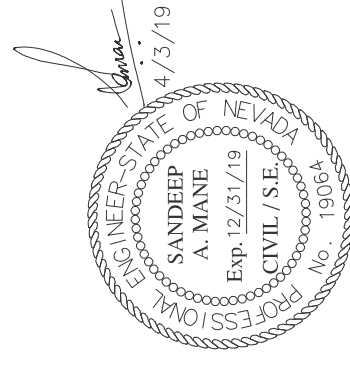
SHEET TITLE  
GENERAL NOTES

SHEET NUMBER  
GN-1




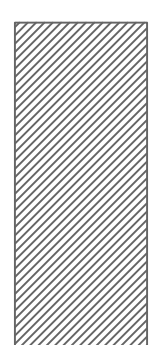
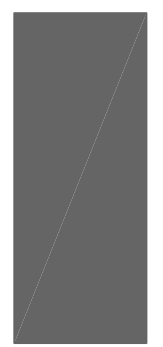
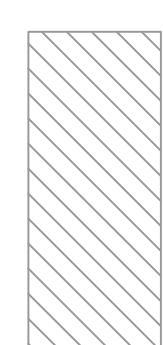
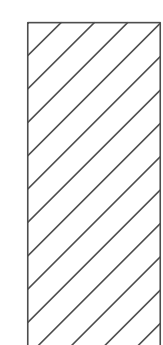
1337 E DESERT FLOWER LANE  
PHOENIX, AZ 85048  
PHONE: (480) 213-8524

PE SEAL

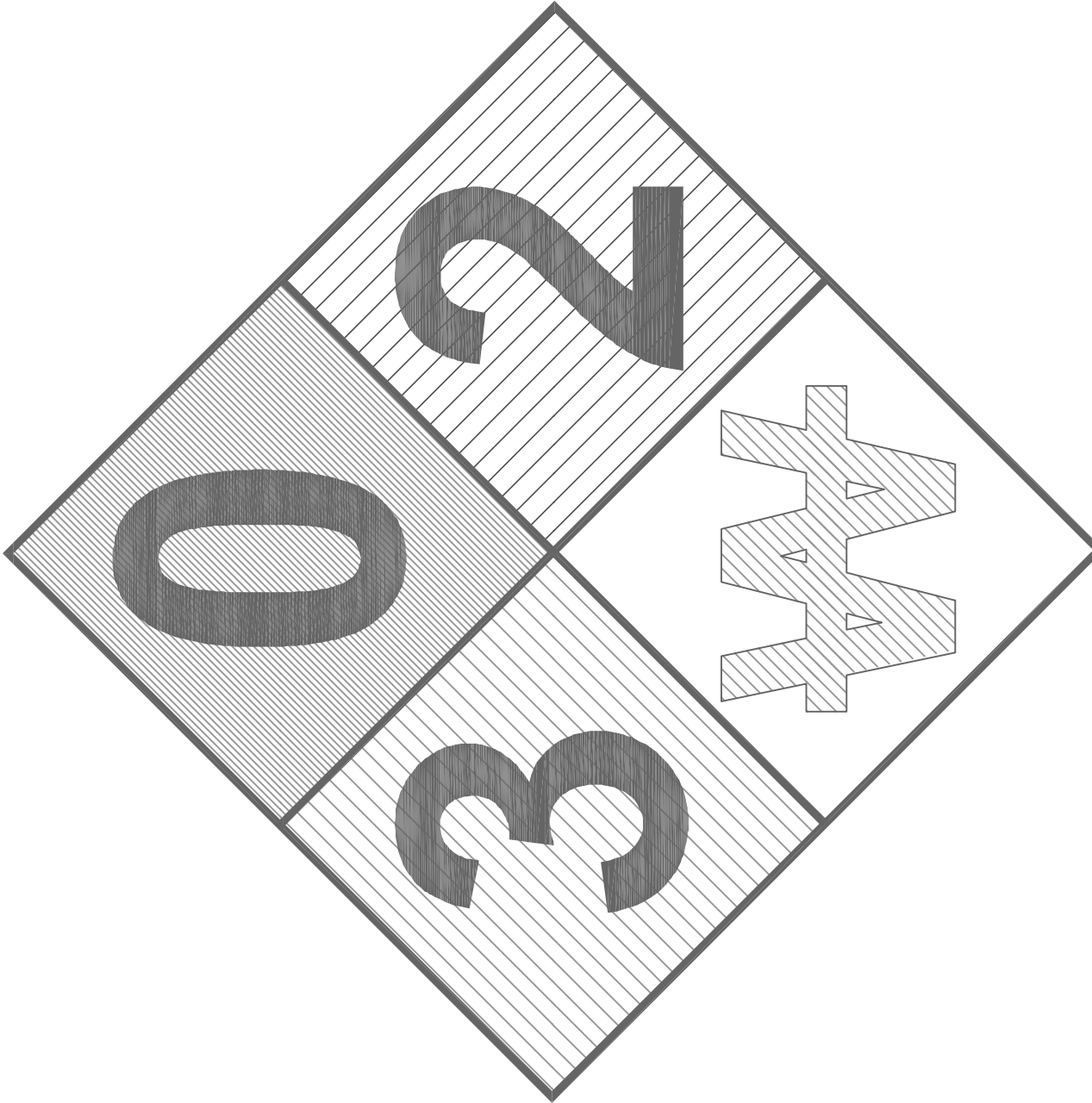




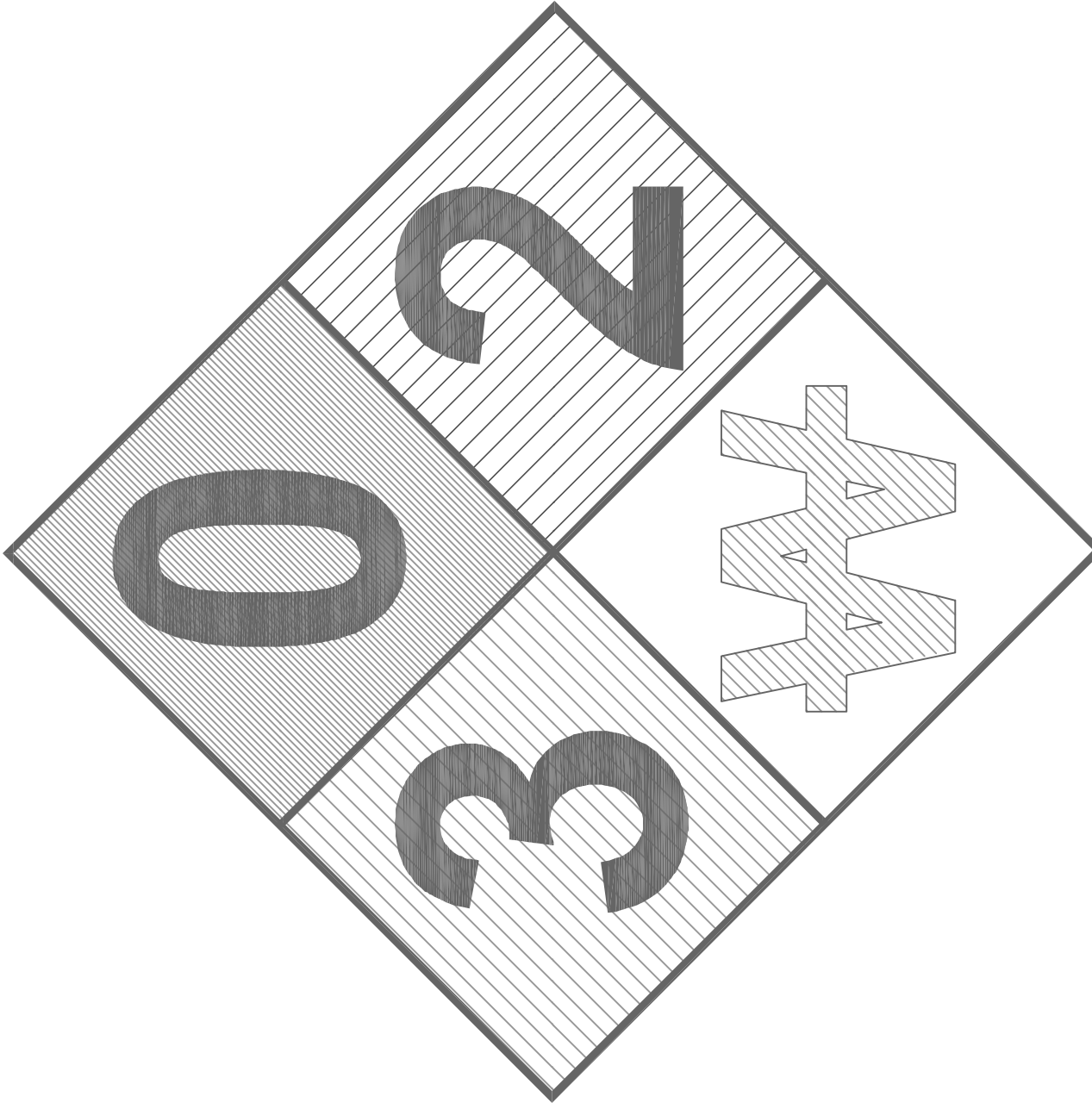
**COLOR CODE**

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	BLUE		YELLOW		

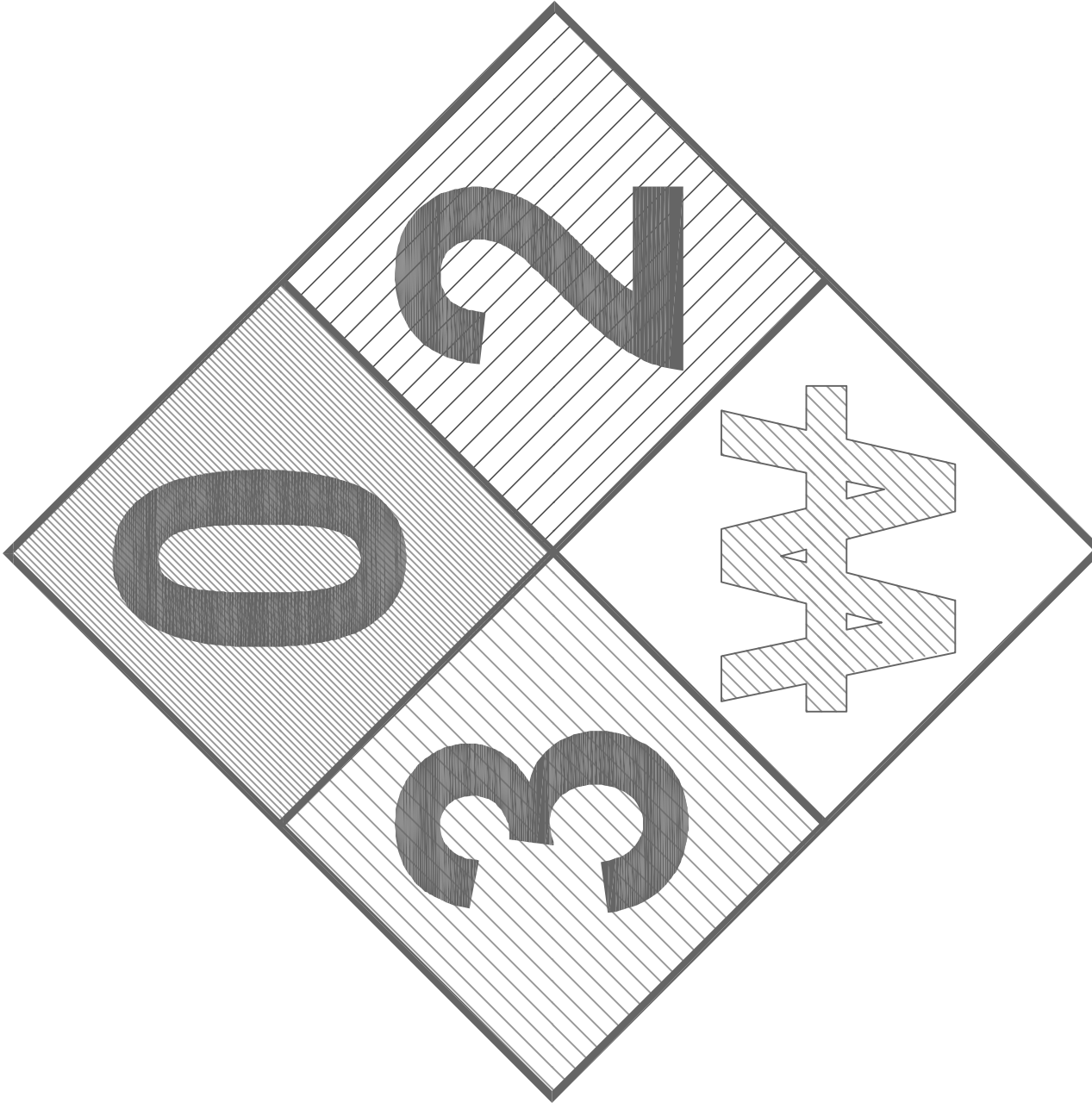
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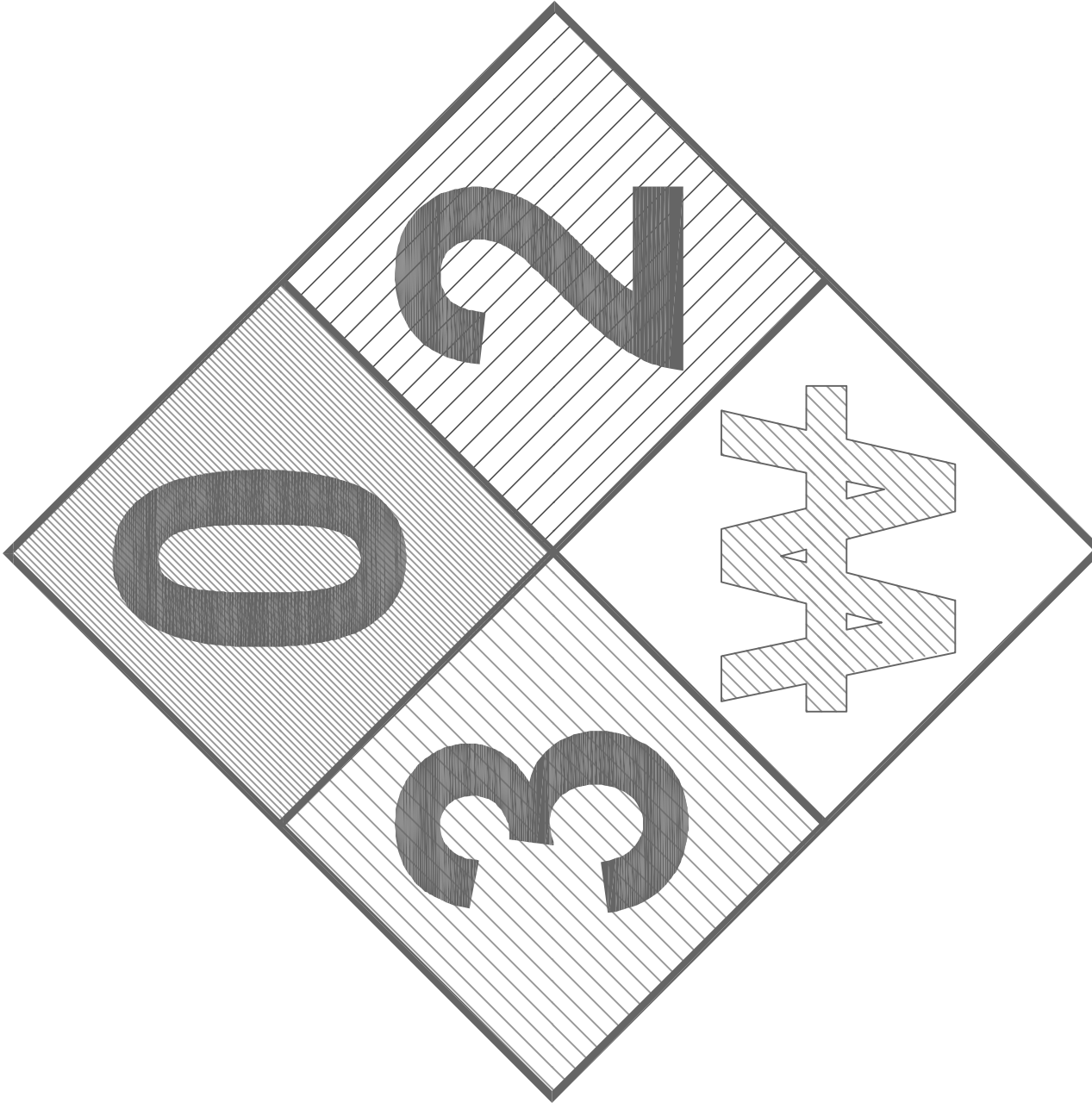
WHITE LETTERING / SYMBOL ON RED BACKGROUND (TYP.)



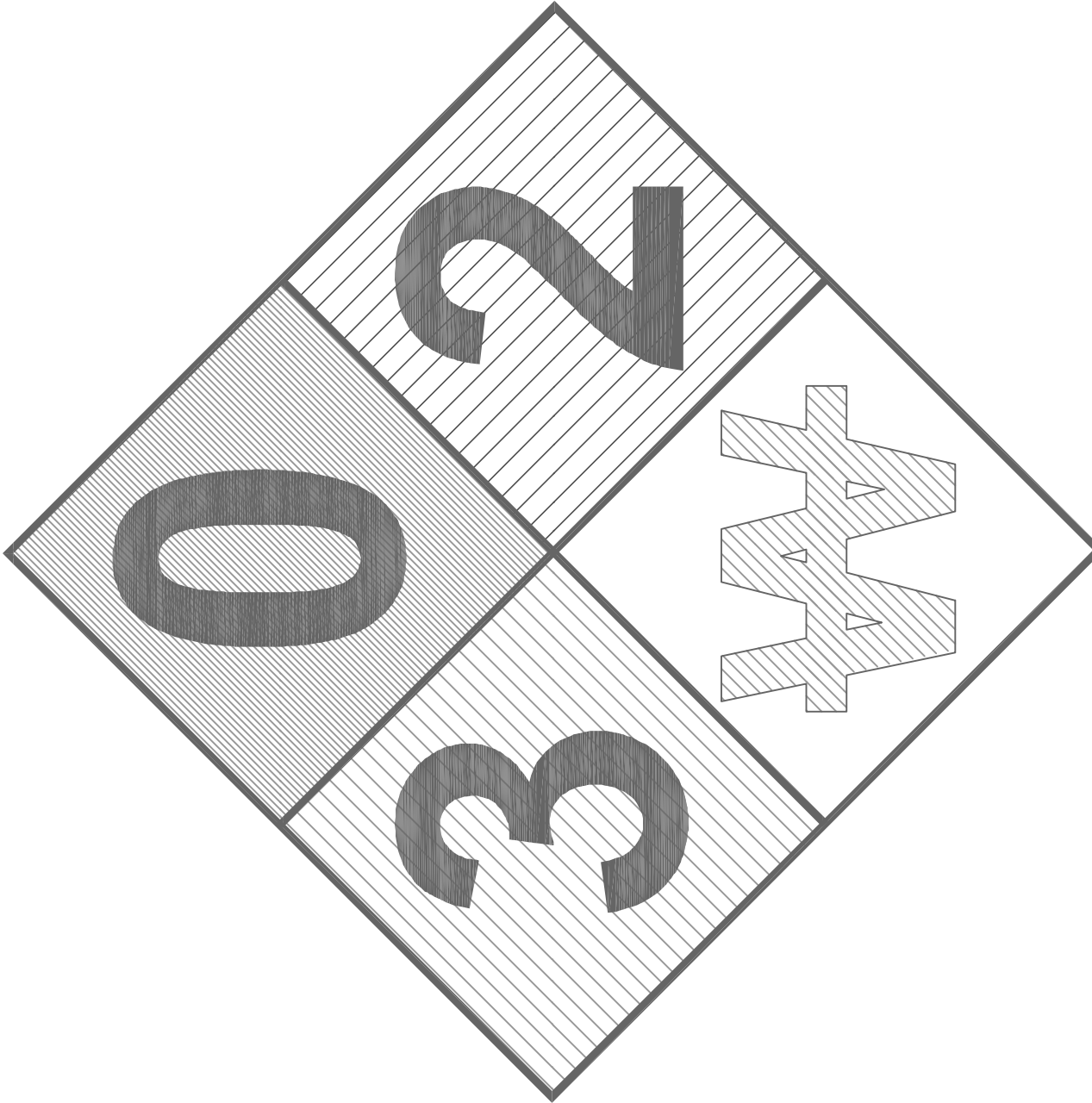
**HAZARDOUS MATERIALS SIGNAGE**



WHITE LETTERING / SYMBOL ON RED BACKGROUND (TYP.)



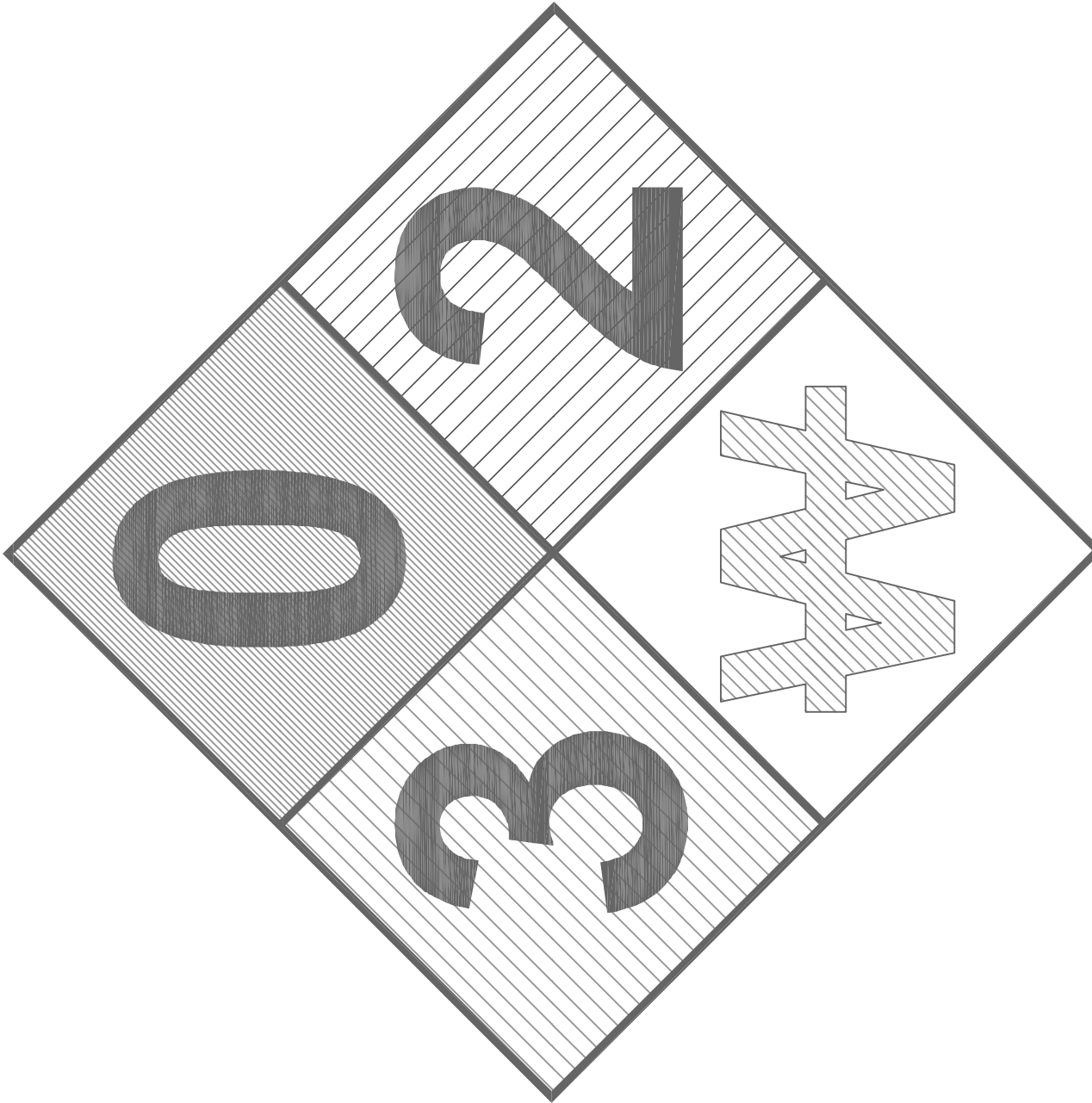
**HAZARDOUS MATERIALS SIGNAGE**



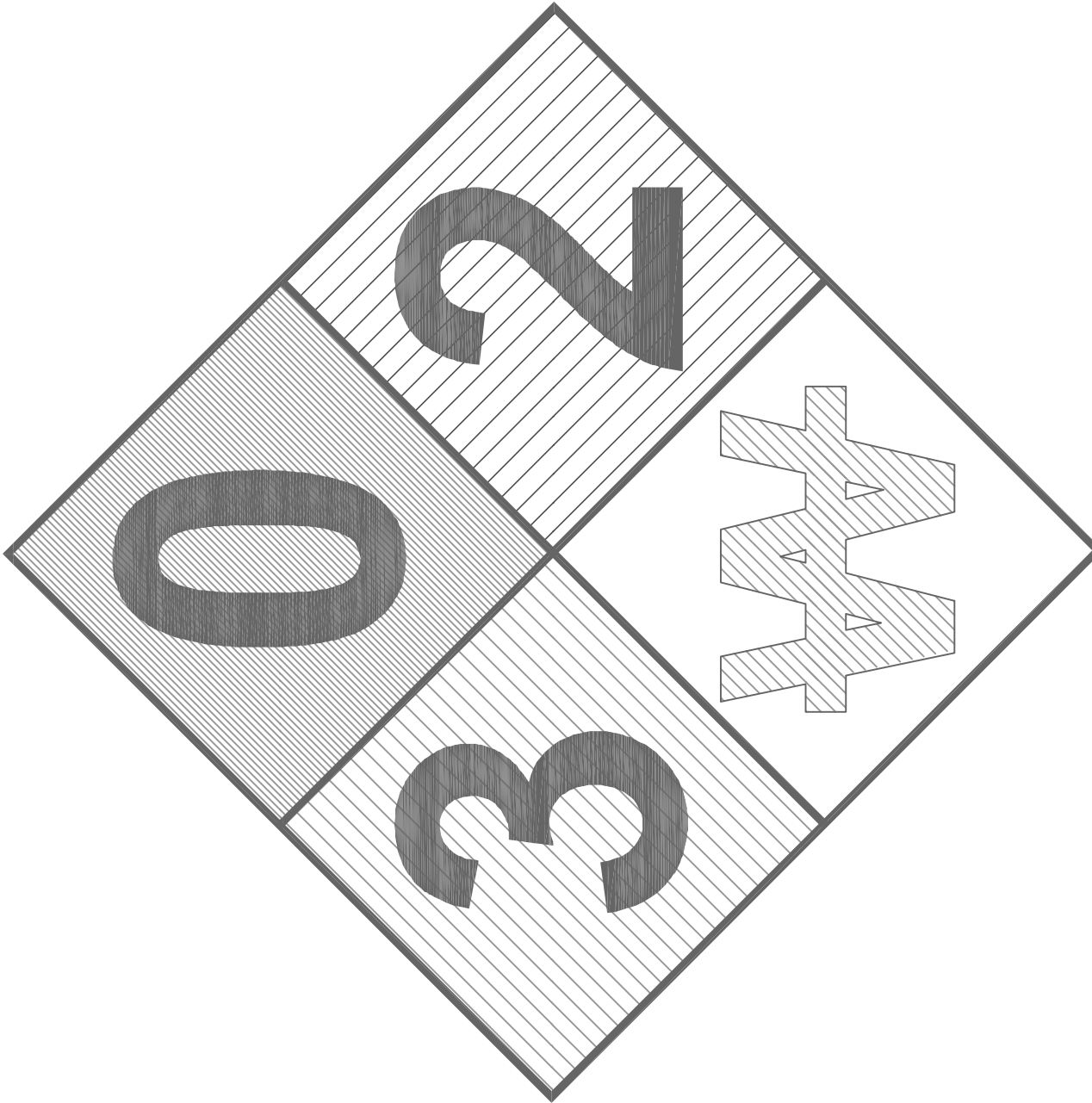
WHITE LETTERING / SYMBOL ON RED BACKGROUND (TYP.)

**2** SCALE: NTS

**REQUIRED NFPA SIGNAGE**




WHITE LETTERING / SYMBOL ON RED BACKGROUND (TYP.)




WHITE LETTERING / SYMBOL ON RED BACKGROUND (TYP.)

**FENCE SIGNAGE**



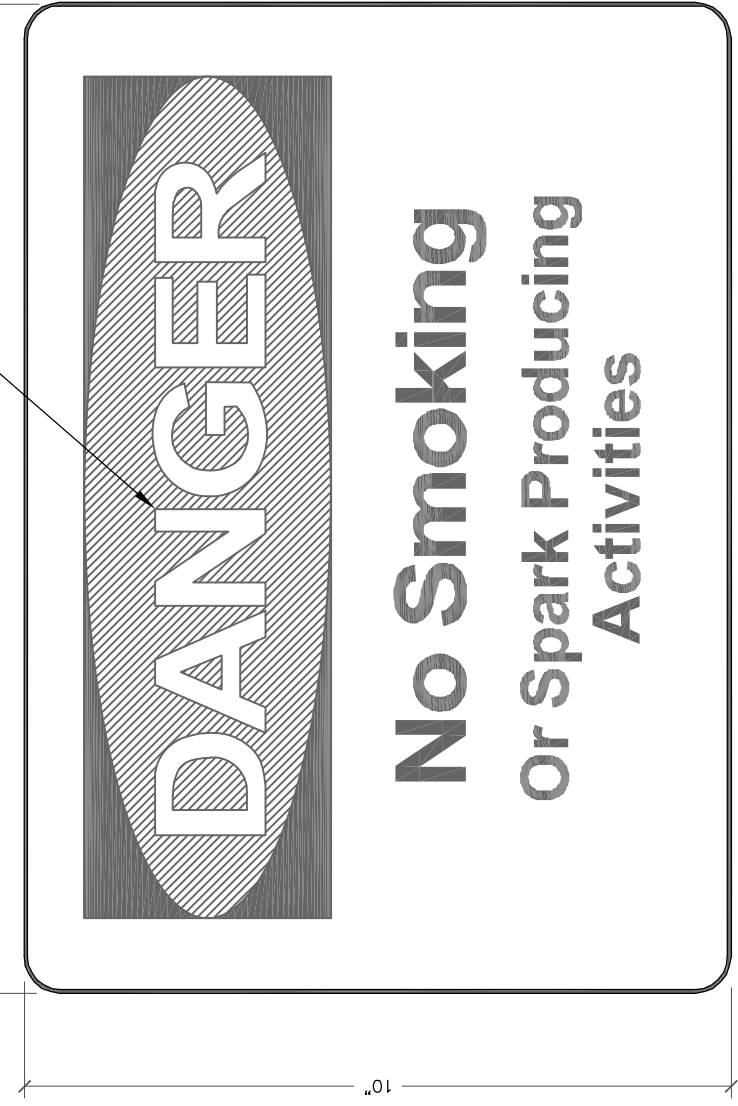
WHITE LETTERING ON RED BACKGROUND (TYP.)



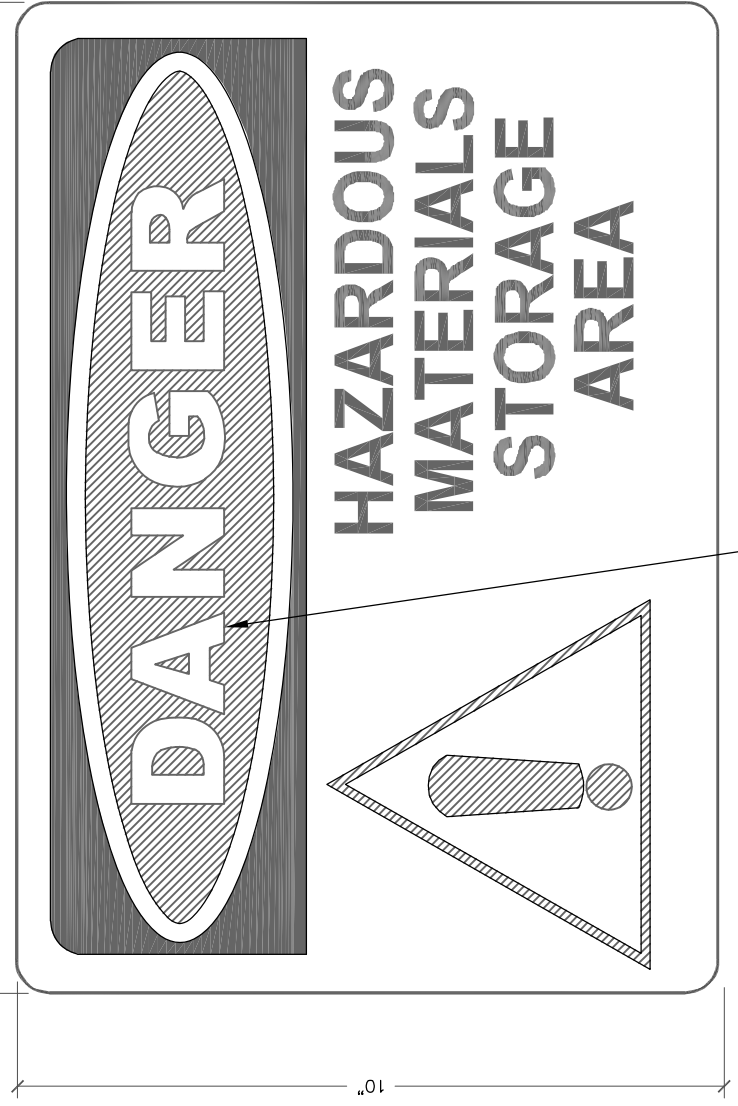
**3** SCALE: NTS

**RF SIGNAGE**

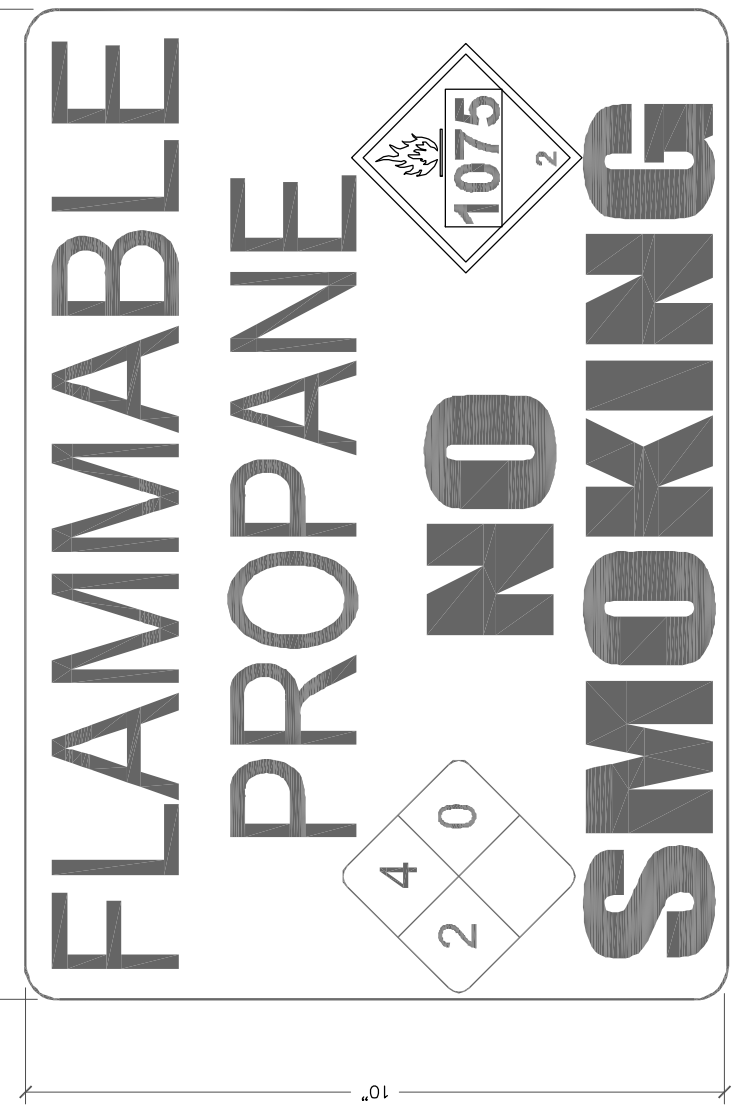

**4** SCALE: NTS



WHITE LETTERING ON RED BACKGROUND (TYP.)



WHITE LETTERING ON RED BACKGROUND (TYP.)

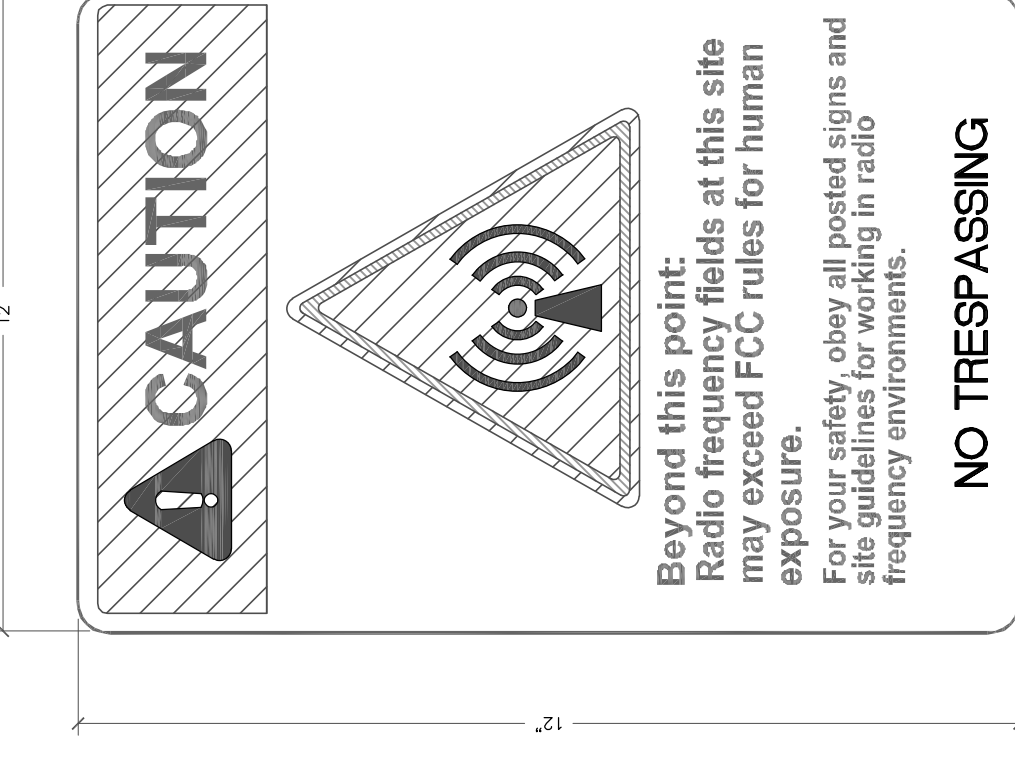
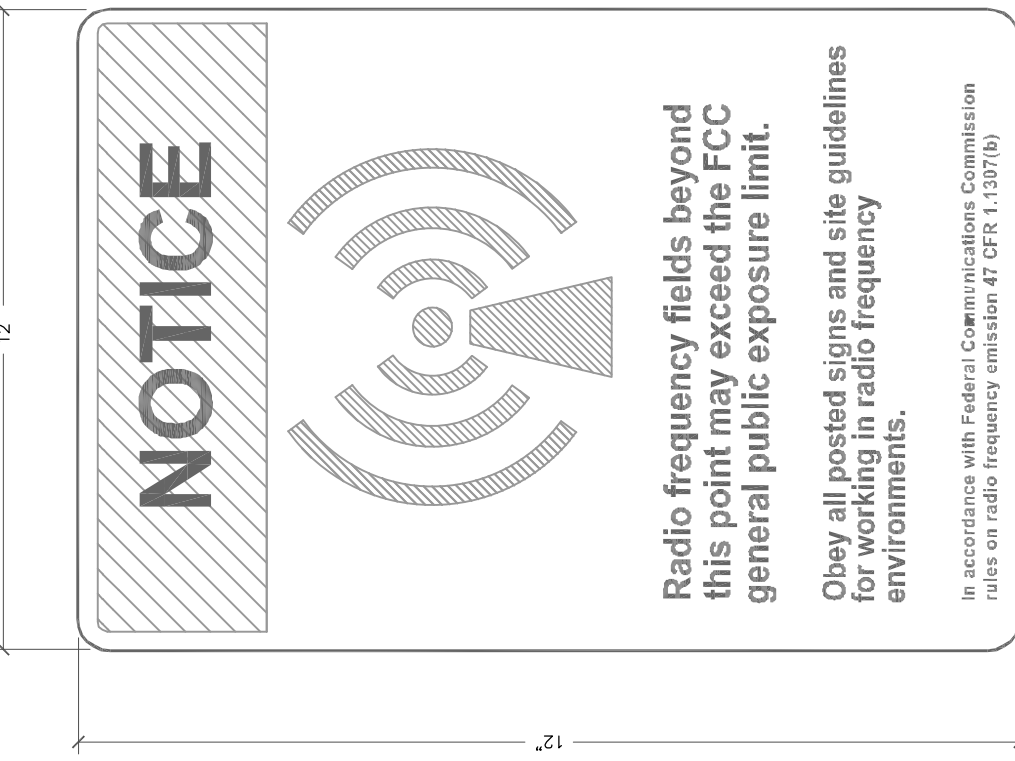
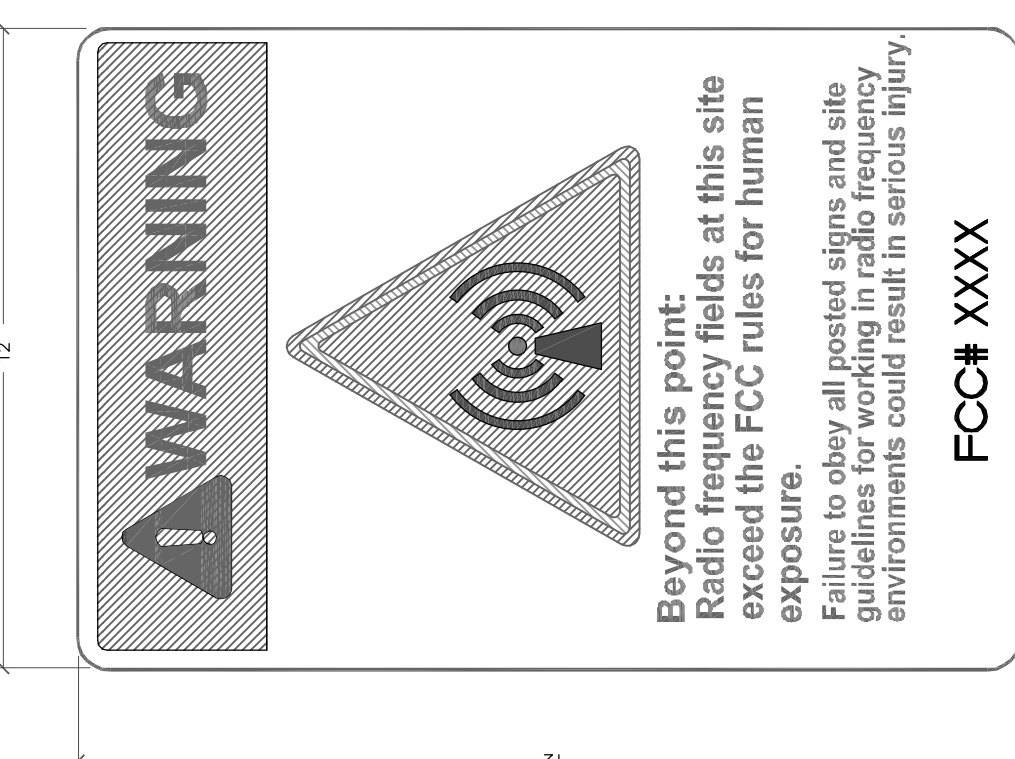



**HAZARDOUS MATERIALS SIGNAGE**

4. REFERENCE ANSI C95.2 FOR COLOR, SYMBOLS AND CONVENTIONS  
5. SIGNS SHALL BE POSTED ON ACCESS GATE AND SHELTER DOOR OR OUTDOOR EQUIPMENT CABINETS

**5** SCALE: NTS

**RF SIGNAGE**

**HAZARDOUS MATERIALS SIGNAGE**

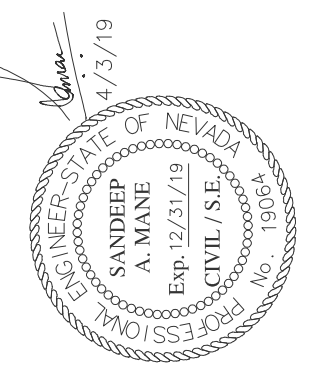
1. SIGN MATERIAL: 18 GA SHEET ALUMINUM ALLOY 6061-T6, 5052-H38, 5154-H38 OR EQUIVALENT.  
2. LETTERING COLOR: NON REFLECTIVE BLACK SCREENED, CUT OUT PERMANENT OR REMOVABLE LEGEND.  
3. BACKGROUND COLORS: REFLECTIVE WHITE; SILVER WHITE ASTM TYPE III OR TYPE IV SHEETING - U.N.O. NON REFLECTIVE - YELLOW RED BLUE AND GREY TRANSPARENT PASTE APPLIED OVER THE SILVER WHITE SHEETING.

IN ACCORDANCE WITH FEDERAL COMMUNICATIONS COMMISSION PART 97.1015 RADIO FREQUENCY SIGNAGE (47 CFR 97.1015)




1337 E DESERT FLOWER LANE  
PHOENIX, AZ 85048  
PHONE: (480) 213-8524

PE SEAL



DESIGNER: JASON NGO  
LEAD EE: SB  
LEAD CE/SE: SAM

**SUBMITTALS**

REV.	DATE	DESCRIPTION	BY
H	1/25/19	COMMENTS	JN
I	2/13/19	COMMENTS	JN
J	2/18/19	COMMENTS	JN
K	2/19/19	FINAL CD	JN
L	4/3/19	REVISED CD	JN

THE INFORMATION CONTAINED IN THIS DOCUMENT IS PREPARED BY MATTHEW L. SUTHERLAND FOR OTHER THAN THAT WHICH RELATES TO COMMNET WIRELESS IS STRICTLY PROHIBITED.

SITE NAME  
VYA, NEVADA

PROJECT  
RAW LAND MONOPOLE

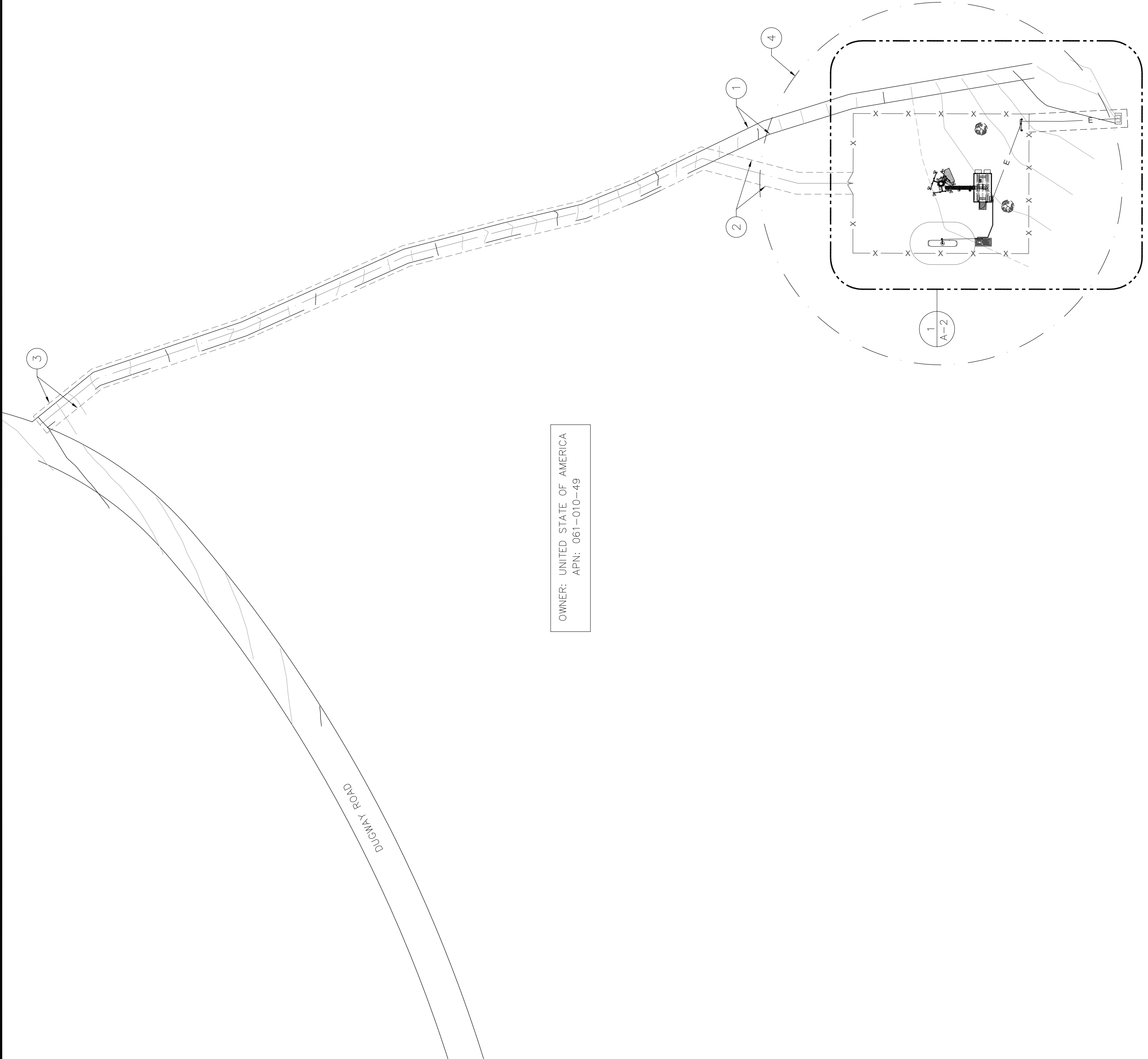
SITE ADDRESS  
LAT: 41° 35' 30.76358"N  
LONG: 119° 52' 47.14752"W  
89000A DUGWAY ROAD  
GERLACH, NV 89413

SHEET TITLE  
SITE SIGNAGE DETAILS

SHEET NUMBER  
SN-1



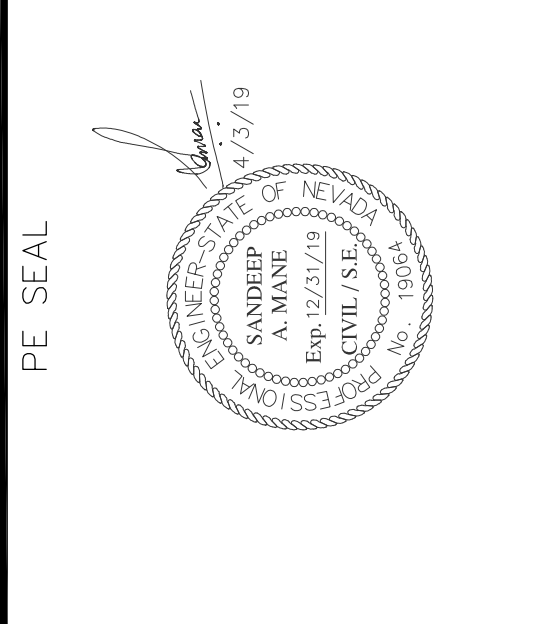
- COMPOUND PLAN KEYED NOTES: #
- (E) DIRT ROAD
  - (N) 12' WIDE DIRT ACCESS ROAD
  - (N) 12' WIDE ACCESS EASEMENT
  - CONSTRUCTION WORK AREA ±100' RADIUS, THE AREA WITHIN THIS BOUNDARY TO BE USED AS TEMPORARY CONSTRUCTION ZONE. STAGING MATERIAL AREA, VEHICLE ACTIVITY AREA AND GENERAL CONSTRUCTION PURPOSE. THIS AREA WILL RECLAIMED AND CLEANED UP AFTER CONSTRUCTION IS COMPLETE.



OWNER: UNITED STATE OF AMERICA  
APN: 061-010-49



**Abn ENGINEERING**  
1337 E DESERT FLOWER LANE  
PHOENIX, AZ 85048  
PHONE: (480) 213-8524



DESIGNER: JASON NGO  
LEAD EE: SB  
LEAD CE/SE: SAM

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J	2/18/19	COMMENTS	JN
K	2/19/19	FINAL CD	JN
L	4/3/19	REVISED CD	JN

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SITE NAME  
VYA, NEVADA

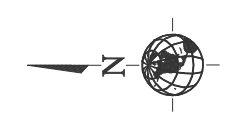
PROJECT  
RAW LAND MONOPOLE

SITE ADDRESS  
LAT: 41° 35' 30.76358"N  
LONG: 119° 52' 47.14752"W  
89000A DUGWAY ROAD  
GERLACH, NV 89413

SHEET TITLE  
OVERALL SITE PLAN

SHEET NUMBER  
A-1

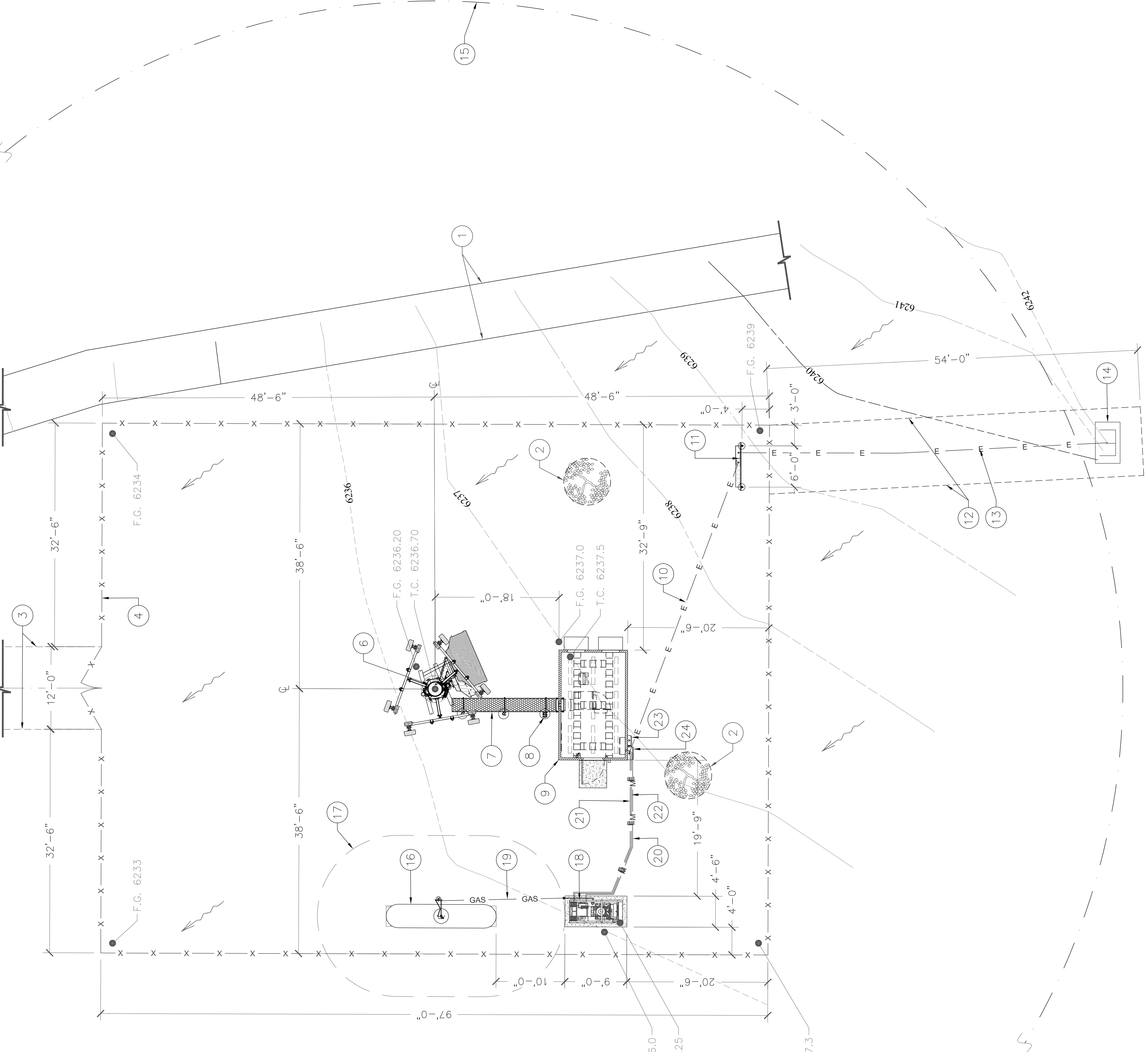
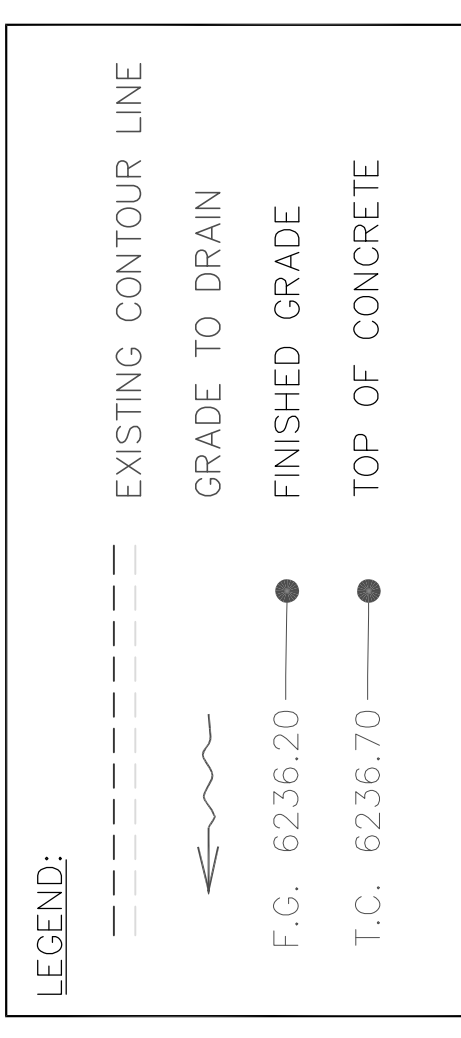
Call Toll Free  
**1-800-227-2600**  
2 Working Days Before You Dig  
NEVADA ONE-STOP SHOP



22"x34" SCALE: 1" = 30'-0"  
11"x17" SCALE: 1" = 60'-0"

OVERALL SITE PLAN

- COMPOUND PLAN KEYED NOTES: (#)
- (E) DIRT ROAD
  - (E) TREE TO BE REMOVED (TYP.)
  - (N) 12' WIDE ACCESS EASEMENT AND (N) 12' WIDE DIRT ACCESS ROAD
  - (N) 7' CHAIN LINK FENCE WITH 12' WIDE DOUBLE ACCESS GATES, SEE DETAIL 3 ON SHEET A-5
  - NOT USED
  - (N) 150' TALL MONOPOLE, SEE STRUCTURAL DRAWINGS BY OTHERS
  - (N) ICE BRIDGE, SEE DETAIL 4 ON SHEET A-5
  - (N) GPS ANTENNA, SEE DETAIL 5 ON SHEET A-5
  - (N) EQUIPMENT SHELTER (PROVIDED BY OTHERS), SEE DETAIL 1 ON SHEET S-1
  - (N) 2"Ø U.G. CONDUIT FOR POWER RUN, SEE FOUNDATION DETAIL 4 ON SHEET E-3
  - (N) METER BANK, SEE DETAIL 3 ON SHEET E-3
  - (N) 10' WIDE UTILITY EASEMENT
  - (N) U.G. CONDUIT FOR POWER RUN FROM SOURCE TO METER BANK BY PROVIDER
  - (E) PAD MOUNTED TRANSFORMER, (N) COMMNET POWER SOURCE
  - CONSTRUCTION WORK AREA ±100' RADIUS, THE AREA WITHIN THIS BOUNDARY TO BE USED AS TEMPORARY CONSTRUCTION ZONE, STAGING MATERIAL AREA, VEHICLE ACTIVITY AREA AND GENERAL CONSTRUCTION PURPOSE. THIS AREA WILL RECLAIMED AND CLEANED UP AFTER CONSTRUCTION IS COMPLETE.
  - (N) PROPANE TANK ON INTERLOCK PAVER, SEE DETAILS 2 & 6 ON SHEET A-8
  - LINE OF 10' PROPANE TANK IGNITION SOURCE SPARK RADIUS PER NFPA 58
  - (N) GENERATOR, SEE DETAILS 1, 3 & 5 ON SHEET A-8
  - (N) U.G. CONDUIT FOR GAS LINE RUN, SEE DETAIL 2 ON SHEET E-3
  - (N) U.G. CONDUIT FOR START/STOP AND MONITOR, SEE DETAIL 5 ON SHEET E-3 AND ONLINE DIAGRAM
  - (N) U.G. CONDUIT FOR POWER RUN FROM GENERATOR TO ATS, SEE DETAIL 5 ON SHEET E-3 AND ONLINE DIAGRAM
  - (N) U.G. CONDUIT FOR GENERATOR BATTERY CHARGER FROM PANEL TO GENERATOR, SEE DETAIL 5 ON SHEET E-3 AND ONLINE DIAGRAM
  - (N) DISCONNECT SWITCH
  - (N) 200A ATS



**Abn ENGINEERING**

1337 E DESERT FLOWER LANE  
PHOENIX, AZ 85048  
PHONE: (480) 213-8524

PE SEAL

DESIGNER: JASON NGO  
LEAD EE: SB  
LEAD CE/SE: SAMI

REV.	DATE	DESCRIPTION	BY
H	1/25/19	COMMENTS	JN
I	2/13/19	COMMENTS	JN
J	2/18/19	COMMENTS	JN
K	2/19/19	FINAL CD	JN
L	4/3/19	REVISED CD	JN

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SITE NAME  
VYA, NEVADA

PROJECT  
RAW LAND MONOPOLE

SITE ADDRESS  
LAT: 41° 35' 30.76358"N  
LONG: 119° 52' 47.14752"W  
89000A DUGWAY ROAD  
GERLACH, NV 89413

SHEET TITLE  
ENLARGED SITE PLAN

SHEET NUMBER  
A-2.0

22'x34" SCALE: 1/8" = 1'-0"  
11'x17" SCALE: 1/16" = 1'-0"

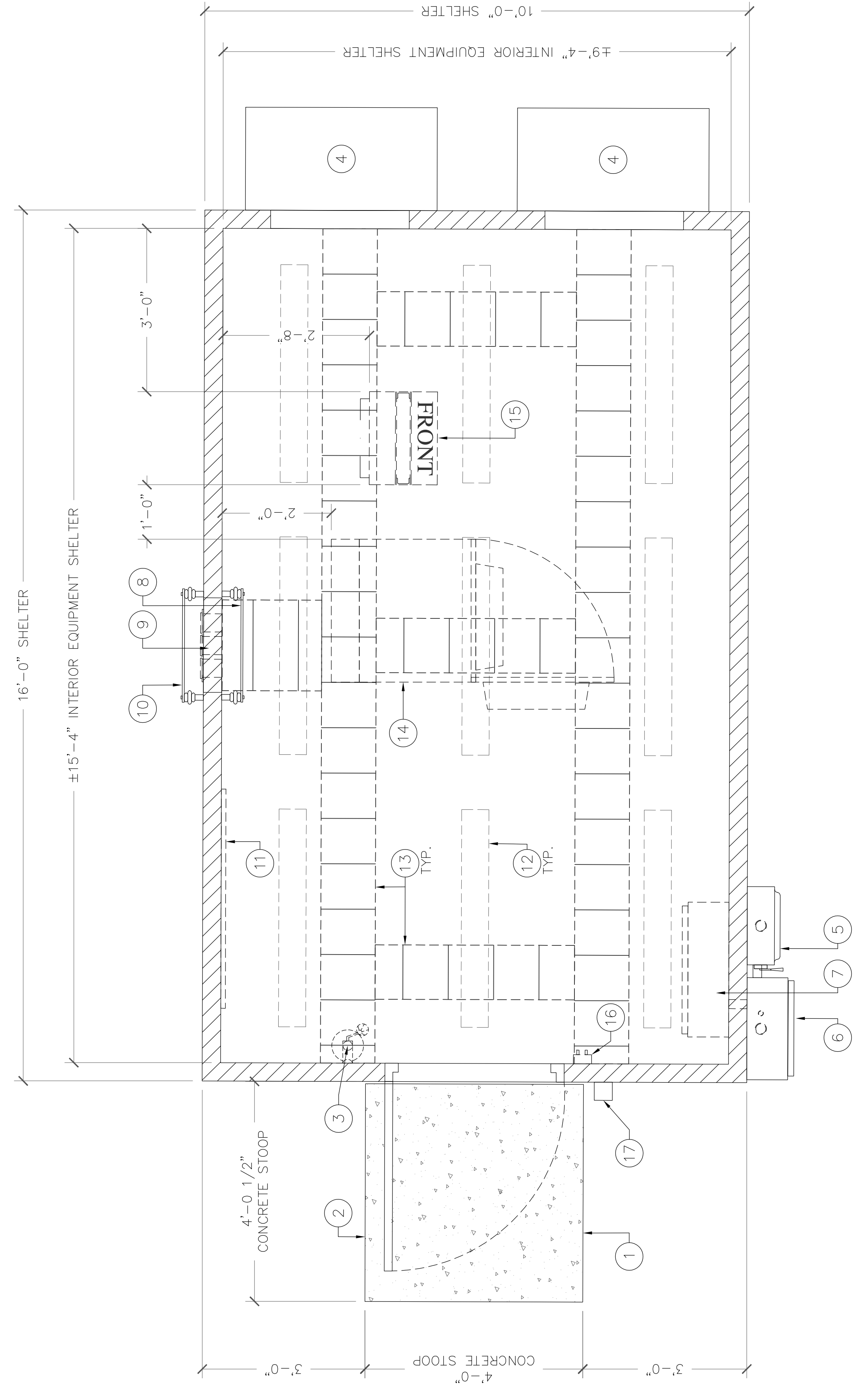
ENLARGED SITE PLAN



COMPOUND PLAN KEYED NOTES: #

1. (N) CONCRETE STOOP (TYP.)
2. (N) EQUIPMENT SHELTER ACCESS DOOR
3. (N) FIRE EXTINGUISHER (TYP.)
4. (N) HVAC UNIT (TYP.)
5. (N) 200A DISCONNECT SWITCH
6. (N) 200A ATS
7. (N) 200A AC PANEL
8. (N) INTERIOR GROUND BUS BAR (MGB)
9. (N) ENTRY PORTS
10. (N) EXTERIOR GROUND BUS BAR (EGB)
11. (N) TELCOBOARD
12. (N) 1'x4' FLUORESCENT LIGHT (TYP. OF B)
13. (N) 18" WIDE CABLE TRAY ASSEMBLY, INSTALL PER MANUFACTURER SPECIFICATIONS (INDOOR APPLICATION)
14. (N) ALU CABINET
15. (N) MW RACK & FIRST NET BBU EQUIPMENT
16. (N) LIGHT SWITCH (TYP.)
17. (N) EXTERIOR LIGHT

NOTE:  
ELECTRICAL PACKAGE FOR BUILDING INCLUDED EXCEPT FOR CONDUIT AND WIRING.



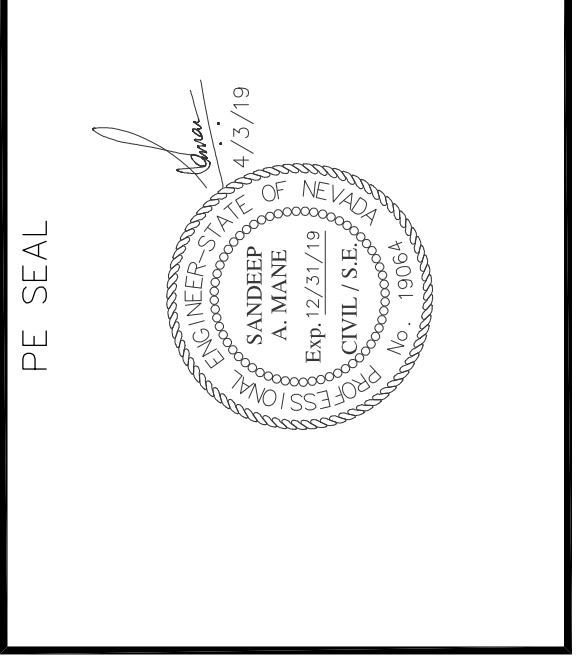
SHELTER LAYOUT

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

1



**Abn ENGINEERING**  
1337 E DESERT FLOWER LANE  
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LEAD CE/SE: SAMI

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PROJECT  
RAW LAND MONOPOLE

SITE ADDRESS  
LAT: 41° 35' 30.76358"N  
LONG: 119° 52' 47.14752"W  
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GERLACH, NV 89413

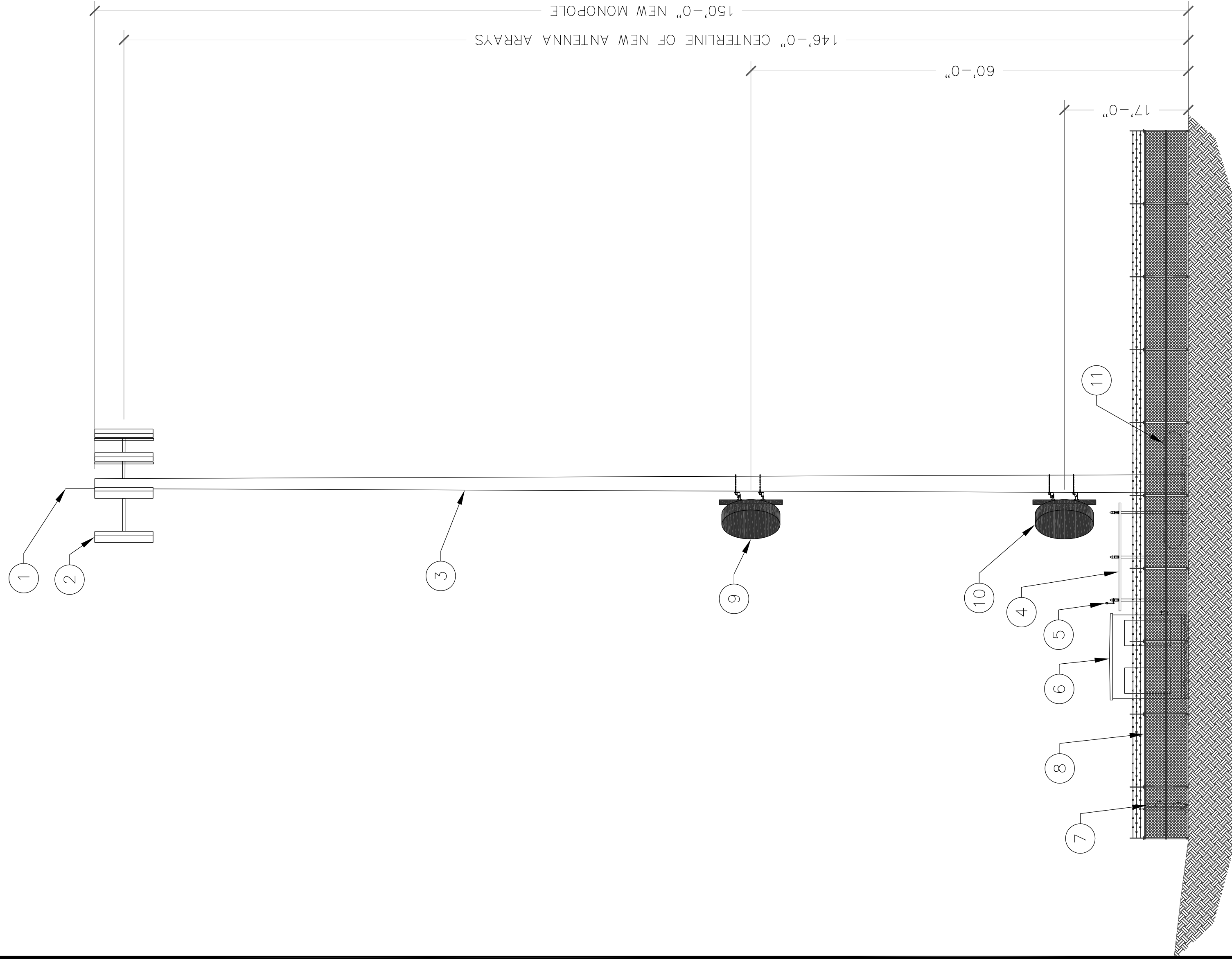
SHEET TITLE  
SHELTER LAYOUT

SHEET NUMBER  
A-2.1



ELEVATION KEYED NOTES: #

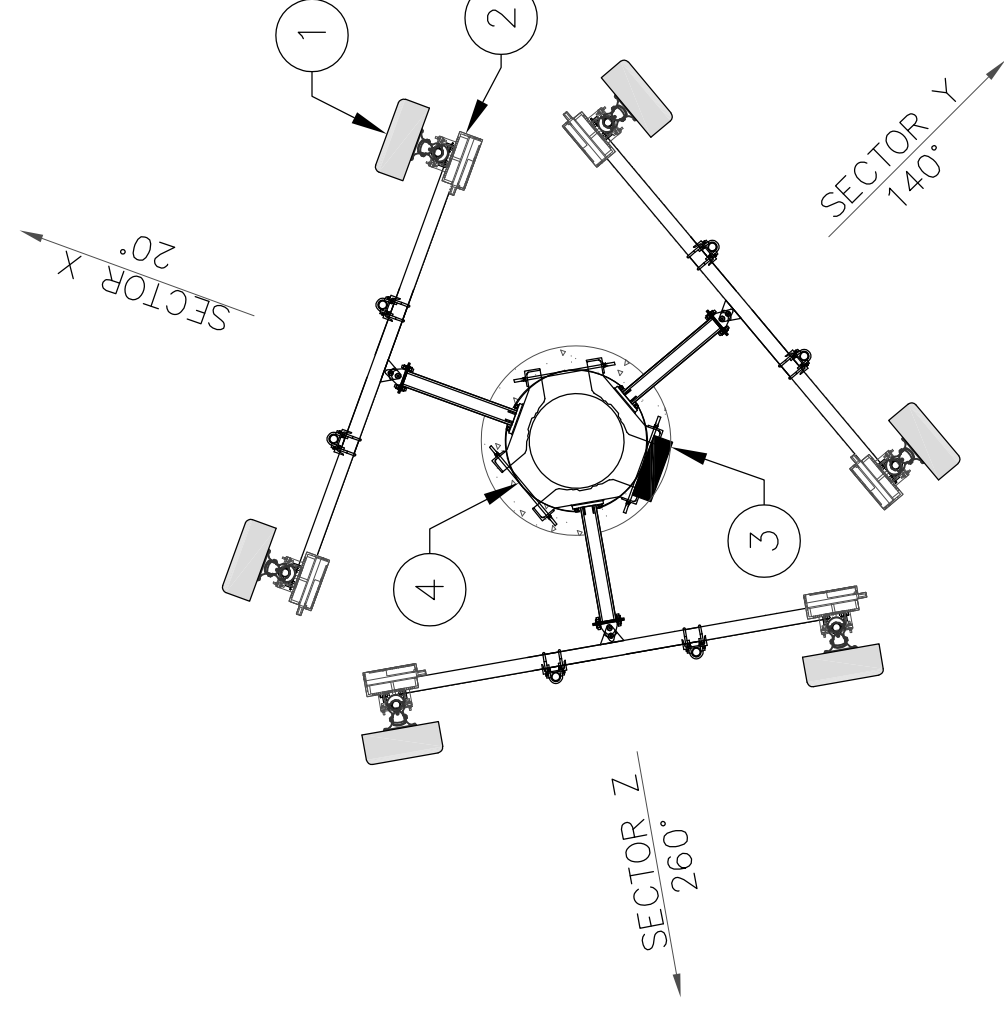
- (N) 4' LIGHTNING ROD
- (N) PANEL ANTENNAS
- (N) 150' TALL MONOPOLE
- (N) ICE BRIDGE
- (N) GPS ANTENNA
- (N) EQUIPMENT SHELTER
- (N) METER BANK
- (N) 6' CHAIN LINK FENCE WITH 1' OF BARBED WIRES (7' TALL TOTAL)
- (N) (1) 8" MW DISH
- (N) (1) 8" MW DISH [DIVERSITY]
- (N) (1) 8" MW DISH (BEYOND)
- (N) PROPANE TANK (BEYOND)
- (N) GENERATOR (NOT VISIBLE ON THIS ELEVATION)



**1 SITE ELEVATION**

FIRSTNET ANTENNA LAYOUT KEYED NOTES: #

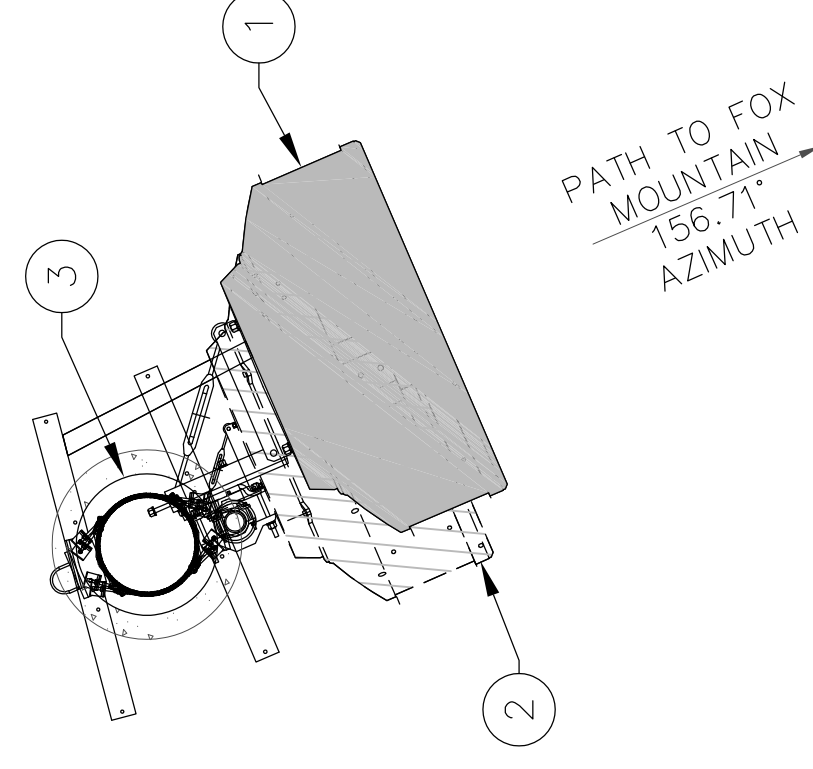
- (N) (2) PANEL ANTENNAS, (3) SECTORS, TOTAL OF (6) ANTENNAS @ 20°, 140° & 260° AZIMUTH, MOUNTED ON (3) NEW SECTOR GATES @ 146'-0" RAD CENTER. REFER TO SHEET A-4 FOR ANTENNA MODEL DETAILS
- (N) (2) RRRs PER SECTOR, TOTAL OF (6) RRRs
- (N) (1) FITTA BOX
- (N) 150' TALL MONOPOLE



**2 ANTENNA LAYOUT**

MW DISH LAYOUT KEYED NOTES: #

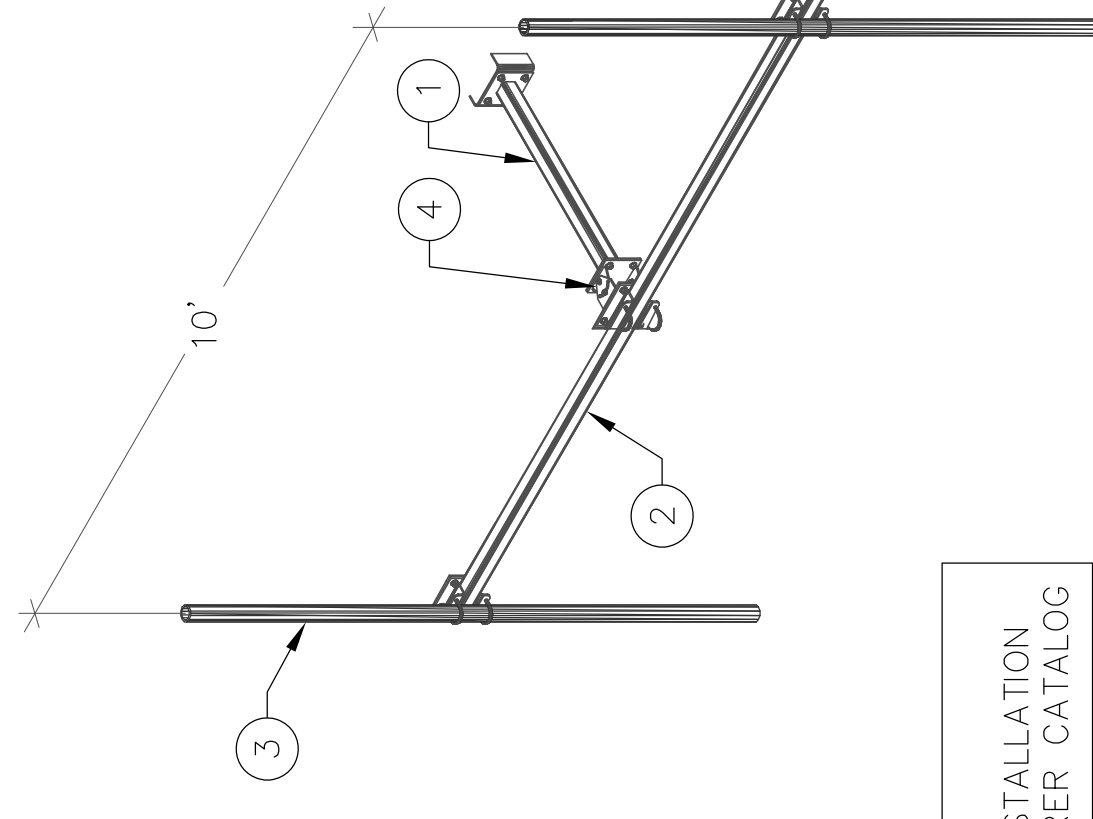
- (N) (1) 8" MW DISH @ 60° RAD CENTER (156.71° AZIMUTH)
- (N) (1) 8" MW DISH [DIVERSITY] @ 17° RAD CENTER (156.71° AZIMUTH)
- (N) 150' TALL MONOPOLE



**3 MW DISH LAYOUT**

STANDOFF KEYED NOTES: #

- 3' STANDOFF
- T-ARM
- PIPE MOUNT (TYP.)
- SWIVEL ASSEMBLY

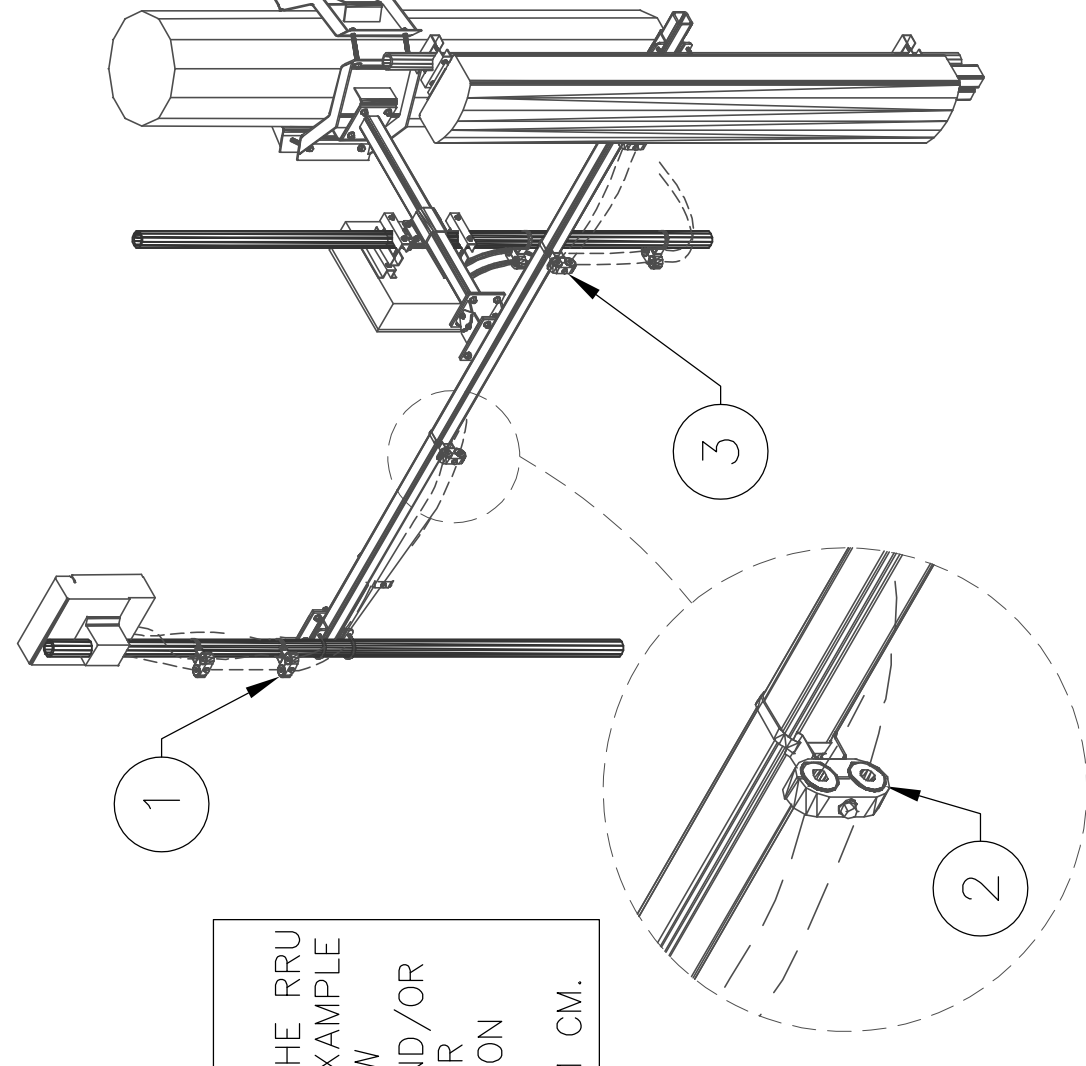


NOTE:  
FOR MORE INFORMATION AND INSTALLATION PLEASE REFER THE MANUFACTURER CATALOG

**5 TYPICAL STANDOFF**

CABLE SECURED KEYED NOTES: #

- TYPICAL CABLE DRESSING ALONG MOUNTING PIPE
- CABLE BLOCK WITH UNIVERSAL SNAP-IN STANDOFF AND BANDING STRAP/ROUND MEMBER ADAPTER (TYP.)
- TYPICAL CABLE DRESSING ALONG SECTOR GATE

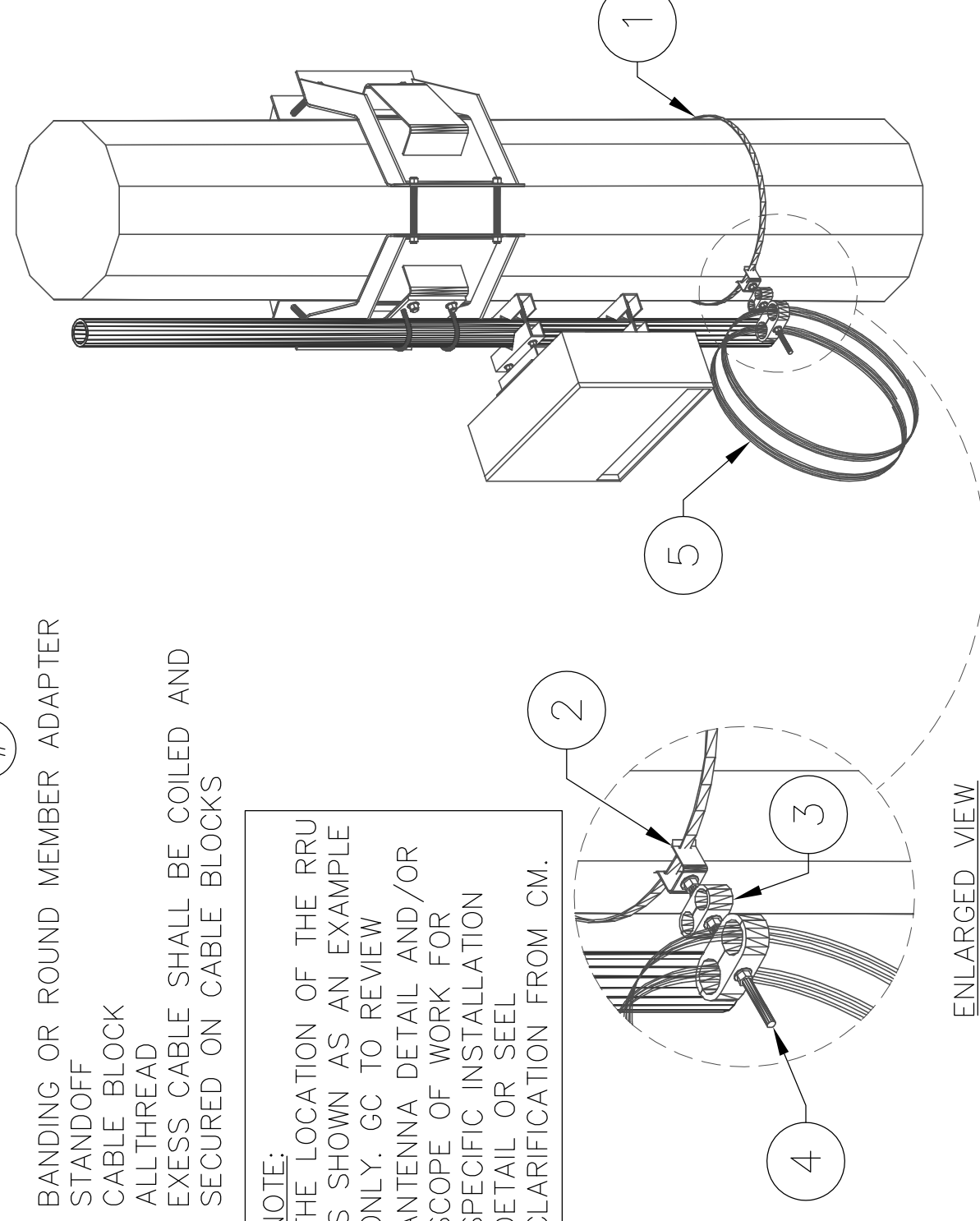


NOTE:  
THE LOCATION OF THE RRU IS SHOWN AS AN EXAMPLE ONLY. GC TO REVIEW ANTENNA DETAIL AND/OR SCOPE OF WORK FOR SPECIFIC INSTALLATION DETAIL OR SEEL CLARIFICATION FROM CM.

**6 CABLE SECURED DETAIL**

CABLE SECURED KEYED NOTES: #

- BANDING OR ROUND MEMBER ADAPTER
- STANDOFF
- CABLE BLOCK
- ALL THREAD
- EXCESS CABLE SHALL BE COILED AND SECURED ON CABLE BLOCKS



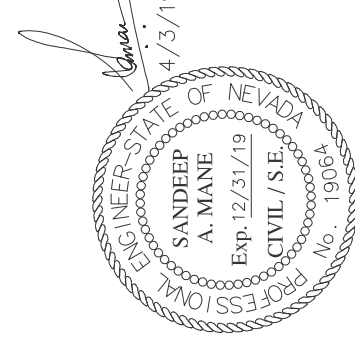
NOTE:  
THE LOCATION OF THE RRU IS SHOWN AS AN EXAMPLE ONLY. GC TO REVIEW ANTENNA DETAIL AND/OR SCOPE OF WORK FOR SPECIFIC INSTALLATION DETAIL OR SEEL CLARIFICATION FROM CM.

**7 EXCESS CABLE SECURED DETAIL**



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PE SEAL



DESIGNER: JASON NGO

LEAD EE: SB

LEAD CE/SE: SAM

SUBMITTALS

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SITE NAME

VYA, NEVADA

PROJECT

RAW LAND MONOPOLE

SITE ADDRESS

LAT: 41° 35' 30.76358"N  
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89000A DUGWAY ROAD  
GERLACH, NV 89413

SHEET TITLE

SITE ELEVATION & DETAILS

SHEET NUMBER

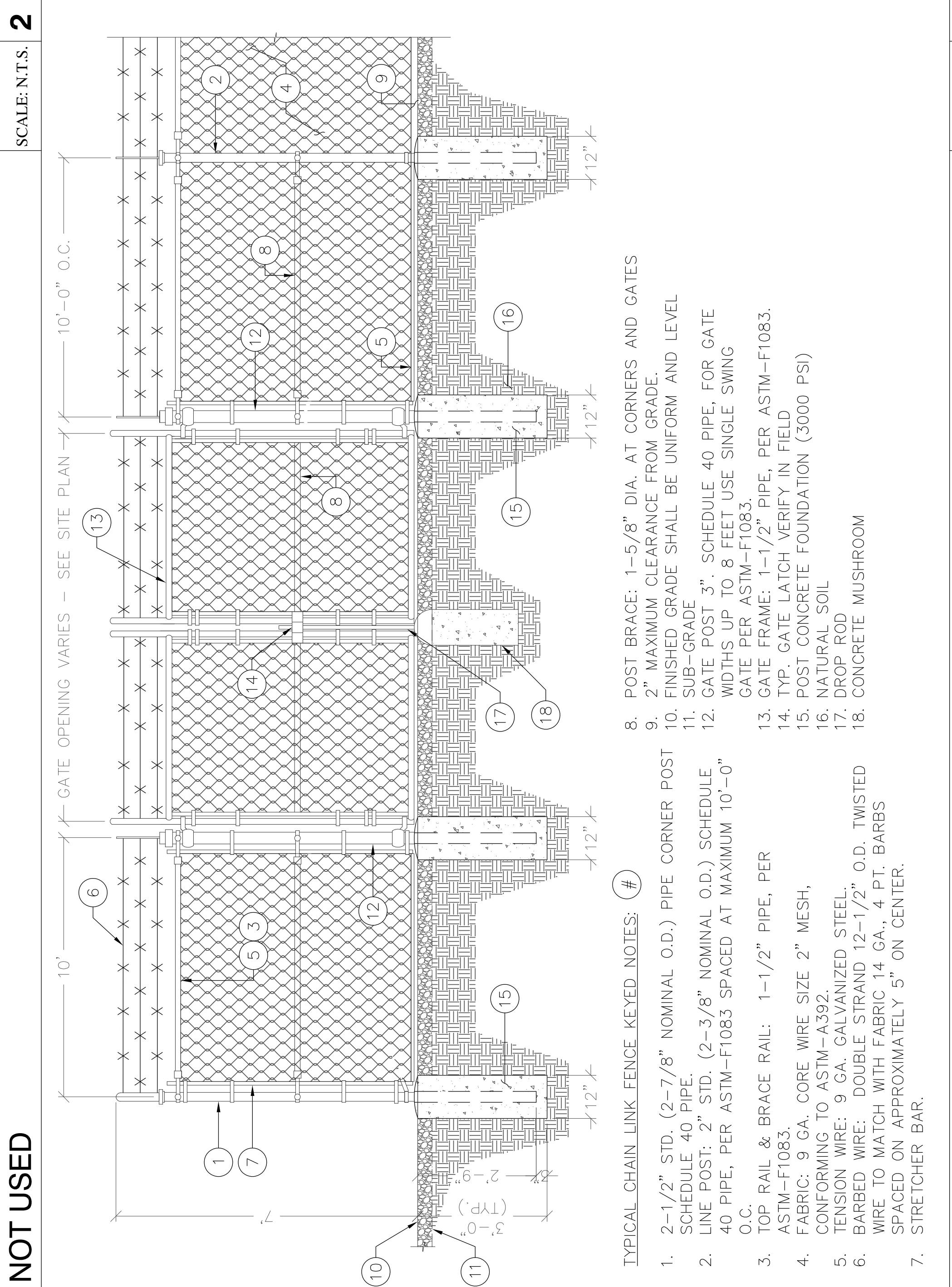
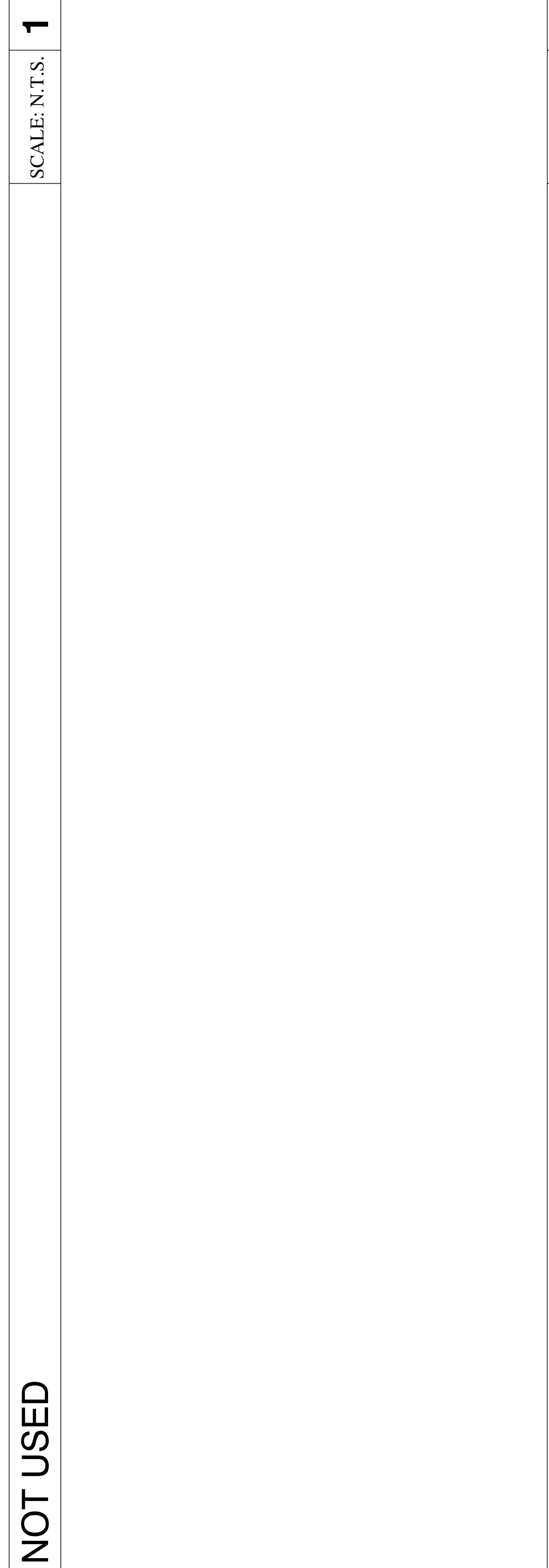
A-3



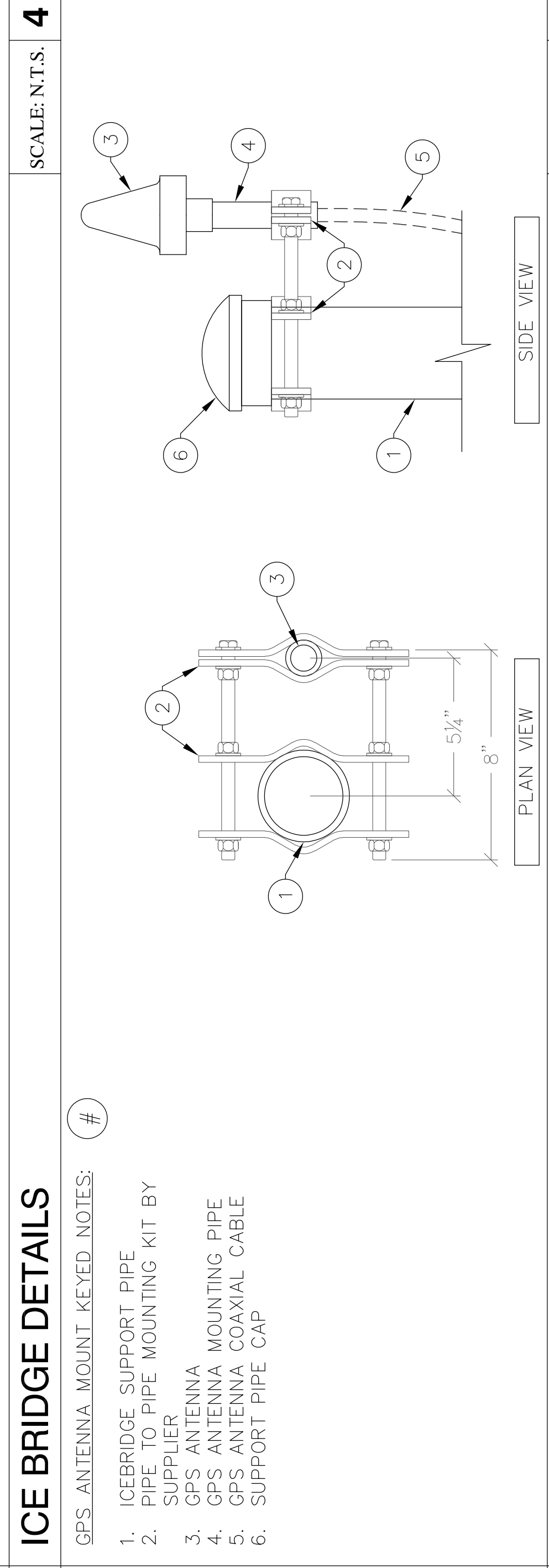
**ICE BRIDGE KEYED NOTES: #**

- 3" SCH. 40 PIPE COLUMN,
- 3-1/2" FENCE POST CAP,
- 24"X10" GRIP SPAN BRIDGE CHANNEL
- TRAPEZE KIT (TYP.)
- GPS ANTENNA
- 18" Ø CONCRETE FORM TUBE 4" ABOVE GRADE & 36" BELOW GRADE (CONCRETE 3000 PSI COMP. STRENGTH MINIMUM)
- FINISHED GRADE MATCH EXISTING SURFACING

**NOTE:**  
1. FOR MORE INFORMATION AND INSTALLATION PLEASE REFER THE MANUFACTURER



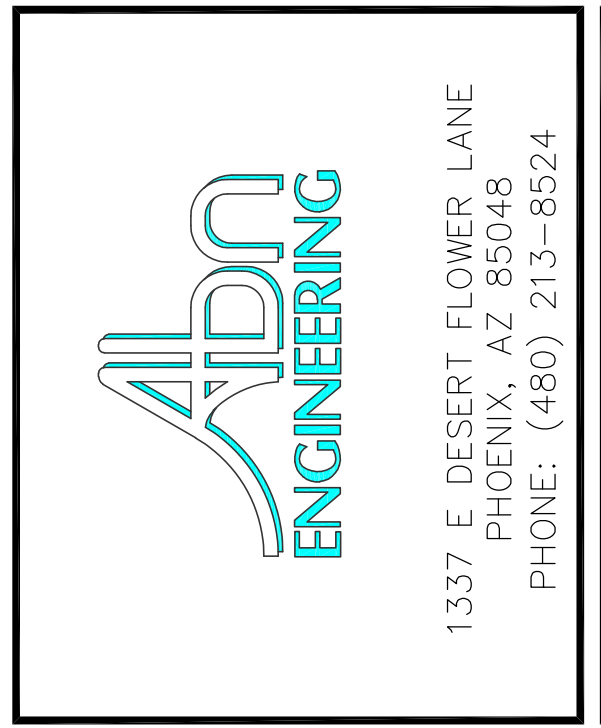
**NOT USED**  
SCALE: N.T.S. **1**



**CHAIN LINK FENCE DETAIL**  
SCALE: N.T.S. **3**

**TYPICAL CHAIN LINK FENCE KEYED NOTES: #**

- 2-1/2" STD. (2-7/8" NOMINAL O.D.) PIPE CORNER POST SCHEDULE 40 PIPE.
- LINE POST: 2" STD. (2-3/8" NOMINAL O.D.) SCHEDULE 40 PIPE, PER ASTM-F1083 SPACED AT MAXIMUM 10'-0" O.C.
- TOP RAIL & BRACE RAIL: 1-1/2" PIPE, PER ASTM-F1083.
- FABRIC: 9 GA. CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM-A392.
- TENSION WIRE: 9 GA. GALVANIZED STEEL BARBED WIRE: DOUBLE STRAND 12-1/2" O.D. TWISTED WIRE TO MATCH WITH FABRIC 14 GA., 4 PT. BARBS SPACED ON APPROXIMATELY 5" ON CENTER.
- STRETCHER BAR.
- POST BRACE: 1-5/8" DIA. AT CORNERS AND GATES
- 2" MAXIMUM CLEARANCE FROM GRADE.
- FINISHED GRADE SHALL BE UNIFORM AND LEVEL
- SUB-GRADE
- GATE POST 3" SCHEDULE 40 PIPE FOR GATE WIDTHS UP TO 8 FEET USE SINGLE SWING GATE PER ASTM-F1083.
- GATE FRAME: 1-1/2" PIPE, PER ASTM-F1083.
- TYP. GATE LATCH VERIFY IN FIELD
- NATURAL SOIL
- DROP ROD
- CONCRETE MUSHROOM



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PE SEAL

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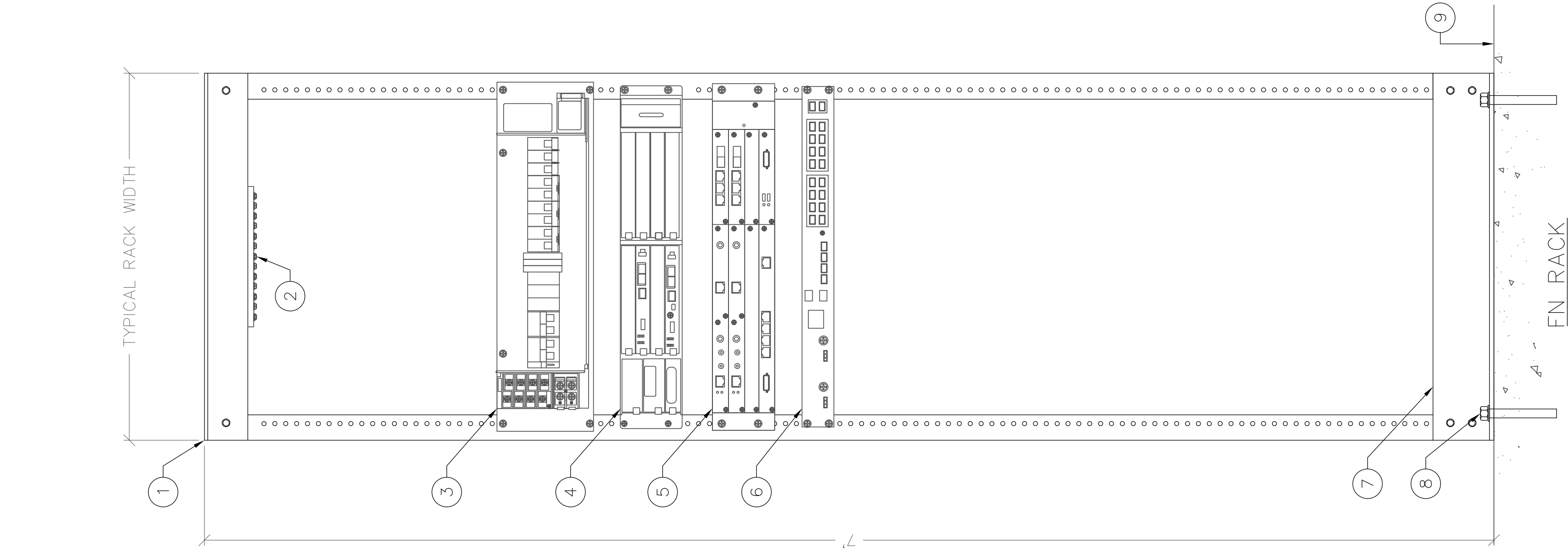
SHEET TITLE  
CONSTRUCTION DETAILS

SHEET NUMBER  
A-5



EN RACK KEYPED NOTES: (#)

1. RACK
2. GROUND BAR
3. RECTIFIER
4. BBU
5. MICROWAVE RADIO RACK
6. ROUTER ASSEMBLY
7. RACK ASSEMBLY ATTACHED RACK TO FLOOR PER MANUFACTURER'S SPECIFICATIONS
8. ATTACHED RACK TO FLOOR PER MANUFACTURER'S SPECIFICATIONS
9. FLOOR



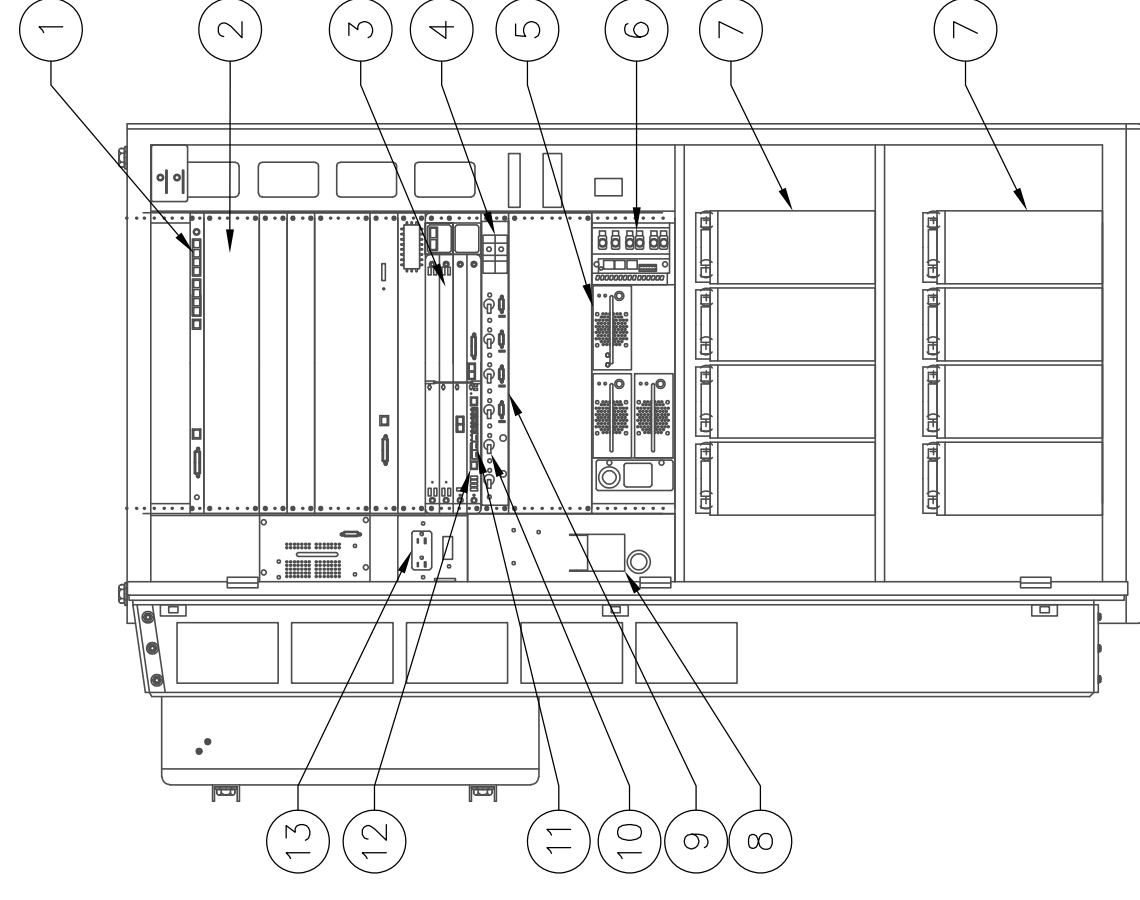
MW RACK DETAIL

SCALE: N.T.S.

1

ALU\_9929\_CABINET KEYPED NOTES: (#)

1. ALARM SHELF: EXTERNAL ALARMS
2. EMPTY EXPANSION BBU RACK
3. BBU SHELF
4. RRH POWER BLOCK
5. RECTIFIERS (TYP.)
6. BATTERY CONNECTIONS
7. BATTERY SHELF (TYP.)
8. AC POWER CONNECTION
9. PDP
10. RRH BREAKERS
11. FIBER OPTIC PORTS
12. DAT CABLE CONNECTION
13. AC OUTLET



FRONT - DOOR OPEN

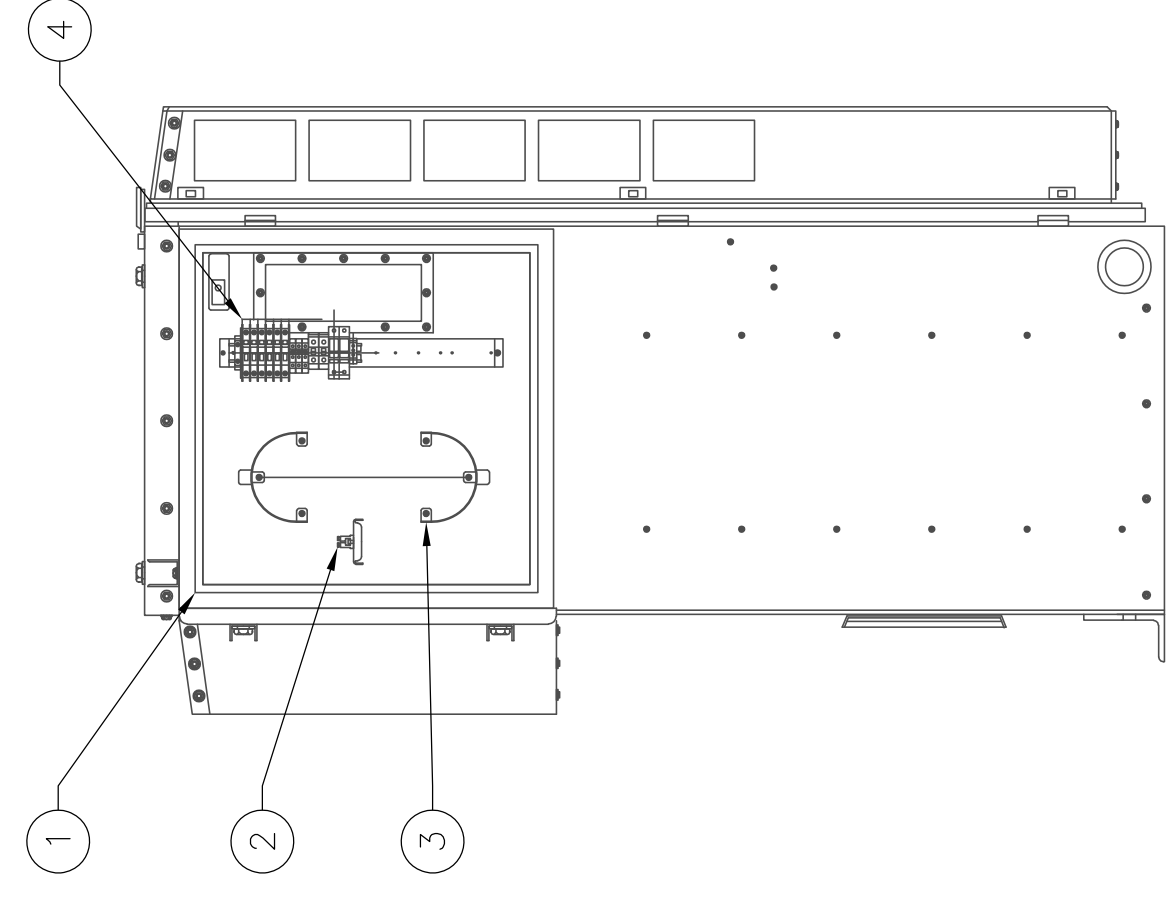
ALU 9929 CABINET - FRONT ELEVATION

SCALE: N.T.S.

2

ALU\_9929\_CABINET KEYPED NOTES: (#)

1. DC DISTRIBUTION/FIBER MANAGEMENT BOX
2. FIBER PATCH PANEL
3. EXCESS FIBER OPTIC CABLE STORAGE
4. RRH DC BLOCK



RIGHT SIDE - DOOR OPEN

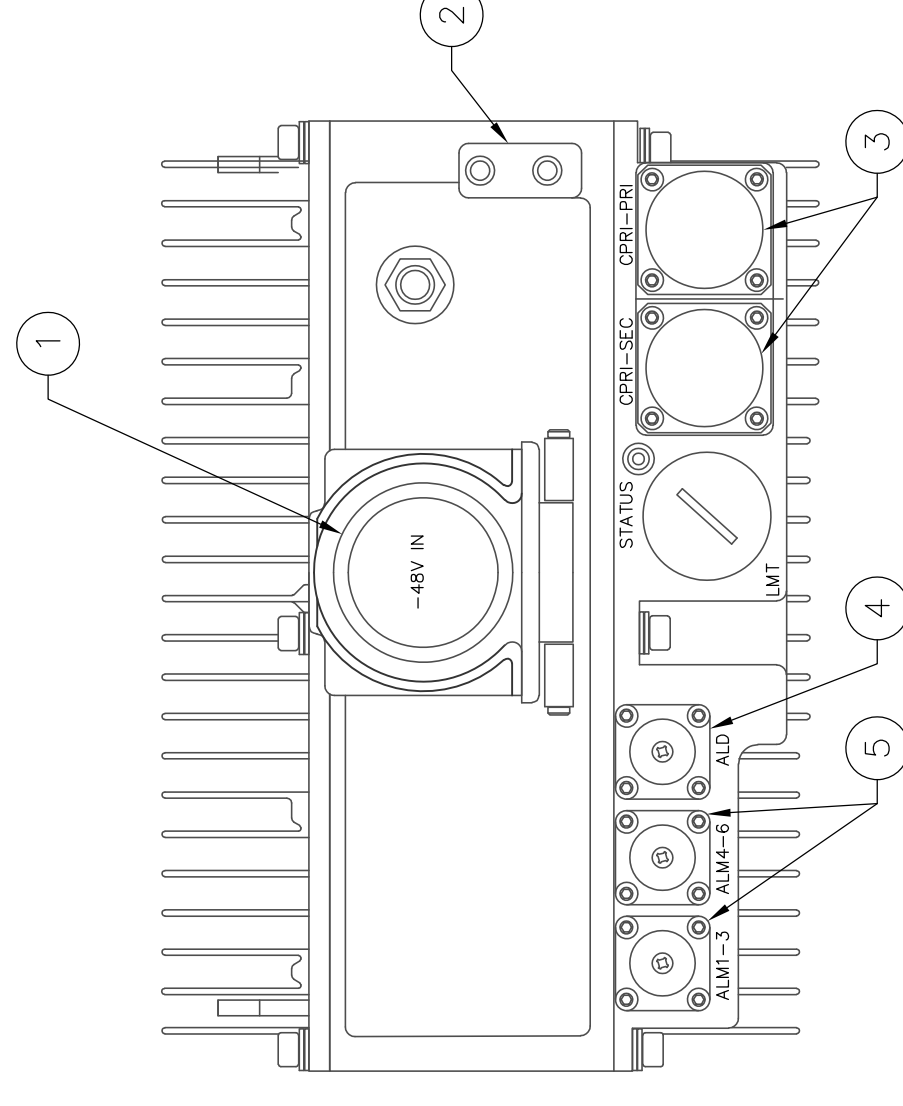
ALU 9929 CABINET - SIDE ELEVATION

SCALE: N.T.S.

3

RRH KEYPED NOTES: (#)

1. RRH DC POWER CONNECTION (UNDER RED CAP) - SEE DETAIL 4 ON THIS SHEET
2. GROUND CONNECTION
3. FIBER OPTIC CONNECTION FROM FTTH BOX (POLE MOUNTED) OR INSIDE OF LTE CABINET (BASE MOUNTED)
4. RET CONNECTIONS
5. EXTERNAL ALARMS (IF REQUIRED)



BOTTOM VIEW OF LTE REMOTE RADIO HEAD (RRH)

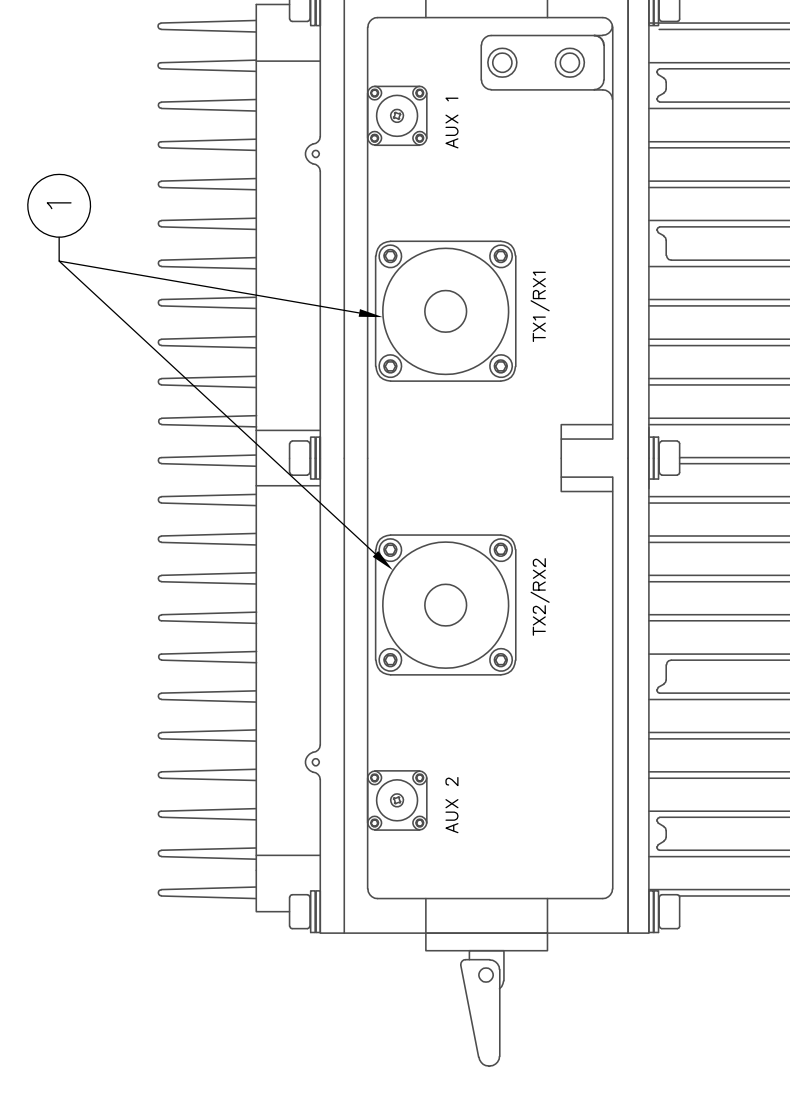
LTE RRH - BOTTOM VIEW

SCALE: N.T.S.

4

RRH KEYPED NOTES: (#)

1. ANTENNA JUMPER CONNECTIONS



TOP VIEW OF LTE REMOTE RADIO HEAD (RRH)

LTE RRH - TOP VIEW

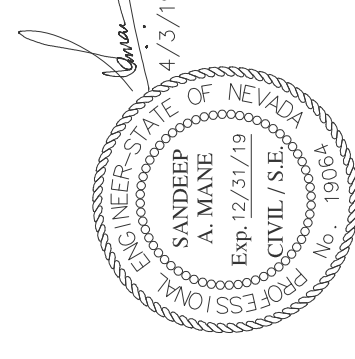
SCALE: N.T.S.

5



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SITE ADDRESS

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SHEET TITLE

CONSTRUCTION DETAILS

SHEET NUMBER

A-6



CABLE COLOR CODE SCHEDULE			RRU P/N CODE (LOCATED ON RRU TAG)
TECHNOLOGY	CABLE TYPE	TAPE COLOR	COMMENTS
LTE	POWER TRUNK	1 ORANGE WRAP	ADDITIONAL POWER OR FIBER TRUNKS FOR LTE, 2955731012 ZXSDR R88 S8500 (B6B), 850 CDMA&LTE DUAL MODE
LTE	FIBER TRUNK	1 ORANGE WRAP	ADDITIONAL WRAP, 2955731009 ZXSDR R88 S8500 (B6A), 850 STANDARD CDMA ONLY
GSM/UMTS	POWER TRUNK	1 YELLOW WRAP	ADDITIONAL POWER OR FIBER TRUNKS FOR GSM/UMTS, 2955731011 ZXSDR R88 S1900 (B6B), 1900 CDMA&LTE DUAL MODE
GSM/UMTS	FIBER TRUNK	1 YELLOW WRAP	ADDITIONAL WRAP, 2955731010 ZXSDR R88 S8500 (B6B), 1900 STANDARD CDMA ONLY
CDMA	POWER TRUNK	1 GREEN WRAP	ADDITIONAL POWER OR FIBER TRUNKS FOR CDMA, 2955731037 850 CDMA R8882 NEW SINGLE MODE
CDMA	FIBER TRUNK	1 GREEN WRAP	ADDITIONAL WRAP, 2955731035 1900 CDMA R8882 NEW SINGLE MODE
UMTS	POWER TRUNK	1 PURPLE WRAP	ADDITIONAL POWER OR FIBER TRUNKS FOR UMTS, 2955731023 ZXSDR R8882 S8500(B6B) - 850 GSM/UMTS
UMTS	FIBER TRUNK	1 PURPLE WRAP	ADDITIONAL WRAP, 2955731024 ZXSDR R8882 S1900(B6B) - 1900 GSM/UMTS
DO	POWER TRUNK	1 WHITE WRAP	ADDITIONAL POWER OR FIBER TRUNKS FOR DO, 2955731024 ZXSDR R8882 S1900(B6B) - 1900 GSM/UMTS
DO	FIBER TRUNK	1 WHITE WRAP	ADDITIONAL WRAP, 2955731024 ZXSDR R8882 S1900(B6B) - 1900 GSM/UMTS
DO	POWER TRUNK	1 WHITE+FREQ+SECTOR	ADDITIONAL POWER OR FIBER TRUNKS FOR DO, 2955731024 ZXSDR R8882 S1900(B6B) - 1900 GSM/UMTS
DO	FIBER TRUNK	1 WHITE+FREQ+SECTOR	ADDITIONAL WRAP, 2955731024 ZXSDR R8882 S1900(B6B) - 1900 GSM/UMTS
FREQUENCY	CABLE TYPE	TAPE COLOR	COMMENTS
700	BLACK/BLANK		
850	GREY		
1900	BROWN		
SECTOR	CABLE TYPE	COLOR	
X	COAX JUMPER	RED	
Y	COAX JUMPER	WHITE	
Z	COAX JUMPER	BLUE	
EXAMPLE	COLOR CODE FOR LTE FOR 700MHZ -1 ORANGE WRAP, 1 BLACK OR LEAVE BLANK (CABLE COLOR IS ALREADY BLACK) ON POWER / FIBER TRUNK		
	COLOR CODE FOR GSM/UMTS FOR 850 Mhz - 1 YELLOW WRAP, 1 GREY		

### CABLE COLOR CODE SCHEDULE

SCALE: N.T.S. **1**

EFTA DISTRIBUTION BOX KEYED NOTES: (#)

- SIDE A FIBER DISTRIBUTION
- SIDE B POWER DISTRIBUTION
- FIBER TRUNK
- FIBER JUMPERS
- POWER JUMPERS
- FIBER JUMPERS COMING OUT
- POWER JUMPERS COMING IN
- FIBER TRUNK GOING IN
- POWER TRUNK GOING IN

### LTE RRU POWER COLOR CODE - LTE

SCALE: N.T.S. **2**

EFTA CONNECTION BOX KEYED NOTES: (#)

LTE POWER:  
RED / WHITE - - X  
RED / YELLOW - Y  
RED / GREEN - Z

- LTE SECTORS
- BLACK WIRE
- RED / WHITE WIRE
- RED / YELLOW WIRE
- RED / GREEN WIRE

### LTE RRH POWER CONNECTIONS

SCALE: N.T.S. **3**

EFTA POWER CONNECTION KEYED NOTES: (#)

- RED SIDES OF BLOCKS TYP.
- BLACK SIDES OF BLOCKS (SHOWN, SHADED) TYP. -48 VOLT RED WIRE FROM CABINET TO RED SIDE TO RED SIDE OF BLOCK HERE
- FROM ZTE CABINET -48 RETURN (BLACK WIRE) LANDS HERE
- POWER JUMPER BLUE WIRE LANDS HERE
- POWER JUMPER BLACK WIRE LANDS HERE
- POWER TRUNK GOING IN

### WIRING DIAGRAM DETAIL

SCALE: N.T.S. **4**

EFTA CONNECTION BOX KEYED NOTES: (#)

- FIBER AND POWER JUMPERS CONSTRUCTOR SHALL FOLLOW COLOR CODE 1/A-5
- FIBER TRUNK (S)
- POWER TRUNK FROM LTE RACK TO FTTA

### FTTA CONNECTION BOX

SCALE: N.T.S. **5**

EFTA TRUNK CONNECTION KEYED NOTES: (#)

- FTTA FIBER BLOCK

EFTA BOX 1:  
LTE - FIBER TRUNK 1  
FIBER 1 - PORT 01 - X  
FIBER 2 - PORT 02 - Y  
FIBER 3 - PORT 03 - Z  
FIBER 4 - PORT 04 - X  
FIBER 5 - PORT 05 - Y  
FIBER 6 - PORT 06 - Z  
#1 TRUNK 7 SPARES

**Commnet**  
Connecting Rural America

**Abn ENGINEERING**

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SITE NAME: VYA, NEVADA

PROJECT: RAW LAND MONOPOLE

SITE ADDRESS: LAT: 41° 35' 30.76358"N, LONG: 119° 52' 47.14752"W, 89000A DUGWAY ROAD, GERLACH, NV 89413

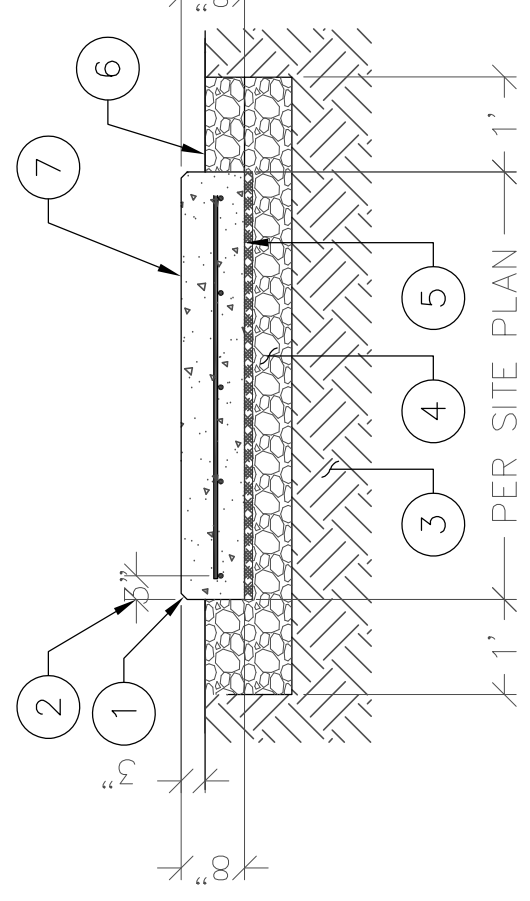
SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: A-7



**CONCRETE SLAB KEYED NOTES: (#)**

- 3/4" CHAMFER EDGE (TYP.)
- 3" REINFORCEMENT CLEARANCE FROM SLAB PERIMETER
- NATURAL SOIL
- 6" THK. MIN. CRUSHED STONE OR COMPACTED GRANULAR FILL
- USE 6 MIL PLASTIC MOISTURE BARRIER
- FINISHED GRADE LEVEL
- 8" THK. SLAB W/ #4 @ 12" O.C. EACH WAY; SLAB FINISH 4" ABOVE GRADE



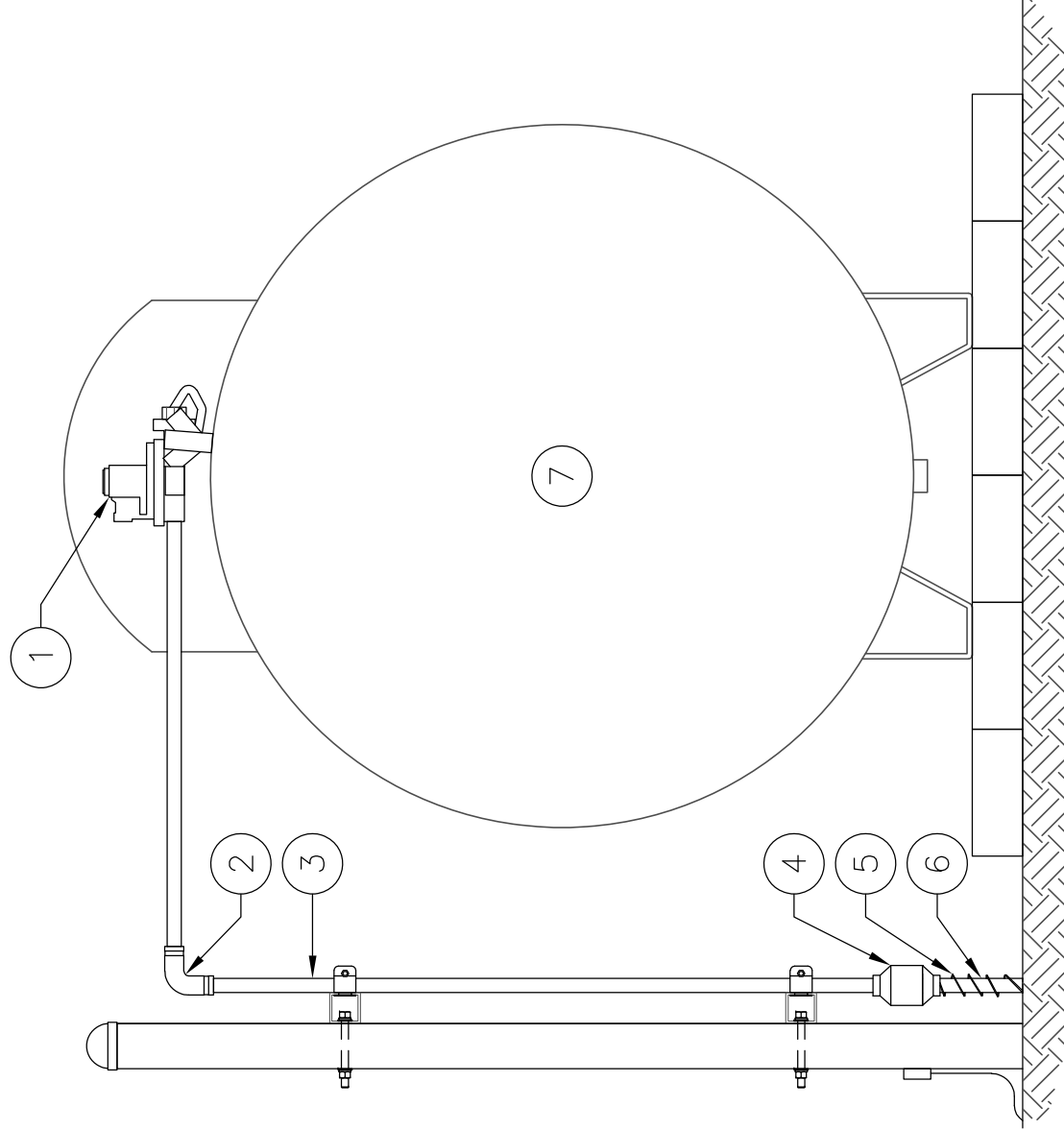
**NOTE:**  
USE 1/2" RED HEAD TRUBOLT + WEDGE ANCHOR 1/2" DIA. ANCHOR BOLT W/ 3-1/4" MIN EMBEDMENT (TOTAL 4); VERIFY SIZE W/ MANUFACTURER SPECS.

**GENERATOR SLAB DETAILS**

N.T.S. **1**

**FIRST STAGE REGULATOR KEYED NOTES: (#)**

- FIRST STAGE REGULATOR; COORDINATE W/ PROPANE SUPPLIER
- 1-1/2" A53/53M PIPE FITTING 90° ELBOW
- 1-1/2" A53/53M PIPE (VERIFY PIPE BY INSPECTOR OF RECORD PRIOR TO COATING WITH COAL TAR EPOXY)
- PIPE FITTING
- TRACER WIRE INSTALLED ON ALL POLYETHYLENE PIPE
- 1-1/2" POLYETHYLENE PIPE
- PROPANE TANK

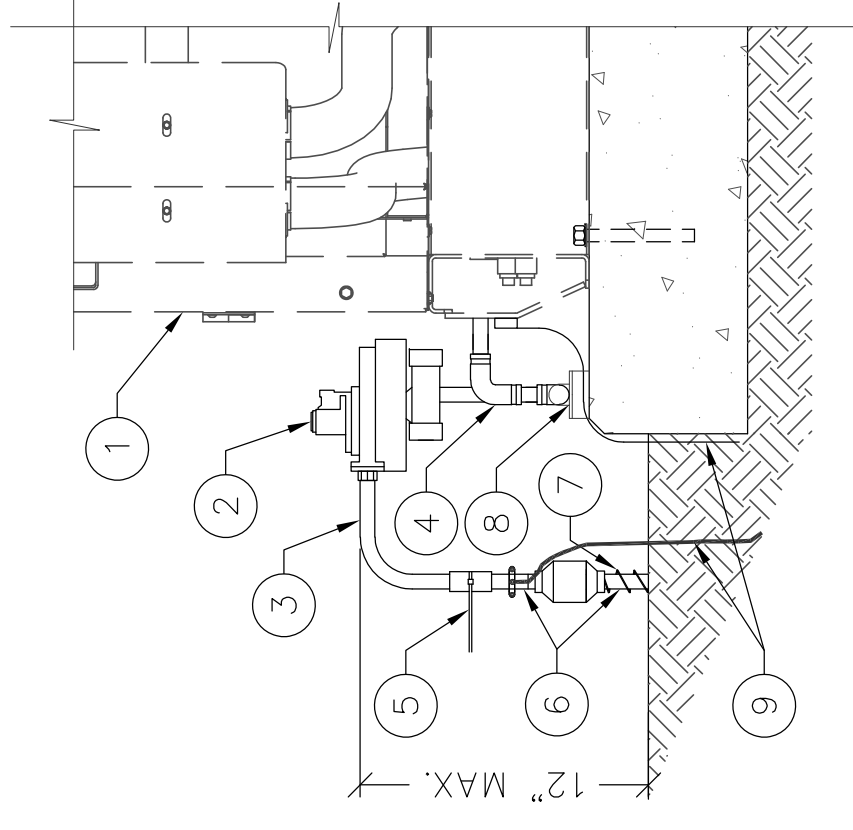


**1ST STAGE REGULATOR DETAIL**

N.T.S. **2**

**2ND STAGE REGULATOR KEYED NOTES: (#)**

- OUTDOOR GENERATOR
- SECOND STAGE REGULATOR - CONTRACTOR TO VERIFY WITH GENERATOR MANUFACTURER PRIOR TO INSTALL
- 1-1/2" A53/53M PIPE (VERIFY PIPE BY INSPECTOR PRIOR TO COATING WITH COAL TAR EPOXY)
- 1-1/2" A53/53M PIPE FITTING 90° ELBOW
- SHUT OFF VALVE
- 1-1/2" POLYETHYLENE PIPE
- TRACER WIRE INSTALLED ON ALL POLYETHYLENE PIPE
- STRUT STRAP & P-1000T UNISTRUT ANCHORED TO CONC. SLAB W/ 1/4"Ø x2" (L) RED HEAD HAMMER-SET NAIL DRIVE OR EQUIV.
- MECHANICAL GROUND & #2 TINNED GROUND LEAD TO EXTERIOR GROUND RING.

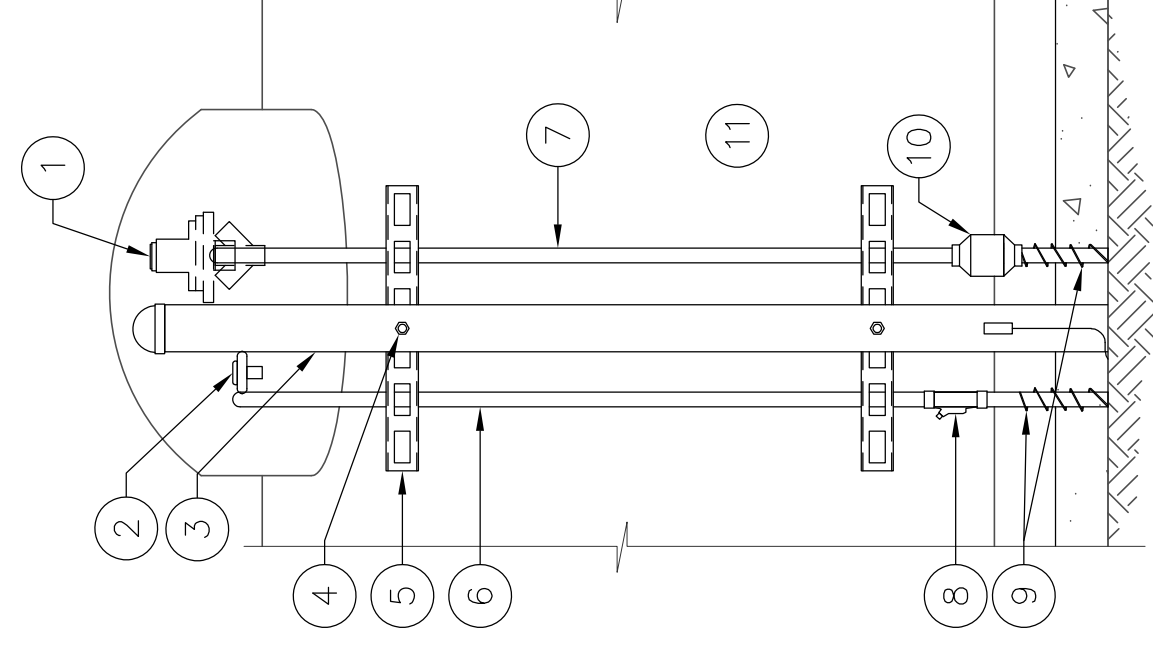


**GENERATOR CONC. SLAB DETAIL**

N.T.S. **3**

**MONITOR & GAS LINE KEYED NOTES: (#)**

- FIRST STAGE REGULATOR; COORDINATE WITH PROPANE SUPPLIER
- REMOTE READY HALL EFFECT MODULE
- TWIN SITES AND R3D HALL EFFECT MODULE
- 2"Ø STAND OFF PIPE CALLED 4" ABOVE GRADE WITH 18" EMBEDMENT IN CONCRETE PIER
- 3/8" GALV. THRU BOLT (TYP.)
- 14" LONG P1000T UNISTRUT WITH SUPERSTRUT PIPE STRAP (TYP.)
- 3/4" SCH. 40 UV RATED PVC PIPE
- 1-1/2" A53/53M PIPE (VERIFY PIPE BY INSPECTOR OF RECORD PRIOR TO COATING WITH COAL TAR EPOXY)
- EXPLOSION-PROOF FITTING RESPA-EYF75-AL
- TRACER WIRE INSTALLED ON ALL POLYETHYLENE PIPE
- PIPE FITTING
- PROPANE TANK

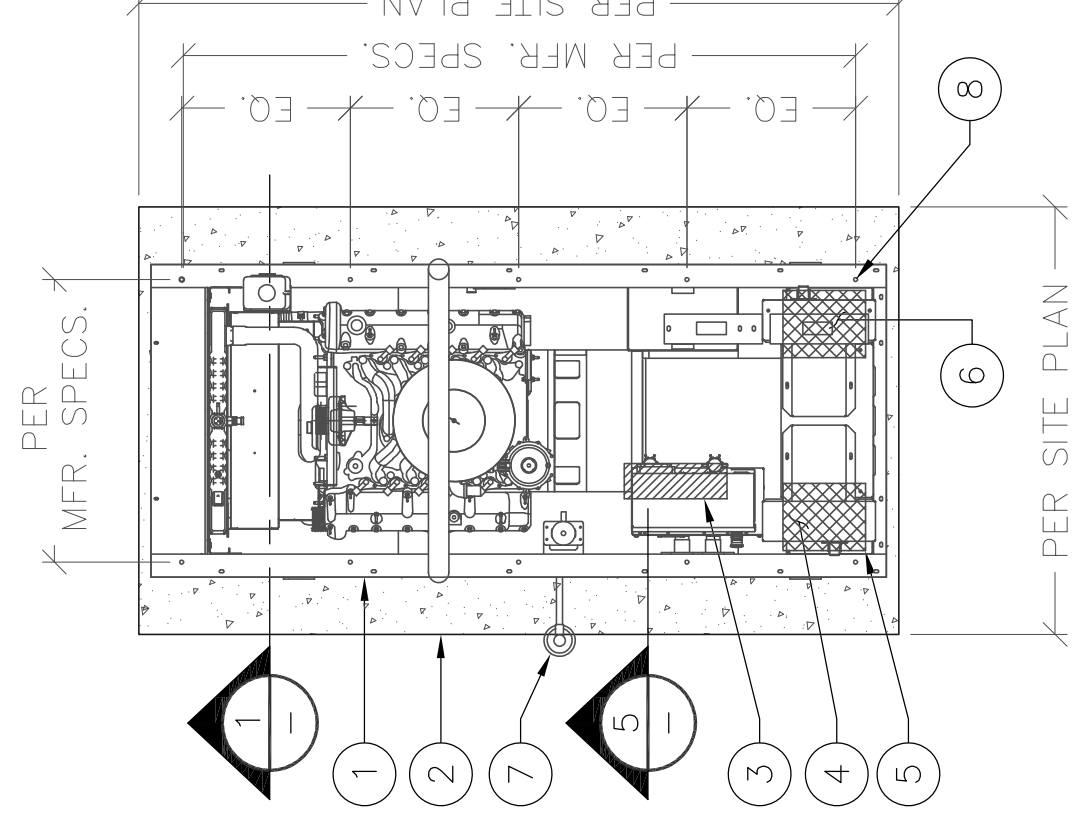


**MONITOR & GAS LINE DETAIL**

N.T.S. **5**

**GENERATOR CONCRETE SLAB KEYED NOTES: (#)**

- OUTLINE OF GENERATOR
- 3/4" CHAMFER EDGE (TYP.)
- LOW VOLTAGE STUB-UP AREA (SEE NOTE 3)
- PRIMARY CB CONNECTION BOX OPENING
- PRIMARY HIGH VOLTAGE STUB-UP AREA
- SECONDARY HIGH VOLTAGE STUB-UP AREA
- SECOND STAGE REGULATOR; SEE DETAIL 5 ON THIS SHEET
- ITW RED HEAD TRUBOLT + WEDGE ANCHOR 1/2" DIA. ANCHOR BOLT W/ 3-1/4" MIN EMBEDMENT (MIN. 4); VERIFY SIZE W/ MANUFACTURER SPECS.



**PLAN VIEW**

**GENERATOR FOUNDATION NOTES:**

- VERIFY DIMENSIONS WITH GENERATOR MANUFACTURER ALONG WITH LOCATION OF BASE FRAME CONNECTIONS.
- VERIFY DIMENSIONS WITH GENERATOR MANUFACTURER ALONG WITH LOCATION OF OPEN STUB-UP AREA THROUGH FUEL TANK BASE.
- CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN THE LOW VOLTAGE CONNECTION BOX (USE LOW VOLTAGE STUB UP AREA)
- REMOVE ALL LOOSE INORGANIC OR UNSUITABLE SOIL TO UNDISTURBED BEARING STRATA W/ ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF.
- CONCRETE STRENGTH SHALL BE 2500 PSI, MIN.
- SUB-GRADE SHALL BE COMPACTED 95% AND INDEPENDENTLY TESTED.
- GENERAL SUBCONTRACTOR TO FOLLOW SUBGRADE PREPARATION STATED IN GEOTECHNICAL REPORT

**GENERATOR CONCRETE SLAB DETAIL**

N.T.S. **6**

**NOT USED**

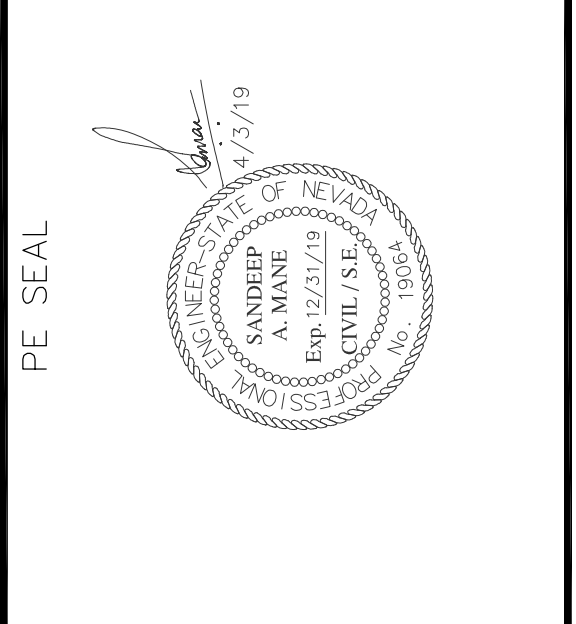
N.T.S. **4** **2ND STAGE REGULATOR DETAIL**

N.T.S. **5** **MONITOR & GAS LINE DETAIL**

N.T.S. **6**



**Abn ENGINEERING**  
1337 E DESERT FLOWER LANE  
PHOENIX, AZ 85048  
PHONE: (480) 213-8524



DESIGNER: JASON NGO  
LEAD EE: SB

LEAD CE/SE: SAM

SUBMITTALS	
REV.	DESCRIPTION
H	1/25/19 COMMENTS
I	2/13/19 COMMENTS
J	2/18/19 COMMENTS
K	2/19/19 FINAL CD
L	4/3/19 REVISED CD

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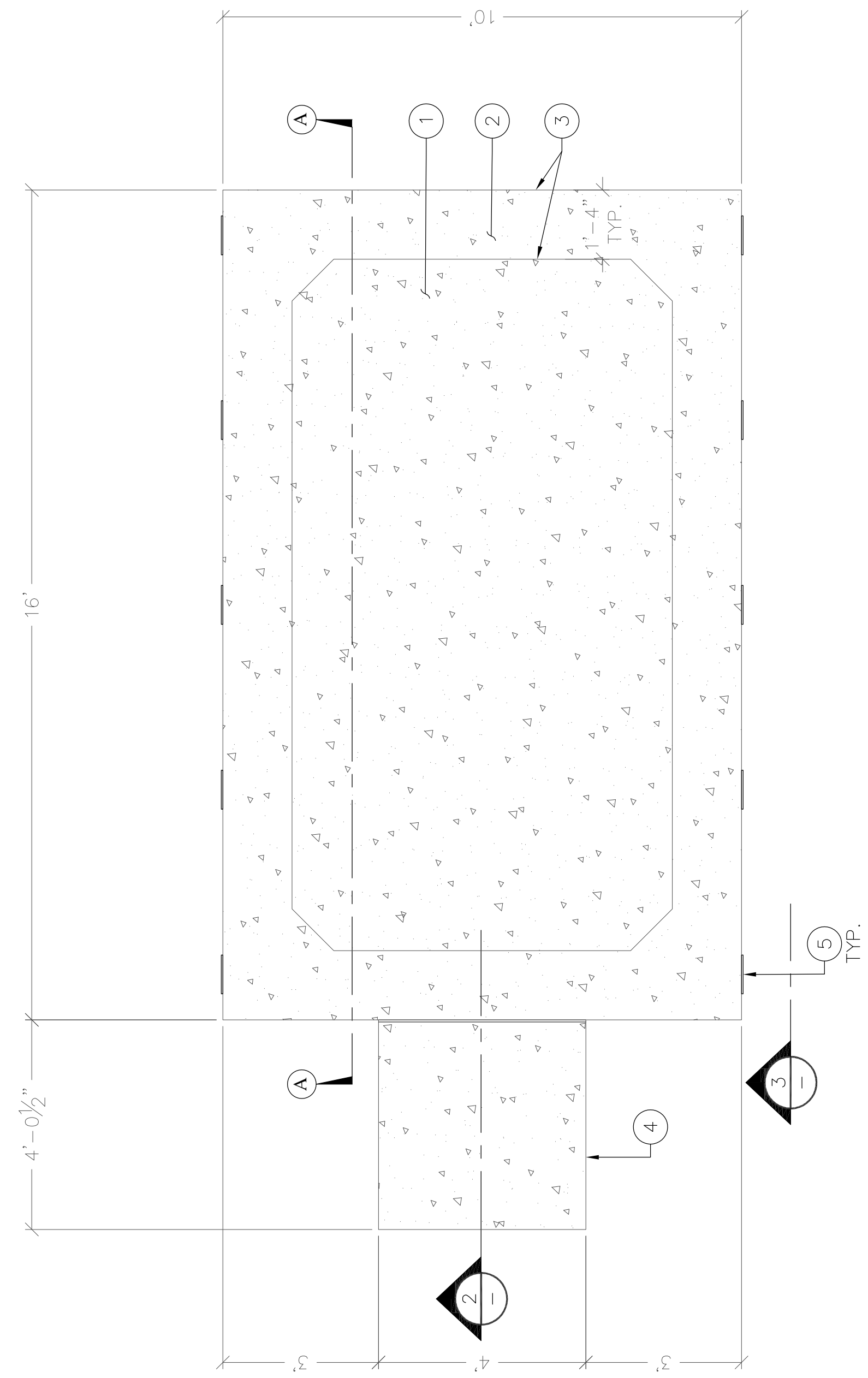
SHEET TITLE  
CONSTRUCTION DETAILS

SHEET NUMBER  
A-8

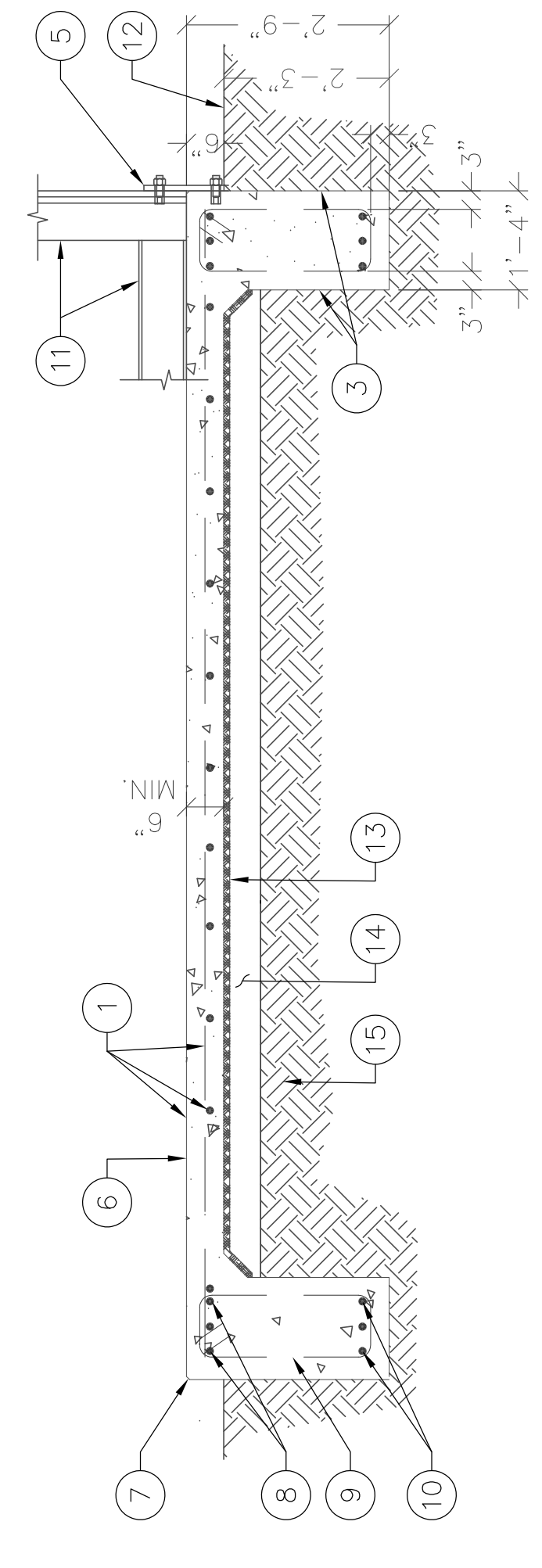


- FOUNDATION KEYED NOTES: (#)**
- 6" CONCRETE SLAB W/ #4 @ 8" O.C. EACH WAY
  - (3) #5 CONTINUOUS REINFORCING TYP. TOP & BOTTOM OF PERIMETER FOOTING
  - TYPICAL TURNDOWN AT PERIMETER
  - CONCRETE STOOP (TYP.)
  - ANCHOR BOLTS AND TIE DOWN PLATE IN ACCORDANCE WITH MANUFACTURER'S SHELTER DRAWINGS
  - USE SPRAY ON CURING AGENT
  - MIN. 1/2" CHAMFER ON ALL EXPOSED EDGES BOTH VERTICAL & HORIZONTAL
  - (3) #5 TOP
  - #4 STIRRUPS @ 14" O.C. (TYP.)
  - (3) #5 BOTTOM
  - SHELTER WALL AND FLOOR
  - FINISH GRADE
  - 6 MIL PLASTIC MOISTURE BARRIER
  - 6" THK MIN. CRUSHED STONE OR COMPACTED GRANULAR FILL (SEE NOTE 6). ALSO REFER GEOTECHNICAL REPORT FOR REQUIRED BACKFILL SPECIFICATION
  - FILL TO LEVEL W/ NATURAL BACKFILL

- SHELTER FOUNDATION NOTES:**
- CONTRACTOR TO VERIFY DIMENSIONS WITH SHELTER MANUFACTURER.
  - REMOVE ALL LOOSE INORGANIC OR UNSUITABLE SOIL TO UNDISTURBED BEARING STRATA W/ ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF.
  - CONCRETE STRENGTH SHALL BE 4000 PSI, MIN.
  - SLAB SHALL BE LEVEL ±1/4"
  - SHELTER TIE DOWN DETAIL PROVIDED BY SHELTER MANUFACTURER.
  - SUB-GRADE SHALL BE COMPACTED 95%.
  - FINISH SLAB ELEVATION TO BE 6" ABOVE HIGHEST ADJACENT EXISTING GRADE

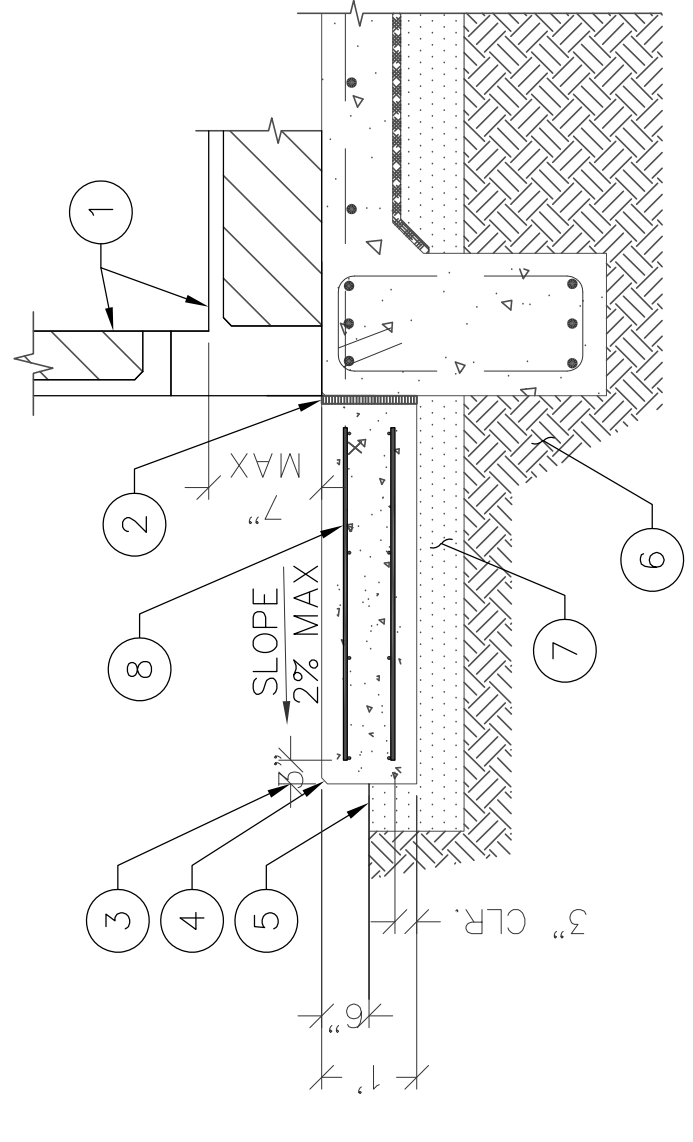


**PLAN**



**SECTION "A-A"**

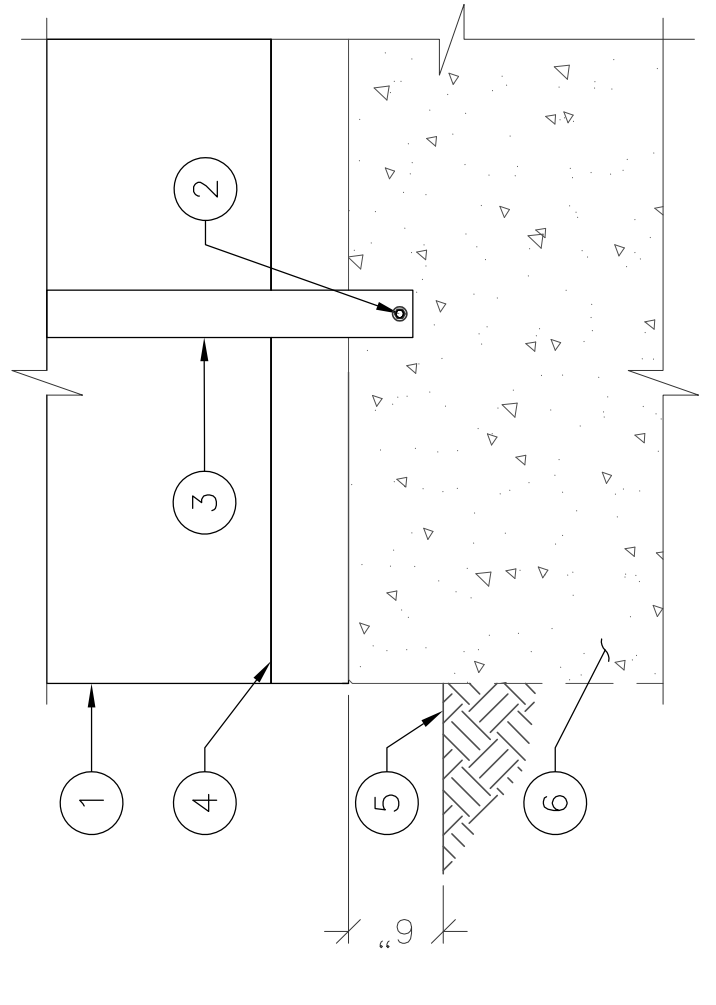
- TYPICAL CONCRETE STOOP KEYED NOTES: (#)**
- SHELTER WALL AND FINISHED FLOOR
  - 1/2" NEOPRENE FILLER
  - 3" REINFORCEMENT CLEARANCE FROM SLAB PERIMETER
  - 3/4" CHAMFER EDGE (TYP.)
  - TRANSITION FINISH GRADE
  - NATURAL SOIL OR BEDROCK
  - 6" THK MIN. CRUSHED STONE OR COMPACTED GRANULAR FILL (SEE NOTE 6). ALSO REFER GEOTECHNICAL REPORT FOR REQUIRED BACKFILL SPECIFICATION
  - 12" SLAB WITH #5 @ 12" O.C. EACH WAY TOP & BOTTOM, SLAB FINISH 6" ABOVE FINISH GRADE



**CONCRETE STOOP DETAIL**

SCALE: N.T.S. **2**

- SHELTER ANCHOR KEYED NOTES: (#)**
- SHELTER
  - ANCHOR BOLT SUPPLIED BY MANUFACTURER (TYP.)
  - STEEL TIE DOWN TRAP PROVIDED BY SHELTER MANUFACTURER (VERIFY W/ SHELTER MANUFACTURER)
  - SHELTER FLOOR
  - FINISH GRAVEL LEVEL
  - CONCRETE TURNDOWN AT PERIMETER



**SHELTER ANCHORING DETAIL**

SCALE: N.T.S. **3**

**Abn ENGINEERING**

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PHOENIX, AZ 85048  
PHONE: (480) 213-8524

PE SEAL

DESIGNER: JASON NGO

LEAD EE: SB

LEAD CE/SE: SAMI

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K	2/19/19	FINAL CD	JN
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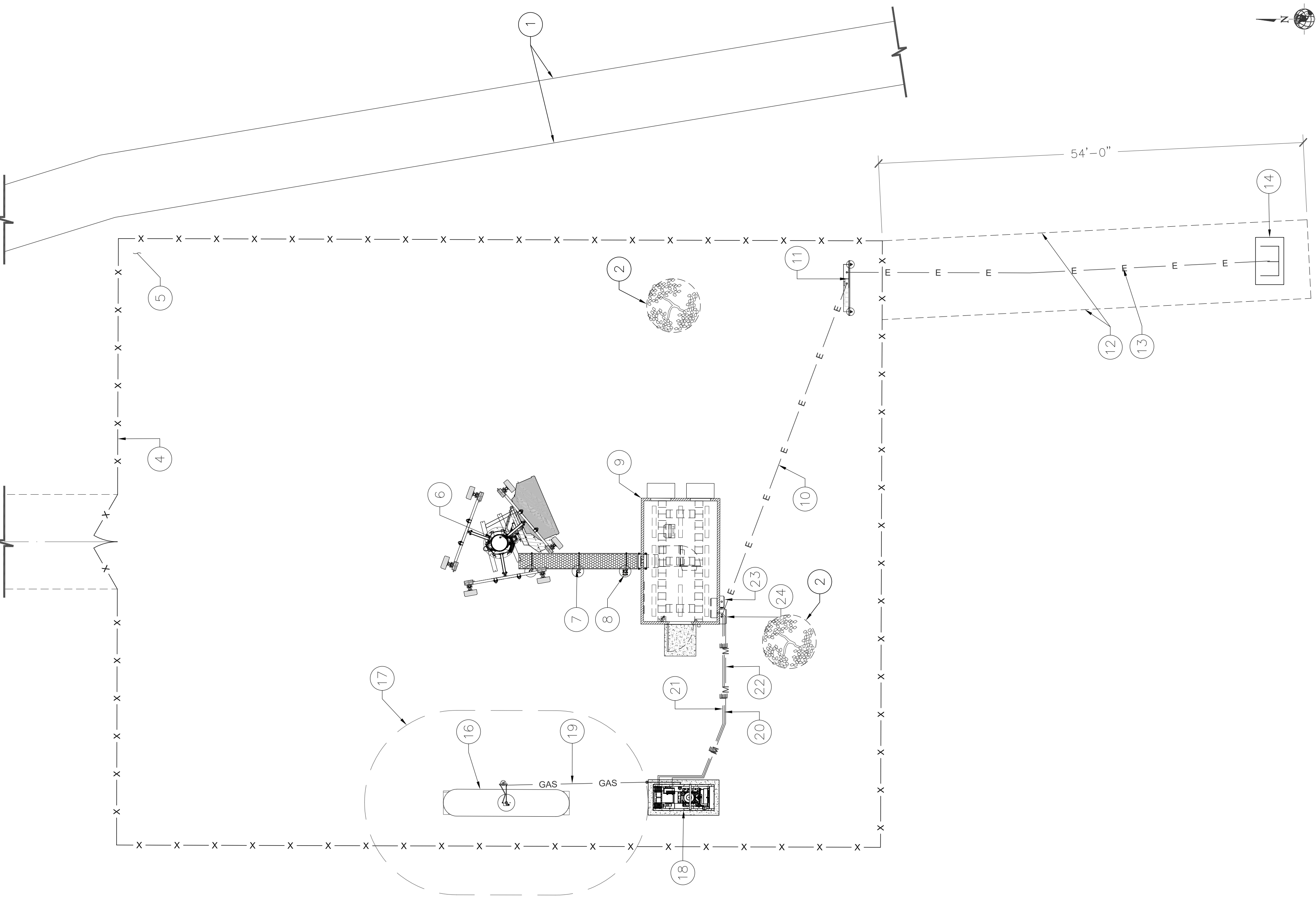
SHEET NUMBER

S-1



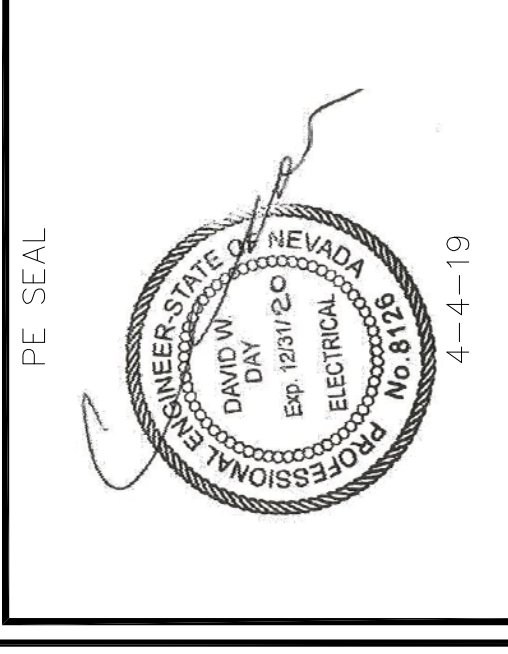
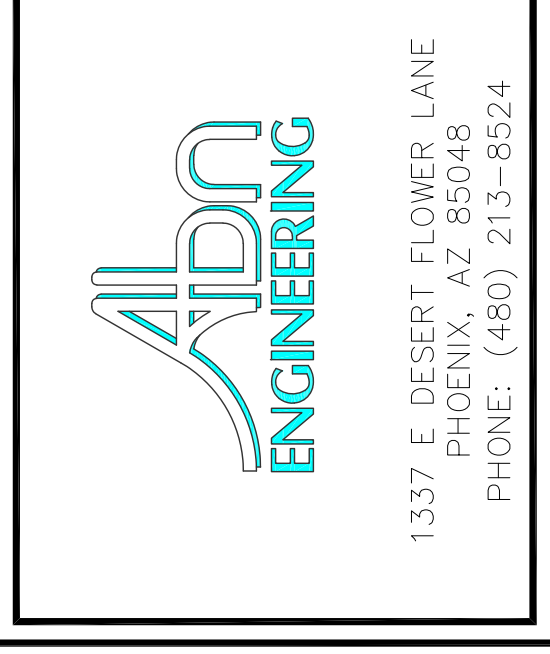
COMPOUND PLAN KEYED NOTES: (#)

1. (E) DIRT ROAD
2. (E) TREE TO BE REMOVED (TYP.)
3. (N) 12' WIDE ACCESS EASEMENT AND (N) 12' WIDE DIRT ACCESS ROAD
4. (N) 7' CHAIN LINK FENCE WITH 12' WIDE DOUBLE ACCESS GATES; SEE DETAIL 3 ON SHEET A-5
5. NOT USED
6. (N) 150' TALL MONOPOLE; SEE STRUCTURAL DRAWINGS BY OTHERS
7. (N) ICE BRIDGE; SEE DETAIL 4 ON SHEET A-5
8. (N) GPS ANTENNA; SEE DETAIL 5 ON SHEET A-5
9. (N) EQUIPMENT SHELTER (PROVIDED BY OTHERS); SEE DETAIL 1 ON SHEET S-1
10. (N) U.G. CONDUIT FOR POWER RUN; SEE DETAIL 4 ON SHEET E-3 AND SINGLE LINE DIAGRAM
11. (N) METER BANK; SEE DETAIL 3 ON SHEET E-3
12. (N) 10' WIDE UTILITY EASEMENT
13. (N) U.G. CONDUIT FOR POWER RUN FROM SOURCE TO METER BANK BY PROVIDER
14. (E) PAD MOUNTED TRANSFORMER; (N) COMMNET POWER SOURCE
15. NOT USED
16. (N) PROPANE TANK ON INTERLOCK PAVER; SEE DETAILS 2 & 6 ON SHEET A-8
17. LINE OF 10' PROPANE TANK IGNITION SOURCE SPARK RADIUS PER NFPA 58
18. (N) GENERATOR; SEE DETAILS 1, 3 & 5 ON SHEET A-8
19. (N) U.G. CONDUIT FOR GAS LINE RUN; SEE DETAIL 2 ON SHEET E-3
20. (N) U.G. CONDUIT FOR START/STOP AND MONITOR; SEE DETAIL 5 ON SHEET E-3 AND ONLINE DIAGRAM
21. (N) U.G. CONDUIT FOR POWER RUN FROM GENERATOR TO ATS; SEE DETAIL 5 ON SHEET E-3 AND ONLINE DIAGRAM
22. (N) U.G. CONDUIT FOR GENERATOR BATTERY CHARGER FROM PANEL TO GENERATOR; SEE DETAIL 5 ON SHEET E-3 AND ONLINE DIAGRAM
23. (N) DISCONNECT SWITCH
24. (N) 200A ATS



ELECTRICAL GENERAL NOTES:

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION.
2. THESE PLANS ARE DIAGRAMMATIC ONLY, AND ARE NOT TO BE SCALED.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC. AS REQUIRED FOR A COMPLETE AND PROPERLY OPERABLE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY (UL) AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION (A.H.J.). MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, AND NBFU. ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
5. ELECTRICAL CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL CODES AND O.S.H.A.
6. ELECTRICAL CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS, AND PAY ALL REQUIRED FEES.
7. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN ONE YEAR AFTER THE DATE OF JOB COMPLETION. DATE OF JOB COMPLETION SHALL BE THE DATE ON THE CONTRACTOR'S "NOTICE OF COMPLETION" SUBMITTED TO THE OWNER. ANY WORK, MATERIAL, OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR.
8. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE, AND TRUE TAPE.
9. ELECTRICAL CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE SET OF COMPLETE ELECTRICAL "AS BUILT" DRAWINGS, SHOWING ACTUAL DIMENSIONS AND CIRCUITS, WITHIN 10 WORKING DAYS OF PROJECT COMPLETION.
10. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO PROJECT MANAGER AT JOB COMPLETION.
11. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE. ALL CONDUCTORS SHALL BE COPPER.
12. THE EXTERIOR GROUND RING SHALL BE TESTED PER COMMENT WIRELESS SPECIFICATIONS USING A 3-POINT FALL OF POTENTIAL TEST. IF THE GROUNDING SYSTEM RESISTANCE TO EARTH IS GREATER THAN 5 OHMS, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE RESPONSIBLE ENGINEER.
13. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN AMP INTERRUPT RATING (AIC) NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
14. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
15. PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
16. IN DRILLING HOLES INTO CONCRETE (WHETHER FOR FASTENING OR ANCHORING PURPOSES OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC.) IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND REBARS WILL NOT BE DRILLED INTO, CUT, OR DAMAGED UNDER ANY CIRCUMSTANCES.
17. LOCATION OF TENDONS AND REBARS ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY, OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING STEEL TENDONS.
18. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE LOCAL BUILDING CODES, USING U.L. RATED MATERIALS.
19. ELECTRICAL CONTRACTOR IS TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOK-UP COSTS SHALL BE PAID BY THE CONTRACTOR.
20. ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND/OR CATALOG CUT-SHEETS ON ALL NON-SPECIFIED ORIGINAL MATERIALS AND EQUIPMENT, TO PROJECT MANAGER PRIOR TO COMMENCEMENT OF THE WORK.
21. ALL GROUNDING SYSTEM LEADS SHALL BE TESTED FOR CONTINUITY WITH THE GROUND LOOP CONDUCTOR. ALL FAULTY CONNECTIONS OR CONDUCTORS SHALL BE REPAIRED OR REPLACED AS REQUIRED.
22. CLEAN PREMISES DAILY OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK PREMISES IN A COMPLETE AND UNDAMAGED CONDITION.
23. ALL EXTERIOR WALL PENETRATIONS SHALL BE SEALED WITH POLYSEAM SEALANT.
24. ALL #2 TINNED BARE COPPER DOWNLEADS TO BE PROTECTED BY ½" P.V.C. PIPE AND SECURED.
25. COMPRESSION FITTINGS TO BE USED ON ALL CONDUITS (NO SETSCREWS).
26. ALL #6 STRANDED COPPER WITH GREEN INSULATION TO BE ATTACHED WITH CRIMPED DOUBLE LUG, ATTACHED WITH NUTS, BOLTS AND STAR WASHERS TYPICAL AND NO-OX GREASE BETWEEN LUG AND BUSS BAR.
27. ALL ABOVE GROUND CONDUIT SHALL BE SCHEDULE 80 PVC WITH UV PROTECTION OR GRC.
- 28.



DESIGNER: JASON NGO

LEAD EE: SB

LEAD CE/SE: SAM

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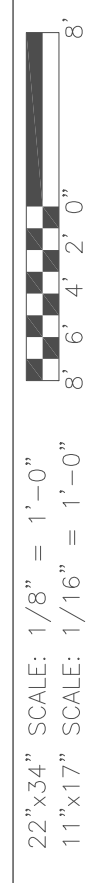
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OVERALL ELECTRICAL PLAN & ELECTRICAL NOTES

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E-1



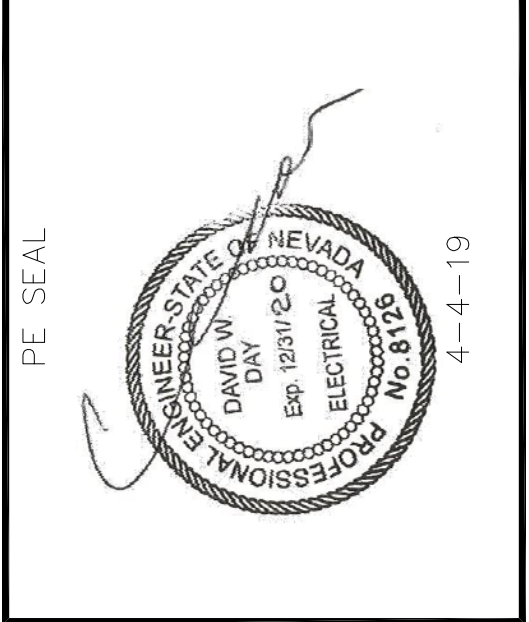








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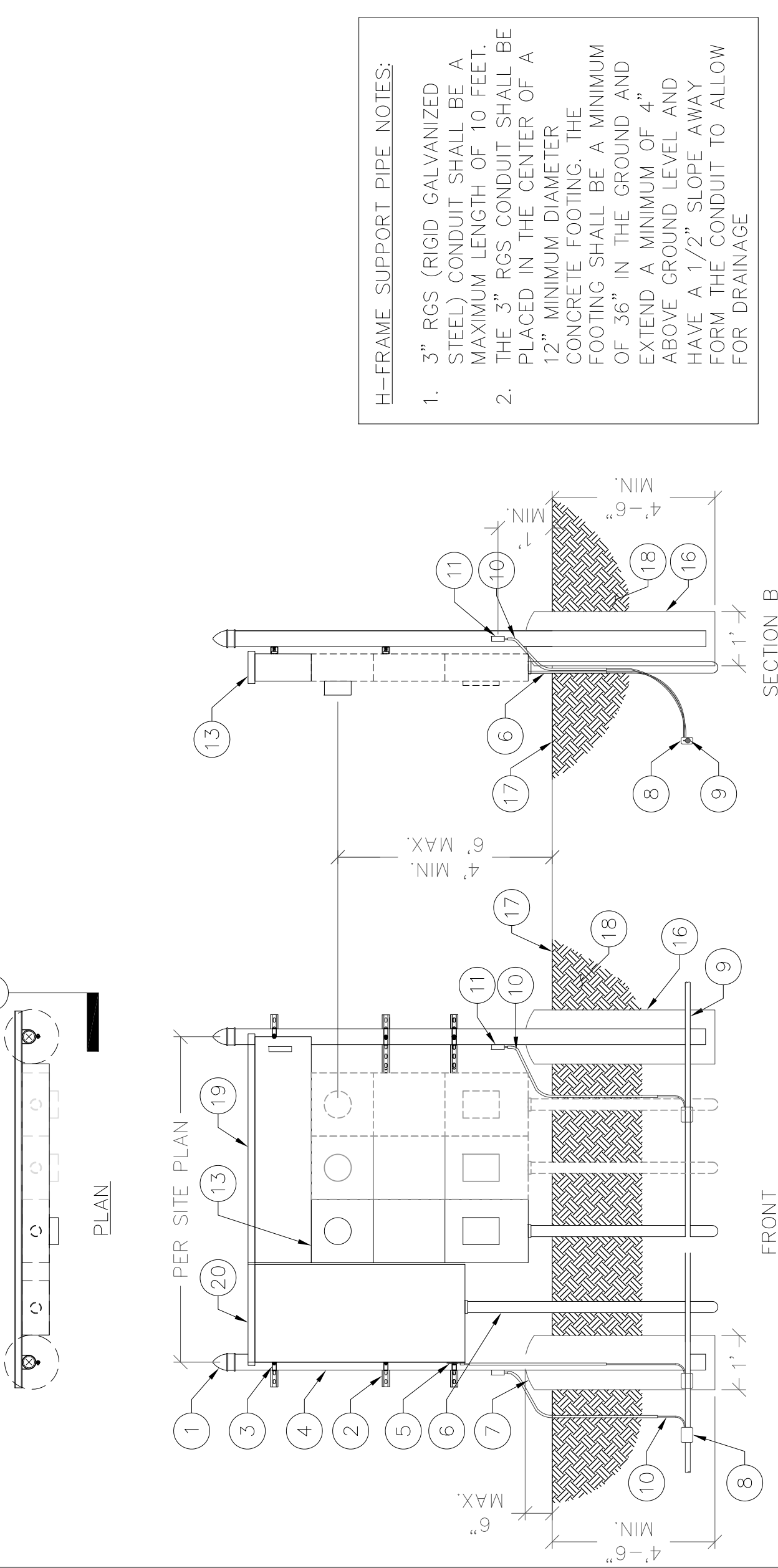
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SHEET TITLE  
**DETAILS**

SHEET NUMBER  
**E-3**

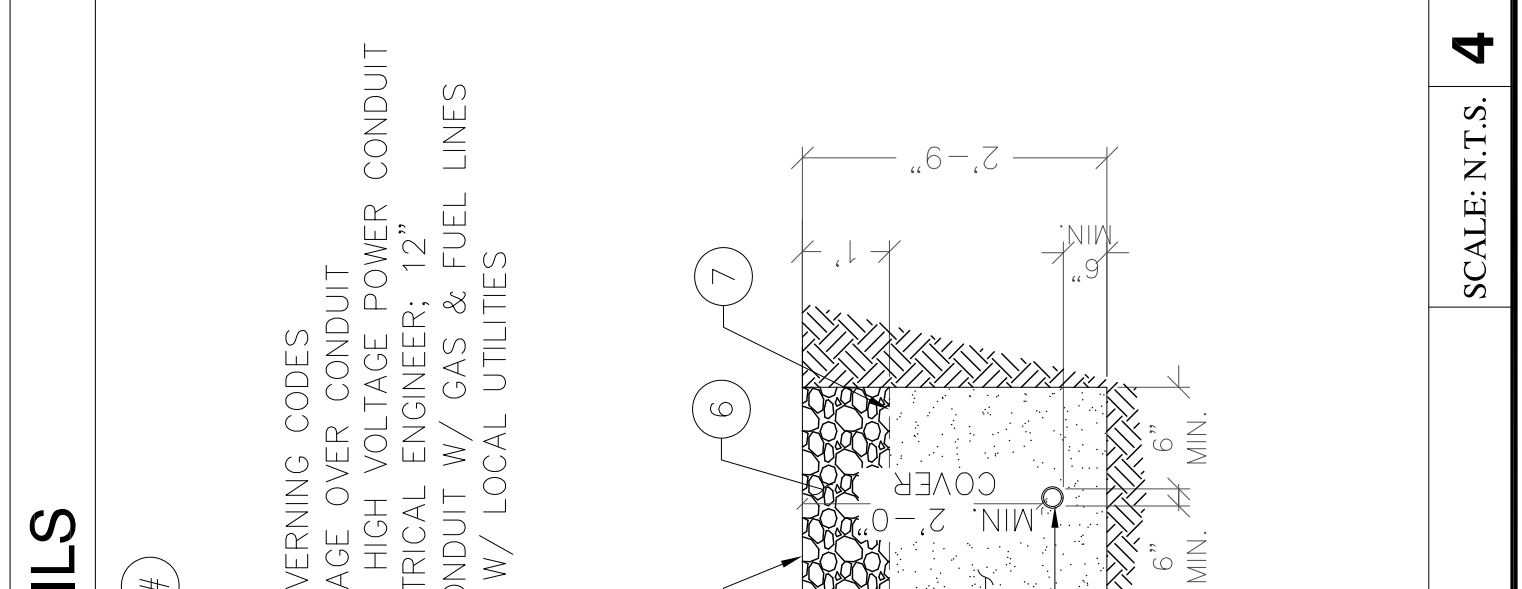
- H-FRAME\_POST KEYED NOTES:**
1. PIPE CAP 3/2" (TYP.)
  2. 1 1/2"x1 1/2"x12 GAUGE GALV. CHANNEL (TYP.)
  3. UNISTRUT P-1119 GALV. SUPPORT PIPE CLAMP (TYP.)
  4. H-FRAME DIRECT BURIAL 3/2" PIPE COLUMN (TYP.)
  5. MECHANICAL GROUND BONDING (TYPE YA-2) (TYP.)
  6. RIGID CONDUIT(S)
  7. ROUND TOP OF FOUNDATION
  8. EXOTHERMIC WELD (TYPE PT) (TYP.)
  9. GROUND RING
  10. #2 AWG SOLID TINNED BARE COPPER CONDUCTOR ROUTED IN FLEXIBLE NON-METALLIC LIQUID TIGHT CONDUIT (CARFLEX) (TYP.)
  11. EXOTHERMIC WELD (TYPE VS)
  12. GFI USE DUPLEX RECEPTACLE W/ ENCLOSURE
  13. METER GANG - MILBANK #U224M/TB-P 4-JAW / TERMINAL, OR APPROVED EQUAL
  14. 200A, 240V, DISCONNECT SWITCH, NEMA 3R
  15. 200A AC PANEL "A", NEMA 3R
  16. CONCRETE FOUNDATION, 2500 PSI
  17. FINISHED GRADE OR ASPHALT
  18. NATURAL SOIL
  19. BUSSED CUTTER - MILBANK #BC318, OR APPROVED EQUAL
  20. TERMINATION BOX - MILBANK #PB-018, OR APPROVED EQUAL



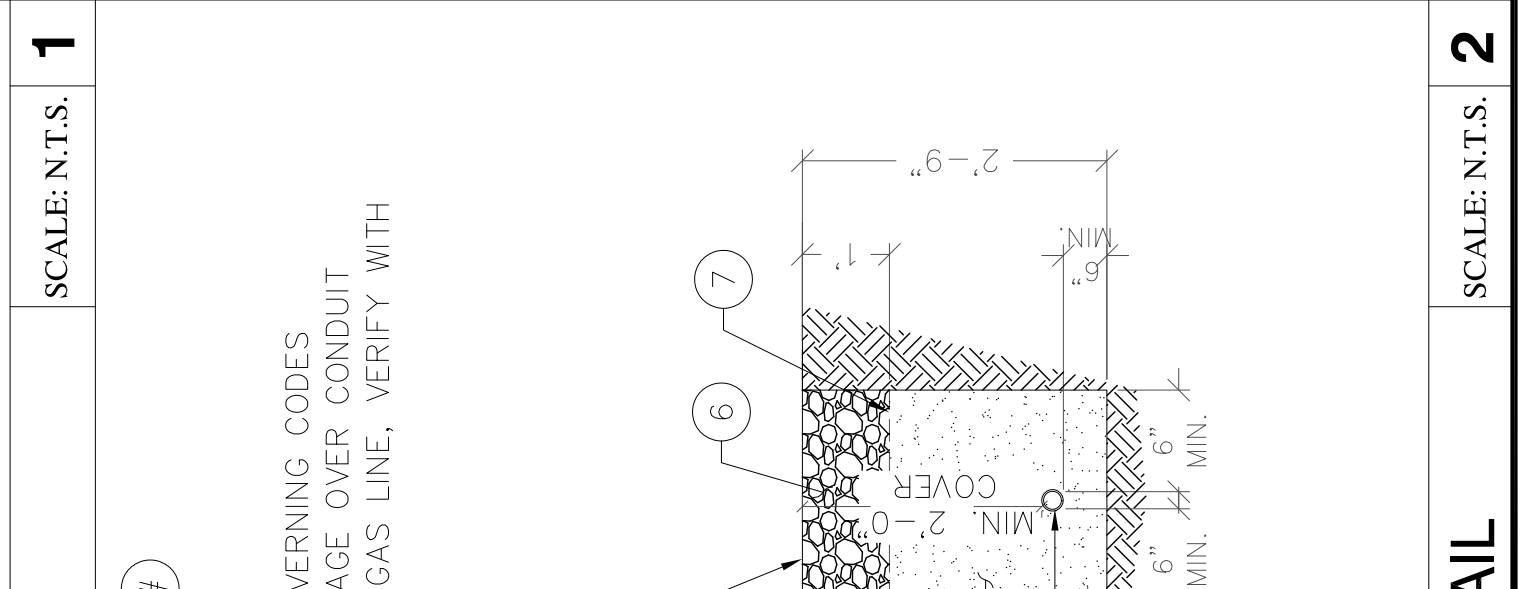
- H-FRAME\_SUPPORT PIPE NOTES:**
1. 3" RGS (RIGID GALVANIZED STEEL) CONDUIT SHALL BE A MAXIMUM LENGTH OF 10 FEET. THE 3" RGS CONDUIT SHALL BE PLACED IN THE CENTER OF A 12" MINIMUM DIAMETER CONCRETE FOOTING. THE FOOTING SHALL BE A MINIMUM OF 36" IN THE GROUND AND EXTEND A MINIMUM OF 4" ABOVE GROUND LEVEL AND HAVE A 1/2" SLOPE AWAY FROM THE CONDUIT TO ALLOW FOR DRAINAGE

**NOT USED** SCALE: N.T.S. **1** **TYPICAL H-FRAME DETAILS** SCALE: N.T.S. **3**

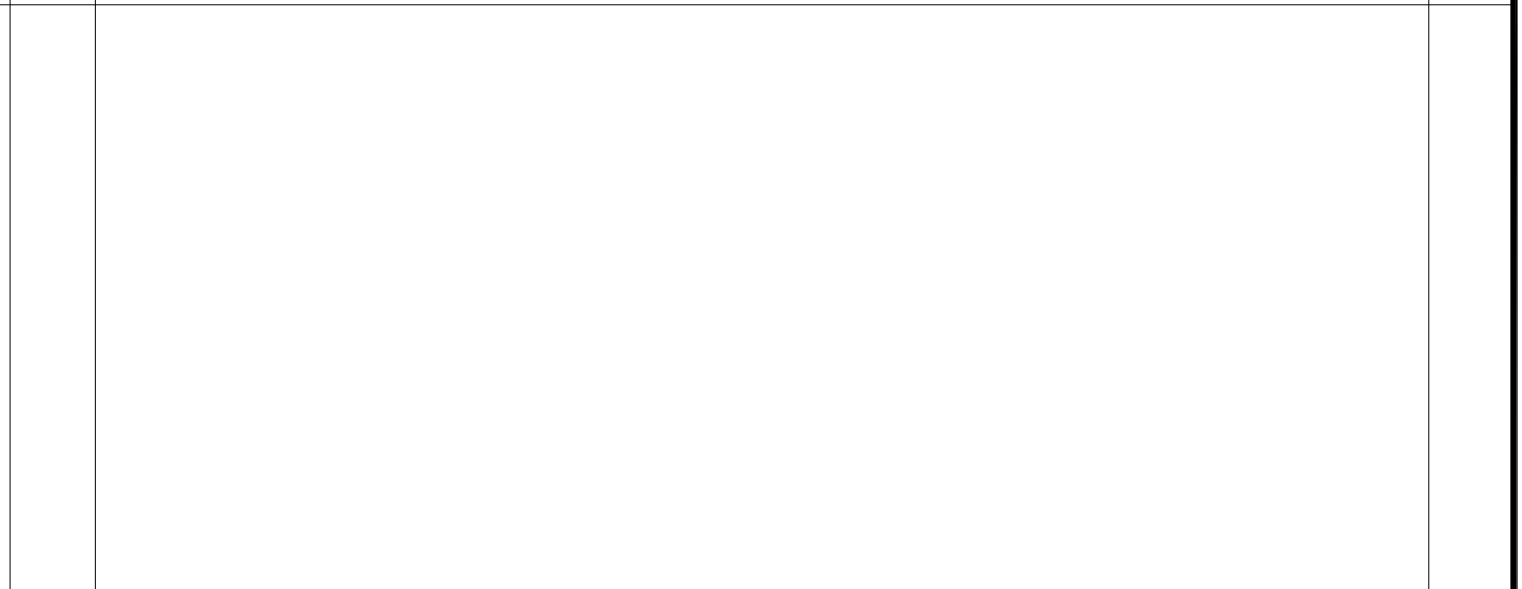
- HIGH VOLTAGE TRENCH KEYED NOTES: (#)**
1. MATCH EXISTING SURFACE
  2. FINISHED GRADE
  3. VERT. DEPTH W/O SHORING PER GOVERNING CODES
  4. CLEAR BEDDING W/ MIN. 12" COVERAGE OVER CONDUIT
  5. CONDUIT PER SINGLE LINE DIAGRAM, HIGH VOLTAGE POWER CONDUIT WITH PULL STRING, SIZED PER ELECTRICAL ENGINEER; 12" SEPARATION FROM OTHER LINES; CONDUIT W/ GAS & FUEL LINES IN SEPARATE TRENCH; COORDINATE W/ LOCAL UTILITIES
  6. FILL MATERIAL
  7. WARNING TAPE 12" BELOW GRADE



- TRENCH KEYED NOTES: (#)**
1. MATCH EXISTING SURFACE
  2. FINISHED GRADE
  3. VERT. DEPTH W/O SHORING PER GOVERNING CODES
  4. CLEAR BEDDING W/ MIN. 12" COVERAGE OVER CONDUIT
  5. PVC/CONDUIT SIGNAL WIRING OR GENERATOR BLOCK HEATER & CHARGER. SEE SINGLE LINE DIAGRAM
  6. PVC PER SINGLE LINE DIAGRAM. FOR ALARM OR POWER
  7. WARNING TAPE 12" ABOVE CONDUIT
  8. BACK FILL



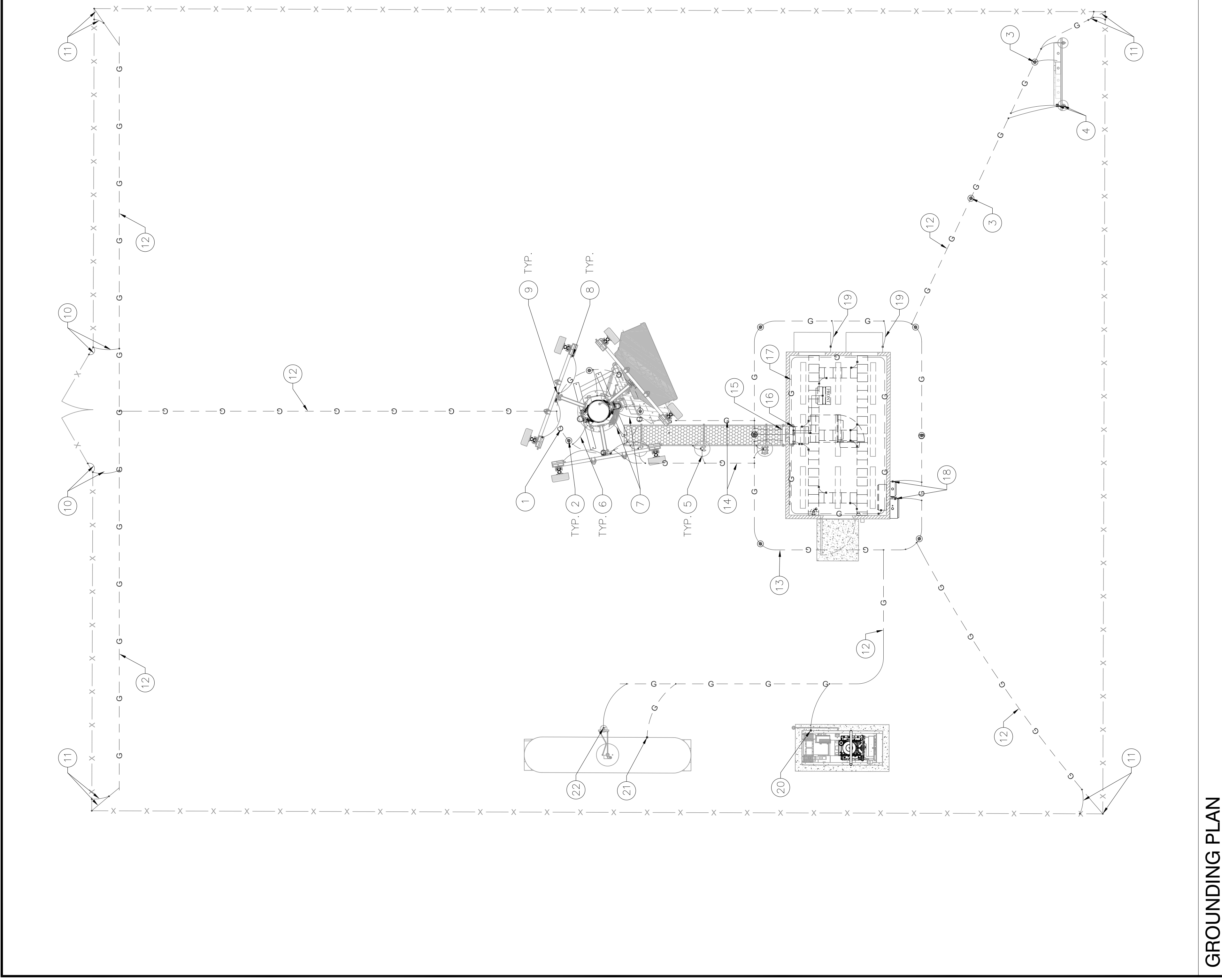
- LOW VOLTAGE TRENCH KEYED NOTES: (#)**
1. MATCH EXISTING SURFACE
  2. FINISHED GRADE
  3. VERT. DEPTH W/O SHORING PER GOVERNING CODES
  4. CLEAR BEDDING W/ MIN. 12" COVERAGE OVER CONDUIT
  5. MINIMUM 1-1/2" PVC CONDUIT FOR GAS LINE, VERIFY WITH PROPANE GAS PROVIDER.
  6. FILL MATERIAL
  7. WARNING TAPE 12" BELOW GRADE



**NOT USED** SCALE: N.T.S. **2** **POWER TRENCH DETAIL** SCALE: N.T.S. **4** **GENERATOR TRENCH DETAIL** SCALE: N.T.S. **5**

**NOT USED**





**LEGEND:**

—TBB— TINNED SOLID ALLOY 110 COPPER POLE BUSS BAR BONDED TO POLE STEEL.

⊙ 5/8" DIA. x 10' COPPER CLAD GROUND ROD. REFER TO DETAIL 7 ON SHEET G-2.

—G— GROUND RING, REFER TO DETAIL 6 ON SHEET G-2.

• EXOTHERMIC WELD OR IRREVERSIBLE HIGH-COMPRESSION CRIMP.

▪ MECHANICAL CONNECTION.

**GENERAL NOTES:**

A. THESE DRAWINGS REPRESENT THE GENERAL EXTENT AND ARRANGEMENT OF SYSTEMS, BUT ARE NOT TO BE CONSIDERED FABRICATION DRAWINGS. COORDINATE WITH OTHER TRADES, AND PROVIDE EACH SYSTEM COMPLETE, INCLUDING ALL NECESSARY COMPONENTS, FITTINGS AND OFFSETS.

B. INSTALL SYSTEMS SUCH THAT REQUIRED CLEARANCE AND SERVICE ACCESS SPACE IS PROVIDED AROUND ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AND AROUND ANY COMPONENTS WHICH REQUIRE SERVICE ACCESS.

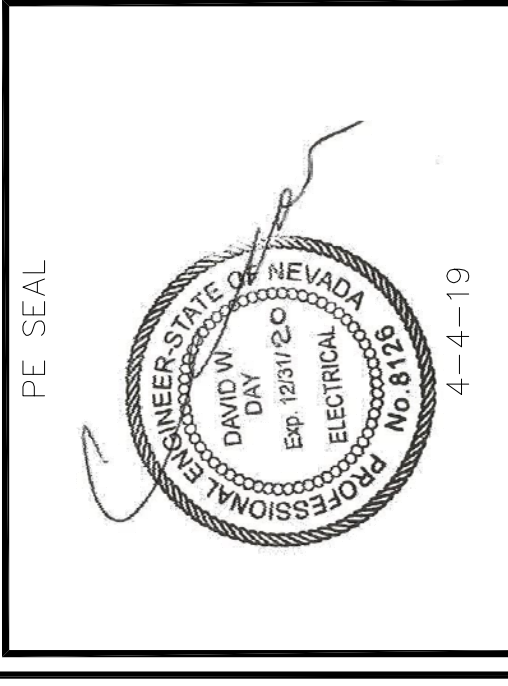
C. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED FOR THE PROPER SUPPORT OF ALL SYSTEMS.

D. REFER TO G-2 FOR GROUNDING DETAILS.

E. ALL METALLIC SURFACES SHALL BE PREPARED PRIOR TO BONDING, COLD GALV. SPRAY SHALL BE USED ON ANY EXOTHERMIC WELD TO PREVENT CORROSION, ANY AREA TO BE COLD GALV. SPRAY SHALL BE TAPED OFF PRIOR TO APPLICATION.

**CONSTRUCTION KEYED NOTES: (#)**

- GROUNDING ELECTRODE CONDUCTOR SYSTEM (GROUND RING), #2 AWG SOLID BARE TINNED COPPER CONDUCTOR. GROUNDING ELECTRODE CONDUCTOR SHALL BE BURIED 30" BELOW GRADE WHERE APPLICABLE. ABOVE GRADE GROUNDING ELECTRODE CONDUCTOR TO BE ROUTED IN FLEXIBLE NON-METALLIC LIQUID TIGHT CONDUIT & FASTENED TO CONCRETE SURFACE EVERY 3' MAX. FASTENERS SHALL BE FLEXIBLE CONDUIT HALF STRAPS W/ 1/4"Ø x 2" (L) RED HEAD HAMMER-SET NAIL DRIVE ANCHOR OR EQUIV. (TYP.)
- 5/8" DIA. x 10' LONG COPPER CLAD GROUND ROD PLACED MINIMUM EVERY 10' APART (TYP.). REFER TO DETAIL 4 ON SHEET G-2.
- SERVICE 5/8" DIA. x 10' LONG COPPER CLAD GROUND ROD PLACED MINIMUM EVERY 10' APART (TYP. OF 2). REFER TO DETAIL 4 ON SHEET G-2.
- BOND H-FRAME & ELECTRICAL BOX TO GROUND RADIAL (TYP.), REFER TO DETAIL 3 ON SHEET E-2.
- BOND ICE BRIDGE POST TO POLE GROUND RING (TYP.).
- BOND POLE BASE PLATE (AT MANUFACTURER INSTALLED BONDING TAB) TO GROUND RING. UNDER NO CIRCUMSTANCES WILL EXOTHERMIC WELDING BE PERMITTED ON THE POLE TRUNK, TYPICAL 3 LOCATIONS.
- BOND POLE GROUND BUSS BAR TO POLE GROUND RING WITH #2 AWG, TYP. OF 2 CONNECTIONS
- BOND RRHS TO ANTENNA GROUND BUS BAR WITH #6 AWG (TYP.)
- ATTACHED ANTENNA GROUND BUS BAR SECTOR GATE (TYP.). REFER TO DETAIL 5 ON SHEET G-2
- BOND GATE TO GATE POST VIA #2 GATE BOND JUMPER (TYP.). REFER TO DETAIL 5 ON SHEET G-2
- BOND TO FENCE FABRIC SUPPORT POST. REFER TO DETAIL 5 ON SHEET G-2 (TYP.)
- #2 AWG SOLID BARE TINNED COPPER CONDUCTOR (TYP.)
- #2 AWG SOLID BARE TINNED COPPER EQUIPMENT SHELTER GROUND RING OF 2 CONNECTIONS
- EQUIPMENT SHELTER GROUND RING TO POLE GROUND RING WITH #2 AWG (TYP. OF 2 CONNECTIONS)
- EXTERIOR GROUND BUS BAR (EGB), BOND TO GROUND RING WITH (2) #2 AWG SOLID TINNED BARE COPPER CONDUCTORS, IN ADDITION, BOND ENTRY PANEL TO EGB WITH #2 AWG THIN COPPER CONDUCTOR PER SHELTER MANUFACTURER SPECIFICATIONS (TYP.)
- MAIN GROUND BUS BAR (MGB) INSTALLED BY SHELTER MANUFACTURER
- INTERIOR GROUNDING HALO SUPPLIED AND INSTALLED BY GC
- BOND ATS & DISCONNECT TO GROUND RING WITH #2 AWG SOLID TINNED BARE COPPER CONDUCTOR
- SHELTER A/C UNIT. BOND TO GROUND RING WITH #2 AWG SOLID TINNED BARE COPPER CONDUCTOR. BONDING ON THE SHELTER A/C UNIT HOUSING SHALL BE MECHANICAL ONLY (TYP.).
- BOND GENERATOR TO GROUND RADIAL WITH #2 AWG
- BOND PROPANE TANK LEG TO GROUND RADIAL WITH #2 AWG
- BOND SUPPORT PIPE TO GROUND RADIAL WITH #2 AWG



DESIGNER: JASON NGO

LEAD EE: SB

LEAD CE/SE: SAM

REV.	DATE	DESCRIPTION	BY
H	1/25/19	COMMENTS	JN
I	2/13/19	COMMENTS	JN
J	2/18/19	COMMENTS	JN
K	2/19/19	FINAL CD	JN
L	4/3/19	REVISED CD	JN

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO COMMNET WIRELESS IS STRICTLY PROHIBITED.

SITE NAME  
VYA, NEVADA

PROJECT  
RAW LAND MONOPOLE

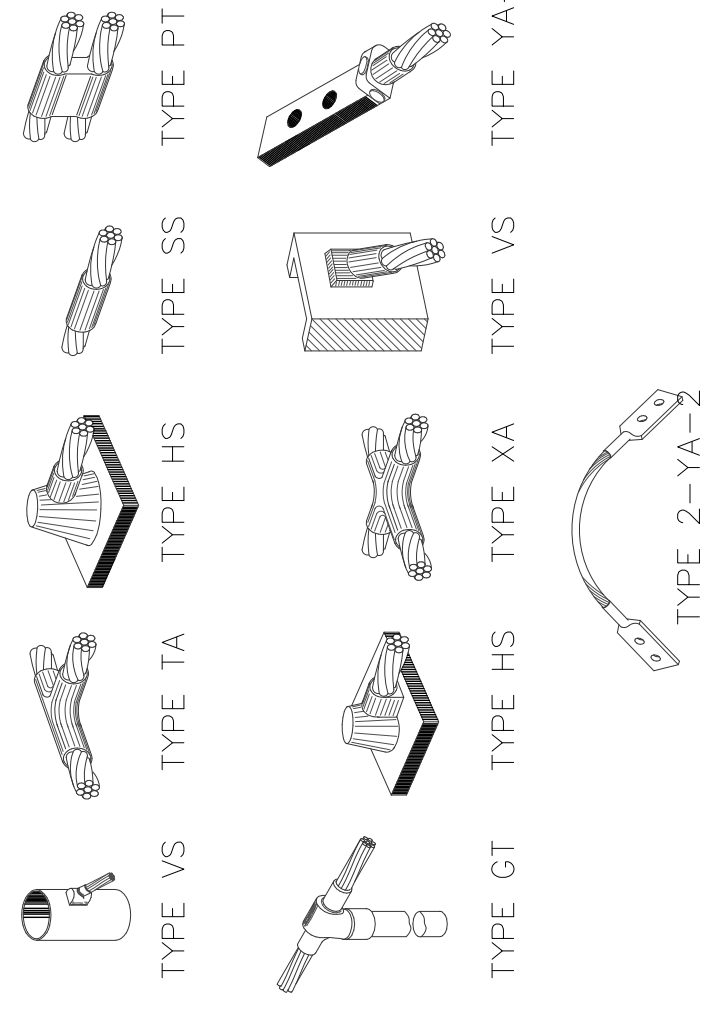
SITE ADDRESS  
LAT: 41° 35' 30.76358"N  
LONG: 119° 52' 47.14752"W  
89000A DUGWAY ROAD  
GERLACH, NV 89413

SHEET TITLE  
GROUNDING PLAN

SHEET NUMBER  
G-1



NOTE:  
ERICO CADWELD "MOLD TYPES" SHOWN HERE ARE EXAMPLES.  
CONSULT WITH PROJECT MANAGER OR CONSTRUCTION MANAGER  
FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.

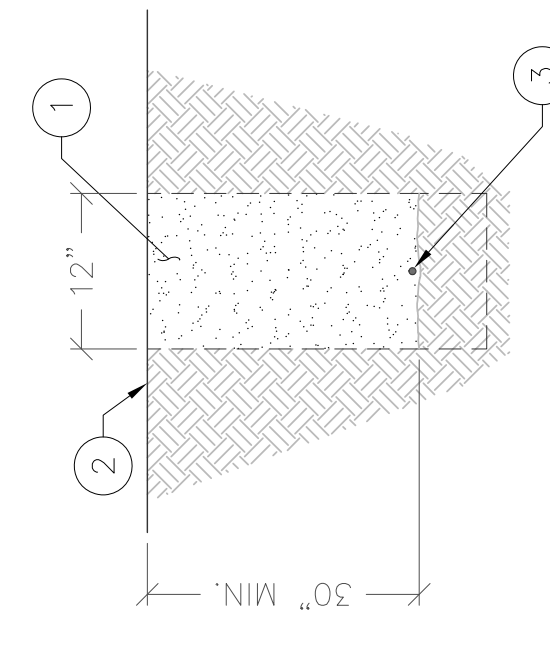


**EXOTHERMIC WELD DETAILS** SCALE: N.T.S. **1**

GROUNDING CONDUCTOR SIZING	
CONDUCTOR LENGTH IN LINEAR FT	CONDUCTOR SIZE IN AWG/MCM
< 33	2
34 - 41	1
42 - 53	1/0
54 - 66	2/0
67 - 84	3/0
85 - 105	4/0
106 - 125	250 MCM
126 - 150	300 MCM
151 - 175	350 MCM
176 - 250	500 MCM
251 - 300	600 MCM
> 300	750 MCM

**GRND. CONDUCTOR SIZE DETAIL** SCALE: N.T.S. **2**

GROUND RING TRENCHING KEYED NOTES: (#)  
1. BACKFILL PER SPECIFICATIONS  
2. FINISHED GRADE  
3. #2 AWG SOLID TINNED BARE COPPER WIRE



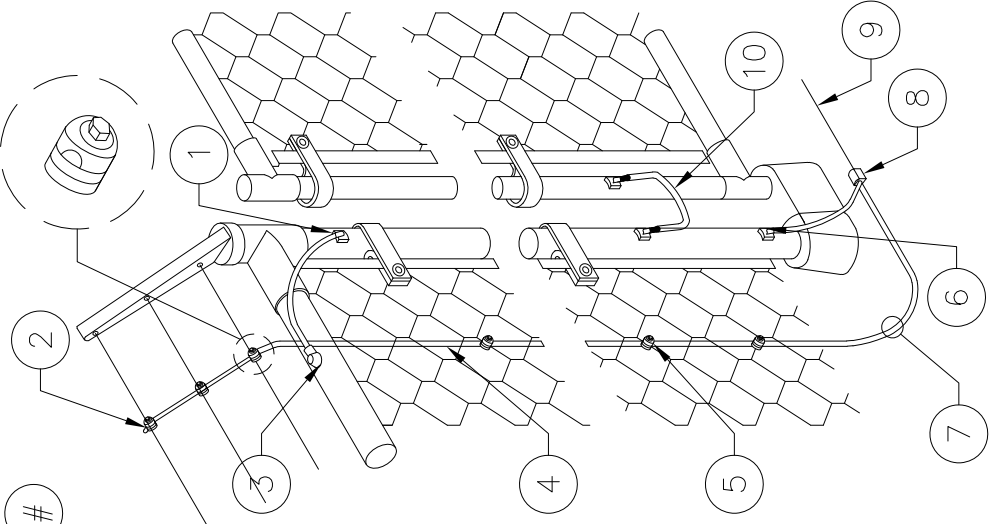
NOTES:  
1. DEPTH TO BE 30" OR 6" BELOW FROST LINE, WHICHEVER IS GREATER.  
2. GROUND RINGS SHOULD CONSIST OF AT LEAST 20' OF #2 AWG OR LARGER BARE COPPER CONDUCTOR.  
3. BURY THE RINGS IN DIRECT CONTACT WITH SOIL.

**GROUND RING TRENCH** SCALE: N.T.S. **3**

GROUND ROD INSTALLATION KEYED NOTES: (#)  
1. FINISHED GRADE  
2. EXOTHERMIC CONNECTION (TYPE GT)  
3. 5/8"x10" LONG COPPER CLAD GROUND ROD WITH EXOTHERMIC CONNECTION TO GROUND RING  
4. #2 AWG SOLID TINNED BARE COPPER WIRE (GROUND RING 30" BELOW GRADE)  
5. EXOTHERMIC CONNECTION TO GROUND RING (TYPE PT)  
6. #8CU AWG SOLID TINNED BARE COPPER WIRE GROUND CONDUCTOR ROUTED IN FLEXIBLE NON-METALLIC LIQUID TIGHT CONDUIT (CARFLEX)  
7. #8CU AWG COPPER MAIN EQUIPMENT BONDING JUMPER  
8. #8CU AWG COPPER MAIN BONDING JUMPER  
9. TERMINATION BOX

NOTES:  
1. ALL GROUNDING AND BONDING AT THE SERVICE ENTRANCE SHALL COMPLY WITH NEC 250.28, 250.50, 250.66, 250.92, 250.102(C) & 250.56.  
2. GROUNDING SYSTEM RESISTANCE IS 25 OHMS OR LESS

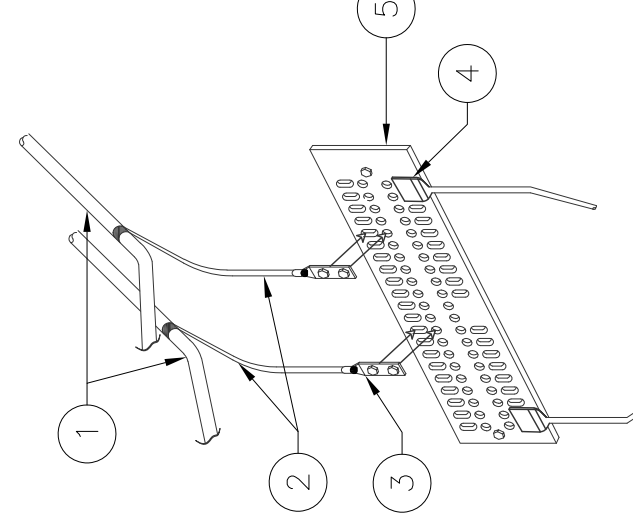
**GROUND ROD DETAIL** SCALE: N.T.S. **4**



CORNER FENCE GROUNDING KEYED NOTES: (#)  
1. ERICO EXOTHERMIC WELD CONNECTION "VB" OR EQUIVALENT  
2. DETERGENT WIRE GROUNDING CLAMP (HARGER FCC2) TRIM LEAD AS CLOSE TO GROUNDING CLAMP AS POSSIBLE  
3. ERICO EXOTHERMIC WELD CONNECTION "HA" OR EQUIVALENT  
4. #2 AWG SOLID TINNED BARE COPPER WIRE BOND FENCE FABRIC TO GROUND CONDUCTOR  
5. FENCE FABRIC GROUNDING CLAMP (TYP.)  
6. GROUND CONDUCTOR WITH ERICO EXOTHERMIC WELD "VS" OR EQUIVALENT  
7. CONNECT FENCE BONDING CONDUCTOR TO EXTERNAL GROUNDING ELECTRODE SYSTEM USING EXOTHERMIC WELD OR IRREVERSIBLE HIGH COMPRESSION FITTING  
8. ERICO EXOTHERMIC WELD CONNECTION "PC" OR EQUIVALENT TO GROUND RING  
9. GROUNDING RADIAL TO SYSTEM GROUND RING  
10. GATE JUMPER WITH ERICO EXOTHERMIC WELD "VS" OR EQUIVALENT

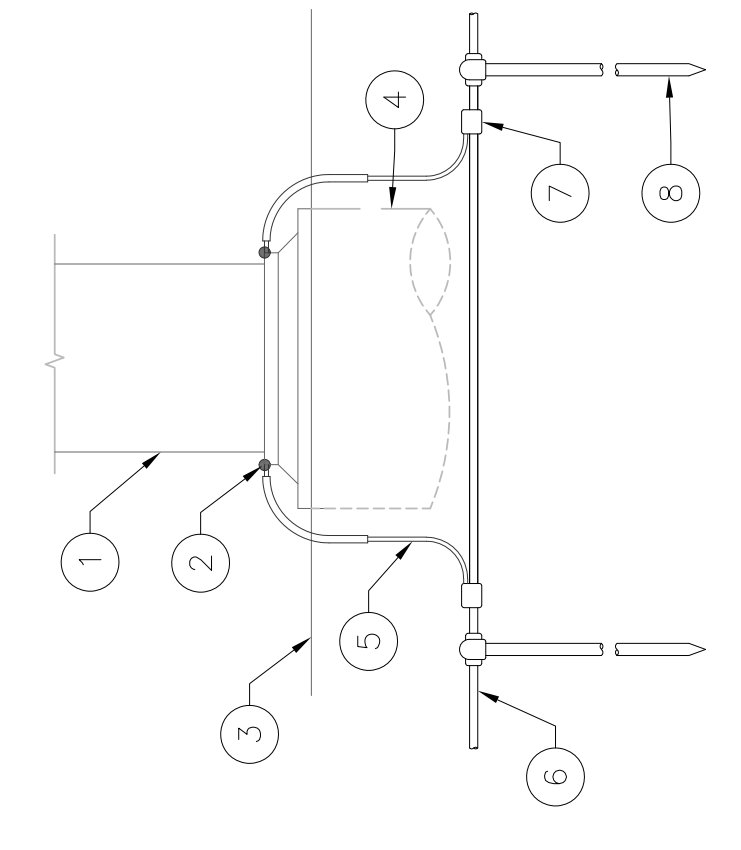
**FENCE GROUNDING DETAIL** SCALE: N.T.S. **5**

POLE GROUNDING KEYED NOTES: (#)  
1. HYBRID GROUNDING KIT  
2. HEX BOLTS; APPROVED TWO HOLE LUG CONNECTION WITH STAINLESS HARDWARE  
3. EXOTHERMIC WELD #2 AWG STRANDED BARE TINNED COPPER  
4. TINNED COPPER POLE GROUND BUSS BAR



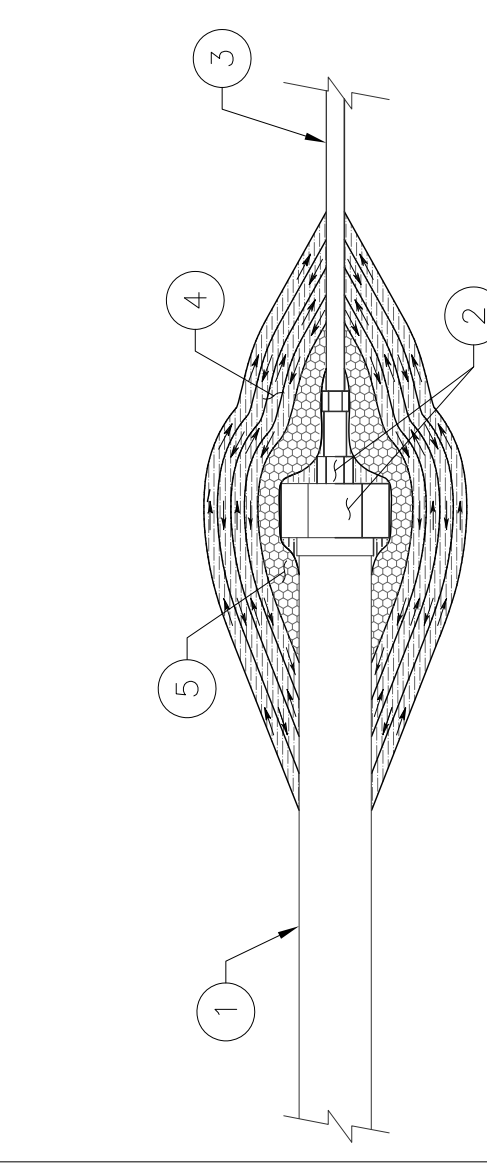
**POLE GROUND BUSS BAR** SCALE: N.T.S. **6**

TYPICAL MONOPOLE GROUNDING KEYED NOTES: (#)  
1. MONOPOLE  
2. EXOTHERMIC WELD TO MANUFACTURER INSTALLED BONDING TAB (TYP.)  
3. FINISHED GRADE  
4. OUTLINE OF POLE FOUNDATION  
5. #2 AWG SOLID TINNED BARE COPPER CONDUCTOR ROUTED IN FLEXIBLE NON-METALLIC LIQUID TIGHT CONDUIT (CARFLEX) (TYP. OF 3)  
6. GROUND RING  
7. EXOTHERMIC CONNECTION TO GROUND RING (TYPE PT)  
8. GROUND ROD (TYP.)



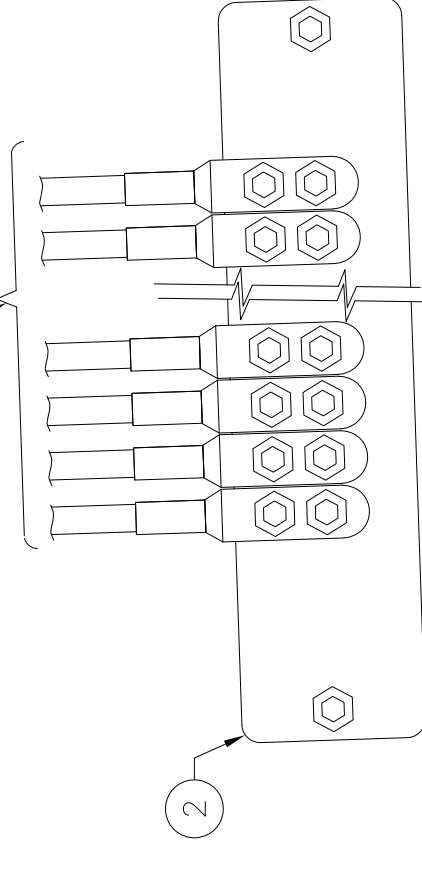
**MONOPOLE GROUNDING DETAIL** SCALE: N.T.S. **7**

WEATHERPROOFING KEYED NOTES: (#)  
1. COAX  
2. COAX TO JUMPER CONNECTION (TYP.)  
3. JUMPER (TYP.)  
4. 3M SCOTCH SUPER 33+ VINYL ELECTRICAL TAPE (OR EQUIVALENT)  
5. VAPOR WRAP SEALANT



**WEATHERPROOF DETAIL** SCALE: N.T.S. **8**

ANTENNA BUSS BAR KEYED NOTES: (#)  
1. #2 AWG STRANDED CU WIRE WITH GREEN, 600V, THHN INSULATION OR BLACK MARKED AS REQUIRED BY NEC  
2. TINNED COPPER POLE BUSS BAR ATTACHED DIRECTLY TO POLE STEEL



**ANTENNA BUSS BAR DETAIL** SCALE: N.T.S. **9**

GROUND LUG KEYED NOTES: (#)  
1. NUT  
2. LOCK WASHER  
3. FLAT WASHER  
4. BOLT  
5. BURNDY GROUND LUG (SEE TABLE FOR SIZE AND MODEL)  
6. HEAT SHRINK (CLEAR)  
7. GROUNDING CONDUCTOR  
8. BONDING BUSS BAR OR METALLIC BONDING SURFACE  
9. BURNDY 2-HOLE LUG W/ LONG BARREL FOR #6 AWG STRANDED BARE WIRE TO BE NO-OXED AT BOTH ENDS  
10. HEAT SHRINK  
11. #6 AWG THHN COPPER WIRE

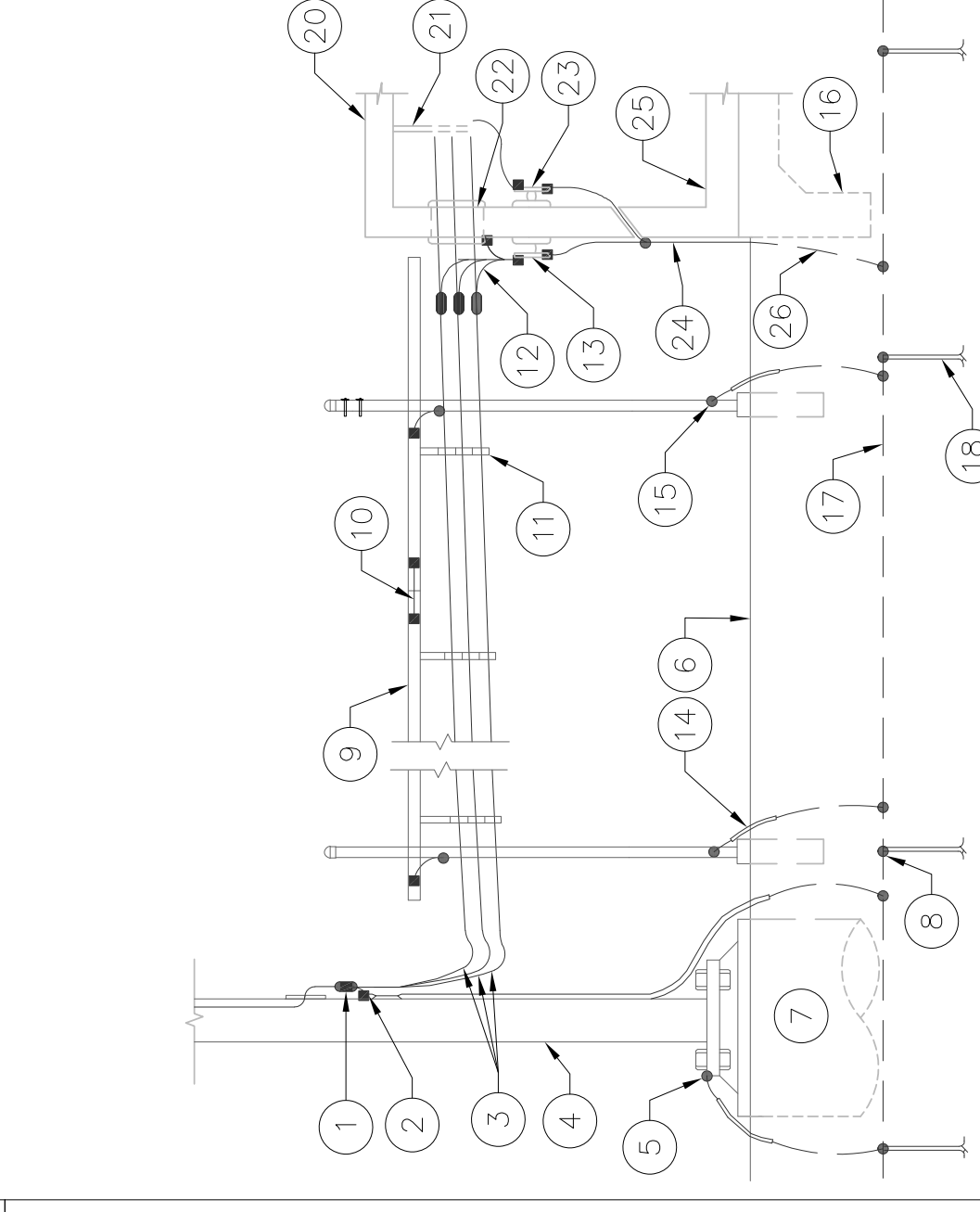
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG	YA6C-2TC38	3/8" - 16 NC S 3 BOLT
#2 AWG SOLID	YA3C-2TC38	3/8" - 16 NC S 3 BOLT
#2 AWG STRANDED	YA2C-2TC381	3/8" - 16 NC S 3 BOLT
#2/0 AWG	YA26-2TC38	3/8" - 16 NC S 3 BOLT
#4/0 AWG	YA28-2N	1/2" - 16 NC S 3 BOLT

**GROUNDING LUG DETAIL** SCALE: N.T.S. **10**

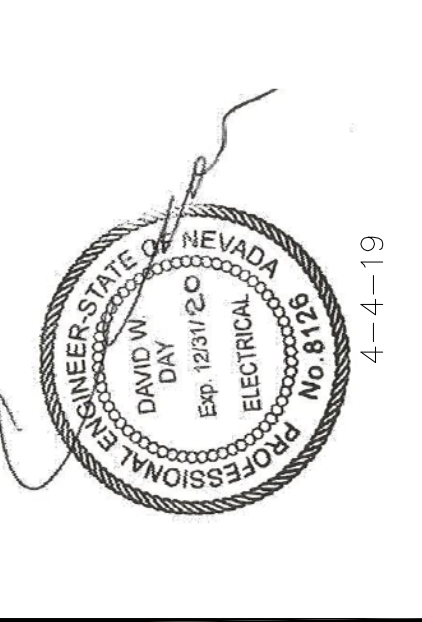
TYPICAL POLE/ICE BRIDGE GROUNDING KEYED NOTES: (#)  
1. "SUREGROUND" GROUND KIT  
2. TINNED SOLID ALLOY 110 COPPER GROUND BUS BAR AT BOTTOM OF POLE (TGB); BOND DIRECTLY TO MONOPOLE STEEL  
3. RF TRANSMISSION LINE (COAX)  
4. MONOPOLE  
5. EXOTHERMIC WELD TO MANUFACTURER INSTALLED BONDING TAB (TYP.)  
6. FINISHED GRADE  
7. OUTLINE OF POLE FOUNDATION  
8. EXOTHERMIC WELD (TYP.)  
9. ICE BRIDGE  
10. #6 AWG THHN COPPER WIRE W/ MECHANICAL CONNECTION TO EACH ICE BRIDGE SECTION (TYP.)  
11. COAX CABLE AND HANGERS  
12. "SUREGROUND" GROUND KIT  
13. EXTERNAL GROUND BUS BAR (EGB)  
14. CONDUCTOR ROUTED IN PVC OR FLEXIBLE NON-CONDUCTIVE CONDUIT (CARFLEX) (TYP.)  
15. #2 AWG SOLID TINNED BARE COPPER WIRE TO SUPPORT POST (TYP.)  
16. OUTSIDE EDGE OF SHELTER FOUNDATION  
17. #2 AWG SOLID TINNED BARE COPPER WIRE (GROUND RING) MIN. 30" BELOW GRADE  
18. 5/8"x10" LONG COPPER CLAD GROUND ROD (TYP.)  
19. NOT USED  
20. OUTLINE OF EQUIPMENT SHELTER  
21. ARRESTOR TRAPEZE KIT IF NEEDED  
22. CABLE ENTRY PORT  
23. MAIN GROUND BUS BAR (MGB)  
24. #2 AWG SOLID TINNED BARE COPPER GROUND CONDUCTOR TO GROUND RING  
25. FINISHED FLOOR OF SHELTER  
26. BOND BASE OF GROUNDING STRAP TO GROUND RING



**POLE/ICE BRIDGE DETAIL** SCALE: N.T.S. **11**



1337 E DESERT FLOWER LANE  
PHOENIX, AZ 85048  
PHONE: (480) 213-8524



DESIGNER: JASON NGO

LEAD EE: SB

LEAD CE/SE: SAM

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
H	1/25/19	COMMENTS	JN
I	2/13/19	COMMENTS	JN
J	2/18/19	COMMENTS	JN
K	2/19/19	FINAL CD	JN
L	4/3/19	REVISED CD	JN

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SITE NAME  
VYA, NEVADA

PROJECT  
RAW LAND MONOPOLE

SITE ADDRESS  
LAT: 41° 35' 30.76358"N  
LONG: 119° 52' 47.14752"W  
89000A DUGWAY ROAD  
GERLACH, NV 89413

SHEET TITLE  
GROUNDING DETAILS

SHEET NUMBER  
G-2



[Skip to Main Content](#)



## EXECUTIVE ORDER 2018-32

### ORDER ESTABLISHING USE OF THE NEVADA GREATER SAGE-GROUSE CONSERVATION PLAN AND CREDIT SYSTEM

**WHEREAS**, restoration and maintenance of the sagebrush ecosystem is essential to Nevada's sagebrush obligate species, domestic livestock, watersheds, biodiversity and productivity; and

**WHEREAS**, the 78th Nevada State Legislative Session (2013) established the Sagebrush Ecosystem Council as a statutory body "authorized to establish and carry out programs to preserve, restore and enhance sagebrush ecosystems"; and

**WHEREAS**, in order to maintain and enhance Greater Sage-Grouse populations and the habitats on which this species depends, the State of Nevada Sagebrush Ecosystem Council and partnering federal and local agencies developed and implemented the 2014 Greater Sage-Grouse Conservation Plan (as amended) and the Nevada Conservation Credit System and Scientific Methods Document/Habitat Quantification Tool as the science based program to quantify habitat improvements and offset anthropogenic disturbances to Greater Sage-Grouse habitats; and

**WHEREAS**, it is in the best interests of the State of Nevada to continue efforts to protect and enhance Greater Sage-Grouse habitats; and

**WHEREAS**, Article 5, Section 1 of the Nevada Constitution provides: "The supreme executive power of this State, shall be vested in a Chief Magistrate who shall be Governor of the State of Nevada."

**NOW, THEREFORE**, by the authority vested in me as Governor by the Constitution and laws of the State of Nevada and the United States, it is hereby ordered as follows:

1. The Sagebrush Ecosystem Council shall adopt regulations requiring compliance with the Nevada Sage-Grouse Conservation Plan and Nevada Conservation Credit System for the conservation of the Greater Sage-Grouse and their habitats using compensatory mitigation for anthropogenic disturbances on federal and state lands that cannot be avoided or further minimized as determined through the Conservation Credit System.
2. As these regulations are being developed and finalized, this Executive Order shall serve as direction to state agencies working with their federal counterparts and Nevada stakeholders to implement mitigation strategies in accordance with the Nevada Conservation Credit System.

3. Nevada's Conservation Credit System/Habitat Quantification Tool shall be used as the mechanism to quantify and mitigate direct and indirect impacts to Greater Sage-Grouse habitats as a result of anthropogenic disturbance activities or projects occurring within Greater Sage-Grouse designated habitat areas. The Nevada Conservation Credit System shall be required on lands managed by state or federal agencies. Private land owners will not be required to utilize the Conservation Credit System on private lands but can do so voluntarily.
4. This Executive Order, together with the Nevada Sage-Grouse Conservation Plan and Nevada Conservation Credit System, constitute Nevada's strategy and primary mechanism to conserve and ensure conservation of the Greater Sage-Grouse and their habitats.
5. This Executive Order shall remain in effect in perpetuity, unless rescinded at a future date.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Nevada to be affixed at the State Capitol in Carson City, this 7th day of December, in the year two thousand eighteen.



*[Handwritten Signature]*  
\_\_\_\_\_  
Governor of the State of Nevada

By the Governor  
*[Handwritten Signature]*  
\_\_\_\_\_  
Secretary of State

*[Handwritten Signature]*  
\_\_\_\_\_  
Deputy Secretary of State