

# TILSON INFRASTRUCTURE

## NODE NAME:

T-MOBILE PROJECT #: DN2000BA\_31LAB (DN1452)

HUB ID# : DN01241D

TILSON PROJECT # : TI5345

TOWN PROJECT #: CD25-0025

## STRUCTURE TYPE:

PROPOSED SMALL CELL STREETLIGHT REPLACEMENT

## SITE ADDRESS

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104

## SITE COORDINATES\*

LATITUDE: 39.364678°      LONGITUDE: -104.795410°

\*COORDINATES PER 1A CERTIFICATE

RIGHT-OF-WAY WITHIN MIKELSON BLVD,  
CASTLEWOOD RANCH

## PROJECT TEAM



KIMLEY HORN AND ASSOCIATES, INC.  
6200 SOUTH SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
CONTACT: MATT FLECK  
PHONE: 720-647-6159



TILSON  
16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101  
PHONE: 207-591-6427

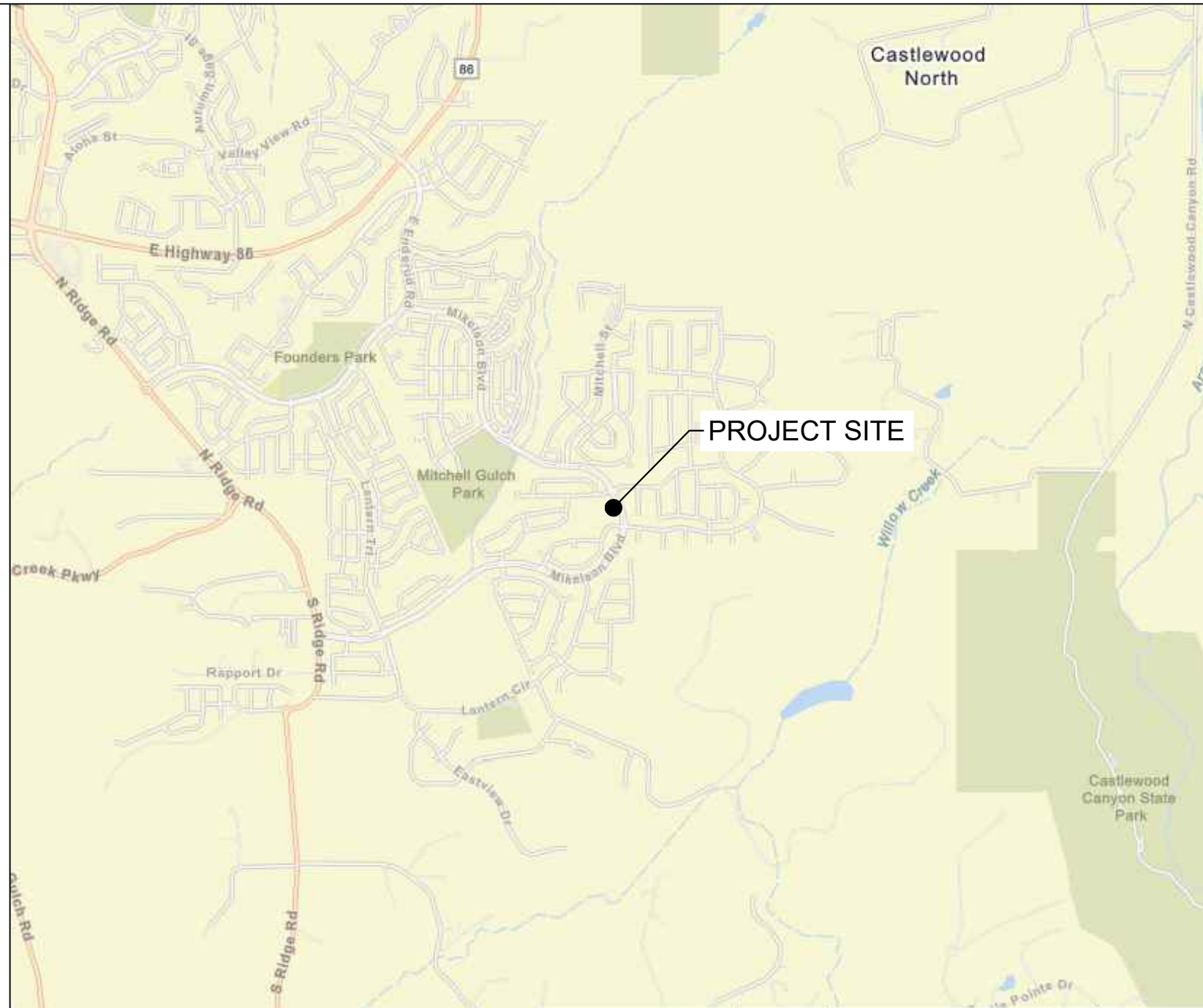
CONSTRUCTION MANAGER  
TIMOTHY HARRINGTON  
THARRINGTON@TILSONTECH.COM  
585-593-8991

PROPERTY OWNER: TOWN OF CASTLE ROCK  
CASTLE ROCK, CO. 80108

UTILITIES: CORE ELECTRIC COOPERATIVE  
5496 US-85  
SADALIA, CO 80135



EXISTING STREETLIGHT  
POLE TO BE REMOVED



PROJECT SITE

## EXISTING STREET VIEW

## VICINITY MAP



## SHEET INDEX

| NAME | DESCRIPTION                     |
|------|---------------------------------|
| T-1  | TITLE SHEET                     |
| N-1  | T.o.C.R. STANDARD NOTES I       |
| N-2  | T.o.C.R. STANDARD NOTES II      |
| N-3  | GENERAL NOTES                   |
| LS-1 | LAND SURVEY                     |
| EX-1 | TOWN OF CASTLE ROCK ROW EXHIBIT |
| C-1  | SITE PLAN & LEGEND              |
| C-2  | ENLARGED SITE PLAN              |
| C-3  | SITE ELEVATION                  |
| C-4  | POLE EQUIPMENT ELEVATION        |
| C-5  | SIGNAGE DETAILS                 |
| C-6  | HANDHOLE DETAILS                |
| E-1  | ELECTRICAL DETAILS              |
| G-1  | GROUNDING DETAILS               |
| P-1  | PHOTO SIMULATION                |
|      |                                 |
|      | APPENDIX                        |
| LS-1 | LAND SURVEY                     |
| TCP  | TRAFFIC CONTROL PLAN            |
|      |                                 |
|      |                                 |
|      |                                 |

## PROJECT SUMMARY

PROPOSED SMALL CELL LOCATED IN THE TOWN OF CASTLE ROCK RIGHT OF WAY  
1. INSTALL NEW DUAL USE STREETLIGHT POLE (BY TILSON)  
2. ANTENNAS MOUNTED ON POLE (BY TILSON)  
3. METER (BY CORE) INSTALLED ON PEDESTAL (BY CORE)  
4. DISCONNECT INTEGRATED INTO POLE  
5. ASSOCIATED UTILITIES AND EQUIPMENT (BY TILSON)

## PROJECT INFORMATION CHECKLIST

SMALL CELL SITE ID: DN2000BA\_31LAB (DN1452)

LATITUDE: 39.364678°

LONGITUDE: -104.795410°

GRID # ON POLE: 06223

NEAREST INTERSECTION: MIKELSON BLVD & TURNSTONE PL

|                  | EXISTING | PROPOSED      |
|------------------|----------|---------------|
| POLE HEIGHT:     | 19'-11"  | 35'-0"        |
| POLE OWNER:      | CORE     | CORE          |
| FIXTURE TYPE:    | SHOEBOX  | SHOEBOX LED   |
| MAST ARM LENGTH: | N/A      | N/A           |
| POLE COLOR:      | BLACK    | TRAFFIC BLACK |

## DRIVING DIRECTIONS

- FROM DENVER INTERNATIONAL AIRPORT MERGE ONTO PEÑA BLVD S TOWARDS DENVER
- MERGE ONTO I-70 W TOWARD DENVER
- TAKE EXIT 282 FOR I-225 S TOWARD COLORADO SPRINGS/AURORA
- CONTINUE ONTO I-225 S
- MERGE ONTO I-25 S TOWARD COLORADO SPRINGS
- TAKE EXIT 181 FOR PLUM CREEK PKWY/FRONTAGE RD TOWARD WILCOX ST
- TURN LEFT ONTO W PLUM CREEK PKWY
- AT THE TRAFFIC CIRCLE, TAKE THE 2ND EXIT ONTO E PLUM CREEK PKWY
- CONTINUE ON E PLUM CREEK PKWY THROUGH ANOTHER TRAFFIC CIRCLE
- AT THE NEXT TRAFFIC CIRCLE, TAKE THE 1ST EXIT ONTO N RIDGE RD
- TURN LEFT ONTO MIKELSON BLVD
- AT THE TRAFFIC CIRCLE, TAKE THE 3RD EXIT AND STAY ON MIKELSON BLVD

## PROJECT INFORMATION

## CODE COMPLIANCE

## INDEMNIFICATION AND ADHERENCE TO STANDARDS STATEMENT

TILSON SITE NAME: TI5345  
PROJECT DESCRIPTION: PROPOSED SMALL CELL STREETLIGHT IN R.O.W.  
STRUCTURE TYPE: PUBLIC LIGHTING STRUCTURE  
JURISDICTION: TOWN OF CASTLE ROCK  
AREA OF CONSTRUCTION: 35 S.F. ±  
STRUCTURE HEIGHT: 35'-0" (OVERALL HEIGHT - TOP OF ANTENNA)  
ANTENNA RAD CENTER: 33'-11" AGL  
ZONING: PLANNED DEVELOPMENT (CASTLEWOOD RANCH MINOR AMENDMENT)

BUILDING CODE: 2018 IBC  
ELECTRIC CODE: 2023 NEC  
USE GROUP: U-UTILITY  
CONSTRUCTION TYPE: I-B



THESE PLANS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR CONCEPT ONLY. THE REVIEW DOES NOT IMPLY RESPONSIBILITY BY THE REVIEWING DEPARTMENT, THE TOWN ENGINEER OR THE TOWN OF CASTLE ROCK FOR ACCURACY AND CORRECTNESS OF THE CALCULATIONS. FURTHERMORE, THE REVIEW DOES NOT IMPLY THAT QUANTITIES OF ITEMS ON THE PLANS ARE THE FINAL QUANTITIES REQUIRED. THE REVIEW SHALL NOT BE CONSTRUED FOR ANY REASON AS ACCEPTANCE OF FINANCIAL RESPONSIBILITY BY THE TOWN FOR ADDITIONAL QUANTITIES OF ITEMS SHOWN THAT MAY BE REQUIRED DURING THE CONSTRUCTION PHASE.  
ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF CASTLE ROCK MUNICIPAL CODE, TECHNICAL MANUALS AND/OR OTHER TOWN-APPROVED APPLICABLE STANDARDS.

## SITE SUBMITTAL INFORMATION

| WIRELESS SITE ID NO. & ADDRESS                                        | STREET NAME / INTERSECTION AND QUADRANT POLE IS LOCATED ON | STATE PLANE COORDINATES |              | EXISTING POLE TYPE | EXISTING POLE HEIGHT |
|-----------------------------------------------------------------------|------------------------------------------------------------|-------------------------|--------------|--------------------|----------------------|
|                                                                       | INTERSECTION STREET NAMES:                                 | EASTING (X)             | NORTHING (Y) |                    |                      |
| DN2000BA_31LAB (DN1452)<br>TBD MIKELSON BLVD<br>CASTLE ROCK, CO 80104 | MIKELSON BLVD & TURNSTONE PL<br>QUADRANT: R16              | 39.364678°              | -104.795410° | STREETLIGHT POLE   | 19'-11"              |

# TILSON INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

## PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
CD25-0025

PLANS PREPARED BY:



6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV: DATE: DESCRIPTION: BY:

|   |            |                        |    |
|---|------------|------------------------|----|
|   |            |                        |    |
|   |            |                        |    |
|   |            |                        |    |
|   |            |                        |    |
|   |            |                        |    |
|   |            |                        |    |
|   |            |                        |    |
| 2 | 06/23/2025 | REVISED: CITY COMMENTS | JC |
| 1 | 03/28/2025 | FINAL                  | SV |
| 0 | 02/26/25   | 100% FINAL CDs         | LF |

DRAWN BY: CHECKED BY:

LF BAB

KHA PROJECT NUMBER:

296015001

## TOWN APPROVAL BLOCK

TOWN OF CASTLE ROCK APPROVAL PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

APPROVED BY:

DEVELOPMENT SERVICES

DATE

ENGINEER SEAL:

## PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY, AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS



(CIVIL ENGINEER SIGNATURE AND SEAL HERE)

DATE

PROJECT INFORMATION:

NODE NAME: DN2000BA\_31LAB (DN1452)

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1 (1 OF 14)

TOWN OF CASTLE ROCK STANDARD NOTES:

1. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE TOWN OF CASTLE ROCK (TCR) MUNICIPAL CODE, TCR TECHNICAL MANUALS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE TECHNICAL MANUAL OR ANY APPLICABLE STANDARDS, THE MORE STRINGENT STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE TCR CONSTRUCTION INSPECTOR.
2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE.
3. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE TOWN AND ALL UTILITY COMPANIES INVOLVED WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.
5. CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVENTY-TWO (72) HOURS NOTICE TO THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720)-733-2200, PRIOR TO MAKING ANY CONNECTIONS/TIE-INS TO EXISTING WATER, SANITARY AND/OR STORM SEWER SYSTEMS PROVIDED THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING CR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS NOTICE TO THE TCR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR CR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY CR WATER PRIOR TO COMMENCING WORK.
6. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE CRITERIA AND SPECIFICATIONS AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB ONSITE AT ALL TIMES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL AND SECURITY.
8. IF DURING THE CONSTRUCTION PROCESS CONDITIONS ARE ENCOUNTED WHICH COULD INDICATED A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE TCR CONSTRUCTION INSPECTOR IMMEDIATELY.
9. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD UNLESS SPECIFICALLY STATED OTHERWISE.
10. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH MUTCD TO THE APPROPRIATE RIGHT-OF-WAY AUTHORITY (TOWN, COUNTY, OR STATE) FOR APPROVAL PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN OR AFFECTING THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTEDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR AS DESIGNATED TO BE PROVIDED, INSTALLED OR CONSTRUCTED UNLESS SPECIFICALLY NOTED OTHERWISE.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTIONS SITE AND AVAILABLE TO THE TCR CONSTRUCTION INSPECTOR AT ALL TIMES.
13. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE CONSULTANT ENGINEER FOR CLARIFICATION AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
14. ALL INITIAL SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PER THE TEMPORARY EROSION & SEDIMENT CONTROL (TESC) PLAN PRIOR TO ANY EARTH-DISTURBING ACTIVITY. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITIONS AT ALL TIMES. REMOVAL SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL TERMS AND CONDITIONS OF THE COLORADO CONSTRUCTION GENERAL PERMIT FOR STORMWATER DISCHARGES.
15. THE CONTRACTOR SHALL PROVIDE AN ACTION PLAN IMMEDIATELY FOLLOWING THE PRE-CONSTRUCTION MEETING DETAILING SUFFICIENT MEANS TO MITIGATE DUST ON SITE DURING OVERLOT GRADING, ROCK CRUSHING OR OTHER EARTHWORK ACTIVITIES. IF THE CONTRACTOR FAILS TO CONTROL DUST, ALL EARTH DISTURBING ACTIVITIES SHALL BE STOPPED UNTIL SUFFICIENT MEASURES ARE TAKEN TO THE TOWN'S SATISFACTION. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL TERMS AND CONDITIONS OF THE COLORADO AIR QUALITY REGULATIONS FOR LAND DEVELOPMENT, AS REQUIRED.
16. THE CONTRACTOR SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION FO THE WATER LINES AND DRY UTILITIES.
17. THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS UNLESS SPECIFICALLY APPROVED BY THE TCR CONSTRUCTION INSPECTOR AND NO SITE CONSTRUCTION ACTIVITIES ON SUNDAYS OR HOLIDAYS UNLESS THERE IS PRIOR WRITTEN APPROVAL BY THE PUBLIC WORKS DIRECTOR.

18. NO SOLID OBJECT (EXCLUDING FIRE HYDRANTS, TRAFFIC CONTROL DEVICES AND TRAFFIC SIGNS) EXCEEDING THIRTY (30) INCHES IN HEIGHT ABOVE THE FLOWLINE ELEVATION OF THE ADJACENT STREET, INCLUDING BUT NOT LIMITED TO BUILDINGS, UTILITY CABINETS, WALLS, FENCES, LANDSCAPE PLANTINGS, CROPS, CUT SLOPES AND BERMS SHALL BE PLACED WITHIN SIGHT DISTANCE LINES AND SIGHT DISTANCE EASEMENTS.
19. THIS PROPERTY IS LOCATED WITHIN ZONE X AS PER FEMA FIRM PANEL NO. 08035C0306G DATED 03/16/2016. FLOOD ZONE "X" IS DEFINED AS: AREAS DETERMINED TO BE OUTSIDE THE 1% AND 0.2% ANNUAL CHANCE FLOODPLAINS.
20. NEAREST BENCHMARK LOCATED IN DOUGLAS COUNTY, CO AT N 39° 22' 36.93", W 104° 48' 42.39". 2.9 MI E FROM CASTLE ROCK. FROM THE COUNTY COURT HOUSE IN CASTLE ROCK 0.1 MILES NORTH ALONG U.S. HIGHWAYS 85-87, THENCE EAST 2.9 MILES ALONG STATE HIGHWAY 86, 0.65 MILES EAST OF POWER LINES, 73 FEET SOUTH OF CENTER LINE OF HIGHWAY, 250 FEET EAST OF R O W FENCE AND FENCE SOUTH. AT THE SOUTHWEST END OF A CUT A STANDARD CAP SET IN THE CENTER OF A 4 X 4 GRANITE ROCK. (ELEV. 6554.50' ) NAVD 88.
21. 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 SHOWED HEREON ARE BASED UPON U.S. STATE PLANE NAD83 COORDINATE SYSTEM COLORADO STATE PLANE COORDINATE ZONE CENTRAL, DETERMINED BY GPS OBSERVATIONS.

STREET CONSTRUCTION NOTES:

1. ALL STREET CONSTRUCTION IS SUBJECT TO THE TCR GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE STREET CONSTRUCTION NOTES LISTED HERE.
2. A PAVING SECTION DESIGN, SIGNED AND SEALED BY A COLORADO REGISTERED PROFESSIONAL ENGINEER, MUST BE SUBMITTED TO THE TCR PUBLIC WORKS DEPARTMENT FOR APPROVAL PRIOR TO ANY STREET CONSTRUCTIONS ACTIVITY (FULL-DEPTH ASPHALT SECTIONS ARE NOT PERMITTED AT A DEPTH GREATER THAN 8" ASPHALT). THE JOB MIS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PLACEMENT OF ANY ASPHALT.
3. WHERE PROPOSED PAVING ADJOINS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT A MINIMUM DISTANCE OF 12" FROM THE EXISTING EDGE TO CREATE A CLEAN CONSTRUCTION JOINT. THE DEVELOPER SHALL BE REQUIRED TO REMOVE EXITING PAVEMENT TO A DISTANCE WHERE A CLEAN CONSTRUCTION JOINT CAN BE MADE.
4. STREET SUBGRADES SHALL BE SACRIFICED TO A MINIMUM DEPTH OF 12" AND RE-COMPACTED PRIOR TO SUB-BASE INSTALLATION. NO BASE MATERIAL SHALL BE LAID UNTIL THE SUBGRADE HAS BEEN INSPECTED AND APPROVED BY THE TCR CONSTRUCTION INSPECTOR.
5. VALVE BOXES ARE TO BE BROUGHT UP TO GRADE AT TIME OF PAVEMENT PLACEMENT OR OVERLAY. VALVE BOX ADJUSTING RINGS ARE NOT ALLOWED.

SIGNAGE AND STRIPING NOTES:

1. ALL SIGNAGE AND STRIPING IS SUBJECT TO THE TCR GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE SIGNAGE AND STRIPING NOTES LISTED HERE.
2. ALL PAINT SHALL BE 15 MIL THICK UPON INSTALLATION AND 8 MIL THICK WHEN DRY.
3. ALL PERMANENT LONGITUDINAL PAVEMENT STRIPING ON ASPHALT SURFACES (CENTERLINES, LANE LINES, BAY LINES ETC.) SHALL BE INSTALLED USING AN APPROVED REFLECTIVE TRAFFIC PAINT OR PAVEMENT MARKING TAPE. REFLECTIVE BEADS SHALL BE APPLIED IN ACCORDANCE WITH CDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTIONS AND THE MANUFACTURER'S REQUIREMENT. WHEN TAPE IS USED ON AN ASPHALT STREET, IT SHALL BE "ROLLED" INTO THE FINAL LIFT. ON CONCRETE SURFACES TAPE SHALL BE UTILIZED WITH A CONSTRAINING BLACK EDGE AND GROOVED INTO THE PAVEMENT.
4. THERMO-PLASTIC APPLICATIONS SHALL BE AS SPECIFIED IN THE PLANS AND/OR PER TOWN CRITERIA.
5. ALL SURFACES THAT ACCEPT PAINT/THERMO-PLASTIC STRIPING OR PRE-FORMED MARKINGS SHALL BE FIRST SANDBLASTED AND THOROUGHLY CLEANED PRIOR TO INSTALLATION OF STRIPING OR MARKINGS.
6. ALL ARROW MARKINGS SHALL BE PRE-FORMED TAPE, THERMO-PLASTIC OR EPOXY-PAINTED.
7. STOP BARS SHALL BE 90 MIL THERMO-PLASTIC.
8. ALL ROADWAY SIGNAGE SHALL CONFORM TO THE MUTCD AND/OR TOWNS CRITERIA.
9. ALL SIGNPOSTS SHALL UTILIZE BREAKAWAY ASSEMBLIES AND FASTENERS, PER THE TCR STANDARD DETAIL.

FIRE NOTES:

1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN DRIVE LANES FOR EMERGENCY VEHICLE INGRESS AND EGRESS, INCLUDING SNOW REMOVAL.
2. EMERGENCY VEHICLE ACCESS ROAD IS REQUIRED TO ALLOW ACCESS WITHIN 150' OF ALL EXTERIOR OF THE BUILDING BY AN APPROVED ROUTE.
3. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS AND SHALL BE PROVIDED WITH A SURFACE SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. ACCESS ROAD SHALL BE EITHER CONCRETE, ASPHALT OR OTHER APPROVED ALTERNATIVE MATERIAL ACCOMPANIED WITH AN ENGINEER'S STAMP STATING THE MATERIAL WILL SUPPORT A 75000 POUND IMPOSED LOAD.
4. FIRE HYDRANT(S) ARE REQUIRED TO BE INSTALLED AND MADE SERVICEABLE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ONTO THE SITE AND DURING THE TIME OF VERTICAL CONSTRUCTION.
5. "NO PARKING FIRE LANE" SIGNS ARE REQUIRED IN AREA THAT MEET THE FOLLOWING CRITERIA AND IN AREAS DESIGNATED BY THE FIRE PREVENTION BUREAU. SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS AND DRIVEWAYS LESS THAN 26 FEET WIDE. SIGNS SHALL BE POSTED ON ONE SIDE ONLY OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS LESS THAN 26 FEET WIDE. SIGNS SHALL BE POSTED ON ONE SIDE ONLY OF FIRE DEPARTMENT ACCESS ROADWAY FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS EXCEEDING 32 FEET WIDE.
6. WHEN FIRE APPARATUS ACCESS ROADS OR A WATER SUPPLY FOR FIRE PROTECTION IS REQUIRED TO BE INSTALLED, SUCH PROTECTION SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ONTO THE SITE AND BUILDING CONSTRUCTION GOING VERTICAL.
7. TRACER WIRE SHALL BE INSTALLED ON ALL FIRE SERVICE LINES AND AT ALL FIRE HYDRANTS. REFER TO TCR STANDARDS DETAILS. THE WATER LINE CONSTRUCTION NOTES AND THE TRACER WIRE INSTALLATION NOTES LISTED HEREIN.

WATER LINE CONSTRUCTION NOTES:

1. ALL WATER LINE CONSTRUCTION IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE WATER LINE CONSTRUCTION NOTES LISTED HEREIN.
2. ALL WATER LINES SHALL BE: 1) DUCTILE IRON PIPE (DIP, CONFORMING TO THE REQUIREMENTS OF AWWA C150, CL350 (6"-12"), CL250 (16"-20"), CL200 (>24"), WITH PUSH-ON GASKETED JOINTS OR MECHANICAL JOINT ENDS, IN CONFORMANCE WITH AWWA C111. PIPE SHALL BE CEMENT-LINED IN ACCORDANCE WITH AWWA C104 AND AN EXTERIOR COATING IN ACCORDANCE WITH C151; OR 2) PVC PIPE, CONFORMING TO AWWA C900 FOR PIPE SIZES 8" AND 12", CL305 (DR14) AND AWWA C905 FOR PIPE SIZE OF 16", CL235 (DR18). MINIMUM DISTRIBUTION MAIN SIZE SHALL BE 8". WATER LINES THAT ARE 10", 14" AND 18" DIAMETER ARE NOT PERMITTED.
3. WATER LINE FITTINGS SHALL BE DIP CONFORMING TO AWWA C153 OR C110 AND SHALL HAVE A PRESSURE RATING NOT LESS THAN THE PIPE. ALL FITTINGS SHALL BE MECHANICAL JOINT, UNLESS APPROVED BY CASTLE ROCK WATER.
4. ALL DIP AND FITTINGS SHALL BE ENCASED IN POLYETHYLENE TO PREVENT CORROSION. POLYETHYLENE WRAP, TAPE AND INSTALLATION SHALL MEET THE REQUIREMENTS OF AWWA C105.
5. GATE VALVES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH AWWA C509-1 AND AWWA C515-01, AS APPROPRIATE AND SHALL BE DUCTILE IRON BODY AND BONNET, RESILIENT-SEATED WEDGE GATE, NON-RISING STEM TYPE, O-RING SEALS AND SLIP-ON CONNECTIONS (TAPPING VALVES, WHERE ALLOWED SHALL BE FLANGE X MJ). VALVE ENDS SHALL BE MECHANICAL JOINT, UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE VALVES SHALL BE SUITABLE FOR A WORKING PRESSURE OF 200 PSI. THEY SHALL BE CLOSED BY TURNING CLOCKWISE AND SHALL HAVE TWO-INCH SQUARE CAST IRON OPERATING NUTS WITH AN ARROW CAST IN THE NUT INDICATING THE DIRECTION OF OPENING. VALVES SHALL BE POLYETHYLENE WRAPPED IN ACCORDANCE WITH THE AWWA C105. THEY SHALL BE OF SUCH DESIGN AS TO MAINTAIN THE FULL AREA OF THE PIPE THROUGH THE VALVE WHEN OPEN AND SHALL BE DESIGNED TO TAKE FULL PRESSURE ON EITHER FACE. VALVE SHALL HAVE TYPE 304 STAINLESS STEEL BONNET BOLTS AND NUTS AND TYPE 304 STAINLESS STEEL O-RING GLAND BOLTS AND NUTS. VALVES SHALL BE MANUFACTURED BY AMERICAN FLOW CONTROL, KENNEDY OR MUELLER AND SHALL HAVE THE MANUFACTURER'S NAME OR INITIALS AND THE PRESSURE RATING CAST ON THE BODY.
6. ALL FIRE HYDRANTS SHALL BE "PACER WB67-250" BY WATEROUS CO OR "SUPER CENTURION 250" BY MUELLER CO. OPENING TO THE LEFT. REFER TO TCR STANDARD DETAIL W-11.
7. ALL WATER LINES SHALL BE BURIED AN ABSOLUTE MINIMUM OF 5 FEET FROM FINAL GRADE TO THE TOP OF THE WATER MAIN. THE MAXIMUM BURY DEPTH SHALL BE 6 FEET UNLESS ADDITIONAL DEPTH IS REQUIRED FOR UTILITY CROSSINGS OR OTHER CONFLICTS. WHEREVER SUCH CROSSINGS OR CONFLICTS OCCUR, THE TCR STANDARD DETAIL W17 SHALL BE USED.
8. ALL WATER LINES SHALL BE BEDDED IN ACCORDANCE WITH TCR STANDARD DETAIL W-21.
9. CONTRACTOR SHALL MAINTAIN 18-INCH VERTICAL CLEARANCE AND 10-FOOT HORIZONTAL CLEARANCE EDGE-TO-EDGE BETWEEN ALL WATER LINES AND ANY OTHER PIPED UTILITIES.
10. ALL BENDS, TEES, FIRE HYDRANTS AND PLUGS AT DEAD-END MAINS SHALL BE RESTRAINED FROM THRUST BY USING MEGALUG RESTRAINTS PER TCR STANDARD DETAIL W-18 IN COMBINATION WITH CONCRETE THRUST BLOCKS PER TCR STANDARD DETAIL W-22.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL FIRE HYDRANTS AND VALVE BOXES TO FINISH GRADE IN ACCORDANCE WITH TCR STANDARD DETAILS W-10 AND W-11.

TILSON  
INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
CD25-0025

PLANS PREPARED BY:

Kimley»Horn

6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV: DATE: DESCRIPTION BY:

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| 2 | 06/23/2025 | REVISED:CITY COMMENTS | JC |
| 1 | 03/28/2025 | FINAL                 | SV |
| 0 | 02/26/25   | 100% FINAL CDs        | LF |

DRAWN BY: CHECKED BY:

LF

BAB

KHA PROJECT NUMBER:

296015001

TOWN APPROVAL BLOCK

TOWN OF CASTLE ROCK APPROVAL PLANS ARE  
HEREBY APPROVED FOR ONE YEAR FROM DATE  
OF DEVELOPMENT SERVICES APPROVAL

APPROVED BY:

DEVELOPMENT SERVICES

DATE

ENGINEER SEAL:

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS  
WERE PREPARED UNDER MY DIRECT SUPERVISION, IN  
ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND  
STATE OF COLORADO STANDARDS AND STATUTES,  
RESPECTIVELY, AND THAT I AM FULLY RESPONSIBLE FOR ALL  
DESIGN AND REVISIONS RELATIVE TO SAID PLANS



(CIVIL ENGINEER SIGNATURE AND SEAL HERE)

DATE

PROJECT INFORMATION:

NODE NAME: DN2000BA\_31LAB  
(DN1452)

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

T.o.C.R.  
STANDARD NOTES I

SHEET NUMBER:

N-1 (2 OF 14)



GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:  
GENERAL CONTRACTOR  
CONTRACTOR: (CONSTRUCTION)  
EQUIPMENT OWNER: TILSON  
POLE OWNER: CORE
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND TILSON PROJECT SPECIFICATIONS.
- GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL BE FAMILIAR WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR BEING FAMILIAR WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
- SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
- THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.

- THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION.
- CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- STRUCTURE IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY TECHNICIANS.
- NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
- CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE CONSTRUCTION MANAGER IMMEDIATELY.
- CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- ALL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- THE NEW SMALL CELL IS UNMANNED AND NOT FOR HUMAN HABITAT. (HANDICAP ACCESS IS NOT REQUIRED).
- OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION. APPROXIMATELY 2 TIMES PER MONTH.
- INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURERS RECOMMENDATIONS UNLESS SPECIFICALLY OTHERWISE INDICATED. OR WHERE CODES OR REGULATIONS TAKE PRECEDENCE.
- ELECTRICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.
- ALL EQUIPMENT, SPECIFICATIONS, PERFORMANCE, INSTALLATION AND THE FINAL LOCATION ARE TO BE APPROVED BY CONSTRUCTION MANAGER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK AND CLEARANCE REQUIRED BY OTHERS RELATED TO SAID EQUIPMENT.
- ALL WORK PERFORMED AND MATERIALS SHALL MEET THE HIGHEST TRADE STANDARDS. CONFORM WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES,REGULATIONS AND LAWFUL ORDERS OF GOVERNING AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REDLINING THE CONSTRUCTION PLANS TO ILLUSTRATE THE AS-BUILT CONDITION OF THE SITE. THIS WILL BE DONE AFTER THE SITE HAS BEEN AWARDED THE FINAL INSPECTION. TWO COPIES OF REDLINED DRAWINGS WILL BE PROVIDED TO CONSTRUCTION MANAGER.
- PHOTOS SHALL BE TAKEN OF THE SITE AT THE REQUEST OF THE CONSTRUCTION MANAGER. ALL WORK TO BE BURIED OR HIDDEN MUST BE PHOTO GRAPHED AND INSPECTED BY THE CONSTRUCTION MANAGER PRIOR TO BACKFILLING ETC. UNLESS OTHERWISE SPECIFIED BY CONSTRUCTION MANAGER.
- ALL WORK IS BEING PERFORMED IN VARIOUS RIGHT-OF-WAY AND PROPERTY LOCATIONS. VERIFY ALL EQUIPMENT LOCATION/INSTALLATIONS WITH SURVEYED DATA. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE FOR PROPER STORAGE LOCATIONS FOR MATERIALS.
- ALL WORK FOR CONSTRUCTION SHALL TAKE PLACE BETWEEN THE HOURS OF 7 AM. TO 9 P.M., MONDAY THROUGH FRIDAY AND 8 A.M. TO 5 P.M. ON SATURDAYS. IF THERE IS AN ANTICIPATED NEED TO WORK OUTSIDE OF THE EXEMPTED HOURS FOR CONSTRUCTION, CONTRACTOR WILL NEED TO MAKE A REQUEST FOR NIGHTTIME NOISE VARIANCE AS ALLOWED BY THE CITY.

ABBREVIATIONS LIST:

CITY - LOCAL JURISDICTION FOR SITE, SEE T-1  
TIL - TILSON  
CRZ - CRITICAL ROOT ZONE  
FCC - FEDERAL COMMUNICATIONS COMMISSION  
NEC - NATIONAL ELECTRIC CODE  
POC - POINT OF CONNECTION  
RF - RADIO FREQUENCY  
ROW - RIGHT OF WAY  
EOP - EDGE OF PAVEMENT  
TIA - TELECOMMUNICATION INDUSTRY ASSOCIATION  
A - AMPS  
V - VOLTS  
PVC - POLYVINYL CHLORIDE  
HDPE - HIGH DENSITY POLYETHYLENE  
THHN - THERMOPLASTIC HIGH HEAT- RESISTANT NYLON-COATED  
AWG - AMERICAN WIRE GAUGE  
CU - COPPER  
SOP - STANDARD OPERATING PROCEDURE

COAXIAL CABLE NOTES:

- TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
- TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
- CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
- ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
- CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
- CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE.

GENERAL CABLE & EQUIPMENT NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
- ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL REFERENCE THE STRUCTURAL ANALYSIS / DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION / ROUTING.
- 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.
- 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.
- ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
- ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

RF CONNECTOR REQUIREMENTS:

- ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
- ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.  
A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.  
B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
- ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).
- ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).
- ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
- ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 - 29.8 NM).
- ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-IN (1.7 - 2.3 NM)

STRUCTURAL STEEL NOTES:

- DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222-H OR APPLICABLE LOCAL CODES.
- 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.
- 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.
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
- 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.

TILSON  
INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
CD25-0025

PLANS PREPARED BY:

**Kimley»Horn**

6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV: DATE: DESCRIPTION: BY:

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TOWN APPROVAL BLOCK

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APPROVED BY:

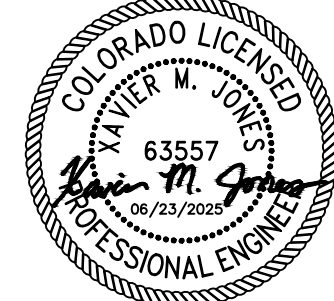
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(CIVIL ENGINEER SIGNATURE AND SEAL HERE)

DATE

PROJECT INFORMATION:

NODE NAME: DN2000BA\_31LAB  
(DN1452)

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

N-3 (4 OF 14)



# TILSON INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
CD25-0025

PLANS PREPARED BY:

**Kimley»Horn**

6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV: DATE: DESCRIPTION: BY:

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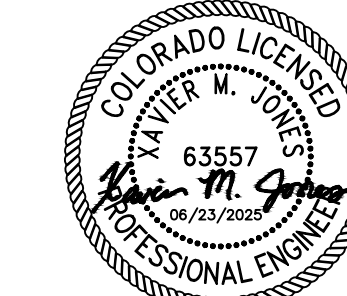
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(CIVIL ENGINEER SIGNATURE AND SEAL HERE)

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PROJECT INFORMATION:

NODE NAME: DN2000BA\_31LAB  
(DN1452)

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

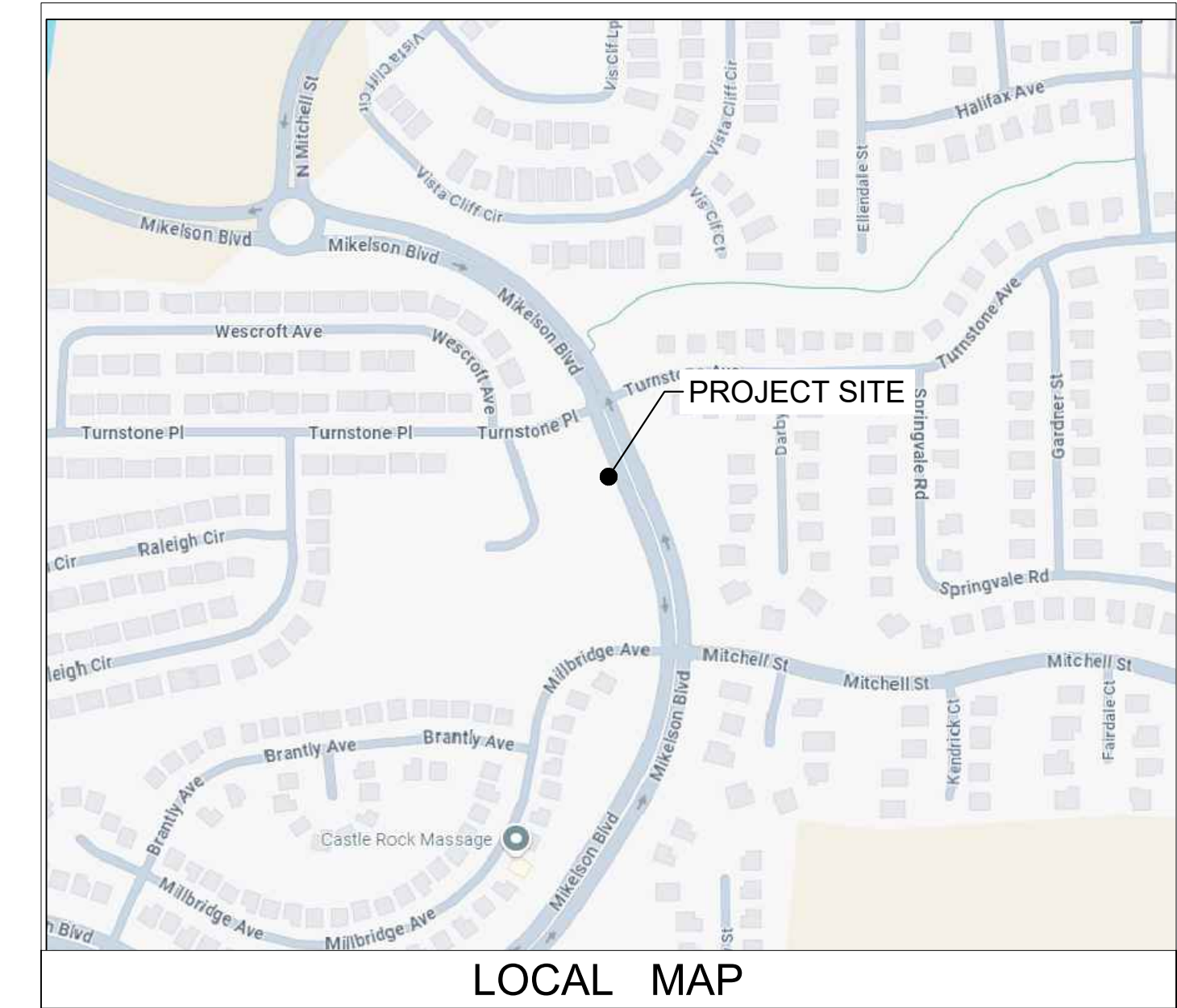
ROW EXHIBIT

SHEET NUMBER:

EX-1 (5 OF 14)

LEGEND:

|                     |  |                      |  |
|---------------------|--|----------------------|--|
| WATER LINE          |  | STORM SEWER          |  |
| SANITARY SEWER      |  | UG ELECTRIC          |  |
| GAS LINE            |  | ELECTRIC             |  |
| FIBER LINE          |  | OH ELECTRIC          |  |
| OH TELCO            |  | UG UTILITIES         |  |
| UG TELCO            |  | OH UTILITIES         |  |
| FENCE               |  | SIGNAGE              |  |
| RIGHT OF WAY        |  | CATCH BASIN          |  |
| PROPERTY LINE       |  | STORM MANHOLE        |  |
| WATER METER         |  | STORM DRAIN INLET    |  |
| WATER VALVE         |  | SANITARY SEWER MH    |  |
| HYDRANT             |  | POWER POLE           |  |
| WATER MANHOLE       |  | ELECTRIC HANDHOLE    |  |
| TELCO PEDESTAL      |  | ELECTRIC METER       |  |
| TELCO VAULT         |  | ELECTRIC TRANSFORMER |  |
| TELCO FIBER MANHOLE |  | ELECTRIC VAULT       |  |
| TELCO MH            |  | TRAFFIC SIGNAL BOX   |  |
| TELCO FIBER VAULT   |  | ELECTRIC MANHOLE     |  |
| GAS VAULT           |  | LIGHT POLE           |  |
| GAS METER           |  | TRAFFIC SIGNAL       |  |
|                     |  | ELECTRIC DOWN GUY    |  |

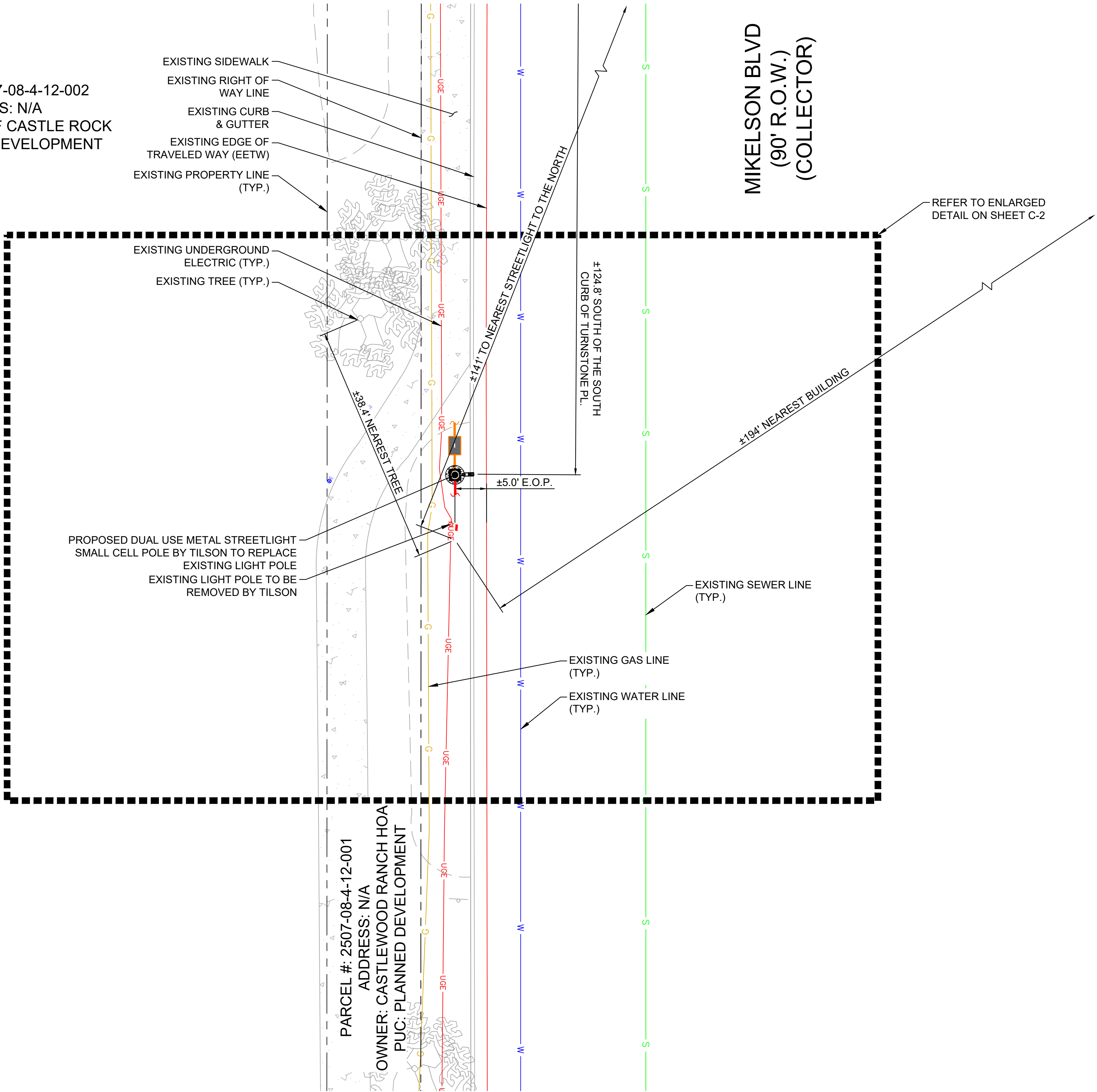


LOCATION DESCRIPTION

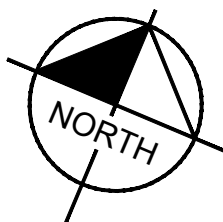
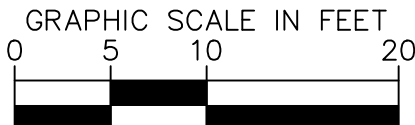
THE PROPOSED RELOCATED WIRELESS STRUCTURE LYING WITHIN TOWN OF CASTLE ROCK RIGHT OF WAY, CONSISTING OF ± 35 SQ FT DISTURBANCE. THE CENTER OF SAID DISTURBANCE IS POSITIONED 3.0' WEST OF THE WEST CURB OF MIKELSON BLVD AND 125' SOUTH OF THE SOUTH CURB OF TURNSTONE PL

NOTE:  
1. CONTRACTOR MUST FIELD VERIFY ALL MEASUREMENTS, UTILITY LOCATIONS, AND FIELD CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

PARCEL #: 2507-08-4-12-002  
ADDRESS: N/A  
OWNER: TOWN OF CASTLE ROCK  
PUC: PLANNED DEVELOPMENT



2 SITE PLAN  
C-1 SCALE: 1" = 10'



TILSON  
INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

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CD25-0025

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Kimley»Horn

6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV. DATE. DESCRIPTION. BY.

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|---|------------|------------------------|----|
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| 2 | 06/23/2025 | REVISED: CITY COMMENTS | JC |
| 1 | 03/28/2025 | FINAL                  | SV |
| 0 | 02/26/25   | 100% FINAL CDs         | LF |

DRAWN BY: CHECKED BY:

LF BAB

KHA PROJECT NUMBER:

296015001

TOWN APPROVAL BLOCK

TOWN OF CASTLE ROCK APPROVAL PLANS ARE  
HEREBY APPROVED FOR ONE YEAR FROM DATE  
OF DEVELOPMENT SERVICES APPROVAL

APPROVED BY:

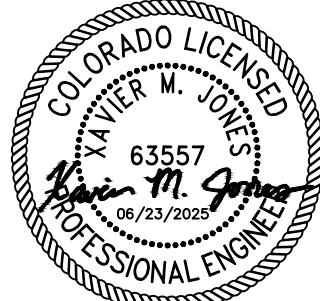
DEVELOPMENT SERVICES

DATE

ENGINEER SEAL:

PROFESSIONAL ENGINEER CERTIFICATION

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RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL  
DESIGN AND REVISIONS RELATIVE TO SAID PLANS



(CIVIL ENGINEER SIGNATURE AND SEAL HERE)

DATE

PROJECT INFORMATION:

NODE NAME: DN2000BA\_31LAB  
(DN1452)

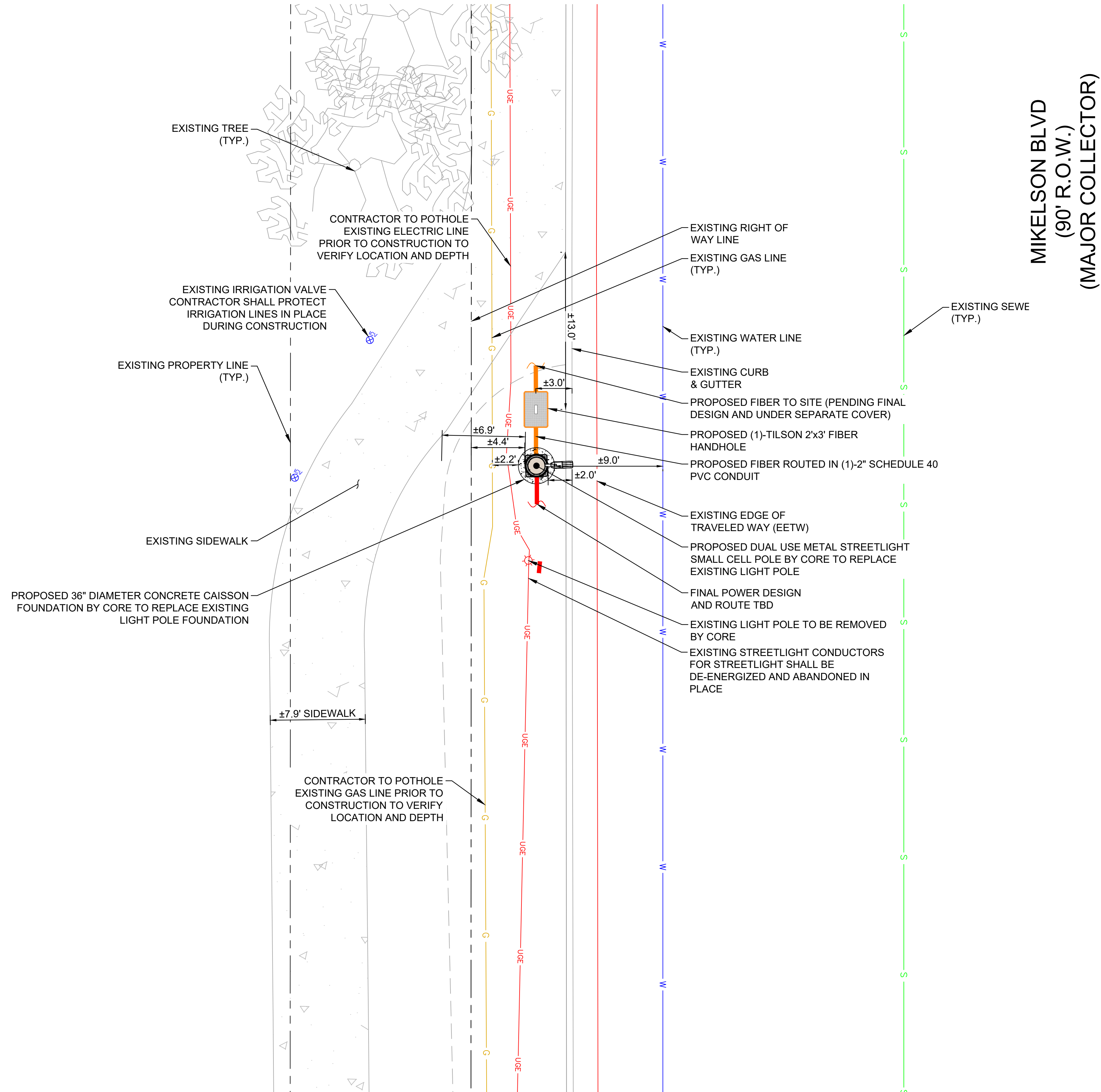
TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

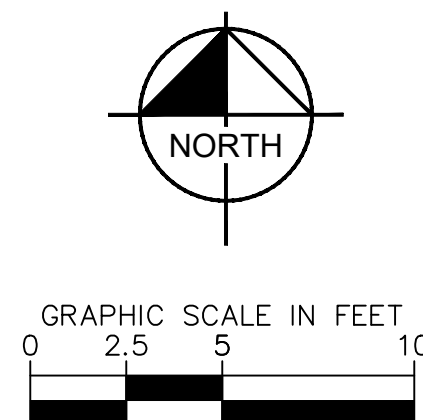
SITE PLAN

SHEET NUMBER:

C-1 (6 OF 14)



1  
C-2  
**ENLARGED SITE PLAN**  
SCALE: 1" = 5'



CONTRACTOR MUST FIELD VERIFY ALL MEASUREMENTS, UTILITY LOCATIONS, AND FIELD CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

# TILSON INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
CD25-0025

PLANS PREPARED BY:

**Kimley»Horn**

6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV: DATE: DESCRIPTION: BY:

| REV | DATE       | DESCRIPTION            | BY |
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DRAWN BY: CHECKED BY:

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KHA PROJECT NUMBER:

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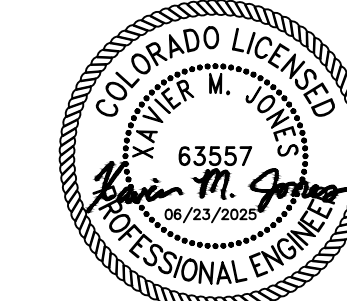
DEVELOPMENT SERVICES

DATE

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CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

**ENLARGED SITE PLAN**

SHEET NUMBER:

C-2 (7 OF 14)

TILSON  
INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

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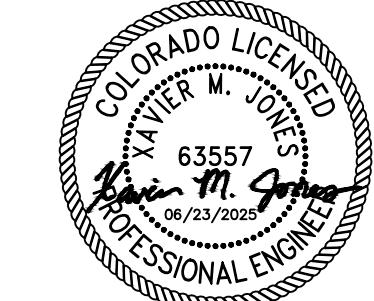
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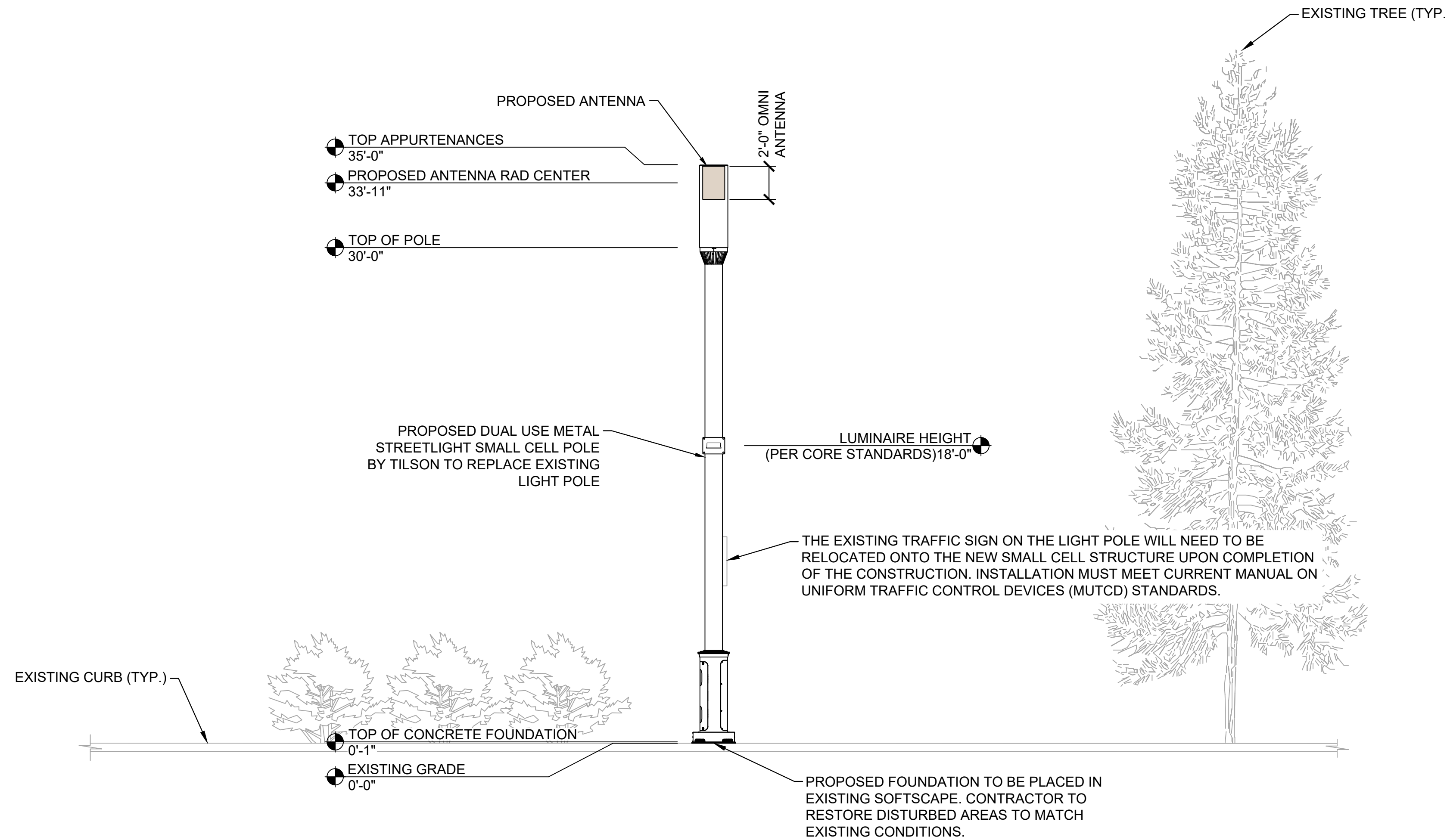
TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

SITE ELEVATION

SHEET NUMBER:

C-3 (8 OF 14)



1  
C-3  
SITE ELEVATION  
SCALE: 1"=5'

GRAPHIC SCALE IN FEET  
0 2.5 5 10

- ANTENNA, SHROUD, AND POLE TO BE FINISHED IN A COLOR THAT MATCHES TRAFFIC BLACK (RAL COLOR CODE #9017).
- POLE AND FOUNDATION, LIGHTARM AND LUMINAIRE TO BE INSTALLED BY TILSON
- ALL EXPOSED STEEL, EQUIPMENT, MOUNTING BRACKETS, CABLES, ANTENNAS AND MISC. PARTS SHALL BE PAINTED.

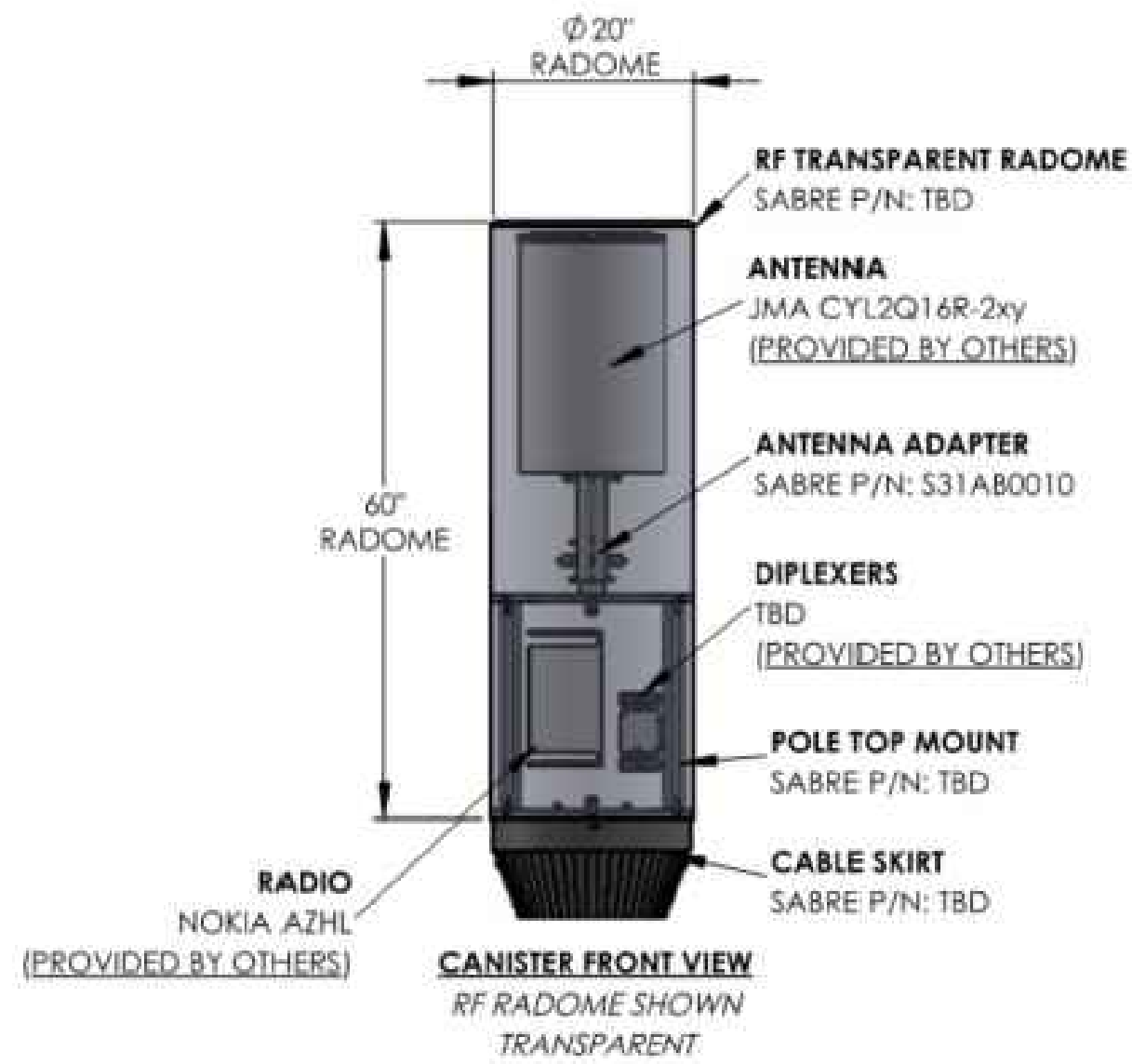


Know what's below.  
Call before you dig.

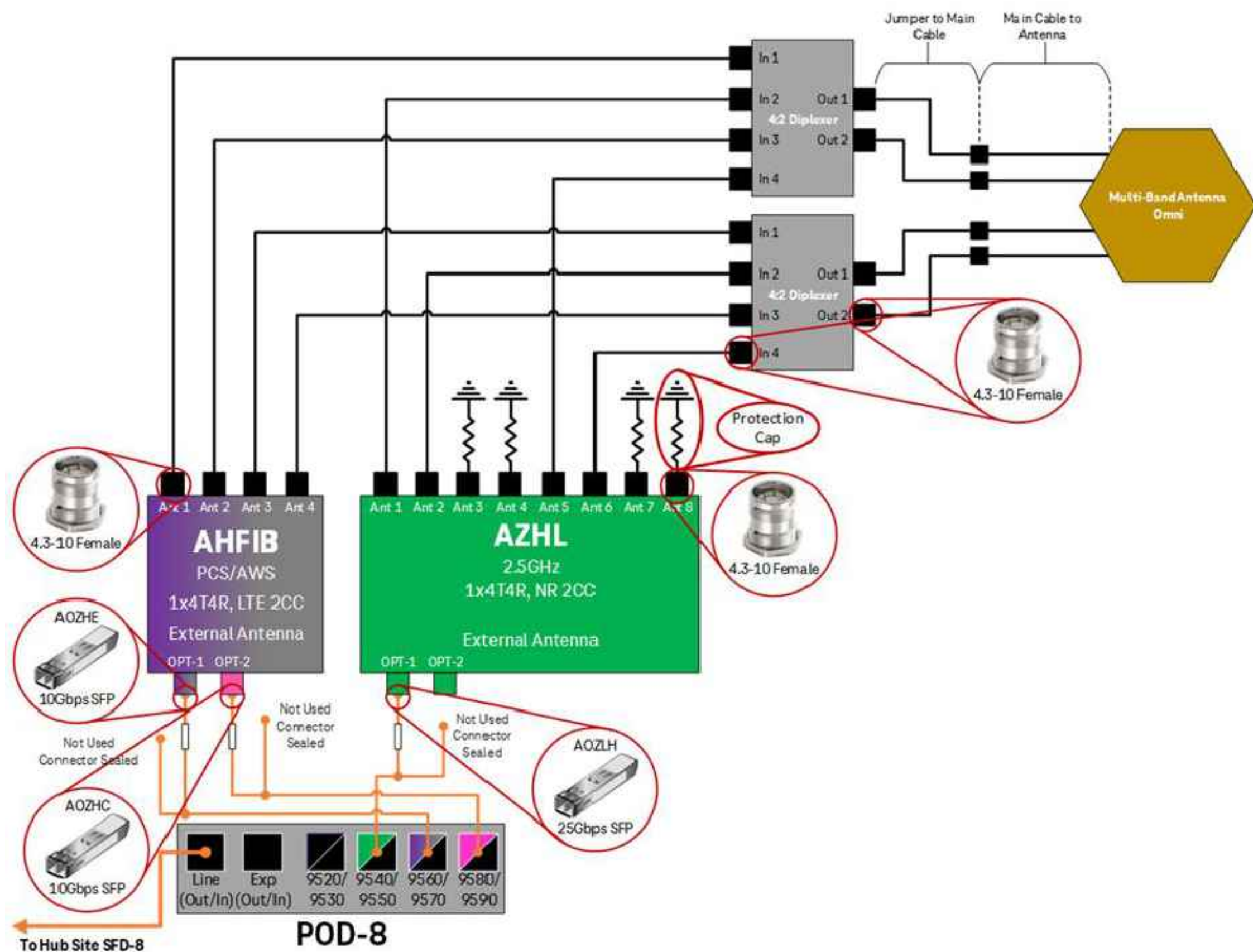
| ANTENNA AND CABLE SCHEDULE |                           |          |                       |                  |                |                    |            |              |
|----------------------------|---------------------------|----------|-----------------------|------------------|----------------|--------------------|------------|--------------|
| SECTOR                     | ANTENNA MODEL             | AZIMUTH  | MOUNTING HEIGHT (AGL) | ANTENNA SPECS    | MECH. DOWNTILT | ELECTRIC. DOWNTILT | CABLE SIZE | CABLE LENGTH |
| OMNI                       | JMA WIRELESS CYL2Q16R-2xy | SEE RFDS | 33'-11"               | (OMNI) 2.32 FT^3 | 0°             | 2°                 | 4-COAX     | ±5'          |

NOTES:

1. LENGTHS ARE ESTIMATES. CONTRACTOR AND/OR CONSTRUCTION MANAGER SHALL FIELD VERIFY ALL LENGTHS PRIOR TO ORDERING.
2. ALL AZIMUTHS SHOWN ARE RELATIVE TO TRUE NORTH (UNLESS OTHERWISE STATED)
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AZIMUTHS DEPICTED HEREIN WITH THE RF DEPARTMENT PRIOR TO INSTALLING ANY ANTENNAS



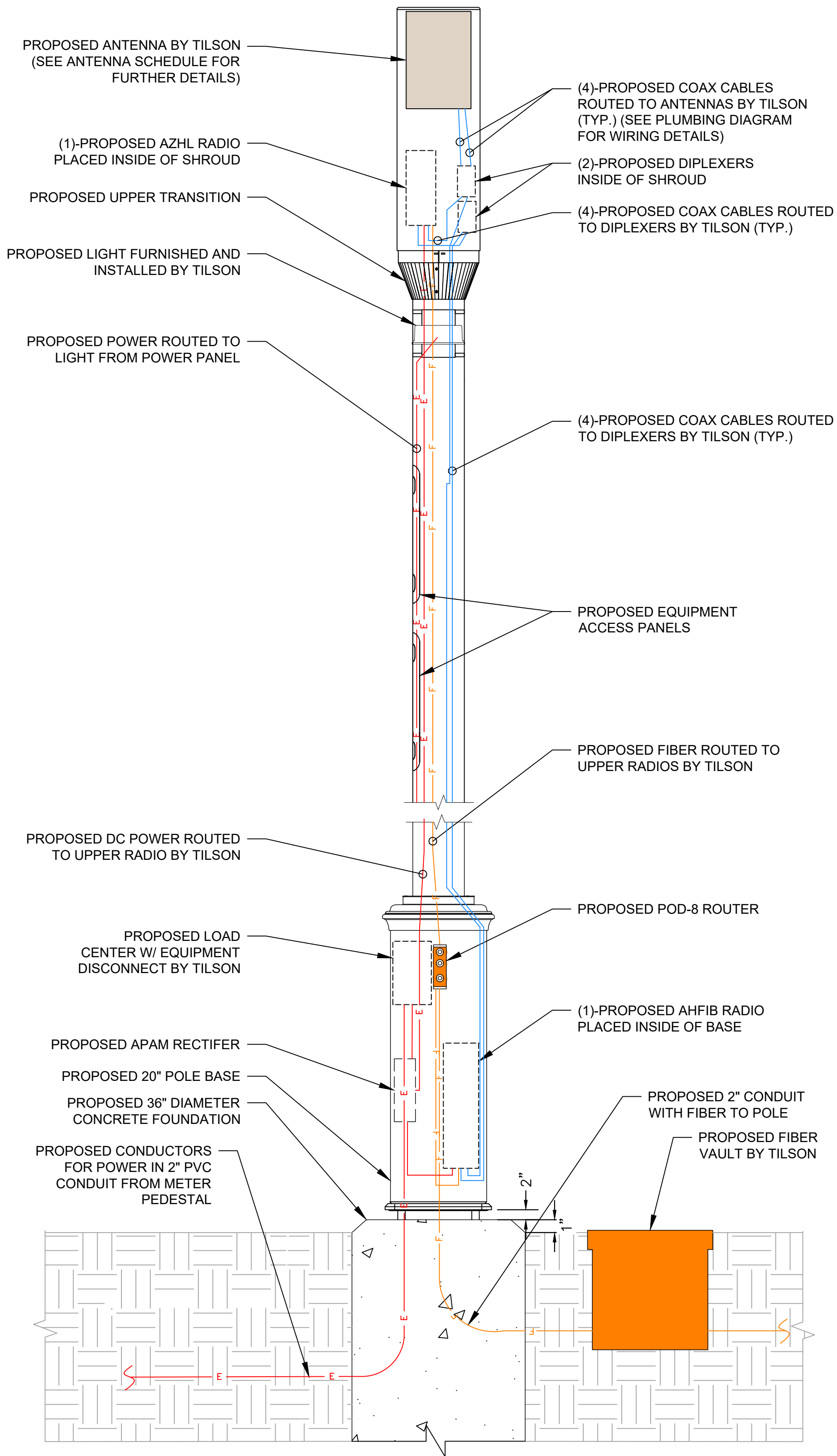
1 ANTENNA MOUNTING ELEVATION  
SCALE: N.T.S.



2 PLUMBING DIAGRAM  
SCALE: N.T.S.

| EQUIPMENT VOLUME TABLE       |                                                  |                      |
|------------------------------|--------------------------------------------------|----------------------|
| DESCRIPTION                  | INCLUDES                                         | VOLUME (FT^3)        |
| ANTENNA                      | (1)-JMA CYL2Q16R-2XY OMNI ANTENNA                | 2.32 FT^3            |
| PROPOSED ACCESSORY EQUIPMENT | POWER PANEL, FIBER MANAGEMENT BOX, (POD-8), APAM | 1.5FT^3              |
| RADIOS & DIPLEXERS           | (2)-RADIOS<br>(2)-DIPLEXERS                      | 2.16FT^3<br>0.04FT^3 |
| UTILITY                      | DISCONNECT                                       | 0.9FT^3              |
| UTILITY                      | METER                                            | 0.79FT^3             |

\*TOTAL ANTENNA SHROUD VOLUME PER MANUFACTURER. INCLUDES ALL ANTENNAS, PROJECTIONS, HARDWARE, AND CONCEALMENT ELEMENTS



1 POLE EQUIPMENT ELEVATION  
N.T.S.

**TILSON**  
INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
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PLANS PREPARED BY:

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DRAWN BY: CHECKED BY:

LF BAB

KHA PROJECT NUMBER:

296015001

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APPROVED BY:

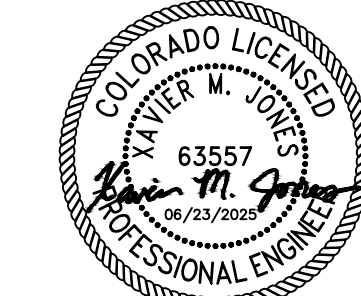
DEVELOPMENT SERVICES

DATE

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(DN1452)

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

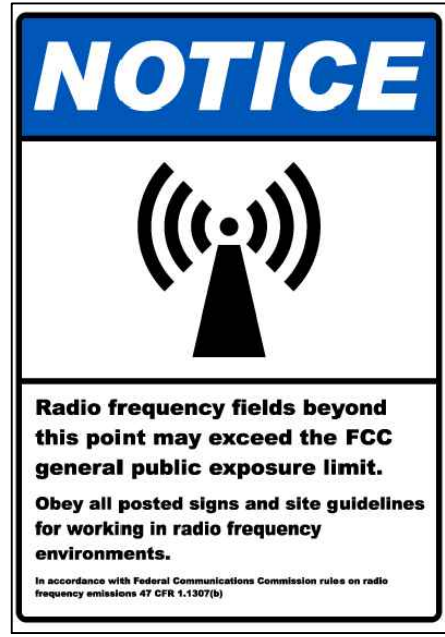
POLE EQUIPMENT  
ELEVATIONS

SHEET NUMBER:

C-4 (9 OF 14)



Know what's below.  
Call before you dig.



1  
C-5

**EME SIGNAGE**  
(2) SIGNS TO BE ATTACHED. ONE FACING THE STREET. ONE WILL BE ON THE OPPOSITE SIDE 180 DEGREES FROM THE FIRST

EME SIGNAGE ATTACHMENT:

ON WOOD POLES - SIGN ON ALUMINUM WITH STAINLESS LAG SCREW TO THE POLE

ON METAL POLES - ADHESIVE VINYL OR PLACARD STRAPPED WITH STAINLESS STEEL TIES (PAINT TIES TO MATCH POLE)

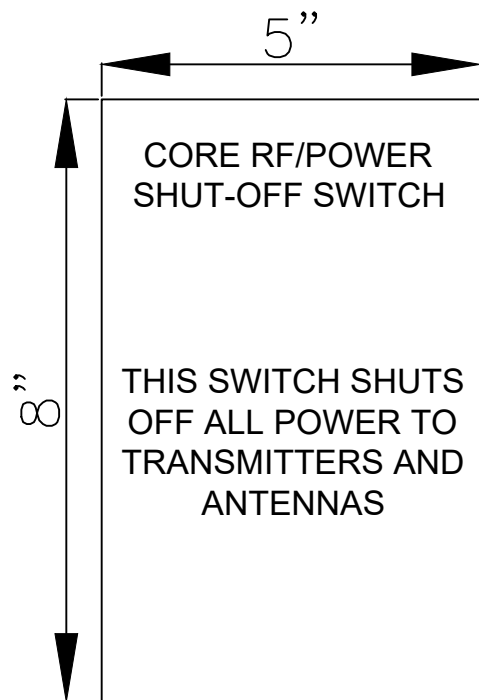
ON CONCRETE/COMPOSITE - PLACARD STRAPPED WITH STAINLESS TIES.

PLACEMENT - REF EME REPORT



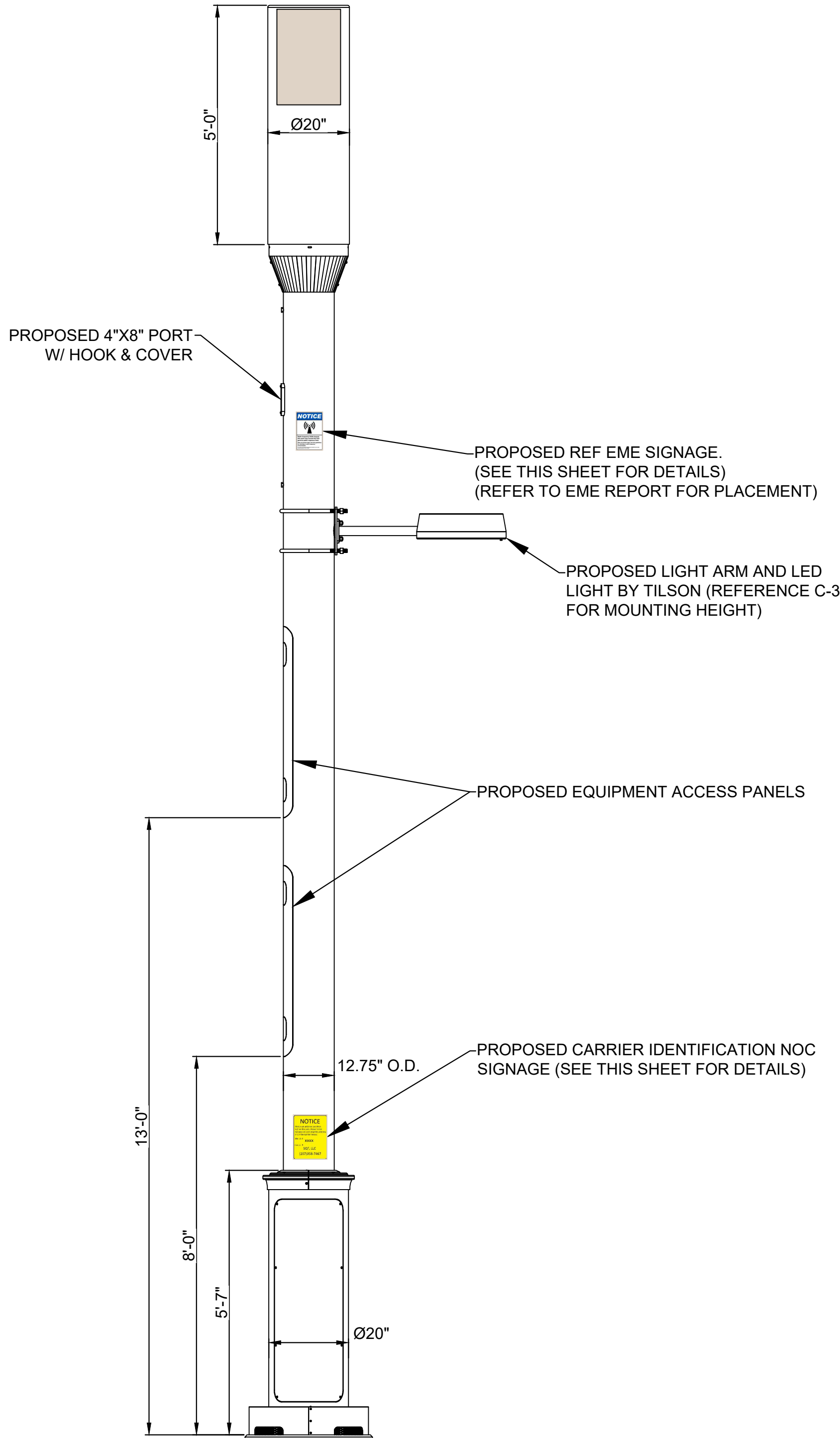
2  
C-5

**NOC SIGNAGE**  
N.T.S.  
OWNER/OPERATOR NOTIFICATION PLAQUE  
CONTRACTOR SHALL ADD SITE ID# ON NOTIFICATION PLAQUE



3  
C-5

**CORE DISCONNECT SIGNAGE**  
N.T.S.  
RF DISCONNECT NOTE:  
RF/POWER DISCONNECT SIGNAGE TO BE PLACED ON OUTSIDE OF DOOR OF DISCONNECT ACCESS PANEL



4  
C-5

**SIGNAGE ELEVATION**  
N.T.S.

**TILSON**  
INFRASTRUCTURE

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DRAWN BY: CHECKED BY:

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(DN1452)**

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

**SIGNAGE DETAILS**

SHEET NUMBER:

C-5 (10 OF 14)

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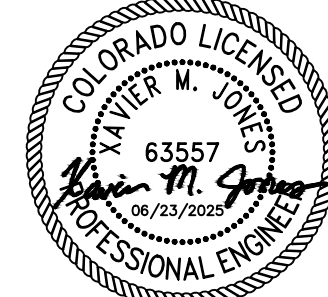
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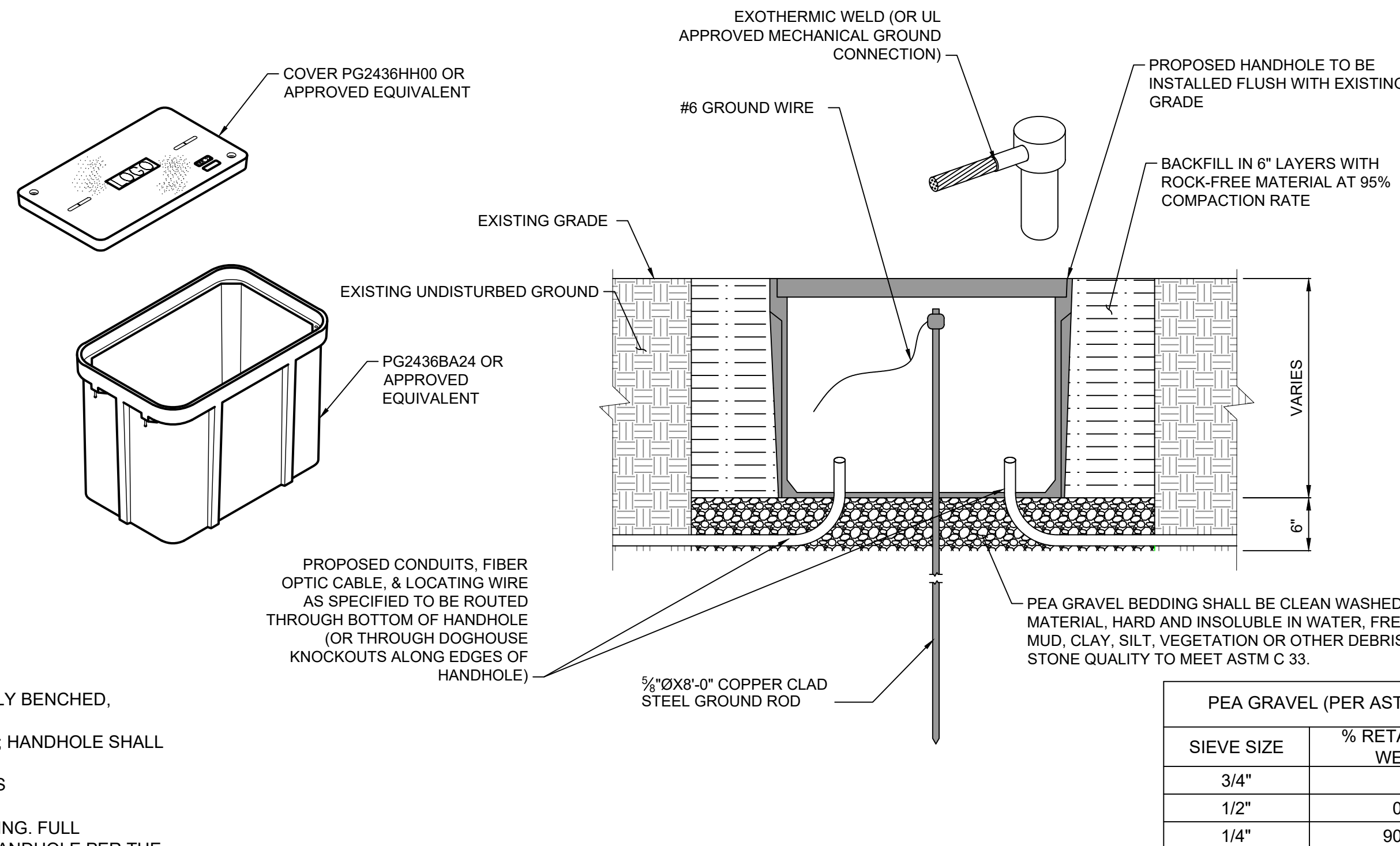
TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

**HANDHOLE  
DETAILS**

SHEET NUMBER:

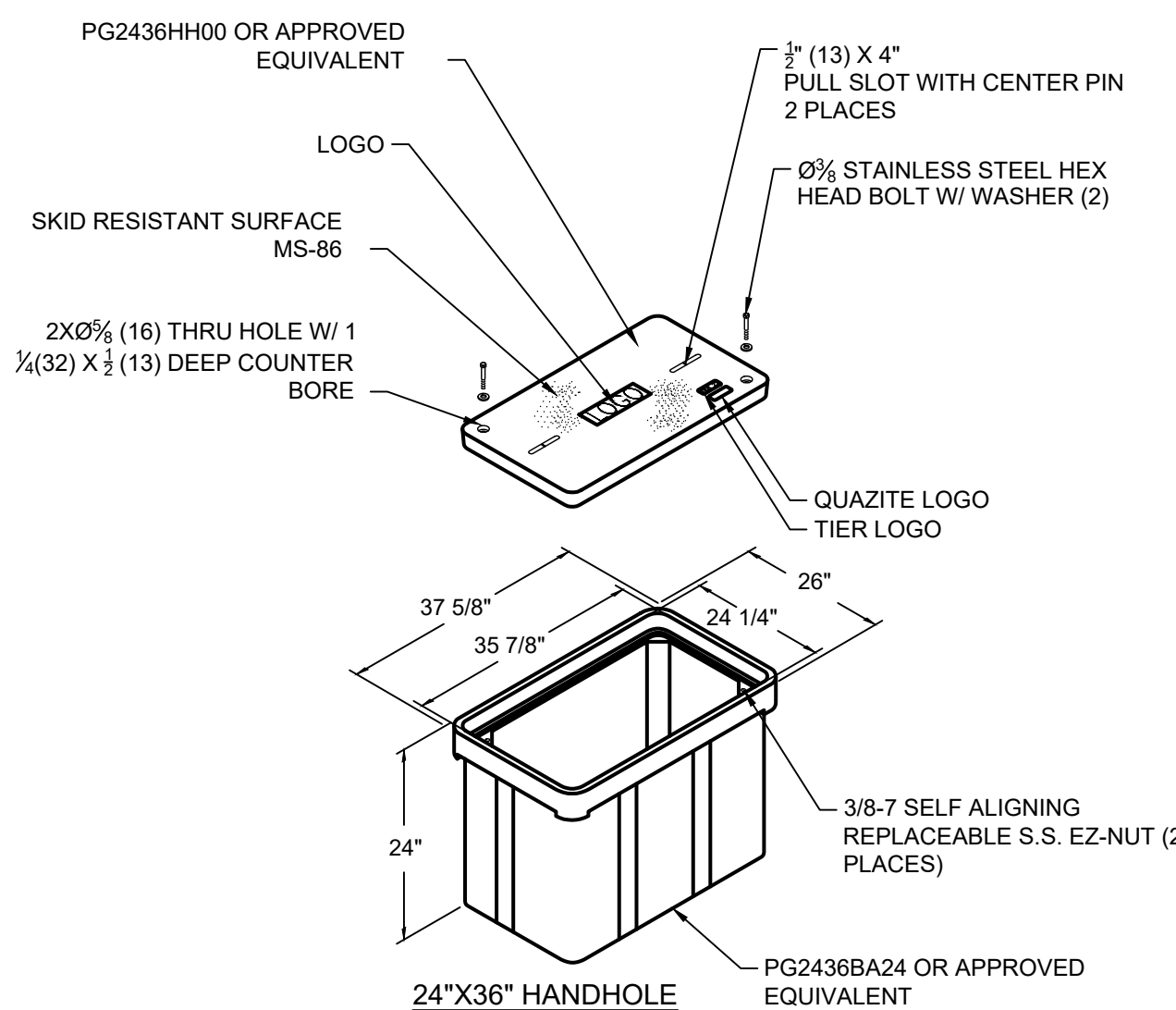
**C-6 (11 OF 14)**



**NOTES:**

- VOID UNEXCAVATED AREAS TO BE BACKFILLED WITH SELECT MATERIAL.
- BOTTOM OF EXCAVATED PIT TO BE BACKFILLED WITH 6" OF PEA GRAVEL.
- CONTRACTOR TO NOTE THAT SHORING MAY BE REQUIRED DURING CONSTRUCTION.
- ALL EXCAVATIONS OR TRENCHES 4 FEET OR GREATER IN DEPTH SHALL BE APPROPRIATELY BENCHED, SHORED, OR SLOPED IN OHSA'S EXCAVATION STANDARD, 29 CFR 1926.620, .651 & .652.
- TOP OF HANDHOLE SHALL BE PLACED FLUSH WITH EXISTING GRADE OR SLIGHTLY BELOW; HANDHOLE SHALL NEVER BE PLACED ABOVE EXISTING GRADE.
- ALL HANDHOLE/MANHOLES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ANY SIDEWALK DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO MATCH EXISTING. FULL SIDEWALK PANELS SHALL BE REMOVED AND REPLACED FOR THE INSTALLATION OF THE HANDHOLE PER THE JURISDICTION'S ROADWAY DESIGN MANUAL.

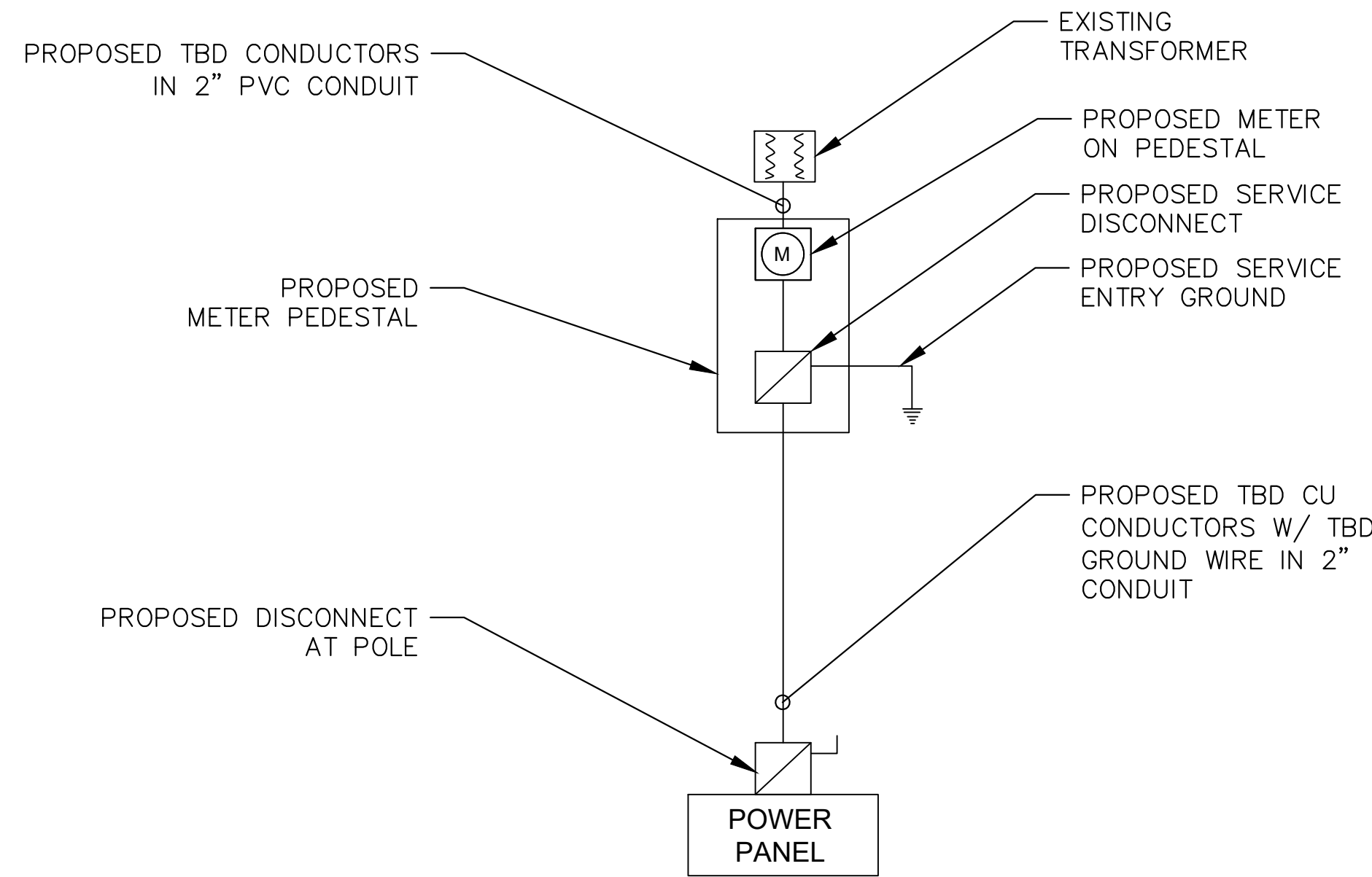
**1 HANDHOLE CONSTRUCTION DETAIL**  
C-6 N.T.S.



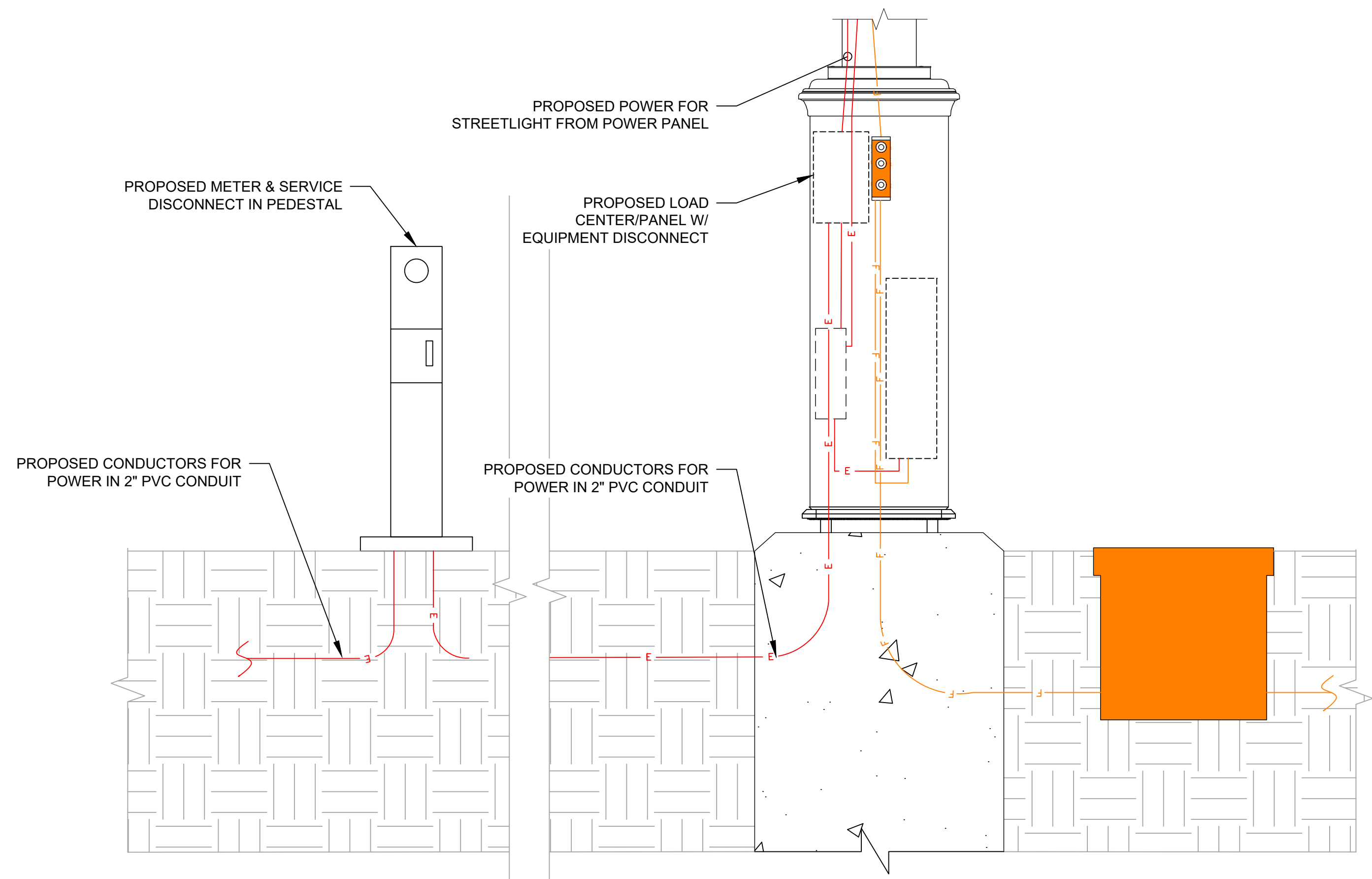
**NOTES:**

- CONDUIT SHALL BE ALIGNED AND WITHIN CENTERLINE OF PULL BOX MINIMIZING CONDUIT BENDS FOR FIBER PULL.
- CONDUIT PLUGS SHALL BE INSTALLED IN ALL EMPTY CONDUITS & ALL CONDUITS CONTAINING CABLES.
- WEATHER PROOF TAGS SHALL BE INSTALLED ON ALL FIBER CABLES
- TRACER WIRE AND PULL ROPE SHALL BE INCLUDED IN THE CONDUIT. TRACER WIRE SHALL NOT BE INCLUDED IN THE SAME INNERDUCT OR CONDUIT AS FIBER OPTIC CABLES.
- FIBER OPTIC SLACK COILS INSTALLED WITHIN PULL BOXES SHALL BE TIED TO EACH CABLE RACK. PLASTIC CABLE/WIRE TIES SHALL NOT BE ALLOWED. CAUTION SHALL BE TAKEN WHILE COILING ALL FIBER. FIBER COILING SHALL BE COMPLETED PER FIBER MANUFACTURES RECOMMENDATIONS.
- CONTRACTOR SHALL VERIFY ALL INSTALLATION METHODS, MATERIALS AND TECHNIQUES WITH VAULT MANUFACTURES RECOMMENDED SPECIFICATIONS AND WARRANTY REQUIREMENTS.
- ALL SOIL PREPARATION AND INSTALLATION SHALL BE COORDINATED WITH LOCAL JURISDICTIONS AND GEOTECHNICAL REPORT AND SPECIFICATIONS.
- ALL IN-GRADE HANDHOLES SHALL BE INCIDENTAL TRAFFIC RATED TO TIER 15 MINIMUM UNLESS OTHERWISE NOTED.

**2 HANDHOLE AND VAULT DETAIL**  
C-6 N.T.S.



1  
E-1 ONE-LINE DIAGRAM  
SCALE: N.T.S.



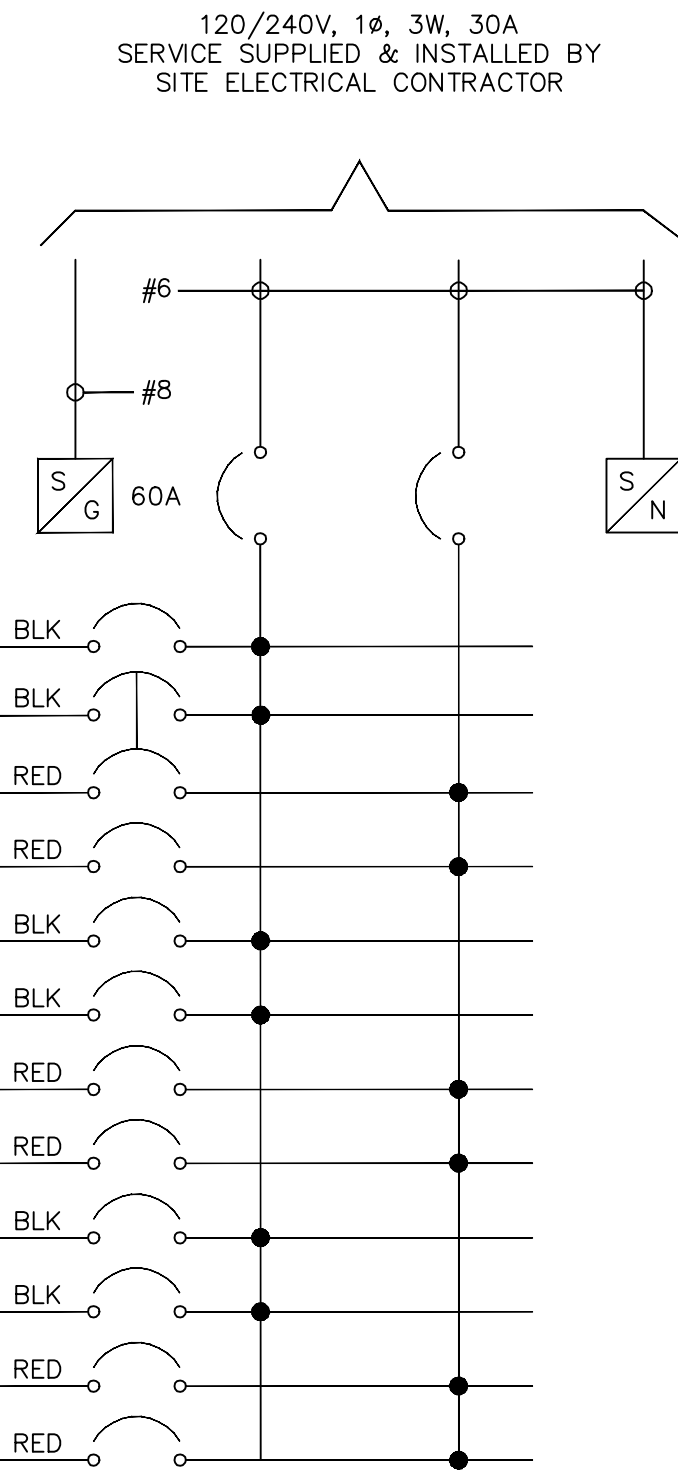
2  
E-1 ELECTRICAL ELEVATION  
SCALE: N.T.S.

| PANEL CIRCUIT AND LOAD SCHEDULE                                                        |             |         |                                            |      |                  |                 |                 |           |                     |      |     |
|----------------------------------------------------------------------------------------|-------------|---------|--------------------------------------------|------|------------------|-----------------|-----------------|-----------|---------------------|------|-----|
| SERVICE: 120/240V, 60A, 1Ø, 3W                                                         |             |         |                                            |      |                  |                 |                 |           |                     |      |     |
| DESIGNATION: PANEL SCHEDULE                                                            |             |         |                                            |      |                  |                 |                 |           |                     |      |     |
| LOCATION: PANEL AT TOWER BASE                                                          |             |         |                                            |      |                  |                 |                 |           |                     |      |     |
| LOAD                                                                                   |             |         | LOAD PER PHASE (VA)                        |      | LOADS CONTINUOUS | LOADS NON-CONT. | LOADS SUB-PANEL | WIRE SIZE | GROUNDING WIRE SIZE | TRIP |     |
| DESCRIPTION                                                                            | P           | UNIT VA | PHASE                                      |      |                  |                 |                 |           |                     |      |     |
|                                                                                        |             |         | A                                          | B    |                  |                 |                 |           |                     |      |     |
| 1                                                                                      | SPARE       | -       | -                                          |      | -                | -               | -               | -         | -                   | -    | BLK |
|                                                                                        | APAM        | 2P      | 2500                                       | 1250 |                  | X               | -               | -         | 10                  | (10) | 20A |
| 2                                                                                      | SPARE       | -       | -                                          |      | -                | -               | -               | -         | -                   | -    | RED |
|                                                                                        | SPARE       | -       | -                                          |      | -                | -               | -               | -         | -                   | -    | RED |
| 3                                                                                      | SPARE       | -       | -                                          | -    |                  | -               | -               | -         | -                   | -    | BLK |
|                                                                                        | GFCI        | 1P      | 180                                        | 180  |                  | X               | -               | -         | 14                  | (14) | 15A |
| 4                                                                                      | FANS        | 1P      | 150                                        |      | 150              | X               | -               | -         | 14                  | (14) | 15A |
|                                                                                        | STREETLIGHT | 1P      | 55                                         |      | 55               | X               | -               | -         | 12                  | (12) | 15A |
| 5                                                                                      | SPARE       | -       | -                                          | -    |                  | -               | -               | -         | -                   | -    | BLK |
|                                                                                        | SPARE       | -       | -                                          | -    |                  | -               | -               | -         | -                   | -    | BLK |
| 6                                                                                      | SPARE       | -       | -                                          |      | -                | -               | -               | -         | -                   | -    | RED |
|                                                                                        | SPARE       | -       | -                                          |      | -                | -               | -               | -         | -                   | -    | RED |
|                                                                                        |             |         | SUBTOTAL CONTINUOUS                        | 1430 | 1455             |                 |                 |           |                     |      |     |
|                                                                                        |             |         | SUBTOTAL NON-CONT.                         | -    | -                |                 |                 |           |                     |      |     |
| VOLTAGE: 120/240V                                                                      |             |         | CYCLE: 60Hz                                |      | PHASE: 1         |                 | WIRE: 3         |           |                     |      |     |
| MAIN BREAKER: 60A                                                                      |             |         | TRIP: 60A                                  |      | A.I.C.: 10,000A  |                 |                 |           |                     |      |     |
| MAIN LUGS: N/A                                                                         |             |         | MAIN COPPER BUS: 125A                      |      |                  |                 |                 |           |                     |      |     |
| MAINS: TOP <input type="checkbox"/>                                                    |             |         | BOTTOM <input checked="" type="checkbox"/> |      |                  |                 |                 |           |                     |      |     |
| MANUFACTURER: RAYCAP                                                                   |             |         |                                            |      |                  |                 |                 |           |                     |      |     |
| MODEL: RSAC-7239 (OR SIMILAR)                                                          |             |         |                                            |      |                  |                 |                 |           |                     |      |     |
| NO EQUAL <input type="checkbox"/> APPROVED EQUAL <input checked="" type="checkbox"/>   |             |         |                                            |      |                  |                 |                 |           |                     |      |     |
| MOUNTING: SURFACE: <input checked="" type="checkbox"/> FLUSH: <input type="checkbox"/> |             |         |                                            |      |                  |                 |                 |           |                     |      |     |

120/240V, 1Ø, 3W, 30A  
SERVICE SUPPLIED & INSTALLED BY  
SITE ELECTRICAL CONTRACTOR

- NOTES:
- ELECTRICAL SERVICE IS 60A, 120/240V, 1 PHASE, 3 WIRE
  - SERVICE SHALL BE INSTALLED WITH A BREAKER-TYPE DISCONNECT
  - FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS BY TOWER/EQUIPMENT CABINET MANUFACTURER FOR DETAILS.
  - PROPOSED POWER DEMAND IS 15.16A (MAX).
  - CONTRACTOR TO INSTALL SCH80 PVC FOR ALL CONDUIT SWEEPS, OTHERWISE SCH40 IS ACCEPTABLE EXCEPT WHERE NOTED.
  - THWN/USE WIRING TO BE USED FOR ALL CONDUCTORS SUPPLIED BY CONTRACTOR.

3  
E-1 PANEL CIRCUIT AND LOAD SCHEDULE  
SCALE: N.T.S.



TILSON  
INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
CD25-0025

PLANS PREPARED BY:

Kimley»Horn

6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV: DATE: DESCRIPTION: BY:

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|   |            |                        |    |
| 2 | 06/23/2025 | REVISED: CITY COMMENTS | JC |
| 1 | 03/28/2025 | FINAL                  | SV |
| 0 | 02/26/25   | 100% FINAL CDs         | LF |

DRAWN BY: CHECKED BY:

LF BAB

KHA PROJECT NUMBER:

296015001

TOWN APPROVAL BLOCK

TOWN OF CASTLE ROCK APPROVAL PLANS ARE  
HEREBY APPROVED FOR ONE YEAR FROM DATE  
OF DEVELOPMENT SERVICES APPROVAL

APPROVED BY:

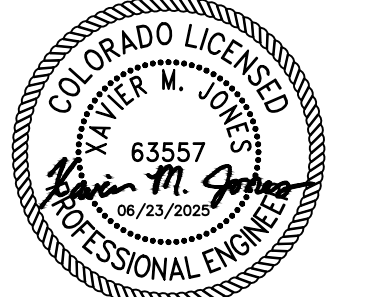
DEVELOPMENT SERVICES

DATE

ENGINEER SEAL:

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS  
WERE PREPARED UNDER MY DIRECT SUPERVISION, IN  
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RESPECTIVELY, AND THAT I AM FULLY RESPONSIBLE FOR ALL  
DESIGN AND REVISIONS RELATIVE TO SAID PLANS



(CIVIL ENGINEER SIGNATURE AND SEAL HERE)

DATE

PROJECT INFORMATION:

NODE NAME: DN2000BA\_31LAB  
(DN1452)

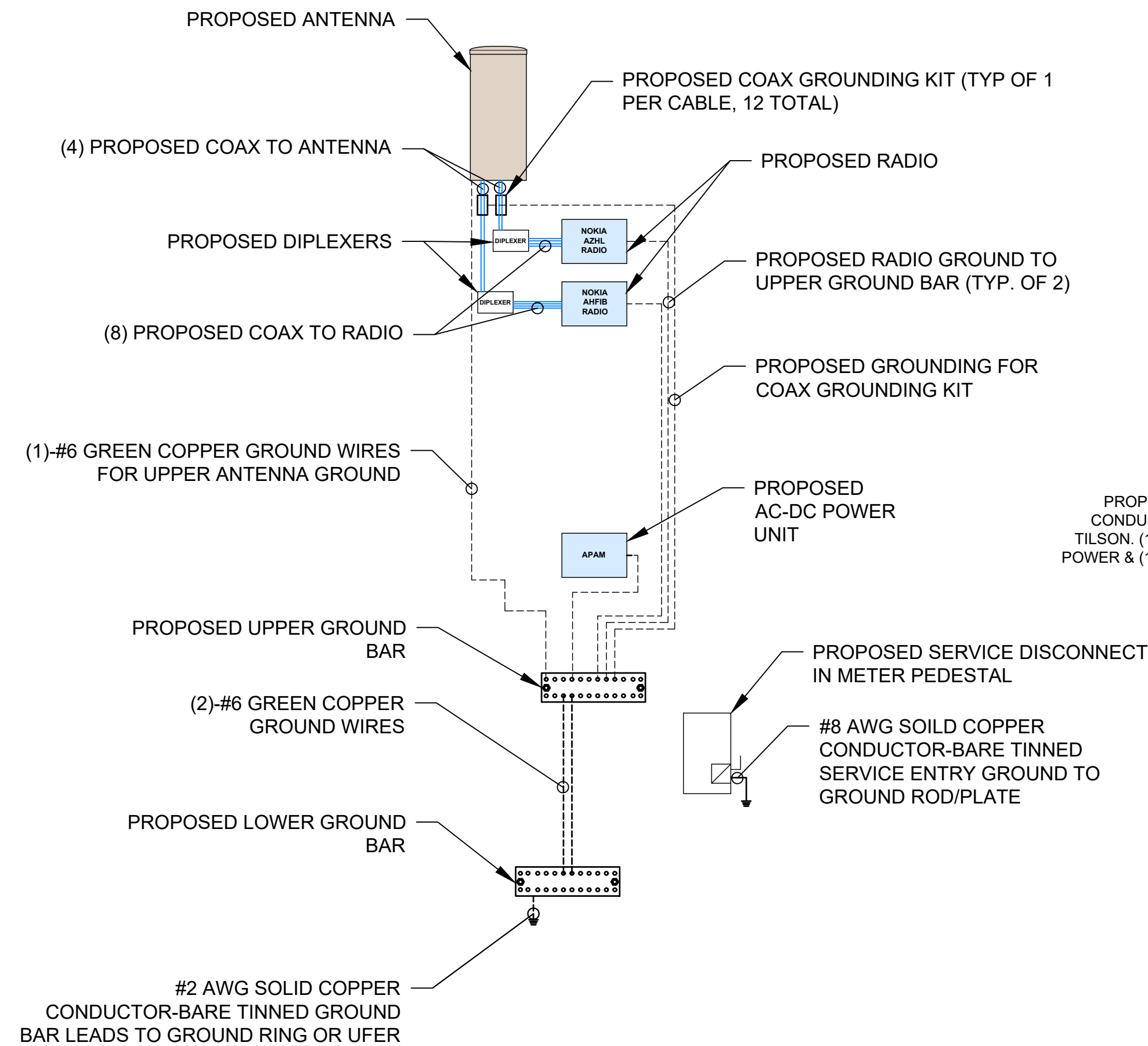
TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

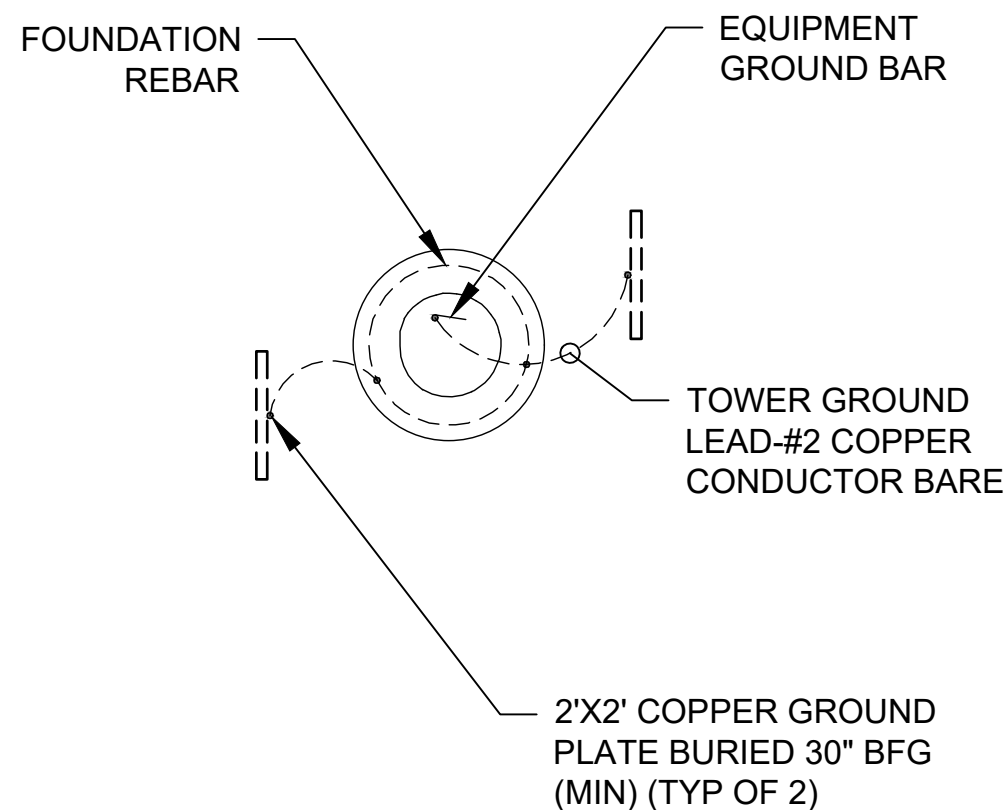
ELECTRICAL  
DETAILS

SHEET NUMBER:

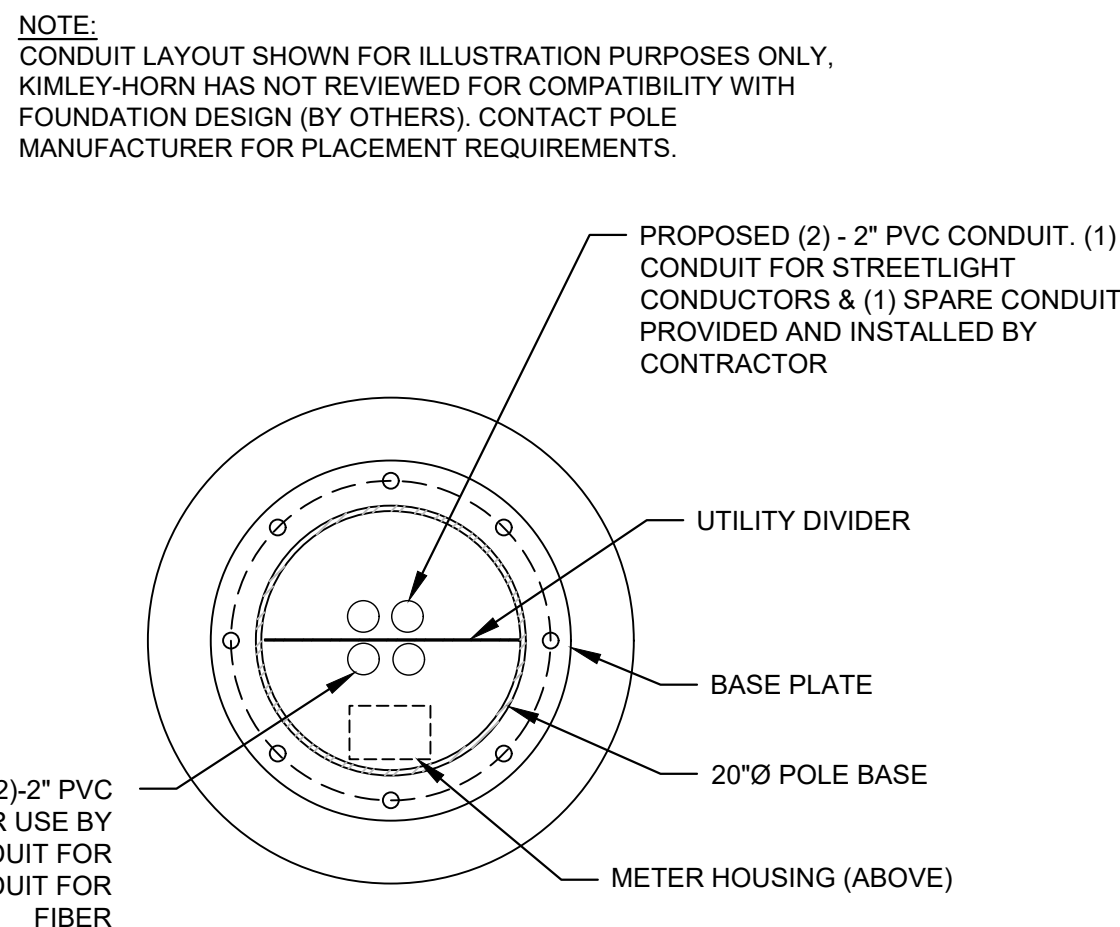
E-1 (12 OF 14)



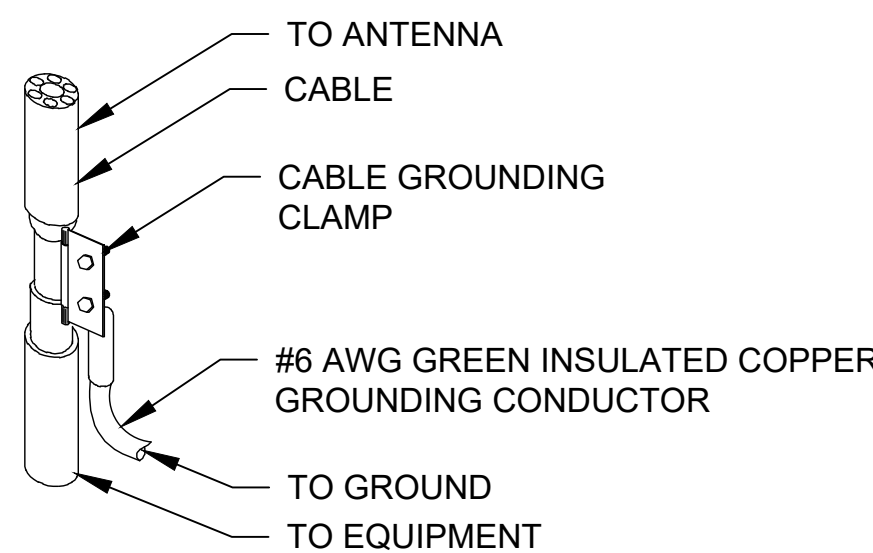
1  
G-1  
**GROUNDING SCHEMATIC**  
SCALE: N.T.S.



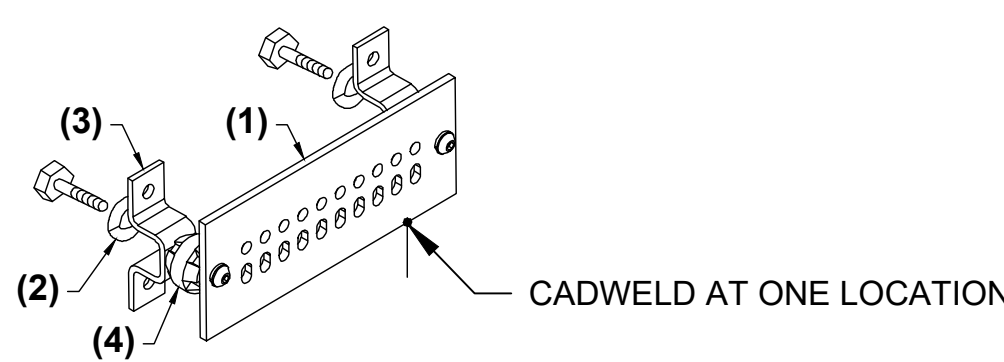
2  
G-1  
**SITE GROUNDING DETAIL**  
SCALE: N.T.S.



3  
G-1  
**CONDUIT PLAN**  
SCALE: N.T.S.



4  
G-1  
**CABLE GROUNDING DETAIL**  
SCALE: N.T.S.

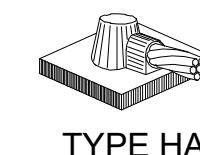
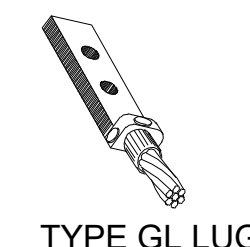
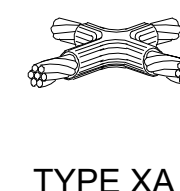
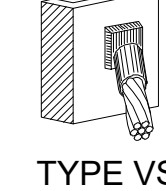
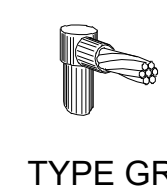
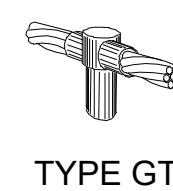
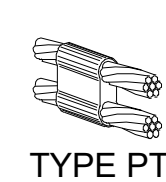
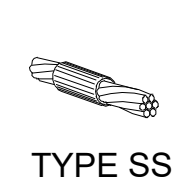
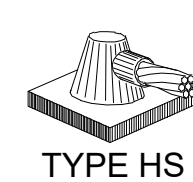
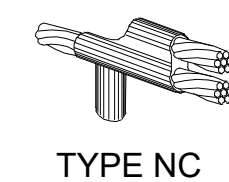


- LEGEND**
- (1) COPPER GROUND BAR, (PRE INSTALLED).
  - (2) 5/8" LOCKWASHERS, STAINLESS STEEL.
  - (3) 5/8" FLAT WASHERS, STAINLESS STEEL.
  - (4) INSULATORS

5  
G-1  
**GROUND BAR DETAIL**  
SCALE: N.T.S.

## GROUNDING NOTES:

- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE.
- ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
- ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
- GROUNDING CONNECTIONS SHALL BE EXOTHERMIC ("CADWELDS") TO GROUND RODS, GROUND RING WIRE, AND FENCE POSTS UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZED PAINT.
- GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET.) CLEAN GROUND BAR TO SHINY METAL AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
- GROUND CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 8" RADIUS.
- PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE, INC.) PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
- PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.



6  
G-1  
**CADWELD DETAIL**  
SCALE: N.T.S.

**TILSON**  
INFRASTRUCTURE

16 MIDDLE ST, 4TH FLOOR  
PORTLAND, ME 04101

PUBLIC WORKS CONSTRUCTION DOCUMENT

TOWN PROJECT NUMBER:  
CD25-0025

PLANS PREPARED BY:

**Kimley»Horn**

6200 S SYRACUSE WAY, #300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

REV: DATE: DESCRIPTION: BY:

| REV | DATE       | DESCRIPTION            | BY |
|-----|------------|------------------------|----|
| 2   | 06/23/2025 | REVISED: CITY COMMENTS | JC |
| 1   | 03/28/2025 | FINAL                  | SV |
| 0   | 02/26/25   | 100% FINAL CDs         | LF |

DRAWN BY: CHECKED BY:

LF BAB

KHA PROJECT NUMBER:

296015001

### TOWN APPROVAL BLOCK

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APPROVED BY:

DEVELOPMENT SERVICES

DATE

ENGINEER SEAL:

### PROFESSIONAL ENGINEER CERTIFICATION

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(CIVIL ENGINEER SIGNATURE AND SEAL HERE)

DATE

PROJECT INFORMATION:

NODE NAME: DN2000BA\_31LAB  
(DN1452)

TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

**GROUNDING  
DETAILS**

SHEET NUMBER:

G-1 (13 OF 14)



1 EXISTING CONDITIONS PHOTO  
P-1 SCALE: N.T.S.



2 PROPOSED PHOTO SIMULATION  
P-1 SCALE: N.T.S.

TILSON  
INFRASTRUCTURE

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APPROVED BY:

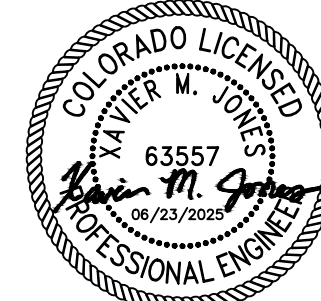
DEVELOPMENT SERVICES

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(DN1452)

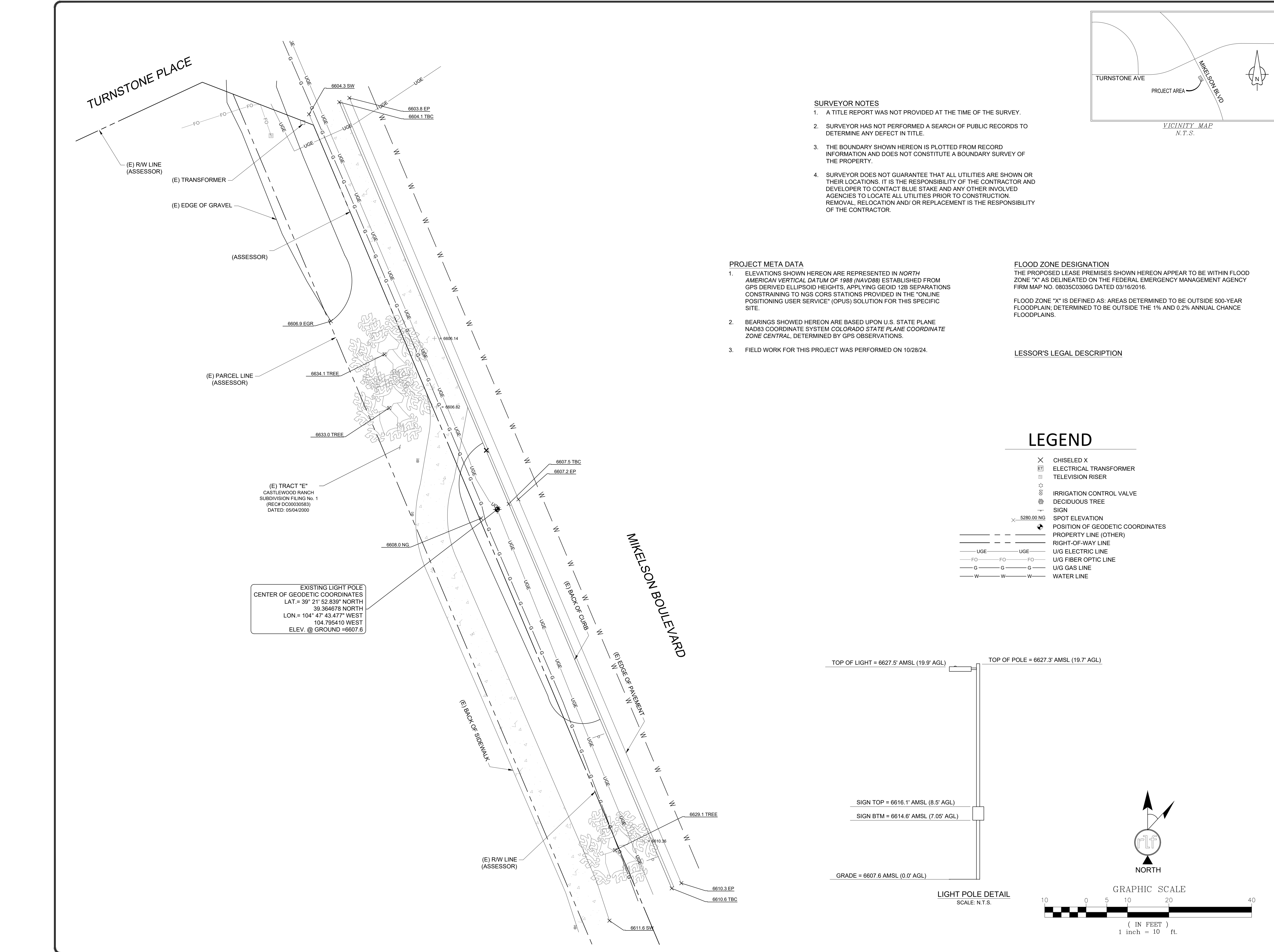
TBD MIKELSON BLVD  
CASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:

PHOTO  
SIMULATION

SHEET NUMBER:

P-1 (14 OD 14)



T-Mobile

KimleyHorn

6200 S SYRACUSE WAY  
SUITE 300  
GREENWOOD VILLAGE, CO 80111  
PHONE (303) 228-2300  
WWW.KIMLEY-HORN.COM

|             |     |
|-------------|-----|
| FIELD BY:   | PAC |
| DRAWN BY:   | RDG |
| CHECKED BY: | RLF |

| REVISIONS |          |             |
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| NO.       | DATE     | DESCRIPTION |



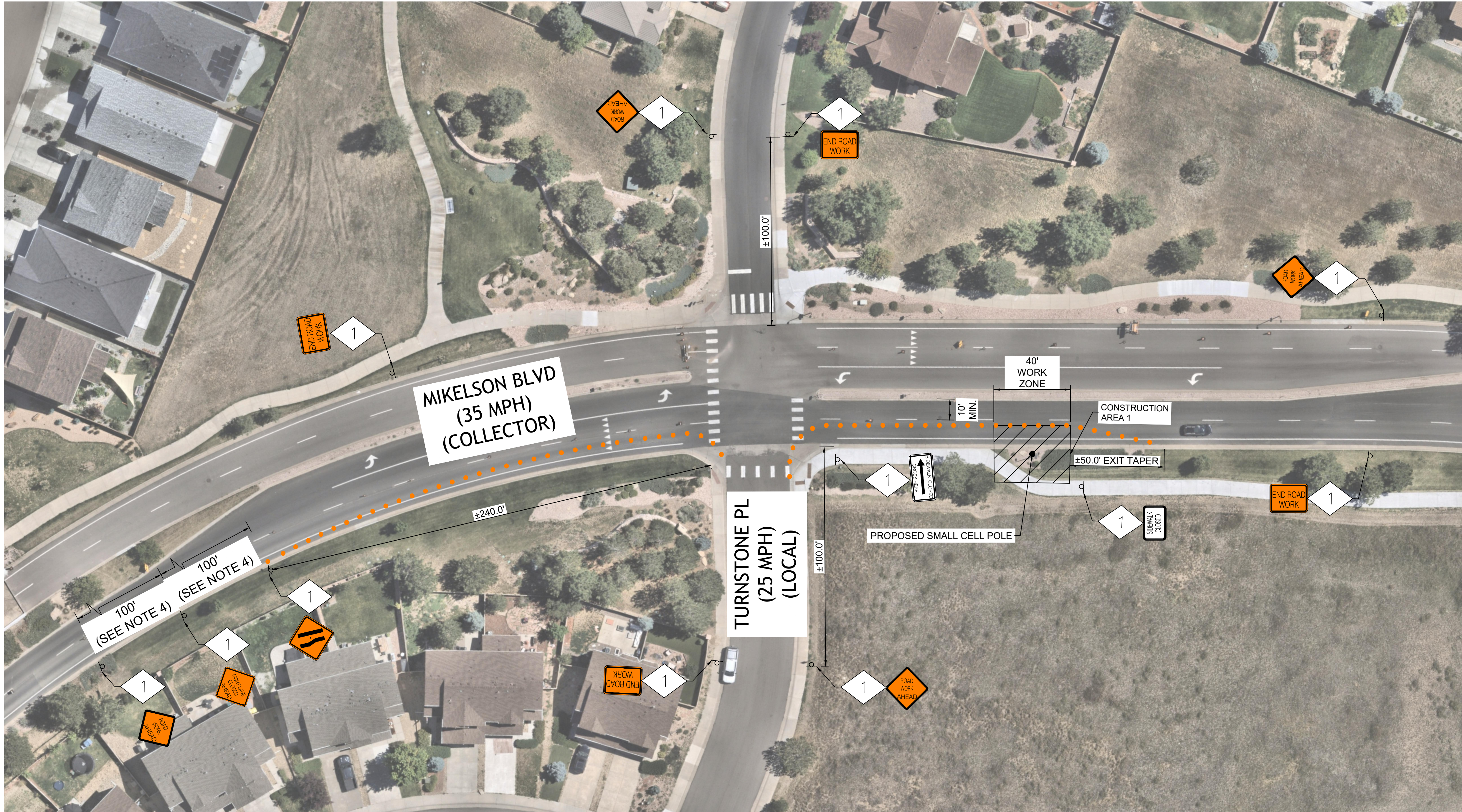
REUSE OF DOCUMENT  
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PROJECT No.  
**2400875**  
SITE NAME:  
DN1452

SITE ADDRESS:  
MIKELSON BLVD & TURNSTONE AVE  
CASTLE ROCK, CO 85104

SHEET TITLE:  
**TOPOGRAPHIC SURVEY**

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



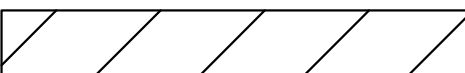
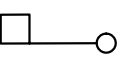
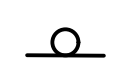
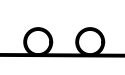
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TCP

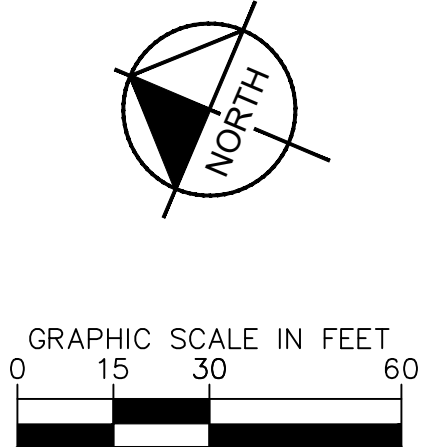
**TRAFFIC CONTROL PLAN**  
SCALE: 1" = 30'  
SCALE BASED ON 24"X36" ONLY

NOTES:

- FOR ADDITIONAL TRAFFIC CONTROL GUIDANCE, REFERENCE MUTCD CHAPTER 6 (TEMPORARY TRAFFIC CONTROL) AND CDOT WORK ZONE SAFTEY GUIDELINES FOR MUNICIPALITIES, UTILITIES AND CONTRACTORS.
- CONTRACTOR MUST COORDINATE THE APPROVAL OF THEIR TRAFFIC CONTROL PLAN WITH THE TOWN OF CASTLE ROCK PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL ADD ADEQUATE SIDEWALK DETOUR SIGNAGE AT UPSTREAM PEDESTRIAN CROSSINGS (FROM WHERE SIDEWALKS ARE CLOSED) INDICATING SIDEWALK IS CLOSED AHEAD. CONTRACTOR SHALL CONFIRM ANY SUGGESTED DETOUR PATH IS ADA COMPLIANT.
- APPROACH SIGNAGE SPACING NOT SHOWN TO SCALE. CONTRACTOR SHALL MEASURE SPECIFIED DISTANCE AND PLACE SIGN ACCORDINGLY. SIGNS SHALL BE PLACED CONSPICUOUSLY, AND IN ADVANCE OF DRIVEWAYS (IF MEASUREMENT FALLS WITHIN ONE).
- ROW PERMIT IS REQUIRED. TRAFFIC CONTROL PLANS MUST BE REVIEWED AND APPROVED SEPARATELY AS PART OF THE ROW PERMIT PROCESS.

MAINTENANCE OF TRAFFIC (MoT) LEGEND:

- |                                                                                                                                                          |                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|  WORK AREA                                                            |  LOCATION OF TRAFFIC FLAGGER |
|  TEMPORARY SIGN PANEL AND POST TO BE PLACED 7 FEET ABOVE ROAD SURFACE |  TEMPORARY SIGN PANEL        |
|  EXISTING SIGN PANEL AND POST                                         |  TYPE III BARRICADE          |
|                                                                                                                                                          |  CHANNELIZING DEVICE         |



**TILSON**  
INFRASTRUCTURE  
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|---------------------|-------------|
| DRAWN BY:           | CHECKED BY: |
| LF                  | WSG         |
| KHA PROJECT NUMBER: |             |
| 296015001           |             |

ENGINEER SEAL:

PROJECT INFORMATION:  
**NODE NAME: DN2000BA\_31LAB (DN1452)**

MIKELSON BLVD & TURNSTONE  
PLCASTLE ROCK, CO 80104  
DOUGLAS COUNTY

SHEET TITLE:  
**TRAFFIC CONTROL PLAN**

SHEET NUMBER:  
**TCP**