# REBID- 10 PREMIUM SITES AND 6 PREMIUM CABINS & SITE REPAIRS AND RENOVATIONS
# WAKONDA STATE PARK
# LAGRANGE, MO

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OWNER: STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

DEPARTMENT OF NATURAL RESOURCES,
DIVISION OF STATE PARKS

PROJECT MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DESIGNER: Klingner & Associates, PC

PROJECT NUMBERS: X2410-01

SITE NUMBER: 5116

ASSET NUMBERS: 7815116007
7815116008
7815116063

**COVER SHEET**

**G001**

1 OF 105 SHEETS
OCTOBER 31, 2025

1 PROJECT LOCATION
N.T.S.

## GENERAL NOTE

1. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
2. ANY DISCREPANCIES BETWEEN SPECIFICATIONS, DRAWINGS, AND/OR SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. ALL AREAS DESIGNATED TO REMAIN UNDISTURBED SHALL BE PROTECTED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE LOCATION OF ALL PROPOSED IMPROVEMENTS, INCLUDING ROUGH AND FINISHED ELEVATIONS AND ALL OTHER PROPOSED IMPROVEMENTS INDICATED ON THE DRAWINGS.
5. THE CONTRACTOR SHALL VERIFY THAT ALL APPLICABLE LOCAL, STATE, & FEDERAL CODES ARE FOLLOWED. ALL APPLICABLE LOCAL AND STATE NOTIFICATIONS AND PERMITS SHALL BE ACQUIRED PRIOR TO CONSTRUCTION, INCLUDING ALL NECESSARY UTILITY CONNECTION PERMITS FROM THE RESPECTIVE UTILITIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND SERVICES REQUIRED DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL REFERENCE POINTS, BENCHMARKS, MONUMENTS, STAKES, AND PROPERTY CORNERS DURING CONSTRUCTION. REPLACEMENT OF LOST REFERENCE POINTS SHALL BE AT THE CONTRACTORS EXPENSE.
8. REMOVE ALL STRUCTURES, FOUNDATIONS, WALLS, PAVEMENTS, AND ALL OTHER ITEMS IN CONFLICT WITH PROPOSED IMPROVEMENTS IN ACCORDANCE WITH THE SPECIFICATIONS.
9. REFERENCES TO "STANDARD SPECIFICATIONS" SHALL MEAN THE MISSOURI DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", LATEST ADDITION.
10. THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. NO WORK SHALL BE PERFORMED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT OWNER APPROVAL.
12. SITE CLEAN-UP SHALL BE PERFORMED ON A DAILY BASIS. SIDEWALKS, PARKING LOTS, ROADWAYS, AND THE PROJECT SITE SHALL BE KEPT CLEAN AT ALL TIMES. CONTROL DUST IN AND AROUND ALL WORK AND STAGING AREAS.
13. ALL OPEN EXCAVATIONS SHALL BE PROTECTED.
14. MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
15. IF A DISCREPANCY IN THE SPOT ELEVATIONS IS NOTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTING. IF THERE IS A DISCREPANCY BETWEEN THE SPOT ELEVATIONS AND CONTOURS, THE CONTOURS SHALL GOVERN.
16. CONTRACTOR SHALL NOTIFY STATE PARK STAFF PRIOR TO ACCESSING SITE.

## UTILITY NOTES

1. CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL STATE OWNED UTILITIES THROUGHOUT THE PROJECT LIMITS.
2. THE LOCATION OF EXISTING UTILITIES IN CONSTRUCTION AREAS SHALL BE FIELD VERIFIED BY THE CONTRACTOR BY CONTACTING THE MISSOURI ONE CALL SYSTEM, INC. OR THE INDIVIDUAL UTILITIES NOT PARTICIPATING IN THIS SYSTEM.
3. EXISTING UTILITIES TO REMAIN SHALL BE PROTECTED. ANY REPAIR OR RELOCATION REQUIRED, AS A RESULT OF DAMAGE BY CONSTRUCTION ACTIVITIES SHALL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PAY UTILITY PERMIT AND/OR INSPECTION FEES.
4. UTILITY TRENCHES WITHIN PAVEMENT AREAS SHALL BE BACKFILLED WITH APPROVED COMPACTED GRANULAR BACKFILL.
5. ALL ELECTRIC SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, CURRENT VERSION.
6. ADJUST ALL VALVES, MANHOLES, CASTINGS, GAS VENTS, ETC., TO MATCH THE NEW SURFACE. ADJUSTMENT SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO THE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. REPAIR ANY DAMAGE TO SAID STRUCTURES AND APPURTENANCES THAT OCCUR DURING CONSTRUCTION.
7. THE DRAWINGS INDICATE THE BEST KNOWLEDGE OF THE OWNER AND ENGINEER/ARCHITECT ON THE GENERAL LOCATION AND NATURE OF THE EXISTING AND OR PROPOSED UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION. EXPLORATORY EXCAVATIONS AT THE SITE TO DETERMINE INSITU LOCATIONS WERE NOT CONDUCTED. QUALITY LEVEL D IN ACCORDANCE WITH CI/ASCE 38-02, STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA, WAS UTILIZED. REGARDLESS OF THE LEVEL OF INVESTIGATION, THE UTILITIES SHOWN SHOULD NOT BE CONSIDERED A WARRANTY OR GUARANTEE OF ACTUAL PRESENCE OR LOCATION AND THE CONTRACTOR REMAINS RESPONSIBLE FOR THE LOCATION, VERIFICATION, AND PROPER NOTIFICATION OF POTENTIAL UTILITIES. CONTRACTOR SHALL LOCATE STATE OWNED UTILITIES.

QUALITY LEVELS:

QUALITY LEVEL A - PROVIDES THE HIGHEST LEVEL OF ACCURACY. BY LOCATING OR POTHOLING UTILITIES IN ADDITION TO QUALITY LEVELS B, C, AND D TASKS. THE LOCATED UTILITY INFRASTRUCTURE IS SURVEYED AND MAPPED TO DEVELOP PLAN AND PROFILE INFORMATION.

QUALITY LEVEL B - INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND RECORDING THE INFORMATION THROUGH A SURVEY METHOD. IN ADDITION TO QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL C - INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. IN ADDITION TO QUALITY LEVEL D TASKS

QUALITY LEVEL D - INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS, THAT MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICE MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASE, CONSTRUCTION PLANS, ETC. DATABASES, CONSTRUCTION PLANS, ETC.

## EROSION CONTROL NOTES

1. EROSION CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, THE DETAILS IN THESE PLANS, AND THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STANDARDS AND REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL.
2. THE EROSION CONTROL SHOWN ON THIS SET OF PLANS SHALL BE CONSIDERED THE MINIMUM ACCEPTABLE FOR THIS PROJECT. THERE MAY BE ADDITIONAL EROSION CONTROL REQUIRED DUE TO THE VARIOUS CONSTRUCTION TECHNIQUES, WHICH MAY BE USED. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING AND MAINTAINING ALL THE RUNOFF FROM THE SITE, IN A MANNER WHICH KEEPS ALL SILT ON SITE.
3. A LAND DISTURBANCE PERMIT IS CURRENTLY IN PLACE FOR THIS SITE (PERMIT #MOR100038). THE CONTRACTOR WILL BE REQUIRED TO FOLLOW THE REQUIREMENTS OF THE PERMIT AND STORM WATER POLLUTION PREVENTION PLAN IN THE CONTRACT DOCUMENTS.
4. ALL INLET PROTECTION AND TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UPON COMPLETION OF PAVING OPERATIONS AND FINAL STABILIZATION OF LANDSCAPED AND SEED AREAS.

THE CONTRACTOR(S) SHALL COMPLY WITH THE LATEST EDITION OF APPLICABLE CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO:
- THE AMERICANS WITH DISABILITIES ACT (ADAAG)
- INTERNATIONAL BUILDING CODE (IBC)
- NATIONAL ELECTRIC CODE (NEC)
- INTERNATIONAL PLUMBING CODE (IPC)
- LIFE SAFETY CODE (NFPA 101)
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
- AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
- AMERICAN CONCRETE INSTITUTE (ACI)
- MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT)
- MISSOURI DEPARTMENT OF NATURAL RESOURCES (MODNR)

811 Know what's below. Call before you dig.

**- NOTE -**

**UTILITY INFORMATION IS FOR THE CONVENIENCE OF THE CONTRACTOR. BEFORE CONSTRUCTION BEGINS, THE CONTRACTOR SHALL CONTACT MISSOURI-ONE-CALL AT 1-800-344-7483 AND INDIVIDUAL UTILITY COMPANIES NOT BELONGING TO THE MISSOURI-ONE-CALL SYSTEM, FOR THE PRESENCE AND LOCATION OF UTILITIES.**

# LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| | | PROPERTY LINE |
| | | LOT LINE |
| | | RIGHT OF WAY LINE |
| | | CENTERLINE |
| | | EASEMENT |
| | | BUILDING SETBACK |
| | | CONSTRUCTION LIMITS |
| X | X | FENCE LINE |
| O | O | CHAIN LINK FENCE |
| ⊡ | ⊡ | FENCE W/ SQUARE POSTS |
| | | STREAM |
| | | STRUCTURE |
| | | PAVEMENT MARKINGS |
| | | EDGE OF PAVEMENT |
| | | CURB AND GUTTER |
| | | RAILROAD TRACKS |
| W | W | WATER LINE |
| FP | FP | FIRE PROTECTION |
| G | G | GAS LINE |
| OE | OE | OVERHEAD ELECTRIC |
| UE | UE | UNDERGROUND ELECTRIC |
| OT | OT | OVERHEAD TELEPHONE |
| UT | UT | UNDERGROUND TELEPHONE |
| CATV | CATV | CABLE TELEVISION |
| FO | FO | FIBER OPTIC |
| COM | COM | COMMUNICATION LINE |
| ) ST ) | ) ST ) | STORM SEWER |
| >SAN> | >SAN> | SANITARY SEWER |
| FM | FM | FORCE MAIN |
| | ST-SAN | COMBINED SEWER |
| IR | IR | IRRIGATION SYSTEM |
| | | MAST ARM SIGNAL (3 SIGNALS) |
| | | MAST ARM SIGNALS (2 SIGNALS) |
| | | UTILITY TRAFFIC SIGN |
| | | SIGN |
| | | MANHOLE |
| | | STORM WATER INLET |
| C/O | C/O | CATCH BASIN |
| | | CLEANOUT |
| | | CULVERT |
| | | BOX CULVERT |
| | | WATER VALVE |
| | | FIRE HYDRANT |
| PIV | PIV | POST INDICATOR VALVE |
| W | W | WATER METER |
| | | GAS VALVE |
| G | G | GAS METER |
| T | T | TELEPHONE PEDESTAL |
| TV | TV | CABLE TV PEDESTAL |
| E | E | ELECTRIC METER |
| | | UTILITY POLE |
| | | LIGHT STANDARD |
| | | LIGHT POLE |
| | | GUY WIRE |
| | | SURVEY MARKER |
| | | SUMMIT / HIGH POINT |
| 601 | 601 | CONTOURS |
| 600 | 600 | INDEX CONTOURS |
| | | DIRECTION OF DRAINAGE |
| +600.00 | 600.00 | SPOT ELEVATION |
| | | DECIDUOUS SHRUB |
| | | DECIDUOUS TREE |
| | | CONIFEROUS SHRUB |
| | | CONIFEROUS TREE |

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI · MARK C. BROSS · NUMBER E-2001004580 · 10/31/25 · REGISTERED PROFESSIONAL ENGINEER

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573.355.5988
KLINGNER & ASSOCIATES, P.C. - ENGINEERING
MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 10-31-2025

CAD DWG FILE: G002
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:

**LEGEND & GENERAL NOTES**

SHEET NUMBER:

# G002

| | TITLE | SHEET # | DATE | CAD # |
|---|---|---|---|---|
| 1 | Cover Sheet | G001 | 10/31/2025 | G001 |
| 2 | Legend & General Notes | G002 | 10/31/2025 | G002 |
| 3 | Sheet Index | G003 | 10/31/2025 | G003 |
| 4 | Storm Water Pollution Prevention Plan | G004 | 10/31/2025 | G004 |
| 5 | Beach Comfort Station Existing Conditions Site Plan | C001 | 10/31/2025 | C001 |
| 6 | Campsites Existing Conditions & Demolition Site Plan | CD101 | 10/31/2025 | CD101 |
| 7 | Cabins Existing Conditions & Demolition Site Plan | CD102 | 10/31/2025 | CD102 |
| 8 | Beach Comfort Station Site Demolition Plan | CD103 | 10/31/2025 | CD103 |
| 9 | Campsites Overall Site Plan | C101 | 10/31/2025 | C101 |
| 10 | Campsites Road Plan & Profile | C102 | 10/31/2025 | C102 |
| 11 | Campsites Road Plan & Profile | C103 | 10/31/2025 | C103 |
| 12 | Campsites Road Plan & Profile | C104 | 10/31/2025 | C104 |
| 13 | Cabins Site Plan | C105 | 10/31/2025 | C105 |
| 14 | Beach Comfort Station Site Plan | C106 | 10/31/2025 | C106 |
| 15 | Campsites Site Grading Plan | C201 | 10/31/2025 | C201 |
| 16 | Cabins Site Grading Plan | C202 | 10/31/2025 | C202 |
| 17 | Beach Comfort Station Grading and Erosion Control | C203 | 10/31/2025 | C203 |
| 18 | Campsites Site Utility Plan | C301 | 10/31/2025 | C301 |
| 19 | Campsites Sanitary Sewer Profile & Site Details | C302 | 10/31/2025 | C302 |
| 20 | Cabins Site Utility Plan | C303 | 10/31/2025 | C303 |
| 21 | Cabins Sewer Plan & Profile Sta. 0+00 To Sta. 5+50 | C304 | 10/31/2025 | C304 |
| 22 | Cabins Sewer Plan & Profile Sta. 5+50 To Sta. 11+18.08 | C305 | 10/31/2025 | C305 |
| 23 | Beach Comfort Station Site Utility Plan | C306 | 10/31/2025 | C306 |
| 24 | Alternate – Sanitary Site Plan | C400 | 10/31/2025 | C400 |
| 25 | Alternate – Lagoon Forcemain – (0+00-5+00) | C401 | 10/31/2025 | C401 |
| 26 | Alternate – Lagoon Forcemain – (5+00-10+00) | C402 | 10/31/2025 | C402 |
| 27 | Alternate – Lagoon Forcemain – (10+00-15+00) | C403 | 10/31/2025 | C403 |
| 28 | Alternate – Lagoon Forcemain – (15+00-20+00) | C404 | 10/31/2025 | C404 |
| 29 | Alternate – Lagoon Forcemain – (20+00-25+00) | C405 | 10/31/2025 | C405 |
| 30 | Alternate – Lagoon Forcemain – (25+00-30+00) | C406 | 10/31/2025 | C406 |
| 31 | Alternate – Lagoon Forcemain – (30+00-35+00) | C407 | 10/31/2025 | C407 |
| 32 | Alternate – Lagoon Forcemain – (35+00-40+00) | C408 | 10/31/2025 | C408 |
| 33 | Alternate – Lagoon Forcemain – (40+00-44+00) | C409 | 10/31/2025 | C409 |
| 34 | Alternate – Beach House Forcemain – (0+00-3+75) | C410 | 10/31/2025 | C410 |
| 35 | Alternate – Combined LS To Tie-In - (0+00-5+00) | C411 | 10/31/2025 | C411 |
| 36 | Alternate – Combined LS To Tie-In - (5+00-9+06) | C412 | 10/31/2025 | C412 |
| 37 | Alternate – Ranger Gravity Sewer - (0+00-2+07) | C413 | 10/31/2025 | C413 |
| 38 | Alternate – North Campsite Forcemain - (0+00-5+00) | C414 | 10/31/2025 | C414 |
| 39 | Alternate – North Campsite Forcemain - (5+00-10+00) | C415 | 10/31/2025 | C415 |
| 40 | Alternate – North Campsite Forcemain - (10+00-15+00) | C416 | 10/31/2025 | C416 |
| 41 | Alternate – North Campsite Forcemain - (0+00-5+00) | C417 | 10/31/2025 | C417 |
| 42 | Alternate – North Campsite Forcemain - (15+00-18+65) | C418 | 10/31/2025 | C418 |
| 43 | Campsites & Cabins Site Details | C501 | 10/31/2025 | C501 |
| 44 | Campsites & Cabins Site Details | C502 | 10/31/2025 | C502 |
| 45 | Campsites & Cabins Site Details | C503 | 10/31/2025 | C503 |
| 46 | Campsites & Cabins Site Details | C504 | 10/31/2025 | C504 |
| 47 | Beach Comfort Station Site Details | C505 | 10/31/2025 | C505 |
| 48 | Beach Comfort Station Site Details | C506 | 10/31/2025 | C506 |
| 49 | Beach Comfort Station Site Details | C507 | 10/31/2025 | C507 |
| 50 | Beach Comfort Station Site Details | C508 | 10/31/2025 | C508 |
| 51 | Beach Comfort Station Site Details | C509 | 10/31/2025 | C509 |
| 52 | Alternate – Lagoon Decommissioning | C603 | 10/31/2025 | C603 |
| 53 | Alternate – North Campsite Lift Station Grading | C604 | 10/31/2025 | C604 |
| 54 | Alternate – Forcemain Details | C605 | 10/31/2025 | C605 |
| 55 | Alternate – Miscellaneous Details | C606 | 10/31/2025 | C606 |
| 56 | Alternate – Lift Station Details | C607 | 10/31/2025 | C607 |
| 57 | Alternate – Wet Well Plans | C608 | 10/31/2025 | C608 |
| 58 | Architectural Notes | A001 | 10/31/2025 | A001 |
| 59 | Partition Types | A010 | 10/31/2025 | A010 |
| 60 | First Floor Annotation Plan – Cabin "A" | A110 | 10/31/2025 | A110 |
| 61 | First Floor Dimension Plan – Cabin "A" | A111 | 10/31/2025 | A111 |
| 62 | Reflected Ceiling Plans – Cabin "A" | A112 | 10/31/2025 | A112 |
| 63 | Roof Plan – Cabin "A" | A113 | 10/31/2025 | A113 |
| 64 | First Floor Annotation Plan – Cabin "B" | A114 | 10/31/2025 | A114 |
| 65 | First Floor Dimension Plan – Cabin "B" | A115 | 10/31/2025 | A115 |
| 66 | Reflected Ceiling Plans – Cabin "B" | A116 | 10/31/2025 | A116 |
| 67 | Roof Plan – Cabin "B" | A117 | 10/31/2025 | A117 |
| 68 | Building Elevations – Cabin "A" | A201 | 10/31/2025 | A201 |
| 69 | Building Elevations – Cabin "B" | A202 | 10/31/2025 | A202 |
| 70 | Building Sections – Cabin "A" | A301 | 10/31/2025 | A301 |
| 71 | Building Sections – Cabin "A" | A302 | 10/31/2025 | A302 |
| 72 | Building Sections – Cabin "B" | A303 | 10/31/2025 | A303 |
| 73 | Building Sections – Cabin "B" | A304 | 10/31/2025 | A304 |
| 74 | Wall Sections – Cabin "A" | A310 | 10/31/2025 | A310 |
| 75 | Wall Sections – Cabin "A" | A311 | 10/31/2025 | A311 |
| 76 | Enlarged Plans and Elevations | A401 | 10/31/2025 | A401 |
| 77 | Enlarged Plans and Elevations | A402 | 10/31/2025 | A402 |
| 78 | Enlarged Plans and Elevations | A403 | 10/31/2025 | A403 |
| 79 | Details -Plan View | A501 | 10/31/2025 | A501 |
| 80 | Details – Wall Section | A510 | 10/31/2025 | A510 |
| 81 | Door & Window Schedule & Details | A601 | 10/31/2025 | A601 |
| 82 | First Floor Finish Plan & Schedules | A710 | 10/31/2025 | A710 |
| 83 | Structural Notes | S001 | 10/31/2025 | S001 |
| 84 | Foundation Plan – Cabin "A" | S101 | 10/31/2025 | S101 |
| 85 | Foundation Plan – Cabin "B" | S102 | 10/31/2025 | S102 |
| 86 | Roof and Ceiling Framing Plan – Cabin "A" | S210 | 10/31/2025 | S210 |
| 87 | Roof and Ceiling Framing Plan – Cabin "B" | S211 | 10/31/2025 | S211 |
| 88 | Ships Ladder Details | S401 | 10/31/2025 | S401 |
| 89 | Foundation Details | S501 | 10/31/2025 | S501 |
| 90 | Structural Details | S510 | 10/31/2025 | S510 |
| 91 | Structural Details | S511 | 10/31/2025 | S511 |
| 92 | Structural Details | S512 | 10/31/2025 | S512 |
| 93 | MEP General Notes & Symbols | MEP001 | 10/31/2025 | MEP001 |
| 94 | Plumbing Plan | P101 | 10/31/2025 | P101 |
| 95 | Plumbing Details and Schedules | P501 | 10/31/2025 | P501 |
| 96 | Mechanical Plan | M101 | 10/31/2025 | M101 |
| 97 | Mechanical Details & Schedules | M501 | 10/31/2025 | M501 |
| 98 | Airflow Schematics | M701 | 10/31/2025 | M701 |
| 99 | Electrical Plan – Cabin A | E101 | 10/31/2025 | E101 |
| 100 | Electrical Plan – Cabin B | E102 | 10/31/2025 | E102 |
| 101 | Electrical Schedules & Details | E501 | 10/31/2025 | E501 |
| 102 | Alternate – Electrical Details | E502 | 10/31/2025 | E502 |
| 103 | Alternate – Typical Lift Station Control Panel | E601 | 10/31/2025 | E601 |
| 104 | Alternate – Combined Lift Station Control Panel | E602 | 10/31/2025 | E602 |
| 105 | Alternate – Simplex Lift Station Control Panel | E603 | 10/31/2025 | E603 |

**STATE OF MISSOURI**
**MIKE KEHOE,**
**GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
BRIAN C. BROSS
NUMBER E-2001004850
10/31/2025
REGISTERED PROFESSIONAL ENGINEER


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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866


**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: G003
DRAWING BY: BAM
CHECKED BY: ----
DESIGNED BY: BAM

SHEET TITLE:

## SHEET INDEX

SHEET NUMBER:

# G003

## STORM WATER POLLUTION PREVENTION PLAN

CERTIFICATION STATEMENTS

This plan and certifications are a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. MO-RA00000 as issued by the Missouri Department of Natural Resources for storm water discharges from Construction Site Activities.

PROJECT INFORMATION:
Site: 32836 State Park Road
City: LaGrange, MO

Location: Wakonda State Park
County: Lewis
Lat: 40°00'06.05" N Long: 91°31'22.75" W

PERMITTEE (OWNER) CERTIFICATION:CONTRACTOR CERTIFICATION STATEMENT certify under penalty of law that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

OWNER (PERMITTEE):_____
SIGNATURE:_____
PRINT NAME:_____
STREET ADDRESS:_____
City _____ State _____ Zip _____
TELEPHONE NUMBER:_____
FAX NUMBER:_____
DATE: _____

CONTRACTOR:_____
SIGNATURE:_____
PRINT NAME:_____
STREET ADDRESS:_____
City _____ State _____ Zip _____
TELEPHONE NUMBER:_____
FAX NUMBER:_____
DATE:_____

## STORM WATER POLLUTION PLAN

The following plan is established and incorporated in the project to aid the contractor in the placement of temporary erosion control systems and to provide a storm sewer water pollution prevention plan for compliance under NPDES.

The purpose of this plan is to minimize erosion within the construction site and to limit sediments from leaving the construction site by utilizing proper temporary erosion control systems and providing ground cover within a reasonable amount of time.

Certain erosion control facilities shall be installed by the contractor at the beginning of construction. Other items shall be installed by the contractor as deemed necessary, on a case-by-case situation, depending on the contractor's sequence of activities, time of year and expected weather conditions.

The contractor shall install permanent erosion control systems and seeding within a time frame specified herein. Therefore minimizing the amount of area susceptible to erosion and reducing the amount of temporary seeding. Contractor shall further determine if any temporary erosion control systems shown in the plan can be deleted and if any additional temporary erosion control systems which are not included in this plan shall be added.

SITE DESCRIPTION.

1. The project consists of site work for the development of additional campsites, adding cabins, upgrades to a beach comfort station and connection of sanitary facilities to the City of LaGrange. Construction includes tree removal, earth excavation, embankment, various pavement items, underground utilities and other miscellaneous items of construction.

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES, WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE.

1. Placement, maintenance, removal and proper clean-up of temporary erosion control, such as perimeter erosion control barriers; temporary ditch checks; siltation basins, temporary seeding, etc.
2. Tree removal as shown on the plans. Trees to remain will be protected against damage.
3. Topsoil removal and stockpiling.
4. Excavation and embankment at the job site to achieve the proposed site contours.
5. Storm sewers, manholes, inlets, and other utility installations.
6. Placement, maintenance, removal and proper clean-up of temporary erosion control, such as perimeter erosion control barrier, temporary ditch checks, inlet and pipe protection, temporary seeding, etc.
7. Pavement and sidewalk work.
8. Final grading, landscaping and other miscellaneous items.
9. Placement of permanent erosion control, such as riprap ditches, and erosion control blanket, seeding, etc.

AREA OF CONSTRUCTION SITE:

1. The total area of the project site is approximately 50 acres of which 12.5 acres will be disturbed by excavation, grading, and other activities.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. Project plan documents, specifications, hydraulic reports, and plan drawings indicate drainage patterns and approximate slopes anticipated after grading activities were utilized for the proposed placement of the temporary erosion control systems.

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

1. The names of receiving water(s) are the Wyaconda State Park Lakes and Mississippi Rivers..

2. Location of any sensitive areas (i.e. wetlands, habitats)

STORM WATER CONTROLS-EROSION CONTROLS AND SEDIMENT CONTROL:

1. DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION
The drawings and specifications should ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices include temporary seeding, permanent seeding, mulching, protection of trees, preservation of mature vegetation, and other appropriate measures. Stabilization measures shall be initiated immediately in portions of the site where construction activities have temporarily or permanently ceased,and completed in no more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased. Allowances to the seven (7) day completion period for temporary and permanent stabilization may be made due to weather and equipment malfunctions. The allowances shall be documented in the SWPPP.
   a. Areas of existing vegetation; wood and grasslands; outside the proposed construction limits shall be identified for preserving and shall be protected from construction activities.
   b. Dead, diseased, or unsuitable vegetation within the site shall be removed, along with required tree removal.
   c. As soon as reasonable access is available to all locations where water drains away from the project, temporary ditch checks, inlet and pipe protection, and perimeter erosion barrier shall be installed as called out in this plan.
   d. Bare and sparsely vegetated ground in high erodable areas shall be temporarily seeded at the beginning of construction where not construction activities are expected within seven days.
   e. Immediately after tree removal or stripping is completed, areas which are highly erodable shall be temporarily seeded when no construction activities are expected within seven days.
   f. At locations where a significant amount of water drains into the construction zone from outside areas (adjacent landowners), temporary ditch checks or silt fencing will be utilized to locally divert water, reduce flow rates, and collect outside siltation inside the site.

Establishment of these temporary erosion control measures will have additional benefits to the project. Desirable grass seed will become established in these areas and will spread seeds onto the construction site until permanent seeding/mowing and overseeding can be completed.

2. DESCRIPTION OF STABILIZATION (BEST MANAGEMENT) PRACTICES DURING CONSTRUCTION

During construction, areas outside the construction limits as outlined previously herein shall be protected. The contractor shall not use this area for staging (except as described on the plans) and parking of vehicles or construction equipment, storage of materials, or other construction related activities.

   a. Within the construction limits, areas which may be susceptible to erosion, shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion.
   b. Earth stockpiles shall be temporarily seeded immediately if they are to remain unused for more than fourteen (14) days.
   c. As construction proceeds, the contractor shall institute the following:
      i. Place temporary erosion control facilities at locations shown on the plans.
      ii. Temporarily seed erodable bare earth on a weekly basis to minimize the amount of erodable surface area within the contract limits.
      iii. Construct ditches and provide temporary erosion control systems including ditch lining and ditch stops.
      iv. Temporarily divert water around culvert locations.
      v. Build necessary embankments at culvert locations and then excavate and place culvert.
      vi. Continue building up the embankment to the proposed grade while at the same time,placing permanent erosion control such as riprap ditch lining and conducting final shaping to the slopes.
   d. Excavated areas and embankment shall be permanently seeded immediately after final grading. If not, they shall be temporarily seeded immediately if no construction activity in the area is planned for 7 days.
   e. Construction equipment and materials shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or other pollutant in accordance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.
   f. The contractor shall inspect the project daily during construction activities. Inspection shall also be done weekly and after heavy rains.
   g. Sediment collected during construction of the various temporary erosion control systems shall be disposed of on the site on a regular basis.
   h. The temporary erosion control systems shall be removed after use is no longer or no longer functioning.
   i. A sedimentation basin shall be included for each drainage area with ten (10) or more acres disturbed at one time. The sediment basin shall be sized to treat a local 2-year, 24-hour storm. Accumulated sediment shall be removed from the basin when basin is 50% full. Utilize outlet structures that withdraw water from the surface when discharging from basins and impoundments unless infeasible. Discharges from the basin shall not cause scouring of the banks or bottom of the receiving stream. The basin shall be maintained until final stabilization of the disturbed area served by the basin.

3. DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING

   a. Temporary erosion control systems shall be left in place with proper maintenance until permanent erosion control is in place and working properly and all proposed turf areas seeded and established.
   b. Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up, and disturbed turf reseeded.

MAINTENANCE AFTER CONSTRUCTION

1. Construction is complete after acceptance by the Owner. Maintenance up to this date will be by the Contractor.

MISCELLANEOUS

1. Temporary ditch checks shall be located at every 1.5 ft. fall/rise in ditch grade.
2. Temporary erosion control seeding shall be applied at a rate of 100 lbs/acres.
3. Straw bales, hay bales, perimeter erosion barrier and silt fences will not be permitted for permanent ditch checks. Ditch checks shall be composed of aggregate, silt panels, rolled excelsior, geotextile web grids and/or other equal materials.
4. Sediment collected during construction by the various temporary erosion control systems shall be disposed on the site on a regular basis.

INSPECTIONS.

ON SITE INSPECTOR NAME:_____
COMPANY NAME:_____
STREET ADDRESS:_____
City _____ State _____ Zip _____
TELEPHONE NUMBER:_____
FAX NUMBER:_____

The Permittee (or a representative of the permittee) shall conduct regularly scheduled inspections at least once every seven (7) calendar days. these inspections shall be conducted by a qualified personnel, one who is responsible for environmental matters at the site, or a person directly supervised by the person responsible for environmental matters. For disturbed areas that have not been finally stabilized, all installed BMP's and other polution control measures shall be inspected for proper installation, operation and maintenance. All stormwater outfalls shall be inspected 50 feet downstream of the outfall. Any structural or maintenance problems shall be noted in an inspection report and corrected within seven calendar days of the inspection. All BMP's must be inspected in accordance with one of the two schedules listed below, and any changes to the frequency of inspections, including switching between the options listed below, must be documented in the SWPPP:

   a. At least once every seven calendar days and within 24 hours after any storm event equal to or greater than the 2-year, 24-hour storm has ceased during a normal work day and within 72 hours if the rain event ceases during a non-work day such as a weekend or holiday.
   b. Once every 14 calendar days and within 48 hours of the occurrence of a storm event of 0.25 inches of precipitation or greater, or the occurrence of runoff from snow melt. To determine if a storm event of 0.25 inches or greater has occurred on your site, you must either keep a properly maintained rain gauge on site, or obtain the storm event information from a weather station for your location.
   c. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.
   d. Based on the results of the inspection, the description of potential pollutant sources identified herein and pollution prevention measures identified herein shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within 7 calendar days following the inspection.
   e. A report summarizing the scope of the inspection, names(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken shall be made and retained as part of the plan for at least three (3) years after the date of the Letter of Termination. The report shall be signed in accordance with Requirements and Guidelines of the general permit.
   f. If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such conditions:
      (i) a description of discharge and cause of noncompliance, and
      (ii) the period of noncompliance, including exact dates and times or, if not corrected, the anticipated the noncompliance is expected to continue m and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.
   g. Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or environment. Any information shall be provided orally with in 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

The report of noncompliance shall be mailed to the following address:
Missouri Department of Natural Resources
Northeast Regional Office
1709 Prospect Drive
Macon, MO 63552-2602
Main: 660-385-8000
Fax: 660-385-8090

Special Provision
For
National Pollutant Discharge Elimination System

This project will result in a disturbance of one (1) or more acres of total land area and will require compliance with the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit.

A land disturbance permit is currently in place for this site (PERMIT #MOR100038).

The Owner is the PERMITTEE and the Contractors and Subcontractors will be required to certify that they understand and will comply with all requirements of the permit.

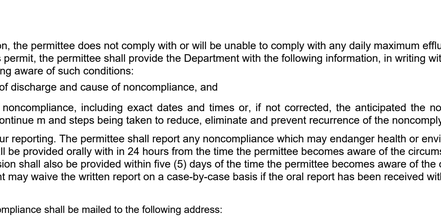
The contractor will be required to follow the requirements of the permit and storm water pollution prevention plan in the contract documents.

A storm water pollution plan shall be cooperatively developed by the PERMITTEE and contractor for this project using good engineering practices. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges. In addition, the plan shall describe and ensure the implementation of practices which will be used to reduce the pollutants in storm water discharges associated with this project and assure compliance with the terms and conditions of the Storm Water Permit.

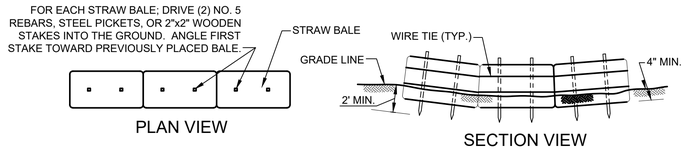
At the completion of the project stabilization the following form shall be completed and submitted to the MoDNR:

FORM H - REQUEST FOR TERMINATION OF A GENERAL PERMIT

The Contractor shall prepare a stormwater management plan which is certified by both the Owner and Contractor. The Contractor shall be responsible for posting a copy of the public notification sign on the site and Request for Termination as well as maintaining the Stormwater Management Plan and maintenance records on-site.




1 FILTER FENCE AND POST INSTALLATION SECTION
N.T.S.




STRAW BALE INSTALLATION

1. STRAW BALES TO BE STACKED IN A SINGLE ROW & EMBEDDED IN THE SOIL TO A DEPTH OF 4 INCHES MINIMUM.

2. ALL BALES ARE TO BE SECURELY BOUND WITH WIRE OR STRING.

3. LENGTH OF SEDIMENT BARRIER AS INDICATED ON THE PLANS.

4. SCATTER LOOSE STRAW OVER THE AREA IMMEDIATELY UPSLOPE FROM SEDIMENT BARRIERS. FILL GAPS BETWEEN BALES WITH LOOSE STRAW.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SEDIMENT BARRIERS IN A CONDITION THAT IS SATISFACTORY TO THE CONTRACTING OFFICER UNTIL FINAL ACCEPTANCE OF WORK.

2 TEMPORARY EROSION CONTROL
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

KLINGNER & ASSOCIATES, P.C. - ENGINEERING
MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
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www.klingner.com
Quincy, IL Galesburg, IL Hannibal, MO
Burlington, IA Pella, IA Davenport, IA

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
10 PREMIUM SITES AND 6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

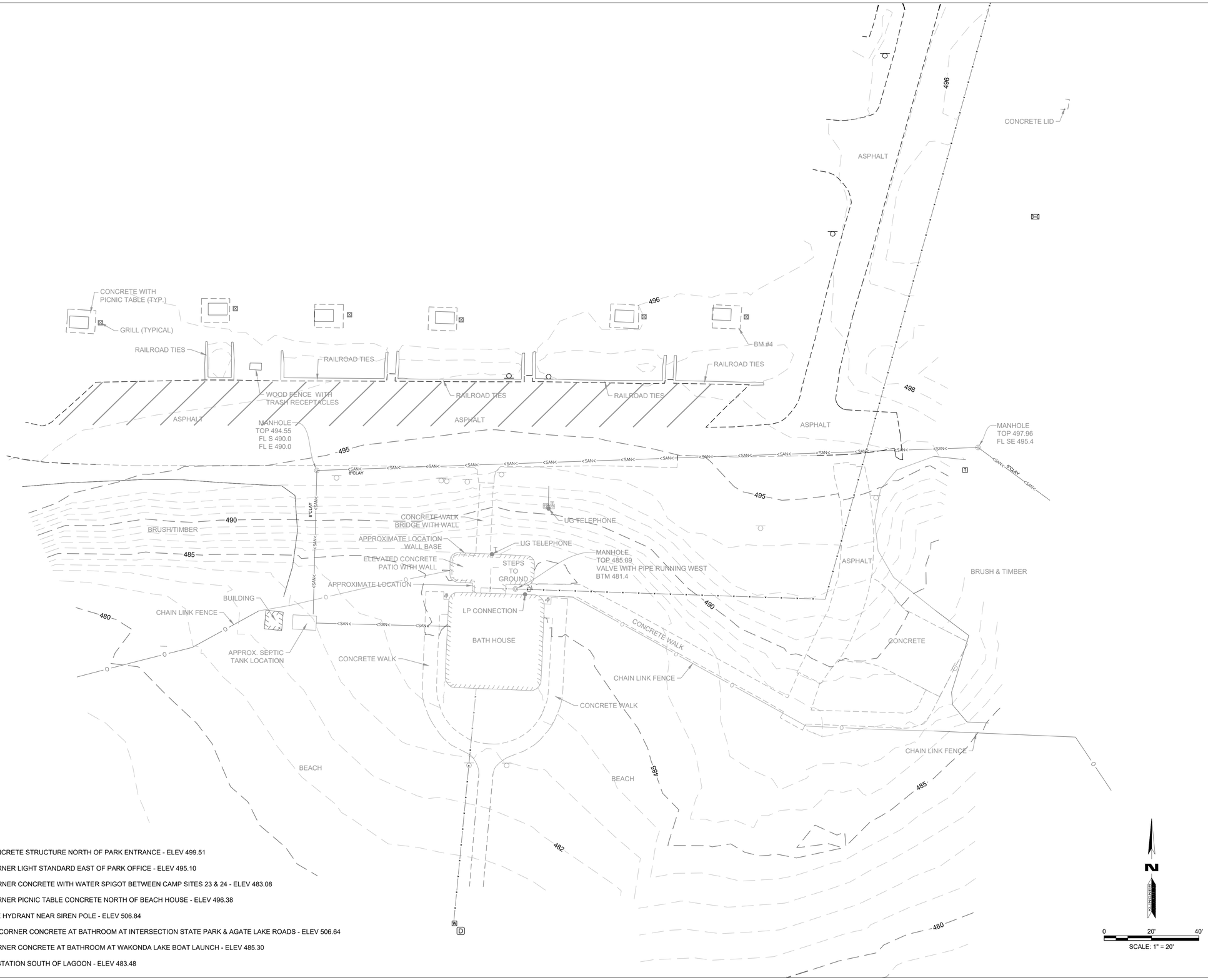
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: G004
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
STORM WATER POLLUTION PREVENTION PLAN

SHEET NUMBER:
G004




BENCHMARKS:

1. CHISELED "□" SOUTH SIDE CONCRETE STRUCTURE NORTH OF PARK ENTRANCE - ELEV 499.51
2. CHISELED "□" SOUTHEAST CORNER LIGHT STANDARD EAST OF PARK OFFICE - ELEV 495.10
3. CHISELED "□" NORTHEAST CORNER CONCRETE WITH WATER SPIGOT BETWEEN CAMP SITES 23 & 24 - ELEV 483.08
4. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38
5. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84
6. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64
7. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30
8. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

**STATE OF MISSOURI**
**MIKE KEHOE,**
**GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
CURT STEPHEN WAVELING
NUMBER PE-2011009046
10/31/2025
PROFESSIONAL ENGINEER

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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**BEACH COMFORT STATION**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C001
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

SHEET TITLE:
**BEACH COMFORT STATION EXISTING CONDITIONS SITE PLAN**

SHEET NUMBER:
**C001**
SHEET 5 OF 105 10/31/2025

## DEMO LEGEND

REMOVALS

## DEMO NOTES

1. REMOVE ALL EXISTING PAVEMENTS, STRUCTURES, CURBS, LANDSCAPING AND ALL OTHER EXISTING SITE FEATURES IN CONFLICT WITH PROPOSED IMPROVEMENTS UNLESS CALLED OUT FOR PRESERVATION ON THIS SHEET.
2. UTILITY LOCATIONS INDICATED ON THIS SHEET ARE APPROXIMATIONS AND ARE NOT INTENDED TO SERVE IN LIEU OF LOCATES PROVIDED BY THE RESPECTIVE UTILITY COMPANIES.
3. COORDINATE UTILITY REMOVALS AND/OR RELOCATIONS WITH THE RESPECTIVE UTILITY COMPANIES AND THE OWNER.
4. DEMOLITIONS SHALL INCLUDE REMOVAL AND PROPER DISPOSAL OF MATERIALS. CONTRACTOR TO PAY ALL PERMIT AND DISPOSAL FEES.
5. NO BURNING OF DEBRIS IS TO BE PERFORMED ON-SITE
6. TREE DEBRIS AND WASTE MAY BE TURNED INTO MULCH AND USED AS TEMPORARY EROSION CONTROL.
7. IF TREE FELLING IS COMPLETED BETWEEN APRIL 1ST AND OCTOBER 31ST, THE CONTRACTOR WILL BE REQUIRED TO CONTACT MISSOURI STATE PARKS PROJECT MANAGER TO COMPLETE A BAT STUDY OF THE AFFECTED AREAS. ALLOW A MINIMUM OF 10 BUSINESS DAYS FOR STUDY TO BE COMPLETED.

## DEMO KEY NOTES

1. REMOVE BRUSH, TIMBER AND FALLEN TREES. REMOVE STUMPS TO 1' BELOW PROPOSED GRADE.
2. SAWCUT EDGE OF PAVEMENT TO CREATE UNIFORM EDGE
3. REMOVE EXISTING TRANSFORMER
4. REMOVE AND RELOCATE SOUTH OF PROPOSED IMPROVEMENTS

| CONTROL POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 1 | DRONE SPIKE TARGET | 1518341.0510 | 534588.8670 |
| 2 | REBAR | 1518057.9930 | 534826.9370 |
| 3 | DRONE SPIKE TARGET | 1518026.1220 | 534860.7360 |
| 4 | REBAR | 1518566.4130 | 534959.8820 |

0 40' 80'
SCALE: 1" = 40'

BENCHMARKS:
1. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

2. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

CURT STEPHEN WAVERING
NUMBER PE-2011009546
10/31/2025
PROFESSIONAL ENGINEER

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Burlington, IA Pella, IA Davenport, IA

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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

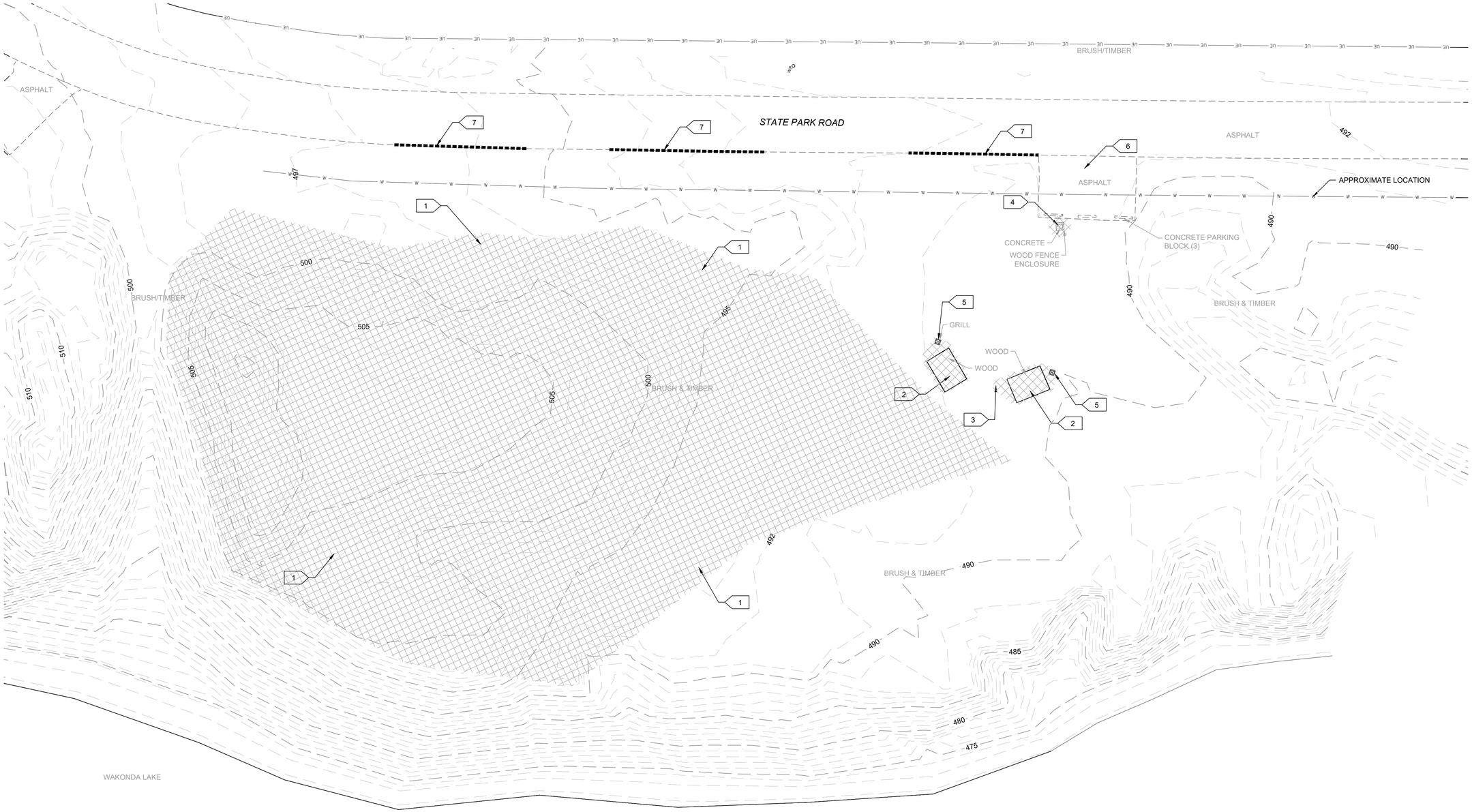
CAD DWG FILE: CD101
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:

# CAMPSITES EXISTING CONDITIONS & DEMOLITION SITE PLAN

SHEET NUMBER:

# CD101




## DEMO LEGEND

REMOVALS

## DEMO NOTES

1. REMOVE ALL EXISTING PAVEMENTS, STRUCTURES, CURBS, LANDSCAPING AND ALL OTHER EXISTING SITE FEATURES IN CONFLICT WITH PROPOSED IMPROVEMENTS UNLESS CALLED OUT FOR PRESERVATION ON THIS SHEET.
2. UTILITY LOCATIONS INDICATED ON THIS SHEET ARE APPROXIMATIONS AND ARE NOT INTENDED TO SERVE IN LIEU OF LOCATES PROVIDED BY THE RESPECTIVE UTILITY COMPANIES.
3. COORDINATE UTILITY REMOVALS AND/OR RELOCATIONS WITH THE RESPECTIVE UTILITY COMPANIES AND THE OWNER.
4. DEMOLITIONS SHALL INCLUDE REMOVAL AND PROPER DISPOSAL OF MATERIALS. CONTRACTOR TO PAY ALL PERMIT AND DISPOSAL FEES.
5. NO BURNING OF DEBRIS IS TO BE PERFORMED ON-SITE
6. TREE DEBRIS AND WASTE MAY BE TURNED INTO MULCH AND USED AS TEMPORARY EROSION CONTROL.
7. IF TREE FELLING IS COMPLETED BETWEEN APRIL 1ST AND OCTOBER 31ST, THE CONTRACTOR WILL BE REQUIRED TO CONTACT MISSOURI STATE PARKS PROJECT MANAGER TO COMPLETE A BAT STUDY OF THE AFFECTED AREAS. ALLOW A MINIMUM OF 10 BUSINESS DAYS FOR STUDY TO BE COMPLETED.

## DEMO KEY NOTES

1. REMOVE BRUSH, TIMBER AND FALLEN TREES. REMOVE STUMPS TO 1' BELOW PROPOSED GRADE.
2. REMOVE WOODEN DECK AND FOUNDATIONS.
3. REMOVE SIGN AND FOUNDATION.
4. REMOVE FENCE AND CONCRETE PAD.
5. REMOVE GRILL AND FOUNDATION, SALVAGE TO PARK.
6. PARKING LOT AND PARKING BLOCKS (3 EA.) TO REMAIN.
7. SAWCUT EDGE OF PAVEMENT TO CREATE UNIFORM EDGE

0 20' 40'

SCALE: 1" = 20'

BENCHMARKS:

1. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38

2. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84

3. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64

4. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
CURT STEPHEN WAVELING
NUMBER PE-2011009566
10/31/2025
PROFESSIONAL ENGINEER

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**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 10-31-2025

CAD DWG FILE: C003
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:

# CABINS EXISTING CONDITIONS & DEMOLITION SITE PLAN

SHEET NUMBER:

# CD102

## DEMOLITION NOTES

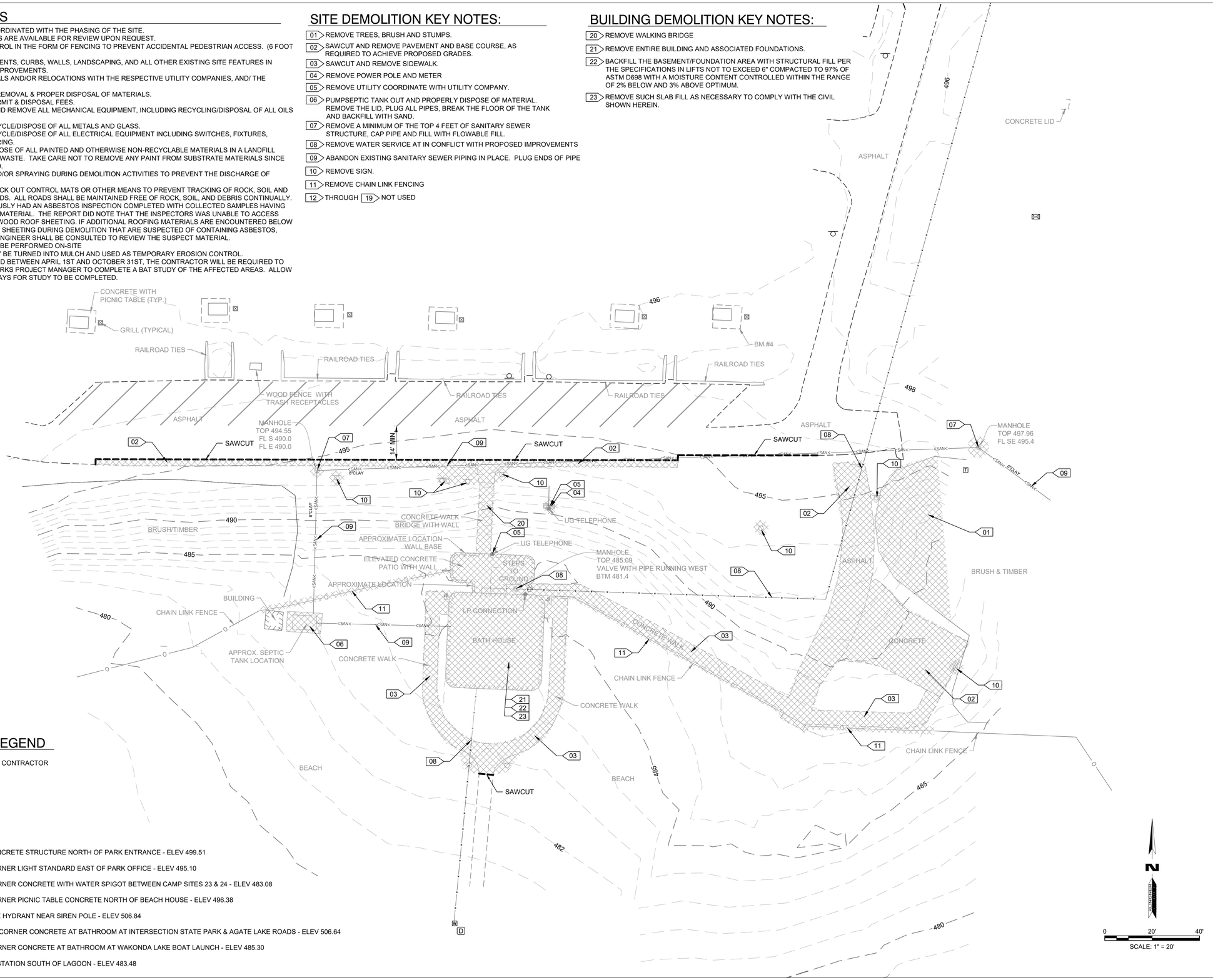
1. ALL REMOVALS SHALL BE COORDINATED WITH THE PHASING OF THE SITE.
2. ORIGINAL BUILDING DRAWINGS ARE AVAILABLE FOR REVIEW UPON REQUEST.
3. ERECT SITE PERIMETER CONTROL IN THE FORM OF FENCING TO PREVENT ACCIDENTAL PEDESTRIAN ACCESS. (6 FOOT HIGH CHAIN LINK FENCE)
4. REMOVE ALL EXISTING PAVEMENTS, CURBS, WALLS, LANDSCAPING, AND ALL OTHER EXISTING SITE FEATURES IN CONFLICT WITH PROPOSED IMPROVEMENTS.
5. COORDINATE UTILITY REMOVALS AND/OR RELOCATIONS WITH THE RESPECTIVE UTILITY COMPANIES, AND/ THE MISSOURI STATE PARKS.
6. DEMOLITION SHALL INCLUDE REMOVAL & PROPER DISPOSAL OF MATERIALS.
7. CONTRACTOR TO PAY ALL PERMIT & DISPOSAL FEES.
8. PROPERLY DECOMMISSION AND REMOVE ALL MECHANICAL EQUIPMENT, INCLUDING RECYCLING/DISPOSAL OF ALL OILS AND REFRIGERANTS.
9. REMOVE AND PROPERLY RECYCLE/DISPOSE OF ALL METALS AND GLASS.
10. REMOVE AND PROPERLY RECYCLE/DISPOSE OF ALL ELECTRICAL EQUIPMENT INCLUDING SWITCHES, FIXTURES, BOXES, LIGHT BULBS, AND WIRING.
11. REMOVE AND PROPERLY DISPOSE OF ALL PAINTED AND OTHERWISE NON-RECYCLABLE MATERIALS IN A LANDFILL PERMITTED TO ACCEPT SUCH WASTE. TAKE CARE NOT TO REMOVE ANY PAINT FROM SUBSTRATE MATERIALS SINCE THE PAINT MAY CONTAIN LEAD.
12. MAINTAIN WATER MISTING AND/OR SPRAYING DURING DEMOLITION ACTIVITIES TO PREVENT THE DISCHARGE OF ACTIVE DUST EMISSIONS.
13. CONTRACTOR SHALL USE TRACK OUT CONTROL MATS OR OTHER MEANS TO PREVENT TRACKING OF ROCK, SOIL AND DEBRIS ON TO ADJACENT ROADS. ALL ROADS SHALL BE MAINTAINED FREE OF ROCK, SOIL, AND DEBRIS CONTINUALLY.
14. THE STRUCTURE HAS PREVIOUSLY HAD AN ASBESTOS INSPECTION COMPLETED WITH COLLECTED SAMPLES HAVING NO DETECTION OF ASBESTOS MATERIAL. THE REPORT DID NOTE THAT THE INSPECTORS WAS UNABLE TO ACCESS BELOW THE 2 LAYERS OF PLYWOOD ROOF SHEETING. IF ADDITIONAL ROOFING MATERIALS ARE ENCOUNTERED BELOW THE TWO (2) LAYERS OF ROOF SHEETING DURING DEMOLITION THAT ARE SUSPECTED OF CONTAINING ASBESTOS, WORK SHALL STOP AND THE ENGINEER SHALL BE CONSULTED TO REVIEW THE SUSPECT MATERIAL.
15. NO BURNING OF DEBRIS IS TO BE PERFORMED ON-SITE
16. TREE DEBRIS AND WASTE MAY BE TURNED INTO MULCH AND USED AS TEMPORARY EROSION CONTROL.
17. IF TREE FELLING IS COMPLETED BETWEEN APRIL 1ST AND OCTOBER 31ST, THE CONTRACTOR WILL BE REQUIRED TO CONTACT MISSOURI STATE PARKS PROJECT MANAGER TO COMPLETE A BAT STUDY OF THE AFFECTED AREAS. ALLOW A MINIMUM OF 10 BUSINESS DAYS FOR STUDY TO BE COMPLETED.

## SITE DEMOLITION KEY NOTES:

01 > REMOVE TREES, BRUSH AND STUMPS.
02 > SAWCUT AND REMOVE PAVEMENT AND BASE COURSE, AS REQUIRED TO ACHIEVE PROPOSED GRADES.
03 > SAWCUT AND REMOVE SIDEWALK.
04 > REMOVE POWER POLE AND METER
05 > REMOVE UTILITY COORDINATE WITH UTILITY COMPANY.
06 > PUMPSEPTIC TANK OUT AND PROPERLY DISPOSE OF MATERIAL. REMOVE THE LID, PLUG ALL PIPES, BREAK THE FLOOR OF THE TANK AND BACKFILL WITH SAND.
07 > REMOVE A MINIMUM OF THE TOP 4 FEET OF SANITARY SEWER STRUCTURE, CAP PIPE AND FILL WITH FLOWABLE FILL.
08 > REMOVE WATER SERVICE AT IN CONFLICT WITH PROPOSED IMPROVEMENTS
09 > ABANDON EXISTING SANITARY SEWER PIPING IN PLACE. PLUG ENDS OF PIPE
10 > REMOVE SIGN.
11 > REMOVE CHAIN LINK FENCING
12 > THROUGH 19 > NOT USED

## BUILDING DEMOLITION KEY NOTES:

20 > REMOVE WALKING BRIDGE
21 > REMOVE ENTIRE BUILDING AND ASSOCIATED FOUNDATIONS.
22 > BACKFILL THE BASEMENT/FOUNDATION AREA WITH STRUCTURAL FILL PER THE SPECIFICATIONS IN LIFTS NOT TO EXCEED 6" COMPACTED TO 97% OF ASTM D698 WITH A MOISTURE CONTENT CONTROLLED WITHIN THE RANGE OF 2% BELOW AND 3% ABOVE OPTIMUM.
23 > REMOVE SUCH SLAB FILL AS NECESSARY TO COMPLY WITH THE CIVIL SHOWN HEREIN.




## DEMOLITION LEGEND

REMOVALS BY CONTRACTOR

SAWCUT

BENCHMARKS:

1. CHISELED "□" SOUTH SIDE CONCRETE STRUCTURE NORTH OF PARK ENTRANCE - ELEV 499.51
2. CHISELED "□" SOUTHEAST CORNER LIGHT STANDARD EAST OF PARK OFFICE - ELEV 495.10
3. CHISELED "□" NORTHEAST CORNER CONCRETE WITH WATER SPIGOT BETWEEN CAMP SITES 23 & 24 - ELEV 483.08
4. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38
5. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84
6. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64
7. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30
8. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

N

0 20' 40'

SCALE: 1" = 20'

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

COURT STEPHEN WAVELING NUMBER PE-2011009046 PROFESSIONAL ENGINEER 10/31/2025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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866


OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
BEACH COMFORT STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: CD103
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

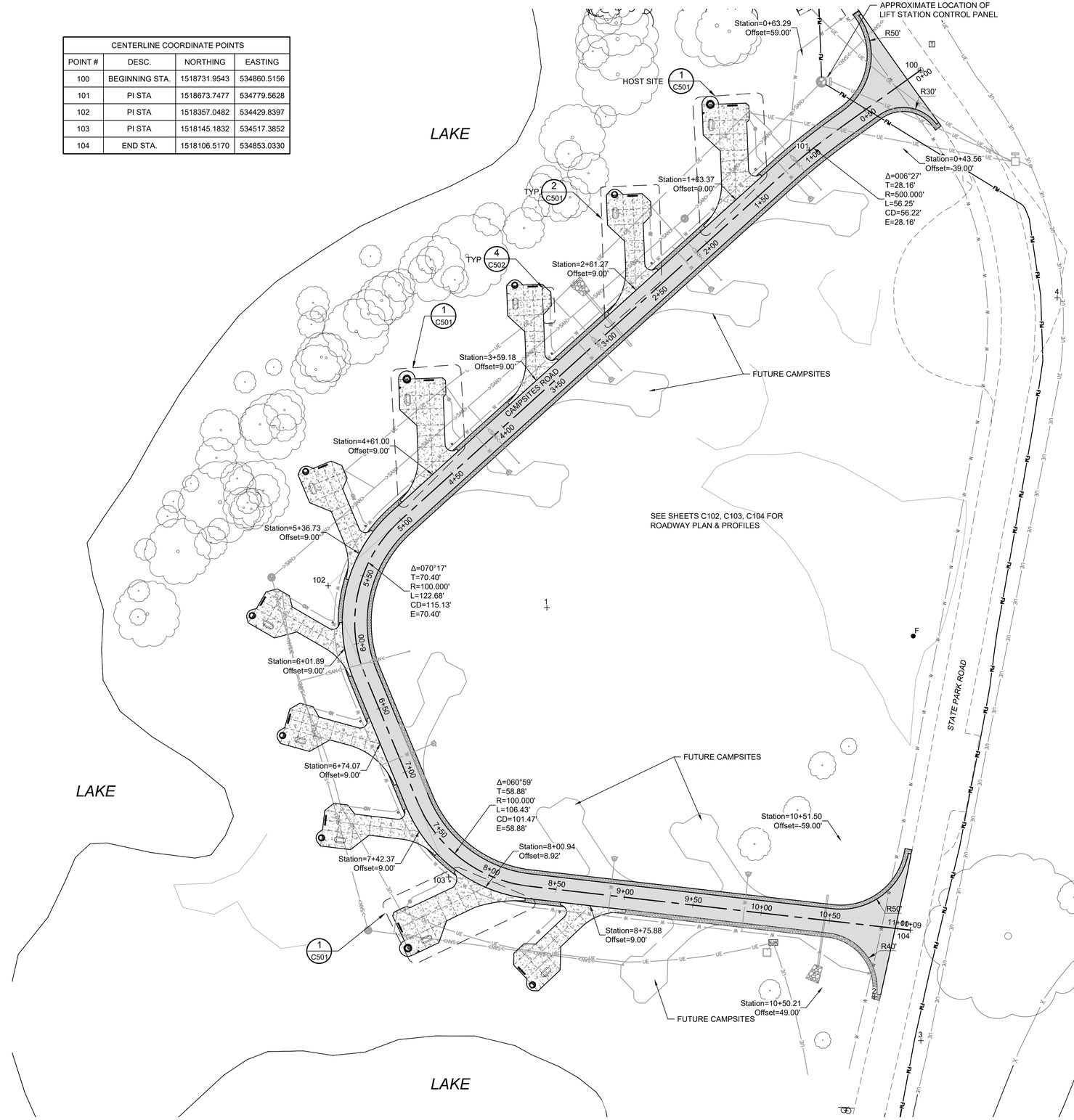
SHEET TITLE:

**BEACH COMFORT STATION SITE DEMOLITION PLAN**

SHEET NUMBER:

# CD103

| CENTERLINE COORDINATE POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 100 | BEGINNING STA. | 1518731.9543 | 534860.5156 |
| 101 | PI STA | 1518673.7477 | 534779.5628 |
| 102 | PI STA | 1518357.0482 | 534429.8397 |
| 103 | PI STA | 1518145.1832 | 534517.3852 |
| 104 | END STA. | 1518106.5170 | 534853.0330 |



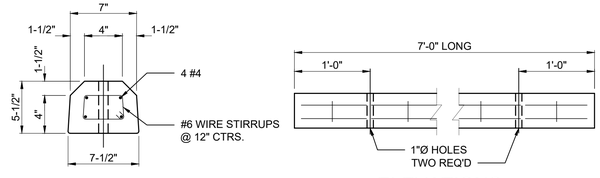

## PAVEMENT JOINT LEGEND

- EJ - EXPANSION JOINT (DETAIL 6/C502)
- TJ - TIED JOINT (DETAIL 6/C502)
- SJ - SAWED JOINT (DETAIL 6/C502)

## PAVEMENT HATCH LEGEND

- 6" CONCRETE PAVEMENT (DETAIL 1/C502)
- ASPHALT PAVEMENT (DETAIL 2/C502) ALTERNATE CONCRETE PAVEMENT (DETAIL 1/C502)
- GRAVEL

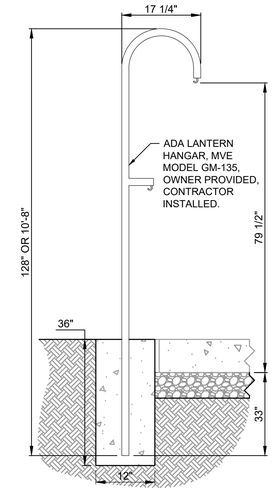
| CONTROL POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 1 | DRONE SPIKE TARGET | 1518341.0510 | 534588.8670 |
| 2 | REBAR | 1518057.9930 | 534826.9370 |
| 3 | DRONE SPIKE TARGET | 1518026.1220 | 534860.7360 |
| 4 | REBAR | 1518566.4130 | 534959.8820 |



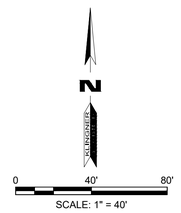

SECTION ELEVATIONS

USE TWO #6 X 24" LONG REINFORCING RODS TO ANCHOR EACH BLOCK IN PLACE

1 CONCRETE PARKING BLOCK
N.T.S.




2 LANTERN HANGER DETAIL
N.T.S.




SCALE: 1" = 40'

BENCHMARKS:
1. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

2. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI CURT STEPHEN WAVERING NUMBER PE-2011009046 PROFESSIONAL ENGINEER 10/31/2025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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C101
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CAMPSITES OVERALL SITE PLAN**

SHEET NUMBER:
**C101**
SHEET 9 OF 105 10/31/2025

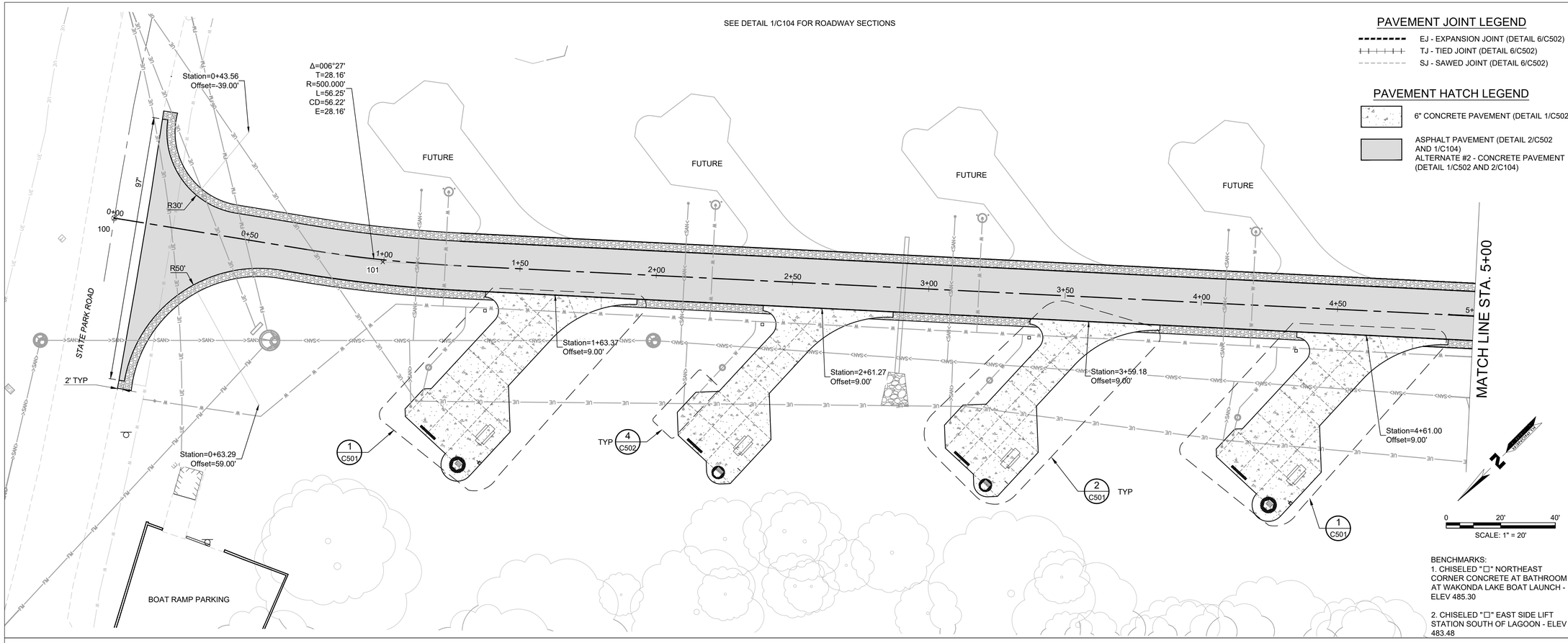
SEE DETAIL 1/C104 FOR ROADWAY SECTIONS

PAVEMENT JOINT LEGEND

- EJ - EXPANSION JOINT (DETAIL 6/C502)
- TJ - TIED JOINT (DETAIL 6/C502)
- SJ - SAWED JOINT (DETAIL 6/C502)

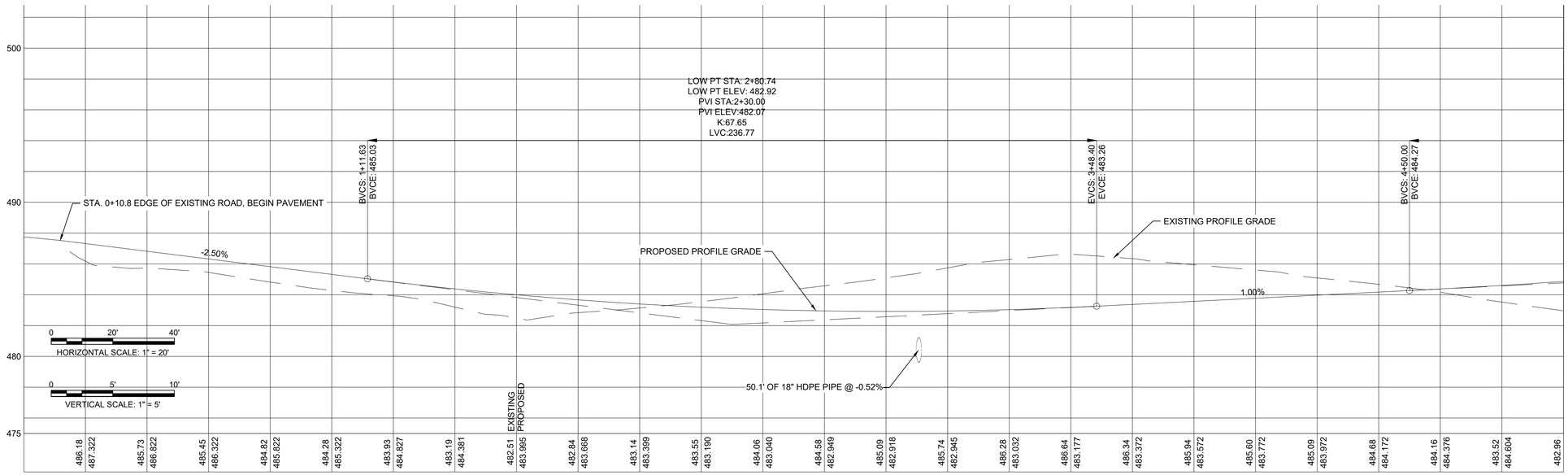
PAVEMENT HATCH LEGEND

- 6" CONCRETE PAVEMENT (DETAIL 1/C502)
- ASPHALT PAVEMENT (DETAIL 2/C502 AND 1/C104)
  ALTERNATE #2 - CONCRETE PAVEMENT (DETAIL 1/C502 AND 2/C104)




BENCHMARKS:
1. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

2. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48




STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
CURT STEPHEN WAVERING
NUMBER PE-2011009566
PROFESSIONAL ENGINEER
10/31/2025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OFFICE OF ADMINISTRATION
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DEPARTMENT OF NATURAL
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STATE PARKS

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

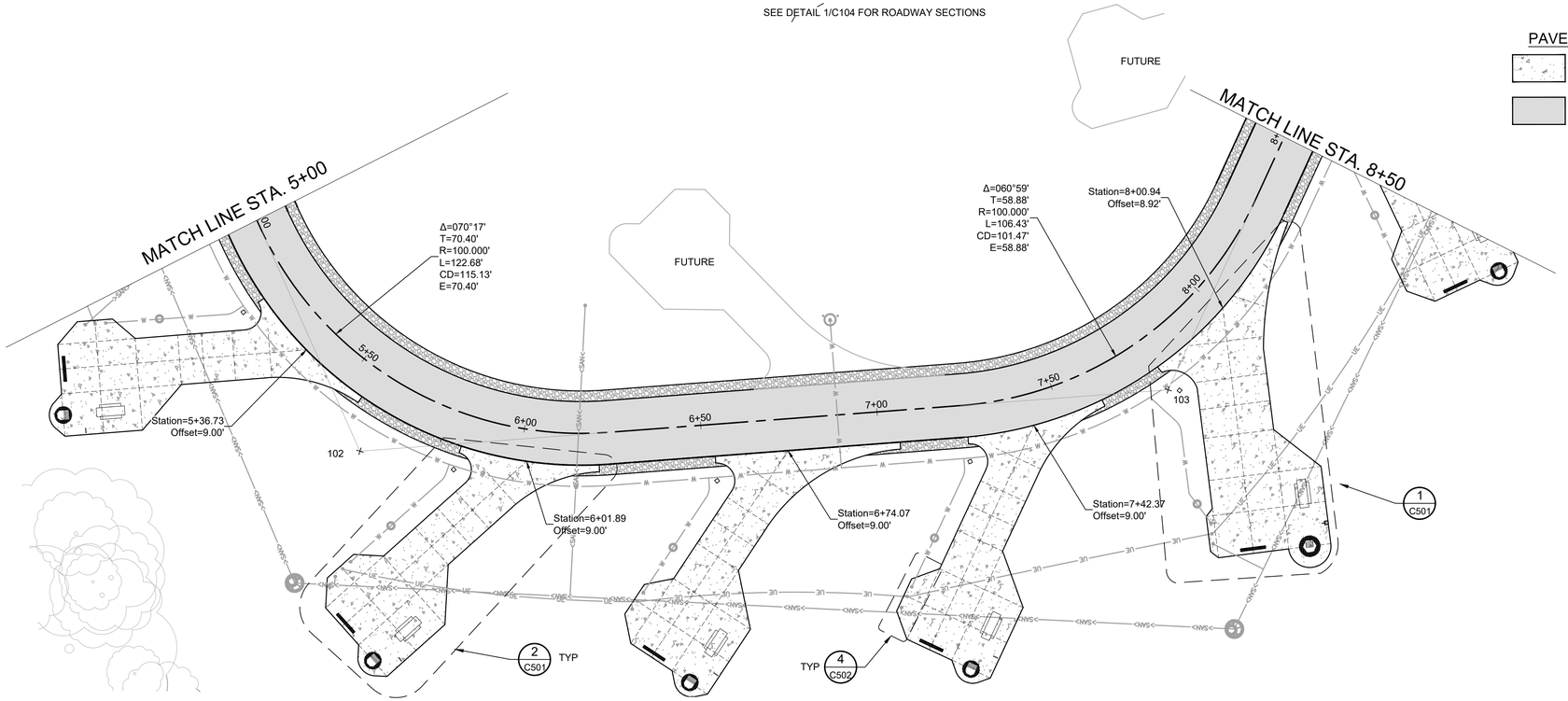
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C102
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CAMPSITES ROAD PLAN & PROFILE,**

SHEET NUMBER:
**C102**
SHEET 10 OF 105 10/31/2025



BENCHMARKS:
1. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

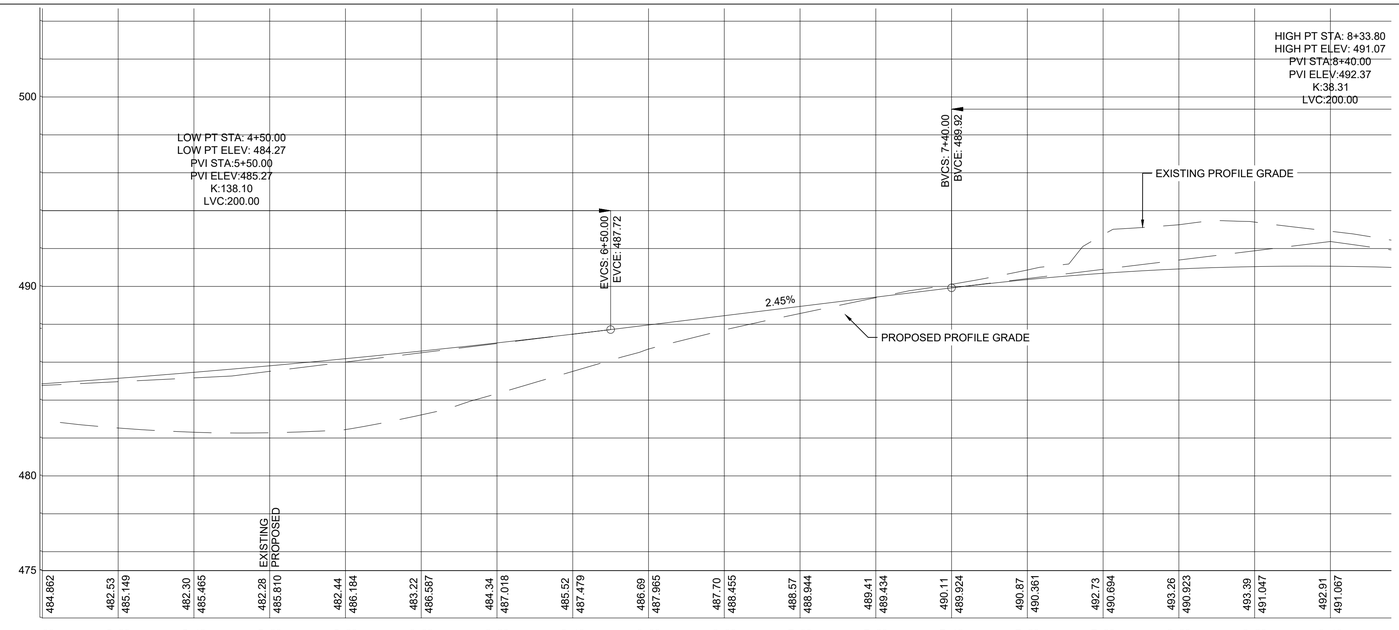
2. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

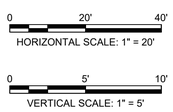
## PAVEMENT JOINT LEGEND

- EJ - EXPANSION JOINT (DETAIL 6/C502)
- TJ - TIED JOINT (DETAIL 6/C502)
- SJ - SAWED JOINT (DETAIL 6/C502)

## PAVEMENT HATCH LEGEND

- 6" CONCRETE PAVEMENT (DETAIL 1/C502)
- ASPHALT PAVEMENT (DETAIL 2/C502 AND 1/C104)
  ALTERNATE #2 - CONCRETE PAVEMENT (DETAIL 1/C502 AND 2/C104)




**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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CURT STEPHEN WAVERING
NUMBER PE-2011009546
10/31/2025
PROFESSIONAL ENGINEER

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**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C103
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

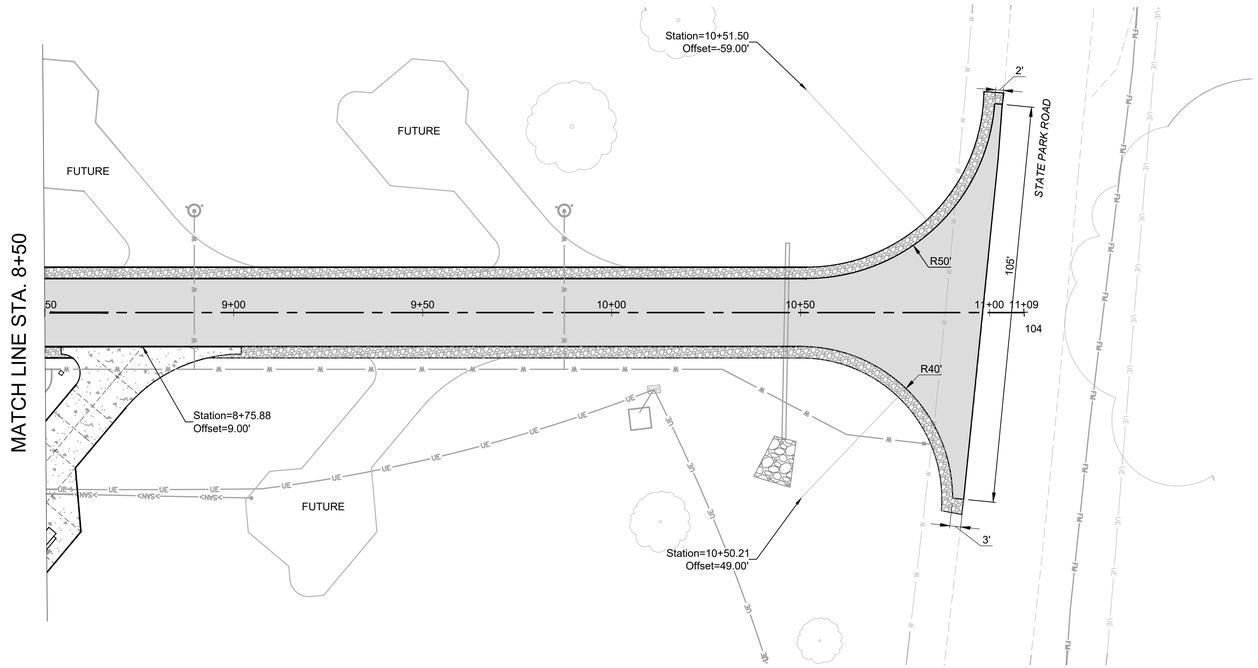
SHEET TITLE:

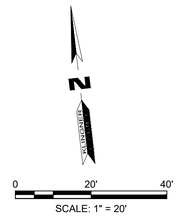
**CAMPSITES ROAD PLAN & PROFILE**

SHEET NUMBER:

# C103

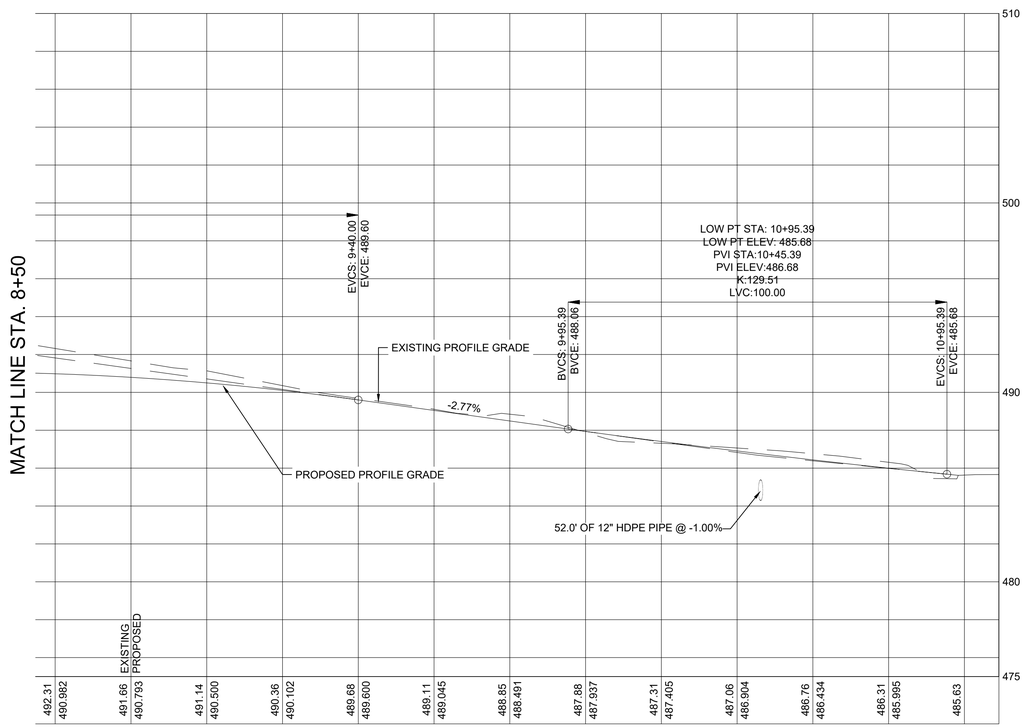
SHEET 11 OF 105 10/31/2025

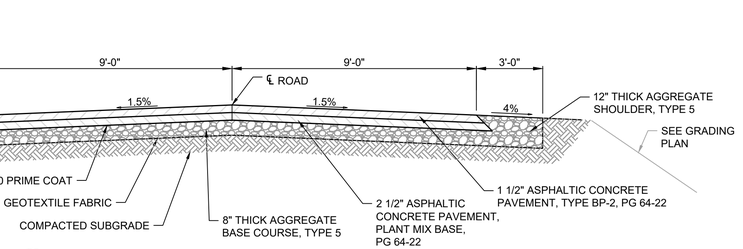


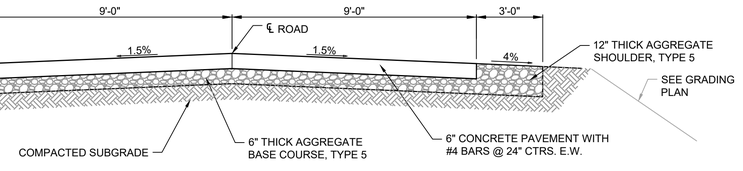

BENCHMARKS:
1. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

2. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

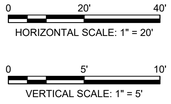



1 TYPICAL BITUMINOUS ROAD SECTION
N.T.S.




2 ALTERNATE #2 -TYPICAL CONCRETE ROAD SECTION
N.T.S.




## PAVEMENT JOINT LEGEND

- EJ - EXPANSION JOINT (DETAIL 6/C502)
- TJ - TIED JOINT (DETAIL 6/C502)
- SJ - SAWED JOINT (DETAIL 6/C502)

## PAVEMENT HATCH LEGEND

- 6" CONCRETE PAVEMENT (DETAIL 1/C502)
- ASPHALT PAVEMENT (DETAIL 2/C502 AND 2/C104)
  ALTERNATE #2 - CONCRETE PAVEMENT (DETAIL 1/C502 AND 2/C104)

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C103
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

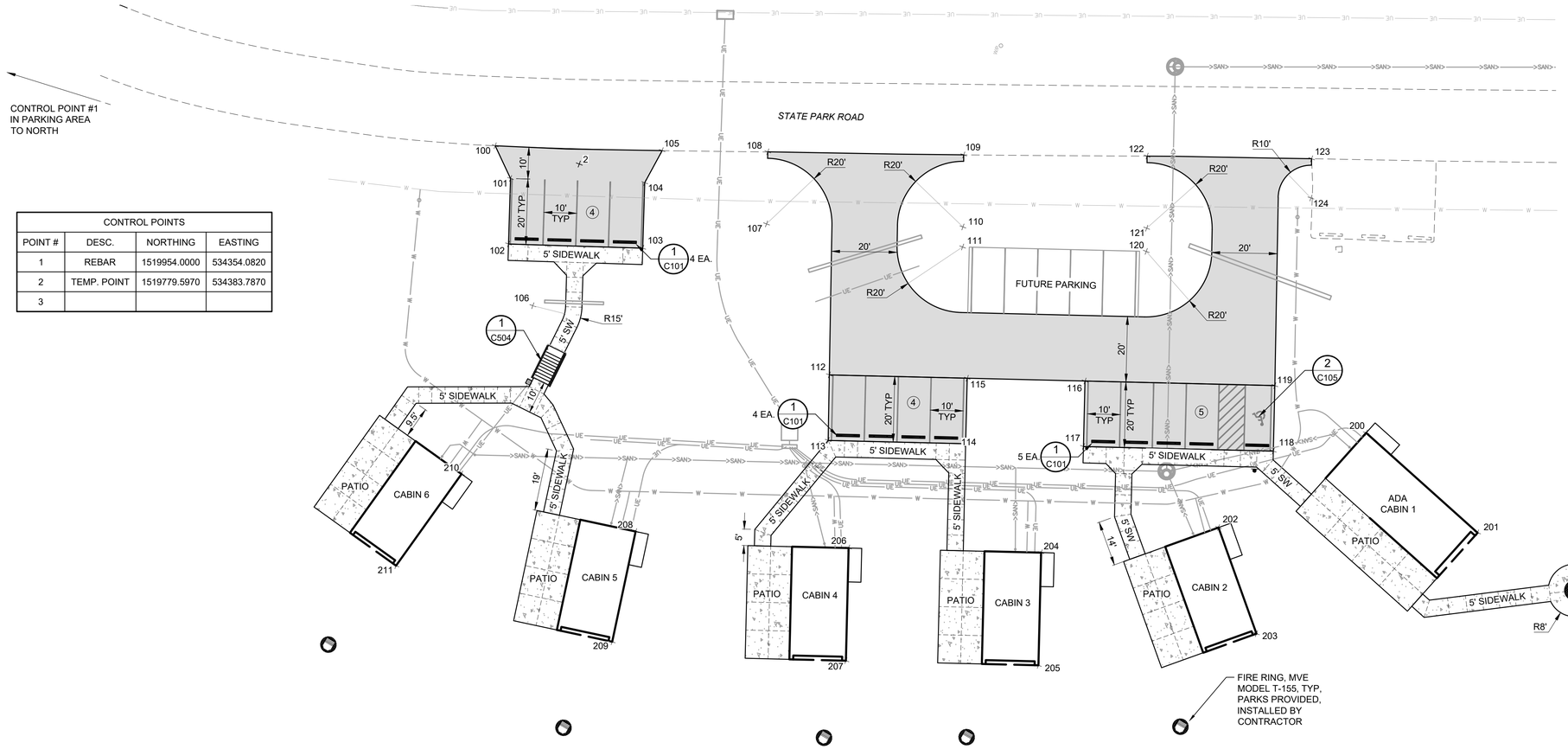
SHEET TITLE:

**CAMPSITES ROAD PLAN & PROFILE**

SHEET NUMBER:

# C104

SHEET 12 OF 105 10/31/2025



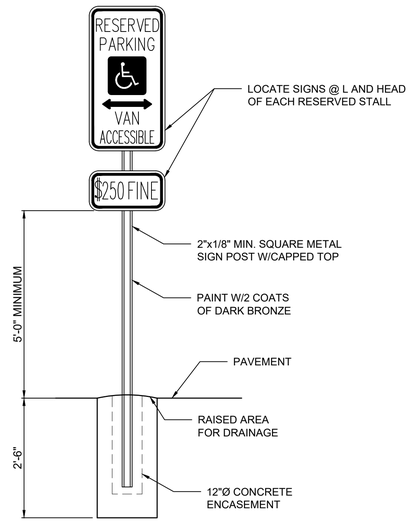

| CONTROL POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 1 | REBAR | 1519954.0000 | 534354.0820 |
| 2 | TEMP. POINT | 1519779.5970 | 534383.7870 |
| 3 | | | |

## PAVEMENT JOINT LEGEND

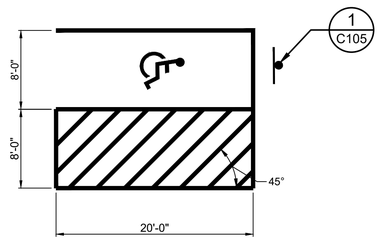
- EJ - EXPANSION JOINT (DETAIL 6/C502)
- TJ - TIED JOINT (DETAIL 6/C502)
- SJ - SAWED JOINT (DETAIL 6/C502)

## PAVEMENT HATCH LEGEND

- 4" CONCRETE SIDEWALK (DETAIL 3/C502)
- ASPHALT PAVEMENT (DETAIL 2/C502), ALTERNATE #2 - CONCRETE PAVEMENT (DETAIL 1/C502)



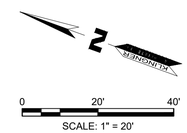

1 ACCESSIBLE PARKING SIGN
N.T.S.




2 ACCESSIBLE STALL DETAILS
N.T.S.

| COORDINATE POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 100 | EOP | 1519805.6350 | 534380.2439 |
| 101 | EOP | 1519797.8058 | 534372.4582 |
| 102 | EOP | 1519791.5481 | 534353.4624 |
| 103 | EOP | 1519752.6067 | 534366.2907 |
| 104 | EOP | 1519758.8644 | 534385.2865 |
| 105 | EOP | 1519757.2235 | 534396.2857 |
| 106 | RADIUS PT | 1519778.1319 | 534338.3050 |
| 107 | RADIUS PT | 1519719.6237 | 534386.1753 |
| 108 | EOP | 1519726.7802 | 534406.9788 |
| 109 | EOP | 1519670.2309 | 534426.5764 |
| 110 | RADIUS PT | 1519662.9315 | 534405.8226 |
| 111 | RADIUS PT | 1519660.9396 | 534400.0323 |
| 112 | EOP | 1519685.8326 | 534349.4296 |
| 113 | EOP | 1519679.3266 | 534330.5170 |
| 114 | EOP | 1519639.5270 | 534343.9331 |
| 115 | EOP | 1519645.9156 | 534362.8853 |
| 116 | EOP | 1519611.8210 | 534374.3784 |
| 117 | EOP | 1519605.4324 | 534355.4262 |
| 118 | EOP | 1519550.4710 | 534373.9532 |
| 119 | EOP | 1519556.8597 | 534392.9054 |
| 120 | RADIUS PT | 1519607.7767 | 534417.9532 |
| 121 | RADIUS PT | 1519610.0768 | 534424.6396 |
| 122 | EOP | 1519617.4864 | 534445.3543 |
| 123 | EOP | 1519570.0037 | 534461.7996 |
| 124 | RADIUS PT | 1519566.0831 | 534450.4593 |
| 125 | ADA FIRE PIT | 1519449.5089 | 534365.4663 |

| BUILDING CORNERS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| B200 | CABIN 1 | 1519525.7220 | 534388.8778 |
| B201 | CABIN 1 | 1519483.3221 | 534371.8642 |
| B202 | CABIN 2 | 1519558.2257 | 534346.2958 |
| B203 | CABIN 2 | 1519536.2534 | 534319.8396 |
| B204 | CABIN 3 | 1519606.5047 | 534320.5803 |
| B205 | CABIN 3 | 1519595.5192 | 534287.9914 |
| B206 | CABIN 4 | 1519662.2257 | 534301.7972 |
| B207 | CABIN 4 | 1519651.2402 | 534269.2083 |
| B208 | CABIN 5 | 1519725.0674 | 534284.2946 |
| B209 | CABIN 5 | 1519720.2849 | 534250.2381 |
| B210 | CABIN 6 | 1519781.0316 | 534282.5899 |
| B211 | CABIN 6 | 1519790.2651 | 534249.4620 |




BENCHMARKS:

1. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38

2. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84

3. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64

4. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C105
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CABINS SITE PLAN**

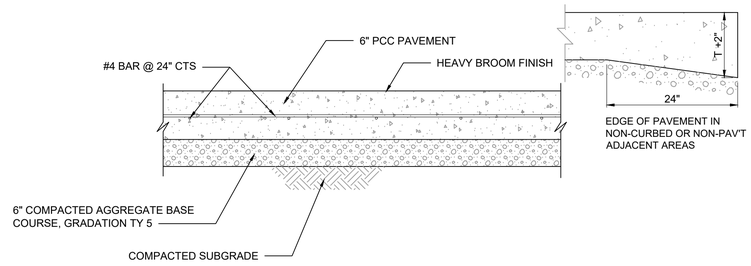
SHEET NUMBER:
**C105**
SHEET 13 OF 105 10/31/2025

PAVEMENT JOINT LEGEND

EJ - EXPANSION JOINT
TJ - TIED JOINT
SJ - SAWED JOINT

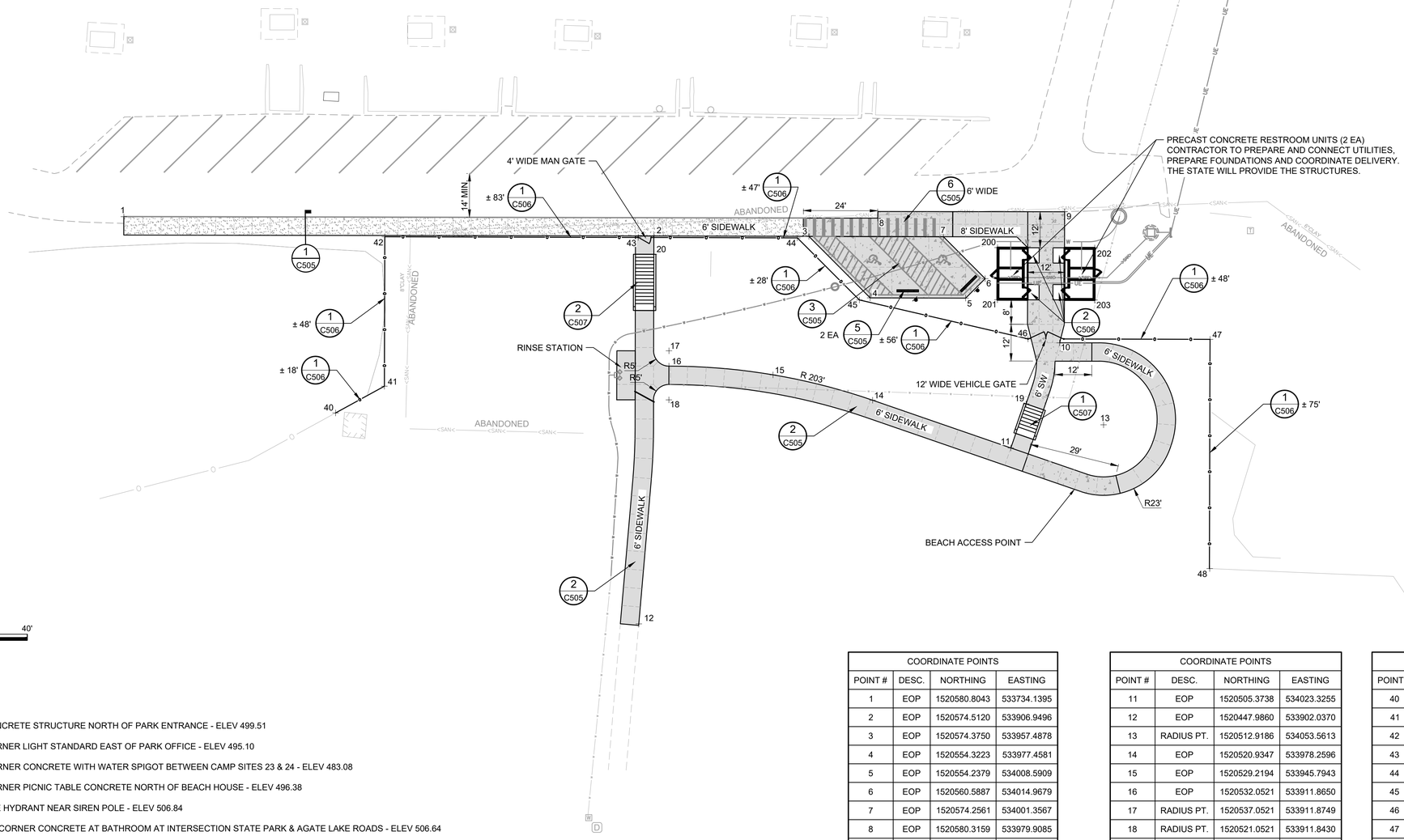
PAVEMENT HATCH LEGEND

6.0" CONCRETE PAVEMENT (1/C106)
5.0" CONCRETE SIDEWALK (1/C505)
5.0" CONCRETE SIDEWALK (2/C505)




1 PCC PAVING DETAIL
N.T.S.

| BUILDING CORNERS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| B200 | BUILDING CORNER | 1520570.7098 | 534018.9954 |
| B201 | BUILDING CORNER | 1520553.7098 | 534018.9493 |
| B202 | BUILDING CORNER | 1520570.6239 | 534050.6753 |
| B203 | BUILDING CORNER | 1520553.6240 | 534050.6292 |




N

0 20' 40'

SCALE: 1" = 20'

BENCHMARKS:

1. CHISELED "□" SOUTH SIDE CONCRETE STRUCTURE NORTH OF PARK ENTRANCE - ELEV 499.51
2. CHISELED "□" SOUTHEAST CORNER LIGHT STANDARD EAST OF PARK OFFICE - ELEV 495.10
3. CHISELED "□" NORTHEAST CORNER CONCRETE WITH WATER SPIGOT BETWEEN CAMP SITES 23 & 24 - ELEV 483.08
4. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38
5. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84
6. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64
7. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30
8. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

| COORDINATE POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 1 | EOP | 1520580.8043 | 533734.1395 |
| 2 | EOP | 1520574.5120 | 533906.9496 |
| 3 | EOP | 1520574.3750 | 533957.4878 |
| 4 | EOP | 1520554.3223 | 533977.4581 |
| 5 | EOP | 1520554.2379 | 534008.5909 |
| 6 | EOP | 1520560.5887 | 534014.9679 |
| 7 | EOP | 1520574.2561 | 534001.3567 |
| 8 | EOP | 1520580.3159 | 533979.9085 |
| 9 | EOP | 1520582.3976 | 534040.8671 |
| 10 | EOP | 1520539.6587 | 534039.2513 |

| COORDINATE POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 11 | EOP | 1520505.3738 | 534023.3255 |
| 12 | EOP | 1520447.9860 | 533902.0370 |
| 13 | RADIUS PT. | 1520512.9186 | 534053.5613 |
| 14 | EOP | 1520520.9347 | 533978.2596 |
| 15 | EOP | 1520529.2194 | 533945.7943 |
| 16 | EOP | 1520532.0521 | 533911.8650 |
| 17 | RADIUS PT. | 1520537.0521 | 533911.8749 |
| 18 | RADIUS PT. | 1520521.0521 | 533911.8430 |
| 19 | RADIUS PT. | 1520519.7509 | 534028.2898 |
| 20 | RADIUS PT. | 1520568.5120 | 533906.9376 |

| COORDINATE POINTS | | | |
|---|---|---|---|
| POINT # | DESC. | NORTHING | EASTING |
| 40 | FENCE | 1520516.7810 | 533803.1710 |
| 41 | FENCE | 1520525.5075 | 533819.0932 |
| 42 | FENCE | 1520574.2511 | 533819.2253 |
| 43 | FENCE | 1520574.0258 | 533901.8370 |
| 44 | FENCE | 1520573.8866 | 533953.7292 |
| 45 | FENCE | 1520553.6382 | 533973.9574 |
| 46 | FENCE | 1520540.9424 | 534028.9244 |
| 47 | FENCE | 1520540.7816 | 534088.2708 |
| 48 | FENCE | 1520466.0266 | 534088.1685 |

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
CURT STEPHEN WAVELING
NUMBER PE-2011009046
10/31/2025
PROFESSIONAL ENGINEER

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OFFICE OF ADMINISTRATION
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DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL
RESOURCES DIVISION OF
STATE PARKS

REBID
BEACH COMFORT
STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C106
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

SHEET TITLE:

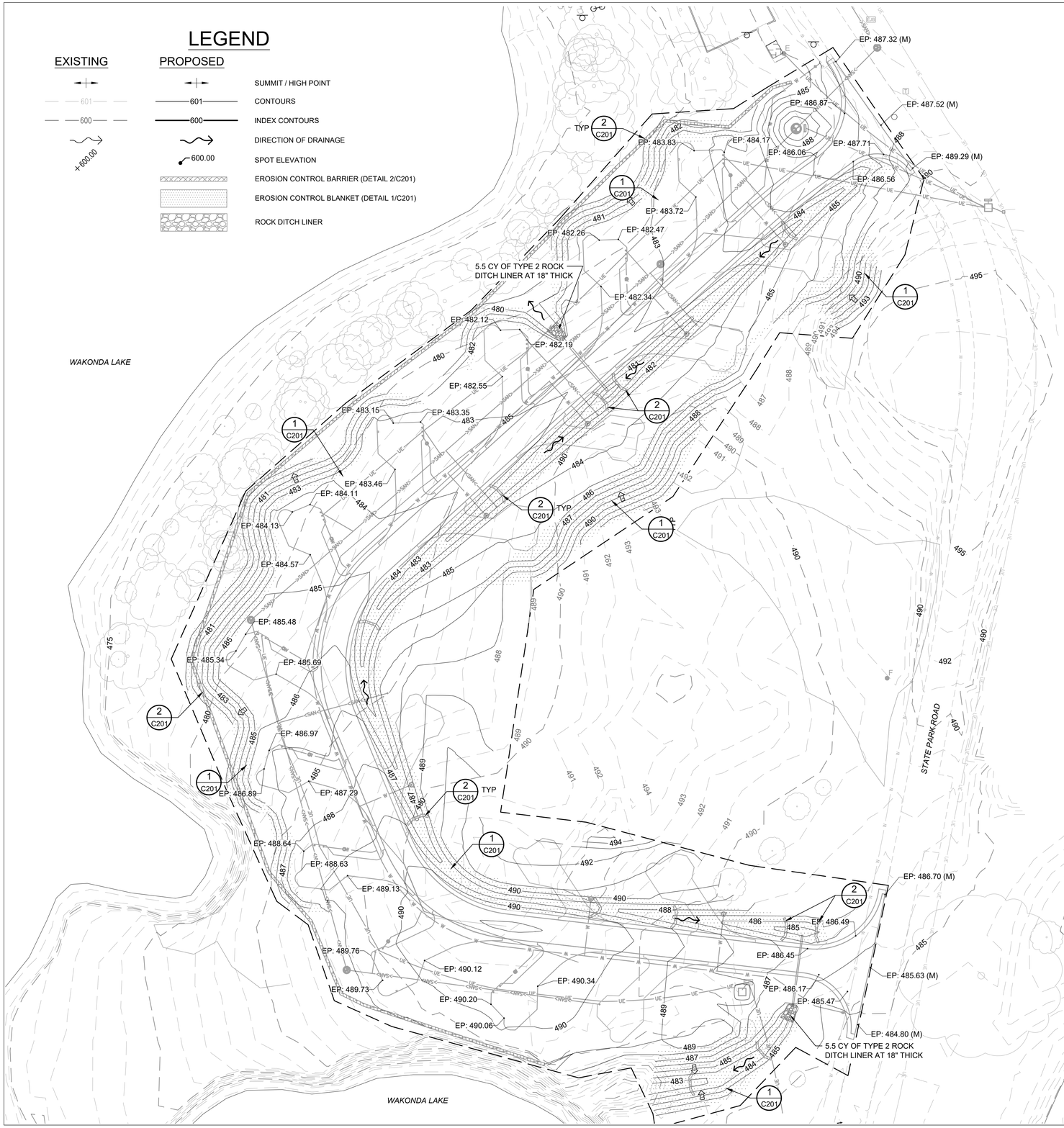
BEACH COMFORT
STATION
SITE PLAN

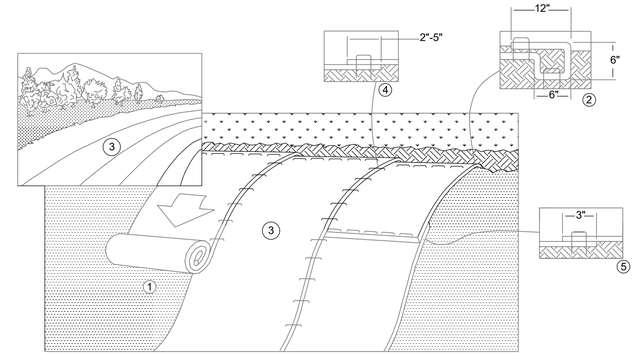
SHEET NUMBER:

C106

# LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| | | SUMMIT / HIGH POINT |
| 601 | 601 | CONTOURS |
| 600 | 600 | INDEX CONTOURS |
| | | DIRECTION OF DRAINAGE |
| +600.00 | 600.00 | SPOT ELEVATION |
| | | EROSION CONTROL BARRIER (DETAIL 2/C201) |
| | | EROSION CONTROL BLANKET (DETAIL 1/C201) |
| | | ROCK DITCH LINER |

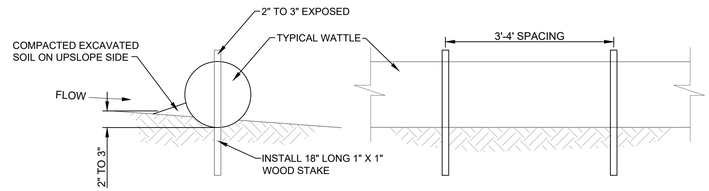


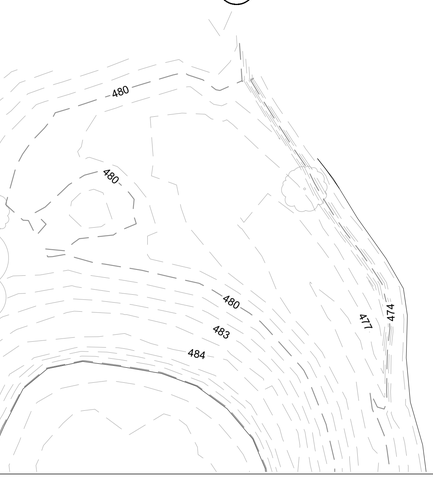

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. SEEDING WILL BE COMPLETED BY THE CONTRACTOR. COORDINATE PROPER TIMING FOR THE SEEDING AND EROSION BLANKET INSTALLATION.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROXIMATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 54" OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP's WIDTH.

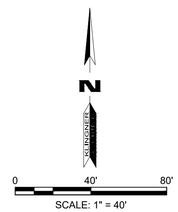
   NOTE THAT IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.
6. EROSION CONTROL BLANKET SHALL BE USED ON ALL SLOPES 4:1 AND STEEPER.

## 1 EROSION CONTROL BLANKET INSTALLATION DETAILS
N.T.S.




## 2 EROSION CONTROL WATTLE CHECK
N.T.S.




BENCHMARKS:
1. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

2. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI — CURT STEPHEN WAVERING — NUMBER PE-2011009046 — PROFESSIONAL ENGINEER — 10/31/2025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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

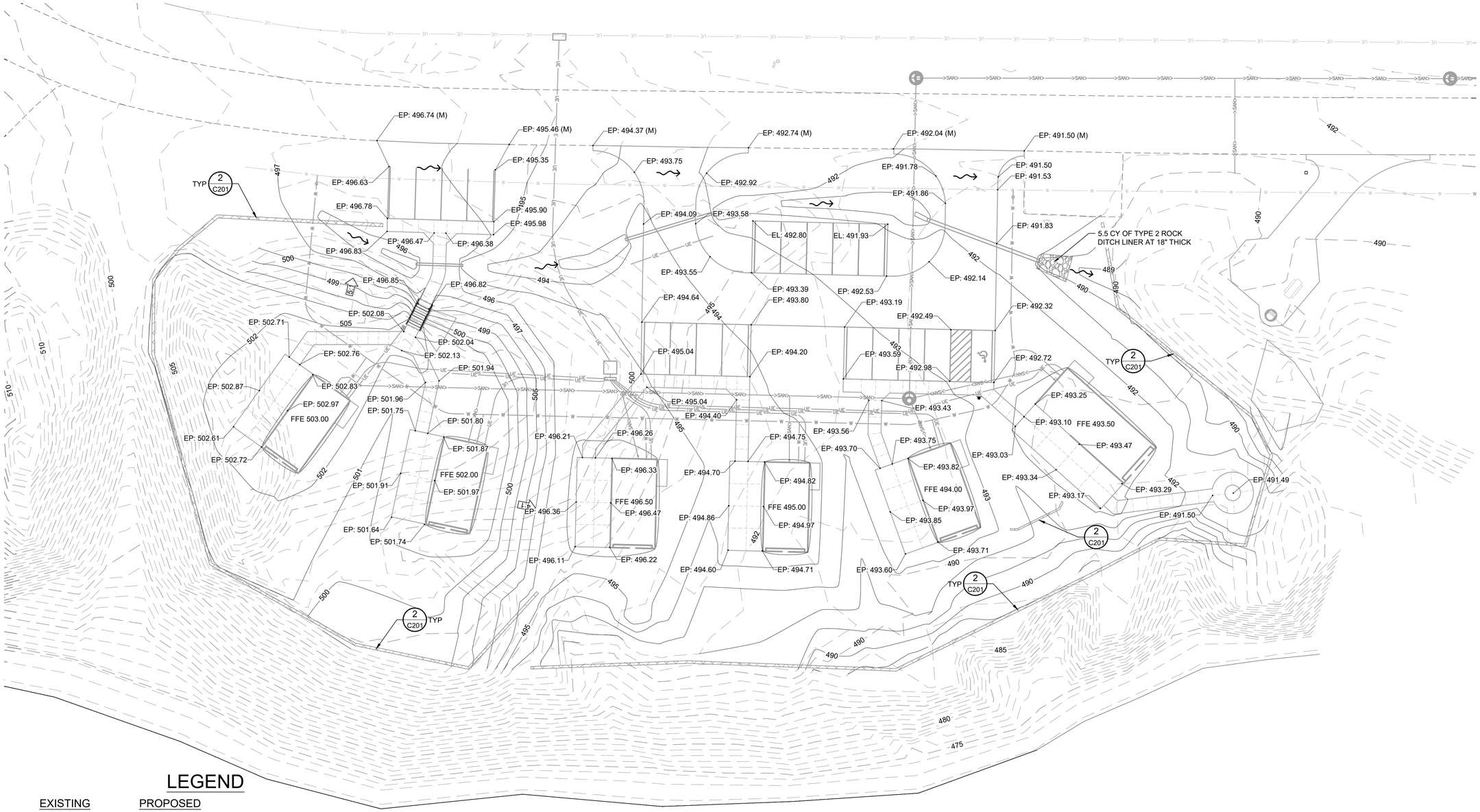
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C201
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CAMPSITES SITE GRADING PLAN**

SHEET NUMBER:
# C201
SHEET 15 OF 105 10/31/2025

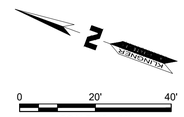



## LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| | | SUMMIT / HIGH POINT |
| 601 | 601 | CONTOURS |
| 600 | 600 | INDEX CONTOURS |
| | | DIRECTION OF DRAINAGE |
| +600.00 | 600.00 | SPOT ELEVATION |
| | | EROSION CONTROL BARRIER (DETAIL 2/C201) |
| | | EROSION CONTROL BLANKET (DETAIL 1/C201) |
| | | ROCK DITCH LINER |

LAKE

GENERAL NOTE:
THE FEMA MAPPED 1% ANNUAL CHANCE FLOOD HAZARD IN THE PROJECT LOCATION IS 488.10. THE OBSERVED HIGH WATER ELEVATION ON SITE FROM THE FLOOD OF 1993 (FLOOD OF RECORD) IS AT 492.00. THE PERMANENT STRUCTURES AT THIS LOCATION WILL BE A MINIMUM OF APPROXIMATELY 1.5 FEET ABOVE THE FLOOD OF RECORD ELEVATION.




BENCHMARKS:

1. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38

2. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84

3. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64

4. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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CURT STEPHEN WAVERING
NUMBER PE-2011009046
PROFESSIONAL ENGINEER
10/31/2025

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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C202
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:

# CABINS SITE GRADING PLAN

SHEET NUMBER:

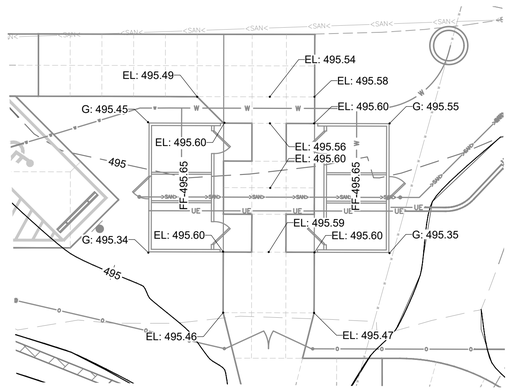
# C202

SHEET 16 OF 105 10/31/2025

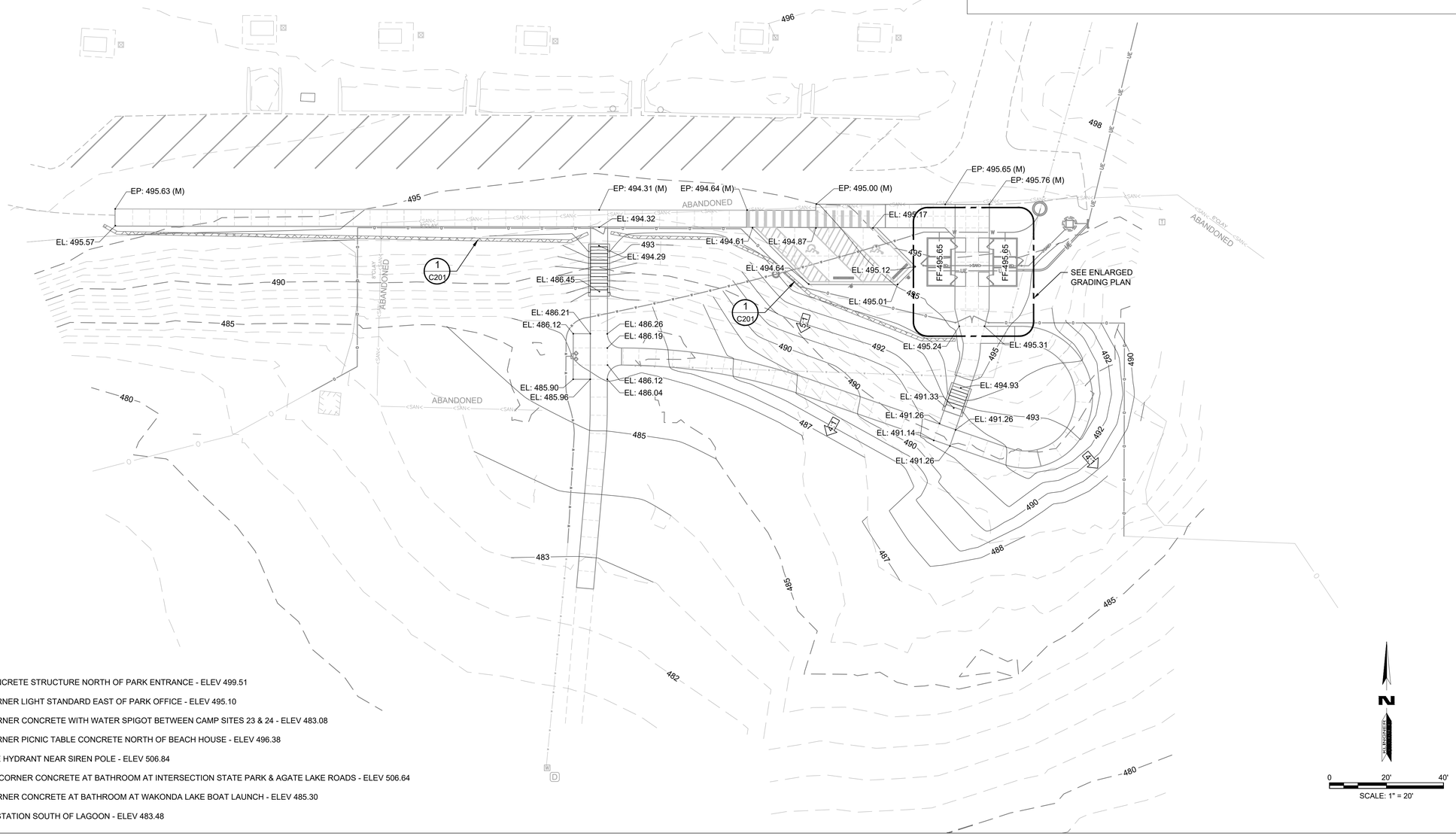
# LEGEND

| EXISTING | PROPOSED | |
|---|---|---|
| | | SUMMIT / HIGH POINT |
| 601 | 601 | CONTOURS |
| 600 | 600 | INDEX CONTOURS |
| | | DIRECTION OF DRAINAGE |
| +600.00 | 600.00 | SPOT ELEVATION |
| | | EROSION CONTROL BARRIER |
| | | TURF REINFORCEMENT MAT<br>SHEAR STRESS: 10 LB/SF<br>VELOCITY: MIN. 10 FT/SEC |
| | | ROCK DITCH LINER |

GENERAL NOTE:
THE FEMA MAPPED 1% ANNUAL CHANCE FLOOD HAZARD IN THE PROJECT LOCATION IS 488.10. THE OBSERVED HIGH WATER ELEVATION ON SITE FROM THE FLOOD OF 1993 (FLOOD OF RECORD) IS AT 492.00. THE PERMANENT STRUCTURES AT THIS LOCATION WILL APPROXIMATELY 3.5 FEET ABOVE THE FLOOD OF RECORD ELEVATION.




ENLARGED GRADING PLAN
SCALE 1" = 10'




BENCHMARKS:

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2. CHISELED "□" SOUTHEAST CORNER LIGHT STANDARD EAST OF PARK OFFICE - ELEV 495.10
3. CHISELED "□" NORTHEAST CORNER CONCRETE WITH WATER SPIGOT BETWEEN CAMP SITES 23 & 24 - ELEV 483.08
4. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38
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MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

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CURT STEPHEN WAVERING
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10/31/2025
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
BEACH COMFORT STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 10-31-2025

CAD DWG FILE: C203
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

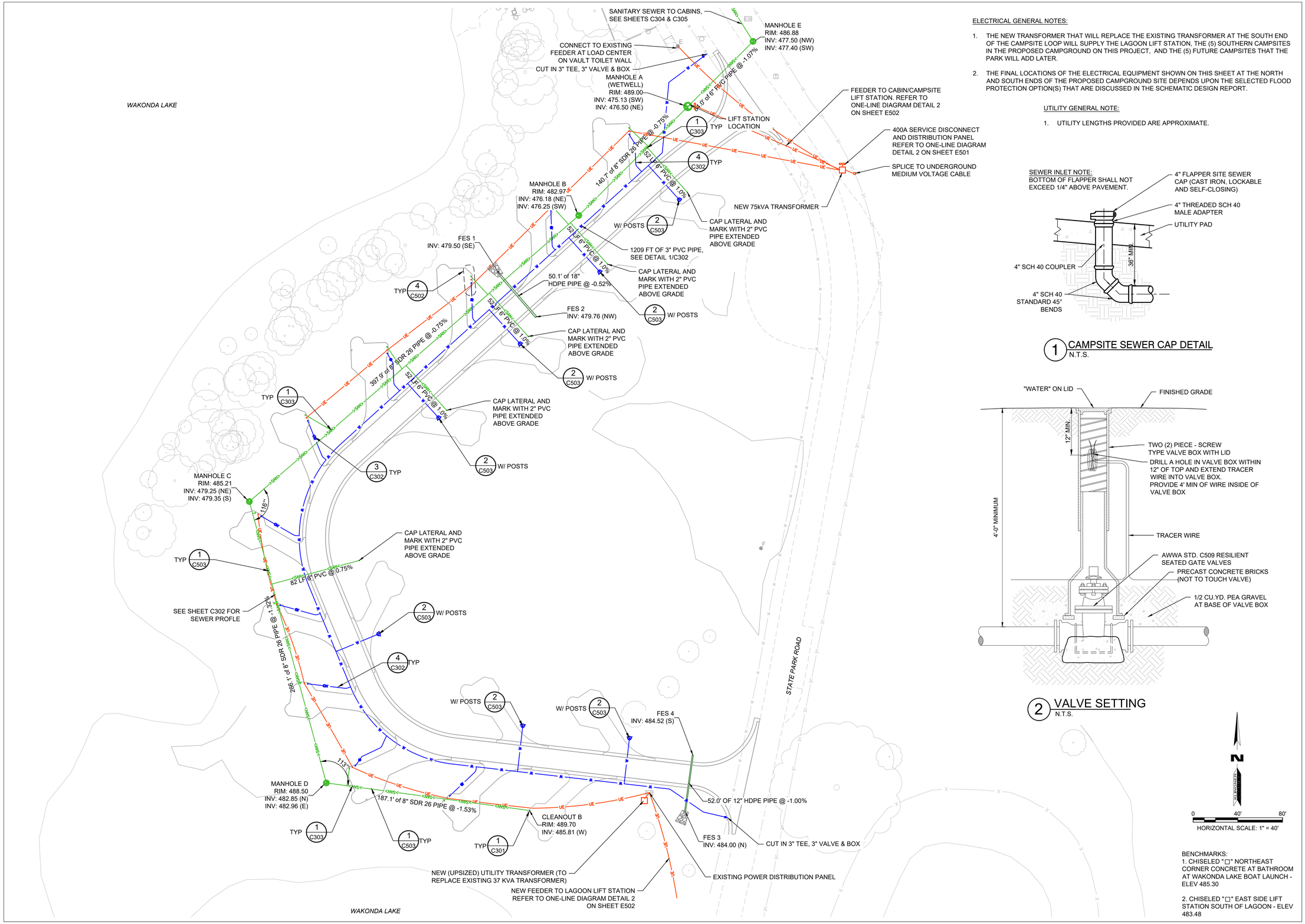
SHEET TITLE:

# BEACH COMFORT STATION GRADING AND EROSION CONTROL

SHEET NUMBER:

# C203

SHEET 17 OF 105 10/31/2025




ELECTRICAL GENERAL NOTES:

1. THE NEW TRANSFORMER THAT WILL REPLACE THE EXISTING TRANSFORMER AT THE SOUTH END OF THE CAMPSITE LOOP WILL SUPPLY THE LAGOON LIFT STATION, THE (5) SOUTHERN CAMPSITES IN THE PROPOSED CAMPGROUND ON THIS PROJECT, AND THE (5) FUTURE CAMPSITES THAT THE PARK WILL ADD LATER.
2. THE FINAL LOCATIONS OF THE ELECTRICAL EQUIPMENT SHOWN ON THIS SHEET AT THE NORTH AND SOUTH ENDS OF THE PROPOSED CAMPGROUND SITE DEPENDS UPON THE SELECTED FLOOD PROTECTION OPTION(S) THAT ARE DISCUSSED IN THE SCHEMATIC DESIGN REPORT.

UTILITY GENERAL NOTE:

1. UTILITY LENGTHS PROVIDED ARE APPROXIMATE.

SEWER INLET NOTE:
BOTTOM OF FLAPPER SHALL NOT EXCEED 1/4" ABOVE PAVEMENT.




1 CAMPSITE SEWER CAP DETAIL
N.T.S.




2 VALVE SETTING
N.T.S.

N

0 40' 80'
HORIZONTAL SCALE: 1" = 40'

BENCHMARKS:
1. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

2. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI CURT STEPHEN WAVELING NUMBER PE-2011009046 PROFESSIONAL ENGINEER 10/31/2025

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Burlington, IA Pella, IA Davenport, IA
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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

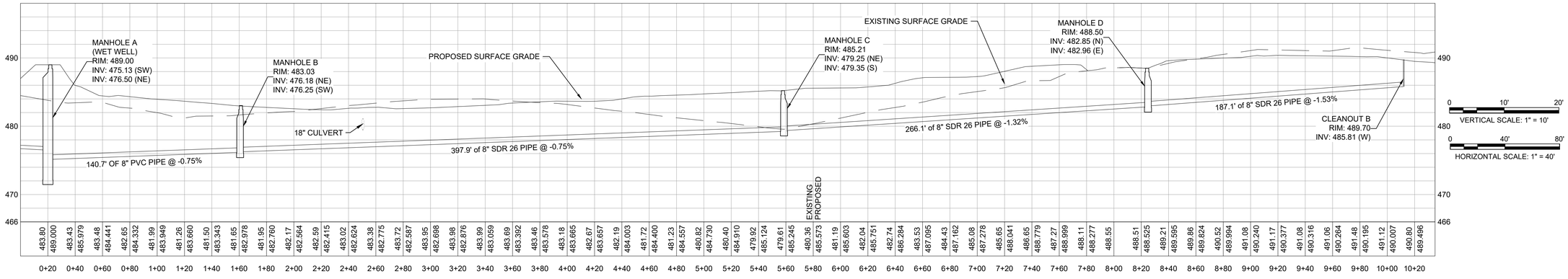
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

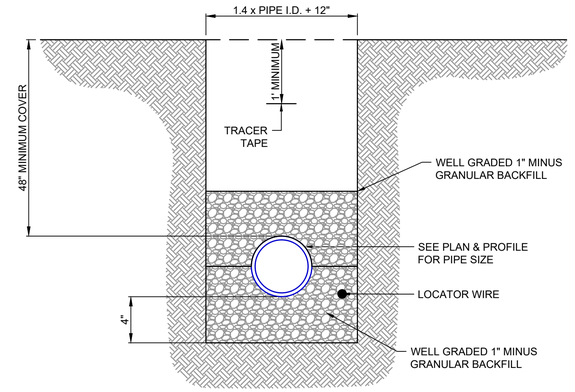
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C301
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CAMPSITES SITE UTILITY PLAN**

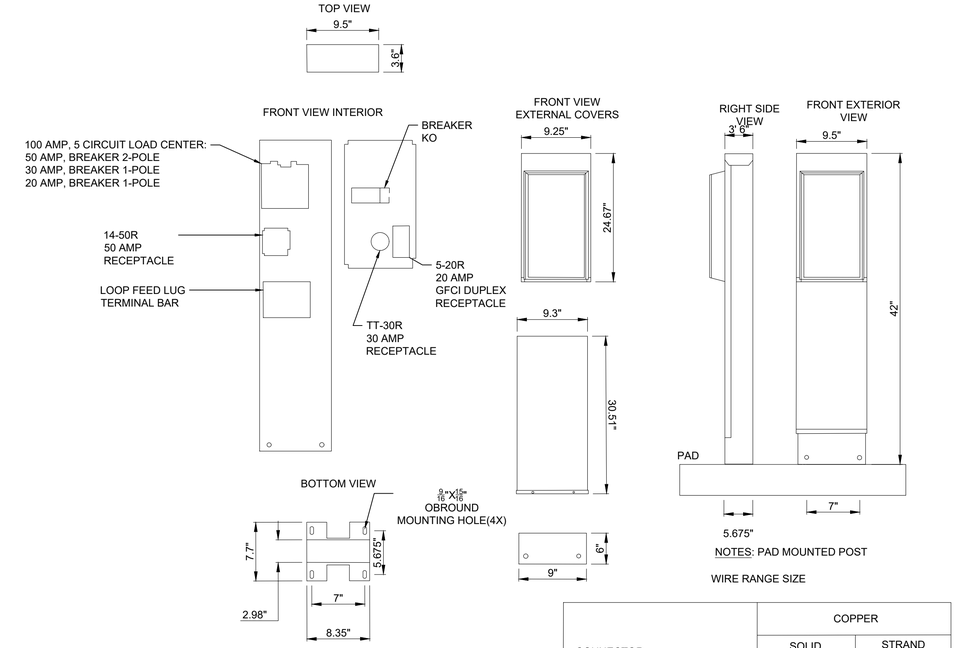
SHEET NUMBER:
**C301**
SHEET 18 OF 105 10/31/2025




1. BACKFILL MATERIAL FOR WATER MAIN SHALL BE SUITABLE EARTH, FREE FROM LARGE ROCKS OR STONES.
2. ALL TRENCHES IN AREAS OF UNSUITABLE EARTH USED FOR WATER MAIN SHALL HAVE A BEDDING OF WELL-GRADED, 1" MINUS, GRANULAR BACKFILL FROM 4" BELOW THE BOTTOM OF THE PIPE TO ONE-HALF THE DIAMETER OF THE PIPE COMPACTED TO 95% OF THE MODIFIED PROCTOR DENSITY (ASTM D-698).
3. IN AREAS OF CLEAN DIRT CUTS OUTSIDE OF PAVED AREAS, TRENCH MAY BE BACKFILLED WITH SAME MATERIAL AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY (ASTM D-698).
4. IN AREAS OF ROCK CUT, THE TRENCH SHALL BE BACKFILLED WITH WELL-GRADED GRANULAR COMPACTED MATERIAL TO SIX INCHES ABOVE TOP OF PIPE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH SETTLEMENT.
6. WELL-GRADED 1" MINUS GRANULAR COMPACTED BACKFILL TO BE USED IN ALL AREAS TO BE PAVED.
7. LOCATOR WIRE SHALL BE #12 SOLID COPPER WIRE, INSULATED FOR 600V WITH SPLICE POINTS AT VALVE BOXES.
8. TRACER TAPE SHALL BE 3" WIDE, BONDED LAYER PLASTIC WITH MAGNETIC FOIL CORE, TERRA TAPE DETECTABLE, MANUFACTURED BY REEF INDUSTRIES OF HOUSTON, TEXAS OR APPROVED EQUAL, AND SHALL HAVE THE WORDS "CAUTION: WATER MAIN BURIED BELOW".

1 TYPICAL WATER PIPE TRENCHING AND BEDDING DETAIL
N.T.S.

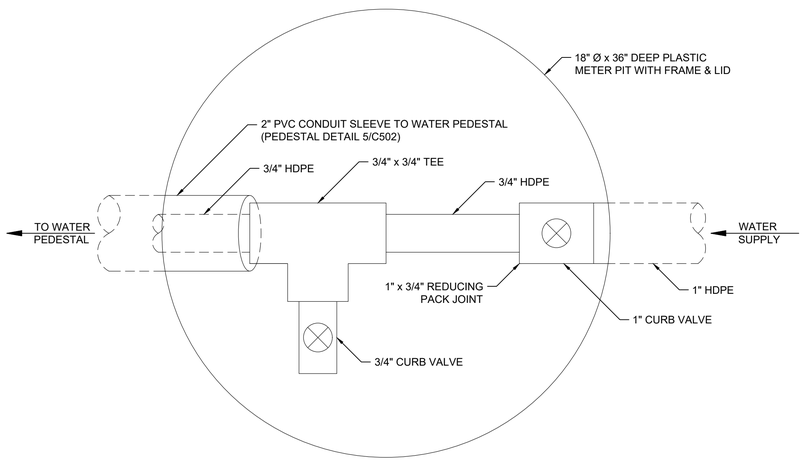



NOTES: PAD MOUNTED POST

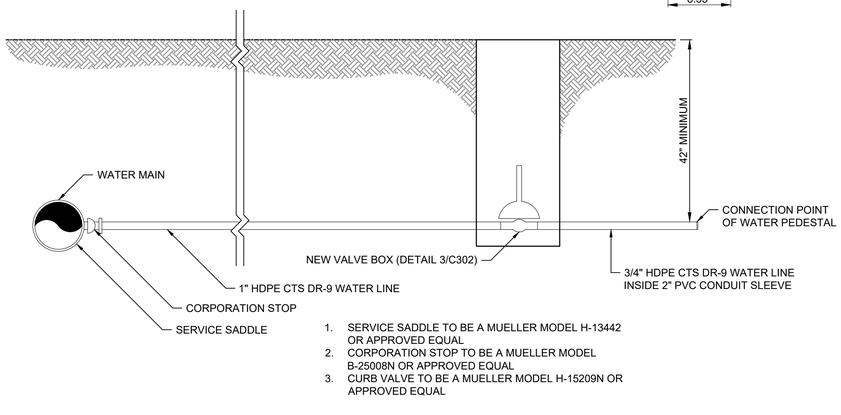
WIRE RANGE SIZE

| CONNECTOR | COPPER | |
|---|---|---|
| | SOLID | STRAND |
| LINE | 14-8 | 14-8 |
| LOAD | 14-10 | 14-10 |
| NEUTRAL | 14-4 | 14-4 |
| POST LINE CONNECTORS SUITABLE FOR LOOP FEEED | #6-350 KCMIL | |
| EQUIP, GRND POST | 14-2/0 | 14-2/0 |

2 POWER PEDESTAL DETAIL
N.T.S.




3 CAMPSITE VALVE BOX DETAIL
N.T.S.




1. SERVICE SADDLE TO BE A MUELLER MODEL H-13442 OR APPROVED EQUAL
2. CORPORATION STOP TO BE A MUELLER MODEL B-25008N OR APPROVED EQUAL
3. CURB VALVE TO BE A MUELLER MODEL H-15209N OR APPROVED EQUAL

4 WATER SERVICE LINE DETAIL
N.T.S.

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
CURT STEPHEN WAVERING
NUMBER PE-2011009546
10/31/2025
PROFESSIONAL ENGINEER

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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

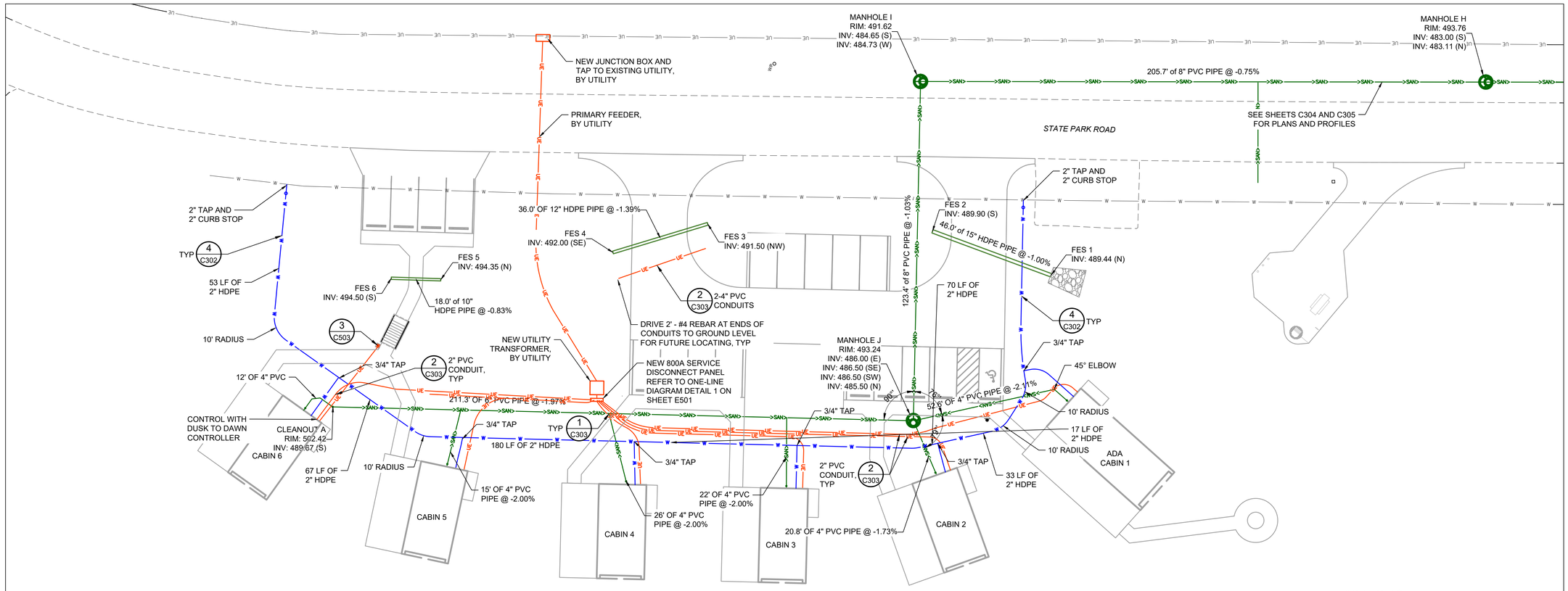
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 10-31-2025

CAD DWG FILE: C302
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

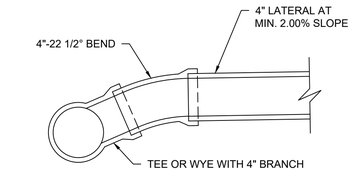
SHEET TITLE:
**CAMPSITES SANITARY SEWER PROFILE & SITE DETAILS**

SHEET NUMBER:
**C302**



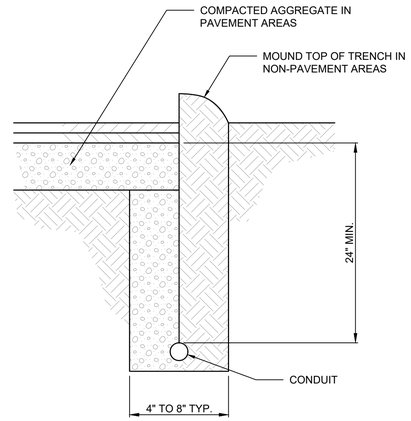

UTILITY GENERAL NOTE:

1. UTILITY LENGTHS PROVIDED ARE APPROXIMATE.



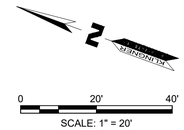

ALL CABIN AND CAMPSITE LATERAL CONNECTIONS SHALL BE CONSTRUCTED PER THIS DETAIL UNLESS OTHERWISE SHOWN ON PLANS OR WITH WRITTEN APPROVAL OF THE ENGINEER.

## 1 TYPICAL SANITARY SEWER LATERAL CONNECTION
N.T.S.




1. BACKFILL AND COMPACT TRENCHES EVENLY, LEAVING A MOUND ON THE SURFACE FOR FUTURE SETTLING IN NON-PAVEMENT AREAS.
2. ALL TRENCHES UNDER PAVEMENT AREAS SHALL BE BACKFILLED WITH COMPACTED AGGREGATE TO 95% STANDARD PROCTOR DENSITY. COMPACTED IN 8" MAX. LIFTS

## 2 TYPICAL ELECTRIC TRENCH DETAIL
N.T.S.




BENCHMARKS:

1. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38
2. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84
3. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64
4. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

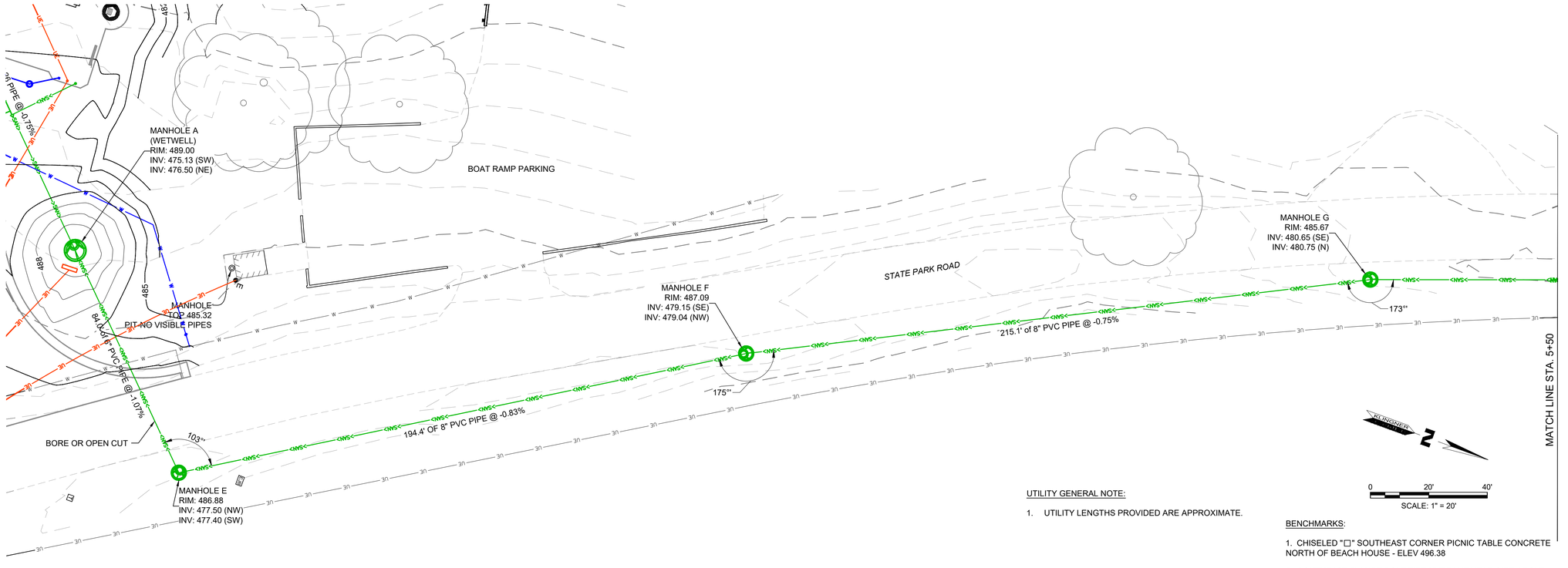
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C303
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CABINS SITE UTILITY PLAN**

SHEET NUMBER:
**C303**
SHEET 20 OF 105 10/31/2025




UTILITY GENERAL NOTE:

1. UTILITY LENGTHS PROVIDED ARE APPROXIMATE.

BENCHMARKS:

1. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38

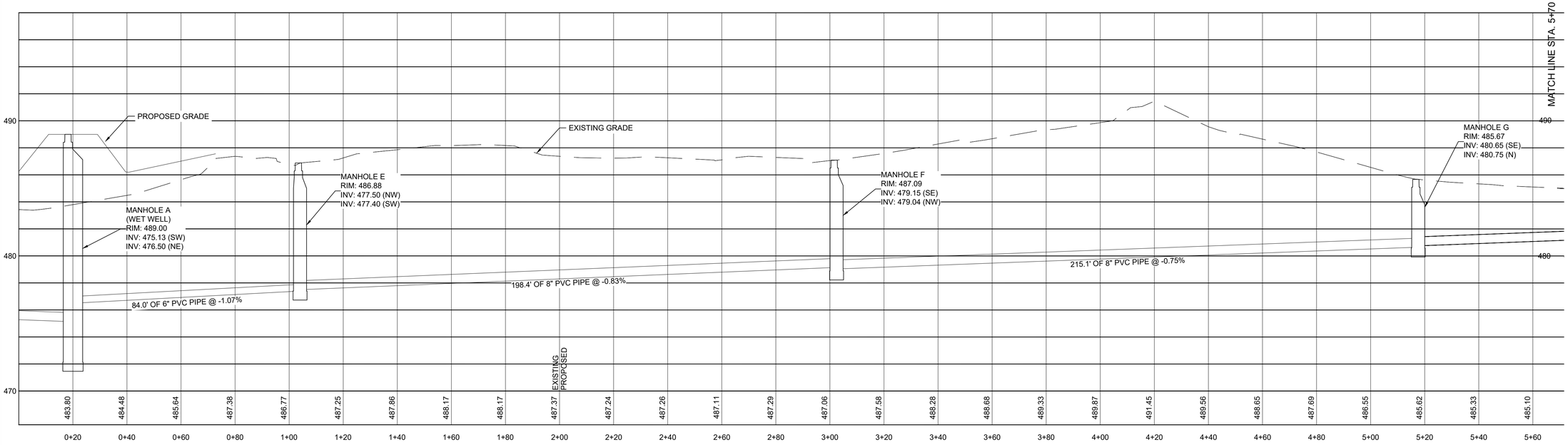
2. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84

3. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64

4. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30

0 20' 40'
HORIZONTAL SCALE: 1" = 20'

0 5' 10'
VERTICAL SCALE: 1" = 5'




STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
CURT STEPHEN WAVERING
NUMBER PE-2011009566
10/31/2025
PROFESSIONAL ENGINEER

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DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
10 PREMIUM SITES AND 6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 10-31-2025

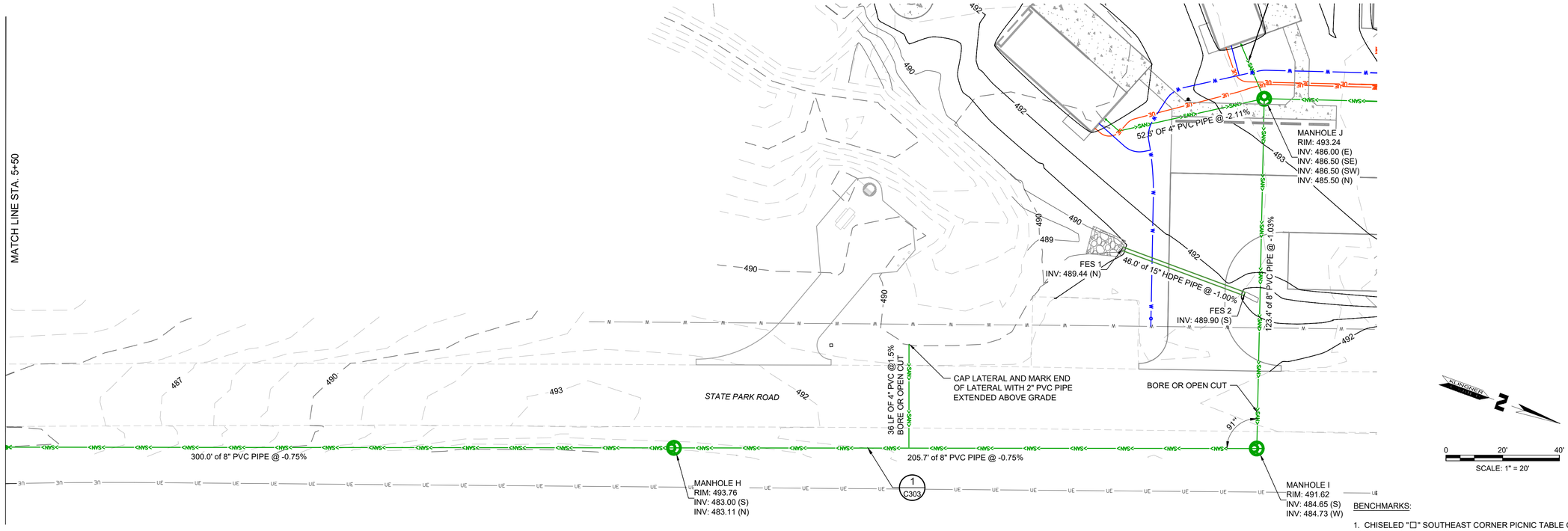
CAD DWG FILE: C304
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:

**CABINS SEWER PLAN & PROFILE STA. 0+00 TO STA. 5+50**

SHEET NUMBER:

# C304




UTILITY GENERAL NOTE:

1. UTILITY LENGTHS PROVIDED ARE APPROXIMATE.

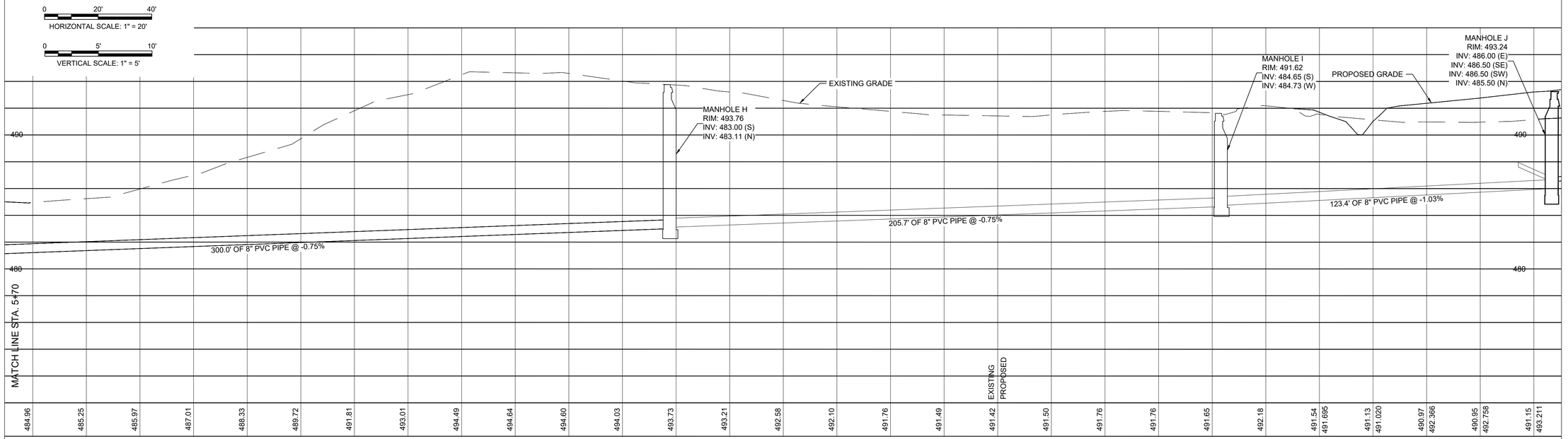
BENCHMARKS:

1. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38

2. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84

3. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64

4. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30




STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

CURT STEPHEN WAVERING
NUMBER PE-2011009046
STATE OF MISSOURI
PROFESSIONAL ENGINEER

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL
RESOURCES DIVISION OF
STATE PARKS

REBID
10 PREMIUM SITES AND 6
PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 10-31-2025

CAD DWG FILE: C305
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

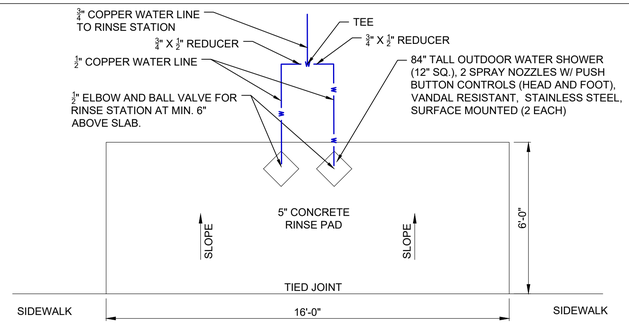
SHEET TITLE:

# CABINS SEWER PLAN & PROFILE STA. 5+50 TO STA. 11+18.08

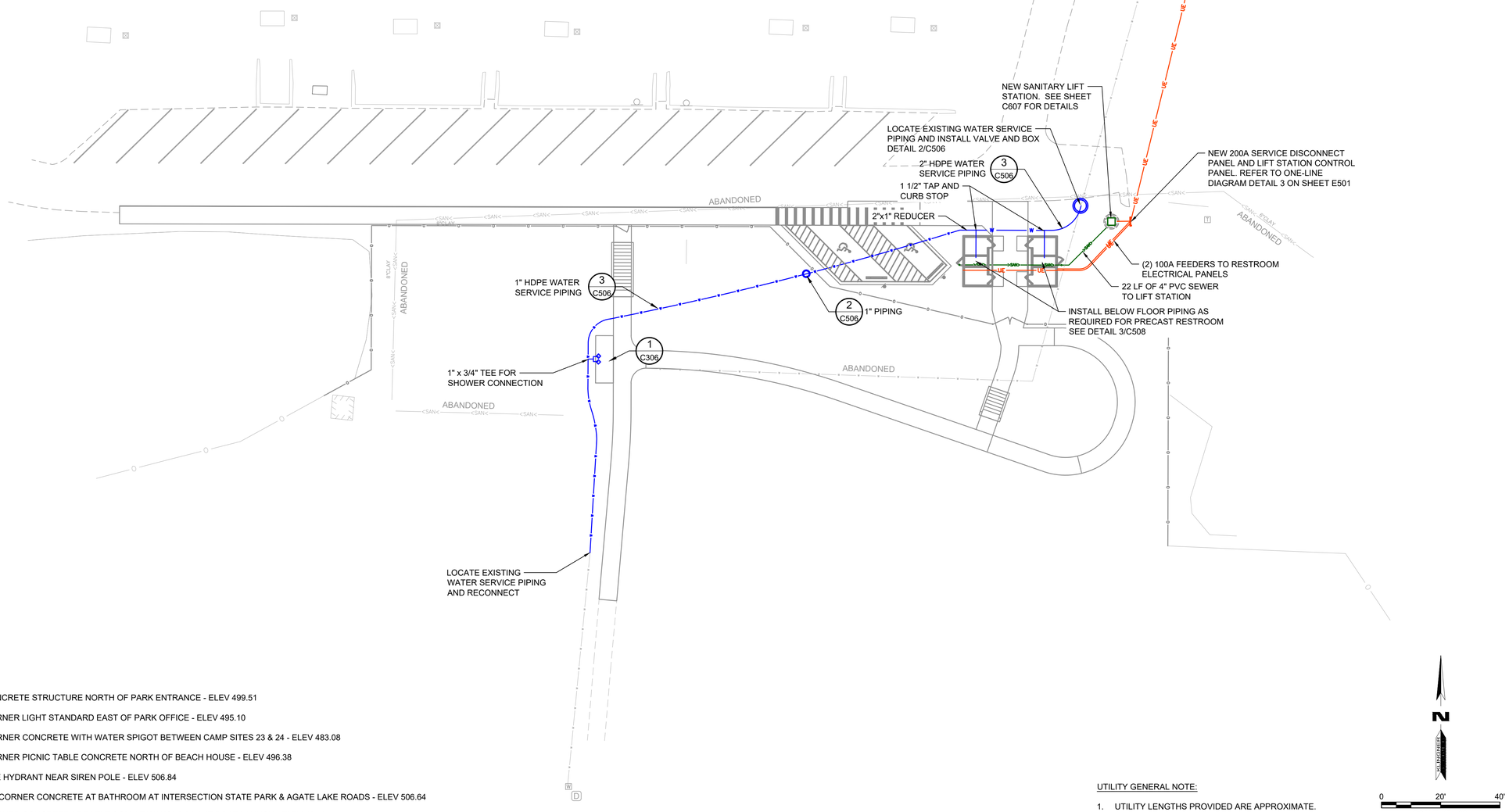
SHEET NUMBER:

# C305

SHEET 22 OF 105 10/31/2025




1 RINSE STATION DETAIL
N.T.S.




BENCHMARKS:

1. CHISELED "□" SOUTH SIDE CONCRETE STRUCTURE NORTH OF PARK ENTRANCE - ELEV 499.51
2. CHISELED "□" SOUTHEAST CORNER LIGHT STANDARD EAST OF PARK OFFICE - ELEV 495.10
3. CHISELED "□" NORTHEAST CORNER CONCRETE WITH WATER SPIGOT BETWEEN CAMP SITES 23 & 24 - ELEV 483.08
4. CHISELED "□" SOUTHEAST CORNER PICNIC TABLE CONCRETE NORTH OF BEACH HOUSE - ELEV 496.38
5. SOUTHEAST FLANGE BOLT FIRE HYDRANT NEAR SIREN POLE - ELEV 506.84
6. CHISELED "□" ON SOUTHEAST CORNER CONCRETE AT BATHROOM AT INTERSECTION STATE PARK & AGATE LAKE ROADS - ELEV 506.64
7. CHISELED "□" NORTHEAST CORNER CONCRETE AT BATHROOM AT WAKONDA LAKE BOAT LAUNCH - ELEV 485.30
8. CHISELED "□" EAST SIDE LIFT STATION SOUTH OF LAGOON - ELEV 483.48

UTILITY GENERAL NOTE:

1. UTILITY LENGTHS PROVIDED ARE APPROXIMATE.

N

0 20' 40'
SCALE: 1" = 20'

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
CURT STEPHEN WAVERING
NUMBER PE-2011009046
10/31/2025
PROFESSIONAL ENGINEER

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**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**BEACH COMFORT STATION**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C301
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

SHEET TITLE:

**BEACH COMFORT STATION**
**SITE UTILITY PLAN**

SHEET NUMBER:

# C306

SHEET 23 OF 105 10/31/2025

**STATE OF MISSOURI**
**MIKE KEHOE,**
**GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
MARK C. BROSS
NUMBER E-20010040
10/31/25
REGISTERED PROFESSIONAL ENGINEER


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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C400
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

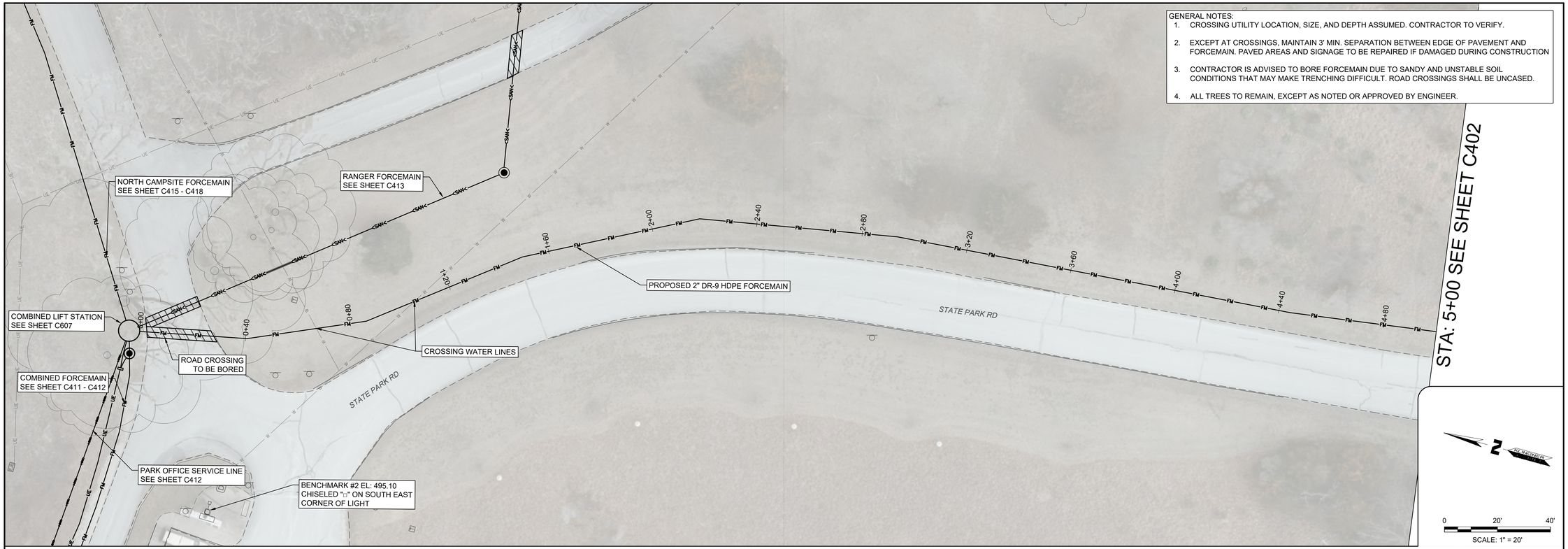
SHEET TITLE:

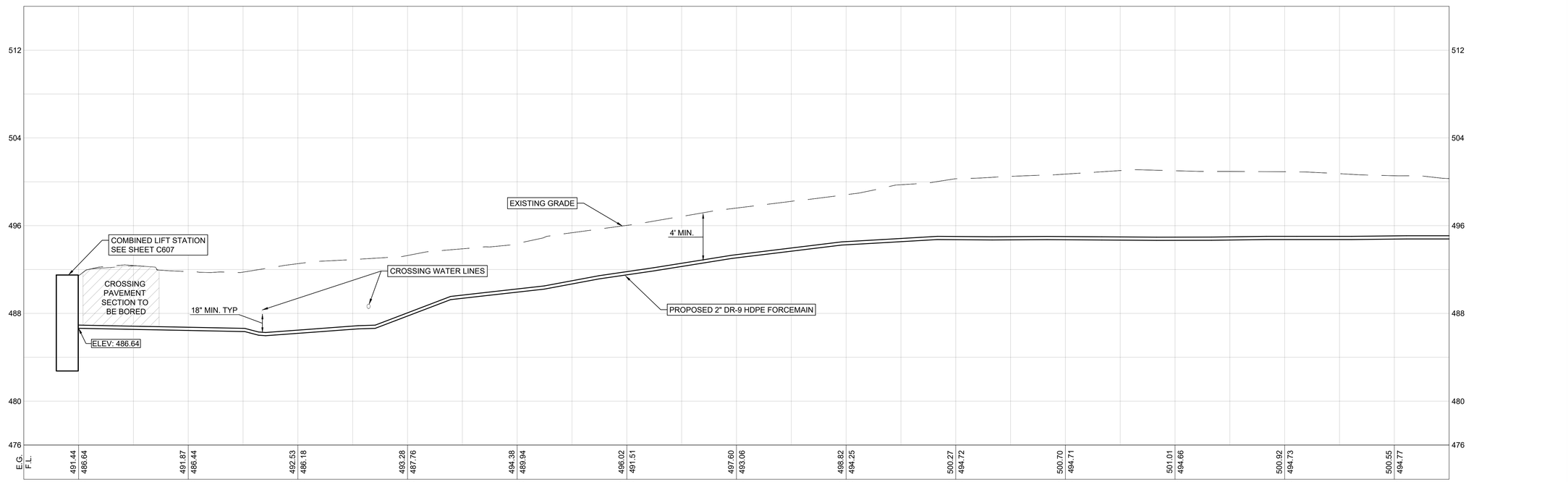
## ALTERNATE— SANITARY SITE PLAN

SHEET NUMBER:

# C400

GENERAL NOTES:
1. CROSSING UTILITY LOCATION, SIZE, AND DEPTH ASSUMED. CONTRACTOR TO VERIFY.
2. EXCEPT AT CROSSINGS, MAINTAIN 3' MIN. SEPARATION BETWEEN EDGE OF PAVEMENT AND FORCEMAIN. PAVED AREAS AND SIGNAGE TO BE REPAIRED IF DAMAGED DURING CONSTRUCTION
3. CONTRACTOR IS ADVISED TO BORE FORCEMAIN DUE TO SANDY AND UNSTABLE SOIL CONDITIONS THAT MAY MAKE TRENCHING DIFFICULT. ROAD CROSSINGS SHALL BE UNCASED.
4. ALL TREES TO REMAIN, EXCEPT AS NOTED OR APPROVED BY ENGINEER.




**STATE OF MISSOURI**
**MIKE KEHOE,**
**GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
MARK C. BROSS
NUMBER E-20010046
10/31/25
REGISTERED PROFESSIONAL ENGINEER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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

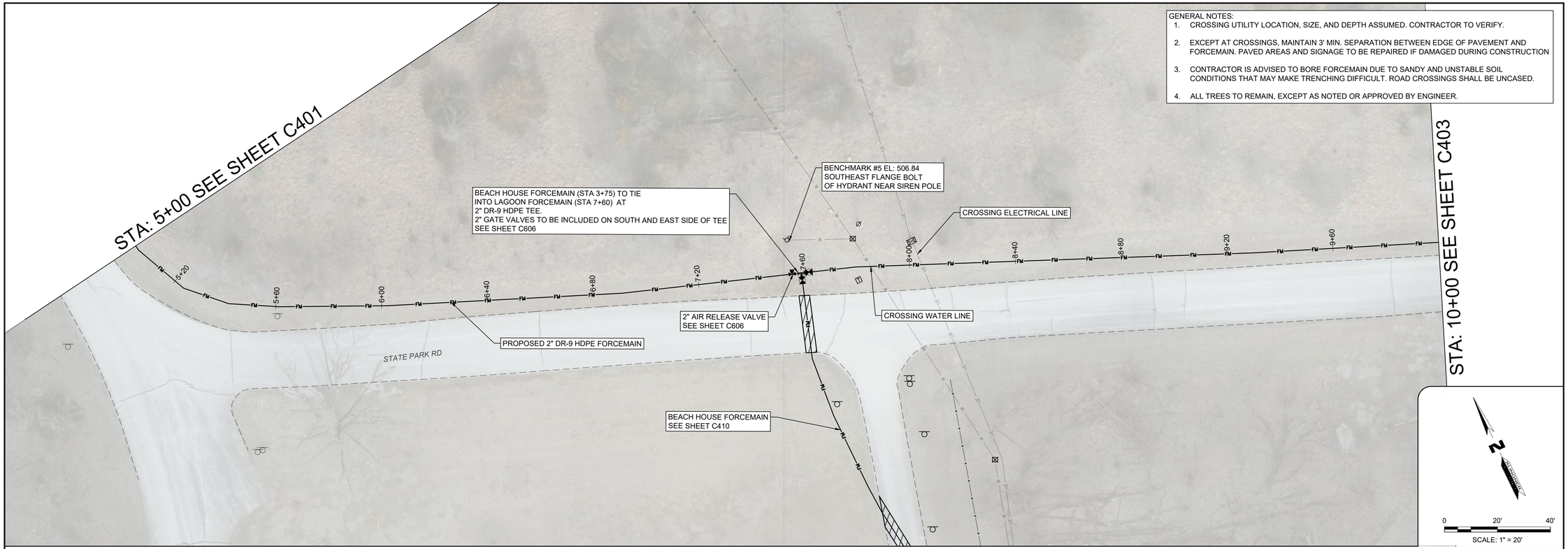
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

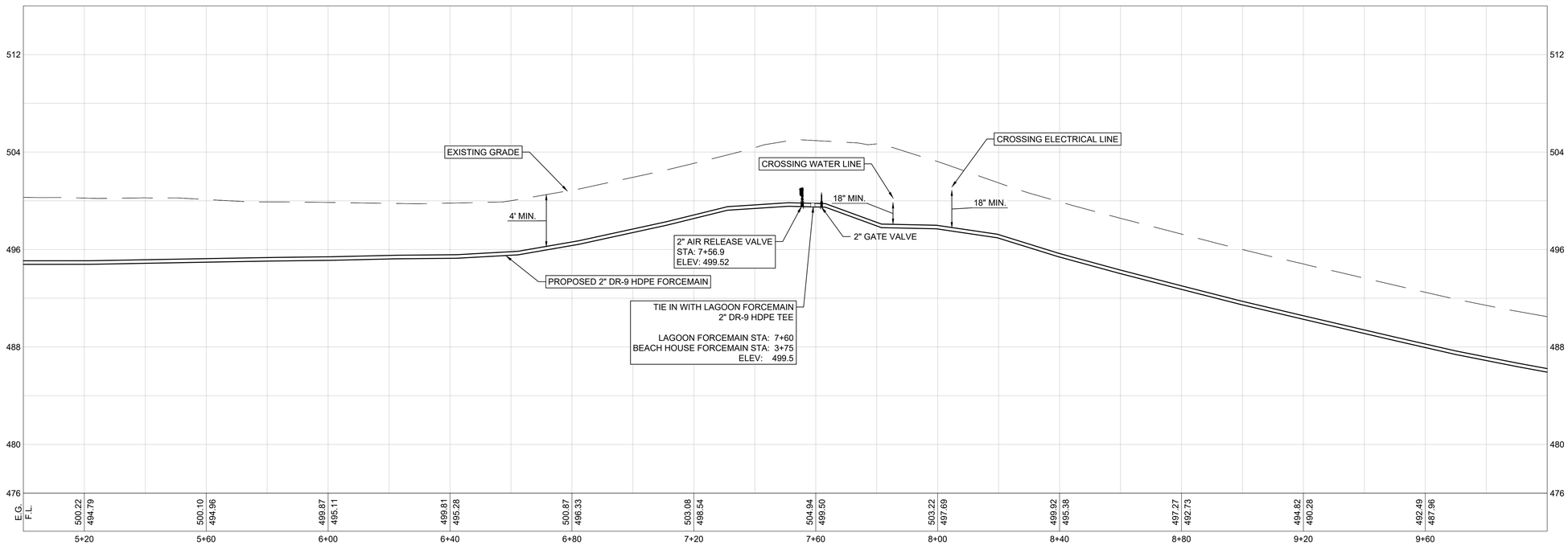
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C401
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— LAGOON FORCEMAIN - (0+00-5+00)**

SHEET NUMBER:
# C401

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DEPARTMENT OF NATURAL RESOURCES,
DIVISION OF STATE PARKS

REBID
ALTERNATE:
SEWER IMPROVEMENTS

WAKONDA STATE PARK
32836 STATE PARK ROAD,
LA GRANGE, MO 63448

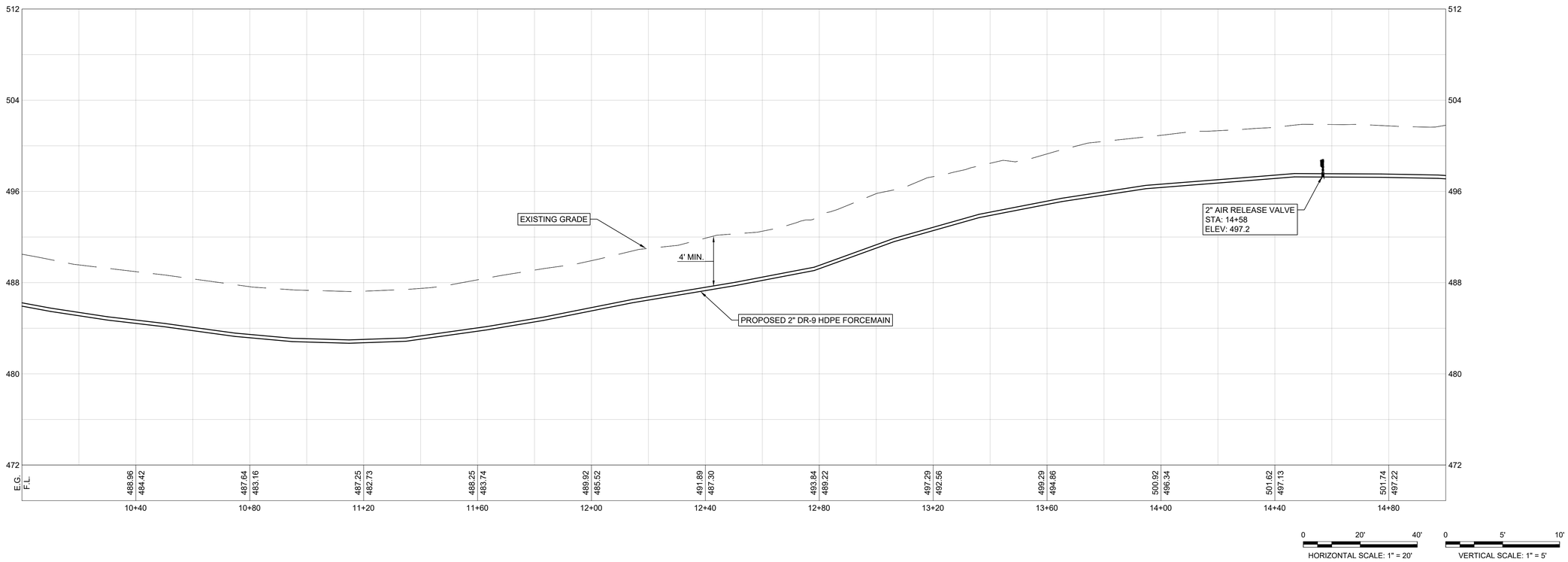
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C402
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE—LAGOON FORCEMAIN - (5+00-10+00)**

SHEET NUMBER:
# C402

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**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

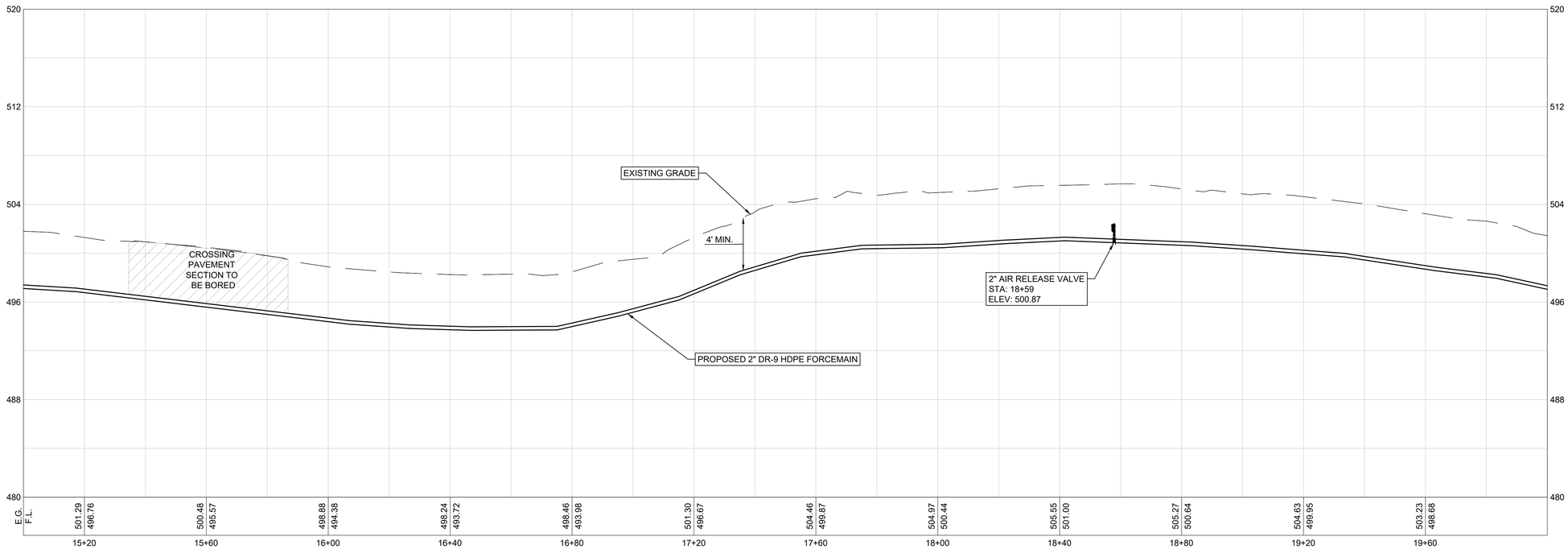
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C403
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— LAGOON FORCEMAIN - (10+00-15+00)**

SHEET NUMBER:
# C403

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**MIKE KEHOE, GOVERNOR**

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**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
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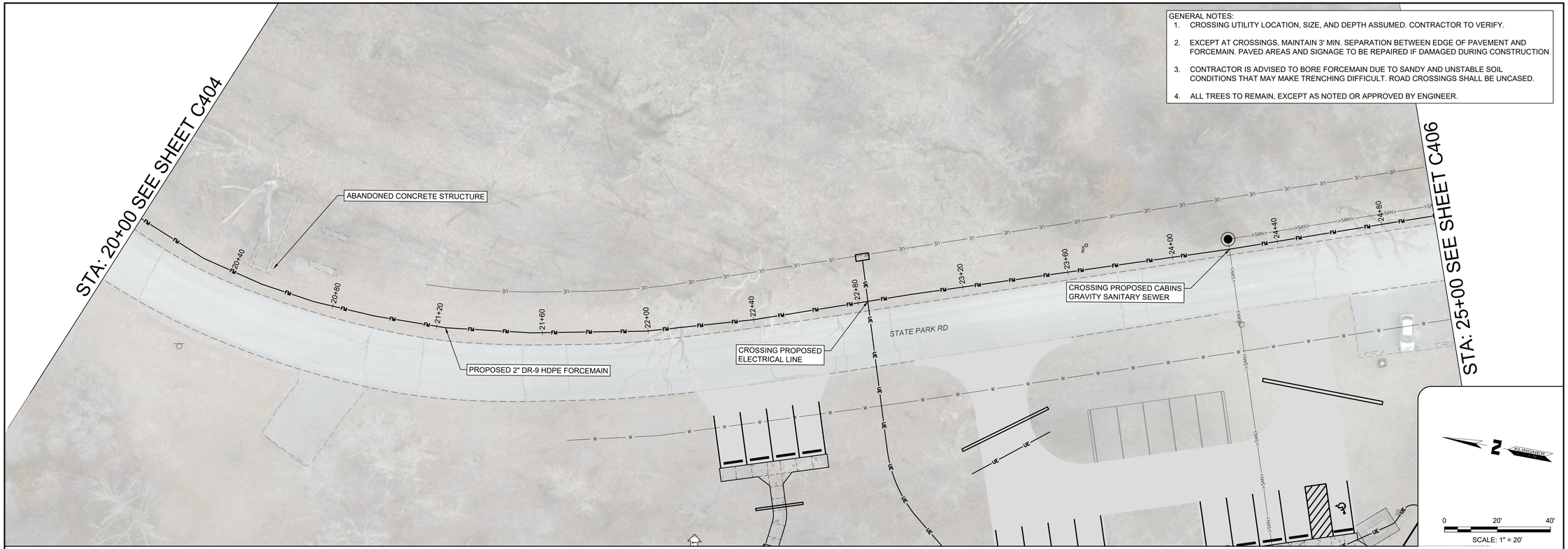
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

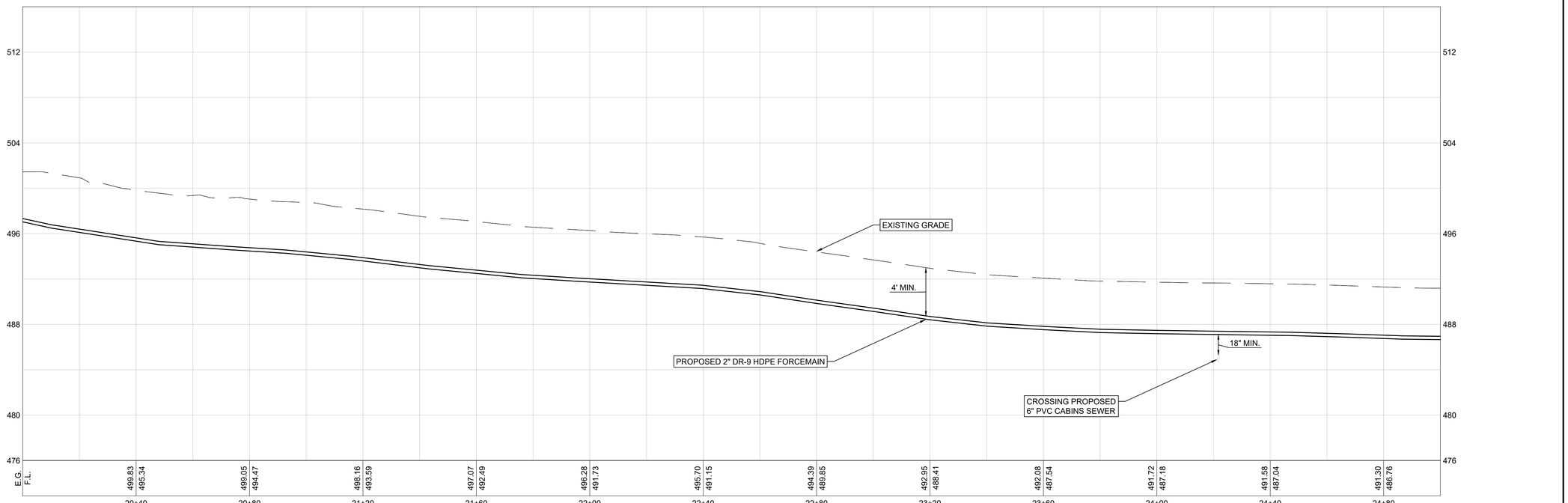
CAD DWG FILE: C404
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— LAGOON FORCEMAIN - (15+00-20+00)**

SHEET NUMBER:
# C404

GENERAL NOTES:
1. CROSSING UTILITY LOCATION, SIZE, AND DEPTH ASSUMED. CONTRACTOR TO VERIFY.
2. EXCEPT AT CROSSINGS, MAINTAIN 3' MIN. SEPARATION BETWEEN EDGE OF PAVEMENT AND FORCEMAIN. PAVED AREAS AND SIGNAGE TO BE REPAIRED IF DAMAGED DURING CONSTRUCTION
3. CONTRACTOR IS ADVISED TO BORE FORCEMAIN DUE TO SANDY AND UNSTABLE SOIL CONDITIONS THAT MAY MAKE TRENCHING DIFFICULT. ROAD CROSSINGS SHALL BE UNCASED.
4. ALL TREES TO REMAIN, EXCEPT AS NOTED OR APPROVED BY ENGINEER.

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**MIKE KEHOE, GOVERNOR**

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**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

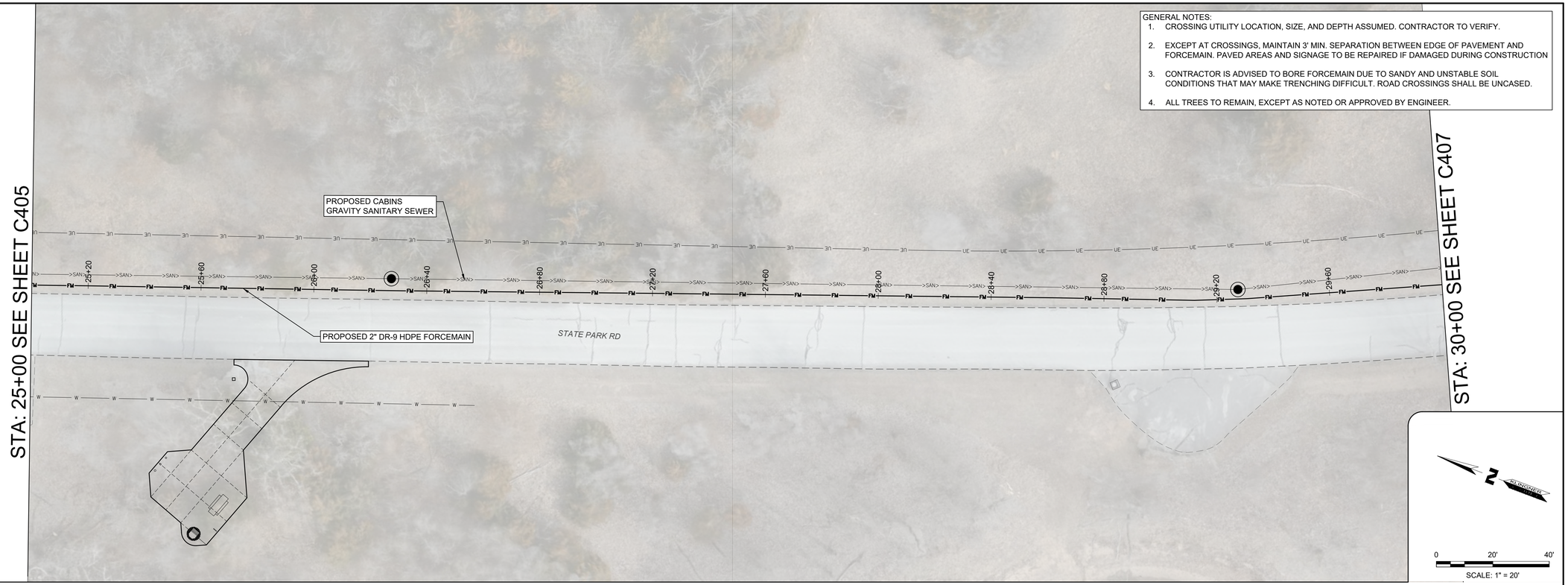
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

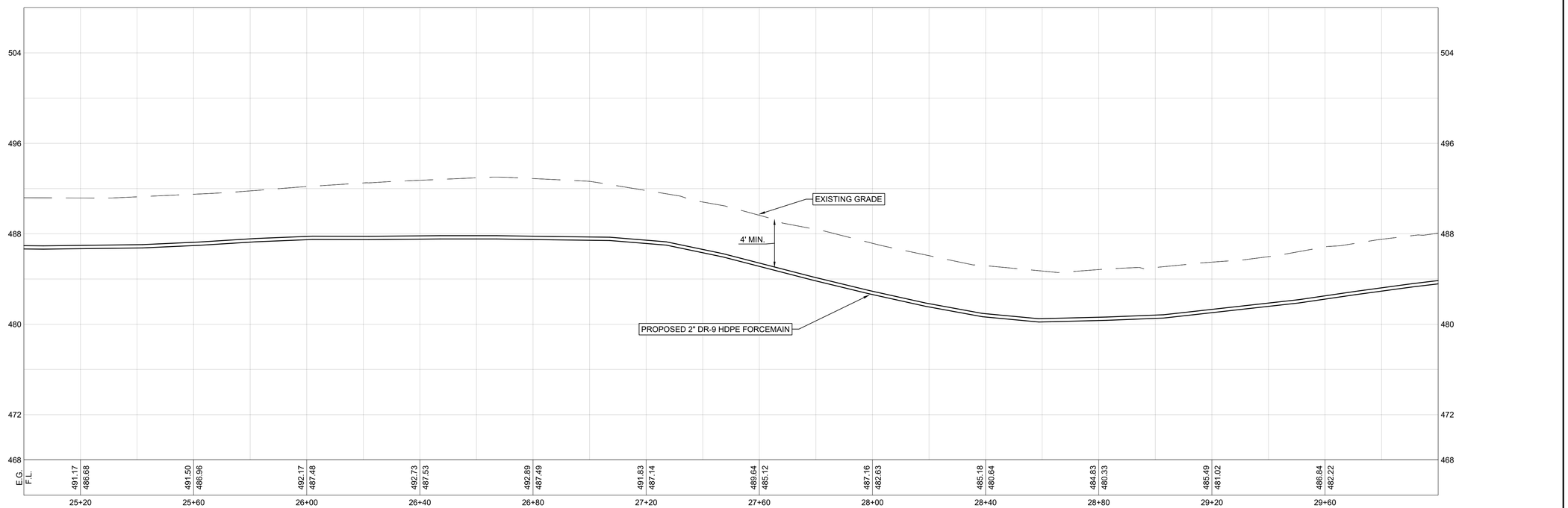
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C405
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— LAGOON FORCEMAIN - (20+00-25+00)**

SHEET NUMBER:
# C405

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**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C406
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— LAGOON FORCEMAIN - (25+00-30+00)**

SHEET NUMBER:
# C406

GENERAL NOTES:
1. CROSSING UTILITY LOCATION, SIZE, AND DEPTH ASSUMED. CONTRACTOR TO VERIFY.
2. EXCEPT AT CROSSINGS, MAINTAIN 3' MIN. SEPARATION BETWEEN EDGE OF PAVEMENT AND FORCEMAIN. PAVED AREAS AND SIGNAGE TO BE REPAIRED IF DAMAGED DURING CONSTRUCTION
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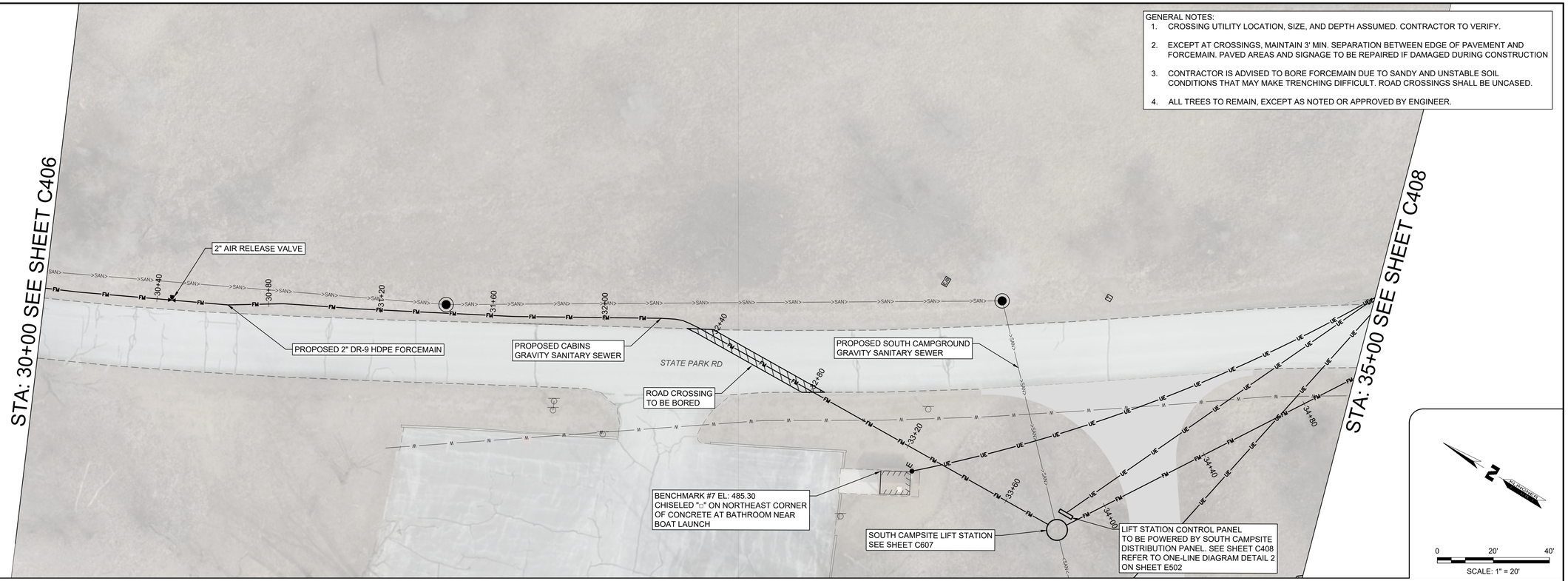
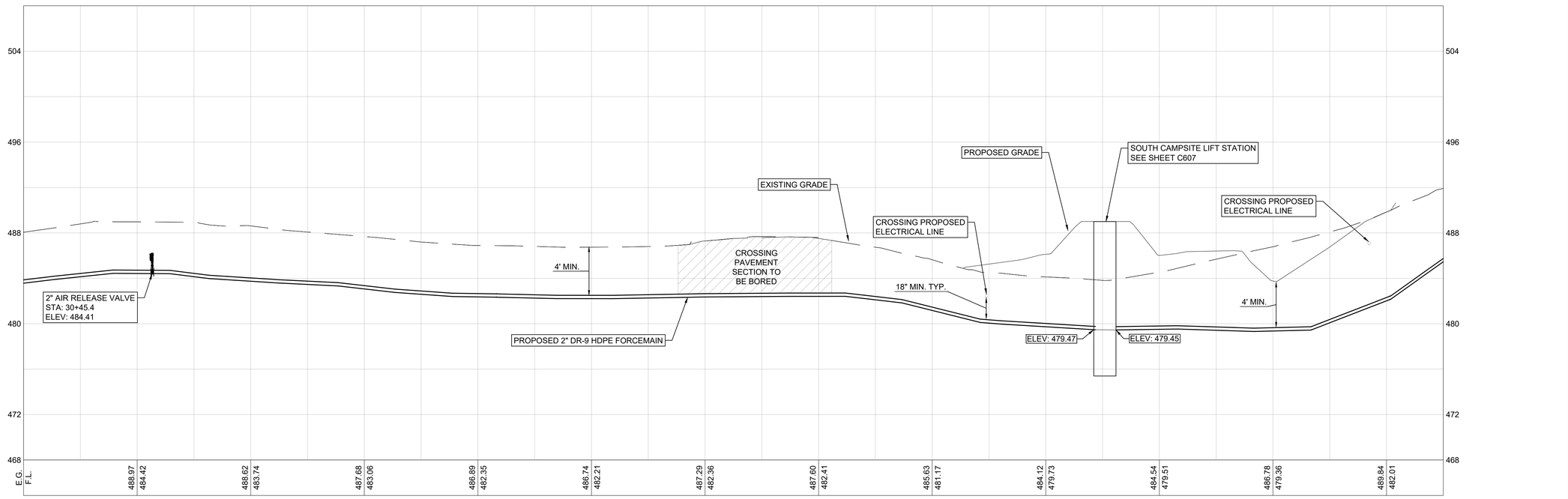
4. ALL TREES TO REMAIN, EXCEPT AS NOTED OR APPROVED BY ENGINEER.

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**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

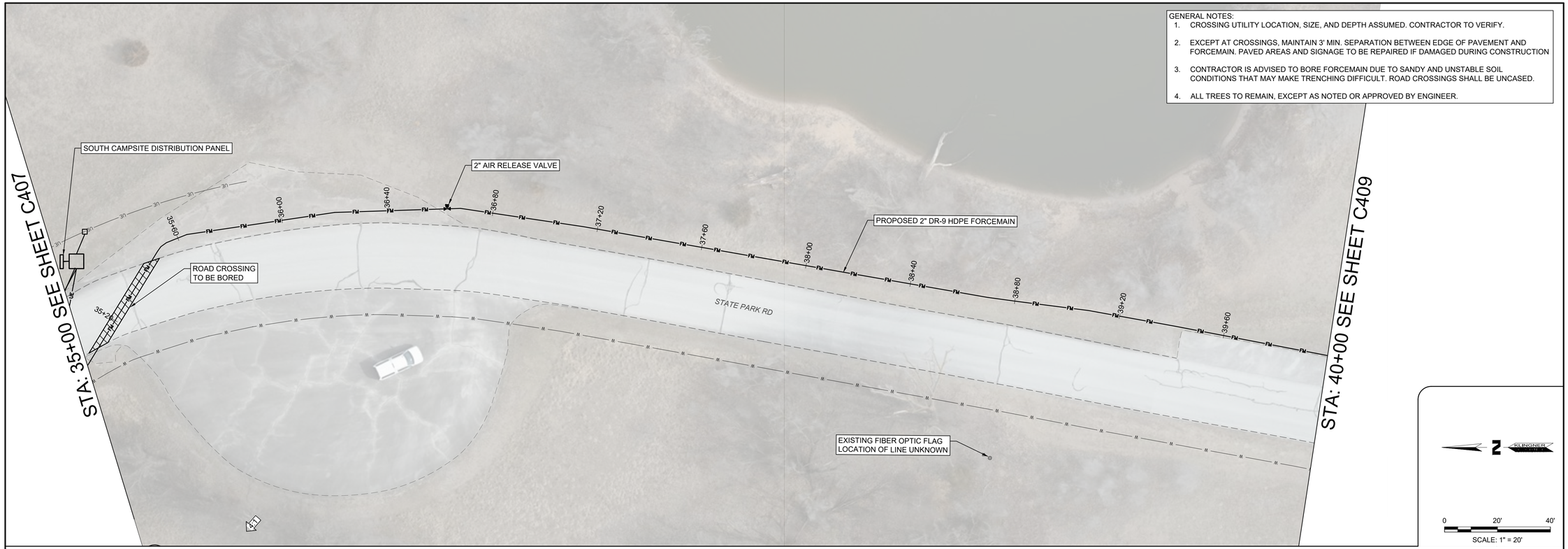
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

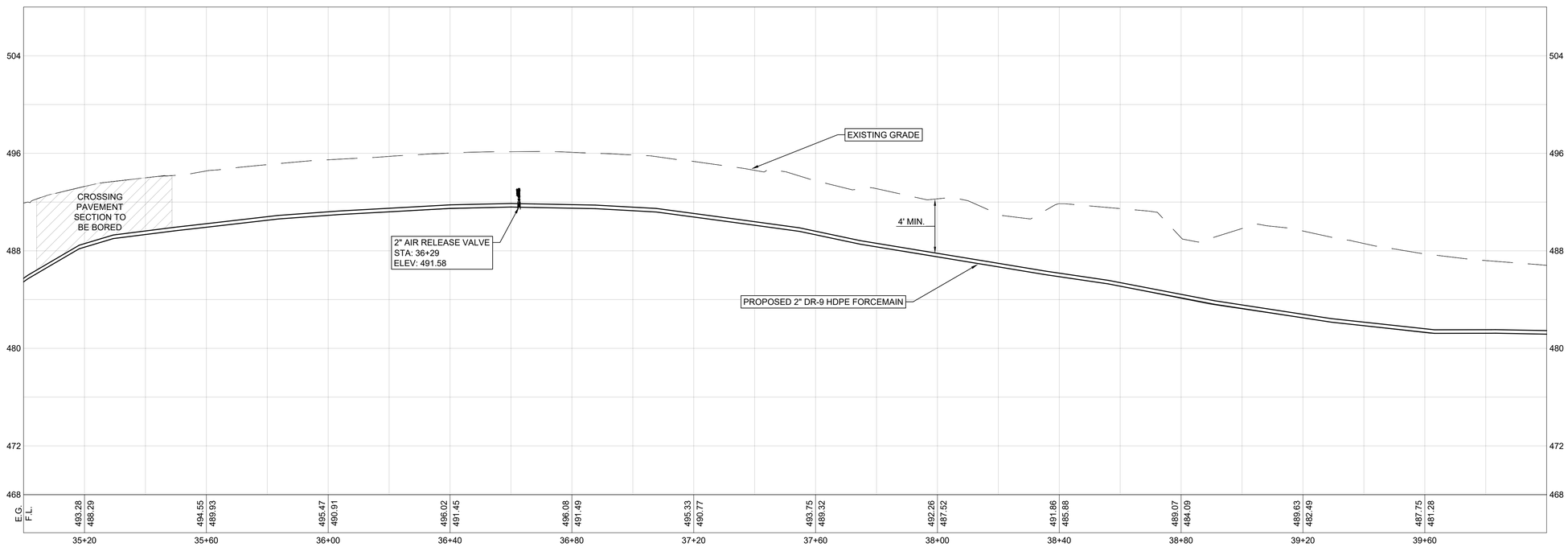
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C407
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— LAGOON FORCEMAIN - (30+00-35+00)**

SHEET NUMBER:
# C407

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10/31/25
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REBID
ALTERNATE:
SEWER IMPROVEMENTS

WAKONDA STATE PARK
32836 STATE PARK ROAD,
LA GRANGE, MO 63448

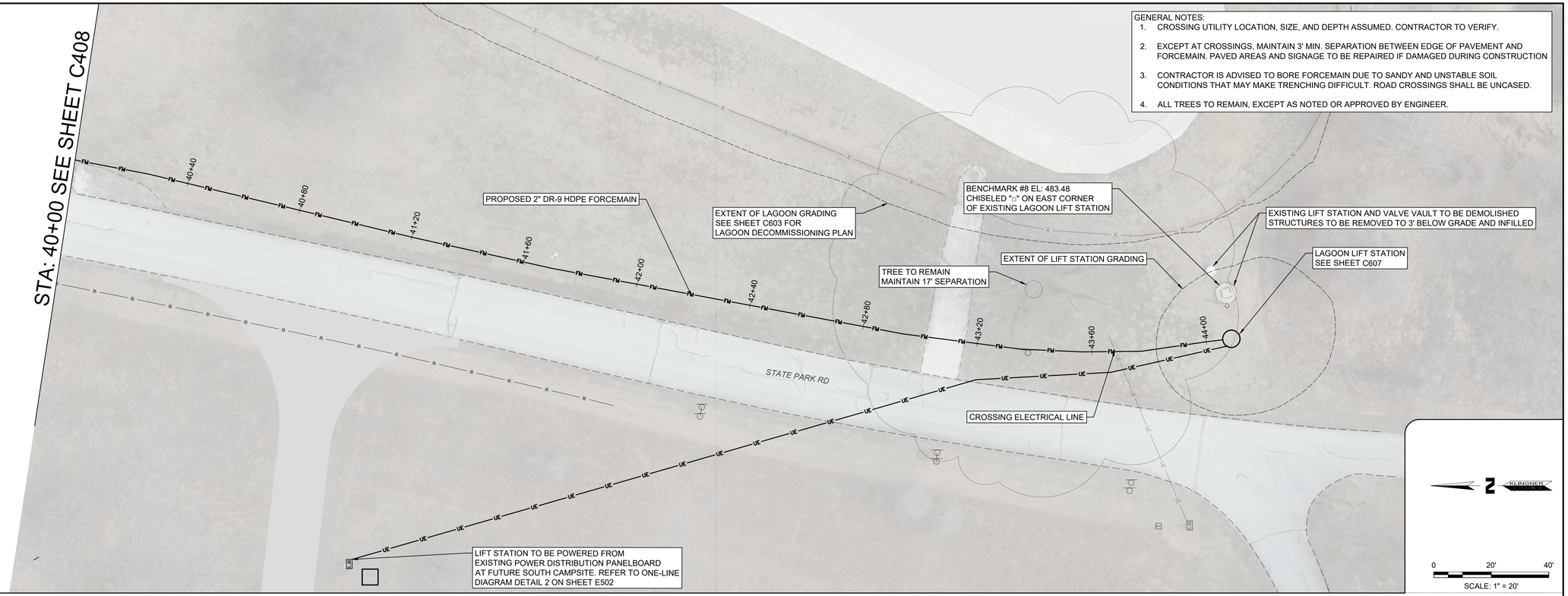
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

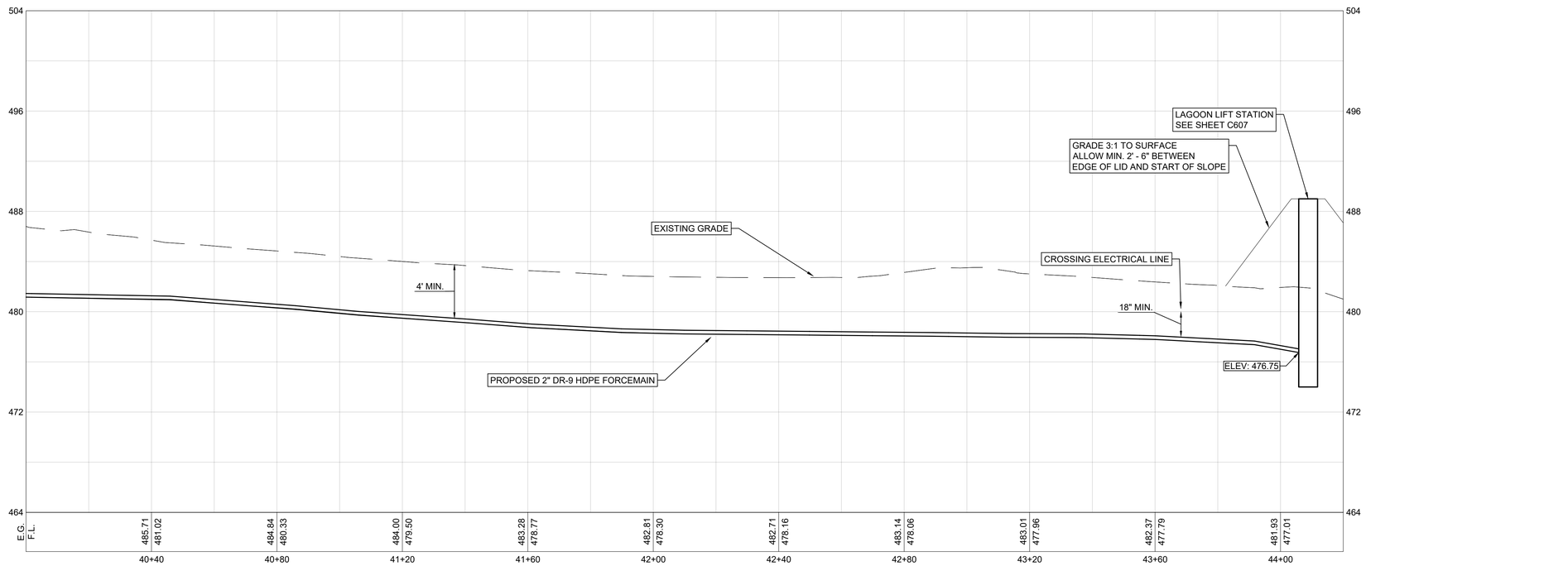
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C408
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE—LAGOON FORCEMAIN - (35+00-40+00)**

SHEET NUMBER:
# C408

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LA GRANGE, MO 63448

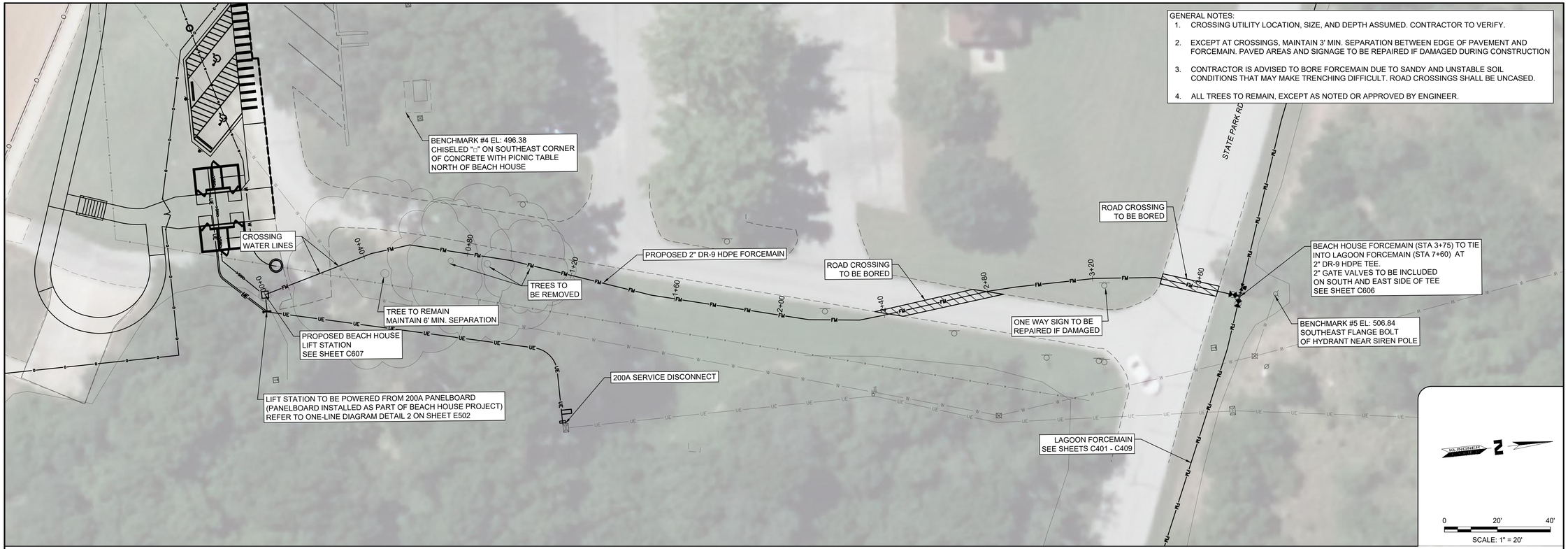
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

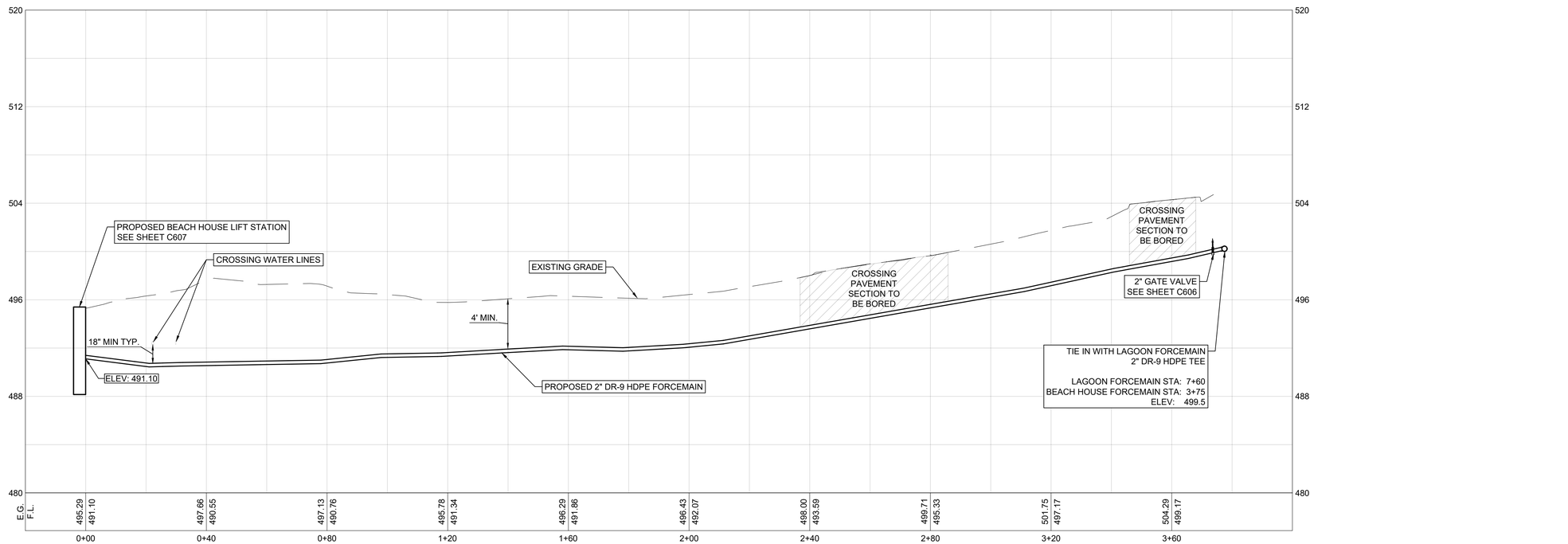
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C409
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE—LAGOON FORCEMAIN - (40+00-44+10)**

SHEET NUMBER:
# C409

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**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

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**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

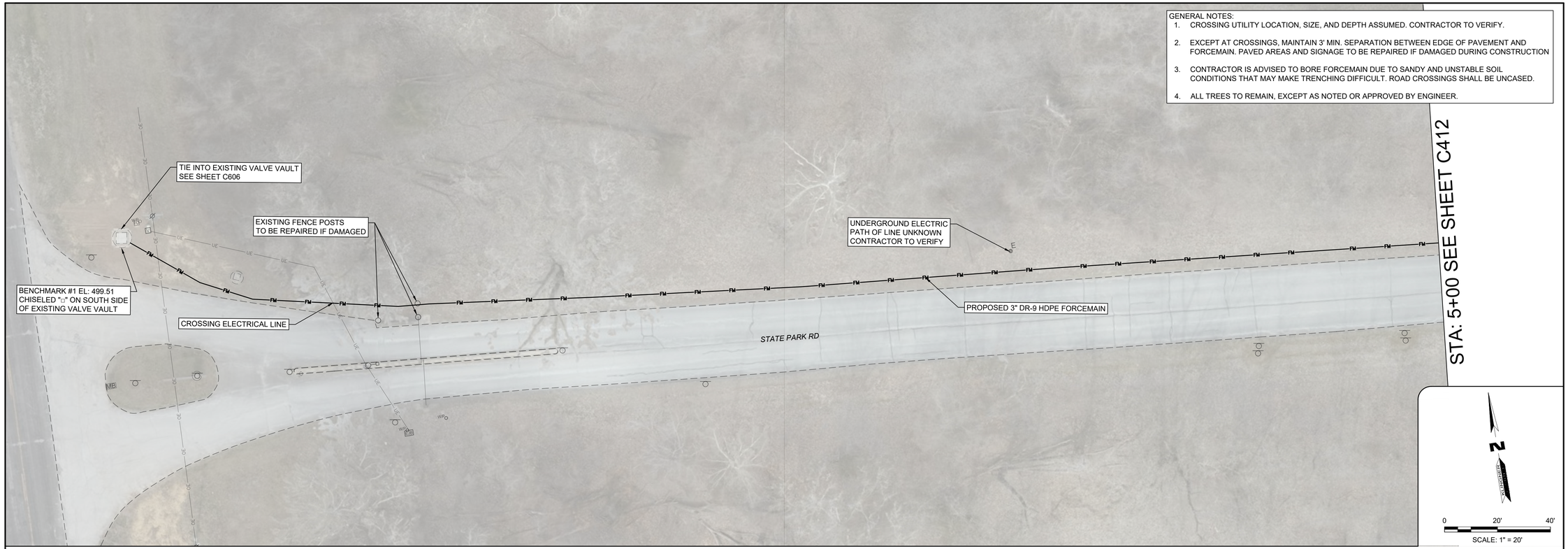
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

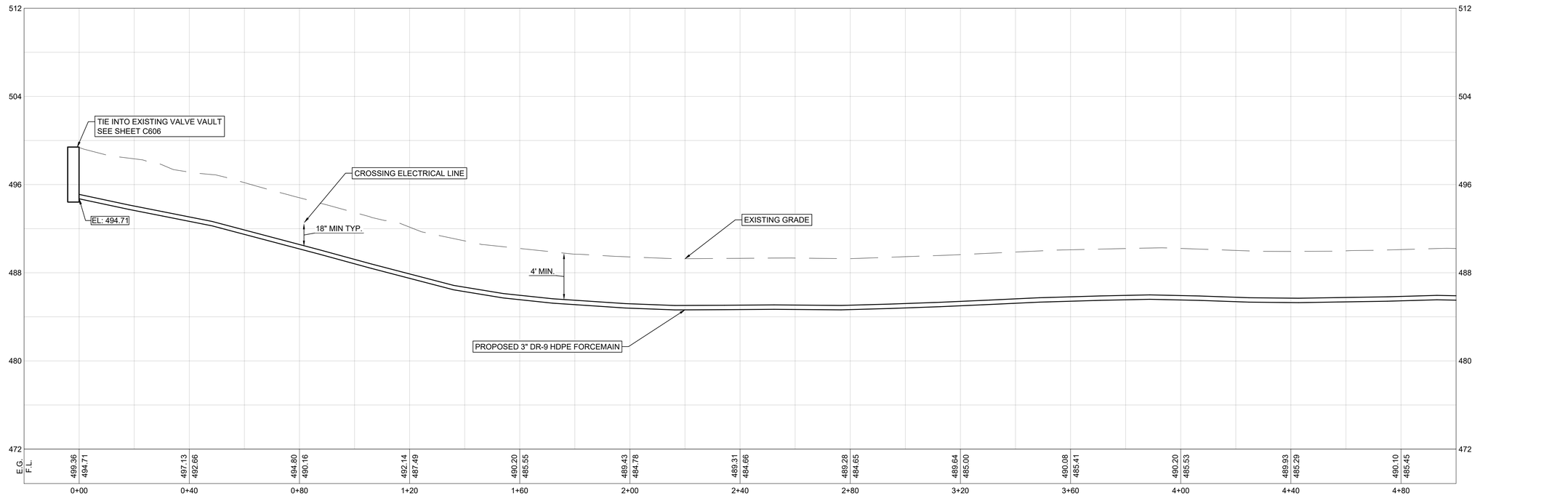
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C410
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— BEACH HOUSE FORCEMAIN (0+00 - 3+75)**

SHEET NUMBER:
# C410

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NUMBER E-20010049
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**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
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**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

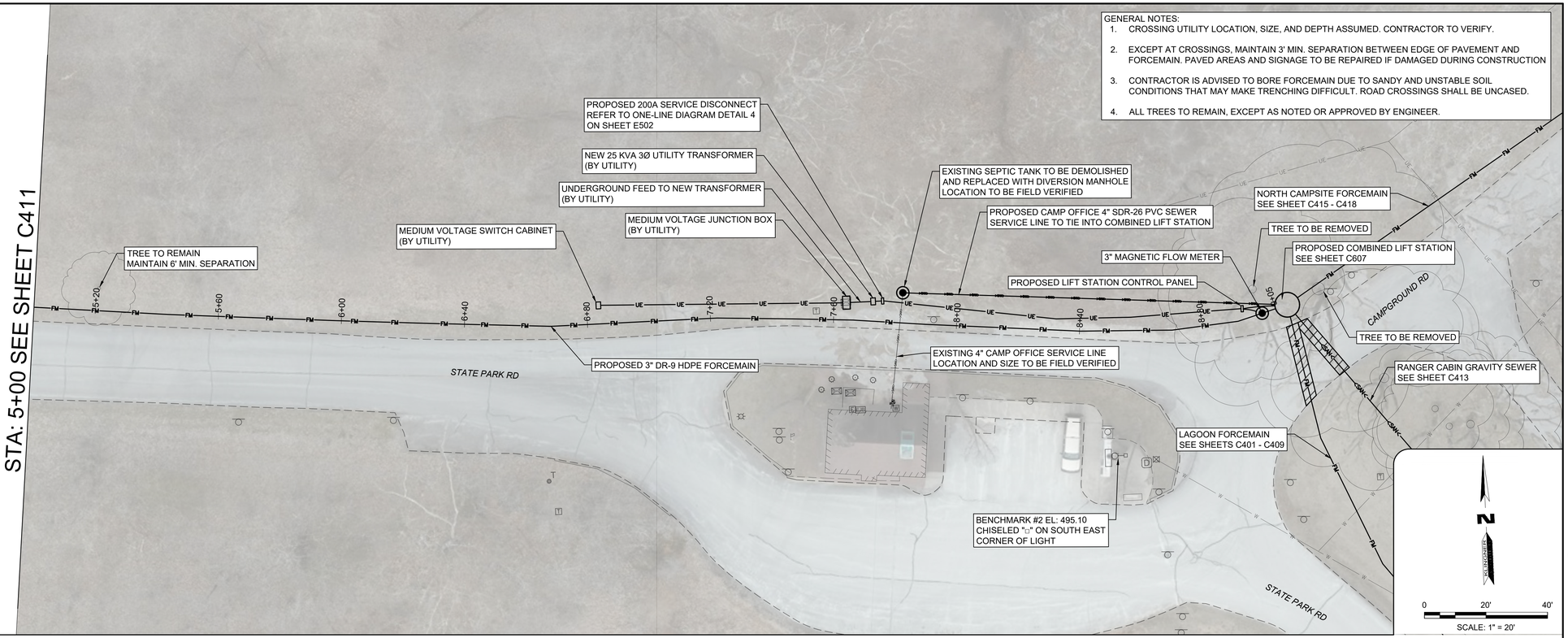
CAD DWG FILE:C411
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

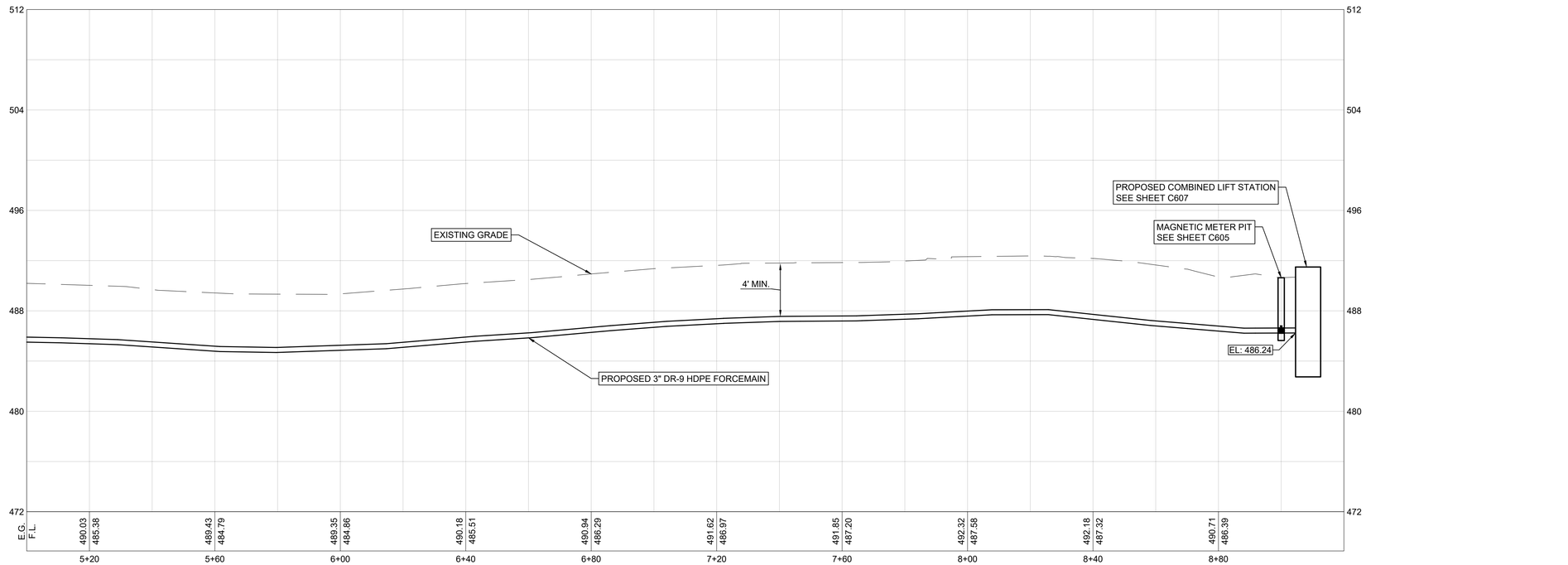
SHEET TITLE:

## ALTERNATE— COMBINED LS TO TIE-IN FORCEMAIN (0+00-5+00)

SHEET NUMBER:

# C411

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PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
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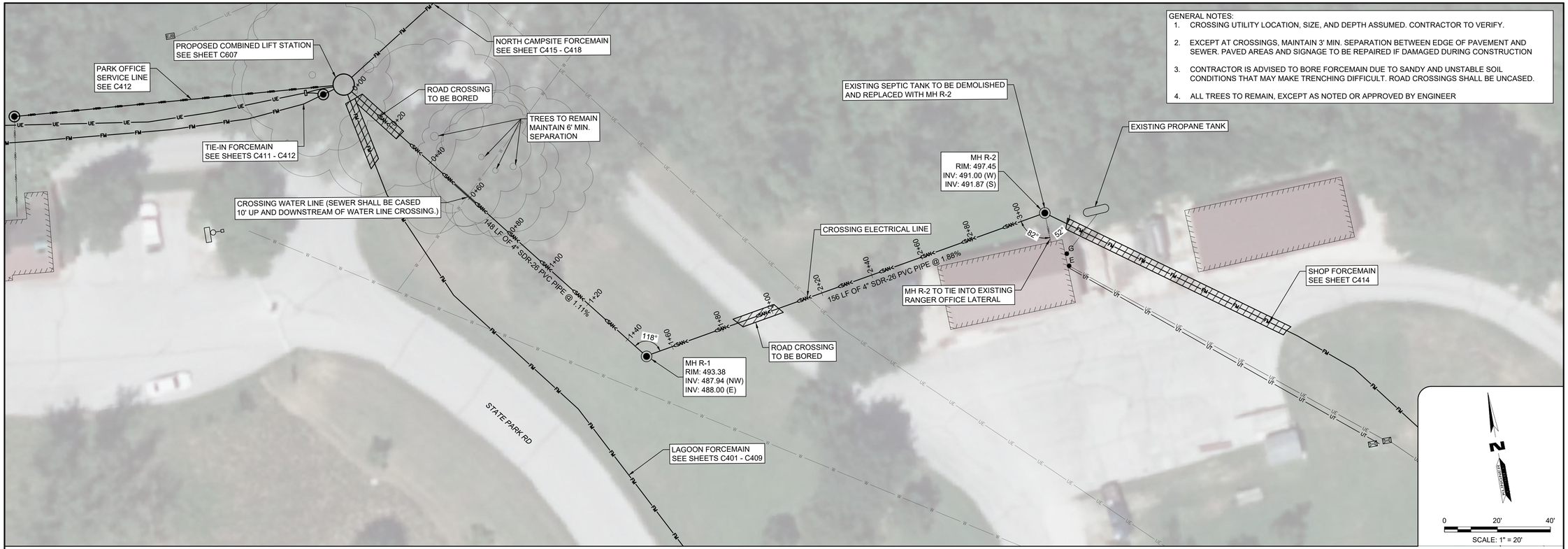
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE:C412
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— COMBINED LS TO TIE-IN FORCEMAIN (5+00-9+06)**

SHEET NUMBER:
# C412




GENERAL NOTES:

1. CROSSING UTILITY LOCATION, SIZE, AND DEPTH ASSUMED. CONTRACTOR TO VERIFY.
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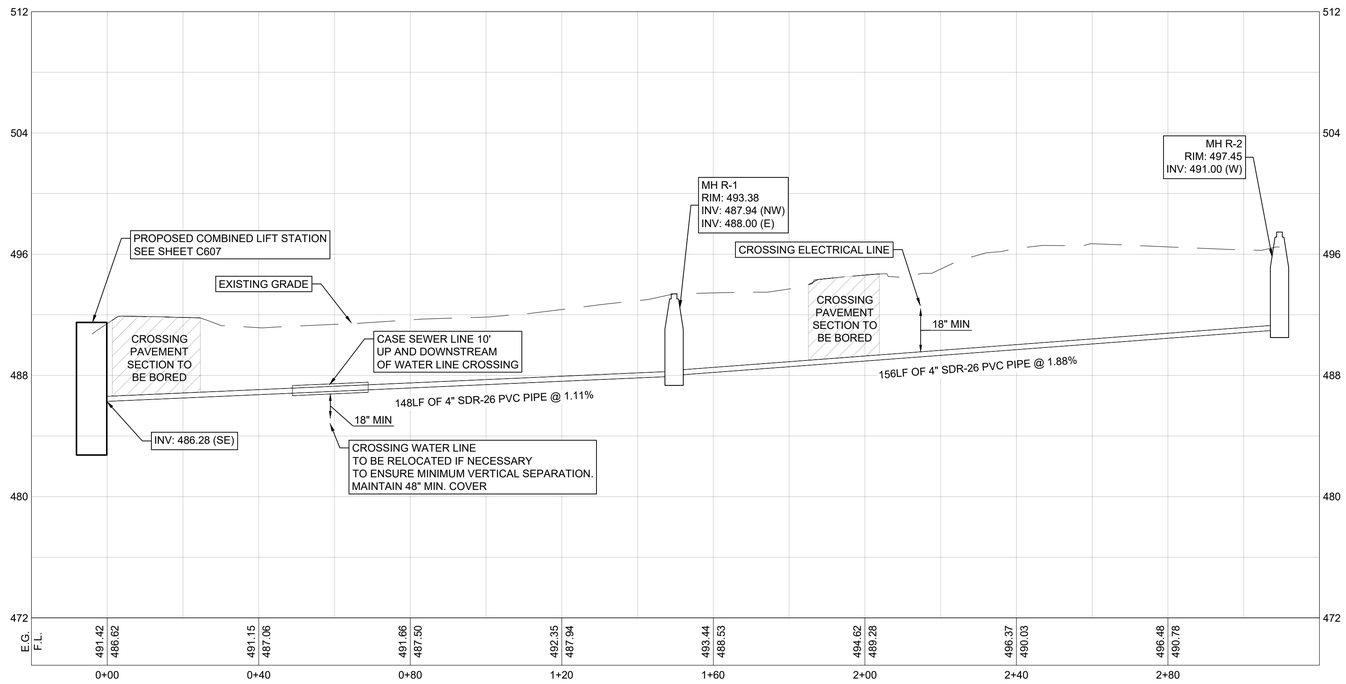
3. CONTRACTOR IS ADVISED TO BORE FORCEMAIN DUE TO SANDY AND UNSTABLE SOIL CONDITIONS THAT MAY MAKE TRENCHING DIFFICULT. ROAD CROSSINGS SHALL BE UNCASED.
4. ALL TREES TO REMAIN, EXCEPT AS NOTED OR APPROVED BY ENGINEER




0 20' 40'
HORIZONTAL SCALE: 1" = 20'

0 5' 10'
VERTICAL SCALE: 1" = 5'

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
MARK C. BROSS
NUMBER E-20010045
10/31/25
REGISTERED PROFESSIONAL ENGINEER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**OFFICE OF ADMINISTRATION**
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**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

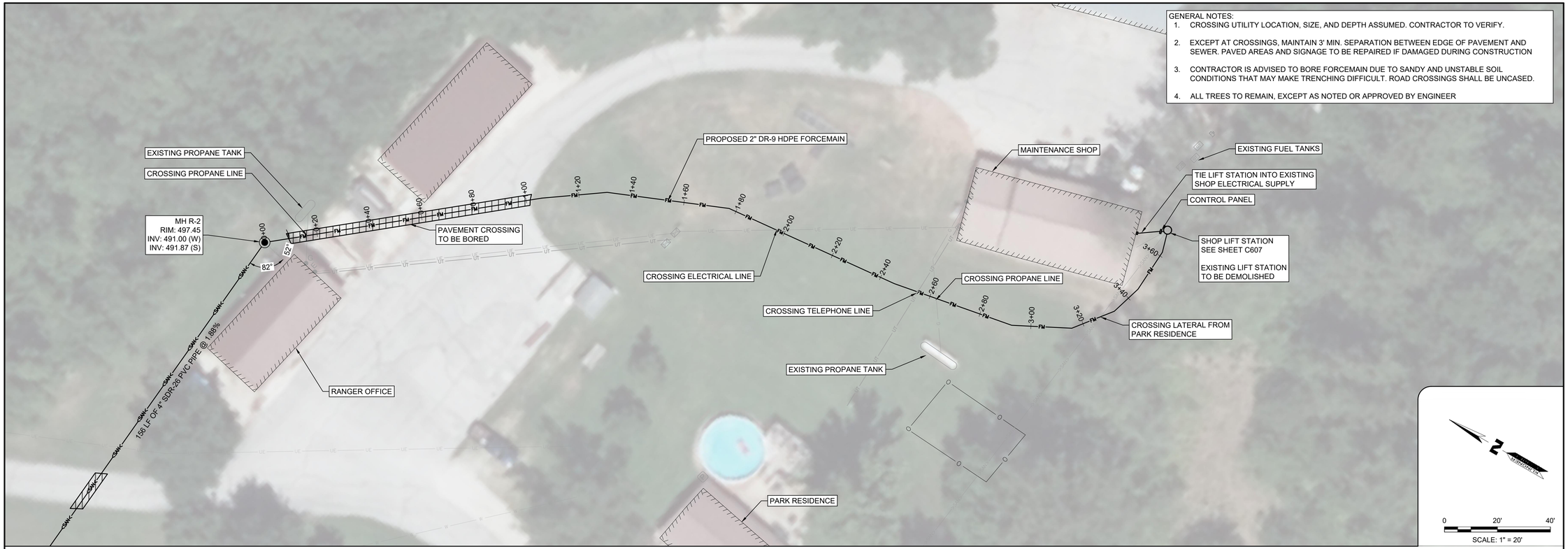
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

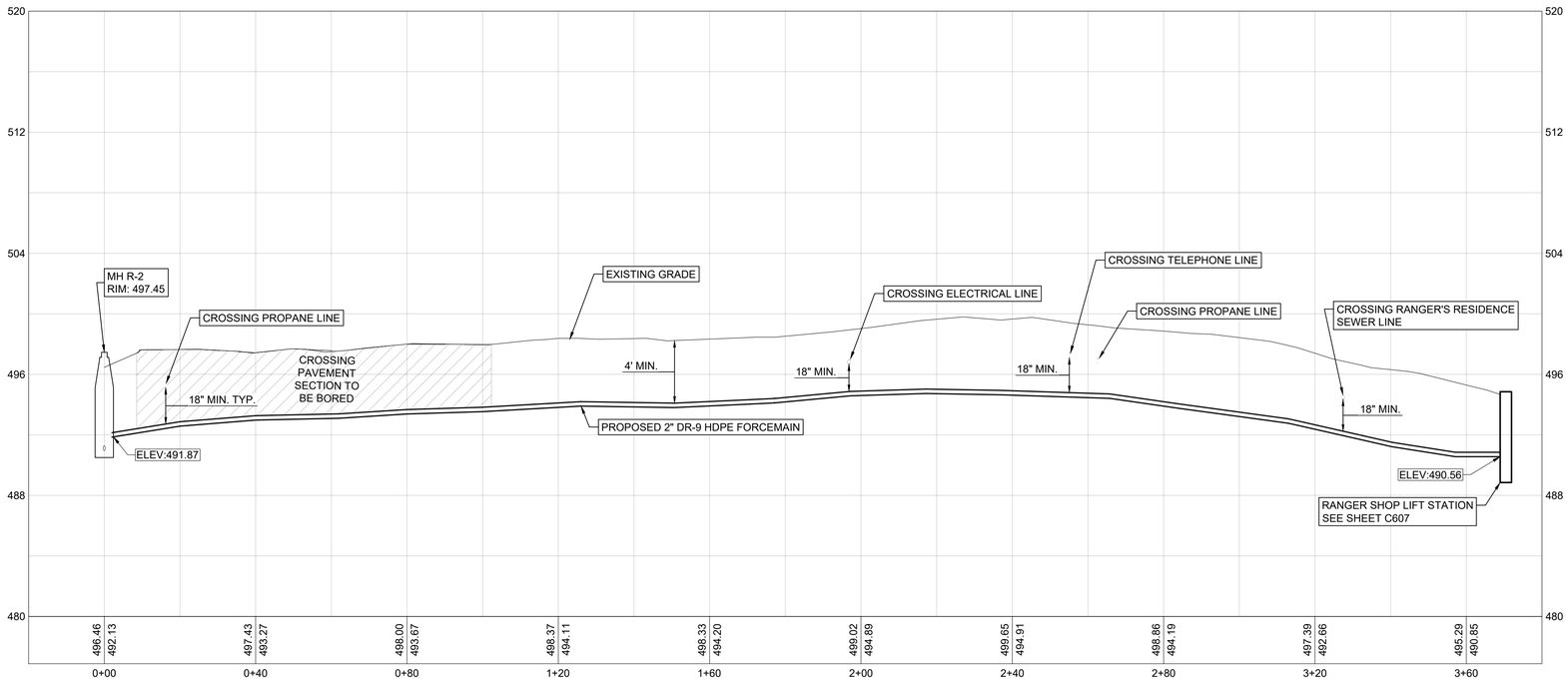
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE:C413
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— RANGER CABIN GRAVITY SEWER (0+00-2+07)**

SHEET NUMBER:
# C413




**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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MARK C. BROSS
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10/31/25
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**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES, DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

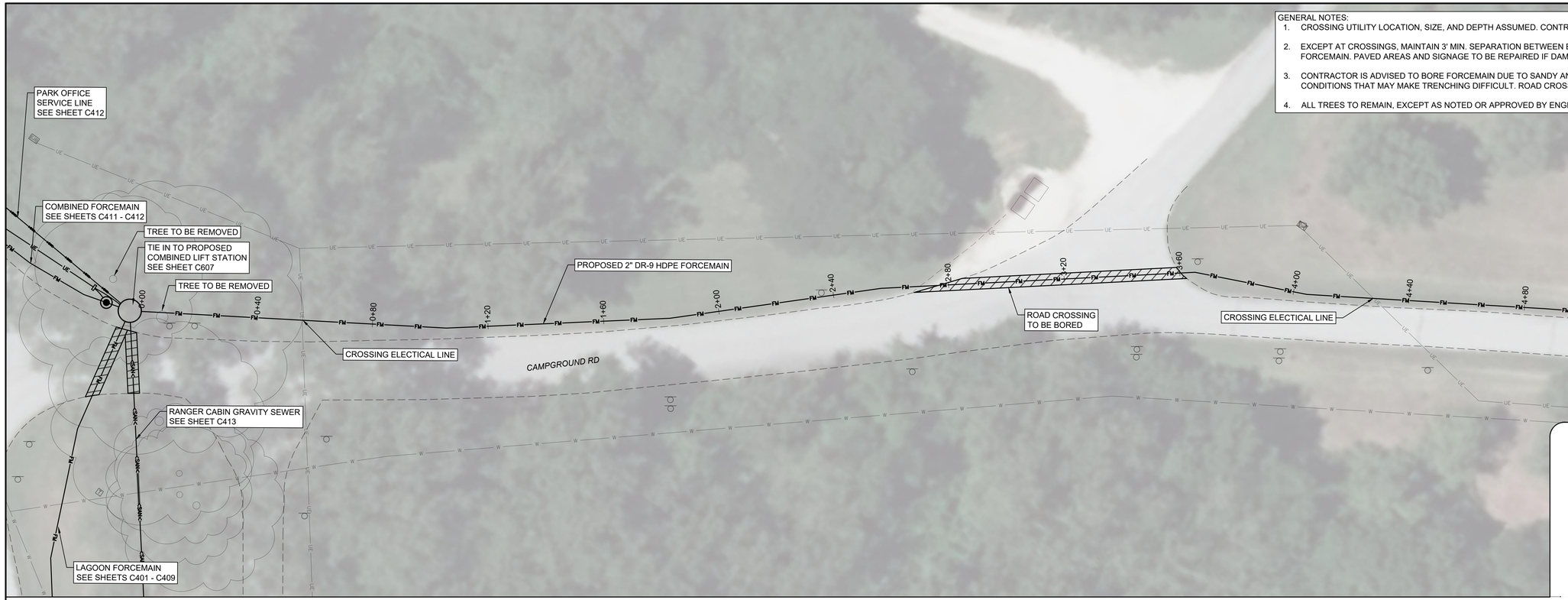
CAD DWG FILE:C414
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:

**ALTERNATE— SHOP FORCEMAIN**

SHEET NUMBER:

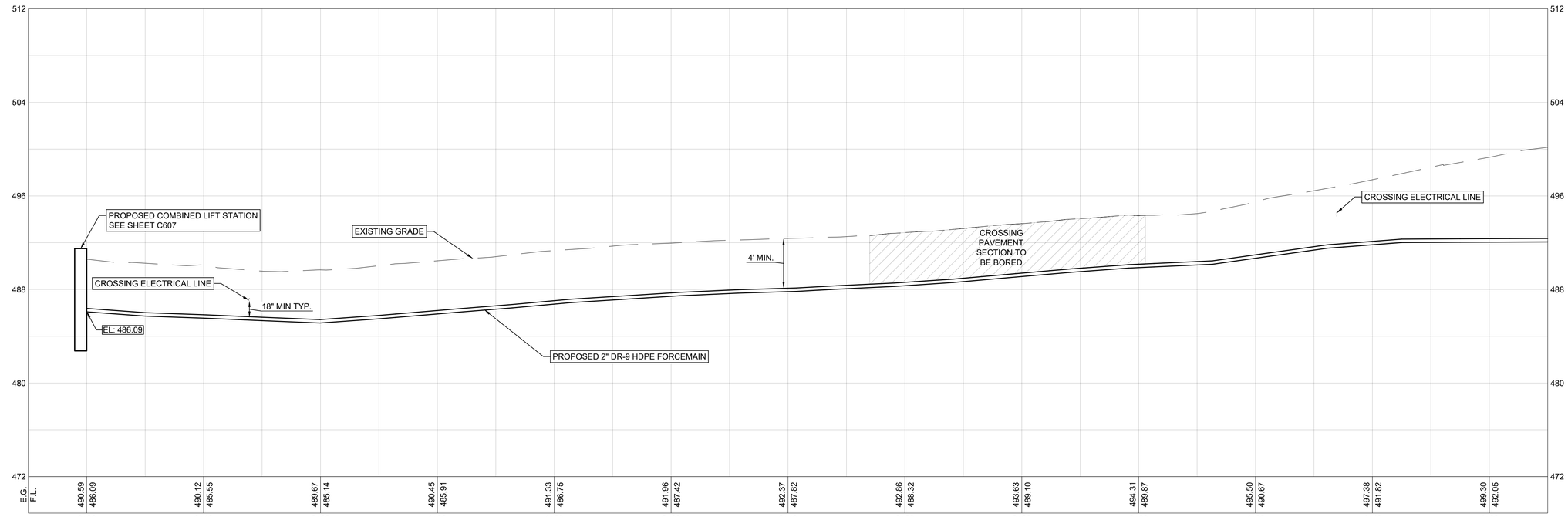
# C414




GENERAL NOTES:

1. CROSSING UTILITY LOCATION, SIZE, AND DEPTH ASSUMED. CONTRACTOR TO VERIFY.
2. EXCEPT AT CROSSINGS, MAINTAIN 3' MIN. SEPARATION BETWEEN EDGE OF PAVEMENT AND FORCEMAIN. PAVED AREAS AND SIGNAGE TO BE REPAIRED IF DAMAGED DURING CONSTRUCTION
3. CONTRACTOR IS ADVISED TO BORE FORCEMAIN DUE TO SANDY AND UNSTABLE SOIL CONDITIONS THAT MAY MAKE TRENCHING DIFFICULT. ROAD CROSSINGS SHALL BE UNCASED.
4. ALL TREES TO REMAIN, EXCEPT AS NOTED OR APPROVED BY ENGINEER.

0 20' 40'
SCALE: 1" = 20'




0 20' 40'
HORIZONTAL SCALE: 1" = 20'

0 5' 10'
VERTICAL SCALE: 1" = 5'

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
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NUMBER E-20010046
10/31/25
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**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

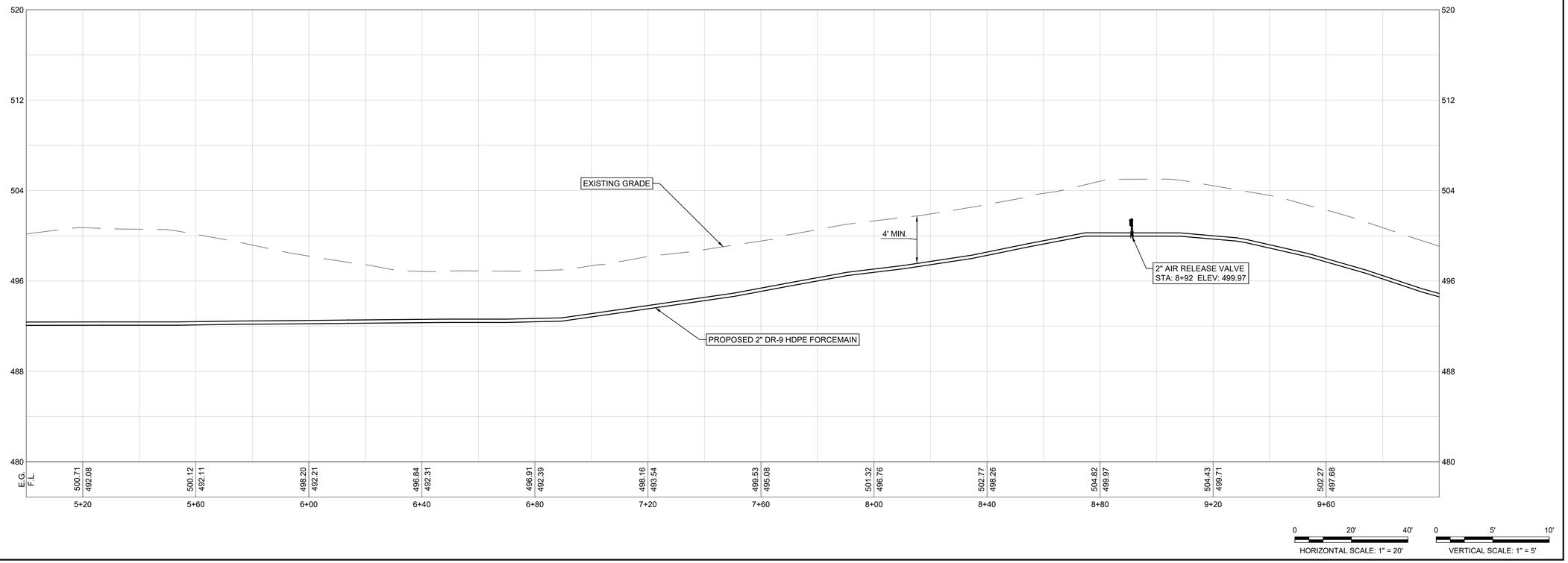
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE:C415
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— NORTH CAMPSITE FORCEMAIN (0+00-5+00)**

SHEET NUMBER:
# C415




**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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STATE OF MISSOURI
MARK C. BROSS
NUMBER E-20010046
10/31/25
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**SEWER IMPROVEMENTS**

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**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
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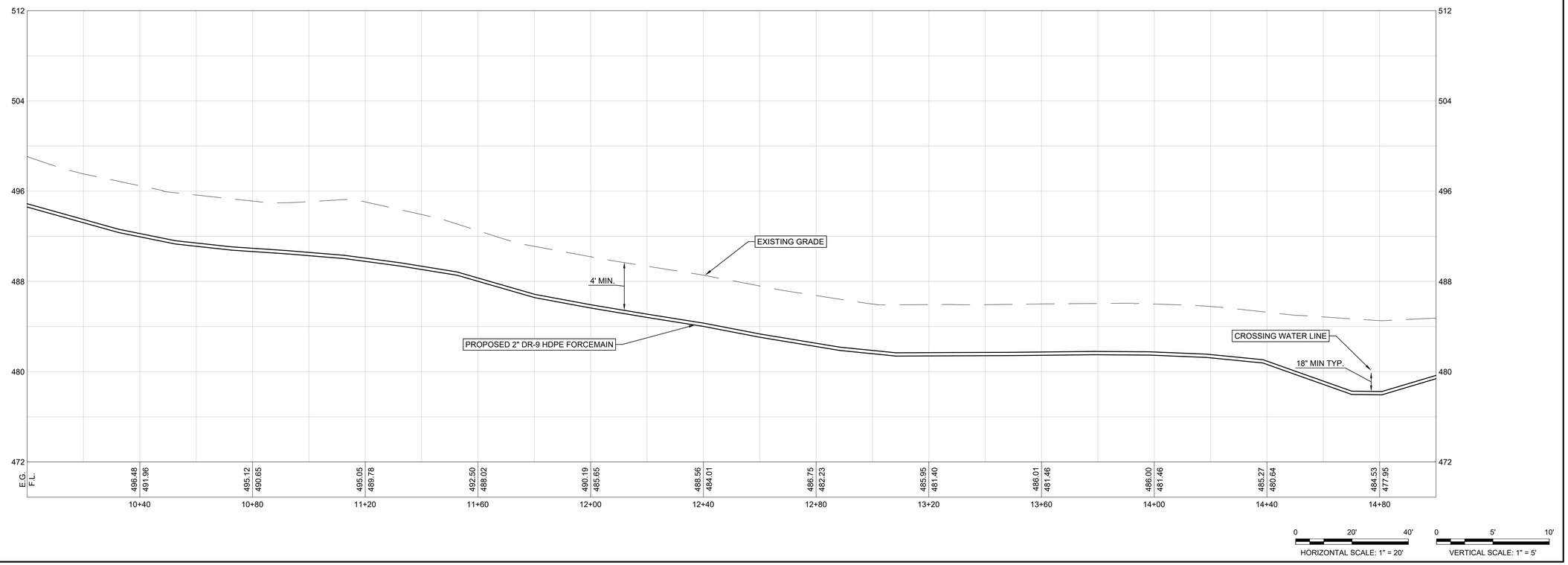
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C416
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— NORTH CAMPSITE FORCEMAIN (5+00-10+00)**

SHEET NUMBER:
# C416




STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

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MARK C. BROSS
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REBID
ALTERNATE:
SEWER IMPROVEMENTS

WAKONDA STATE PARK
32836 STATE PARK ROAD,
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
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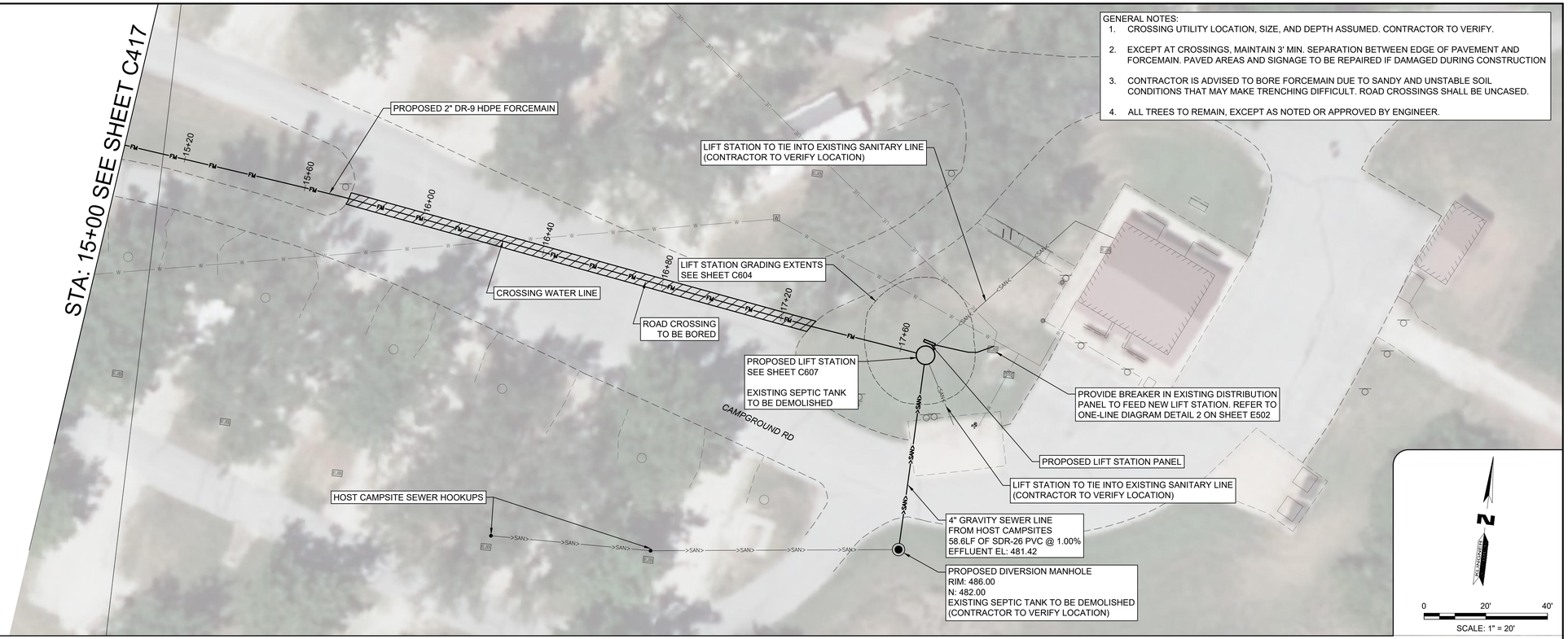
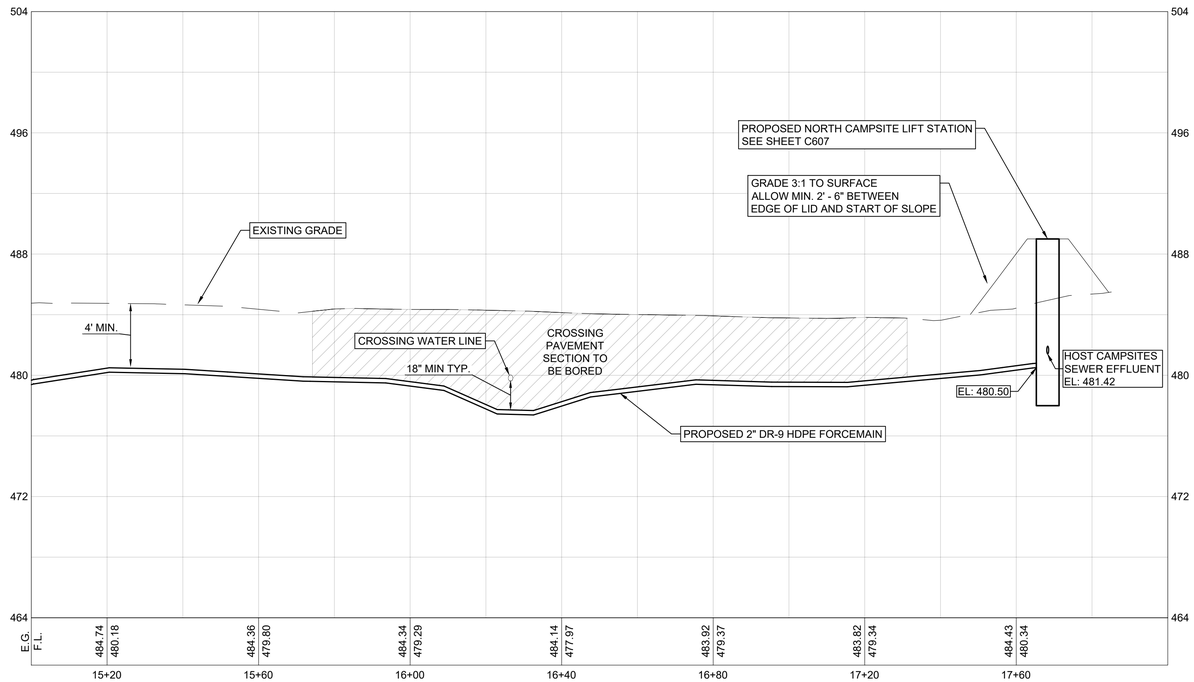
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C417
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— NORTH CAMPSITE FORCEMAIN (10+00-15+00)**

SHEET NUMBER:
# C417




**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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**DEPARTMENT OF NATURAL RESOURCES,**
**DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

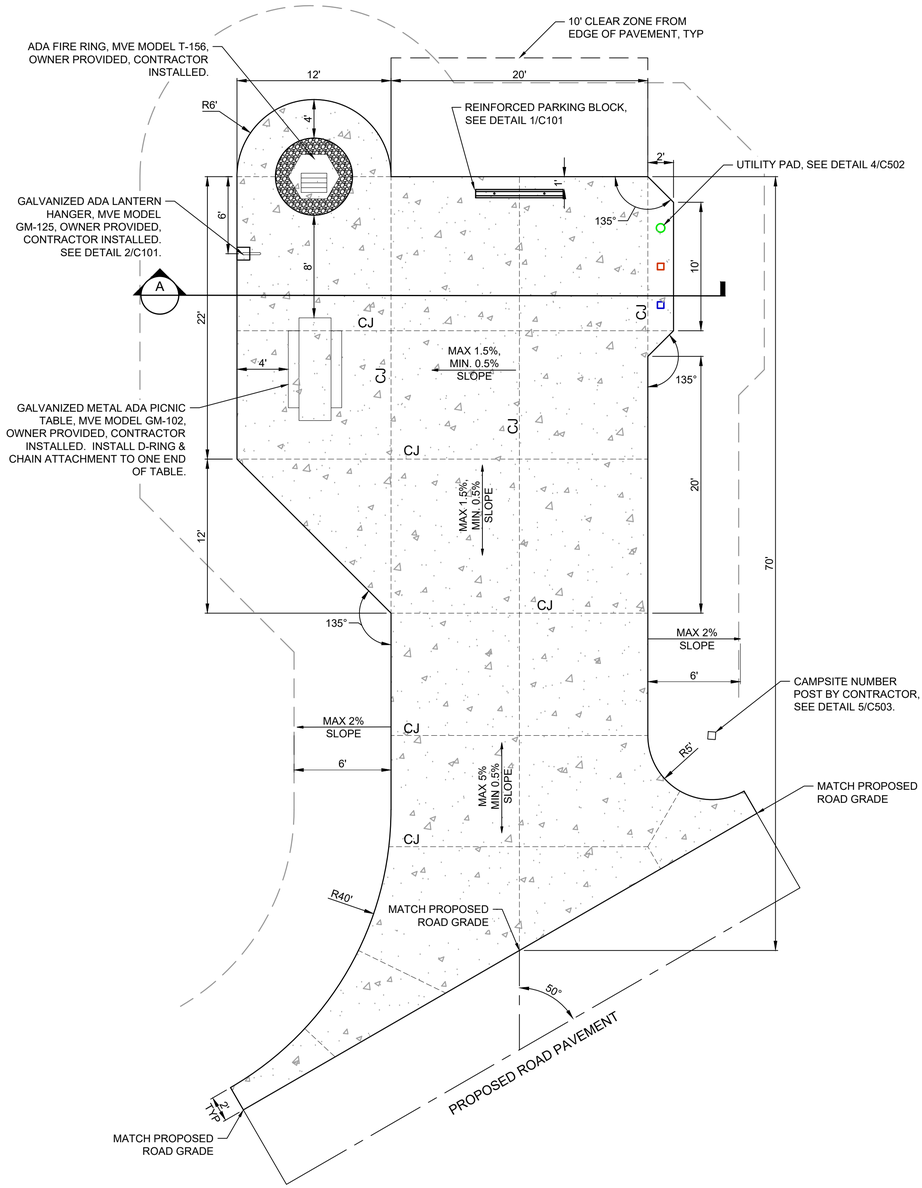
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C418
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:
**ALTERNATE— NORTH CAMPSITE FORCEMAIN (15+00-18+65)**

SHEET NUMBER:
# C418

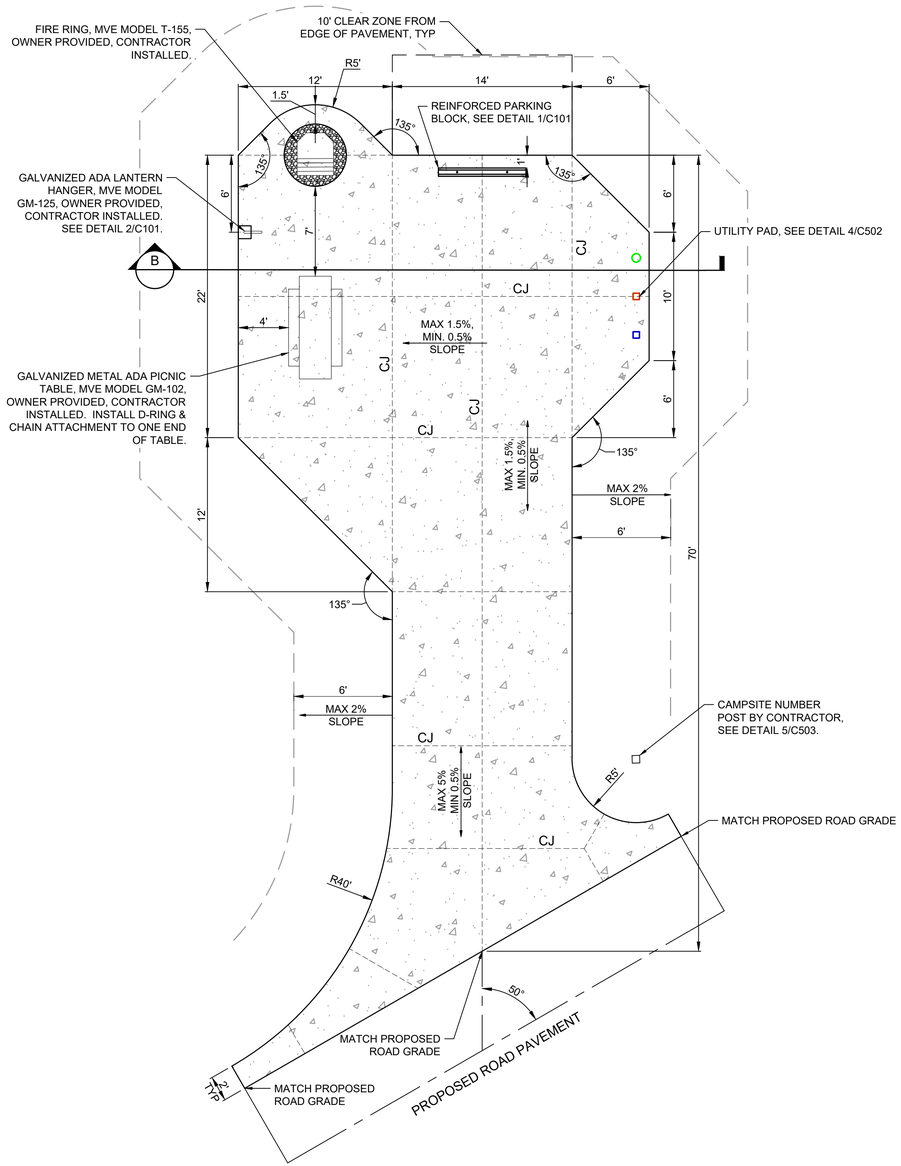


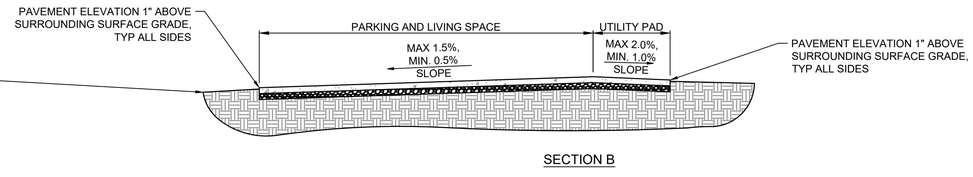




SECTION A

1 ADA BACK-IN CAMPSITE STANDARD
N.T.S.




SECTION B

2 BACK-IN CAMPSITE STANDARD
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
CURT STEPHEN WAVERING
NUMBER PE-2011009046
PROFESSIONAL ENGINEER
10/31/2025

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
10 PREMIUM SITES AND 6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

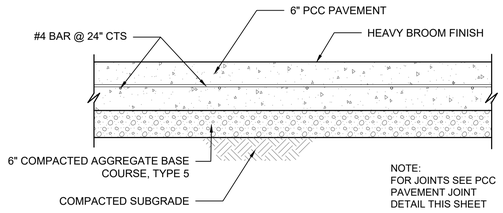
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

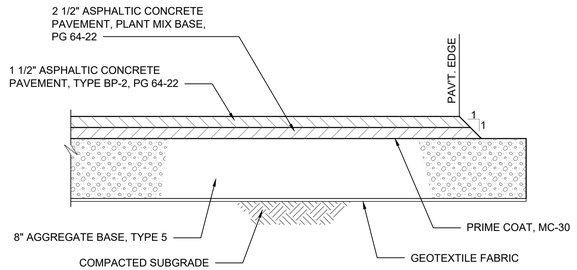
CAD DWG FILE: C501
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CAMPSITES & CABINS SITE DETAILS**

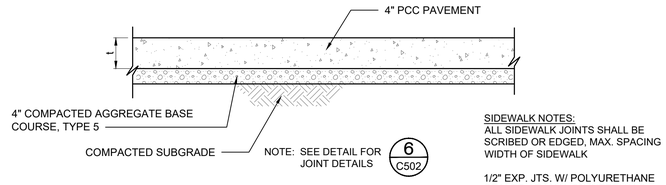
SHEET NUMBER:
**C501**
SHEET 43 OF 105 10/31/2025




1 PCC PAVING DETAIL
N.T.S.




2 ASPHALT PAVING DETAIL
N.T.S.



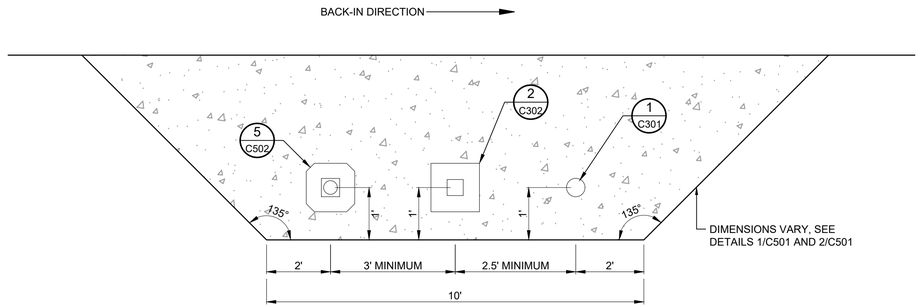

3 SIDEWALK DETAIL
N.T.S.

SIDEWALK NOTES:
ALL SIDEWALK JOINTS SHALL BE SCRIBED OR EDGED, MAX. SPACING = WIDTH OF SIDEWALK

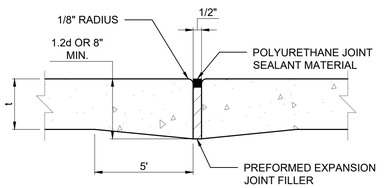
1/2" EXP. JTS. W/ POLYURETHANE SEALER AT MAX. 50' INTERVALS

MAXIMUM 1.5% CROSS SLOPE

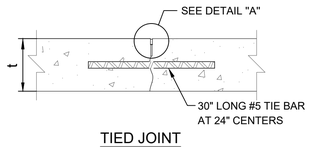
MAXIMUM LONGITUDINAL SLOPE SHALL NOT EXCEED 5%



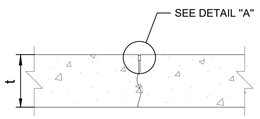

4 BACK-IN CAMPSITE SERVICE PAD DETAIL
N.T.S.



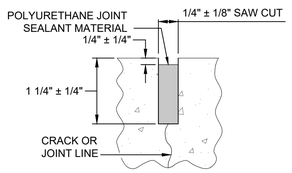

EXPANSION JOINT




TIED JOINT



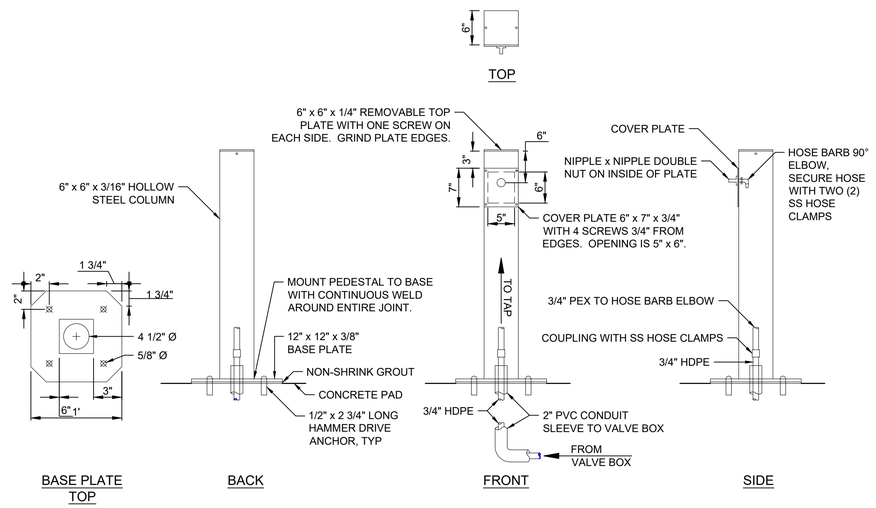

CONTRACTION JOINT




DETAIL "A"
(SAWCUT FORMED BY APPROVED CONCRETE SAWING EQUIPMENT)

JOINT NOTES:
1. ALL TRANSVERSE JOINTS MUST EXTEND THROUGH CURBS AND MUST BE CONTINUOUS ACROSS PAVEMENT, EXCEPT TIED TRANSVERSE CONSTRUCTION JOINTS. EXPANSION JOINTS WILL BE REQUIRED AS SHOWN ON PLANS.
2. MAXIMUM JOINT SPACING IN ANY DIRECTION SHALL BE 24 TIMES THE THICKNESS OF THE SLAB, UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS.
3. PAVEMENT JOINTS SHALL BE SAWED WITHIN 24 HOURS OF CONCRETE PLACEMENT AND SEALED AS SHOWN.
4. DEFORMED BARS CONFORMING TO THE REQUIREMENTS OF A.A.S.H.T.O., M-31 OR M-53 GRADE 60 SHALL BE USED FOR THE TIE BARS.
5. SUPPORT PINS FOR THE TIE BARS, WHEN REQUIRED, SHALL BE OF A SIZE AND STRENGTH SUFFICIENT TO FIRMLY HOLD THE BAR IN PLACE.
6. **WHEN ADJACENT PAVEMENTS ARE CONSTRUCTED SEPARATELY OR RIGID PAVEMENT IS CONSTRUCTED ADJACENT TO CURB AND GUTTER, EPOXY COATED DEFORMED STEEL TIE BARS OF THE SPECIFIED SIZE, LENGTH, SIZE, AND SPACING SHALL BE PLACED ACROSS LONGITUDINAL CONSTRUCTION JOINTS. THE BARS SHALL BE INSTALLED IN PREFORMED OR DRILLED HOLES ALONG THE VERTICAL EDGE OF THE ADJACENT PAVEMENT OR CURB & GUTTER AND SHALL BE INSTALLED WITH AN APPROVED NON-SHRINK GROUT OR CHEMICAL ADHESIVE (EPOXY) TO PROVIDE A MINIMUM PULL REQUIREMENTS AS ESTABLISHED IN THE STANDARD SPECIFICATIONS.**

6 PC CONCRETE JOINT DETAILS
N.T.S.




WATER PEDESTAL NOTES:
1. 3/4" HOSE BIB TO BE NIBCO #QT63X WITH APOLLO #38304AS (GRAINGER #6KK07) 3/4" VACUUM BREAKER OR APPROVED EQUAL.
2. PEDESTAL FINISH TO BE HOT DIP GALVANIZED.

5 WATER PEDESTAL DETAIL
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
CURT STEPHEN WAVERING
NUMBER PE-2011009046
10/31/2025
PROFESSIONAL ENGINEER

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OFFICE OF ADMINISTRATION
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DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

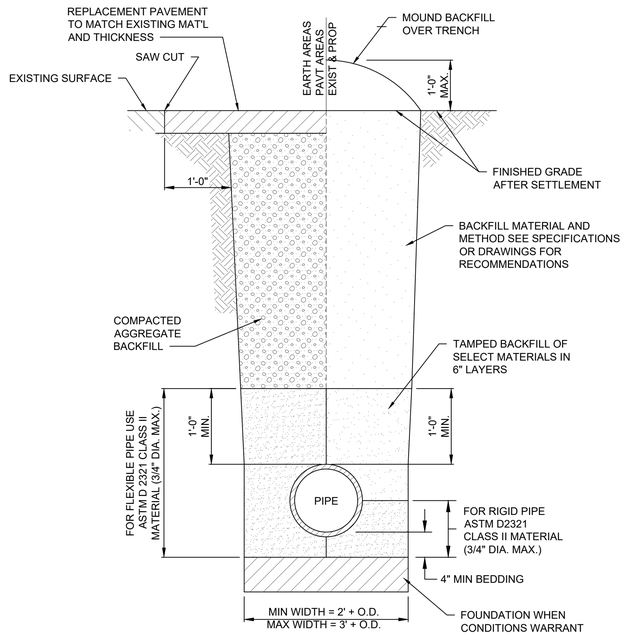
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

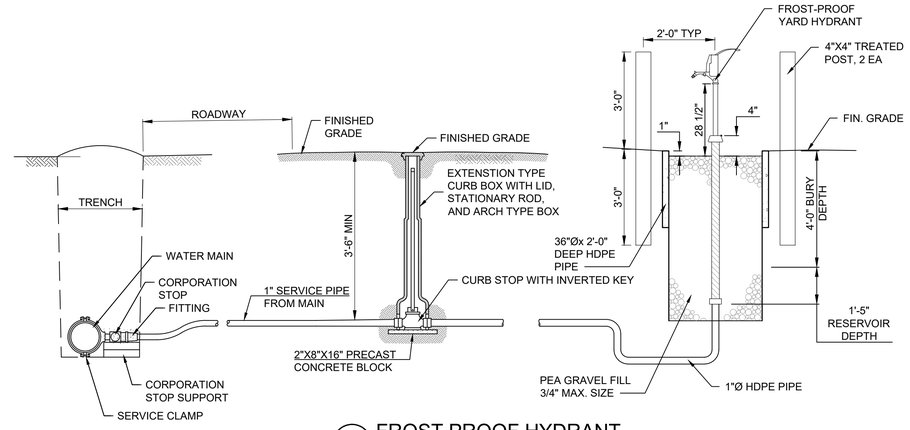
CAD DWG FILE: C502
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:
**CAMPSITES & CABINS SITE DETAILS**

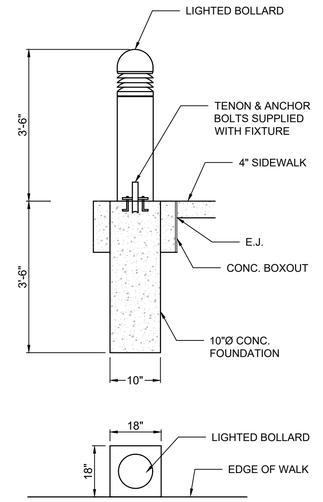
SHEET NUMBER:
**C502**
SHEET 44 OF 105 10/31/2025




1 SEWER TRENCH DETAIL
N.T.S.



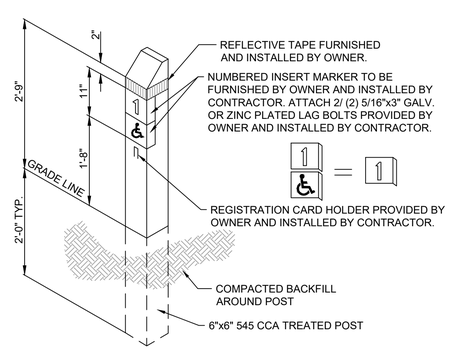

2 FROST PROOF HYDRANT
N.T.S.




| LIGHTING FIXTURE SCHEDULE | | | | |
|---|---|---|---|---|
| TYPE | MFG. | MODEL NUMBER | LAMP | QTY. |
| LED LIGHTED BOLLARD | LITHONIA | DSXB LED 12C 530 30K ASY MVOLT PE H36 DDBXD | LED | 1 |

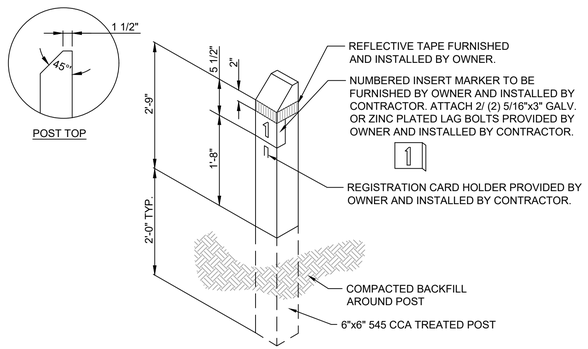
CONTRACTOR TO COORDINATE ELECTRICAL CABLING, CONDUIT, AND CONNECTIONS TO NEW PHOTOCELLS LIGHTING TO BE MOUNTED WITH NO TILT.

3 LIGHTED BOLLARD FOUNDATION DETAIL
N.T.S.




POST TO BE PROVIDED AND INSTALLED BY CONTRACTOR

4 ACCESSIBLE CAMPSITE MARKER
N.T.S.




POST TO BE PROVIDED AND INSTALLED BY CONTRACTOR

5 CAMPSITE MARKER
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS


KLINGNER & ASSOCIATES, P.C.
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www.klingner.com
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KLINGNER & ASSOCIATES, P.C. - ENGINEERING
MISSOURI STATE CERTIFICATE OF AUTHORITY #000866


OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
10 PREMIUM SITES AND 6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C503
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

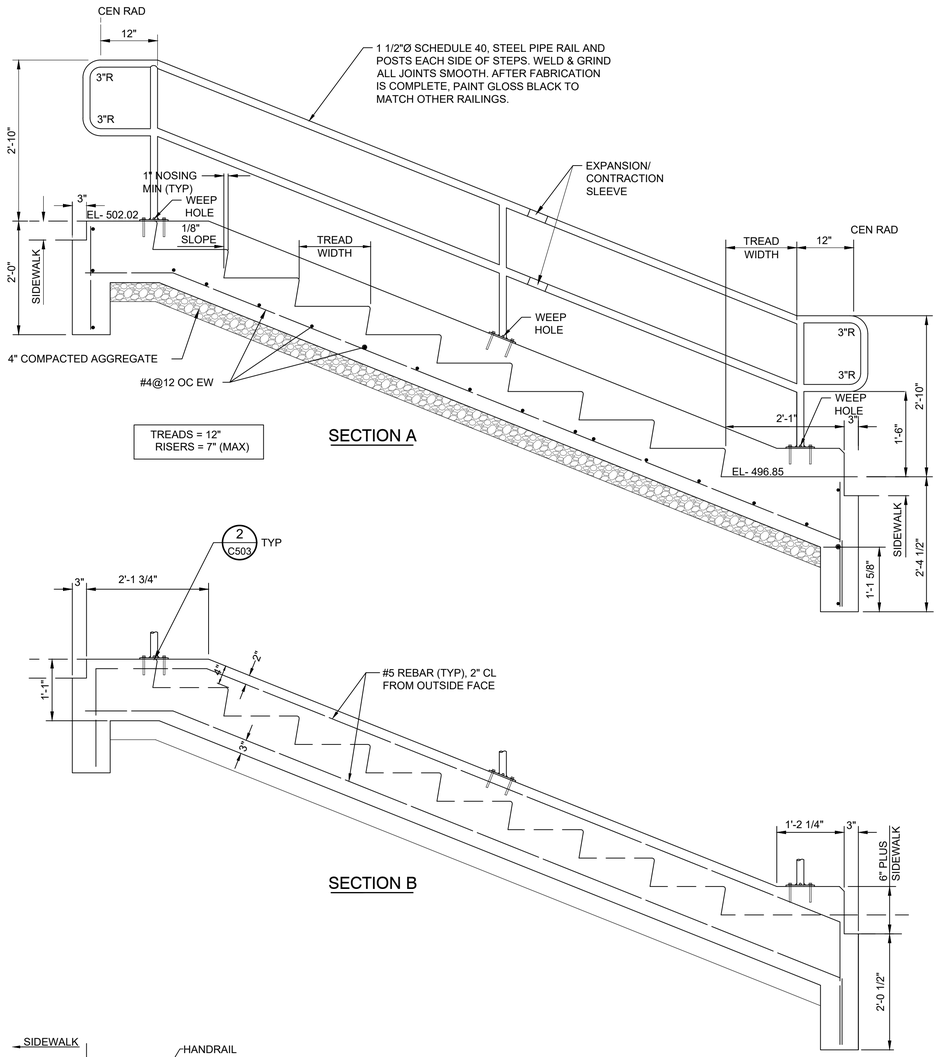
SHEET TITLE:

**CAMPSITES & CABINS SITE DETAILS**

SHEET NUMBER:

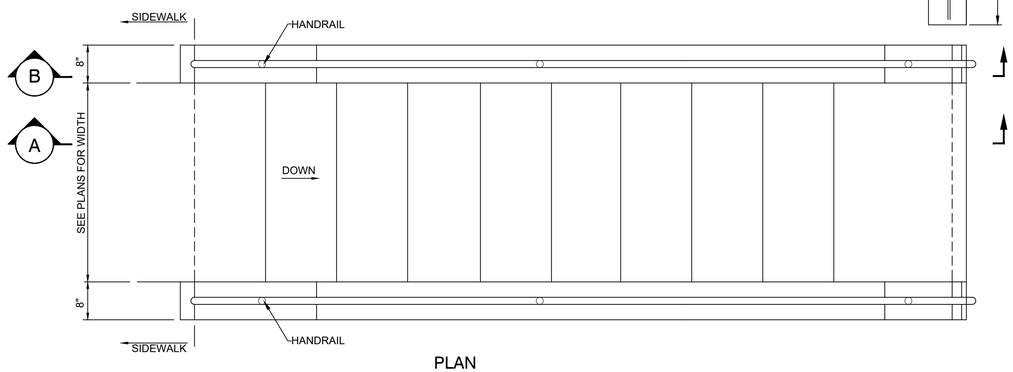
# C503

SHEET 45 OF 105 10/31/2025

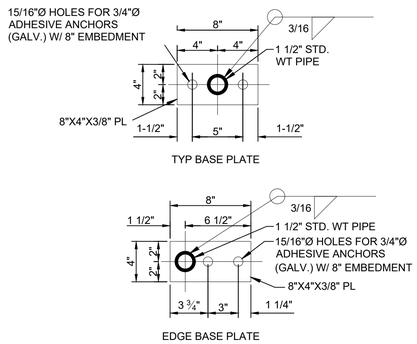









1 EXTERIOR STAIRS
N.T.S.




NOTE: SLOPE BASE PLATES TO TOP OF WALL

2 BASE PLATE DETAILS
N.T.S.

**STATE OF MISSOURI**
**MIKE KEHOE,**
**GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
CURT STEPHEN WAVERING
NUMBER PE-2011009046
10/31/2025
PROFESSIONAL ENGINEER

KLINGNER & ASSOCIATES, P.C.
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Columbia, Missouri
907 East Ash Street
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**MISSOURI STATE CERTIFICATE OF AUTHORITY #000666**

**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT,**
**DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

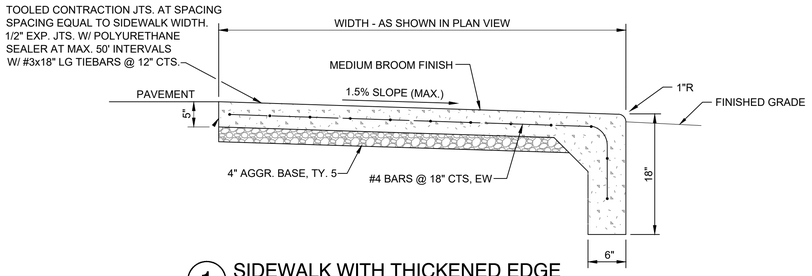
CAD DWG FILE: C503
DRAWING BY: BAM
CHECKED BY: CSW
DESIGNED BY: CSW/BAM

SHEET TITLE:

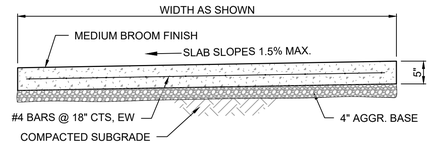
**CAMPSITES & CABINS SITE DETAILS**

SHEET NUMBER:

# C504




1 SIDEWALK WITH THICKENED EDGE
N.T.S.



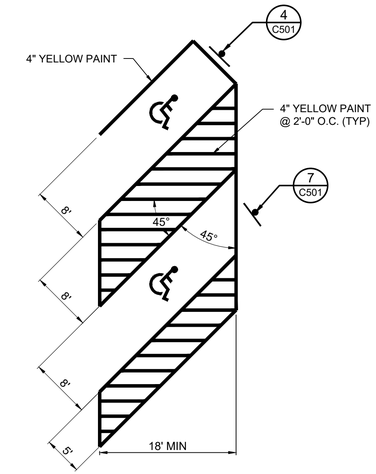

NOTES:
ALL SIDEWALK JOINTS SHALL BE TOOLED OR EDGED, MAX. SPACING = WIDTH OF SIDEWALK.

1/2" EXP. JTS. W/ POLYURETHANE SEALER AT MAX. 50' INTERVALS.

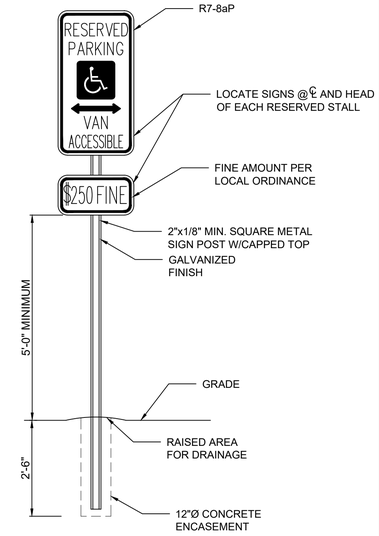
SEE PLAN FOR SIDEWALK WIDTH.

MAXIMUM LONGITUDINAL SLOPE SHALL NOT EXCEED 5%.

2 TYPICAL SIDEWALK
N.T.S.

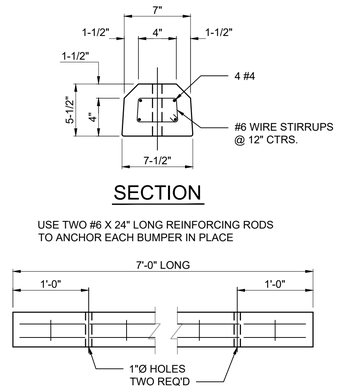



3 45° ACCESSIBLE STALL DETAILS
N.T.S.




NOTE:
SIGN DIMENSIONS AND COLORS IN ACCORDANCE WITH MUTCD STANDARD R7-8 P

4 ACCESSIBLE PARKING SIGN
N.T.S.



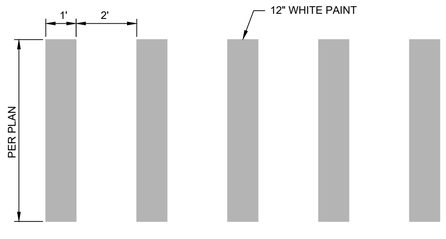

SECTION

USE TWO #6 X 24" LONG REINFORCING RODS TO ANCHOR EACH BUMPER IN PLACE

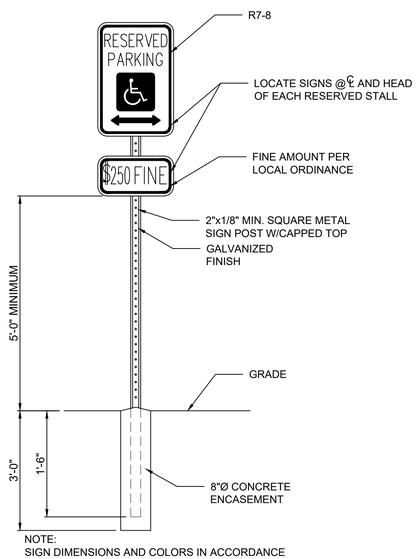



ELEVATIONS

5 CONCRETE PARKING BLOCK
N.T.S.

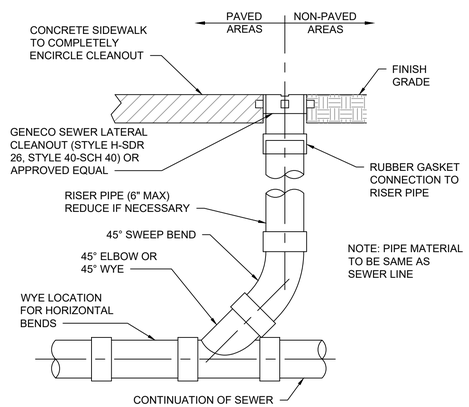



6 CROSSWALK DETAILS
N.T.S.




NOTE:
SIGN DIMENSIONS AND COLORS IN ACCORDANCE WITH MUTCD STANDARD R7-8

7 ACCESSIBLE PARKING SIGN DETAIL
N.T.S.




NON TRAFFIC AREA

8 CLEANOUT DETAILS
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
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DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL
RESOURCES DIVISION OF
STATE PARKS

REBID
BEACH COMFORT
STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

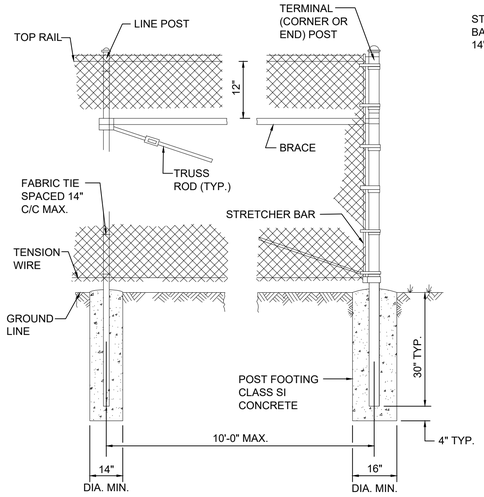
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C505
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

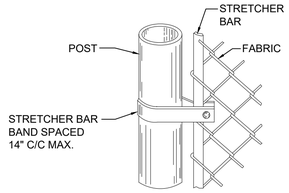
SHEET TITLE:
BEACH COMFORT
STATION
SITE DETAILS

SHEET NUMBER:
C505
SHEET 47 OF 105 10/31/2025

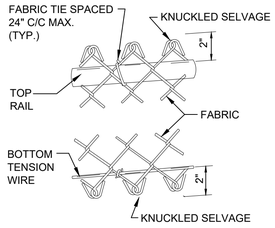



LINE POST

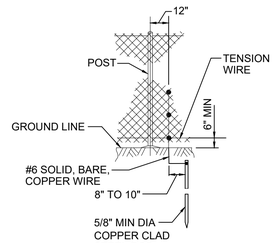
CORNER OR




METHOD OF FASTENING STRETCHER BAR TO POST




METHOD OF TYING FABRIC TO TENSION WIRES

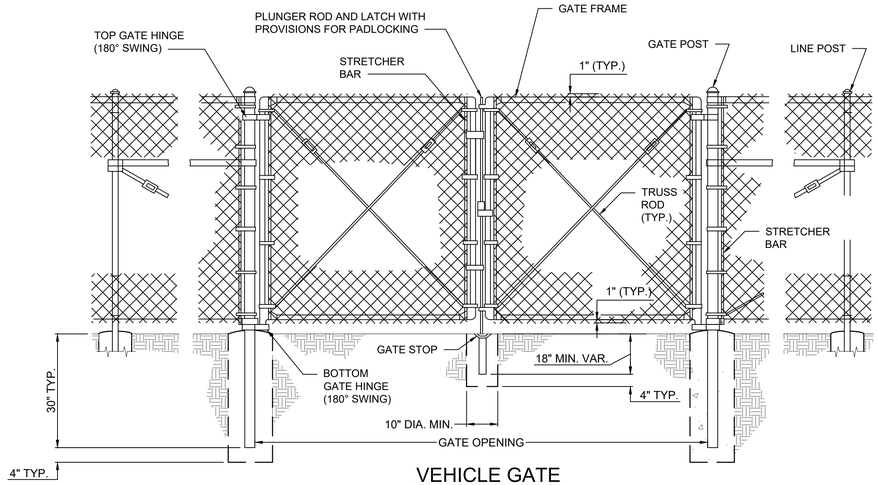



STANDARD GROUND

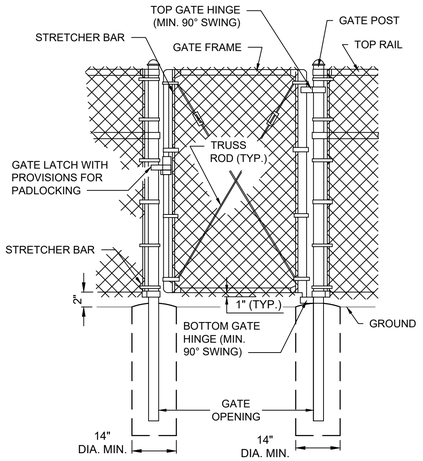
## PROTECTIVE ELECTRICAL GROUNDS

CONTINUOUS FENCE SHALL BE GROUNDED AT INTERVALS NOT EXCEEDING 500 FEET. THERE SHALL BE A GROUND WITHIN 100 FEET OF GATES IN EACH SECTION OF THE FENCE ADJACENT TO THE GATE.

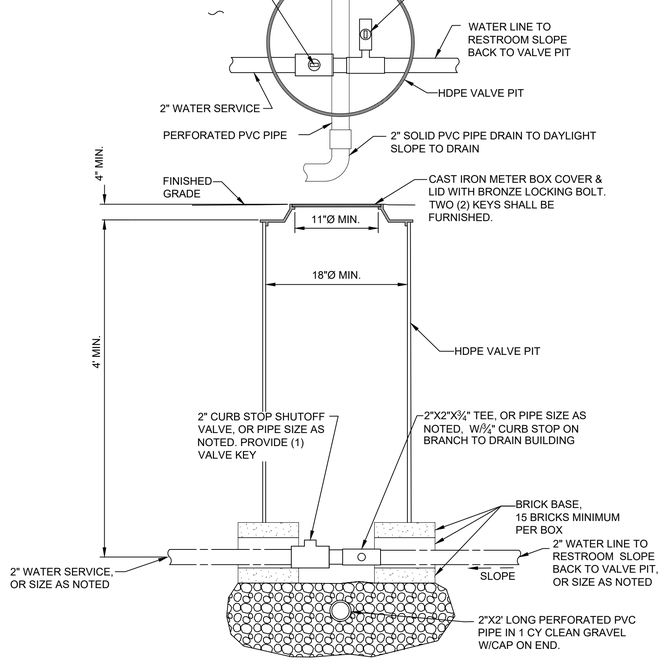
THE GROUND WIRE SHALL BE CONNECTED TO THE FABRIC AND THE GROUND ROD BY A MECHANICAL CLAMP OF CAST BRONZE OR STAINLESS STEEL BOLTS AND WASHERS.




VEHICLE GATE

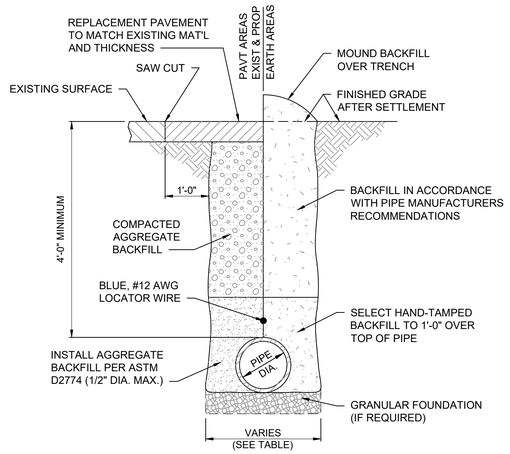



PEDESTRIAN GATE




2 WATER SERVICE VALVE PIT
N.T.S.

1 6' HIGH CHAIN LINK FENCE DETAIL
N.T.S.




| TRENCH WIDTHS | | |
|---|---|---|
| PIPE DIA. | MAXIMUM | MINIMUM |
| 2" | 26" | 10" |
| 4" | 28" | 12" |

3 WATER PIPE INSTALLATION
N.T.S.

STATE OF MISSOURI
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GOVERNOR

BIDDING DOCUMENTS

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
BEACH COMFORT STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C506
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

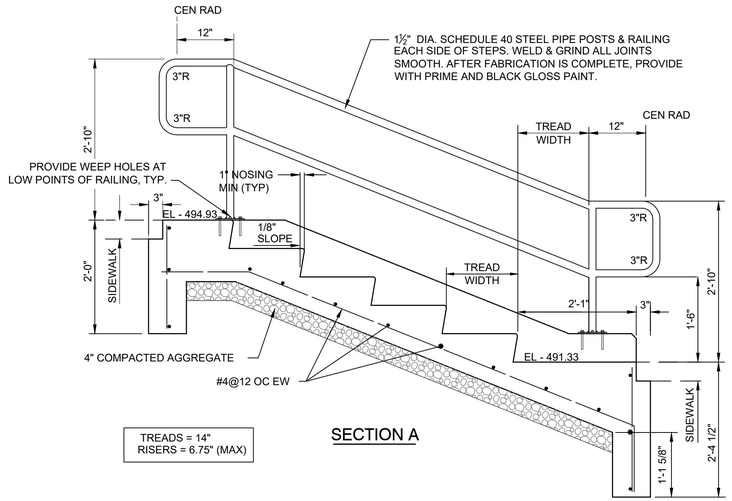
SHEET TITLE:

**BEACH COMFORT STATION SITE DETAILS**

SHEET NUMBER:

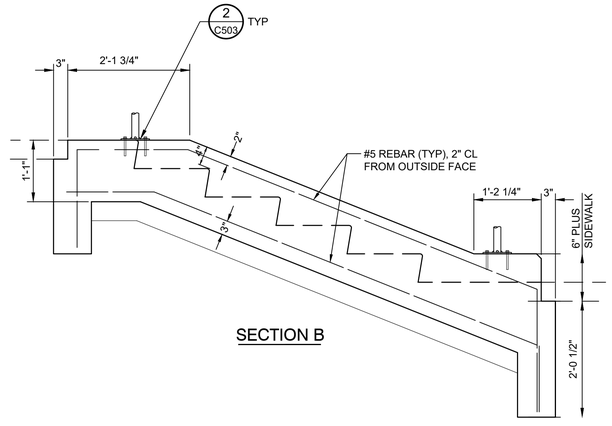
# C506

SHEET 48 OF 105 10/31/2025

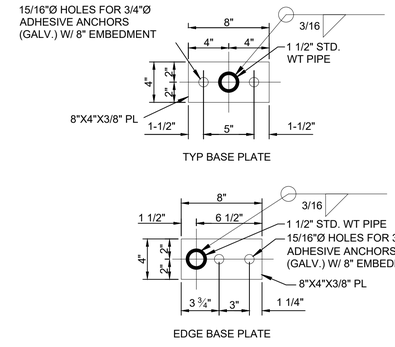



TREADS = 14"
RISERS = 6.75" (MAX)

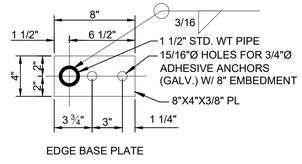
SECTION A




SECTION B



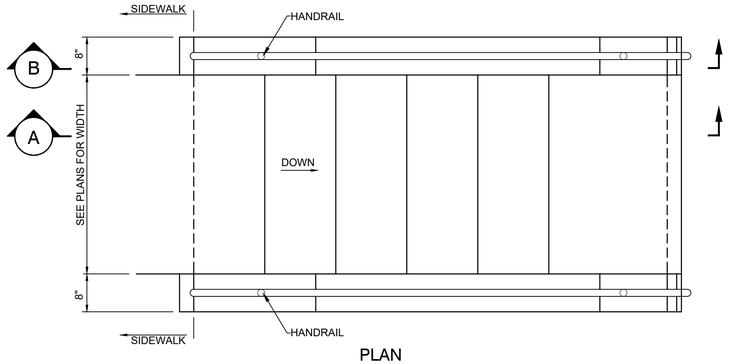

TYP BASE PLATE




EDGE BASE PLATE

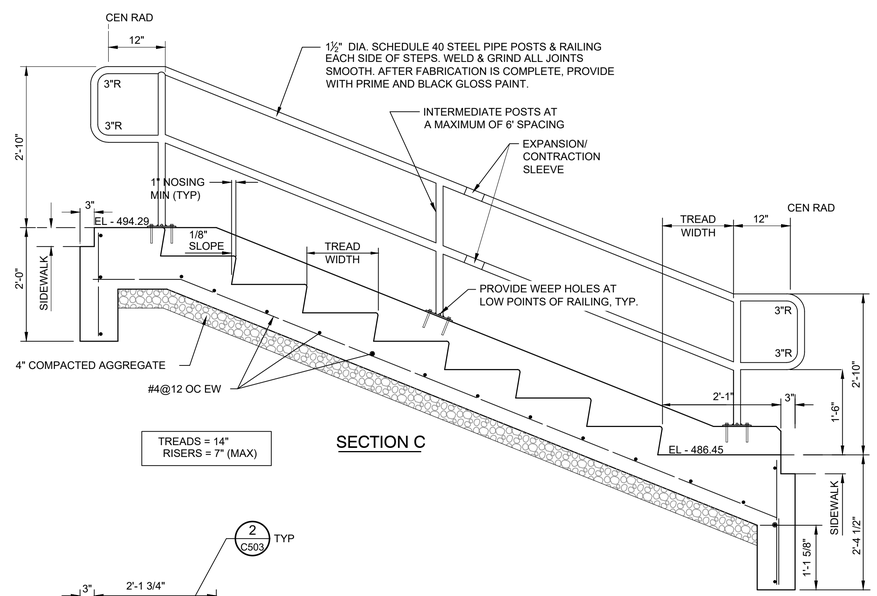
NOTE: SLOPE BASE PLATES TO TOP OF WALL

2 BASE PLATE DETAILS
N.T.S.



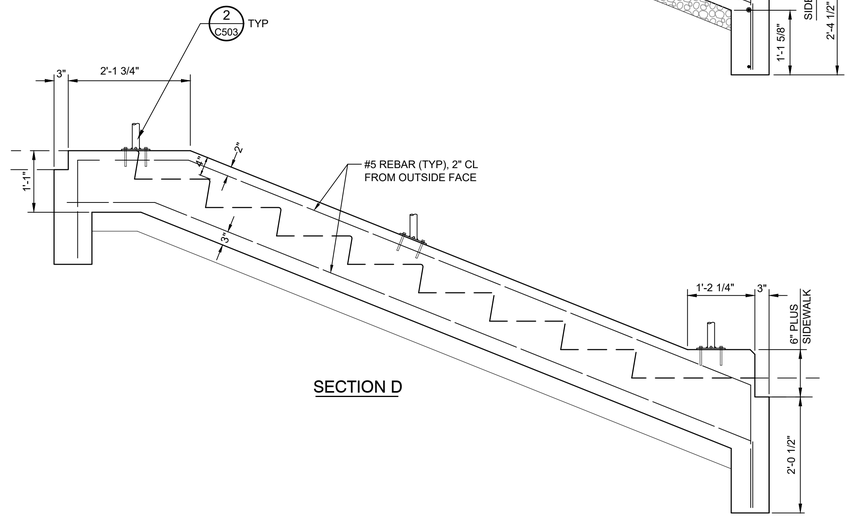

PLAN

1 EXTERIOR STAIRS
N.T.S.

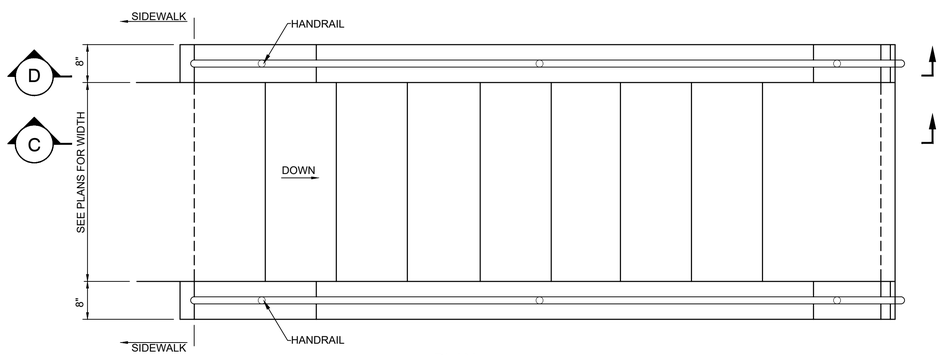



TREADS = 14"
RISERS = 7" (MAX)

SECTION C




SECTION D




PLAN

3 EXTERIOR STAIRS
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

CURT STEPHEN WAVELING NUMBER PE-2011009046 10/31/2025 PROFESSIONAL ENGINEER STATE OF MISSOURI

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
BEACH COMFORT STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

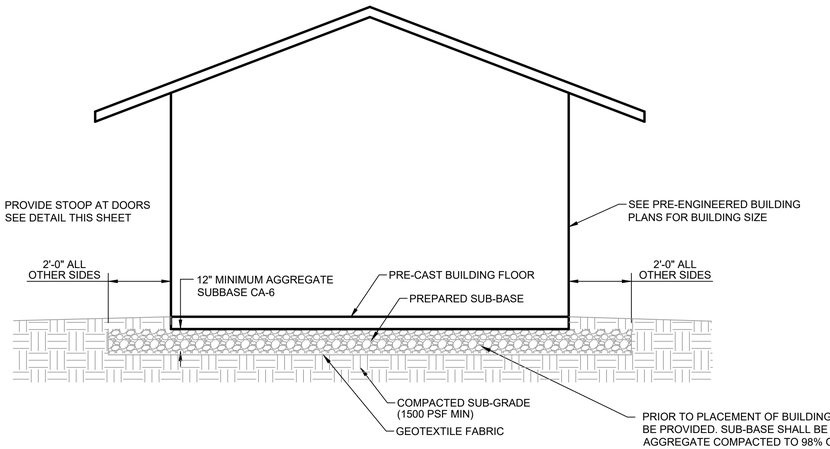
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C507
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

SHEET TITLE:
BEACH COMFORT STATION
SITE DETAILS

SHEET NUMBER:
C507
SHEET 49 OF 105 10/31/2025




PRIOR TO PLACEMENT OF BUILDING A PROPERLY PREPARED SUB-BASE SHALL BE PROVIDED. SUB-BASE SHALL BE A MINIMUM OF 12" THICK AND CONSIST CA-6 AGGREGATE COMPACTED TO 98% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D 1557 ON A WOVEN GEOTEXTILE FABRIC. FINISHED SURFACE OF SUB-BASE SHALL BE UNIFORMLY LEVEL. NOT VARYING MORE THAN 1/2" FROM A TRUE HORIZONTAL PLANE. REFER TO BUILDING HANDLING SHEET FOR SUB-BASE REQUIREMENTS DURING BUILDING PLACEMENT. (PREPARED SUB-BASE BY CONTRACTOR)

1 TYPICAL CXT PRECAST BUILDING INSTALLATION
N.T.S.

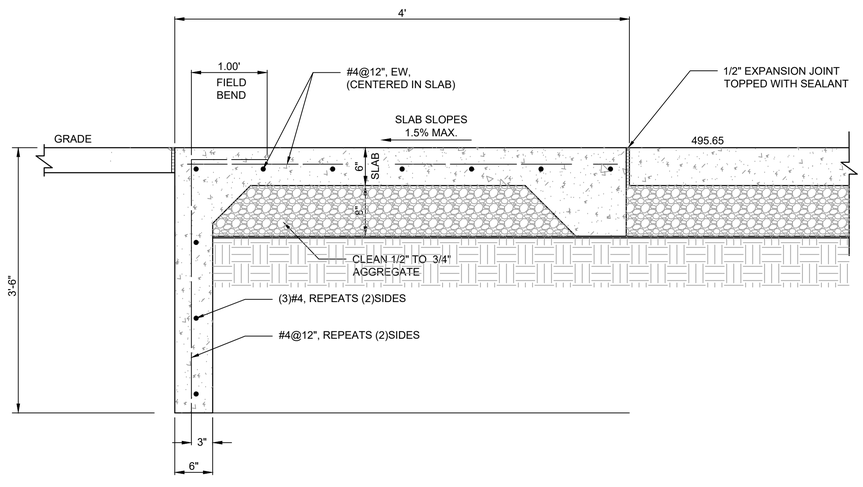
NOTES:
THE FACTORY ASSEMBLED BUILDING AS CONSTRUCTED PROVIDES A RIGID BOX TYPE STRUCTURAL SYSTEM. VERTICAL LOADS ARE TRANSFERRED PRIMARILY THROUGH BEARING WALLS TO A PREPARED GRANULAR SUB-BASE WHICH DISSIPATES VERTICAL LOADS UNIFORMLY TO THE NATIVE SUB-GRADE AND ALSO ACTS AS A FROST BARRIER DUE TO THE INHERENT STIFFNESS OF THE BUILDING. IT WILL REMAIN SAFE AND STRUCTURALLY SOUND IN THE UNLIKELY EVENT OF FREEZING ACTION BELOW THE BUILDING.

LATERAL LOADS ARE TRANSFERRED TO THE GROUND THROUGH FRICTIONAL RESISTANCE WITHOUT SLIDING OR SHIFTING BETWEEN THE BUILDING FLOOR SLAB AND THE PREPARED SOIL AND GRAVEL SUB-BASE ON WHICH THE BUILDING RESTS. SEISMIC ANALYSES ARE BASED ON LOADS DETERMINED IN ACCORDANCE WITH THE 2006 INTERNATIONAL BUILDING CODE USING THE FOLLOWING PARAMETERS, WHICH MEET OR EXCEED THE CODE PRESCRIBED REQUIREMENTS FOR THIS INSTALLATION.

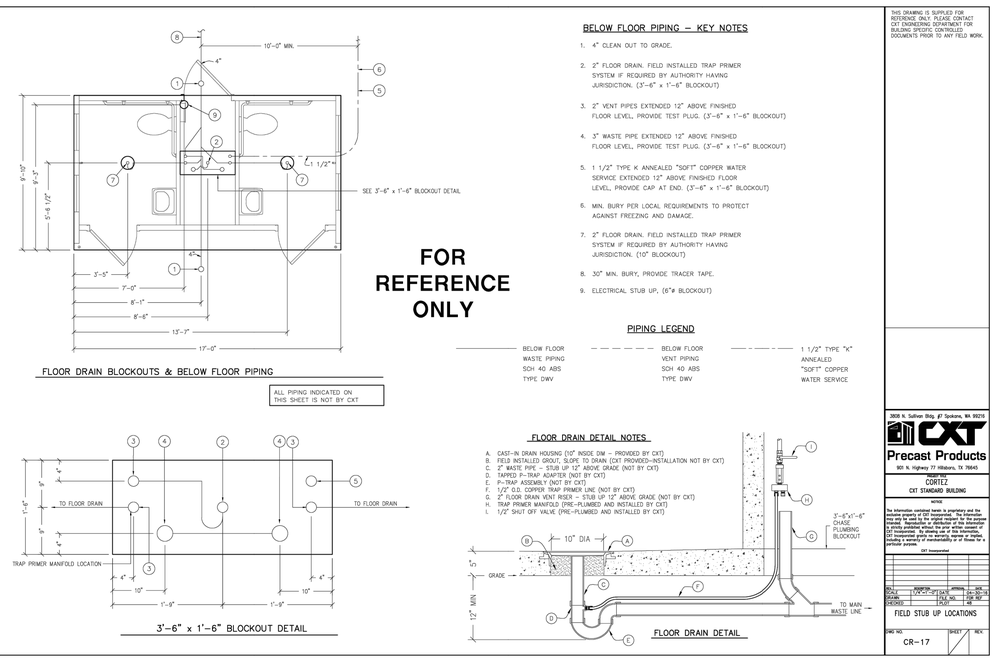
SEISMIC LOADING:
- A. RISK CATEGORY = II
- B. IMPORTANCE FACTOR, $I_e$ = 1.0
- C. SITE CLASS = D
- D. $S_{ds}$ = 0.154 ($S_s$ = 14.5%)
- E. $S_{d1}$ = 0.135 ($S_1$ = 8.4%)
- F. SEISMIC DESIGN CATEGORY, SDC = C
- G. SEISMIC FORCE-RESISTING SYSTEMS: BEARING WALL SYSTEM WITH ORDINARY PRECAST SHEAR WALLS.
  - i. R = 3
  - ii. $\Omega_O$ = 2.5
  - iii. $C_d$ = 3
- H. COMPONENT DESIGN PER ASCE 7-05
- I. SEISMIC BASE SHEAR = W x Cs

ASSUMED SOIL/CONCRETE FRICTION FACTOR = 0.35

THIS BUILDING, AS DESIGNED, RESTING ON A PROPERLY PREPARED GRANULAR SUB-BASE WILL BE SAFE AND STRUCTURALLY SOUND FOR VERTICAL AND LATERAL LOADS AS DISCUSSED ABOVE. A FULL DEPTH FOUNDATION WALL AT THE BUILDING PERIMETER TYPICAL FOR OTHER TYPES OF BUILDING CONSTRUCTION, IS NOT REQUIRED FOR THIS BUILDING.




2 STOOP
N.T.S.




3 RESTROOM UNDER FLOOR PIPING
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

COURT STEPHEN WAVELING NUMBER PE-2011009046 10/31/2025 PROFESSIONAL ENGINEER

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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
BEACH COMFORT STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

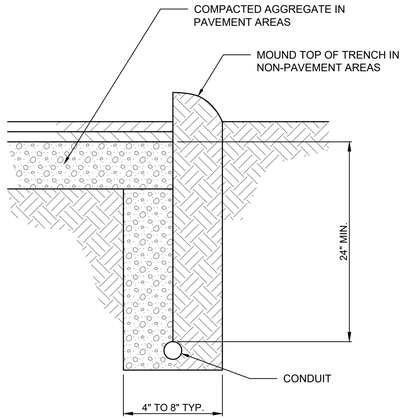
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C508
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

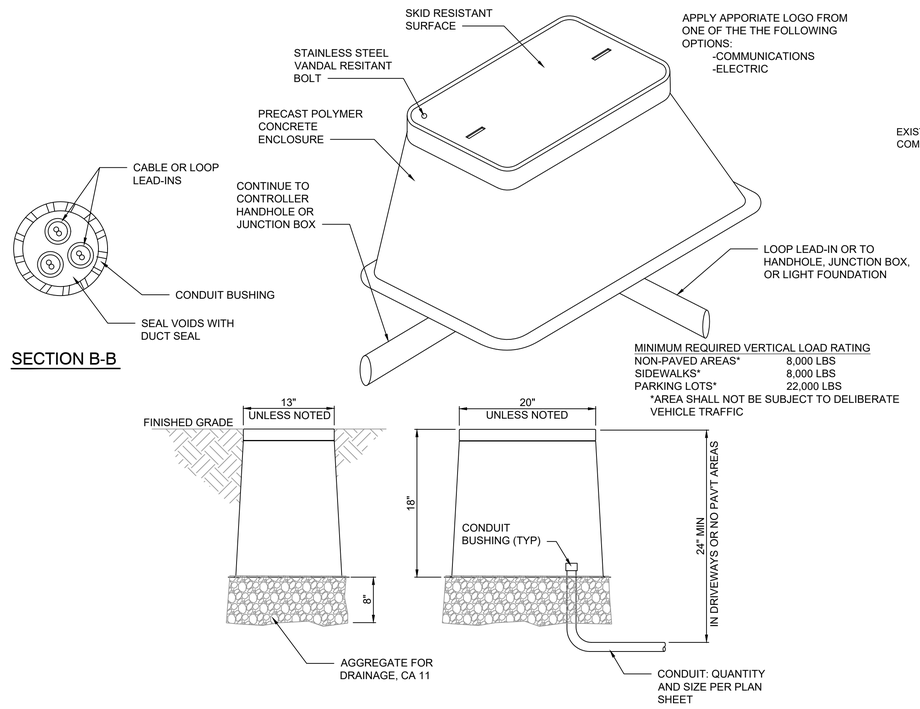
SHEET TITLE:
BEACH COMFORT STATION
SITE DETAILS

SHEET NUMBER:
C508
SHEET 50 OF 105 10/31/2025




1. BACKFILL AND COMPACT TRENCHES EVENLY, LEAVING A MOUND ON THE SURFACE FOR FUTURE SETTLING IN NON-PAVEMENT AREAS.
2. ALL TRENCHES UNDER PAVEMENT AREAS SHALL BE BACKFILLED WITH COMPACTED AGGREGATE TO 95% STANDARD PROCTOR DENSITY. COMPACTED IN 8" MAX. LIFTS

## 1 TYPICAL ELECTRIC TRENCH DETAIL
N.T.S.

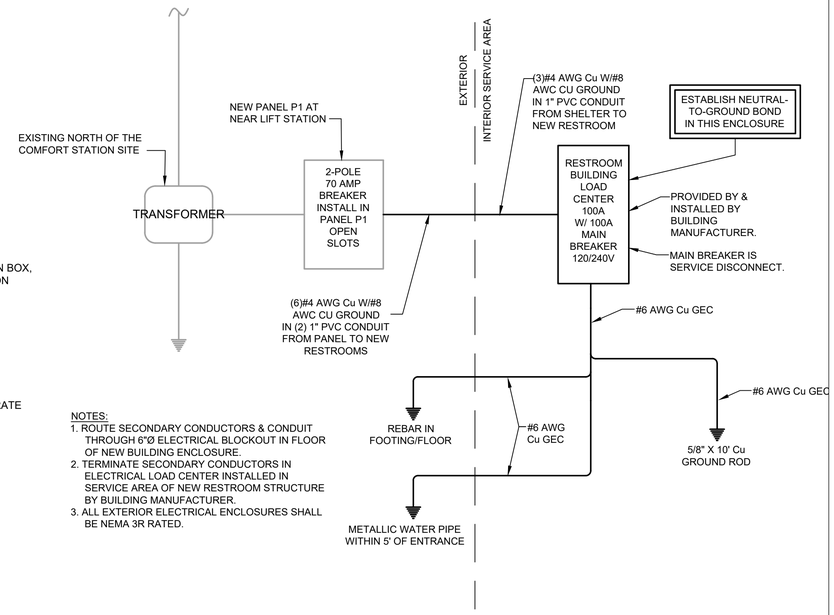



MINIMUM REQUIRED VERTICAL LOAD RATING

| | |
|---|---|
| NON-PAVED AREAS* | 8,000 LBS |
| SIDEWALKS* | 8,000 LBS |
| PARKING LOTS* | 22,000 LBS |

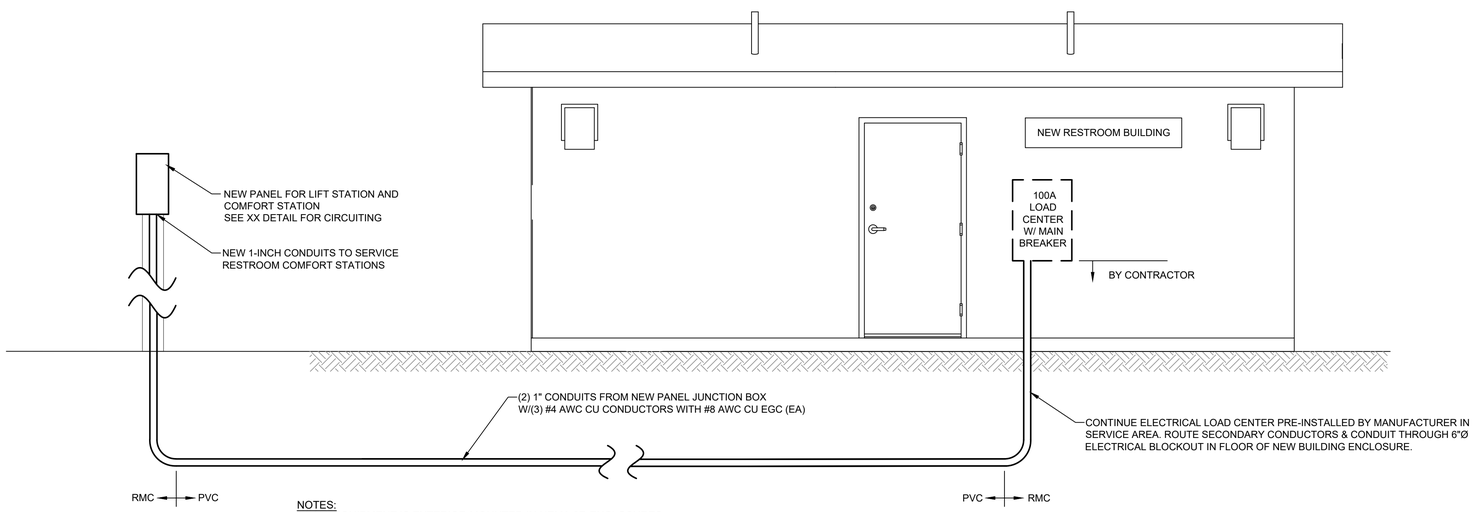
*AREA SHALL NOT BE SUBJECT TO DELIBERATE VEHICLE TRAFFIC

## 2 JUNCTION BOX DETAIL
N.T.S.




NOTES:
1. ROUTE SECONDARY CONDUCTORS & CONDUIT THROUGH 6"Ø ELECTRICAL BLOCKOUT IN FLOOR OF NEW BUILDING ENCLOSURE.
2. TERMINATE SECONDARY CONDUCTORS IN ELECTRICAL LOAD CENTER INSTALLED IN SERVICE AREA OF NEW RESTROOM STRUCTURE BY BUILDING MANUFACTURER.
3. ALL EXTERIOR ELECTRICAL ENCLOSURES SHALL BE NEMA 3R RATED.

## 3 RESTROOM BUILDING ELECTRICAL ONE-LINE DIAGRAM
N.T.S.




NOTES:
1.) ALL EQUIPMENT IS EXTERIOR MOUNTED IN NEMA 3R ENCLOSURES.
2.) CONTRACTOR SHALL VERIFY SIZE OF ALL EQUIPMENT BEFORE INSTALLATION.

## 4 ELECTRIC SERVICE ENTRANCE DETAIL
N.T.S.

| LIST OF OWNER PROVIDED/CONTRACTOR INSTALLED MATERIALS | |
|---|---|
| LANTERN HANGER | DETAIL 2/C101 |
| NUMBERED INSERT MARKERS & FASTENERS | DETAILS 4/C503 & 5/C503 |
| METAL ADA PICNIC TABLE | DETAILS 1/C501 & 2/C501 |
| ADA FIRE RING | DETAIL 1/C501 |
| FIRE RING | 2/C501 |

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MIKE KEHOE,
GOVERNOR

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DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
BEACH COMFORT STATION

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116008

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

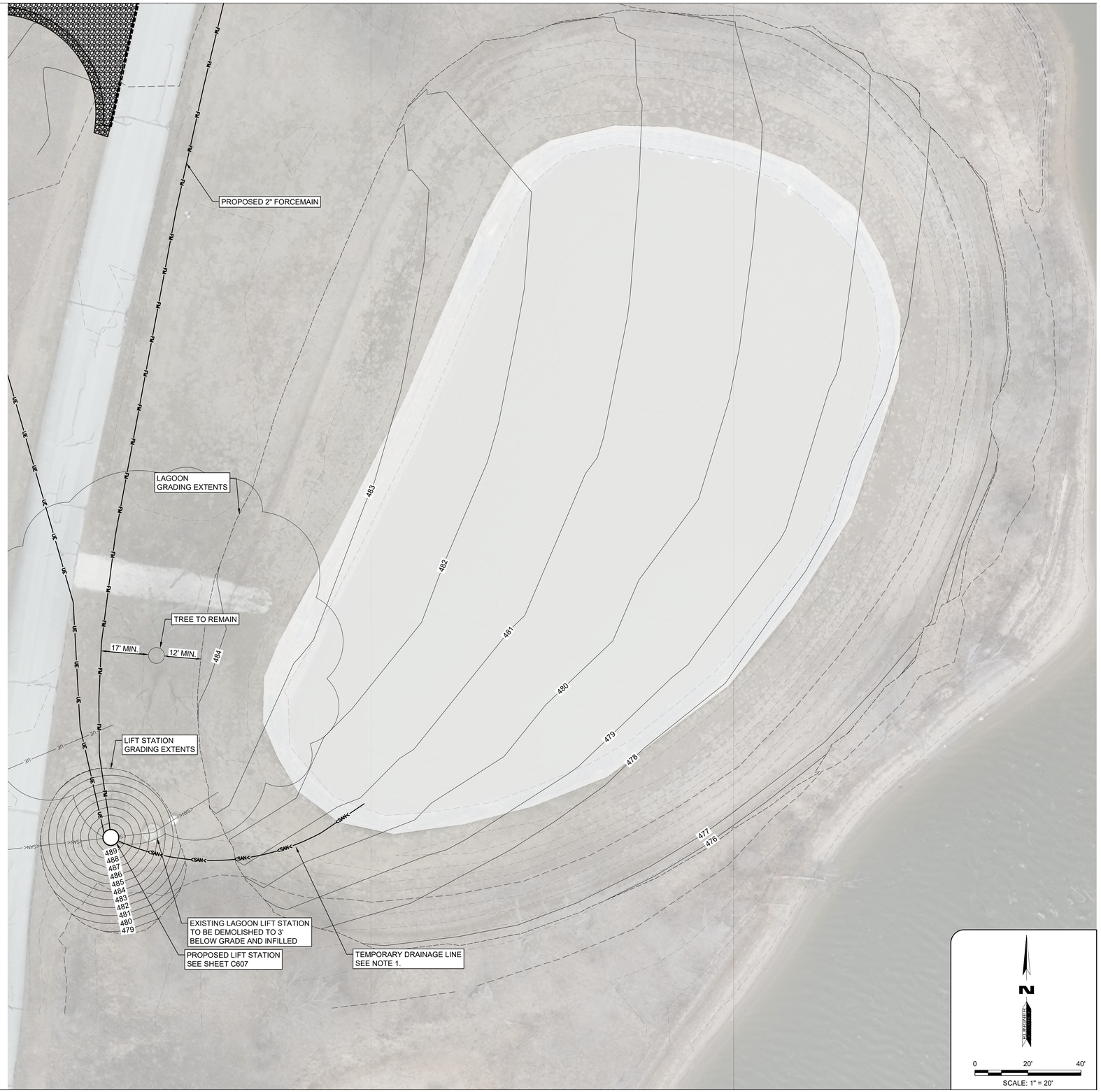
CAD DWG FILE: C509
DRAWING BY: CSW
CHECKED BY: DCD
DESIGNED BY: CSW

SHEET TITLE:
BEACH COMFORT STATION
SITE DETAILS

SHEET NUMBER:
C509
SHEET 51 OF 105 10/31/2025

## LAGOON DECOMMISSIONING

1. UPON COMPLETION OF THE PROPOSED LAGOON LIFT STATION, REMAINING TREATED WASTEWATER STORED IN THE LAGOON SHALL BE PUMPED TO THE LAGOON LIFT STATION. IN NO CASE SHALL THE TOTAL FLOW INTO THE LIFT STATION EXCEED 5000 GALLONS PER DAY INCLUDING BOTH LAGOON DRAINAGE AND REGULAR FLOW.
2. AFTER LAGOON HAS BEEN DRAINED, SUFFICIENT TIME SHALL BE ALLOWED PRIOR TO GRADING OPERATIONS TO ALLOW FOR BIOSOLIDS TO DRY.
3. LINER SHALL BE REMOVED AND LAGOON GRADED OUT IN ACCORDANCE WITH LAGOON DECOMMISSIONING PLAN. CONTRACTOR SHALL ABIDE BY THE EROSION CONTROL STANDARDS REFERENCED IN PLANS AND SPECIFICATIONS. DRIED BIOSOLIDS ARE TO BE MIXED WITH ON-SITE FILL.
4. AREAS DISTURBED BY GRADING SHALL BE PROPERLY STABILIZED AND REVEGETATED. EROSION CONTROL DEVICES SHALL NOT BE REMOVED UNTIL PERENNIAL VEGETATION COVERS ALL DISTURBED AREAS




**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
MARK C. BROSS
NUMBER E-20010046
10/31/25
REGISTERED PROFESSIONAL ENGINEER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**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES, DIVISION OF STATE PARKS**

**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

CAD DWG FILE: C603
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:

# ALTERNATE— LAGOON DECOMMISSIONING

SHEET NUMBER:

# C603

GENERAL NOTES:
1. CROSSING UTILITY LOCATION, SIZE, AND DEPTH ASSUMED. CONTRACTOR TO VERIFY.
2. EXCEPT AT CROSSINGS, MAINTAIN 3' MIN. SEPARATION BETWEEN EDGE OF PAVEMENT AND FORCEMAIN. PAVED AREAS AND SIGNAGE TO BE REPAIRED IF DAMAGED DURING CONSTRUCTION
3. CONTRACTOR IS ADVISED TO BORE FORCEMAIN DUE TO SANDY AND UNSTABLE SOIL CONDITIONS THAT MAY MAKE TRENCHING DIFFICULT. ROAD CROSSINGS SHALL BE UNCASED.
4. ALL TREES TO REMAIN, EXCEPT AS NOTED OR APPROVED BY ENGINEER.

EXISTING UNDERGROUND ELECTRICAL LINE

EXISTING SHOWER HOUSE

EXISTING SHOWER HOUSE SEWER LINE

NORTH CAMPSITE FORCEMAIN SEE SHEETS C415 - C418

BOTTOM OF ELECTRICAL PANEL TO BE ABOVE 492.5 FLOOD OF RECORD ELEVATION.

R5.50'

2.50'

GRADING EXTANTS

EDGE OF PAVEMENT

EXISTING WATER LINES

NORTH CAMPSITE LIFT STATION
TOP OF LS: 489.00
BENCH 1' - 6" FROM EDGE OF RIM
GRADE 3:1 TO SURFACE

EXISTING TRAILER DUMP SEWER LINE

4" SDR-26 PVC GRAVITY SEWER FROM HOST CAMPSITES

483 484 485 486 487 488 489

N

0 5' 10'

SCALE: 1" = 5'

**STATE OF MISSOURI**
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MARK C. BROSS
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**REBID**
**ALTERNATE:**
**SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD,**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

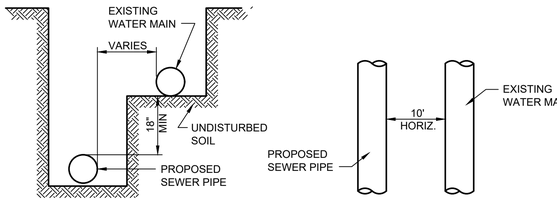
CAD DWG FILE: C604
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:

**ALTERNATE— NORTH CAMPSITE LIFT STATION GRADING**

SHEET NUMBER:

# C604



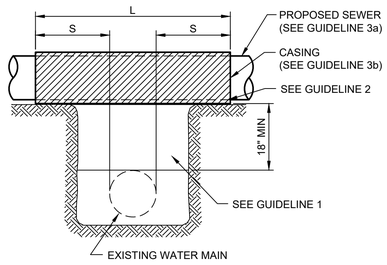

(HORIZONTAL SEPARATION)

PLAN

WHEN PROPOSED SEWER IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER, DETAIL ABOVE SHALL APPLY.

WHEN PROPOSED SEWER IS LOCATED 10 FEET OR MORE FROM EXISTING WATER, NO SPECIAL CONSTRUCTION REQ'D

A - WATER AND SEWER SEPARATION REQUIREMENTS




(VERTICAL SEPARATION)

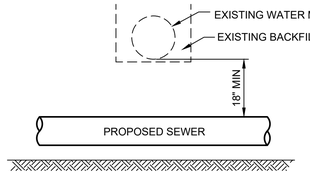
B - WATER AND SEWER SEPARATION REQUIREMENTS

GUIDELINES

1. IF SELECT GRANULAR BACKFILL EXISTS: REMOVE WITHIN WIDTH OF SEWER TRENCH & REPLACE WITH SELECT EXCAVATED MAT'L (CLASS IV) & COMPACT.
2. OMIT SELECT GRANULAR EMBEDMENT & GRANULAR BACKFILL TO (1) FOOT OVER TOP OF SEWER & USE SELECT EXCAVATED MAT'L (CLASS IV) & COMPACT THE LENGTH OF "L" FEET.
3. a. CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MAT'L AND PRESSURE TEST, (OR);

   b. USE "L" FEET OF WATER MAIN MAT'L FOR CASING OF PROPOSED SEWER & SEAL ENDS OF CASING

NOTE: "S" IS THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR. TO THE EXISTING WATER MAIN

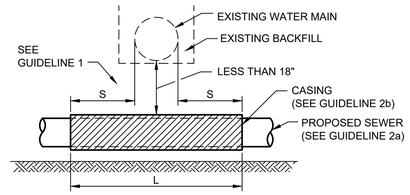



(VERTICAL SEPARATION)

C - WATER AND SEWER SEPARATION REQUIREMENTS

GUIDELINES

1. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.




GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT & GRANULAR WITHIN BACKFILL TO (1) FOOT OVER TOP OF SEWER & USE SELECT EXCAVATED MAT'L (CLASS IV) & COMPACT FOR "S" FT. ON EA. SIDE OF WATER MAIN
2. a. CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MAT'L & PRESSURE TEST, (OR);

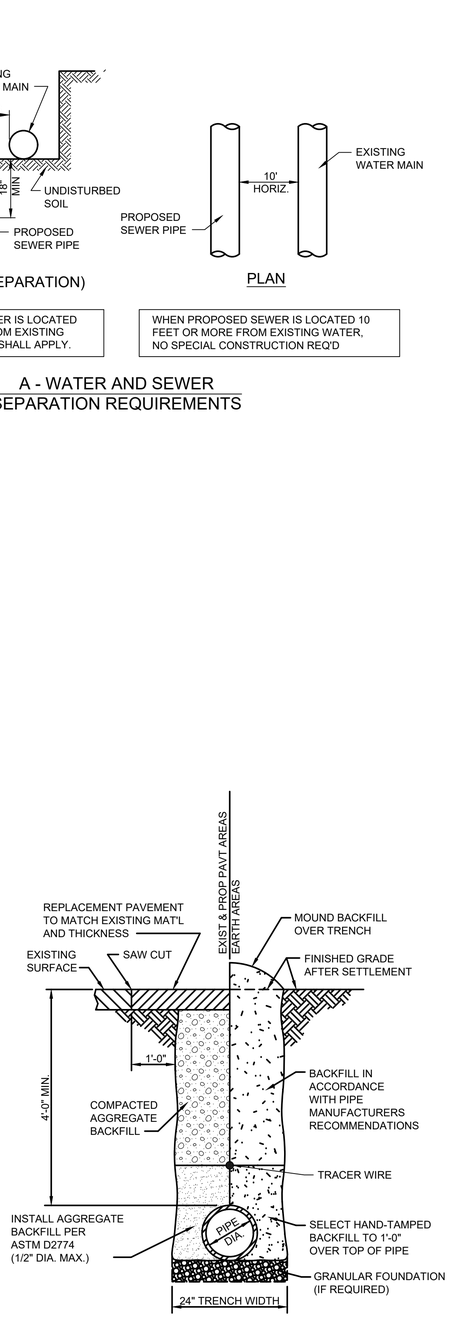
   b. USE "L" FEET OF WATER MAIN MAT'L FOR CASING OF PROPOSED SEWER & SEAL ENDS OF CASING
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

NOTE: "S" IS THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AS MEASURED PERPENDICULAR. TO THE EXISTING WATER MAIN

(VERTICAL SEPARATION)

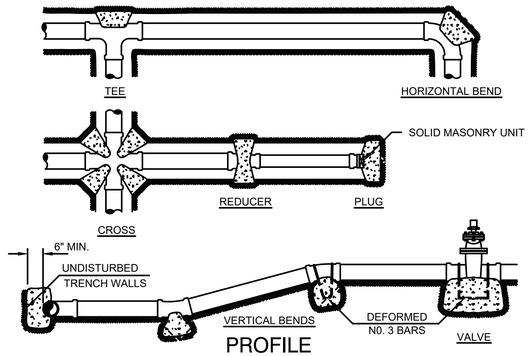
D - WATER AND SEWER SEPARATION REQUIREMENTS

1 WATER & SEWER SEPARATION REQUIREMENTS
N.T.S.




NOTE: CONTRACTOR IS ADVISED TO BORE FORCEMAIN DUE TO UNSTABLE AND SANDY SOIL CONDITIONS

2 FORCEMAIN INSTALLATION DETAIL
N.T.S.

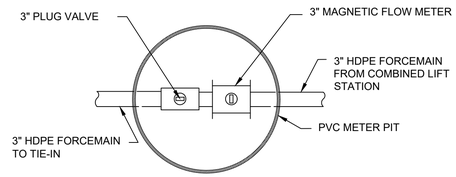


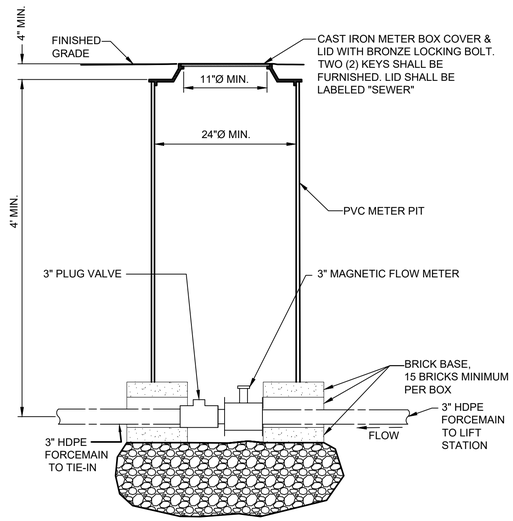

PROFILE

| MINIMUM SIZE THRUST BLOCK REQUIRED (SQ.FT.) | | | | | |
|---|---|---|---|---|---|
| PIPE DIA. | BENDS | | | REDUCER | CROSS, TEE, PLUG AND VALVE |
| | 11 1/4° & 22 1/2° | 45° | 90° | | |
| 2" | 0.25 | 0.5 | 1 | - | 0.25 |
| 4" | 0.5 | 1 | 2 | 0.75 | 1 |
| 6" | 1 | 2 | 4 | 1.75 | 2.25 |
| 8" | 2 | 4 | 7 | 2.75 | 4 |
| 10" | 3 | 6 | 11.5 | 3.75 | 6.25 |
| 12" | 4.5 | 9 | 16 | 4.75 | 9 |

1. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE = 3000 PSI.
2. DESIGN TEST PRESSURE = 100 PSI + 50% FOR IMPACT.
3. DESIGN SOIL BEARING CAPACITY = 2000 PSF.
4. CONCRETE FOR THRUST BLOCKS BASED ON SOIL HAVING A SAFE LOAD BEARING OF 2000 PSF. FOR SOFT SOIL, INCREASE BEARING AREA AND VOLUME OF THRUST BLOCK.

3 THRUST BLOCK DETAIL
N.T.S.




4 FORCEMAIN FLOW METER
N.T.S.

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**MIKE KEHOE, GOVERNOR**

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STATE OF MISSOURI MARK C. BROSS NUMBER E-20010040 10/31/25 REGISTERED PROFESSIONAL ENGINEER

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**32836 STATE PARK ROAD,**
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PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

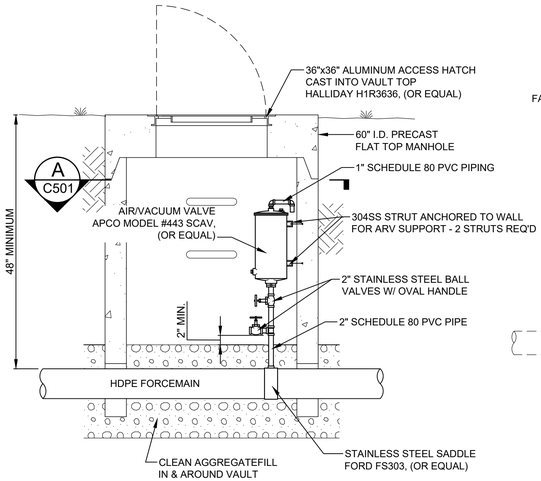
CAD DWG FILE: C605
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

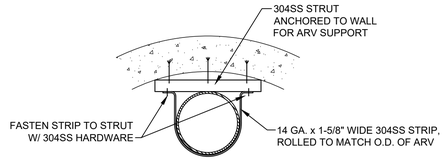
SHEET TITLE:

**ALTERNATE— FORCEMAIN DETAILS**

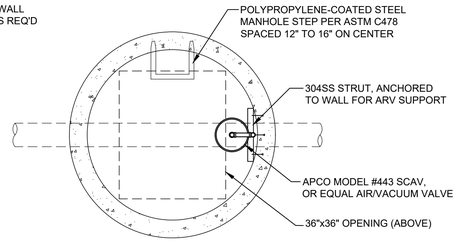
SHEET NUMBER:

# C605



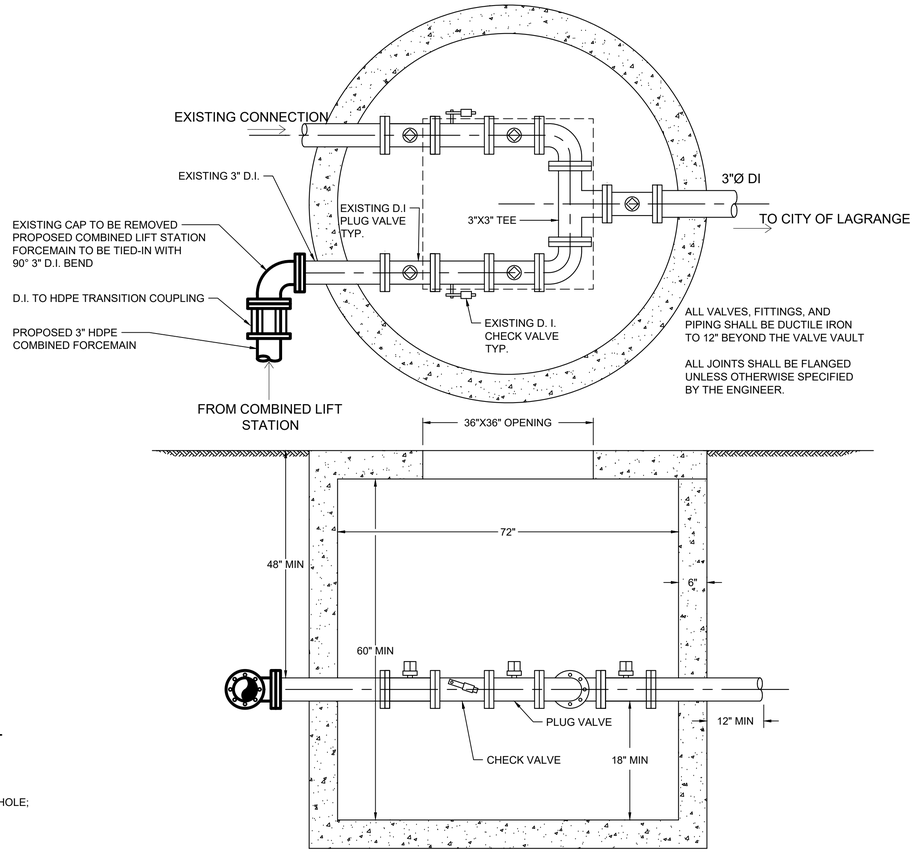




ARV SUPPORT DETAIL
NO SCALE

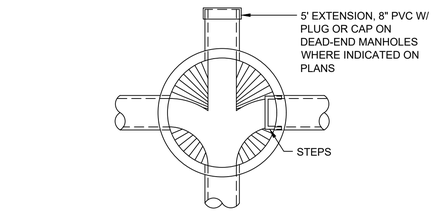



SECTION A

1 FORCEMAIN AIR RELEASE VALVE DETAIL
N.T.S.



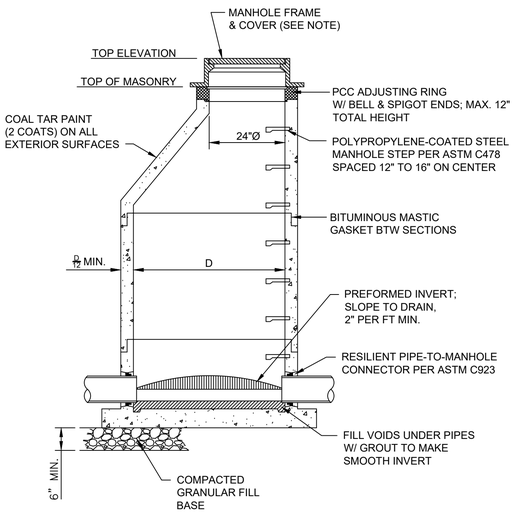

2 EXISTING VALVE VAULT DETAIL
N.T.S.



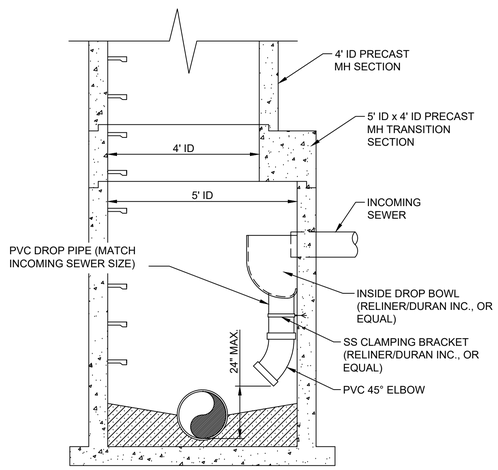

PLAN VIEW
NTS

MANHOLE FRAME & COVER

| | |
|---|---|
| FRAME (IN ROADBED): | EAST JORDAN IRON WORKS #1050 OR EQUAL |
| FRAME (ELSEWHERE): | EAST JORDAN IRON WORKS #1020 OR EQUAL |
| COVER: | SOLID HEAVY DUTY WITH GASKET SEAL & CLOSED PICKHOLE; LETTERED "SANITARY SEWER" |

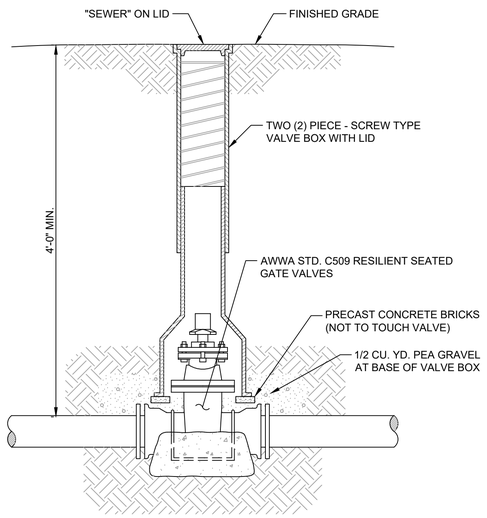



3 STANDARD MANHOLE DETAIL
N.T.S.




NOTE:
ALL DETAILS FOR STANDARD MH APPLY TO DROP MH EXCEPT AS NOTED ABOVE

4 DROP MANHOLE DETAIL
N.T.S.




5 GATE VALVE DETAIL
N.T.S.

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
MARK C. BROSS
NUMBER E-2001004850
10/31/25
REGISTERED PROFESSIONAL ENGINEER

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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL
RESOURCES,
DIVISION OF STATE PARKS

REBID
ALTERNATE:
SEWER IMPROVEMENTS

WAKONDA STATE PARK
32836 STATE PARK ROAD,
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10-31-2025

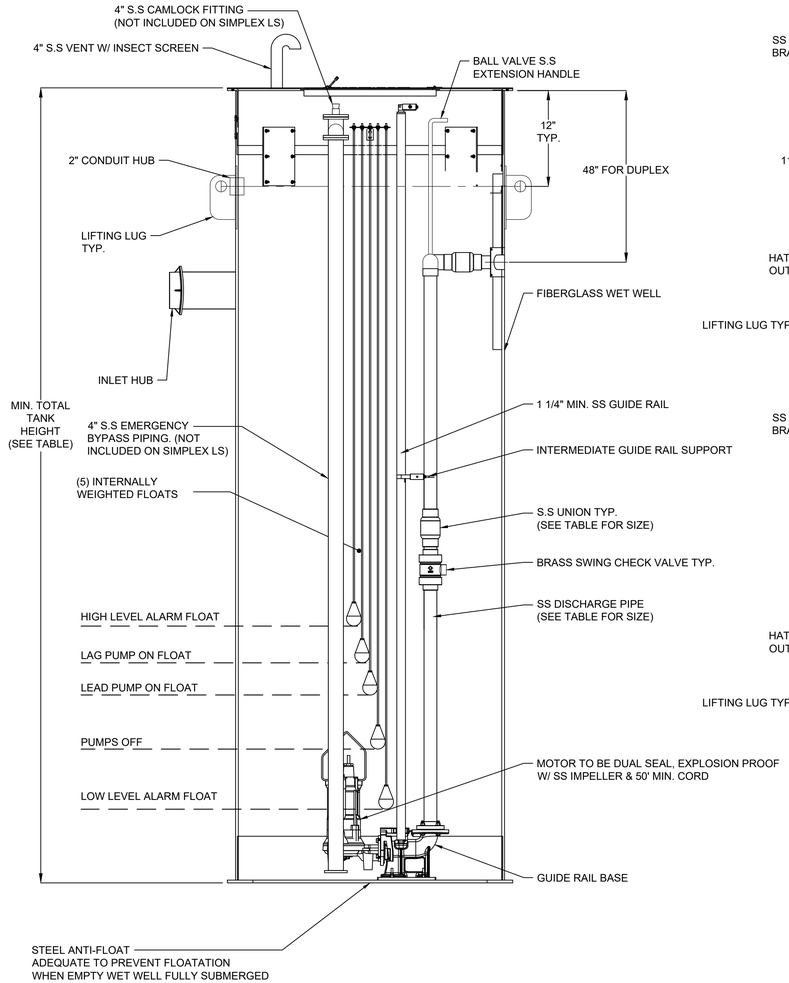
CAD DWG FILE: C606
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

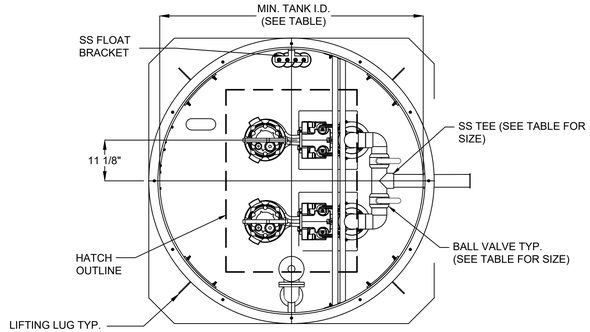
SHEET TITLE:

ALTERNATE—
MISCELLANEOUS
DETAILS

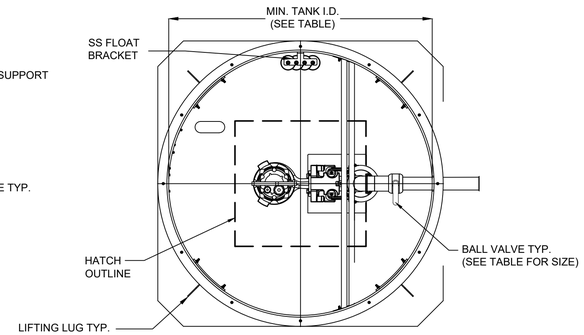
SHEET NUMBER:

C606




DUPLEX LIFT STATION PLAN




SIMPLEX LIFT STATION PLAN

NOTES:
1. PUMPS SHALL SHIP SEPARATELY TO PREVENT SHIPPING DAMAGE
2. LIFT STATION CONTROL PANEL TO BE INCLUDED BY PACKAGE LIFT STATION SUPPLIER

## LIFT STATION DIMENSIONS

| LIFT STATION NAME | WET WELL INNER DIAMETER | MIN. TOTAL WET WELL DEPTH (TOP OF WET WELL TO INVERT) | WET WELL INVERT DEPTH BELOW EXISTING GRADE | DISCHARGE PIPE SIZING |
|---|---|---|---|---|
| SHOP LIFT STATION | 3' | 6' | 5.75' | 2" |
| LAGOON LIFT STATION | 6' | 15' | 7.90' | 2" |
| SOUTH CAMPSITE LIFT STATION | 8' | 17' | 11.80' | 2" |
| BEACH HOUSE LIFT STATION | 4' | 7.25' | 7.13' | 2" |
| NORTH CAMPSITE LIFT STATION | 6' | 11' | 6.95' | 2" |
| COMBINED LIFT STATION | 8' | 8.75' | 7.98' | 3" |

## LIFT STATION PUMP SPECIFICATIONS

| LIFT STATION NAME | LIFT STATION TYPE | FLOW (GPM) | HEAD (FT) | PHASE | VOLTAGE | CYCLE |
|---|---|---|---|---|---|---|
| SHOP LIFT STATION | SIMPLEX | 24.0 | 13.82 | 1Ø | 230V | 60HZ |
| LAGOON LIFT STATION | DUPLEX | 28.0 | 45.71 | 1Ø | | |
| SOUTH CAMPSITE LIFT STATION | DUPLEX | 28.0 | 119.32 | 1Ø | | |
| BEACH HOUSE LIFT STATION | DUPLEX | 23.0 | 34.95 | 1Ø | | |
| NORTH CAMPSITE LIFT STATION | DUPLEX | 25.0 | 61.17 | 1Ø | | |
| COMBINED LIFT STATION | DUPLEX | 60.0 | 149.97 | 3Ø | 460V | |

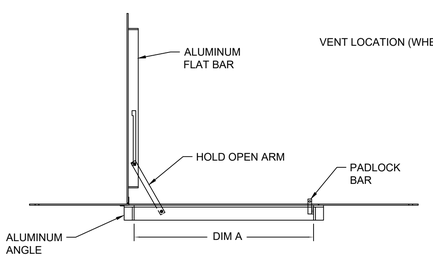
## LIFT STATION ELEVATIONS

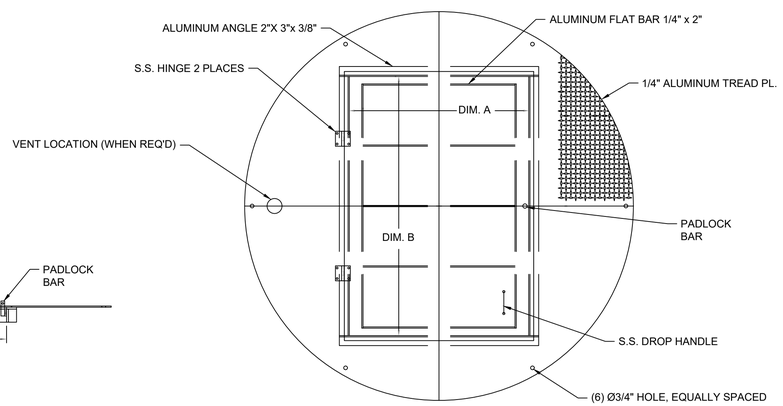
| LIFT STATION NAME | RIM | WET WELL INVERT | LOW LEVEL ALARM | STOP PUMPS | START LEAD PUMP | START LAG PUMP | HIGH LEVEL ALARM | EXISTING GRADE | LOWEST INFLUENT INVERT ELEVATION |
|---|---|---|---|---|---|---|---|---|---|
| SHOP LIFT STATION | 494.85 | 488.85 | 489.35 | 489.85 | 490.35 | N/A | 490.85 | 494.60 | 493.25 |
| LAGOON LIFT STATION | 489.00 | 474.00 | 474.50 | 475.25 | 475.75 | 476.50 | 477.00 | 481.90 | 477.00 |
| SOUTH CAMPSITE LIFT STATION | 489.00 | 472.00 | 472.50 | 473.25 | 473.75 | 474.50 | 475.00 | 483.80 | 475.13 |
| BEACH HOUSE LIFT STATION | 495.40 | 488.15 | 488.65 | 489.40 | 489.90 | 490.40 | 491.40 | 495.28 | 491.40 |
| NORTH CAMPSITE LIFT STATION | 489.00 | 478.00 | 478.50 | 479.25 | 479.50 | 480.00 | 480.50 | 484.95 | 480.95 |
| COMBINED LIFT STATION | 491.50 | 482.75 | 483.25 | 484.00 | 484.50 | 485.25 | 486.25 | 490.73 | 486.28 |

ELEVATIONS FOR EXISTING INFLUENT INVERTS AND GRADES TO BE CONFIRMED BY CONTRACTOR. ENGINEER SHALL BE NOTIFIED OF DISCREPANCIES.

## 1 TYP. PACKAGE LIFT STATION DETAILS

N.T.S.




## ACCESS HATCH DIMENSIONS

| LIFT STATION NAME | ACCESS HATCH LENGTH (DIM A) | ACCESS HATCH WIDTH (DIM B) |
|---|---|---|
| SHOP LIFT STATION | 24" | 24" |
| LAGOON LIFT STATION | 36" | 52" |
| SOUTH CAMPSITE LIFT STATION | 36" | 52" |
| BEACH HOUSE LIFT STATION | 24" | 24" |
| NORTH CAMPSITE LIFT STATION | 36" | 52" |
| COMBINED LIFT STATION | 36" | 52" |

## 2 TYP. LIFT STATION LID DETAIL

N.T.S.

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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**REBID**
**ALTERNATE:**
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**32836 STATE PARK ROAD,**
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PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
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DATE:
ISSUE DATE: 10-31-2025

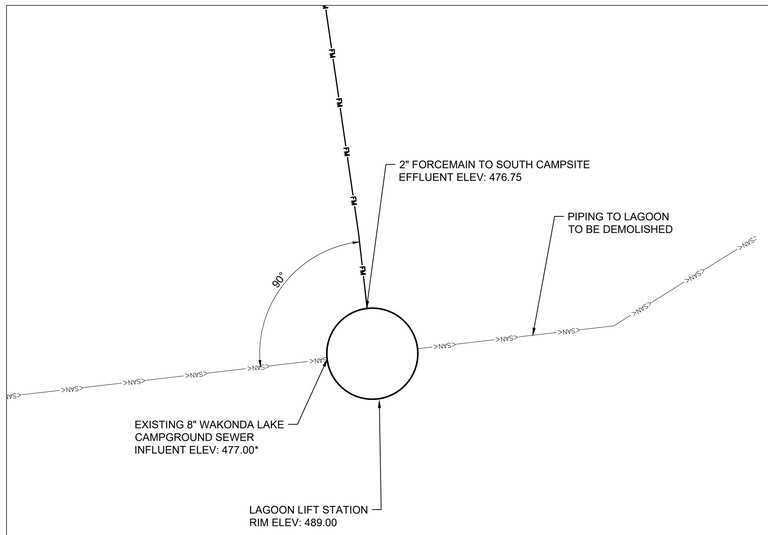
CAD DWG FILE: C607
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: MCB & SAL

SHEET TITLE:

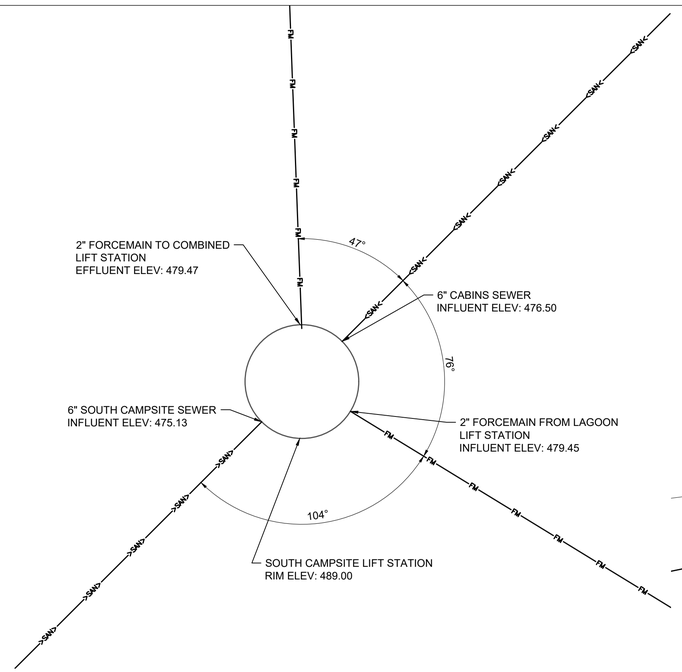
**ALTERNATE— LIFT STATION DETAILS**

SHEET NUMBER:

# C607

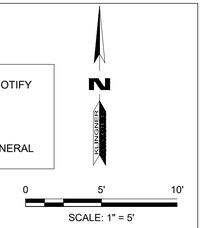


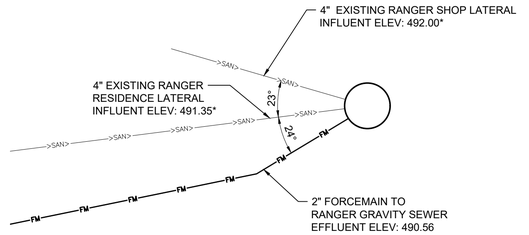

1 LAGOON LIFT STATION WET WELL PLAN
1" = 5'



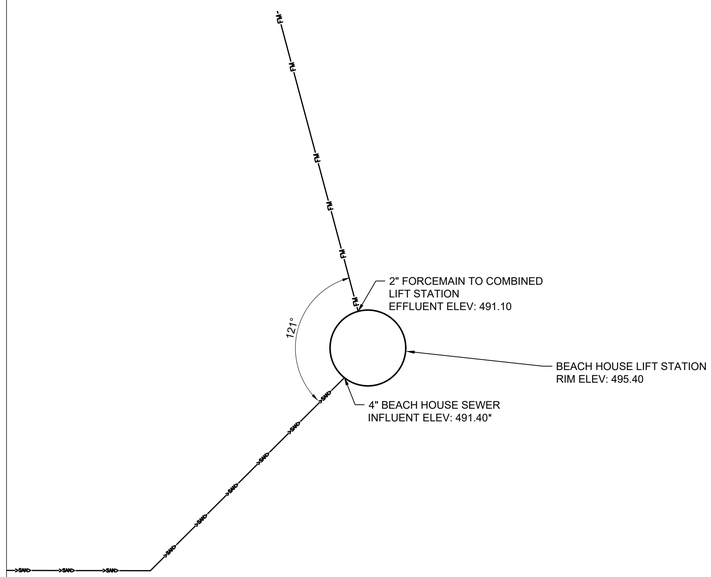

2 SOUTH CAMPSITE LIFT STATION WET WELL PLAN
1" = 5'

NOTES:
1. *ELEVATIONS AND SIZES OF EXISTING SEWERS ARE ASSUMED. CONTRACTOR TO VERIFY AND NOTIFY ENGINEER OF DISCREPANCIES
2. CONTRACTOR SHALL COMPLY WITH WET WELL MANUFACTURERS RECOMMENDATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF EQUIPMENT, PERSONNEL, AND GENERAL PUBLIC DURING WET WELL INSTALLATION.

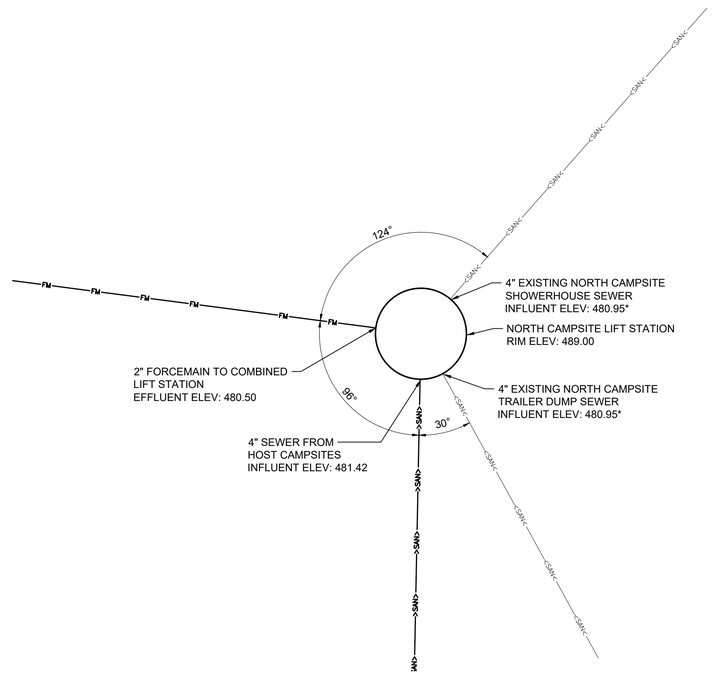


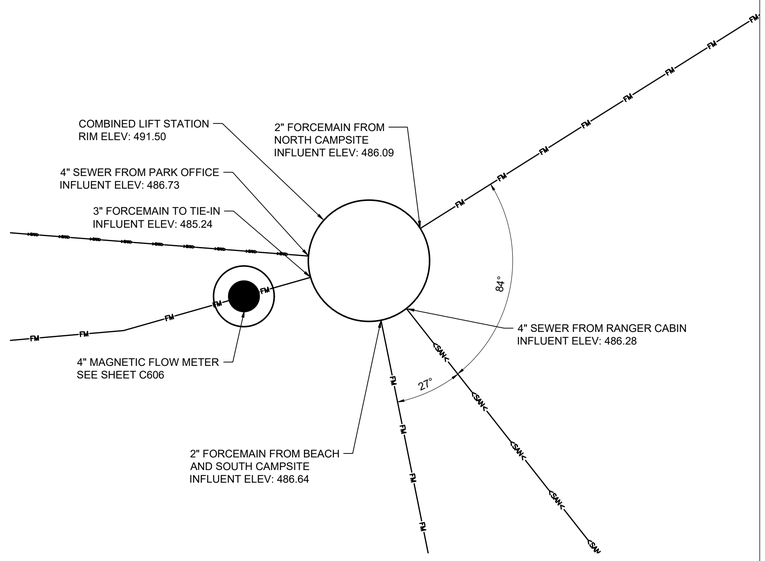

3 SHOP LIFT STATION WET WELL PLAN
1" = 5'




4 BEACH HOUSE LIFT STATION WET WELL PLAN
1" = 5'




5 NORTH CAMPSITE LIFT STATION WET WELL PLAN
1" = 5'




6 COMBINED LIFT STATION WET WELL PLAN
1" = 5'

STATE OF MISSOURI
MIKE KEHOE,
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REVISION:
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ISSUE DATE: 10-31-2025

CAD DWG FILE: C608
DRAWING BY: SAL
CHECKED BY: MCB
DESIGNED BY: SAL

SHEET TITLE:

ALTERNATE— WET WELL PLANS

SHEET NUMBER:

C608

## 2018 INTERNATIONAL RESIDENTIAL CODE

R310.1 EMERGENCY ESCAPE AND RESCUE REQUIRED.

*Basements and every sleeping room shall have at least one operable emergency and rescue opening. Such opening shall open directly into a public street, public alley, yard or court.*

Project design includes egress windows in each bedroom.

R310.2.1 MINIMUM OPENING AREA.

*Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height of the opening shall be not less than 24 inches and the net clear width shall not be less than 20 inches.*

Project design includes windows with 6.5 square feet of net clear opening in each bedroom.

R310.2.2 WINDOW SILL HEIGHT.

*Where a window is provided as the emergency escape and rescue opening, it shall have a sill height of not more than 44 inches (1118 mm) above the floor.*

Project design includes windows with sill height of 3'-0" in each bedroom.

R311.2 EGRESS DOOR.

*Not less than one egress door shall be provided for each dwelling unit. The egress door shall be side-hinged, and shall provide a clear width of not less than 32 inches (813 mm) where measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). The clear height of the door opening shall be not less than 78 inches (1981 mm) in height measured from the top of the threshold to the bottom of the stop. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be readily openable from inside the dwelling without the use of a key or special knowledge or effort.*

Project design includes an egress door of the required type, size, and operation.

R314.3 LOCATION (SMOKE ALARMS).

*Smoke alarms shall be installed in the following locations:*
*In each sleeping room.*
*Outside each separate sleeping area in the immediate vicinity of the bedrooms.*
*On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.*
*Not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by this section.*
*In the hallway and in the room open to the hallway in dwelling units where the ceiling height of a room open to a hallway serving bedrooms exceeds that of the hallway by 24 inches (610 mm) or more.*

Project design includes smoke alarms at all required locations.

R310.2.2 LOCATION (CARBON MONOXIDE ALARMS).

*Carbon monoxide alarms in dwelling units shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.*

Project design includes carbon monoxide alarms at all required locations.

## PROJECT DESCRIPTION:

This project consists of constructing six new camper cabins on a lakefront location in Wakonda State Park in Missouri:
Cabin "A": (5) five identical cabins;
Cabin "B": (1) one accessible cabin.
The occupiable area of each of the five single-story cabins (Cabin "A") is to be approximately 512 SF + 145 SF sleeping loft, and will include one bedroom, a 3/4 bathroom, a kitchen, a dining area, and a living space. One cabin (Cabin "B") will accommodate accessibility requirements, and will be approximately 40% larger than Cabin "A".
The construction will be concrete slab on grade with typical residential wood framing. The cabins will be addressed as single-family residences, and will meet the requirements of the 2018 IRC (International Residential Code). Each cabin will be equipped with smoke alarms and carbon monoxide alarms.

## BUILDING AREA SUMMARY:

The gross area of each typical camper cabin is to be approximately 573 SF (building footprint).
The gross area of the accessible camper cabin is to be approximately 821 SF (building footprint).

## 2018 IECC (Residential) CODE REVIEW NOTES:

Wakonda State Park location: Zone 5A
**Wall requirement:** Table R402.1.2 requires a minimum of R20 or R13 +5c.i. for wood frame walls. The Basis of Design 2x6 wood stud walls allow R20 batt insulation.
**Ceiling requirement:** Table R402.1.2 requires a minimum of R49. The Basis of Design wood trusses allow 14" of batt insulation @ R49.
**Slab-on-Grade requirement:** Table R402.1.2 requires a minimum of R10 for 24" below for unheated slabs.

## ACCESSIBLE CAMPER CABIN REQUIREMENTS

Fair Housing Accessibility Guidelines

- *Accessible building entrance on an accessible route.*
- *Accessible common and public use areas.*
- *Usable doors (usable by a person in a wheelchair).*
- *Accessible route into and through the dwelling unit.*
- *Light switches, electrical outlets, thermostats and other environmental controls in accessible locations.*
- *Reinforced walls for grab bars.*
- *Usable kitchens and bathrooms.*

## GENERAL CONSTRUCTION NOTES

**FRAMING/SHEATHING**

1. ONLY NEWLY PURCHASED LUMBER WILL BE USED ON THIS PROJECT.
2. ALL FRAMING LUMBER WILL BE SPF #2 GRADE OR BETTER, TRUE AND STRAIGHT.
3. ALL EXTERIOR WALLS WILL BE 2X6 WOOD STUDS.
4. ALL INTERIOR WALLS WILL BE 2X4 WOOD STUDS.
   A. EXCEPTION ONE: PLUMBING WALL BETWEEN BATHROOM AND KITCHEN WILL BE 2X6 WOOD STUDS.
5. CAULK AND SEAL EDGES WHERE TWO OR MORE FRAMING MEMBERS COME TOGETHER.
6. PROVIDE BLOCKING AS NEEDED AT LOCATIONS SUCH AS, BUT NOT LIMITED TO, CABINETS, BATHROOM GRAB BARS, SHELVING, SINKS, TOILET TISSUE HOLDERS, TOWEL RACKS, ETC.
7. PROVIDE BLOCKING BETWEEN STUDS.
8. INSTALL MANUFACTURED SHEATHING SYSTEM WALL PANELS AS PER MANUFACTURERS INSTALLATION SPECIFICATIONS. TAPE ALL SHEATHING SEAMS WITH SHEATHING SYSTEM MANUFACTURER APPROVED TAPE.

**EXTERIOR SIDING AND ROOFING**

1. INSTALL PREFINISHED METAL SIDING PANELS AND PREFINISHED METAL ROOF PANELS AND TRIM PER MANUFACTURER'S RECOMMENDATIONS. ALSO SEE DRAWINGS FOR SIDING PATTERN ORIENTATION AND COLOR LOCATIONS.
2. PROVIDE PREFINISHED METAL TRIM AS PART OF SIDING AND ROOF PANEL MANUFACTURER'S COMPLETE PACKAGE AROUND WINDOWS, DOORS, OPENINGS, COLUMNS, AND EDGES, AND AS NOTED ON DRAWINGS.
3. MATCH ALL PREFINISHED METAL TRIM TO ADJACENT PANEL COLOR.

**INSULATION AND VAPOR BARRIER**

1. ALL 2X6 EXTERIOR WALLS TO HAVE FIBERGLASS INSULATION BATTS INSTALLED. SEE DRAWINGS FOR MINIMUM R-VALUES.
2. ALL INTERIOR 2X6 AND 2X4 WALLS WILL HAVE SOUND BATT INSULATION INSTALLED. ALSO SEE DRAWINGS.
3. ALL INSULATION WILL BE UNDAMAGED, DRY AND UNSOILED AND THAT HAS NOT BEEN LEFT EXPOSED AT ANY TIME TO RAIN/ICE/SNOW.
4. EXTEND INSULATION IN THICKNESS TO FILL ENTIRE CAVITY AREA TO BE INSULATED. MAINTAIN AIR CIRCULATION ABOVE ROOF INSULATION AS SHOWN ON DRAWINGS. CUT AND FIT INSULATION TIGHTLY AROUND OBSTRUCTIONS AND FILL ALL VOIDS. PLACE INSULATION BEHIND ALL ELECTRIC BOXES AND ATTACHMENTS.
5. SECURE INSULATION TO STUDS TO PREVENT SAG.
6. FILL ANY VOIDS OR OPENINGS BETWEEN FRAMING MEMBERS WITH INSULATION.
7. FILL ANY AND ALL WALL AND CEILING PENETRATIONS THROUGH FRAMING MEMBERS WITH INSULATION OR SEALANT.
8. PROVIDE RIGID INSULATION TO EXTEND UNDER ENTIRE REINFORCED CONCRETE SLAB (UNDER LIVING SPACE). ALSO SEE DRAWINGS.
9. PROVIDE VAPOR BARRIER UNDER ENTIRE CONCRETE SLAB, BUT ABOVE THE RIGID INSULATION. PREVENT TEARS IN VAPOR BARRIER DURING CONSTRUCTION, AND REPAIR ALL DAMAGED PORTIONS.

**INTERIOR WALL/CEILING COVERINGS**

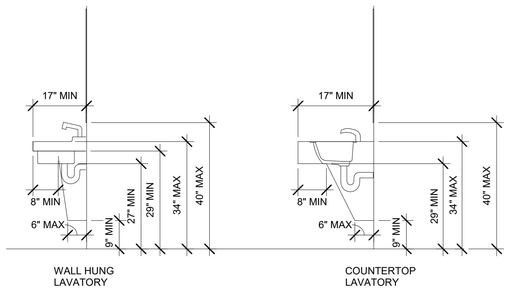
1. INSTALL 1/2" ULTRALIGHT, SAG-RESISTANT GYPSUM BOARD ON CEILINGS TO ACCOMMODATE SPACING UP TO 24" O.C.; TAPE JOINTS AND APPLY JOINT COMPOUND TO ALL SCREW HOLES AND FINISH ALL JOINTS AND CORNERS FOR SPRAY-ON TEXTURE.
2. ALL GYPSUM BOARD WILL BE INSTALLED USING APPROPRIATELY SIZED SCREWS AND SPACING PATTERN.
2. APPLY A SMOOTH FINISH TO THE CEILING.
3. INSTALL 5/8" GYPSUM BOARD ON WALLS, TAPE JOINTS AND APPLY JOINT COMPOUND TO ALL SCREW HOLES AND FINISH ALL JOINTS AND CORNERS FOR SMOOTH WALL FINISH.
4. AT ALL INTERIOR PARTITION WALLS AND AT ALL INSIDE FACES OF EXTERIOR WALLS, PROVIDE 5/8" ABUSE-RESISTANT GYSPUM BOARD FROM FLOOR TO CEILING. ABUSE-RESISTANT GYPSUM BOARD NOT REQUIRED ON CEILINGS.

**MILLWORK AND CASEWORK**

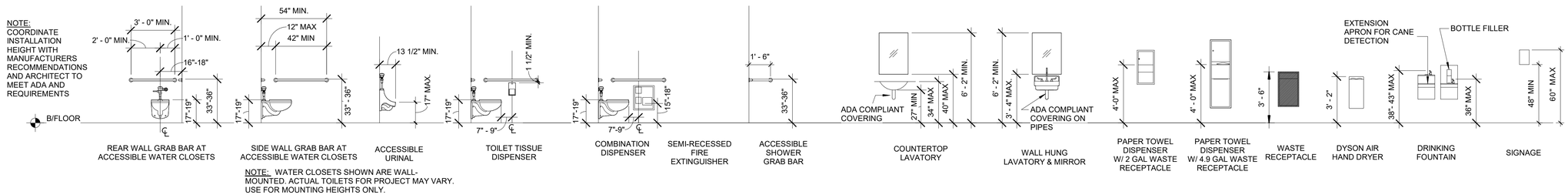
1. INSTALL WOODWORK LEVEL, PLUMB, TRUE AND STRAIGHT. SHIM AS REQUIRED WITH CONCEALED SHIMS. INSTALL LEVEL AND PLUMB (INCLUDING TOPS) TO A TOLERATE OF 1/8" IN 96 INCHES.
2. SCRIBE AND CUT WOODWORK TO FIT ADJOINING WORK, AND REFINISH CUT SURFACES AND REPAIR DAMAGED FINISH AT CUT.
3. ALL CABINETS SHALL BE INSTALLED WITHOUT DISTORTION, SO DOORS AND DRAWERS FIT OPENINGS PROPERLY AND ARE ACCURATELY ALIGNED. COMPLETE INSTALLATION OF HARDWARE AND ACCESSORY ITEMS AS INDICATED.
4. ALL MITER JOINTS WILL BE CUT TO FORM A TIGHT JOINT.
5. FILL ALL NAIL HOLES WITH MATCHING FILLER WHERE EXPOSED.
6. REPAIR DAMAGED AND DEFECTIVE WOODWORK, WHERE POSSIBLE, TO ELIMINATE FUNCTIONAL AND VISUAL DEFECTS; WHERE NOT POSSIBLE TO REPAIR, REPLACE WOODWORK.
7. CLEAN, LUBRICATE AND ADJUST HARDWARE.
8. CLEAN WOODWORK ON EXPOSED AND SEMI-EXPOSED SURFACES. TOUCH UP SHOP-APPLIED FINISHES TO RESTORE DAMAGED OR SOILED AREAS.
9. FILL MINOR GAPS OR IMPERFECTIONS WITH HIGH QUALITY FLEXIBLE SILICONE CAULK.

**FF & E**

1. INTERIOR AND EXTERIOR FURNITURE SHALL BE BY OWNER, AND IS SHOWN IN THE DRAWINGS FOR REFERENCE PURPOSES ONLY.
2. KITCHEN APPLIANCES, INCLUDING THE RANGE, REFRIGERATOR, AND MICROWAVE SHALL BE BY OWNER, AND ARE SHOWN IN THE DRAWINGS FOR REFERENCE PURPOSES ONLY.




1 LAVATORY CLEARANCES @ ACCESSIBLE CABIN "B"
1/2" = 1'-0"




NOTE: WATER CLOSETS SHOWN ARE WALL-MOUNTED. ACTUAL TOILETS FOR PROJECT MAY VARY. USE FOR MOUNTING HEIGHTS ONLY.

2 ADA MOUNTING HEIGHTS @ CABIN "B"
1/4" = 1'-0"

STATE OF MISSOURI
MIKE KEHOE, GOVERNOR

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Burlington, IA Pella, IA Hannibal, MO

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF STATE PARKS

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
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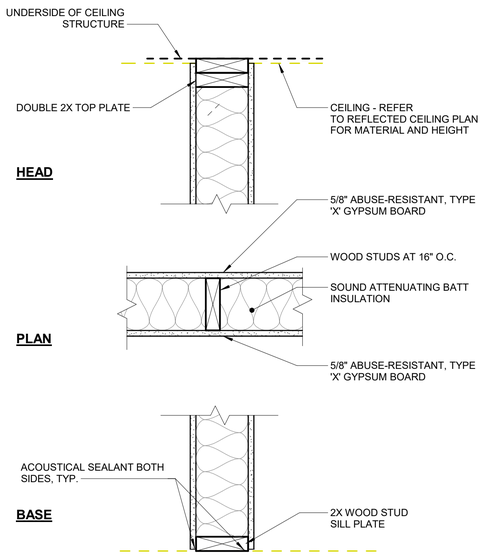
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A001
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

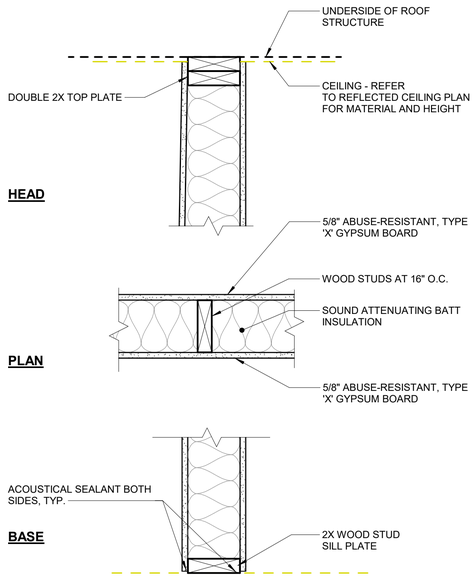
SHEET TITLE:
**ARCHITECTURAL NOTES**

SHEET NUMBER:
**A001**
SHEET 58 OF 105 10/31/2025



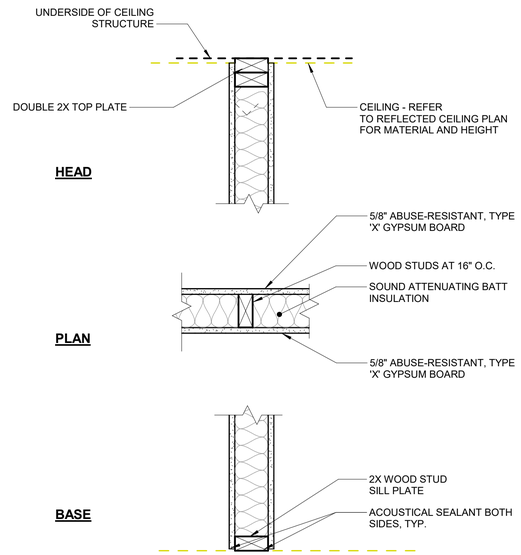

**"W6S5C"**

2X6 WOOD STUDS AT 16" O.C. WITH ONE LAYER OF 5/8" ABUSE RESISTANT, TYPE 'X' GYP. BD. ON BOTH SIDES OF STUD PARTITION. FILL CAVITY WITH 5 1/2" SOUND ATTENUATING BATT INSULATION. EXTEND WALL SYSTEM TO CEILING STRUCTURE.



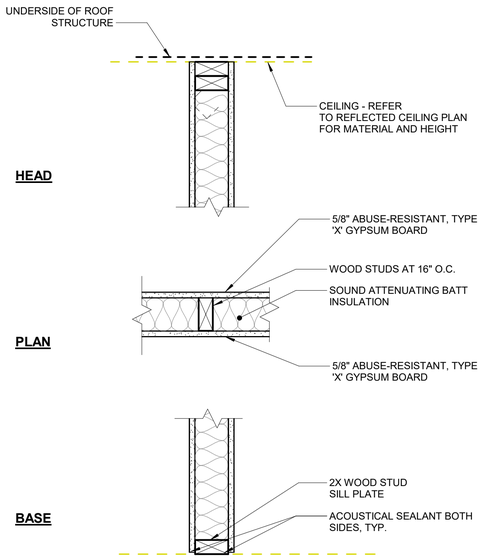

**"W6S5S"**

2X6 WOOD STUDS AT 16" O.C. WITH ONE LAYER OF 5/8" ABUSE RESISTANT, TYPE 'X' GYP. BD. ON BOTH SIDES OF STUD PARTITION. FILL CAVITY WITH 5 1/2" SOUND ATTENUATING BATT INSULATION. EXTEND WALL SYSTEM TO UNDERSIDE OF ROOF STRUCTURE.




**"W4S5C"**

2X4 WOOD STUDS AT 16" O.C. WITH ONE LAYER OF 5/8" ABUSE RESISTANT, TYPE 'X' GYP. BD. ON BOTH SIDES OF STUD PARTITION. FILL CAVITY WITH 3 1/2" SOUND ATTENUATING BATT INSULATION. EXTEND WALL TO CEILING STRUCTURE.




**"W4S5S"**

2X4 WOOD STUDS AT 16" O.C. WITH ONE LAYER OF 5/8" ABUSE RESISTANT, TYPE 'X' GYP. BD. ON BOTH SIDES OF STUD PARTITION. FILL CAVITY WITH 3 1/2" SOUND ATTENUATING BATT INSULATION. EXTEND WALL SYSTEM TO ROOF STRUCTURE.

NOTE:
AT ALL INTERIOR PARTITION WALLS AND AT ALL INSIDE FACES OF EXTERIOR WALLS, GYPSUM BOARD WALLS, PROVIDE IMPACT RESISTANT GYSPUM BOARD TO A HEIGHT OF 5'-0" ABOVE FINISHED FLOOR.
(ALSO SEE WALL SECTIONS.)

## PARTITION TYPE LEGEND

| | | |
|---|---|---|
| | W | WOOD STUDS |
| SIZE | 4 | 2X4 WOOD STUDS @ 16" O.C. |
| | 6 | 2X6 WOOD STUDS @ 16" O.C. |
| | 8 | 2X8 WOOD STUDS @ 16" O.C. |
| ADDITIONAL REQUIREMENTS | - | NONE |
| | S | SOUND BATT, STC 45, 3/12" GLASS FIBER INSULATION, FRICTION FIT |
| FACING MATERIAL | 1 | 1 LAYER 5/8" TYPE 'X' GYPSUM BOARD ON ONE SIDE |
| | 2 | 1 LAYER 5/8" TYPE 'X' GYPSUM BOARD ON EACH SIDE |
| | 4 | 2 LAYER 5/8" TYPE 'X' GYPSUM BOARD ON EACH SIDE |
| | 5 | 1 LAYER 5/8" TYPE 'X' IMPACT RESISTANT GYPSUM BOARD ON ONE SIDE |
| | 6 | 1 LAYER 5/8" MOISTURE RESISTANT GYPSUM BOARD ON ONE SIDE. |
| HEIGHT | C | TERMINATE AT CEILING STRUCTURE |
| | P | PARTIAL HEIGHT WALL, REFER TO PARTITION TYPE PLANS FOR HEIGHT |
| | S | TERMINATE AT ROOF STRUCTURE |
| | F | FURRING WALLS |
| SIZE | 0 | 7/8" HAT CHANNELS @ 16" O.C. |
| | 1 | 1 1/2" HAT CHANNELS @ 16" O.C. |
| | 2 | 2 1/2" Z CHANNELS @ 16" O.C. |
| | 3 | 2x2 WOOD STUDS @ 16" O.C. |
| ADDITIONAL REQUIREMENTS | - | NONE |
| | S | SOUND BATT, GLASS FIBER INSULATION, FRICTION FIT |
| FACING MATERIAL | 1 | 1 LAYER 5/8" TYPE 'X' GYPSUM BOARD ON ONE SIDE |
| | 2 | NOT USED |
| | 4 | 2 LAYER 5/8" TYPE 'X' GYPSUM BOARD ON ONE SIDE |
| | 5 | 1 LAYER 5/8" TYPE 'X' IMPACT RESISTANT GYPSUM BOARD ON ONE SIDE |
| | 6 | 1 LAYER 5/8" MOISTURE RESISTANT GYPSUM BOARD ON ONE SIDE. |
| HEIGHT | C | TERMINATE AT CEILING STRUCTURE |
| | P | PARTIAL HEIGHT WALL, REFER TO PARTITION TYPE PLANS FOR HEIGHT |
| | S | TERMINATE AT ROOF STRUCTURE |

GENERAL NOTES

1. * INSTALL CEMENT BOARD IN LIEU OF GYPSUM BOARD @ LOCATIONS TO RECIEVE CERAMIC TILE - REFER TO ROOM FINISH SCHEDULE.
2. REFER TO WALL PARTITIONS, ASSEMBLIES AND DETAILS (A-001) FOR MORE INFORMATION.

PARTITION TYPES
1 1/2" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

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**MIKE KEHOE, GOVERNOR**

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STATE OF MISSOURI
KURT FANDERCLAI
NUMBER A-2023012887
10/31/2025
ARCHITECT

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**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

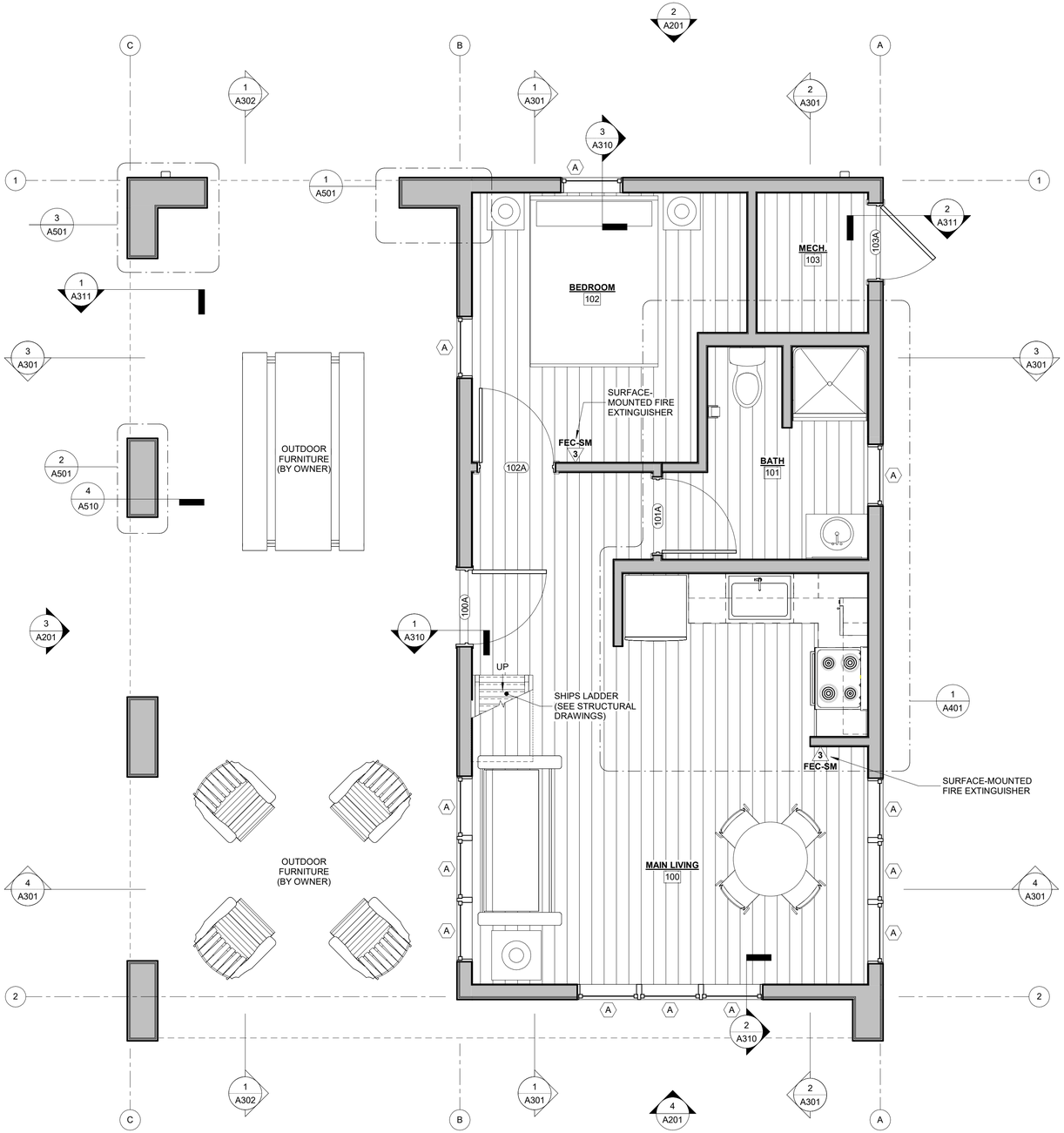
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:

ISSUE DATE: 10/31/2025

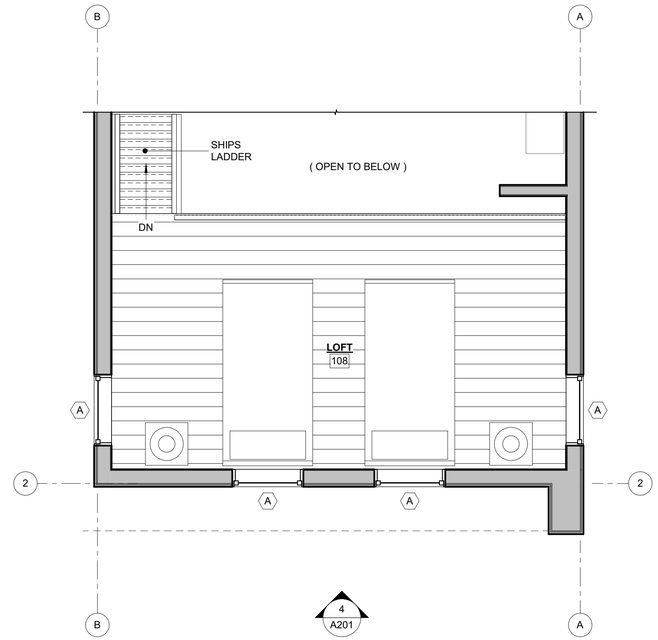
CAD DWG FILE: A010
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**PARTITION TYPES**

SHEET NUMBER:
**A010**
SHEET 59 OF 105 10/31/2025




1 FIRST FLOOR ANNOTATION PLAN - CABIN "A"
3/8" = 1'-0"




2 LOFT FLOOR PLAN - CABIN "A"
3/8" = 1'-0"

0 2 4
SCALE: 3/8" = 1'-0"

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6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

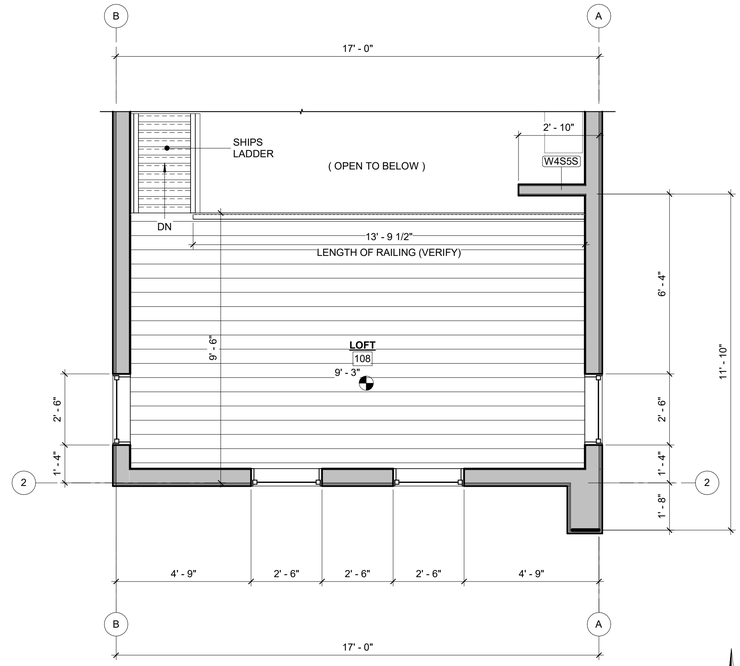
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A110
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**FIRST FLOOR ANNOTATION PLAN - CABIN "A"**

SHEET NUMBER:
**A110**

1 FIRST FLOOR DIMENSION PLAN - CABIN "A"
3/8" = 1'-0"




2 LOFT FLOOR DIMENSION PLAN - CABIN "A"
3/8" = 1'-0"

N

0 2 4
SCALE: 3/8" = 1'-0"

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**6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

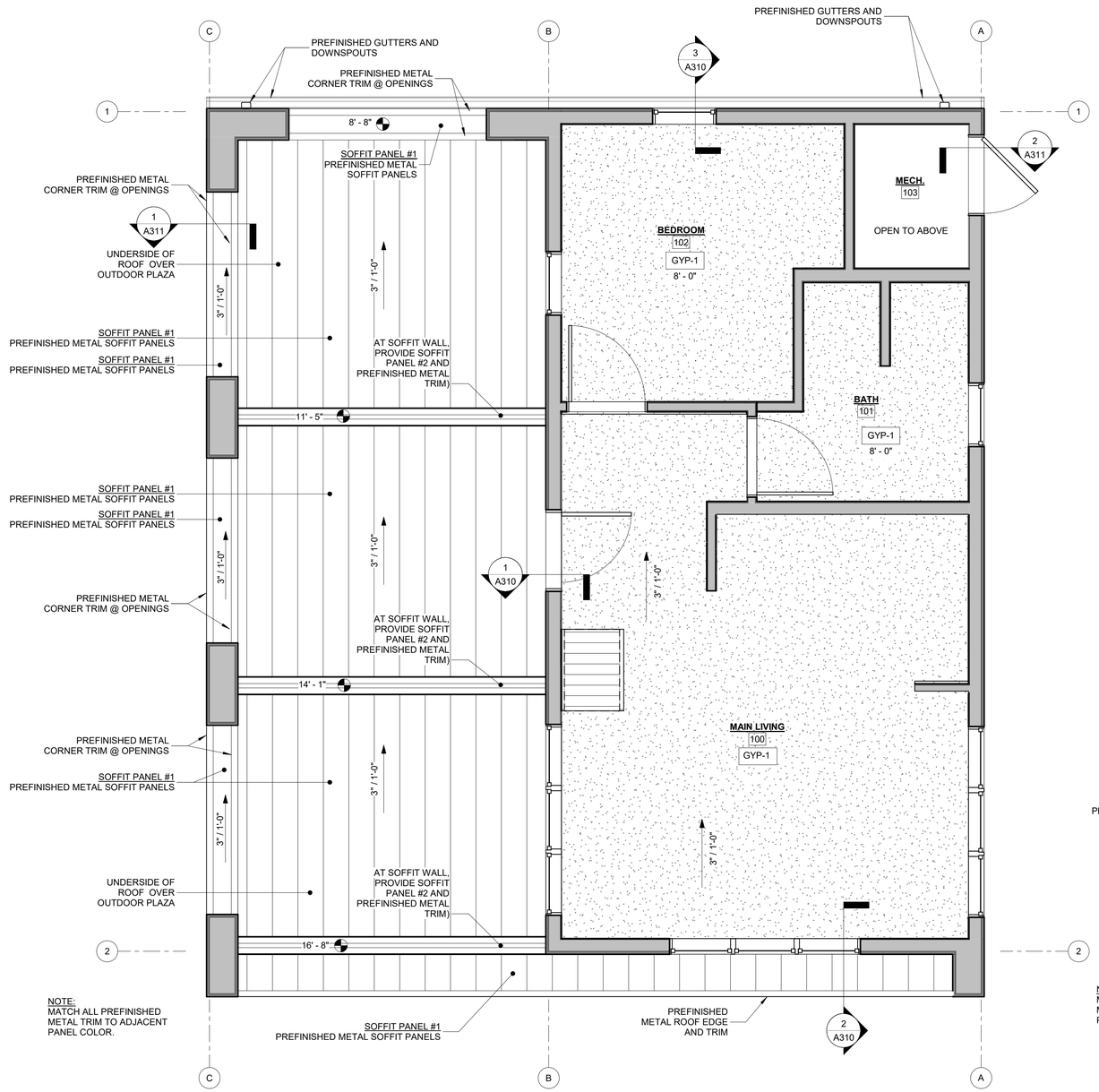
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A111
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**FIRST FLOOR DIMENSION PLAN - CABIN "A"**

SHEET NUMBER:
**A111**
SHEET 61 OF 105 10/31/2025

| CEILING SCHEDULE | | | |
|---|---|---|---|
| TAG | MANUFACTURER | PRODUCT DESCRIPTION | REMARKS |
| | | | |
| GYP-1 | (SEE SPECIFICATIONS) | 1/2" ULTRALIGHT, SAG-RESISTANT TO ACCOMMODATE STRUCTURE SPACING UP TO 24" O.C. | |




1 FIRST FLOOR REFLECTED CEILING PLAN - CABIN "A"
3/8" = 1'-0"




2 LOFT REFLECTED CEILING PLAN - CABIN "A"
3/8" = 1'-0"

N

0 2 4
SCALE: 3/8" = 1'-0"

STATE OF MISSOURI
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6 PREMIUM CABINS

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LA GRANGE, MO 63448

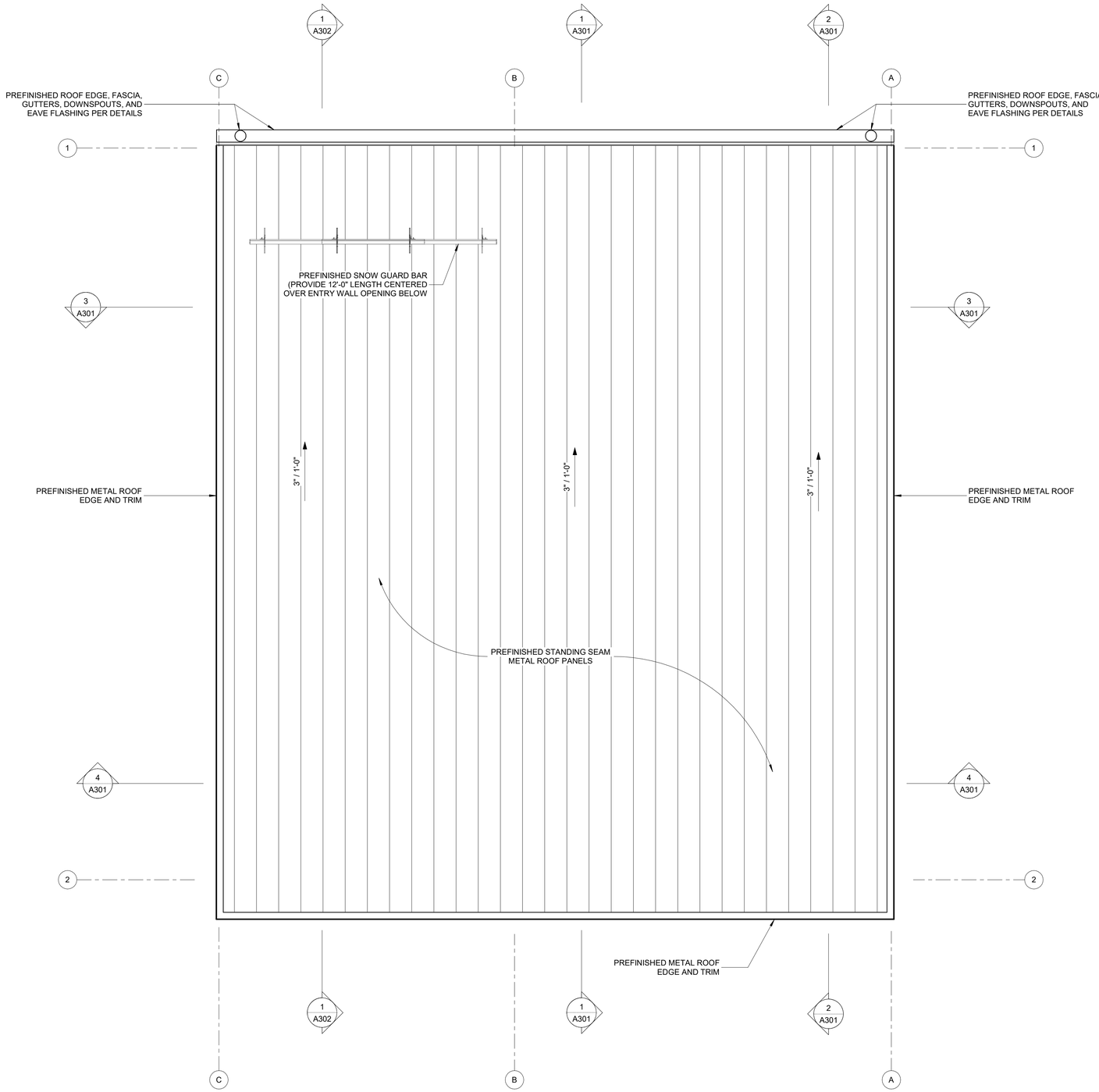
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A112
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**REFLECTED CEILING PLANS - CABIN "A"**

SHEET NUMBER:
**A112**
SHEET 62 OF 105 10/31/2025




1 ROOF PLAN - CABIN "A"
3/8" = 1'-0"

0 2 4
SCALE: 3/8" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
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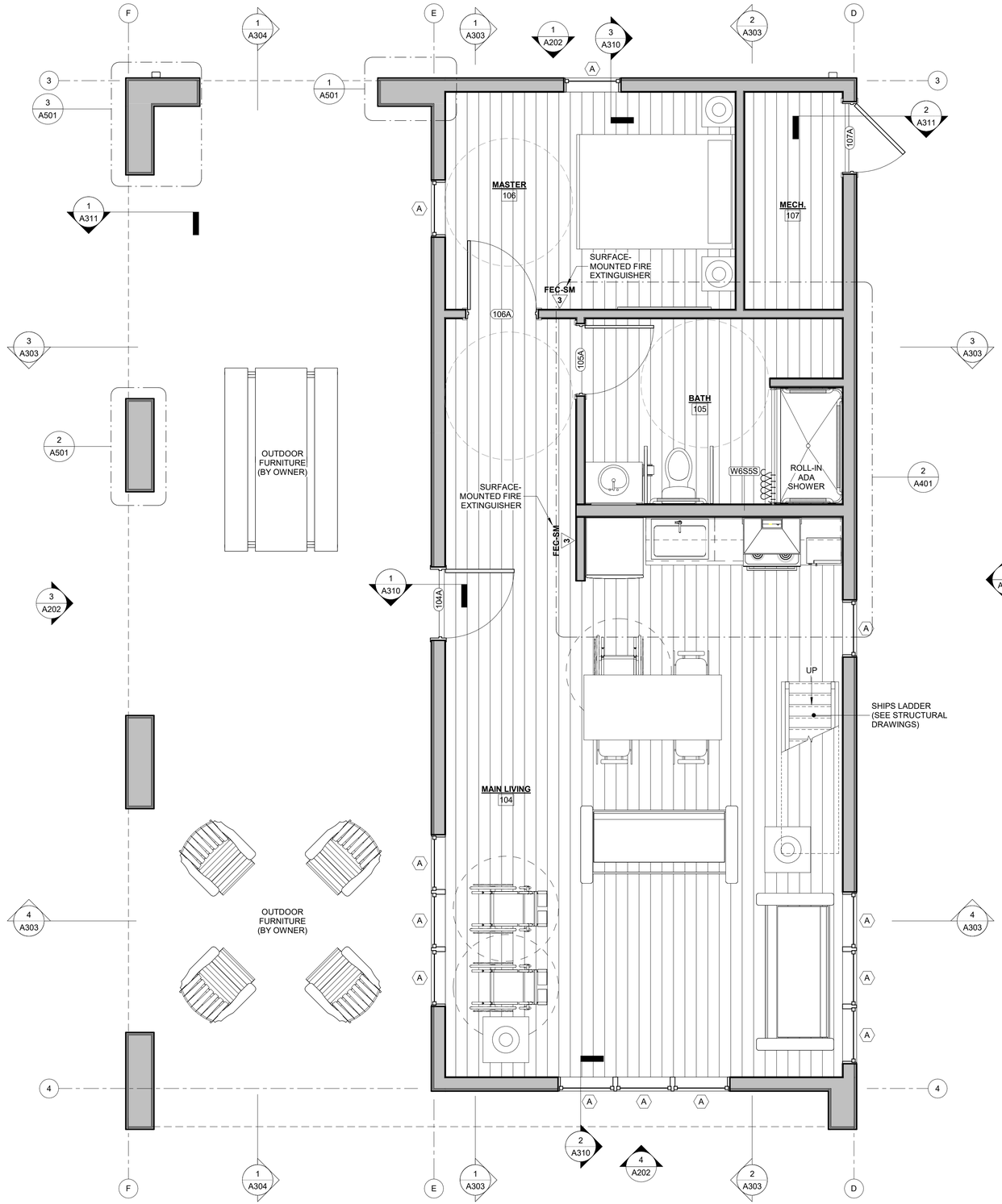
REVISION:
DATE:
ISSUE DATE: 10/31/2025

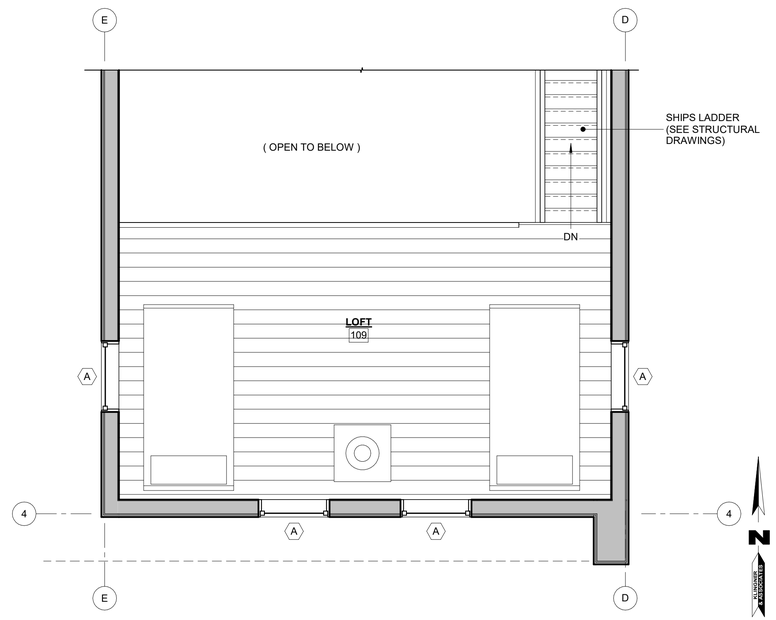
CAD DWG FILE: A113
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**ROOF PLAN - CABIN "A"**

SHEET NUMBER:
**A113**
SHEET 63 OF 105 10/31/2025




1 FIRST FLOOR ANNOTATION PLAN - CABIN "B" (ACCESSIBLE)
3/8" = 1'-0"




3 LOFT FLOOR PLAN - CABIN "B" (ACCESSIBLE)
3/8" = 1'-0"

0 2 4
SCALE: 3/8" = 1'-0"

STATE OF MISSOURI
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REBID
10 PREMIUM SITES AND
6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
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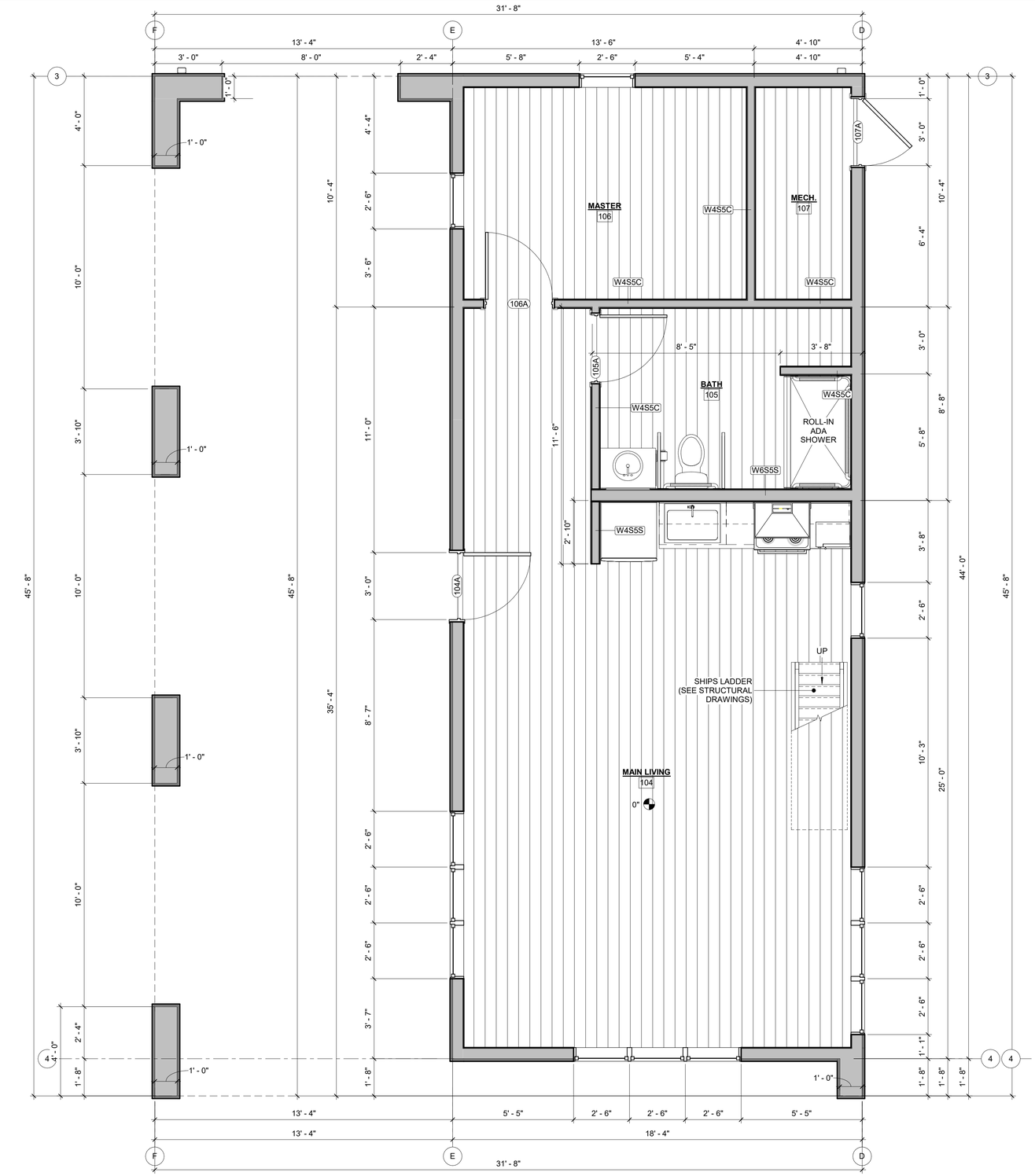
REVISION:
DATE:
ISSUE DATE: 10/31/2025

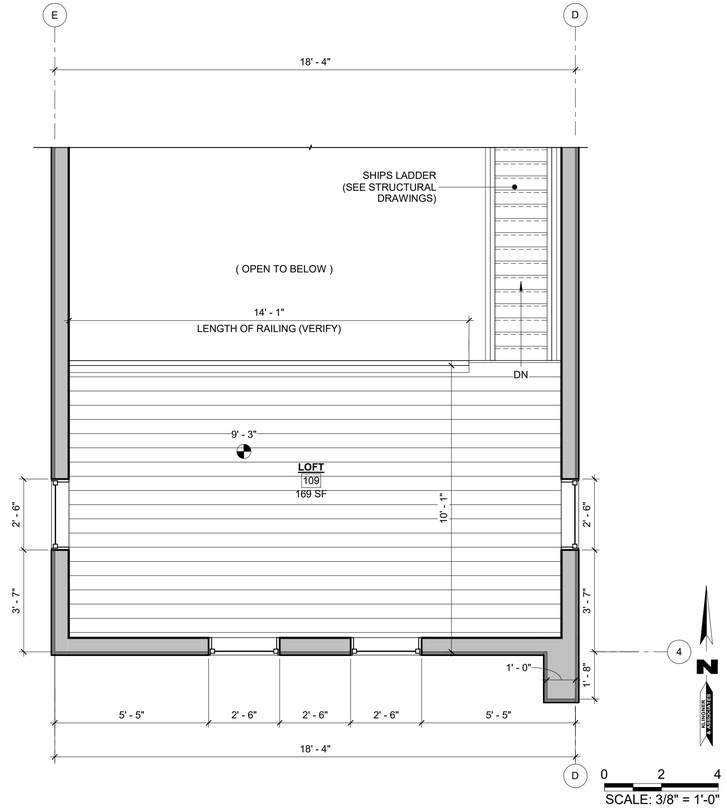
CAD DWG FILE: A114
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**FIRST FLOOR ANNOTATION PLAN - CABIN "B"**

SHEET NUMBER:
**A114**
SHEET 64 OF 105 10/31/2025




1 FIRST FLOOR DIMENSION PLAN - CABIN "B" (ACCESSIBLE)
3/8" = 1'-0"




2 LOFT FLOOR DIMENSION PLAN - CABIN "B" (ACCESSIBLE)
3/8" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE,**
**GOVERNOR**

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**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

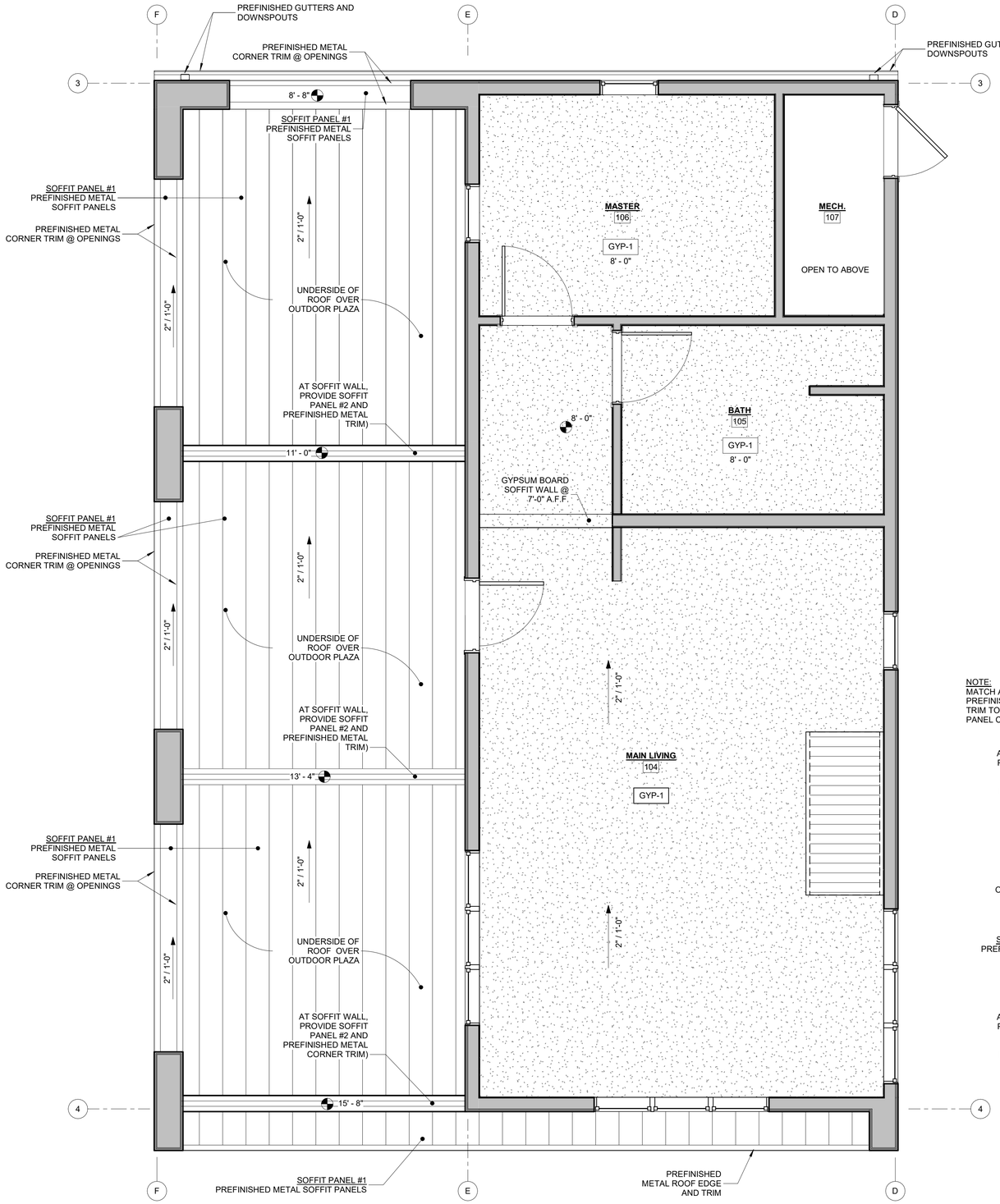
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A115
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**FIRST FLOOR DIMENSION PLAN - CABIN "B"**

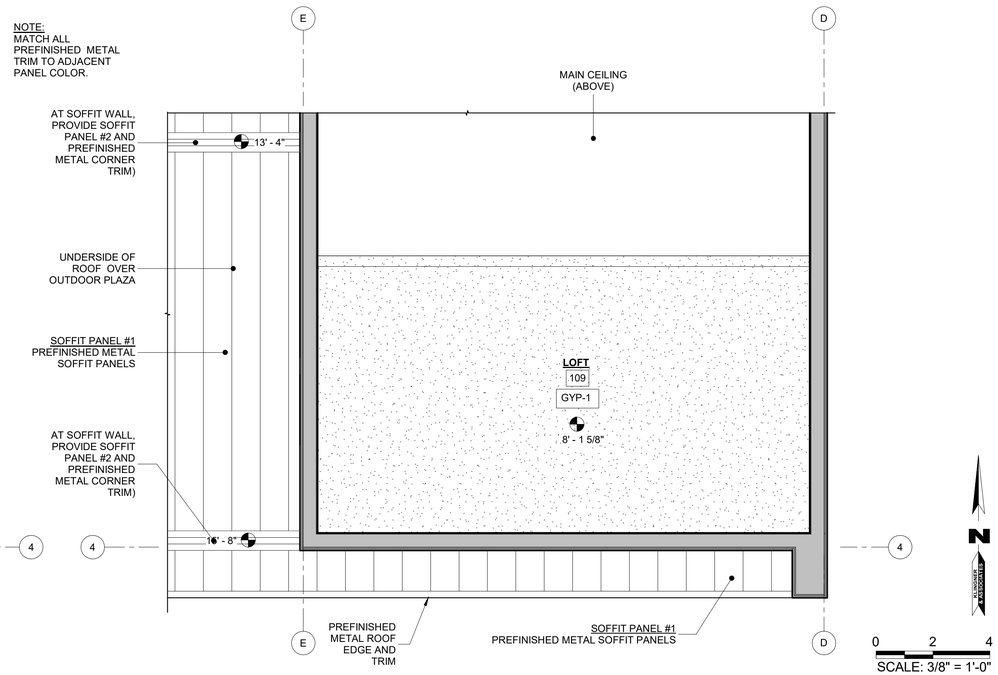
SHEET NUMBER:
**A115**
SHEET 65 OF 105 10/31/2025




1 FIRST FLOOR REFLECTED CEILING PLAN - CABIN "B" (ACCESSIBLE)
3/8" = 1'-0"

| CEILING SCHEDULE | | | |
|---|---|---|---|
| TAG | MANUFACTURER | PRODUCT DESCRIPTION | REMARKS |
| | | | |
| GYP-1 | (SEE SPECIFICATIONS) | 1/2" ULTRALIGHT, SAG-RESISTANT TO ACCOMMODATE STRUCTURE SPACING UP TO 24" O.C. | |

NOTE:
MATCH ALL PREFINISHED METAL TRIM TO ADJACENT PANEL COLOR.




2 LOFT REFELECTED CEILING PLAN - CABIN "B" (ACCESSIBLE)
3/8" = 1'-0"

0 2 4
SCALE: 3/8" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

KURT FANDERCLAI
NUMBER A-2023012887
10/31/2025
ARCHITECT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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

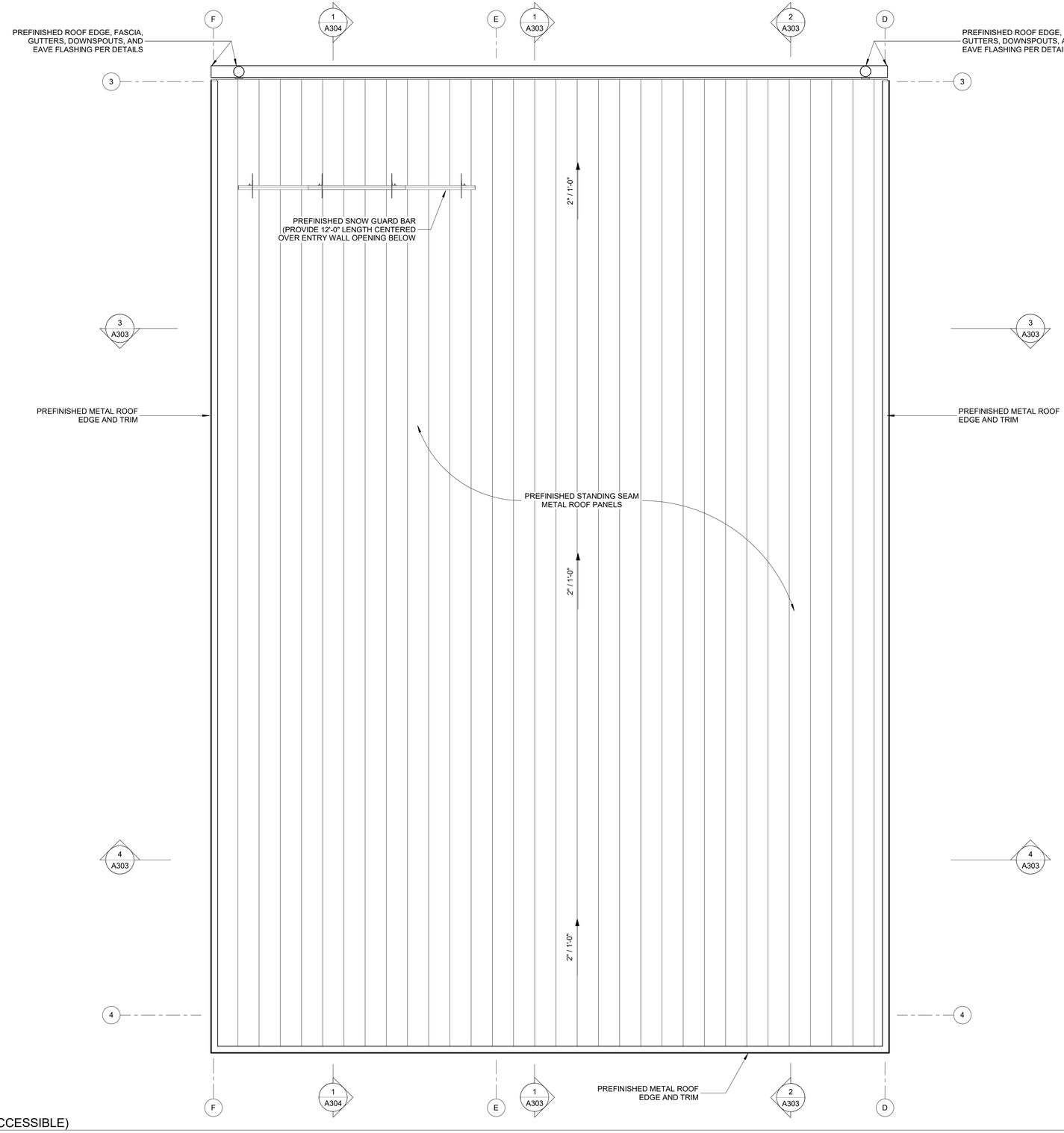
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A116
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**REFLECTED CEILING PLANS - CABIN "B"**

SHEET NUMBER:
**A116**
SHEET 66 OF 105 10/31/2025




1 ROOF PLAN - CABIN "B" (ACCESSIBLE)
3/8" = 1'-0"

0 2 4
SCALE: 3/8" = 1'-0"

**STATE OF MISSOURI**
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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

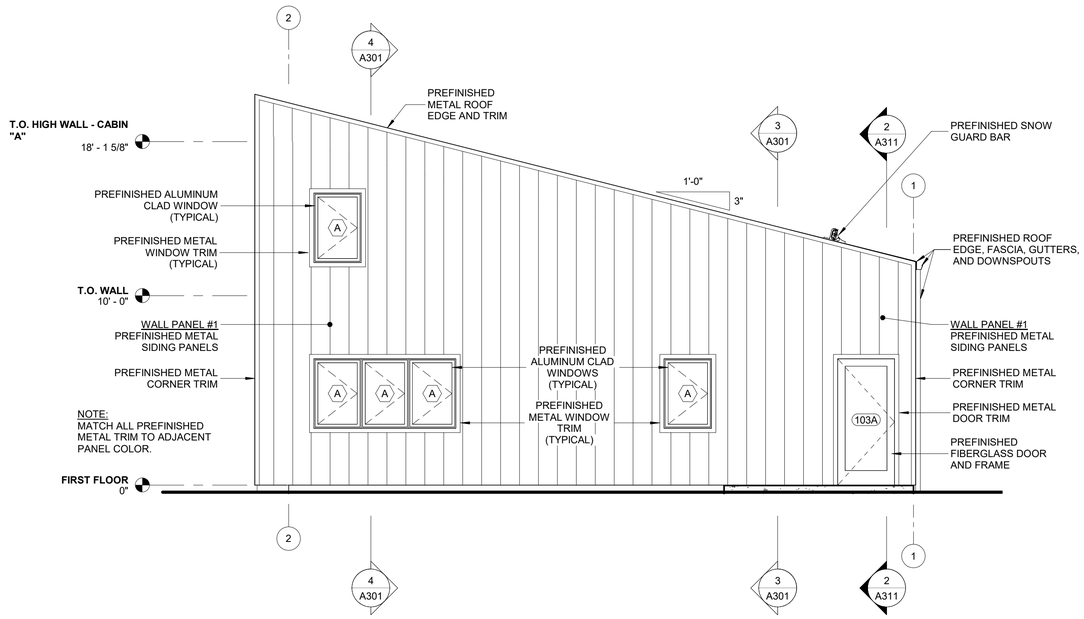
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

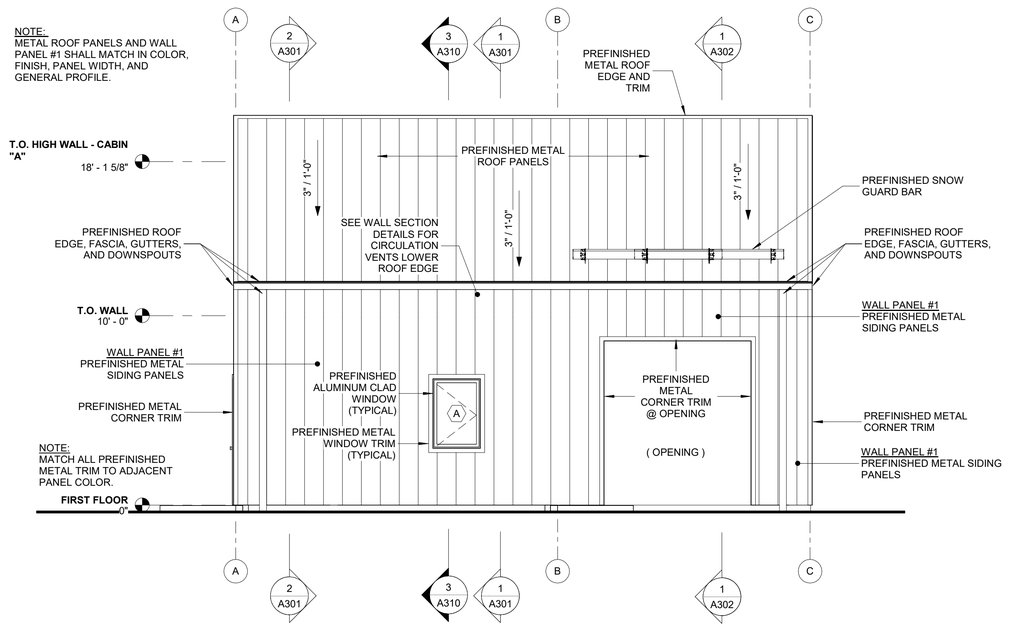
CAD DWG FILE: A117
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**ROOF PLAN - CABIN "B"**

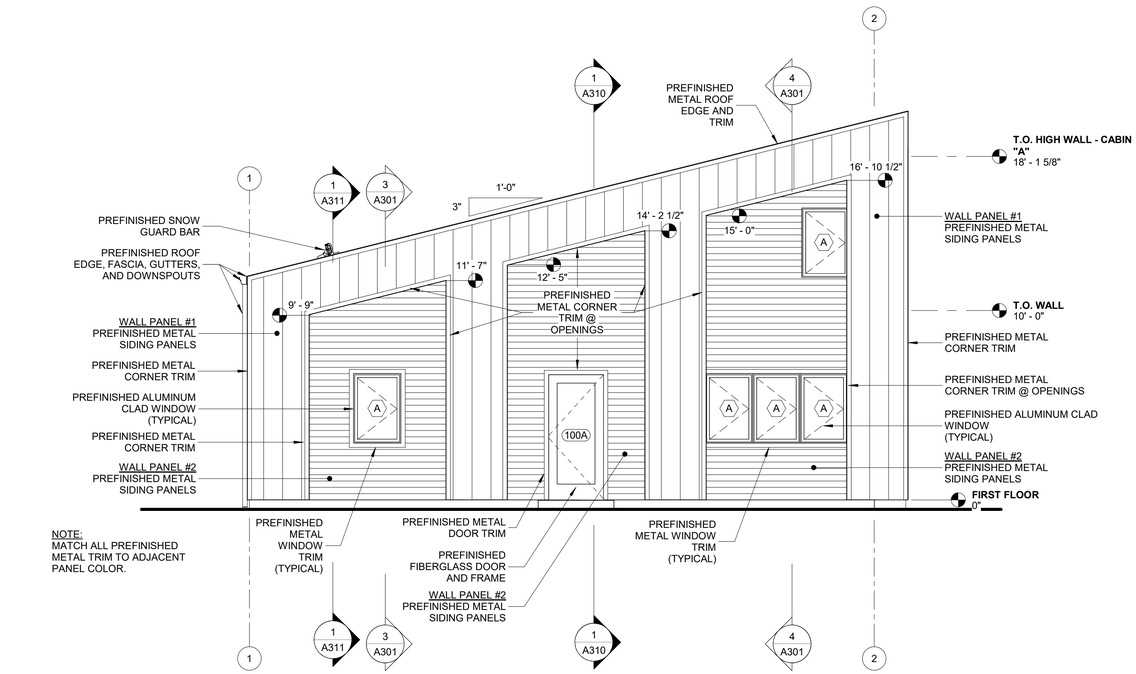
SHEET NUMBER:
**A117**
SHEET 67 OF 105 10/31/2025



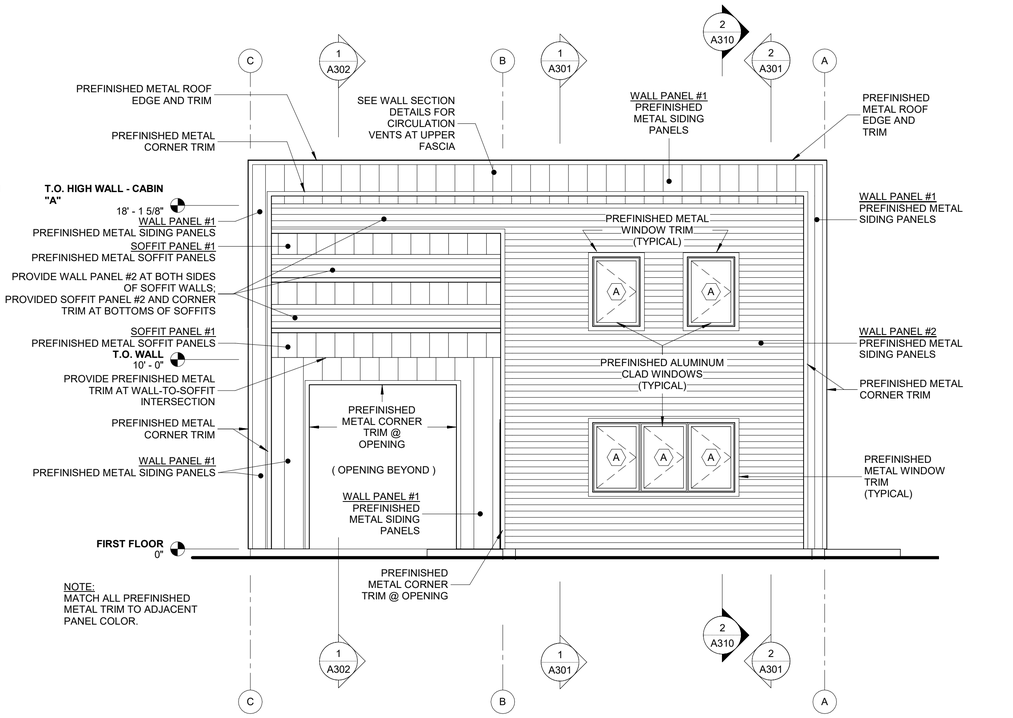

1 WEST ELEVATION - CABIN "A"
1/4" = 1'-0"




2 NORTH ELEVATION - CABIN "A"
1/4" = 1'-0"




3 EAST ELEVATION - CABIN "A"
1/4" = 1'-0"




4 SOUTH ELEVATION - CABIN "A"
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
KURT FANDERCLAI
NUMBER A-2023012887
10/31/2025
ARCHITECT

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**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

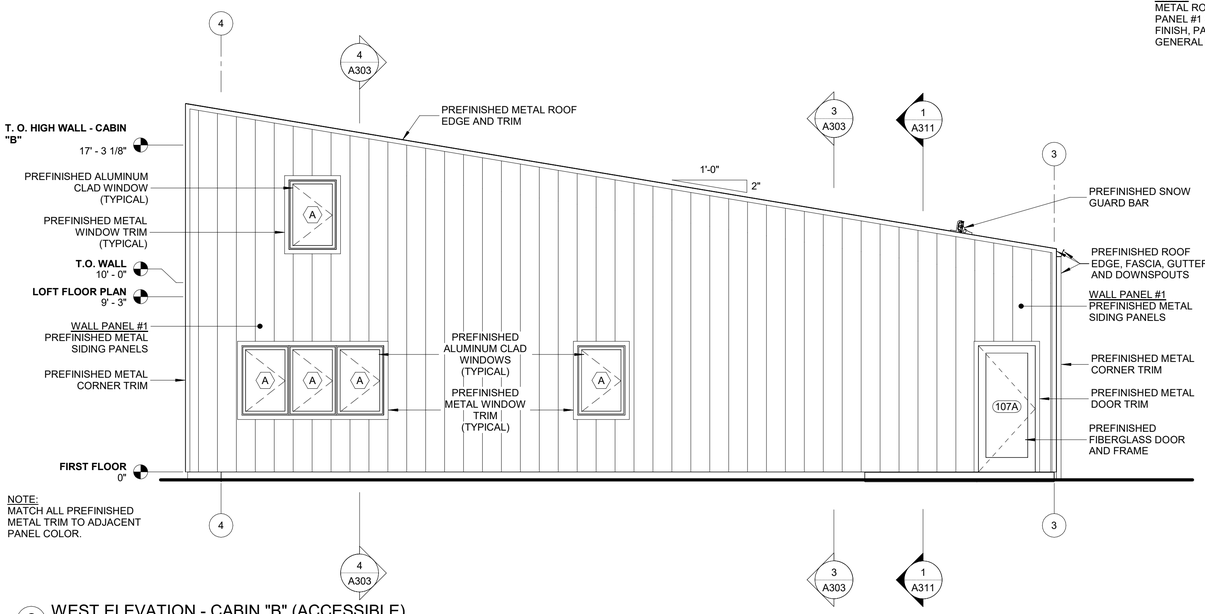
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

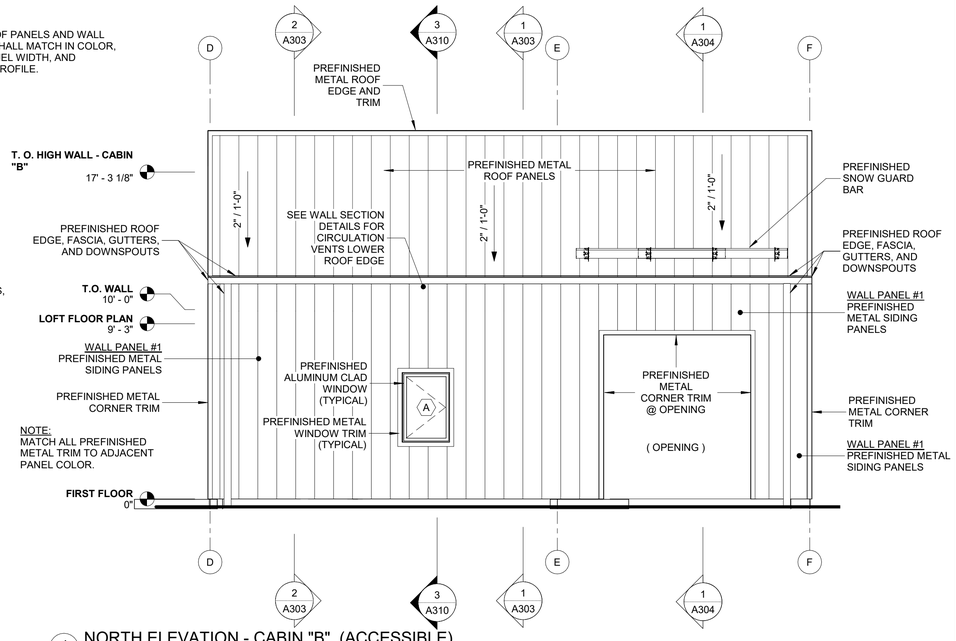
CAD DWG FILE: A201
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**BUILDING ELEVATIONS - CABIN "A"**

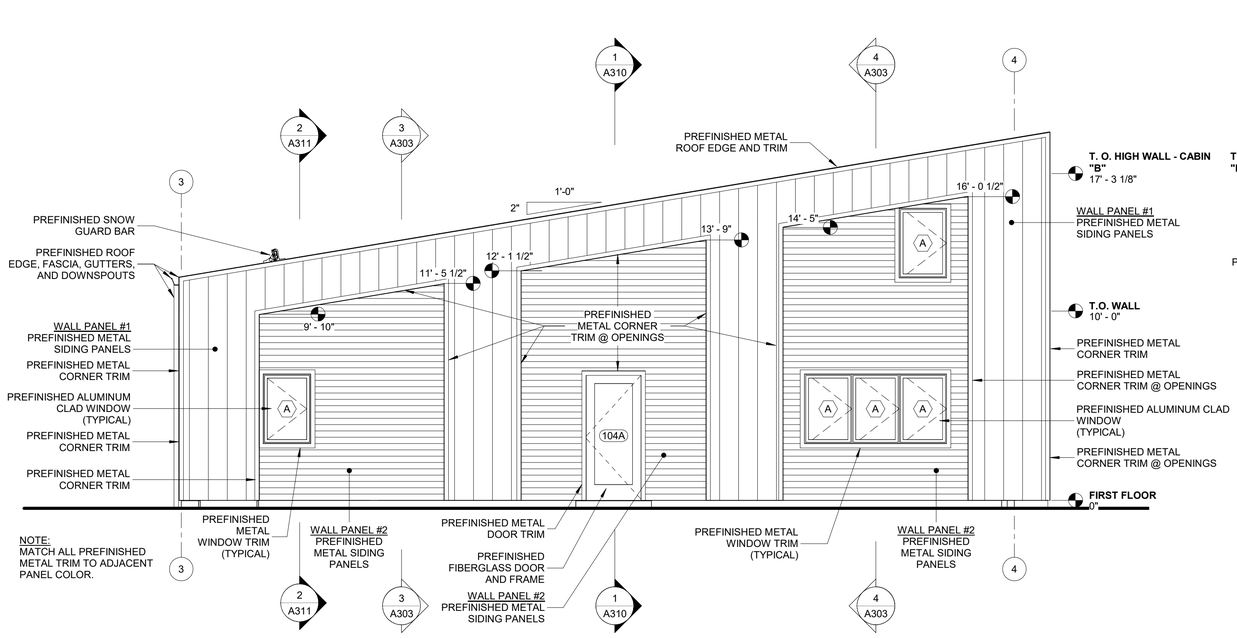
SHEET NUMBER:
**A201**
SHEET 68 OF 105 10/31/2025



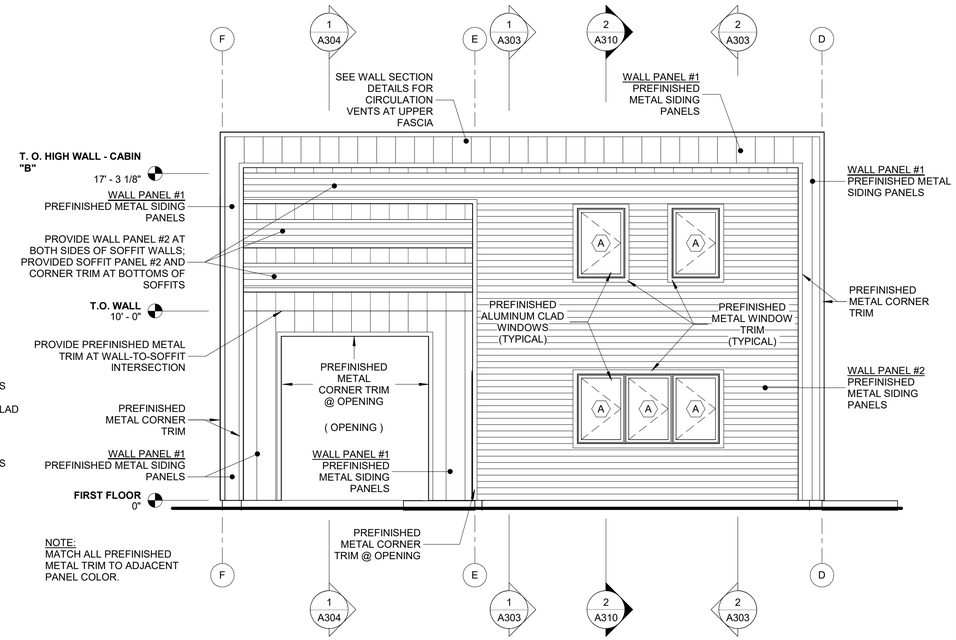

2 WEST ELEVATION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"




1 NORTH ELEVATION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"




3 EAST ELEVATION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"




4 SOUTH ELEVATION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

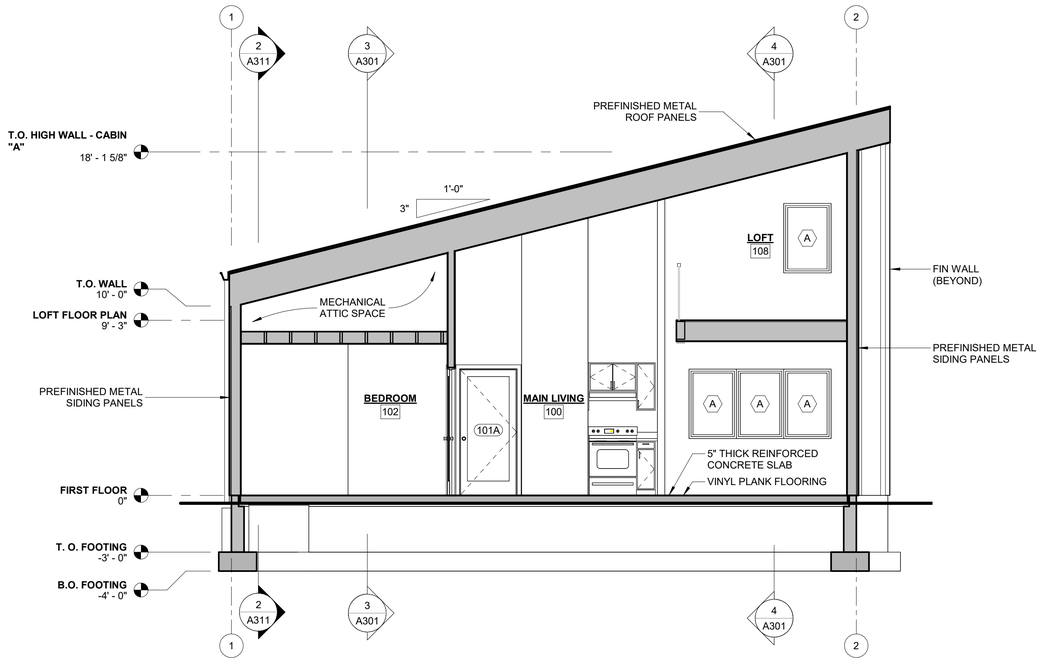
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

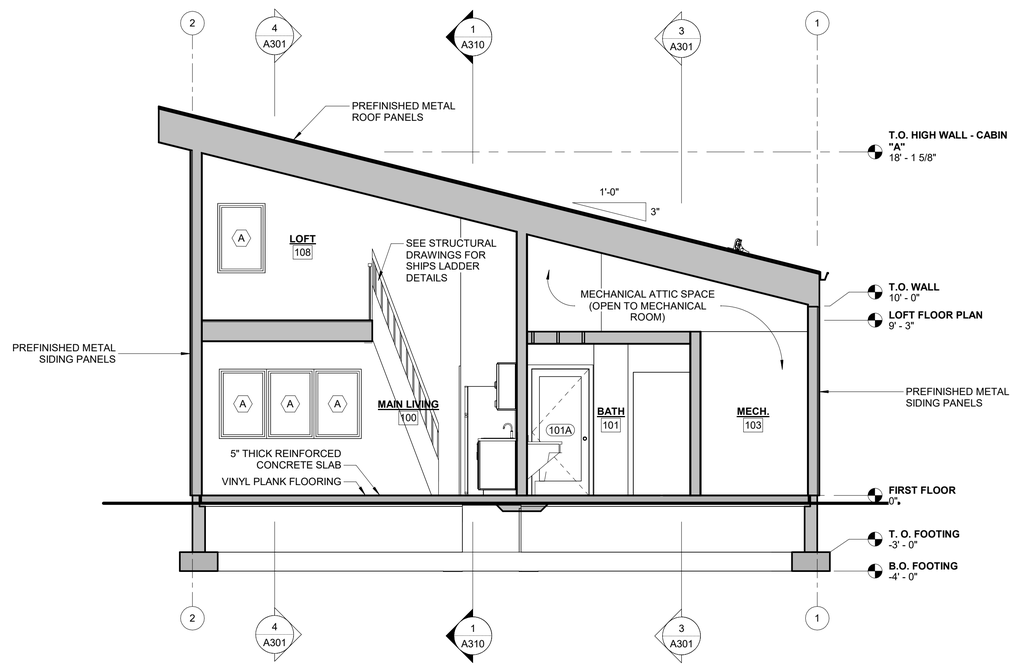
CAD DWG FILE: A202
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**BUILDING ELEVATIONS - CABIN "B"**

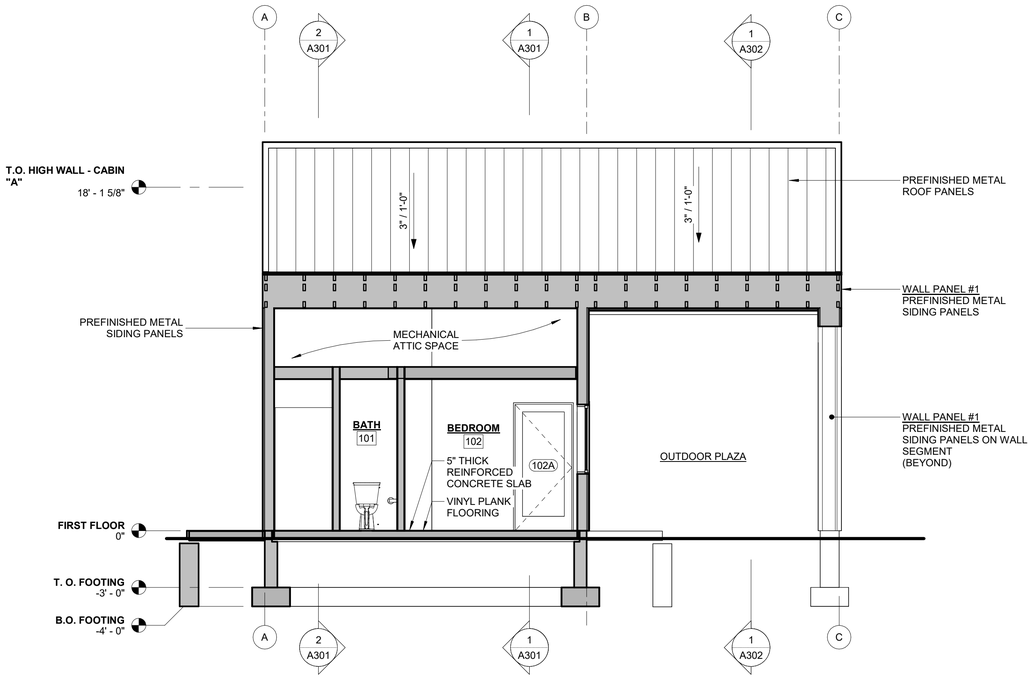
SHEET NUMBER:
**A202**
SHEET 69 OF 105 10/31/2025



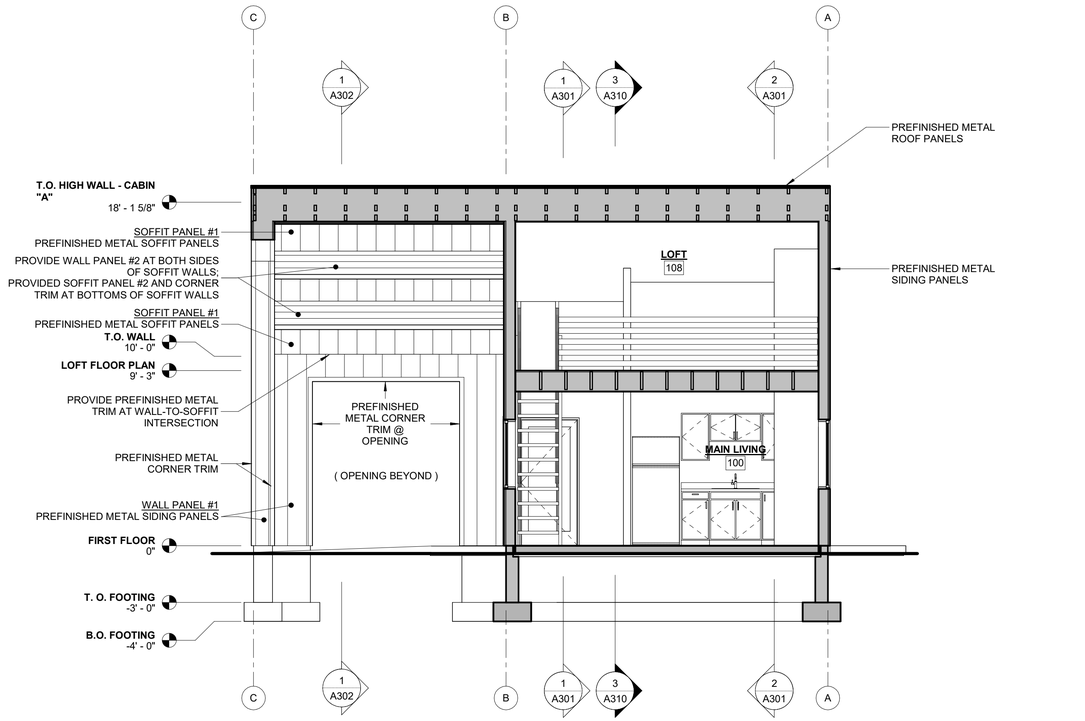

1 BUILDING SECTION - CABIN "A"
1/4" = 1'-0"




2 BUILDING SECTION - CABIN "A"
1/4" = 1'-0"




3 BUILDING SECTION - CABIN "A"
1/4" = 1'-0"




4 BUILDING SECTION - CABIN "A"
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
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**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

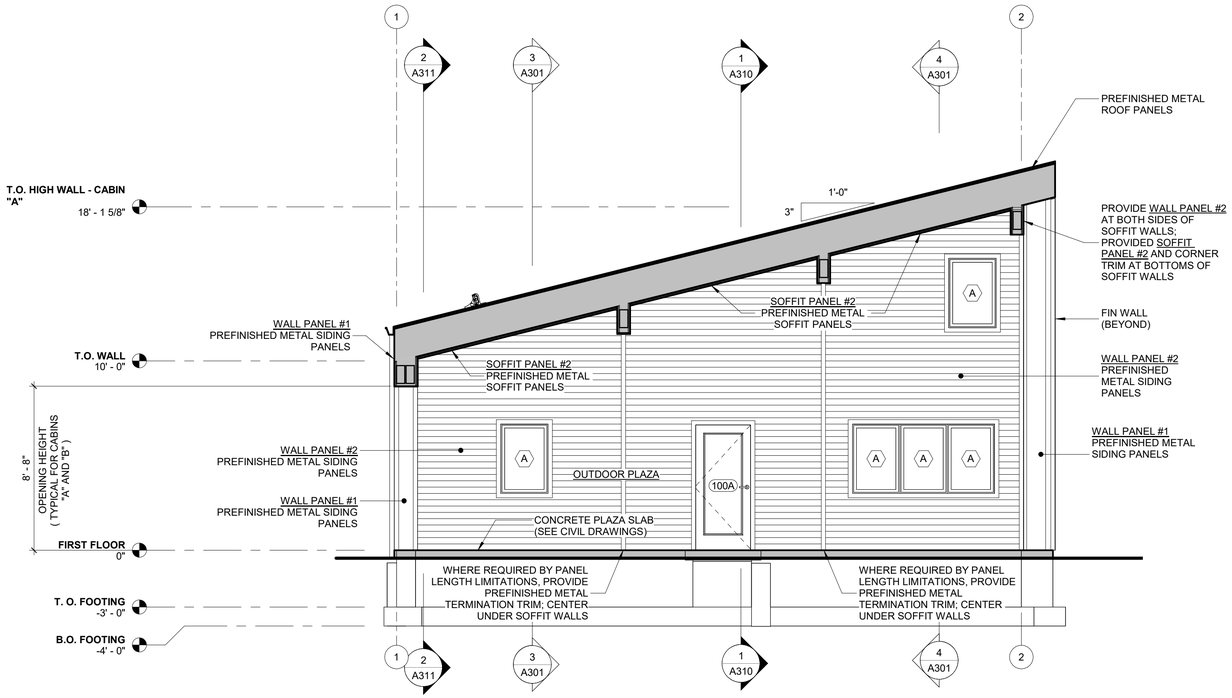
CAD DWG FILE: A301
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:

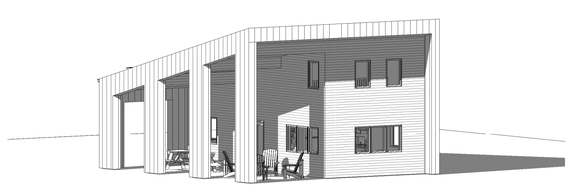
**BUILDING SECTIONS - CABIN "A"**

SHEET NUMBER:

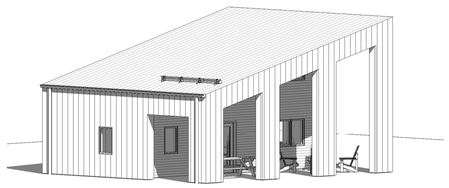
**A301**



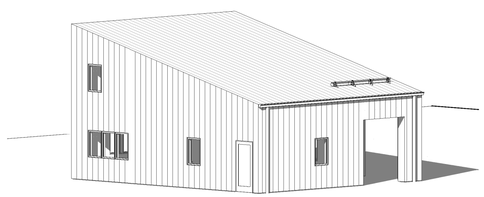

1 BUILDING SECTION - CABIN "A"
1/4" = 1'-0"



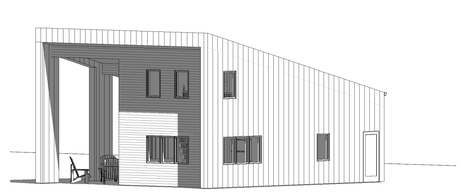
LAKESIDE VIEW - 1



APPROACH VIEW - 1



APPROACH VIEW - 2



LAKESIDE VIEW - 2

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

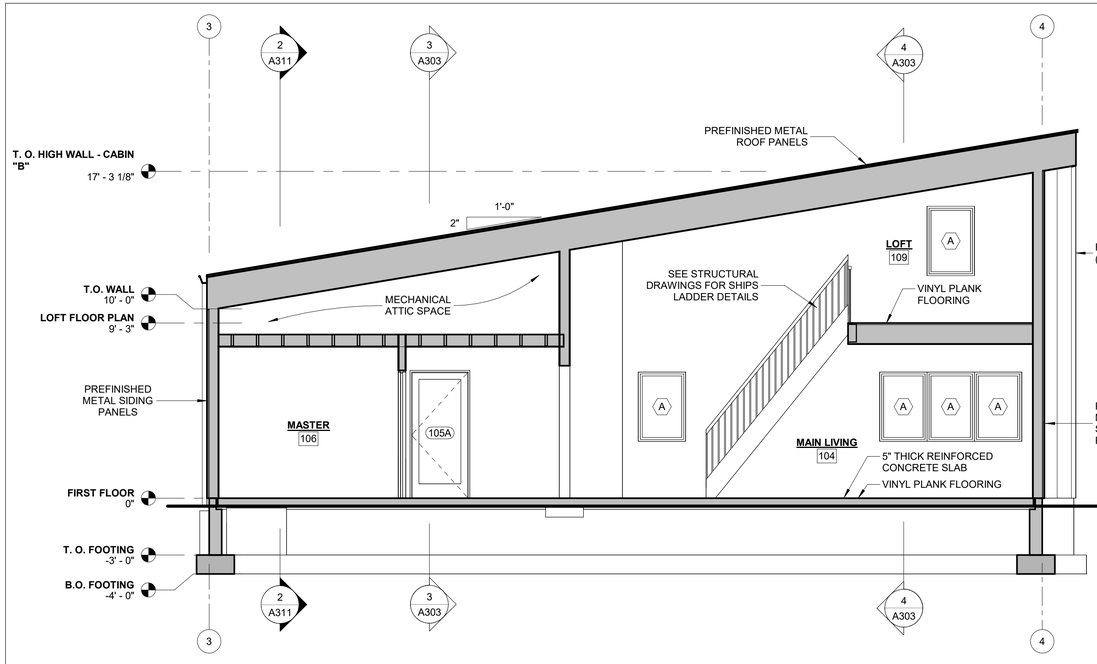
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

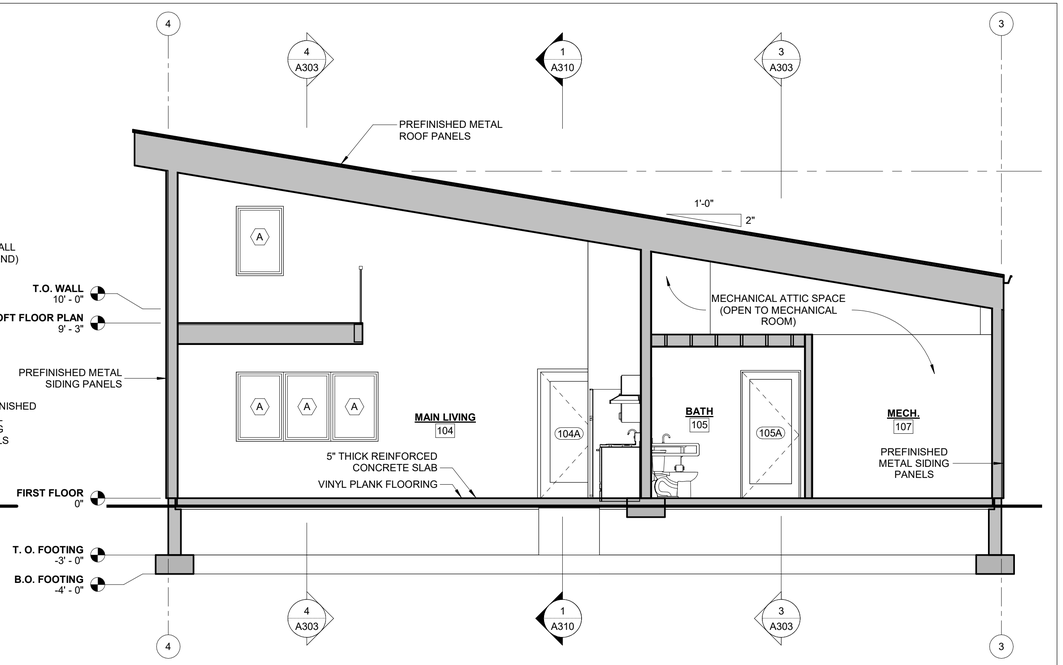
CAD DWG FILE: A302
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**BUILDING SECTIONS - CABIN "A"**

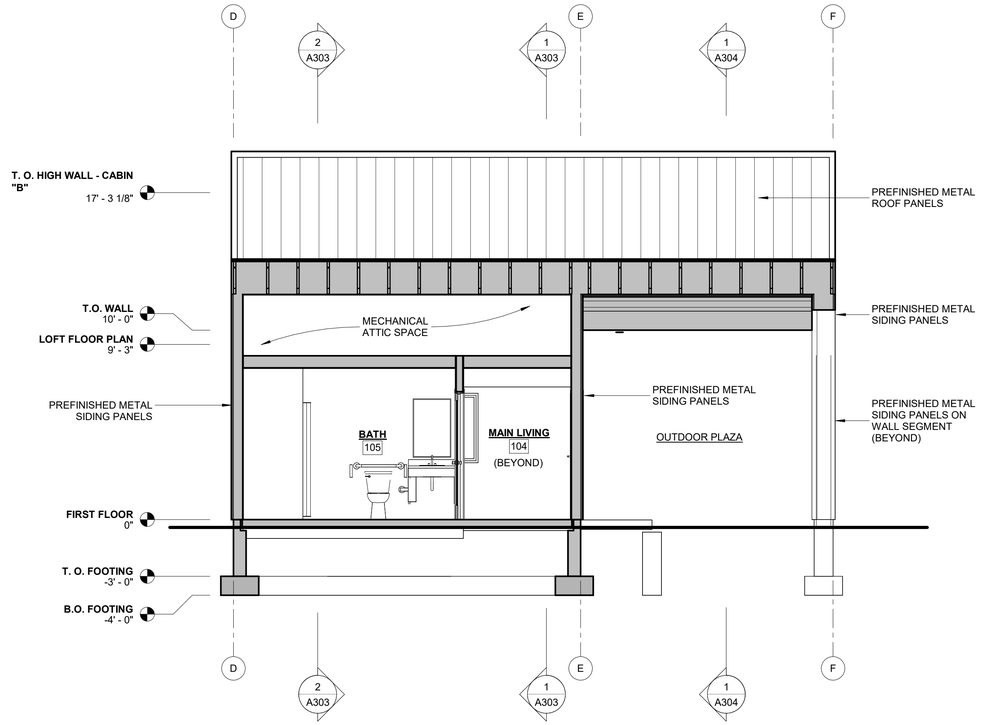
SHEET NUMBER:
**A302**
SHEET 71 OF 105 10/31/2025



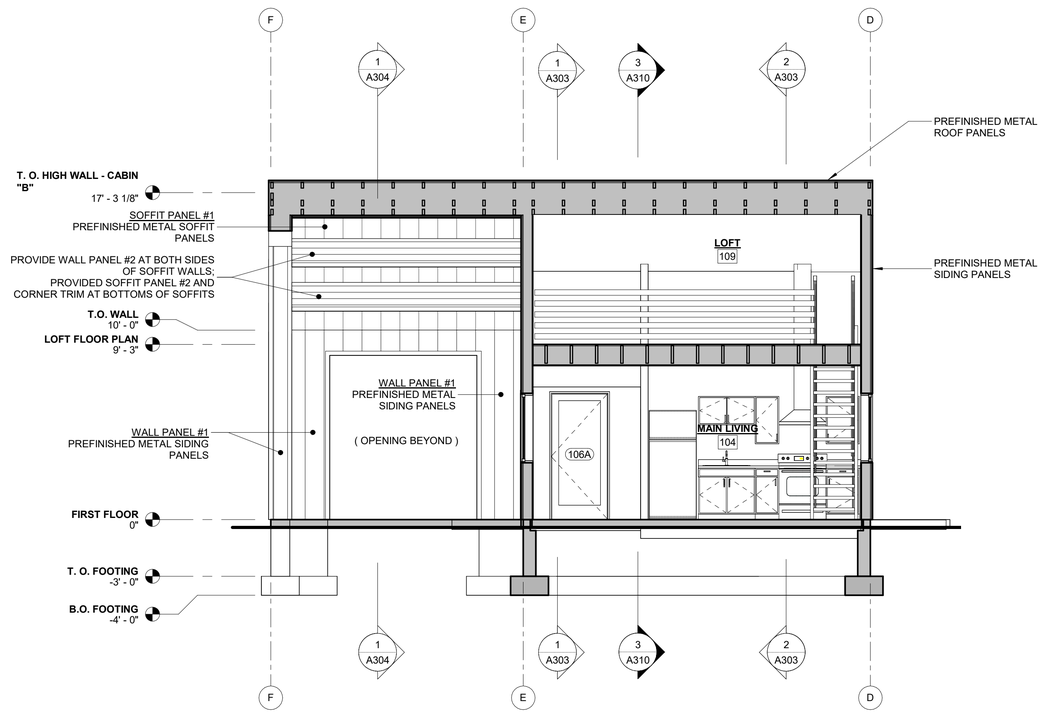

1 BUILDING SECTION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"




2 BUILDING SECTION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"




3 BUILDING SECTION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"




4 BUILDING SECTION - CABIN "B" (ACCESSIBLE)
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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KURT FANDERCLAI
NUMBER A-2023012887
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**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

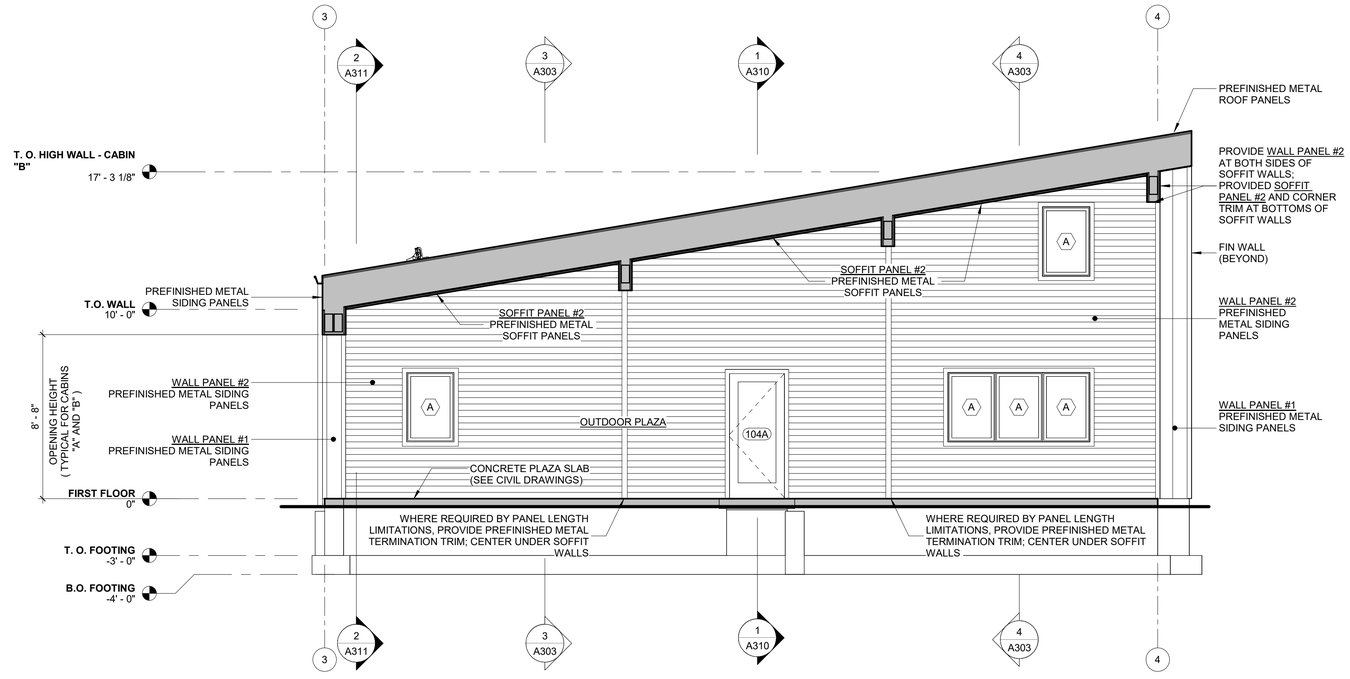
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A303
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

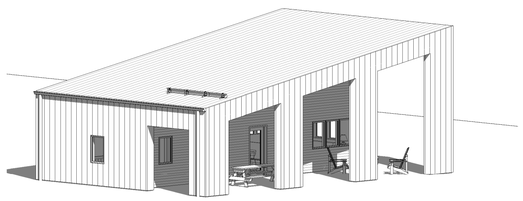
SHEET TITLE:
**BUILDING SECTIONS - CABIN "B"**

SHEET NUMBER:
**A303**
SHEET 72 OF 105 10/31/2025

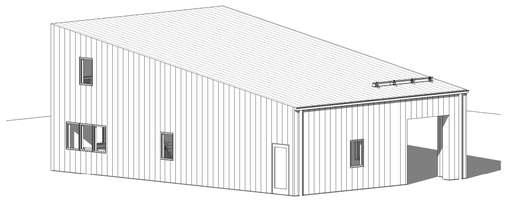



1 BUILDING SECTION - CABIN "B"
1/4" = 1'-0"

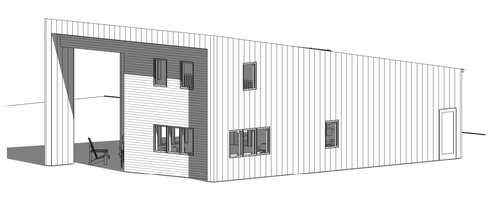
LAKESIDE - 1



APPROACH -1



APPROACH - 2



LAKESIDE - 2

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

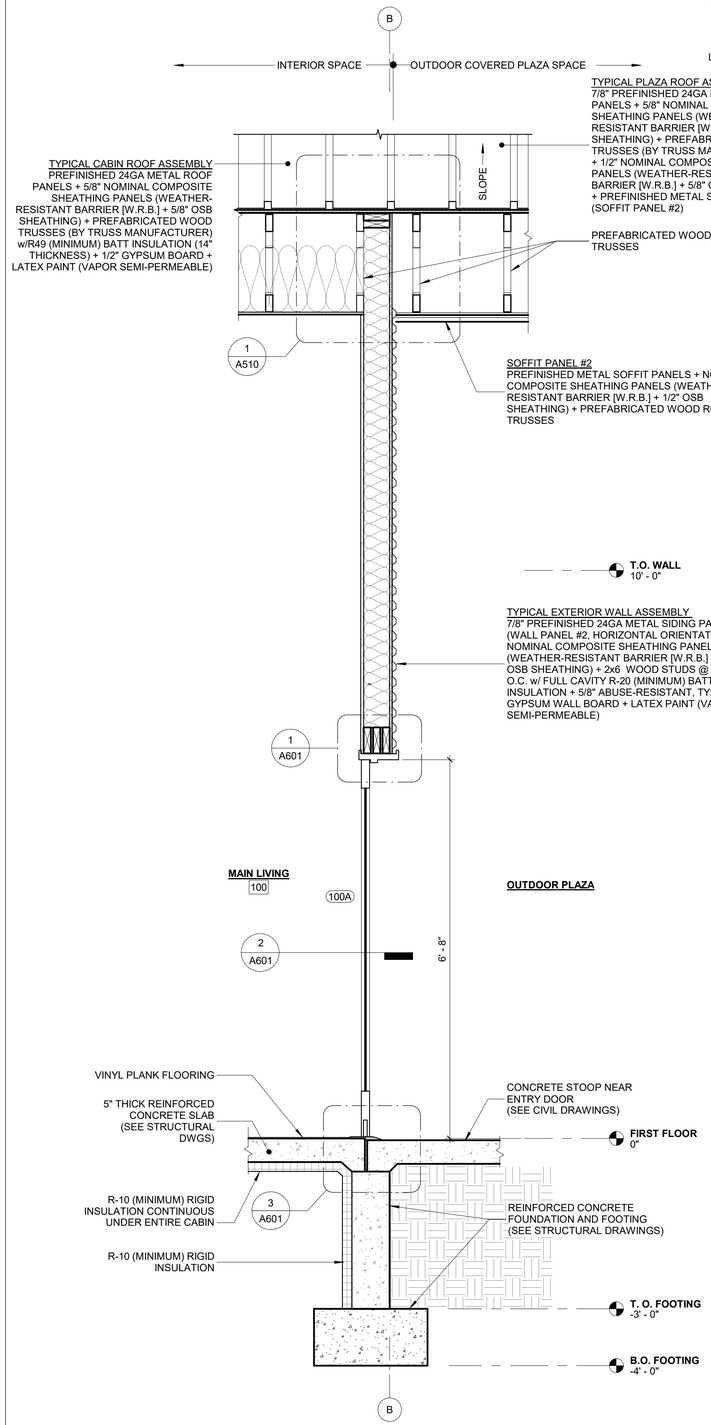
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

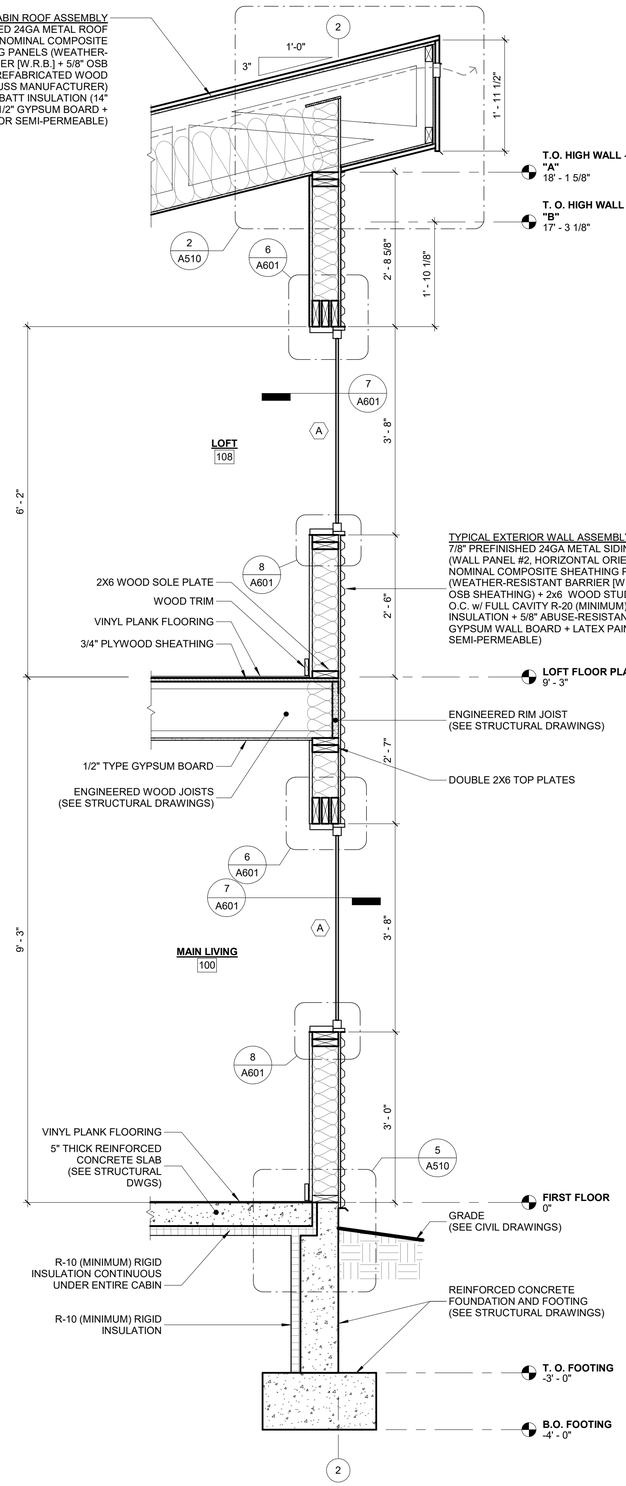
CAD DWG FILE: A304
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**BUILDING SECTIONS - CABIN "B"**

SHEET NUMBER:
**A304**
SHEET 73 OF 105 10/31/2025



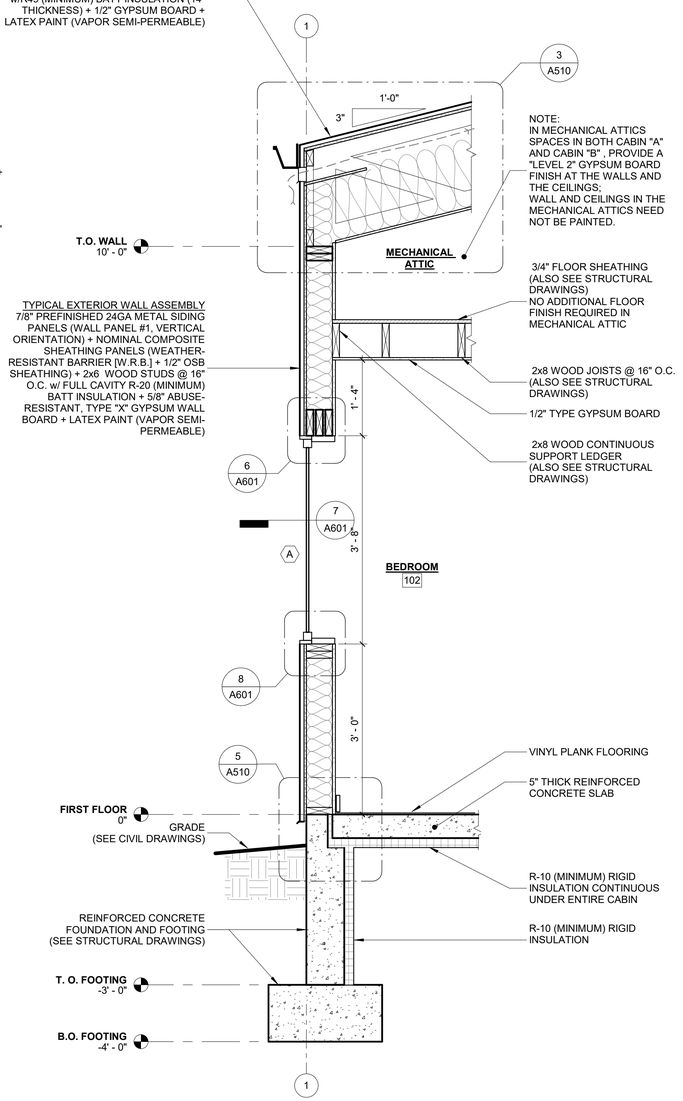

1 WALL SECTION - CABIN "A"
3/4" = 1'-0"




2 WALL SECTION - CABIN "A"
3/4" = 1'-0"

## WALL SECTION NOTES

1. CABIN "B" WALL SECTIONS SHALL BE IDENTICAL TO THE CABIN "A" WALL SECTIONS, WITH THE FOLLOWING EXCEPTIONS:
   - ROOF SLOPES
     a. CABIN "A" ROOF SLOPE SHALL BE 3 IN 12;
     b. CABIN "B" ROOF SLOPE SHALL BE 2 IN 12.
   - HIGH WALL ELEVATION
     a. CABIN "A" AND CABIN "B" HAVE DIFFERENT HIGH WALL ELEVATIONS; (SEE BUILDING ELEVATIONS, BUILDING SECTIONS, AND WALL SECTIONS).




3 WALL SECTION - CABIN "A"
3/4" = 1'-0"

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

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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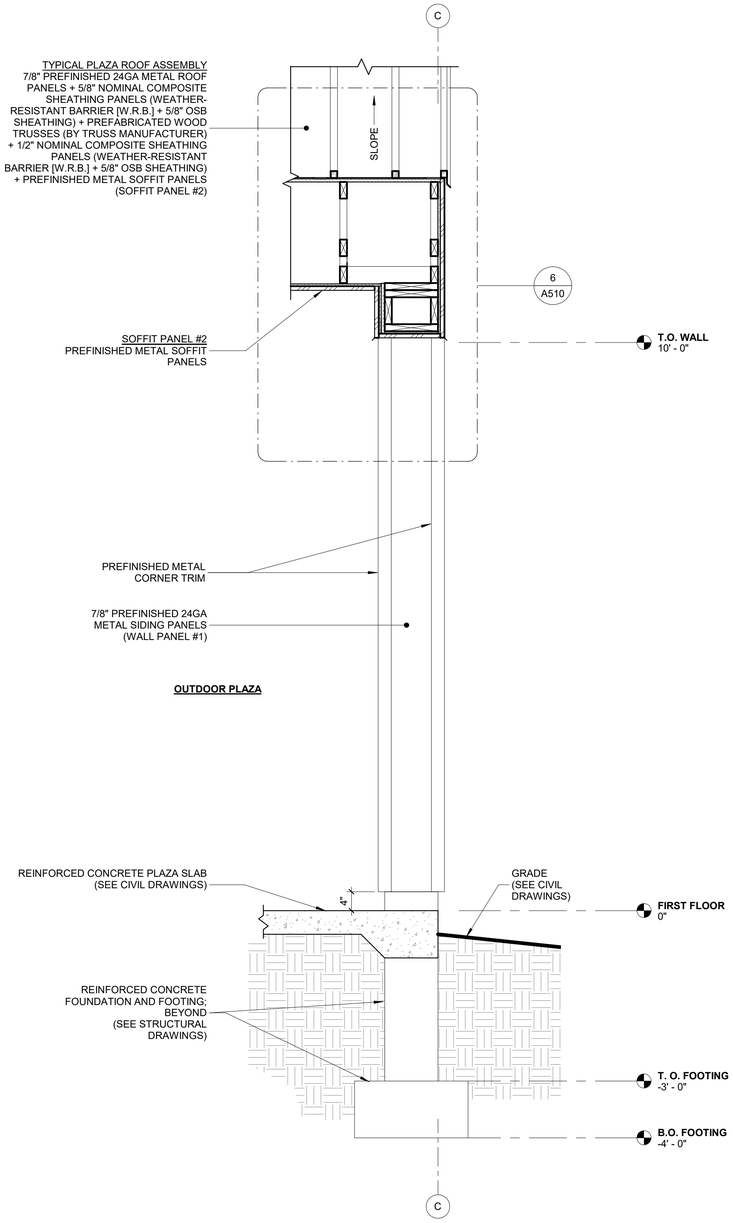
REVISION:
DATE:
ISSUE DATE: 10/31/2025

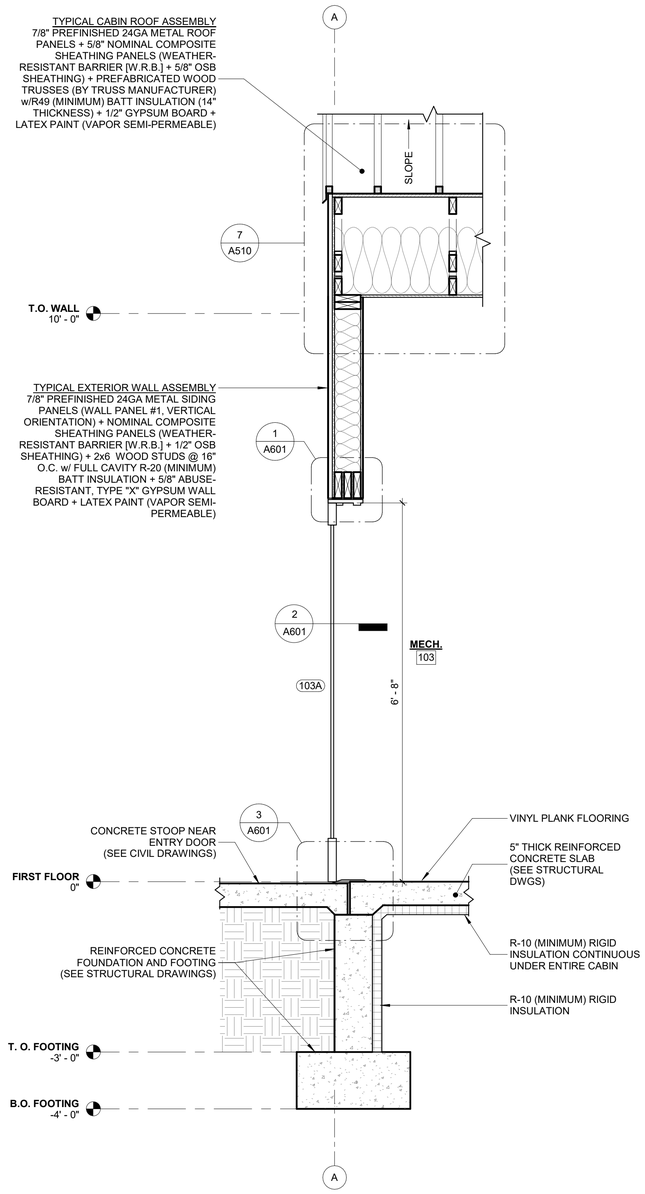
CAD DWG FILE: A310
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**WALL SECTIONS - CABIN "A"**

SHEET NUMBER:
**A310**
SHEET 74 OF 105 10/31/2025




1 WALL SECTION - CABIN "A"
3/4" = 1'-0"




2 WALL SECTION - CABIN "A"
3/4" = 1'-0"

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

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
KURT FANDERCLAI
NUMBER A-2023012887
ARCHITECT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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866


**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

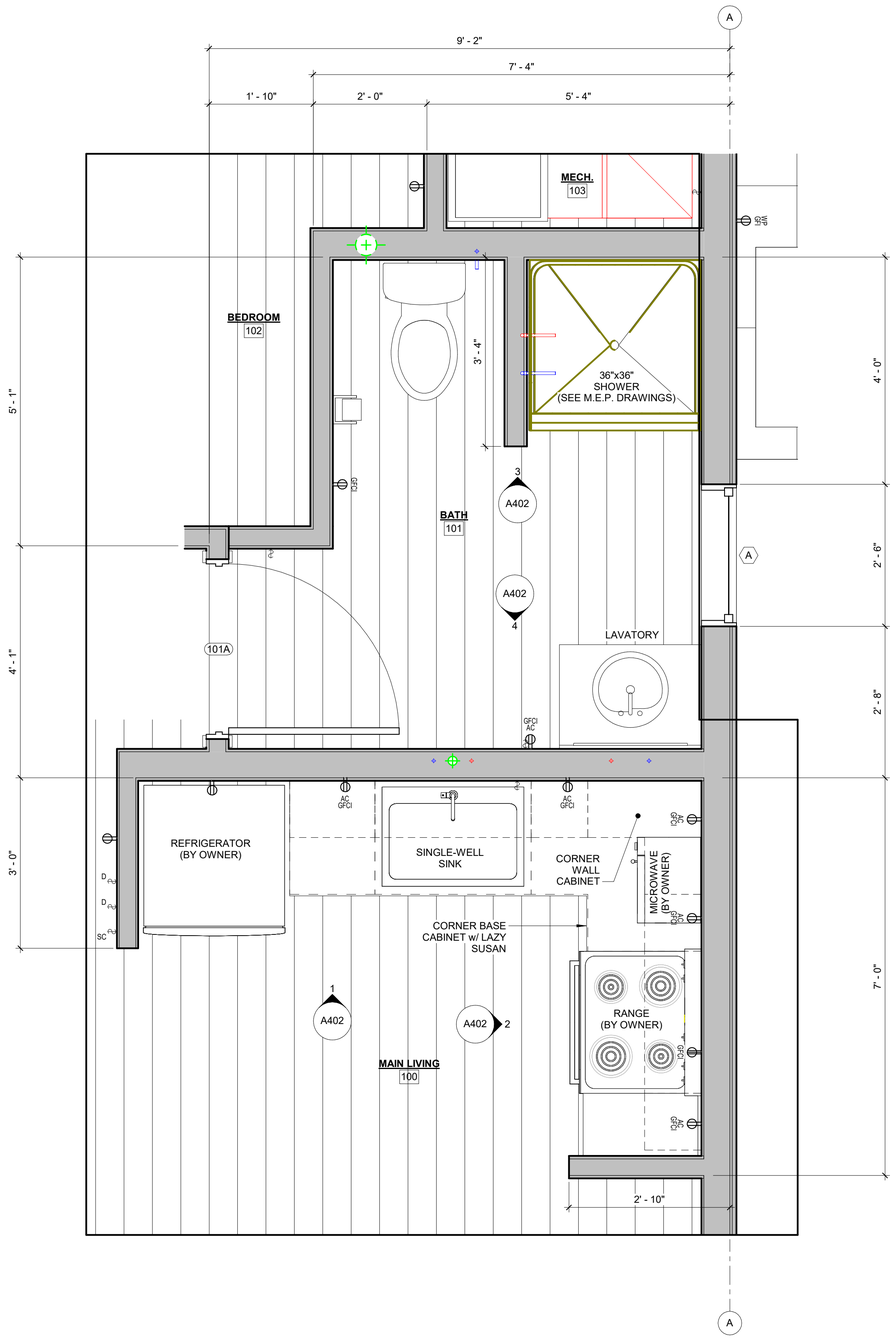
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

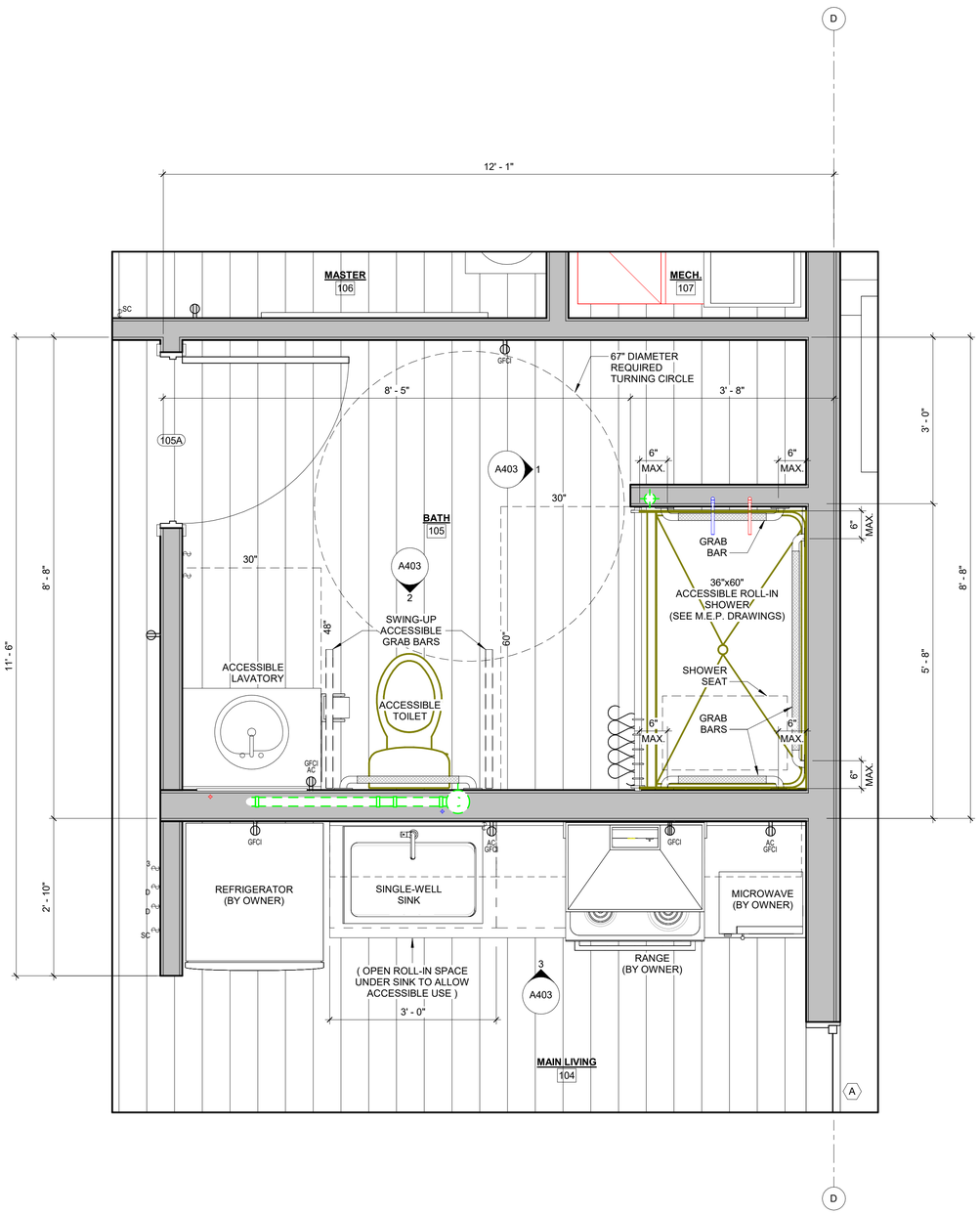
CAD DWG FILE: A311
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**WALL SECTIONS - CABIN "A"**

SHEET NUMBER:
**A311**
SHEET 75 OF 105 10/31/2025




1 CABIN "A" KITCHEN ENLARGED FLOOR PLAN
3/4" = 1'-0"




2 CABIN "B" BATHROOM AND KITCHEN ENLARGED FLOOR PLAN (ACCESSIBLE)
3/4" = 1'-0"

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

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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NUMBER
A-2023012887
10/31/2025
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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

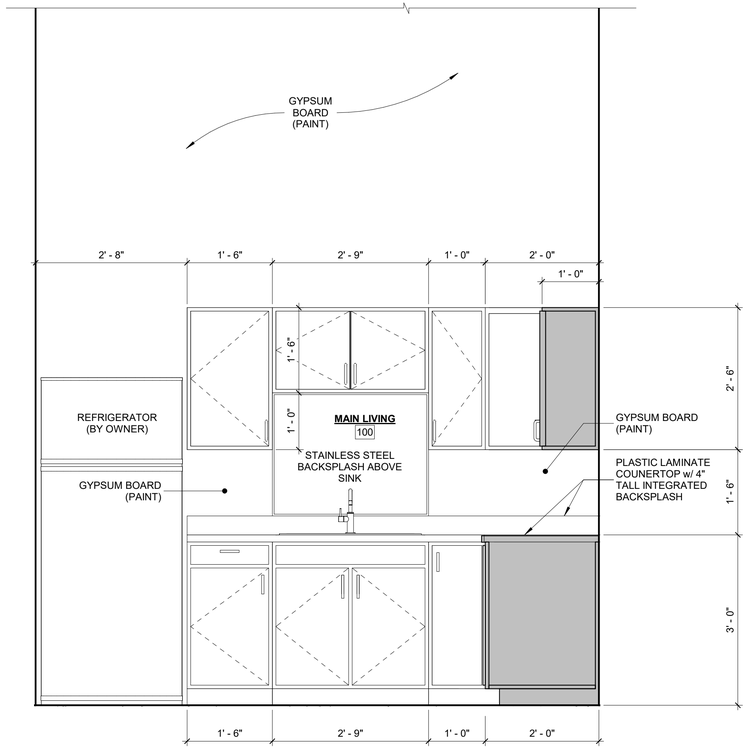
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

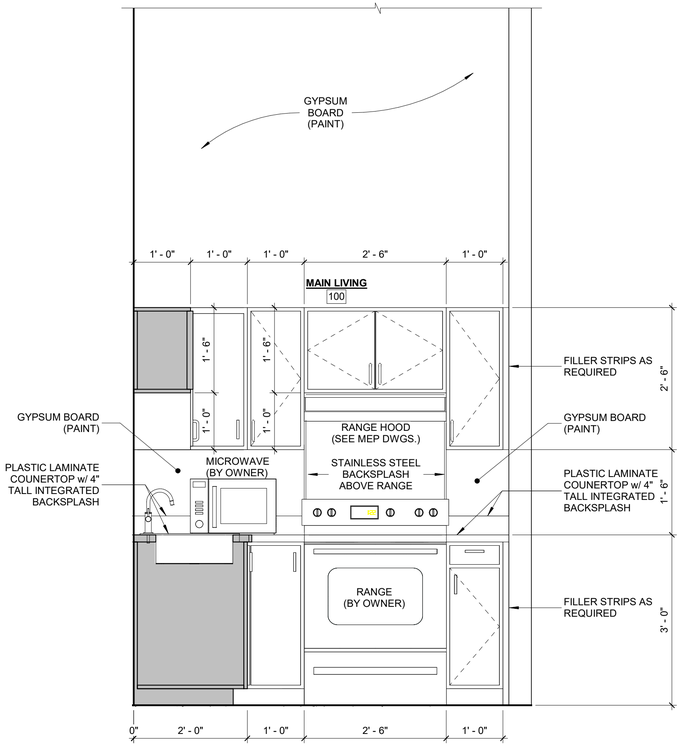
CAD DWG FILE: A401
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**ENLARGED PLANS AND ELEVATIONS**

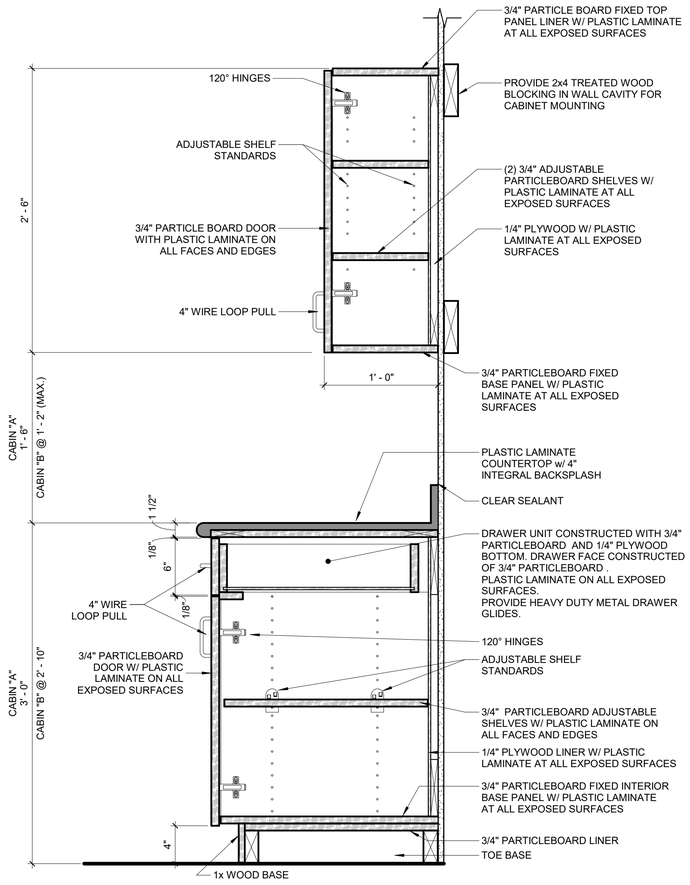
SHEET NUMBER:
**A401**
SHEET 76 OF 105 10/31/2025



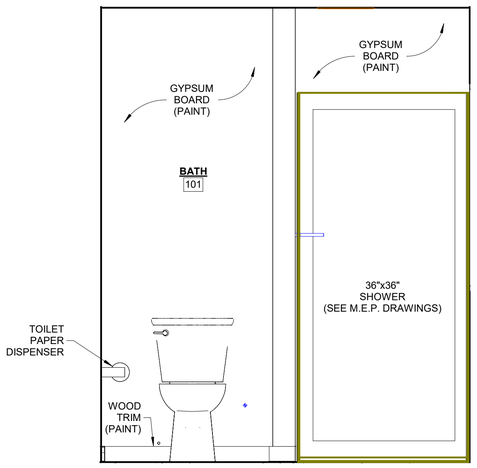

1 TYPICAL CABIN - A - KITCHEN NORTH ELEVATION
3/4" = 1'-0"



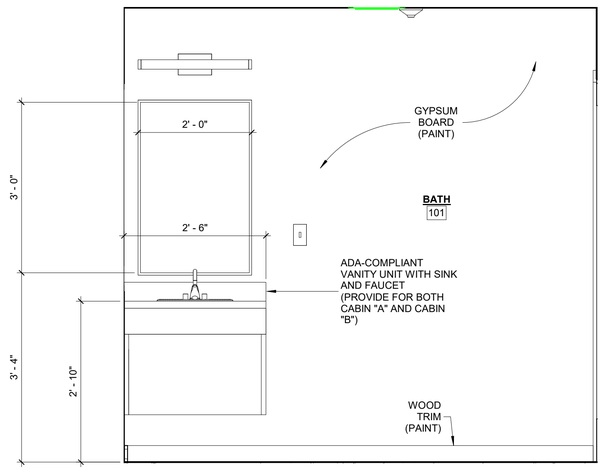

2 TYPICAL CABIN - A - KITCHEN WEST ELEVATION
3/4" = 1'-0"



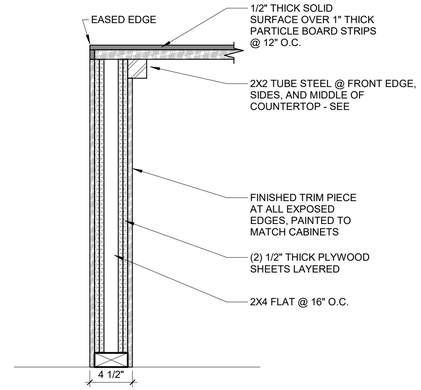

5 TYPICAL CASEWORK SECTION DETAIL
1 1/2" = 1'-0"




3 TYPICAL CABIN - A - RESROOM NORTH ELEVATION
3/4" = 1'-0"




4 TYPICAL CABIN - A - RESTROOM SOUTH ELEVATION
3/4" = 1'-0"




6 COUNTERTOP END SUPPORT @ KNEE SPACE
1 1/2" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

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

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
KURT FANDERCLAI
NUMBER A-2023012887
10/31/2025
ARCHITECT

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**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

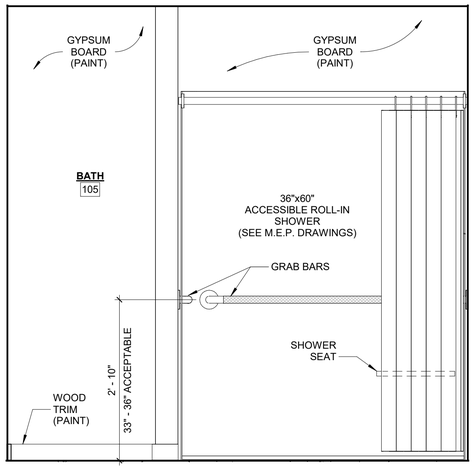
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

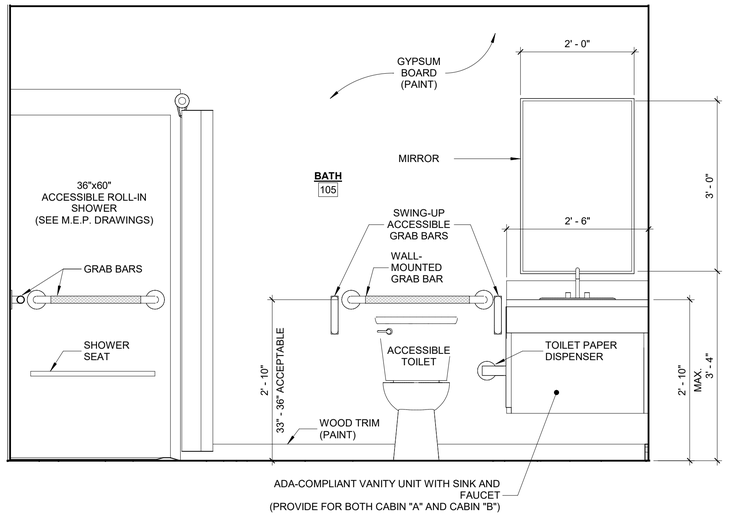
CAD DWG FILE: A402
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**ENLARGED PLANS AND ELEVATIONS**

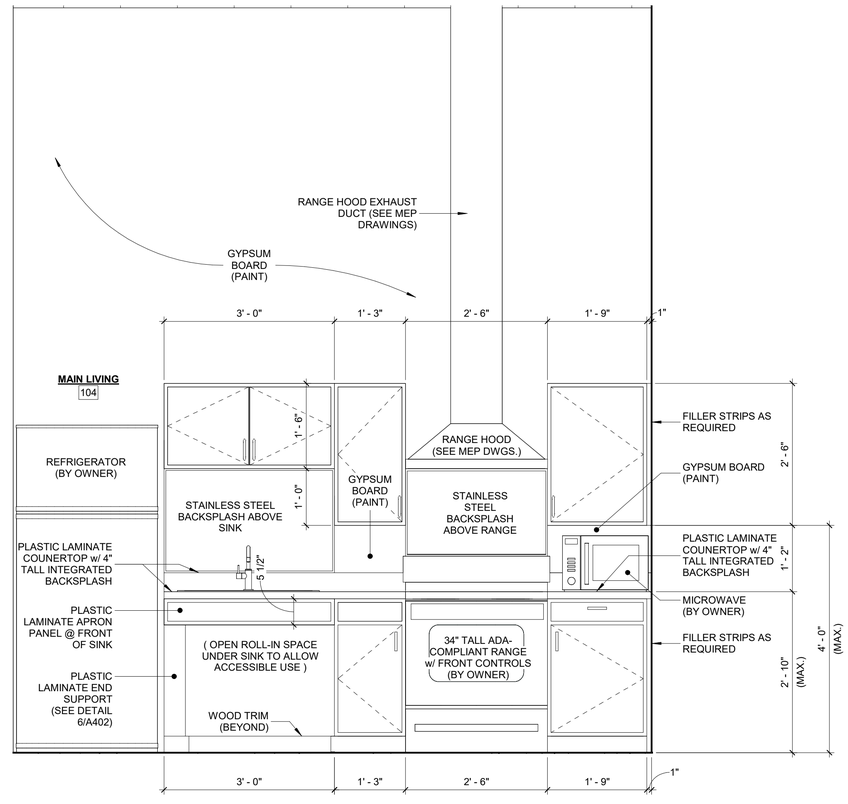
SHEET NUMBER:
**A402**
SHEET 77 OF 105 10/31/2025



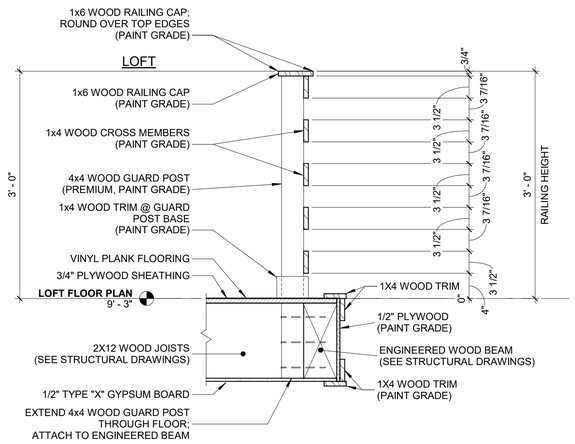

1 ACCESSIBLE CABIN - B - RESTROOM WEST ELEVATION
3/4" = 1'-0"



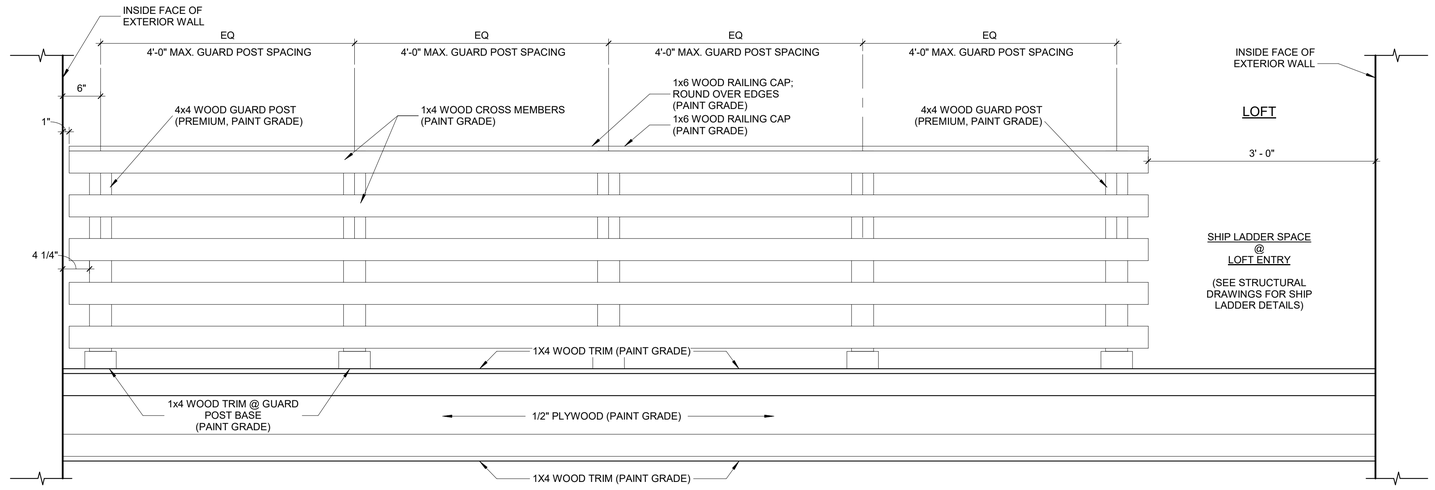

2 ACCESSIBLE CABIN - B - RESTROOM SOUTH ELEVATION
3/4" = 1'-0"




3 ACCESSIBLE CABIN - B - KITCHEN NORTH ELEVATION
3/4" = 1'-0"




4 WALL SECTION DETAIL @ LOFT EDGE
1" = 1'-0"




5 LOFT RAILING ELEVATION DETAIL
1" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

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

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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NUMBER A-2023012887
10/31/2025
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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

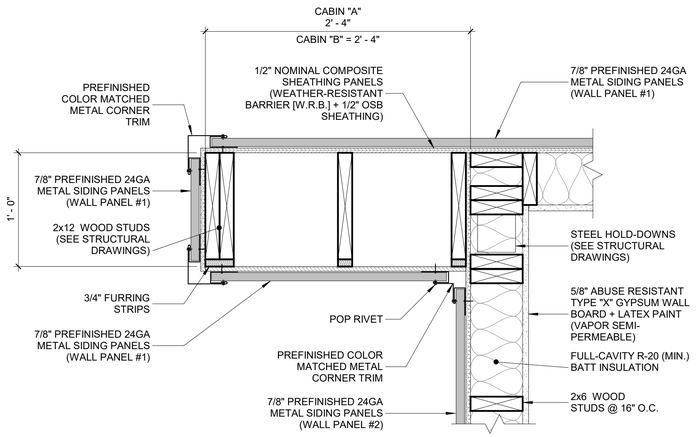
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

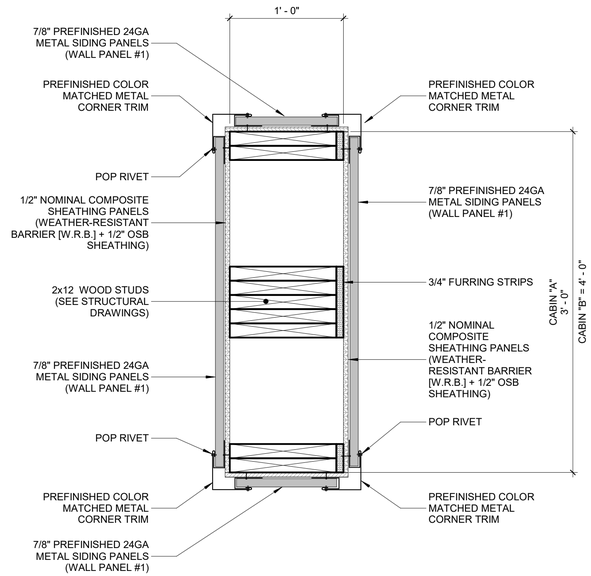
CAD DWG FILE: A403
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**ENLARGED PLANS AND ELEVATIONS**

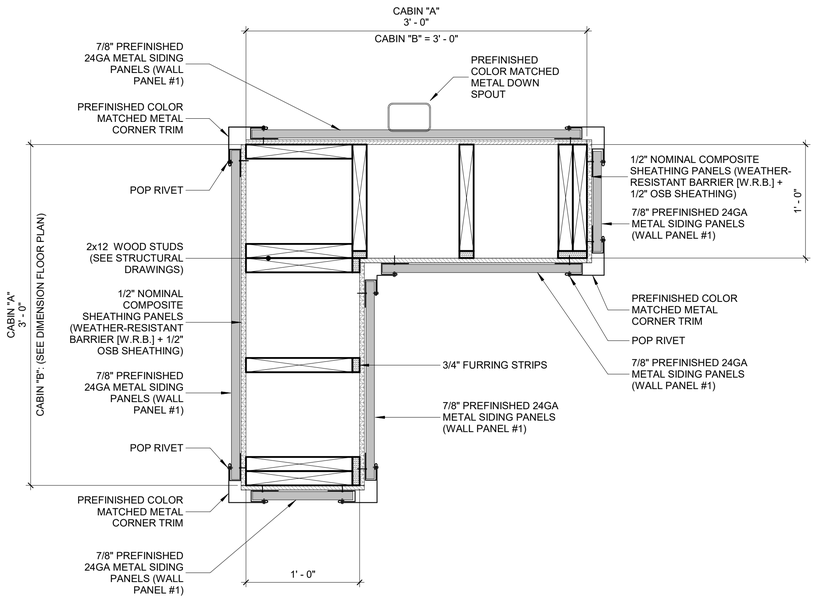
SHEET NUMBER:
**A403**
SHEET 78 OF 105 10/31/2025




1 PLAN DETAIL
1 1/2" = 1'-0"




2 PLAN DETAIL
1 1/2" = 1'-0"




3 PLAN DETAIL
1 1/2" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
KURT FANDERCLAI
NUMBER A-2023012887
10/31/2025
ARCHITECT

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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

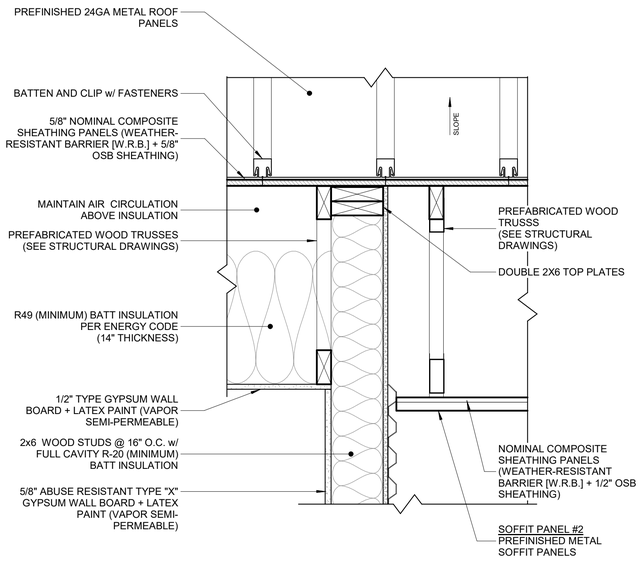
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

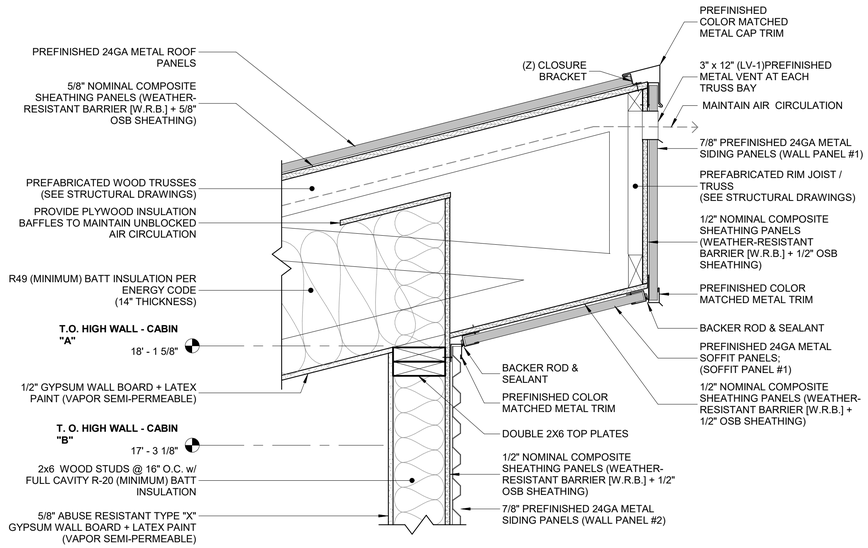
CAD DWG FILE: A501
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**DETAILS - PLAN VIEW**

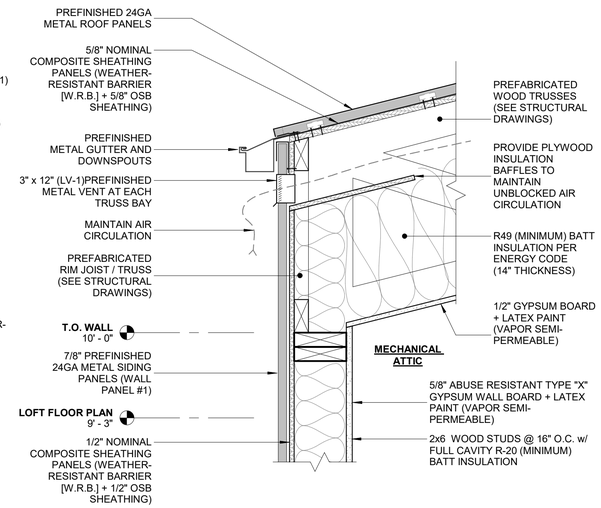
SHEET NUMBER:
**A501**
SHEET 79 OF 105 10/31/2025




1 WALL SECTION DETAIL
1 1/2" = 1'-0"



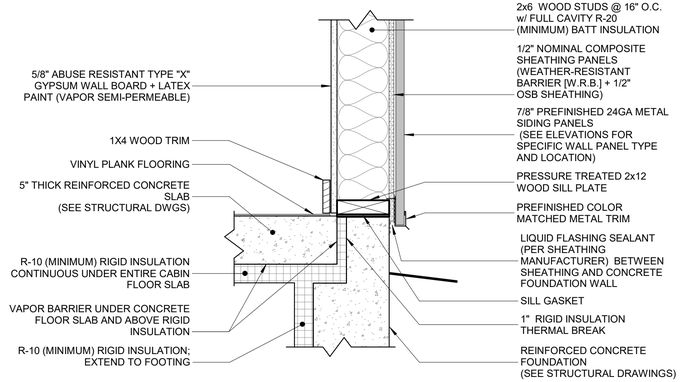

2 WALL SECTION DETAIL
1 1/2" = 1'-0"




3 WALL SECTION DETAIL
1 1/2" = 1'-0"



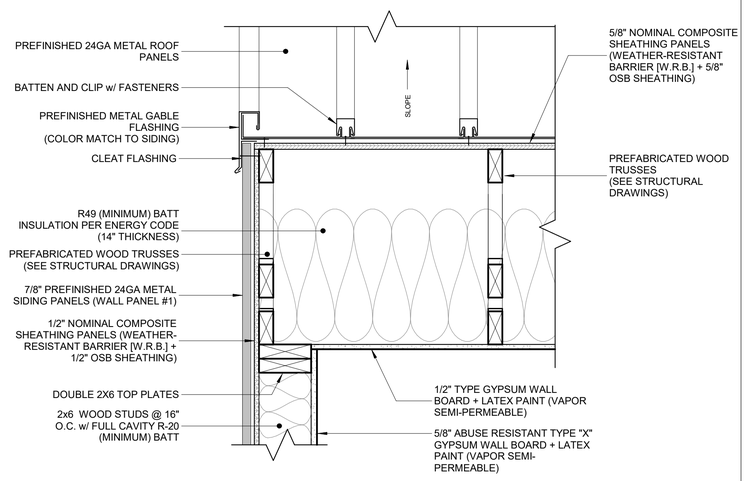

4 WALL SECTION DETAIL
1 1/2" = 1'-0"




5 WALL SECTION DETAIL
1 1/2" = 1'-0"




6 WALL SECTION DETAIL
1 1/2" = 1'-0"




7 WALL SECTION DETAIL
1 1/2" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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KURT FANDERCLAI
NUMBER A-2023012387
10/01/2025
ARCHITECT

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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION: DATE:
REVISION: DATE:
REVISION: DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A510
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

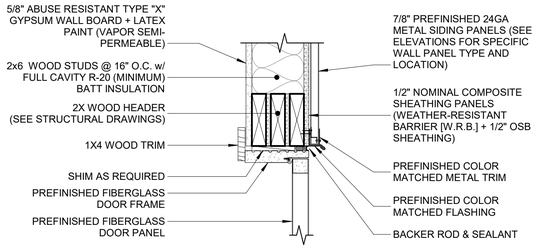
SHEET TITLE:
**DETAILS - WALL SECTION**

SHEET NUMBER:
**A510**
SHEET 80 OF 105 10/31/2025

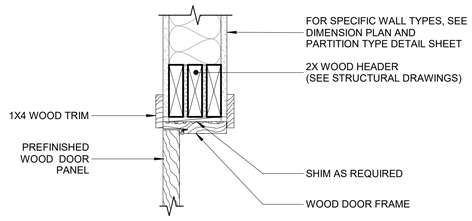
## DOOR AND FRAME SCHEDULE

| DOOR | | | | | | | FRAME | | | | | | FIRE RATING | HARDWARE | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | SIZE | | | TYPE | MATERIAL | FINISH | TYPE | MATERIAL | FINISH | DETAILS | | | | HARDWARE GROUP | DOOR NUMBER | |
| | WIDTH | HEIGHT | THICKNESS | | | | | | | HEAD | JAMB | SILL | | | | |
| 100A | 3' - 0" | 6' - 8" | 1 3/4" | FGE | FIBERGLASS | PREFINISHED | FGE | FIBERGLASS | PREFINISHED | 1/A601 | 2/A601 | 3/A601 | NONE | SECURE ENTRY FUNCTION | 100A | |
| 101A | 3' - 0" | 6' - 8" | 1 3/8" | FPI | WOOD | PREFINISHED | FPI | WOOD | PREFINISHED | 4/A601 | 5/A601 | -- | NONE | PRIVACY LOCK FUNCTION | 101A | |
| 102A | 3' - 0" | 6' - 8" | 1 3/8" | FPI | WOOD | PREFINISHED | FPI | WOOD | PREFINISHED | 4/A601 | 5/A601 | -- | NONE | PRIVACY LOCK FUNCTION | 102A | |
| 103A | 3' - 0" | 6' - 8" | 1 3/4" | FPE | FIBERGLASS | PREFINISHED | FPE | FIBERGLASS | PREFINISHED | 1/A601 | 2/A601 | 3/A601 | NONE | SECURE STOREROOM FUNCTION | 103A | |
| 104A | 3' - 0" | 6' - 8" | 1 3/4" | FGE | FIBERGLASS | PREFINISHED | FGE | FIBERGLASS | PREFINISHED | 1/A601 | 2/A601 | 3/A601 | NONE | SECURE ENTRY FUNCTION | 104A | |
| 105A | 3' - 0" | 6' - 8" | 1 3/8" | FPI | WOOD | PREFINISHED | FPI | WOOD | PREFINISHED | 4/A601 | 5/A601 | -- | NONE | PRIVACY LOCK FUNCTION | 105A | |
| 106A | 3' - 0" | 6' - 8" | 1 3/8" | FPI | WOOD | PREFINISHED | FPI | WOOD | PREFINISHED | 4/A601 | 5/A601 | -- | NONE | PRIVACY LOCK FUNCTION | 106A | |
| 107A | 3' - 0" | 6' - 8" | 1 3/4" | FPE | FIBERGLASS | PREFINISHED | FPE | FIBERGLASS | PREFINISHED | 1/A601 | 2/A601 | 3/A601 | NONE | SECURE STOREROOM FUNCTION | 107A | |

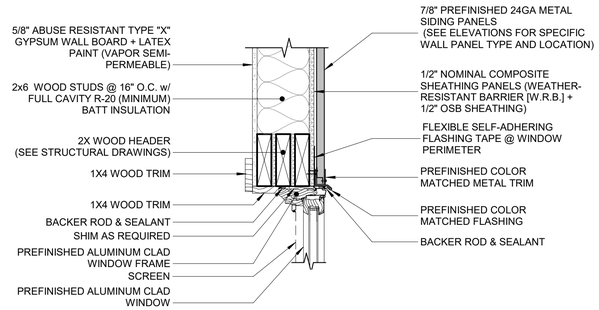
NOTE:
PROVIDE AND INSTALL DOOR HARDWARE:
COORDINATE DOOR HARDWARE AND KEYING WITH OWNER.



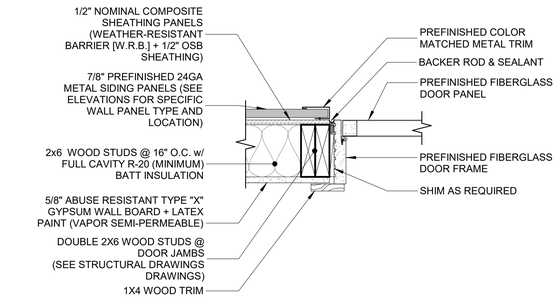

1 EXTERIOR DOOR HEAD DETAIL
1 1/2" = 1'-0"



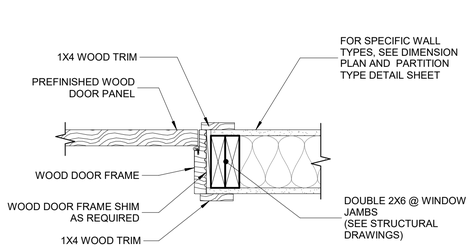

4 INTERIOR DOOR HEAD DETAIL
1 1/2" = 1'-0"



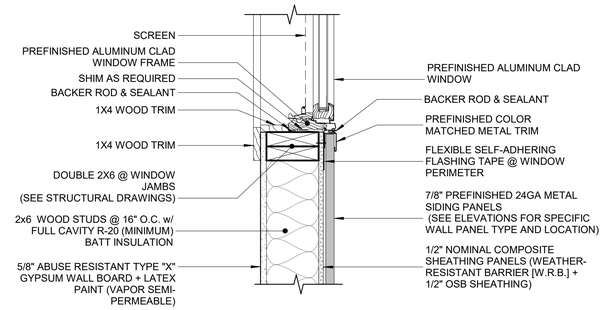

6 WINDOW HEAD DETAIL (TYPICAL)
1 1/2" = 1'-0"



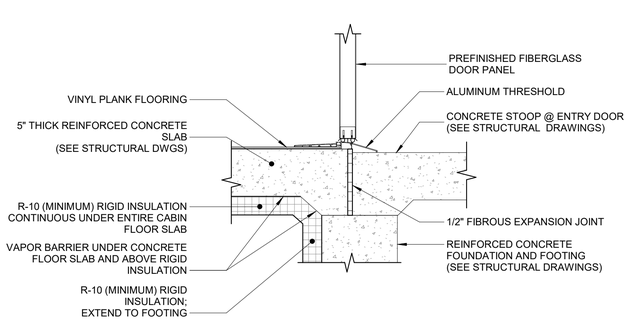

2 EXTERIOR DOOR JAMB DETAIL
1 1/2" = 1'-0"



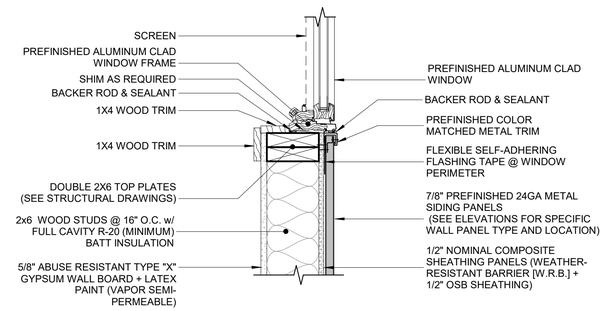

5 INTERIOR DOOR JAMB DETAIL
1 1/2" = 1'-0"



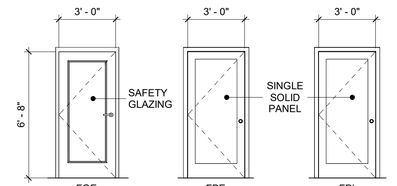

7 WINDOW JAMB DETAIL (TYPICAL)
1 1/2" = 1'-0"



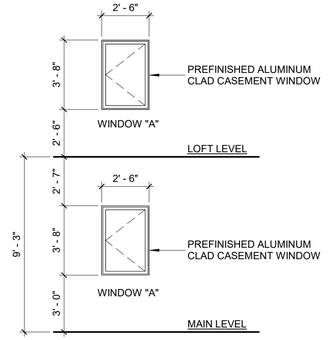

3 EXTERIOR DOOR SILL DETAIL
1 1/2" = 1'-0"




8 WINDOW SILL DETAIL (TYPICAL)
1 1/2" = 1'-0"




DOOR AND FRAME ASSEMBLIES
1/4" = 1'-0"




TYPICAL FOR ALL WINDOWS IN CABIN "A" AND CABIN "B"
WINDOW AND FRAME ASSEMBLIES
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

KURT FANDERCLAI
NUMBER A-2023012887
10/31/2025
ARCHITECT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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866


**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND**
**6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A601
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

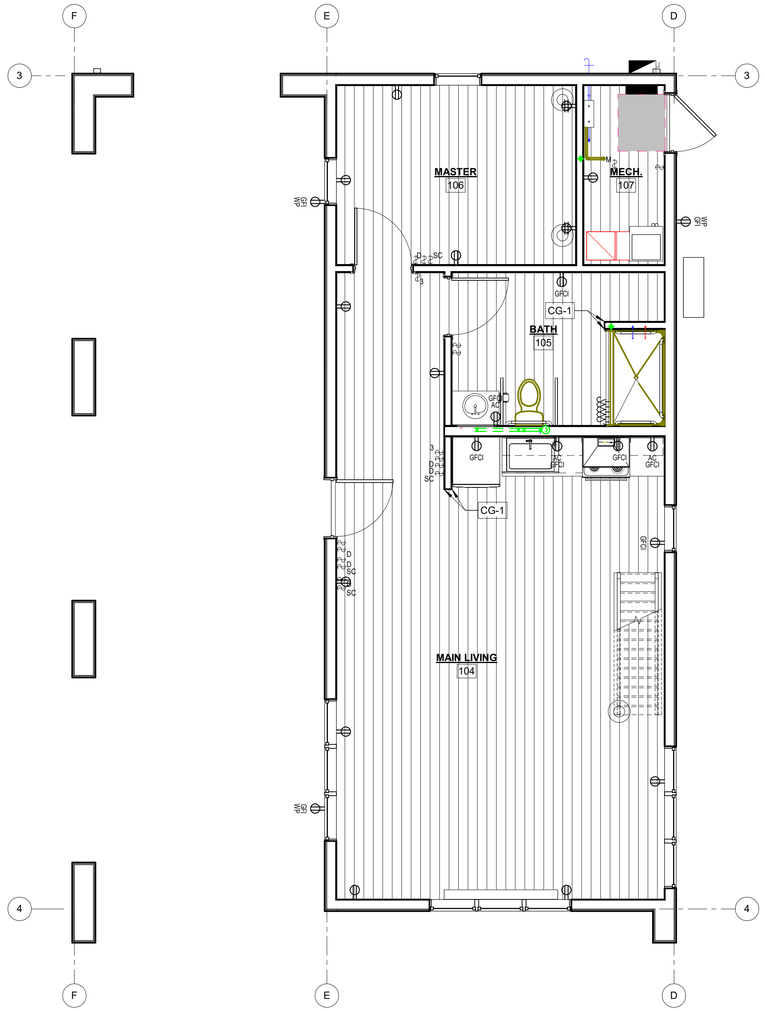
SHEET TITLE:
**DOOR & WINDOW SCHEDULE & DETAILS**

SHEET NUMBER:
**A601**
SHEET 81 OF 105 10/31/2025

## ROOM FINISH SCHEDULE

| ROOM | | FLOOR | | BASE | | WALLS | | | | | | | | CEILING | | ROOM NUMBER | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | NORTH | | EAST | | SOUTH | | WEST | | | | | |
| NUMBER | NAME | MATERIAL | FINISH | MATERIAL | FINISH | MATERIAL | FINISH | MATERIAL | FINISH | MATERIAL | FINISH | MATERIAL | FINISH | MATERIAL | FINISH | | |
| 100 | MAIN LIVING | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 100 | |
| 101 | BATH | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 101 | |
| 102 | BEDROOM | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 102 | |
| 103 | MECH. | CONCRETE | NONE | NONE | NONE | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | NONE | 103 | PROVIDE "LEVEL 2" FINISH ON WALLS AND CEILINGS IN MECHANCIAL ROOM AND MECHANICAL ATTIC; NO PAINT REQUIRED |
| 104 | MAIN LIVING | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 104 | |
| 105 | BATH | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 105 | |
| 106 | MASTER | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 106 | |
| 107 | MECH. | CONCRETE | NONE | NONE | NONE | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | (SEE REMARKS) | GYPSUM BD. | NONE | 107 | PROVIDE "LEVEL 2" FINISH ON WALLS AND CEILINGS IN MECHANCIAL ROOM AND MECHANICAL ATTIC; NO PAINT REQUIRED |
| 108 | LOFT | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 108 | |
| 109 | LOFT | VINYL PLANK | PREFINISHED | WOOD | TRIM PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | WALL PAINT #1 | GYPSUM BD. | CEILING PAINT #1 | 109 | |

1 FIRST FLOOR FINISH PLAN - CABIN A
1/4" = 1'-0"




2 FIRST FLOOR FINISH PLAN - CABIN B
1/4" = 1'-0"

## FINISH PLAN GENERAL NOTES

1. BASIS-OF-DESIGN PRODUCT: WHERE SPECIFICATIONS OR DRAWINGS NAME A PRODUCT AND MANUFACTURER, PROVIDE THE SPECIFIED PRODUCT/MANUFACTURER. DRAWINGS AND SPECIFICATIONS INDICATE SIZES, PROFILES, DIMENSIONS, AND OTHER CHARACTERISTICS THAT ARE BASED ON THE PRODUCT NAMED. INSTALL PRODUCT COMPLETE WITH ALL REQUIRED ACCESSORIES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, INSTRUCTION AND DETAILS.
2. ALL CONTRACTORS TO FIELD VERIFY ALL CONDITIONS AND DIMENSIONS.
3. ALL FLOOR TRANSITIONS THAT CHANGE MATERIALS TO RECEIVE TRANSITION STRIP.
4. ALL FLOOR FINISHES TO EXTEND BENEATH CASEWORK, UNLESS PROHIBITED BY FLOORING WARRANTY.
5. DISSIMILAR FLOOR MATERIALS SHALL MEET UNDER CENTER OF DOOR LEAF WHEN IN CLOSED POSITION, UNLESS OTHERWISE NOTED OR SHOWN.
6. REMARKS COLUMN ON ROOM AND PRODUCT FINISH SCHEDULE INDICATES GENERAL COMMENTS ONLY. SEE INTERIOR FINISH PLANS AND SPECIFICATIONS FOR LOCATIONS AND DETAILS.
7. ALL GYPSUM CEILINGS SHALL BE **CEILING PAINT #1, SHERWIN WILLIAMS INTERIOR FLAT CEILING PAINT (WHITE),** UNLESS OTHERWISE NOTED.
8. ALL WALLS SHALL BE **WALL PAINT #1, SHERWIN WILLIAMS "AGREEABLE GRAY SW 7029** UNLESS OTHERWISE NOTED.
9. ALL INTERIOR WOOD TRIM SHALL BE **TRIM PAINT #1, SHERWIN WILLIAMS INTERIOR/EXTERIOR DOOR AND TRIM PAINT (ULTRA WHITE)** UNLESS OTHERWISE NOTED OR SHOWN.
10. ALL INTERIOR FLOOR COVER SHALL BE **FLOORING #1, KARNDEAN GREY ARTISAN OAK RL33** UNLESS OTHERWISE NOTED.
11. ALL CORNER GUARDS SHALL BE **CG-1**, UNLESS OTHERWISE NOTED OR SHOWN

**NOTE:**
FINAL PAINT COLOR AND FLOOR COLOR/PATTERN SELECTIONS SHALL BE BY OWNER.

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
KURT FANDERCLAI
NUMBER A-2023012887
10/31/2025
ARCHITECT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**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: A710
DRAWING BY: KJF
CHECKED BY: TWB
DESIGNED BY: KJF

SHEET TITLE:
**FIRST FLOOR FINISH PLAN & SCHEDULES**

SHEET NUMBER:
**A710**
SHEET 82 OF 105 10/31/2025

## DESIGN CRITERIA

1. BUILDING CODES:
   A. IRC 2018
   B. ASCE 7-16
2. DESIGN LOADS:
   A. Occupancy Category II
   B. Floor Live Load = 40 psf
   C. Floor Dead Load = 15 psf
   D. Attic Live load = 20 psf
   E. Attic Dead Load = 15 psf
   F. Roof Live Load = 20 psf
   G. Roof Dead Load = 15 psf
   H. Cabin Dead Load Under Trusses = 5 psf
   I. Deflection
      a. Roof Live Load = L/360
      b. Roof Total Load = L/240
      c. Floor Live Load = L/480
   J. Roof Snow Load
      a. Ground Snow Load, $P_g$ = 20 psf
      b. Slope Roof Snow Load, $P_f$ = 14 psf
      c. Snow Load Importance, $I_s$ = 1.0
      d. Snow Exposure Factor, $C_e$ = 1.0
      e. Roof Thermal Factor Typical, $C_t$ = 1.0
      f. Roof Thermal Factor @ Plaza, $C_t$ = 1.2
      g. Unbalanced Snow Load = See diagram
   K. Wind Loading
      a. Basic Wind Speed, $V_{ult}$ = 109 mph
      b. Risk Category = II
      c. Exposure Category = D
      d. Internal pressure Coefficient, $GC_{pi}$ = ±0.18
      e. Components and Cladding Design per ASCE 7-16
         • Net Uplift for Roof Design (0.6D+0.6W)
            • Typ. = 10 psf
            • Edge = 17 psf
         • Net Uplift for Plaza Roof Design (0.6D+0.6W)
            • Typ. = 17 psf
            • Edge = 23 psf
   L. Seismic Loading
      a. Risk Category = II
      b. Importance Factor, $I_e$ = 1
      c. Site Class D
      d. $S_{ds}$ = 0.135 ($S_s$ = 12.6%)
      e. $S_{d1}$ = 0.128 ($S_1$ = 8.0%)
      f. Seismic Response Coefficient, $C_s$ = 0.021
      g. Seismic Design Category B
      h. Design Coefficients and Factors for Seismic Force-Resisting Systems
         • Resisting System - Light-frame (wood) Walls sheathed with wood structural panels.
            1. Response Coefficient, R = 6.5
            2. Deflection Amplification Factor, $C_d$ = 4
            3. System Overstrength Factor, $\Omega_o$ = 3
      i. Component Design per ASCE 7-16
      j. Seismic Base Shear = W x $C_s$

## FOUNDATION

1. Foundation design is based on:
   A. 1500 psf net allowable soil bearing pressure for isolated column footings.
   B. 1500 psf net allowable soil bearing pressure for continuous wall footings.
2. All fill material shall be free of organic contaminations and other deleterious matter.
3. All soil surrounding and under footings shall be protected from frost action and freezing during the course of construction.
4. Notify structural engineer of any unusual soil conditions that are in variance with the geotechnical report.
5. Footing excavations should be made to the required lines and grades as rapidly as possible. Footing excavations be left open for a minimum of time to prevent disturbance to the foundation soils. Foot traffic should be prevented on the base of the footing excavations if disturbance is noted. Hand cleaning, if required and setting of reinforcing steel should then be accomplished from the sides of the excavation.

## ABBREVIATIONS

| | |
|---|---|
| & | AND |
| AB | ANCHOR BOLT |
| ALT | ALTERNATE |
| ARCH | ARCHITECT |
| @ | AT |
| BLDG | BUILDING |
| BM | BEAM |
| BO | BOTTOM OF |
| BOT | BOTTOM |
| BRG | BEARING |
| BRDG | BRIDGING |
| BYD | BEYOND |
| CIP | CAST IN PLACE |
| CJ | CONSTRUCTION JOINT |
| CL (℄) | CENTERLINE |
| CLR | CLEAR |
| CMU | CONCRETE MASONRY UNIT |
| COL | COLUMN |
| CONC | CONCRETE |
| CTR | CENTER |
| DBL | DOUBLE |
| DIA (Ø) | DIAMETER |
| DIAPH | DIAPHRAGM |
| DL | DEAD LOAD |
| DWLS | DOWELS |
| EA | EACH |
| EF | EACH FACE |
| ELEV (EL) | ELEVATION |
| EMBED | EMBEDMENT |
| EW | EACH WAY |
| EX | EXISTING |
| FB | FIELD BEND |
| FDN | FOUNDATION |
| FF | FINISHED FLOOR |
| FLR | FLOOR |
| FTG | FOOTING |
| FV | FIELD VERIFY |
| GA | GAUGE |
| GALV | GALVANIZED |
| HDG | HOT DIP GALVANIZED |
| HDR | HEADER |
| HGR | HANGER |
| HORIZ | HORIZONTAL |
| HS | HEADED STUD |
| HSS | HOLLOW STRUCTURAL SECTION |
| HT | HEIGHT |
| ID | INSIDE DIAMETER |
| JST | JOIST |
| LG | LONG |
| LL | LIVE LOAD |
| LLH | LONG LEG HORIZONTAL |
| LLV | LONG LEG VERTICAL |
| LONG | LONGITUDINAL |
| LWC | LIGHT WEIGHT CONCRETE |
| MAX | MAXIMUM |
| MECH | MECHANICAL |
| MIN | MINIMUM |
| NO (#) | NUMBER |
| NTS | NOT TO SCALE |
| OC | ON CENTER |
| OH | OPPOSITE HAND |
| OPNG | OPENING |
| OPP | OPPOSITE |
| PAR | PARALLEL |
| PEMB | PRE-ENGINEERED METAL BUILDING |
| PERP | PERPENDICULAR |
| PL (℄) | PLATE |
| PSF | POUNDS PER SQUARE FOOT |
| PT | PRESSURE TREATED |
| REINF | REINFORCING |
| RO | ROUGH OPENING |
| RTU | ROOF TOP UNIT |
| SCH | SCHEDULE |
| SIM | SIMILAR |
| SL (℄) | STEEL LINE |
| STAGG | STAGGERED |
| STD | STANDARD |
| STIFF | STIFFENER |
| TBR | TO BE REMOVED |
| THK | THICK |
| THRU | THROUGH |
| TO | TOP OF |
| TOF | TOP OF FOOTING |
| TOS | TOP OF STEEL |
| TOW | TOP OF WALL |
| TRANS | TRANSVERSE |
| TYP | TYPICAL |
| UNO | UNLESS OTHERWISE NOTED |
| VERT | VERTICAL |
| W/ | WITH |
| WF | WIDE FLANGE |
| W/O | WITHOUT |
| WP | WORKING POINT |
| WWF | WELDED WIRE FABRIC |

## GENERAL

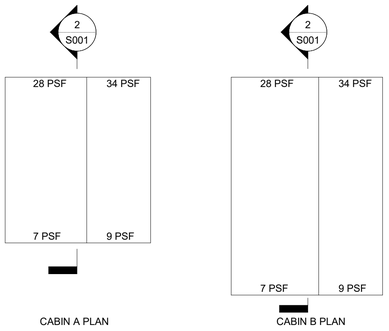
1. The structure is designed to be self-supporting and stable after the building is fully completed. It is solely the contractor's responsibility to determine erection procedure and sequence and insure the safety of the construction personnel, public, building and its components parts, and adjacent buildings and properties. This includes the addition of whatever temporary or permanent shoring, bracing, needling, underpinning, or sheet piling, etc. that may be necessary to brace new construction, adjacent buildings, so that the structure is braced for wind, seismic, gravity, construction loads, etc. and that no horizontal or vertical settlement or any damage occurs to the adjacent existing structure. Temporary supports shall be maintained in place until permanents supports and/or shoring and bracing are installed.
2. It is the contractor's responsibility to enforce all applicable safety codes and regulations during all phases of construction.
3. The contractor shall perform all construction for the project in a manner and sequence that are based on accepted industry standards that recognize the interaction of the components that comprise the structure, without causing distress, unanticipated movements or irregular load paths as a result of the construction means and methods employed.
4. Construction loads shall not exceed design live loads. The contractor shall be responsible for all design required to support construction equipment used in constructing this project. Shoring and reshoring is the responsibility of the contractor.
5. Principal openings through the framing are shown on these drawings. The general contractor shall examine the structural and mechanical drawings for the required openings and shall verify size and location of all openings with the mechanical contractor. Providing all openings required by the mechanical, electrical, plumbing, or other trades shall be part of the general contract, whether or not shown in the structural drawings. Any deviation from the openings shown on the structural drawings shall be brought to the engineer's attention for review.
6. All contractors are required to examine the drawings and specifications carefully, visit the site and fully inform themselves as to all existing conditions and limitations, prior to agreeing to perform the work. Failure to visit the site and familiarize themselves with the existing conditions and limitations will in no way relieve the contractor from furnishing any materials or performing any work in accordance with drawings and specifications without additional cost to the owner.
7. Contractor shall verify all dimensions and conditions at the job site before commencing work and shall report any discrepancies to the engineer.
8. Omissions or conflicts between various elements of the drawings, notes, details and specifications shall be brought to the attention of the engineer and resolved before proceeding with the work.
9. Details labeled "Typical Details" on drawings apply to situations occurring on the project that are the same or similar to those specifically details. Such details apply whether or not details are referenced at each location. Notify engineer of clarification regarding applicability of "Typical Details".
10. Work these drawings with architectural, civil, mechanical, and electrical drawings.
11. Do not scale drawings.
12. Should any of the general notes conflict with any details or instructions on plans, the strictest provision shall govern.

## CAST-IN-PLACE CONCRETE

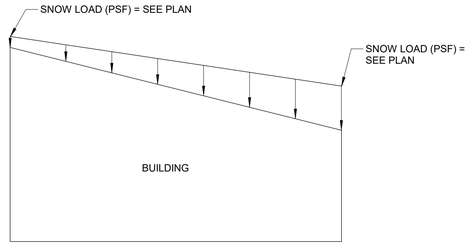
1. All concrete construction shall conform to ACI 301, "Specification for Structural Concrete" and ACI 302, "Guide for Concrete Floor and Slab Construction", ACI 305 "Specification for Hot Weather Concreting" and ACI 306, "Standard Specification for Cold Weather Concreting", unless noted otherwise for the year referenced in the building code noted.
2. All detailing, fabrication and placing of reinforcing bars, unless otherwise noted, shall conform to ACI 318, "Building Code Requirements for Structural Concrete", ACI 117, "Specification for Tolerances for Concrete Construction and Materials", and the latest ACI detailing manual.
3. All pipe sleeve openings through concrete slabs shall be formed with standard steel pipe.
4. No electrical conduit shall be placed above the welded wire fabric or top reinforcing of slab.
5. All aluminum in contact with concrete or dissimilar metals shall be coated with two coats of coal tar epoxy, approved by the engineer, unless otherwise noted.
6. Concrete shall be discharged at the site within 1 ½ hours after water has been added to the cement and aggregates. Addition of water to the mix at the project site will not be permitted. All water must be added at the batch plant. Slump may be adjusted only through the use of additional water reducing admixtures or high range water reducing admixture.
7. All concrete shall be placed without horizontal construction joints, except where specifically noted.
8. All exposed edges of concrete members shall be chamfered ¾" unless shown otherwise.
9. Reinforcing bars shall conform to ASTM A615, Grade 60, No tack welding of reinforcing in the field will be permitted.
10. Reinforcing bars for welded applications shall conform to ASTM A706, 60 ksi yield strength.
11. Welded wire fabric reinforcing shall conform to ASTM A185 and be furnished in flat sheets and installed on chairs.
12. Wire bar supports shall be furnished for all reinforcing within slabs, inclusive of welded wire fabric. Bottom bars in slabs-on-grade may be supported by other suitable supports. Reinforcing shall be properly positioned prior to concrete placement and may not be re-positioned once concrete operations have begun. Wire bar and other types of supports shall be in accordance with the concrete reinforcing steel institute manual of standard practice.
13. Reinforcement shall be continuous through all construction joints unless otherwise noted on drawings.
14. All hooks shown on drawings shall be ACI standard hooks, unless otherwise noted.
15. Where continuous bars are called for, they shall run continuously around corners and be lapped at necessary splices. Lap lengths shall be as given in the splice and development table.
16. In reinforced concrete walls, grade beams and trench footing provide corner dowels of same size and spacing as horizontal reinforcing. Dowels shall lap with horizontal reinforcing in each direction.
17. The following minimum concrete cover shall be provide for reinforcement, unless otherwise noted:
   A. Earth formed and cast directly against soil – 3"
   B. Cast against forms but exposed to earth and weather
      a. #6 and Larger – 2"
      b. #5 and Smaller - 1 ½"
   C. Slabs and walls not exposed to earth or weather – ¾"
   D. Others - 2"
18. Reinforcing bars shall have a minimum clear spacing of 4"
19. See Civil Drawings for concrete washout requirements.
20. SPLICE LENGTHS:

| Bar Size | Min. Lap |
|---|---|
| #3 | 1'-4" |
| #4 | 1'-8" |
| #5 | 2'-0" |
| #6 | 2'-6" |
| #7 | 3'-6" |
| #8 | 4'-0" |
| #9 | 4'-6" |
| #10 | 5'-0" |

A. When lapping two different size bars, use the lap dimension of the smaller bar or the anchorage dimension of the larger bar, use whichever dimension is larger.




1 UNBALANCED SL DIAGRAM
NTS




2 UNBALANCED SL SECTION
1/8" = 1'-0"

## WOOD FRAMING:

1. All timber shall conform to "National Design Specification for Wood Construction" (ANSI/AWC NDS) for the year referenced in the building code noted.
2. Connect all members per IBC 2015 "Fastening Schedule" Table 2304.10.1, unless noted otherwise. All members shall be framed, anchored, tied, and braced so as to develop the strength and rigidity for the purpose which they are used.
3. Joists and rafters shall have diagonal cross bridging or full depth blocking at 8'-0" on center maximum.
4. All nails shall be "common wire nails" of the following length and diameter:
   A. 6d: 2" x 0.113"Ø
   B. 8d: 2 1/2" x 0.131"Ø
   C. 10d: 3" x 0.148"Ø
   D. 12d: 3 1/4" x 0.148"Ø
   E. 16d: 3 1/2" x 0.162"Ø
5. Collated gun-driven nails shall meet the requirements of ASTM F1667. Nail gun pressures shall be adjusted to install the nail into the substrate without being over-driven. Nails shall not be over-driven.
6. All sawn lumber except 2x12s shall be Spruce Pine Fir (SPF) No. 2, or better, with the following NDS minimum reference design values, unless noted otherwise. Only newly purchased lumber shall be used.
   A. Fb=875psi
   B. Fv=135psi
   C. Fc=1150psi
   D. $Fc^{\perp}$ =425psi
   E. E=1,400,000psi
7. All sawn lumber 2x12s shall be Southern Pine (SP) No. 1, or better, with the following NDS minimum reference design values, unless noted otherwise. Only newly purchased lumber shall be used.
   A. Fb=1,200psi
   B. Fv=175psi
   C. Fc=1650psi
   D. $Fc^{\perp}$ =565psi
   E. E=1,600,000psi
8. Laminated Veneer Lumber: 1.9E 1 ¾" Microlam LVL's as manufactured by Weyerhaeuser (Truss Joist), 2.0E 1 ¾" LVL's or approved equal with the following minimum design stresses:
   A. Fb=2600psi
   B. Fv=285psi
   C. $Fc^{\perp}$ =750psi
   D. E=1,900,000psi
9. Wood Member Connections – Connect multiple individual framing member that are parallel and in contact thus:
   A. 2 Members: 2 rows of 10d nails at 12"o.c.
   B. 3 Members: 2 rows of 16d nails at 12"o.c.
   C. 4 or 5 Members: 2 rows of ¼"Ø Simpson SDS Wood Screws or Equal spaced at 12" o.c.
      a. Screw length shall match the total thickness of the built-up members.
   D. > 5 Members: ¾"Ø A307 through bolts at mid-depth and spaced at 12" o.c.
10. Joist hangers, beam hangers, connections and fasteners shall be by one of the following manufacturers:
   A. Simpson Strong-Tie
   B. USP Structural Connectors
   C. or approved substitution
11. Connectors depicted throughout the structural details are based on Simpson Strong-Tie model numbers. Connectors manufactured by other approved companies may be used provided their performance is equal or better. All connectors shall be selected and installed according to manufacturer's written instructions.
12. All lumber exposed to the exterior or in direct contact with masonry or concrete shall be pressure treated. Pressure treated members shall be Southern-Pine No. 2. Pressure treatments shall conform to the building code.
13. All fasteners and connector in contact with treated lumber or exposed to the exterior shall be hot dip galvanized or have a Z185 galvanized coating.
14. Stud Walls:
   A. Provide beams, bearing studs and jamb studs for all openings shown on the drawings.
   B. Provide a minimum of three studs beneath all beam and header reactions unless otherwise noted.
   C. Double stud all corners.
   D. At locations where holes greater than 1" are required through the top plates of the structural wall to accommodate items such as plumbing, or electrical conduit, provide studs between the holes and the truss, joist, or TJI located on each side of the holes.
   E. Double top plates shall be installed to provide overlapping at corners and at intersections.
   F. Double top plates shall be lapped 4'-0" at splices and attached with (12)-10d nails unless noted otherwise.
15. Interior non-bearing stud walls shall be anchored to concrete slabs per the Building code using Simpson PDPAW or Hilti X-CF 72 sill plate fasteners or approved equal.
16. Sheathing:
   A. Floor sheathing –23/32" tongue and groove plywood or oriented strand board, 48/24 span rating, Exposure 1.
   B. Roof sheathing –19/32" zip system oriented strand board, 40/20 span rating, Exposure 1.
   C. Exterior wall sheathing –15/32" zip system oriented strand board, 32/16 span rating, Exposure 1.
17. Floor sheathing shall be attached as follows: Attach panel edges and at all supports with 8d nails at 6" o.c. Floor sheathing shall be installed with face grain perpendicular to supports and continuous over 2 or more supports. Stagger the 8'-0" panels dimension 4'-0".
18. Roof sheathing shall be attached as follows: Provide blocking at ridge and provide ply clips at all other locations. Attach panel edges and at all supports with 10d nails at 6" o.c. Roof sheathing shall be installed with face grain perpendicular to supports and continuous over 2 or more supports. Stagger the 8'-0" panels dimension 4'-0".
19. Wall sheathing shall be attached as follows: Provide blocking at all panel edges. Attach panel edges and at all studs and blocking with 10d nails at 4" o.c. Wall sheathing shall be installed with face grain perpendicular to studs and continuous over 2 or more supports. Stagger the 8'-0" panels dimension 4'-0".

**STATE OF MISSOURI**
**MIKE KEHOE,**
**GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
ALAN D. LUKENS NUMBER E-20U1020814
REGISTERED PROFESSIONAL ENGINEER

DATE: 10/31/2025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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND**
**6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

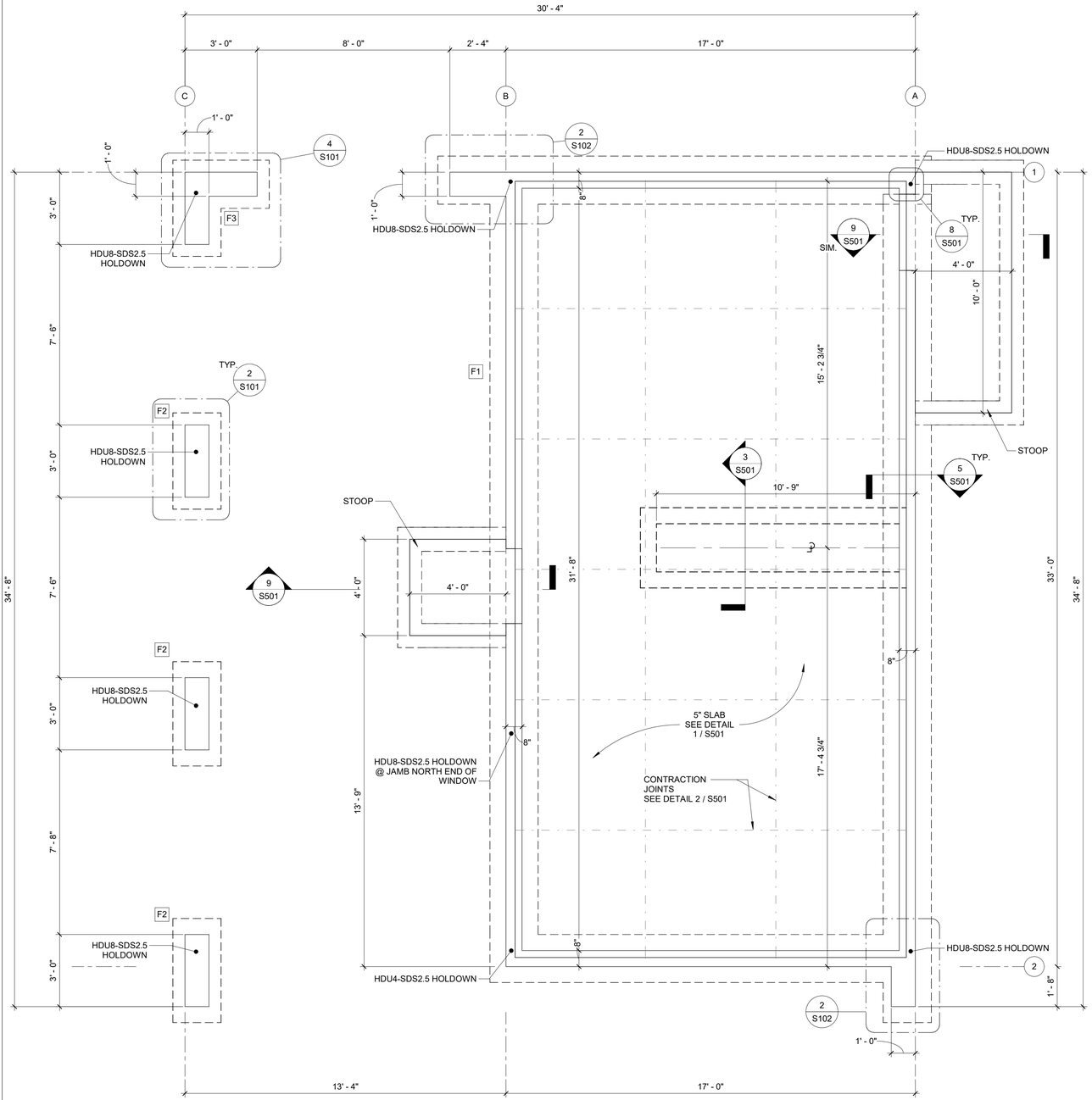
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: S001
DRAWING BY: KJF/FTP
CHECKED BY: ADL
DESIGNED BY: KJF/FTP

SHEET TITLE:
**STRUCTURAL NOTES**

SHEET NUMBER:
**S001**
SHEET 83 OF 105 10/31/2025

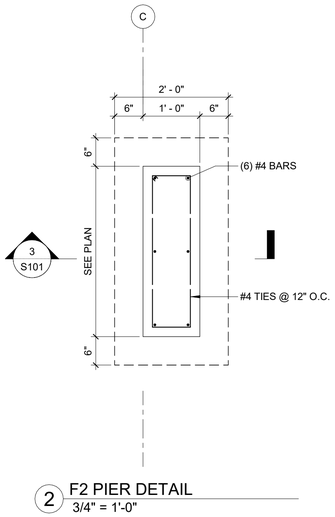



1 FOUNDATION PLAN - CABIN "A"
3/8" = 1'-0"

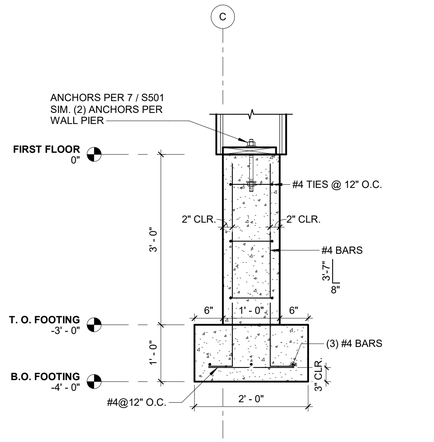
## FOOTING SCHEDULE

| MARK | TOP ELEV. | THICKNESS X WIDTH | REBAR |
|---|---|---|---|
| F1 | -3' - 0" | 12" X 2' - 0" | (3) #4 EW 3" CLEAR OF BOTTOM |

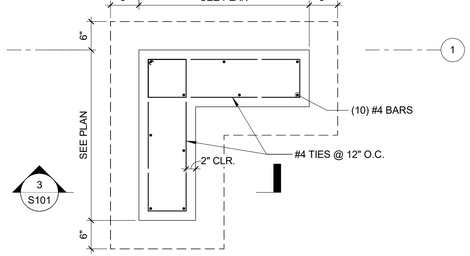
NOTE:
1. ALL CONCRETE WALLS TO BE FORMED WITH SMOOTH PAN FORMS ONLY.
2. CONTRACTOR TO COORDINATE AND LOCATE ALL PLUMBING STUB OUT LOCATIONS PRIOR TO POURING AND FORMING CONCRETE FLOOR SLABS, FOOTING, STEM WALLS, AND BASEMENT WALLS.
3. FIELD VERIFY ALL TOP OF WALL STEPS.




2 F2 PIER DETAIL
3/4" = 1'-0"




3 F2 & F3 SECTION
3/4" = 1'-0"




4 F3 PIER DETAIL
3/4" = 1'-0"

0 2 4
SCALE: 3/8" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER ALAN D. LUKENS NUMBER E-20U1020814

DATE: 10/31/2025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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

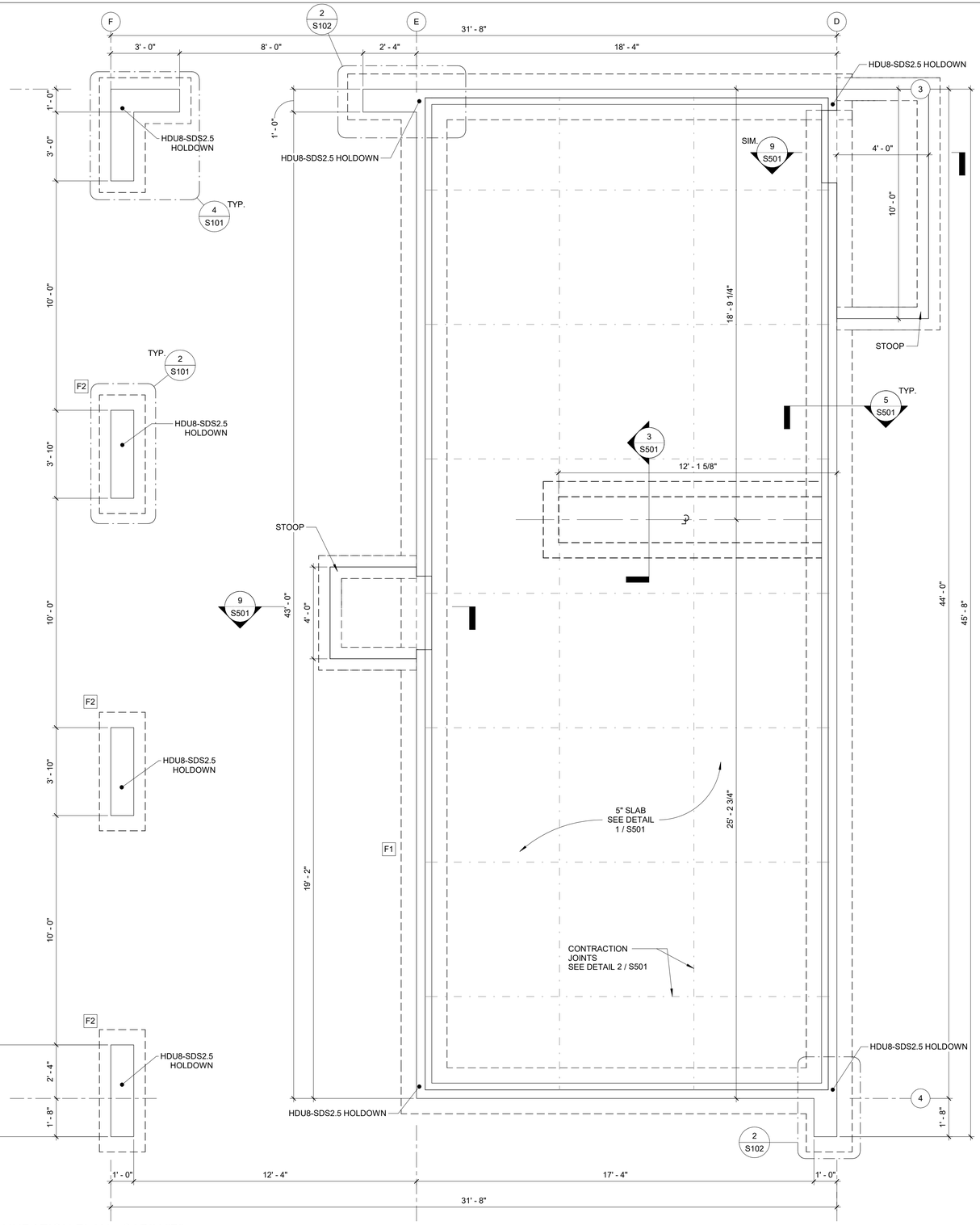
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: S101
DRAWING BY: KJF/FTP
CHECKED BY: ADL
DESIGNED BY: FTP

SHEET TITLE:
**FOUNDATION PLAN - CABIN "A"**

SHEET NUMBER:
**S101**

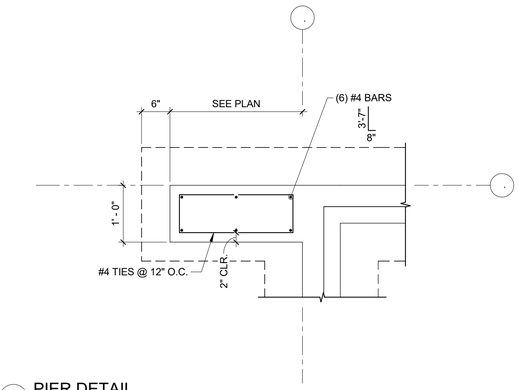



1 FOUNDATION PLAN - CABIN "B"
3/8" = 1'-0"

## FOOTING SCHEDULE

| MARK | TOP ELEV. | THICKNESS X WIDTH | REBAR |
|---|---|---|---|
| F1 | -3' - 0" | 12" X 2' - 0" | (3) #4 EW 3" CLEAR OF BOTTOM |

NOTE:
1. ALL CONCRETE WALLS TO BE FORMED WITH SMOOTH PAN FORMS ONLY.
2. CONTRACTOR TO COORDINATE AND LOCATE ALL PLUMBING STUB OUT LOCATIONS PRIOR TO POURING AND FORMING CONCRETE FLOOR SLABS, FOOTING, STEM WALLS, AND BASEMENT WALLS.
3. FIELD VERIFY ALL TOP OF WALL STEPS.




2 PIER DETAIL
3/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI · ALAN D. LUKENS · NUMBER E-20U1020814 · REGISTERED PROFESSIONAL ENGINEER

DATE: 10/31/2025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**REBID**
**10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: S102
DRAWING BY: KJF/FTP
CHECKED BY: ADL
DESIGNED BY: FTP

SHEET TITLE:
**FOUNDATION PLAN - CABIN "B"**

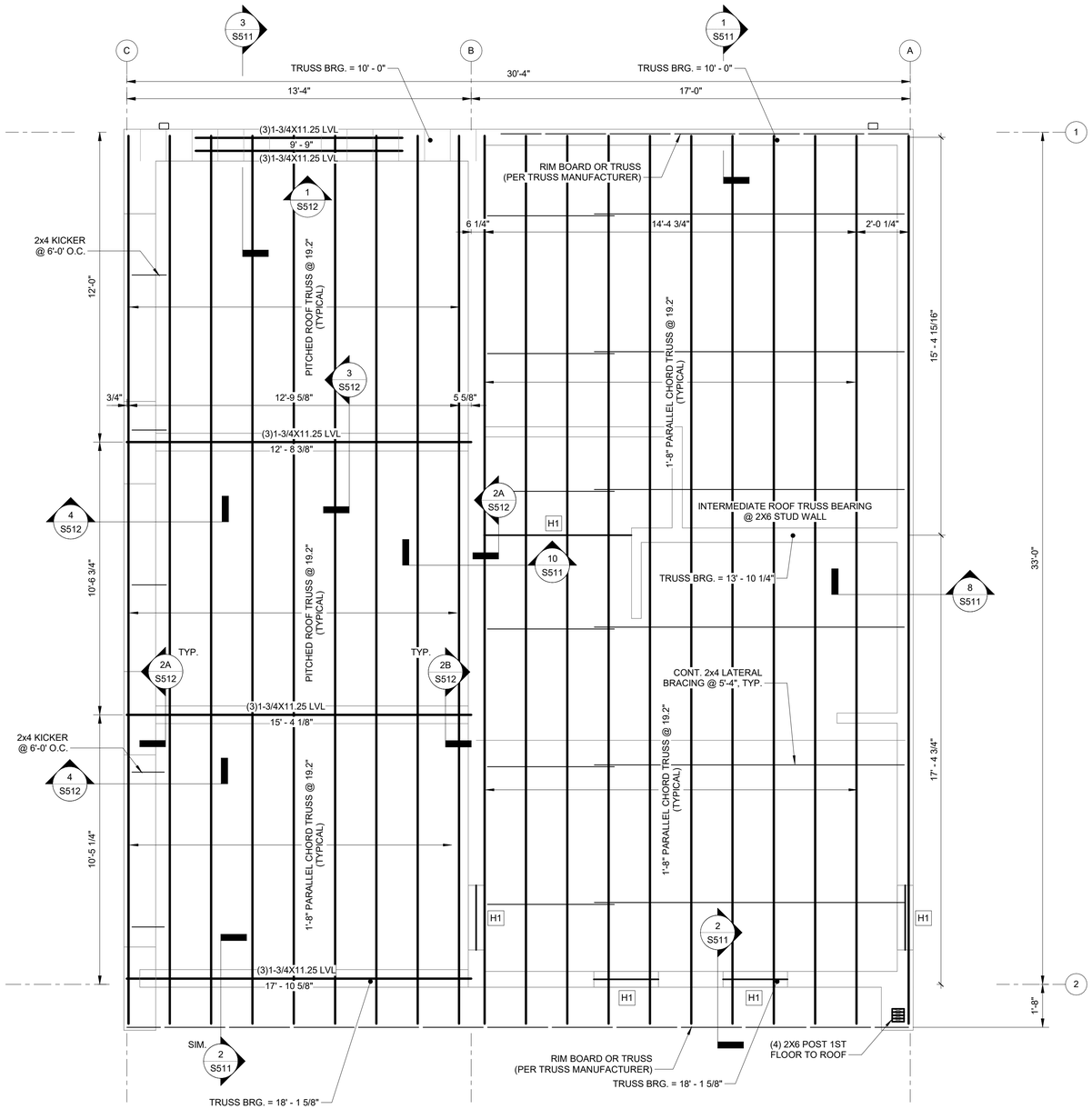
N

0 2 4
SCALE: 3/8" = 1'-0"

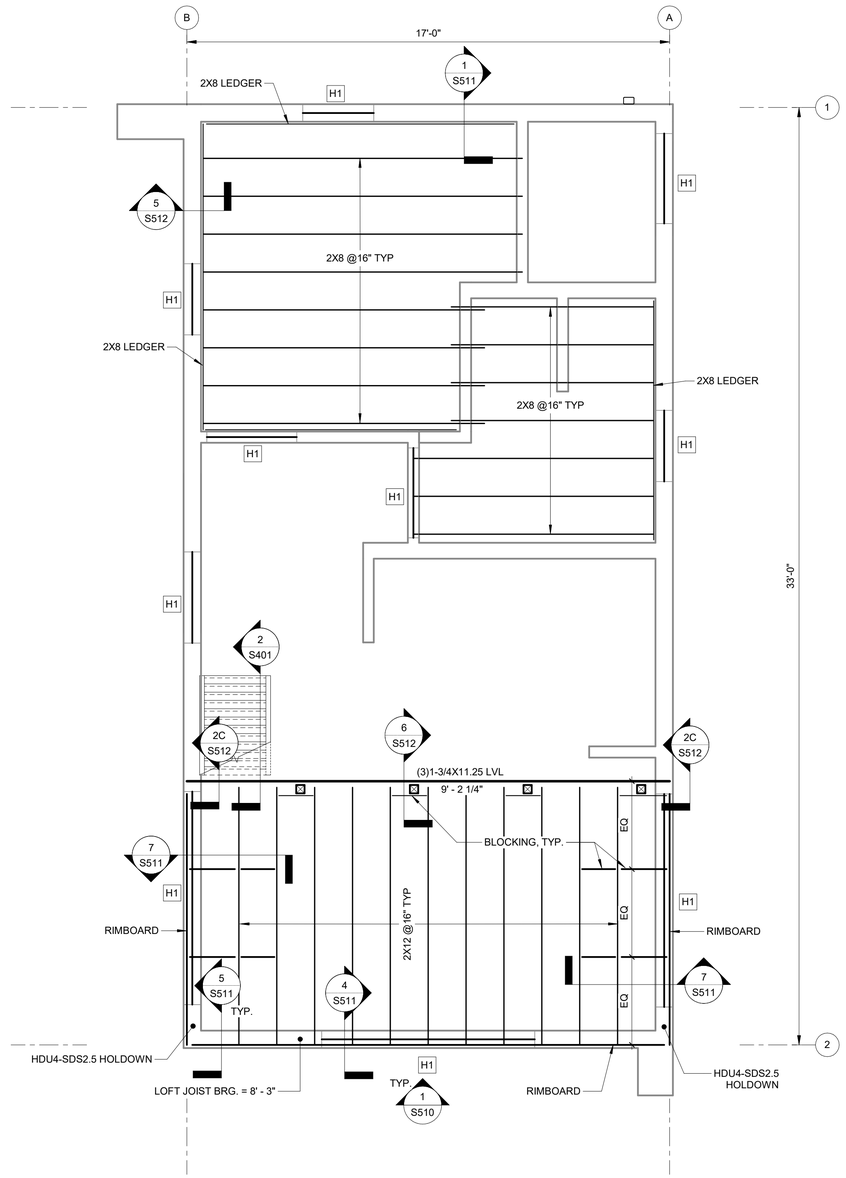
SHEET NUMBER:
**S102**
SHEET 85 OF 105 10/31/2025

## HEADER SCHEDULE

H1 (3) 2X12 PLUS (2) 1/2" PLYWOOD FILLER




1 ROOF FRAMING PLAN - CABIN "A"
3/8" = 1'-0"




2 CEILING AND LOFT FRAMING PLAN - CABIN "A"
3/8" = 1'-0"

0 2 4
SCALE: 3/8" = 1'-0"

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
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NUMBER
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REGISTERED PROFESSIONAL ENGINEER

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DEPARTMENT OF NATURAL
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STATE PARKS

REBID
10 PREMIUM SITES AND
6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

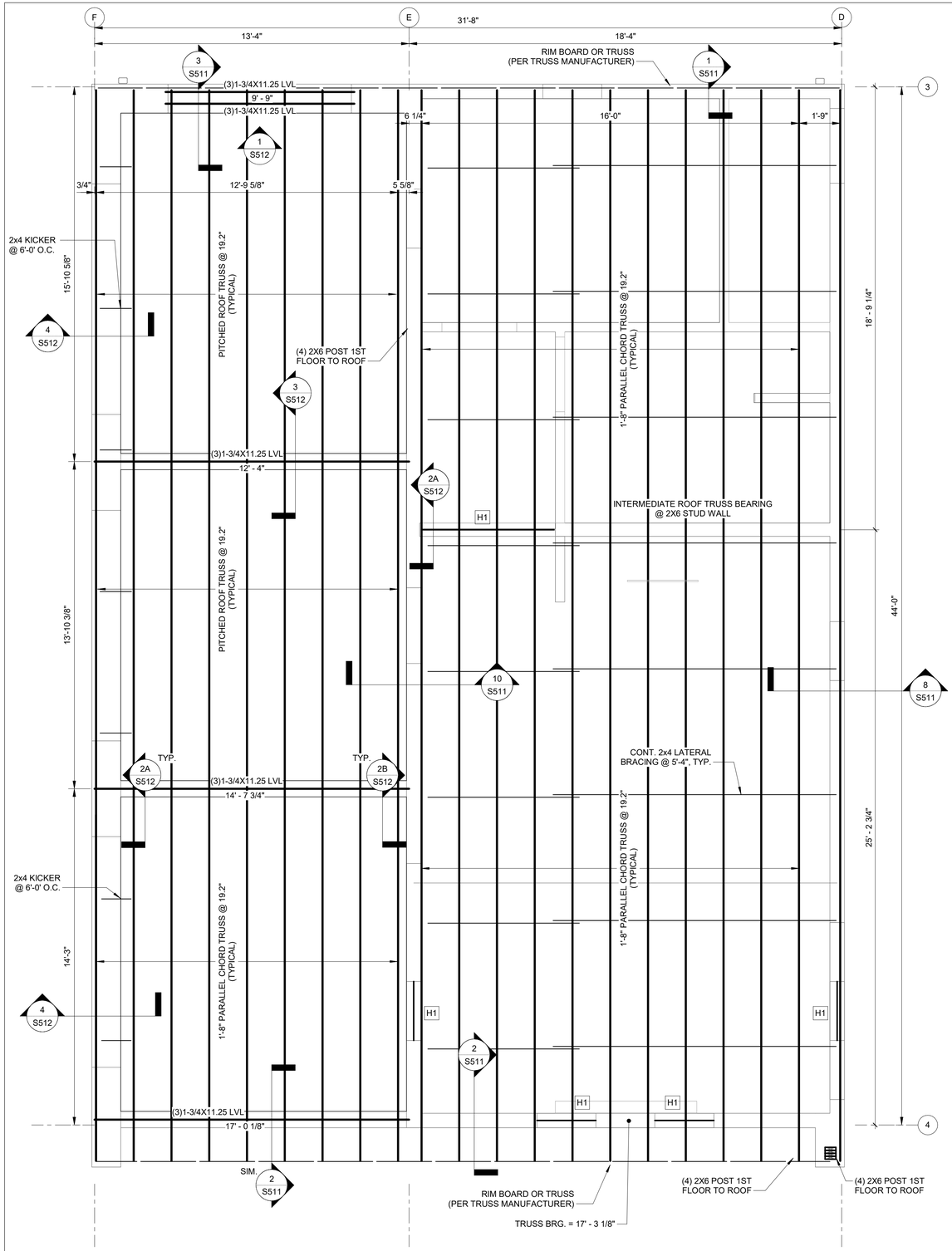
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

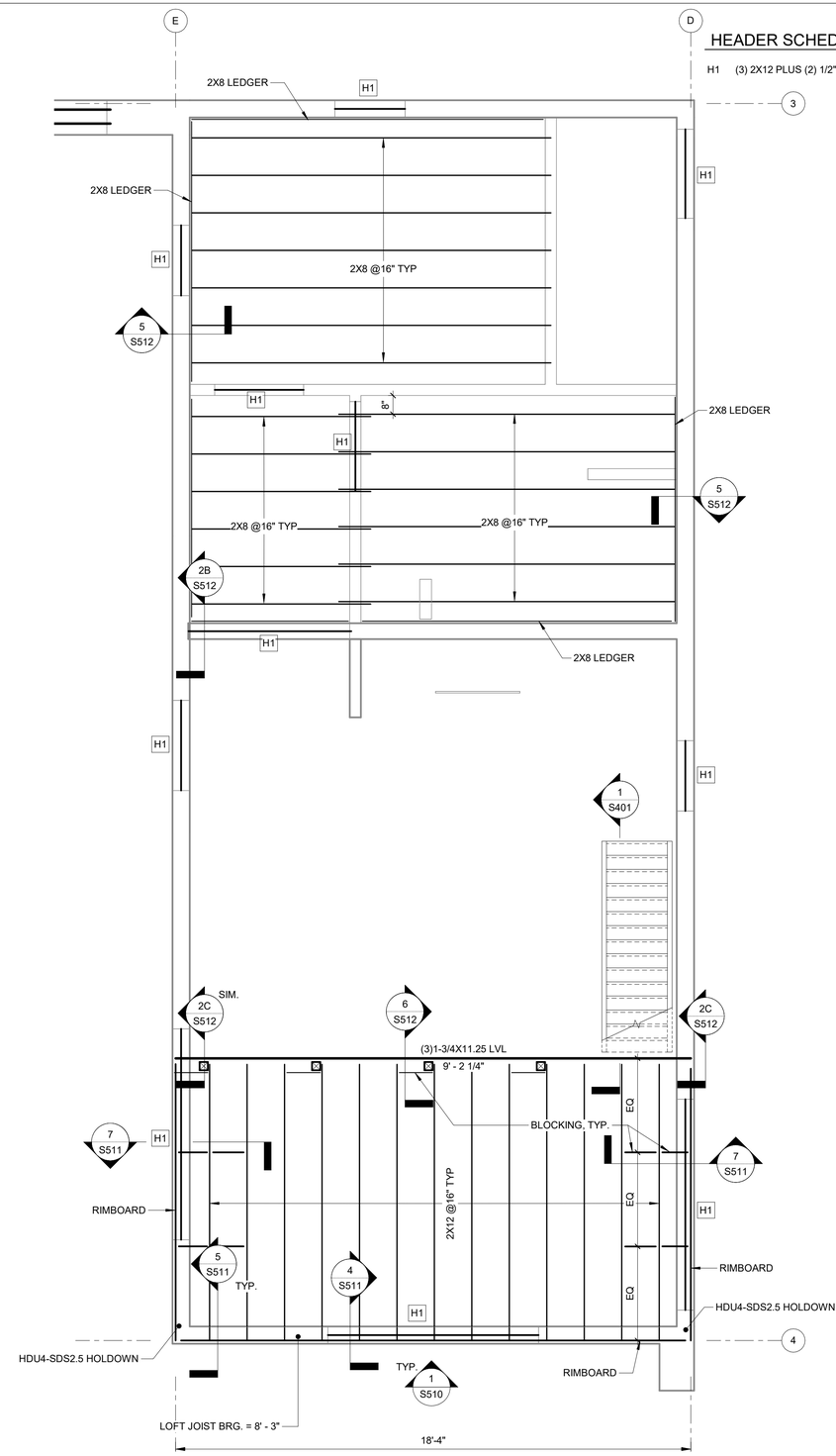
CAD DWG FILE: S210
DRAWING BY: KJF/FTP
CHECKED BY: ADL
DESIGNED BY: KJF/FTP

SHEET TITLE:
**ROOF AND CEILING FRAMING PLAN - CABIN "A"**

SHEET NUMBER:
**S210**
SHEET 86 OF 105 10/31/2025




1 ROOF FRAMING PLAN - CABIN "B"
3/8" = 1'-0"




2 CEILING AND LOFT FRAMING PLAN - CABIN "B"
3/8" = 1'-0"

HEADER SCHEDULE

H1 (3) 2X12 PLUS (2) 1/2" PLYWOOD FILLER

0 2 4
SCALE: 3/8" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

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**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
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REVISION:
DATE:
ISSUE DATE: 10/31/2025

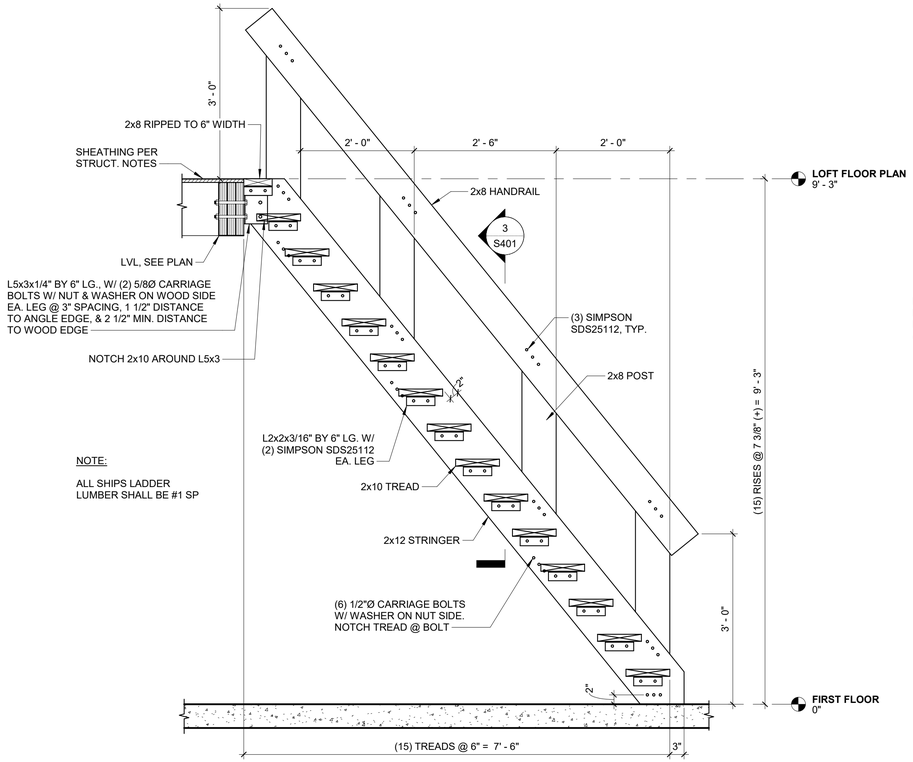
CAD DWG FILE: S211
DRAWING BY: KJF/FTP
CHECKED BY: ADL
DESIGNED BY: KJF/FTP

SHEET TITLE:

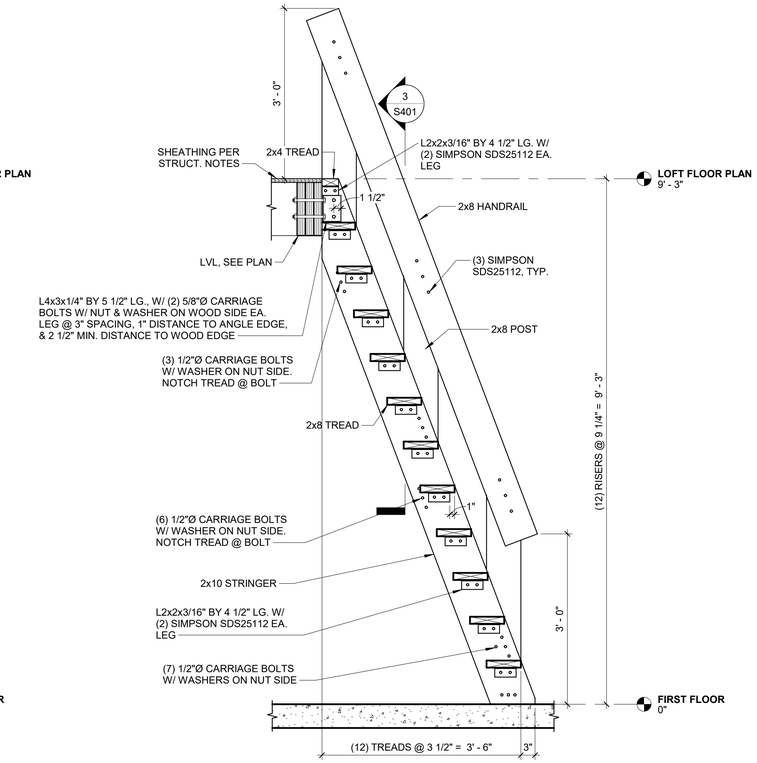
**ROOF AND CEILING FRAMING PLAN - CABIN "B"**

SHEET NUMBER:

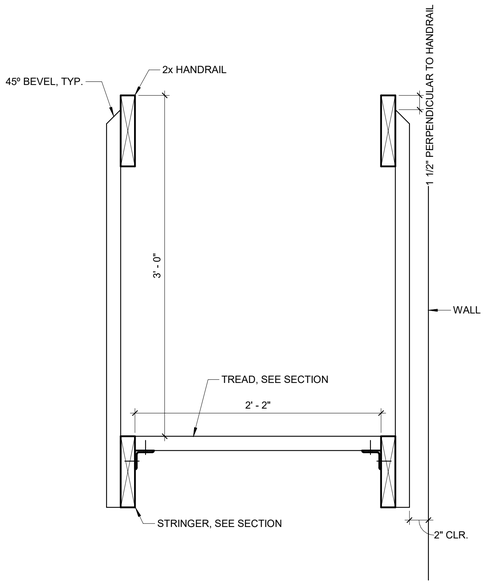
**S211**




1 SECTION
3/4" = 1'-0"




2 SECTION
3/4" = 1'-0"




3 LADDER SECTION
1 1/2" = 1'-0"

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

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PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
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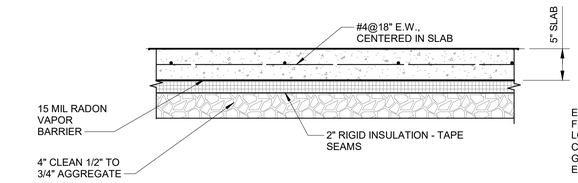
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

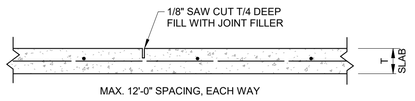
CAD DWG FILE: S401
DRAWING BY: FTP
CHECKED BY: ADL
DESIGNED BY: FTP

SHEET TITLE:
**SHIPS LADDER DETAILS**

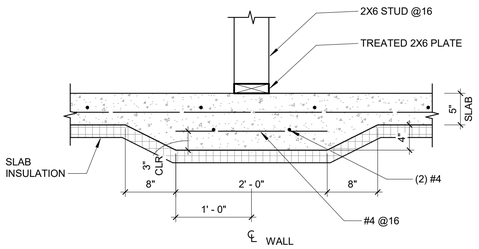
SHEET NUMBER:
**S401**
SHEET 88 OF 105 10/31/2025



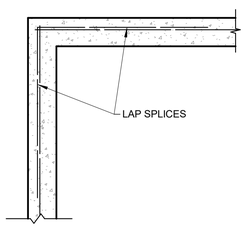

1 5" SLAB SECTION - CABIN "A" AND CABIN "B"
1" = 1'-0"




2 FLOOR SLAB CONTRACTION JOINT- CABIN "A" AND CABIN "B"
1" = 1'-0"



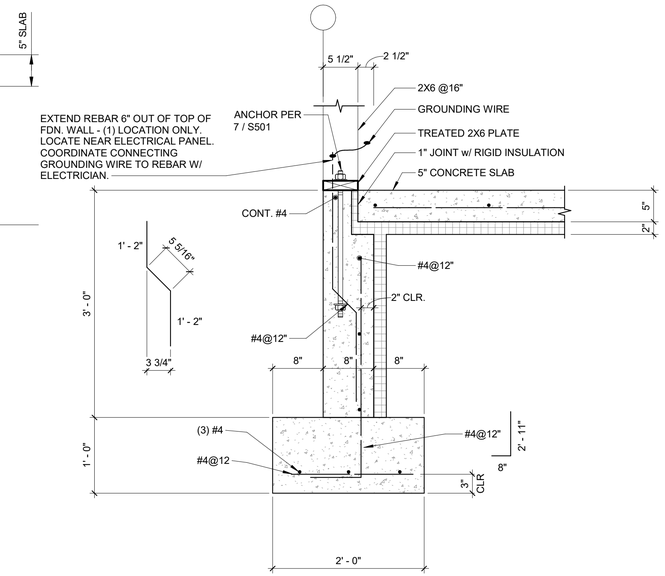

3 THICKENED SLAB DETAIL
1" = 1'-0"



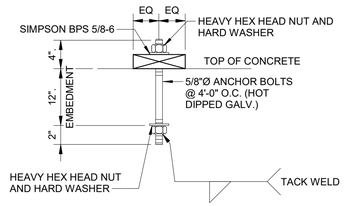

90° CORNER WALL REINF. CENTERED

NOTES:
1. THE CORNER REINFORCING SHOWN IS THE SAME SIZE AND SPACING AS THE HORIZONTAL REINFORCING.
2. THESE DETAILS APPLY TO FOOTINGS, CONCRETE WALLS.
3. THIS DETAIL DOES NOT APPLY TO FOOTINGS WHERE THE WIDTH IS GREATER THAN 3'-6".
4. EXTEND HORIZONTAL REINFORCING TO 3" CLR. FAR FACE OF THE FOOTING.

4 CORNER REINCFORCING DETAILS
3/4" = 1'-0"



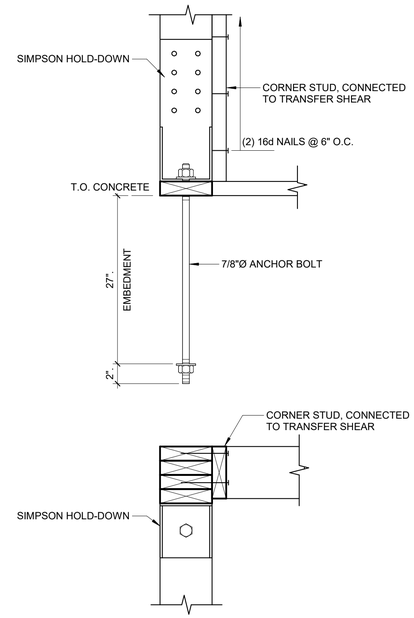

5 FOUNDATION WALL DETAIL
1" = 1'-0"



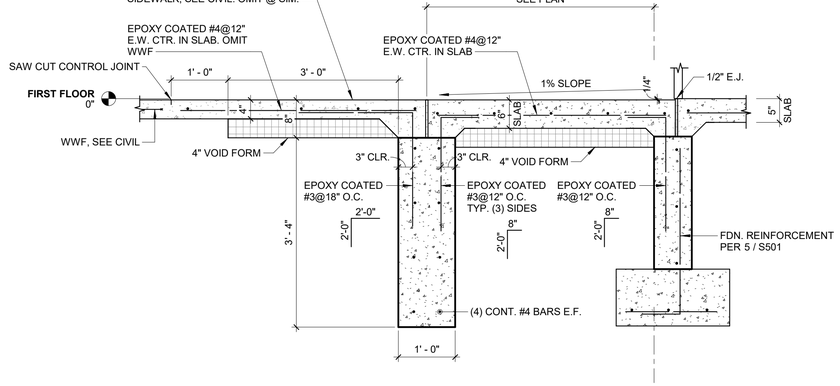

NOTE:
ANCHORS MAY BE POST-INSTALLED W/ HY200 & THREADED ROD @ 12" EMBEDMENT

7 WALL ANCHORS
1 1/2" = 1'-0"

NOTE:
1. ALL CONCRETE WALLS TO BE FORMED WITH SMOOTH PAN FORMS ONLY.
2. CONTRACTOR TO COORDINATE AND LOCATE ALL PLUMBING STUB OUT LOCATIONS PRIOR TO POURING AND FORMING CONCRETE FLOOR SLABS, FOOTING, STEM WALLS, AND BASEMENT WALLS.
3. FIELD VERIFY ALL TOP OF WALL STEPS.




8 CORNER STUD HOLD-DOWN DETAIL - (4) STUDS
1 1/2" = 1'-0"




9 TYP. STOOP DETAIL
3/4" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

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

STATE OF MISSOURI
MIKE KEHOE, GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER ALAN D. LUKENS NUMBER E-20U1020814

DATE: 10/31/2025

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Quincy, IL Galesburg, IL
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KLINGNER & ASSOCIATES, P.C. - ENGINEERING
MISSOURI STATE CERTIFICATE OF AUTHORITY #000866

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID
10 PREMIUM SITES AND
6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

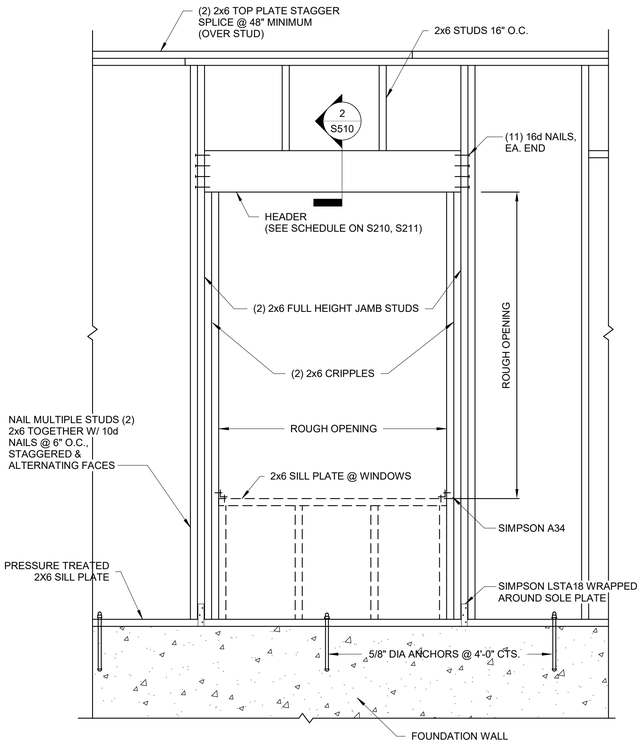
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

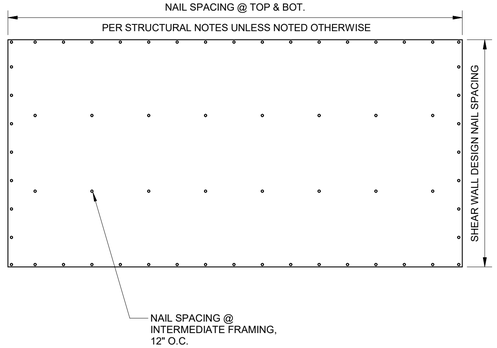
CAD DWG FILE: S501
DRAWING BY: KJF/FTP
CHECKED BY: ADL
DESIGNED BY: KJF/FTP

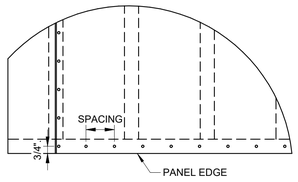
SHEET TITLE:
FOUNDATION DETAILS

SHEET NUMBER:
S501
SHEET 89 OF 105 10/31/2025

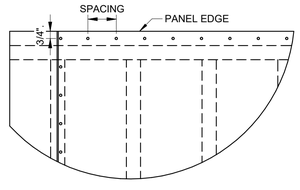



1 TYPICAL WALL OPENING DETAIL
3/4" = 1'-0"

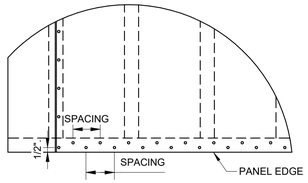


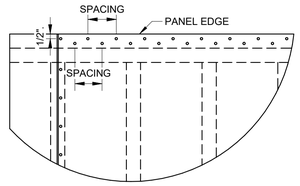

SINGLE ROW OF FASTENERS (2X SCALE)




SINGLE ROW OF FASTENERS (2X SCALE)

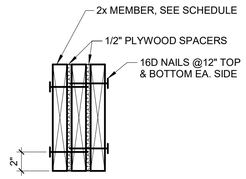



DOUBLE ROW OF FASTENERS (2X SCALE)

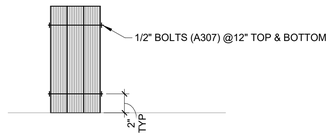



DOUBLE ROW OF FASTENERS (2X SCALE)

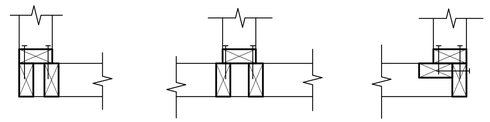
4 PANEL ATTACHMENT
3/4" = 1'-0"




2 3x HEADER DETAIL
1 1/2" = 1'-0"

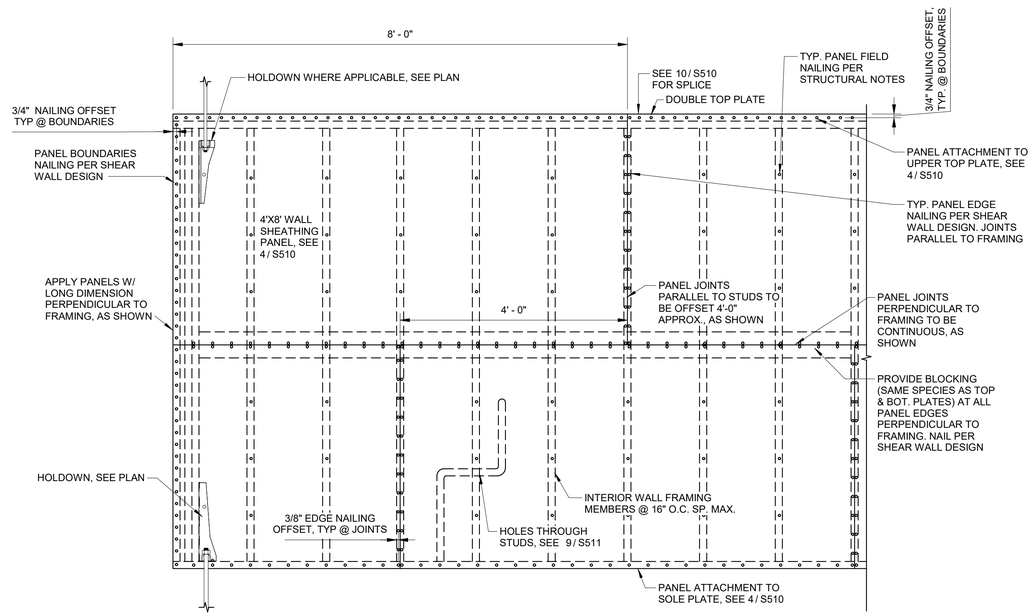



3 3-PLY 1-3/4 x 11 1/4" LVL BEAM
1 1/2" = 1'-0"

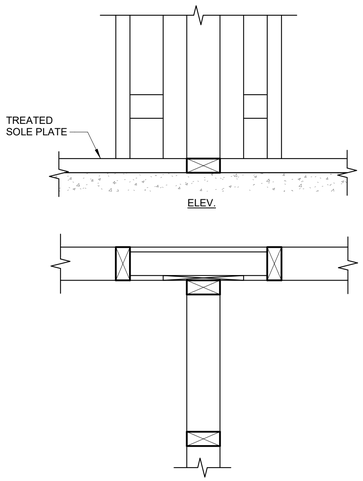


NOTE: A THIRD STUD AND OR PARTITION INTERSECTION BACKING STUDS SHALL BE PERMITTED TO BE OMITTED THROUGH THE USE OF WOOD BACKUP CLEATS, METAL DRYWALL CLIPS OR OTHER APPROVED DEVICES THAT WILL SERVE AS ADEQUATE BACKING FOR THE FACING MATERIAL

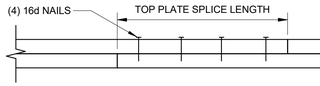
7 CORNER & PARTITION POSTS
1 1/2" = 1'-0"



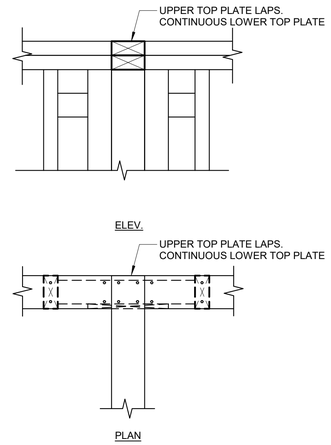

6 SHEATHING PANEL ATTACHMENT SCHEME FOR SHEAR WALL
3/4" = 1'-0"




5 INTERIOR STUD DETAIL
1 1/2" = 1'-0"




10 TOP PLATE SPLICE
1 1/2" = 1'-0"




9 TOP PLATE INTERSECTION DETAIL
1 1/2" = 1'-0"

0 3" 6" 1'
SCALE: 1 1/2" = 1'-0"

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

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER ALAN D. LUKENS NUMBER E-20U1020814
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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID**
**10 PREMIUM SITES AND**
**6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

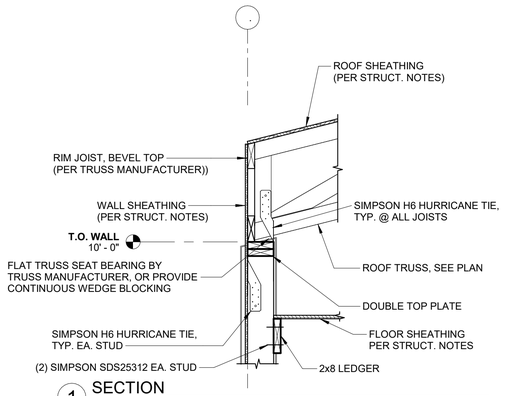
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

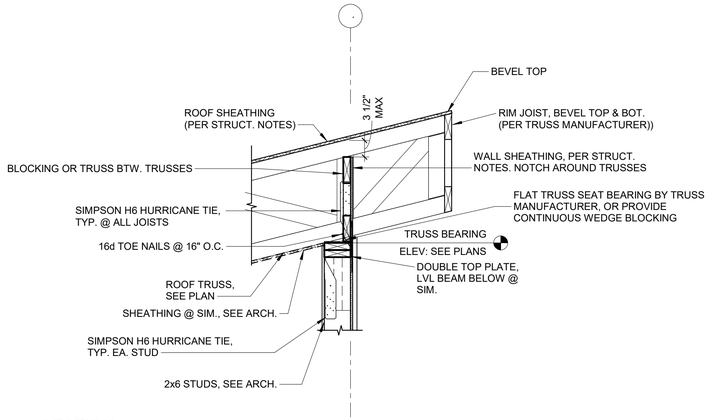
CAD DWG FILE: S510
DRAWING BY: KJF/FTP
CHECKED BY: ADL
DESIGNED BY: FTP

SHEET TITLE:
**STRUCTURAL DETAILS**

SHEET NUMBER:
**S510**
SHEET 90 OF 105 10/31/2025

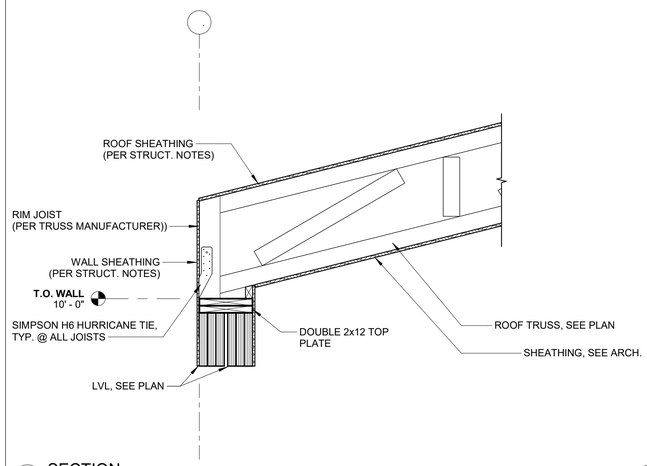



1 SECTION
3/4" = 1'-0"

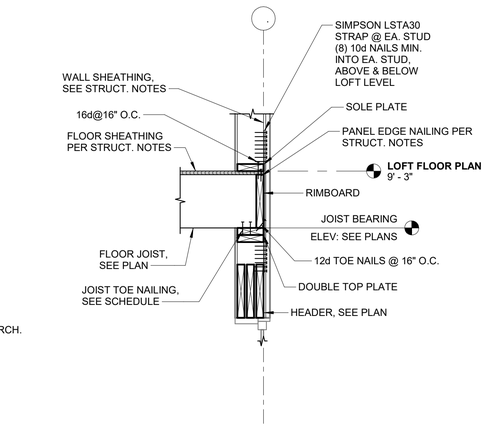



2 SECTION
3/4" = 1'-0"

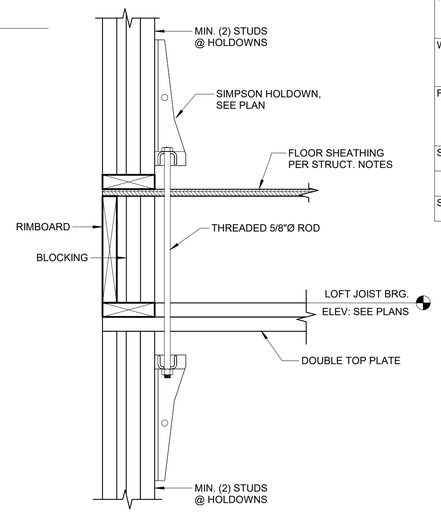
| FASTENING SCHEDULE | | | |
|---|---|---|---|
| **LOCATION** | **DESCRIPTION OF BUILDING ELEMENTS** | **NUMBER AND TYPE OF FASTENER** | **SPACING AND LOCATION** |
| ROOF | 1. Blocking between ceiling joists, rafters or trusses to top plate or other framing below | 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3"14 gage staples, 7/16" crown | Each end, toenail |
| ROOF | 2. Ceiling joists to top plate | 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, 7/16" crown | Each joist, toenail |
| ROOF | 3. Rafter or roof truss to top plate | 3-10 common (3" × 0.148"); or 3-16d box (31/2" × 0.135"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131 nails; or 4-3" 14 gage staples, 7/16" crown | Toenail |
| WALL | 5. Stud to stud (not at braced wall panels) | 16d common (3 1/2" × 0.162"); | 16d common (31/2" × 0.162"); |
| | | 10d box (3" × 0.128"); or 3" × 0.131" nails; or 3-3" 14 gage staples, 7/16" crown | 16" o.c. face nail |
| WALL | 6. Top plate to top plate | 16d common (3 1/2" × 0.162"); or | 16" o.c. face nail |
| | | 10d box (3" × 0.128"); or 3" × 0.131" nails; or 3" 14 gage staples, 7/16" crown | 12" o.c. face nail |
| WALL | 7. Top plate to top plate, at end joints | 8-16d common (3 1/2" × 0.162"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails; or 12-3" 14 gage staples, 7/16" crown | Each side of end joint, face nail (minimum 24" lap splice length each side of end joint) |
| WALL | 9. Top or bottom plate to stud | 2-16d common (3 1/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, 7/16" crown | End nail |
| WALL | 10. Top plates, laps at corners and intersections | 2-16d common ( 31/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, 7/16" crown | Face nail |
| FLOOR | 11. Joist to sill, top plate, or girder | 3-8d common (2 1/2" × 0.131"); or floor 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails; or 3-3" 14 gage staples, 7/16" crown | Toenail |
| SHEATHING | 12. 3/8" – 1/2" | 10d common (3" × 0.148") (wall) | EDGES 4" / ITERMEDIATE SUPPORTS 4" |
| | | 8d common (2 1/2" x 0.131") (subfloor) | EDGES 6" / ITERMEDIATE SUPPORTS 6" |
| SHEATHING | 13. 19/32" – 3/4" | 10d common (3" × 0.148") | EDGES 6" / ITERMEDIATE SUPPORTS 6" |



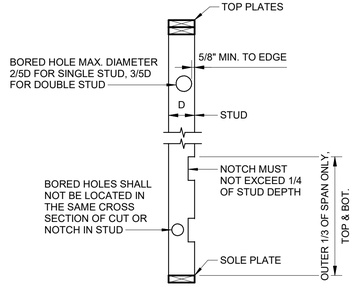

3 SECTION
3/4" = 1'-0"



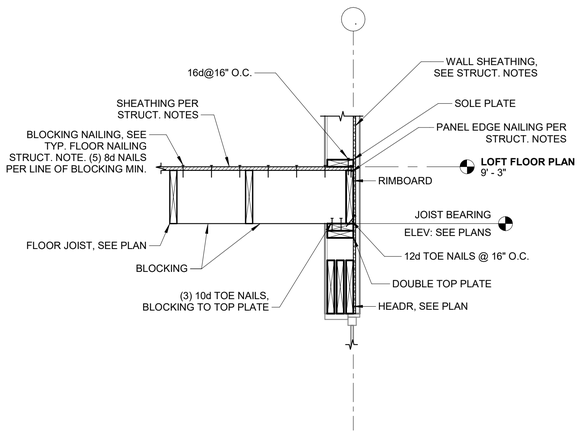

4 SECTION
3/4" = 1'-0"



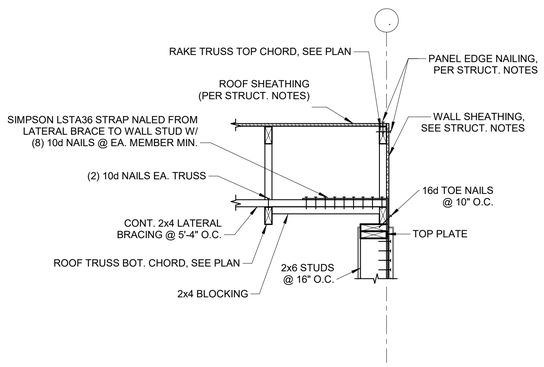

5 HOLDOWN AT TRUSS BEARING
1 1/2" = 1'-0"



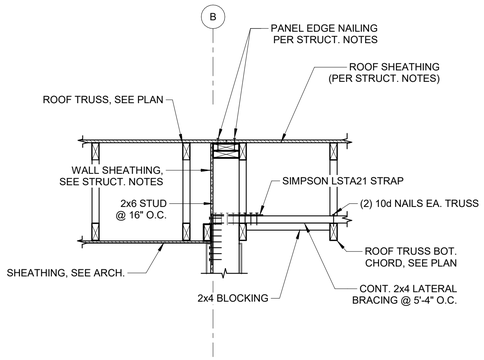

9 NOTCHING & BORED HOLES IN EXTERIOR OR BEARING WALLS
3/4" = 1'-0"




7 SECTION
3/4" = 1'-0"




8 SECTION
3/4" = 1'-0"




10 SECTION
3/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI · REGISTERED ENGINEER · ALAN D. LUKENS NUMBER E-2001020814 · PROFESSIONAL ENGINEER

DATE: 10/31/2025

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**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

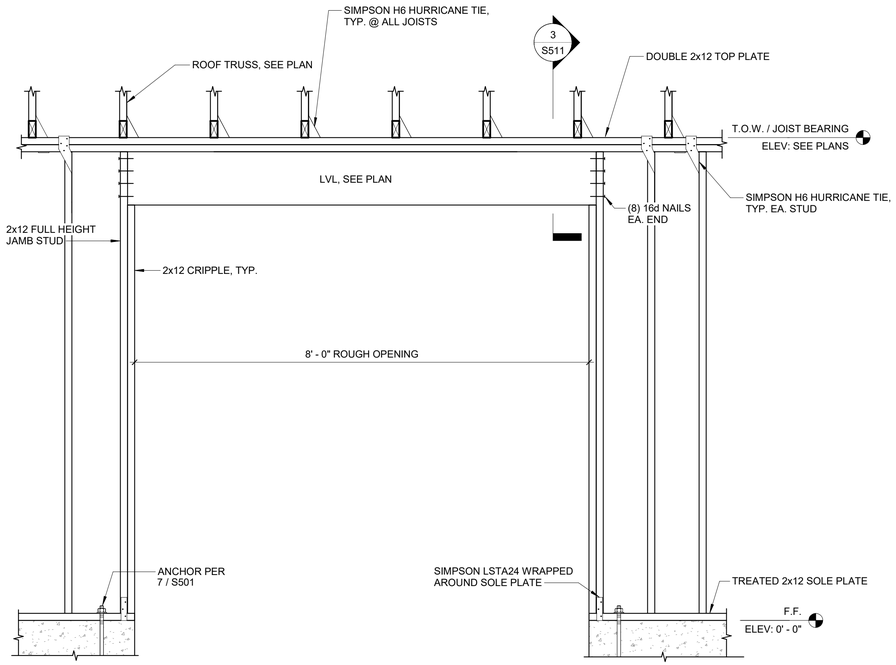
PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

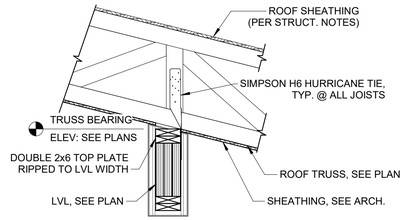
CAD DWG FILE: S511
DRAWING BY: FTP
CHECKED BY: ADL
DESIGNED BY: FTP

SHEET TITLE:
**STRUCTURAL DETAILS**

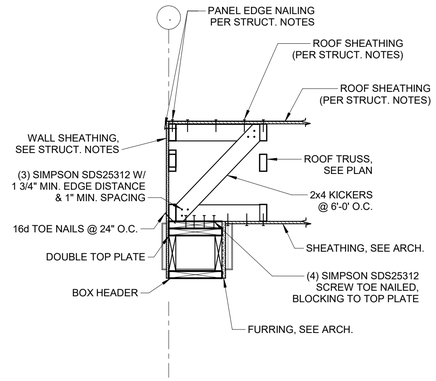
SHEET NUMBER:
**S511**



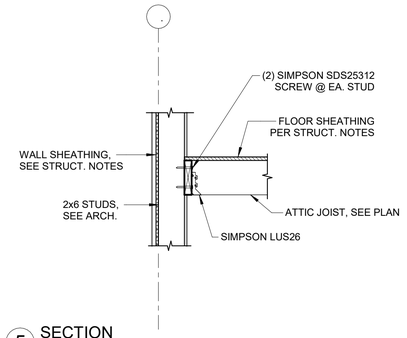

1 PLAZA GIRDER ELEVATION
3/4" = 1'-0"



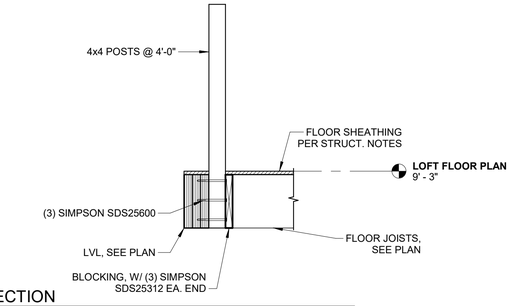

3 SECTION
3/4" = 1'-0"



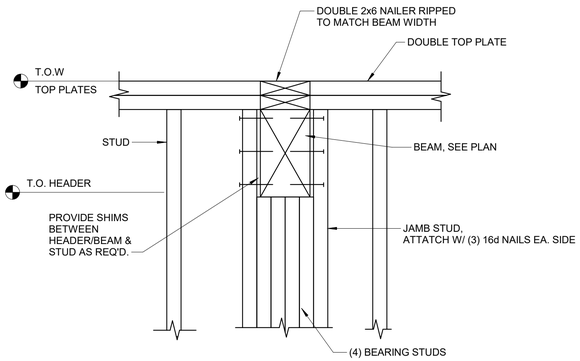

4 SECTION
3/4" = 1'-0"



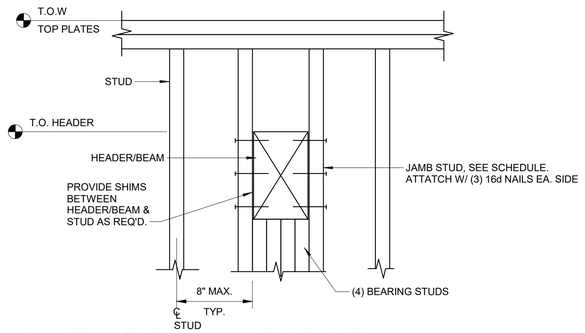

5 SECTION
3/4" = 1'-0"



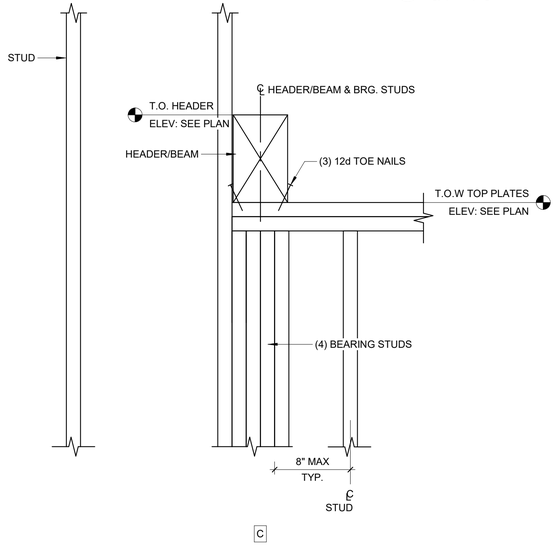

6 SECTION
3/4" = 1'-0"




A - HEADER BEARING PERPENDICULAR TO WALL
1 1/2" = 1'-0"




B - HEADER BEARING PERPENDICULAR TO WALL
1 1/2" = 1'-0"




C - HEADER BEARING PERPENDICULAR TO WALL
1 1/2" = 1'-0"

2 HEADER BEARING DETAILS
1 1/2" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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**LA GRANGE, MO 63448**

PROJECT # X2404-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
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REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: S512
DRAWING BY: FTP
CHECKED BY: ADL
DESIGNED BY: FTP

SHEET TITLE:
**STRUCTURAL DETAILS**

SHEET NUMBER:
**S512**
SHEET 92 OF 105 10/31/2025

## GENERAL PLUMBING NOTES:

1. ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND REGULATIONS.
2. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, ACCESSORIES, TOOLS, EQUIPMENT, TRANSPORTATION, LABOR, SERVICES AND OPERATIONS NECESSARY FOR A COMPLETE PLUMBING SYSTEM INCLUDING FIXTURES, SANITARY SEWERS, CLEANOUTS, WATER SUPPLY PIPING, AND NATURAL GAS PIPING.
3. ALL DOMESTIC WATER HEATING SYSTEMS SHALL BE SET TO MAINTAIN A MINIMUM OF 140°F AND HOT WATER CIRCULATION SYSTEMS SHALL BE SET TO MAINTAIN A RETURN WATER TEMPERATURE OF 130°F UNLESS NOTED OTHERWISE.
4. PLUMBING CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ARRANGE FOR ALL INSPECTIONS REQUIRED BY STATE OR LOCAL AUTHORITIES.
5. MATERIALS MUST BE NEW, IN FIRST CLASS CONDITION.
6. WORK SHALL BE DONE BY TRAINED, EXPERIENCED, SKILLED, JOURNEYMAN UNDER AN APPROVED FULL TIME SUPERVISOR. WORK SHALL BE PERFORMED IN A NEAT WORKLIKE MANNER.
7. PIPE INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES.
8. PIPING SHALL BE SEPARATELY HUNG AND ANCHORED, FREE TO EXPAND AND CONTRACT QUIETLY, WITHOUT IMPOSING STRAINS ON STRUCTURE, PIPING, VALVES, DEVICES, AND EQUIPMENT. PIPING SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
9. CONNECTIONS BETWEEN DISSIMILAR METALS SHALL BE SEPARATED BY DIELECTRIC COUPLINGS
10. CONTRACTOR SHALL PERFORM EXCAVATION REQUIRED TO INSTALL HIS WORK.
11. PIPING, ETC., SHALL BE TESTED TO AT LEAST 125 PSI.
12. PIPE HANGERS AND SUPPORTS SHALL MEET THE LOCAL SEISMIC REQUIREMENTS.
13. PROVIDE BALL VALVE ON PIPES TO EACH GROUP OF FIXTURES OR TO EACH PIECE OF EQUIPMENT.
14. PLUMBING CONTRACTOR SHALL INSTALL GAS PIPING TO WITHIN 2' OF EACH APPLIANCE AND TERMINATE WITH A GAS COCK. HVAC CONTRACTOR TO MAKE FINAL CONNECTION.
15. LOCATE ALL SHUT-OFFS, CLEANOUTS, AND OTHER DEVICES REQUIRING ACCESS IN AN EASILY ACCESSIBLE AREA.
16. DRAWINGS ARE SCHEMATIC AND SHOW APPROXIMATE LOCATIONS OF PIPING. EXACT LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR AND VERIFIED IN THE FIELD PRIOR TO ROUGH-IN.
17. PLUMBING CONTRACTOR SHALL COORDINATE ALL PLUMBING VENTS THROUGH ROOFS WITH HVAC EQUIPMENT AND BUILDING OPENINGS TO ENSURE CODE COMPLIANCE WITH MINIMUM SEPARATION DISTANCES.
18. SEE ARCHITECTURAL SHEET FOR FIRE RATED CONSTRUCTION LOCATIONS. ALL PLUMBING PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE UL LISTED OF EQUAL OR GREATER HOUR RATING.

### PLUMBING AND PIPING SYMBOLS

PIPE SIZE TAG (DIAMETER) — 2"
ABOVE GROUND PIPING
PIPE SLOPE TAG — 1/8" / 12" SLOPE
BELOW GROUND PIPING
PIPE INVERT ELEVATION TAG — INV. ELEV:-5' - 0 127/128"
EXISTING PIPE TAG:)
PIPING BEING DEMOLISHED
NATURAL GAS — G
COMPRESSED AIR — CA
CONDENSATE DRAINAGE — CD
DOMESTIC COLD WATER — CW
DOMESTIC HOT WATER — HW
DOMESTIC HOT WATER-CIRCULATING — HWC
GREASE VENT — GV
GREASE WASTE — GW
SANITARY VENT — V-
SANITARY SEWER — SS
STORM DRAINAGE — SD
STORM DRAINAGE-OVERFLOW — OSD
PIPE DROP
PIPE RISE
PIPE TEE
CAP
PLUG
REDUCING 45 DEGREE TEE
45 DEGREE TEE
2" 4" 4" 4"
MOTORIZED CONTROL VALVE
THREE WAY MOTORIZED CONTROL VALVE
PRESSURE REDUCING VALVE
BUTTERFLY VALVE
CONNECT TO EXISTING
DOMESTIC WATER METER
FLOW MEASURING AND BALANCING DEVICE
BALL VALVE
CHECK VALVE
THREE WAY VALVE

## GENERAL HVAC NOTES:

1. ALL MECHANICAL INSTALLATIONS SHALL CONFORM TO NFPA 90A, SMACNA, ASHRAE AND ALL OTHER STATE AND LOCAL CODES.
2. UPON COMPLETION OF CONSTRUCTION, REPLACE ALL FILTERS.
3. ALL 90 DEGREE BENDS IN AIR DUCTS SHALL HAVE TURNING VANES. VANES SHALL BE SINGLE THICKNESS WITH RADIUS = 4.5" AND SPACING = 2.25".
4. ALL MAIN AND BRANCH DUCTS SHALL BE RECTANGULAR GALV. STEEL SIZED AS NOTED ON THE PLANS. SIZE SHALL REFER TO UNOBSTRUCTED INTERNAL AIRFLOW AREA. DUCTWORK SHALL BE MOUNTED TIGHT TO JOISTS ABOVE OR RUN IN SPACE BETWEEN JOISTS, U.N.O. CLEARANCES FROM FINISH FLOOR SHALL BE MAXIMIZED WHERE POSSIBLE.
5. ALL RUNOUTS TO DIFFUSERS SHALL HAVE A VOLUME CONTROL DAMPER AT THE CONNECTION TO THE BRANCH OR MAIN DUCT.
6. FLEXIBLE DUCT SHALL BE A MAXIMUM OF FIVE (5) FEET IN LENGTH AND SHALL BE ROUTED TO MINIMIZE LENGTH WITH NO KINKS OR SHARP BENDS.
7. CONTRACTOR SHALL CONNECT RUNOUT TO CONTRACTOR FABRICATED BOOT AS NECESSARY TO ACCOMMODATE DIFFUSER.
8. A FLEXIBLE CONNECTION BETWEEN MECHANICAL UNITS AND BOTH THE SUPPLY AND RETURN AIR DUCTWORK IS REQUIRED FOR VIBRATION ISOLATION AND NOISE REDUCTION.
9. BALANCE ALL MECHANICAL EXHAUST, MAKE-UP AIR, HEATING AND AIR CONDITIONING SYSTEMS WITHIN 10% OF THE FLOWRATES NOTED ON PLANS.
10. INSULATE DUCTWORK AS REQUIRED IN THE SPECIFICATIONS.
11. SERVICE OPENINGS SHALL BE LOCATED IN THE DUCTWORK BEFORE AND AFTER EACH TURNING VANE. SEE SPECIFICATIONS AND NFPA 90A FOR LOCATIONS OF ADDITIONAL ACCESS DOORS AND PANEL REQUIRED THROUGHOUT THE AIR DISTRIBUTION SYSTEM.
12. ROUTE DUCTWORK BETWEEN JOISTS WHERE POSSIBLE TO INCREASE CLEARANCES BELOW.
13. LEAVE ADEQUATE SPACE FOR INSTALLATION OF PLUMBING PIPES. COORDINATE WITH PLUMBING CONTRACTOR.

### HVAC SYMBOLS

SQUARE DUCT SIZE TAG (WIDTH x HEIGHT) — 16"x8"
EXISTING DUCT TAG — (E)
DUCT BEING DEMOLISHED
SUPPLY AIR — SA
OUTSIDE AIR — OA
RETURN AIR — RA
EXHAUST AIR — EA
AIR INLET/OUTLET
GRILLES, REGISTERS, AND DIFFUSERS TAG — TYPE (SEE SCHEDULE) — CFM 500
MECHANICAL EQUIPMENT — AHU-8

| | | | |
|---|---|---|---|
| TEMPERATURE & HUMIDITY SENSOR | TH | CO2 | CARBON DIOXIDE SENSOR |
| TEMPERATURE SENSOR | TS | CO | CARBON MONOXIDE SENSOR |
| THERMOSTAT | T | NO2 | NITROGEN DIOXIDE SENSOR |
| MANUAL SWITCH | SW | HS | HUMIDITY SENSOR |
| SENSOR | S | H | HUMIDISTAT |

MANUAL BALANCING DAMPER
BAROMETRIC DAMPER (BACKDRAFT)
MOTORIZED CONTROL DAMPER (OPPOSED BLADE) — M
MOTORIZED CONTROL DAMPER (PARALLEL BLADE) — M
FIRE DAMPER (FUSIBLE LINK) — F
SMOKE DAMPER (FIRE ALARM CONNECTION) — S — F
COMBINATION FIRE/SMOKE DAMPER (FUSIBLE LINK AND FIRE ALARM CONNECTION) — C — F
CONNECT TO EXISTING

## GENERAL ELECTRICAL NOTES:

1. APPLICABLE STANDARDS: NFPA-70, NFPA-101, STATE BUILDING CODES, AND THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) OF 1971 AND ALL AMENDMENTS THERETO; EQUIPMENT, DEVICES, APPARATUS, SYSTEMS, AND INSTALLATIONS SHALL BE ENTIRELY SUITABLE AND SAFE FOR EACH INTENDED APPLICATION AND BE IN FULL COMPLIANCE WITH APPLICABLE STANDARDS, REQUIREMENTS, RULES, REGULATIONS, CODES, STATUTES, ORDINANCES, ETC., OF MUNICIPAL, COUNTY, AND STATE GOVERNMENTS, OWNER'S INSURANCE COMPANY, LOCAL UTILITIES, AND LABOR REGULATIONS. NOTHING CONTAINED IN THESE PLANS AND SPECIFICATIONS SHALL BE CONSTRUED TO CONFLICT WITH THESE LAWS, CODES, AND ORDINANCES.
2. DRAWINGS ARE SCHEMATIC AND SHOW APPROXIMATE LOCATIONS OF ELECTRICAL EQUIPMENT. EXACT LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR AND VERIFIED IN THE FIELD PRIOR TO ROUGH-IN.
3. INSTALLATIONS WHICH INCLUDE ELECTRICAL FIXTURES, DEVICES, CONDUIT, SWITCHES, PANELS, HANGERS, WIRE, CABLE, STANDARDS, ETC., MUST BE ENTIRELY SUITABLE FOR TEMPERATURES, HUMIDITY, DAMP AREAS, VOLTAGE, FREQUENCY, AND ALL INSTALLATION CONDITIONS ENCOUNTERED.
4. INSTALLATION MUST BE ENTIRELY SAFE IN EVERY RESPECT, AND MUST NOT CREATE ANY CONDITIONS OF ANY KIND WHICH WILL BE HARMFUL TO ANY OCCUPANT OF THE BUILDING. IF CONTRACTOR BELIEVES THAT INSTALLATION WILL NOT BE SAFE FOR ALL PEOPLE, HE/SHE SHALL SO REPORT IN WRITING TO ENGINEER BEFORE ANY EQUIPMENT IS PURCHASED OR WORK IS INSTALLED, GIVING EXACT RECOMMENDATIONS, AND REASONS FOR THEM.
5. GROUNDING: ALL GROUNDING SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC).
6. INSTALLATION OF ELECTRICAL DEVICES SHALL BE COORDINATED WITH OTHER TRADES AS NECESSARY TO PREVENT ANY CONFLICTS DURING CONSTRUCTION.
7. LOW VOLTAGE CONDUIT AND JUNCTION BOXES SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
8. WHERE PHONE/DATA OUTLET LOCATIONS ARE INDICATED INSTALL 1" EMT FROM OUTLET BOX (4"X4"X1 1/2"MIN.) TO TOP OF FINISHED WALL (ABOVE ACT CEILING). FOR OUTLETS LOCATED IN SURFACE MOUNTED RACEWAY, PROVIDE (2) 1" EMT FROM SURFACE RACEWAY BACK BOX TO ABOVE ACT CEILING.
9. WHERE THERMOSTAT LOCATIONS ARE SHOWN, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A RECESSED WALL BOX WITH CONDUIT TO AN ACCESSIBLE LOCATION. IN AREAS WHERE SURFACE MOUNTED BOXES ARE REQUIRED, A SURFACE MOUNTED BOX AND CONDUIT TO 10' AFF SHALL BE PROVIDED (OR TO THE EQUIPMENT LOCATION, WHICHEVER IS CLOSER). THERMOSTAT INSTALLATION AND THE CORRESPONDING LOW VOLTAGE THERMOSTAT WIRING SHALL BE BY THE MECHANICAL CONTRACTOR.
10. LIGHTING: FURNISH AND INSTALL ALL LIGHTING FIXTURES COMPLETE WITH LAMPS IN ACCORDANCE WITH THE LIGHTING FIXTURE SCHEDULE SHOWN ON THE DRAWINGS. ALL UNITS SHALL BE COMPLETE WITH SUSPENSION ACCESSORIES, CANOPIES, SOCKETS, LOUVERS, FRAMES, AND ROUGH-IN BOXES, WIRED AND ASSEMBLED TO FURNISH A COMPLETE WORKABLE SYSTEM.
11. EQUIPMENT GROUNDING CONDUCTORS SHALL BE PULLED WITH ALL BRANCH CIRCUITS. CONDUIT SHALL NOT BE USED AS A GROUND U.N.O.
12. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, ACCESSORIES, TOOLS, EQUIPMENT, TRANSPORTATION, LABOR, SERVICES AND OPERATIONS NECESSARY FOR A COMPLETE ELECTRICAL SYSTEM.
13. ELECTRICAL CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ARRANGE FOR ALL INSPECTIONS REQUIRED BY STATE OR LOCAL AUTHORITIES.
14. MATERIALS MUST BE NEW, IN FIRST CLASS CONDITION.
15. CONDUIT SHALL BE SEPARATELY HUNG AND ANCHORED, FREE TO EXPAND AND CONTRACT QUIETLY, WITHOUT IMPOSING STRAINS ON STRUCTURE, DEVICES, AND EQUIPMENT. CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
16. CONTRACTOR SHALL PERFORM EXCAVATION REQUIRED TO INSTALL HIS WORK.
17. SEE ARCHITECTURAL SHEET FOR FIRE RATED CONSTRUCTION LOCATIONS. ALL ELECTRICAL PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE UL LISTED OF EQUAL OR GREATER HOUR RATING.
18. SEE ARCHITECTURAL SHEETS FOR SMOKE PARTITION LOCATIONS. ALL SPACES AROUND ELECTRICAL PENETRATIONS THOUGH A SMOKE PARTITION SHALL BE FILLED WITH AN APPROVED MATERIAL TO LIMIT THE FREE PASSAGE OF SMOKE.

### ELECTRICAL SYMBOLS

LOW VOLTAGE POWER CIRCUIT
LINE VOLTAGE POWER CIRCUIT
CONDUIT SIZE AND TYPE — 2"ø EMT
SURFACE MOUNTED RACEWAY — SR
CONDUIT TRANSITION UP
CONDUIT TRANSITION DOWN
BRANCH CIRCUIT HOME RUN
UNDERGROUND ELECTRICAL — UE
UNDERGROUND HIGH VOLTAGE ELECTRICAL — UHVE
UNDERGROUND TELEPHONE — UT
UNDERGROUND COMMUNICATIONS — UCOM
UNDERGROUND CABLE TELEVISION (CATV OR CCTV) — UTV
UNDERGROUND FIBER OPTIC — UFIBR
OVERHEAD ELECTRIC — OHE
OVERHEAD TELEPHONE — OHT
DATA RECEPTACLE
PHONE RECEPTACLE
DUAL DATA/PHONE RECEPTACLE
MULTIPLE DATA/PHONE RECEPTACLE
WIRELESS ACCESS POINT
CABLE TELEVISION OUTLET
THERMOSTAT — T
REMOTE TEMPERATURE SENSOR — TS
HUMIDISTAT — H
CARBON DIOXIDE SENSOR — CO2
CARBON MONOXIDE SENSOR — CO
CEILING MOUNT SMOKE ALARM
CONNECT TO EXISTING

SINGLE RECEPTACLE
STANDARD DUPLEX RECEPTACLE
EMERGENCY POWER DUPLEX RECEPTACLE
DUPLEX RECEPTACLE WITH ISOLATED GROUND
DUPLEX RECEPTACLE INSTALLED ABOVE COUNTER — AC
DUPLEX RECEPTACLE INSTALLED AT DISTANCE ABOVE FINISHED FLOOR — 4F
DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER — GFCI
DUPLEX CEILING RECEPTACLE — CMC
DUPLEX GFCI RECEPTACLE WITH WEATHERPROOF ENCLOSURE — GFCI WP
DUPLEX GFCI RECEPTACLE WITH DUPLEX USB CHARGER — GFCI USB
FOURPLEX RECEPTACLE
FOURPLEX EMERGENCY RECEPTACLE
208/240 VOLT 2-POLE RECEPTACLE
FLOOR RECEPTACLE (FOURPLEX SHOWN)
SINGLE POLE SWITCH — S
3-WAY SWITCH — S3
4-WAY SWITCH — S4
DIMMER SWITCH — SD
KEYED SWITCH — S2
TIMER SWITCH — ST
OCCUPANCY SENSOR SWITCH — SOS
VACANCY SENSOR SWITCH — SVS
LOW VOLTAGE SWITCH — SLV
LOW VOLTAGE SWITCH WITH DIMMING — SLVD
FAN SPEED CONTROL SWITCH — SFS
MOTOR HORSEPOWER RATED SWITCH — SHP
HAND/OFF/AUTO SWITCH — SHOA
LIGHTING CONTROL POWER PACK — PP
LIGHTING CONTROL ROOM CONTROLLER — RC
WALL MOUNT OCCUPANCY SENSOR AT DISTANCE ABOVE FINISHED FLOOR (SENSOR TYPE UNSPECIFIED) — 48"
WALL MOUNT OCCUPANCY SENSOR PASSIVE INFRARED — PI
WALL MOUNT OCCUPANCY SENSOR PASSIVE INFRARED — US
WALL MOUNT OCCUPANCY DUAL TECHNOLOGY — DT
CEILING MOUNT OCCUPANCY SENSOR — PI
PHOTOCELL LIGHT LEVEL SENSOR — PC
TIME CLOCK — TC
JUNCTION BOX WALL MOUNTED A DISTANCE ABOVE FINISHED FLOOR — 3/4
JUNCTION BOX CEILING MOUNTED — CMC
JUNCTION BOX RECESSED IN FLOOR
CONDUIT PULL BOX — PB
SAFETY DISCONNECT SWITCH (FUSED)
SAFETY DISCONNECT SWITCH (NON-FUSED)
CIRCUIT BREAKER PANEL
MOTOR (SEE SCHEDULE) — M

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI — ANTHONY LOUIS DIEWOLD — NUMBER PE-2016000028 — PROFESSIONAL ENGINEER
10-21-2025


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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS

REBID 10 PREMIUM SITES AND 6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

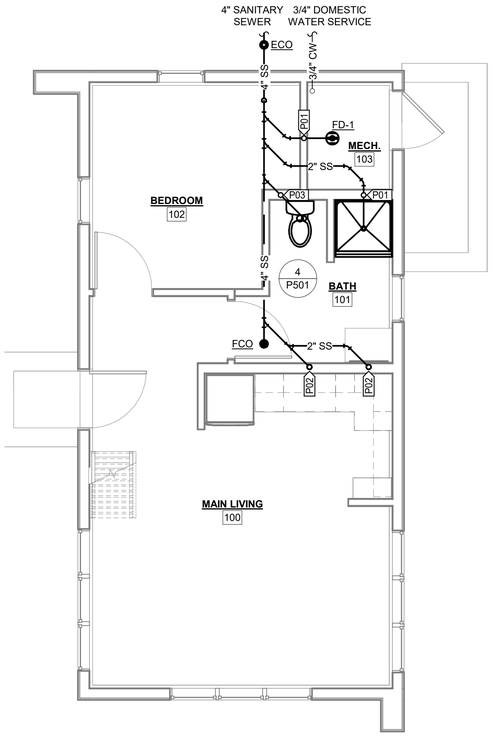
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: MEP001
DRAWING BY: ALD
CHECKED BY: ALD
DESIGNED BY: ALD

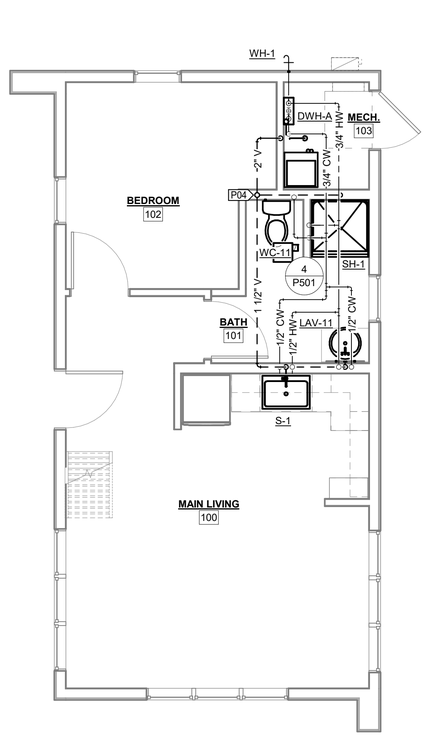
SHEET TITLE:
MEP GENERAL NOTES & SYMBOLS

SHEET NUMBER:
MEP001
SHEET 93 OF 105 10/31/2025

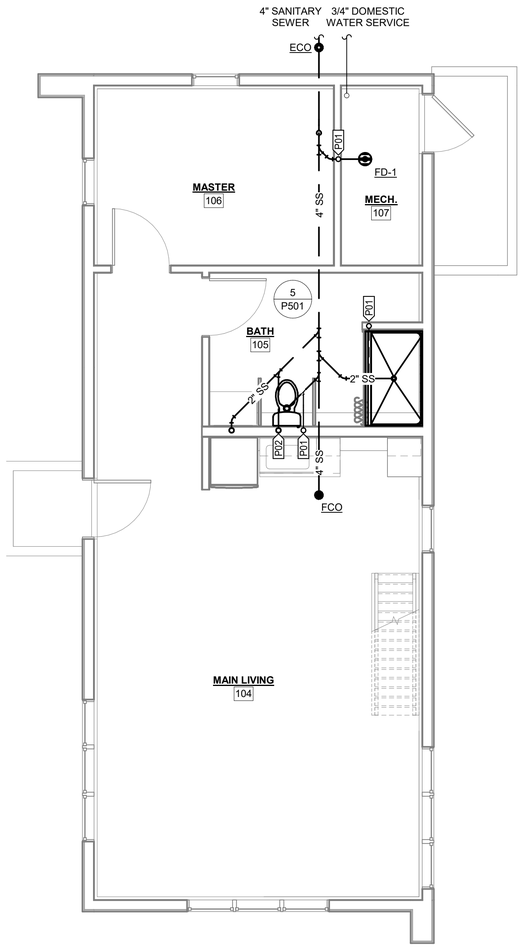
| KEYNOTE LEGEND | |
|---|---|
| VALUE | DESCRIPTION |
| P01 | ROUTE 2" V UP IN WALL. |
| P02 | ROUTE 2" SS UP IN WALL. |
| P03 | ROUTE 4" MAIN VENT UP IN WALL. |
| P04 | ROUTE 4" MAIN VENT UP THROUGH ROOF. |



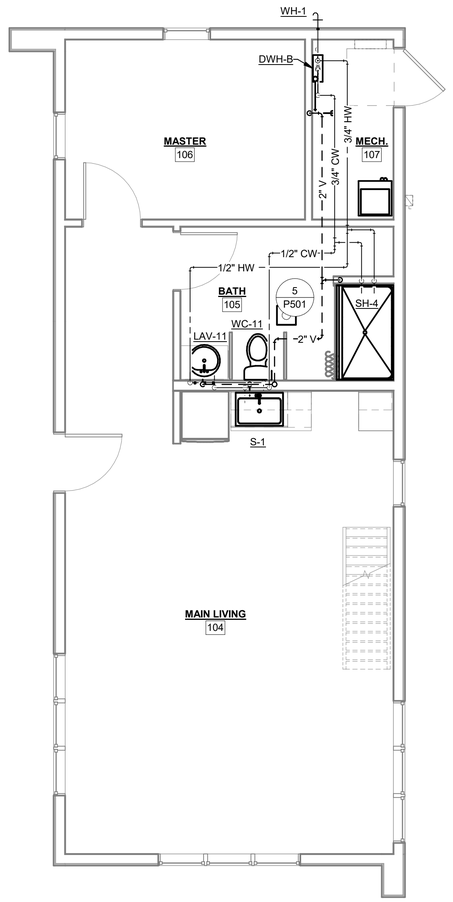

1 UNDERFLOOR PLUMBING PLAN - A
1/4" = 1'-0"




2 ABOVE FLOOR PLUMBING PLAN - A
1/4" = 1'-0"




3 UNDERFLOOR PLUMBING PLAN - B
1/4" = 1'-0"




4 ABOVE FLOOR PLUMBING PLAN - B
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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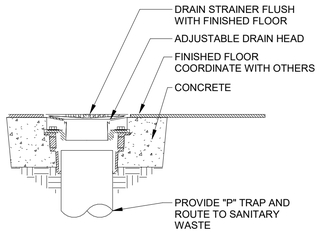
CAD DWG FILE: P101
DRAWING BY: ALD
CHECKED BY: ALD
DESIGNED BY: ALD

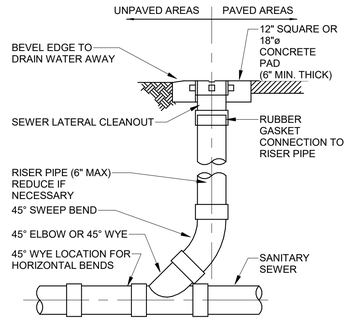
SHEET TITLE:
**PLUMBING PLANS**

SHEET NUMBER:
**P101**
SHEET 94 OF 105 10/31/2025



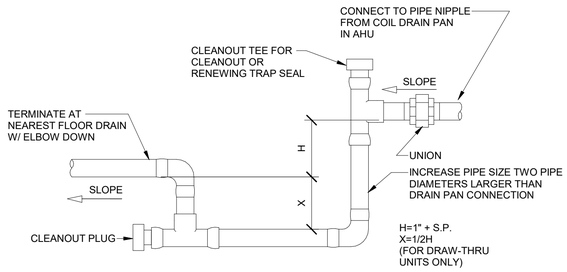

NOTE:
ALL FLOOR DRAINS SHALL BE VENTED PER CODE.

1 FLOOR DRAIN DETAIL
NTS

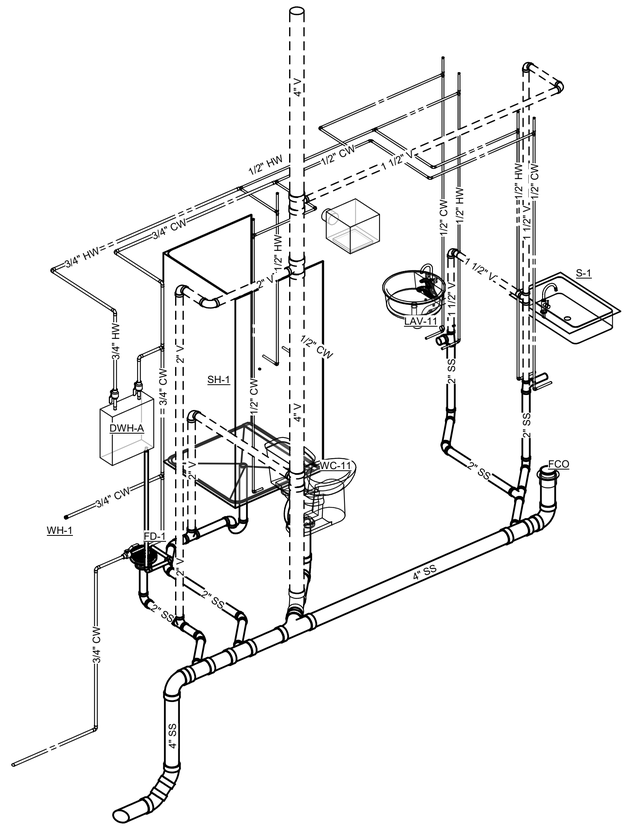



NOTE:
PIPE MATERIAL TO BE SAME AS SANITARY SEWER.

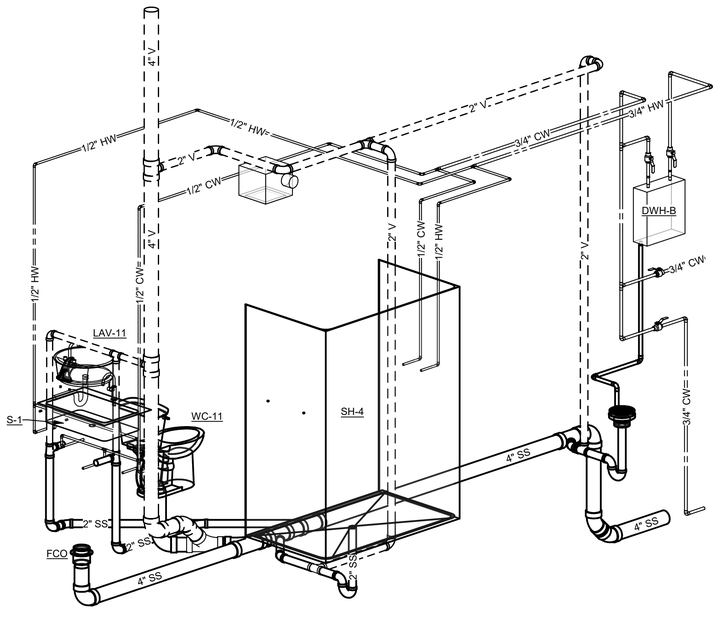
2 EXTERIOR CLEANOUT DETAIL
NTS




3 CONDENSATION DRAIN
NTS




4 PLUMBING 3D-VIEW - PLAN A
NTS




5 PLUMBING 3D-VIEW - PLAN B
NTS

## WATER HEATER SCHEDULE

| TAG | DESCRIPTION | HEATING ELEMENT | | RATINGS | | ELECTRICAL | | | | BASIS OF DESIGN | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | HEATING CAP. | UEF | MAX. PRES. | MAX. TEMP. | VOLT | POLES | FLA | MOP | MAKE | MODEL | WEIGHT | |
| DWH-A | ELECTRIC TANKLESS WATER HEATER | 32 kW | 4.4 | 100.0 psig | 140 °F | 208 V | 1 | 135 A | 70 A | AO SMITH | C4MA-320E | 50 lb | UNIT REQUIRES TWO (2) 70 A BREAKERS |
| DWH-B | ELECTRIC TANKLESS WATER HEATER | 32 kW | 4.4 | 100.0 psig | 140 °F | 208 V | 1 | 135 A | 70 A | AO SMITH | C4MA-320E | 50 lb | UNIT REQUIRES TWO (2) 70 A BREAKERS |

## PLUMBING FIXTURE SCHEDULE

| TAG | ADA | TYPE | DESCRIPTION | ROUGH-IN PIPE SIZE | | | | | BASIS OF DESIGN | | ACCESSORIES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CW | HW | SS | V | SD | MAKE | MODEL | TYPE | DESCRIPTION | BASIS OF DESIGN MAKE | BASIS OF DESIGN MODEL |
| ECO | No | EXTERIOR CLEANOUT | ADJUSTABLE, CAST IRON BODY DUCTILE IRON TOP & BRONZE PLUG, TWO-WAY CLEANOUT FITTING | | | 4" | | | ZURN<br>JAY R. SMITH<br>SIOUX CHIEF | Z-1400<br>4233<br>834 | | | | |
| FCO | Yes | FLOOR CLEANOUT | ADJUSTABLE, CAST IRON BODY W/ POLISHED NICKEL BRONZE TOP & BRONZE PLUG | | | 4" | | | ZURN<br>JAY R. SMITH<br>MIFAB | ZN-1400<br>4021S<br>C1220 | | | | |
| FD-1 | Yes | FLOOR DRAIN | CAST IRON BODY, ADJUSTABLE, NO-HUB CONNECTION | | | 2" | 2" | | ZURN<br>JAY R. SMITH<br>SIOUX CHIEF | ZN-415B<br>2005Y<br>832-NR | STRAINER | HEEL PROOF, POLISHED NICKEL BRONZE | | |
| LAV-11 | Yes | LAVATORY | INTEGRAL TO COUNTERTOP, REFER TO ARCHITECTURAL | 1/2" | 1/2" | 1-1/2" | 1-1/4" | | | | FAUCET | COMMERCIAL, CHROME FINISH, SINGLE HANDLE, CERAMIC DISC, 0.5 GPM, VANDAL RESISTANT AERATOR, WITH THERMOSTATIC POINT-OF-USE MIXING VALVE | DELTA<br>CHICAGO<br>GERBER | 22C101<br>420-ABCP<br>K-15583-4RA |
| S-1 | Yes | SINK | SINGLE BOWL, 15"x15"x6", 18 GA. TYPE 304 STAINLESS STEEL, FULL UNDERCOAT CENTER DRAIN | 1/2" | 1/2" | 1-1/2" | 1-1/2" | | ELKAY<br>JUST<br>ADVANCE TABCO | BLRQ1560<br>SL-1515-A-GR<br>DI-166 | FAUCET | SINGLE HOLE, SINGLE LEVER HANDLE, CERAMIC DISC, 1.8 GPM | ELKAY | LKAV3021 |
| SH-1 | No | SHOWER | ONE-PIECE FRP GELCOAT, 36"x36" CLEAR INTERIOR DIMENSIONS, 1/2" MAXIMUM THRESHOLD HEIGHT, STAINLESS STEEL CURTAIN ROD WITH END CUPS AND ANTIMICROBIAL SHOWER CURTAIN | 1/2" | 1/2" | 2" | 2" | | AQUATIC<br>OASIS<br>AQUARIUS | 1363CM<br>SHFW-3837/3SF<br>G-3679-SH-6.0 | SHOWER VALVE & SHOWER HEAD KIT | CHROME FINISH, PRESSURE ACTUATED, SINGLE HANDLE, ANGLE CHECKSTOPS, 1.5 GPM WITH ADJUSTABLE HEAD | LEONARD<br>CHICAGO FAUCET<br>ZURN | 1324<br>4500<br>G9-312<br>RP38357<br>H-16<br>G9-312 |
| SH-4 | Yes | SHOWER | ONE-PIECE FRP GELCOAT, 36"x60" CLEAR INTERIOR DIMENSIONS, 1/2" MAXIMUM THRESHOLD HEIGHT, ADA GRAB BARS, STAINLESS STEEL CURTAIN ROD WITH END CUPS AND ANTIMICROBIAL SHOWER CURTAIN | 1/2" | 1/2" | 2" | 2" | | AQUATIC<br>OASIS<br>AQUARIUS | 16037BFSD<br>SHFW-WX-6235/ADA/TL<br>G-6237-BF.75 | SHOWER TRIM KIT | CHROME FINISH, PRESSURE ACTUATED, SINGLE HANDLE, ANGLE CHECKSTOPS, 1.5 GPM WITH ADJUSTABLE HEAD, DIVERTER VALVE, REMOVABLE WAND, 24" SLIDE RAIL, | LEONARD<br>CHICAGO FAUCET<br>ZURN | 4505<br>SH-PB1-13-031<br>Z7302-SS-MT-DV2P-HW-H9-S9 |
| WC-11 | Yes | WATER CLOSET | ADA HEIGHT, FLOOR MOUNTED VITREOUS CHINA, PRESSURE-ASSISTED SIPHON ACTION, ELONGATED BOWL, W/ CLOSE COUPLED TANK | 1/2" | | 4" | 2" | | AMERICAN STANDARD<br>GERBER<br>SLOAN | CADET 2467.016<br>21-318<br>WETS-8029.8013-STG | SEAT | ELONGATED BOWL, HEAVY DUTY, OPEN FRONT, ANTI-MICROBIAL | AMERICAN STANDARD<br>BEMIS<br>ZURN | 5901.100SS<br>2155SSCT<br>Z5956SS-EL-AM-STS |
| WH-1 | No | WALL HYDRANT | EXTERIOR FROSTPROOF, ANTI-SIPHON, AUTOMATIC DRAINING, BACKFLOW PREVENTION, W/ LOOSE KEY | 3/4" | | | | | WOODFORD<br>ZURN<br>WATTS | 67<br>Z1320<br>HY42 | | | | |

**STATE OF MISSOURI**
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**BIDDING DOCUMENTS**

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NUMBER PE-2016000028
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10-31-25

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**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID 10 PREMIUM SITES AND 6 PREMIUM CABINS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

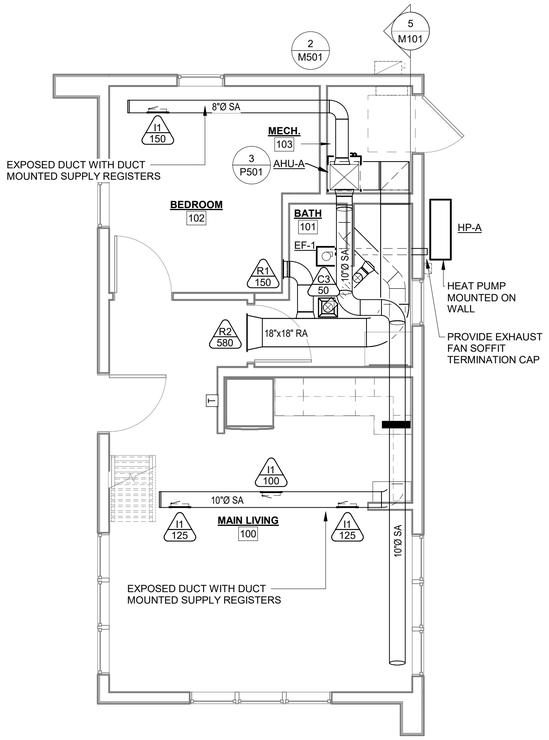
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

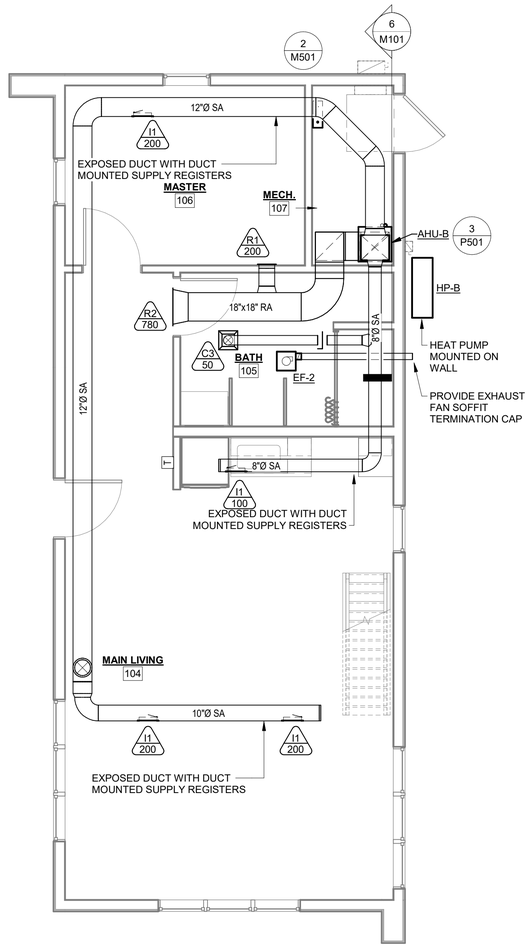
CAD DWG FILE: P501
DRAWING BY: ALD
CHECKED BY: ALD
DESIGNED BY: ALD

SHEET TITLE:
**PLUMBING DETAILS & SCHEDULES**

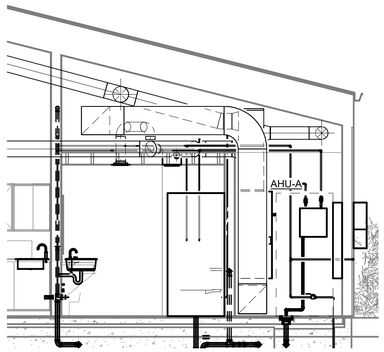
SHEET NUMBER:
**P501**
SHEET 95 OF 105 10/31/2025



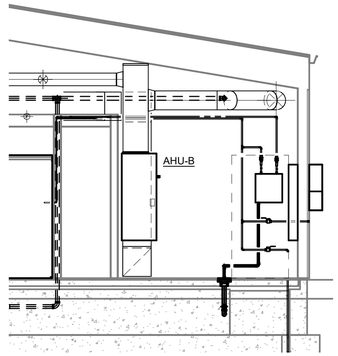

1 CABIN A - FIRST FLOOR HVAC PLAN
1/4" = 1'-0"



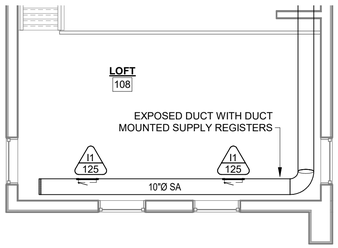

3 CABIN B - FIRST FLOOR HVAC PLAN
1/4" = 1'-0"



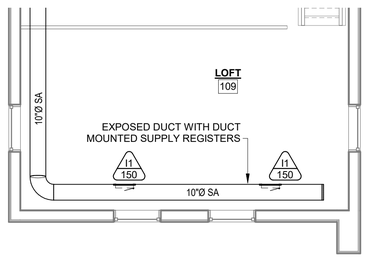

5 CABIN A - SECTION VIEW
NTS




6 CABIN B - SECTION VIEW
NTS




2 CABIN A - LOFT HVAC PLAN
1/4" = 1'-0"




4 CABIN B - LOFT HVAC PLAN
1/4" = 1'-0"

GENERAL NOTE:
1. ALL EXPOSED DUCT SHALL BE GALVANIZED PAINT GRIP AND PAINTED FLAT BLACK. COORDINATE WITH ARCHITECT.
2. PROVIDE REFRIGERANT PIPING FROM HEAT PUMP TO AIR HANDLING UNIT PER MANUFACTURER RECOMMENDATIONS.
3. ALL EXTERIOR REFRIGERANT PIPING INSULATION SHALL INCLUDE UV RESISTANT COVER.

**VENTILATION (IMC 2018)**

| NO. | ROOM NAME | AREA | VOLUME | NO. OF PEOPLE | IMC VENT. RATE | TOTAL VENT. | EXHAUST RATE | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| 100 | MAIN LIVING | 293 SF | 3339 CF | 0 | 0.35 ACH | 20 CFM | 100 CFM | KITCHEN EXHAUST FAN INTERMITTENT OPERATION |
| 101 | RESTROOM | 61 SF | 488 CF | 0 | 0.35 ACH | 3 CFM | 50 CFM | BATHROOM EXHAUST FAN INTERMITTENT OPERATION |
| 102 | MASTER | 111 SF | 886 CF | 2 | 15 CFM/PERSON | 30 CFM | 0 CFM | |
| 103 | MECH. | 25 SF | 274 CF | 0 | 0 CFM | 0 CFM | 0 CFM | |
| 104 | MAIN LIVING | 472 SF | 5416 CF | 0 | 0.35 ACH | 32 CFM | 100 CFM | KITCHEN EXHAUST FAN INTERMITTENT OPERATION |
| 105 | RESTROOM | 90 SF | 719 CF | 0 | 0.35 ACH | 4 CFM | 50 CFM | BATHROOM EXHAUST FAN INTERMITTENT OPERATION |
| 106 | MASTER | 120 SF | 961 CF | 2 | 15 CFM/PERSON | 15 CFM | 0 CFM | |
| 107 | MECH. | 41 SF | 439 CF | 0 | 0 CFM | 0 CFM | 0 CFM | |
| 201 | LOFT | 136 SF | 1057 CF | 1 | 15 CFM/PERSON | 15 CFM | 0 CFM | |
| 202 | LOFT | 166 SF | 1181 CF | 1 | 15 CFM/PERSON | 15 CFM | 0 CFM | |

NUMBER OF PEOPLE PER INTERNATIONAL MECHANICAL CODE TABLE 403.3.1.1 MINIMUM VENTILATION RATES

HEATING COOLING LOAD:
1. THE THERMAL ENVELOPE HAS BEEN MODELED IN TRACE 3D PLUS TO CALCULATE HVAC LOADS.
2. INDOOR TEMPERATURE SETPOINT MODELED IS 74°F.
3. COOLING DESIGN TEMPERATURES PER ASHRAE 1% ARE 90.1°F DB AND 75.3°F WB.
4. HEATING DESIGN TEMPERATURES PER ASHRAE 99.6% ARE -0.2°F DB AND -1.39°F WB.

N

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

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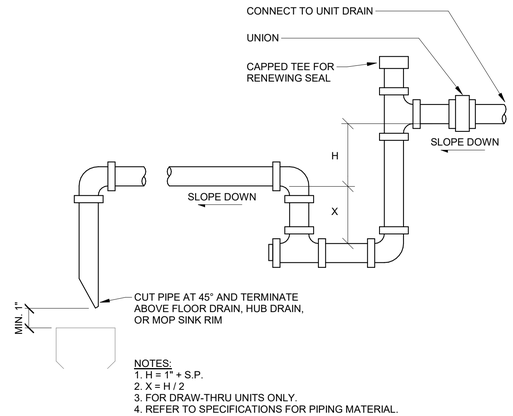
CAD DWG FILE: M101
DRAWING BY: ALD
CHECKED BY: ALD
DESIGNED BY: ALD

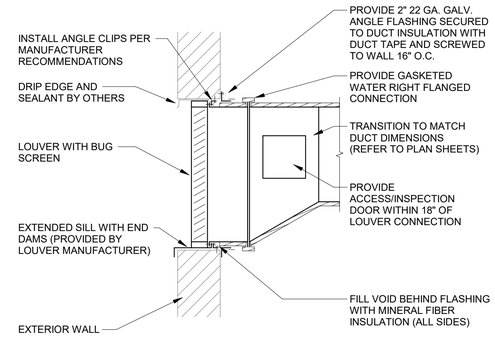
SHEET TITLE:
**MECHANICAL PLANS**

SHEET NUMBER:
**M101**
SHEET 96 OF 105 10/31/2025




NOTES:
1. H = 1" + S.P.
2. X = H / 2
3. FOR DRAW-THRU UNITS ONLY.
4. REFER TO SPECIFICATIONS FOR PIPING MATERIAL.

1 COOLING COIL CONDENSATION DRAIN DETAIL
NTS




NOTES:
1. FINAL COLOR SELECTION BY ARCHITECT SELECTION FROM MANUFACTURER CUSTOM COLOR OPTIONS.
2. PENETRATION FRAMING AND ALL FLASHING AND SEALANT PROVIDED BY OTHERS (COORDINATE WITH GENERAL CONTRACTOR).

2 LOUVER INSTALLATION DETAIL
NTS

**AIR HANDLING UNIT SCHEDULE**

| TAG | DESCRIPTION | SUPPLY FAN AIRFLOW | SUPPLY FAN EXT. STATIC PRESS. | FILTER | REFRIGERANT COIL COOL CAP. | REFRIGERANT COIL HEAT CAP. | AUX. ELECTRIC HEAT | ELECTRICAL VOLTAGE | ELECTRICAL PHASE | ELECTRICAL MCA | ELECTRICAL MOP | BASIS OF DESIGN MAKE | BASIS OF DESIGN MODEL | BASIS OF DESIGN WEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AHU-A | MULTIPOSITION AIR HANDLING UNIT WITH HYPER HEAT | 800 CFM | 1 in-wg | 2" DISPOSABLE MERV 8 | 24,000 Btu/h | 28,000 Btu/h | 5 kW | 240 V | 1 | 5 A | 15 A | MITSUBISHI | PVA | 150 lb | 1 |
| AHU-B | MULTIPOSITION AIR HANDLING UNIT WITH HYPER HEAT | 1,050 CFM | 1 in-wg | 2" DISPOSABLE MERV 8 | 36,000 Btu/h | 40,000 Btu/h | 10 kW | 240 V | 1 | 6 A | 15 A | MITSUBISHI | PVA | 175 lb | 1 |

1. PROVIDE 7-DAY PROGRAMMABLE COMMUNICATING THERMOSTAT WITH WIRELESS ACCESS.

**HEAT PUMP SCHEDULE**

| TAG | DESCRIPTION | REFRIGERANT TYPE | OUTDOOR AMBIENT SUMMER | OUTDOOR AMBIENT WINTER | COOLING CAP. | EFFICIENCY (SEER2) | HEATING CAP. | COP (47°F) | ELECTRICAL VOLTAGE | ELECTRICAL FREQ | ELECTRICAL PHASE | ELECTRICAL MCA | ELECTRICAL MOP | BASIS OF DESIGN MAKE | BASIS OF DESIGN MODEL | BASIS OF DESIGN WEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HP-A | OUTDOOR HEAT PUMP | R410A | 95 °F | -13 °F | 24,000 Btu/h | 19 | 26,000 Btu/h | 3.8 | 240 V | 60 Hz | 1 | 17 A | 25 A | MITSUBISHI | PUZ | 225 lb | 1-2 |
| HP-B | OUTDOOR HEAT PUMP | R410A | 95 °F | -13 °F | 36,000 Btu/h | 18.2 | 40,000 Btu/h | 3.9 | 240 V | 60 Hz | 1 | 24 A | 45 A | MITSUBISHI | PUZ | 300 lb | 1-2 |

1. PROVIDE WALL MOUNT HARDWARE AND INSTALL AT 4'-0" ABOVE GRADE.
2. INCLUDE DRAIN PAN HEATER AND WIND BAFFLES.

**GRILLES, REGISTERS, AND DIFFUSERS SCHEDULE**

| TAG | TYPE | DESCRIPTION | FACE SIZE WIDTH | FACE SIZE HEIGHT | CONNECTION SIZE RECTANGULAR WIDTH | CONNECTION SIZE RECTANGULAR HEIGHT | CONNECTION SIZE ROUND | MAX. AIRFLOW | MAX. TOTAL P.D. | THROW 150 FPM | THROW 100 FPM | THROW 50 FPM | MAX. NC | MATERIAL | FINISH | FRAME/BORDER | DAMPER | BASIS OF DESIGN MAKE | BASIS OF DESIGN MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C3 | SUPPLY DIFFUSER | ARCHITECTURAL, PLAQUE FACE | 12" | 12" | | | 6" | 220 CFM | 4 in-wg | 6' | 9' | 17' | 30 | ALUMINUM | WHITE | SURFACE | -- | TITUS KRUEGER PRICE | OMNI-AA | |
| I1 | SUPPLY REGISTER | DOUBLE DEFLECTION , 1/2" BLADE SPACE, FRONT BLADES PARALLELS WITH LONG DIMENSION | 13 1/2" | 6" | 12" | 4" | | 250 CFM | 0.31 in-wg | 9' | 11' | 16' | 30 | ALUMINUM | WHITE | DUCT | AIR SCOOP | TITUS KRUEGER PRICE | S300FL | PAINT TO MATCH DUCTWORK |
| R1 | RETURN GRILLE | 35 DEG DEFLECTION, BLADES PARALLEL WITH LONG DIMENSION | 12" | 12" | 10" | 10" | | 425 CFM | 0.14 in-wg | | | | 30 | ALUMINUM | WHITE | LAY-IN | -- | TITUS KRUEGER PRICE | 355FL | |
| R2 | RETURN GRILLE | 35 DEG DEFLECTION, BLADES PARALLEL WITH LONG DIMENSION | 24" | 12" | 22" | 10" | | 950 CFM | 0.14 in-wg | | | | 30 | ALUMINUM | WHITE | LAY-IN | -- | TITUS KRUEGER PRICE | 355FL | |

**EXHAUST FAN SCHEDULE**

| TAG | DESCRIPTION | EXHAUST FAN AIRFLOW | EXHAUST FAN TOTAL STATIC PRESS. | EXHAUST FAN DRIVE TYPE | ELECTRICAL VOLTAGE | ELECTRICAL FLA | ELECTRICAL MOP | BASIS OF DESIGN MAKE | BASIS OF DESIGN MODEL | BASIS OF DESIGN WEIGHT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | CEILING MOUNTED BATHROOM EXHAUST FAN | 70 CFM | 0.5 in-wg | DIRECT | 120 V | 0.29 A | 15 A | GREENHECK | SP-LP0511 | 20 lb | 1-4 |
| EF-2 | CEILING MOUNTED BATHROOM EXHAUST FAN | 70 CFM | 0.5 in-wg | DIRECT | 120 V | 0.29 A | 15 A | GREENHECK | SP-LP0511 | 20 lb | 1-4 |

1. PROVIDE MOTION AND HUMIDITY SENSORS.
2. FAN SHALL AUTOMATICALLY ACTIVATE WHEN HUMIDITY IS ABOVE SETPOINT AND RUN FOR A MINIMUM OF 5 MINUTES AFTER HUMIDITY FALLS BELOW SETPOINT.
3. FAN MAY BE MANUALLY ACTIVATED/DEACTIVATED AT SWITCH.
4. FAN WILL AUTOMATICALLY DEACTIVATE IF HUMIDITY IS BELOW SETPOINT AND AFTER NO OCCUPANCY DETECTION FOR 5 MINUTES.

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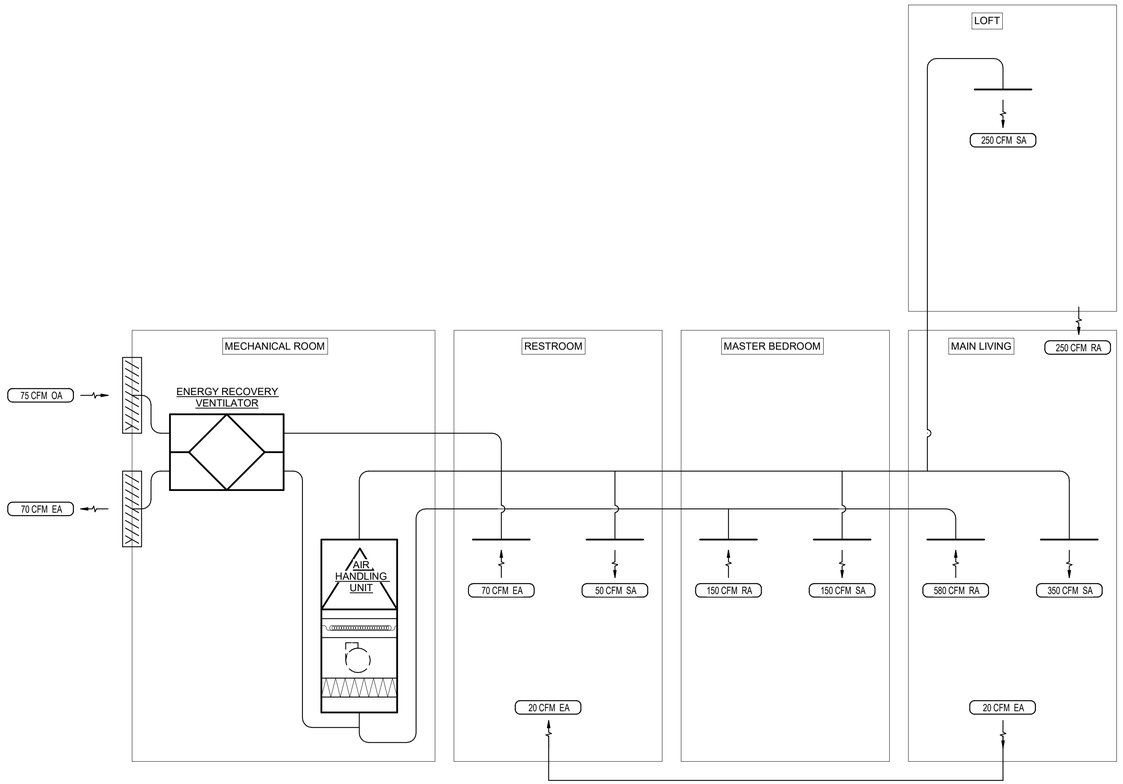
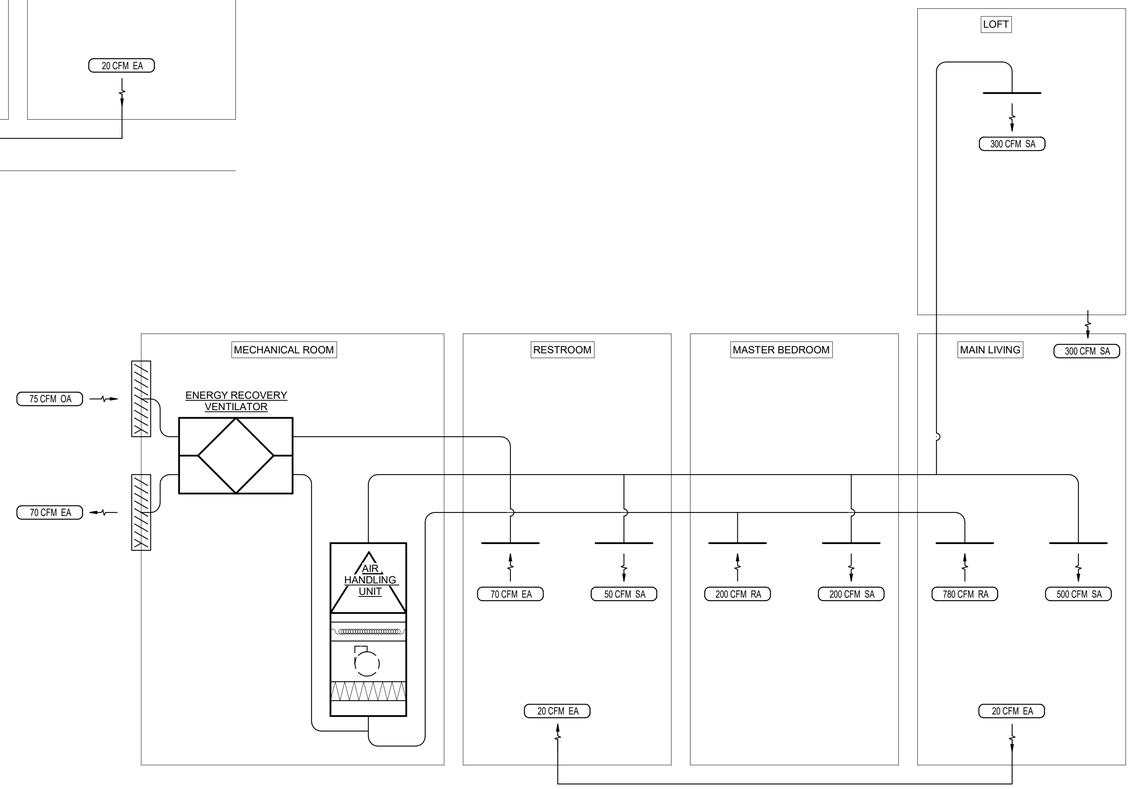



1 CABINET A AIRFLOW SCHEMATIC DIAGRAM
NTS




2 CABINET B AIRFLOW SCHEMATIC DIAGRAM
NTS

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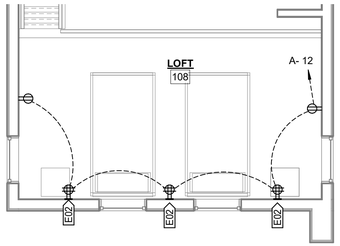
CAD DWG FILE: M701
DRAWING BY: ALD
CHECKED BY: ALD
DESIGNED BY: ALD

SHEET TITLE:
**AIRFLOW SCHEMATICS**

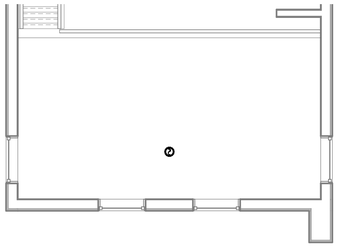
SHEET NUMBER:
**M701**
SHEET 98 OF 105 10/31/2025

| KEYNOTE LEGEND | |
|---|---|
| VALUE | DESCRIPTION |
| E01 | REFER TO CIVIL SITE PLAN FOR SERVICE FEEDER LOCATIONS. |
| E02 | BOTTOM PLUGS ON QUAD RECEPTACLES SHALL BE SWITCHED VIA WALL MOUNTED LIGHT SWITCH. REFER TO LIGHTING PLAN ON THIS SHEET FOR SWITCH LOCATION. |
| E03 | LIGHT SWITCH SHALL CONTROL POWER TO BOTTOM RECEPTACLES ON QUAD RECEPTACLES. REFER TO POWER PLAN ON THIS SHEET. |
| E04 | PROVIDE (2) SWITCHES TO FAN. ONE SWITCH SHALL BE FAN SPEED CONTROL, AND THE OTHER SHALL BE DIMMING CONTROL FOR LIGHTING. |
| E05 | BOND GROUNDING ELECTRODE CONDUCTOR TO REBAR STUBBED UP THROUGH FOUNDATION WALL WITH LISTED REBAR CLAMP. REFER TO STRUCTURAL DETAILS AND COORDINATE CONCRETE ENCASED ELECTRODE INSTALLATION WITH FOUNDATION INSTALLER. |

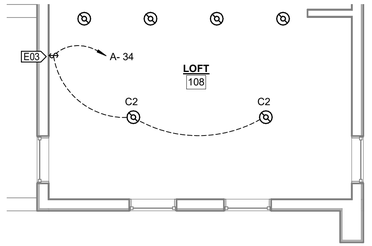
**FIRE ALARM NOTE:**
FIRE ALARM SYSTEM TO BE HARDWIRED SMOKE ALARMS WITH ADA STROBES. (1) SMOKE ALARM IN MAIN LIVING AREA SHALL INCLUDE CARBON MONOXIDE DETECTION.



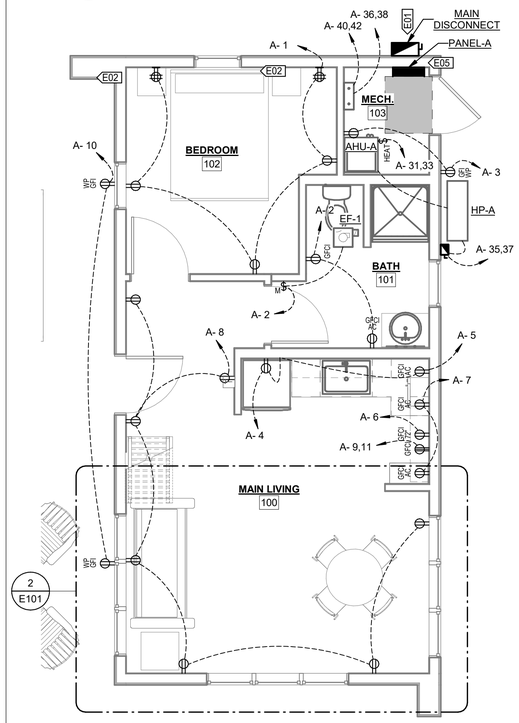

2 LOFT POWER PLAN - A
1/4" = 1'-0"



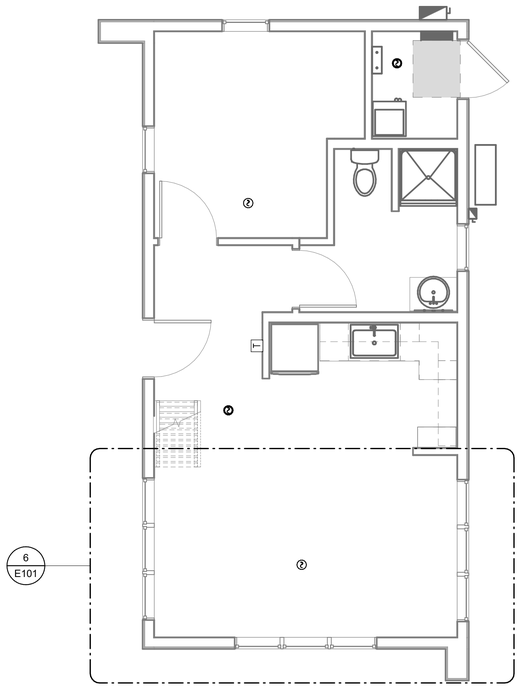
6 LOFT LOW VOLTAGE PLAN - A
1/4" = 1'-0"



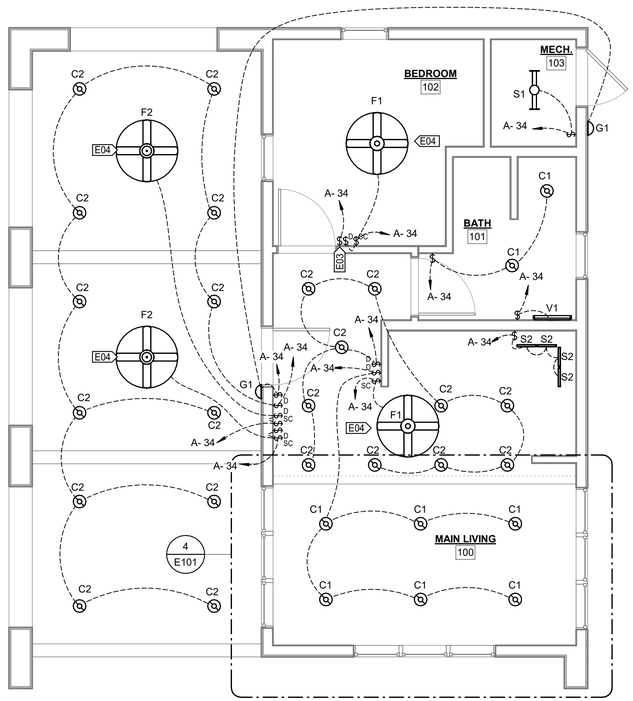

4 LOFT LIGHTING PLAN - A
1/4" = 1'-0"




1 FIRST FLOOR POWER PLAN - A
1/4" = 1'-0"




5 FIRST FLOOR LOW VOLTAGE PLAN - A
1/4" = 1'-0"




3 FIRST FLOOR LIGHTING PLAN - A
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

STATE OF MISSOURI
MIKE KEHOE,
GOVERNOR

BIDDING DOCUMENTS

STATE OF MISSOURI
ANTHONY LOUIS DIEWOLD
NUMBER PE-2016000028
PROFESSIONAL ENGINEER
10-31-25


KLINGNER & ASSOCIATES, P.C. • Engineers • Architects • Surveyors
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MISSOURI STATE CERTIFICATE OF AUTHORITY #000866


OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT, DESIGN AND
CONSTRUCTION

DEPARTMENT OF NATURAL
RESOURCES DIVISION OF
STATE PARKS

REBID 10 PREMIUM SITES
AND 6 PREMIUM CABINS

WAKONDA STATE PARK
32836 STATE PARK ROAD
LA GRANGE, MO 63448

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: E101
DRAWING BY: JCM
CHECKED BY: ALD
DESIGNED BY: JCM

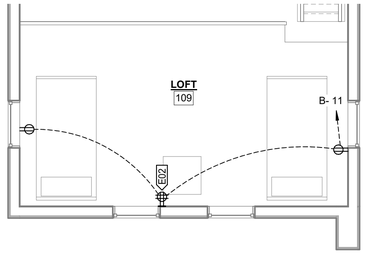
SHEET TITLE:
**ELECTRICAL PLAN - CABIN A**

SHEET NUMBER:
**E101**
SHEET 99 OF 105 10/31/2025

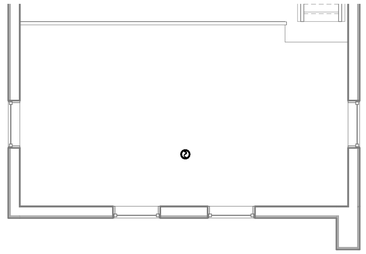
**FIRE ALARM NOTE:**
FIRE ALARM SYSTEM TO BE HARDWIRED SMOKE ALARMS WITH ADA STROBES. (1) SMOKE ALARM IN MAIN LIVING AREA SHALL INCLUDE CARBON MONOXIDE DETECTION.

**KEYNOTE LEGEND**

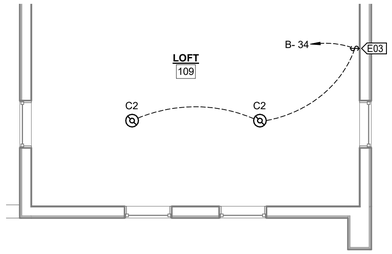
| VALUE | DESCRIPTION |
|---|---|
| E01 | REFER TO CIVIL SITE PLAN FOR SERVICE FEEDER LOCATIONS. |
| E02 | BOTTOM PLUGS ON QUAD RECEPTACLES SHALL BE SWITCHED VIA WALL MOUNTED LIGHT SWITCH. REFER TO LIGHTING PLAN ON THIS SHEET FOR SWITCH LOCATION. |
| E03 | LIGHT SWITCH SHALL CONTROL POWER TO BOTTOM RECEPTACLES ON QUAD RECEPTACLES. REFER TO POWER PLAN ON THIS SHEET. |
| E04 | PROVIDE (2) SWITCHES TO FAN. ONE SWITCH SHALL BE FAN SPEED CONTROL, AND THE OTHER SHALL BE DIMMING CONTROL FOR LIGHTING. |
| E05 | BOND GROUNDING ELECTRODE CONDUCTOR TO REBAR STUBBED UP THROUGH FOUNDATION WALL WITH LISTED REBAR CLAMP. REFER TO STRUCTURAL DETAILS AND COORDINATE CONCRETE ENCASED ELECTRODE INSTALLATION WITH FOUNDATION INSTALLER. |



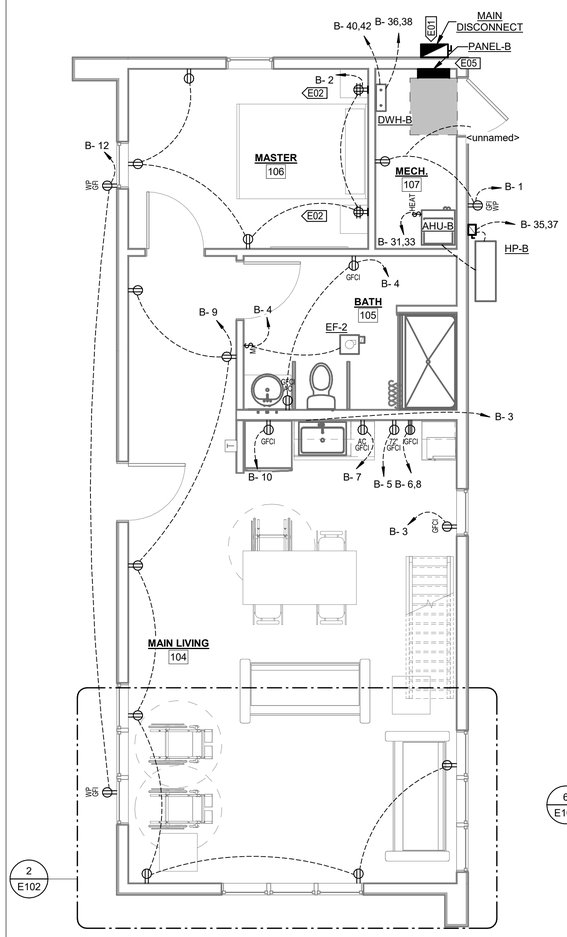

2 LOFT POWER PLAN - B
1/4" = 1'-0"



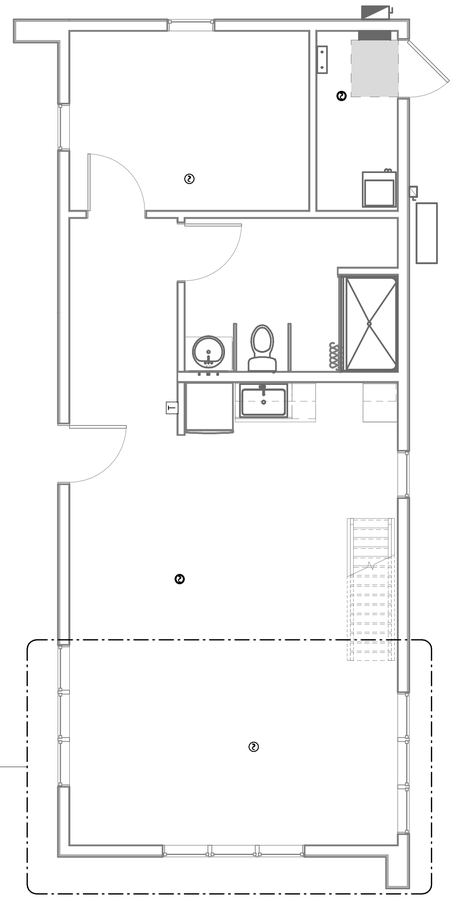
6 LOFT LOW VOLTAGE PLAN - B
1/4" = 1'-0"



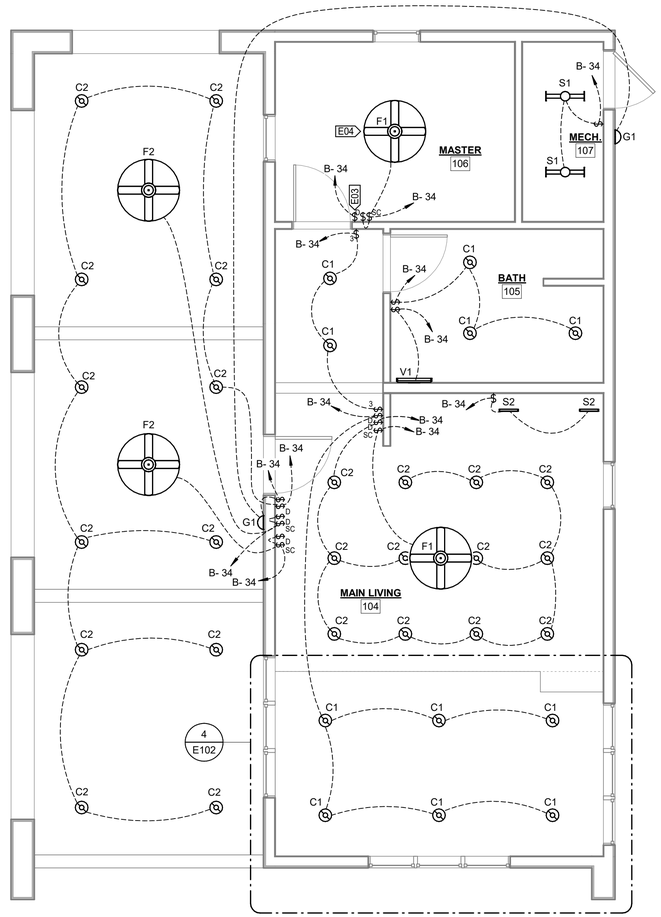

4 LOFT LIGHTING PLAN - B
1/4" = 1'-0"




1 FIRST FLOOR POWER PLAN - B
1/4" = 1'-0"




5 FIRST FLOOR LOW VOLTAGE PLAN - B
1/4" = 1'-0"




3 FIRST FLOOR LIGHTING PLAN - B
1/4" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

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PROJECT # X2410-01
SITE # 5116
ASSET # 7815116063

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: E102
DRAWING BY: JCM
CHECKED BY: ALD
DESIGNED BY: JCM

SHEET TITLE:
**ELECTRICAL PLAN - CABIN B**

SHEET NUMBER:
**E102**
SHEET 100 OF 105 10/31/2025

## BRANCH PANEL: CABINS

**LOCATION:** GROUND | **SUPPLY FROM:** UTILITY | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
**VOLTS:** 120/240 | **PHASES:** 1 | **WIRES:** 3 | **ACCESSORIES:** TVSS
**A.I.C. RATING:** 10,000 AMPS SYMMETRICAL | **PANEL TYPE:** MAIN CB | **MAINS RATING:** 800 A | **MAIN BREAKER:** 800 A

| CKT | CIRCUIT DESCRIPTION | TRIP | POLES | A | | B | | POLES | TRIP | CIRCUIT DESCRIPTION | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | CABIN 1 | 200 A | 2 | 21,803 VA | 23,471 VA | | | 2 | 200 A | CABIN 2 | 2 |
| 3 | | | | | | 21,528 VA | 21,374 VA | | | | 4 |
| 5 | CABIN 3 | 200 A | 2 | 21,600 VA | 21,600 VA | | | 2 | 200 A | CABIN 4 | 6 |
| 7 | | | | | | 21,600 VA | 21,600 VA | | | | 8 |
| 9 | CABIN 5 | 200 A | 2 | 21,600 VA | 21,600 VA | | | 2 | 200 A | CABIN 6 | 10 |
| 11 | | | | | | 21,600 VA | 21,600 VA | | | | 12 |
| 13 | SPARE | 200 A | 2 | 0 VA | -- | | | 1 | -- | SPACE | 14 |
| 15 | | | | | | 0 VA | -- | 1 | -- | SPACE | 16 |
| 17 | SPARE | 200 A | 2 | 0 VA | -- | | | 1 | -- | SPACE | 18 |
| 19 | | | | | | 0 VA | -- | 1 | -- | SPACE | 20 |
| 21 | SPARE | 200 A | 2 | 0 VA | -- | | | 1 | -- | SPACE | 22 |
| 23 | | | | | | 0 VA | -- | 1 | -- | SPACE | 24 |
| | | **PHASE LOAD:** | | 127,629 VA | | 125,569 VA | | ****TOTAL LOAD:** | | **253,195 VA** | |
| | | **PHASE AMPS:** | | 1064 A | | 1046 A | | ****TOTAL AMPS:** | | **1055 A** | |

*** FIELD VERIFY BREAKER SIZE WITH ACTUAL EQUIPMENT PROVIDED. COORDINATE WITH OTHER CONTRACTORS AS NECESSARY.**
****TOTAL LOAD AND TOTAL AMPS DO NOT INCLUDE DEMAND FACTOR CALCULATIONS.**

## BRANCH PANEL: CAMPSITES

**LOCATION:** GROUND | **SUPPLY FROM:** UTILITY | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
**VOLTS:** 120/240 | **PHASES:** 1 | **WIRES:** 3 | **ACCESSORIES:** TVSS
**A.I.C. RATING:** 10,000 AMPS SYMMETRICAL | **PANEL TYPE:** MAIN CB | **MAINS RATING:** 400 A | **MAIN BREAKER:** 400 A

| CKT | CIRCUIT DESCRIPTION | TRIP | POLES | A | | B | | POLES | TRIP | CIRCUIT DESCRIPTION | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EXISTING VAULT TOILET | 60 A | 2 | 4,800 VA | 12,000 VA | | | 2 | 200 A | NORTH CAMPSITES | 2 |
| 3 | | | | | | 4,800 VA | 12,000 VA | | | | 4 |
| 5 | FUTURE LIFT STATION | 125 A | 2 | 7,200 VA | 18,000 VA | | | 2 | 200 A | NORTH CAMPSITES | 6 |
| 7 | | | | | | 7,200 VA | 18,000 VA | | | | 8 |
| 9 | SPARE | 20 A | 2 | 0 VA | 0 VA | | | 2 | 200 A | SPARE | 10 |
| 11 | | | | | | 0 VA | 0 VA | | | | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 2 | 200 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | | | | 16 |
| 17 | SPARE | 20 A | 1 | 0 VA | -- | | | 1 | -- | SPACE | 18 |
| 19 | SPARE | 20 A | 1 | | | 0 VA | -- | 1 | -- | SPACE | 20 |
| 21 | SPARE | 20 A | 1 | 0 VA | -- | | | 1 | -- | SPACE | 22 |
| 23 | SPARE | 20 A | 1 | | | 0 VA | -- | 1 | -- | SPACE | 24 |
| | | **PHASE LOAD:** | | 42,000 VA | | 42,000 VA | | ****TOTAL LOAD:** | | **84,000 VA** | |
| | | **PHASE AMPS:** | | 350 A | | 350 A | | ****TOTAL AMPS:** | | **350 A** | |

*** FIELD VERIFY BREAKER SIZE WITH ACTUAL EQUIPMENT PROVIDED. COORDINATE WITH OTHER CONTRACTORS AS NECESSARY.**
****TOTAL LOAD AND TOTAL AMPS DO NOT INCLUDE DEMAND FACTOR CALCULATIONS.**

## LIGHT FIXTURE SCHEDULE

| TAG | DESCRIPTION | MOUNT | VOLT | LOAD | BASIS OF DESIGN | | |
|---|---|---|---|---|---|---|---|
| | | | | | MANUFACTURER | MODEL | ACCESSORIES |
| C1 | 6" RECESSED CAN DOWNLIGHT | RECESSED CEILING | 120 V | 15 VA | JUNO | WF6 REG | -- |
| C2 | 6" AIMABLE RECESSED CAN DOWNLIGHT | RECESSED CEILING | 120 V | 15 VA | JUNO | WF6 ADJ | -- |
| F1 | CEILING FAN W/ LIGHT | | 120 V | 62 VA | RP LIGHTING | 1008LED | |
| F2 | OUTDOOR CEILING FAN W/ LIGHT | | 120 V | 62 VA | RP LIGHTING | 1068 | INCLUDE DOWN ROD EXTENSION TO MOUNT FIXTURE AT 8' AFF.<br>INCLUDE RP LIGHTING 1RP69LED LIGHT KIT |
| G1 | OUTDOOR CAST SCONCE W/DR3 FROSTED LENS; BROWN | WALL | 120 V | 9 VA | LITHONIA | OLCS | |
| S1 | 2' LED STRIPLIGHT | CHAIN SUSPENDED | 120 V | 19 VA | LITHONIA | CSS L24 | CHAIN HANGER |
| S2 | UNDERCABINET LIGHT | | 120 V | 11 VA | JUNO | UCES | |
| V1 | 24" VANITY LIGHT | | 120 V | 27 VA | LITHONIA | FMVCCLS | |

## FEEDER SCHEDULE

| FEEDER TAG | PHASE CONDUCTORS | | | NEUTRAL SIZE | EGC SIZE | CONDUIT | |
|---|---|---|---|---|---|---|---|
| | PARALLEL SETS | QUANTITY | SIZE | | | SIZE | TYPE |
| F1 | 3 | 2 | 300 KCMIL CU | 300 KCMIL CU | #1/0 | 3" | IMC |
| F2 | 1 | 2 | #4/0 AWG CU | #4/0 AWG CU | #4 AWG CU | 3" | PVC |
| F3 | 1 | 2 | #3/0 AWG CU | #3/0 AWG CU | #6 AWG CU | 2" | IMC |
| F4 | 1 | 2 | 600 KCMIL CU | 600 KCMIL CU | #3 AWG CU | 5" | IMC |
| F5 | 1 | 2 | #6 AWG CU | #6 AWG CU | #10 AWG CU | 1" | PVC |
| F6 | 1 | 2 | #3/0 AWG CU | #3/0 AWG CU | N/A | 3" | PVC |
| F7 | 1 | 2 | #3/0 AWG CU | #3/0 AWG CU | N/A | 3" | PVC |
| F8 | 1 | 2 | #2 AWG CU | #2 AWG CU | #8 AWG CU | 1-1/2" | PVC |
| F9 | 1 | 2 | #2 AWG CU | #2 AWG CU | #8 AWG CU | 1-1/2" | PVC |
| F10 | 1 | 2 | #6 AWG CU | #6 AWG CU | #10 AWG CU | 1" | PVC |
| F11 | 1 | 2 | 250 KCMIL CU | 250 KCMIL CU | #3 AWG CU | 2-1/2" | PVC |

## BRANCH PANEL: A

**LOCATION:** MECH. 103 | **SUPPLY FROM:** CABINS | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
**VOLTS:** 120/240 | **PHASES:** 1 | **WIRES:** 3 | **ACCESSORIES:** EXTERNAL TVSS
**A.I.C. RATING:** 10,000 AMPS SYMMETRICAL | **PANEL TYPE:** MLO | **MAINS RATING:** 200 A

| CKT | CIRCUIT DESCRIPTION | TRIP | POLES | A | | B | | POLES | TRIP | CIRCUIT DESCRIPTION | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RCPT - MASTER BEDROOM | 20 A | 1 | 900 VA | 595 VA | | | 1 | 20 A | RCPT - RESTROOM | 2 |
| 3 | RCPT - MECHANICAL ROOM | 20 A | 1 | | | 360 VA | 360 VA | 1 | 20 A | RCPT - REFRIGERATOR | 4 |
| 5 | RCPT - KITCHEN COUNTER | 20 A | 1 | 360 VA | 180 VA | | | 1 | 20 A | RCPT - MICROWAVE | 6 |
| 7 | RCPT - KITCHEN COUNTER | 20 A | 1 | | | 360 VA | 1,260 VA | 1 | 20 A | RCPT - LIVING ROOM | 8 |
| 9 | RCPT - RANGE* | 40 A | 2 | 180 VA | 360 VA | | | 1 | 20 A | RCPT - WEST EXTERIOR | 10 |
| 11 | | | | | | 180 VA | 900 VA | 1 | 20 A | RCPT - LOFT | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 30 |
| 31 | AIR HANDLING UNIT AUXILLIARY HEAT* | 20 A | 2 | | | 1,876 VA | 0 VA | 1 | 20 A | SPARE | 32 |
| 33 | | | | 1,876 VA | 1,068 VA | | | 1 | 20 A | LIGHTING | 34 |
| 35 | HEAT PUMP AND AIR HANDLING UNIT* | 25 A | 2 | | | 2,226 VA | 7,980 VA | 2 | 70 A | WATER HEATER CIRCUIT 1* | 36 |
| 37 | | | | 2,226 VA | 7,980 VA | | | | | | 38 |
| 39 | TVSS | 20 A | 2 | | | 0 VA | 7,980 VA | 2 | 70 A | WATER HEATER CIRCUIT 2* | 40 |
| 41 | | | | 0 VA | 7,980 VA | | | | | | 42 |
| | | **PHASE LOAD:** | | 21,803 VA | | 21,528 VA | | ****TOTAL LOAD:** | | **43,328 VA** | |
| | | **PHASE AMPS:** | | 182 A | | 179 A | | ****TOTAL AMPS:** | | **181 A** | |

*** FIELD VERIFY BREAKER SIZE WITH ACTUAL EQUIPMENT PROVIDED. COORDINATE WITH OTHER CONTRACTORS AS NECESSARY.**
****TOTAL LOAD AND TOTAL AMPS DO NOT INCLUDE DEMAND FACTOR CALCULATIONS.**

## BRANCH PANEL: B

**LOCATION:** MECH. 107 | **SUPPLY FROM:** CABINS | **MOUNTING:** SURFACE | **ENCLOSURE:** NEMA 1
**VOLTS:** 120/240 | **PHASES:** 1 | **WIRES:** 3 | **ACCESSORIES:** EXTERNAL TVSS
**A.I.C. RATING:** 10,000 AMPS SYMMETRICAL | **PANEL TYPE:** MLO | **MAINS RATING:** 200 A

| CKT | CIRCUIT DESCRIPTION | TRIP | POLES | A | | B | | POLES | TRIP | CIRCUIT DESCRIPTION | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RCPT - MECHANICAL & EAST... | 20 A | 1 | 360 VA | 1,080 VA | | | 1 | 20 A | RCPT - MASTER BEDROOM | 2 |
| 3 | RCPT - KITCHEN | 20 A | 1 | | | 360 VA | 595 VA | 1 | 20 A | RCPT - RESTROOM | 4 |
| 5 | RCPT - MICROWAVE | 20 A | 1 | 180 VA | 0 VA | | | 2 | 40 A | RCPT - RANGE* | 6 |
| 7 | RCPT - KITCHEN COUNTER | 20 A | 1 | | | 180 VA | 0 VA | | | | 8 |
| 9 | RCPT - LIVING ROOM | 20 A | 1 | 1,260 VA | 180 VA | | | 1 | 20 A | RCPT - REFRIGERATOR | 10 |
| 11 | RCPT - LOFT | 20 A | 1 | | | 540 VA | 360 VA | 1 | 20 A | RCPT - WEST EXTERIOR | 12 |
| 13 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 14 |
| 15 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 16 |
| 17 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 18 |
| 19 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 20 |
| 21 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 22 |
| 23 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 24 |
| 25 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 26 |
| 27 | SPARE | 20 A | 1 | | | 0 VA | 0 VA | 1 | 20 A | SPARE | 28 |
| 29 | SPARE | 20 A | 1 | 0 VA | 0 VA | | | 1 | 20 A | SPARE | 30 |
| 31 | AIR HANDLING UNIT AUXILLIARY HEAT* | 55 A | 2 | | | 5,000 VA | 0 VA | 1 | 20 A | SPARE | 32 |
| 33 | | | | 5,000 VA | 1,140 VA | | | 1 | 20 A | LIGHTING | 34 |
| 35 | HEAT PUMP AND AIR HANDLING UNIT* | 45 A | 2 | | | 2,746 VA | 7,980 VA | 2 | 70 A | WATER HEATER CIRCUIT 1 | 36 |
| 37 | | | | 2,746 VA | 7,980 VA | | | | | | 38 |
| 39 | TVSS | 20 A | 2 | | | 0 VA | 7,980 VA | 2 | 70 A | WATER HEATER CIRCUIT 2 | 40 |
| 41 | | | | 0 VA | 7,980 VA | | | | | | 42 |
| | | **PHASE LOAD:** | | 23,471 VA | | 21,374 VA | | ****TOTAL LOAD:** | | **44,845 VA** | |
| | | **PHASE AMPS:** | | 196 A | | 178 A | | ****TOTAL AMPS:** | | **187 A** | |

*** FIELD VERIFY BREAKER SIZE WITH ACTUAL EQUIPMENT PROVIDED. COORDINATE WITH OTHER CONTRACTORS AS NECESSARY.**
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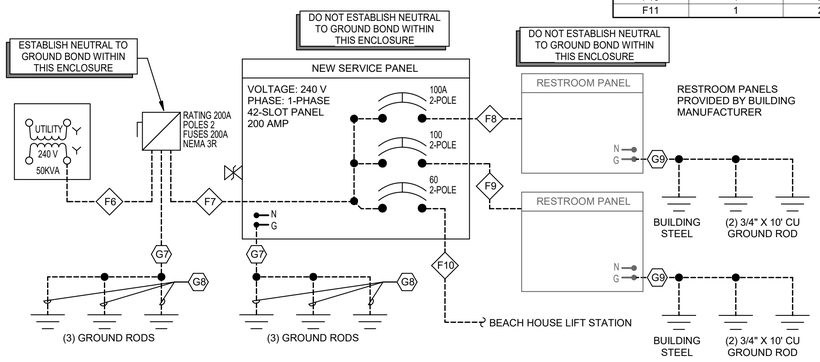
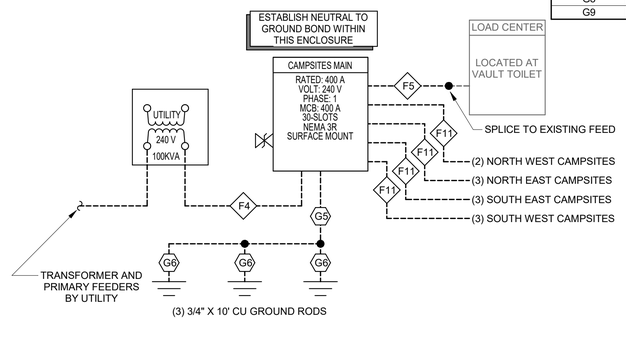
## GEC SCHEDULE

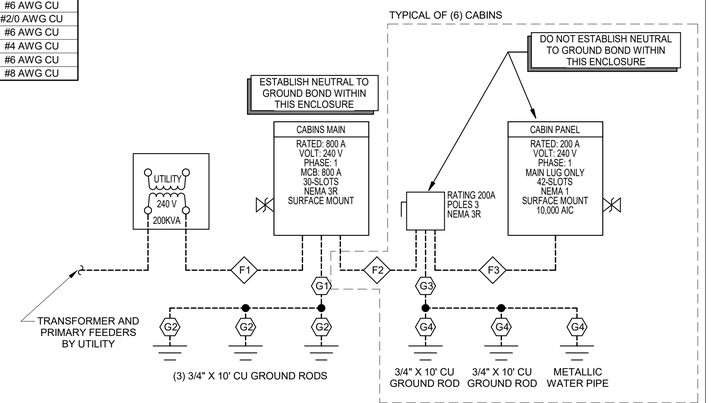
| GEC TAG | GEC SIZE |
|---|---|
| G1 | #3/0 AWG CU |
| G2 | #6 AWG CU |
| G3 | #2 AWG CU |
| G4 | #6 AWG CU |
| G5 | #2/0 AWG CU |
| G6 | #6 AWG CU |
| G7 | #4 AWG CU |
| G8 | #6 AWG CU |
| G9 | #8 AWG CU |




3 BEACH HOUSE LIFT STATION ONE-LINE DIAGRAM
NTS




2 SOUTH CAMPSITE ONE-LINE DIAGRAM
NTS




1 CABIN ONE-LINE DIAGRAM
NTS

STATE OF MISSOURI
MIKE KEHOE, GOVERNOR

BIDDING DOCUMENTS

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ANTHONY LOUIS DIEWOLD
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SITE # 5116
ASSET # 7815116063

REVISION: DATE:
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ISSUE DATE: 10/31/2025

CAD DWG FILE: E501
DRAWING BY: JCM
CHECKED BY: ALD
DESIGNED BY: JCM

SHEET TITLE:
**ELECTRICAL SCHEDULES & DETAILS**

SHEET NUMBER:
**E501**
SHEET 101 OF 105 10/31/2025

## CONTROL DIAGRAM SYBMOL LEGEND

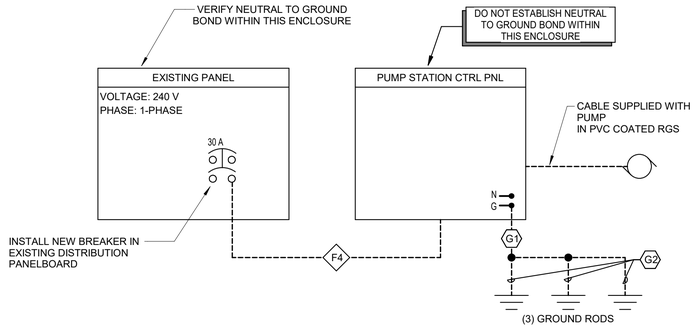
| | |
|---|---|
| ——— | CONTROL WIRING ( INTERNAL TO CABINET) |
| – – – – – – | CONTROL WIRING (TO REMOTE DEVICE) |
| ---------- | POWER WIRING |
| | LINE CROSS (NO CONNECTION) |
| | WIRE CONNECTION |
| | REMOTE WIRING TERMINATION POINT |
| | RELAY |
| | CONTACT (NORMALLY OPEN) |
| | CONTACT (NORMALLY CLOSED) |
| | CONTACT WITH THERMAL OVERLOAD |
| | THERMAL OVERLOAD DEVICE |
| XX A<br>YY<br>ZZ | CIRCUIT BREAKER<br>XX = TRIP RATING<br>YY = TYPE<br>ZZ = NOTE |
| | INDICATION LIGHT (X = LED COLOR) — PUSH TO TEST LIGHT (X = LED COLOR) — COLORS: R=RED, B=BLUE, G=GREEN, A=AMBER |
| XX°F | TEMPERATURE SWITCH (XX = SETPOINT) |
| XX | LIMIT SWITCH (XX = SETPOINT) |
| | FLOAT SWITCH |
| | TOGGLE SWITCH |
| | MOMENTARY CONTACT SWITCH (NORMALLY OPEN) — MOMENTARY CONTACT SWITCH (NORMALLY CLOSED) |
| H O A<br>XX | HAND/OFF/AUTO SWITCH<br>(XX = INPUT SIGNAL) |
| XX | MOTOR (XX = POWER) |
| | FUSE |
| | GROUND CONNECTION |

## ELECTRICAL ONE-LINE DIAGRAM SYMBOL LEGEND

| | | |
|---|---|---|
| TRANSFORMER<br>480 V<br>120 V<br>XXKVA<br>TAG | TWO POLE BREAKER | POWER FEEDER |
| PANELBOARD<br>PANEL NAME<br>VOLTAGE: XX<br>PHASE: YY | NON-FUSED DISCONNECT SWITCH<br>RATING WWA<br>POLES XX<br>NEMA ZZ<br>TAG | FUSED DISCONNECT SWITCH<br>RATING WWA<br>POLES XX<br>FUSES YYA<br>NEMA ZZ<br>TAG |
| ELECTRIC MOTOR<br>XX = HORSEPOWER<br>TAG | FEEDER TAG<br>## | GROUNDING ELECTRODE CONDUCTOR (GEC) TAG<br>## |
| EARTH GROUND | | |

## LIGHTING FIXTURE SCHEDULE

| TAG | DESCRIPTION | MOUNT | LENS | LAMP TYPE | LAMP COLOR TEMP. | OUTPUT | DRIVER CONTROL | VOLT | LOAD (W) | BASIS OF DESIGN MAKE | BASIS OF DESIGN MODEL | ACCESSORIES | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F1 | EXTERIOR FLOOD LIGHT | TENON SLIP-FITTER | GLASS, IP66 | LED | 3,000 K | 12,054 | INTEGRAL PHOTOCELL | 120 | 93 | LITHONIA | DSXF2-LED-P3-30K-70CRI-WFL-MVOLT-IS-PE-DDBXD | SLIPFITTER FOR 2-3/8" O.D. TENON | SEE DRAWINGS FOR INSTALLATION DETAILS. |
| | | | | | | 10,122 | | | 85 | LUMARK | NFFLD-C25-E-UNV-66-S-CB-PER | | |
| | | | | | | | | | | | ENGINEER-APPROVED EQUAL | | |



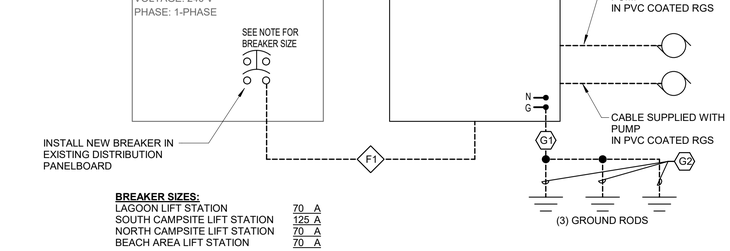

7 SHOP LIFT STATION ONE-LINE DIAGRAM
NTS

## FEEDER SCHEDULE

| LIFT STATION SITE | FEEDER TAG | PHASE CONDUCTORS QUANTITY | PHASE CONDUCTORS SIZE | NEUTRAL SIZE | EGC SIZE | CONDUIT SIZE | CONDUIT TYPE |
|---|---|---|---|---|---|---|---|
| LAGOON LIFT STATION | F1 | 2 | #3 AWG CU | #3 AWG CU | #6 AWG CU | 1-1/2" | PVC |
| SOUTH CAMPSITE LIFT STATION | F1 | 2 | #1 AWG CU | #1 AWG CU | #6 AWG CU | 2" | PVC |
| NORTH CAMPSITE LIFT STATION | F1 | 2 | #4 AWG CU | #4 AWG CU | #8 AWG CU | 1-1/2" | PVC |
| BEACH AREA LIFT STATION | F1 | 2 | #4 AWG CU | #4 AWG CU | #8 AWG CU | 1-1/2" | PVC |
| COMBINED LIFT STATION | F2 | 3 | #3/0 AWG CU | #3/0 AWG CU | N/A | 3" | PVC |
| COMBINED LIFT STATION | F3 | 3 | #3/0 AWG CU | #3/0 AWG CU | #6 AWG CU | 2-1/2" | PVC |
| SHOP LIFT STATION | F4 | 2 | #10 AWG CU | #10 AWG CU | #10 AWG CU | 1" | PVC |

## GEC SCHEDULE

| LIFT STATION SITE | GEC TAG | GEC SIZE |
|---|---|---|
| BEACH AREA LIFT STATION | G1 | #8 AWG CU |
| BEACH AREA LIFT STATION | G1 | #8 AWG CU |
| BEACH AREA LIFT STATION | G2 | #8 AWG CU |
| BEACH AREA LIFT STATION | G2 | #8 AWG CU |
| COMBINED LIFT STATION | G3 | #4 AWG CU |
| COMBINED LIFT STATION | G4 | #6 AWG CU |
| LAGOON LIFT STATION | G1 | #8 AWG CU |
| LAGOON LIFT STATION | G1 | #8 AWG CU |
| LAGOON LIFT STATION | G2 | #8 AWG CU |
| LAGOON LIFT STATION | G2 | #8 AWG CU |
| NORTH CAMPSITE LIFT STATION | G1 | #8 AWG CU |
| NORTH CAMPSITE LIFT STATION | G1 | #8 AWG CU |
| NORTH CAMPSITE LIFT STATION | G2 | #8 AWG CU |
| NORTH CAMPSITE LIFT STATION | G2 | #8 AWG CU |
| SOUTH CAMPSITE LIFT STATION | G1 | #6 AWG CU |
| SOUTH CAMPSITE LIFT STATION | G1 | #6 AWG CU |
| SOUTH CAMPSITE LIFT STATION | G2 | #6 AWG CU |
| SOUTH CAMPSITE LIFT STATION | G2 | #6 AWG CU |

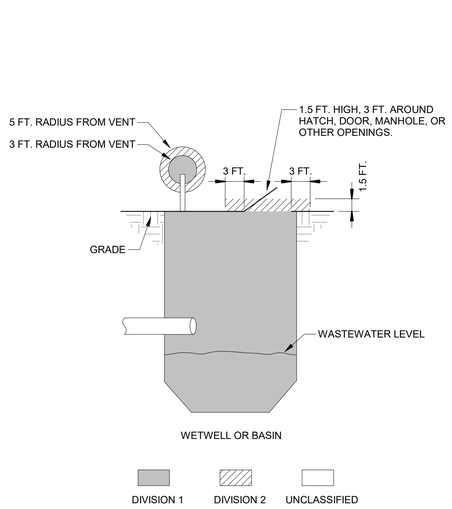



**BREAKER SIZES:**

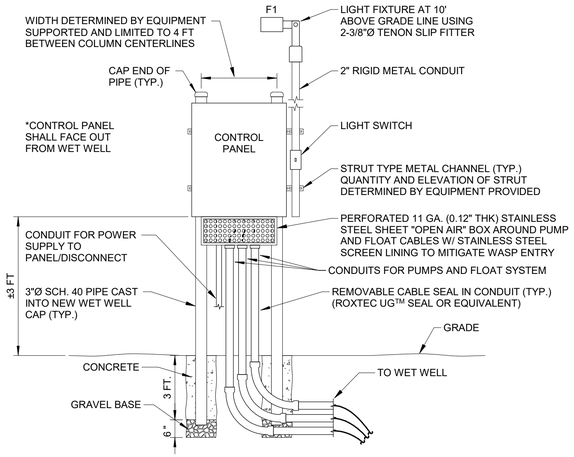
| | |
|---|---|
| LAGOON LIFT STATION | 70 A |
| SOUTH CAMPSITE LIFT STATION | 125 A |
| NORTH CAMPSITE LIFT STATION | 70 A |
| BEACH AREA LIFT STATION | 70 A |

2 TYPICAL LIFT STATION ONE-LINE DIAGRAM
NTS

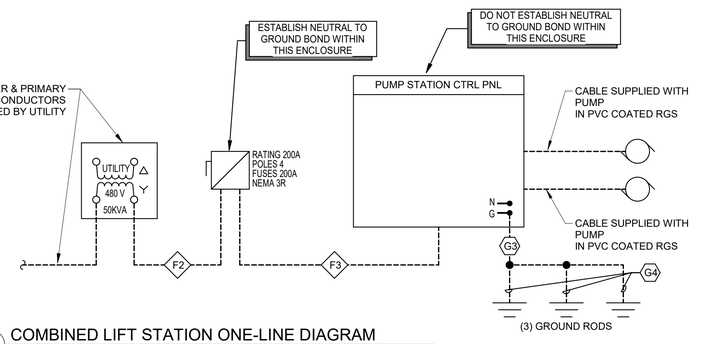
ALL BACKBOARD MATERIALS, HARDWARE, AND CONTROL PANEL ENCLOSURE SHALL BE STAINLESS STEEL.




3 NFPA 820 HAZARDOUS LOCATION DESIGNATIONS
NTS




1 TYPICAL LIFT STATION PANELBOARD ELEVATION
NTS




4 COMBINED LIFT STATION ONE-LINE DIAGRAM
NTS

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
ANTHONY LOUIS DIEWOLD
NUMBER PE-2016000028
PROFESSIONAL ENGINEER
10-21-2025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**OFFICE OF ADMINISTRATION**
**DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION**

**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID ALTERNATE: SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

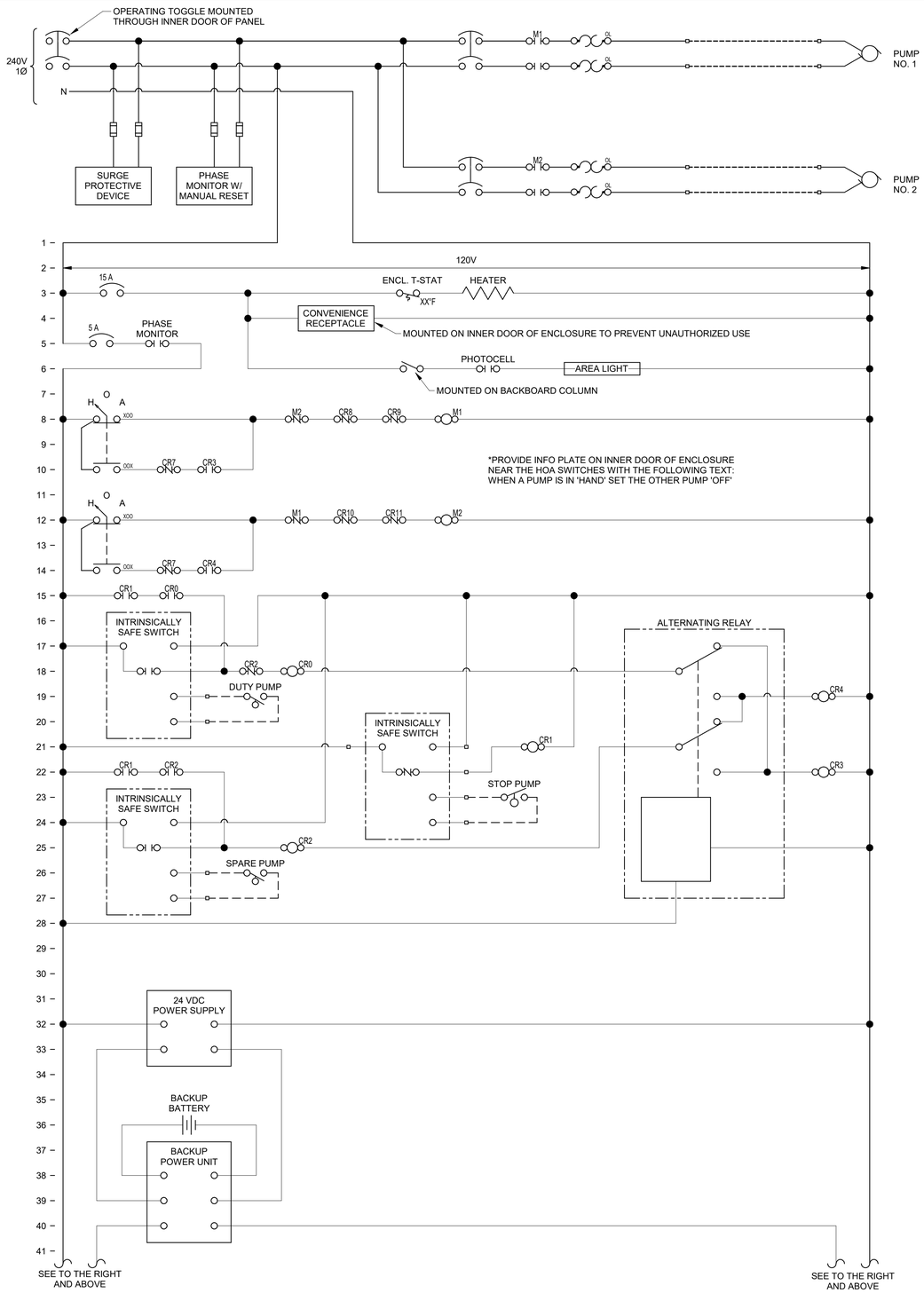
PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

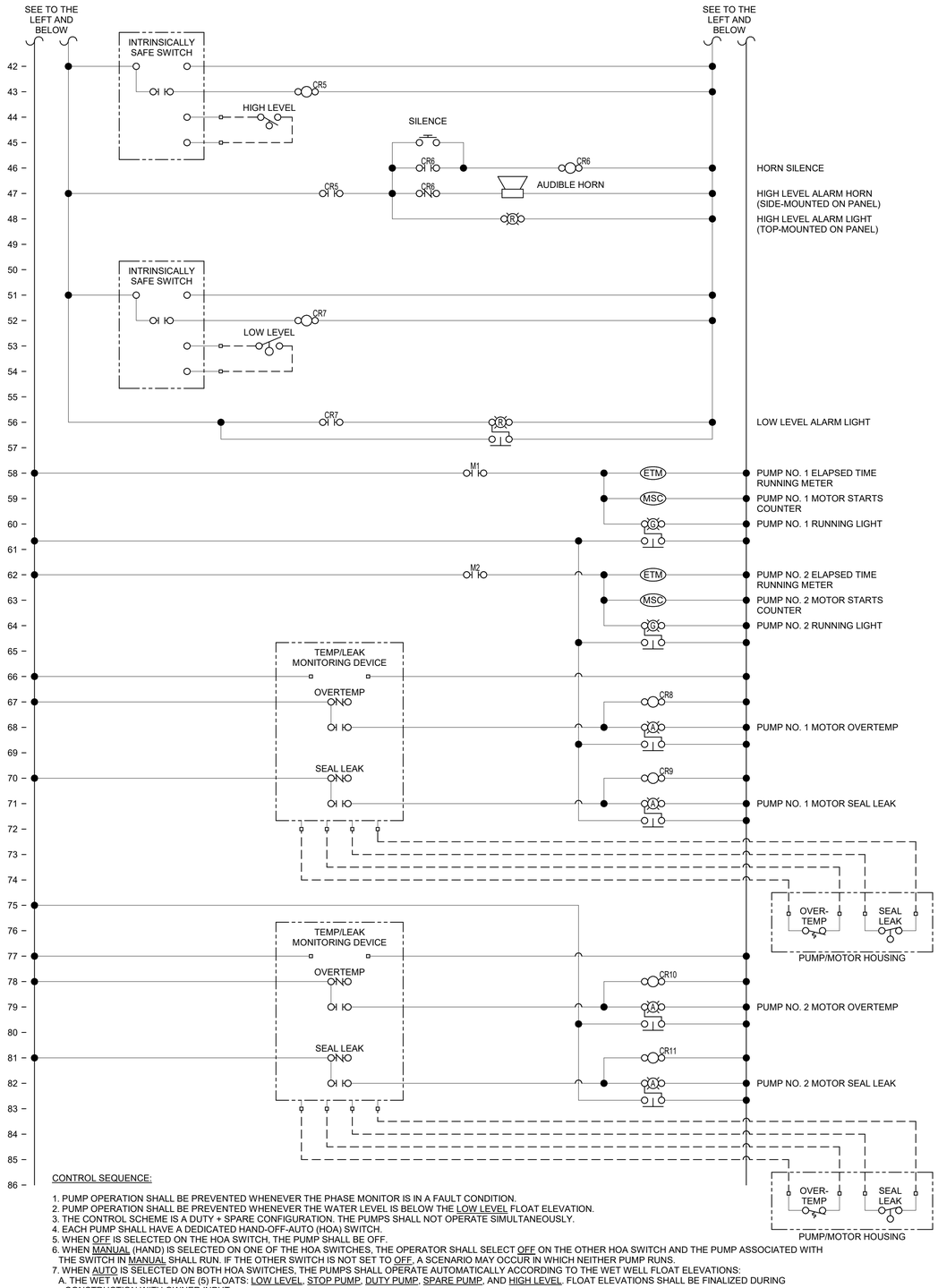
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: E502
DRAWING BY: JCM
CHECKED BY: ALD
DESIGNED BY: JCM

SHEET TITLE:
**ALTERNATE - ELECTRICAL DETAILS**

SHEET NUMBER:
**E502**
SHEET 102 OF 105 10/31/2025




CONTROL SEQUENCE:

1. PUMP OPERATION SHALL BE PREVENTED WHENEVER THE PHASE MONITOR IS IN A FAULT CONDITION.
2. PUMP OPERATION SHALL BE PREVENTED WHENEVER THE WATER LEVEL IS BELOW THE LOW LEVEL FLOAT ELEVATION.
3. THE CONTROL SCHEME IS A DUTY + SPARE CONFIGURATION. THE PUMPS SHALL NOT OPERATE SIMULTANEOUSLY.
4. EACH PUMP SHALL HAVE A DEDICATED HAND-OFF-AUTO (HOA) SWITCH.
5. WHEN OFF IS SELECTED ON THE HOA SWITCH, THE PUMP SHALL BE OFF.
6. WHEN MANUAL (HAND) IS SELECTED ON ONE OF THE HOA SWITCHES, THE OPERATOR SHALL SELECT OFF ON THE OTHER HOA SWITCH AND THE PUMP ASSOCIATED WITH THE SWITCH IN MANUAL SHALL RUN. IF THE OTHER SWITCH IS NOT SET TO OFF, A SCENARIO MAY OCCUR IN WHICH NEITHER PUMP RUNS.
7. WHEN AUTO IS SELECTED ON BOTH HOA SWITCHES, THE PUMPS SHALL OPERATE AUTOMATICALLY ACCORDING TO THE WET WELL FLOAT ELEVATIONS:
   A. THE WET WELL SHALL HAVE (5) FLOATS: LOW LEVEL, STOP PUMP, DUTY PUMP, SPARE PUMP, AND HIGH LEVEL. FLOAT ELEVATIONS SHALL BE FINALIZED DURING CONSTRUCTION WITH OWNER INPUT.
   B. WHEN THE LIQUID LEVEL IN THE WET WELL SURPASSES THE STOP PUMP AND DUTY PUMP LEVELS, THE DUTY PUMP SHALL TURN ON AND CONTINUE OPERATING UNTIL THE LIQUID LEVEL FALLS BELOW THE STOP PUMP LEVEL.
   C. IF THE DUTY PUMP FAILS OR DOES NOT OPERATE AT DESIGN CAPACITY AND THE LIQUID LEVEL IN THE WET WELL SURPASSES THE SPARE PUMP LEVEL, THE DUTY PUMP SHALL TURN OFF AND THE SPARE PUMP SHALL TURN ON AND CONTINUE OPERATING UNTIL THE LIQUID LEVEL FALLS BELOW THE STOP PUMP LEVEL.
8. THE CONTROL PANEL SHALL ALTERNATE THE DUTY AND SPARE PUMPS UPON COMPLETION OF EACH PUMPING CYCLE.

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

STATE OF MISSOURI
ANTHONY LOUIS DIEWOLD
NUMBER PE-2016000028
PROFESSIONAL ENGINEER
12-31-2025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**DEPARTMENT OF NATURAL RESOURCES DIVISION OF STATE PARKS**

**REBID ALTERNATE: SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

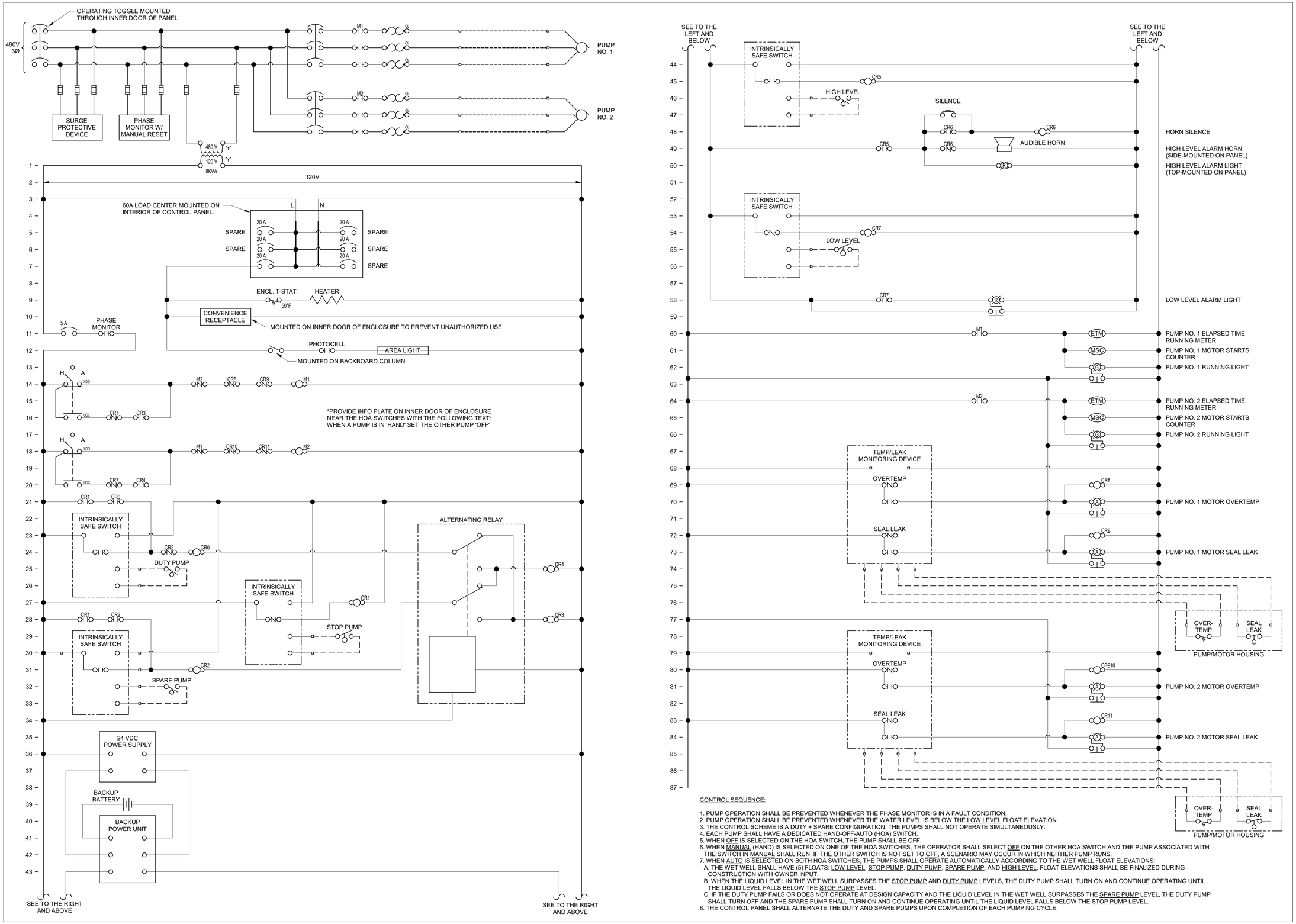
CAD DWG FILE: E601
DRAWING BY: JCM
CHECKED BY: ALD
DESIGNED BY: JCM

SHEET TITLE:

**ALTERNATE - DUPLEX LIFT STATION CONTROL PANEL**

SHEET NUMBER:

# E601

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8. THE CONTROL PANEL SHALL ALTERNATE THE DUTY AND SPARE PUMPS UPON COMPLETION OF EACH PUMPING CYCLE.

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**BIDDING DOCUMENTS**

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**REBID ALTERNATE: SEWER IMPROVEMENTS**

**WAKONDA STATE PARK**
**32836 STATE PARK ROAD**
**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

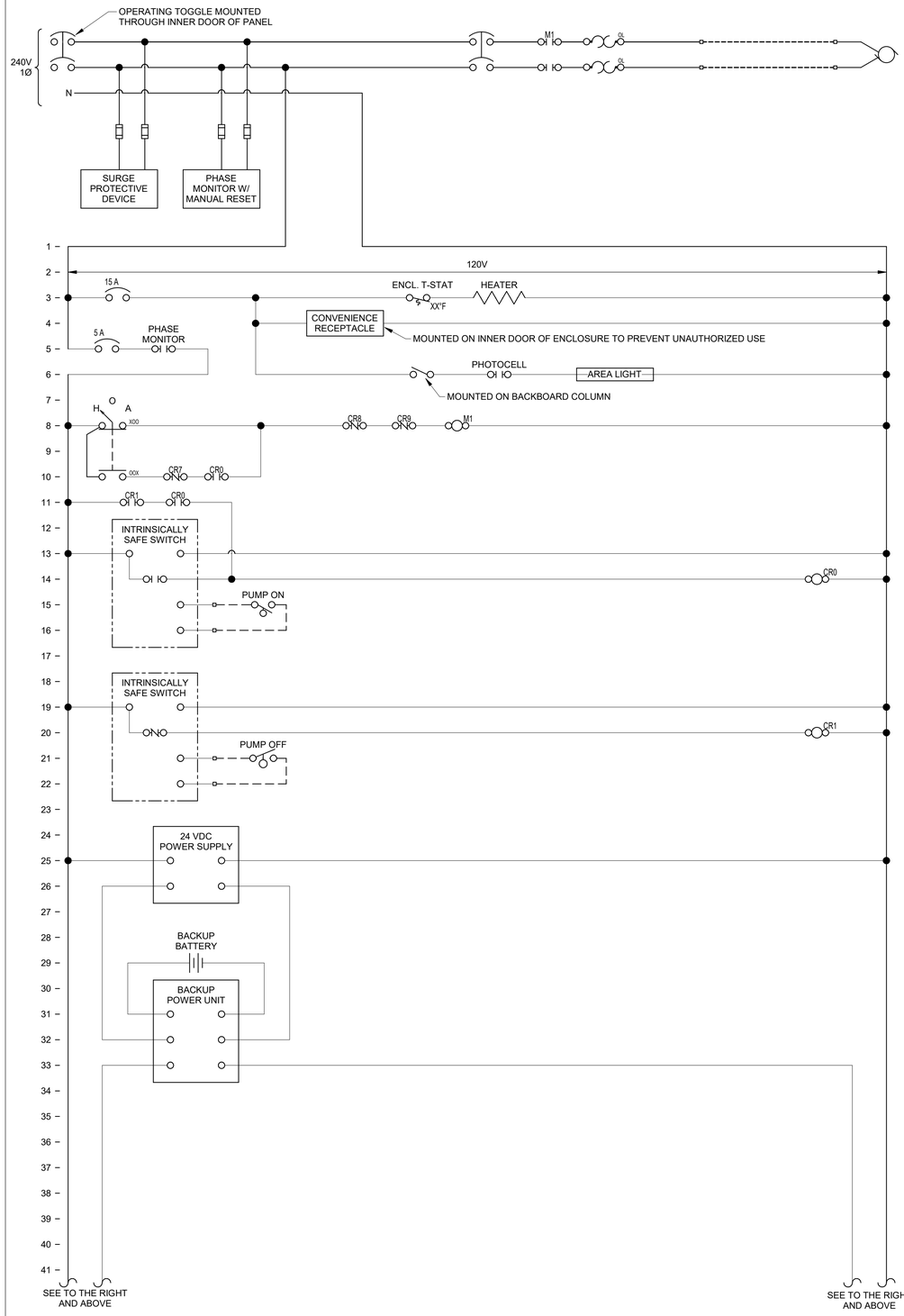
CAD DWG FILE: E602
DRAWING BY: JCM
CHECKED BY: ALD
DESIGNED BY: JCM

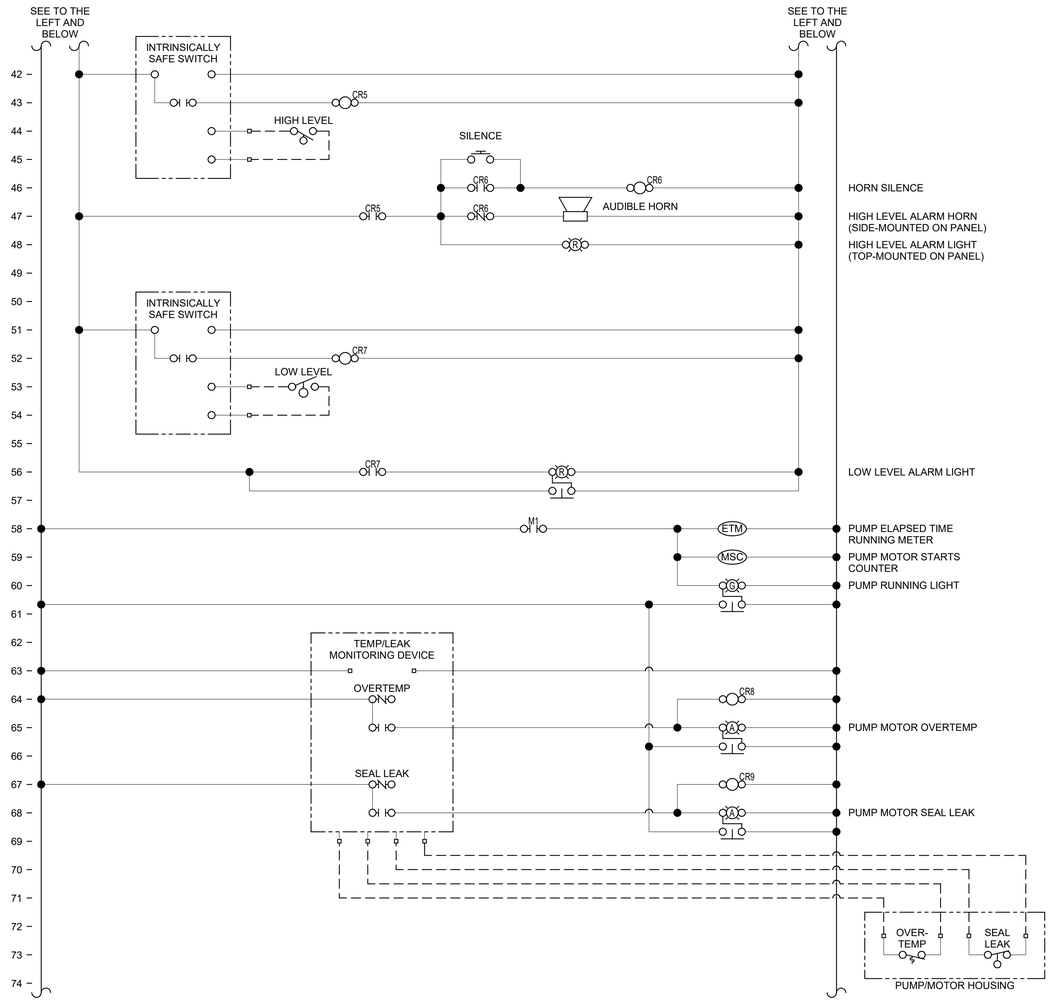
SHEET TITLE:

**ALTERNATE - COMBINED LIFT STATION CONTROL PANEL**

SHEET NUMBER:

# E602

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   A. THE WET WELL SHALL HAVE (5) FLOATS: LOW LEVEL, PUMP OFF, PUMP ON, AND HIGH LEVEL. FLOAT ELEVATIONS SHALL BE FINALIZED DURING CONSTRUCTION WITH OWNER INPUT.
   B. WHEN THE LIQUID LEVEL IN THE WET WELL SURPASSES THE PUMP OFF AND PUMP ON LEVELS, THE PUMP SHALL TURN ON AND CONTINUE OPERATING UNTIL THE LIQUID LEVEL FALLS BELOW THE PUMP OFF LEVEL.

**STATE OF MISSOURI**
**MIKE KEHOE, GOVERNOR**

**BIDDING DOCUMENTS**

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**LA GRANGE, MO 63448**

PROJECT # X2410-01
SITE # 5116
ASSET # 7815116007

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 10/31/2025

CAD DWG FILE: E603
DRAWING BY: JCM
CHECKED BY: ALD
DESIGNED BY: JCM

SHEET TITLE:

**ALTERNATE - SIMPLEX LIFT STATION CONTROL PANEL**

SHEET NUMBER:

# E603

SHEET 105 OF 105 10/31/2025