

# T-Mobile

SITE #: PH45039A  
SITE NAME: DOUGLAS H.S. BALL FIELD LIGHT POLE  
STATE: ARIZONA  
COUNTY: COCHISE  
DESIGN TYPE: GENERATOR ADDITION

CLIENT

T-Mobile

1330 W. SOUTHERN AVE. STE A-102  
TEMPE, ARIZONA, 85282  
PHONE: (480) 638-2600 FAX: (480) 638-2852

CONSULTANT

COAL CREEK  
CONSULTING

8283 N. HAYDEN RD., STE 258  
SCOTTSDALE, ARIZONA 85258  
PHONE: (602) 429-0533 FAX: (480) 638-2852

ENGINEER OF RECORD

TERRA DYNAMIC ENGINEERING, LLC

SUITE 1, #455 3241 E. SHEA BLVD.  
PHOENIX, AZ 85028  
PHONE: (602) 482-1603  
EMAIL: ROBERT@TERRADYNAMIC.US

SEAL



*Roberto Orlando*

#### ARIZONA STATE CODE COMPLIANCE:

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

2006 INTERNATIONAL BUILDING CODE  
2006 INTERNATIONAL MECHANICAL CODE  
2005 NATIONAL ELECTRICAL CODE/NFPA-70

#### ACCESSIBILITY REQUIREMENTS:

THIS FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS REQUIREMENTS ARE NOT REQUIRED IN ACCORDANCE WITH THE CURRENT INTERNATIONAL BUILDING CODE.

#### ENGINEERS NOTES:

- IF A DISCREPANCY ARISES BETWEEN THE DRAWINGS AND FIELD CONDITIONS, OR WHERE A DETAIL IS DOUBTFUL OF INTERPRETATION, OR AN UNANTICIPATED FIELD CONDITION IS ENCOUNTERED, THE ENGINEER SHALL BE CALLED IMMEDIATELY FOR PROCEDURE TO BE FOLLOWED. SUCH INSTRUCTIONS SHALL BE CONFIRMED IN WRITING AND DISTRIBUTED TO ALL AFFECTED PARTIES.
- THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SAFETY PRECAUTIONS, OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DRAWING AND/OR DOCUMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER LAYOUT OF IMPROVEMENTS BASED UPON SETBACKS/ PROPERTY LINE LOCATION. DIMENSIONAL RELATIONSHIPS TO EQUIPMENT ARE APPROXIMATE AND ARE FOR ILLUSTRATIVE PURPOSES ONLY.
- CONTRACTOR TO MAINTAIN ALL DRAINAGE PATHS FREE FROM ANY OBSTRUCTIONS (I.E. DEBRIS AND SILT).
- CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM EQUIPMENT.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR AND ENGINEER OF RECORD.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR. ROUTING OF TRENCHING SHALL BE APPROVED BY CONTRACTOR

#### UTILITY NOTES:

- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT BLUESTAKE AT LEAST TWO FULL WORKING DAYS (48 HOURS) PRIOR TO BEGINNING OF ANY EXCAVATING.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL STRUCTURES, UNDERGROUND PIPELINES, ELECTRIC AND TELEPHONE CONDUITS, EITHER SHOWN OR NOT SHOWN ON THE PLANS PRIOR TO ANY CONSTRUCTION, AND TO OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO THESE FACILITIES. THE ENGINEERING AND/OR DEVELOPER WILL NOT GUARANTEE ANY ELEVATIONS OR LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF ALL UTILITY CONNECTIONS.

#### PROJECT SUMMARY

SITE ADDRESS:  
1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

PROPERTY OWNER:  
MUNICIPAL PARK/RECREATIONAL PROPERTY  
1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

APN: 410-14-001K  
ZONING CLASSIFICATION: SFR  
JURISDICTION: CITY OF DOUGLAS  
LAT: 31.35220000  
LONG: -109.54099700  
GROUND ELEVATION: 4031.5' AMSL

#### PROJECT DESCRIPTION

T-MOBILE PROPOSES TO:

ADD AN AUTOMATIC TRANSFER SWITCH  
ADD A NEW AC BREAKERS IN EXISTING PPC  
ADD CONDUCTS PER PANEL SCHEDULE AND 1-LINE DIAGRAM  
ADD A 16'-4" X 11'-4" BLOCK WALL COMPOUND WITH SECURITY COVER  
ADD (2) B-DECK ACCESS GATES  
ADD A 4' X 9' CONCRETE SLAB  
ADD A DIESEL GENERATOR WITH A 211 GALLON TANK

#### PROJECT TEAM

PROJECT MANAGER:  
T-MOBILE  
1330 W. SOUTHERN AVE., STE A-102  
TEMPE, ARIZONA 85282

CONSTRUCTION MANAGER:  
COAL CREEK CONSULTING  
8283 N. HAYDEN RD. SUITE 258  
SCOTTSDALE, ARIZONA 85258  
CONTACT: ANTHONY SEMRO  
PHONE: (847) 915-5529

SITE ACQ. CONSULTANT:  
COAL CREEK CONSULTING  
2166 E. UNIVERSITY DR., STE 201  
TEMPE, ARIZONA 85281  
CONTACT: CAMERON LEHMAN  
PHONE: (714) 943-6261

A&E DESIGN:  
COAL CREEK CONSULTING  
8283 N. HAYDEN RD. SUITE 258  
SCOTTSDALE, ARIZONA 85258  
CONTACT: SHAWN EVANS  
PHONE (602) 758-5829

CIVIL ENGINEER:  
TERRA DYNAMIC ENGINEERING, LLC  
SUITE 1, #455, 3241 E. SHEA BLVD.  
PHOENIX, ARIZONA 85028  
CONTACT: ROBERT ORLANDO  
PHONE (602) 482-1603  
EMAIL:ROBERT@TERRADYNAMIC.US

ELECTRICAL ENGINEER:  
EXCELLENCE IN ENGINEERING  
12005 ANTELOPE TRAIL  
PARKER, COLORADO 80138  
CONTACT: LOREN PRIEST  
PHONE (303) 748-1189



#### SHEET INDEX

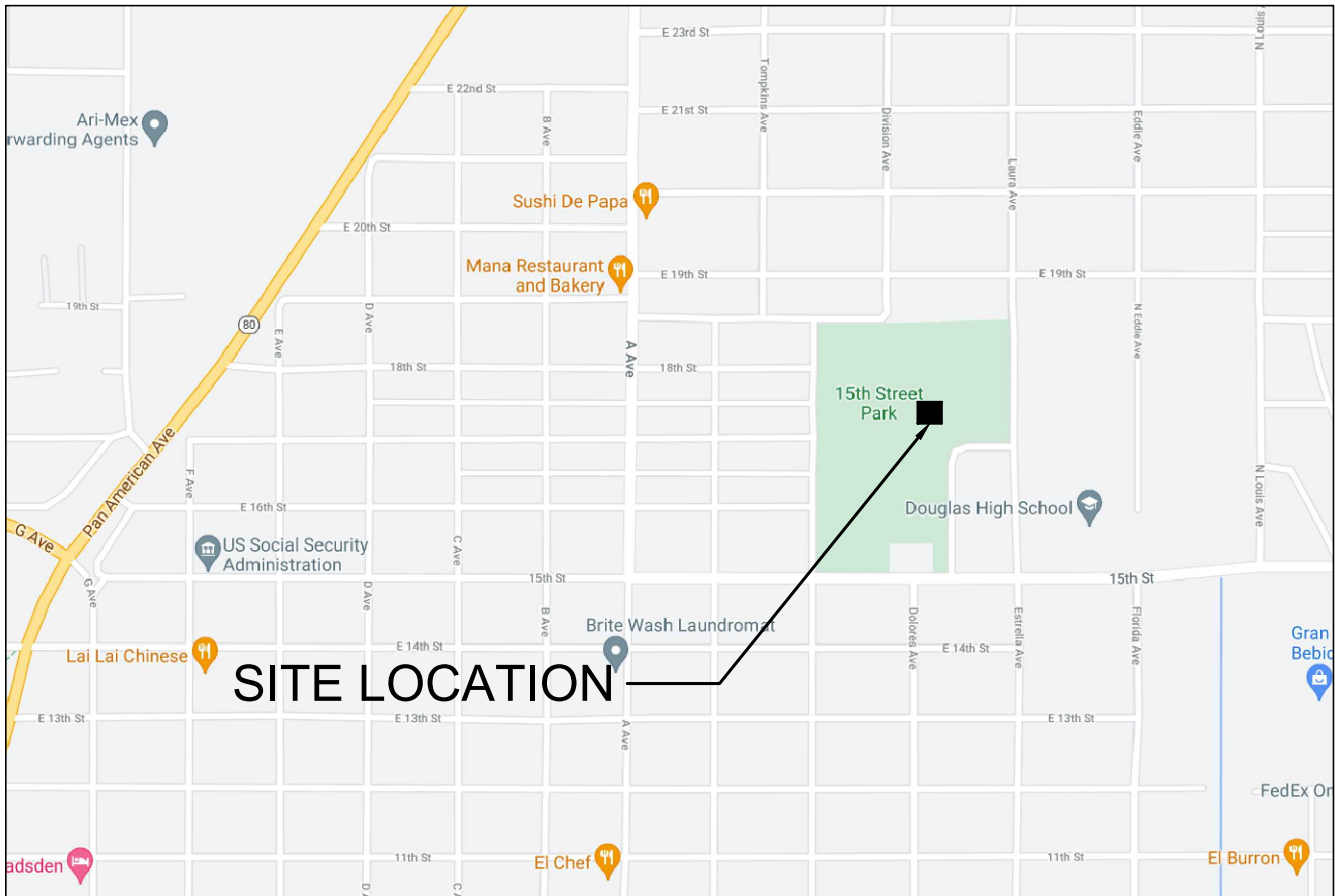
T-1 TITLE SHEET, VICINITY MAP & GENERAL INFO.

CIVIL:  
C-1 OVERALL SITE PLAN  
C-2 EXISTING SITE PLAN  
C-3 EXISTING/NEW EQUIPMENT AND ANTENNA  
C-4 EXISTING/NEW ELEVATION

ELECTRICAL:  
E-1 SPECS/GENERAL NOTES/LEGENDS/SHEET INDEX  
E-2 ENLARGED POWER PLAN  
E-3 ONE-LINE AND EXISTING/NEW PANEL SCHEDULE  
E-4 EQUIPMENT/ANTENNA GROUNDING PLAN AND NOTES

STRUCTURAL:  
S-1 MASONRY WALL DETAIL AND NOTES  
S-2 DETAILS

#### VICINITY MAP



#### DRIVING DIRECTIONS

DIRECTIONS TO THE SITE FROM THE T-MOBILE OFFICE:  
TAKE PRIEST DR. N. TO THE AZ LOOP 202 W. AND EXIT ON 32ND ST. AND TAKE A LEFT TO PIERCE ST. AND TAKE A LEFT TO 36TH ST. AND THE SITE WILL BE ON THE LEFT SIDE OF THE ROAD

| NO. | DATE     | DESCRIPTION | BY  |
|-----|----------|-------------|-----|
| 1   | 12/03/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
|     |          |             |     |
|     |          |             |     |

PROJECT INFORMATION  
JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE  
1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

TITLE SHEET, VICINITY  
MAP & GENERAL  
INFORMATION

JURISDICTIONAL APPROVAL

SHEET NUMBER

T-1



SURVEYOR NOTES

- ALL TITLE INFORMATION IS BASED UPON A COMMITMENT FOR TITLE INSURANCE PREPARED BY FIDELITY NATIONAL TITLE INSURANCE CO., ORDER NO.: 37015696 EFFECTIVE DATE: 05/05/2022.
- SURVEYOR HAS NOT PERFORMED A SEARCH OF PUBLIC RECORDS TO DETERMINE ANY DEFECT IN TITLE.
- THE BOUNDARY SHOWN HEREON IS PLOTTED FROM RECORD INFORMATION AND DOES NOT CONSTITUTE A BOUNDARY SURVEY OF THE PROPERTY.
- SURVEYOR DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN OR THEIR LOCATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND DEVELOPER TO CONTACT BLUE STAKE AND ANY OTHER INVOLVED AGENCIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. REMOVAL, RELOCATION AND/ OR REPLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

PROJECT META DATA

- ELEVATIONS SHOWN HEREON ARE REPRESENTED IN *NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)* ESTABLISHED FROM GPS DERIVED ELLIPSOID HEIGHTS, APPLYING GEOID 12B SEPARATIONS CONSTRAINING TO NGS CORS STATIONS PROVIDED IN THE "ONLINE POSITIONING USER SERVICE" (OPUS) SOLUTION FOR THIS SPECIFIC SITE.
- BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM *ARIZONA STATE PLANE COORDINATE ZONE EAST*, DETERMINED BY GPS OBSERVATIONS.
- FIELD WORK FOR THIS PROJECT WAS PERFORMED ON 04/27/22.

FLOOD ZONE DESIGNATION

THE PROPOSED LEASE PREMISES SHOWN HEREON APPEAR TO BE WITHIN FLOOD ZONE "X" AS DELINEATED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAP NO. 04003C2881G DATED 10/20/2016.

FLOOD ZONE "X" IS DEFINED AS: AN AREA INUNDATED BY 0.2% ANNUAL CHANCE FLOODING.

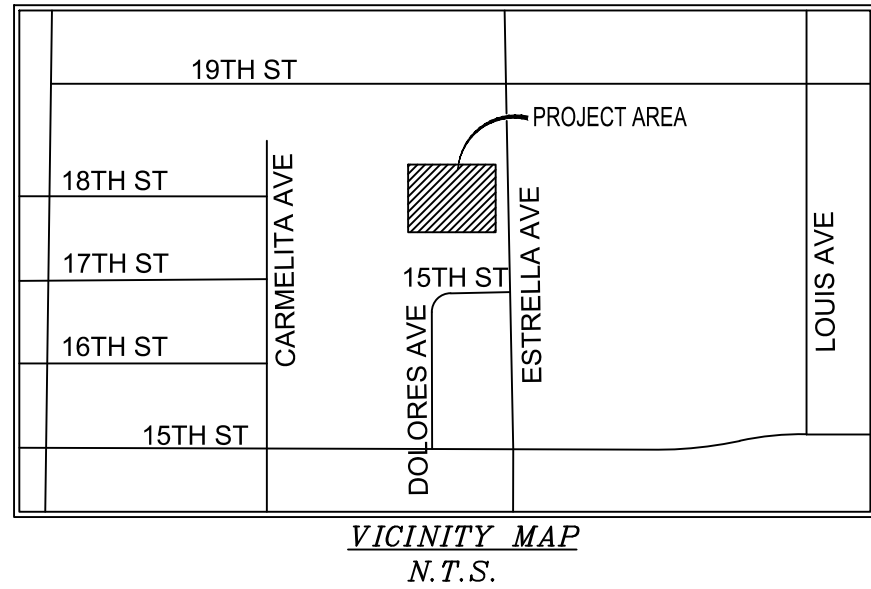
SCHEDULE B EXCEPTIONS

- EASEMENT AGREEMENT IN FAVOR OF UNITI LEASING LLC, A DELAWARE LIMITED LIABILITY COMPANY SET FORTH IN INSTRUMENT RECORDED ON MAY 1, 2017 IN INSTRUMENT NO. 2017-08553. ASSIGNMENT OF EASEMENT AND ASSIGNMENT OF LEASE ASSIGNED TO WIRELESS PROPCO, LLC, A DELAWARE LIMITED LIABILITY COMPANY RECORDED ON MAY 24, 2019 IN INSTRUMENT NO. 2019-09902.
- UTILITY EASEMENT IN FAVOR OF ARIZONA PUBLIC SERVICE COMPANY, AN ARIZONA CORPORATION SET FORTH IN INSTRUMENT RECORDED ON AUGUST 20, 2019 IN INSTRUMENT NO. 2019-15931.
- UTILITY EASEMENT IN FAVOR OF ARIZONA PUBLIC SERVICE COMPANY, AN ARIZONA CORPORATION SET FORTH IN INSTRUMENT RECORDED ON MARCH 20, 2020 IN INSTRUMENT NO. 2020-05791.

ITEMS 1-4 OF THE CLIENT PROVIDED TITLE REPORT DO NOT CONTAIN GRAPHICALLY PLOTTABLE EASEMENTS, SETBACKS, RESTRICTIONS OR OTHER ENCUMBRANCES. THE SURVEYOR CANNOT GUARANTEE THAT NON-PLOTTABLE ENCUMBRANCES DO NOT EXIST THAT MAY AFFECT THE SUBJECT LEASED PREMISES.

LEGEND

- BRASS CAP IN HANDHOLE (BCHH)
- ELECTRIC METER
- ELECTRIC CABINET
- SANITARY SEWER MANHOLE
- FLAG POLE
- POSITION OF GEODETIC COORDINATES
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- CENTERLINE
- CHAIN LINK FENCE
- OVERHEAD ELECTRIC LINE
- POINT OF BEGINNING
- POINT OF COMMENCEMENT



VICINITY MAP  
N.T.S.

LESSOR'S LEGAL DESCRIPTION (APN: 41014001K)

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 7 AND THE NORTHWEST QUARTER OF SECTION 18 BY MERIDIAN AND BASE,

BEGINNING AT A POINT 1684.14 FEET EAST OF THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SECTION 18; THENCE NORTH, 268 FEET; THENCE NORTH 89°52'00" EAST, 324.88 FEET; THENCE NORTH, 112 FEET; SOUTH 89°52'00" WEST 324.61 FEET; THENCE NORTH, 287.58 FEET; THENCE NORTH 89°52' 00" EAST, 325.50 FEET; THENCE NORTH 681.82 FEET; THENCE WEST, 995.50 FEET; THENCE SOUTH 1340.94 FEET, MORE OR LESS, TO THE POINT OF BEGINNING;

EXCEPTING,

THE EAST 246 FEET OF THE NORTH 220 FEET THEREOF;

IN ADDITION TO,

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 7; THENCE SOUTH 90° 00' 00" EAST, 1684.14 FEET; THENCE NORTH 00°08' 00" EAST, 351.30 FEET; THENCE SOUTH 90°00'00" EAST, 42.42 FEET TO THE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 90°00'00" EAST, 263.53 FEET; THENCE SOUTHWESTERLY 8.34 FEET ALONG A CURVE TO THE RIGHT, RADIUS 11.50 FEET, CENTRAL ANGLE OF 41°34'16"; THENCE SOUTH 90°00'00" WEST, 248.27 FEET; THENCE NORTHWESTERLY 8.34 FEET ALONG A CURVE TO THE RIGHT, RADIUS 11.50 FEET, CENTRAL ANGLE 41°34'30" TO THE POINT OF BEGINNING;

IN ADDITION TO,

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 7; THENCE SOUTH 90°00'00" EAST 1684.14 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 00°08'00" EAST, 239.30 FEET; THENCE SOUTH 90°00'00"EAST 326.43 FEET (324.88 FEET, RECORDED); THENCE SOUTH 00°00'00" EAST, 268 FEET; THENCE NORTH 90°00'00" WEST, 16.35 FEET; THENCE NORTH 00°00'00" WEST, 254.69 FEET; THENCE TO A POINT OF A CURVE TO THE LEFT WITH RADIUS OF 11.50 FEET, A DISTANCE OF 18.06 FEET; THENCE NORTH 90°00'00" WEST, 248.27 FEET; THENCE TO A POINT OF A CURVE TO THE LEFT WITH RADIUS OF 11.50 FEET, A DISTANCE OF 18.06 FEET; THENCE SOUTH 00°00'00" EAST, 54.69 FEET; THENCE NORTH 90°00'00" WEST, 39.44 FEET; THENCE NORTH 00°08'00" EAST, 28.70 FEET (29.60 FEET, RECORDED) TO THE POINT OF BEGINNING;

IN ADDITION TO,

COMMENCING AT THE SOUTHWEST CORNER OF SECTION 7; THENCE SOUTH 90°00'00" EAST, 1684.14 FEET; THENCE NORTH 00°08'00" EAST, 239.30 FEET; THENCE NORTH 00°08'00" EAST, 112 FEET TO THE POINT OF BEGINNING;

THENCE NORTH 00°08'00" EAST, 287.58 FEET; THENCE NORTH 90°00'00", 325.50 FEET; THENCE SOUTH 00°00'00" EAST, 287.58 FEET; THENCE NORTH 90°00'00" WEST 20.22 FEET; THENCE TO A POINT OF NON-TANGENT CURVE WITH RADIUS OF 11.50 FEET, A DISTANCE OF 9.72 FEET; THENCE NORTH 00°00'00" WEST, 189.98 FEET; THENCE TO A POINT OF A CURVE TO THE LEFT WITH RADIUS OF 60 FEET, A DISTANCE OF 94.25 FEET; THENCE NORTH 90°00'00" WEST, 151.27 FEET; THENCE TO A POINT OF A CURVE TO THE LEFT WITH RADIUS OF 60 FEET, A DISTANCE OF 94.25 FEET;

THENCE SOUTH 00°00'00" WEST, 189.98 FEET; THENCE TO A POINT OF A CURVE TO THE LEFT WITH RADIUS OF 11.50 FEET, A DISTANCE OF 9.72 FEET; THENCE NORTH 90°00'00" 42.42 FEET TO THE TRUE POINT OF BEGINNING.

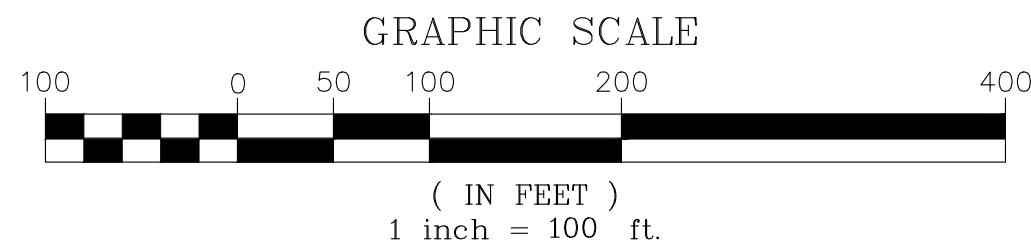
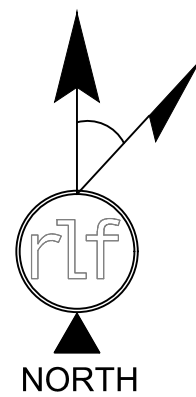
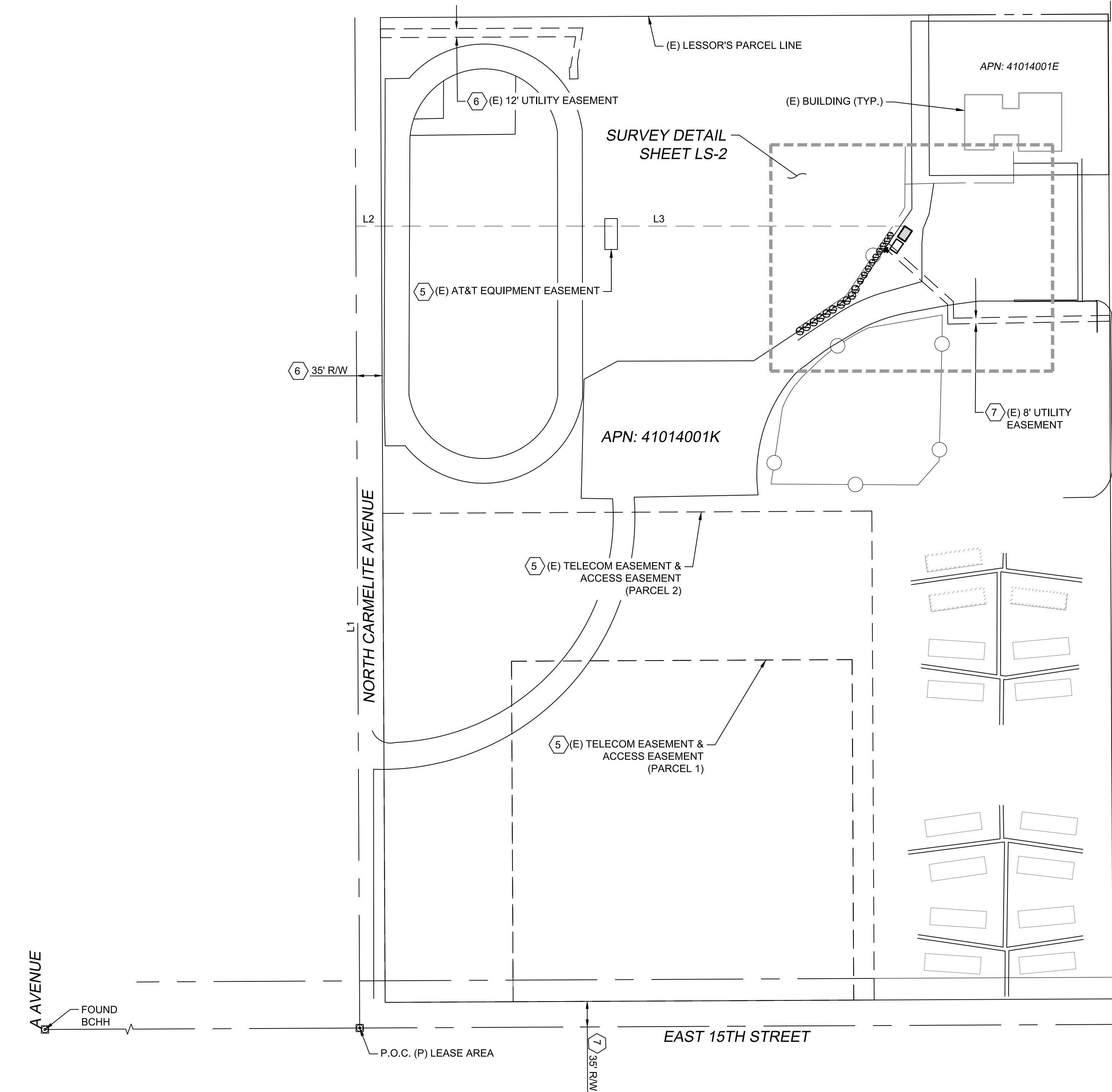
ALL IN TOWNSHIP 24, RANGE 28

CONTAINING 26.123 AC, MORE OR LESS

NOTE: LEGAL IS NOT A TRUE REPRESENTATION OF THE COUNTY LAND RECORDS. ANY STATEMENT IN THE LEGAL DESCRIPTION CONTAINED IN EXHIBIT A AS TO AREA OR QUANTITY OF LAND IS NOT A REPRESENTATION THAT SUCH AREA OR QUANTITY IS CORRECT BUT IS FOR INFORMAL IDENTIFICATION PURPOSES ONLY AS SHOWN BY COUNTY ASSESSOR.

LESS AND EXCEPT THAT PORTION OF PROPERTY CONVEYED TO DOUGLAS UNITED SCHOOL DISTRICT NO. 27 FROM THE CITY OF DOUGLAS, A MUNICIPAL CORPORATION BY WARRANTY DEED DATED DECEMBER 10, 2004 AND RECORDED JANUARY 13, 2005 IN INSTRUMENT NO. 050101291.

AND BEING A PORTION OF THE SAME PROPERTY CONVEYED TO CITY OF DOUGLAS, A MUNICIPAL CORPORATION FROM UNITED STATES OF AMERICA, ACTING THROUGH THE PUBLIC HOUSING ADMINISTRATION BY QUITCLAIM DEED DATED JUNE 26, 1953 AND RECORDED JUNE 30, 1953 IN DEED BOOK 87, PAGE 349



**T-Mobile**

1330 W SOUTHERN AVE TEMPE, ARIZONA; 85282  
PHONE: (480) 638-2600; FAX: (480) 638-2852

**COAL CREEK**

**CONSULTING**

2166 E. UNIVERSITY DR., STE 201  
TEMPE, ARIZONA 85281  
PHONE: (480) 638-2600 FAX: (480) 638-2852

|             |     |
|-------------|-----|
| FIELD BY:   | JMM |
| DRAWN BY:   | GAC |
| CHECKED BY: | RLF |

REVISIONS

| NO. | DATE     | DESCRIPTION        |
|-----|----------|--------------------|
| 1   | 07/15/22 | TITLE REVIEW/FINAL |
| 0   | 05/18/22 | PRELIMINARY        |



REUSE OF DOCUMENT  
THE IDEAS & DESIGN INCORPORATED HEREON, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF RLF CONSULTING, LLC & IS NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT WRITTEN AUTHORIZATION OF RLF CONSULTING, LLC.

PROJECT No.  
**15006210**  
SITE NAME:  
PH45039A

SITE ADDRESS:  
425 10TH ST  
DOUGLAS, AZ 85607

SHEET TITLE:  
**BOUNDARY DETAIL**

|                          |                       |
|--------------------------|-----------------------|
| SHEET NO.<br><b>LS-1</b> | REVISION:<br><b>1</b> |
|--------------------------|-----------------------|



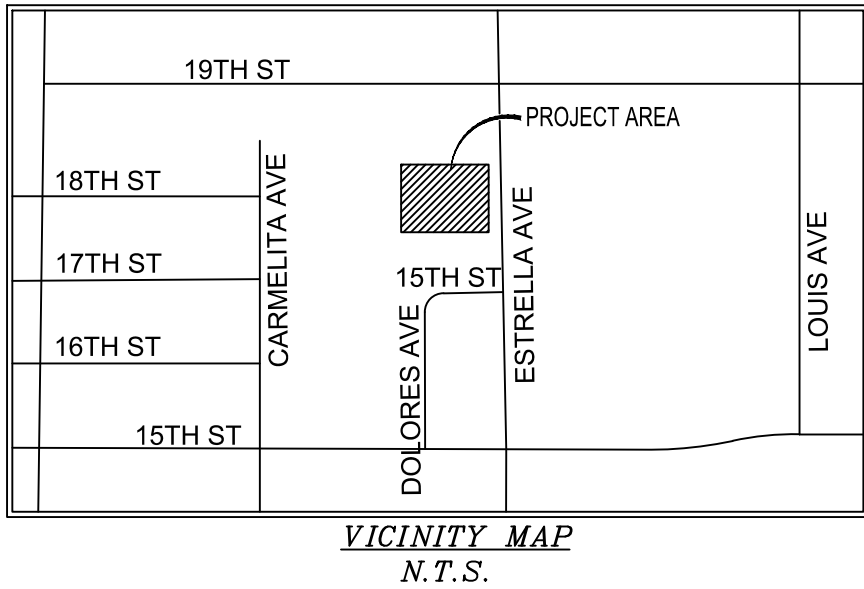
LESSEE LEASE AREA LEGAL DESCRIPTION

A PORTION OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER (SE 1/4, SW 1/4) OF SECTION 7, TOWNSHIP 24 SOUTH, RANGE 28 EAST IN COCHISE COUNTY, STATE OF ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A BRASS CAP LOCATED AT THE INTERSECTION OF NORTH CARMELITE AVENUE AND EAST 15TH STREET; THENCE ALONG THE CENTERLINE OF NORTH CARMELITE AVENUE NORTH 00°16'33" WEST, 1098.83 FEET; THENCE DEPARTING SAID CENTERLINE NORTH 90°00'00" EAST, 35.09 FEET TO THE EAST RIGHT-OF-WAY OF NORTH CARMELITE AVENUE; THENCE CONTINUING NORTH 90°00'00" EAST, 716.84 FEET TO THE POINT OF BEGINNING;

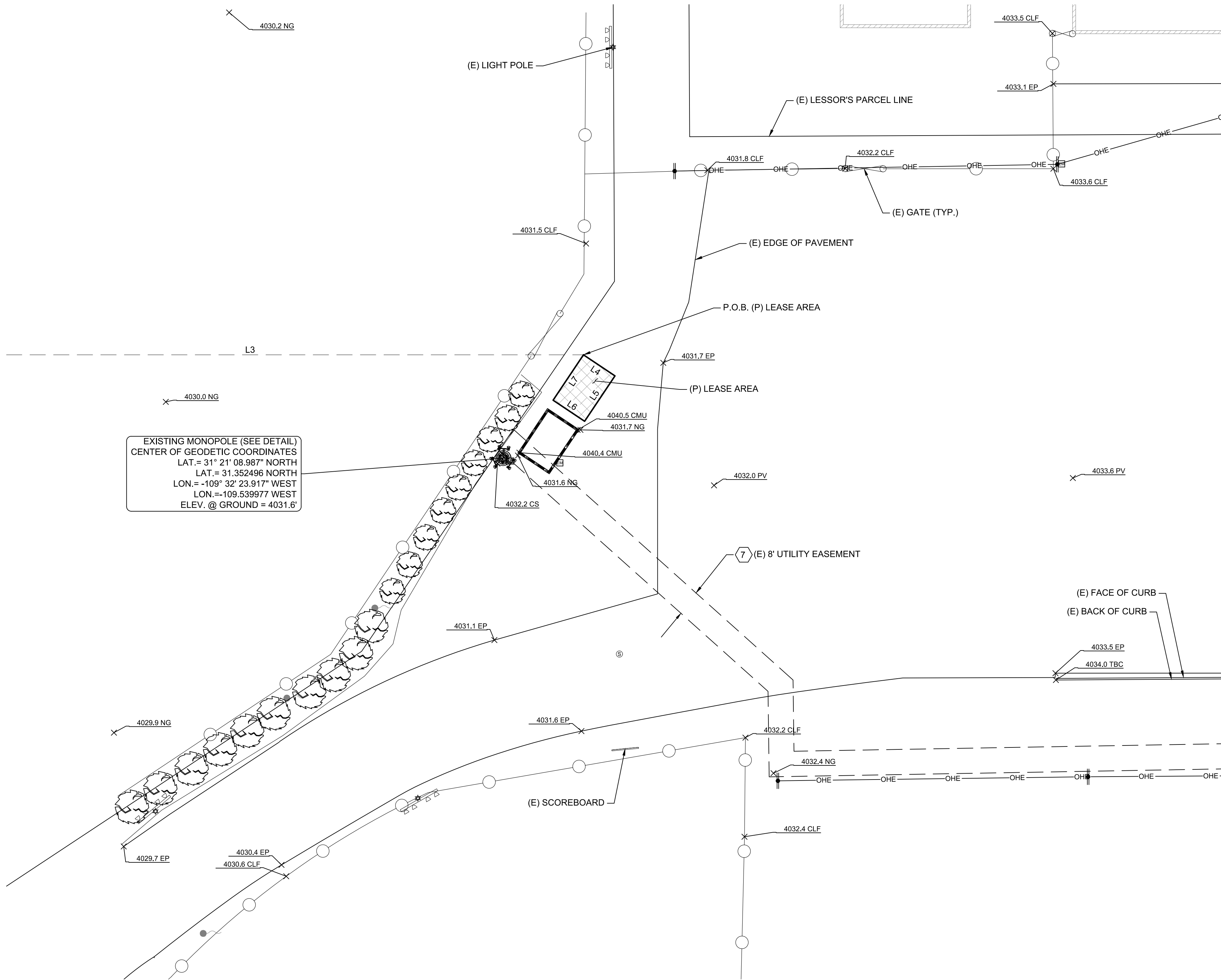
THENCE SOUTH 56°13'39" EAST, 12.05 FEET; THENCE SOUTH 33°46'21" WEST, 17.37 FEET; THENCE NORTH 56°13'39" WEST, 12.05 FEET; THENCE NORTH 33°46'21" EAST, 17.37 FEET TO THE POINT OF BEGINNING.

| LINE TABLE |         |               |
|------------|---------|---------------|
| LINE       | LENGTH  | BEARING       |
| L1         | 1098.83 | N0° 16' 33"W  |
| L2         | 35.09   | N90° 00' 00"E |
| L3         | 716.84  | N90° 00' 00"E |
| L4         | 12.05   | S56° 13' 39"E |
| L5         | 17.37   | S33° 46' 21"W |
| L6         | 12.05   | N56° 13' 39"W |
| L7         | 17.37   | N33° 46' 21"E |



LEGEND

- BRASS CAP IN HANDHOLE (BCHH)
- ELECTRIC METER
- ELECTRIC CABINET
- SANITARY SEWER MANHOLE
- FLAG POLE
- POSITION OF GEODETIC COORDINATES
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- CENTERLINE
- CHAIN LINK FENCE
- OVERHEAD ELECTRIC LINE
- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT



T.O. ANTENNA = 4122.8' (AMSL); 91.2' (AGL)

B.O. ANTENNA = 4115.0' (AMSL); 83.4' (AGL)

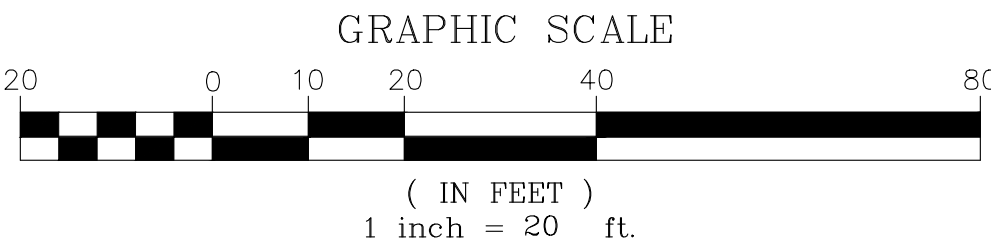
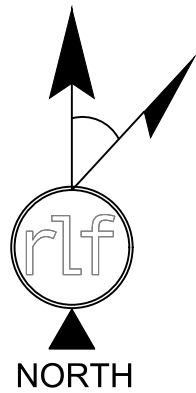
T.O. POLE = 4122.9' (AMSL); 91.4' (AGL)  
T.O. ANTENNA = 4121.6' (AMSL); 90.0' (AGL)

B.O. ANTENNA = 4115.7' (AMSL); 84.1' (AGL)

T.O. LIGHT = 4111.7' (AMSL); 80.2' (AGL)  
B.O. LIGHT = 4110.6' (AMSL); 79.1' (AGL)  
T.O. LIGHT = 4109.0' (AMSL); 77.5' (AGL)  
B.O. LIGHT = 4107.7' (AMSL); 76.2' (AGL)

TOWER DETAIL  
N.T.S.

GRADE = 4031.6' (AMSL); 0.0' (AGL)



T-Mobile

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PHONE: (480) 638-2600; FAX: (480) 638-2852

COAL CREEK

CONSULTING

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TEMPE, ARIZONA 85281  
PHONE: (480) 638-2600 FAX: (480) 638-2852

|             |     |
|-------------|-----|
| FIELD BY:   | JMM |
| DRAWN BY:   | GAC |
| CHECKED BY: | RLF |

REVISIONS

| NO. | DATE     | DESCRIPTION        |
|-----|----------|--------------------|
| 1   | 07/15/22 | TITLE REVIEW/FINAL |
| 0   | 05/18/22 | PRELIMINARY        |



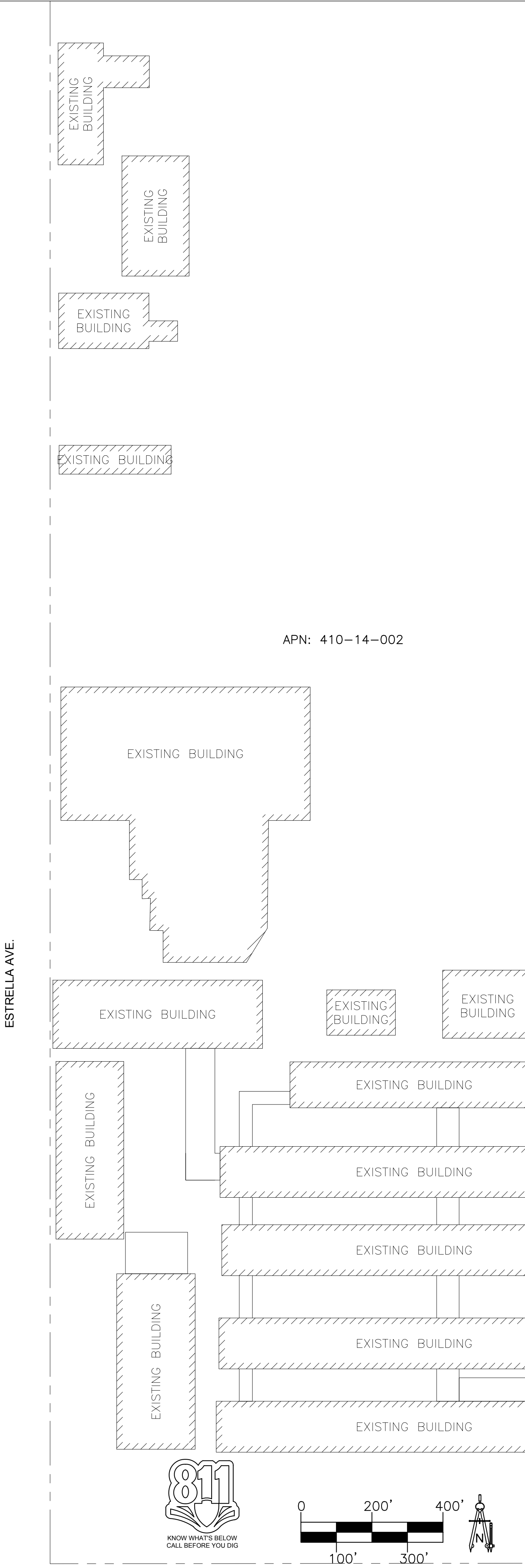
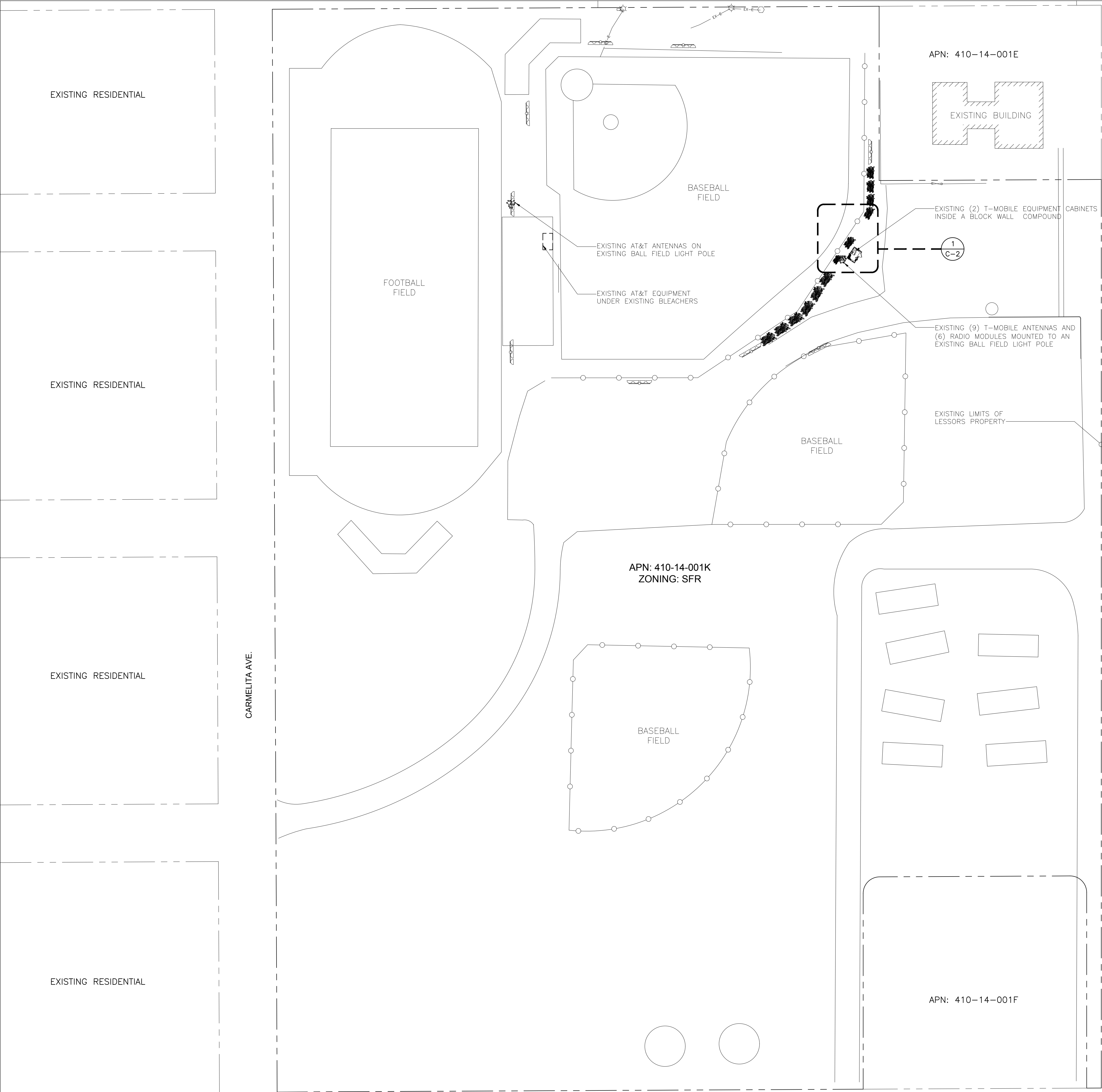
REUSE OF DOCUMENT  
THE IDEAS & DESIGN INCORPORATED HEREON, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF RLF CONSULTING, LLC & IS NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT WRITTEN AUTHORIZATION OF RLF CONSULTING, LLC.

PROJECT No.  
15006210  
SITE NAME:  
PH45039A

SITE ADDRESS:  
425 10TH ST  
DOUGLAS, AZ 85607

SHEET TITLE:  
TOPOGRAPHIC SURVEY

SHEET NO.  
LS-2  
REVISION:  
1




OVERALL SITE PLAN

SCALE: 1" = 60'-0"


1

CLIENT




1330 W. SOUTHERN AVE. STE A-102  
TEMPE, ARIZONA, 85282  
PHONE: (480) 638-2600 FAX: (480) 638-2852

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PHOENIX, AZ 85028  
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SEAL



| NO. | DATE     | DESCRIPTION | BY  |
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| 1   | 12/03/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
|     |          |             |     |
|     |          |             |     |

PROJECT INFORMATION

JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE

1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

OVERALL SITE PLAN

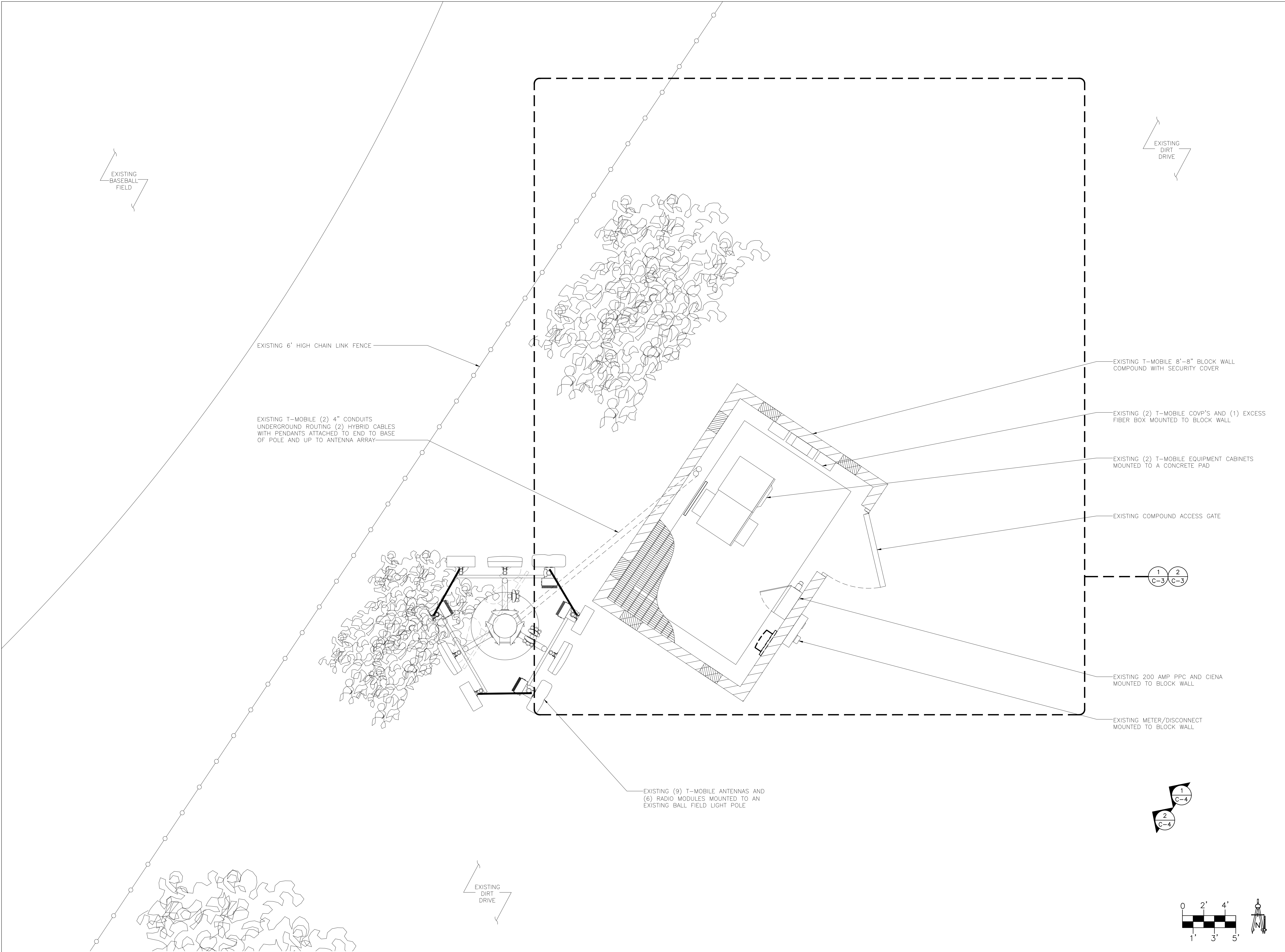
JURISDICTIONAL APPROVAL

SHEET NUMBER

C-1

RFDS VER: 2 DATED 4/22/2021 AT 6:1:11 PM





CLIENT

T-Mobile

1330 W. SOUTHERN AVE. STE A-102  
TEMPE, ARIZONA, 85282  
PHONE: (480) 638-2600 FAX: (480) 638-2852

CONSULTANT

COAL CREEK  
CONSULTING

8283 N. HAYDEN RD., STE 258  
SCOTTSDALE, ARIZONA 85258  
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ENGINEER OF RECORD  
TERRA DYNAMIC ENGINEERING, LLC

TD&

SUITE 1, #455 3241 E. SHEA BLVD.  
PHOENIX, AZ 85028  
PHONE: (602) 482-1603  
EMAIL: ROBERT@TERRADYNAMIC.US

SEAL

Professional Engineer  
REGISTERED PROFESSIONAL ENGINEER  
34596  
ROBERTO  
ORLANDO  
1/18/2022  
Arizona

| NO. | DATE     | DESCRIPTION | BY  |
|-----|----------|-------------|-----|
| 1   | 12/03/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
|     |          |             |     |

PROJECT INFORMATION

JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE  
1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

EXISTING ENLARGED  
SITE PLAN

JURISDICTIONAL APPROVAL

SHEET NUMBER

C-2

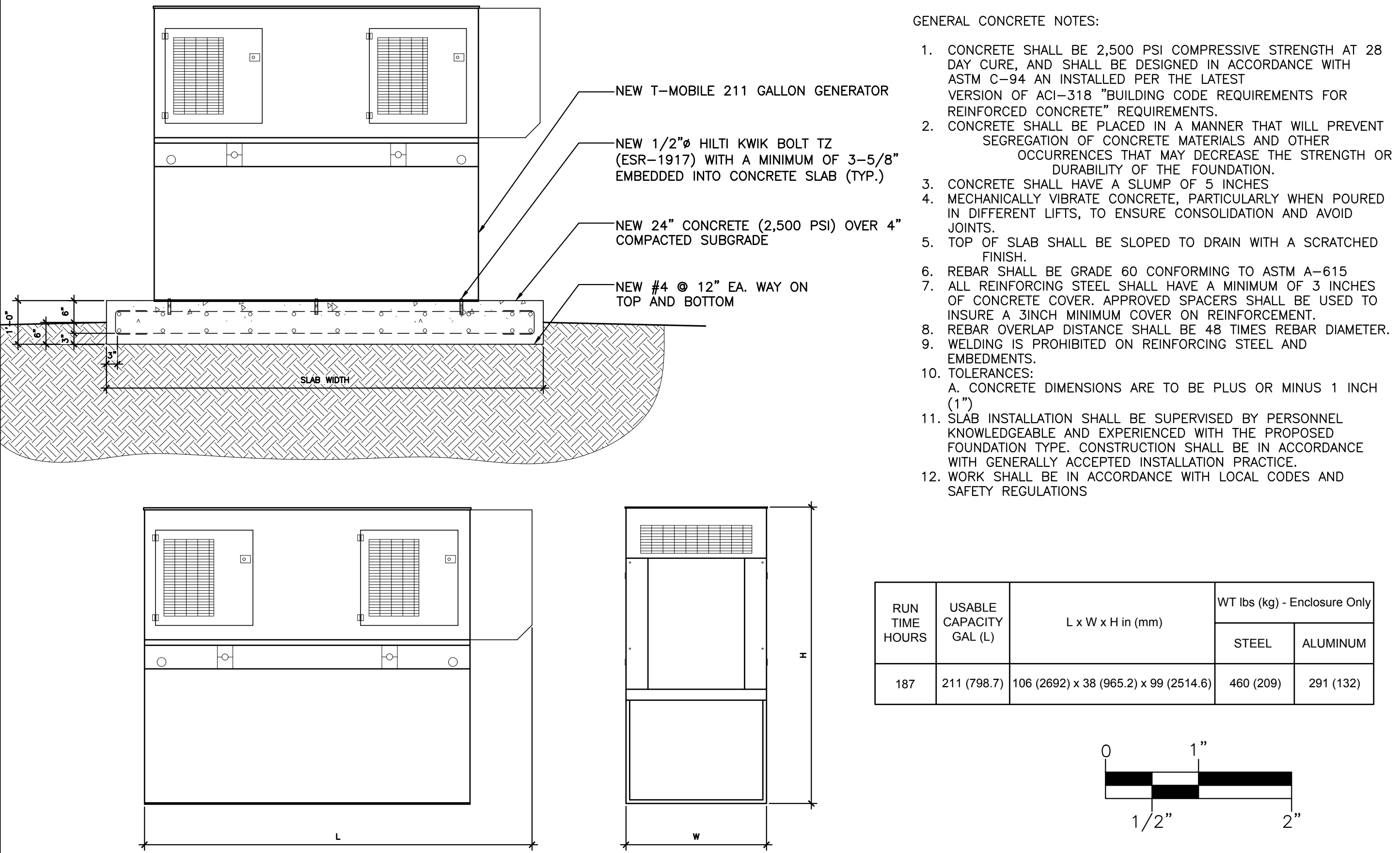
EXISTING ENLARGED SITE PLAN

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

1

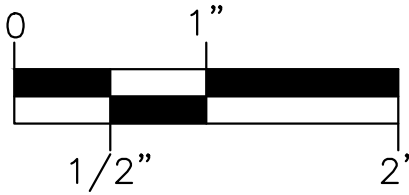
RFDS VER: 2 DATED 4/22/2021 AT 6:11 PM





- GENERAL CONCRETE NOTES:
1. CONCRETE SHALL BE 2,500 PSI COMPRESSIVE STRENGTH AT 28 DAY CURE, AND SHALL BE DESIGNED IN ACCORDANCE WITH ASTM C-94 AN INSTALLED PER THE LATEST VERSION OF ACI-318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" REQUIREMENTS.
  2. CONCRETE SHALL BE PLACED IN A MANNER THAT WILL PREVENT SEGREGATION OF CONCRETE MATERIALS AND OTHER OCCURRENCES THAT MAY DECREASE THE STRENGTH OR DURABILITY OF THE FOUNDATION.
  3. CONCRETE SHALL HAVE A SLUMP OF 5 INCHES.
  4. MECHANICALLY VIBRATE CONCRETE, PARTICULARLY WHEN POURED IN DIFFERENT LIFTS, TO ENSURE CONSOLIDATION AND AVOID JOINTS.
  5. TOP OF SLAB SHALL BE SLOPED TO DRAIN WITH A SCRATCHED FINISH.
  6. REBAR SHALL BE GRADE 60 CONFORMING TO ASTM A-615.
  7. ALL REINFORCING STEEL SHALL HAVE A MINIMUM OF 3 INCHES OF CONCRETE COVER. APPROVED SPACERS SHALL BE USED TO INSURE A 3/4" MINIMUM COVER ON REINFORCEMENT.
  8. REBAR OVERLAP DISTANCE SHALL BE 48 TIMES REBAR DIAMETER.
  9. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
  10. TOLERANCES:  
A. CONCRETE DIMENSIONS ARE TO BE PLUS OR MINUS 1 INCH (1")
  11. SLAB INSTALLATION SHALL BE SUPERVISED BY PERSONNEL KNOWLEDGEABLE AND EXPERIENCED WITH THE PROPOSED FOUNDATION TYPE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH GENERALLY ACCEPTED INSTALLATION PRACTICE.
  12. WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND SAFETY REGULATIONS

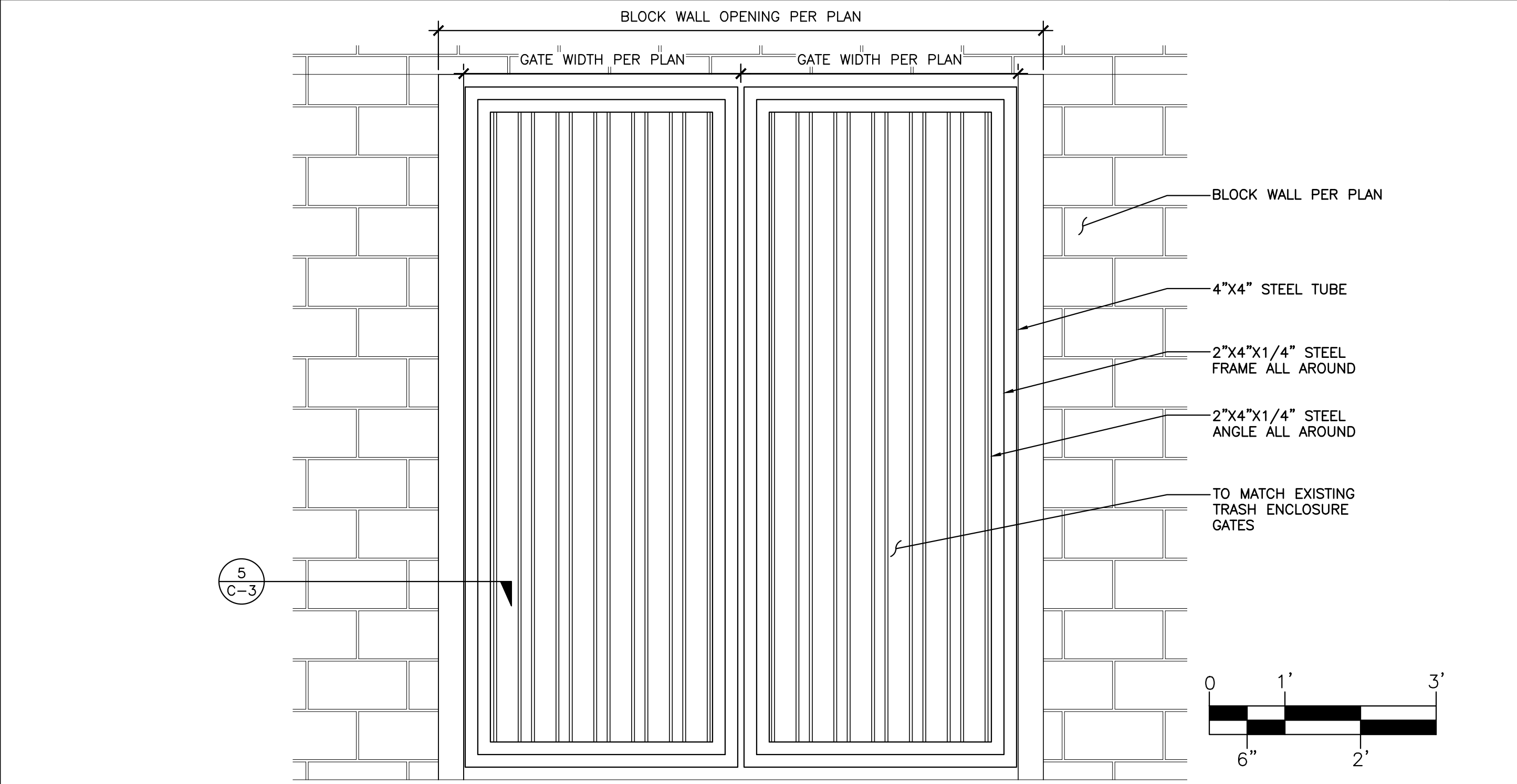
| RUN<br>TIME<br>HOURS | USABLE<br>CAPACITY<br>GAL (L) | L x W x H in (mm)                     | WT lbs (kg) - Enclosure Only |           |
|----------------------|-------------------------------|---------------------------------------|------------------------------|-----------|
|                      |                               |                                       | STEEL                        | ALUMINUM  |
| 187                  | 211 (798.7)                   | 106 (2692) x 38 (965.2) x 99 (2514.6) | 460 (209)                    | 291 (132) |



GENERATOR DETAIL, DIMENSIONS AND CONCRETE FOUNDATION NOTES

SCALE: 1"=1'-0"

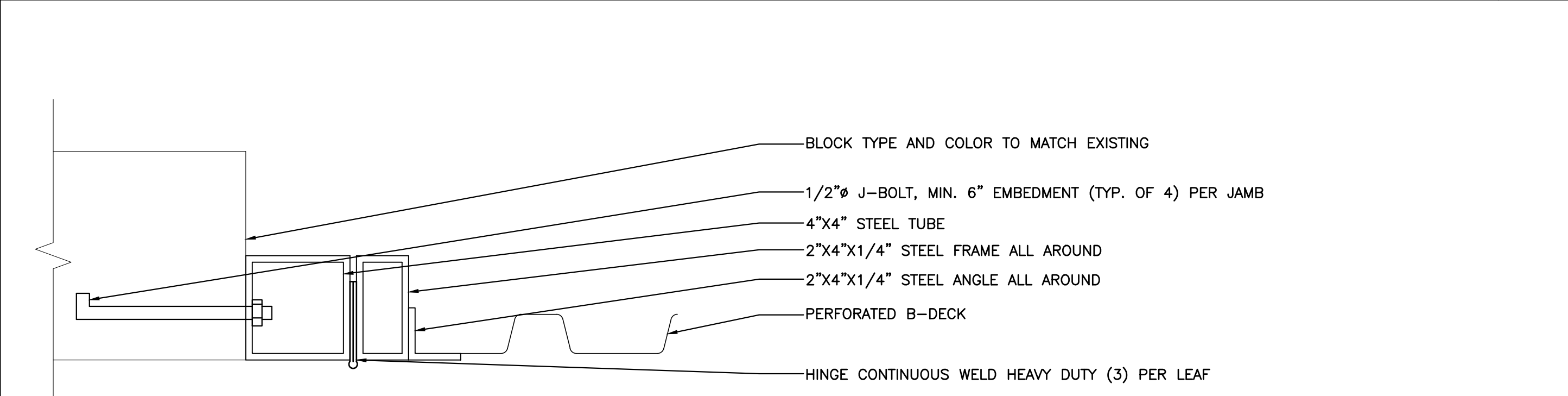
3



B-DECK GATE DETAIL

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

4



GATE HINGE

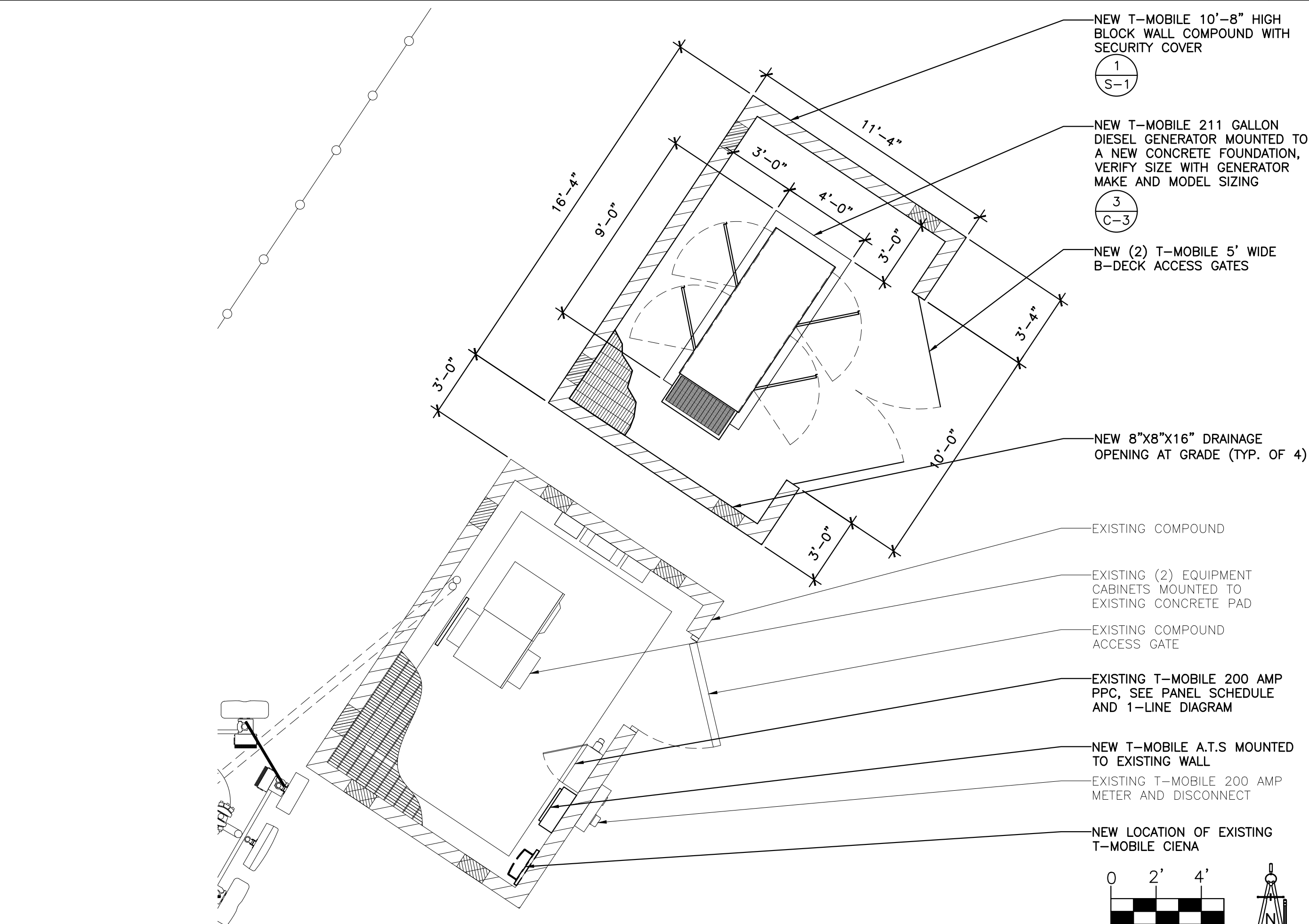
SCALE: N.T.S.

5

EXISTING ENLARGED EQUIPMENT PLAN

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

1



NEW ENLARGED EQUIPMENT PLAN

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

2

CLIENT

T-Mobile

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SEAL

Professional Engineer  
FLORIDA  
34596  
ROBERTO  
ORLANDO  
Expiring 1/18/2022

| NO. | DATE     | DESCRIPTION | BY  |
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PROJECT INFORMATION

JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
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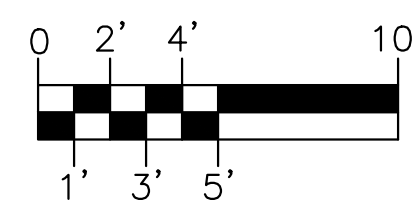
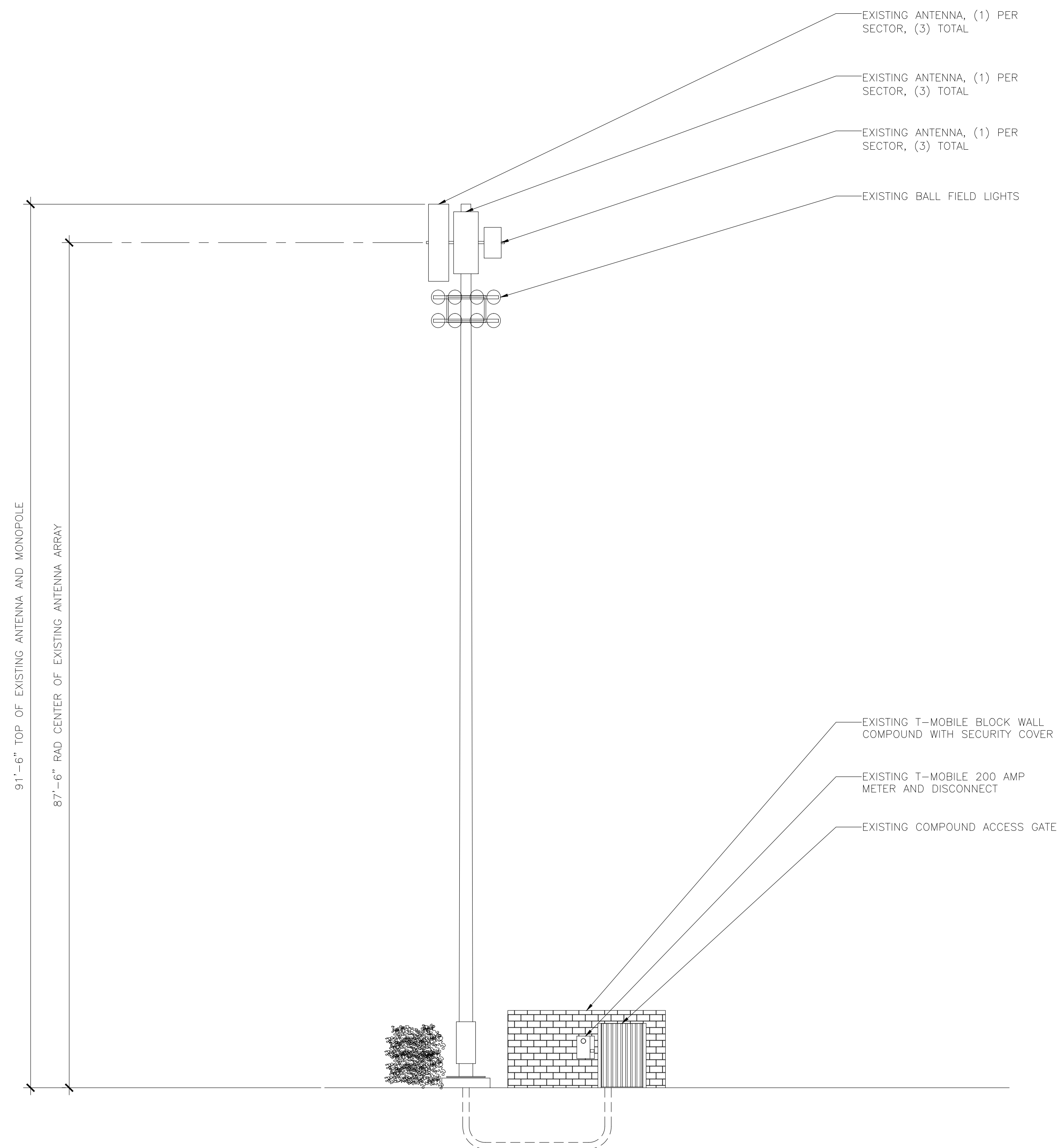
SHEET TITLE

EXISTING/NEW  
EQUIPMENT AND  
ANTENNA PLANS

JURISDICTIONAL APPROVAL

SHEET NUMBER

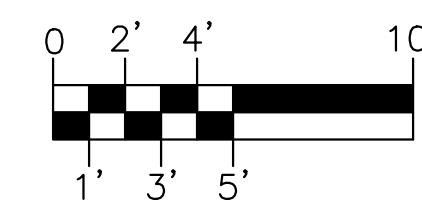
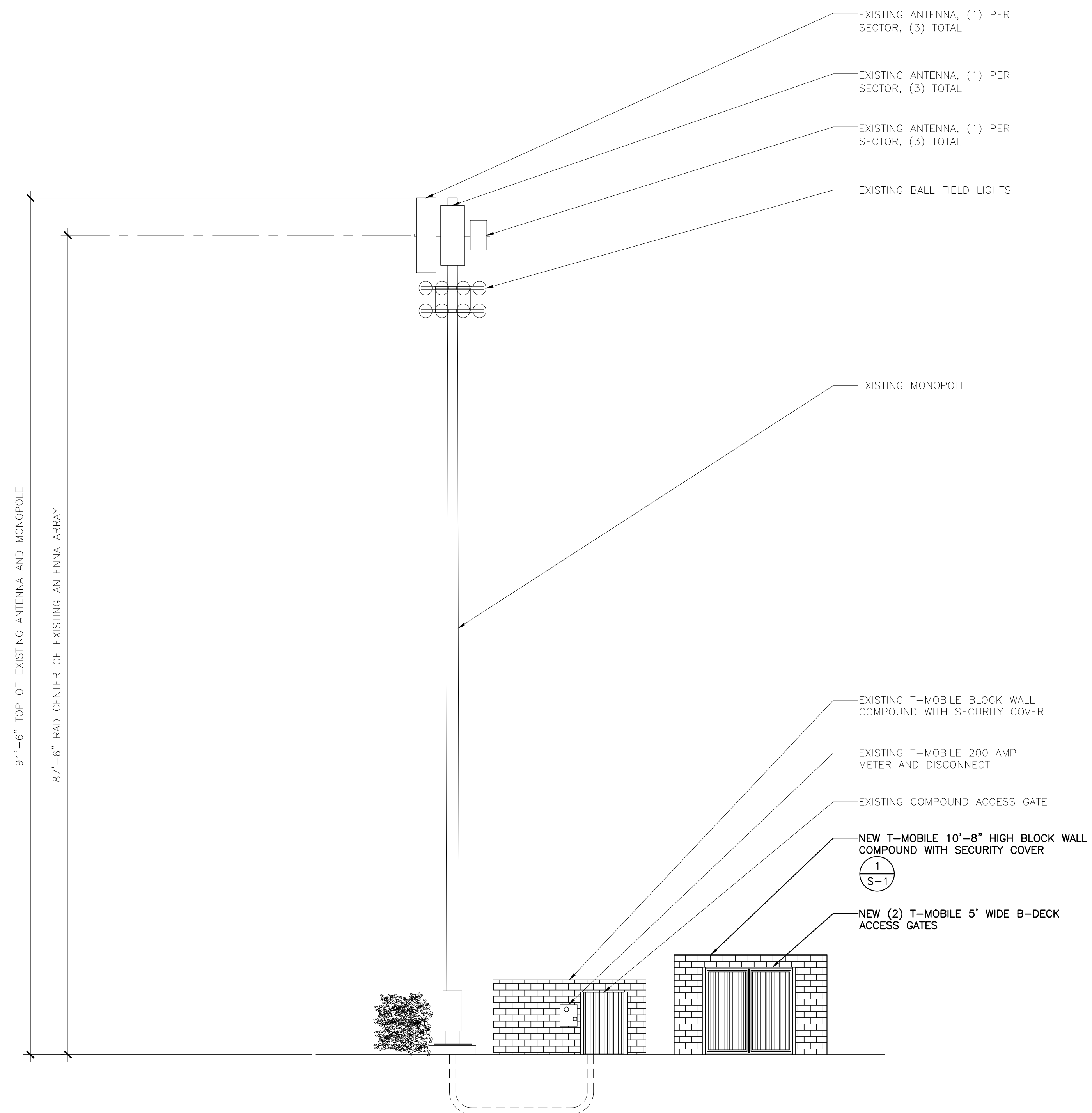
C-3



EXISTING SOUTH EAST ELEVATION

SCALE: 3/16" = 1'-0"

2



NEW SOUTH EAST ELEVATION

SCALE: 3/16" = 1'-0"

1

— CLIENT —



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—SEAL—



| NO. | DATE     | DESCRIPTION | BY  |
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| 1   | 12/03/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
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|     |          |             |     |
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PROJECT INFORMATION  
JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE

1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

—SHEET TITLE—

## EXISTING/NEW ELEVATIONS

—JURISDICTIONAL APPROVAL—

—SHEET NUMBER—

C-4

RFDS VER: 2 DATED 4/22/2021 AT 6:1:11 PM



ELECTRICAL SPECIFICATIONS

- 1 SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- 2 CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- 3 HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
- 4 THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- 5 EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.)
- 6 CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- 7 ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA & NBFU.
- 8 CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
- 9 CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS
- 10 COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- 11 ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
- 12 PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- 13 ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- 14 USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE.
- 15 ALL CONDUCTORS SHALL BE COPPER.
- 16 ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- 17 THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND DRAWINGS.
- 18 PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- 19 IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- 20 LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- 21 PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH SECTION NO. 4305 AND NO. 4304 OF THE U.B.C.
- 22 RECEPTACLES SHALL BE 20 AMPERE, 125 VOLT A.C., WHITE AS REQUIRED BY THE ARCHITECT OR APPROVED EQUAL.
- 23 WALL SWITCHES SHALL BE SINGLE-POLE, HUBBELL #1201 OR EQUIVALENT, WHITE AS REQUIRED BY THE ARCHITECT.
- 24 PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS, SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE RACO #800, 1/2" RAISED WORK COVERS.
- 25 WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM, NO BX OR ROMEX CABLE IS PERMITTED UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
- 26 GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2.
- 27 GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG, COPPERWELD OR APPROVED EQUAL.
- 28 METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY SQUARE D COMPANY OR APPROVED EQUAL.
- 29 ALL MATERIALS SHALL BE U.L. LISTED.
- 30 CONDUIT:
- a. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR RIGIDCONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
- b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
- c. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL HAVE FULL SIZE GROUND WIRE.
- d. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH OF 24" BELOW GRADE.
- 31 ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
- 32 UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- 33 CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.

GENERAL ELECTRICAL NOTES

1. CONDUIT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC, NOT INDICATING THE EXACT ROUTING REQUIRED. THE CONTRACTOR SHALL ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF INSTALLATION.
2. ALL EQUIPMENT PROVIDED BY THE ELECTRICAL CONTRACTOR SHALL BE LISTED AND LABELED BY A NATIONALLY-RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, FOR THE CONDITIONS OF INSTALLATION.
3. DEVICE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXACT DEVICE LOCATIONS SHALL BE AS INDICATED ON THE ARCHITECTURAL PLANS OR AS DIMENSIONED. IF NOT SHOWN ON THE ARCHITECTURAL PLANS OR DIMENSIONED ON THE ELECTRICAL PLANS, VERIFY EXACT LOCATION WITH THE ARCHITECT PRIOR TO ROUGH-IN.
4. ALL WIRE COUNTS ARE TYPICALLY NOT SHOWN BETWEEN LIGHT FIXTURES OR RECEPTACLES. PROVIDE ALL REQUIRED EVEN WHERE NOT SHOWN.
5. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, CIRCUITS SHALL CONSIST OF #12 PHASE AND GROUND (NEUTRAL CONDUCTORS) AND A #12 CU GROUND IN 3/4" CONDUIT. MC CABLE SHALL BE ACCEPTABLE IN WALLS. ALL BRANCH CIRCUIT HOME-RUNS SHALL BE IN CONDUIT.
6. UNLESS SPECIFICALLY NOTED OTHERWISE, THE ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL UTILIZATION EQUIPMENT SHOWN ON THE DRAWINGS. VERIFY THE TYPE OF FINAL CONNECTION AND PROVIDE APPROPRIATE WIRING METHOD.
7. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL, PLUMBING AND GENERAL CONTRACTORS, PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, MECHANICAL AND PLUMBING EQUIPMENT REQUIREMENTS ARE PROVIDED IN THE ELECTRICAL DESIGN. THE CONTRACTOR WILL NOT BE COMPENSATED FOR COSTS ASSOCIATED WITH CHANGING THE ELECTRICAL SYSTEMS TO MATCH UTILIZATION EQUIPMENT, EVEN IF THE ELECTRICAL WORK IS INSTALLED PER THE ELECTRICAL DRAWINGS.
8. INSULATION & WIRE TYPES SHALL BE AS FOLLOWS: PANEL FEEDERS - XHHW COPPER, WIRING ABOVE GRADE - THIN COPPER, WIRING BELOW GRADE - THIN COPPER, UNLESS NOTED OTHERWISE.
9. SOME CONDUCTOR SIZES ARE BASED ON THE USE OF 75 DEGREE C CONDUCTOR RATINGS. THE CONTRACTOR SHALL VERIFY, PRIOR TO INSTALLATION OF CONDUCTORS OR CONDUIT FEEDING ANY EQUIPMENT, THAT ALL ELECTRICAL EQUIPMENT IS RATED FOR USE WITH 75 DEGREE C WIRING. IF ANY EQUIPMENT IS RATED FOR USE WITH LESS THAN 75 DEGREE C CONDUCTORS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR EVALUATION/CORRECTION.
10. UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE COMPLETE AND FULLY-FUNCTIONING AFTER INSTALLATION. COMPONENTS NOT SHOWN, BUT REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT OR SYSTEM, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE PROJECT.
11. THE CONTRACTOR SHALL PERFORM ALL ACCEPTANCE TESTS REQUIRED OR RECOMMENDED BY EQUIPMENT MANUFACTURERS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER SEVEN (7) DAYS PRIOR TO TESTING AND SHALL ALLOW OBSERVATION OF THE TESTING BY THE ENGINEER.
12. ALL RECEPTACLES INSTALLED WITHIN 6 FEET OF A SINK SHALL BE GFI PROTECTED.
13. UNLESS OTHERWISE NOTED, ALL EQUIPMENT DISCONNECTS SHALL BE NEMA TYPE 3R, FUSIBLE, 30A, 3 POLE. FUSE PER EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
14. ALL PENETRATIONS IN WALLS SHALL BE SEALED WITH FLEXIBLE ACOUSTIC CAULKING. CAULKING SHALL BE APPLIED AROUND OUTLET BOXES TO PROVIDE A COMPLETE SEAL BETWEEN THE BOX AND THE WALL.
15. PRIOR TO TRENCHING IN ANY AREA, THE CONTRACTOR SHALL CONTACT ELECTRICAL, COMMUNICATIONS/DATA, CABLE TV, GAS, AND WATER UTILITY PROVIDERS (BLUE STAKE) AND HAVE ALL UTILITIES IN THE AREA IDENTIFIED. IN ADDITION, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A SUBCONTRACTOR SPECIALIZING IN THE LOCATION OF UNDERGROUND STRUCTURES TO IDENTIFY ANY OBSTACLES IN THE PATH OF TRENCHING (PRIOR TO COMMENCING WORK). DAMAGE TO ANY UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.
16. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL AND STATE CODES INCLUDING THE NEC
17. OVER CURRENT DEVICES SHALL BE LOCATED WHERE THEY WILL NOT BE EXPOSED TO PHYSICAL DAMAGE.
18. HOMERUNS SHALL NOT BE GANGED TOGETHER UNLESS SHOWN GANGED.
19. CONTRACTOR SHALL CONTACT ENGINEER IN WRITING (RFI) PRIOR TO PROCEEDING WITH ANY WORK NOT CLEARLY SHOWN ON THESE CONTRACT DOCUMENTS. ENGINEER WILL NOT ACCEPT ANY RESPONSIBILITY FOR WORK HE HAS NOT EXPLICITLY AUTHORIZED.
20. PROVIDE IDENTIFICATION AT THE DISTRIBUTION PANEL FOR BRANCH CIRCUITS THAT FEED EMERGENCY LIGHTING UNIT EQUIPMENT.
21. ELECTRICAL EQUIPMENT THAT IS LIKELY TO REQUIRE MAINTENANCE WHILE ENERGIZED SHALL BE PROPERLY MARKED TO WARN PERSONNEL OF ARC FLASH HAZARD.
22. PROVIDE A #18 OR LARGER COPPER TRACER WIRE SECURELY ATTACHED TO THE NON-METALLIC CABLE, PIPE OR CONDUIT AT 8"-0" ON CENTER. IT SHALL HAVE A 12" OF TRACER WIRE ACCESSIBLE ABOVE GRADE AT ANY ABOVE GRADE TERMINATION PER ARIZONA STATE STATUTE.
23. UTILITY COORDINATION
- a. THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF DRAWINGS TO ELECTRICAL AND TELCO UTILITIES AS REQUIRED FOR DESIGN.
- b. THE CONTRACTOR SHALL NOT TRENCH OR INSTALL CONDUITS (ON THE UTILITY OR LOAD SIDE) TO THE SES OR TO THE UTILITY TRANSFORMER (PRIMARY OR SECONDARY), OR TO THE UTILITY CONNECTION POINT BEFORE RECEIVING A FINAL DESIGN FROM THE UTILITY.
- c. THE CONTRACTOR SHALL NOT INSTALL EQUIPMENT PADS FOR THE SES OR ANY UTILITY EQUIPMENT (TRANSFORMERS, SWITCHING CABINETS, ETC) PRIOR TO RECEIPT OF FINAL PLANS FROM THE UTILITY.
- d. THE CONTRACTOR SHALL NOT BE COMPENSATED FOR ADDITIONAL WORK REQUIRED TO MEET THE REQUIREMENTS OF THE UTILITY WHICH IS THE RESULT OF PROCEEDING PRIOR TO RECEIPT OF A FINAL UTILITY DESIGN.
24. SERIES RATING NOTES:
- A. WHERE A CIRCUIT BREAKER IS USED ON A CIRCUIT HAVING AN AVAILABLE FAULT CURRENT HIGHER THAN THE MARKED INTERRUPTING RATING BY BEING CONNECTED ON THE LOAD SIDE OF AN ACCEPTABLE OVERCURRENT PROTECTIVE DEVICE HAVING A HIGHER RATING, THE CIRCUIT BREAKER SHALL MEET THE REQUIREMENTS SPECIFIED IN (1) AND (2).
- (1). TESTED COMBINATIONS. THE COMBINATION OF LINE-SIDE OVERCURRENT DEVICE AND LOAD-SIDE CIRCUIT BREAKER(S) IS TESTED AND MARKED ON THE END USE EQUIPMENT, SUCH AS SWITCHBOARDS AND PANELBOARDS.
- (2). MOTOR CONTRIBUTION. SERIES RATINGS SHALL NOT BE USED WHERE
- a. MOTORS ARE CONNECTED ON THE LOAD SIDE OF THE HIGHER-RATED OVERCURRENT DEVICE AND ON THE LINE SIDE OF THE LOWER-RATED OVERCURRENT DEVICE, AND
- b. THE SUM OF THE MOTOR FULL-LOAD CURRENTS EXCEEDS 1 PERCENT OF THE INTERRUPTING RATING OF THE LOWER-RATED CIRCUIT BREAKER.
- B. WHERE CIRCUIT BREAKERS OR FUSES ARE APPLIED IN COMPLIANCE WITH THE SERIES COMBINATION RATINGS MARKED ON THE EQUIPMENT BY THE MANUFACTURER, THE EQUIPMENT ENCLOSURE(S) SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATING. THE MARKING SHALL BE READILY VISIBLE AND STATE THE FOLLOWING: CAUTION - SERIES COMBINATION SYSTEM RATED \_\_\_\_\_ AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED
- C. TESTED COMBINATIONS. THE COMBINATION OF THE LINE-SIDE OVERCURRENT DEVICE AND LOAD SIDE CIRCUIT BREAKER(S) IS TESTED AND MARKED ON THE END USE EQUIPMENT, SUCH AS SWITCHBOARDS AND PANELBOARDS.

SYMBOL LIST

(NOT ALL MAY BE USED)

ELECTRICAL SYMBOLS

|                  |   |
|------------------|---|
|                  | FLUORESCENT STRIP FIXTURE, LENGTH PER PLAN.   |
|                  | SURFACE WALL-MOUNTED LIGHT FIXTURE.   |
|                  | SOLID "J"BOX" ON ANY FIXTURE INDICATES A FIXTURE WITH AN INTEGRAL EMERGENCY POWER SUPPLY, PER THE SPECIFICATIONS.   |
|                  | POLE-MOUNTED LIGHT FIXTURE.   |
|                  | SINGLE POLE TOGGLE SWITCH   |
|                  | PHOTOCELL, MOUNTED ON ROOF UNLESS NOTED OTHERWISE.  |
|                  | DUPLEX CONVENIENCE RECEPTACLE   |
|                  | "CROSS SLASH" ON ANY RECEPTACLE INDICATES INTEGRAL GROUND FAULT PROTECTION.   |
|                  | DOUBLE DUPLEX (FOURPLEX) CONVENIENCE RECEPTACLE   |
|                  | JUNCTION BOX. 'C' INDICATES CEILING MOUNTED. 'F' INDICATES FLOOR MOUNTED (SUBSCRIPTS ARE TYPICAL FOR ALL DEVICES)   |
|                  | VOICE OUTLET  |
|                  | DATA OUTLET   |
|                  | COMBINATION TELEPHONE AND DATA OUTLET IN THE SAME BOX   |
|                  | HORSEPOWER RATED MANUAL MOTOR SWITCH  |
|                  | FUSIBLE DISCONNECT SWITCH FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE. SIZE AND FUSES AS PER RECOMMENDATIONS OF EQUIPMENT'S MANUFACTURER OR AS NOTED. (N. INDICATES NON-FUSED). |
|                  | ELECTRICAL MOTOR. SEE DRAWINGS FOR SIZE.  |
|                  | DISTRIBUTION PANELBOARD, MOTOR CONTROL CENTER OR SERVICE ENTRANCE SECTION. SEE DRAWINGS FOR EXACT TYPE.   |
|                  | SURFACE MOUNTED PANEL BOARD.  |
|                  | FLUSH MOUNTED PANEL BOARD.  |
|                  | TELEPHONE MOUNTING BOARD.   |
|                  | TEST WELL/GROUND ROD  |
|                  | GROUND ROD - 5/8" x 10' COPPER CLAD   |
|                  | CADWELD CONNECTION  |
|                  | MECHANICAL CONNECTION   |
|                  | GROUNDING WIRE  |
|                  | GROUND BAR  |
|                  | SURGE SUPPRESSOR GROUND BAR   |
|                  | METER AND MAIN BREAKER  |
|                  | MANUAL XFR SWITCH AND GEN. RECPT.   |
|                  | GPS ANTENNA   |
|                  | ELECTRICAL POWER  |
|                  | T-1 LINE  |
| WIRE AND CONDUIT |   |
|                  | FLEXIBLE CONDUIT  |
|                  | CONDUIT CONCEALED IN WALLS OR ABOVE CEILING W/ 2 #12, #12 GND, 3/4" C., UNLESS NOTED OTHERWISE.   |
|                  | CONDUIT ROUTED UNDER FLOOR OR BELOW GRADE W/ 2 #12, #12 GRD., 3/4" C., UNLESS NOTED OTHERWISE.  |
|                  | CONDUIT TURNING UP.   |
|                  | CONDUIT TURNING DOWN.   |
| 1-LINE DIAGRAM   |   |
|                  | CIRCUIT BREAKER, FIXED MOUNTED.   |
|                  | CIRCUIT BREAKER, DRAWOUT MOUNTING.  |
|                  | FUSIBLE SWITCH. SIZE AS INDICATED ON DRAWINGS.  |
|                  | TRANSFORMER. SEE ONE-LINE FOR TYPE AND SPECIFICATION.   |
|                  | CURRENT TRANSFORMER   |
|                  | METERING DEVICE   |
|                  | PANELBOARD, MAIN LUG ONLY   |
|                  | PANELBOARD, MAIN CIRCUIT BREAKER  |
|                  | TRANSFER SWITCH - MANUAL OR AUTOMATIC   |
|                  | INDICATES A FEED-THROUGH LUG CONNECTION   |
|                  | UNINTERRUPTIBLE POWER SUPPLY  |
|                  | GENERATOR WITH INTEGRAL PROTECTION  |
|                  | WEATHERHEAD   |

SHEET INDEX

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|-----|--|
| E-2 | ENLARGED POWER PLAN                        |
| E-3 | ONE-LINE AND EXISTING/NEW PANEL SCHEDULE   |
| E-4 | EQUIPMENT/ANTENNA GROUNDING PLAN AND NOTES |
|     |  |
|     |  |
|     |  |
|     |  |
|     |  |

ABBREVIATIONS

|              |                                       |
|--------------|---------------------------------------|
| C.O.         | = CONDUIT ONLY                        |
| PVC.         | = SCHEDULE 40 PLASTIC CONDUIT         |
| GRC.         | = GALVANIZED RIGID CONDUIT            |
| MTD.         | = MOUNTED                             |
| W.P.         | = WEATHERPROOF                        |
| U.O.N.       | = UNLESS OTHERWISE NOTED              |
| G. OR GRD.   | = GROUND                              |
| N. OR NEUT.  | = NEUTRAL                             |
| A. OR AMP.   | = AMPERE                              |
| KW.          | = KILOWATTS                           |
| W.           | = WATTS                               |
| ~            | = PHASE                               |
| DIA          | = DIAMETER                            |
| H.P. OR HP   | = HORSEPOWER                          |
| XFMR         | = TRANSFORMER                         |
| C.B.         | = CIRCUIT BREAKER                     |
| CKT.         | = CIRCUIT                             |
| SW.          | = SWITCH                              |
| MTS          | = MANUAL TRANSFORMER SWITCH           |
| F.A.         | = FIRE ALARM                          |
| RECPT.       | = RECEPTACLE                          |
| E.C.         | = ELECTRIC CONTRACTOR                 |
| G.C.         | = GENERAL CONTRACTOR                  |
| 1P, 2P, & 3P | = SINGLE POLE, TWO POLE, & THREE POLE |
| EGB          | = EQUIPMENT GROUND BUS                |
| MGB          | = MAIN GROUND BUS                     |
| AFC          | = AVAILABLE FAULT CURRENT             |
| AWG          | = AMERICAN WIRE GAUGE                 |
| BTGW         | = BARE TINNED COPPER WIRE             |
| GPS          | = GLOBAL POSITIONING SYSTEM           |
| PPC          | = POWER PROTECTION CABINET            |
| TYP.         | = TYPICAL                             |
| RGS          | = RIGID GALVANIZED STEEL              |
| EMT          | = ELECTRICAL METALLIC TUBING          |
| DWG          | = DRAWING                             |
| BTS          | = BASE TRANSMISSION SYSTEM            |
| GEN          | = GENERATOR                           |
| BSCW         | = BARE STRANDED COPPER WIRE           |
| ISCW         | = INSULATED STRANDED COPPER WIRE      |

CLIENT

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SEAL



| NO. | DATE     | DESCRIPTION | BY  |
|-----|----------|-------------|-----|
| 1   | 12/06/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
|     |          |             |     |
|     |          |             |     |

PROJECT INFORMATION

JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE

1801 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

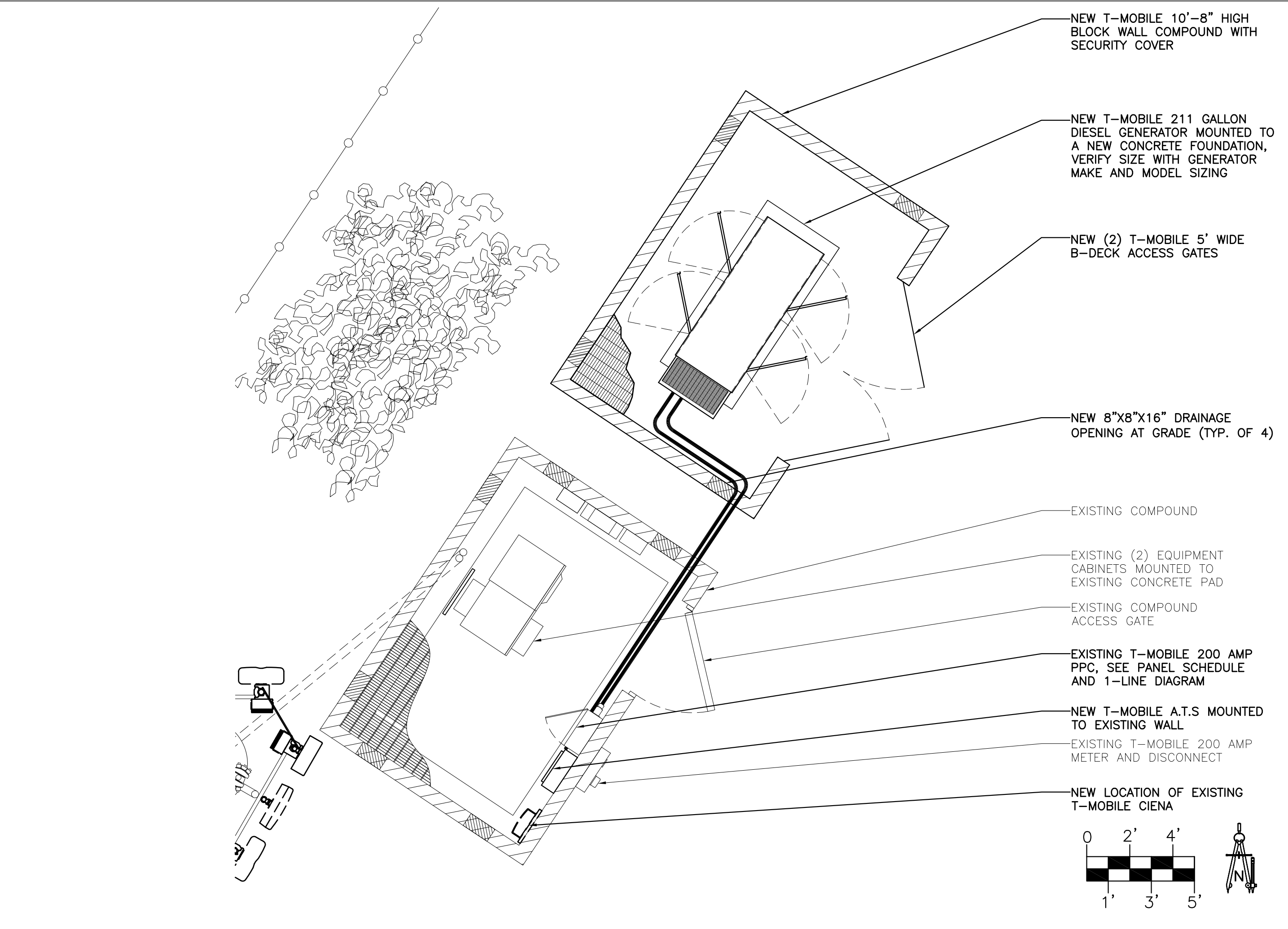
SPECS / GENERAL  
NOTES / LEGENDS /  
SHEET INDEX

JURISDICTIONAL APPROVAL

SHEET NUMBER

E-1



|          |               |   |  |                     |   |  |
|----------|---------------|---|--|---------------------|---|--|
|          |               |   |  |                     |   |  |
| NOT USED | SCALE: N.T.S. | 3 | ENLARGED POWER PLAN  | SCALE: 1/4" = 1'-0" | 1 |  |
|          |               |   |  |                     |   |  |
| NOT USED | SCALE: N.T.S. | 4 | NOT USED   | SCALE: N.T.S.       | 2 |  |

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SEAL

Professional Engineer  
Electrical  
27846  
VERNON R WILLSON  
1/20/2022  
ARIZONA U.S.A.  
Exp/Res: 03/31/2024

| NO. | DATE     | DESCRIPTION | BY  |
|-----|----------|-------------|-----|
| 1   | 12/06/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
|     |          |             |     |
|     |          |             |     |

PROJECT INFORMATION

JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE  
1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

ENLARGED POWER PLAN

JURISDICTIONAL APPROVAL

SHEET NUMBER

E-2

RFDS VER: 2 DATED 4/22/2021 AT 6:1:11 PM



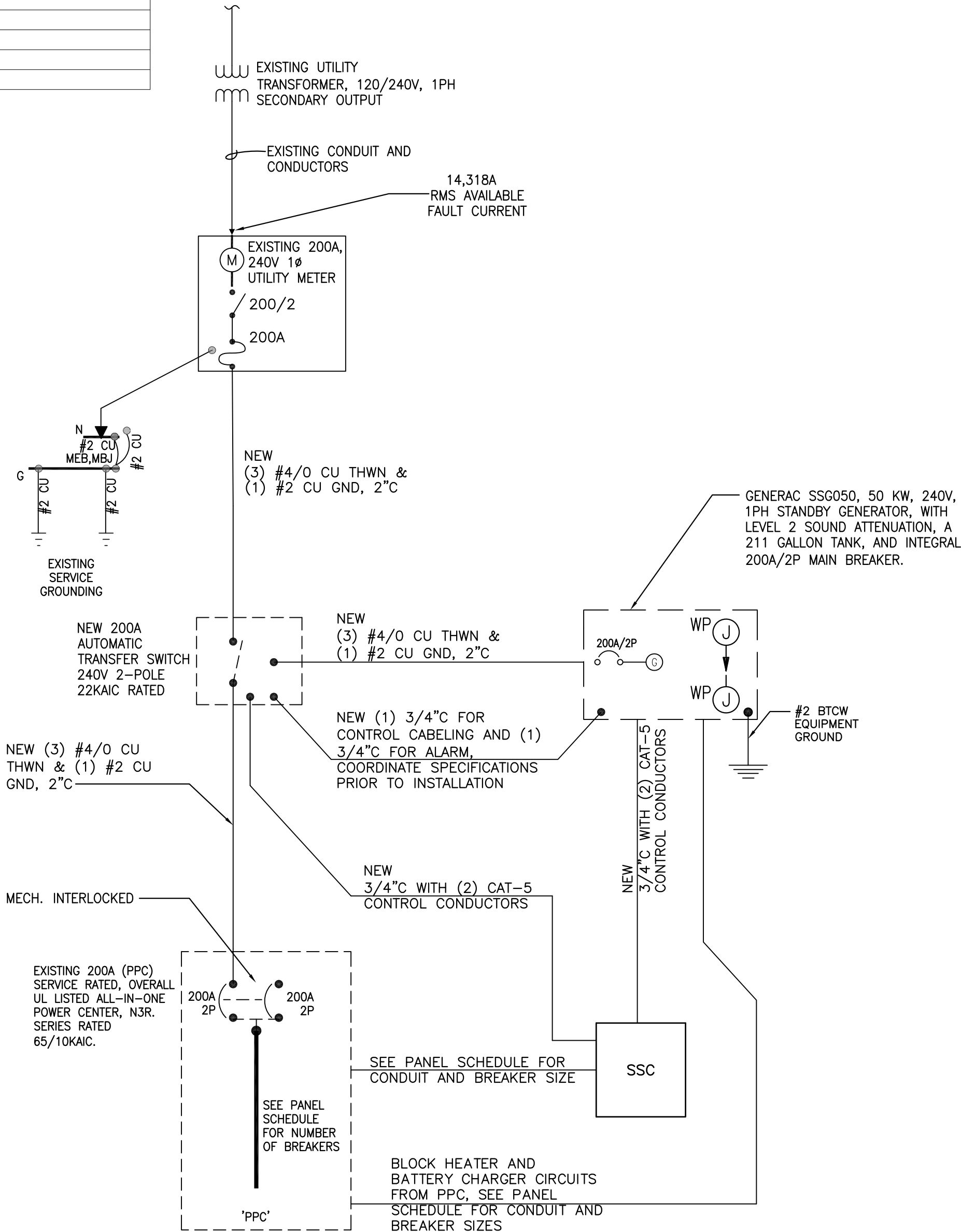
| EXISTING 200 AMP PPC  |          |         |            |          |         |           |         |         |         | ELECTRICAL PANEL SCHEDULE   |            |         |          |                  |          |         |            |          |         |
|-----------------------|----------|---------|------------|----------|---------|-----------|---------|---------|---------|---|------------|---------|----------|------------------|----------|---------|------------|----------|---------|
|                       |          |         |            |          |         |           |         |         |         | 65/10KAIC SERIES RATED  |            |         |          |                  |          |         |            |          |         |
| LOCATION: PPC CABINET |          |         |            |          |         |           |         |         |         | VOLTAGE: 240 / 120 V 1ø,3W  |            |         |          |                  |          |         |            |          |         |
| MOUNTING: SURFACE     |          |         |            |          |         |           |         |         |         | MAINS: 200 A MCB  |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | BUS: 200 A CU   |            |         |          |                  |          |         |            |          |         |
| LOAD DESCRIPTION      | EMT COND | CU GRND | PHASE NEUT | CKT BRKR | CIR NO. | LOAD AMPS | PHASE A | PHASE B | CIR NO. | CKT BRKR  | PHASE NEUT | CU GRND | EMT COND | LOAD DESCRIPTION | EMT COND | CU GRND | PHASE NEUT | CKT BRKR | CIR NO. |
| MISC                  |          |         |            |          | 1       | 0.0       |         |         | 20      | 1   | 12         | 12      | 3/4"     | RECEPTACLES      |          |         |            |          |         |
| SURGE PROTECTION      |          |         |            |          | 3       | 1.5       |         |         | 2       |   |            |         |          | PPC GFCI         |          |         |            |          |         |
| MISC Cont.            |          |         | 6          |          | 2       |           |         |         | 20      | 12  | 12         | 12      | 3/4"     | LIGHTING         |          |         |            |          |         |
| MISC Cont.            | 2"       | 6       | 4/0        |          | 5       | 125.0     |         |         | 4       | 1   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| SSC                   |          |         |            |          | 7       | 0.0       |         |         | 6       |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| MISC Cont.            |          |         | 4/0        |          | 9       | 0.0       |         |         | 8       |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE          |          |         |            |          | 11      | 0.0       |         |         | 10      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE          |          |         |            |          | 13      | 0.0       |         |         | 14      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE          |          |         |            |          | 15      | 0.0       |         |         | 16      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE          |          |         |            |          | 17      | 0.0       |         |         | 18      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE          |          |         |            |          | 19      | 0.0       |         |         | 20      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE          |          |         |            |          | 21      | 0.0       |         |         | 22      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE          |          |         |            |          | 23      | 0.0       |         |         | 24      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | CONTRACTOR TO INSTALL APPROVED HANDLE TIE ON ALL SHARED NEUTRAL CIRCUITS. |            |         |          |                  |          |         |            |          |         |
| 1 PHASE DEMAND (VA)   |          |         |            |          |         |           |         |         |         | SYMBOL LIST   |            |         |          |                  |          |         |            |          |         |
| LIGHTING              |          |         |            |          |         |           |         |         |         | 216.0   |            |         |          |                  |          |         |            |          |         |
| 25% OF LIGHTING       |          |         |            |          |         |           |         |         |         | 54.0  |            |         |          |                  |          |         |            |          |         |
| RECEPTACLES           |          |         |            |          |         |           |         |         |         | 180.0   |            |         |          |                  |          |         |            |          |         |
| MECHANICAL            |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
| 25% LARGEST MOTOR     |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
| MISCELLANEOUS         |          |         |            |          |         |           |         |         |         | 30,000.0  |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                       |          |         |            |          |         |           |         |         |         | 30,450.0  |            |         |          |                  |          |         |            |          |         |
| 30.5 KVA @ 240 V 1ø   |          |         |            |          |         |           |         |         |         |   |            |         |          |                  |          |         |            |          |         |
| 126.9 A @ 240 V 1ø    |          |         |            |          |         |           |         |         |         |   |            |         |          |                  |          |         |            |          |         |

|                    |           |
|--------------------|-----------|
| CODE LOAD SUMMARY  |           |
| PANEL 'PPC' @ 240V | = 126.9 A |

| UPDATED EXISTING 200 AMP PPC |          |         |            |          |         |           |         |         |         | ELECTRICAL PANEL SCHEDULE   |            |         |          |                  |          |         |            |          |         |
|------------------------------|----------|---------|------------|----------|---------|-----------|---------|---------|---------|---|------------|---------|----------|------------------|----------|---------|------------|----------|---------|
|                              |          |         |            |          |         |           |         |         |         | 65/10KAIC SERIES RATED  |            |         |          |                  |          |         |            |          |         |
| LOCATION: PPC CABINET        |          |         |            |          |         |           |         |         |         | VOLTAGE: 240 / 120 V 1ø,3W  |            |         |          |                  |          |         |            |          |         |
| MOUNTING: SURFACE            |          |         |            |          |         |           |         |         |         | MAINS: 200 A MCB  |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | BUS: 200 A CU   |            |         |          |                  |          |         |            |          |         |
| LOAD DESCRIPTION             | EMT COND | CU GRND | PHASE NEUT | CKT BRKR | CIR NO. | LOAD AMPS | PHASE A | PHASE B | CIR NO. | CKT BRKR  | PHASE NEUT | CU GRND | EMT COND | LOAD DESCRIPTION | EMT COND | CU GRND | PHASE NEUT | CKT BRKR | CIR NO. |
| MISC                         |          |         |            |          | 1       | 0.0       |         |         | 20      | 1   | 12         | 12      | 3/4"     | RECEPTACLES      |          |         |            |          |         |
| SURGE PROTECTION             |          |         |            |          | 3       | 1.5       |         |         | 2       |   |            |         |          | PPC GFCI         |          |         |            |          |         |
| MISC Cont.                   |          |         | 6          |          | 2       |           |         |         | 20      | 12  | 12         | 12      | 3/4"     | LIGHTING         |          |         |            |          |         |
| MISC Cont.                   | 2"       | 6       | 4/0        |          | 5       | 125.0     |         |         | 4       | 1   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| SSC                          |          |         |            |          | 7       | 0.0       |         |         | 6       |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| MISC Cont.                   |          |         | 4/0        |          | 9       | 0.0       |         |         | 8       |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE                 |          |         |            |          | 11      | 0.0       |         |         | 10      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE                 |          |         |            |          | 13      | 0.0       |         |         | 14      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE                 |          |         |            |          | 15      | 0.0       |         |         | 16      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE                 |          |         |            |          | 17      | 0.0       |         |         | 18      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE                 |          |         |            |          | 19      | 0.0       |         |         | 20      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE                 |          |         |            |          | 21      | 0.0       |         |         | 22      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
| BUSSED SPACE                 |          |         |            |          | 23      | 0.0       |         |         | 24      |   |            |         |          | BUSSED SPACE     |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | CONTRACTOR TO INSTALL APPROVED HANDLE TIE ON ALL SHARED NEUTRAL CIRCUITS. |            |         |          |                  |          |         |            |          |         |
| 1 PHASE DEMAND (VA)          |          |         |            |          |         |           |         |         |         | SYMBOL LIST   |            |         |          |                  |          |         |            |          |         |
| LIGHTING                     |          |         |            |          |         |           |         |         |         | 216.0   |            |         |          |                  |          |         |            |          |         |
| 25% OF LIGHTING              |          |         |            |          |         |           |         |         |         | 54.0  |            |         |          |                  |          |         |            |          |         |
| RECEPTACLES                  |          |         |            |          |         |           |         |         |         | 180.0   |            |         |          |                  |          |         |            |          |         |
| MECHANICAL                   |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
| 25% LARGEST MOTOR            |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
| MISCELLANEOUS                |          |         |            |          |         |           |         |         |         | 32,004.0  |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | 0.0   |            |         |          |                  |          |         |            |          |         |
|                              |          |         |            |          |         |           |         |         |         | 32,454.0  |            |         |          |                  |          |         |            |          |         |
| 32.5 KVA @ 240 V 1ø          |          |         |            |          |         |           |         |         |         |   |            |         |          |                  |          |         |            |          |         |
| 135.2 A @ 240 V 1ø           |          |         |            |          |         |           |         |         |         |   |            |         |          |                  |          |         |            |          |         |

|                    |           |
|--------------------|-----------|
| CODE LOAD SUMMARY  |           |
| PANEL 'PPC' @ 240V | = 135.2 A |

NOTES:  
THE STANDBY POWER SYSTEM IS NOT A SEPARATELY DERIVED SYSTEM. THE GROUNDED CONDUCTOR (NEUTRAL) IS NOT DISCONNECTED WHEN THE TRANSFER SWITCH/GENERATOR IS ENGAGED.



PANEL 'PPC' IS SERIES RATED AT 65KA/10KA  
PROVIDE FIELD MARKINGS PER N.E.C. ARTICLE 110.24.  
SEE THE SERIES RATING NOTES, SHEET E-1.

## ONE-LINE DIAGRAM

N.T.S.

## DC -48V FEEDER CABLING CHART

CALCULATIONS ARE BASED ON WORST CASE FULL LOAD AMPS AT 104A -48VDC, NOT EXCEEDING 3% VOLTAGE DROP. IF FIELD CONDITIONS ARE DIFFERENT THAN INDICATED, CONTACT ENGINEER FOR REVISED CALCULATIONS.

| DISTANCE FROM FUEL CELL TO EQUIP. CABINET. | -48V, DC SINGLE CABLE | -48V, DC PARALLEL CABLE | CONDUIT SIZE |
|--|-----------------------|-------------------------|--------------|
| 1'-70'                                     | 1-#1/0 CU. AWG        |                         | 1-1/4"       |
| 71-90'                                     | 1-#2/0 CU. AWG        |                         | 1-1/2"       |
| 91'-110'                                   | 1-#3/0 CU. AWG        |                         | 1-1/2"       |
| 111'-140'                                  | 1-#4/0 CU. AWG        |                         | 2"           |
| 141'-175'                                  |                       | 2-#2/0 CU. AWG          | 2"           |
|  |                       |                         |              |
|  |                       |                         |              |

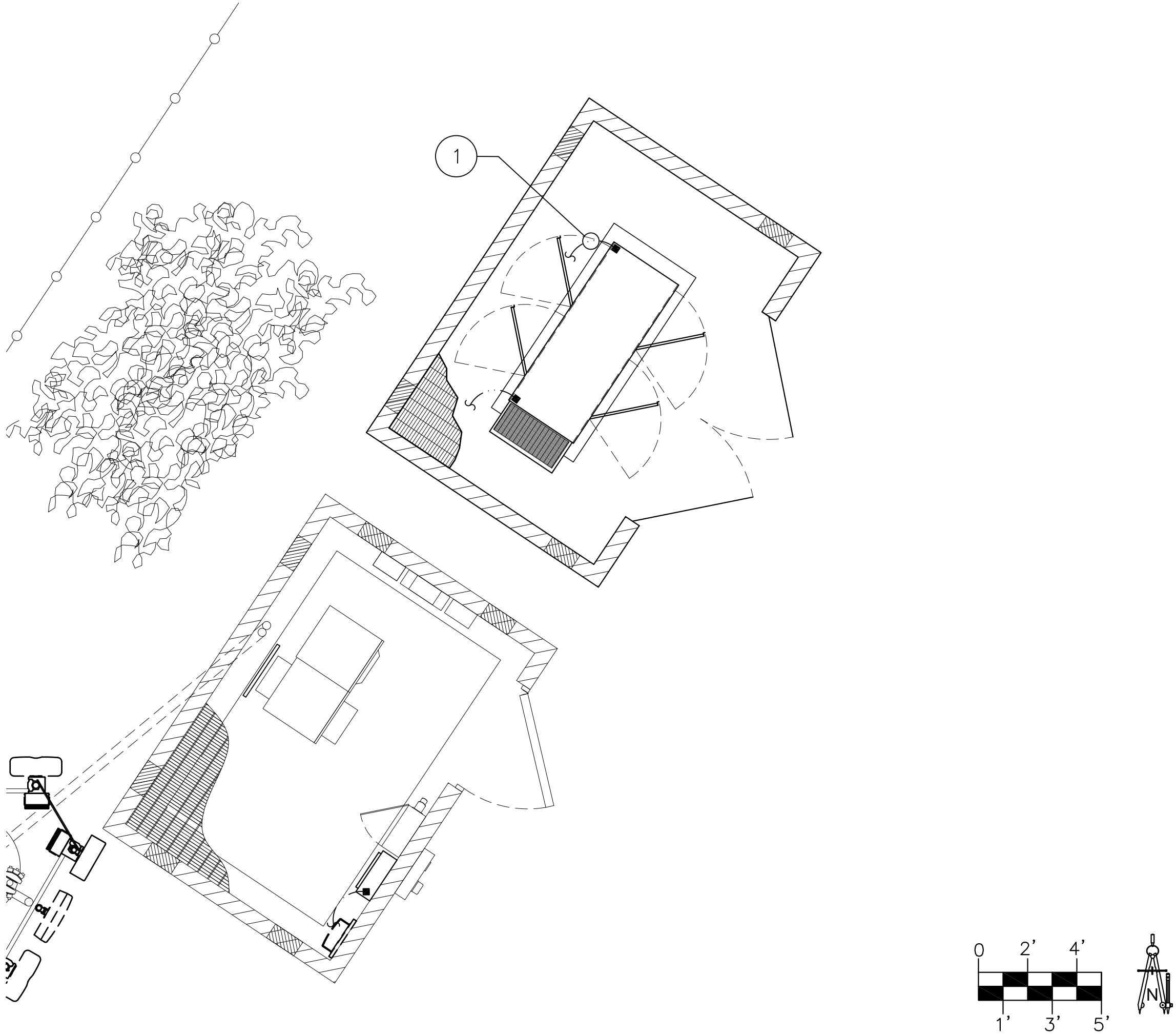


GROUNDING KEY NOTES

- 1
- #2 TBCW, FROM EXISTING EQUIPMENT GROUND RING TO ALL EQUIPMENT. TYPICAL.
- 2
- GROUND TO EXISTING SECTOR GROUND BAR WITH #2 TBCW, TYPICAL.

GENERAL GROUNDING NOTES

- 1) ALL GROUNDING LEADS INSTALLED TO ENSURE A SMOOTH PATH TO COUNTERPOISE WITHOUT KINKS OR SHARP BENDS OR RETURN UPWARDS.
- 2) CONTRACTOR WILL UTILIZE THE "FALL OF POTENTIAL MEASUREMENT METHOD" PER NETA STANDARDS, UTILIZING THE AEMC-4500 MEASURING DEVICE OR APPROVED T-MOBILE EQUIVALENT. ALL GROUND TESTING TO BE PERFORMED BEFORE CONNECTING TO POWER UTILITY GROUND AND PRIOR TO ANY BACKFILL OF GROUNDING TRENCHES. ELECTRICAL CONTRACTOR WILL PROVIDE A MINIMUM OF ONE (1) INSPECTION PORT FOR TESTING GROUNDING RESISTANCE. CONTRACTOR WILL INSTALL THE MINIMUM NUMBER OF GROUND PLATES INDICATED, SEE GROUNDING PLAN FOR APPROX. LOCATIONS. CONTRACTOR WILL INSTALL ADDITIONAL GROUNDING AS REQUIRED TO ACHIEVE 5 OHMS OR LESS TO GROUND.
- 3) IT IS THE INTENT THAT AT NO TIME ARE THE GROUND LEADS TO BE INSTALLED BELOW THE SURFACE OF THOSE AREAS DESIGNATED FOR FUTURE DISASSOCIATED PADS OR SHELTERS
- 4) THE CONTRACTOR WILL DOCUMENT MEGGER TEST RESULTS, REDLINE THE DRAWINGS FOR THE LOCATION OF ALL UNDERGROUND GROUNDING COMPONENTS AND PHOTOGRAPH WITH A DIGITAL CAMERA THE ENTIRE NEWLY INSTALLED GROUNDING SYSTEM PRIOR TO BACKFILL OF ANY OPEN TRENCHES.
- 5) ANY EXCEPTIONS TO THIS BASIC GROUNDING DESIGN GUIDELINE, ROUTING DESIGN, OR MODIFICATIONS, WILL BE DOCUMENTED AND DIMENSIONED BY WAY OF RED LINE DRAWINGS. IT IS THE RESPONSIBILITY OF THE SELECTED CONTRACTOR TO ENSURE THE NEWLY INSTALLED GROUNDING SYSTEM MEETS THE T-MOBILE STANDARD OF 5 OHMS OR LESS.
- 6) ELECTRICAL CONTRACTOR SHALL COORDINATE TELCO AND POWER ROUTING WITH BUILDING MANAGER PRIOR TO ROUGH-IN.
- 7) PRIOR TO RUNNING CONDUIT ROUTE - CONTRACTOR SHALL CONTACT THE T-MOBILE PROJECT MANAGER AND VERIFY THE EQUIPMENT CABINET LAYOUT CONFIGURATION AND ROUTE CONDUITS ACCORDINGLY.
- 8) ALL EXOTHERMIC CONNECTIONS INCLUDING THOSE TO GATE POST, FENCES AND ICE BRIDGE POSTS SHALL BE MADE BELOW GRADE.



ANTENNA GROUNDING NOTES

SCALE: N.T.S

3

EQUIPMENT GROUNDING PLAN

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

1

NOT USED

SCALE: N.T.S

4

NOT USED

SCALE: N.T.S

2

CLIENT

T-Mobile

1330 W. SOUTHERN AVE. STE A-102  
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CONSULTANT

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ENGINEER OF RECORD



EXCELLENCE IN ENGINEERING

12005 Antelope Trail  
Parker, Colorado 80138  
303-748-1189  
info@eeparker.com

SEAL



| NO. | DATE     | DESCRIPTION | BY  |
|-----|----------|-------------|-----|
| 1   | 12/06/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
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|     |          |             |     |

PROJECT INFORMATION  
JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE

1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

EQUIPMENT/ANTENNA  
GROUNDING PLAN  
AND NOTES

JURISDICTIONAL APPROVAL

SHEET NUMBER

E-4



DESIGN CRITERIA

- 1) THE DESIGN SHALL CONFORM TO THE PROVISIONS OF THE "INTERNATIONAL BUILDING CODE", 2012EDITION, AND STANDARDS REFERENCED THEREIN.
- 2) DESIGN LOADS:  
A. WIND (PER IBC)  
P=14.8 PSF SCREEN
- 3) THE CONSTRUCTION SHALL CONFORM TO THE PROVISIONS OF THE "INTERNATIONAL BUILDING CODE", 2012 EDITION AND STANDARDS REFERENCED THEREIN

GENERAL NOTES

- 1) THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED IF ANY DISCREPANCIES FOUND.
- 2) ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEED WITH ANY WORKS INVOLVED.
- 3) IN CASE OF CONFLICT, NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THE "GENERAL NOTES" AND "TYPICAL DETAILS" ON THESE DRAWINGS.
- 4) WHERE NO CONSTRUCTION DETAIL IS SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- 5) IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE STRUCTURAL DRAWINGS.
- 6) THESE DRAWINGS SHOW THE STRUCTURE, AS IT IS TO BE UPON THE COMPLETION OF CONSTRUCTION, THE DESIGN, ERECTION, AND REMOVAL OF TEMPORARY BRACING, SHORING, FALSE WORK, ETC. REQUIRED FOR THE CONSTRUCTION OF THE STRUCTURE IS THE RESPONSIBILITY OF THE CONTRACTOR AND IS NOT SHOWN ON THESE DRAWINGS.
- 7) CONSTRUCTION METHODS, SEQUENCING, AND SCHEDULING ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 8) THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING EQUIPMENT AND UTILITIES IN THE WORK AREA AND SHALL REPAIR ANY DAMAGE CAUSED BY HIS OPERATIONS AT HIS OWN COST.
- 9) ALL ASTM STANDARDS LISTED HERIN, SHALL BE OF THE ISSUE LISTED IN THE 2001 ANNUAL BOOK OF STANDARDS SECTIONING 00, VOLUME 00.01 OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS
- 10) FLASHING AND/OR WATERPROOFING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 11) THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS).
- 12) WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA. ANY ENGINEERING DESIGN, PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW, SHALL BEAR THE SEAL OF A REGISTERED ENGINEER RECOGNIZED BY THE BUILDING CODE JURISDICTION OF THIS PROJECT.
- 13) NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN.
- 14) CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE DESIGNER. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, CIVIL, MECHANICAL, PLUMBING AND ELECTRICAL ITEMS WITH THE APPROPRIATE TRADE DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
- 15) CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

MATERIAL NOTES

- 1) ALL PARTS CONTAIN SUPPORTS AS REQUIRED TO KEEP WITHIN ALLOWABLE TOLERANCES
- 6) STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ASTM A36
- 7) ALL EXPOSED STRUCTURAL STEEL SHAPES AND CONNECTORS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.

SHOP DRAWINGS:

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS IN ADDITION TO ITEMS REQUIRED BY ARCHITECTURAL SPECIFICATIONS.

THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE FLAGGED UPON CONTRACTOR'S REVIEW.

A VERIFY ALL DIMENSIONS.

MANUFACTURER OR FABRICATOR SHALL CLOUD ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DOCUMENTS. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED BY SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEER'S REVIEW.

THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.

THE SHOP DRAWINGS DO NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE STRUCTURAL ENGINEER OR ARCHITECT SHALL NOT BE CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS.

THE ADEQUACY OF ENGINEERING DESIGNS AND LAYOUT PERFORMED BY OTHERS RESTS WITH THE DESIGNING OR SUBMITTING AUTHORITY.

REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR.

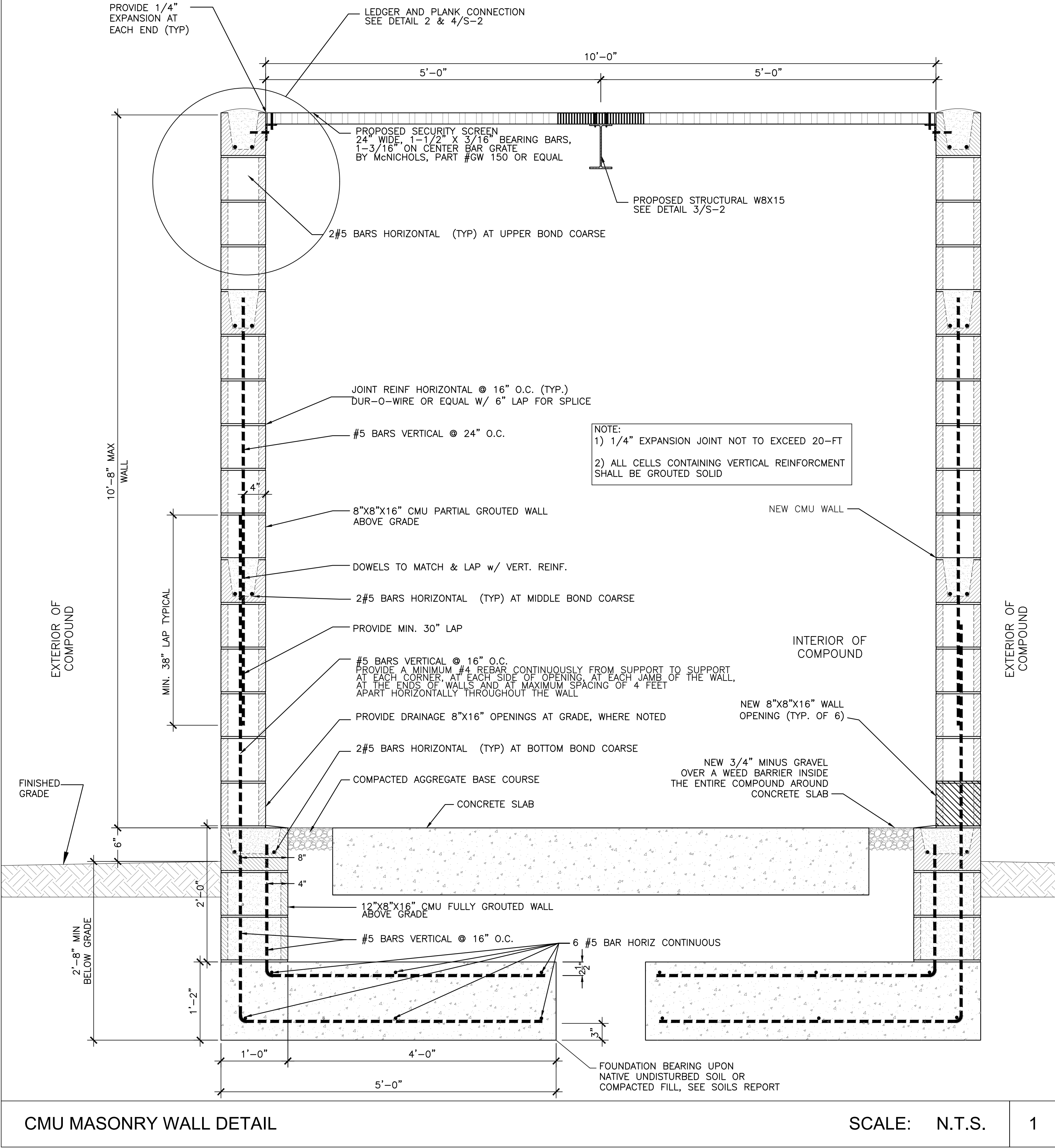
MASONRY WALL NOTES

2012 INTERNATIONAL BUILDING CODE  
DESIGN ACTIVE PRESSURE: 30 PSF/FT  
SOIL: 1,500 psf, 0.25, 150 PSF/FT PASSIVE PRESSURE PER 2012 IBC TABLE 1804.2  
WIND LOAD: 90 MPH ZONE - EXPOSURE C  
MAX WIND LOAD ON SCREEN WALL 14.8 PSF

MATERIAL  
CONCRETE MASONRY UNITS: f'm=1,500 psi ASTM C90 GRADE N-1  
MORTAR: f'm=1,800 psi, CEMENT LIME TYPE S, PER IBC 2103.3  
PORTLAND CEMENT: TYPE V  
GROUT: f'g=2,000 psi, PER IBC 2103.4  
CONCRETE: f'c=2,500 psi 3" to 5" SLUMP  
NOTE: MORTAR, GROUT, AND CONCRETE WITH 28-DAY COMPRESSIVE STRENGTH  
REINFORCING STEEL: Fy=60,000 psi A-615, GRADE 60

- NOTES
1. LAY UNITS IN RUNNING BOND. CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.
2. 4'-0" MAXIMUM GROUT LIFT WITHOUT CLEAN-OUTS
3. GROUT SOLID ALL WALLS IN CONTACT WITH EARTH.
4. 1/4" EXPANSION AND CONTROL JOINTS SHALL BE PLACED EVERY 20-FEET AND PROPERLY SEALED.
5. TIE VERTICAL REINFORCING AT EACH END OF BAR AND AT 4'-0" MAXIMUM VERTICAL SPACING USING SINGLE WIRE LOOP TYPE TIES.
6. PRIOR TO GROUTING, THE GROUT SPACE SHALL BE CLEAN SO THAT ALL SPACES TO BE FILLED WITH GROUT DO NOT CONTAIN MORTAR PROJECTIONS GREATER THAN 1/2 INCH, MORTAR DROPPINGS OR OTHER FOREIGN MATERIAL. GROUT SHALL BE PLACED SO THAT ALL SPACES DESIGNATED TO BE GROUTED SHALL BE FILLED WITH GROUT AND THE GROUT SHALL BE CONFINED TO THOSE SPECIFIC SPACES.
7. GROUT MATERIALS AND WATER CONTENT SHALL BE CONTROLLED TO PROVIDE ADEQUATE FLUIDITY FOR PLACEMENT, WITHOUT SEGREGATION OF THE CONSTITUENTS, AND SHALL BE MIXED THOROUGHLY.
8. THE GROUTING OF ANY SECTION OF WALL SHALL BE COMPLETED IN ONE DAY WITH NO INTERRUPTIONS GREATER THAN ONE HOUR.
9. BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING ALL C.M.U. AT THE SAME ELEVATION AND WITH THE GROUT STOPPING A MORTAR DROPPINGS OR OTHER FOREIGN MATERIAL. GROUT SHALL BE PLACED SO THAT WHERE BOND BEAMS OCCUR, THE GROUT POUR SHALL BE STOPPED A MINIMUM OF 1/2 INCH BELOW THE TOP OF THE MASONRY.
10. SEGREGATION OF GROUT MATERIALS AND DAMAGE TO THE MASONRY SHALL BE AVOIDED DURING THE GROUTING PROCESS.
11. GROUT SHALL BE CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACEMENT BEFORE LOSS OF PLASTICITY IN A MANNER TO FILL THE GROUT SPACE. GROUT POURS GREATER THAN 12 INCHES IN HEIGHT WILL BE RECONSOLIDATED BY MECHANICAL VIBRATION TO WHERE BOND BEAMS OCCUR, THE GROUT POUR SHALL BE STOPPED A MINIMUM OF 1/2 MECHANICALLY VIBRATED OR PUDDLED AND RODDED WITH SMOOTH BAR.
12. GROUT SHALL NOT BE HANDLED NOR PUMPED UTILIZING ALUMINUM EQUIPMENT UNLESS IT CAN BE DEMONSTRATED WITH THE MATERIAL AND EQUIPMENT TO BE USED THAT THERE WILL BE NO DELETERIOUS EFFECT ON THE STRENGTH OF THE GROUT.
13. BRACE RETAINING WALL DURING BACKFILL OF SOIL. HEAVY EQUIPMENT IS NOT ALLOWED WITHIN 10 FEET OF THE RETAINING WALL.
14. AT MINIMUM, ALL LAPS SHOULD BE 40 X Db (BAR DIAMETER) IN EITHER HORIZONTAL OR VERTICAL DIRECTION.

NOTES



ENGINEERS NOTES:

1. IF A DISCREPANCY ARISES BETWEEN THE DRAWINGS AND FIELD CONDITIONS, OR WHERE A DETAIL IS DOUBTFUL OF INTERPRETATION, OR AN UNANTICIPATED FIELD CONDITION IS ENCOUNTERED, THE ENGINEER SHALL BE CALLED IMMEDIATELY FOR PROCEDURE TO BE FOLLOWED. SUCH INSTRUCTIONS SHALL BE CONFIRMED IN WRITING AND DISTRIBUTED TO ALL AFFECTED PARTIES.
2. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SAFETY PRECAUTIONS, OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DRAWING AND/OR DOCUMENTS.

SPECIAL INSPECTION NOTE:

MASONRY WALLS OVER 6'8"  
PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING ITEMS

- 1) SIZE AND LOCATION OF STRUCTURAL ELEMENTS  
2) MORTAR PRIOR TO CONSTRUCTION  
3) PLACEMENT OF REINFORCING STEEL, VERIFICATION OF SIZE, AND GRADE  
4) GROUT SPACE IS CLEAN PRIOR TO GROUTING  
5) CONSTRUCTION OF MORTAR JOINTS

CALL CIVIL ENGINEER OF RECORD FOR SPECIAL INSPECTIONS . ALLOW 48 HOURS NOTICE FOR EACH INSPECTION REQUEST

CONTRACTOR TO VERIFY AND MONITOR SITE CONDITIONS. CONTACT ARCHITECT OR ENGINEER FOR ANY VARIATIONS OR ABNORMALITIES IN SITE OR SOIL CONDITIONS PRIOR TO PROCEEDING WITH WORK

SCALE: N.T.S.

6

CLIENT

T-Mobile

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ENGINEER OF RECORD  
TERRA DYNAMIC ENGINEERING, LLC



SUITE 1, #455 3241 E. SHEA BLVD.  
PHOENIX, AZ 85028  
PHONE: (602) 482-1603  
EMAIL: ROBERTO@TERRADYNAMIC.US

SEAL



| NO. | DATE     | DESCRIPTION | BY  |
|-----|----------|-------------|-----|
| 1   | 12/03/21 | REVIEW      | REW |
| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
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|     |          |             |     |

PROJECT INFORMATION  
JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE

1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

MASONRY WALL  
DETAIL AND NOTES

JURISDICTIONAL APPROVAL

SHEET NUMBER

S-1

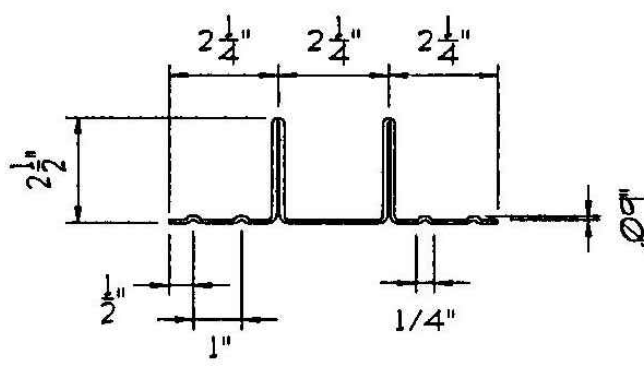
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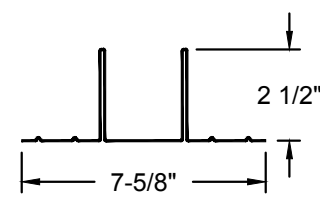
POWER STEEL LINTEL NOTES

NOTES:

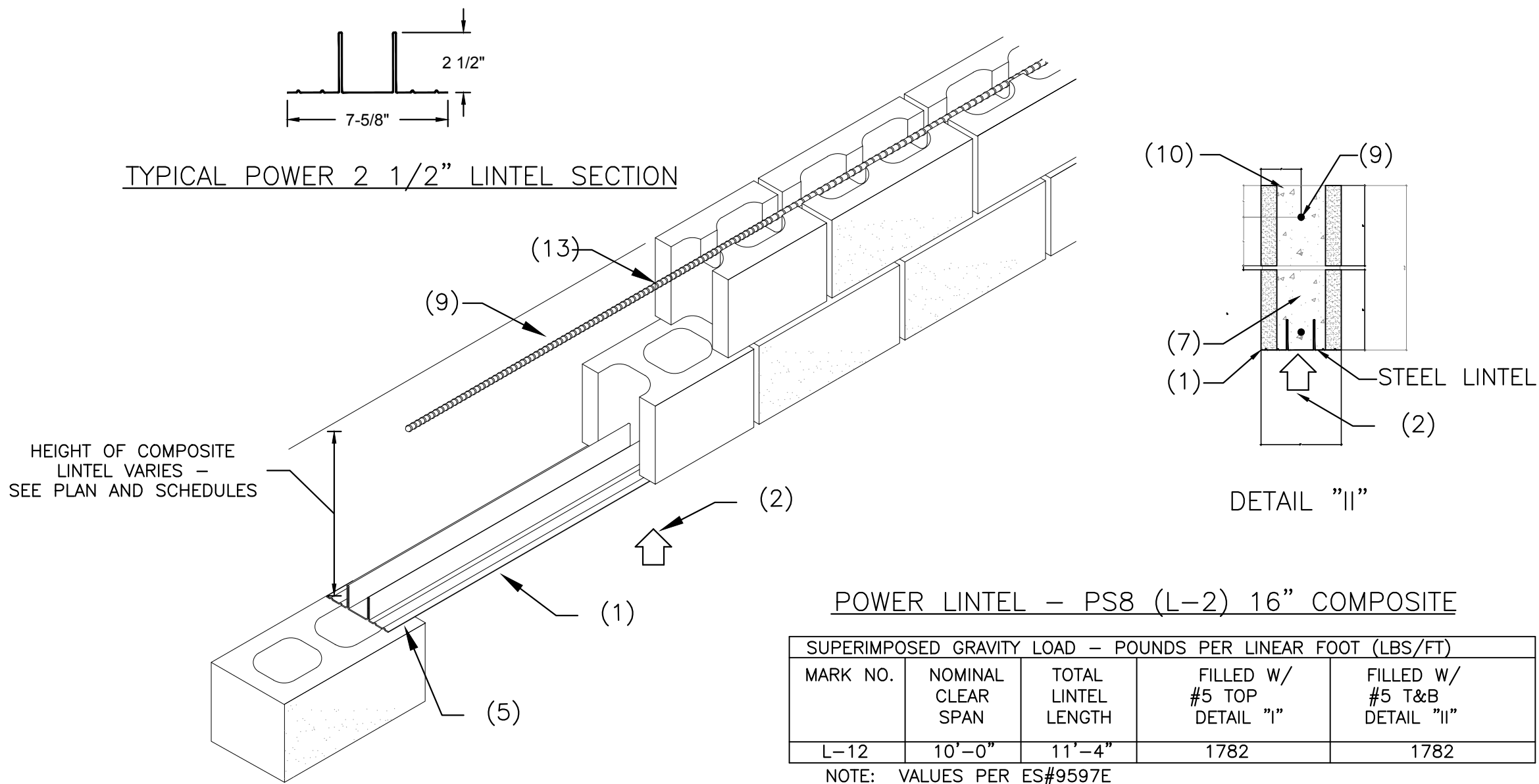
|     |  |     |   |
|-----|--|-----|---|
| 1.  | PRODUCT NAME (PATENT NO. 5465538)<br><br>PREFORMED POWERS STEEL LINTEL SHALL BE GALVANIZED COIL STEEL AS MANUFACTURED BY POWERS STEEL AND WIRE PRODUCTS, INC. STEEL GRADE SHALL BE ASTM A570 GRADE C (FY = 40 ksi).<br><br>NOTE: DEFORMATIONS DO NOT EFFECT STRUCTURAL CAPACITY.   | 14. | A #5 REINFORCING BAR(S) GRADE 40 IS TO SET APPROX. 1-1/2" FROM TOP OF ALL LINTEL DESIGNS AND IN SOME CASES ON THE BOTTOM OF LINTEL AS SHOWN ON LOAD TABLES. TOP HORIZONTAL REINFORCEMENT IS TO BE A CONTINUOUS TIE AS NOTED IN NOTE #9. IN THE CASE THAT THE LINTEL IS NOT WITHIN A COMPOSITE BOND BEAM SYSTEM, TOP HORIZONTAL REINFORCEMENT IS TO EXTEND 2'-0" PAST INSIDE OF JAMBS.   |
| 2.  | SHORE LINTELS AS REQUIRED TO COMPENSATE FOR DEAD LOAD DEFLECTION ON NON-CURED MASONRY GROUT. ALL LINTELS GREATER THAN 18'-0" ARE BUILT WITH 1/2" CAMBER.   | 15. | MANUFACTURER:<br><br><b>POWERS STEEL</b><br>4118 E. ELWOOD PHOENIX, AZ 85040<br>PH# 602-437-1160 FAX#602-437-5409<br>PH# 904-251-4606 FAX#904-819-9481 (KEVIN)  |
| 3.  | LINTEL TO BE USED WITH BRICK OR CONCRETE MASONRY UNITS HAVING MINIMUM f <sub>m</sub> AS SHOWN.   | 16. | TECHNICAL DATA AND ENGINEERING POWERS LINTELS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING:<br><br>+ SBCCI SSTD-10 1999<br>+ STANDARD BUILDING CODE - 1999<br>+ FLORIDA BUILDING CODE - 2001 W/ 2003 REVISIONS.<br>+ AISI LIGHT GAGE COLD FORMED DESIGN - 1996<br>+ ACI 530-02/ASCE 5-02/TMS 402-02  |
| 4.  | STEEL SURFACES IN CONTACT WITH GROUT AND/OR MORTAR SHALL BE UNPAINTED AND FREE OF MATERIAL THAT MIGHT INHIBIT BOND.  | 17. | TECHNICAL ASSISTANCE IS AVAILABLE FROM THE MANUFACTURER ON SPECIAL DESIGN CONCERNS OR LINTEL DEPTHS DIFFERENT THAN THOSE SHOWN IN THE LOAD TABLES.<br><br>STRUCTURAL ENGINEER FOR THESE LINTELS IS:<br><br>S.E. CONSULTANTS, INC.<br>5800 E. THOMAS RD. SUITE 104<br>SCOTTSDALE, AZ 85251<br>PHONE No. (480) 946-2010<br>FAX (480) 946-1909<br><br>IF AN INSPECTOR, CONTRACTOR, SUBCONTRACTOR, OR PLANS EXAMINER HAS ANY TECHNICAL QUESTIONS PLEASE CALL.<br><br>INSTALLATION:<br>POWERS LINTELS ARE TO BE INSTALLED IN ACCORDANCE WITH STANDARD CONSTRUCTION PRACTICES, SET TO PROPER LINE AND LEVEL, PLUMB AND TRUE, AND IN CORRECT RELATION TO OTHER WORK. |
| 5.  | BEARING EACH END SHALL BE 3" +/- 1/2". BEARING SHALL BE ON A MINIMUM 8" DEEP GROUTED CELL PER THE STANDARD BUILDING CODE.  |     |   |
| 6.  | f <sub>m</sub> = 1500 psi. MASONRY UNITS SHALL CONFORM TO ASTM C90, GRADE N.   |     |   |
| 7.  | GROUT = 3,000 psi. SLUMP RANGE: 8" TO 11". ROD OR VIBRATE GROUT ADEQUATELY TO ENSURE CONSOLIDATION OF GROUT (NO AIR POCKETS). GROUT SHALL COMPLY WITH ASTM C476-83 AND BE EITHER COARSE OR FINE GROUT.   |     |   |
| 8.  | MORTAR: TYPE "S" OR TYPE "M" 1800 psi.   |     |   |
| 9.  | TOP REINFORCING OR TOP OF WALL REINFORCING, IS REQUIRED BY CODES TO PROVIDE A CONTINUOUS TIE AROUND A STRUCTURE AND TO PROVIDE FOR UPLIFT RESISTANCE AT LINTELS.   |     |   |
| 10. | ATTACHMENTS TO TOP OF WALL PER ARCHITECTURAL AND/OR ENGINEERING DRAWINGS.  |     |   |
| 11. | LIMITATIONS:<br><br>THE LINTELS SHALL NOT EXCEED THE ALLOWABLE DESIGN LOADS AND SPANS SHOWN IN THIS REPORT.<br><br>THE LINTELS SHALL NOT BE USED IN A FIRE RESISTANCE RATED ASSEMBLY UNLESS A TEST REPORT DOCUMENTING FIRE RESISTANCE IS SUBMITTED TO THE BUILDING OFFICIAL.<br><br>A PROPER BARRIER IS REQUIRED WHEN USING CORROSIVE LUMBER PRODUCTS IN CONTACT WITH THE STEEL LINTELS. A PROPER BARRIER WOULD BE A POLYETHYLENE BARRIER WITH A 10 MIL THICKNESS OR TO MAINTAIN A MIN. 1/4" SPACING BETWEEN THE CORROSIVE LUMBER AND STEEL LINTEL.<br><br>NOT FOR USE IN THE HVHZ IN MIAMI OR BROWARD COUNTIES AT THIS TIME. MIAMI DADE COMPLIANCE IS BEING SOUGHT. |     |   |
| 12. | DEFLECTION LIMITS ARE SET TO L/600 FOR ALL LOADS SHOWN ABOVE THE DARKENED SOLID LINE. DEFLECTION LIMITS ARE SET TO L/360 (LIVE LOAD) AND L/240 (DEAD + LIVE LOAD) FOR ALL LOADS SHOWN BELOW DARKENED SOLID LINE, EXCEPT 8" COMPOSITE LINTELS WHICH ARE SET TO L/240 (LIVE LOAD) AND L/180 (DEAD + LIVE LOAD).  |     |   |
| 13. | ALL LOADS SHOWN IN TABLES ARE SUPERIMPOSED LOADS. TABLES ARE DATED 10/2004 AND CLEARLY INDICATE SUPERIMPOSED LOADS   |     |   |



PS8(L-2) STEEL LINTELS  
NOTE: NO SCALE  
16 GAGE IS .060 INCHES THICK.



TYPICAL POWER 2 1/2" LINTEL SECTION



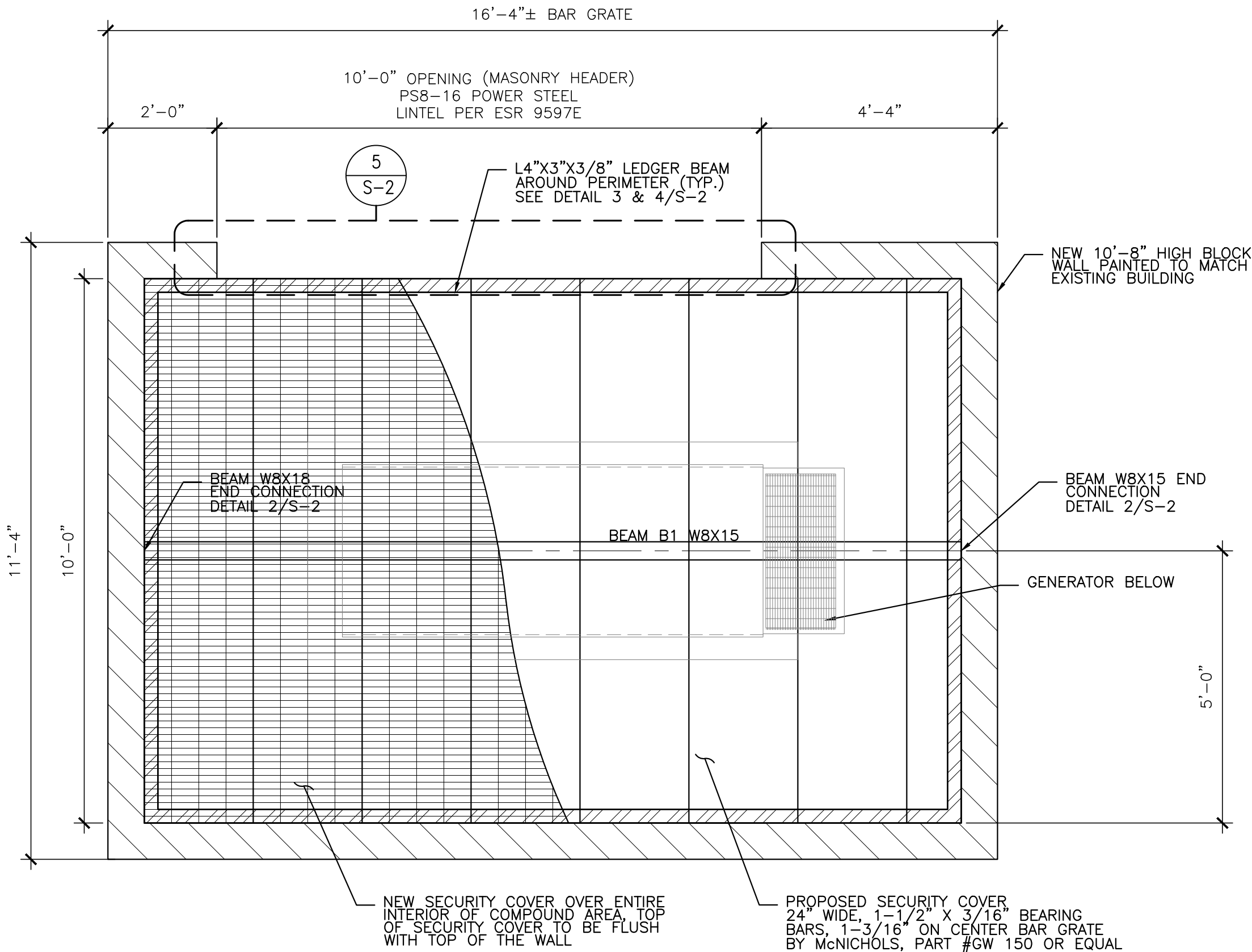
POWER LINTEL - PS8 (L-2) 16" COMPOSITE

| MARK NO. | SUPERIMPOSED GRAVITY LOAD - POUNDS PER LINEAR FOOT (LBS/FT) |                     |                             |                              |
|----------|---|---------------------|-----------------------------|------------------------------|
|          | NOMINAL CLEAR SPAN  | TOTAL LINTEL LENGTH | FILLED W/ #5 TOP DETAIL "I" | FILLED W/ #5 T&B DETAIL "II" |
| L-12     | 10'-0"  | 11'-4"              | 1782                        | 1782                         |

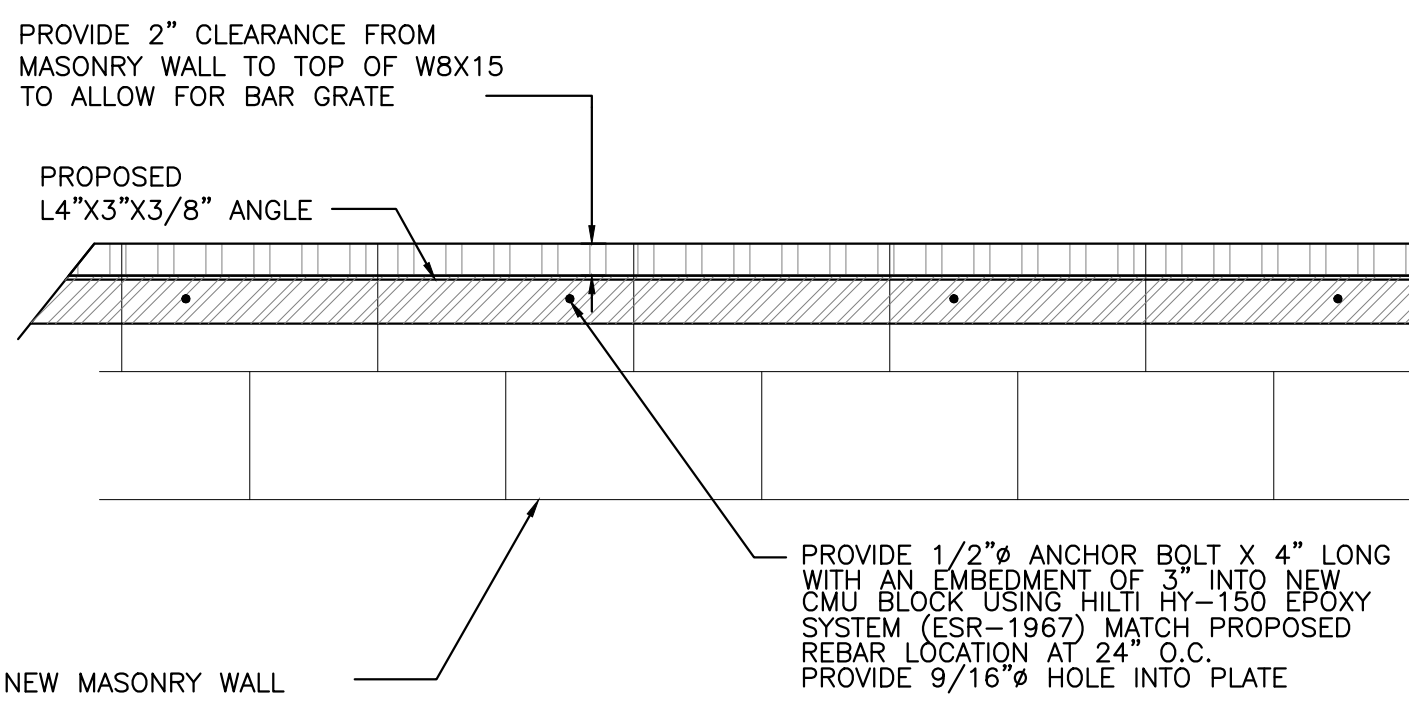
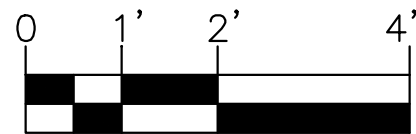
NOTE: VALUES PER ES#9597E

NOTES

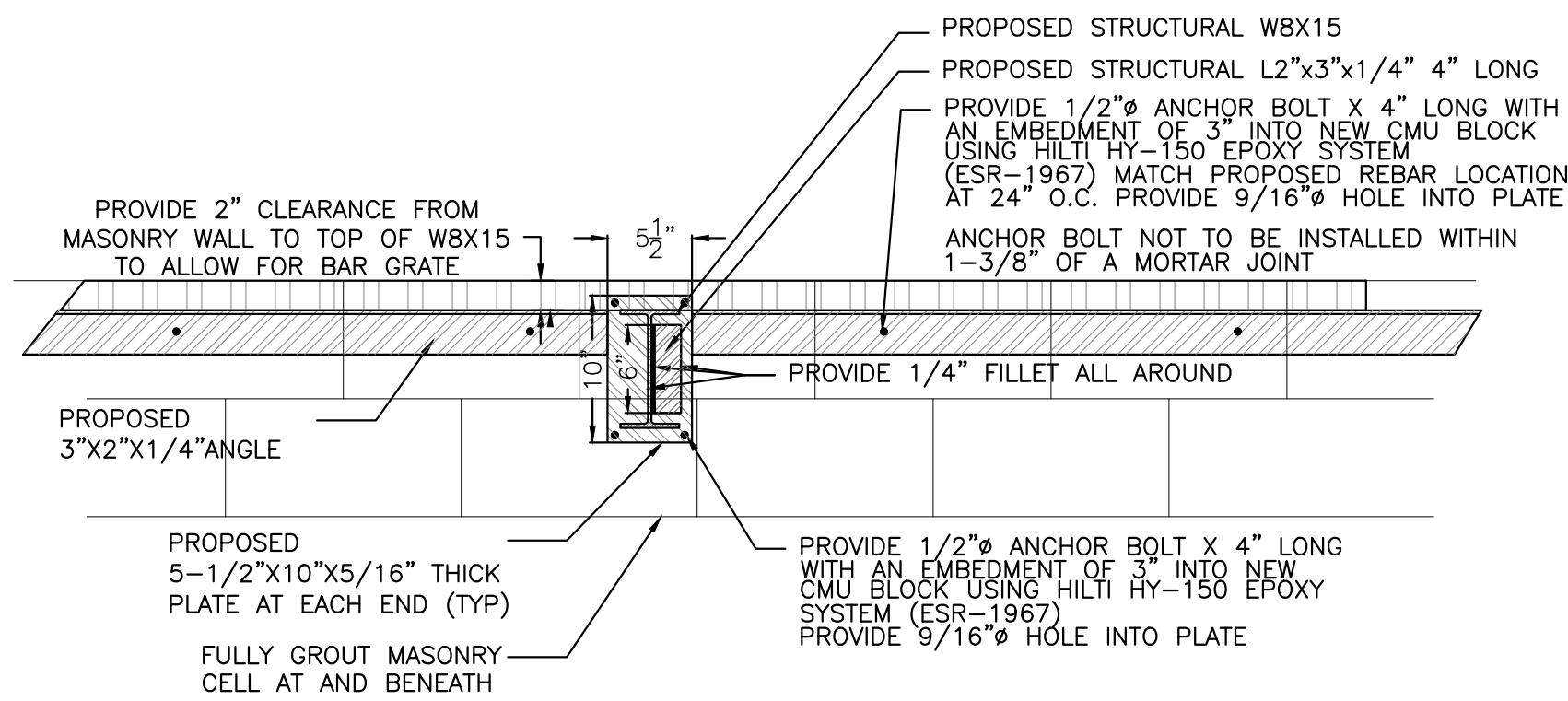
ALL EXPOSED STEEL AND WELDS TO BE HOT-DIPPED GALVANIZED  
ALL FIELD WIELDS STEEL TO GALVANIZED



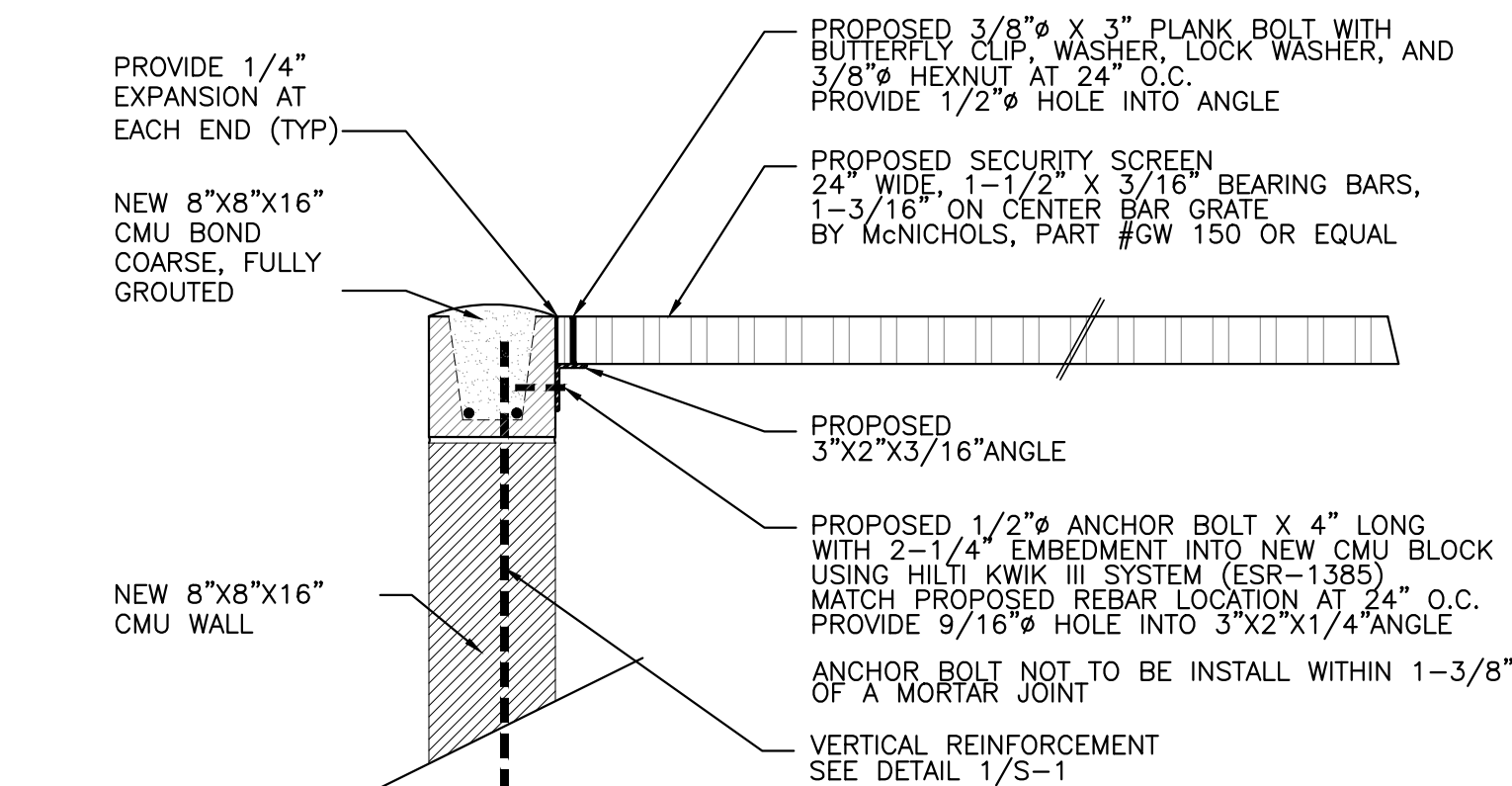
1  
S-2 SECURITY COVER PLAN  
SCALE: 1" = 2'-0" ON 24"x36" SHEET ONLY



3  
S-2 LEDGER CONNECTION DETAIL  
SCALE: 1" = 1'-0" ON 24"x36" SHEET ONLY



2  
S-2 W8X15 END CONNECTION  
SCALE: 1" = 1'-0" ON 24"x36" SHEET ONLY



4  
S-2 LEDGER AND PLANK CONNECTION DETAIL  
SCALE: 1" = 1'-0" ON 24"x36" SHEET ONLY

5  
S-2 not used  
SCALE: 1" = 1'-0" ON 24"x36" SHEET ONLY

CLIENT

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TERRA DYNAMIC ENGINEERING, LLC

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SEAL



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| 2   | 01/18/22 | SUBMITTAL   | SPE |
|     |          |             |     |
|     |          |             |     |
|     |          |             |     |

PROJECT INFORMATION

JOB: 12-068-04

PH45039A  
DOUGLAS H.S.  
BALL FIELD  
LIGHT POLE

1601 N. DOLORES AVE.  
DOUGLAS, ARIZONA 85607

SHEET TITLE

DETAILS

JURISDICTIONAL APPROVAL

SHEET NUMBER

S-2