

AT&T

SITE NAME: HAYWARD 3 - SLEEPY HOLLOW AVE

FA#: 10087881

NATIONAL SITE ID: CCL00494

USID: 13285

SCOPE: "LTE 4C/LTE 5C/LTE 6C/LTE 7C/4TXRX ANTENNA RETROFIT"
(RFDS ID: 1838550 VER. 6.00 REV. 6.00 2/25/19)

PACE#: MRSFR037307

PACE#: MRSFR037557

PACE#: MRSFR041537

PACE#: MRSFR045521

PACE#: MRSFR040868

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REV

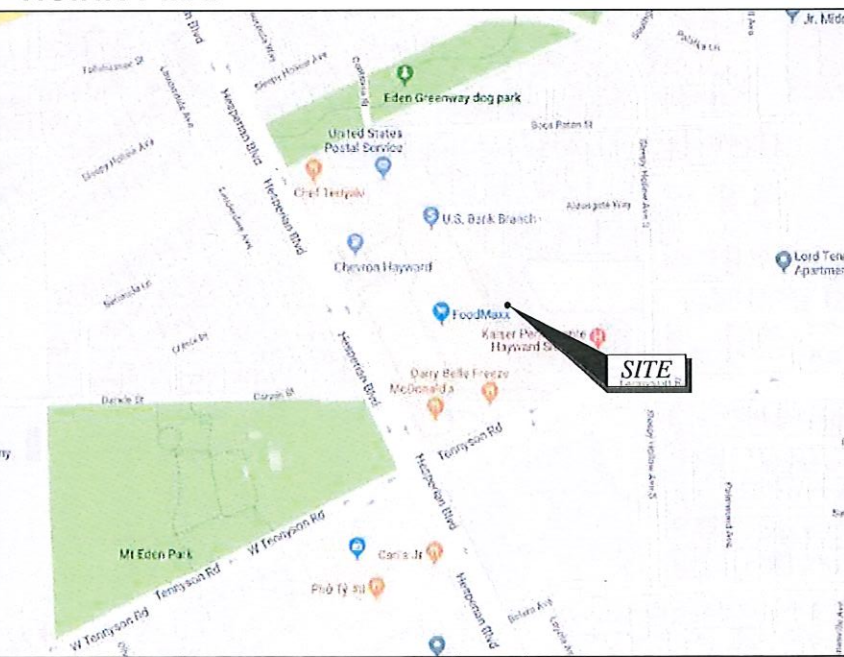
DIRECTIONS

DIRECTIONS FROM AT&T MOBILITY HEADQUARTERS IN SAN RAMON, CA:

HEAD NORTHEAST ON BISHOP DR TOWARD SUNSET DR. TURN RIGHT ONTO SUNSET DR. USE THE RIGHT 2 LANES TO TURN RIGHT ONTO BOLLINGER CANYON RD. USE THE RIGHT LANE TO MERGE ONTO I-680 S VIA THE RAMP TO SAN JOSE. MERGE ONTO I-680 S. CONTINUE STRAIGHT TO STAY ON I-680 S (SIGNS FOR I-580 W/DUBLIN/OAKLAND/SAN JOSE). TAKE EXIT 30B TO MERGE ONTO I-580 W TOWARD DUBLIN/OAKLAND. KEEP LEFT AT THE FORK TO CONTINUE ON I-238 N, FOLLOW SIGNS FOR I-880. USE THE RIGHT 2 LANES TO TAKE EXIT 16A FOR INTERSTATE 880 S TOWARD SAN JOSE/SAN MATEO BRIDGE. MERGE ONTO I-880 S. CONTINUE ONTO I-880 S. TAKE THE EXIT TOWARD W TENNYSON RD. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR TENNYSON ROAD W AND MERGE ONTO W TENNYSON RD. MERGE ONTO W TENNYSON RD. TURN RIGHT ONTO SLEEPY HOLLOW AVE S. TURN LEFT. DESTINATION WILL BE ON THE LEFT

VICINITY MAP

NTS



PROJECT DESCRIPTION

MODIFICATION OF EXISTING TELECOMMUNICATIONS FACILITY CONSISTING OF REMOVAL OF (6) EXISTING ANTENNAS & (1) MONOPOLE. INSTALLATION OF (3) NEW MONOPOLES & (9) NEW ANTENNAS ((3) PER POLE). INSTALLATION OF (15) NEW RRUS (3) RRUS-4478 B14, (3) RRUS-4478 B5, (3) RRUS-E2 B29, (3) 4426 B66 & (3) 4415-B25 ON EXIST PARKING STRUCTURE BEHIND SCREEN. INSTALLATION OF (12) DC TRUNKS, (4) PER SECTOR & (3) FIBER TRUNKS, (1) PER SECTOR IN NEW 3" EMT CONDUIT. INSTALLATION OF (2) NEW DC6 W/(4) NEW DC CABLES AND (2) FIBER TRUNK (TYP PER SECTOR, TOTAL OF 6). RELOCATION OF (6) EXIST RRUS (3) RRUS-11 B12, (3) RRU-32 FROM EQUIPMENT AREA TO PARAPET WALL BEHIND SCREEN. REMOVAL OF ALL EXIST AT&T COAX LINES. REMOVAL OF (6) RRUS-12 - (2) PER SECTOR, AND (3) RRUS-11 AND (3) EQUIPMENT CABINETS FROM AT&T EQUIPMENT AREA. INSTALLATION OF (2) NEW 23" EQUIPMENT RACKS FOR INDOOR RAYCAPS, POWER UP CONVERTERS & NEW DU 6630 & 5216 AND (3) DC12 IN EQUIPMENT AREA.

PROJECT INFORMATION

SITE ADDRESS: 27303 SLEEPY HOLLOW AVENUE
HAYWARD, CA 94545

PROPERTY OWNER: KAISER FOUNDATION HOSPITALS

APPLICANT: AT&T MOBILITY
5001 EXECUTIVE PARKWAY
SAN RAMON, CA 94583

LATITUDE: 37° 37' 56.55" N
LONGITUDE: 122° 05' 43.66" W
LAT/LONG TYPE: (NAD 83)
ELEVATION: 25.8'± AMSL (NAD 83)
JURISDICTION: CITY OF HAYWARD
COUNTY: ALAMEDA
ZONING: ML - LIGHT INDUSTRIAL
APN: 455-0026-024-03
CURRENT USE: TELECOMMUNICATION FACILITY
PROPOSED USE: TELECOMMUNICATION FACILITY

Mark Privette
Digitally signed by Mark Privette
Date: 2023.08.22 20:31:36 -04'00'



CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

- 2019 CALIFORNIA ADMINISTRATIVE CODE
- 2019 CALIFORNIA BUILDING CODE
- 2019 CALIFORNIA EXISTING BUILDING CODE
- 2019 CALIFORNIA ELECTRIC CODE
- 2019 CALIFORNIA MECHANICAL CODE
- 2019 CALIFORNIA PLUMBING CODE
- 2019 CALIFORNIA FIRE CODE
- ANY LOCAL BUILDING CODE AMENDMENTS TO THE ABOVE
- CITY/COUNTY ORDINANCES

HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED IN ACCORDANCE WITH CALIFORNIA ADMINISTRATIVE STATE CODE PART 2, TITLE 24, CHAPTER 11B, SECTION 203.4 & 203.5.

PROJECT CONTACTS

	NAME	COMPANY	NUMBER
A/E	MIKE PATEL	TECTONIC	845-567-6656
RF	SAGAR BONDE	AT&T	323-547-5845
CON	MIKE GNIP	ERICSSON	443-852-4123
SAC	KARIANNE KERR	ERICSSON	360-513-1204

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0	11/19/18	ISSUED FOR CONSTRUCTION		MP			
1	11/19/19	ISSUED PER COMMENTS					
2	01/14/20	ISSUED PER COMMENTS					
3	07/02/21	UPDATED MONOPOLE LOCATION					
4	08/05/21	ISSUED PER COMMENTS					
5	07/10/23	UPDATED HIGHTS					

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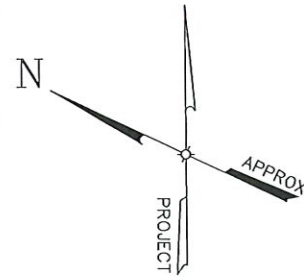
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1420 Bristol Street North
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Newport Beach, CA 92660
Phone: (949) 502-8555
(800) 829-6531
www.tectonicengineering.com

Project Contact Info
1279 Route 300
Newburgh, NY 12550
Phone: (845) 567-6656

TITLE SHEET

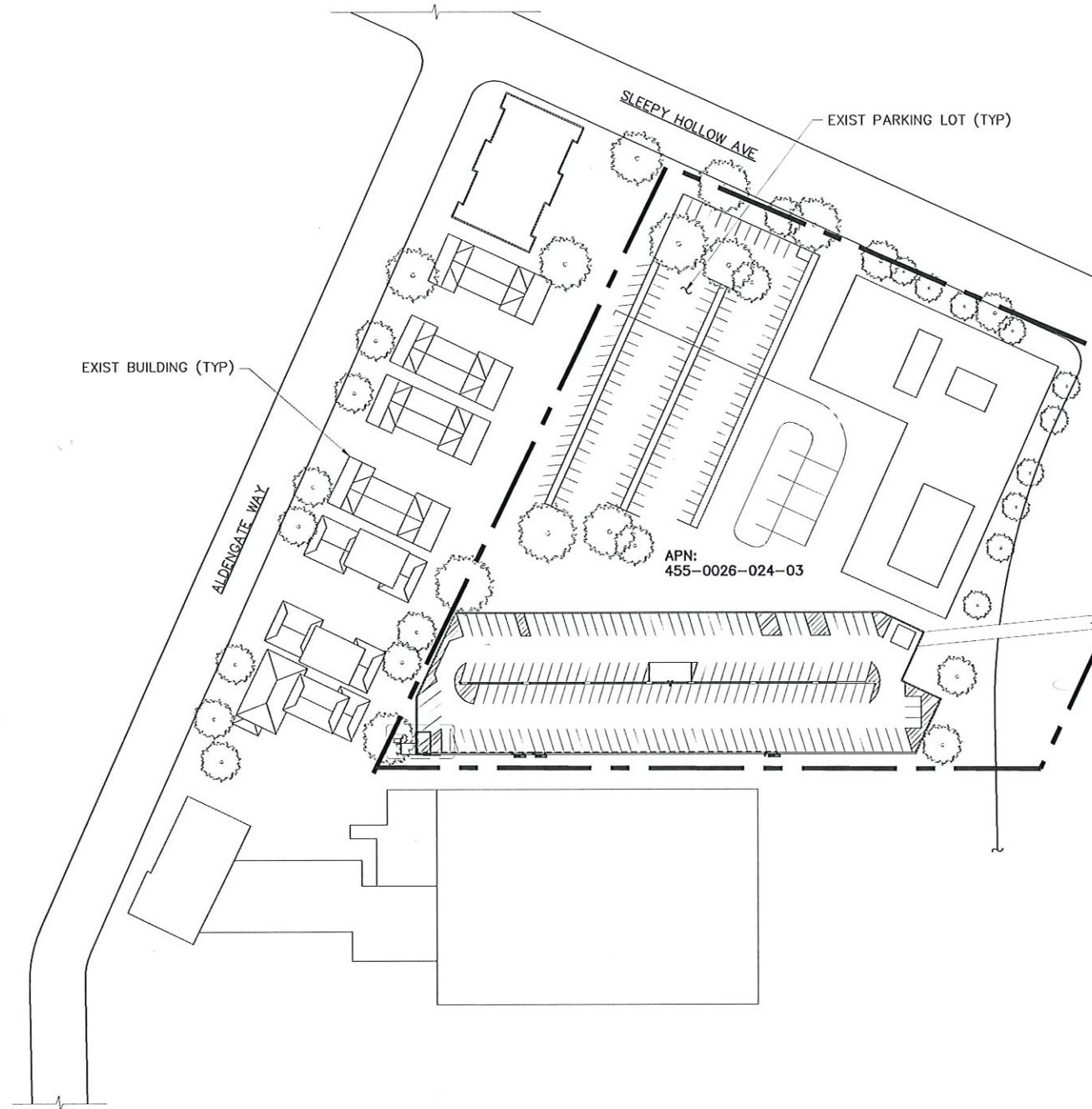
HAYWARD 3 - SLEEPY HOLLOW AVE
SITE NO. CCL00494
FA LOCATION NO. 10087881
27303 SLEEPY HOLLOW AVENUE
HAYWARD, CA 94545

Date 08/05/21	Work Order 9194.CCL00494	Drawing No. T01	Rev 4
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NORTH NOTE:
NORTH SHOWN HAS BEEN
ESTABLISHED USING THE USGS
QUADRANGLE 7.5 MINUTE MAPS
AND IS APPROXIMATE. VERIFY
TRUE NORTH PRIOR TO
INSTALLATION OF ANTENNAS.

NOTE:
SITE PLAN INFORMATION SHOWN IS BASED ON
PREVIOUS PROJECT DRAWINGS AND
INFORMATION PROVIDED BY THE CLIENT. A
PROPERTY SURVEY HAS NOT BEEN PREPARED.



1 SITE PLAN
A01 SCALE: 1/32" = 1'-0"



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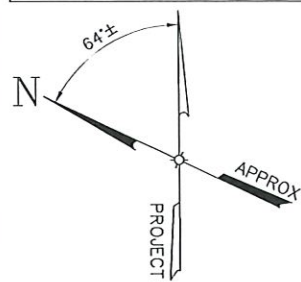
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SITE PLAN			
HAYWARD 3 - SLEEPY HOLLOW AVE SITE NO. CCL00494 FA LOCATION NO. 10087881 27303 SLEEPY HOLLOW AVENUE HAYWARD, CA 94545			
Date 08/05/21 Scale AS NOTED	Work Order 9194.CCL00494	Drawing No. A01	Rev 4

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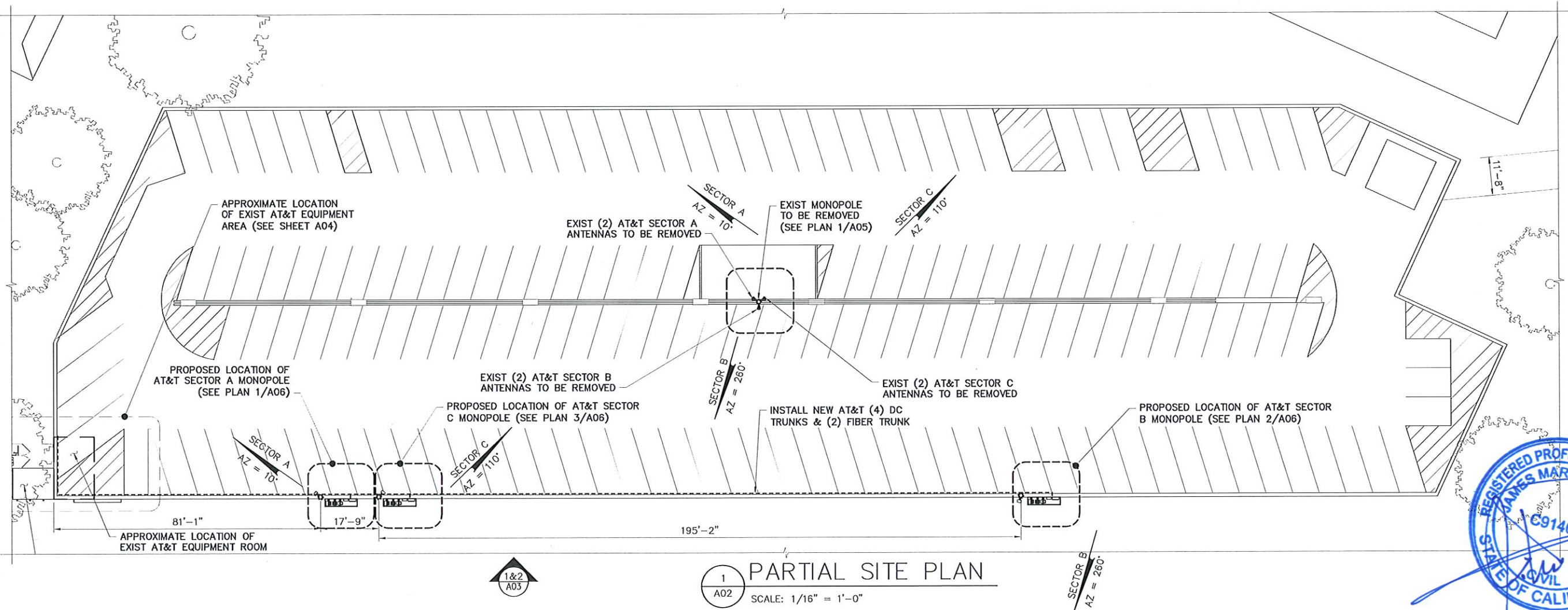


STRUCTURAL NOTE:
BUILDING ANALYSIS:
REFER TO STRUCTURAL ANALYSIS REPORT DATED 12/2/20, SHEAR WALL
STRUCTURAL EVALUATION DATED 12/2/20 & DESIGN DRAWINGS DATED 12/2/20
DONE BY GPD GROUP, INC.
MONOPOLE ANALYSIS:
REFER TO ALPHA STRUCTURAL ANALYSIS REPORT & DESIGN DRAWINGS DATED
9/4/20, BETA STRUCTURAL ANALYSIS REPORT & DESIGN DRAWINGS DATED
9/4/20, AND GAMMA STRUCTURAL ANALYSIS REPORT & DESIGN DRAWINGS
DATED 9/4/20 DONE BY VALMONT.

ANTENNA CABLE LENGTH	
SECTOR A:	150' ±
SECTOR B:	270' ±
SECTOR C:	390' ±

ANTENNA REQUIREMENTS SCHEDULE					
SECTION	FINAL ANTENNA TYPE	EXIST TECHNOLOGY	FINAL TECHNOLOGY	ANTENNA AZIMUTH	STATUS
A1	COMMSCOPE JAHH-65A-R3B	LTE 700/1900	LTE 700/1900	10°	REPLACE
A2	COMMSCOPE NNHH-65A-R4	UMTS 850/LTE WCS	LTE 700/WCS	10°	REPLACE
A3	COMMSCOPE JAHH-65A-R3B	-	LTE B29/850/AWS	10°	NEW
B1	COMMSCOPE JAHH-65A-R3B	LTE 700/1900	LTE 700/1900	260°	REPLACE
B2	COMMSCOPE NNHH-65A-R4	LTE WCS/UMTS 850	LTE 700/WCS	260°	REPLACE
B3	COMMSCOPE JAHH-65A-R3B	-	LTE B29/850/AWS	260°	NEW
C1	COMMSCOPE JAHH-65A-R3B	LTE 700/1900	LTE 700/1900	110°	REPLACE
C2	COMMSCOPE NNHH-65A-R4	UMTS 850/LTE WCS	LTE 700/WCS	110°	REPLACE
C3	COMMSCOPE JAHH-65A-R3B	-	LTE B29/850/AWS	110°	NEW

NOTE: IF AN ANTENNA IS TO BE RELOCATED, ALL ASSOCIATED EQUIPMENT SHALL BE RELOCATED ALONG WITH ITS RESPECTIVE ANTENNA.



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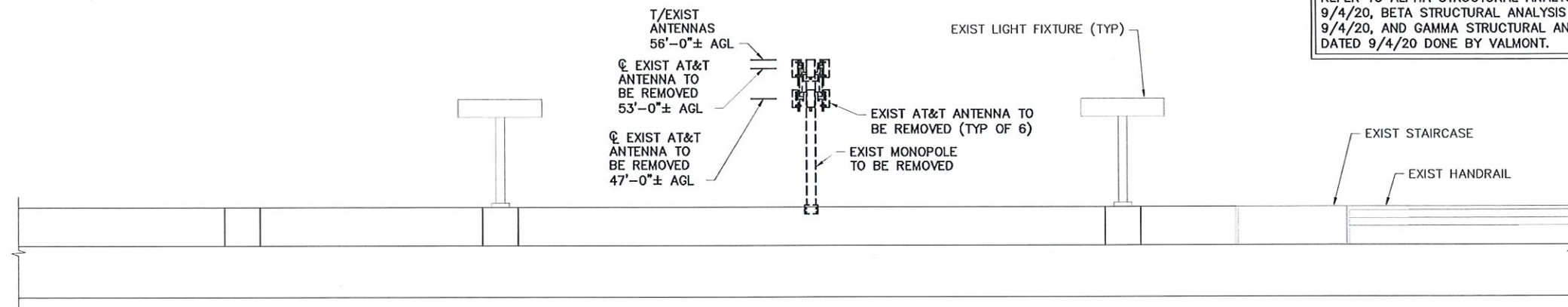
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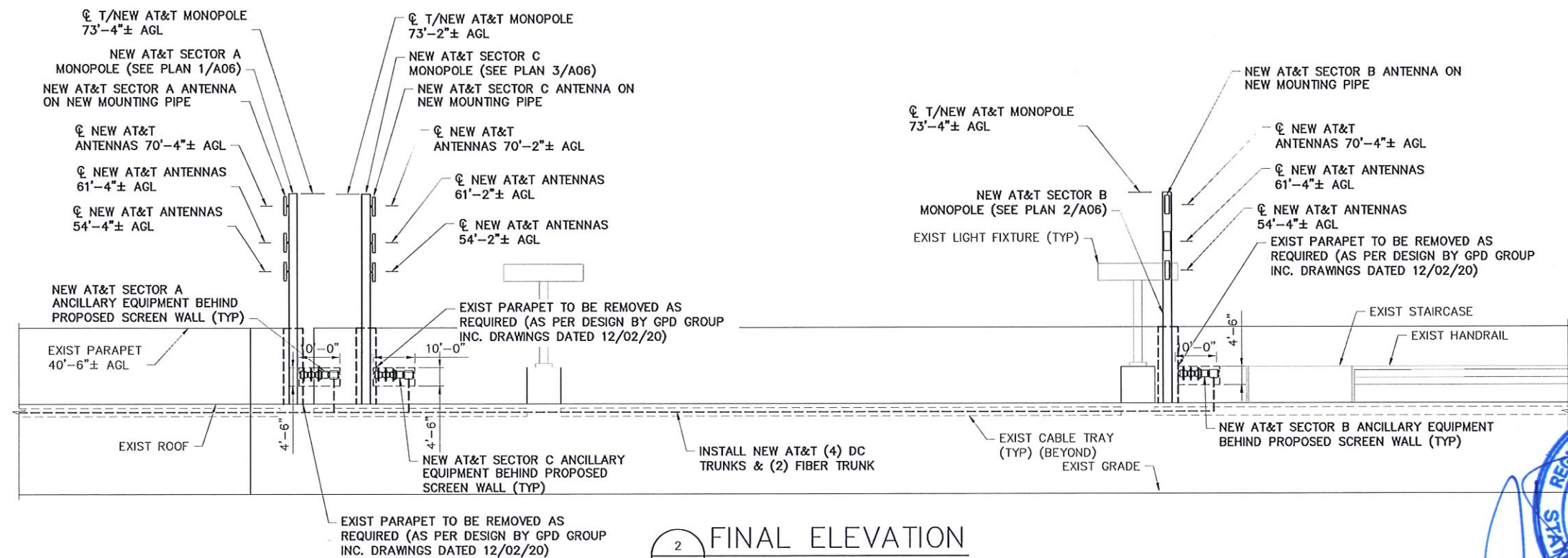
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Phone: (845) 567-6656

PARTIAL SITE PLAN			
HAYWARD 3 - SLEEPY HOLLOW AVE SITE NO. CCL00494 FA LOCATION NO. 10087881 27303 SLEEPY HOLLOW AVENUE HAYWARD, CA 94545			
Date 08/05/21	Work Order 9194.CCL00494	Drawing No. A02	Rev 4
Scale AS NOTED			

STRUCTURAL NOTE:
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 9/4/20, AND GAMMA STRUCTURAL ANALYSIS REPORT & DESIGN DRAWINGS
 DATED 9/4/20 DONE BY VALMONT.



1 EXIST ELEVATION
 A03 SCALE: 1/16" = 1'-0"



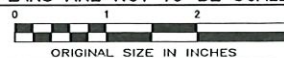
2 FINAL ELEVATION
 A03 SCALE: 1/16" = 1'-0"



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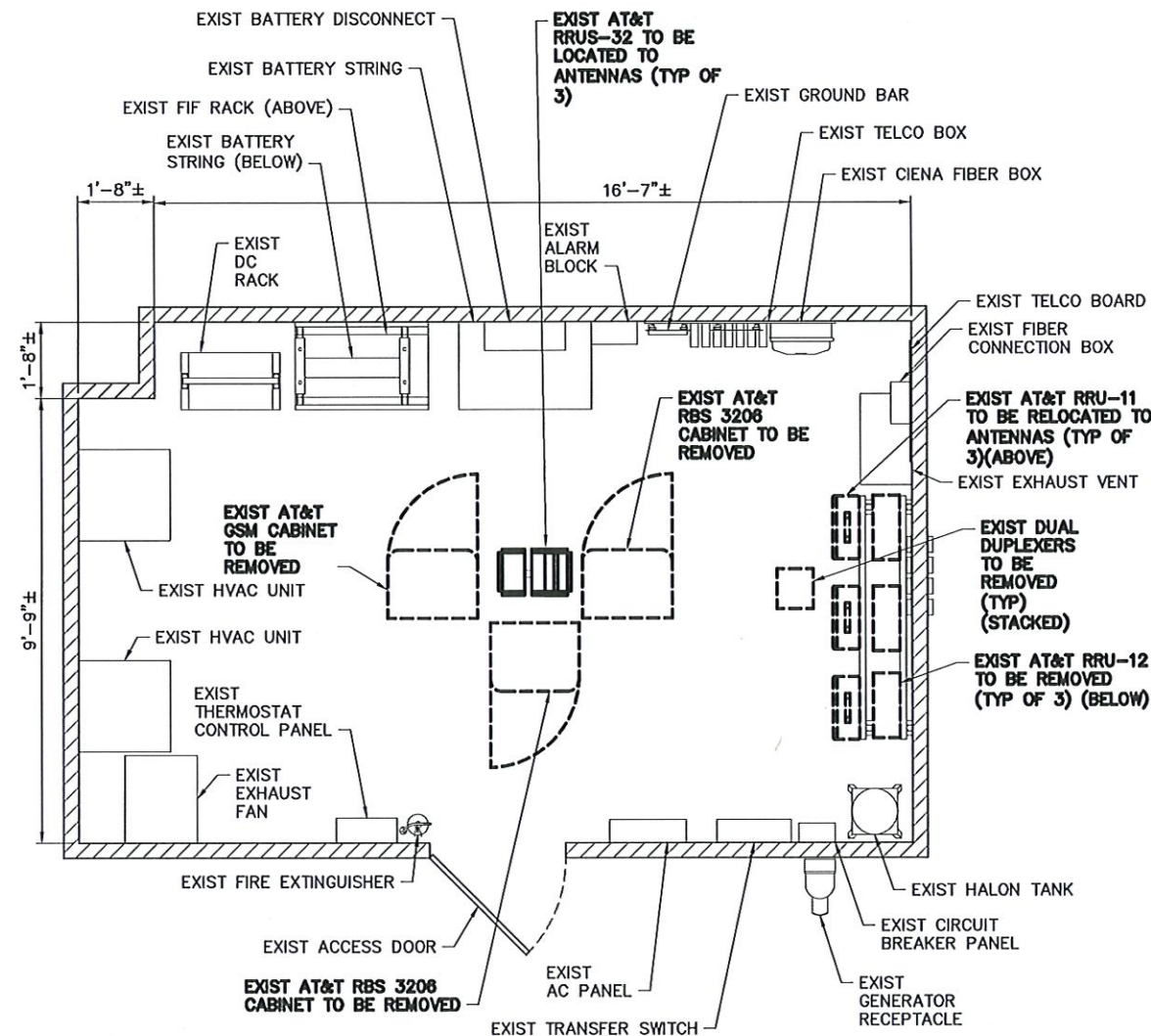
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EXIST & FINAL ELEVATIONS

HAYWARD 3 - SLEEPY HOLLOW AVE
 SITE NO. CCL00494
 FA LOCATION NO. 10087881
 27303 SLEEPY HOLLOW AVENUE
 HAYWARD, CA 94545

Date	Work Order	Drawing No.	Rev
08/05/21			
Scale	AS NOTED	9194.CCL00494	A03
			4

NORTH NOTE:
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QUADRANGLE 7.5 MINUTE MAPS AND IS APPROXIMATE.
VERIFY TRUE NORTH PRIOR TO INSTALLATION OF ANTENNAS.



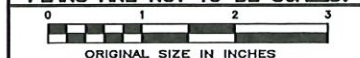
1
A04
SCALE: 1/2" = 1'-0"



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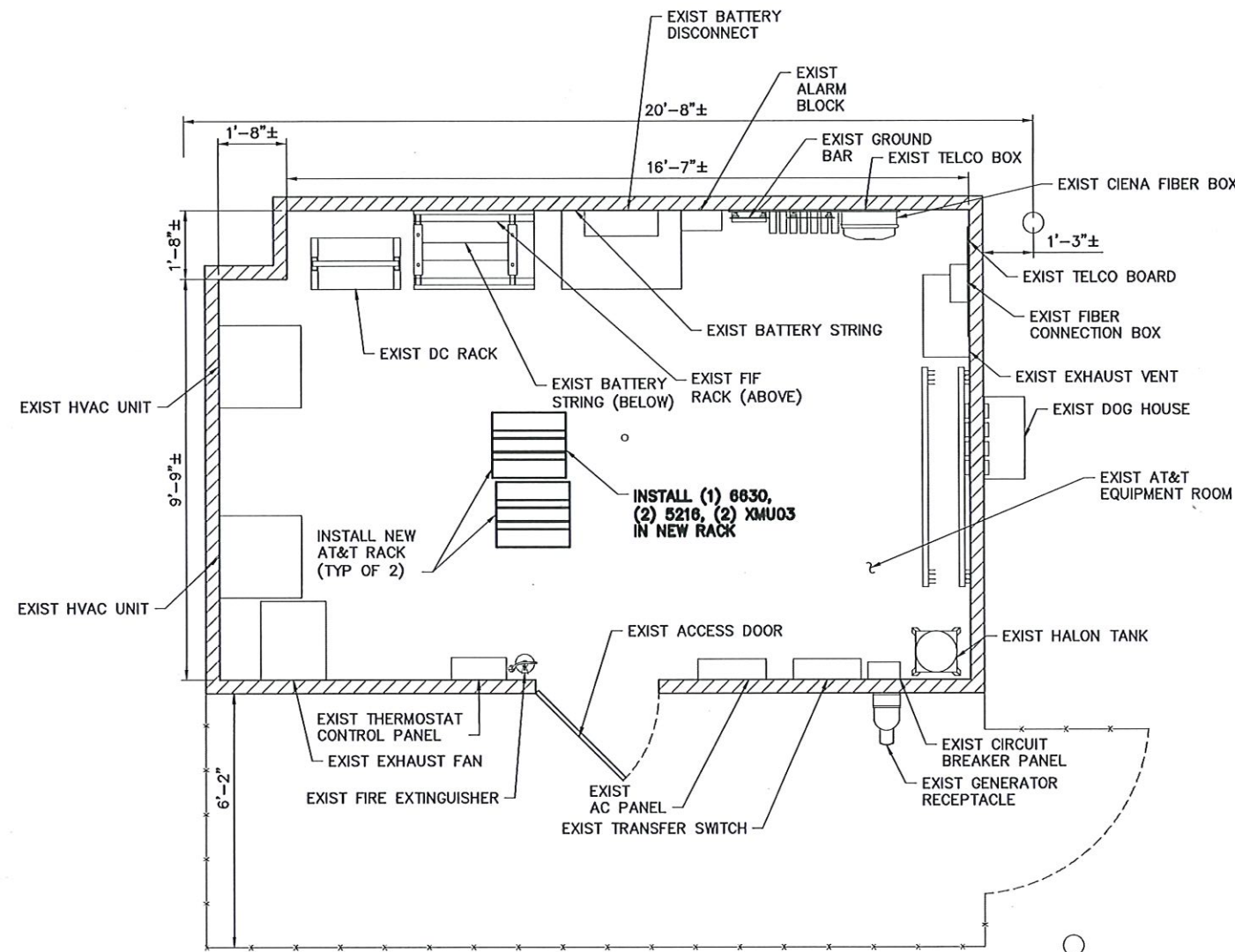
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EXIST EQUIPMENT LAYOUT PLAN
HAYWARD 3 - SLEEPY HOLLOW AVE
SITE NO. CCL00494
FA LOCATION NO. 10087881
27303 SLEEPY HOLLOW AVENUE
HAYWARD, CA 94545

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1
A04.1
SCALE: 1/2" = 1'-0"

PROPOSED EQUIPMENT LAYOUT PLAN



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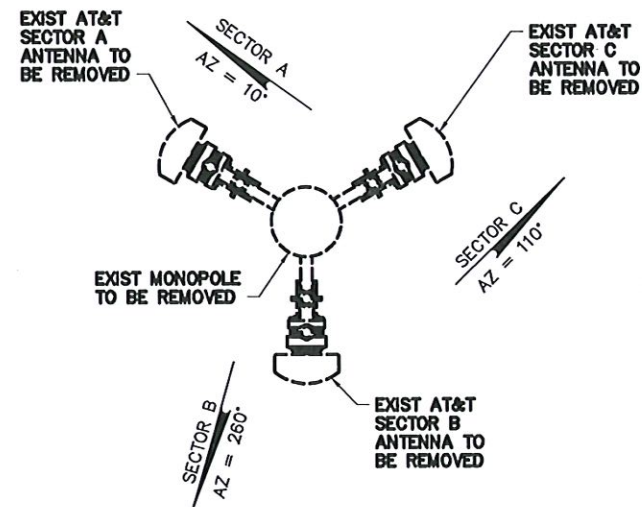
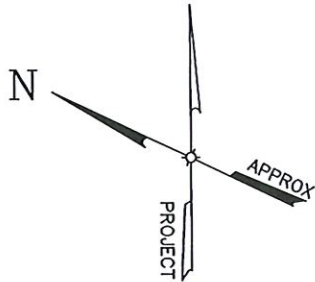
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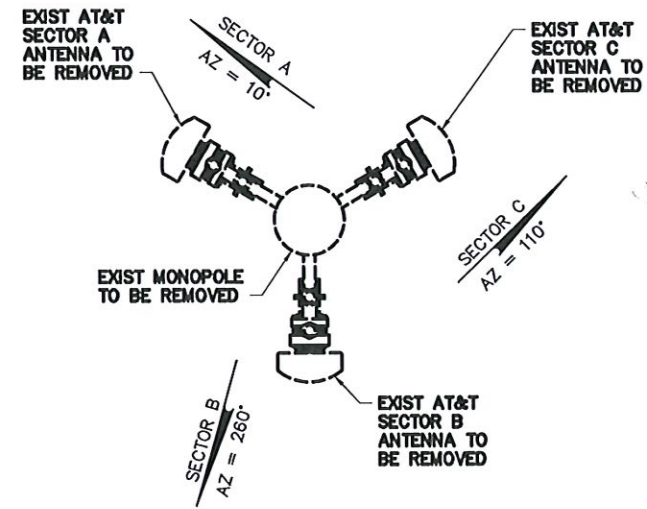
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			4

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QUADRANGLE 7.5 MINUTE MAPS AND IS APPROXIMATE.
VERIFY TRUE NORTH PRIOR TO INSTALLATION OF ANTENNAS.



1 EXIST ANTENNA PLAN
A05 SCALE: 3/4" = 1'-0"



2 EXIST ANTENNA PLAN
A05 SCALE: 3/4" = 1'-0"



STRUCTURAL NOTE:
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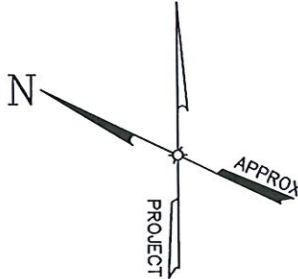
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Newburgh, NY 12550
Phone: (949) 502-8555
(800) 829-8531
www.tectonicengineering.com
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EXIST ANTENNA PLANS

HAYWARD 3 - SLEEPY HOLLOW AVE
SITE NO. CCL00494
FA LOCATION NO. 10087881
27303 SLEEPY HOLLOW AVENUE
HAYWARD, CA 94545

Date	Work Order	Drawing No.	Rev
08/05/21			
Scale	AS NOTED	9194.CCL00494	A05
			4

NORTH NOTE:
NORTH SHOWN HAS BEEN
ESTABLISHED USING THE USGS
QUADRANGLE 7.5 MINUTE MAPS
AND IS APPROXIMATE. VERIFY
TRUE NORTH PRIOR TO
INSTALLATION OF ANTENNAS.



NEW AT&T SECTOR A
COMMSCOPE JAHH-65A-R3B
OCTOPORT ANTENNA ON
NEW MOUNTING PIPE @ ϕ
70'-4"± AGL (TOP)

NEW AT&T SECTOR A COMMSCOPE
NNHH-65A-R4 OCTOPORT ANTENNA ON NEW
MOUNTING PIPE @ ϕ 61'-4"± AGL (MIDDLE)

NEW AT&T SECTOR A COMMSCOPE
JAHH-65A-R3B OCTOPORT ANTENNA ON NEW
MOUNTING PIPE @ ϕ 54'-4"± AGL (BOTTOM)

NEW AT&T STANDOFF ARM
(SITE PRO P/N: MM01) (TYP OF 3)

RELOCATED AT&T
SECTOR A RRUS-11 ON
NEW DUAL MOUNT

NEW AT&T SECTOR A
RRUS-4478 B5 ON
NEW DUAL MOUNT

NEW AT&T SECTOR A
RRUS-4478 B14 ON
NEW DUAL MOUNT

NEW AT&T SECTOR A
RRUS-E2 B29 ON
NEW UNISTRUT FRAME

INSTALL NEW AT&T
(4) DC TRUNKS &
(2) FIBER TRUNK

NEW AT&T UNIVERSAL RING
MOUNT (SITE PRO P/N: LWRM)
(TYP OF 3)

NEW AT&T DUAL MOUNT KIT
(ERICSSON P/N: SXK1250461/1
(CEQ 17833)(TYP)

INSTALL NEW AT&T
RF ENCLOSURE (TYP)
INSTALL NEW AT&T
SECTOR A DC12

NEW AT&T SECTOR A
RRUS-4415 B25 ON
NEW DUAL MOUNT

RELOCATED AT&T
SECTOR A RRUS-32 ON
NEW DUAL MOUNT

(SECTOR A) 1 FINAL ANTENNA PLAN

SCALE: 3/4" = 1'-0"

NEW AT&T SECTOR B MONOPOLE
NEW AT&T STANDOFF
ARM (TYP OF 3)

EXIST CURB

NEW AT&T UNIVERSAL RING
MOUNT (TYP OF 3)

NEW AT&T SECTOR B
ANTENNA ON NEW MOUNTING
PIPE @ ϕ 70'-4"± AGL (TOP)

NEW W12 BEAM (BELOW)
(AS PER DESIGN BY GPD
GROUP INC. DRAWINGS
DATED 12/02/20)

EXIST PARAPET TO BE REMOVED AS
REQUIRED (AS PER DESIGN BY GPD
GROUP INC. DRAWINGS DATED 12/02/20)

RELOCATED AT&T
SECTOR B RRUS-11 ON
NEW DUAL MOUNT

NEW AT&T SECTOR B
RRUS-4478 B14 ON
NEW DUAL MOUNT

NEW AT&T SECTOR B
RRUS-4415 B25 ON
NEW DUAL MOUNT

INSTALL NEW AT&T (4) DC
TRUNKS & (2) FIBER TRUNK

NEW AT&T SECTOR B ANTENNA
ON NEW MOUNTING PIPE @ ϕ
61'-4"± AGL (MIDDLE)

NEW AT&T SECTOR B ANTENNA ON NEW
MOUNTING PIPE @ ϕ 54'-4"± AGL (BOTTOM)

NEW AT&T SECTOR B
RRUS-4478 B5 ON
NEW DUAL MOUNT

NEW AT&T SECTOR B
RRUS-4428 B88 ON
NEW DUAL MOUNT

(SECTOR B) 2 FINAL ANTENNA PLAN

SCALE: 3/4" = 1'-0"

NEW AT&T SECTOR C ANTENNA ON NEW
MOUNTING PIPE @ ϕ 61'-2"± AGL (MIDDLE)

NEW AT&T SECTOR C ANTENNA ON NEW
MOUNTING PIPE @ ϕ 54'-2"± AGL (BOTTOM)

NEW W12 BEAM (BELOW) (AS PER
DESIGN BY GPD
GROUP INC. DRAWINGS
DATED 12/02/20)

NEW AT&T STANDOFF
ARM (TYP OF 3)

NEW AT&T UNIVERSAL
RING MOUNT (TYP OF 3)

NEW AT&T SECTOR C MONOPOLE

NEW AT&T SECTOR C
RRUS-4428 B88 ON
NEW DUAL MOUNT

(SECTOR C) 3 FINAL ANTENNA PLAN

SCALE: 3/4" = 1'-0"

NEW AT&T SECTOR C ANTENNA ON NEW
MOUNTING PIPE @ ϕ 70'-2"± AGL (TOP)

EXIST PARAPET TO BE REMOVED AS
REQUIRED (AS PER DESIGN BY GPD
GROUP INC. DRAWINGS DATED 12/02/20)

NEW AT&T SECTOR C
RRUS-4428 B88 ON
NEW DUAL MOUNT

NEW AT&T SECTOR C
RRUS-4478 B14 ON
NEW DUAL MOUNT

NEW AT&T SECTOR C
RRUS-4415 B25 ON
NEW DUAL MOUNT

INSTALL NEW AT&T (4) DC
TRUNKS & (2) FIBER TRUNK

INSTALL NEW AT&T
RF ENCLOSURE (TYP)
INSTALL NEW AT&T
SECTOR C DC12

RELOCATED AT&T
SECTOR C RRUS-32 ON
NEW DUAL MOUNT

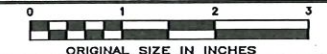
NEW AT&T SECTOR C
RRUS-E2 B29 ON
NEW UNISTRUT FRAME



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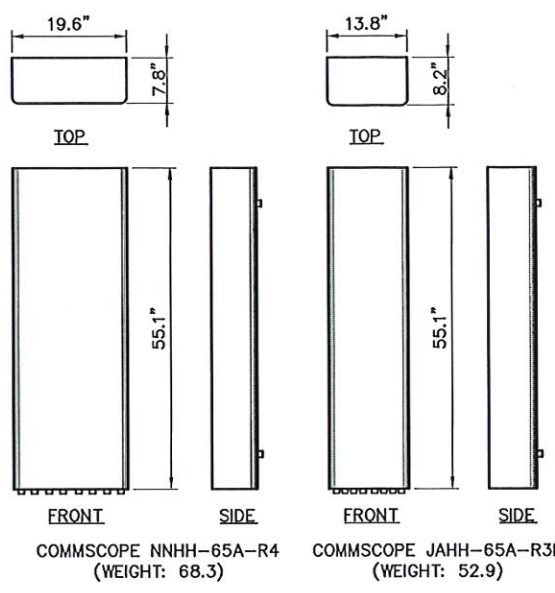
Rev	Date	Revision	Approved	DRAWING CONTROL			
0	11/19/18	ISSUED FOR CONSTRUCTION		Designed by:	MP	Drawn by:	ML
1	11/19/19	ISSUED PER COMMENTS		Purpose:		Released by:	ML
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FINAL ANTENNA PLANS

HAYWARD 3 - SLEEPY HOLLOW AVE
SITE NO. CCL00494
FA LOCATION NO. 10087881
27303 SLEEPY HOLLOW AVENUE
HAYWARD, CA 94545

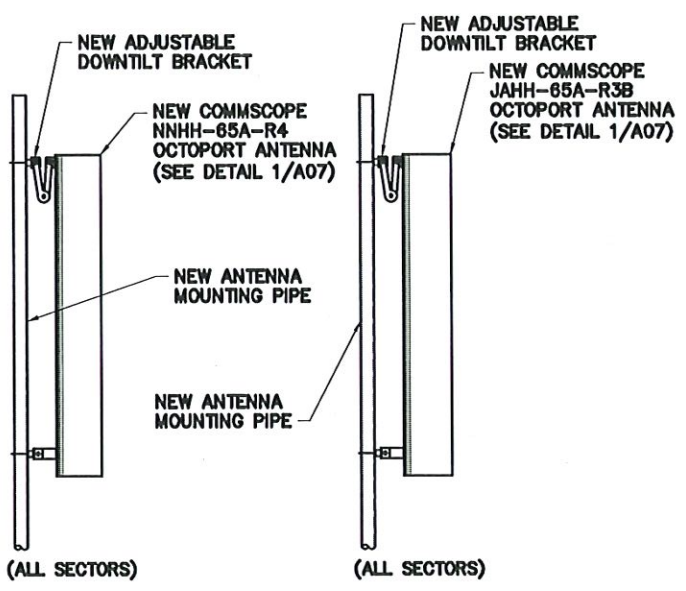
Date	Work Order	Drawing No.	Rev
08/05/21			
Scale	AS NOTED	9194.CCL00494	A06
			4



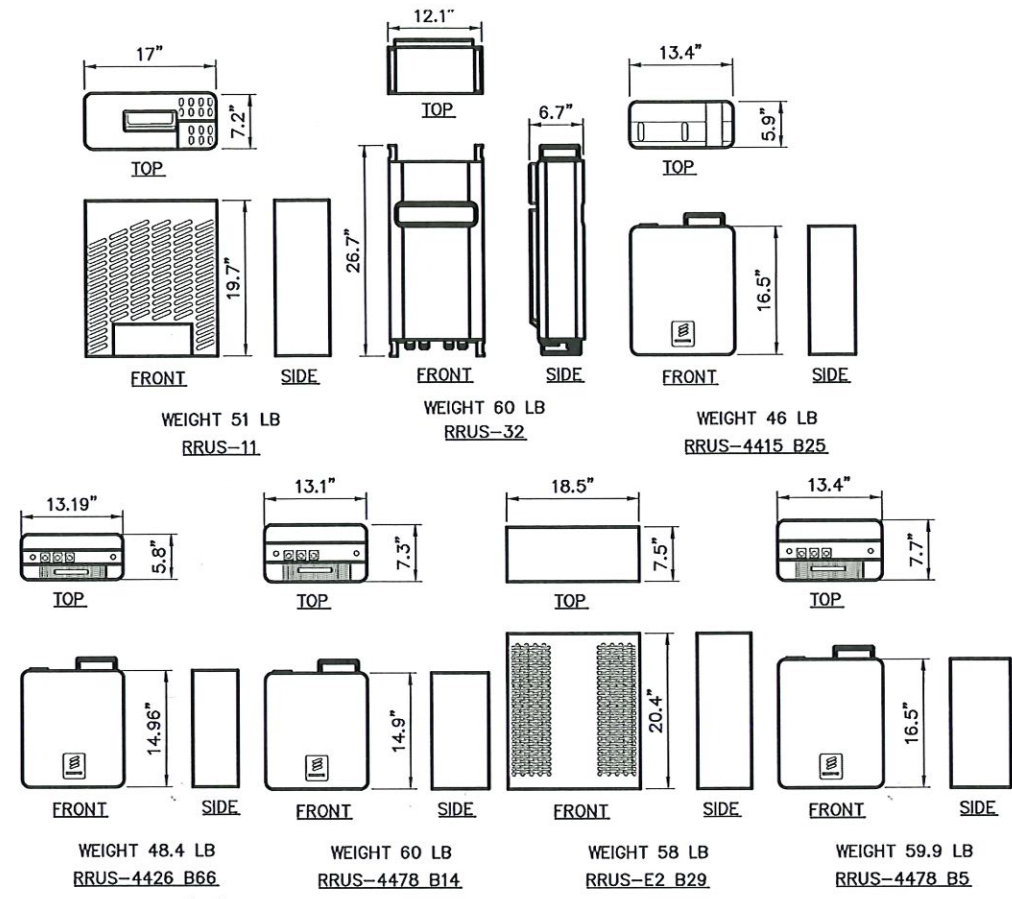
COMMSCOPE NNHH-65A-R4 (WEIGHT: 68.3)
COMMSCOPE JAHH-65A-R3B (WEIGHT: 52.9)

NOTES:
1. ANTENNA TO BE LABELED "TRANSMITTER" PER APPLICABLE FIRE CODE REQUIREMENTS.
2. INSTALL NEW ANTENNAS TO MATCH EXISTING ANTENNA AZIMUTHS & DOWN TILTING ANGLES.

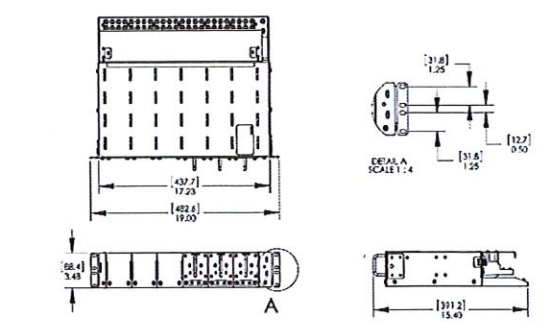
1 ANTENNA DETAIL
SCALE: 3/4" = 1'-0"



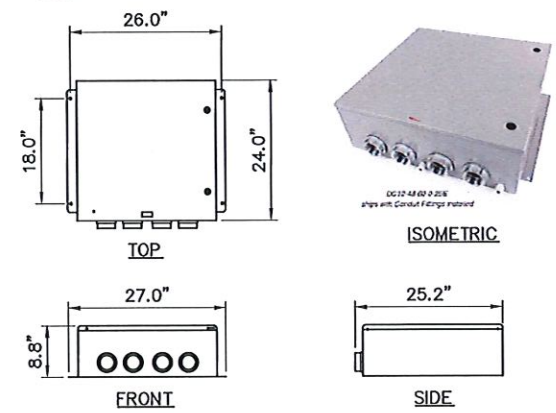
2 ANTENNA MOUNTING DETAIL
SCALE: 3/4" = 1'-0"



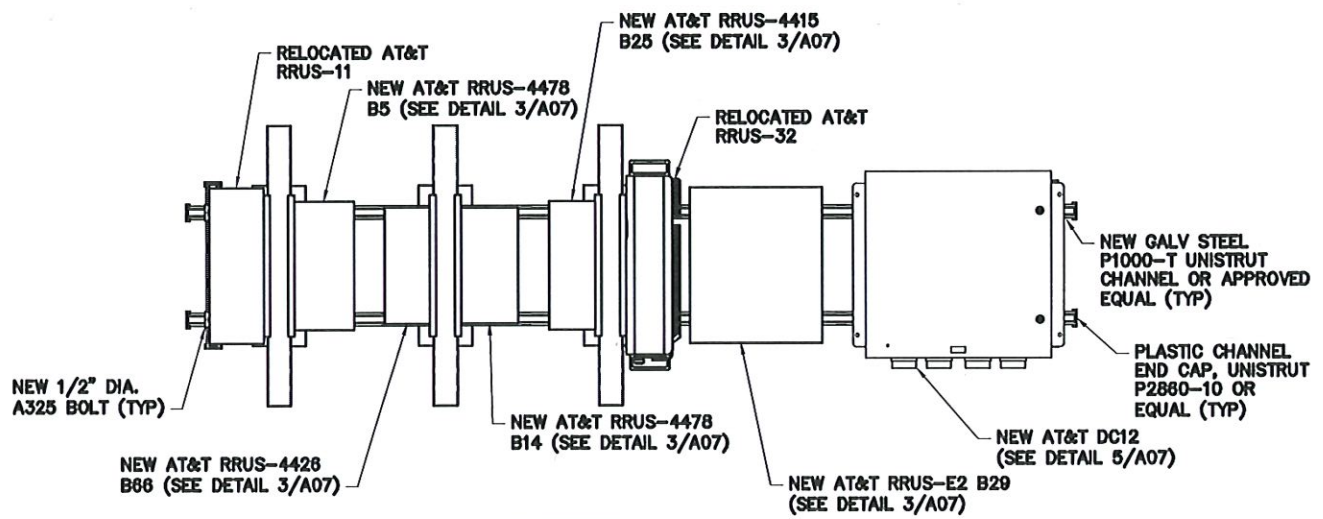
3 RRU DETAIL
SCALE: 1" = 1'-0"



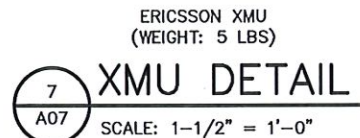
4 RAYCAP DC12 DETAIL
SCALE: NTS



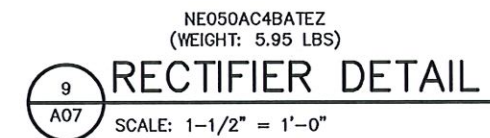
5 DC12 DETAIL
SCALE: 3/4" = 1'-0"



6 RRUS MOUNTING DETAIL
SCALE: 1" = 1'-0"



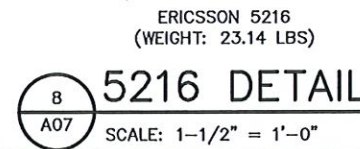
7 XMU DETAIL
SCALE: 1-1/2" = 1'-0"



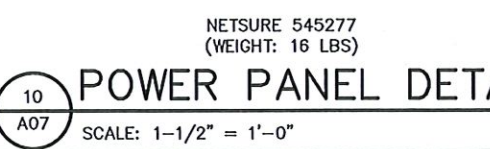
9 RECTIFIER DETAIL
SCALE: 1-1/2" = 1'-0"



11 POWER CONVERTER DETAIL
SCALE: 1-1/2" = 1'-0"



8 5216 DETAIL
SCALE: 1-1/2" = 1'-0"



10 POWER PANEL DETAIL
SCALE: 1-1/2" = 1'-0"

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0 1 2 3
ORIGINAL SIZE IN INCHES



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EQUIPMENT SPECS & MOUNTING DETAILS			
HAYWARD 3 - SLEEPY HOLLOW AVE SITE NO. CCL00494 FA LOCATION NO. 10087881 27303 SLEEPY HOLLOW AVENUE HAYWARD, CA 94545			
Date: 08/05/21 Scale: AS NOTED	Work Order: 9194.CCL00494	Drawing No.: A07	Rev: 4

GENERAL CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA STATE BUILDING CODE, LATEST VERSION AND ALL OTHER APPLICABLE CODES AND ORDINANCES.
2. EXISTING BUILDING INFORMATION WAS OBTAINED BASED ON A LIMITED SITE INSPECTION BY TECTONIC ENGINEERING.
3. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
4. NO SMOKE, DUST OR ODOR WILL RESULT FROM THIS PROPOSAL.
5. OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT PROPOSED.
6. ALL MATERIALS SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
7. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION.
8. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONSTRUCTION OPERATION.
9. SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
10. INFORMATION SHOWN ON THESE DRAWINGS IS BASED ON A LIMITED SITE INSPECTION. SUBCONTRACTOR SHALL NOTIFY ERICSSON OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.
11. PROTECT EXISTING ROOFING WITH PLYWOOD OR PROTECTION BOARD IN ALL AREAS OF WORK. REPAIR ANY DAMAGE TO THE SATISFACTION OF THE BUILDING OWNER, AND MAINTAIN EXISTING ROOFING GUARANTEE BY USING OWNER'S ROOFING CONTRACTOR.

ANTENNA NOTES

1. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO ANSI/TIA-222-H-2017 "STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES, ANTENNAS AND SMALL WIND TURBINE SUPPORT STRUCTURES".
2. ALL ANTENNA MOUNTS AND ASSOCIATED APPURTENANCES SHALL BE INSTALLED WITH DOUBLE NUTS AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUNDING KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - A. GROUNDING AT THE ANTENNA LEVEL.
 - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
 - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
4. ALL PROPOSED GROUNDING BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUNDING BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUNDING BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.
6. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.
7. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
9. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
10. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
 - A. TEMPERATURE SHALL BE ABOVE 50° F.
 - B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
 - C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
 - D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.

STRUCTURAL STEEL NOTES

1. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.
2. STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, "STEEL FOR STRUCTURAL SHAPES FOR USE IN BUILDING FRAMING", GRADE 50, UNLESS OTHERWISE INDICATED. IF THE MEMBER SIZES INDICATED ARE NOT AVAILABLE IN THIS GRADE, ASTM A572 "HIGH-STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STRUCTURAL STEEL", GRADE 50, MAY BE SUBSTITUTED.
3. HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES", GRADE B.
4. MISCELLANEOUS STEEL, INCLUDING CHANNELS, ANGLES, PLATES, AND BARS SHALL CONFORM TO ASTM A36 "CARBON STRUCTURAL STEEL", UNLESS OTHERWISE INDICATED.
5. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 "ANCHOR BOLTS, STEEL, 36, 55, AND 105-KSI YIELD STRENGTH", GRADE 36.
6. STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO ASTM A325 "STRUCTURAL BOLTS, STEEL, HEAT TREATED, 120/105 KSI MINIMUM TENSILE STRENGTH". BOLTS SHALL BE 3/4 INCH DIAMETER, TYPE X, UNLESS OTHERWISE NOTED.
7. MATCHING NUTS SHALL BE HEAVY HEX TYPE, CONFORMING TO ASTM A563 "CARBON AND ALLOY STEEL NUTS". WASHERS, WHERE REQUIRED, SHALL CONFORM TO ASTM F436 "HARDENED STEEL WASHERS".
8. FIELD CONNECTIONS SHALL BE BOLTED UNLESS OTHERWISE INDICATED. ALL BOLTED CONNECTIONS SHALL BE MADE WITH NOT LESS THAN TWO (2) HIGH STRENGTH BOLTS, OR EQUIVALENT WELD.
9. STRUCTURAL CONNECTIONS SHALL BE SNUG TIGHT IN ACCORDANCE WITH THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", UNLESS OTHERWISE NOTED.
10. BOLTS IN SLIP-CRITICAL CONNECTIONS SHALL BE FULLY PRETENSIONED BY THE TURN-OF-NUT METHOD IN ACCORDANCE WITH THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
11. ANCHOR BOLTS SHALL BE TENSIONED BY THE TURN-OF-NUT METHOD AFTER GROUTING OF BASE PLATES.
12. CONTRACTOR SHALL COMPLY WITH AWS D1.1 "STRUCTURAL WELDING CODE - STEEL" FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES".
13. GRATING SHALL BE TYPE "W/B" GALVANIZED WELDED IKG BORDEN, OR APPROVED EQUAL. BEARING BARS SHALL BE MANUFACTURED BY AS FOLLOWS:

GRATING	1" X 3/16"	SERRATED
---------	------------	----------
14. BAND ALL EDGES, AND ATTACH TO SUPPORTING MEMBERS AT 18" ON CENTER WITH MODEL GG GALVANIZED G-CLIPS AS MANUFACTURED BY GRATING FASTENERS INC.
15. EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE 4-3/4" UNLESS OTHERWISE NOTED.
16. EPOXY ANCHOR ASSEMBLIES SHALL BE AS MANUFACTURED BY HILTI OR ENGINEER APPROVED EQUAL, AS FOLLOWS:

BASE MATERIAL	ANCHOR SYSTEM
CONCRETE OR GROUTED CMU	HIT HY-200
HOLLOW CMU/BRICK	HIY HY-270
17. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
18. ALL INTERIOR STRUCTURAL STEEL SHALL BE SHOP PRIME COATED WITH A RUST-INHIBITIVE PRIMER EXCEPT AREAS TO BE FIREPROOFED NEED NOT BE PAINTED. SURFACE PREPARATION SHALL BE IN ACCORDANCE WITH THE PAINT MANUFACTURER'S RECOMMENDATIONS. AREAS WHICH MAY BE INACCESSIBLE AFTER INSTALLATION SHALL RECEIVE TWO (2) COATS OF PRIMER. SEE ARCHITECTURAL DRAWINGS FOR FINISH PAINT.
19. FIELD CONNECTIONS AND DAMAGED OR ABRADED AREAS OF SHOP PRIME COAT SHALL BE TOUCH-UP PAINTED WITH COMPATIBLE FIELD PRIMER.
20. ALL EXTERIOR STEEL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED. ALL EXTERIOR BOLTS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
21. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780 "REPAIR OF DAMAGED AND UNCOATED AREAS OF HOT-DIP GALVANIZED COATINGS".
22. ALL STEEL WORK SHALL BE SUBJECT TO SPECIAL INSPECTIONS DURING CONSTRUCTION.
23. THE NOTES CONTAINED HEREIN ARE NOT PROJECT SPECIFIC. THE CONTRACTOR SHALL UTILIZE ALL NOTES WHICH SOLELY PERTAIN TO THE WORK DEPICTED ON THESE DRAWINGS.

FIBER & POWER CABLE MOUNTING NOTES

1. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
2. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
3. WHEN INSTALLING FIBER OPTIC TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

ANTENNA MOUNTING NOTES

1. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222-H-2017 OR APPLICABLE LOCAL CODES.
2. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
3. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
4. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
5. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
6. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
7. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
8. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
9. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
10. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
11. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.
12. LTE ANTENNAS SHALL HAVE A 6'-0" MIN CENTER TO CENTER HORIZONTAL SEPARATION (U.N.O.).

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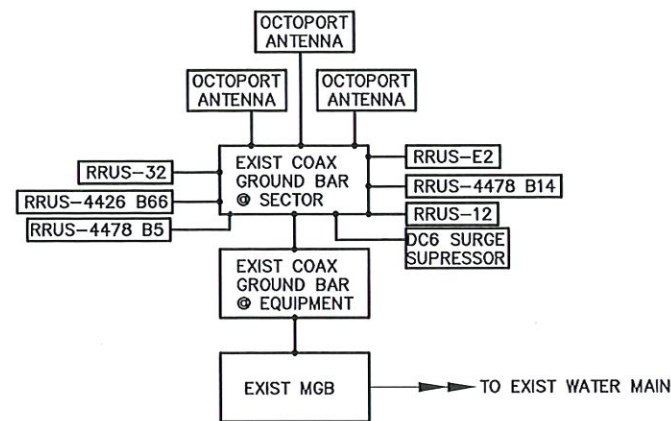
Rev	Date	Revision	Approved	DRAWING CONTROL			
				Designed by:	MP	Drawn by:	ML
0	11/19/18	ISSUED FOR CONSTRUCTION					
1	11/19/19	ISSUED PER COMMENTS		Purpose		Released by	Date
2	01/14/20	ISSUED PER COMMENTS		<input type="radio"/> For Comment			
3	07/02/21	UPDATED MONOPOLE LOCATION		<input type="radio"/> Approval			
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NOTES

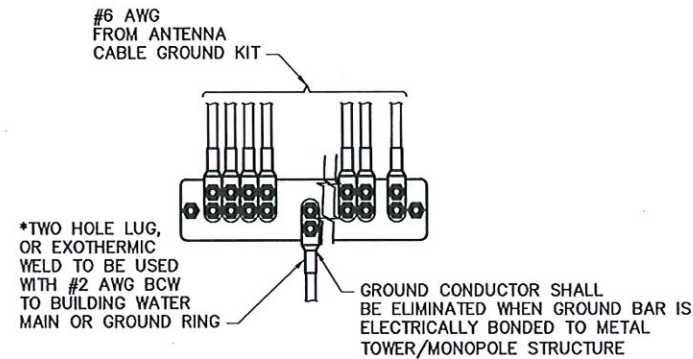
HAYWARD 3 - SLEEPY HOLLOW AVE
SITE NO. CCL00494
FA LOCATION NO. 10087881
27303 SLEEPY HOLLOW AVENUE
HAYWARD, CA 94545

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08/05/21			
Scale	AS NOTED	9194.CCL00494	A08
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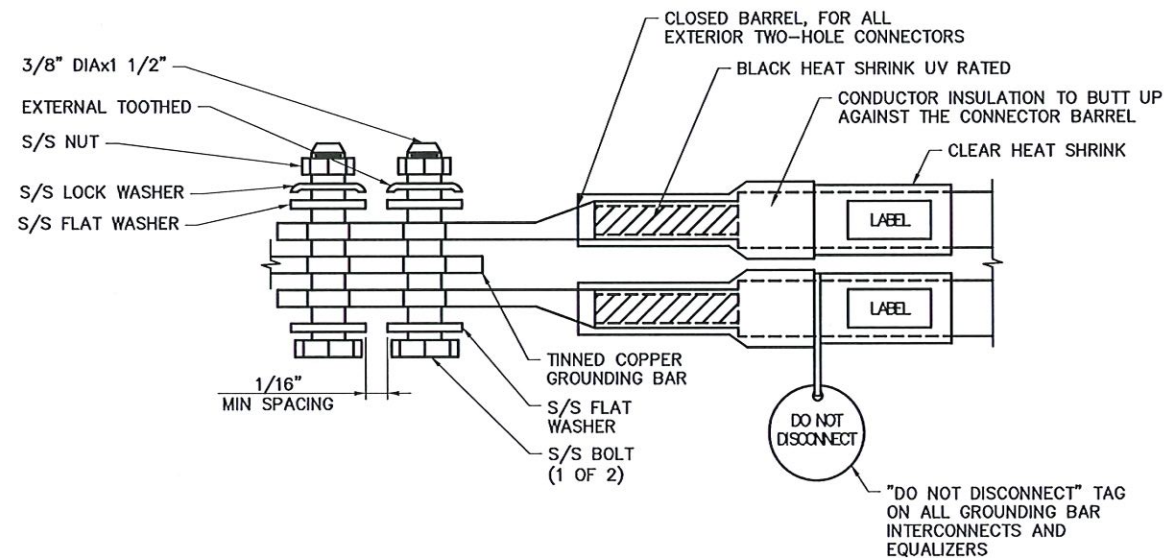


NOTE: NOT ALL EXISTING APPURTENANCES SHOWN FOR CLARITY.

1
E01
GROUNDING SCHEMATIC
SCALE: NTS



2
E01
INSTALLATION OF GROUND WIRE TO GROUND BAR
SCALE: 8" = 1'-0"



3
E01
EXTERIOR TWO HOLE LUG DETAIL
SCALE: NTS

GROUNDING NOTES

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GESS'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE SUBCONTRACTOR SHALL PERFORM GROUND TEST ON AT&T GROUND SYSTEM. A HAND-HELD, CLAMP-ON STYLE METER MAYBE USED. PROVIDE REPORT WITH RESULTS TO AT&T.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE EQUIPMENT GROUND RING WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. ALL BENDS SHALL BE MADE WITH 12" RADIUS OR LARGER.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS. EXCEPT FOR GROUND BAR CONNECTION FROM MGB TO OUTSIDE. EXTERIOR GROUND SHALL ALL BE CADWELD CONNECTIONS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED TO THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR AND INTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.



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