

SITE NAME:

CHEHALIS RIDGE RADIO SITE

LOCATION:

1201 NORTH END AVE., CHEHALIS, WA 98532



PROJECT INFORMATION:

SITE:
CHEHALIS RIDGE
RADIO SITE
1201 NORTH END AVE.,
CHEHALIS, WA 98532

DATE		RELEASE
9-14-2020	FINAL CD	
10-27-2020	UPDATED LAYOUT - PRELIMINARY CD	
5-18-2021	FINAL CD	

DRAWING INFORMATION:

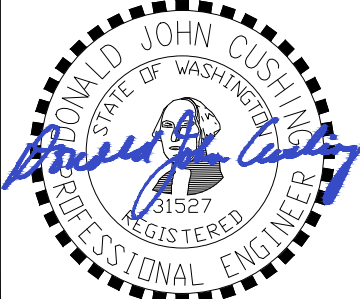
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PLANS PREPARED BY:



909 N Beech Street, Suite D
Portland, OR 97227
(503) 387-5331
www.cushing-engr.com

LICENSURE:



RENEWAL DATE 10/31/21

SHEET TITLE

COVER SHEET

SHEET NUMBER

T-1

- FINAL CD SET:**
- CIVIL/ELECTRICAL**
- T-1 COVER SHEET
 - TOPOGRAPHIC SURVEY (1 OF 2)
 - TOPOGRAPHIC SURVEY (2 OF 2)
 - G-1 GENERAL NOTES
 - C-1 OVERALL SITE PLAN
 - C-2 ENLARGED SITE PLAN
 - C-3 MONOPOLE ELEVATION
 - C-4 GRADING & EROSION CONTROL PLAN
 - C-4.1 GRADING & EROSION CONTROL NOTES & DETAILS I
 - C-4.2 GRADING & EROSION CONTROL NOTES & DETAILS II
 - C-5 NOT USED
 - C-6 ANTENNA PLAN AND DETAILS
 - C-7 FENCE DETAILS
 - C-8 COMPOUND DETAILS
 - C-9 LIQUID PROPANE GAS DETAILS
 - C-10 SHELTER FLOOR PLAN
 - C-11 SHELTER REFLECTED CEILING PLAN
 - C-12 SHELTER ELEVATIONS
 - C-13 SHELTER SECTIONS
 - S-1 STRUCTURAL GENERAL NOTES
 - S-2 FOUNDATION PLAN
 - S-3 ROOF FRAMING PLAN
 - S-4 STRUCTURAL DETAILS I
 - S-5 STRUCTURAL DETAILS II
 - E-1 SITE UTILITY PLAN
 - E-2 GROUNDING SITE PLAN
 - E-3 EXTERIOR GROUNDING DETAILS I
 - E-4 EXTERIOR GROUNDING DETAILS II

COUNTY:
LEWIS COUNTY

ZONING:
R1 - SINGLE FAMILY, LOW DENSITY

JURISDICTION:
CITY OF CHEHALIS

CONTACT PERSON:
DOUG CAREY (360) 740-1192
LEWIS COUNTY FACILITIES MANAGER

PROPERTY OWNER:
LEWIS COUNTY
351 NW. NORTH STREET
CHEHALIS, WA 98532
CONTACT: DOUG CAREY (360) 740-1192

PARCEL NUMBER(S) & AREA:
PARCEL NUMBER: 004696000000
1.43 ACRES

PROJECT COORDINATES:
LAT: 46° 40' 09.94" N (46.669428)
LONG: 122° 58' 3.48" W (-122.967633)
SOURCE: 1A- SURVEY
DATUM: NAVD 88

UTILITY PROVIDERS:
TELCO/FIBER PROVIDER: CENTURY LINK
POWER PROVIDER: LEWIS COUNTY PUD

GENERAL INFORMATION:

- 1. PARKING REQUIREMENTS ARE UNCHANGED
- 2. TRAFFIC IS UNAFFECTED
- 3. SIGNAGE AT SITE IS PROPOSED
- 4. SITE IS UNMANNED AND HANDICAP ACCESS IS NOT REQUIRED

CODE INFORMATION:

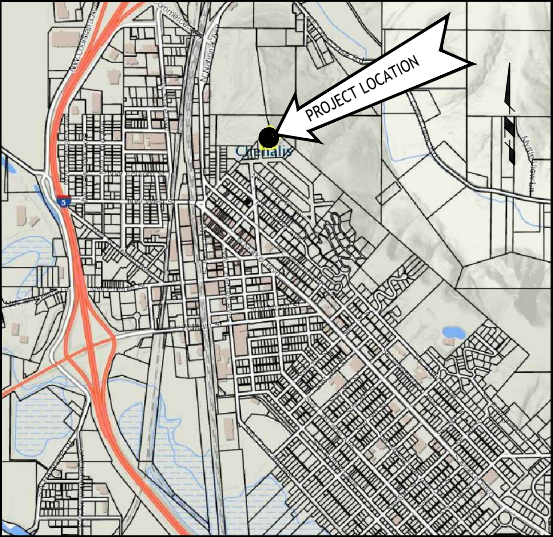
- 1. IBC-2015 INTERNATIONAL BUILDING CODE WITH WASHINGTON STATE AMENDMENTS
- 2. NEC-2014 NATIONAL ELECTRIC CODE
- 3. OCCUPANCY GROUP: U
- 4. CONSTRUCTION TYPE: II-B

APPLICANT:
LEWIS COUNTY
381 NW. NORTH STREET
CHEHALIS, WA 98532
CONTACT: DOUG CAREY

LAND USE CONTACT: MIKE UNGER
(503) 464-2243

PROJECT DESCRIPTION:
LEWIS COUNTY PROPOSES TO CONSTRUCT A NEW UNSTAFFED ESSENTIAL PUBLIC COMMUNICATIONS SERVICE FACILITY CONSISTING OF A NEW 80' TALL MONOPOLE WITH ANTENNAS, AND AN EQUIPMENT SHELTER WITHIN A NEW FENCED SECURITY COMPOUND.

PROJECT INFORMATION CONT'D



FROM THE LEWIS COUNTY FACILITIES OFFICE LOCATED AT 571 PRINDLE STREET IN CHEHALIS:

1. HEAD EAST ON NW PRINDLE STREET TOWARDS NW FRONT STREET. (226 FT)
2. TURN LEFT ON NW FRONT STREET (282 FT)
3. TURN RIGHT ONTO NW PARK STREET (0.1 MI)
4. KEEP LEFT TO STARY ON NW PARK STREET (98 FT)
5. TAKE NE WASHINGTON AVE TO N NATIONAL AVE. (0.3 MI)
6. CONTINUE STRAIGHT ONTO NE CASCADE AVE (400 FT)
7. TURN LEFT ONTO NE WASHINGTON AVE. (0.2 MI)
8. TURN RIGHT ONTO N NATIONAL AVE. (0.7 MI)
9. TURN RIGHT ONTO COAL CREEK ROAD (0.3 MI)

SITE WILL BE ON THE RIGHT

EST. TIME: 4 MINS.
EST. MILEAGE: 1.6 MI

SIGNATURE **DATE**

LEWIS
COUNTY

DOUG CAREY
FACILITIES MANAGER

LEWIS
COUNTY

SCOTT MATTOON
RADIO SHOP ADMINISTRATOR

NOTES

1. THE BOUNDARY SHOWN ON THIS SURVEY IS BASED ON MONUMENTATION FOUND AND RECORD INFORMATION. THIS IS NOT A BOUNDARY SURVEY. THIS IS A SPECIALIZED TOPOGRAPHIC MAP WITH PROPERTY LINES AND EASEMENTS BEING OF GRAPHIC DEPICTION BASED ON INFORMATION GATHERED FROM VARIOUS SOURCES OF RECORD AND AVAILABLE MONUMENTATION FOUND DURING THE FIELD SURVEY. PROPERTY LINES OF TITLE WERE NOT INVESTIGATED NOR SURVEYED EXCEPT AS SHOWN ON THIS PLAN. NO PROPERTY MONUMENTS WERE SET.
2. PROPERTY LINES SHOWN ON THIS SURVEY ARE BASED ON THE CHEHALIS LAND & TIMBER COMPANY SECOND ADDITION, BOOK 2 PAGE 109 ON FILE WITH LEWIS COUNTY, WASHINGTON.

UTILITY CAUTION

UNDERGROUND UTILITIES SHOWN ON THIS SURVEY WERE LOCATED BASED ON UTILITY MARK OUTS PAINTED FOLLOWING A CALL FOR A FREE UTILITY LOCATE. NOT ALL UTILITIES MAY BE SHOWN. CALL FOR UTILITY LOCATES BEFORE DIGGING.

PROPERTY LEGAL DESCRIPTION—AS LISTED IN TITLE REPORT

LOTS 7 AND 8, BLOCK 24, CHEHALIS LAND AND TIMBER COMPANY'S SECOND ADDITION TO THE CITY OF CHEHALIS, AS RECORDED IN VOLUME 2 OF PLATS, PAGE 143.

EXCEPT THAT PORTION OF SAID LOT 7 WHICH LIES EASTERLY OF THE EAST LINE OF LOT 4 IN SAID BLOCK 24 EXTENDED NORTHERLY, ALSO EXCEPT THAT PORTION OF SAID LOT 8 CONVEYED TO THE CHEHALIS WATER COMPANY BY DEED RECORDED FEBRUARY 23, 1895 UNDER RECORDING NO. 4954.

BENCH MARK

THE DATUM FOR THIS SURVEY IS NAVD88. AN ELEVATION WAS ESTABLISHED FOR CONTROL POINT #101 USING GPS METHODS AND GEOD12B.

CONTROL POINT #101 — AN IRON SPIKE.
ELEV = 464.70'

BASIS OF BEARING/LOCAL DATUM PLANE COORDINATES

THE BASIS OF BEARING FOR THIS SURVEY IS THE WASHINGTON STATE PLANE COORDINATE SYSTEM SOUTH ZONE (4602) WITH COORDINATES ESTABLISHED USING A GPS STATIC OBSERVATION AND A SOLUTION RECEIVED FROM THE NATIONAL GEODETIC SURVEY (NGS) ONLINE POSITIONING USER SERVICE (OPUS).

LOCAL DATUM PLANE COORDINATES: AN AVERAGE COMBINED SCALE FACTOR OF 1.000105138 WAS USED TO CONVERT GRID COORDINATES TO GROUND COORDINATES SO CALCULATED GRID DISTANCES AND GROUND DISTANCES WOULD MATCH (I.E. — GRID COORDINATE TIMES SCALE FACTOR EQUALS GROUND COORDINATE).

AN AVERAGE CONVERGENCE ANGLE OF -1°47'32" WAS CALCULATED.

REFERENCE SURVEYS

1. CHEHALIS LAND & TIMBER COMPANY SECOND ADDITION, BOOK 2 PAGE 109
2. BOOK 30, PAGE 117
3. BOOK 7, PAGE 266

REFERENCE DEEDS

- A. A.F. NO. 3455978-D
B. A.F. NO. 4954

CONTROL POINT COORDINATES (LDP)

POINT 101 IRON SPIKE		POINT 102 IRON SPIKE	
NORTHING: 497,021.919		NORTHING: 497,109.708	
EASTING: 1,021,045.148		EASTING: 1,021,174.813	
ELEVATION: 464.70'		ELEVATION: 456.41'	

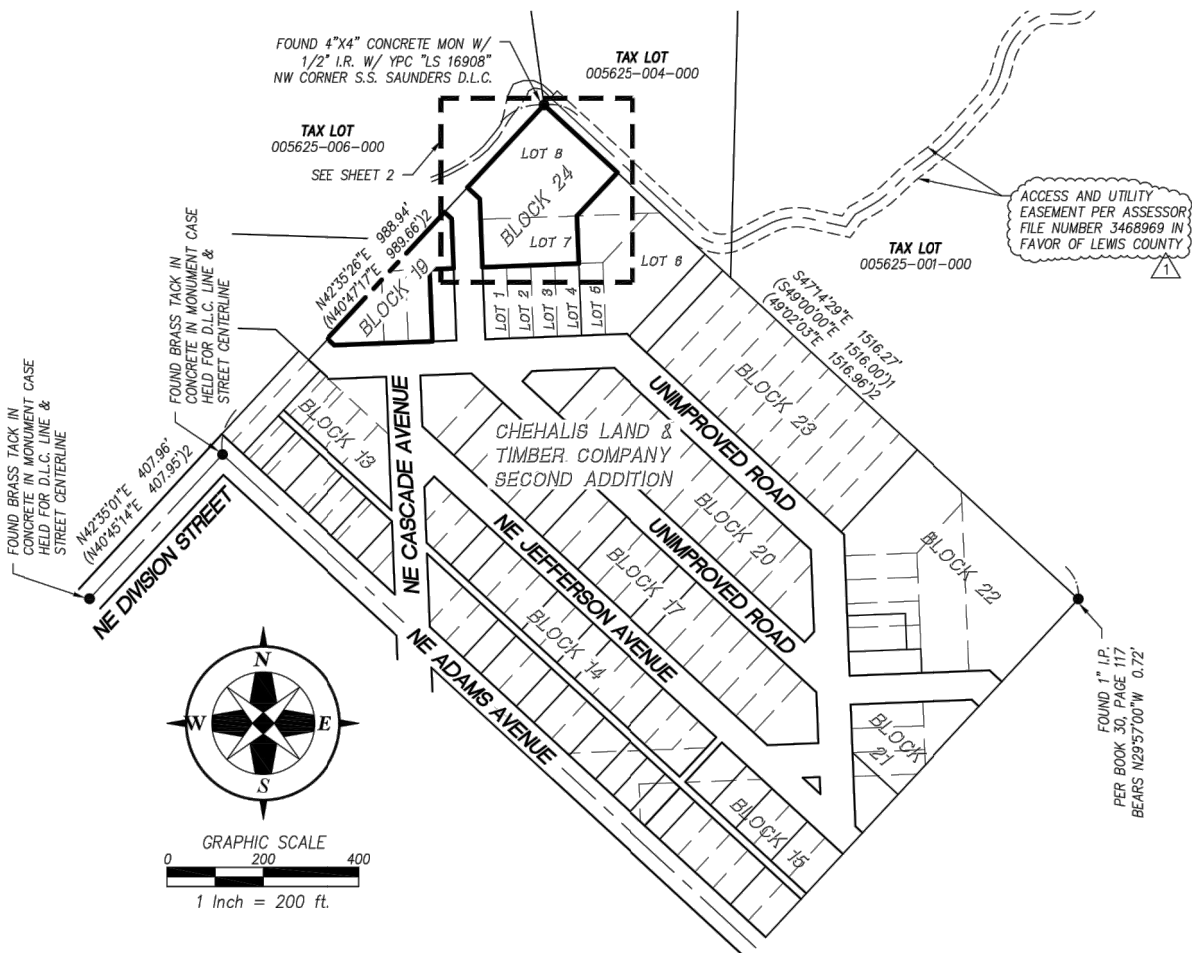
TITLE REPORT EXCEPTIONS

MCKAY CONSULTING LLC RECEIVED A TITLE REPORT FOR THE PROJECT PREPARED BY LEWIS COUNTY TITLE, DATED NOVEMBER 9, 2018, POLICY NUMBER SGW-08003315. EXCEPTIONS LISTED INCLUDE:

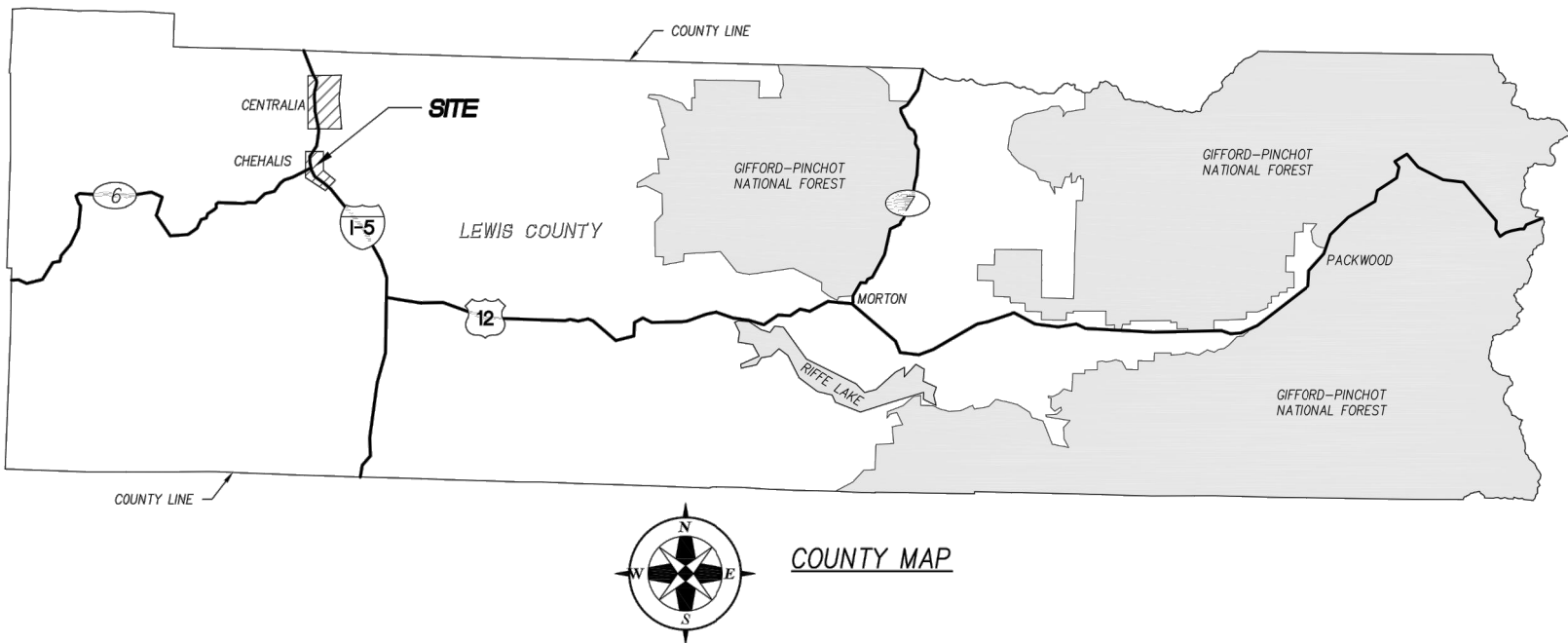
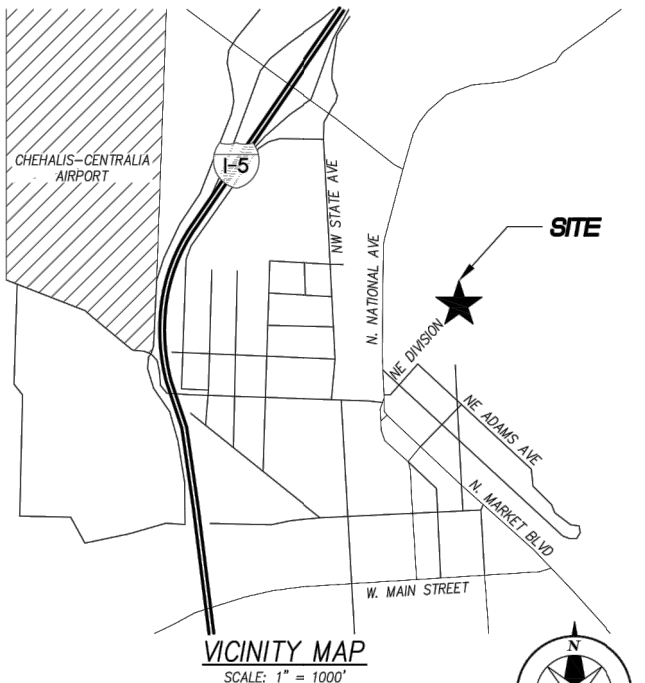
1. GENERAL TAXES AND ASSESSMENTS, IF ANY, NO SEARCH HAVING BEEN MADE THEREOF; ALSO, TAXES OR ASSESSMENTS WHICH ARE NOT SHOWN AS EXISTING LIENS BY THE RECORDS OF ANY TAXING AUTHORITY THAT LEVIES TAXES OR ASSESSMENTS ON REAL PROPERTY OR BY THE PUBLIC RECORDS.
2. UNPATENTED MINING CLAIMS, RESERVATIONS OR EXCEPTIONS IN THE UNITED STATES PATENTS OR IN ACTS AUTHORIZING THE ISSUANCE THEREOF; WATER RIGHTS, CLAIMS OR TITLE TO WATER.
3. TITLE TO ANY PROPERTY BEYOND THE LINES OF THE REAL PROPERTY EXPRESSLY DESCRIBED HEREIN, OR TITLE TO STREETS, ROADS, AVENUES, LANES, WAYS OR WATERWAYS ON WHICH SUCH REAL PROPERTY ABUTS, OR THE RIGHT TO MAINTAIN THEREIN VAULTS, TUNNELS, RAMPS, OR ANY OTHER STRUCTURE OR IMPROVEMENT; OR ANY RIGHTS OR EASEMENTS THEREIN UNLESS SUCH PROPERTY, RIGHTS OR EASEMENTS ARE EXPRESSLY AND SPECIFICALLY SET FORTH IN SAID DESCRIPTION.

INITIAL SURVEY - CHEHALIS RADIO TOWER

IN THE SOUTHWEST 1/4 OF SECTION 29
TOWNSHIP 14 NORTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN
IN THE CITY OF CHEHALIS, LEWIS COUNTY, WASHINGTON
SURVEYED DECEMBER 3, 2018



LEGEND	
	PROPERTY BOUNDARY
	RIGHT-OF-WAY
	LOT LINE
	RECORD LINE
	RECORD BEARING AND/OR DISTANCE PER SURVEY REFERENCE NUMBER #
	AUDITORS FILE NUMBER LEWIS COUNTY RECORDS (BY PRIVATE SURVEYOR)
	FOUND SURVEY MONUMENT AS NOTED
	IRON PIPE
	IRON ROD



INITIAL SURVEY - CHEHALIS RADIO TOWER

TAX PARCEL # 004696-000-000

CUSHING CIVIL ENGINEERS

909 N BEECH STREET, SUITE D

PORTLAND, OREGON 97227

REV.	DATE	DESCRIPTION	BY
1	09/23/20	ADDED ACCESS EASEMENT	K/AD

Mckay Consulting, LLC

(503) 648-6475

contact@mckayconsultingllc.com

Planning - Engineering - Surveying

205 SE 3rd Avenue, Suite 600

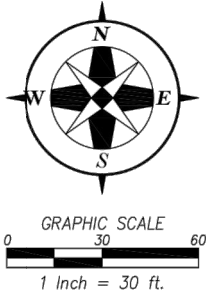
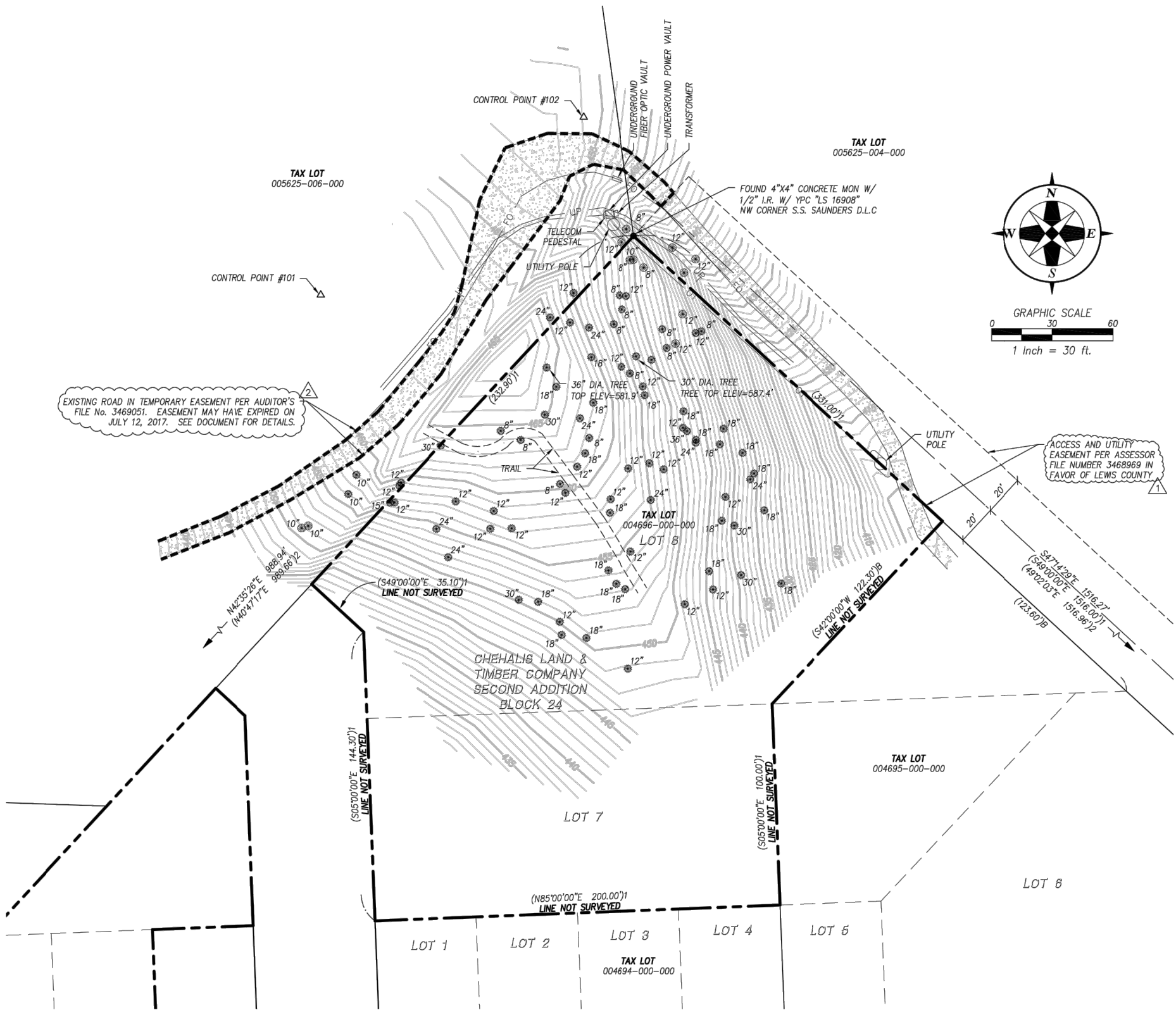
Hillsboro, Oregon 97123

DESIGNED BY: ERIC DUGGER	
DRAWN BY: ERIC DUGGER	
CHECKED BY: KAID E. MCKAY	
DATE: JANUARY 4, 2019	
REVISED ON: OCTOBER 20, 2020	
JOB NAME: CHEHALIS RADIO	
JOB #: 18027	1 OF 2

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INITIAL SURVEY - CHEHALIS RADIO TOWER

IN THE SOUTHWEST 1/4 OF SECTION 29
TOWNSHIP 14 NORTH, RANGE 2 WEST OF THE WILLAMETTE MERIDIAN
IN THE CITY OF CHEHALIS, LEWIS COUNTY, WASHINGTON
SURVEYED DECEMBER 3, 2018



LEGEND

- PROPERTY BOUNDARY
- RIGHT-OF-WAY
- LOT LINE
- RECORD LINE
- UP UNDERGROUND POWER
- FO UNDERGROUND FIBER OPTIC
- T UNDERGROUND TELECOM
- OT OVERHEAD TELECOM
- GRAVEL ACCESS
- CONIFEROUS TREE W/ DIAMETER
- DECIDUOUS TREE W/ DIAMETER
- RECORD BEARING AND/OR DISTANCE PER SURVEY REFERENCE NUMBER #
- A.F. AUDITORS FILE NUMBER LEWIS COUNTY RECORDS (BY PRIVATE SURVEYOR)
- IP IRON PIPE
- IR IRON ROD

INITIAL SURVEY - CHEHALIS RADIO TOWER
TAX PARCEL # 004696-000-000

CUSHING CIVIL ENGINEERS
909 N BEECH STREET, SUITE D
PORTLAND, OREGON 97227

REV.	DATE	DESCRIPTION	BY
1	09/23/20	ADDED ACCESS EASEMENT	K4ID
2	10/20/2020	ADDED TEMPORARY EASEMENT	K4ID

McKay Consulting, LLC

(503) 648-6475

contact@mckayconsultingllc.com

Planning - Engineering - Surveying
205 SE 3rd Avenue, Suite 600
Hillsboro, Oregon 97123

KAID EDWARD MCKAY
STATE OF WASHINGTON
REGISTERED PROFESSIONAL LAND SURVEYOR
36459

DESIGNED BY: ERIC DUGGER
DRAWN BY: ERIC DUGGER
CHECKED BY: KAID E. MCKAY
DATE: JANUARY 4, 2019
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JOB #: 18027

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GENERAL NOTES:

1. DRAWINGS ARE NOT TO BE SCALED, WRITTEN DIMENSIONS TAKE PRECEDENCE, THIS SET OF DOCUMENTS IS INTENDED TO BE USED FOR DIAGRAMMATIC PURPOSED ONLY, UNLESS NOTED OTHERWISE. THE GENERAL CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ANY REQUIREMENTS DEEMED NECESSARY TO COMPLETE INSTALLATION AS DESCRIBED IN THE DRAWINGS AND OWNER'S PROJECT MANUAL.
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS AND STANDARDIZED DETAILS THAT REQUIRE MODIFICATIONS DUE TO ACTUAL FIELD CONDITIONS AND REQUIREMENTS MUST BE SUBMITTED TO AND APPROVED BY OWNERS REPRESENTATIVE PRIOR TO START OF WORK.
3. PRIOR TO THE SUBMISSION OF BIDS, CONTRACTORS INVOLVED SHALL VISIT THE JOB SITE TO FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT. CONTRACTORS SHALL VISIT THE CONSTRUCTION SITE WITH THE CONSTRUCTION/CONTRACT DOCUMENTS TO VERIFY FIELD CONDITIONS AND CONFIRM THAT THE PROJECT WILL BE ACCOMPLISHED AS SHOWN. PRIOR TO PROCEEDING WITH CONSTRUCTION, ANY ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER VERBALLY AND IN WRITING.
4. THE GENERAL CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, SAFETY, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
7. ALL WORK PERFORMED ON THE PROJECT AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK.
8. THE CONTRACTOR SHALL PROVIDE, AT THE PROJECT SITE, A FULL SET OF CONSTRUCTION DOCUMENTS UPDATED WITH THE LATEST REVISIONS INVOLVED WITH THE PROJECT. THIS SET IS A VALID CONTRACT DOCUMENT ONLY IF THE TITLE SHEET IS STAMPED IN RED INK "FOR CONSTRUCTION" AND EACH SUCCESSIVE SHEET BEARS THE ARCHITECT'S/ENGINEER'S SIGNED WET STAMP.
9. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, ETC. ACCORDING TO APPLICABLE CODES, STANDARDS, AND GOOD CONSTRUCTION PRACTICES. THE STRUCTURAL COMPONENTS OF ADJACENT CONSTRUCTION OR FACILITIES ARE NOT TO BE ALTERED BY THE CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.
10. THE CONTRACTOR SHALL MEET ALL OSHA REQUIREMENTS FOR ALL INSTALLATIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE EXISTING CONSTRUCTION AND REPAIR ALL DAMAGES TO EQUAL OR BETTER NEW CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER OF ANY DAMAGE TO THE BUILDING SITE OR ANY ADJACENT STRUCTURES AROUND THE PROJECT. THE OWNERS REPRESENTATIVE SHALL BE SOLE AND FINAL JUDGE AS TO THE QUALITY OF THE REPAIRED CONSTRUCTION. ANY ADDITIONAL MODIFICATIONS WHICH MUST BE MADE SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.
12. WHERE NEW PAVING, CONCRETE SIDEWALKS OR PATHS MEET EXISTING CONSTRUCTION, THE CONTRACTOR SHALL MATCH THE EXISTING PITCH, GRADE, AND ELEVATION SO THE ENTIRE STRUCTURE SHALL HAVE A SMOOTH TRANSITION.
13. THE CONTRACTOR SHALL MODIFY THE EXISTING FLOORS, WALL, CEILING, OR OTHER CONSTRUCTION AS REQUIRED TO GAIN ACCESS TO AREAS FOR ALL MECHANICAL, PLUMBING, ELECTRICAL, OR STRUCTURAL MODIFICATIONS. WHERE THE EXISTING CONSTRUCTION DOORS, PARTITIONS, CEILING, ETC., ARE TO BE REMOVED, MODIFIED, OR REARRANGED OR WHERE THE EXPOSED OR HIDDEN MECHANICAL, ELECTRICAL, SYSTEMS ARE ADDED OR MODIFIED, THE GENERAL CONTRACTOR SHALL REPAIR, PATCH AND MATCH ALL EXISTING CONSTRUCTION AND FINISHES OF ALL FLOORS WALLS AND CEILINGS. WHERE CONCRETE MASONRY CONSTRUCTION IS MODIFIED, THE CONTRACTOR SHALL TOOTH IN ALL NEW CONSTRUCTION TO MATCH THE EXISTING BOND. WHERE CONCRETE CONSTRUCTION IS MODIFIED, THE CONTRACTOR SHALL VERIFY THE EXACT DETAILS TO BE USED FOR CONSTRUCTION. ALL WORK SHALL BE COVERED UNDER THE GENERAL CONTRACT.
14. IF CONTRACTOR OR SUBCONTRACTOR FIND IT NECESSARY TO DEVIATE FROM ORIGINAL APPROVED PLANS, THEN IT IS THE CONTRACTOR'S AND THE SUBCONTRACTOR'S RESPONSIBILITY TO PROVIDE THE PROJECT MANAGER WITH 4 COPIES OF THE PROPOSED CHANGES FOR HIS APPROVAL BEFORE PROCEEDING WITH THE WORK. IN ADDITION THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR PROCURING ALL NECESSARY APPROVALS FROM THE BUILDING AUTHORITIES FOR THE PROPOSED CHANGES BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR PROCURING ALL NECESSARY INSPECTIONS AND APPROVALS FROM BUILDING AUTHORITIES DURING THE EXECUTION OF THE WORK.
15. CONTRACTOR TO PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF PROJECT AREA DURING CONSTRUCTION.
16. THIS IS AN ESSENTIAL FACILITY THEREFORE SHALL STRICTLY MEET ALL APPLICABLE CODE AND JURISDICTIONAL REQUIREMENTS.

GENERAL NOTES CONTINUED:

17. THE CONTRACTOR SHALL PERFORM WORK DURING SITE/PROPERTY OWNER'S PREFERRED HOURS TO AVOID DISTURBING NORMAL BUSINESS.
18. SEAL ALL PENETRATIONS THROUGH FIRE-RATED AREAS WITH U.L. LISTED OR FIRE MARSHAL APPROVED MATERIALS AS APPLICABLE TO THIS FACILITY AND OR PROJECT SITE.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR UTILITY LOCATES, SCHEDULING, COORDINATING SPECIAL AND BUILDING DEPARTMENT INSPECTIONS.
21. ROUTING OF ALL CONDUITS, CABLES, CABLE TRAYS ETC ARE INDICATED AS PROPOSED LOCATION ONLY. CONFIRM THE EXACT LOCATION AND ROUTING WITH THE ON SITE PROJECT MANAGER PRIOR TO STARTING WORK.

CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318 AND THE SPECIFICATION CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAYS (UNO).
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES CLASS "B" AND ALL HOOKS SHALL BE STANDARD (UNO).
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS: CONCRETE CAST AGAINST EARTH - 3 IN. CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER 2 IN.
#5 AND SMALLER & WWF 1-1/2 IN.
5. A 1/2" TROWELED RADIUS SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE (UNO). HOLES TO RECEIVE EXPANSION/WEDGE ANCHORS SHALL BE 1/8" LARGER IN DIAMETER THAN THE ANCHOR BOLT, DOWEL OR ROD AND SHALL CONFORM TO MFR RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. AVOID CUTTING EXISTING REBAR WHEN DRILLING HOLES IN THE ELEVATED SLAB.
6. INSTALLATION OF CONCRETE EXPANSION AND WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURES.
7. FLOAT SURFACE SHALL BE A SMOOTH FINISH. SURFACE SHALL BE FREE OF ALL OBVIOUS DEPRESSIONS. SURFACE SHALL BE SLOPED AT 2% TO PROMOTE DRAINAGE AWAY FROM EQUIPMENT.

SITE WORK NOTES:

1. RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY UNLESS OTHERWISE REQUIRED TO BE LEFT AS DEFINED BY LAND/PROPERTY OWNER.
2. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE EQUIPMENT, EQUIPMENT SHELTER, GENERATOR, FUEL TANK, TOWER AREAS, AND ADJACENT BUILDINGS, ETC.
3. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
4. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO THE CRUSHED STONE APPLICATION. FABRIC USE AS REQUIRED.
5. ALL APPLICABLE LOCATES SHALL BE PERFORMED PRIOR TO TO ANY EXCAVATION OR SITE GRADING. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW.
6. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND SHALL BE CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING.
7. THE AREAS OF THE PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING, DRIVEWAY OR CRUSHED STONE, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED, AND COVERED WITH MULCH AS SPECIFIED IN THE SPECIFICATION LANDSCAPE WORK.
8. BEDDING MATERIAL FOR UTILITY LINES, CULVERTS AND PIPING: CLEAN SAND, MEDIUM TP COARSE, SUB ROUNDED NATURAL RIVER OR BANK SAND, WASHED, FREE OF SILT OR CLAY, LOAM, FRIABLE OR SOLUBLE MATERIALS, AND ORGANIC MATTER; GRADED IN ACCORDANCE WITH THE FOLLOWING GRAIN SIZE DISTRIBUTION:

SIEVE SIZE

PERCENT PASSING

100

60-90

0-45

0-25

0-2

0-2

NO. 4 MESH

NO. 8 MESH

NO. 16 MESH

NO. 100 MESH

NO. 200 MESH

9. BMP'S FOR TEMPORARY EROSION/SEDIMENTATION CONTROL SHALL BE IMPLEMENTED PER LOCAL, CITY OR COUNTY GUIDELINES AND PER PLAN IF APPLICABLE.

SITE WORK NOTES CONTINUED:

10. ALL SITE DESIGN AND CONSTRUCTION MUST COMPLY WITH THE MOST CURRENT VERSION OF R56 STANDARDS AND ALIGNED WITH R56 GUIDELINES AS TECHNICALLY APPLICABLE. EACH SITE MUST PASS AN R56 AUDIT OR PM APPROVED BEFORE IT SHALL BE CONSIDERED COMPLETE AND ACCEPTED.
11. IF INADVERTENT DISCOVERIES OF NATIVE AMERICAN CULTURAL MATERIALS OR HUMAN REMAINS ARE MADE DURING CONSTRUCTION, ALL WORK SHOULD CEASE AND POTENTIALLY AFFECTED TRIBES, AS WELL AS THE STATE HISTORIC PRESERVATION OFFICE, SHOULD BE NOTIFIED IMMEDIATELY.

TOWER/POLE NOTES:

1. ALL ANTENNAS, LINES AND RELATED INSTALLATION HARDWARE TO BE PROVIDED BY THE LAND MOBILE COMMUNICATIONS PROVIDER.
2. ALL HARDWARE (NUTS AND BOLTS) BE TIGHTENED AND TORQUED IN ACCORDANCE WITH THE TOWER MANUFACTURER'S AND STRUCTURAL ENGINEER'S SPECIFICATIONS.
3. VERIFICATION THAT THE TOWER/POLE CAN SUPPORT THE PROPOSED ANTENNA LOADING IS TO BE DONE BY OTHERS.
4. PROVIDE SUPPORTS FOR THE ANTENNA COAX CABLES TO THE ELEVATION OF ALL INITIAL AND FUTURE ANTENNAS. ANTENNA COAX CABLES ARE TO BE SUPPORTED AND RESTRAINED AT THE CENTERS SUITABLE TO THE MANUFACTURER'S REQUIREMENTS.

R56 NOTES:

1. ALL SITE DESIGN AND CONSTRUCTION MUST COMPLY WITH THE MOST CURRENT VERSION OF R56 STANDARDS AND ALIGNED WITH R56 GUIDELINES AS TECHNICALLY APPLICABLE. SITE MUST PASS AN R56 AUDIT BEFORE IT SHALL BE CONSIDERED COMPLETE AND ACCEPTED.

ATTENTION:

CALL 1-800-424-5555 48 HOURS BEFORE YOU DIG. WASHINGTON LAW REQUIRES YOU TO FOLLOW RCW 19.122 CHAPTER 144

SYMBOLS LEGEND

- △

REVISION

①

KEY NOTE

3

C-4

REFERENCE ELEVATION

2

C-3

REFERENCE

A

C-3

SECTION REFERENCE

⊕

ELEVATION DATUM POINT

CHAINLINK FENCE

—X—X—X—X—

UNDERGROUND POWER

——UGP——UGP——UGP——

JOINT TRENCH

——-——-——-——-——
- ABBREVIATIONS LEGEND
- | | | | |
|-----------|--|----------|------------------------|
| A/C | AIR CONDITIONING | MET, MTL | METAL |
| ADJ | ADJUSTABLE | MFR | MANUFACTURER |
| AFF | ABOVE FINISH FLOOR | MGR | MANAGER |
| AGL | ABOVE GRADE LEVEL | MIN | MINIMUM |
| APPROX | APPROXIMATELY | MISC | MISCELLANEOUS |
| ASTM | AMERICAN SOCIETY FOR TESTING & MATERIALS | N | NORTH |
| | AMERICAN WIRE GAUGE | NA | NOT APPLICABLE |
| AWG | | NIC | NOT IN CONTRACT |
| BLDG | BUILDING | NTS | NOT TO SCALE |
| BLK | BLOCK | OC, o/c | ON CENTER |
| BMR | BASE MOBILE RADIO | OD | OUTSIDE DIAMETER |
| B/S | BUILDING STANDARD | OPG | OPENING |
| CLG | CEILING | OPP | OPPOSITE |
| CLR | CLEAR | OHP | OVERHEAD POWER |
| CONC | CONCRETE | UGP | UNDRGRND POWER |
| CONST | CONSTRUCTION | OFO | OVERHEAD FIBER |
| CONT | CONTINUOUS | UGT | UNDRGRND TELCO |
| DBL | DOUBLE | PLYWD | PLYWOOD |
| DIA, Ø | DIAMETER | PR | PAIR |
| DIAG | DIAGONAL | PROJ | PROJECT |
| DIM | DIMENSION | PROP | PROPERTY |
| DN | DOWN | PT | PRESSURE TREATED |
| DTL, DETL | DETAIL | REQ'D | REQUIRED |
| DWG | DRAWING | RM | ROOM |
| E | EAST | R.O. | ROUGH OPENING |
| EA | EACH | S | SOUTH |
| EL, ELEV | ELEVATION | SHT | SHEET |
| ELECT | ELECTRICAL | SIM | SIMILAR |
| EQ | EQUAL | SPEC | SPECIFICATION |
| EQUIP | EQUIPMENT | SQ | SQUARE |
| ESC | EROSION & SEDIMENT CONTROL | SS | STAINLESS STEEL |
| | EACH WAY | STL | STEEL |
| E.W. | | STRUCT | STRUCTURAL |
| EXIST | EXISTING | SUSP | SUSPENDED |
| EXT | EXTERIOR | S.V. | SHEET VINYL |
| FFE | FINISH FLOOR ELEVATION | THRU | THROUGH |
| FLUOR | FLUORESCENT | TNND | TINNED |
| FO | FIBER OPTIC | T.O.C. | TOP OF CONCRETE |
| FT | FOOT | T.O.M. | TOP OF MASONRY |
| GA | GAUGE | TYP | TYPICAL |
| GALV | GALVANIZE(D) | UBC | UNIFORM BUILDING CODE |
| GC | GENERAL CONTRACTOR | | UNLESS NOTED OTHERWISE |
| GRND | GROUND | U.N.O. | VERTICAL |
| GWB | GYPSUM WALL BOARD | VERT | VERIFY IN FIELD |
| GYP BD | GYPSUM BOARD | VIF | VINYL TILE |
| HARD'WD | HARDWOOD | VT | WEST |
| HORIZ | HORIZONTAL | W | WITH |
| HR | HOUR | W/ | WINDOW |
| HT | HEIGHT | W/O | WITHOUT |
| HVAC | HEATING, VENTING AND AIR CONDITIONING | WP | WATERPROOF |
| | INSIDE DIA. | ⌵ | ANGLE |
| ID | INCH | & | AND |
| IN | | ℄ | CENTER LINE |
| INFO | INFORMATION | ℄ | PROPERTY LINE |
| INT | INTERIOR | @ | AT |
| LB(S) | POUND(S) | # | NUMBER |
| LNA | ANTENNA AMPLIFIER | | |
| MAX | MAXIMUM | | |
| MECH | MECHANICAL | | |
- OVERHEAD POWER ——— OHP ——— OHP ——— OHP ——— OHP ——— OHP ———

OVERHEAD FIBER OPTIC ——— OFO ——— OFO ——— OFO ——— OFO ———

POWER/TELCO ——— T/P ——— T/P ——— T/P ———

LIQUID PROPANE GAS ——— LPG ——— LPG ——— LPG ——— LPG ———

FIBER OPTIC ——— FO ——— FO ——— FO ——— FO ——— FO ———

COAX ——— COAX ——— COAX ——— COAX ———

CENTERLINE ——— - ——— - ——— - ——— - ——— - ——— - ———

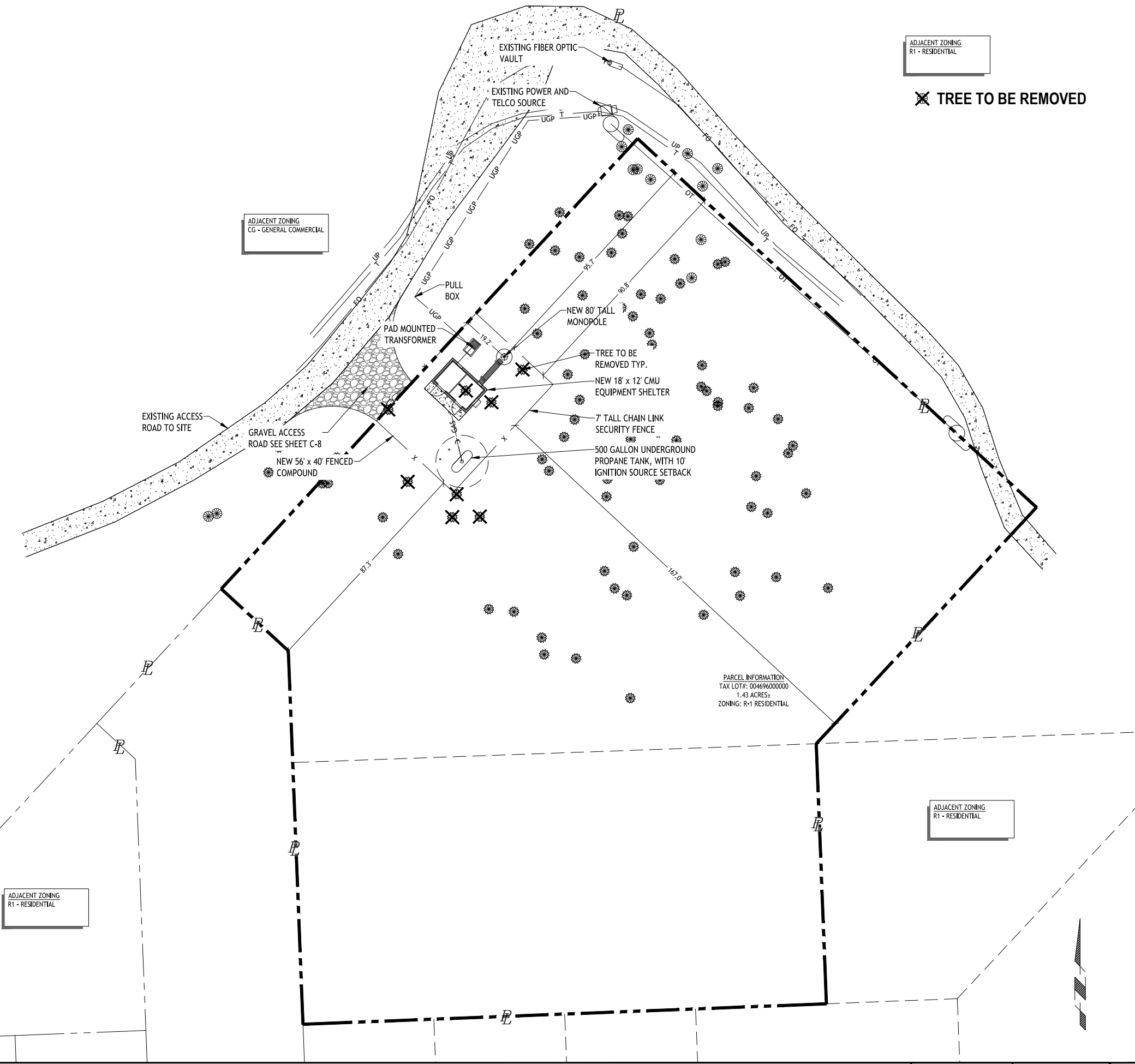
EASEMENT ——— - ——— - ——— - ——— - ——— - ——— - ———

PROPERTY LINE ——— ——— ——— ——— ——— ——— ——— ———
-
- PROJECT INFORMATION:
- SITE:
CHEHALIS RIDGE
RADIO SITE
1201 NORTH END AVE.,
CHEHALIS, WA 98532
- | DATE | RELEASE |
|------------|---------------------------------|
| 9-14-2020 | FINAL CD |
| 10-27-2020 | UPDATED LAYOUT - PRELIMINARY CD |
| 5-18-2021 | FINAL CD |
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- PLANS PREPARED BY:
-
- LICENSURE:
-
- RENEWAL DATE 10/31/21
- SHEET TITLE
- GENERAL NOTES
- SHEET NUMBER
- G-1

1. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT HAVE ANY WATER COURSES (STREAMS, RIVERS, ETC.).
2. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT ARE WITHIN THE FEMA DESIGNATED 100 YEAR FLOOD PLAIN.
3. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT ARE DESIGNATED SHORELINE AREAS.
4. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT HAVE ANY WATER BODIES AND/OR KNOWN WETLANDS.
5. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT HAVE UNSTABLE SLOPES AND/OR LANDSLIDE HAZARD AREAS WHERE SLOPES EXCEED 35%.
6. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT HAVE ANY SIGNIFICANT WILDLIFE HABITAT OR VEGETATION.
7. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT HAVE ANY SIGNIFICANT HISTORIC, CULTURAL, OR ARCHEOLOGICAL RESOURCES.
8. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT HAVE ANY EXISTING PEDESTRIAN AND BICYCLE FACILITIES.
9. THERE ARE NO AREAS WITHIN THE SITE OR WITHIN 100 FEET THAT HAVE ANY EXISTING TRANSIT ROUTES AND/OR STOPS.
10. SITE PLAN IS FOR INFORMATION ONLY. VERIFY ALL DIMENSIONS.
11. CONTRACTOR TO VERIFY ACCURACY OF ALL PROPERTY LINE INFORMATION PRIOR TO EXECUTION OF WORK.
12. THE LOCATION OF EXISTING UTILITY FACILITIES HAS BEEN RESEARCHED AT A MINIMUM LEVEL. THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANIES TO OBTAIN INFORMATION REGARDING EXACT DEPTH OF BURIAL AND HORIZONTAL LOCATION OF UTILITY LINES PRIOR TO CONSTRUCTION. THE ENGINEER AND SITE DESIGNER ASSUMES NO RESPONSIBILITY FOR THE DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF BURIED OBJECTS WHICH ARE NOT SHOWN ON THIS PLAN.

PROJECT NOTES

OVERALL SITE PLAN



ADJACENT ZONING
R1 - RESIDENTIAL

✗ TREE TO BE REMOVED

ADJACENT ZONING
CG - GENERAL COMMERCIAL

ADJACENT ZONING
R1 - RESIDENTIAL



PROJECT INFORMATION:

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RADIO SITE
1201 NORTH END AVE.,
CHEHALIS, WA 98532

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10-27-2020	UPDATED LAYOUT - PRELIMINARY CD
5-18-2021	FINAL CD

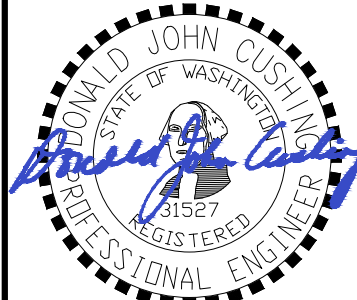
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PLANS PREPARED BY:

cushing
Civil Engineers
909 N Beech Street, Suite D
Portland, OR 97227
(503) 387-5331
www.cushing-engr.com

LICENSURE:



RENEWAL DATE 10/31/21

SHEET TITLE

OVERALL SITE
PLAN

SHEET NUMBER

C-1

11X17 SCALE: 1" = 40'

22X34 SCALE: 1" = 20'

1

PLAN NOTES
1. TREES NOT SHOWN FOR CLARITY



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CHEHALIS, WA 98532

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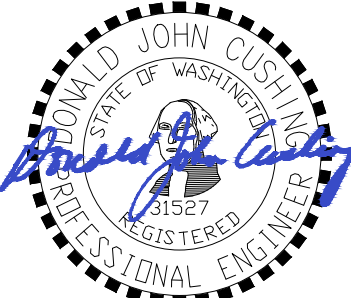
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RENEWAL DATE 10/31/21

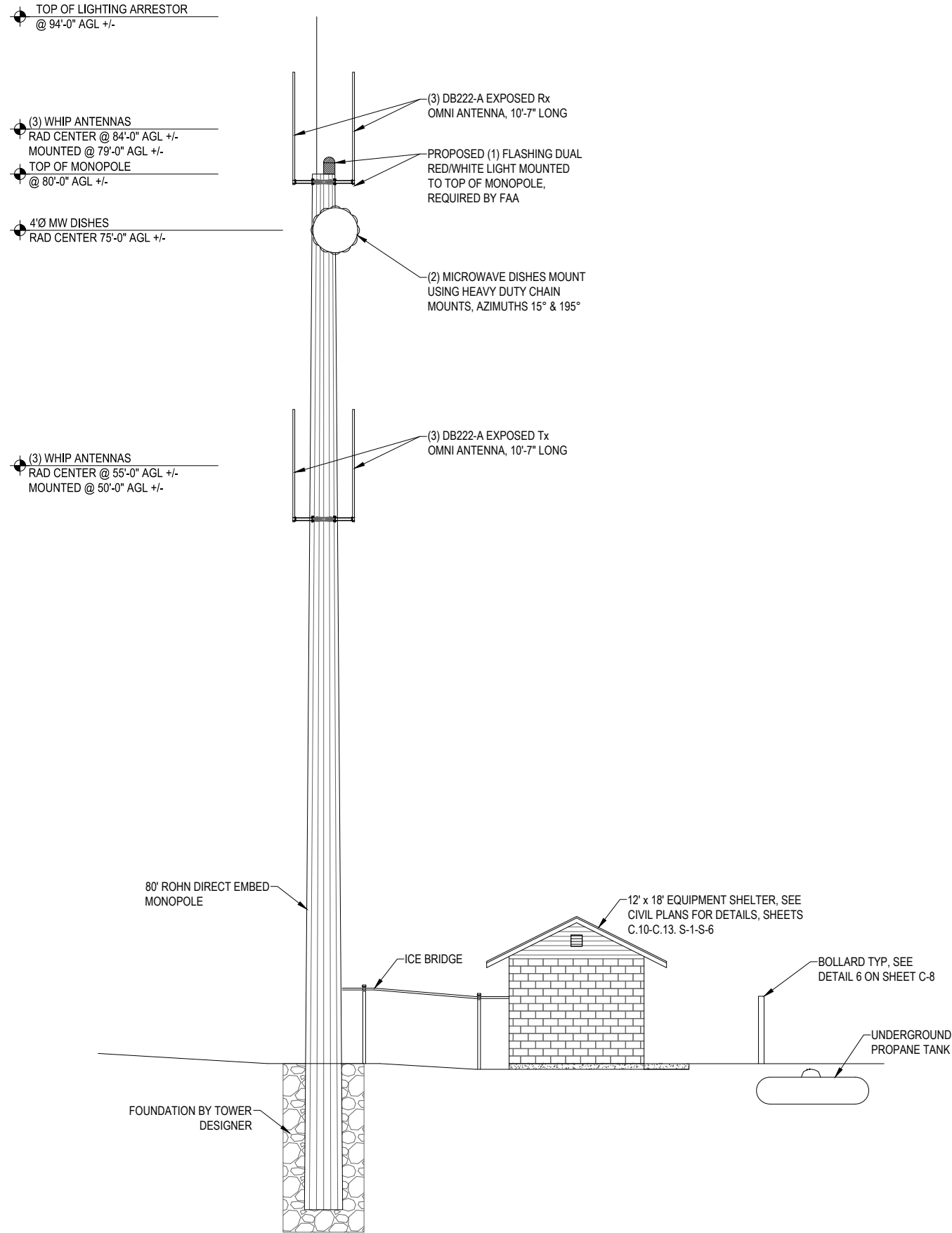
SHEET TITLE

ENLARGED SITE
PLAN

SHEET NUMBER

C-2

- NOTE:
- FOR CONCEPTUAL PURPOSES ONLY
 - TREES NOT SHOWN FOR CLARITY
 - PROPOSED PROPANE TANKS AND ENCLOSURE NOT SHOWN FOR CLARITY



PROJECT INFORMATION:

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RADIO SITE
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CHEHALIS, WA 98532

DATE	RELEASE
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10-27-2020	UPDATED LAYOUT - PRELIMINARY CD
5-18-2021	FINAL CD

DRAWING INFORMATION:

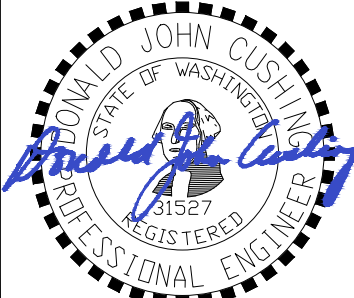
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LICENSURE:



RENEWAL DATE 10/31/21

SHEET TITLE

MONOPOLE
ELEVATION

SHEET NUMBER

C-3

[illegible]

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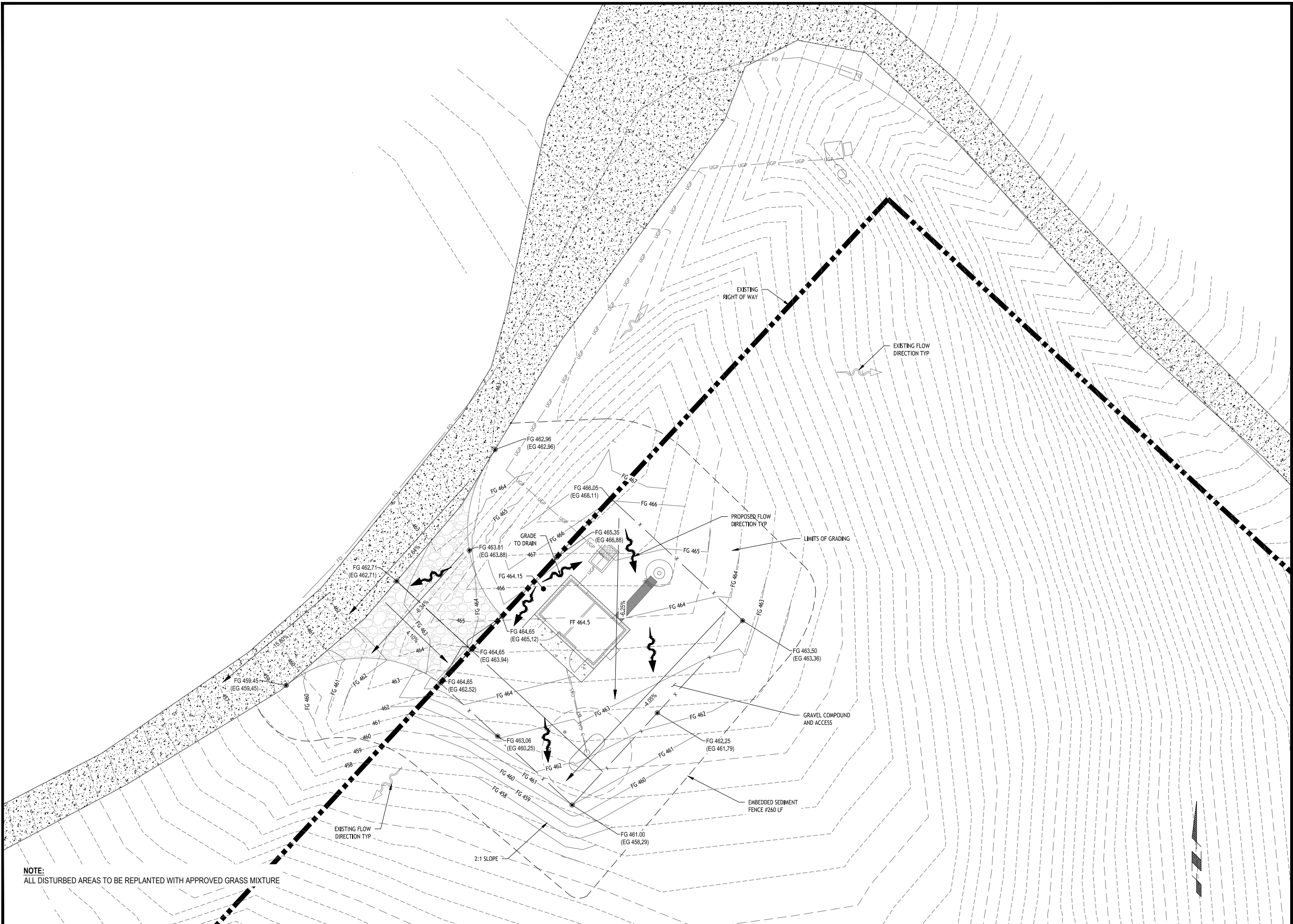
LICENSURE:



SHEET TITLE

SHEET NUMBER

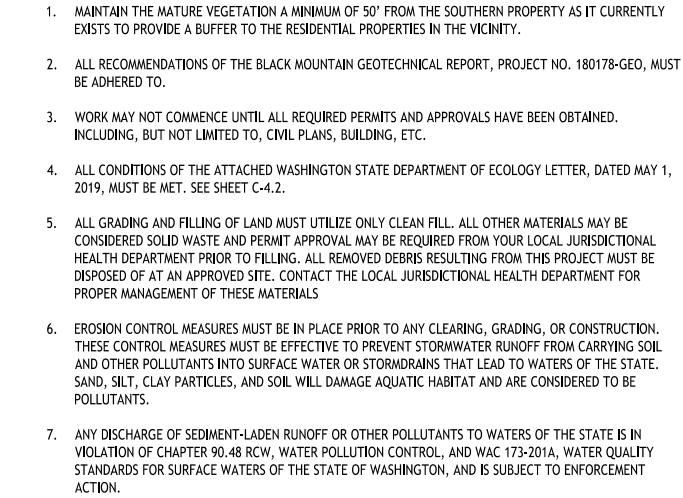
C-4



NOTE:
ALL DISTURBED AREAS TO BE REPLANTED WITH APPROVED GRASS MIXTURE

1. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
2. THE IMPLEMENTATION OF THESE ESC PLANS AND CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED BY THE LOCAL JURISDICTION, AND VEGETATION/LANDSCAPING IS ESTABLISHED. THE DEVELOPER SHALL BE RESPONSIBLE FOR MAINTENANCE AFTER THE PROJECT IS APPROVED UNTIL THE LOTS ARE SOLD.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE MARKINGS SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING CONSTRUCTION PERIODS, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE.
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. AT NO TIME SHALL SEDIMENT BE ALLOWED TO ACCUMULATE MORE THAN 1/3 THE BARRIER HEIGHT. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATIONS SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
8. STABILIZED GRAVEL ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9. STORM DRAIN INLETS, BASINS, AND AREA DRAINS SHALL BE PROTECTED UNTIL PAVEMENT SURFACES ARE COMPLETED AND/OR VEGETATION IS RE-ESTABLISHED.
10. PAVEMENT SURFACES AND VEGETATION ARE TO BE PLACED AS RAPIDLY AS POSSIBLE.
11. IF THERE ARE EXPOSED SOILS OR SOILS NOT FULLY ESTABLISHED FROM OCTOBER 1ST THROUGH APRIL 30TH, THE WET WEATHER EROSION PREVENTION MEASURES WILL BE IN EFFECT. SEE THE EROSION PREVENTION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL (CHAPTER 4) FOR REQUIREMENTS.
12. NO EXPOSED, BARE SOILS SHALL REMAIN UNSTABILIZED FOR MORE THAN TWO DAYS DURING THE PERIOD OCTOBER 1 THROUGH APRIL 30 OR FOR MORE THAN SEVEN DAYS DURING THE PERIOD OF MAY 1 THROUGH SEPTEMBER 30. ALL DISTURBED SOIL SURFACES SHALL BE STABILIZED BY A SUITABLE APPLICATION OF "BEST MANAGEMENT PRACTICES".
13. WHERE FEASIBLE, NO MORE THAN 500 FEET OF TRENCH SHALL BE OPEN AT ONE TIME. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHIL SIDE OF TRENCHES PROVIDED IT DOES NOT CONFLICT WITH SAFETY REQUIREMENTS.
14. THE DEVELOPER SHALL REMOVE ESC MEASURES WHEN VEGETATION IS FULLY ESTABLISHED.

1



SCALE: NTS

2



SITE:
CHEHALIS RIDGE
RADIO SITE
1201 NORTH END AVE.,
CHEHALIS, WA 98532

[illegible]

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RENEWAL DATE 10/31/21

GRADING & EROSION CONTROL NOTES & DETAILS I

C-4.1

3

4

COWLITZ INDIAN TRIBE
INADVERTENT DISCOVERY LANGUAGE

In the event any archaeological or historic materials are encountered during project activity, work in the immediate area (initially allowing for a 100' buffer; this number may vary by circumstance) must stop and the following actions taken:

1. Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering; and
2. Take reasonable steps to ensure the confidentiality of the discovery site; and,
3. Take reasonable steps to restrict access to the site of discovery.

The project proponent will notify the concerned Tribes and all appropriate county, state, and federal agencies, including the Department of Archaeology and Historic Preservation. The agencies and Tribe(s) will discuss possible measures to remove or avoid cultural material, and will reach an agreement with the project proponent regarding actions to be taken and disposition of material.

If human remains are uncovered, appropriate law enforcement agencies shall be notified first, and the above steps followed. If the remains are determined to be Native, consultation with the affected Tribes will take place in order to mitigate the final disposition of said remains.

See the Revised Code of Washington, Chapter 27.53, "Archaeological Sites and Resources," for applicable state laws and statutes. See also Washington State Executive Order 05-05, "Archaeological and Cultural Resources." Additional state and federal law(s) may also apply.

It is strongly encouraged copies of inadvertent discovery language/plan are retained on-site while project activity is underway.

Contact information:

Nathan Reynolds
Interim Cultural Resources Manager
Cowlitz Indian Tribe
PO Box 2547
Longview, WA 98632
360-575-6226 Office
360-577-6207 Fax
nreynolds@cowlitz.org

Revised 19 September 2017



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

May 1, 2019

Hillary Hoke, Planner
Lewis County
Community Development
2025 Northeast Kresky Avenue
Chehalis, WA 98531

Dear Hillary Hoke:

Thank you for the opportunity to comment on the determination of nonsignificance for the Lewis County Communication Facility Project (SEPA-19-0004) located at Northeast Jefferson Avenue, Chehalis as proposed by Cushing Civil Engineers for Lewis County. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

SOLID WASTE MANAGEMENT: Derek Rockett (360) 407-6287

All grading and filling of land must utilize only clean fill. All other materials may be considered solid waste and permit approval may be required from your local jurisdictional health department prior to filling. All removed debris resulting from this project must be disposed of at an approved site. Contact the local jurisdictional health department for proper management of these materials

**WATER QUALITY/WATERSHED RESOURCES UNIT:
Chris Montague-Breakwell (360) 407-6364**

Erosion control measures must be in place prior to any clearing, grading, or construction. These control measures must be effective to prevent stormwater runoff from carrying soil and other pollutants into surface water or stormdrains that lead to waters of the state. Sand, silt, clay particles, and soil will damage aquatic habitat and are considered to be pollutants.

Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48 RCW, Water Pollution Control, and WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and is subject to enforcement action.

Hillary Hoke
May 2, 2019
Page 2

Construction Stormwater General Permit:
The following construction activities require coverage under the Construction Stormwater General Permit:

1. Clearing, grading and/or excavation that results in the disturbance of one or more acres **and** discharges stormwater to surface waters of the State; and
2. Clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more **and** discharge stormwater to surface waters of the State.
 - a) This includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, **and** discharge to surface waters of the State; and
3. Any size construction activity discharging stormwater to waters of the State that Ecology:
 - a) Determines to be a significant contributor of pollutants to waters of the State of Washington.
 - b) Reasonably expects to cause a violation of any water quality standard.

If there are known soil/ground water contaminants present on-site, additional information (including, but not limited to: temporary erosion and sediment control plans; stormwater pollution prevention plan; list of known contaminants with concentrations and depths found; a site map depicting the sample location(s); and additional studies/reports regarding contaminant(s)) will be required to be submitted.

You may apply online or obtain an application from Ecology's website at:
http://www.ecy.wa.gov/programs/wq/stormwater/construction/-_Application. Construction site operators must apply for a permit at least 60 days prior to discharging stormwater from construction activities and must submit it on or before the date of the first public notice.

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology
Southwest Regional Office

(JG: 201901972)

cc: Chris Montague-Breakwell, WQ
Derek Rockett, SWM
Doug Carney, Lewis County (Proponent)



PROJECT INFORMATION:

SITE:
**CHEHALIS RIDGE
RADIO SITE**
1201 NORTH END AVE.,
CHEHALIS, WA 98532

DATE		RELEASE
9-14-2020	FINAL CD	
10-27-2020	UPDATED LAYOUT - PRELIMINARY CD	
5-18-2021	FINAL CD	

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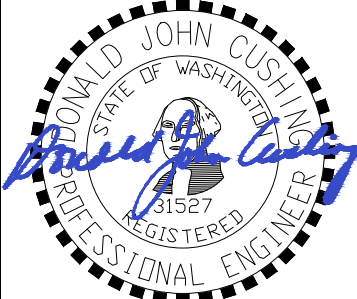
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PLANS PREPARED BY:



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LICENSURE:



RENEWAL DATE 10/31/21

SHEET TITLE

**GRADING &
EROSION CONTROL
NOTES & DETAILS II**

SHEET NUMBER

C-4.2

NOTE:
• FOR CONCEPTUAL PURPOSES ONLY



MODEL NUMBER	HP4-5.2	WEIGHT	85 lbs
MANUFACTURER	RADIO WAVES	DIMENSIONS	4' Ø

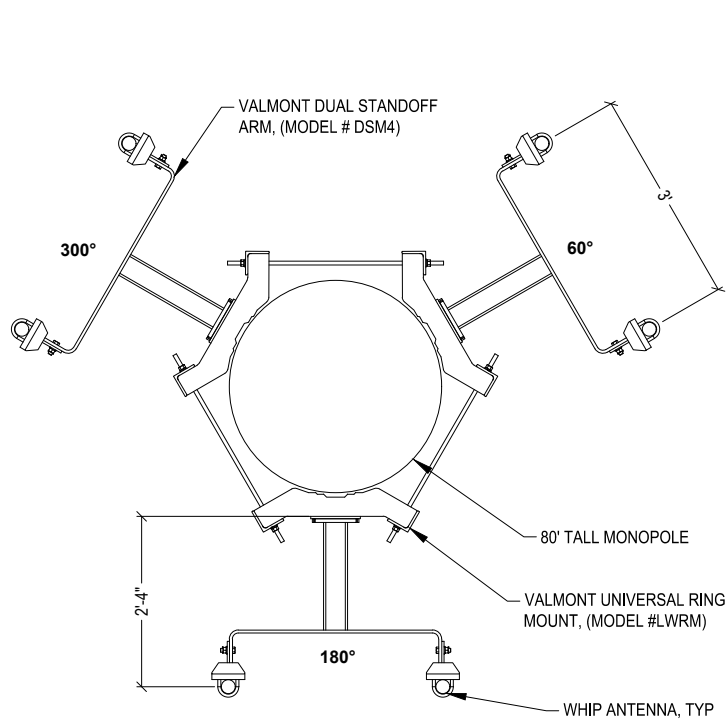


MODEL NUMBER	HP3-5.2	WEIGHT	50 lbs
MANUFACTURER	RADIO WAVES	DIMENSIONS	3' Ø

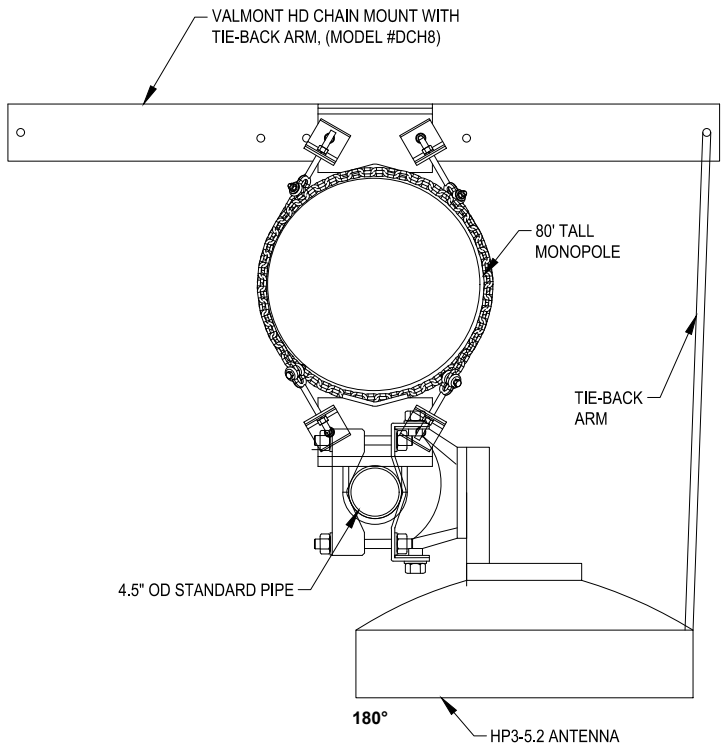


MODEL NUMBER	Db222-a	WEIGHT	16 lbs
MANUFACTURER	COMMMSCOPE	DIMENSIONS	255 IN

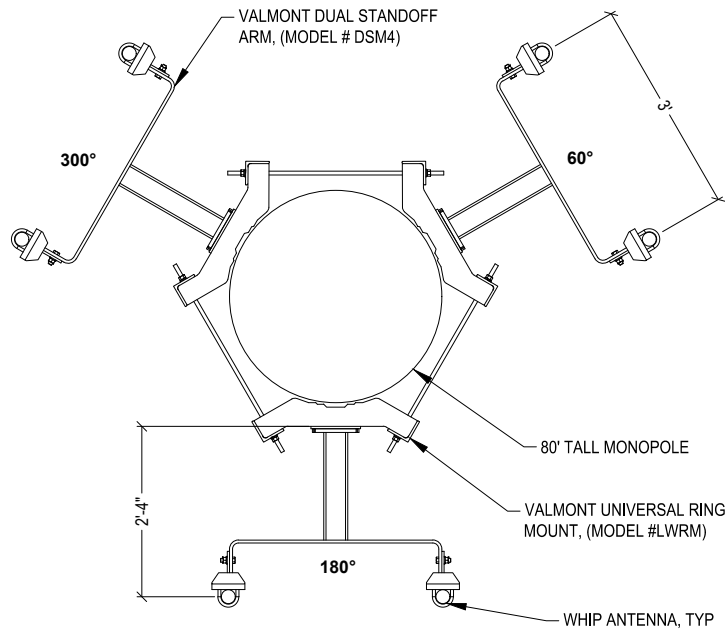
1 ANTENNA DETAILS
SCALE: N.T.S.



79' ELEVATION



75' ELEVATION



50' ELEVATION

2 PROPOSED AZIMUTH DIAGRAMS
SCALE: N.T.S.



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5-18-2021	FINAL CD

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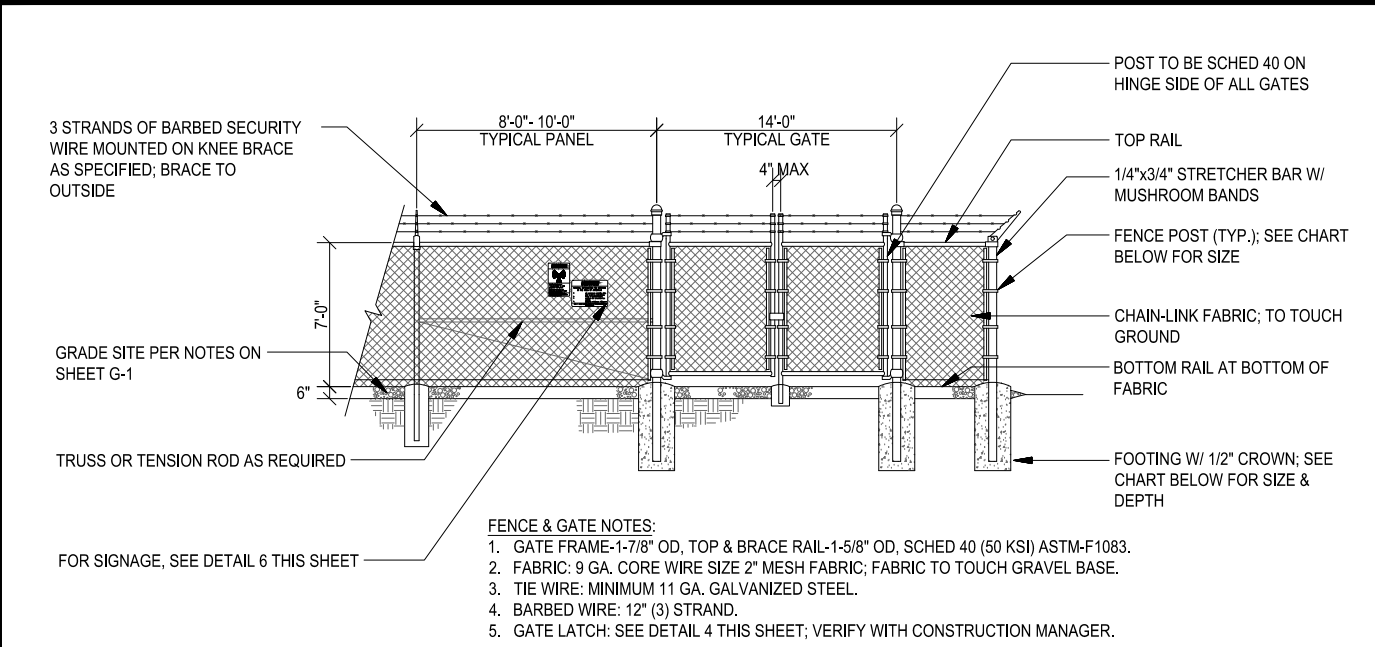
cushing
Civil Engineers
909 N Beech Street, Suite D
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(503) 387-5331
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LICENSURE:

RENEWAL DATE 10/31/21

SHEET TITLE
ANTENNA PLAN
& DETAILS

SHEET NUMBER

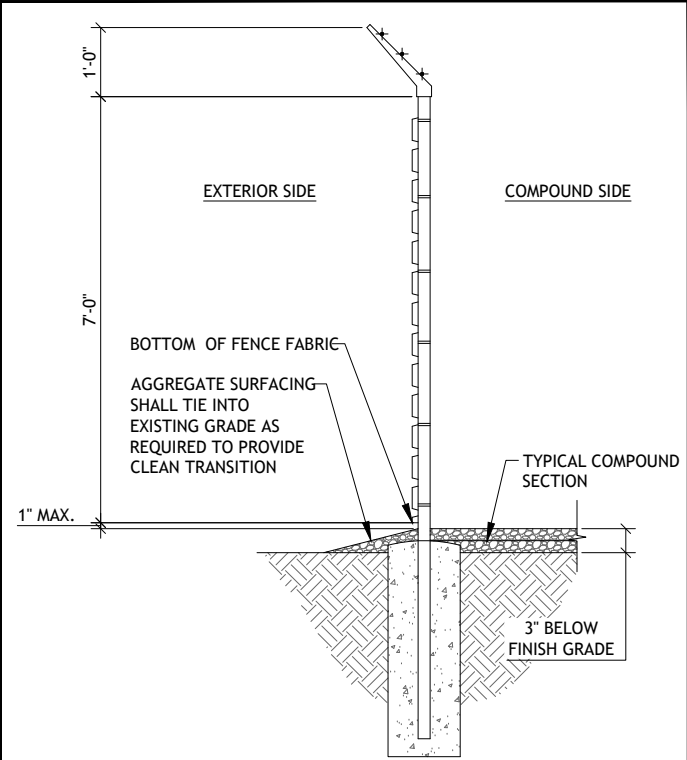


7' HIGH GATE/FENCE			
POST TYPE	POST DIAMETER	FOOTING SIZE	NOTES:
LINE POST	2-3/8"Ø	12"Øx24"	1. ALL POSTS: SCHED 60 ASTM-F1083 2. ALL FENCING TO BE ENGINEERED BY FENCING MANUFACTURER & APPROVED BY PROJ. MGR
CORNER POST	4"Ø	12"Øx36"	
GATE POST	4"Ø	12"Øx36"	
TOP RAIL	2"Ø		
BOTTOM RAIL	2"Ø		

6' HIGH GATE/FENCE			
POST TYPE	POST DIAMETER	FOOTING SIZE	NOTES:
LINE POST	2-3/8"Ø	12"Øx33"	1. ALL POSTS: SCH. 40 (50 KSI) ASTM-F1083 2. ALL FENCING TO BE ENGINEERED BY FENCING MANUFACTURER & APPROVED BY PROJ. MGR. FENCE MANUFACTURER IS TO VERIFY ADEQUACY OF TABULATED POST & FOOTING SIZES
CORNER POST	4"Ø	16"Øx36"	
GATE POST	4"Ø	16"Øx36"	

TYPICAL FENCE ELEVATION

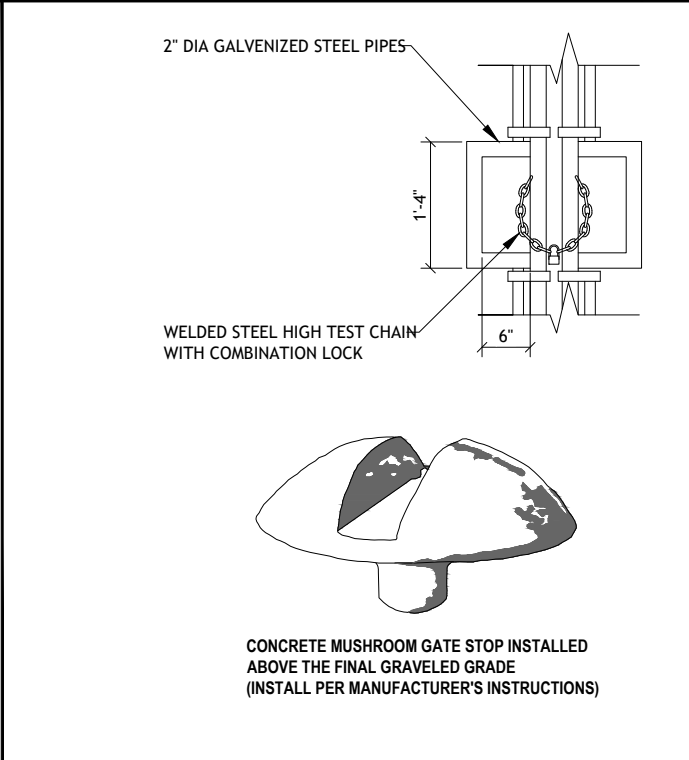
SCALE: NTS 1



TYPICAL FENCE SECTION

SCALE: NTS

4



GATE LOCK & CENTER STOP

SCALE: NTS

5

- FENCING NOTES:
- GATE POST, CORNER, END, OR PULL POST 4" NOMINAL (4" O.D.) SCHEDULE 40 (50 KSI) PIPE, FOR GATE WIDTHS UP TO 6 FEET OR 12 FEET FOR DOUBLE SWING GATE PER ASTM-F1083.
 - LINE POST: 2-3/8" O.D. 3.65 LBS/LIN FT. ASTM-F1083.
 - TOP RAIL AND BRACE RAIL: 1-1/2" (1.9" O.D.) PIPE 2.72 LBS/LIN FT PER ASTM-F1083. INSTALL BRACE AT ALL CORNER LOCATIONS AND ADJACENT TO GATES.
 - GATE FRAME: 1-1/2" (1.9 O.D.) 2.72 LBS/LIN FT. ASTM-F1083.
 - FABRIC SHALL BE TWO-INCH CHAINLINK MESH NO. 9 GAUGE (0.148") WIRE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO ASTM A-392 CLASS 1.
 - TIE WIRE: MINIMUM 11Ga. GALVANIZED STEEL. PROVIDE A SINGLE WRAP OF FABRIC, TIE AT POSTS, RAILS, AND AT TENSION WIRE BY HOG RINGS. MAXIMUM SPACING 24" O.C.
 - TENSION WIRE: MINIMUM 7 Ga. GALVANIZED STEEL.
 - U.N.O. BARBED WIRE: DOUBLE STRAND 12 Ga. 1/2" O.D. TWISTED WIRE TO MATCH W/ FABRIC, 14 Ga. 4PT. BARBS SPACED ON APPROX. 5" CENTERS.
 - U.N.O. BARBED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
 - U.N.O. BARBED WIRE SUPPORT ARMS SHALL BE PRESSED STEEL COMPLETE WITH SET BOLT AND LOCK WIRE IN THE ARM.
 - PROVIDE TWO 5 FOOT WIDE OUT SWINGING GATES, (UNLESS NOTED OTHERWISE). NO PERSONNEL GATES ARE REQUIRED (UNLESS AS DIRECTED BY THE CONSTRUCTION MANAGER). GATES SHALL BE ABLE TO LOCK.
 - U.N.O. GATE POSTS SHALL BE EXTENDED 12 INCHES, INCLUDING DOME CAP, TO PROVIDE FOR ATTACHMENT OF BARBED WIRE.
 - GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE, AND A FULL-WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
 - GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTOR WITH MODEL 6409, 180-DEGREE ATTACHMENT OR APPROVED EQUAL.
 - GATE LATCH: 1-3/8" O.D. PLUNGER ROD W/ MUSHROOM TYPE CATCH.
 - A 6" X 1/2" DIAMETER EYEBOLT TO HOLD TENSION WIRE SHALL BE PLACED AT LINE POSTS.
 - STRETCHER BARS SHALL BE 3/16" OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.
 - U.N.O. ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARBED WIRE SUPPORTING ARM.
 - ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.
 - OTHER HARDWARE MAY INCLUDE BUT NOT BE LIMITED TO TIE CLIPS, BAND CLIPS AND TENSION BAND CLIPS.
 - U.N.O. WHERE THE USE OF CONCERTINA HAS BEEN SPECIFIED, 24" DIAMETER COIL. BARBED TAPE, STAINLESS STEEL, CYCLONE FENCE MODEL G8P TO TYPE III SHALL BE FURNISHED. IT SHALL BE SUPPORTED ABOVE THE TOP RAIL BY USE OF SIX (6) BARBED WIRE ARMS POSITIONED ATOP EACH LINE/CORNER POST.
 - U.N.O. ALL CHAINLINK FENCING COMPONENTS MUST BE HOT DIPPED GALVANIZED.
 - WHEN IN USE, PRIVACY SLATS TO BE A NEUTRAL COLOR.

GENERAL FENCE NOTES

SCALE: NTS 2

NOT IN USE

SIGN NOTES:

- SIGN MATERIAL: 18GA ALUMINUM
- LETTERING COLOR = BLACK
- BACKGROUND COLOR = WHITE / RED

SIGN NOTES:

- SIGN MATERIAL: 18GA ALUMINUM
- LETTERING COLOR = BLACK / WHITE
- BACKGROUND COLOR = WHITE / BLUE

SIGN NOTES:

- SIGN MATERIAL: 18GA ALUMINUM
- LETTERING COLOR = BLACK
- BACKGROUND COLOR = YELLOW

NOT IN USE

SCALE: NTS 6

PROJECT INFORMATION:

SITE:
CHEHALIS RIDGE RADIO SITE
1201 NORTH END AVE.,
CHEHALIS, WA 98532

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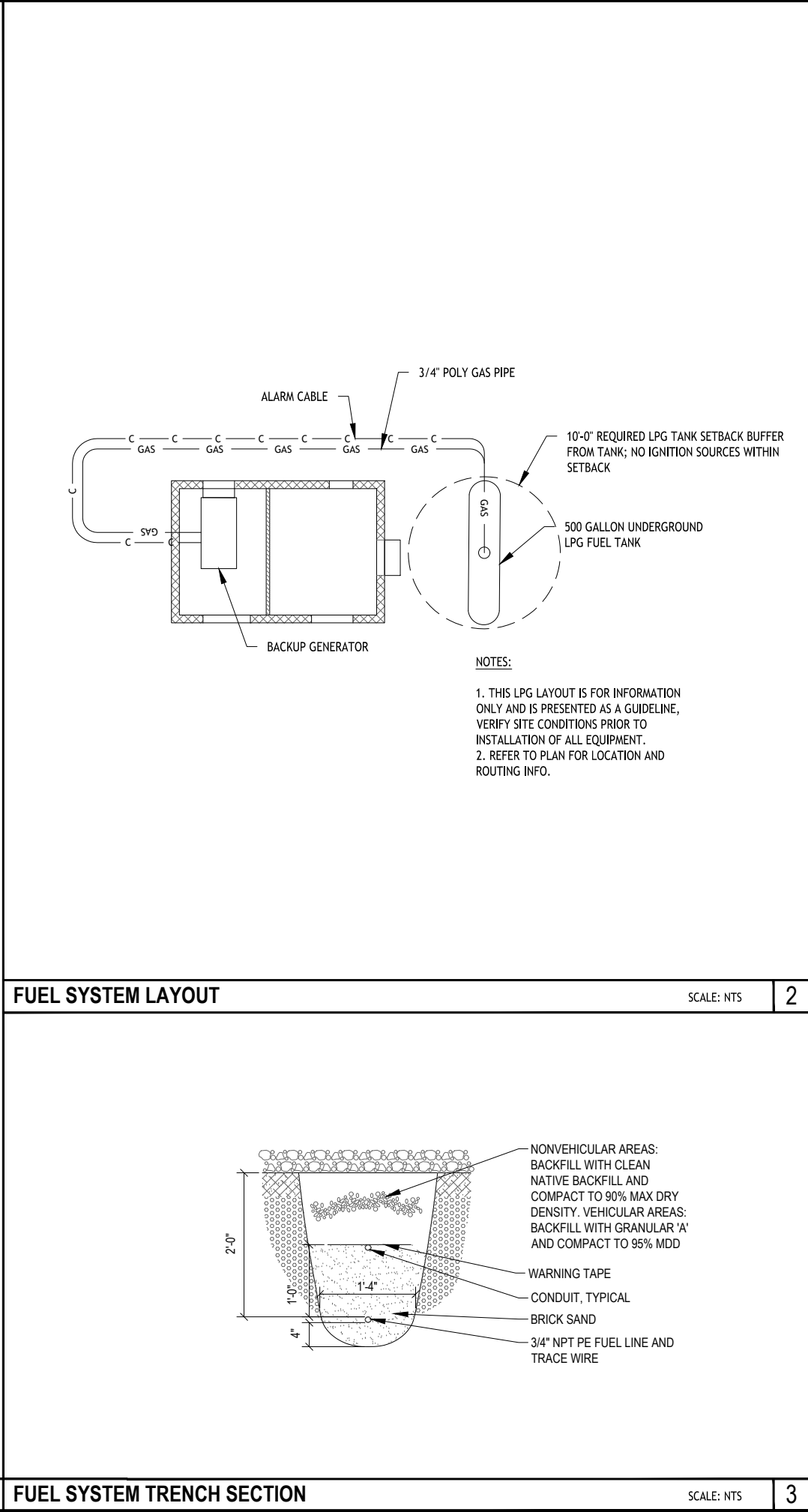
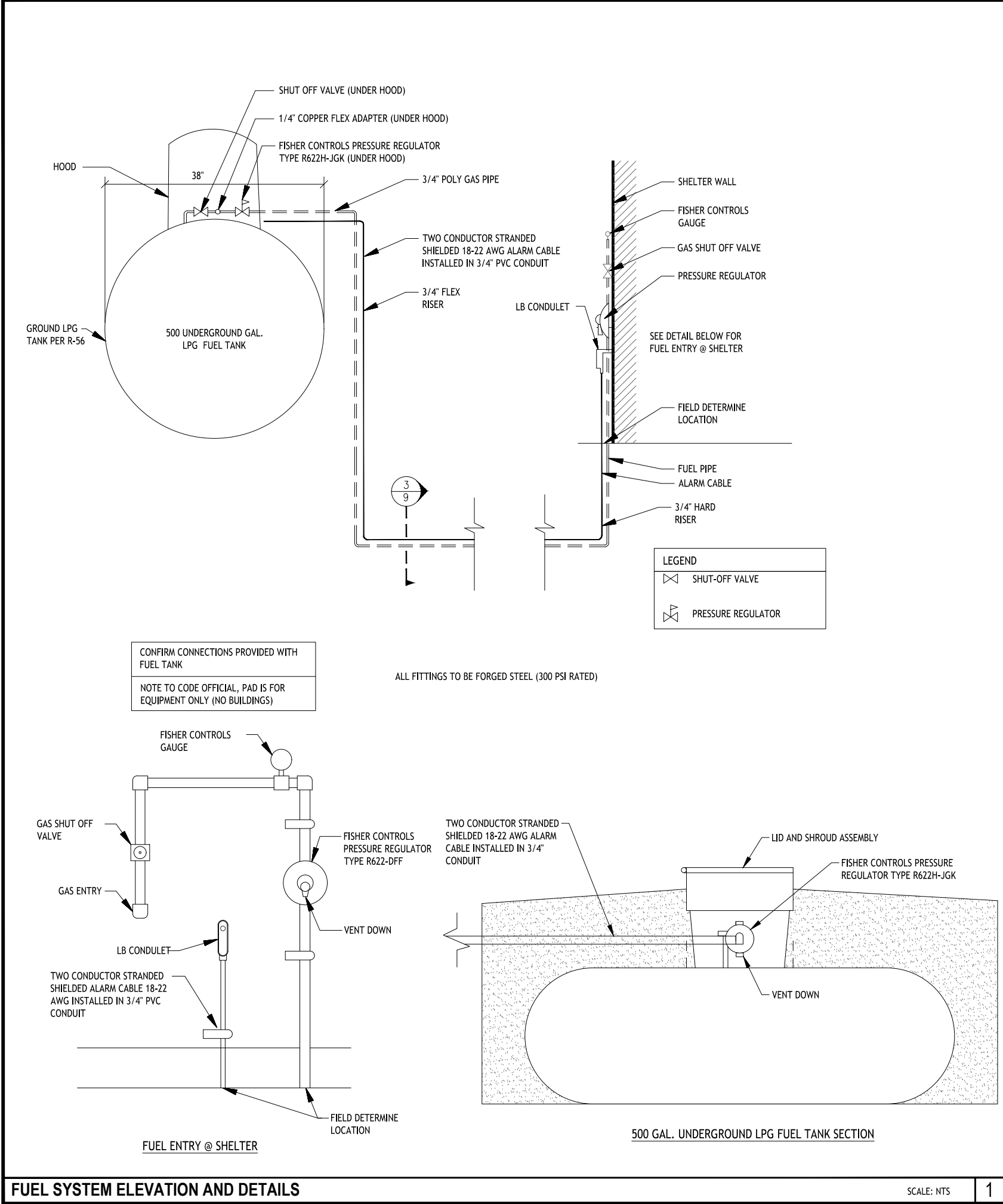
RENEWAL DATE 10/31/21

SHEET TITLE

FENCE DETAILS

SHEET NUMBER

C-7





PROJECT INFORMATION:

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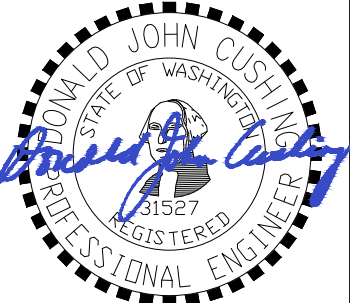
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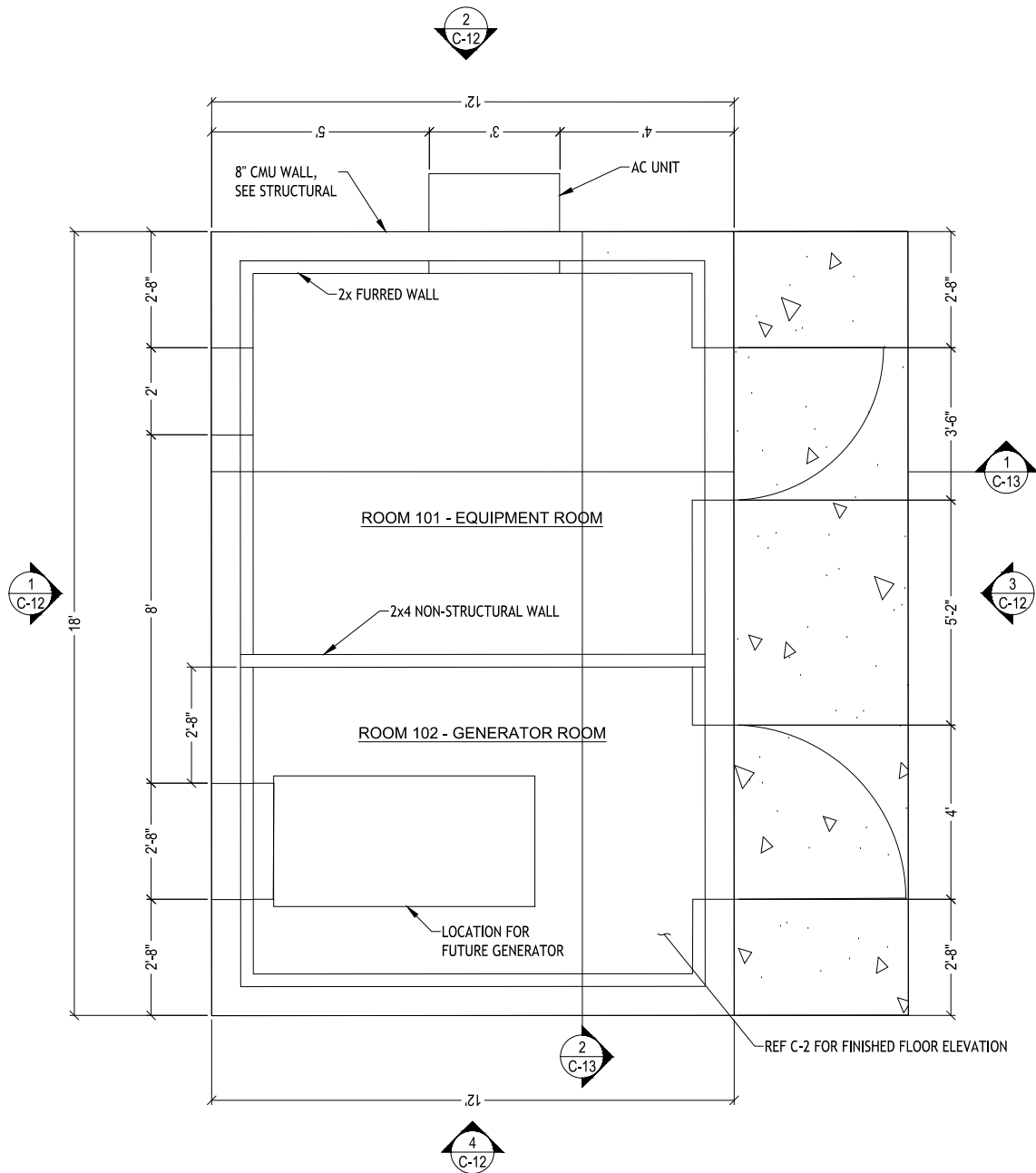
RENEWAL DATE 10/31/21

SHEET TITLE

LIQUID PROPANE GAS DETAILS

SHEET NUMBER

C-9



1 FLOOR PLAN
NTS

WALL LEGEND

8" CMU WALL, REF STRUCTURAL

2X4 FURRING OVER CMU WALL WITH R-13 BATT INSULATION. 5/8" TYPE X GWB IN GENERATOR ROOM AND FIRE-RATED PLYWOOD SHEATHING IN EQUIPMENT ROOM

2x6 NON-BEARING WALL WITH NO INSULATION. W/ 5/8" TYPE X GWB ON GENERATOR ROOM SIDE AND FRT PLYWOOD SHEATHING ON EQUIPMENT ROOM SIDE

NOTE: CEILING OF BOTH ROOMS TO BE 3/4" PLYWOOD W/ 5/8" TYPE X GWB ON GENERATOR ROOM SIDE, FIRE-RATED PLYWOOD SHEATHING ON EQUIPMENT ROOM SIDE

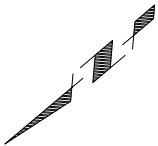
ATTIC VENTILATION NOTES

AREA VENTILATED = 178 S.F.
REQ'D VENT'N = 1:150 = 1.187 S.F. = 171 S.I.
RIDGE VENTS PROVIDED = 18 L.F. AT 12 S.I. PER L.F. = 216 S.I.
EAVE VENTS PROVIDED = 36 L.F. AT 12 S.I. PER L.F. = 432 S.I.
GABLE VENTS PROVIDED = (2) x 144 S.I. = 288 S.I.
TOTAL VENT'N PROVIDED = 936 S.I.

RIDGE AND EAVE VENTS TO PROVIDE MIN 12 SI VENTILATION PER LF AND TO HAVE SCREENS WITH 1/4" MAX OPENING

DOOR SCHEDULE								
DOOR	SIZE (WxH)	LEAF			FRAME		HEAD HEIGHT	REMARKS
		TYPE	COLOR	MATERIAL	MATERIAL	FINISH		
001	3'-6" x 6'-8"	LEAF	-	HOLLOW METAL	HOLLOW METAL	-	6'-8"	
002	3'-0" x 6'-8"	LEAF	-	HOLLOW METAL	HOLLOW METAL	-	6'-8"	

- DOOR NOTES
- ALL DOORS TO RECIEVE ADA DEADBOLT AND LOCKSET
 - ALL DOOR HARDWARE TO BE MOUNTED 36" ABOVE FLOOR. ALL DOORS TO MEET ACCESSIBILITY REQUIREMENTS OF THE BUILDING CODE 2015 OF WASHINGTON CHAPTER 11.
 - ALL DOOR HANDLES, PULLS, LATCHES AND LOCKS TO BE OPERABLE WITHOUT TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
 - EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.



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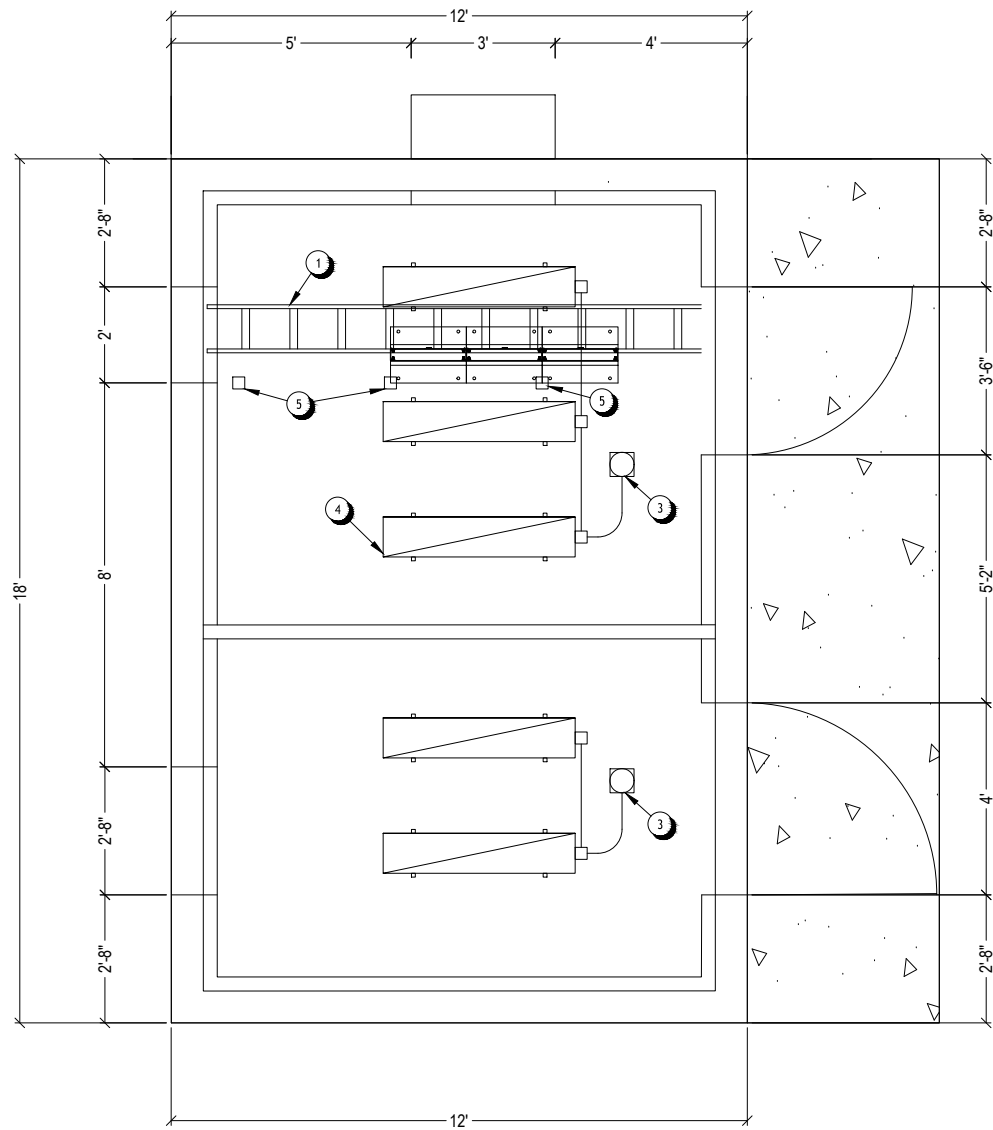
RENEWAL DATE 10/31/21

SHEET TITLE

SHELTER FLOOR
PLAN

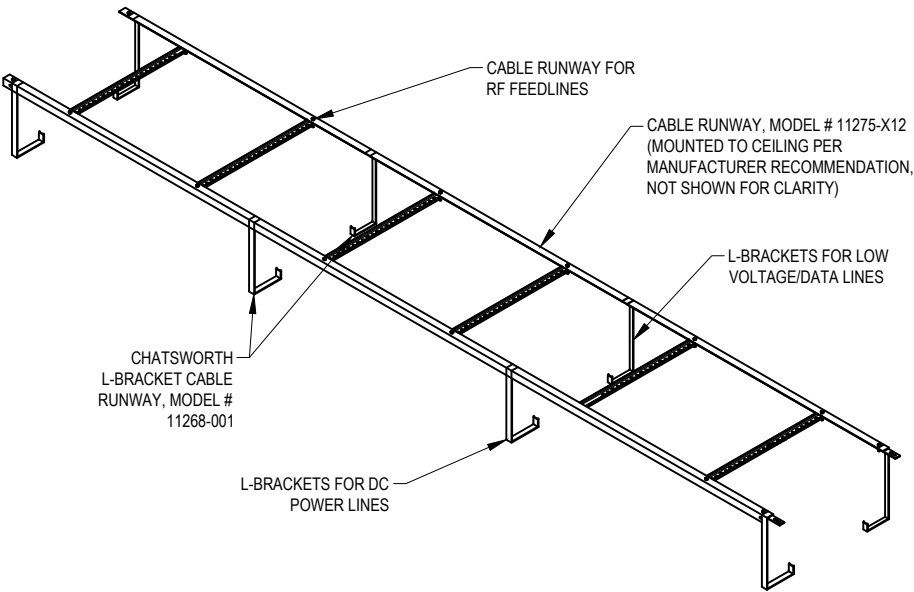
SHEET NUMBER

C-10



1 REFLECTED CEILING PLAN
NTS

COMMON PARTS LIST			
ITEM	QTY	NAME	PART DESCRIPTION
1	1	12 INCH WIDE CABLE TRAY	WITH AUDIBLE ALARM
2		4' LIGHT FIXTURE	WRAP-AROUND CEILING FIXTURE WITH ACRYLIC PRISMATIC LENS AND ENERGY SAVING BALLAST DOUBLE TUBE T8 RAPID START
3		SMOKE/CARBON MONOXIDE DETECTOR	WITH AUDIBLE ALARM
4		UNITSTRUT	1-5/8" DEEP x 12" LONG
5		TWIST LOCK DUPLEX CEILING MOUNT RECEPTACLES	



(CABLES NOT SHOWN FOR CLARITY)

2 CABLE TRAY DETAIL
NTS



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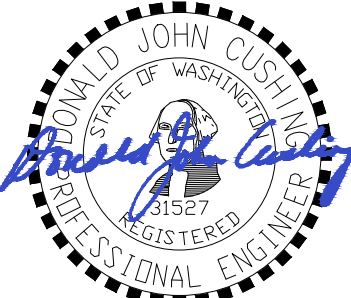
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RENEWAL DATE 10/31/21

SHEET TITLE

SHELTER
REFLECTED
CEILING PLAN

SHEET NUMBER

C-11



PROJECT INFORMATION:

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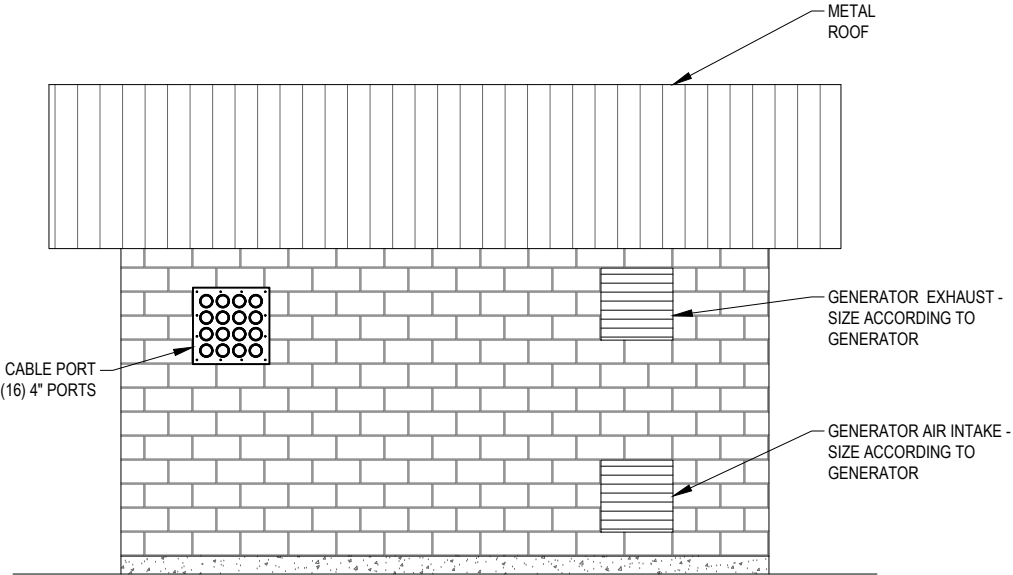
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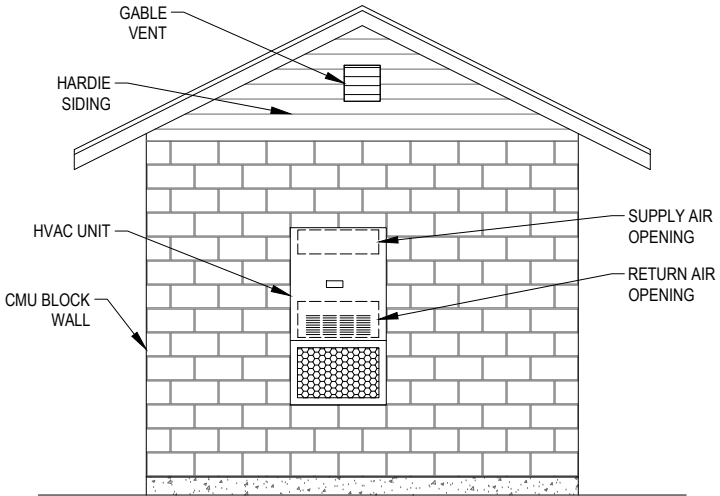
SHEET TITLE
SHELTER
ELEVATIONS

SHEET NUMBER

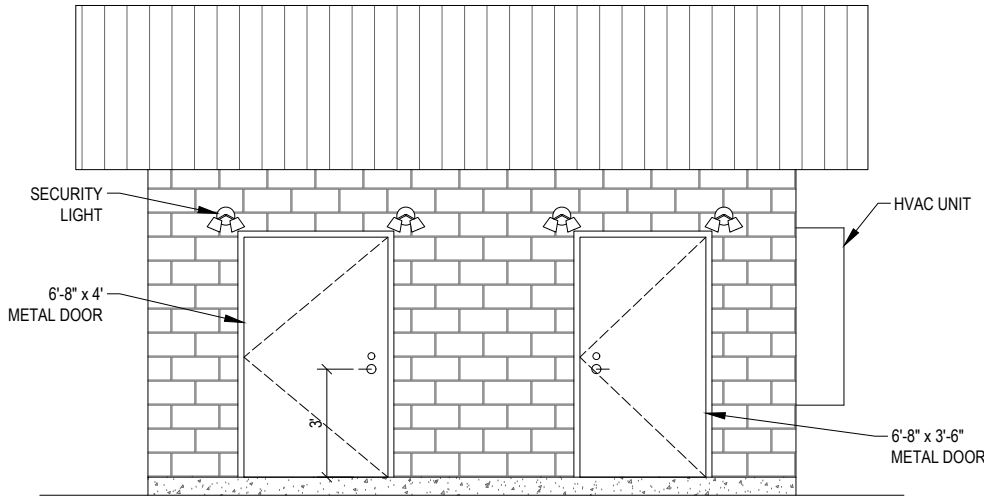
C-12



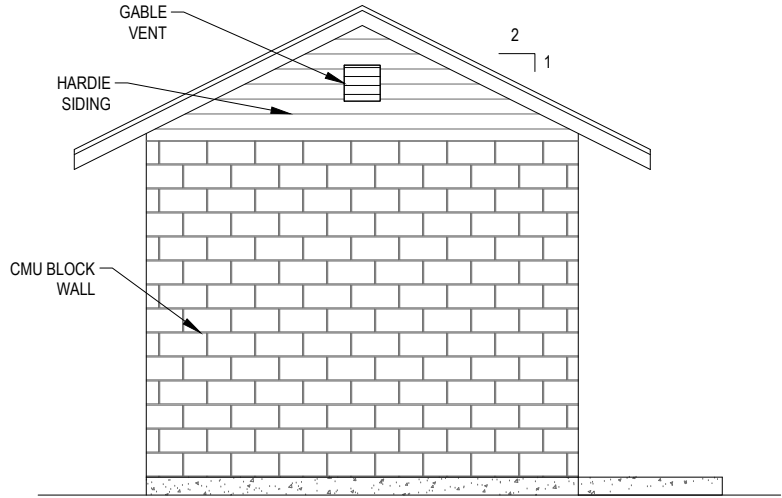
1 NORTHWEST ELEVATION
SCALE: 3/8" = 1'-0"



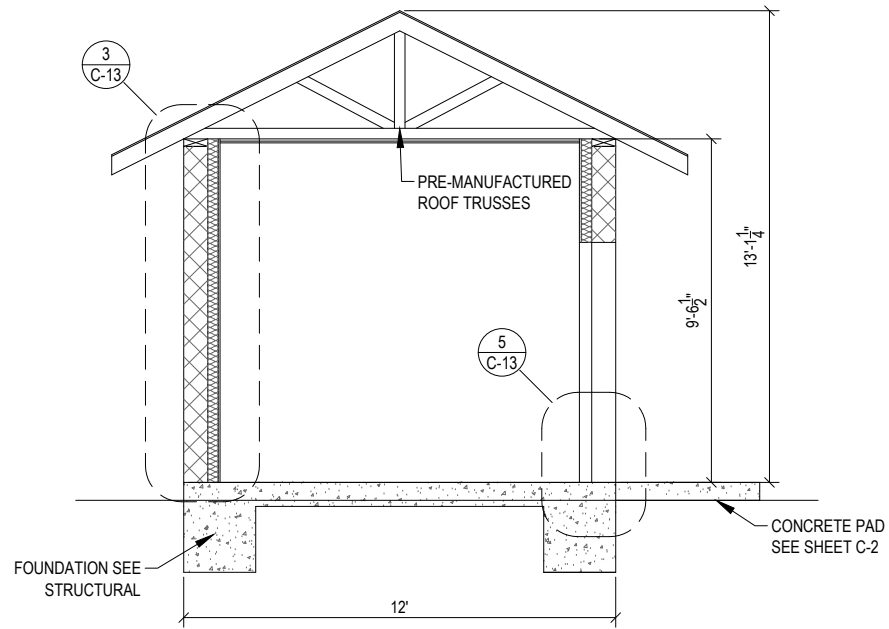
2 SOUTHWEST ELEVATION
SCALE: 3/8" = 1'-0"



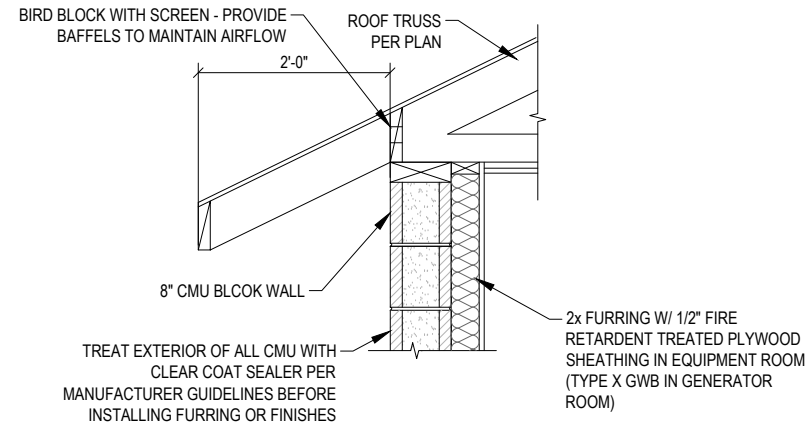
3 SOUTHEAST ELEVATION
SCALE: 3/8" = 1'-0"



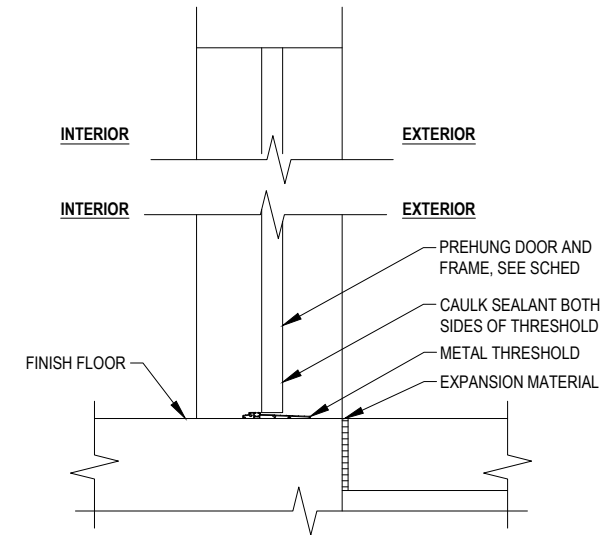
4 NORTHEAST ELEVATION
SCALE: 3/8" = 1'-0"



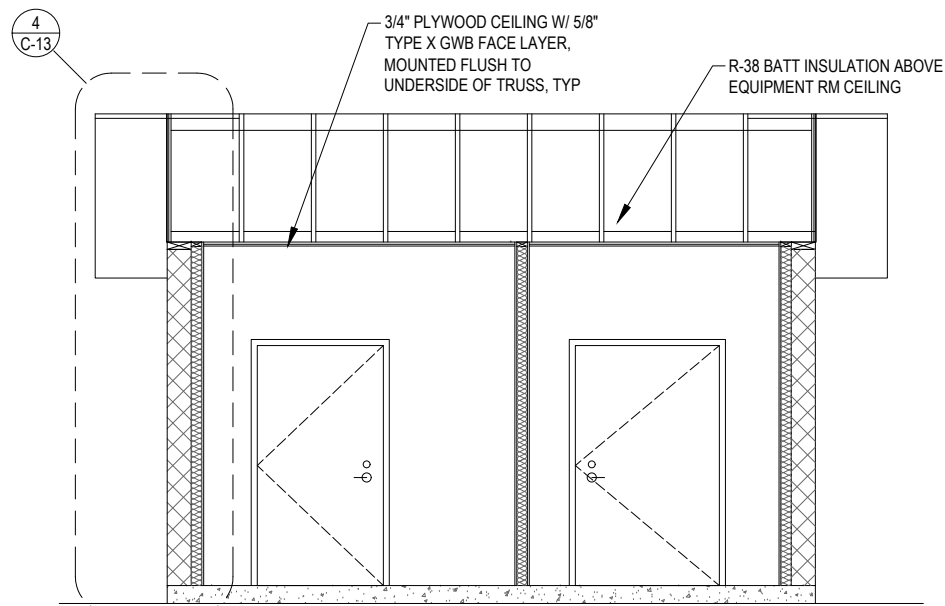
1 SECTION WITH INTERNAL VIEW LOOKING NORTHEAST
NTS



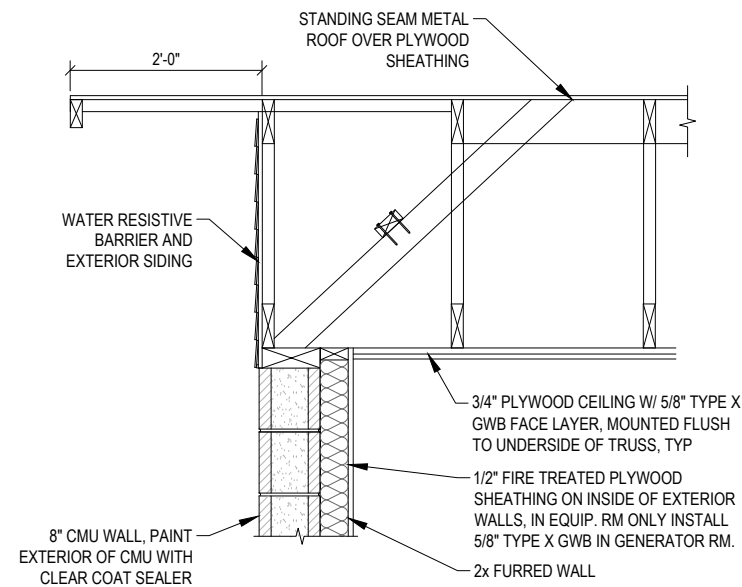
3 NORTHWEST WALL SECTION
NTS



5 SECTION DOOR THRESHOLD
NTS



2 SECTION WITH INTERNAL VIEW LOOKING SOUTHEAST
NTS



4 NORTHWEST WALL SECTION
NTS



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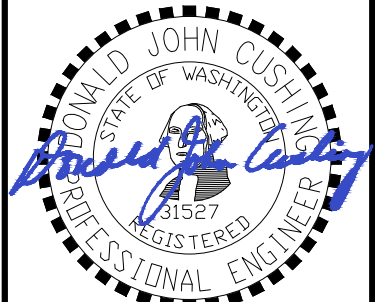
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SHEET TITLE

SHELTER
SECTIONS

SHEET NUMBER

C-13

SEE T-1 AND G-1 FOR ADDITIONAL GENERAL NOTES, GOVERNING CODES, AND PROJECT DESCRIPTION.

DESIGN CRITERIA:

CONSTRUCTION LL: 20 PSF		
ROOF SNOW LOAD DATA -	GROUND SNOW LOAD:	25 PSF
	FLAT-ROOF SNOW LOAD:	25 PSF
	SNOW EXPOSURE FACTOR:	1.0
	SNOW LOAD IMPORTANCE FACTOR:	1.20
	THERMAL FACTOR (GEN. SHELTER):	1.0
WIND DESIGN DATA -	ULTIMATE DESIGN WIND SPEED:	115 MPH
	RISK CATEGORY:	IV
	WIND EXPOSURE:	C
	INTERNAL PRESSURE COEFFICIENT:	0.18±
	DESIGN WIND PRESSURES:	
	WIND LOAD HORIZONTAL (MWFRS):	27 PSF
	WIND LOAD (UPLIFT) (MWFRS):	20 PSF
	RISK CATEGORY:	IV
	SEISMIC IMPORTANCE FACTOR:	1.5
	MAPPED SPECTRAL RESPONSE ACCEL-ERATION PARAMETERS;	
EARTHQUAKE DESIGN DATA - (PER GEO. RPT. 3/5/04)	S _s	1.154
	S ₁	0.501
	SITE CLASS:	D
	DESIGN SPECTRAL RESPONSE ACCEL-ERATION PARAMETERS;	
	S _{DS}	0.799
	S _{D1}	0.501
	SEISMIC DESIGN CATEGORY:	D
	SEISMIC FORCE-RESISTING SYSTEM::	SPECIAL REINFORCED MASONRY SHEAR WALLS
	DESIGN BASE SHEAR:	0.1598W
	SEISMIC RESPONSE COEFFICIENT:	0.1598
	RESPONSE MODIFICATION COEFFICIENT:	5.00

GEOTECHNICAL INFORMATION - DESIGN LOAD-BEARING VALUES OF SOIL: 2,000 PSF FOR SPREAD FOOTINGS (SEE BLACK MOUNTAIN GEO. RPT. 3/19/19)

WOOD:

- ALL WOOD FRAMING SHALL CONFORM TO THE REQUIREMENTS OF IBC CHAPTER 23 "WOOD"
- SAWN LUMBER AND PRE-MANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY GRADE MARK OR CERTIFICATE OF INSPECTION ISSUED BY A CERTIFYING AGENCY (WWPA, WCLIB, OR NLGA).
- METAL PLATE TRUSSES SHALL MEET THE REQUIREMENTS OF IBC SECTION 2303.4 AS WELL AS THE LATEST EDITION OF ANSI/TPI 1 NATIONAL DESIGN STANDARD FOR METAL-PLATE-CONNECTED WOOD TRUSS CONSTRUCTION.
- PRESERVATIVE TREATED LUMBER SHALL BE USED IN APPLICATIONS WHERE REQUIRED BY IBC 2304.12. WOOD USED IN DIRECT CONTACT WITH CONCRETE, 8" FROM WEATHER, OR USED TO FUR EXTERIOR MASONRY WALLS IS REQUIRED TO BE PRESERVATIVE TREATED. LUMBER USED SHALL BE APPROPRIATELY MARKED PER 2303.1.9. FASTENERS USED IN CONTACT WITH TREATED LUMBER SHALL BE IN ACCORDANCE WITH 2304.10.5.
- FIRE RETARDANT TREATED (FRT) WOOD MEMBERS SHALL HAVE A CURRENT ICC-ES EVALUATION REPORT.
- WOOD MATERIAL SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19%.
- WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS OF DOC PS 1, DOC PS 2, OR ANSI/APA PRP 210 AND IBC 2303.1.5. UNLESS NOTED OTHERWISE IN DRAWINGS INSTALL PANELS WITH LONG DIMENSION ACROSS SUPPORTS AND CONTINUOUS OVER TWO OR MORE SPANS. END JOINTS SHALL OCCUR OVER SUPPORTS.
- ALL SILL PLATES AND LEDGERS SHALL BE INSTALLED WITH MINIMUM OF THREE FASTENERS.
- FASTENING OF WOOD MEMBERS SHALL NOT BE LESS THAN THAT SET FORTH IN IBC TABLE 2304.10.1.

CONCRETE:

- REFER TO CONCRETE NOTES ON G-1.

SUBMITTALS:

- SHOP DRAWINGS FOR ALL STRUCTURAL ITEMS DESIGNED BY OTHERS SHALL BE SUBMITTED TO THE CIVIL ENGINEER PRIOR TO FABRICATION AND CONSTRUCTION. THIS INCLUDES CONCRETE MIX DESIGNS, GROUT MIX DESIGNS, CONCRETE REINFORCEMENT, MASONRY REINFORCEMENT, REINFORCEMENT STEEL MILL CERTIFICATIONS, SLAB JOINT LAYOUT, PRE-MANUFACTURED WOOD JOISTS, AND MEP ANCHORAGES AND BRACING.
- CALCULATIONS AND DRAWINGS FOR ITEMS THAT ARE DESIGNED BY OTHERS SHALL BE SEALED AND STAMPED BY A PROFESSIONAL ENGINEER WHO IS LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
- DESIGNS THAT MODIFY THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED AND ACCEPTANCE BY THE ENGINEER OF RECORD.
- DESIGNS SHALL CONFORM TO THE SPECIFICATION, REFERENCE STANDARDS, AND GOVERNING CODES. MINIMUM DESIGN LOADINGS ARE LISTED BELOW.

ROOF TRUSS DESIGN LOADS:
ROOF DEAD LOAD = 14 PSF
TOP CHORD = 8 PSF
BOTTOM CHORD = 6PSF
ROOF SNOW LOAD = 25 PSF

ROOF TOTAL DEFLECTION LIMIT = L/240
ROOF LIVE LOAD DEFLECTION LIMIT = L/360

TESTING AND INSPECTIONS:

- INSPECTIONS SHALL BE IN ACCORDANCE WITH SECTION 110 AND CHAPTER 17 OF THE IBC.
- THE CONTRACTOR SHALL COORDINATE ALL REQUIRED INSPECTIONS WITH THE BUILDING OFFICIAL AND SPECIAL INSPECTOR.

MASONRY:

- ALL MASONRY SHALL COMPLY WITH THE REQUIREMENTS OF IBC CHAPTER 21 "MASONRY", TMS 602/ACI 530/ASCE 5, AND TMS 402/ACI 530.1/ASCE 6
- QUALITY ASSURANCE PROGRAM SHALL BE IN ACCORDANCE WITH THE INSPECTION AND TESTING REQUIREMENTS OF IBC SECTION 2105, CHAPTER 17, AND TMS 602/ACI 530.1/ASCE 6.
- MORTAR SHALL COMPLY WITH IBC 2103.2.2, 2103.2.3, OR 2103.2.4
- GROUT SHALL COMPLY WITH ARTICLE 2.2 OF TMS 602/ACI 530.1/ASCE 6
- METAL REINFORCEMENT AND ACCESSORIES SHALL CONFORM TO ARTICLE 2.4 OF TMS 602/ ACI 530.1/ ASCE 6
- PREPERATION, PROTECTION, AND CONSTRUCTION OF MASONRY DURING HOT OR COLD WEATHER (ABOVE 90°F AND BELOW 40°F), SHALL COMPLY WITH ACI 530.1 ARTICLE 1.8 C AND 1.8 D

GENERAL STRUCTURAL NOTES



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CHEHALIS, WA 98532

DATE	RELEASE
9-14-2020	FINAL CD
10-27-2020	UPDATED LAYOUT - PRELIMINARY CD
5-18-2021	FINAL CD

DRAWING INFORMATION:

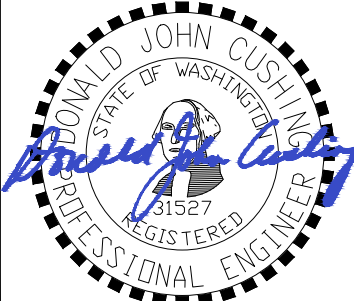
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PLANS PREPARED BY:



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LICENSURE:



RENEWAL DATE 10/31/21

SHEET TITLE

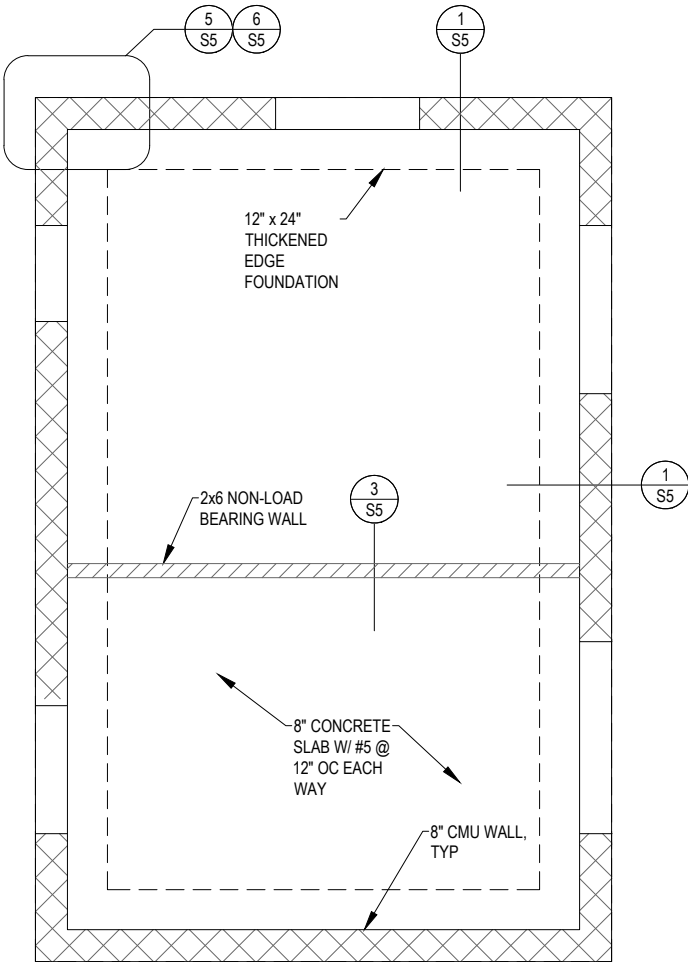
STRUCTURAL
GENERAL NOTES

SHEET NUMBER

S-1

SCALE: NTS

1



1 FOUNDATION PLAN
3/4" = 1'-0" 22X34

FOUNDATION PLAN NOTES

- SEE G-1 AND S-1 FOR GENERAL NOTES, DESIGN CRITERIA, AND LEGEND
- VERIFY DIMENSIONS AND ADDITIONAL DETAILS WITH CIVIL DRAWINGS
- CONSTRUCTION AND CONTROL JOINTS SHALL BE LOCATED AND DETAILED AS ON THE CONSTRUCTION DRAWINGS
- FOLLOW SUBGRADE AND STRUCTURAL FILL REQUIREMENTS OF THE GEOTECHNICAL REPORT
- PROVIDE 6 MIL VAPOR BARRIER BELOW THE SLAB AT INTERIOR SPACES
- REINFORCING BARS SHALL BE DEFORMED BARS CONFROMING TO ASTM A615 "DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT" LATEST EDITION, GRADE 60
- LAP LENGTH FOR SPLICES SHALL NOT BE LESS THAN A CLASS B SPLICE. WELDING OF REINFORCEMENT WILL NOT BE PERMITTED



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RADIO SITE
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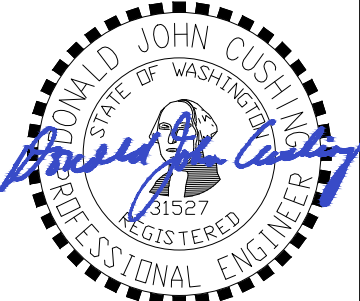
PLANS PREPARED BY:

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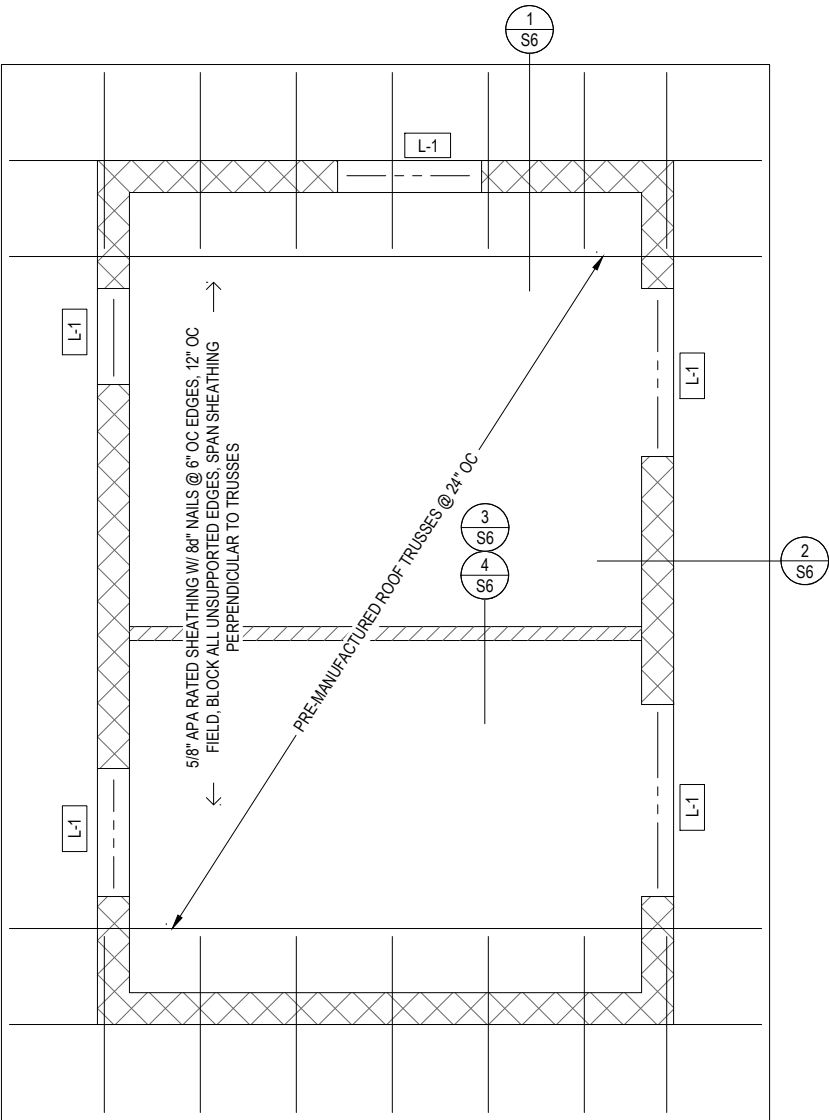
RENEWAL DATE 10/31/21

SHEET TITLE

FOUNDATION
PLAN

SHEET NUMBER

S-2



1 ROOF FRAMING PLAN
3/4" = 1'-0" 22X34

ROOF FRAMING PLAN NOTES

- 1. SEE G-1 AND S-1 FOR GENERAL NOTES, DESIGN CRITERIA, AND LEGEND
- 2. VERIFY DIMENSIONS AND ADDITIONAL DETAILS WITH CIVIL DRAWINGS
- 3. VERIFY LOCATION AND SIZE OF ALL WALL PENETRATIONS
- 4. TRUSSES ARE DESIGNED BY OTHERS. TRUSS MANUFACTURER TO REVIEW PLANS AND DETAILS TO ACCOUNT FOR SPECIFIC CONDITIONS. TRUSS LAYOUT SHOWN ON THIS PLAN IS APPROXIMATE, TRUSS MANUFACTURER RESPONSIBLE FOR FINAL TRUSS LAYOUT AND CONFIGURATION. FOR STANDARD LOADS AND SUBMITTAL INFORMATION SEE G-1 AND S-1

LINTEL SCHEDULE		
TAG	REINFORCEMENT	NOTES
L-1	LINTEL W/ (2) #4	EXTEND BARS 16" MIN BEYOND OPENING



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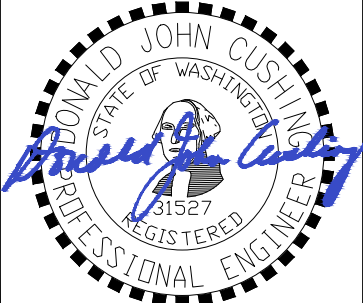
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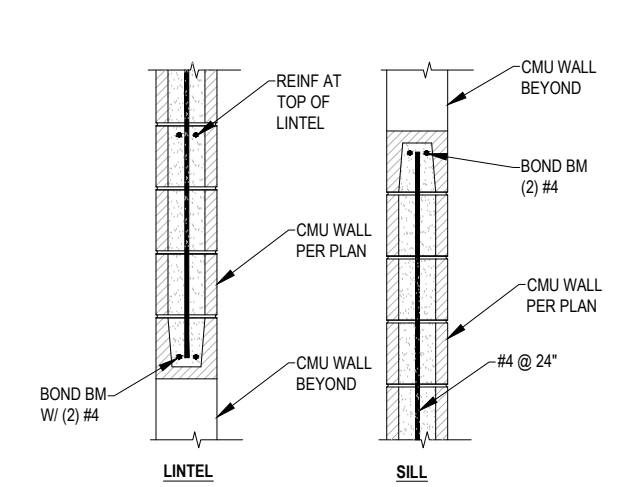


RENEWAL DATE 10/31/21

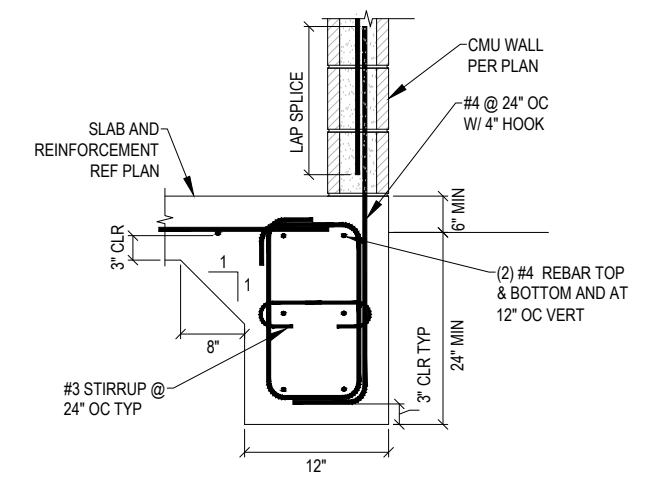
SHEET TITLE
ROOF FRAMING
PLAN

SHEET NUMBER

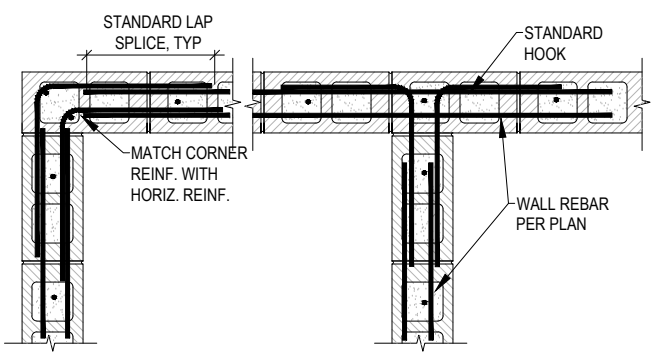
S-3



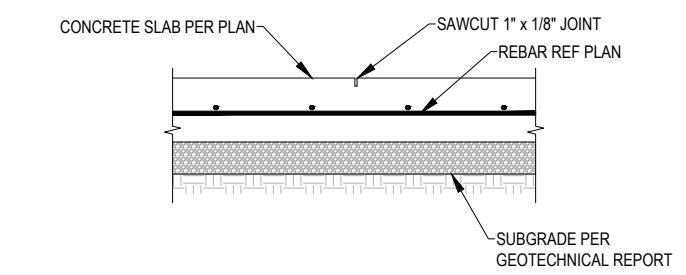
5 CMU LINTEL AND SILL
S5 NTS



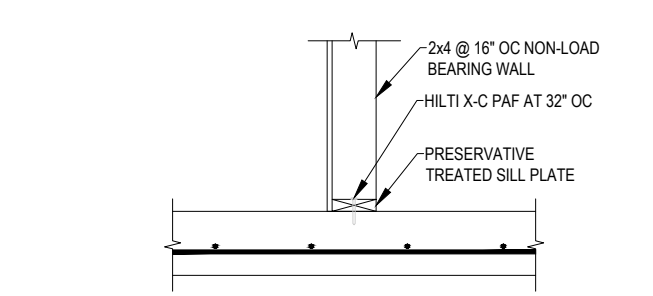
1 EXT FOOTING AT CMU WALL
S5 NTS



5 CMU CORNER/INTERSECTION
S5 NTS



2 SLAB CONTROL JOINT
S5 NTS



3 FOUNDATION AT NON-LOAD BEARING WALL
S5 NTS



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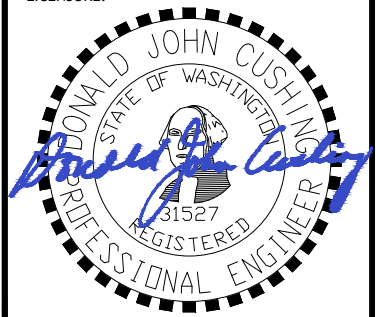
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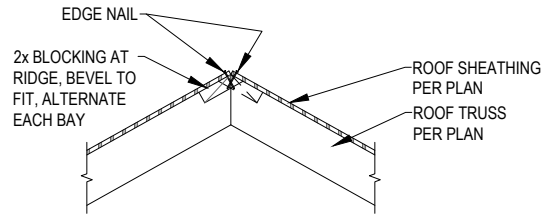
SHEET TITLE

STRUCTURAL
DETAILS I

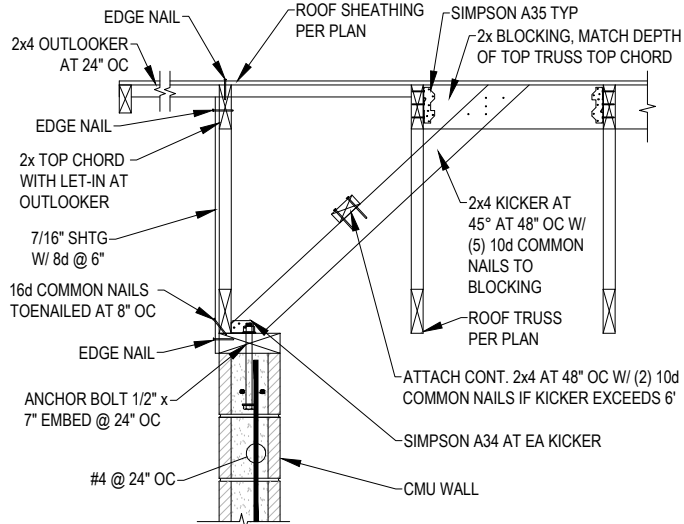
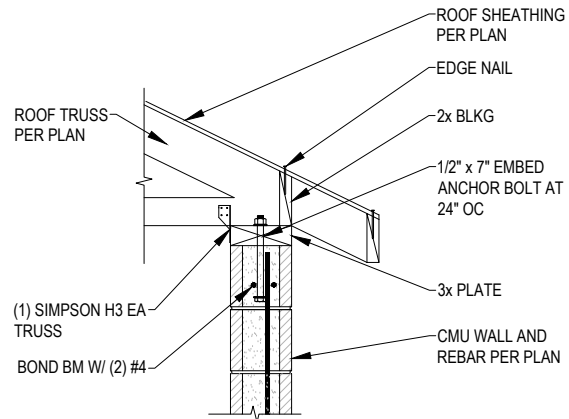
SHEET NUMBER

S-4

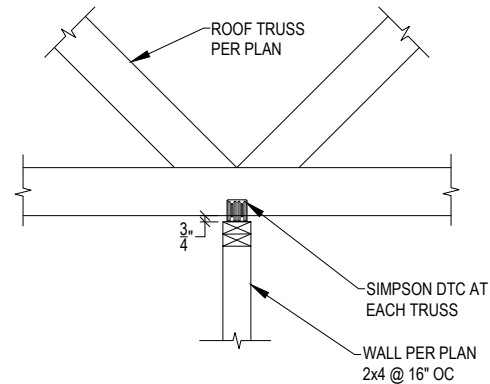
4 ROOF RIDGE
S6 NTS



1 TRUSS TO CMU WALL
S6 NTS



2 GABLE END AT CMU WALL
S6 NTS



3 TRUSS AT INTERNAL WALL
S6 NTS



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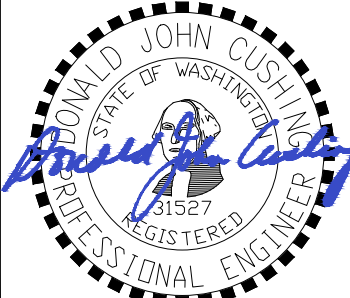
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SHEET TITLE

STRUCTURAL
DETAILS II

SHEET NUMBER

S-5

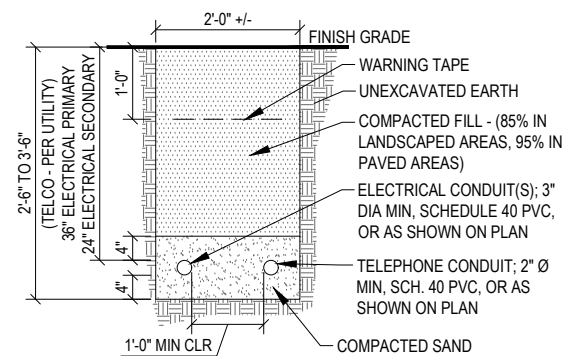
CONSTRUCTION NOTES:

1. CUSTOMER IS RESPONSIBLE FOR ALL TRENCH, CONDUIT, VAULTS, PADS AND ROAD CROSSINGS.
2. ALL CONDUIT TO BE INSTALLED WITH 30 INCHES (MIN) COVER AT TOP OF CONDUIT FROM FINAL GRADE.
3. ALL CONDUCTORS TO BE INSTALLED IN GRAY, SCHEDULE 40, ELECTRICAL GRADE, PVC CONDUIT WITH NYLON PULL STRINGS (MIN. 500 LBS. TEST).
PGE TO DETERMINE THE SIZE AND NUMBER OF CONDUITS REQUIRED.
MAINTAIN MINIMUM 12 VERTICAL AND HORIZONTAL INCHES CLEARANCE BETWEEN GAS AND OTHER UTILITIES. ALL ELBOWS 4 INCH & SMALLER TO BE 36 INCH RADIUS. ALL BENDS MUST BE FACTORY MADE. ALL ELBOWS LARGER THAN 4 INCH TO BE 60 INCH RADIUS. RIGID STEEL OR PGE APPROVED. FIBERGLASS BENDS ARE REQUIRED FOR RUNS OF 151 FEET OR LONGER, OR FOR ANY LENGTH RUN WITH MORE THAN 180 DEGREES IN BENDS. PVC SCHEDULE 40 BENDS ARE ACCEPTABLE FOR RUNS OF 150 FEET OR LESS. THE MAXIMUM TOTAL BENDS IN ANY CONDUIT RUN IS 270 DEGREES
4. ALL TRANSFORMERS TO BE INSTALLED 8 FEET (MIN) FROM ANY COMBUSTIBLE BUILDING, WALL OR OVERHANG AND 4 FEET (MIN) FROM ANY FIRE HYDRANT. PGE TRANSFORMERS MUST BE WITHIN 15 FEET OF A DRIVEABLE AREA. ALWAYS MAINTAIN 10 FEET CLEARANCE IN FRONT OF ALL TRANSFORMERS.
5. TRANSFORMER PADS ARE TO BE SET SO THAT THE TOP IS 2 INCHES ABOVE FINAL GRADE. CONDUIT IS TO BE INSTALLED IN PAD AS INDICATED IN DETAIL AND TO EXTEND 1 INCH ABOVE THE PAD.
6. STEEL BARRIER POSTS ARE REQUIRED AROUND TRANSFORMERS THAT ARE EXPOSED TO VEHICLES.
7. ALL SWITCH VAULTS TO BE SET AT FINAL GRADE WITH 6 INCH GRAVEL BASE AND CONDUITS ALIGNED TO ENTER THE VAULT END LOWER KNOCKOUTS (TERM-A-DUCTS).
(SEE DETAIL ON SKETCH)
8. REFER TO PGE ELECTRICAL SERVICE REQUIREMENTS BOOK FOR FURTHER DETAILS & SPECIFIC REQUIREMENTS. LINK TO WWW.PORTLANDGENERAL.COM
9. DESIGN IS BASED ON STANDARD UNDERGROUND EQUIPMENT. NON-STANDARD UNDERGROUND EQUIPMENT MAY BE AN OPTION AT AN ADDITIONAL COST TO THE CUSTOMER.

CONSTRUCTION NOTES

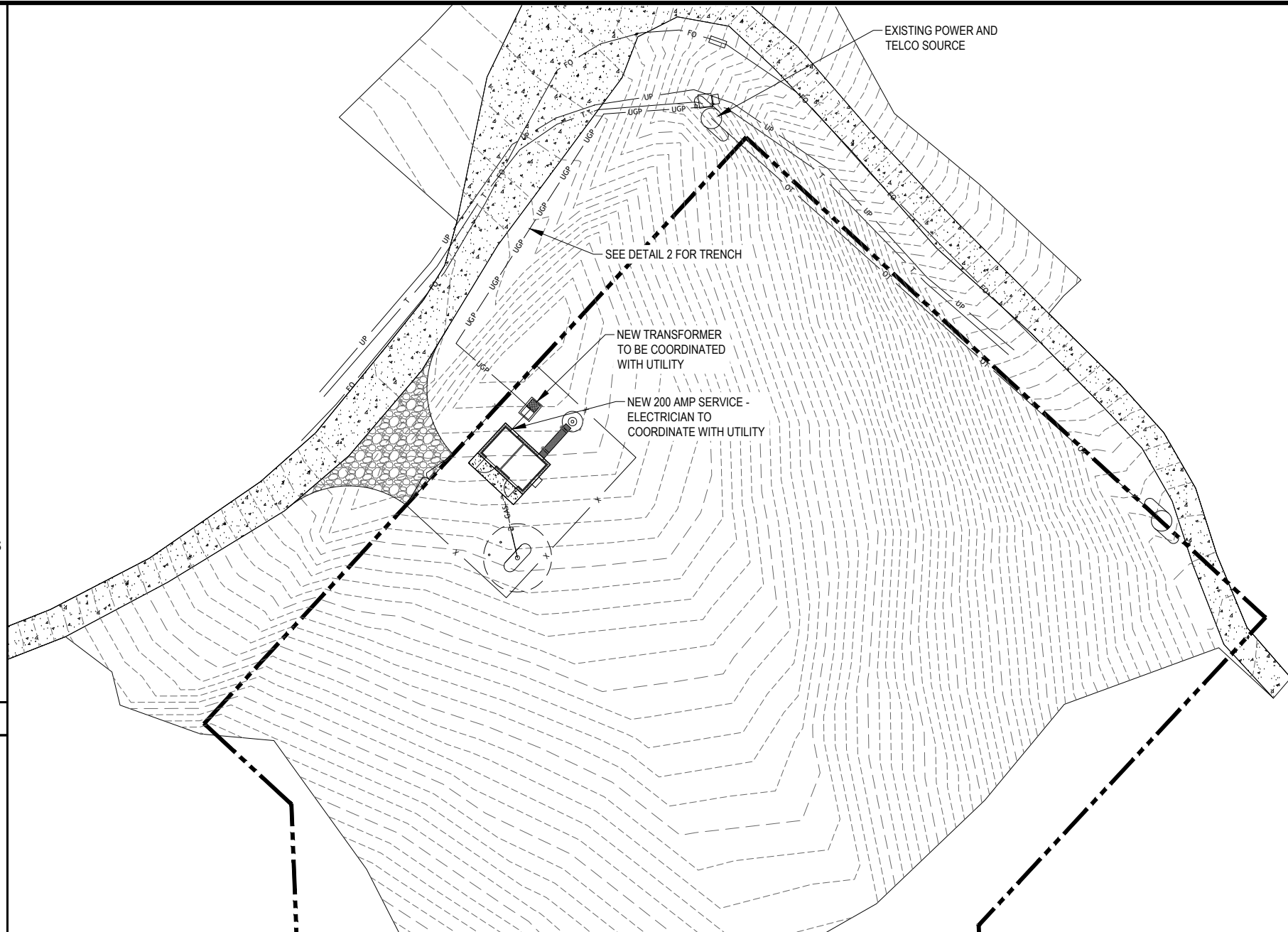
SCALE: NTS

1



TRENCH SECTION

SCALE: NTS

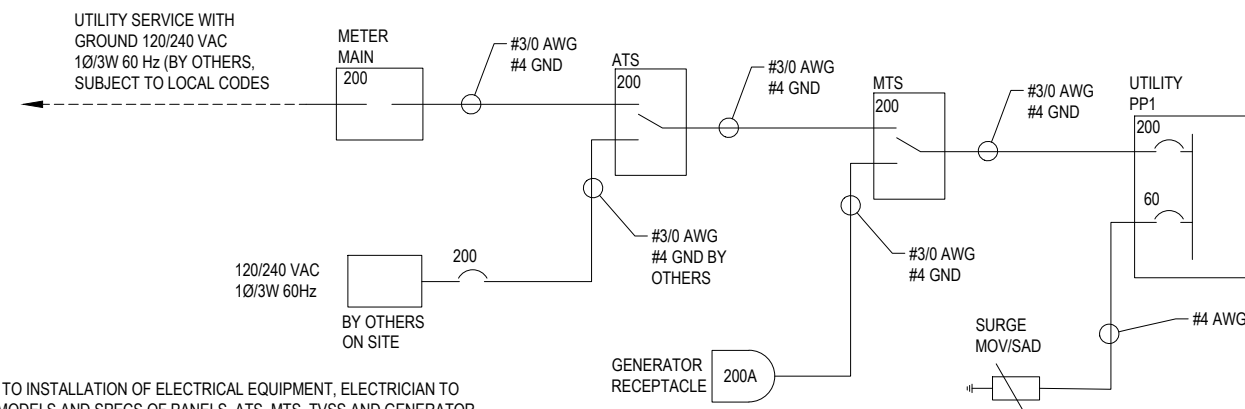
2

SITE UTILITY PLAN

11X17 SCALE: 1" = 40'

22X34 SCALE: 1" = 20'

3



NOTE:

1. PRIOR TO INSTALLATION OF ELECTRICAL EQUIPMENT, ELECTRICIAN TO SUBMIT MODELS AND SPECS OF PANELS, ATS, MTS, TVSS AND GENERATOR PLUG FOR LEWIS COUNTY PM APPROVAL..
2. THE CONDUCTOR SIZING IN THIS DETAIL IS A GUIDELINE AND MAY VARY BASED UPON LENGTHS AND ROUTING IN THE FIELD, NEC CODE REQUIREMENTS TAKE PRECEDENCE OVER THESE DRAWINGS

ONE-LINE DIAGRAM

SCALE: NTS

4



PROJECT INFORMATION:

SITE:
CHEHALIS RIDGE
RADIO SITE

1201 NORTH END AVE.,
CHEHALIS, WA 98532

[illegible]

DRAWING INFORMATION:

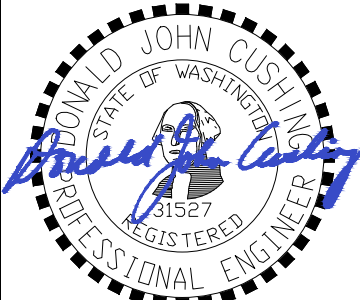
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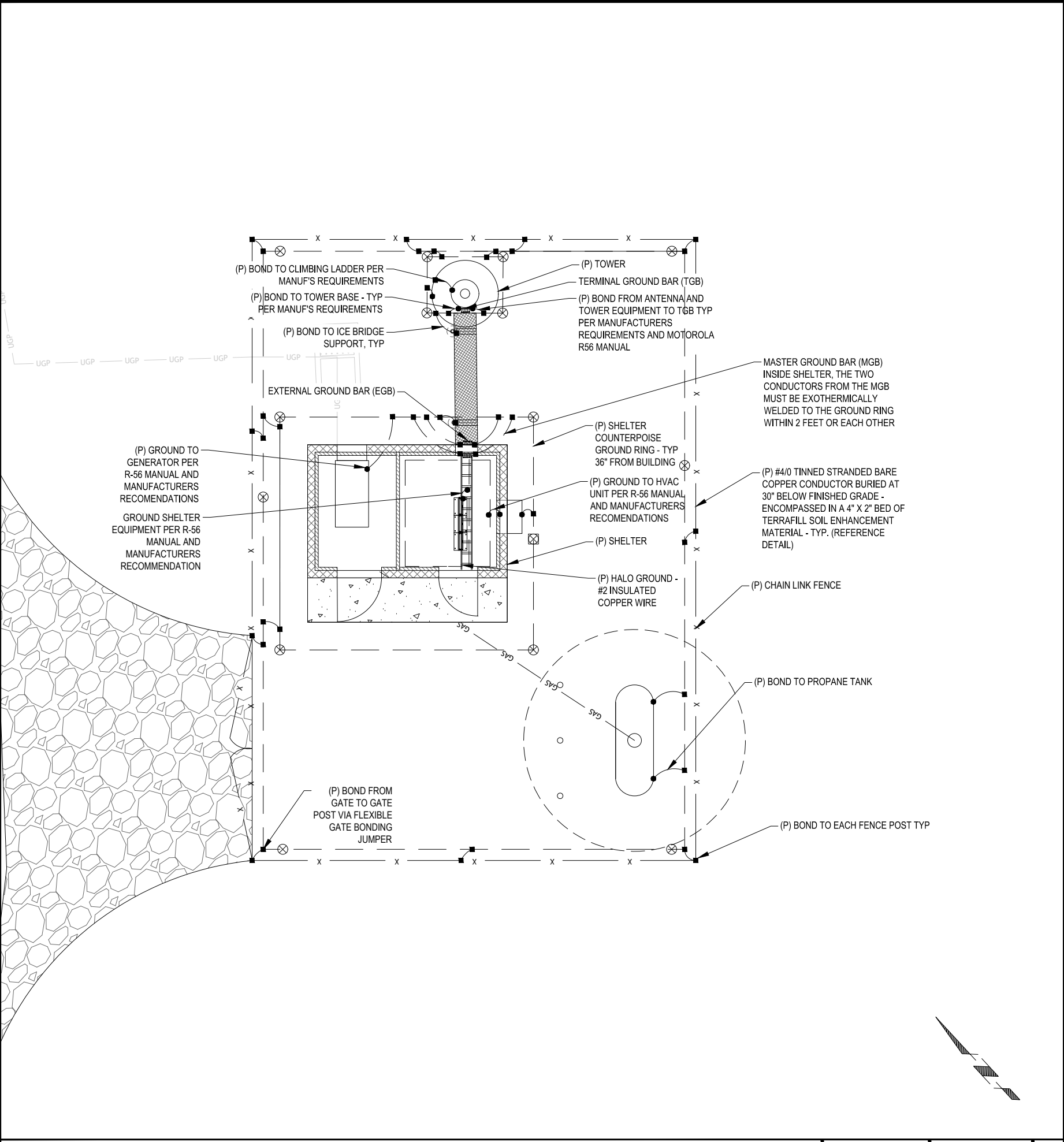
RENEWAL DATE 10/31/21

SHEET TITLE

SITE UTILITY PLAN

SHEET NUMBER

E-1



SITE GROUNDING PLAN

11X17 SCALE: 1" = #

22X34 SCALE: 1" = #

BASED ON PROVIDED SOIL RESISTIVITY TEST DATA DATED 3/14/2019: LEVELS AVG. 23,171 OHM-CM @ 5'	
300'	CONDUCTOR, TINNED (2-T)
1	# OF TERRADYNE GROUND ROD, HORIZONTAL (TG-10L-H36-2T-36-3F-P)
14	# OF 5/8" X 10' COPPER CLAD GROUND ELECTRODE (5001)
24	BAGS OF TERRAFILL SOIL ENHANCEMENT (TF-50) WITH 4" X 2" BED
SOIL RESISTANCE = < 5 OHMS RESISTANCE TO EARTH VALUE	

GROUNDING SUMMARY

1

- ALL INSTALLATIONS ARE TO BE FIELD VERIFIED.
- GROUND CONDUCTORS ARE TO BE BURIED AT A MINIMUM 30" BELOW GRADE OR 6" BELOW FREEZE LINE, WHICHEVER IS GREATER.
- ALL BELOW GRADE GROUNDING CONDUCTORS ARE TO BE ENCOMPASSED IN A 2" X 4" BED OF TERRAFILL SOIL ENHANCEMENT MATERIAL.
- BONDS TO FENCE POSTS ARE TO BE MADE AT 12" ABOVE GRADE WHERE APPLICABLE.
- NO CONDUCTOR SHALL HAVE A BEND IN RADIUS OF LESS THAN 12" AND SHALL NOT EXCEED 90 DEGREES.
- TERRADYNE ELECTROLYTIC GROUND ELECTRODES ARE NOT TO SHARE THE SAME TRENCH AS GROUNDING CONDUCTOR, NOR RUN IN A PARALLEL PATH TO THE CONDUCTOR.
- ALL GROUND SYSTEMS ARE TO BE MADE COMMON.
- ALL BONDS ARE TO BE COATED WITH ANTI-OXIDATION COMPOUND.
- WHERE STANDARD GROUND ELECTRODES ARE UNABLE TO BE DRIVEN, THE FOLLOWING ALTERNATIVES SHALL BE USED IN ORDER OF PRIORITY
 - GROUND ROD SPECIAL CASE INSTALLION, PER DETAILS SHOWN ON SHEET E-2, SECTION 2
 - TERRADYNE ELECTROLYTIC GROUND ELECTRODE, PER DETAILS SHOWN ON SHEET E-3, SECTION 2
 - 12" X 12" X 1/8" COPPER GROUND PLATES SHALL BE INSTALLED 30" BELOW FINISHED GRADE & ENCOMPASSED IN 50LBS OF TERRAFILL SOIL ENHANCEMENT MATERIAL.
- ALL CONNECTIONS SHALL BE EXOTHERMICLY WELDED.

GENERAL NOTES

2

LEGEND:

- TERRADYNE TG-10L-H36-2T-36-4F-P SERIES ELECTRODE W/ INSPECTION WELL
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- 5/8" x 10' COPPER CLAD GROUND ELECTRODE
- 5/8" x 10' COPPER CLAD GROUND ELECTRODE W/ INSPECTION SLEEVE
- #2 TINNED SOLID COPPER CONDUCTOR



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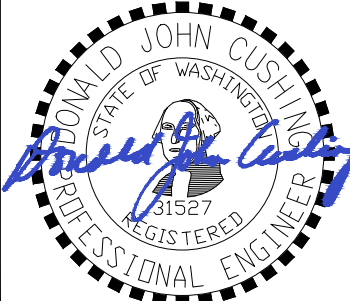
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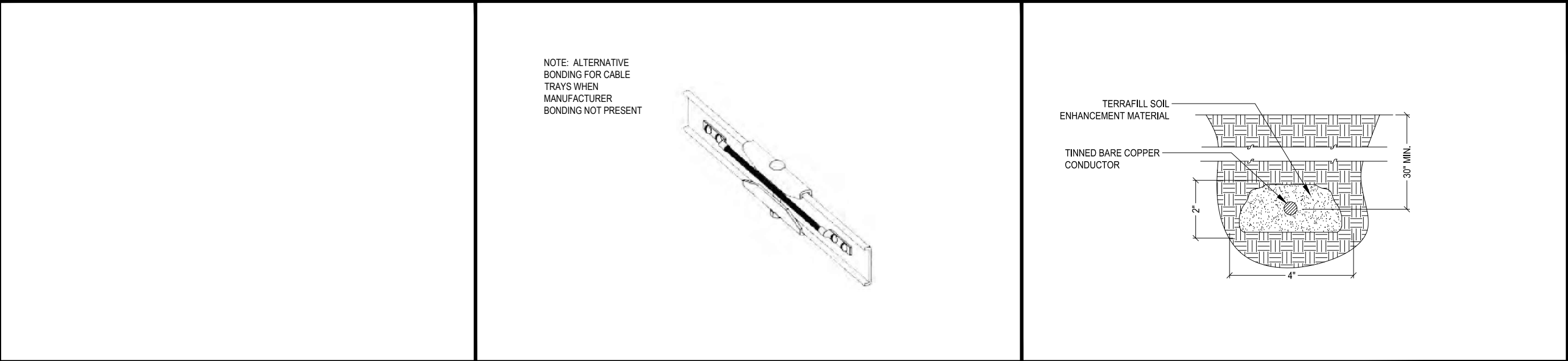


RENEWAL DATE 10/31/21

SHEET TITLE

GROUNDING
SITE PLAN

SHEET NUMBER



NOT USED

SCALE: NTS

1

CABLE TRAY BONDING CONDUCTOR

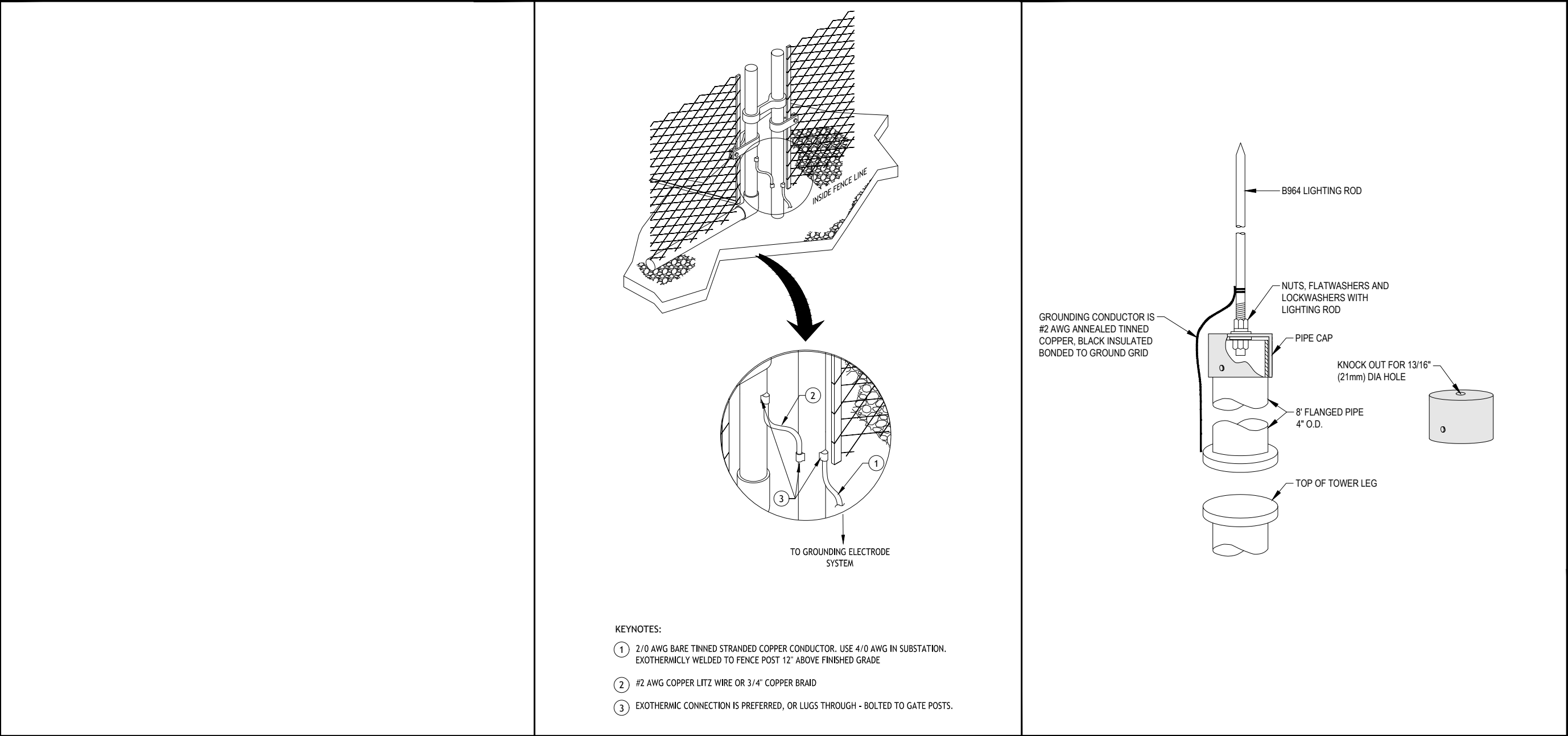
SCALE: NTS

2

SOIL ENHANCEMENT DETAIL

SCALE: NTS

3



NOT USED

SCALE: NTS

4

FENCE POST AND GATE BONDING

SCALE: NTS

5

LIGHTING ROD DETAIL

SCALE: NTS

6



LEWIS COUNTY
— est. 1843 —

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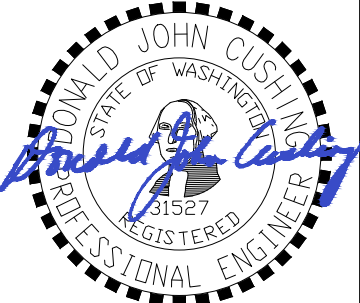
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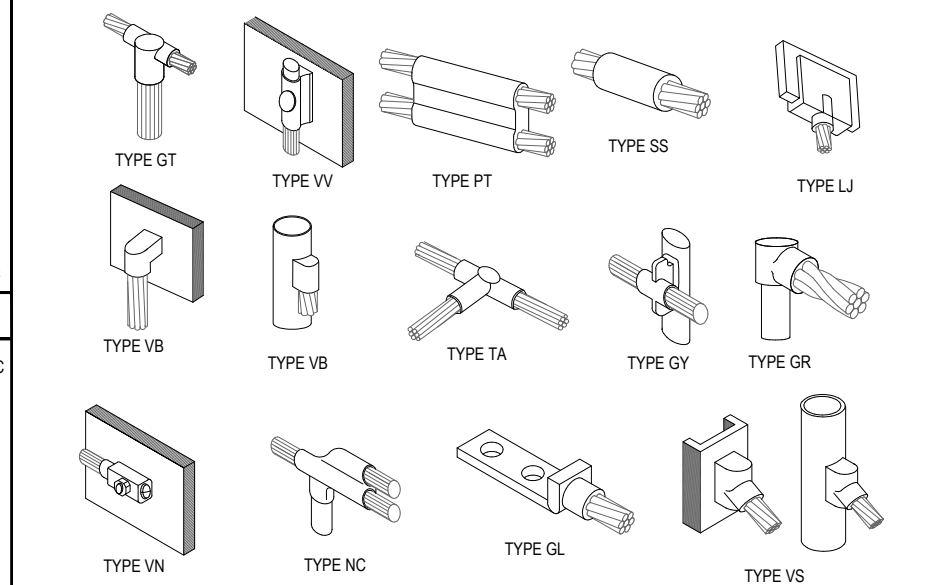
RENEWAL DATE 10/31/21

SHEET TITLE

EXTERIOR
GROUNDING
DETAILS I

SHEET NUMBER

E-3

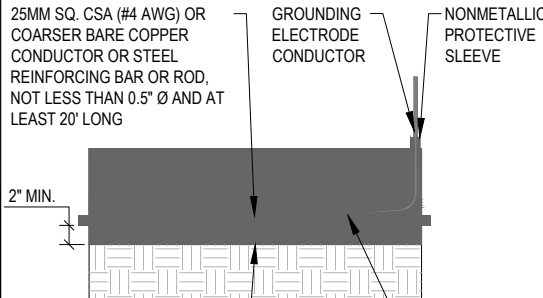


SCALE: NTS | 2

25MM SQ. CSA (#4 AWG) OR COARSER BARE COPPER CONDUCTOR OR STEEL REINFORCING BAR OR ROD, NOT LESS THAN 0.5" Ø AND AT LEAST 20' LONG

GROUNDING ELECTRODE CONDUCTOR

NONMETALLIC PROTECTIVE SLEEVE



SCALE: NTS | 3

NOTE: FOR REFERENCE ONLY

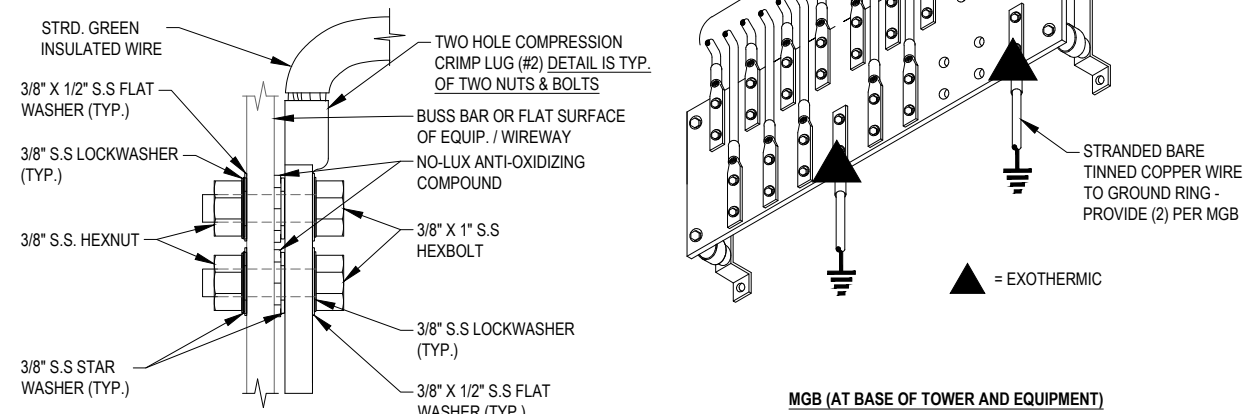
SCALE: NTS | 4

SCALE: NTS | 5

NOTES

1. TYP. FOR ALL GROUND WIRES FOR ELECT. AND OTHER EQUIPMENT.
2. THE ENTIRE LUG AND AREA TO BE SPRAYED WITH CLEAR LAQUER OR COLD GALVINIZING SPRAY
3. GROUND LEADS TO BE EXOTHERMIC WELDED TO GROUND RING.

GENERAL NOTES
ALL ANTENNAS, LINES AND RELATED
INSTALLATION HARDWARE TO BE
PROVIDED BY THE LAND MOBILE
COMMUNICATIONS PROVIDER.



SCALE: NTS | 1

SCALE: NTS | 6

