T-Mobile®

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SITE NUMBER: SF04141A - ANCHOR
SITE NAME: PALO ALTO HOLE
SITE TYPE: ROOFTOP

CITY: PALO ALTO
COUNTY: SAN MATEO
JURISDICTION: CITY OF PALO ALTO

CONSTRUCTION DRAWING

IF USING 11"X17" PLOT, DRAWINGS WILL BE HALF SCALE

PROJECT SUMMARY:

APPLICANT:

T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

PROPERTY OWNER:

ADDRESS: 240 WALTER HAYS DR.
PALO ALTO, CA 94303
CONTACT: JOHN M. AND ANNE D. ACKERMAN TRUST

PHONE: ----

SITE ADDRESS:

2666 E BAYSHORE RD
PALO ALTO, CA 94303

PROJECT DESCRIPTION:

- REMOVE (3) EXISTING TRX RADIOS AT ANTENNA EQUIPMENT RACK (1 PER SECTOR)
- REMOVE (12) EXISTING RUS01 RADIOS AT EQUIPMENT
- REMOVE (1) EXISTING DEAD 2106 EQUIPMENT CABINET
- INSTALL (3) NEW AIR6449 B41 (ACTIVE ANTENNA - MASSIVE MIMO) ANTENNAS (1 PER SECTOR)
- INSTALL NEW ANTENNA MOUNTING POLE WITH RF SHROUD AND (2) KICKBACK ROOF ATTACHMENTS
- INSTALL (3) NEW 4424 B25 RADIOS ON EXISTING ANTENNA EQUIPMENT RACK (1 PER SECTOR)
- INSTALL (3) NEW 4415 B66A RADIOS ON EXISTING ANTENNA EQUIPMENT RACK (1 PER SECTOR)
- INSTALL NEW B160 BATTERY CABINET
- INSTALL NEW E6160 EQUIPMENT CABINET WITH NEW BASEBAND SUBMODULES WITHIN: -- (1) BB6630, (1) BB648, (1) IXRE, (1) PSU4813
- INSTALL NEW HYBRID CABLING SYSTEM
- INSTALL (6) NEW COMMSCOPE SDX1926T-43 DIPLEXERS (2 PER SECTOR)

APN	008-03-076
ZONING:	ROLM (E)(D)(AD)
CONSTRUCTION TYPE:	V
STORIES:	2
OCCUPANCY:	U / R-2
SPRINKLED:	NO
LATITUDE:	37° 26' 42.07" N (37.445019°)
LONGITUDE:	122° 07' 04.99" W (-122.118053°)
GROUND ELEVATION:	± 9' AMSL

CONSULTING TEAM:

PROJECT MANAGER:
SURESITE CONSULTING GROUP, LLC
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122
CONTACT: MICHELLE PARAMO
PHONE: (949) 690-0998
EMAIL: m.paramo@sure-site.com

PROJECT A&E:
SURESITE CONSULTING GROUP, LLC
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122
CONTACT: ZACHARY NESGODA
EMAIL: z.nesgoda@sure-site.com

SITE ACQUISITION:
SURESITE CONSULTING GROUP, LLC
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122
CONTACT: TRICIA ALEXANDER
EMAIL: T.ALEXANDER@SURE-SITE.COM

T-MOBILE PROJECT MANAGER
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520
CONTACT: STEVEN BRETON
PHONE: (925) 202-7083
EMAIL: Steven.Breton@T-Mobile.com

T-MOBILE RF ENGINEER:
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520
CONTACT: TBD
PHONE: TBD
EMAIL: TBD

T-MOBILE CONSTRUCTION MANAGER:
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520
CONTACT: AARON AKBARI
PHONE:
EMAIL: Aaron.Akbari@sprint.com

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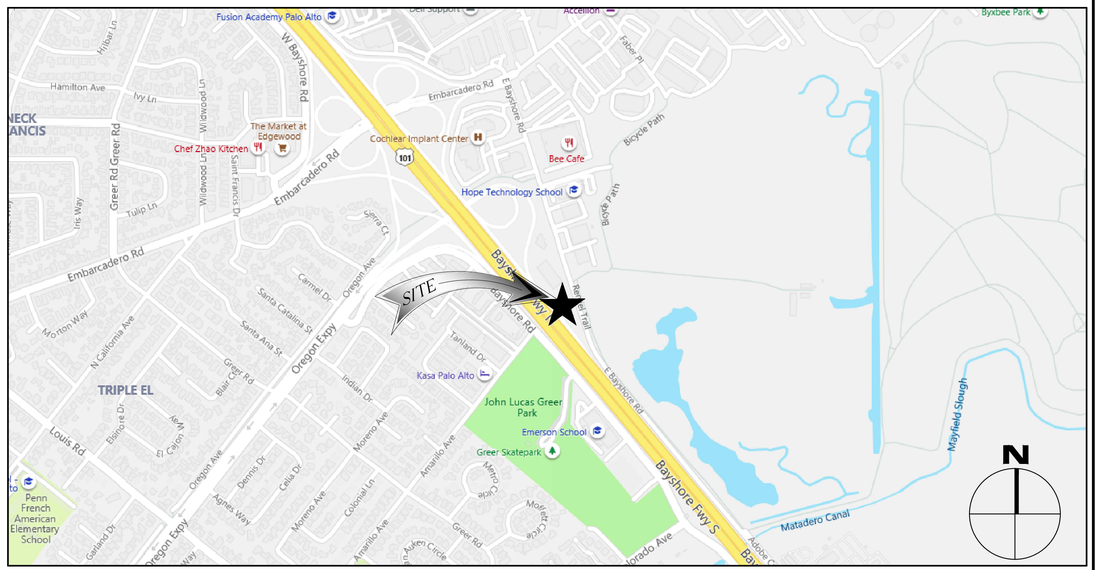

APPROVALS:

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

	PRINT NAME	SIGNATURE	DATE
LANDLORD			
ZONING REP.			
DEVELOP. MGR			
CONST. MGR			
PROJECT MGR			
ZONING MGR.			
RF ENGINEER			
OPERATIONS			
SAC REP.			

DIRECTIONS FROM CONCORD T–MOBILE OFFICE:

HEAD EAST ON GATEWAY BLVD TOWARD CLAYTON RD.
TURN RIGHT ONTO CLAYTON RD.
TAKE RAMP FOR CA-242 S.
TAKE RAMP FOR I-680 S.
AT EXIT 12 TAKE RAMP RIGHT FOR MISSION BLVD W.
TAKE RAMP LEFT FOR I-880 S.
TAKE RAMP LEFT FOR CA-237 W.
AT EXIT 3A TAKE RAMP RIGHT FOR US-101 N.
AT EXIT 402 TAKE RAMP RIGHT FOR EMBARCADERO RD E.
TURN LEFT ONTO E BAYSHORE RD.
DESTINATION WILL BE ON THE RIGHT.

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811
AT LEAST TWO WORKING DAYS BEFORE YOU DIG
USA NORTH UNDERGROUND SERVICE ALERT SERVING CALIFORNIA AND NEVADA

THE UTILITIES SHOWN HEREIN ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL THE UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO THE (E) UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

APPLICABLE CODES

1. 2019 CALIFORNIA ADMINISTRATIVE CODE.
2. 2019 CALIFORNIA BUILDING CODE (CBC).
3. 2019 CALIFORNIA ELECTRICAL CODE (CEC).
4. 2019 CALIFORNIA ENERGY CODE.
5. 2019 CALIFORNIA MECHANICAL CODE (CMC).
6. 2019 CALIFORNIA PLUMBING CODE (CPC).
7. ANSI/TIA-222-G LIFE SAFETY CODE NFPA-101
8. LOCAL BUILDING CODE.
9. 2019 CALIFORNIA FIRE CODE. (CFC)
10. 2019 CALIFORNIA GREEN BUILDING CODE

ANSI/TIA-222-G OR LATEST EDITION CURRENT LOCAL CODES AND AMENDMENTS IN THE EVENT OF CONFLICT, THE MOST RESTRICTIVE CODE SHALL PREVAIL.

PROPRIETARY INFORMATION

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

T-Mobile
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
A	10/16/20	ISSUED FOR 90% CD REVIEW	SC
0	11/12/20	100% CD	SC
1	01/04/21	RADOME UPDATE	JAF
2	01/07/21	CITY COMMENTS	RGL
3	09/29/21	CITY COMMENTS	RGL

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO HOLE
SF04141A
2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MAHNEY
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

ABBREVIATIONS

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

SYMBOLS:

SECTION NUMBER / SHEET NUMBER — BUILDING SECTION REFERENCE

DETAIL NUMBER / SHEET NUMBER — DETAIL REFERENCE

SECTION NUMBER / SHEET NUMBER — DETAIL SECTION REFERENCE

DETAIL NUMBER / SHEET NUMBER — EXTERIOR ELEVATION REFERENCE

KEY NOTE REFERENCE

DOOR NUMBER

AREA AND/OR ROOM NUMBER

MECHANICAL UNIT

PROPERTY LINE

FENCING

ELECTRICAL SERVICE

TELCO SERVICE

ELECTRICAL/TELCO SERVICE

GENERAL

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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AT LEAST TWO WORKING DAYS BEFORE YOU DIG

GENERAL (CONTINUED)

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

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

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

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

SITE PREPARATION NOTES:

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

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

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

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

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

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

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

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

SUBMITTALS

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

SHOP DRAWING REVIEW

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

FIRE DEPARTMENT NOTES

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

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

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

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

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

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

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

FLASHING AND SHEET METAL

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

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

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

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

PAINTING

1. THE CONTRACTOR SHALL PREPARE SURFACES, FURNISH ALL PAINT, MATERIAL, LABOR AND EQUIPMENT FOR THE PAINTING OF ALL SURFACES AS REQUIRED.

2. ALL PAINTS TO BE APPLIED IN WORKMANLIKE MANNER. AT COMPLETION, REMOVE ALL MATERIALS AND DEBRIS CAUSED BY THIS CONTRACTOR. ALL FLOORS, GLASS, HARDWARE, FRAMES, FIXTURES, ETC SHALL BE THOROUGHLY CLEANED OF PAINT.

3. ALL STEEL COLUMNS AND MISC. METALS SHALL BE PRIMED AND PAINTED.

4. FIRE PREVENTION: TAKE EVERY PRECAUTION AT THE END OF THE DAY TO REMOVE OILY RAGS AND COMBUSTIBLE MATERIALS FROM THE SITE OR STORE IN METAL CONTAINER WITH TIGHT COVERS.

5. FINAL TEXTURE & COLOR PER OWNER'S INSTRUCTIONS.

6. SHOP PAINTING: CONFORM TO AISC SPECIFICATION SEC M2 AND AISC CODE SEC. 6.5. DO NOT PRIME SURFACES TO BE FIREPROOFED, IN CONTACT WITH CONCRETE, OR FIELD WELDED. STEEL WORK TO BE CONCEALED BY INTERIOR BUILDING FINISHES OR IN CONTACT WITH CONCRETE DOES NOT REQUIRE PAINTING. ALL OTHER STEEL WORK SHALL BE GIVEN ONE COAT OF SHOP PAINT.

7. ALL VISIBLE ANTENNAS, ANTENNA SUPPORT STRUCTURES, CABLE TRAYS, EQUIPMENT MUST BE PAINTED TO BLEND WITH SURROUNDING ELEMENTS - U.N.O

THERMAL & MOISTURE PROTECTION INSULATION

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

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

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

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

ACCESSIBILITY NOTE

THE TELECOMMUNICATIONS EQUIPMENT SPACE SHOWN ON THESE PLANS IS NOT CUSTOMARILY OCCUPIED. WORK TO BE PERFORMED IN THIS FACILITY CANNOT REASONABLY BE PERFORMED BY PERSONS WITH A SEVERE IMPAIRMENT: MOBILITY, SIGHT, AND/OR HEARING. THEREFORE, PER 2016 CALIFORNIA BUILDING CODE SECTION 11B-203.5, EXCEPTION 1, THIS FACILITY SHALL BE EXEMPTED FROM ALL TITLE 24 ACCESS REQUIREMENTS.

T-Mobile
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
A	10/16/20	ISSUED FOR 90% CD REVIEW	SC
0	11/12/20	100% CD	SC
1	01/04/21	RADOME UPDATE	JAF
2	01/07/21	CITY COMMENTS	RGL
3	09/29/21	CITY COMMENTS	RGL

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO TO HOLE
SF04141A
2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MORRIS
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

GENERAL NOTES AND SPECIFICATIONS

SHEET NUMBER

T-2

FRAMING

1. ALL LUMBER SHALL BE GRADE MARKED DOUGLAS FIR-LARCH AND SHALL HAVE THE FOLLOWING MINIMUM GRADES:

JOISTS AND RAFTERS	#1
BEAMS AND STRINGERS	#1
PLATES	#2
STUDS (2X4, 3X4, 2X6)	#1
POSTS, COLUMNS AND TIMBER	#1

2. ALL FRAMING EXPOSED TO THE WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS. WHERE POSSIBLE, ALL CUTS AND HOLES SHOULD BE COMPLETED BEFORE TREATMENT. CUTS AND HOLES DUE TO ON-SITE FABRICATION SHALL BE BRUSHED WITH 2 COATS OF COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2% METALLIC COPPER IN SOLUTION (PER AWPA STD. M4).

3. CUTTING OR NOTCHING OF WOOD STUDS OR PLATES SHALL NOT EXCEED 25% OF THE STUD/PLATE WIDTH AT EXTERIOR OR BEARING WALLS AND SHALL NOT EXCEED 40% OF THE STUD/PLATE WIDTH IN NONBEARING PARTITIONS. BORED HOLE DIAMETERS ARE LIMITED TO 40% OF THE STUD WIDTH IN ANY STUD AND MAY BE 60% IN NONBEARING PARTITIONS OR WHEN THE BORED STUD IS DOUBLED.

4. DO NOT NOTCH JOISTS, RAFTERS, OR BEAMS EXCEPT WHERE SHOWN ON THE DETAILS. BORED HOLES THROUGH JOISTS SHALL NOT EXCEED 1/3 OF MEMBER DEPTH AND BE LOCATED AT LEAST 2" FROM THE TOP AND BOTTOM OF THE MEMBER.

5. ALL BLOCKING AND BRIDGING SHALL BE PROVIDED AS REQUIRED PER GOVERNING CODE OR STANDARD OF PRACTICE.

6. ALL JOIST, RAFTER & MISC. FRAMING SHALL HAVE FULL-DEPTH (OR METAL) BRIDGING AT ALL SUPPORTS, MIDSPAN AND AT A MAXIMUM SPACING OF 8'-0" O/C IN BETWEEN UNLESS NOTED OTHERWISE.

7. PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS THAT ARE PARALLEL TO JOISTS. USE 2-16D NAILS AT 16" O.C. TO NAIL DOUBLE JOISTS TOGETHER.

8. THE CONTRACTOR SHALL CAREFULLY SELECT LUMBER TO BE USED IN LOADBEARING APPLICATIONS. THE LENGTH OF SPLIT ON THE WIDE FACE OF 2" NOMINAL LOADBEARING FRAMING SHALL BE LIMITED TO LESS THAN 1/2 OF THE WIDE FACE DIMENSION. THE LENGTH OF SPLIT ON THE WIDE FACE OF 3" (NOMINAL) AND THICKER LUMBER SHALL BE LIMITED TO 1/2 OF THE NARROW FACE DIMENSION.

9. BOLT HOLES SHALL BE CAREFULLY CENTERED AND DRILLED NOT MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. PROVIDE WASHERS BETWEEN BOLT HEADS OR NUTS AND WOOD. BOLTED CONNECTIONS SHALL BE SNUGGED TIGHT BUT NOT TO THE EXTENT OF CRUSHING WOOD UNDER WASHERS.

10. ALL BOLTS SHALL BE RE-TIGHTENED PRIOR TO APPLICATION OF PLASTER, PLYWOOD, ETC. AND BEFORE CLOSING IN COMPLETION OF THE JOB.

11. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY "SIMPSON STRONG-TIE COMPANY" OR APPROVED EQUAL. INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS. ALL STEEL SHALL HAVE A MINIMUM THICKNESS OF 0.04 INCHES (PER ASTM A446, GRADE A) AND BE GALVANIZED (COATING G60).

12. STRUCTURAL STEEL PLATE CONNECTORS SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND BE 1/4" THICK UNLESS OTHERWISE INDICATED.

13. ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS, AND OTHER MISCELLANEOUS HARDWARE THAT ARE EXPOSED OR IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED.

14. BOLTS IN WOOD SHALL BE A MINIMUM OF 7 BOLT DIAMETERS FROM THE ENDS AND 4 BOLT DIAMETERS FROM THE EDGES.

15. ALL SILL BOLTS SHALL BE PLACED STARTING 9" FROM THE ENDS OF A BOARD OR FROM A NOTCH AND SPACED AT INTERVALS AS NOTED ON THE PLANS.

16. ALL SILL PLATE ANCHOR BOLTS AND HOLD-DOWN CONNECTOR BOLTS AT ALL PLYWOOD SHEAR PANELS SHALL HAVE THE FOLLOWING PLATE WASHERS.

BOLT SIZE	PLATE WASHER SIZE (ASTM A-36)
5/8"	0.229" X 3" X 3"
3/4"	5/16" X 3" X 3"
7/8"	5/16" X 3" X 3"
1"	3/8" X 3-1/2" X 3-1/2"

17. TOP PLATES FOR ALL STUD WALLS SHALL BE 2-2X. MINIMUM TOP PLATE LAP SHALL BE 48" WITH 16d NAILS AT 4" O.C. EACH SIDE OF SPLICE U.N.O. SPLICES IN UPPER AND LOWER PLATES SHALL BE STAGGERED 10' MINIMUM.

18. ALL WOOD STUD WALLS SHALL HAVE 2X4 STUDS AT 16" O.C. WHEN HEIGHT BETWEEN LATERAL SUPPORTS IS LESS THAN 10'-0". WHEN HEIGHT BETWEEN LATERAL SUPPORTS MORE THAN 10'-0", USE 2X6 STUDS AT 16" O.C. WITH FULL DEPTH BLOCKING AT NOT MORE THAN 8' VERTICAL INTERVAL.

19. ALL NAILS SHALL BE COMMON WIRE NAILS U.N.O. SEE FRAMING PLANS OR DETAILS FOR NAIL SIZES AND SPACING. NAILS THAT ARE NOT DETAILED OR NOTED SHALL BE IN ACCORDANCE WITH IBC TABLE 2304.9.1. FASTENING SCHEDULE. HOLES FOR NAILS SHALL BE PREDRILLED AT A SMALLER DIAMETER THAN THE NAIL WHERE NECESSARY TO PREVENT SPLITTING.

20. LAG BOLTS SHALL HAVE LEAD HOLES BORED AS FOLLOWS:

SHANK PORTION	SAME DIAMETER AND LENGTH AS SHANK
THREADED PORTION	0.6-0.75 OF DIAMETER OF THREAD

PLYWOOD SHEATHING NOTES

1. ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH (APA) AMERICAN PLYWOOD ASSOCIATION SPECIFICATIONS AND COMPLY WITH PS1-07 OR PS2-04.

2. ALL ROOF PANEL SHEATHING SHALL BE 5/8" (NOM.) TYPE CDX. EXP. 1 APA RATED SHEATHING. SUITABLE EDGE SUPPORT SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING. CONNECT ROOF SHEATHING WITH 8d COMMON NAILS AT 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS U.N.O.

3. ALL WALL PANEL SHEATHING SHALL BE 1/2" (NOM.) TYPE CDX. EXP. 1 APA RATED SHEATHING ATTACHED WITH 10d COMMON NAILS SPACED 6" O/C AT SUPPORTED PANEL EDGES AND 12" O/C AT INTERMEDIATE SUPPORTS U.N.O.

4. INSTALL ALL PLYWOOD SHEATHING WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS. ALLOW 1/8" SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.

5. ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF STAPLES AND PNEUMATIC NAIL GUNS ARE PROHIBITED FROM USE.

6. ALL EXTERIOR EXPOSED PLYWOOD SHALL BE MARINE GRADE.

FIRE RESISTANCE REQUIREMENTS

1. CONTRACTOR TO PROVIDE FLAME STOP I-DS (OR OTHER APPROVED METHOD OF FIRE PREVENTION) TO TOWER, BRANCHES, AND/ OR OTHER COMBUSTIBLE MATERIALS AS OUTLINED IN SECTIONS 602 & 603 OF 2016 CBC.

MASONRY

1. ALL MASONRY SHALL HAVE MINIMUM COMPRESSIVE STRENGTH f'm OF 1,500 PSI.

2. MASONRY UNITS SHALL BE NORMAL WEIGHT BLOCK CONFORMING TO ASTM C90, GRADE N, TYPE 1, AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 1900 PSI. CONCRETE MASONRY UNITS MUST BE TESTED IN ACCORDANCE WITH ASTM C140.

3. MORTAR SHALL BE MACHINE MIXED CONFORMING TO ASTM C270, TYPE S. MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MIXED AND SHALL BE PROPORTIONED PER BUILDING CODE TABLE 2103.8(1) AND 2103.8(2).

4. GROUT SHALL CONFORM TO ASTM C476 AND BE PROPORTIONED PER BUILDING CODE TABLE 2103.12. MINIMUM GROUT COMPRESSIVE STRENGTH SHALL EQUAL OR EXCEED THE GREATER OF 2,000 PSI OR THE REQUIRED f'm.

5. REINF'G BARS SHALL CONFORM TO ASTM A706 OR ASTM A615, GRADE 60 U.N.O.

6. CONTINUOUS WIRE REINFORCING (JOINT REINFORCING) SHALL BE GALVANIZED TRUSS OR LADDER TYPE FORMED FROM 9 GAUGE COLD-DRAWN STEEL WIRE COMPLYING WITH ASTM A82.

7. ALL MASONRY BLOCKS SHALL CONFORM WITH EACH OTHER IN COLOR, TEXTURE AND SIZE WHERE APPLICABLE. BLOCK SIZE, COLOR, TYPE AND TEXTURE SHALL BE AS INDICATED ON THE DRAWINGS. PROVIDE ACCESSORY BLOCKS AS INDICATED AND REQUIRED. WHERE CUTTING IS REQUIRED, BLOCKS SHALL BE SAWCUT.

8. COURSING SHALL BE COMMON RUNNING BOND (UNLESS NOTED OTHERWISE), WITH 3/8" GROUT JOINT. JOINTS SHALL BE TOOLED CONCAVE AND BE UNIFORM IN SIZE. USE CARE TO PREVENT MORTAR AND GROUT SPILLAGE ON THE FACE OF THE MASONRY. CLEAN SUCH SPILLAGE IMMEDIATELY. REPAIR ANY DAMAGE OR INTERSTICES BETWEEN BLOCKS AND REMOVE STAINS AT THE COMPLETION OF WORK.

9. TIE INTERSECTING WALLS BY OVERLAPPING UNITS IN ALTERNATE COURSES. ROUGHEN AND CLEAN CONCRETE BEARING SURFACES FOR THE PLACEMENT OF THE FIRST COURSE. VERTICAL HEAD JOINTS SHALL BE FILLED SOLID AND SHOVED TIGHTLY TO PROVIDE BOND TO BOTH BLOCKS.

10. AT VERTICAL REINFORCING LOCATIONS, PROVIDE DOWELS FROM FOOTING TO MATCH SIZE AND SPACING OF VERTICAL WALL REINFORCING. DOWELS SHALL BE EMBEDDED INTO THE FOOTING A MINIMUM OF 9" AND SHALL HAVE A 90 DEGREE HOOK. DEEPEN FOOTING WHERE REQUIRED FOR DOWEL. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN 6 VERTICAL.

11. SPLICED BARS (INCLUDING DOWELS) SHALL BE LAPPED 48 BAR DIAMETERS MINIMUM OR 24", WHICHEVER IS GREATER. SPLICED BARS SHALL BE WIRE-TIED.

12. VERTICAL REINFORCING BARS SHALL HAVE A MINIMUM CLEARANCE OF 3/4" FROM THE MASONRY AND NOT LESS THAN ONE DIAMETER BETWEEN BARS.

13. BOND BEAMS WITH A HORIZONTAL BAR OR BARS SHALL BE PROVIDED AT 48 INCHES ON CENTER AND AT ALL FLOOR AND ROOF LINES AND AT THE TOP OF THE WALL. PROVIDE A BOND BEAM WITH A HORIZONTAL BAR OR BARS OVER ALL OPENINGS, AND EXTEND THESE BARS 2'-0' PAST THE OPENING AT EACH SIDE. PROVIDE A BAR OR BARS VERTICALLY FOR THE FULL HEIGHT OF THE WALL AT EACH SIDE OF OPENINGS, WALL ENDS AND INTERSECTIONS. PROVIDE CORNER BARS TO MATCH THE HORIZONTAL WALL REINFORCING AT WALL INTERSECTIONS.

14. REINFORCING STEEL SHALL BE SECURED IN PLACE BEFORE GROUTING BEGINS. VERTICAL BARS SHALL BE HELD IN POSITION AT THE TOP, BOTTOM AND AT INTERVALS NOT EXCEEDING 200 DIAMETERS OF THE REINFORCING BAR, NOR 10 FEET.

15. SEE DRAWINGS FOR LOCATION OF VERTICAL CONTROL JOINTS. HORIZONTAL BOND BEAM AND LINTEL REINFORCING SHALL BE CONTINUOUS ACROSS VERTICAL CONTROL JOINTS.

16. ALL CELLS SHALL BE GROUTED SOLID. GROUTING OF MASONRY BEAMS AND LINTELS SHALL BE DONE IN ONE CONTINUOUS OPERATION. GROUTING SHALL BE STOPPED 1-1/2" BELOW THE TOP OF A COURSE SO AS TO FORM A KEY AT THE POUR JOINT. FILL CELLS WITH GROUT WITH MAXIMUM 4'-0" LIFTS. VERTICAL CELLS SHALL HAVE A VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 3"X4".

17. ALL ISOLATED BOLTS EMBEDDED IN MASONRY SHALL BE GROUTED SOLIDLY IN PLACE WITH NOT LESS THAN 2" OF GROUT SURROUNDING THE BOLT.

18. PROVIDE BOND BEAM LINTELS AND BRICK SHELF ANGLES ABOVE ALL WALL OPENINGS PER DETAILS. SEE THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL OPENINGS.

19. THE MASONRY CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY WALL BRACING DURING CONSTRUCTION

20. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANULAR BACKFILL. FULL HEIGHT OF WALL. PROVIDE CONTROL JOINTS IN RETAINING WALLS AT APPROXIMATELY EQUAL INTERVALS NOT TO EXCEED 25 FEET NOR 3 TIMES THE WALL HEIGHT. PROVIDE EXPANSION JOINTS AT EVERY FOURTH CONTROL JOINT, UNLESS OTHERWISE INDICATED. SEAL RETAINING FACE OF WALL AND FOOTING WITH 2 COATS OF HENRY'S 502 ASPHALTIC MASTIC. PROVIDE CONTINUOUS INSPECTION.

FOUNDATIONS - GENERAL

1. BOTTOM OF EXTERIOR FOOTINGS SHALL BEAR A MINIMUM OF 18" BELOW FINAL GRADE AND BEAR ON FIRM NATIVE OR PROPERLY COMPACTED SOILS.

2. FOOTINGS MAY BE POURED INTO AN EARTH-FORMED TRENCH IF SOIL CONDITIONS PERMIT.

3. ALL BEARING MATERIAL SHALL BE INSPECTED BY THE INDEPENDENT TESTING AGENCY PRIOR TO CONCRETE PLACEMENT. THE INDEPENDENT TESTING AGENCY SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL. FOOTING ELEVATIONS SHALL BE ADJUSTED AS REQUIRED.

4. FOUNDATION CONCRETE SHALL HAVE REACHED A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI BEFORE BEING LOADED. STRENGTHS SHALL BE VERIFIED BY TEST.

5. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL THE SLABS AT TOP AND BOTTOM ARE IN PLACE AND CURED AS REQUIRED.

6. WHERE WALLS ARE TO HAVE EARTH PLACED ON EACH SIDE, SIMULTANEOUSLY PLACE FILL SO AS TO MAINTAIN A COMMON ELEVATION ON EACH SIDE OF WALL.

7. CONTRACTOR SHALL PROVIDE ALL SHORING AS REQUIRED.

8. ALL RETAINING WALLS SHALL HAVE AT LEAST 12" OF FREE-DRAINING GRANULAR BACKFILL FULL HEIGHT OF WALL. SEAL RETAINING FACE OF WALL AND FOOTING WITH 2 COATS OF HENRY'S 502 ASPHALTIC MASTIC. PROVIDE CONTINUOUS INSPECTION.

9. CONTRACTOR SHALL PROVIDE TEMPORARY AND PERMANENT DEWATERING FOR SURFACE WATER, GROUND WATER AND SEEPAGE WATER AS REQUIRED.

10. CONTRACTOR SHALL PROTECT ALL UTILITY LINES, ETC ENCOUNTERED DURING EXCAVATIONS AND BACKFILLING. ALL BACKFILL SHALL BE PROPERLY COMPACTED.

11. ALL FOOTINGS HAVE BEEN DESIGNED BASED UPON AN ASSUMED SOIL BEARING PRESSURE OF 1,000 PSF UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST REVISED EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION, WHICH INCLUDES SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, CODE OF STANDARD PRACTICE AND AWS STRUCTURAL WELDING CODE. IDENTIFY AND MARK STEEL PER CBC 2203.

2. STRUCTURAL STEEL SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER/ ARCHITECT PRIOR TO FABRICATION.

3. GROUTING OF COLUMN BASE PLATES: BASE PLATES SHALL BE DRYPACKED OR GROUTED WITH NON-SHRINK, NON-FERROUS GROUT. MINIMUM COMPRESSIVE STRENGTH SHALL BE 4,000 PSI AT 28 DAYS. ALL SURFACES SHALL BE PROPERLY CLEANED OF FOREIGN MATERIAL PRIOR TO GROUTING.

4. ALL EXPOSED WELDS SHALL BE FILLED AND GROUND SMOOTH WHERE METAL COULD COME IN CONTACT WITH THE PUBLIC.

5. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THRU STRUCTURAL STEEL MEMBERS. BOLT HOLES SHALL CONFORM TO AISC SPECIFICATION, AND SHALL BE STANDARD HOLES UNLESS OTHERWISE NOTED. NO CUTTING OR BURNING OF STRUCTURAL STEEL WILL BE PERMITTED WITHOUT PRIOR CONSENT OF THIS ENGINEER. HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE IS NOT PERMITTED.

6. WELDING: CONFORM TO AWS D1.1. WELDERS SHALL BE CERTIFIED

7. BOLTING: ASTM A307 BOLTS SHALL BE INSTALLED "SNUG TIGHT" PER AISC SECTION RCSC 8(C), ASTM A325 BOLTS SHALL CONFORM TO RCSC SECTION 8 (D).

8. FABRICATION: CONFORM TO AISC SPECIFICATION SEC M2 "FABRICATION" AND AISC CODE SEC 6 "FABRICATION AND DELIVERY" PERFORM WORK ON PREMISES OF A FABRICATOR APPROVED BY THE BUILDING OFFICIAL.

9. GALVANIZING: ALL EXPOSED STEEL OUTSIDE THE BUILDING ENVELOPE SHALL BE HOT-DIPPED GALVANIZED. APPLY FIELD TOUCH-UPS PER ASTM A153.

10. ALL FRAMING CONNECTORS SUCH AS CONCRETE ANCHORS, HOLD-DOWNS, POST BASES, FRAMING CAPS, HANGER AND OTHER MISCELLANEOUS STRUCTURAL METALS SHALL BE AS MANUFACTURED BY SIMPSON STRONG TIE CO. OR APPROVED EQUAL.

11. ALL STRUCTURAL STEEL EXPOSED TO EARTH SHALL HAVE 3" CONCRETE COVER.

12. MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

ANCHOR BOLTS/ RODS:	ASTM F1554, GRADE 36
BARS & PLATES:	ASTM A36
BOLTS IN WOOD:	ASTM A307
BOLTS - HIGH STRENGTH:	ASTM A325SC OR A325N
C-, M-, AND ANGLE SHAPES:	ASTM A36
DEFORMED WELDED WIRE FABRIC:	ASTM A497
GROUT:	EMBECO OR EQUIVALENT
OTHER STRUCTURAL SHAPES:	ASTM A36
REINFORCING BARS (WELDED):	ASTM A706. GRADE 60, DEFORMED BARS
REINFORCING BARS (REGULAR):	ASTM A615, GRADE 60, DEFORMED BARS
SMOOTH WELDED WIRE FABRIC:	ASTM A185
STEEL GRATING:	ANSI/NAAMM MBG 531-00
STEEL PIPE:	ASTM A53, GRADE B
TIE WIRE:	16.5 GAGE OR HEAVIER, BLACK ANNEALED
TUBE STEEL & PIPE COLUMNS:	ASTM A500, GRADE B
W - SHAPES:	ASTM A992, GRADE 50
WELDING ELECTRODES:	E70XX FOR STRUCTURAL STEEL E80XX FOR REINFORCING BARS E60XX FOR LIGHT GAUGE AND METAL DECK

EPOXY AND EXPANSION ANCHORS

1. EPOXY OR EXPANSION ANCHORS SHALL NOT BE USED EXCEPT WHERE SPECIFICALLY SHOWN ON THE PLANS OR WHEN APPROVED IN ADVANCE BY THE STRUCTURAL ENGINEER.

2. DRILLED HOLES SHALL BE PREPARED AND ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE CURRENT ICC REPORT.

3. SPECIAL INSPECTION SHALL BE DONE IN ACCORDANCE WITH BUILDING CODE AND THE SPECIFIC INSPECTION REQUIREMENTS SET FORTH IN THE CURRENT ICC REPORT.

4. ANCHOR RODS USED FOR EPOXY ANCHORS SHALL BE THE TYPE SPECIFIED IN THE REFERENCED ICC REPORT.

5. THE ANCHOR SIZE AND EMBEDMENT SHALL BE AS INDICATED ON THE PLANS.

6. WHERE PERMITTED, EPOXY ANCHORING SHALL BE COMPLETED WITH THE FOLLOWING ALLOWED PRODUCT(S):
   - HILTI RE-500 SD (ICC# ESR-2322, LARR-25700) - CONCRETE ONLY
   - HILTI HIT-HY 150 (ICC# ER-5193, LARR-25652M) - MASONRY WALL ONLY.
   - HILTI HIT-HY 20 (ICC# ER-4815, LARR-24564) - BRICK WALL ONLY.
   - SIMPSON SET-XP (ICC# ESR-1722, LAR#-25744) CONCRETE ONLY

7. WHERE PERMITTED, THE FOLLOWING EXPANSION ANCHORS MAY BE USED:
   - HILTI KWIK BOLT TZ STAINLESS STEEL (ICC# ESR-1917, LARR-25701) - CONCRETE ONLY.
   - SIMPSON STONG-BOLT (ICC# ESR-1771, LARR-25705) - CONCRETE ONLY.
   - HILTI KWIK BOLT 3 (ICC#ESR-1385, LARR-25577)GROUTFILLED MASONRY ONLY
   - SIMPSON WEDGE-ALL (ICC# ESR-1396, LARR-24682) - GROUT FILLED MASONRY ONLY.

SEISMIC GAS SHUT-OFF VALVE

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

REINFORCING STEEL

1. ALL REINFORCING SHALL BE NEW DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR ASTM A706, GRADE 60. ALL WELDED REINFORCING BARS SHALL CONFORM TO ASTM A706.

2. REINFORCING STEEL SPLICE/DEVELOPMENT LENGTHS SHALL CONFORM TO THE FOLLOWING MINIMUM LENGTHS UNLESS NOTED OTHERWISE: SPLICED BARS SHALL BE WIRED TOGETHER.
   SPLICE/DEVELOPMENT LENGTH (INCHES)

BAR SIZE	TOP BAR	OTHER BAR
#3	28	22
#4	37	29
#5	47	36
#6	56	43
#7	81	63
#8	93	72
#9	105	81
#10	116	89

   TOP BAR LENGTHS APPLY TO HORIZONTAL REINFORCEMENT PLACED WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW THE SPLICE OR DEVELOP LENGTH.
   COMPRESSION DOWEL EMBEDMENT: 22 BAR DIAMETERS.
   LAP WELDED WIRE FABRIC ONE SPACING OF CROSS WIRES PLUS 2".

3. MINIMUM CONCRETE COVER UNLESS NOTED OTHERWISE:

UNFORMED SURFACE IN CONTACT WITH THE GROUND:	3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER	
#6 BARS AND LARGER:	2"
#5 BARS AND SMALLER:	1.5"
FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER	
BEAMS, GIRDERS AND COLUMNS:	1.5"
SLABS, WALLS AND JOISTS	
#11 BARS AND SMALLER:	0.75"

4. BARS SHALL BE CLEAN OF MUD, OIL, OR OTHER COATINGS LIKELY TO IMPAIR BONDING.

5. ALL REINFORCING SHALL BE SECURED IN PLACE PRIOR TO INSPECTIONS, PLACING CONCRETE, OR GROUTING MASONRY.

6. WELDING: BARS SHALL NOT BE WELDED UNLESS AUTHORIZED. WHEN AUTHORIZED, CONFORM TO ACI 301 SEC 3.2, 2.2, AND AWS D1.4 "WELDING" AND PROVIDE ASTM A706, GRADE 60 REINFORCEMENT.

7. FIELD BENDING: CONFORM TO ACI 301 SEC 3.3.2.8 "FIELD BENDING OR STRAIGHTENING". BAR SIZES #3 THROUGH #5 MAY BE FIELD BENT COLD THE FIRST TIME. OTHER BARS REQUIRE PREHEATING. DO NOT TWIST BARS

8. SPLICE ALL BARS IN MASONRY WITH A MINIMUM OF 48 BAR DIAMETER LAPS (2'-0" MINIMUM).

9. ALL VERTICAL WALL REINFORCEMENT SHALL BE CONTINUOUS BETWEEN SPLICE LOCATIONS SHOWN IN THE DETAILS.

CONCRETE

1. MIX DESIGN REQUIREMENTS: (UNLESS NOTED OTHERWISE)
   A. CEMENT SHALL CONFORM TO ASTM C-150, TYPE V.
   B. COMPRESSIVE STRENGTH = 3,000 PSI
   C. CONCRETE SLUMP SHALL BE 3"+/-1" FOR SLABS AND 4"+/-1" FOR ALL OTHER WORK.
   D. WATER CEMENT RATIO = 0.45 MAX
2. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33 (1" MAXIMUM SIZE), AND ASTM C-330 FOR STRUCTURAL LIGHT WEIGHT CONCRETE.
3. WHERE CONCRETE WILL BE IN CONTACT WITH NATIVE OR IMPORTED SOIL WHICH HAS A VERY SEVERE SULFATE CONTENT, POZZOLAN SHALL BE ADDED AS REQUIRED.
4. EXTERIOR CONCRETE EXPOSED TO FREEZING TEMPERATURES AND/OR SALT OR DEICING CHEMICALS SHALL HAVE AIR ENTRAINMENT AND THE CEMENT CONTENT APPROPRIATE FOR THE EXPECTED EXPOSURE.
5. WATER SHALL BE POTABLE OR CLEAN, FREE FROM DELETERIOUS AMOUNTS OF ACIDS, ALKALIS OR ORGANIC MATERIALS, OILS, AND SALTS.
6. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94.
7. FLOOR SLABS SHALL CONFORM TO ASTM C-38 STANDARDS AND SHALL BE AT LEAST 3 1/2 INCHES THICK- SEE FOUNDATION PLANS FOR REINFORCEMENT, BASE, UNDERLAYMENT, VAPOR BARRIER OR OTHER SPECIFIC REQUIREMENTS.
8. FLOOR SLABS SHALL BE LEVEL OR TRUE SLOPES AS SHOWN ON DRAWINGS. TOLERANCE: 1/8 INCH IN 10 FEET.
9. PROVIDE LIGHT BROOM FINISH ON ALL EXPOSED CONCRETE UNLESS NOTED OTHERWISE.
10. PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WORK WITH ANY EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.
11. ALL EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES SHALL BE CHAMFERED 3/4" UNLESS NOTED OTHERWISE.
12. FORMWORK SHALL REMAIN IN PLACE UNTIL CONCRETE HAS OBTAINED AT LEAST 90% OF COMPRESSIVE STRENGTH. THE CONTRACTOR SHALL PROVIDE ALL SHORING AND RESHORING.
13. PROVIDE CONCRETE SLABS OVER A 10 MIL POLYETHYLENE VAPOR BARRIER OVER 4" OF POROUS FILL UNLESS NOTED OTHERWISE.
14. ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR MATERIAL. POROUS FILL SHALL BE COMPACTED TO 90% MAX. DRY DENSITY .
15. WALKWAYS AND OTHER EXTERIOR SLABS ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS. SEE THE SITE PLAN AND ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, ELEVATIONS, JOINTING DETAILS AND FINISH DETAILS. PROVIDE 4" WALKS REINFORCED WITH 6x6 - WI.4xWI.4 WWF UNLESS OTHERWISE NOTED.
16. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO CHAPTER 19 OF THE CBC AND TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS SPECIFIED HEREIN.
17. ALL FOOTINGS SHALL REST ON FIRM NATURAL SOIL OR APPROVED COMPACTED FILL.
18. MONOPOLE CAISSONS ARE DESIGNED BY OTHERS. PROVIDE ADEQUATE SEPARATION AND/OR COMPRESSIBLE MATERIAL AROUND THE TOP OF THE CAISSON AS DIRECTED BY THE CAISSON ENGINEER TO PROTECT ADJACENT NEW AND EXISTING FOUNDATIONS AND OTHER ELEMENTS.
19. CONTROL JOINTS SHALL BE PLACED IN ALL CONCRETE SLABS PER THE SCHEDULE BELOW. SAWCUT WITHIN 4 HOURS AFTER THE POUR USING THE "SOFF-CUT" PROCEDURE.

SLAB THICKNESS	MAXIMUM SPACING
4"	10'-0"
5"	12'-0"
6" AND LARGE	15'-0"

T-Mobile
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
A	10/16/20	ISSUED FOR 90% CD REVIEW	SC
0	11/12/20	100% CD	SC
1	01/04/21	RADOME UPDATE	JAF
2	01/07/21	CITY COMMENTS	RGL
3	09/29/21	CITY COMMENTS	RGL

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO HOLE
SF04141A
2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Exp 09-30-2

STATEMENT OF SPECIAL INSPECTIONS PER THE 2019 CBC

1. THE OWNER OR REGISTERED DESIGN PROFESSIONAL OF RECORD WILL EMPLOY THE SERVICES OF ONE OR MORE SPECIAL INSPECTORS TO PROVIDE SPECIAL INSPECTIONS DURING CONSTRUCTION FOR THE ITEMS IN THE SPECIAL INSPECTION TABLE BELOW.
2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
3. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:
   - A. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS. THE INSPECTOR MAY NOT ALTER, MODIFY, ENLARGE OR WAIVE ANY OF THE REQUIREMENTS OF THE DOCUMENTS.
   - B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE PROFESSIONAL OF RECORD, AND THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, SUBMIT A COMPLETE LIST OF ALL OUTSTANDING DISCREPANCIES ON A WEEKLY BASIS TO THE OWNER, THE BUILDING OFFICIAL, AND THE PROFESSIONAL OF RECORD UNTIL ALL CORRECTIONS HAVE BEEN COMPLETED.
   - C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
4. WHERE SPECIAL INSPECTION REQUIREMENTS DUPLICATE THE REQUIREMENTS OF SPECIFIED QUALITY ASSURANCE TESTING, DUPLICATE INSPECTIONS SHALL NOT BE REQUIRED.
5. OBSERVATIONS OR SITE VISITS PERFORMED BY THE ENGINEER OR ARCHITECT DUE NOT CONSTITUTE SPECIAL INSPECTIONS.
6. THE CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION OF SCHEDULE OF WORK REQUIRING INSPECTION OR TESTING TO THE SPECIAL INSPECTION TO ALLOW COORDINATION.
7. THE MATERIALS, SYSTEMS, COMPONENTS AND WORK REQUIRED TO HAVE SPECIAL INPSECTION OR TESTING ARE OUTLINED ON THESE DRAWINGS ALONG WITH THE TYPE AND EXTENT OF EACH INSPECTION AND TEST AND WHETHER IT IS CONTINUOUS OR PERIODIC IN NATURE. IF IT IS NOT INDICATED OTHERWISE, INSPECTION SHALL BE CONTINUOUS.
8. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT SHALL PROVIDE A WRITTEN STATEMENT OF RESPONSIBILITY TO THE OWNER AND THE BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT AS REQUIRED BY CBC SECTION 1704.4.

ADDITIONAL SEISMIC RESISTANCE CASES:

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

SPECIAL INSPECTION	FREQUENCY	REFERENCED STANDARD	
		ACI 530/ ASCE 5/ TMS 402	ACI 530.1/ ASCE 5/ TMS 602
MASONRY			
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:			
a. SITE PREPARED MORTAR PROPORTIONS	PERIODIC		ART. 2.6A
b. CONSTRUCTION OF MORTAR JOINTS	PERIODIC		ART. 3.3B
c. LOCATION OF REINFORCEMENT AND CONNECTORS.	PERIODIC		ART. 3.4
2. THE INSPECTION PROGRAM SHALL VERIFY:			
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	PERIODIC		ART. 3.3G
b. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION	PERIODIC	SEC. 1.15.4,2.1.2	
c. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT.	PERIODIC	SEC. 1.12	ART. 2.4, 3.4
d. WELDING OF REINFORCING BARS.	CONTINUOUS	SEC. 8.5.7 & SEC. 8.5.7.2	
e. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).	PERIODIC		ART. 1.8
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:			
a. GROUT SPACE IS CLEAN.	PERIODIC		ART. 3.2D
b. PLACEMENT OF REINFORCEMENT AND CONNECTORS.	PERIODIC		ART. 3.4
c. PROPORTIONS OF SITE-PREPARED GROUT	PERIODIC		ART. 2.6B
d. CONSTRUCTION OF MORTAR JOINTS	PERIODIC		ART. 3.3B
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	CONTINUOUS		ART. 3.5
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	CONTINUOUS		ART. 1.4
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND APPROVED SUBMITTALS SHALL BE VERIFIED	PERIODIC		ART. 1.5

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

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

SPECIAL INSPECTION	FREQUENCY	REFERENCED STANDARD
DRILLED PIERS		
1. OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH PIER.	CONTINUOUS	GEOTECHNICAL ENGINEERING REPORT
2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM PIER DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END BEARING STRATA CAPACITY.		
3. FOR CONCRETE PIERS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.	SEE SPECIAL INSPECTION NOTES FOR CONCRETE ALSO	

SPECIAL INSPECTION	FREQUENCY	REFERENCED STANDARD
SOILS:		
1. SITE PREPARATION-VERIFY THAT THE SITE SUBGRADE SOILS ARE PROPERLY PREPARED	CONTINUOUS	GEOTECHNICAL ENGINEERING REPORT
2. FILL PLACEMENT 12" THICK OR GREATER - VERIFY MATERIAL BEING USED AND LIFT THICKNESS	CONTINUOUS	
3. EVALUATION OF IN-PLACE DENSITY OF COMPACTED FILL 12" THICK OR GREATER	PERIODIC	
4. SUB-GRADE IMPROVEMENTS INVOLVING SOIL MIXING, COMPACTION GROUTING, DYNAMIC COMPACTION, OR PLACEMENT OF STONE COLUMNS	CONTINUOUS	

STRUCTURAL OBSERVATION:

1. STRUCTURAL OBSERVATIONS BY AN INDEPENDENT ENGINEER OR THE ENGINEER OF RECORD SHALL BE MADE IN ACCORDANCE WITH SECTION 1704.5 OF THE 2016 CALIFORNIA BUILDING CODE AT THE EXPENSE OF THE OWNER TO REVIEW THE CONSTRUCTION OF THE PROJECT. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES, AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR(S).
2. THE OWNER SHALL EMPLOY THE CIVIL OR STRUCTURAL ENGINEER OR THE ARCHITECT OF RECORD OR THEIR DESIGNATED AGENT TO PERFORM THE STRUCTURAL OBSERVATION.
3. EVIDENCE OF EMPLOYMENT BY THE OWNER SHALL BE PROVIDED TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT.
4. WHEN A PRECONSTRUCTION MEETING IS REQUIRED, IT SHALL BE ATTENDED BY THE GENERAL CONTRACTOR, APPROPRIATE SUBCONTRACTORS, AND DEPUTY INSPECTORS. THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS WHICH REQUIRE STRUCTURAL OBSERVATION WILL BE IDENTIFIED. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT.
5. REQUIRED OBSERVATIONS ARE TO OCCUR AT THE FOLLOWING STAGES OF CONSTRUCTION AS A MINIMUM, FOR EACH BUILDING OR STRUCTURE AS APPLICABLE. NOTIFY THE ENGINEER 72 HOURS PRIOR TO EACH OBSERVATION.

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

A REPORT PREPARED ON DEPARTMENT FORMS OR FORMS PREPARED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH SIGNIFICANT STAGE OF CONSTRUCTION OBSERVED, SHALL BE LEFT AT THE PROJECT SITE FOR THE CONTRACTOR TO FORWARD TO THE BUILDING INSPECTOR. THE FORMS SHALL BE WET SIGNED AND SEALED BY THE RESPONSIBLE STRUCTURAL OBSERVER, ONE SIGNED COPY OF THE REPORT SHALL BE PROVIDED TO THE OWNER, CONTRACTOR, AND DEPUTY INSPECTOR, AS REQUESTED.
A FINAL OBSERVATION REPORT MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND THE STRUCTURAL SYSTEM GENERALLY CONFORMS TO THE APPROVED PLANS AND SPECIFICATIONS.
IF THE OWNER ELECTS TO CHANGE THE STRUCTURAL OBSERVER OF RECORD, THE OWNER SHALL:
- A. NOTIFY BUILDING INSPECTOR IN WRITING BEFORE THE NEXT INSPECTION.
- B. CALL AN ADDITIONAL PRECONSTRUCTION MEETING, AND FURNISH THE REPLACEMENT STRUCTURAL OBSERVER WITH A COPY OF PREVIOUS OBSERVER'S REPORTS.

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

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

SPECIAL INSPECTION	FREQUENCY	REFERENCED STANDARD
WOOD		
1. DURING FIELD GLUING OPERATIONS OF ELEMENTS OF THE SEISMIC-FORCE-RESISTING SYSTEM.	CONTINUOUS	CBC 1705.10.1
2. NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN SEISMIC-FORCE-RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS & HOLD-DOWNS.	PERIODIC	
EXCEPTION		
SPECIAL INSPECTION IS NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS & DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING & OTHER FASTENING TO OTHER COMPONENTS OF THE SEISMIC-FORCE-RESISTING SYSTEM, WHERE THE FASTENER SPACING OF THE SHEATHING IS MORE THAN 4 INCHES ON CENTER.		

T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
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NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO HOLE

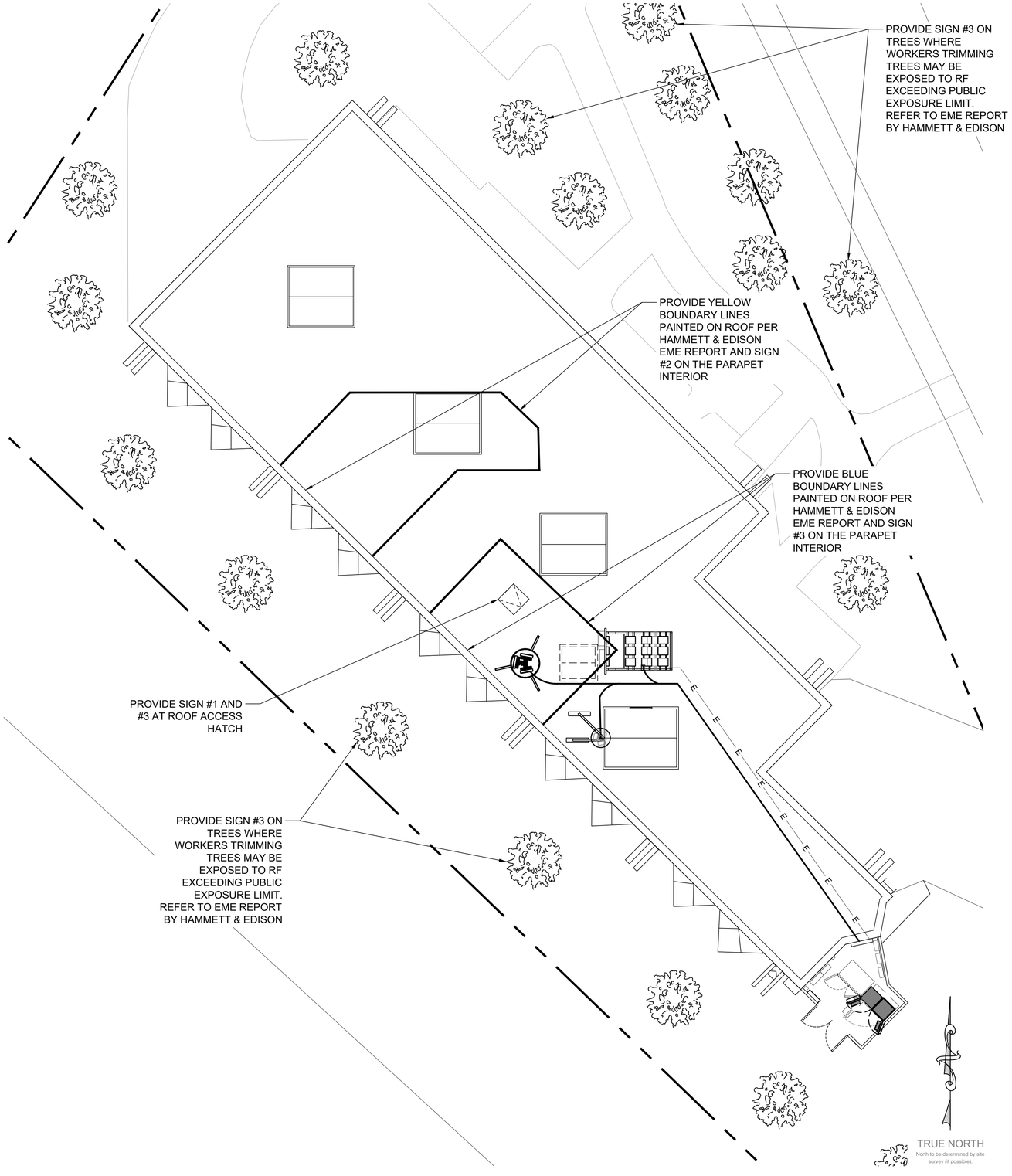
SF04141A

2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MANN
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE
GENERAL NOTES AND SPECIFICATIONS

SHEET NUMBER
T-4



22"x34" SCALE: 1/16" = 1'-0"
11"x17" SCALE: 1/32" = 1'-0"
16' 12' 8' 4' 0" 16'

EME NOTICE PLAN | 2

INFORMATION

T-MOBILE operates telecommunication antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.
Contact the owner(s) of the antenna(s) before working closer than 3 feet from the antenna(s).

Contact T-MOBILE at 888-662-4662 X 3231 prior to performing any maintenance or repairs near T-MOBILE antennas.

This Site# SF04552A
Contact the management office if this door/hatch/gate is found unlocked.

INFORMACION

En esta propiedad se ubican antenas de telecomunicaciones operads por T-MOBILE. Favor mantener una distancia de no menos de 3 pies y obedecer todos los avisos

Comuniquese con el propietario o los propietaarios de las antes de trabajar o caminar de menos de 3 pies de la antena

Comuniquese con T-MOBILE 888-662-4662 X 3231 antes de realizar cualquier mantenimiento o reparaciones cerca de las antenas de T-MOBILE
Esta es la estacion base numero SF04552A

Favor comuniquese con la oficina de la administration del edificio si esta puerta o compuerta se encuentra sin candado.

T–MOBILE SIGN #1

CAUTION

Beyond this point:
Radio frequency fields at this site may exceed FCC rules for human exposure.

For your safety, obey all posted signs and site guidelines for working in radio frequency environments.

In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

T–MOBILE SIGN #2

NOTICE

Radio frequency fields beyond this point may exceed the FCC general public exposure limit.

Obey all posted signs and site guidelines for working in radio frequency environments.

In accordance with Federal Communications Commission rules on radio frequency emissions 47 CFR 1.1307(b)

T–MOBILE SIGN #3

EME SIGNAGE AND NOTES | 1

N.T.S.

Recommended Mitigation Measures

Due to their mounting locations and height, the T-Mobile antennas would not be accessible to unauthorized persons, and so no measures are necessary to comply with the FCC public exposure guidelines. To prevent occupational exposures in excess of the FCC guidelines, it is recommended that appropriate RF safety training, to include review of personal monitor use, review of lockout/tagout procedures, and review of the information in figure 3, be provided to all authorized personnel who have access to the structure, including employees and contractors of T-Mobile and of the property owner. No access within 40 feet directly in front of the T-Mobile antennas themselves, such as might occur during certain maintenance activities, should be allowed while the base station is in operation, unless other measures can be demonstrated to ensure that occupational protection requirements are met. It is recommended that boundary lines be marked on the west end of the roof with blue paint, to identify an area in which exposure levels are calculated to exceed the public FCC limit, as shown in figure 3. It is recommended that explanatory signs be posted on the antenna enclosures in front of the antennas, readily visible from any angle of approach to persons who might need to work within that distance, as well as at edges of the roof of the entrance portico and at the two boundary lines, to identify areas in which exposure levels are calculated to exceed the public FCC limit.

NOTE: FOR COMPLETE EME INFORMATION, REFER TO HAMMETT & EDISON, INC. EME REPORT DATED 11/06/2020.

T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
A	10/16/20	ISSUED FOR 90% CD REVIEW	SC
0	11/12/20	100% CD	SC
1	01/04/21	RADOME UPDATE	JAF
2	01/07/21	CITY COMMENTS	RGL
3	09/29/21	CITY COMMENTS	RGL

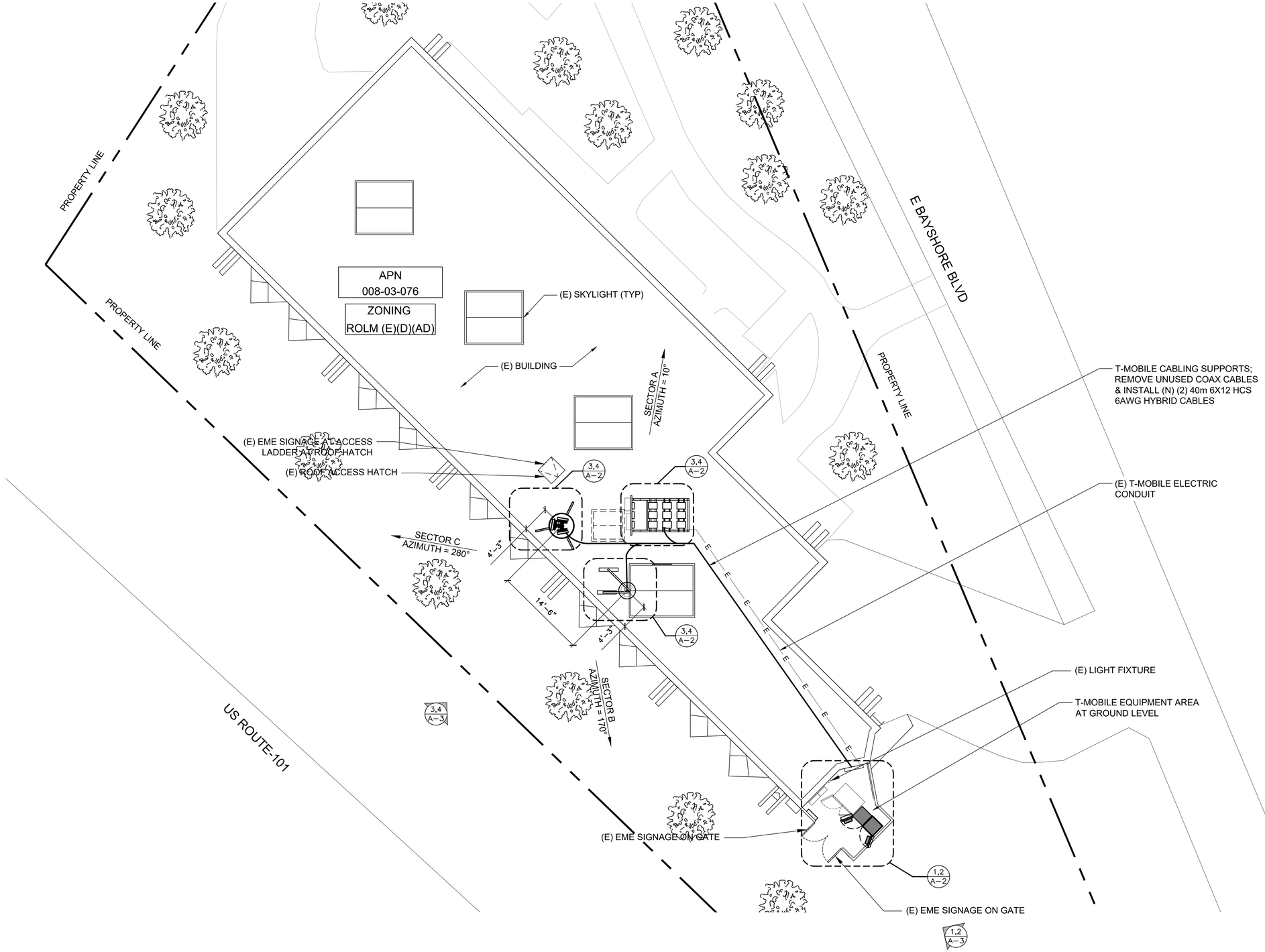
NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO HOE
SF04141A
2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MANNED
46999
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE
EME COMPLIANCE

SHEET NUMBER
3
T-5



22"x34" SCALE: 1/8" = 1'-0"
11"x17" SCALE: 1/16" = 1'-0"
8' 6' 4' 2' 0' 8'

OVERALL SITE PLAN | 1

T-Mobile
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

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0	11/12/20	100% CD	SC
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PALO ALTO HOLE

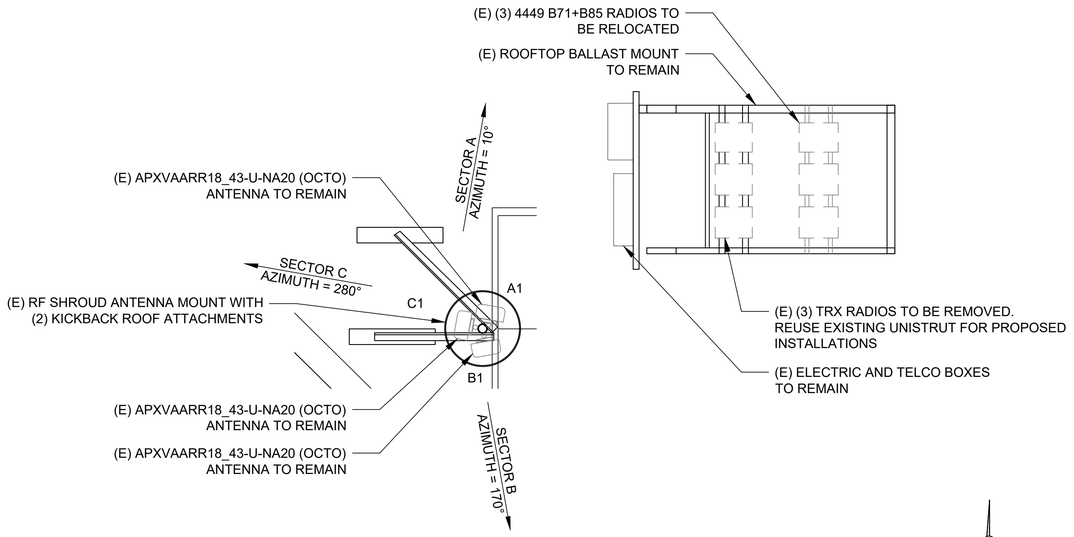
SF04141A

2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

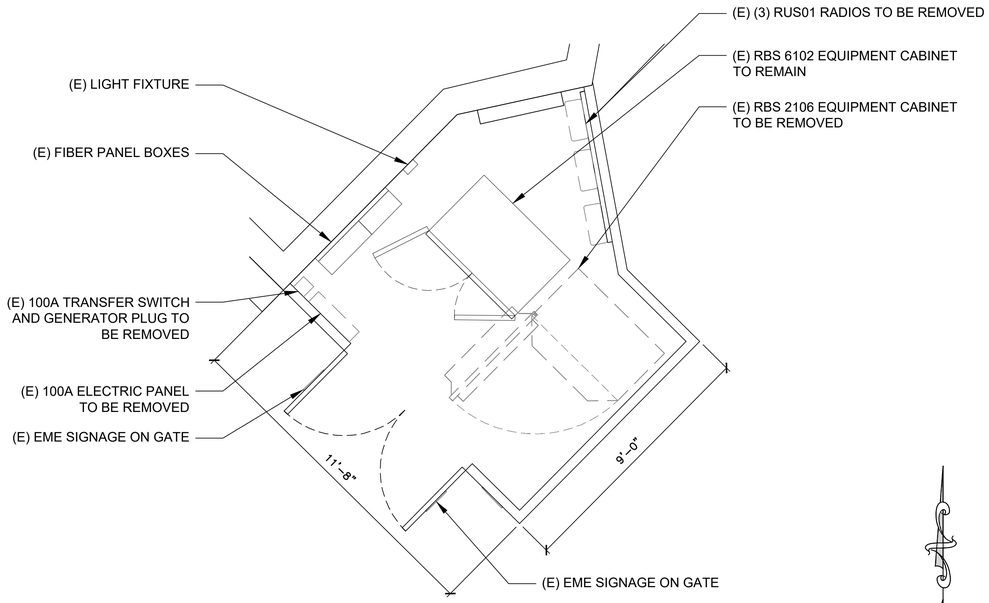
SHEET TITLE
OVERALL SITE PLAN

SHEET NUMBER
A-1



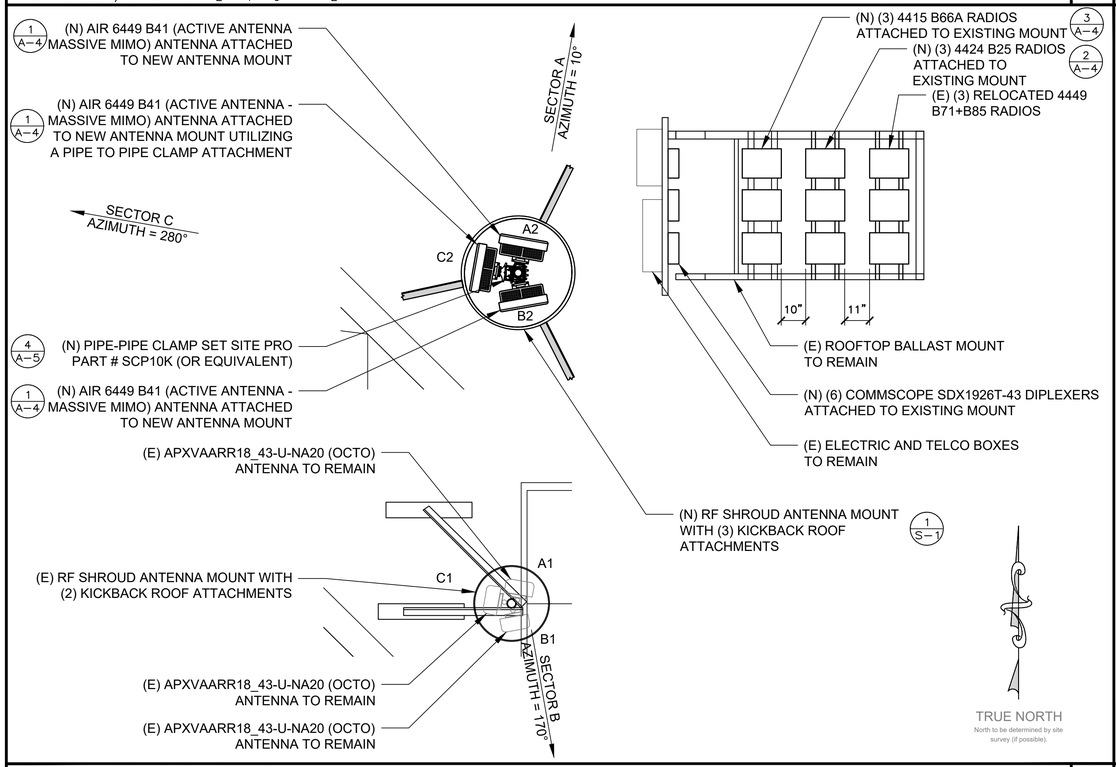
22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

EXISTING ANTENNA LAYOUT PLAN 4



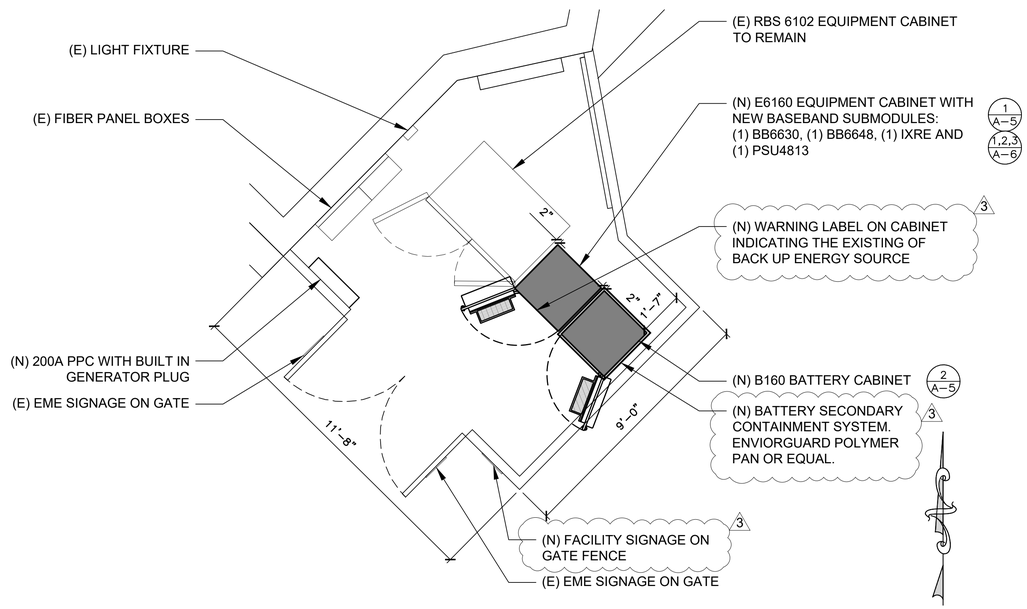
22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

EXISTING EQUIPMENT LAYOUT PLAN 2



22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

NEW ANTENNA LAYOUT PLAN 3



22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

NEW EQUIPMENT LAYOUT PLAN 1

T-Mobile
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
A	10/16/20	ISSUED FOR 90% CD REVIEW	SC
0	11/12/20	100% CD	SC
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NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO HOLE

SF04141A

2666 E BAYSHORE RD
PALO ALTO, CA 94303

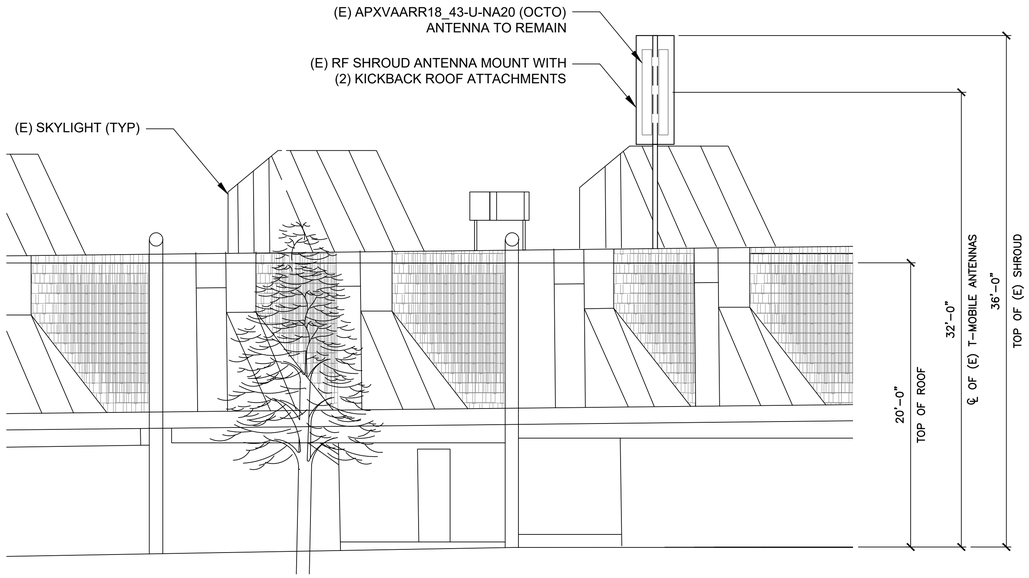
REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Sept 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

ANTENNA AND EQUIPMENT LAYOUT PLANS

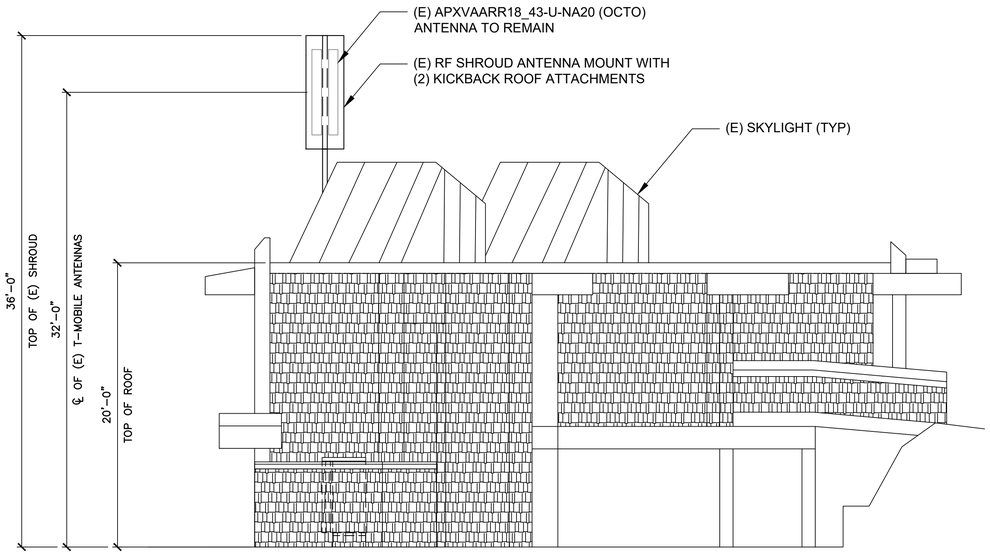
SHEET NUMBER

A-2



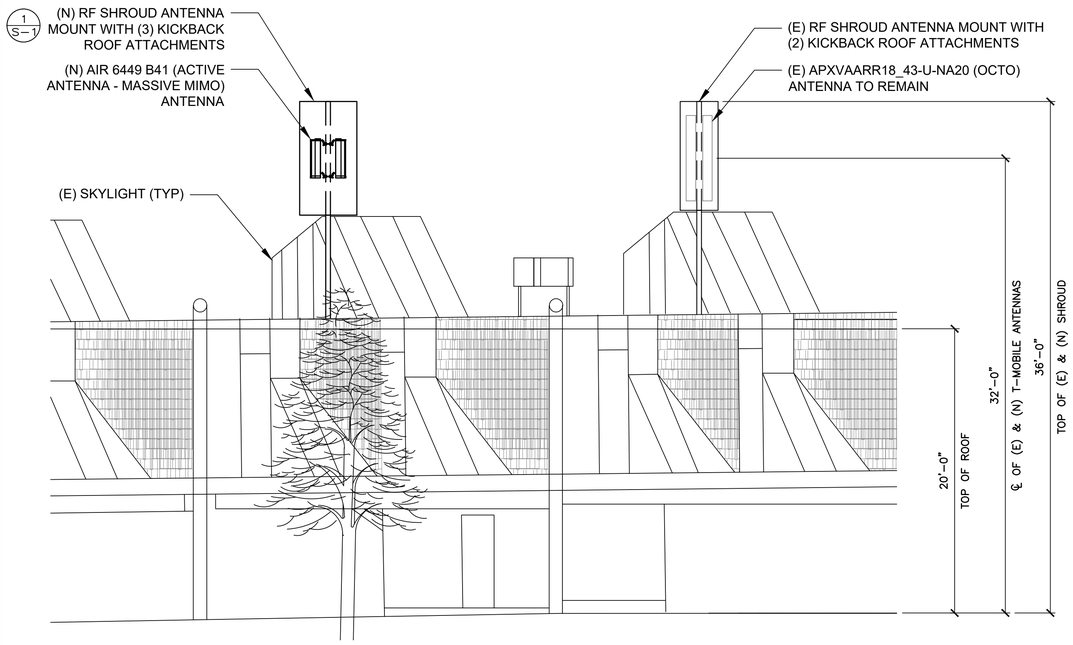
22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"
4' 2' 0" 4'

EXISTING SOUTHWEST ELEVATION | 4



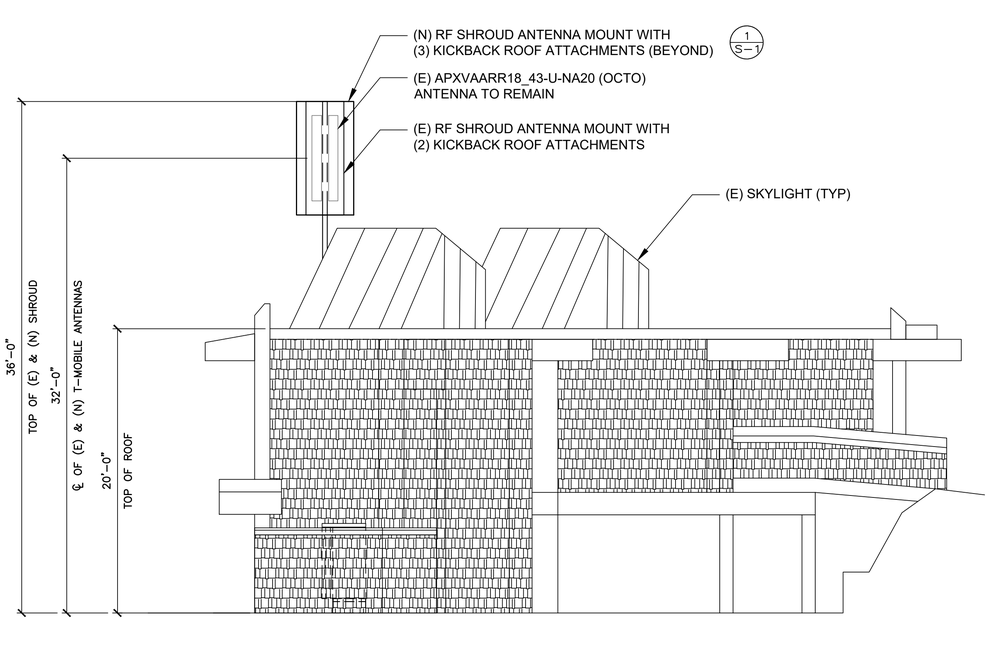
22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"
4' 2' 0" 4'

EXISTING SOUTHEAST ELEVATION | 2



22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"
4' 2' 0" 4'

NEW SOUTHWEST ELEVATION | 3



22"x34" SCALE: 3/16" = 1'-0"
11"x17" SCALE: 3/32" = 1'-0"
4' 2' 0" 4'

NEW SOUTHEAST ELEVATION | 1

T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

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PALO ALTO HOLE

SF04141A

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PALO ALTO, CA 94303

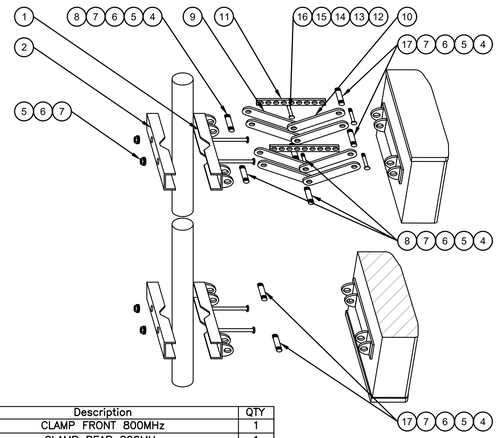
REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

ARCHITECTURAL ELEVATIONS

SHEET NUMBER

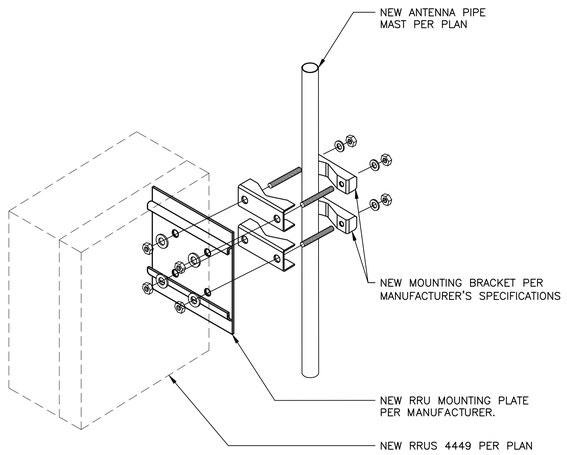
A-3



Item	Description	QTY
1	CLAMP FRONT 800MHz	1
2	CLAMP REAR 800MHz	1
3	M12–200, GALV. DIN603/ISO8677, CLASS 8.8	1
4	SCREW H M12X110 CS 35K 8.8 GVRO ISO4017	4
5	WASHER FL 13X24X2.5 CS 200HV GVRO GB97	4
6	WASHER SP 12X3.5 65Mn 200HV GVRO GB7244	2
7	NUT H M12X19X10 CS 35K 8 GVRO DIN934	2
8	STUB FOR SCISSOR	1
9	DOWNTILT SCISSOR	1
10	DOWNTILT BEAM	1
11	MECHANICAL DOWNTILT INDICATOR 800MHz 2.6M	4
12	STUB SPACER 3mm	4
13	M8–100 GALV. ISO8677, CLASS 4.8	2
14	SPRING LOCK WASHER A8 DIN127 A2	2
15	FLAT WASHER DIN125 8.4 A2 (FRTR)	4
16	M8X1, 25 HEX NUT STL GALV.	2
17	SPACER FOR BOTTOM MOUNTING	2

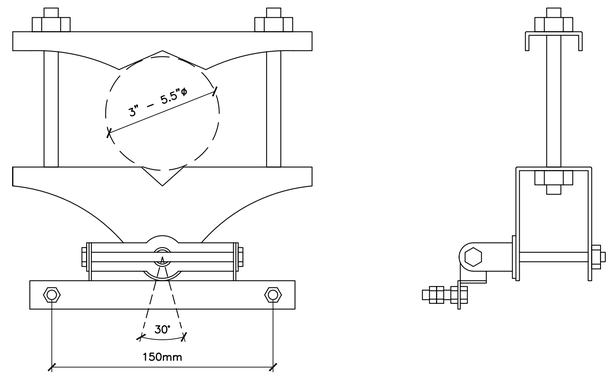
MANUFACTURER: RFS
MODEL: AMP40–5E MOUNTING KIT
WEIGHT: 22 LBS

N.T.S. RFS AMP40-5E ANTENNA MOUNT KIT DETAIL 6

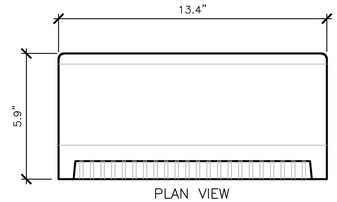


N.T.S. RADIO MOUNTING BRACKET 5

TYPE NO.	SXK 109 2064/1
NAME	AIR BRACKET MEDIUM
SUITABLE FOR MAST DIAMETER	3"–5.5" (76–114 MM)
ANTENNA – MAST DISTANCE F	128–132 MM
COMPATABILITY	AIR UNITS W/ 150MM INTERFACE
NUMBER OF PIECES	2 PIECES
MATERIAL – CLAMP –SCREWS –NUTS	HOT–DIP GALVANIZED STEEL HOT–DIP GALVANIZED STEEL /STAINLESS STEEL STAINLESS STEEL
WEIGHT	9 LBS (4.4 KG)



N.T.S. 'AIR' BRACKET MEDIUM DETAIL 4

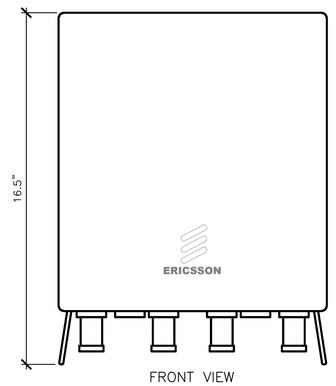


PLAN VIEW

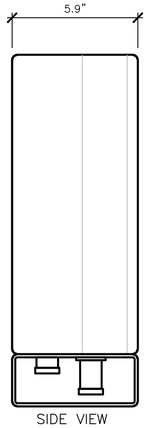
RRU SPECIFICATIONS

MANUFACTURER: ERICSSON
MODEL: RRUS–4415
HEIGHT: 16.5"
WIDTH: 13.4"
DEPTH: 5.9"

WEIGHT: 46 LBS

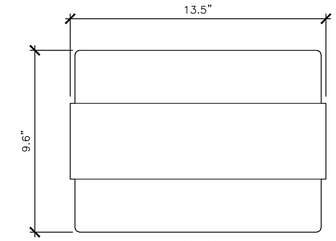


FRONT VIEW



SIDE VIEW

N.T.S. ERICSSON RADIO 4415 DETAIL 3

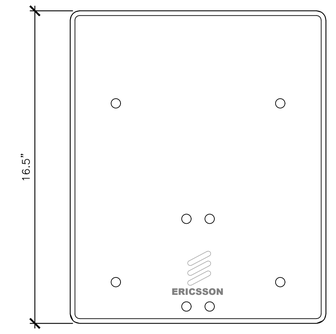


PLAN VIEW

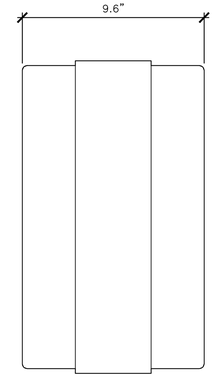
RRU SPECIFICATIONS

MANUFACTURER: ERICSSON
MODEL: RRUS–4424
HEIGHT: 16.5"
WIDTH: 13.5"
DEPTH: 9.6"

WEIGHT: 88 LBS

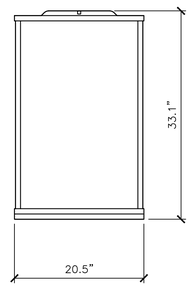


FRONT VIEW

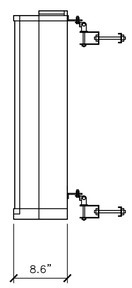


SIDE VIEW

N.T.S. ERICSSON RADIO 4424 DETAIL 2



FRONT VIEW

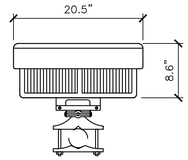


SIDE VIEW

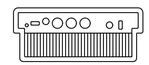
ANTENNA SPECIFICATIONS

MANUFACTURER: ERICSSON
MODEL: AIR 6449
HEIGHT: 33.1"
WIDTH: 20.5"
DEPTH: 8.6"

WEIGHT: 104 LBS



PLAN VIEW



CONNECTOR PORT VIEW

N.T.S. ERICSSON AIR 6449 ANTENNA DETAILS 1

T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

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PALO ALTO HOLE

SF04141A

2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

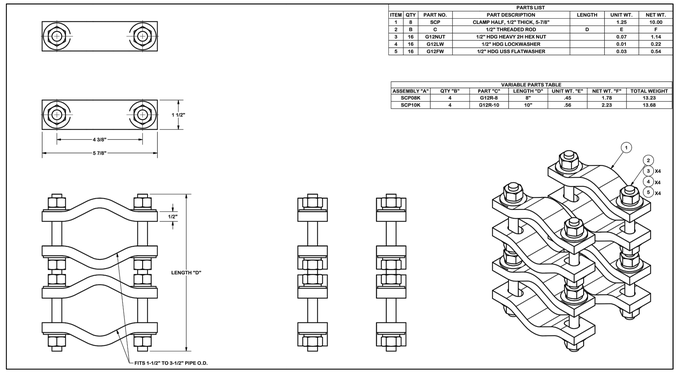
SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-4

NOT USED | 6

NOT USED | 5

N.T.S. PIPE-PIPE CLAMP SET # SCP10K | 4



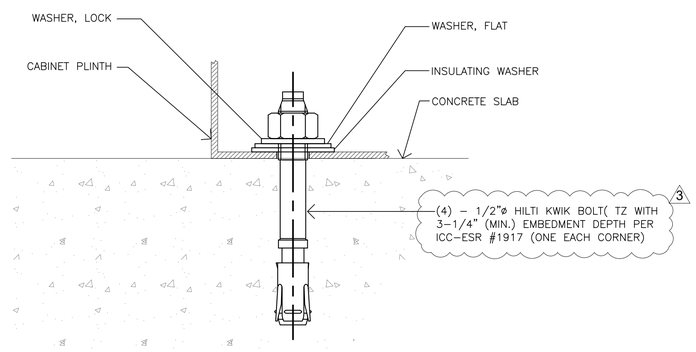
PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	8	SCP	CLAMP HALF, 1/2" THICK, 5-7/8"		1.25	10.00
2	8	C	1/2" THREADED ROD	D	E	F
3	16	G12HJT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.14
4	16	G12LW	1/2" HDG LOCKWASHER		0.01	0.22
5	16	G12FW	1/2" HDG USS FLATWASHER		0.03	0.54

VARIABLE PARTS TABLE

ASSEMBLY "A"	QTY "B"	PART "C"	LENGTH "D"	UNIT WT. "E"	NET WT. "F"	TOTAL WEIGHT
SCP08K	4	G12R-8	8"	.45	1.78	13.22
SCP10K	4	G12R-10	10"	.56	2.23	13.68

N.T.S. CABINET TO CONCRETE MOUNTING | 3

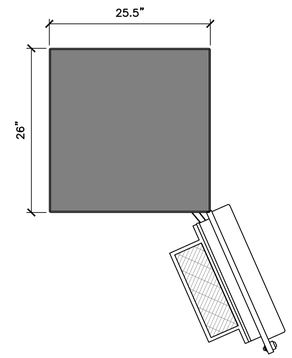


N.T.S. ERICSSON B160 DETAIL | 2

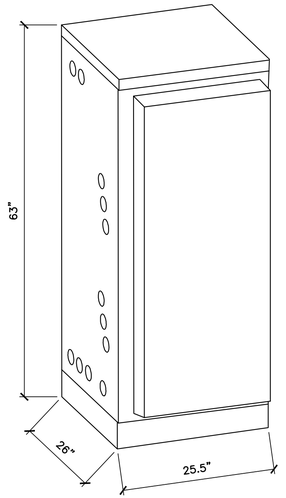
B160 SPECIFICATIONS

MANUFACTURER: ERICSSON
MODEL: B160
HEIGHT: 63"
WIDTH: 25.5"
DEPTH: 26"

WEIGHT: 295 LBS (EMPTY)
WEIGHT: 1883 LBS MAX. (W/ 3 BATTERY STRINGS)



PLAN VIEW



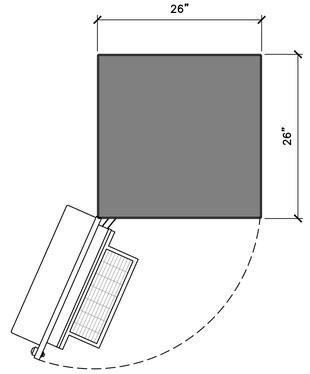
ISOMETRIC VIEW

N.T.S. ERICSSON SSC 6160 DETAIL | 1

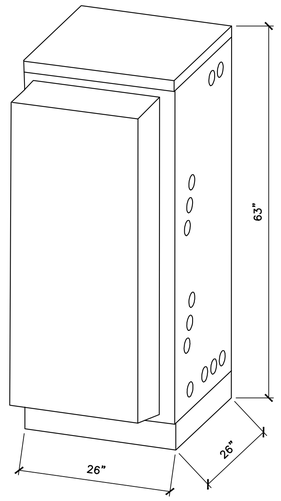
SSC 6160 SPECIFICATIONS

MANUFACTURER: ERICSSON
MODEL: 6160
HEIGHT: 63"
WIDTH: 26"
DEPTH: 26"

WEIGHT: 320 LBS (EMPTY)
EQUIP: 120 LBS
TOTAL: 440 LBS



PLAN VIEW



ISOMETRIC VIEW

T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
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CLEVELAND, OH 44122

DRAWN BY:	SC
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REVISIONS

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2	01/07/21	CITY COMMENTS	RGL
3	09/29/21	CITY COMMENTS	RGL

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO HOLE

SF04141A

2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Sept 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

EQUIPMENT DETAILS

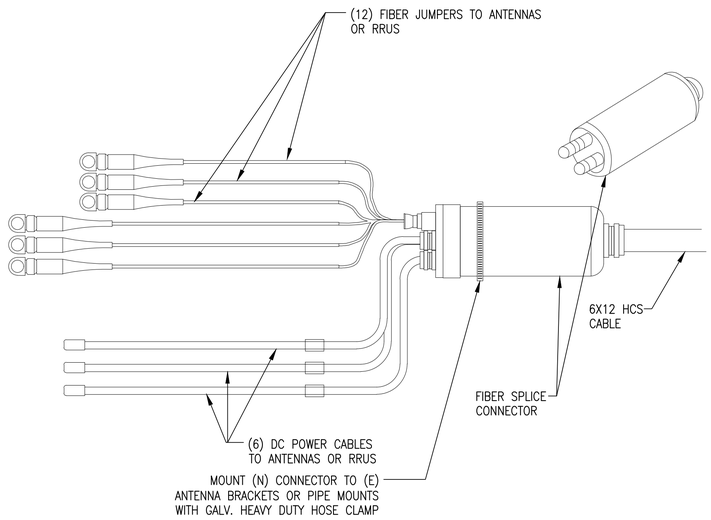
SHEET NUMBER

A-5

NOT USED | 6

NOT USED | 5

NOTE:
NUMBER OF LINES SHOWN FOR REFERENCE ONLY.
ACTUAL # OF DC AND FIBER LINES SPECIFIC TO
MODEL OF HCS CABLES



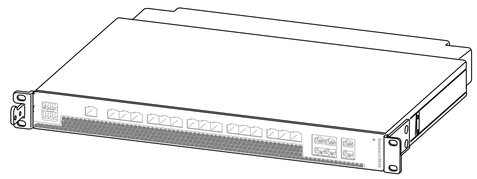
N.T.S. 6X12 HCS CABLE DETAIL | 4

NOTE:
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE.

BASEBAND SPECIFICATIONS

MANUFACTURER: ERICSSON
MODEL: BASEBAND 6648
HEIGHT: 1.75" (1 RU)
WIDTH: 19"
DEPTH: 14.3"

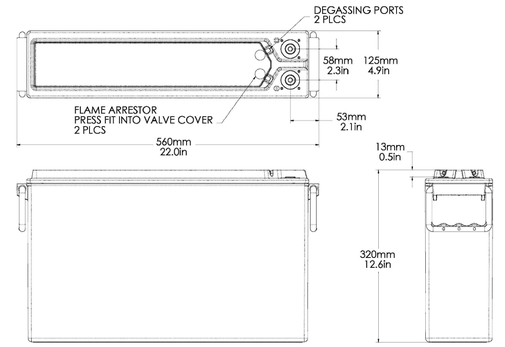
WEIGHT: 16.5 LBS



N.T.S. BASEBAND 6648 DETAIL | 3

NORTHSTAR – NSB 190FT HT RED

NOM. VOLTAGE: 12v
NOM. CAPACITY 190AMP–HOURS; 8 HOUR RATE TO 1.75 VOLTS PER CELL @ 25°C (77°F)
LENGTH: 22.00" (558.80 mm)
WIDTH: 4.90" (124.46 mm)
HEIGHT: 12.60" (320.04 mm)
WEIGHT: 132 lbs (59.9 kg) Nominal
TERMINAL: FRONT ACCESSIBLE, HEAVY DUTY THREADED (M8x1.25) COPPER ALLOY
LEAD WEIGHT: 92.4 LBS
ELECTROLYTE VOLUME: 2.03 GAL
ELECTROLYTE WEIGHT: 22.44 LBS
SULFURIC ACID VOLUME: 0.60 GAL
SULFURIC ACID WEIGHT: 9.41 LBS



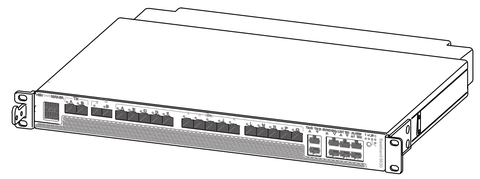
N.T.S. NSB 190FT HT RED BATTERY DETAIL | 2

NOTE:
1. USE MANUFACTURER SUPPLIED MOUNTING HARDWARE.

BASEBAND SPECIFICATIONS

MANUFACTURER: ERICSSON
MODEL: BASEBAND 6630
HEIGHT: 1.75" (1 RU)
WIDTH: 19"
DEPTH: 13.8"

WEIGHT: 14.33 LBS



N.T.S. BASEBAND 6630 DETAIL | 1

T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
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2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

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

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
A-6

EXISTING ANTENNA SCHEDULE

POSITION		ANTENNA TECH	ANTENNA MODEL	ANTENNA SIZE	ANTENNA AZIMUTH	RAD CENTER	TMA/RRU	CABLE TYPE	CABLE LENGTH	JUMPERS
ALPHA SECTOR	A1	L700/L600 N600 U1900 G1900 L2100	APXVAARR18_43-U-NA20 (OCTO)	6'-0"	10°	32'-0"	4449 B71+B85 RADIO	(4) 7/8" COAX	±80'	(8) COAX
BETA SECTOR	B1	L700/L600 N600 U1900 G1900 L2100	APXVAARR18_43-U-NA20 (OCTO)	6'-0"	170°	32'-0"	4449 B71+B85 RADIO	(4) 7/8" COAX	±80'	(8) COAX
GAMMA SECTOR	C1	L700/L600 N600 U1900 G1900 L2100	APXVAARR18_43-U-NA20 (OCTO)	6'-0"	280°	32'-0"	4449 B71+B85 RADIO	(4) 7/8" COAX	±80'	(8) COAX
TOTAL			(3) APXVAARR18_43-U-NA20 (OCTO)				(3) 4449 B71+B85 RADIO	(12) 7/8" COAX CABLES		(24) COAX

NEW ANTENNA SCHEDULE

POSITION		ANTENNA TECH	ANTENNA MODEL	ANTENNA SIZE	ANTENNA AZIMUTH	RAD CENTER	TMA/RRU	CABLE TYPE	CABLE LENGTH	JUMPERS
ALPHA SECTOR	A1	L700/L600 N600 U1900 L1900 G1900 L2100	APXVAARR18_43-U-NA20 (OCTO)	6'-0"	10°	32'-0"	RRU 4449 B71+B85 RRU 4424 B25 RRU 4415 B66A	(1) HCS 6x12 6AWG SHARED	40m	(8) FIBER (12) COAX
	A2	L2500 N2500	ERICSSON AIR6449 B41	2'-9"	10°	32'-0"	-	(1) HCS 6x12 6AWG SHARED	40m	(4) FIBER
BETA SECTOR	B1	L700/L600 N600 U1900 L1900 G1900 L2100	APXVAARR18_43-U-NA20 (OCTO)	6'-0"	170°	32'-0"	RRU 4449 B71+B85 RRU 4424 B25 RRU 4415 B66A	(1) HCS 6x12 6AWG SHARED	40m	(8) FIBER (12) COAX
	B2	L2500 N2500	ERICSSON AIR6449 B41	2'-9"	170°	32'-0"	-	(1) HCS 6x12 6AWG SHARED	40m	(4) FIBER
GAMMA SECTOR	C1	L700/L600 N600 U1900 L1900 G1900 L2100	APXVAARR18_43-U-NA20 (OCTO)	6'-0"	280°	32'-0"	RRU 4449 B71+B85 RRU 4424 B25 RRU 4415 B66A	(1) HCS 6x12 6AWG SHARED	40m	(8) FIBER (12) COAX
	C2	L2500 N2500	ERICSSON AIR6449 B41	2'-9"	280°	32'-0"	-	(1) HCS 6x12 6AWG SHARED	40m	(4) FIBER
TOTAL			(3) APXVAARR18_43-U-NA20 (OCTO) (3) ERICSSON AIR6449 B41				(3) RRU 4449 B71+B85 (3) RRU 4424 B25 (3) RRU 4415 B66A	(2) HCS 6x12 6AWG		(36) FIBER (36) COAX

NOTE:
1. DO NOT USE RFDS COAX/CAB/E/FIBER LENGTHS FOR CUT LENGTHS: ESTIMATES ONLY.
2. CONFIRM THAT THE GENERAL CONTRACTOR IS USING LATEST VERSION OF RFDS

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SHEET TITLE

ANTENNA SCHEDULES

SHEET NUMBER

RF-1

RAN Template: 67D5A998C Hybrid	A&L Template: 67D5998C_1xAIR+1QP+1OP	SF04141A_Anchor_7

Print Name: Standard
PORs: Anchor_Phase 3

Section 5 - RAN Equipment

Existing RAN Equipment

Template: 67D04B Hybrid

	1
Enclosure	
Enclosure Type	RBS 6102
Baseband	DUW30 U1900 · DUG20 G1900 · BB 6630 N600 · BB 6630 L700 L600 L2100
Hybrid Cable System	Ericsson 6x12 HCS 6AWG 40m
Radio	RUS01 B2 (x 3) G1900 · RUS01 B2 (x 3) U1900 · RUS01 B4 (x 6) L2100

Proposed RAN Equipment

Template: 67D5A998C Hybrid

	1	2	3
Enclosure			
Enclosure Type	RBS 6102	Enclosure 6160	B160
Baseband	DUW30 U1900 · DUG20 G1900 · BB 6630 L700 L600 N600 · BB 6630 L2100 L1900	BB 6648 N2500 · BB 6630 L2500	
Hybrid Cable System	Ericsson 6x12 HCS 6AWG 40m (x 2)	PSU 4813 · Ericsson 6x12 HCS 6AWG 40m	

RAN Scope of Work:

Anchor SOW::

Remove existing all ground radios.
Add (1) 6160 and (1) B150 enclosures
Add (1) BB 6630 for L2.5G and add (1) BB 6648 for N2.5G.
Add (1) PSU 4813 and (1) DXIE
Add (2) 6x12 HCS.
Updated MM-BB for Low band.

RAN Template: 67D5A998C Hybrid	A&L Template: 67D5998C_1xAIR+1QP+1OP	SF04141A_Anchor_7

Print Name: Standard
PORs: Anchor_Phase 3

Sector 1 (Proposed) view from behind

Coverage Type	A - Outdoor Macro					
Antenna	1				2	
Antenna Model	RFS - APXVAARR18_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	10				10	
M. Tilt	0				0	
Height	32				32	
Ports	P1	P2	P3	P4	P5	P6
Active Tech.	L700 L600 N600	L700 L600 N600	L2100 L1900 G1900 U1900	L2100 L1900 G1900 U1900	L2500 N2500	L2500 N2500
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt	0	0	0	0	0	0
Cables	Coax Jumper (x2) · Fiber Jumper	Coax Jumper (x2) · Fiber Jumper	JUMPER 3 FT SUREFLEX 4.3-10 TO 4.3-10 (x4) · Fiber Jumper - 9 ft. (x4) · JUMPER 8 FT SUREFLEX 4.3-10 TO 4.3-10 (x2)	JUMPER 3 FT SUREFLEX 4.3-10 TO 4.3-10 (x4) · Fiber Jumper - 9 ft. (x2) · JUMPER 8 FT SUREFLEX 4.3-10 TO 4.3-10 (x2)	Fiber Jumper - 9 ft. (x2)	Fiber Jumper - 9 ft. (x2)
TMAs						
Diplexers / Combiners			Commscope - SDX1926T-43 (E14F05PR5) (A1Antenna)	Commscope - SDX1926T-43 (E14F09PR5) (A0Antenna)		
Radio	Radio 4449 B71+B85 (A1 Antenna)		Radio 4424 B25 (A1 Antenna)	Radio 4415 B66A (A1 Antenna)		
Sector Equipment						

Unconnected Equipment:

Scope of Work:

Anchor SOW::

Remove all existing TMAs.
Add (1) Radio 4415 B66A
Add (1) Radio 4424 B25
Add (2) diplexer, diplex radio 4424 with radio 4415
Add (1) AIR6449 B41

RAN Template: 67D5A998C Hybrid	A&L Template: 67D5998C_1xAIR+1QP+1OP	SF04141A_Anchor_7

Print Name: Standard
PORs: Anchor_Phase 3

Sector 2 (Proposed) view from behind

Coverage Type	A - Outdoor Macro					
Antenna	1				2	
Antenna Model	RFS - APXVAARR18_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	170				170	
M. Tilt	0				0	
Height	32				32	
Ports	P1	P2	P3	P4	P5	P6
Active Tech.	L700 L600 N600	L700 L600 N600	L2100 G1900 U1900 L1900	L2100 G1900 U1900 L1900	L2500 N2500	L2500 N2500
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt	2	2	2	2	2	2
Cables	Coax Jumper (x2) · Fiber Jumper	Coax Jumper (x2) · Fiber Jumper	JUMPER 3 FT SUREFLEX 4.3-10 TO 4.3-10 (x4) · Fiber Jumper - 9 ft. (x4) · JUMPER 8 FT SUREFLEX 4.3-10 TO 4.3-10 (x2)	JUMPER 3 FT SUREFLEX 4.3-10 TO 4.3-10 (x4) · Fiber Jumper - 9 ft. (x2) · JUMPER 8 FT SUREFLEX 4.3-10 TO 4.3-10 (x2)	Fiber Jumper - 9 ft. (x2)	Fiber Jumper - 9 ft. (x2)
TMAs						
Diplexers / Combiners			CommScope - CBC1923T-43 (A0Antenna)	CommScope - CBC1923T-43 (A1Antenna)		
Radio	Radio 4449 B71+B85 (A1 Antenna)		Radio 4424 B25 (A1 Antenna)	Radio 4415 B66A (A1 Antenna)		
Sector Equipment						

Unconnected Equipment:

Scope of Work:

Anchor SOW::

Remove all existing TMAs.
Add (1) Radio 4415 B66A
Add (1) Radio 4424 B25
Add (2) diplexer, diplex radio 4424 with radio 4415
Add (1) AIR6449 B41

RAN Template: 67D5A998C Hybrid	A&L Template: 67D5998C_1xAIR+1QP+1OP	SF04141A_Anchor_7

Print Name: Standard
PORs: Anchor_Phase 3

Sector 3 (Proposed) view from behind

Coverage Type	A - Outdoor Macro					
Antenna	1				2	
Antenna Model	RFS - APXVAARR18_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	280				280	
M. Tilt	0				0	
Height	32				32	
Ports	P1	P2	P3	P4	P5	P6
Active Tech.	L700 L600 N600	L700 L600 N600	L2100 G1900 U1900 L1900	L2100 G1900 U1900 L1900	L2500 N2500	L2500 N2500
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt	2	2	2	2	2	2
Cables	Coax Jumper (x2) · Fiber Jumper	Coax Jumper (x2) · Fiber Jumper	JUMPER 3 FT SUREFLEX 4.3-10 TO 4.3-10 (x4) · Fiber Jumper - 9 ft. (x4) · JUMPER 8 FT SUREFLEX 4.3-10 TO 4.3-10 (x2)	JUMPER 3 FT SUREFLEX 4.3-10 TO 4.3-10 (x4) · Fiber Jumper - 9 ft. (x2) · JUMPER 8 FT SUREFLEX 4.3-10 TO 4.3-10 (x2)	Fiber Jumper - 9 ft. (x2)	Fiber Jumper - 9 ft. (x2)
TMAs						
Diplexers / Combiners			CommScope - CBC1923T-43 (A0Antenna)	CommScope - CBC1923T-43 (A0Antenna)		
Radio	Radio 4449 B71+B85 (A1 Antenna)		Radio 4424 B25 (A1 Antenna)	Radio 4415 B66A (A1 Antenna)		
Sector Equipment						

Unconnected Equipment:

Scope of Work:

Anchor SOW::

Remove all existing TMAs.
Add (1) Radio 4415 B66A
Add (1) Radio 4424 B25
Add (2) diplexer, diplex radio 4424 with radio 4415
Add (1) AIR6449 B41

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ALAN E. MONEE
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

RFDS INFORMATION

SHEET NUMBER

RF-2

KEY NOTES

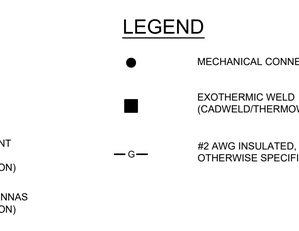
1. MECHANICAL CONNECTION
2. NEW T-MOBILE EQUIPMENT CABINET
3. MASTER GROUND BUS BAR AT EQUIPMENT (DETAIL 7/G-2) (CONTRACTOR TO FIELD VERIFY LOCATION)
4. ANTENNA GROUND BUS BAR NEAR ANTENNAS (CONTRACTOR TO FIELD VERIFY LOCATION)
5. (2) #2 BARE TINNED COPPER WIRES FROM NEW CABINET TO NEW MASTER GROUND BAR
6. AWG 2 INSULATED COPPER GROUND WIRE TO GROUND RING.
7. AWG 6 INSULATED COPPER GROUND WIRE FROM ANTENNA GROUND KIT TO ANTENNA BUS BAR (TYP.)
8. AWG 2 INSULATED COPPER GROUND FROM RRU, PIPE MOUNT TO ANTENNA BUS BAR
9. AWG 2 INSULATED COPPER GROUND WIRE CONNECTED TO MASTER GROUND BUS BAR.
10. AWG 2 TO BUILDING STEEL OR (E) BUILDING SERVICE GROUND
11. COPPER CLAD GROUND ROD SEE DETAIL 8, G-2
12. GROUND TEST WELL SEE DETAIL 6, G-2

LEGEND

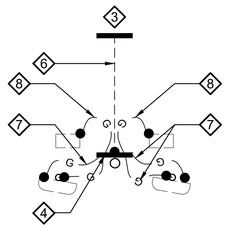
- ● MECHANICAL CONNECTION
- ■ EXOTHERMIC WELD (CADWELD/THERMOWELD) CONNECTION.
- —G— #2 AWG INSULATED, COPPER WIRE (UNLESS OTHERWISE SPECIFIED).

GENERAL NOTES:

1. PLAN DRAWINGS SHOWN HEREIN ARE DIAGRAMMATIC AND DO NOT NECESSARILY DEPICT THE EXACT EQUIPMENT QUANTITIES, LOCATION, LAYOUT AND CONFIGURATION. REFER TO ARCHITECTURAL PLANS FOR EXACT EQUIPMENT LOCATION, LAYOUT AND CONFIGURATION.
2. PLAN DRAWINGS SHOWN HEREIN DO NOT NECESSARILY DEPICT ELECTRICAL REQUIREMENTS OF INDIVIDUAL EQUIPMENT AND DEVICES SUCH AS THE EQUIPMENT GROUNDING REQUIREMENTS, POWER REQUIREMENTS AND TELCO RACEWAY REQUIREMENTS.
3. REFER TO A-1 FOR THE LOCATION OF POWER AND TELCO POINT OF CONNECTIONS, THE DISTANCE OF THE RUN AND THE SUGGESTED CONDUIT ROUTING. FIELD VERIFY EXISTING CONDITIONS SPECIFICALLY FOR CONDUIT ROUTING PRIOR TO BID.



EQUIPMENT GROUNDING

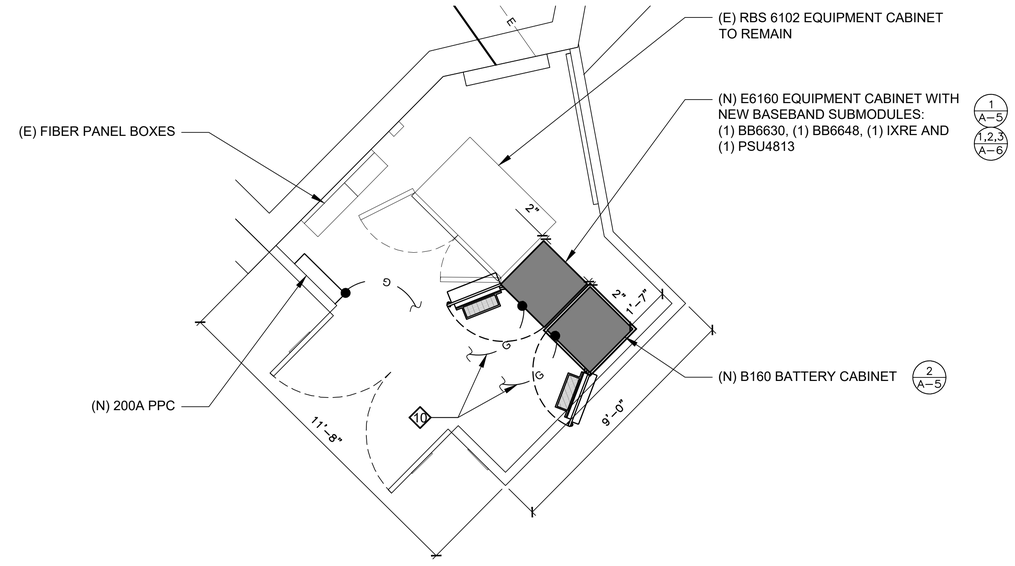


TYP. ANTENNA GROUNDING

1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
2. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING #2 GROUND WIRES AND CONNECT TO SURFACE MOUNTED GROUND BUS BARS AS SHOWN. FOLLOW ANTENNA AND BTS MANUFACTURER'S PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS USING MANUFACTURERS PRACTICES. ALL UNDERGROUND WATER PIPES, METAL CONDUITS AND GROUNDS THAT ARE A PART OF THIS SYSTEM SHALL BE BONDED TOGETHER.
3. ALL GROUND CONNECTIONS SHALL BE #2 AWG U.N.O. ALL WIRES SHALL BE COPPER THHN/THWN. ALL GROUND WIRE SHALL BE SOLID TIN COATED OR STRANDED GREEN INSULATED WIRE.
4. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE, 5 OHMS MAXIMUM. PROVIDE SUPPLEMENT GROUNDING RODS AS REQUIRED TO ACHIEVE SPECIFIED OHMS READING. GROUNDING AND OTHER OPTIONAL TESTING WILL BE WITNESSED BY THE T-MOBILE REPRESENTATIVE.
5. NOTIFY ARCHITECT/ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
6. BARE GROUNDING CONDUCTOR SHALL BE HARD DRAWN TINNED COPPER SIZES AS NOTED ON PLAN.
7. ALL HORIZONTALLY RUN GROUNDING CONDUCTORS SHALL BE INSTALLED MINIMUM 12" BELOW GRADE/FROST-LINE IN TRENCH, U.N.O., AND BACK FILL SHALL BE COMPACTED AS REQUIRED BY ARCHITECT.
8. ALL GROUND CONDUCTORS SHALL BE RUN AS STRAIGHT AND SHORT AS POSSIBLE, WITH A MINIMUM 12" BENDING RADIUS NOT LESS THAN 90 DEGREES.
9. ALL SUPPORT STRUCTURES, CABLE CHANNEL WAYS OR WIRE GUIDES SHALL BE BONDED TO GROUND SYSTEM AT A POINT NEAREST THE MAIN GROUNDING BUS "MGB" (OR DIRECTLY TO GROUND-RING).
10. ACCEPTABLE CONNECTIONS FOR GROUNDING SYSTEM SHALL BE:
    a. BURNDY, HY-GRADE U.L. LISTED CONNECTORS FOR INDOOR USE OR AS APPROVED BY T-MOBILE PROJECT MANAGER.
    b. CADWELD, EXOTHERMIC WELDS (WELDED CONNECTIONS).
    c. TWO -(2) HOLE TINNED COPPER COMPRESSION (LONG BARREL) FITTINGS (BUS BAR CONNECTIONS).
11. ALL CRIMPED CONNECTIONS SHALL HAVE EMBOSSED MANUFACTURER'S DIEMARK VISIBLE AT THE CRIMP (RESULTING FROM USE OF PROPER CRIMPING DEVICES).
12. PRIOR TO ANY LUG-BUSSBAR CONNECTIONS, THE BUS BAR SHALL BE CLEANED BY USE OF "SCOTCH-BRITE' OR PLAIN STEEL WOOL AS TO REMOVE ALL SURFACE OXIDATION AND CONTAMINANTS. A COATING OF "NO-OX-ID" SHALL BE APPLIED TO THE CONNECTION SURFACES.
13. ALL CONNECTION HARDWARE SHALL BE TYPE 316 SS (NOT ATTRACTED TO MAGNETS).
14. THE GROUND RING SHALL BE INSTALLED 24" MINIMUM BEYOND ANY BUILDING DRIP LINE.
15. ELECTRICAL SERVICE EQUIPMENT GROUNDING SHALL COMPLY WITH NEC, ARTICLE 250-82 AND SHALL BOND ALL EXISTING AND NEW GROUNDING ELECTRODES. NEW GROUNDING ELECTRODE SHALL INCLUDE BUT NOT LIMITED TO GROUND RODS, GROUND RING IF SERVICE IS WITHIN THE RADIO EQUIPMENT LOCATION, BUILDING STEEL IF APPLICABLE, COLD WATER CONNECTIONS MUST BE MADE ON THE STREET SIDE OF MAIN SHUT-OFF VALVE.

GROUNDING NOTES | 2

NOTE: THIS PLAN IS NOT INTENDED TO SHOW ALL EXISTING GROUNDING. ONLY PROPOSED GROUNDING AND MAIN GROUND BARS ARE DEPICTED



GROUNDING SCHEMATIC | 3

22"x34" SCALE: 3/8" = 1'-0"
11"x17" SCALE: 3/16" = 1'-0"
2' 1' 0" 2'

GROUNDING PLAN | 1

TRUE NORTH
North to be determined by site survey (if possible).

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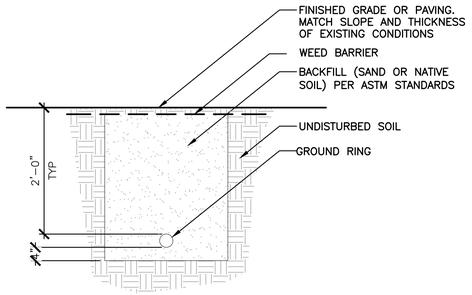
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

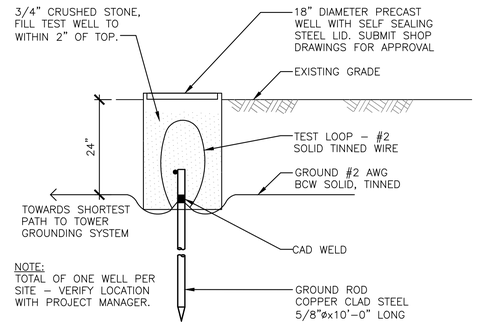
GROUNDING SCHEMATIC & NOTES

SHEET NUMBER

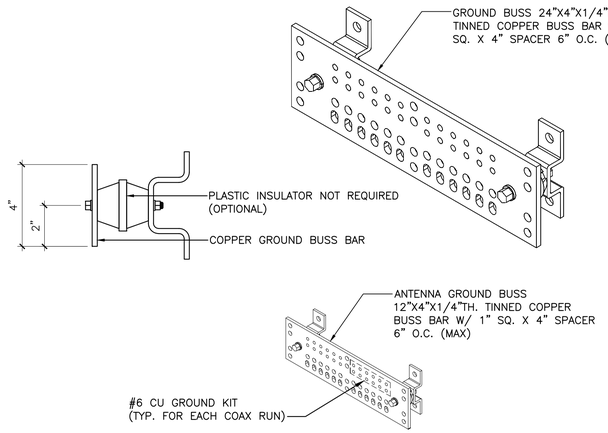
G-1



N.T.S. POWER/TELCO TRENCH DETAIL 9



N.T.S. TEST WELL DETAIL 6



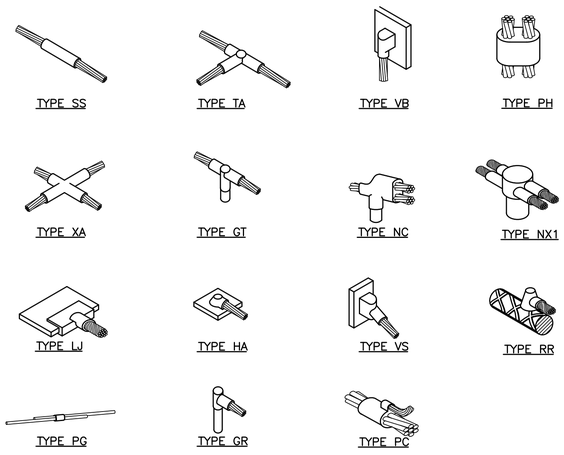
N.T.S. GROUND BAR DETAIL 3

N.T.S. GROUND ROD DETAIL 8

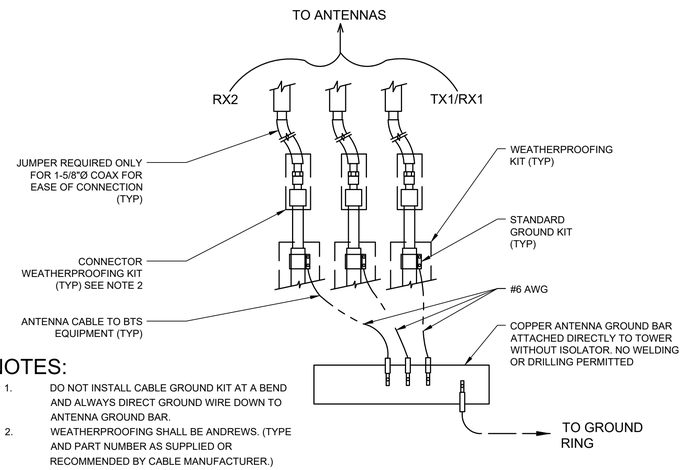
NOTES:

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

N.T.S. CABLE GROUND KIT DETAIL 5



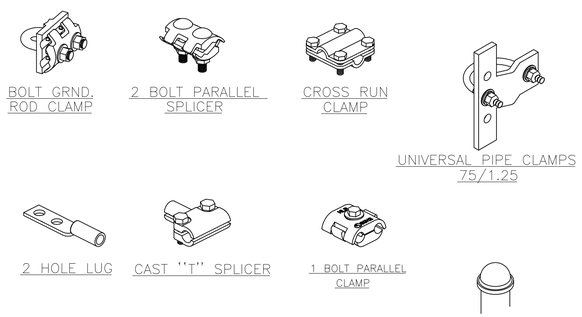
N.T.S. CADWELD CONNECTION DETAIL 2



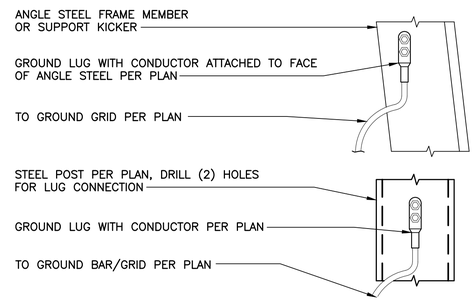
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHERPROOFING SHALL BE ANDREWS. (TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.)

N.T.S. CABLE GROUND SCHEMATIC 7



N.T.S. GROUND CLAMP DETAIL 4



N.T.S. FRAME GROUNDING DETAIL 1

T-Mobile
T-MOBILE WEST LLC
1855 GATEWAY BLVD, STE 900
CONCORD, CA 94520

SURESITE
3659 GREEN ROAD, SUITE 214
CLEVELAND, OH 44122

DRAWN BY:	SC
CHECKED BY:	CH

REVISIONS

NO.	DATE	DESCRIPTION	INITIAL
A	10/16/20	ISSUED FOR 90% CD REVIEW	SC
0	11/12/20	100% CD	SC
1	01/04/21	RADOME UPDATE	JAF
2	01/07/21	CITY COMMENTS	RGL
3	09/29/21	CITY COMMENTS	RGL

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

PALO ALTO HOLE

SF04141A

2666 E BAYSHORE RD
PALO ALTO, CA 94303

REGISTERED PROFESSIONAL ENGINEER
ALAN E. MONEY
46959
Sep 29, 2021
CIVIL
STATE OF CALIFORNIA

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

G-2

ELECTRIC NOTES:

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE NEC AS WELL AS ALL APPLICABLE STATE & LOCAL CODES.
2. CONTRACTOR SHALL FURNISH & INSTALL ALL CONDUIT, CONDUCTORS, PULL BOXES, TRANSFORMER PADS, POLE RISERS, & PERFORM ALL TRENCHING & BACKFILLING REQUIRED IN THE PLANS
3. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED & PROCURED PER PLAN SPECIFICATIONS.
4. ALL CIRCUIT BREAKERS, FUSES, & ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRHPTION RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED W/ A MINIMUM OF 10,000 A.I.C. OR AS REQUIRED
5. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
6. ELECTRICAL WIRING SHALL BE COPPER #12 MIN W/ TYPE XHHW, THWN, OR THHN INSULATION
7. ALL OUTDOOR EQUIPMENT SHALL HAVE NEMA 3R ENCLOSURE.
8. ALL BURIED WIRE SHALL RUN THROUGH SCHEDULE 40 PVC CONDUIT UNLESS OTHERWISE NOTED.
9. A GROUND WIRE IS TO BE PULLED IN ALL CONDUITS.
10. WHERE ELECTRICAL WIRING OCCURS OUTSIDE A STRUCTURE & HAS THE POTENTIAL FOR EXPOSURE TO WEATHER, WIRING SHALL BE IN WATERTIGHT GALVANIZED RIGID STEEL OR FLEXIBLE CONDUIT.

ELECTRICAL NOTES | 2

EXISTING PANELBOARD SCHEDULE "A" LOCATION: EQUIPMENT AREA
C.B. RATING 10,000 A.I.C.

VOLTAGE: 120/240 V., 1ø, 3 W. | MAINS: 100A | MOUNTING: SURFACE | TYPE: GE A.Q. OR EQUAL

USE and/or AREA SERVED	C/B	CIR NO	LOAD øA	LOAD øB	CIR NO	C/B	USE and/or AREA SERVED
MAIN	100	1	0		2	50	BTS 1 (OFF)
	2P	3	0	0	4	2P	
LIGHT	20/1	5	960	0	6	50	BTS 2 (OFF)
PLUG	20/1	7	0	580	8	2P	
–	–	9	–	0	10	100	UMTS
–	–	11	4600	–	12	2P	
–	–	13	–	4600	14	–	–
–	–	15	–	–	16	–	–
–	–	17	–	–	18	–	–
–	–	19	–	–	20	–	–
TOTAL LOAD PER PHASE			5560	5180	10,740 VA ÷240V = 44.8 AMPS		

* LOAD AT 125% PER N.E.C. ⎔ LOCK ON DEVICES ON C.B.'s

EXISTING PANEL SCHEDULE | 3

NEW PANELBOARD SCHEDULE "PCC" LOCATION: EQUIPMENT AREA
C.B. RATING 65,000 A.I.C.

VOLTAGE: 120/240 V., 1ø, 3 W. | MAINS: 200A | MOUNTING: H–FRAME | TYPE: GE A.Q. OR EQUAL

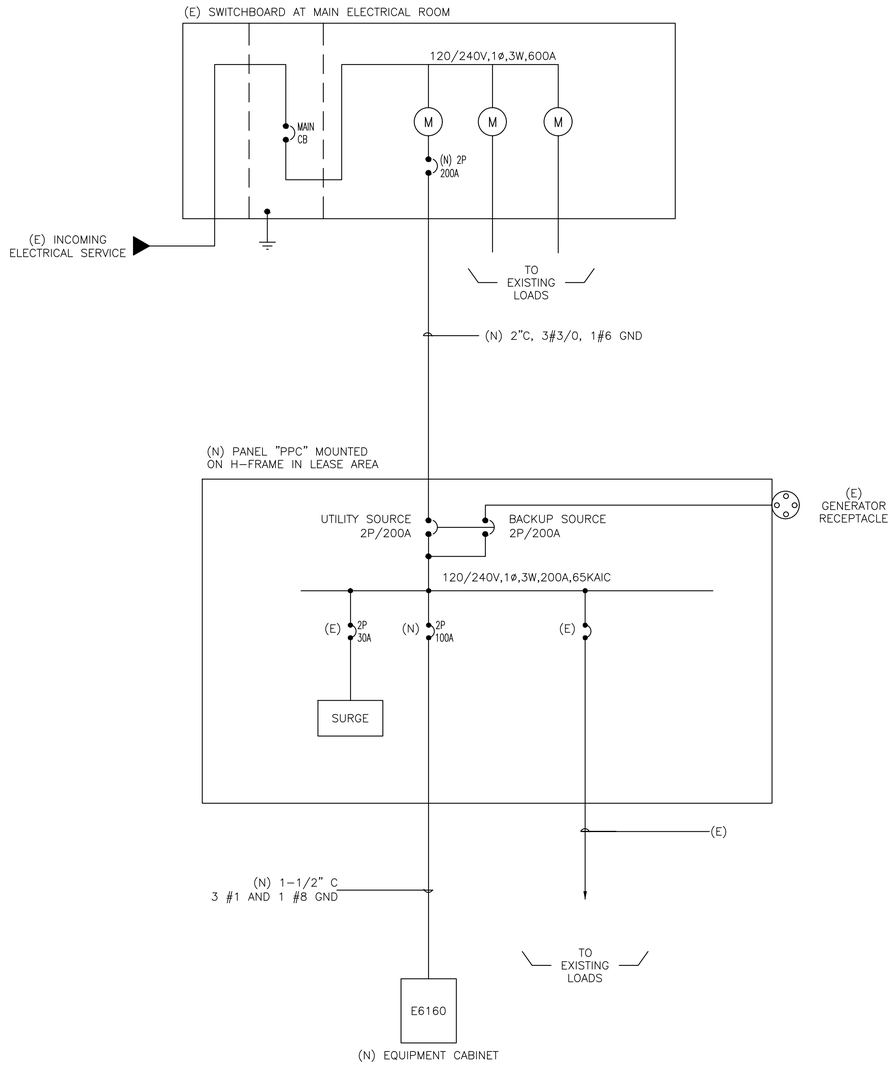
USE and/or AREA SERVED	C/B	CIR NO	LOAD øA	LOAD øB	CIR NO	C/B	USE and/or AREA SERVED
UMTS	100A	1	4600		2	100/2	E6160
	2P	3	8640	4600	4		
LIGHT	20/1	5	960	8640	6	15/1	GFI
PLUG	20/1	7	580	580	8	–	BLANK
BLANK	–	9	–	–	10	–	BLANK
BLANK	–	11	–	–	12	–	BLANK
BLANK	–	13	–	–	14	–	BLANK
BLANK	–	15	–	–	16	–	BLANK
BLANK	–	17	–	–	18	–	BLANK
BLANK	–	19	–	–	20	–	BLANK
TOTAL LOAD PER PHASE			14,780	13,820	28,600 VA ÷240V = 119.2 AMPS		

* LOAD AT 125% PER N.E.C. ⎔ LOCK ON DEVICES ON C.B.'s

NEW PANEL SCHEDULE | 4

ELECTRIC LEGEND:

- (M) MECHANICAL INTERLINK
- (M) METER
- CIRCUIT BREAKER
- SERVICE GROUND
- WIRED CONNECTION
- TIMER SWITCH, WATERPROOF
- OUTDOOR LIGHT
- GFI OUTLET, WATERPROOF



ONE LINE DIAGRAM | 1

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SHEET TITLE
PANEL SCHEDULE & 1-LINE

SHEET NUMBER
E-1