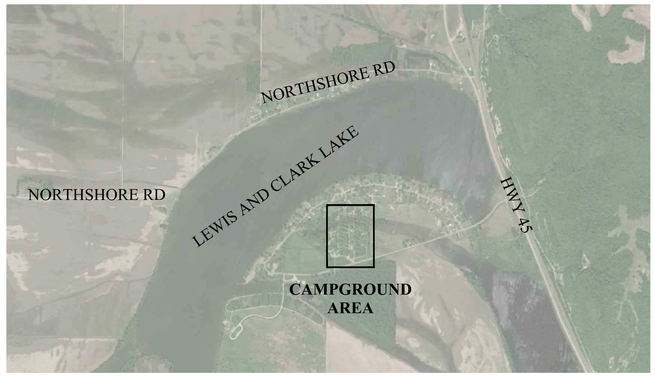
NEW PREMIUM CAMPSITES

LEWIS AND CLARK STATE PARK

Rushville, Missouri

LEWIS AND CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484
SITE NUMBER: 5109 ASSET NUMBER: 7815109022



OWNER: STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

DEPARTMENT OF
NATURAL RESOURCES,
MISSOURI STATE PARKS

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

PROJECT NUMBER: X2219-01

LANDSCAPE ARCHITECT:
VIREO
414 Oak Street, Suite 101
Kansas City, MO 64106
Phone: (816) 756-5690

CIVIL ENGINEER:
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INFRASTRUCTURE
CONSULTING
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Kansas City, MO 64108
Phone: (816) 800-0950

STRUCTURAL ENGINEER:
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Lee's Summit, MO 64086
Phone: (816) 444-3144

GEOTECHNICAL ENGINEER:
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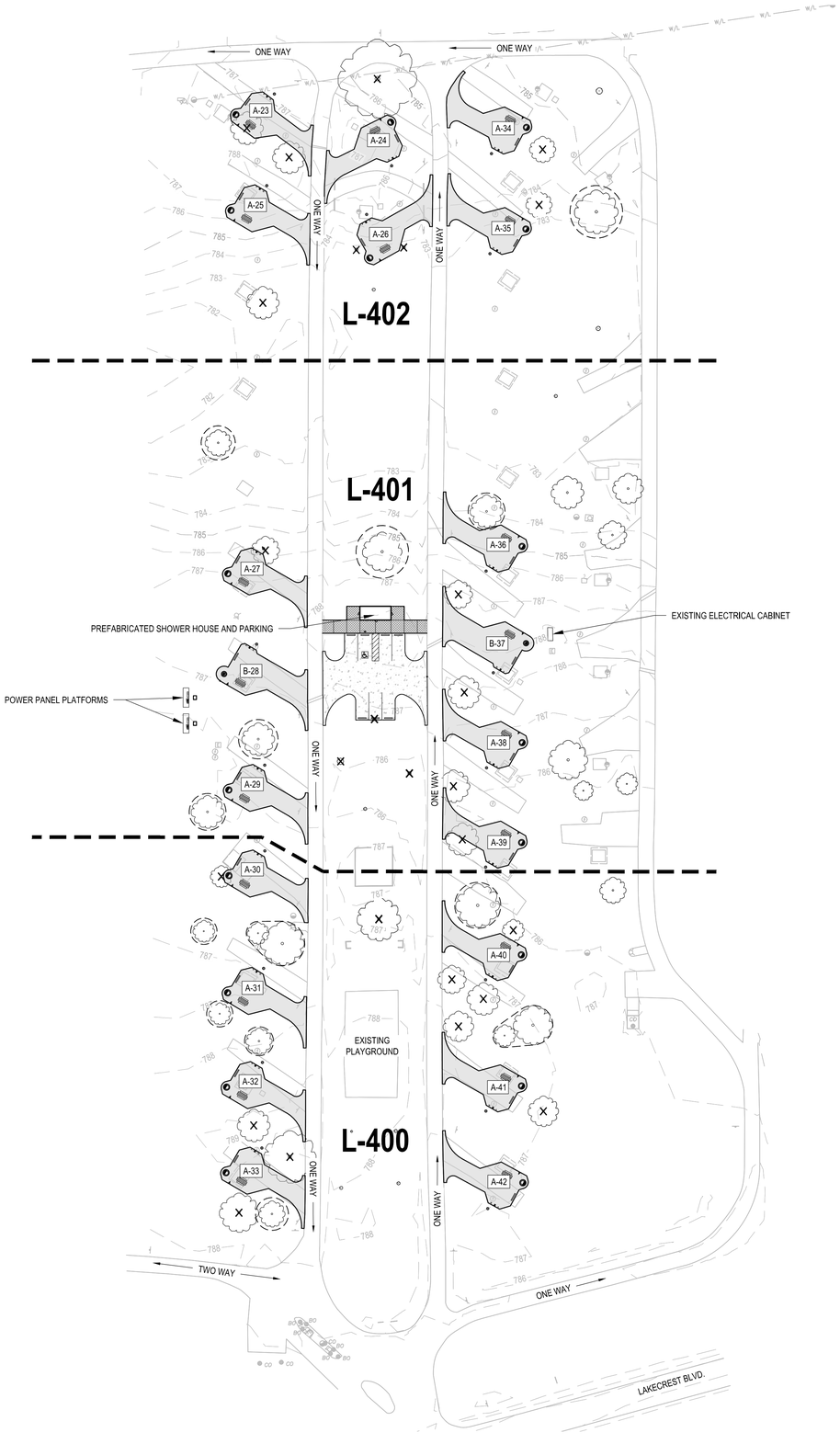
Phone: (913) 310-1600

MEP:
ANTELLA CONSULTING
ENGINEERS
1600 Genessee Street, Suite 260
Kansas City, MO 64102
Phone: (816) 421-0950

SHEET INDEX:

SHEET NUMBER:
G-001
1 OF 35 SHEETS
April 28, 2023



SITE LEGEND

- PIP CONCRETE PAVEMENT- 6" THICK
  RE: DETAIL 01 / L-501 AND SPECIFICATION 321313
- PIP CONCRETE PAVEMENT- 4" THICK
  RE: DETAIL 06 / L-501 AND SPECIFICATION 321313
- TREE PROTECTION FENCING
  RE: DETAIL 04 / L-501
- EXISTING TREE AND STUMP
  TO BE REMOVED (RE: SPECIFICATIONS)

CAMP SITE LEGEND

- A-# BACK-IN STANDARD CAMPSITE
  RE: 01 / L-500 FOR LAYOUT AND AMENITIES
- B-# BACK-IN ADA STANDARD CAMPSITE.
  RE: 02 / L-500 FOR LAYOUT AND AMENITIES

GENERAL NOTES

1. LANDSCAPE ARCHITECT WILL NOT BE HELD LIABLE FOR DISCREPANCIES BETWEEN SURVEY AND FIELD CONDITIONS. CONTRACTOR SHALL VISIT SITE IN ORDER TO VERIFY EXISTING SITE CONDITIONS FOR ACCURACY OF BID.
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES.
3. CONTRACTOR SHALL MAINTAIN DRAINAGE AND EROSION CONTROL DURING CONSTRUCTION AND IS RESPONSIBLE FOR ALL DE-WATERING NECESSARY DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITTING, FOLLOWING LOCAL, STATE AND FEDERAL EROSION AND SEDIMENTATION CONTROL REQUIREMENTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING EROSION CONTROL DEVICES NECESSARY TO CONTROL SOIL LOSS FROM THE SITE.
5. ALL AREAS SHALL BE BROUGHT TO FINAL PLAN CONDITION (PAVED, SODDED, SEEDED OR MULCHED) AS SOON AS POSSIBLE TO MAINTAIN FINISH GRADE CONDITIONS AND PREVENT SOIL LOSS.
6. ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED BY THE CONTRACTOR OFF SITE AT A LOCATION PROVIDED BY THE CONTRACTOR AND IN ACCORDANCE WITH MISSOURI REGULATIONS. THE CONTRACTOR SHALL SATISFY HIMSELF BY JOB-SITE INSPECTION AS TO THE EXTENT OF CLEARING REQUIRED PRIOR TO SUBMITTING A BID.
7. CONTRACTOR IS FULLY RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES ENCOUNTERED DURING THIS PROJECT. UTILITIES SHOWN REPRESENT THE BEST INFORMATION AVAILABLE DURING DESIGN. THESE UTILITIES ARE NOT REPRESENTED AS ALL INCLUSIVE AS OTHER UTILITIES MAY BE PRESENT. THE CONTRACTOR SHALL HAVE ALL UTILITIES FLAGGED IN THE FIELD FOR INSPECTION PRIOR TO PRECEDING WITH ANY GRADING OPERATIONS. THE CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES AND WILL BE HELD LIABLE FOR ANY DELAYS CAUSED BY DAMAGE TO UTILITIES OR FAILURE TO LOCATE UTILITIES.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION STAKING.
9. ALL EXISTING UTILITIES AND UTILITY POLES TO REMAIN UNLESS OTHERWISE NOTED. REFER TO CIVIL.
10. THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL INSPECTION SERVICES.
11. DRAWINGS AND SPECIFICATIONS DO NOT INDICATE OR DESCRIBE TOTAL WORK REQUIRED FOR COMPLETION OF WORK AND MAY NOT COVER SOME CONDITIONS WHICH MAY BE REQUIRED.
12. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED FOR OTHER PLANTINGS SHALL BE SEEDED WITH DROUGHT TOLERANT TURF-TYPE TALL FESCUE, RE: SPECIFICATIONS.
13. CONTRACTOR SHALL VERIFY TREES TO BE REMOVED WITH OWNER PRIOR TO REMOVAL. OWNER MAY DESIRE TO TRANSPLANT SMALL TREE SPECIES.

0 25 50 100 NORTH

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — MICHAEL L. PARSON — PROFESSIONAL LANDSCAPE ARCHITECT — PLA-2016004482 — 4.28.23

LANDSCAPE ARCHITECT:
LAC# MO-2002023826
VIREO
414 Oak Street, Suite 101
Kansas City, Missouri 64106
P 816-756-5690

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RENAISSANCE INFRASTRUCTURE CONSULTING
400 E. 17th Street
Kansas City, Missouri 64108
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MEP:
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STRUCTURAL:
LEIGH + O'KANE
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P 816-444-3144

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

DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

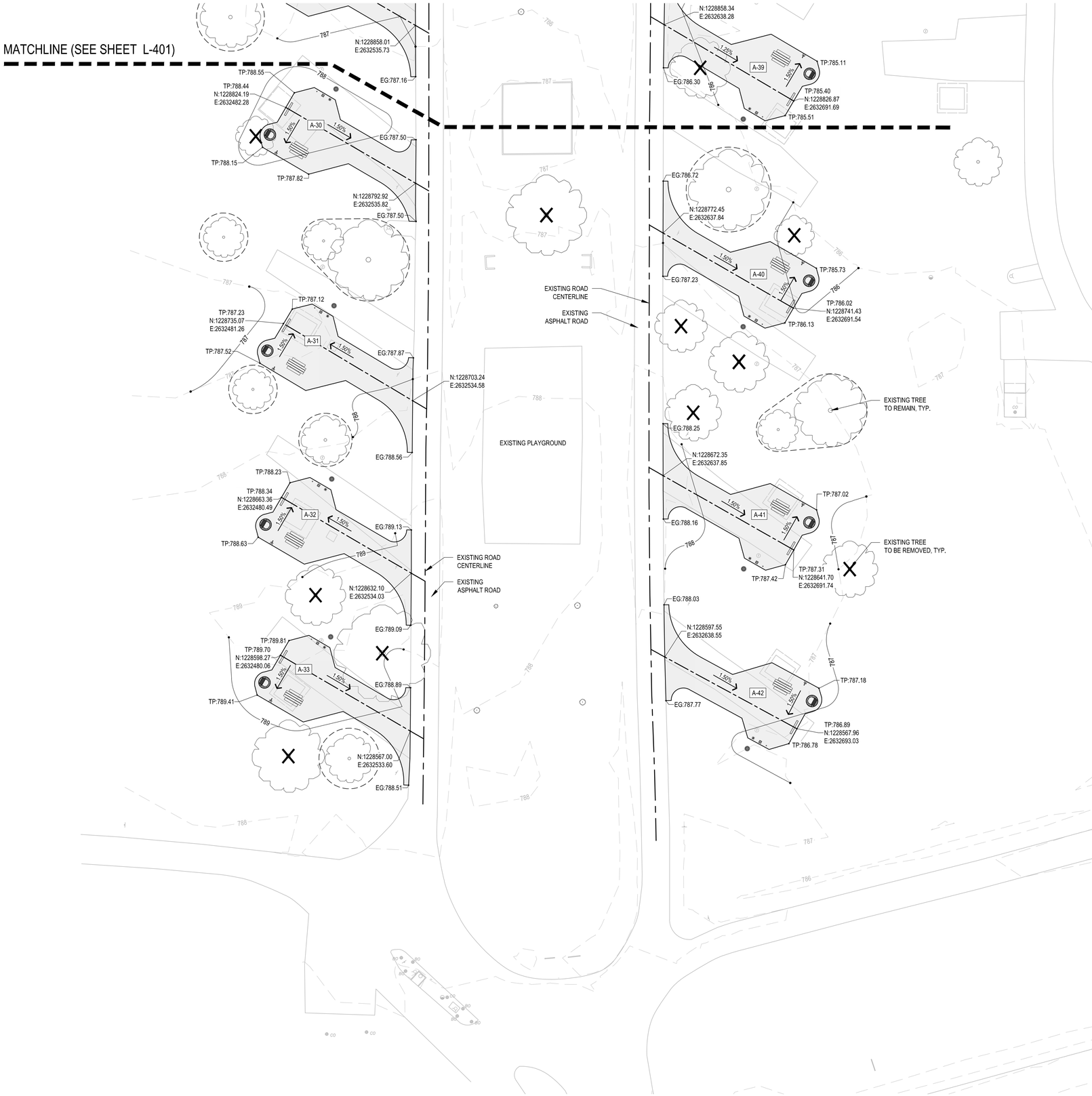
PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 4/28/2023

CAD DWG FILE:
DRAWN BY: JMR
CHECKED BY: CDP
DESIGNED BY: JMR / AES

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
L-100



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- PIP CONCRETE PAVEMENT- 6" THICK
  RE: DETAIL 01 / L-501 AND SPECIFICATION 321313
- PIP CONCRETE PAVEMENT- 4" THICK
  RE: DETAIL 06 / L-501 AND SPECIFICATION 321313
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- TREE PROTECTION FENCING
  RE: DETAIL 04 / L-501
- EXISTING TREE AND STUMP TO BE REMOVED (RE: SPECIFICATIONS)
- EG = EXISTING GRADE
  TP = TOP OF PAVEMENT

CAMP SITE LEGEND

- A-# BACK-IN STANDARD CAMPSITE
  RE: 01 / L-500 FOR LAYOUT AND AMENITIES
- B-# BACK-IN ADA STANDARD CAMPSITE,
  RE: 02 / L-500 FOR LAYOUT AND AMENITIES

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
JAMES C. KNIGHT
NUMBER
PLA-2016004482
PROFESSIONAL LANDSCAPE ARCHITECT
4.28.23

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PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

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DATE:
REVISION:
DATE:
ISSUE DATE: 4/28/2023

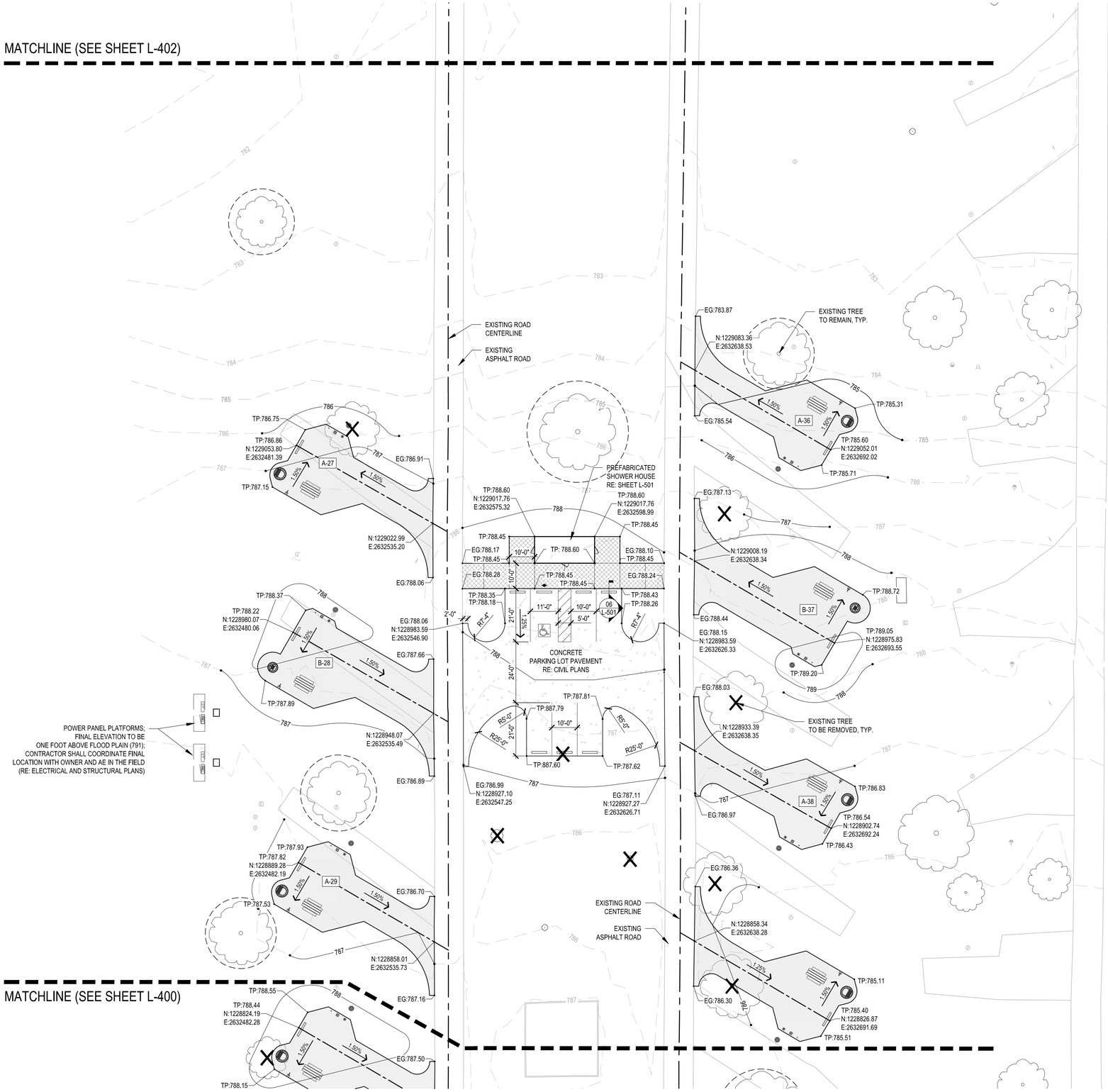
CAD DWG FILE:
DRAWN BY: JMR
CHECKED BY: CDP
DESIGNED BY: JMR / AES

SHEET TITLE:

SITE PLAN ENLARGEMENT

SHEET NUMBER:

L-400



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  RE: 01 / L-500 FOR LAYOUT AND AMENITIES
- B-# — BACK-IN ADA STANDARD CAMPSITE,
  RE: 02 / L-500 FOR LAYOUT AND AMENITIES

PARKING NOTES

1. ACCESSIBLE PARKING SYMBOL SHALL HAVE A BLUE BACKGROUND WITH WHITE BORDER AND SYMBOL PER MUTCD.
2. ALL PARKING STALLS SHALL HAVE A REINFORCED CONCRETE PARKING BUMPER PINNED INTO PAVEMENT; RE: SPECIFICATION 321713.
3. VAN ACCESSIBLE PARKING SIGN SHALL BE CENTERED ON ACCESSIBLE PARKING STALL; RE: DETAIL 07/SHEET L401.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — MICHAEL L. PARSON — NUMBER PLA-2016004482 — PROFESSIONAL LANDSCAPE ARCHITECT — 4.28.23

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RUSHVILLE, MO 64484

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FACILITY # 7815109022

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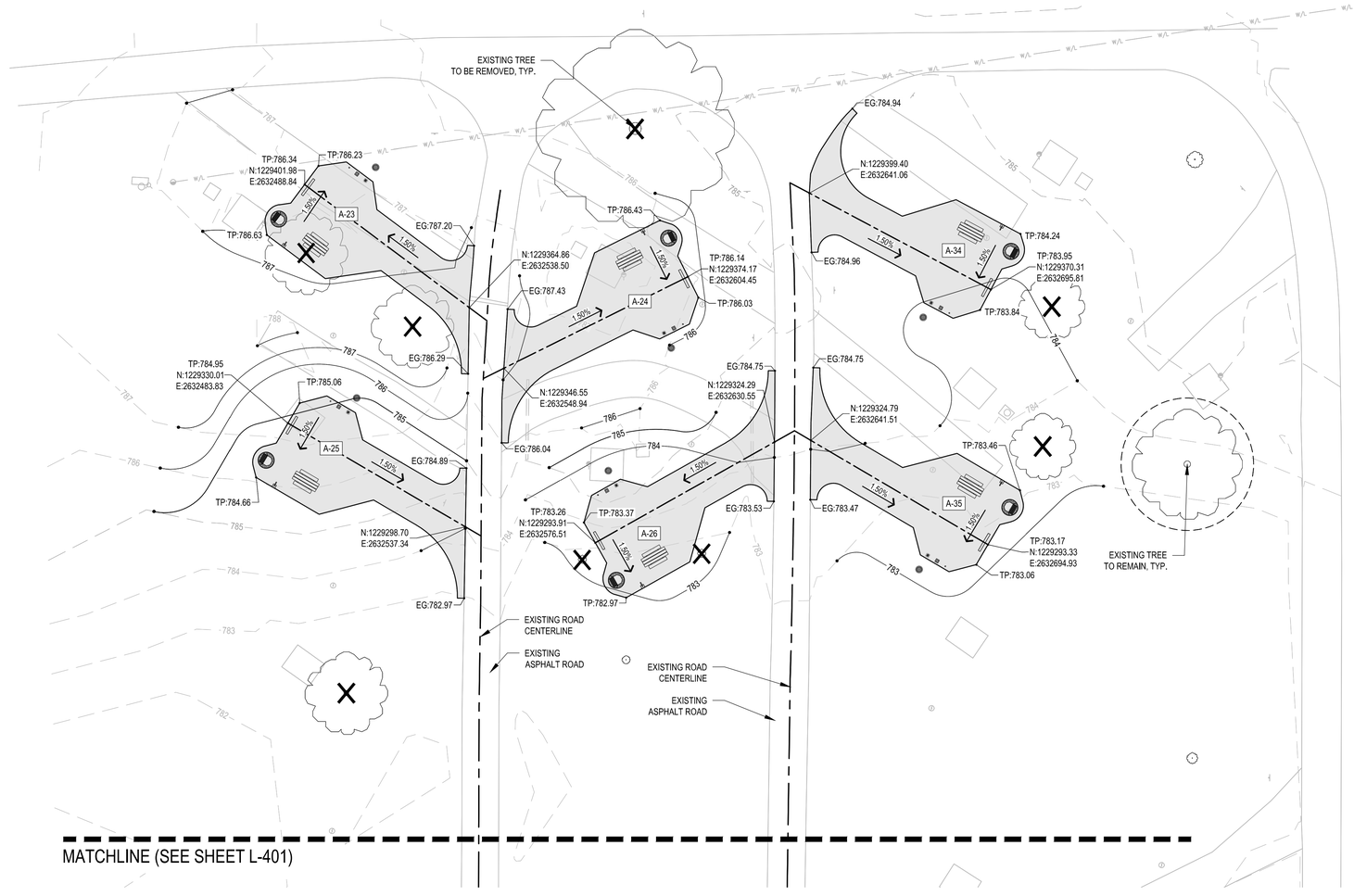
DATE:
REVISION:
DATE:
ISSUE DATE: 4/28/2023

CAD DWG FILE:
DRAWN BY: JMR
CHECKED BY: CDP
DESIGNED BY: JMR / AES

SHEET TITLE:
SITE PLAN ENLARGEMENT

SHEET NUMBER:
L-401

SHEET 4 OF 35
4/28/2023



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0 10 20 40

NORTH

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
DONALD C. KNIGHT
NUMBER
PLA-2016004482
PROFESSIONAL LANDSCAPE ARCHITECT
4.28.23

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LA©# MO-2002023826
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PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

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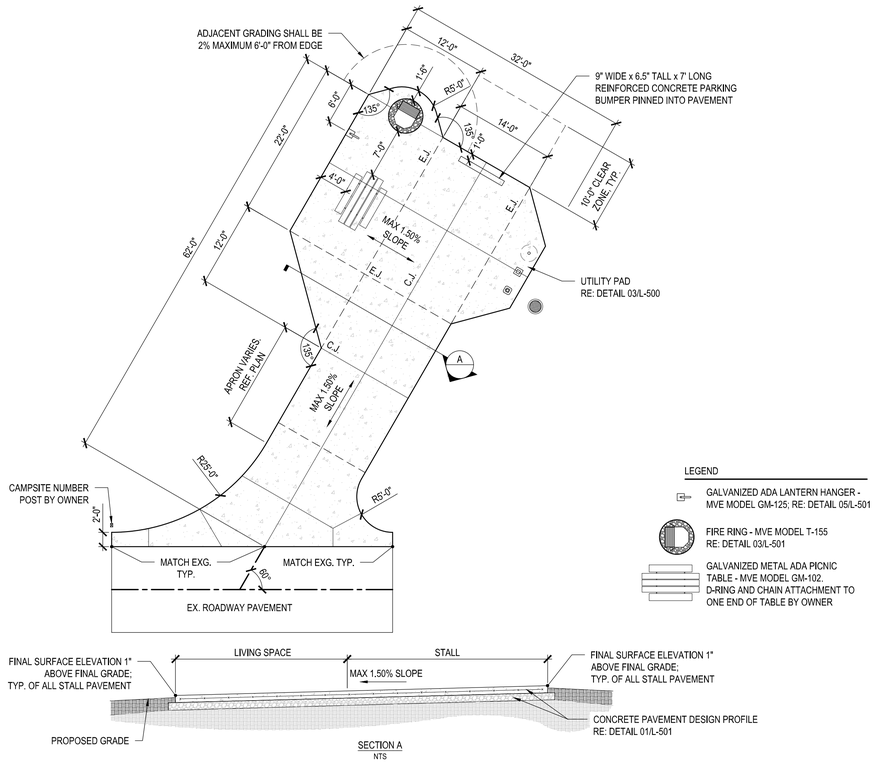
DATE:
ISSUE DATE: 4/28/2023

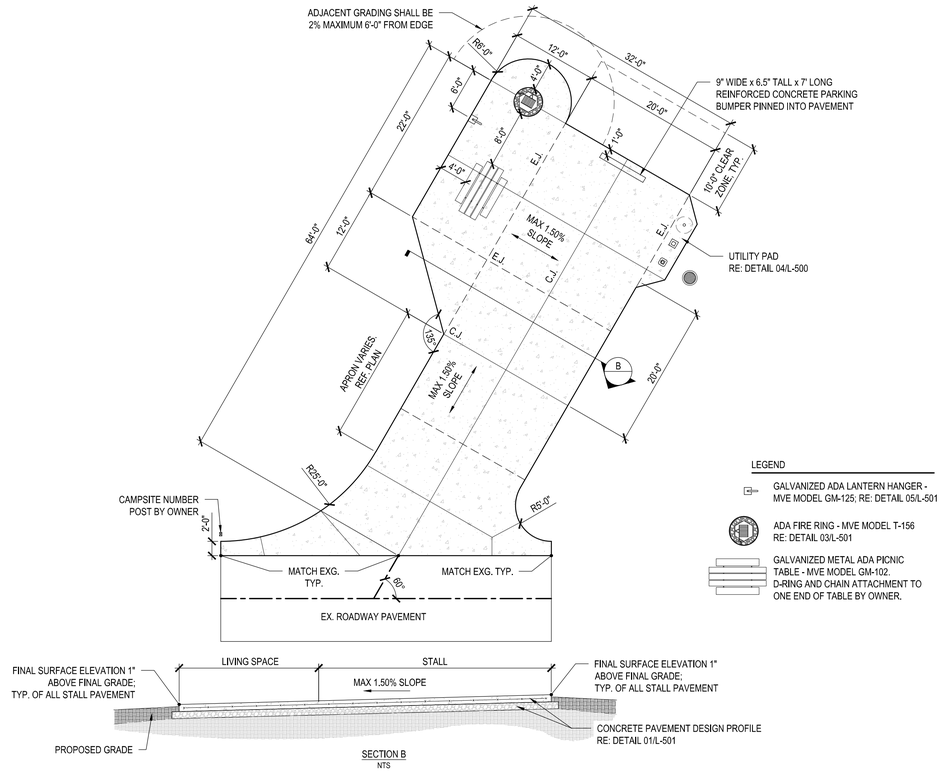
CAD DWG FILE:
DRAWN BY: JMR
CHECKED BY: CDP
DESIGNED BY: JMR / AES

SHEET TITLE:
SITE PLAN ENLARGEMENT

SHEET NUMBER:
L-402



A - BACK-IN STANDARD N.T.S. 01



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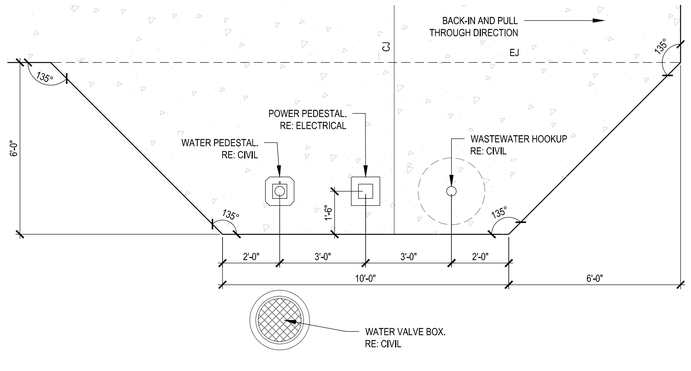
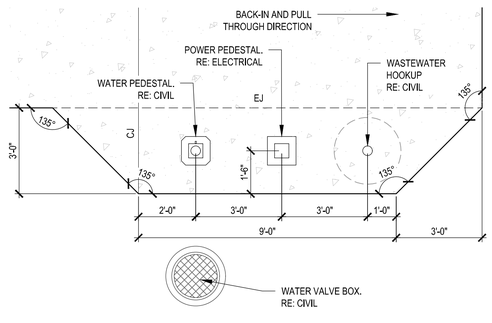


FULL SERVICE PAD

UTILITY PAD N.T.S. 03



FULL SERVICE PAD

ADA UTILITY PAD N.T.S. 04

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR

STATE OF MISSOURI
DONALD R. KNAPP
NUMBER
PLA-2016004482
PROFESSIONAL LANDSCAPE ARCHITECT
4.28.23

LANDSCAPE ARCHITECT:
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NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
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REVISION:
DATE:
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DATE:
REVISION:
DATE:
ISSUE DATE: 4/28/2023

CAD DWG FILE:
DRAWN BY: JMR
CHECKED BY: CDP
DESIGNED BY: JMR / AES

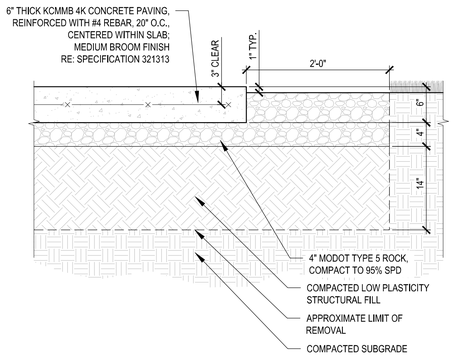
SHEET TITLE:
SITE DETAILS

SHEET NUMBER:
L-500

SHEET 6 OF 35
4/28/2023

NOTES:

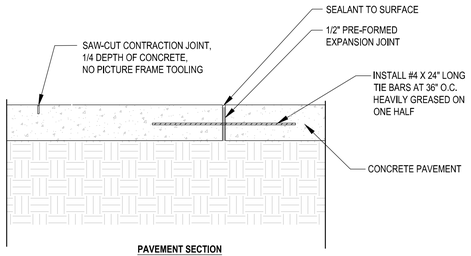
1. REFERENCE THE GEOTECHNICAL REPORT FOR SPECIFIC RECOMMENDATIONS REGARDING THE PAVEMENT SECTION.



CONCRETE PAVEMENT N.T.S. 01

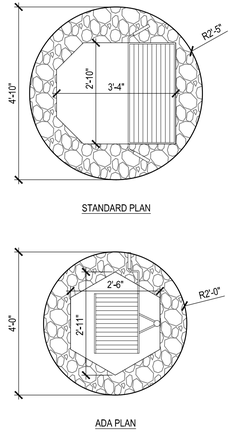
NOTES:

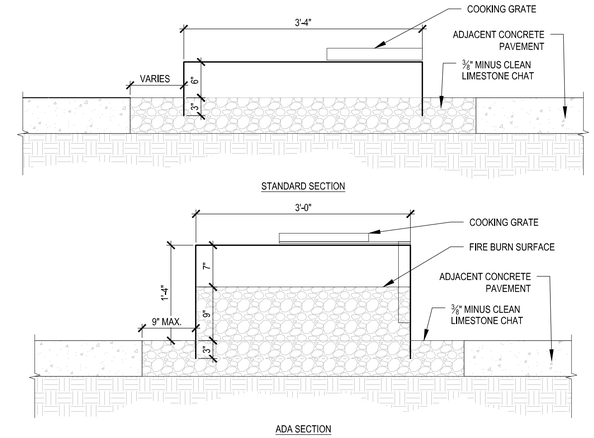
1. CONCRETE PAVEMENT TO HAVE MEDIUM BROOM FINISH PERPENDICULAR TO THE CENTERLINE OF THE CAMPSITE.
2. EXPANSION JOINTS SHALL OCCUR AS SHOWN.
3. CONTRACTION JOINTS SHALL OCCUR AS SHOWN.



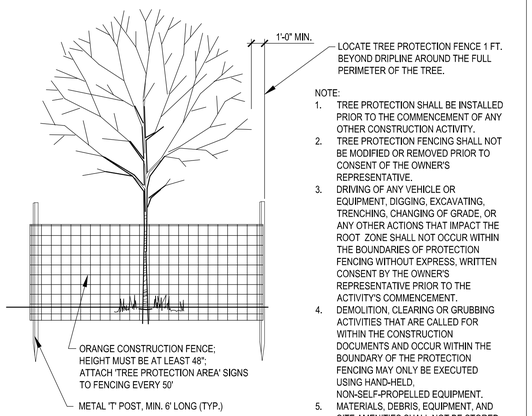
PAVEMENT SECTION

CONCRETE JOINTING N.T.S. 02



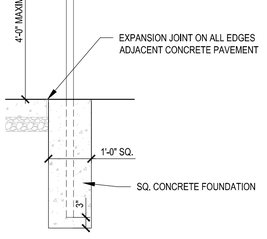


FIRE RING N.T.S. 03



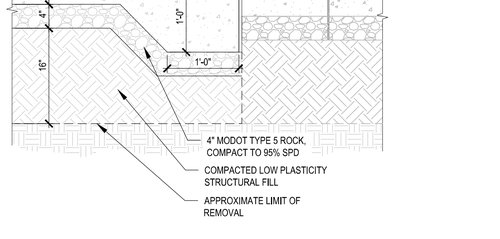
NOTE:
1. TREE PROTECTION SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY OTHER CONSTRUCTION ACTIVITY.
2. TREE PROTECTION FENCING SHALL NOT BE MODIFIED OR REMOVED PRIOR TO CONSENT OF THE OWNER'S REPRESENTATIVE.
3. DRIVING OF ANY VEHICLE OR EQUIPMENT, DIGGING, EXCAVATING, TRENCHING, CHANGING OF GRADE, OR ANY OTHER ACTIONS THAT IMPACT THE ROOT ZONE SHALL NOT OCCUR WITHIN THE BOUNDARIES OF PROTECTION FENCING WITHOUT EXPRESS, WRITTEN CONSENT BY THE OWNER'S REPRESENTATIVE PRIOR TO THE ACTIVITY'S COMMENCEMENT.
4. DEMOLITION, CLEARING OR GRUBBING ACTIVITIES THAT ARE CALLED FOR WITHIN THE CONSTRUCTION DOCUMENTS AND OCCUR WITHIN THE BOUNDARY OF THE PROTECTION FENCING MAY ONLY BE EXECUTED USING HAND-HELD, NON-SELF-PROPELLED EQUIPMENT.
5. MATERIALS, DEBRIS, EQUIPMENT, AND SITE AMENITIES SHALL NOT BE STORED WITHIN THE TREE PROTECTION AREA.

TREE PROTECTION FENCING N.T.S. 04



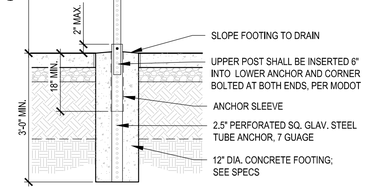
LANTERN HANGER N.T.S. 05

THIS DETAIL SHALL BE USED AT ALL LOCATIONS WHERE THE SIDEWALK ABUTS THE PARKING LOT

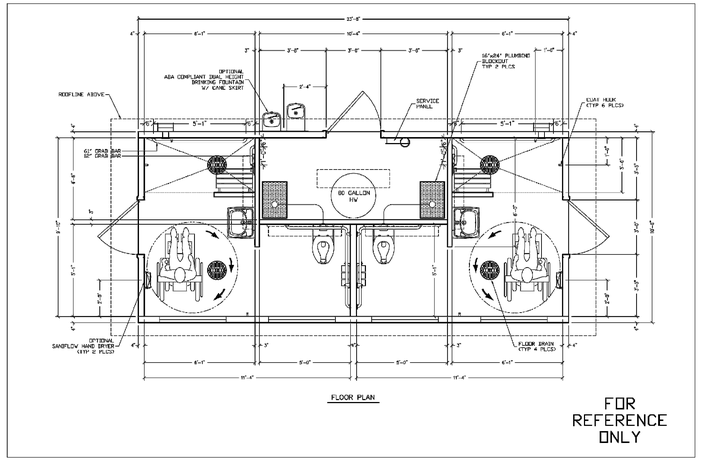


TURNED DOWN CONCRETE PAVEMENT N.T.S. 06

NOTE:
1. ACCESSIBLE SIGN TO BE CENTERED ON PARKING STALL.
2. SIGN AND POST WILL BE PROVIDED BY OWNER BUT INSTALLED BY CONTRACTOR.



VAN ACCESSIBLE PARKING SIGN N.T.S. 07



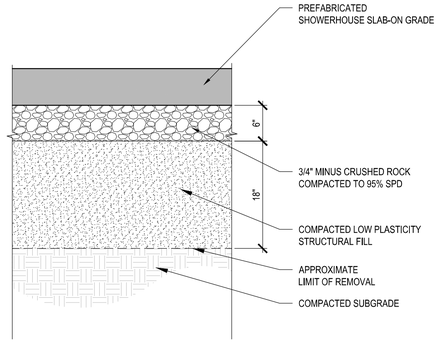
FLOOR PLAN

FOR REFERENCE ONLY

NOTE:
1. SHOWER HOUSE TO BE PURCHASED BY OWNER.
2. PROVIDED BY RESTROOM MANUFACTURER:
   A. FABRICATION OF RESTROOM
   B. DELIVERY TO SITE
   C. PLACEMENT ON PREPARED PAD
3. PROVIDED BY CONTRACTOR:
   A. PREPARE SHOWER HOUSE FOUNDATION PER DETAIL 09 ON THIS SHEET.
   B. INSTALLATION OF ALL NECESSARY SITE UTILITIES AND UTILITIES UNDER RESTROOM PAD. CONTRACTOR SHALL COORDINATE ALL BLOCKOUT LOCATIONS AND REQUIRED UTILITIES WITH SHOWER HOUSE MANUFACTURER.
   C. CONTRACTOR SHALL COORDINATE WITH SHOWER HOUSE MANUFACTURER AND MEP PROFESSIONAL LICENSED IN THE STATE OF MISSOURI FOR ALL REQUIRED BELOW FLOOR PIPING INCLUDING, BUT NOT LIMITED TO, FLOOR DRAINS, VENT PIPES, WASTE PIPES, WATER SERVICE AND ELECTRICAL STUBS.
   D. AFTER SHOWER HOUSE IS PLACED, CONTRACTOR SHALL PROVIDE CONNECTIONS BY A LICENSED PLUMBER AND ELECTRICIAN.
   E. MINIMUM BURY 42-INCHES, OR PER LOCAL REQUIREMENTS, TO PROTECT AGAINST FREEZING AND DAMAGE.

PREFABRICATED SHOWER HOUSE N.T.S. 08

NOTES:
1. PRIOR TO PLACEMENT OF THE BUILDING, A PROPERLY PREPARED SUB-BASE SHALL BE PROVIDED AND APPROVED BY OWNER'S REPRESENTATIVE, REFERENCE THE GEOTECHNICAL REPORT AND MANUFACTURER'S RECOMMENDATIONS FOR SPECIFIC RECOMMENDATIONS REGARDING SOIL PREPARATION FOR THE SLAB ON GRADE FOUNDATION.
2. SUB-BASE SHALL BE A MINIMUM OF 6" THICK AND CONSIST OF 3/4" MINUS CRUSHED ROCK COMPACTED TO 95% OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D1557.
3. FINISHED SURFACE OF SUB-BASE SHALL BE UNIFORMLY LEVEL, NOT VARYING MORE THAN 1/2" FROM A TRUE HORIZONTAL PLANE.
4. THE EDGES OF COMPACTED FILL SHOULD EXTEND A MINIMUM OF FIVE (5) FEET BEYOND THE BUILDING FOOTPRINT. THE MEASUREMENT SHOULD BE TAKEN FROM THE OUTSIDE EDGE OF THE FOOTING TO THE TOE OF THE EXCAVATION PRIOR TO SLOPING.



SHOWER HOUSE FOUNDATION N.T.S. 09

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — MICHAEL J. NEWMAN — PLA-2016004482 — PROFESSIONAL LANDSCAPE ARCHITECT — 4.28.23

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 4/28/2023

CAD DWG FILE:
DRAWN BY: JMR
CHECKED BY: CDP
DESIGNED BY: JMR / AES

SHEET TITLE:
SITE DETAILS

SHEET NUMBER:
L-501

SHEET 7 OF 35
4/28/2023

ADA ACCESSIBLE ROUTE NOTES

1. All Accessible route construction shall conform to the latest version of the ADA Standards for Accessible Design published by the Department of Justice and the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way published by the United States Access Board.
2. Other than ramps and ramp runs, walking surfaces must have running slopes not steeper than 1:20.
3. The cross slope of walking surfaces shall not be steeper than 2%.
4. The minimum width for a linear segment of accessible route shall be 36 inches.
5. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches wide, clear width shall be 42 inches minimum approaching the turn, 48 inches minimum at the turn and 42 inches leaving the turn.
6. An accessible route with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum. Passing spaces shall be 60 inch by 60 inch minimum.
7. Ramp runs shall have a running slope not steeper than 1:12.
8. Ramp runs with a rise greater than 6 inches shall have handrails.
9. Ramp landings with a maximum slope of 1:48 shall be provided before and after ramp runs.
10. The maximum rise of a ramp run shall be 30 inches.
11. The maximum counter slope between the pavement and the curb at a curb ramp shall be 1:20.
12. Curb ramp landings with a maximum slope of 1:48 shall be provided at the top of curb ramps with a clear width of 60 inches.
13. Detectable warning surfaces complying with the latest ADA Standards shall be provided at pedestrian street crossings and refuge islands.
14. Passenger loading zones shall be provided adjacent to any ADA Accessible stall and have a 2% maximum slope in all directions.
15. Contractor to field verify existing site conditions and contact the engineer if field conditions do not match plan prior to construction.

LAYOUT & PAVING NOTES

1. All construction shall conform to the Missouri State Parks Dept minimum design standards.
2. The contractor shall check existing grades, dimensions, and inverts in the field and report any discrepancies to the architect/engineer prior to beginning work.
3. The contractor shall verify the exact location of all existing utilities, take care to protect utilities that are to remain, and repair contractor caused damage according to current local standards and at the contractor's expense. Coordinate all construction with the appropriate utility company.
4. The contractor shall comply with all local codes, obtain all permits, and pay all fees prior to beginning work.
5. Provide a smooth transition between existing pavement and new pavement. Field adjustment of final grades may be necessary. Adjust all utilities prior to installation of pavement.
6. The contractor shall protect all trees to remain, in accordance with the specifications. Do not operate or store heavy equipment, nor handle, nor store materials within the drip lines of trees or outside the limit of grading.
7. Concrete walks and pads shall have a broom finish. All concrete shall be 4,000 p.s.i. unless otherwise noted. Curb ramps, sidewalk slopes, and driveway ramps shall be constructed in accordance with all current local requirements. If applicable, the contractor shall request inspection of sidewalk and ramp forms prior to placement of concrete.
8. All damage to existing asphalt and concrete pavement to remain which results from new construction shall be replaced with like materials at contractor's expense.
9. Dimensions are to the back of curb, or edge of concrete, unless otherwise noted.
10. Maintain one set of as-built drawings on the job site for distribution to the engineer upon completion.
11. For all asphalt pavement, the contractor shall have no more than 30% recycled material in the base course and no recycled material in the surface course.

PAVEMENT MARKING AND SIGNAGE NOTES

1. Parking stall marking stripes shall be four inch (4") wide white stripes. Handicap stall marking shall be furnished at locations shown on plans.
2. Traffic control devices and pavement markings shall conform to the requirements of the "Manual of Uniform Traffic Control Devices."
3. Traffic control and pavement markings shall be painted with a white Sherwin Williams TM2125 HOTLINE Fast Dry or approved equal. The pavement marking shall be applied in accordance with manufacturers recommendations. Apply on a clean, dry surface and at a surface temperature of not less than 70°f and the ambient air temperature shall not be less than 60°f and rising. Two coats shall be applied.

WRITTEN SEQUENCING

1. Implement Pre-Construction Plan:
   All temporary structural BMP's shown on the BMP plan must be in place before any site disturbance. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all erosion control measures after installation. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities. This area includes Stream Corridor.
2. Clear and Stabilize Work Areas:
   Grade contractor areas and place all-weather surface on contractor areas.
3. Clearing and Grubbing:
   After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

GRADING NOTES

1. All construction shall conform to the Missouri State Parks Dept minimum design standards.
2. Spot Grades shown herein shall govern over finished grades.
3. The contractor shall provide evidence that his insurance meets the requirements of the Project.
4. All traffic control shall be in conformance with the Manual of Uniform Traffic Control Devices (MUTCD).
5. The contractor is responsible for the protection of all property corners and section corners. Any property corners and/or section corners disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Missouri, at the contractor's expense.
6. The contractor is responsible for providing erosion and sediment control BMPs to prevent sediment from reaching paved areas, storm sewer systems, drainage courses and adjacent properties. In the event the prevention measures are not effective, the contractor shall remove any debris, silt, or mud and restore the right-of-way, or adjacent properties to original or better condition.
7. All sidewalk ramps constructed will be required to comply with the Americans with Disabilities Act (ADA).
8. All work shall be confined within easements and/or construction limits as shown on the plans.
9. Curb stakes and hubs shall be provided at all high points, low points, ADA ramp openings, and on each side of all curb inlets when setting string line.
10. All National Pollution Discharge Elimination System (NPDES) standards shall be met.
11. Public and Private utility facilities shall be moved or adjusted as necessary by the owners to fit the new construction unless otherwise noted on the plans. The Contractor is responsible for the cost of utility relocations unless otherwise indicated on the plans.

EARTHWORK NOTES:

1. CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one feet (1') contour intervals, unless otherwise noted. Proposed contours and elevations shown represent approximate finish grade.
2. CLEARING AND GRUBBING: Prior to the start of grading and earthwork, the areas to be graded shall be stripped of all vegetation, organic matter, and topsoil, to a minimum depth of four inches (4") or as otherwise directed by the Geotechnical Engineer. Stripping materials shall not be incorporated into structural fills. Topsoil materials shall not be used in building and pavement areas.
3. TOPSOIL: Prior to the start of grading, the contractor shall strip all topsoil from areas to be graded and stockpile at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. Subgrade below turf areas shall have a minimum 6" depth of soil free of rock larger than 3".
4. SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proof rolled and approved under the direction of the Geotechnical Engineer or his representative.
5. proof rolling: Prior to the placement of new fill material, the existing subgrade shall be proof rolled and approved under the direction of the Geotechnical Engineer. Unsuitable areas identified by the proof rolling areas shall be undercut and replaced with controlled structural fill or treated with fly ash per the Geotechnical report.
6. EARTHWORK:
   A. GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report.
   B. SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.
   C. FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil, and debris. All fill required for project shall be provided by the Contractor. Material Shall be pre-approved by the Engineer prior to placement.
   D. EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). Fill material shall be placed and compacted in horizontal lifts not exceeding nine inched (9") (loose fit measurement), unless otherwise approved by the Geotechnical Engineer.
   E. COMPACTION REQUIREMENTS: Earth fill material shall be placed and compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall be within a range of -2% to 3% above the optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.
7. TESTING AND INSPECTION: Testing and inspection services required to make tests required by the specifications and to observe the placement of fills and other work performed on this project shall be provided by a commercial testing laboratory (Geotechnical Engineer) selected by the owner. The cost of testing will be the owner's responsibility.
8. SEEDING: All areas disturbed by earthwork operations shall be seeded per Specification 239200 - NON-NATIVE TURF.

SITE UTILITY NOTES

1. The contractor is specifically cautioned that the location and/or elevation of existing utilities as Shown on these plans is based on records of the various utility Companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate and/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
2. The construction of storm sewers on this project shall conform to the requirements of Missouri State Parks Dept Technical Specifications and Design Criteria.
3. The contractor shall field verify the exact location and elevation of the existing storm sewer locations and the existing elevations at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans. The contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
4. It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
5. Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of the curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes.
6. The contractor shall be responsible for furnishing and installing all domestic water lines, meters, back flow devices, pits, valves and all other incidentals required for a complete operable domestic water system. Coordinate with the local water department as necessary. All costs associated with the complete water system for the campgrounds shall be the responsibility of the contractor. All work shall conform to the requirements of Missouri State Parks Dept.
7. The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the campground to the main line. All work shall conform to the requirements of Missouri State Parks Dept.
8. The contractor is responsible for securing all permits, bonds and insurance required by the contract documents, Missouri State Parks Dept, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by the construction documents. The cost for all permit bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
9. By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
10. All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
11. Minimum trench width shall be 2 feet.
12. Contractor shall maintain a minimum of 42" of cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to the Missouri State Parks Dept specifications for commercial services.
13. All waterlines shall be kept ten feet (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 18" vertical clearance (outside edge of pipe to outside edge of pipe) of the waterline above the sewer line is required.
14. In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of the crossing (or encased in concrete the same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 18" clearance. Meeting requirements ANSI A21.10 or ANSI 21.11 (AWWA C151)(Class 50).
15. All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
16. When a building utility Connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such utility terminations.

GENERAL NOTES

1. The contractor shall provide evidence that his insurance meets the requirements of Missouri State Parks Dept.
2. All traffic control shall be in conformance with the Manual of Uniform Traffic Control Devices (MUTCD).
3. The contractor is responsible for the protection of all property corners and section corners. Any property corners and/or section corners disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Missouri, at the contractor's expense.
4. The contractor shall be responsible for the restoration of the right-of-way and for damaged improvements such as curbs, driveways, sidewalks, street light and traffic signal junction boxes, traffic signal loop lead ins, signal poles, irrigation systems, etc. Damaged improvements shall be repaired in conformance with the latest City and State standards and to the City's and/or State's satisfaction.
5. The contractor is responsible for providing erosion and sediment control BMPs to prevent sediment from reaching paved areas, storm sewer systems, drainage courses and adjacent properties. In the event the prevention measures are not effective, the contractor shall remove any debris, silt, or mud and restore the right-of-way, or adjacent properties to original or better condition.
6. Excavation for utility work in public street right-of-way requires a Right-of-Way Work Permit from the Public Works Department, in addition to all other permits.
7. All work shall be confined within easements and/or construction limits as shown on the plans.
8. All existing utilities indicated on the drawings are according to the best information available to the engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All utilities, shown and un-shown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.
9. The contractor will be responsible for all damages to existing utilities, pavement, fences, structures, and other features not designated for removal. The contractor shall repair all damages at his expense.
10. By use of these construction documents the contractor hereby agrees that he shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses, or damages related to the project.
11. The contractor will be responsible for providing all signage, barricades, lighting, etc., as required for temporary traffic control during the construction of this project. Maintenance of the temporary traffic control devices will be the contractor's responsibility.
12. Geogrid, footings, or other elements of the retaining wall(s) cannot encroach into the right of way, public easements, or adjacent private property.
13. Contractor shall be responsible for obtaining all permits including land disturbance, right-of-way, hauling, etc., prior to construction.
14. Contractor shall restore all disturbed right-of-way upon project completion.
15. Prior to construction, contractor shall install pre-construction erosion control measures.

EROSION CONTROL NOTES

1. The contractor shall provide all materials, tools, equipment, and labor as necessary to install and maintain adequate erosion control, keep the streets clean of mud and debris, and prevent soil from leaving the project site. The contractor's erosion control measures shall conform to Missouri State Parks Dept Technical Provisions and Specifications.
2. Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
3. The contractor shall be responsible for maintaining erosion control devices and removing sediment until a minimum of 70% of permanent vegetation has become stabilized and established. Erosion control devices shall remain in place until the 70% established vegetation is met, or the duration of the project, whichever is the later date.
4. The contractor shall temporarily seed and mulch all disturbed areas if there has been no construction activity on them for a period of fourteen (14) calendar days.
5. Install "J' Hooks on silt fence every 100 LF
6. Contractor to install all Phase I erosion control devices prior to construction.
7. Contractor shall replace disturbed area with seed or sod, as indicated on the plans, and shall be installed within 14 days after paving completion and final topsoil grading.
8. Topsoil replacement shall be 6" thick.
9. Silt fence to be installed in accordance with Missouri State Parks Dept Standard Details.
10. Refer to Specifications for good housekeeping and spill measures.
11. The Contractor shall inspect erosion control devices every 7 days and within 24 hours of a storm of 0.5 inches or more. The Contractor shall repair damage, clean out sediment, and add additional erosion control devices as needed, as soon as practicable, after inspection. The Contractor shall also inspect and assure that all sediment control devices are in working condition prior to any forecasted rainfall.

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI · MITCHELL SLUTTER · NUMBER PE-2002003418 · PROFESSIONAL ENGINEER
4/28/23
MITCHELL E. SLUTTER PE-2002003418

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SITE # 5109
FACILITY # 7815109022

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ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
C-001

NORTH
1"=50'
0 25' 50'

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MICHAEL L. PARSON, GOVERNOR

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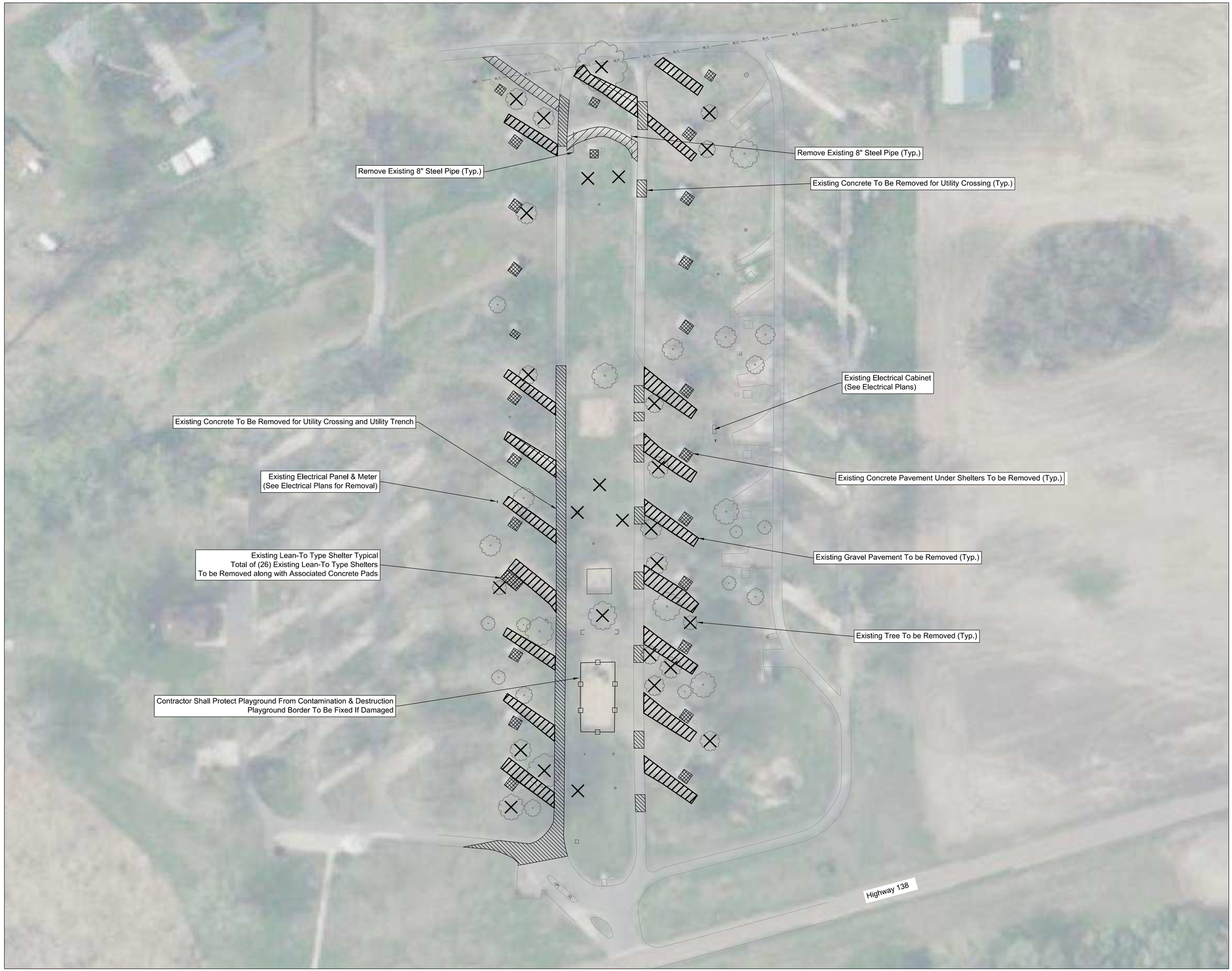
SHEET TITLE:

EXISTING CONDITIONS

SHEET NUMBER:

C-002



NORTH

1"=50'

0 25' 50'

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
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PROFESSIONAL ENGINEER
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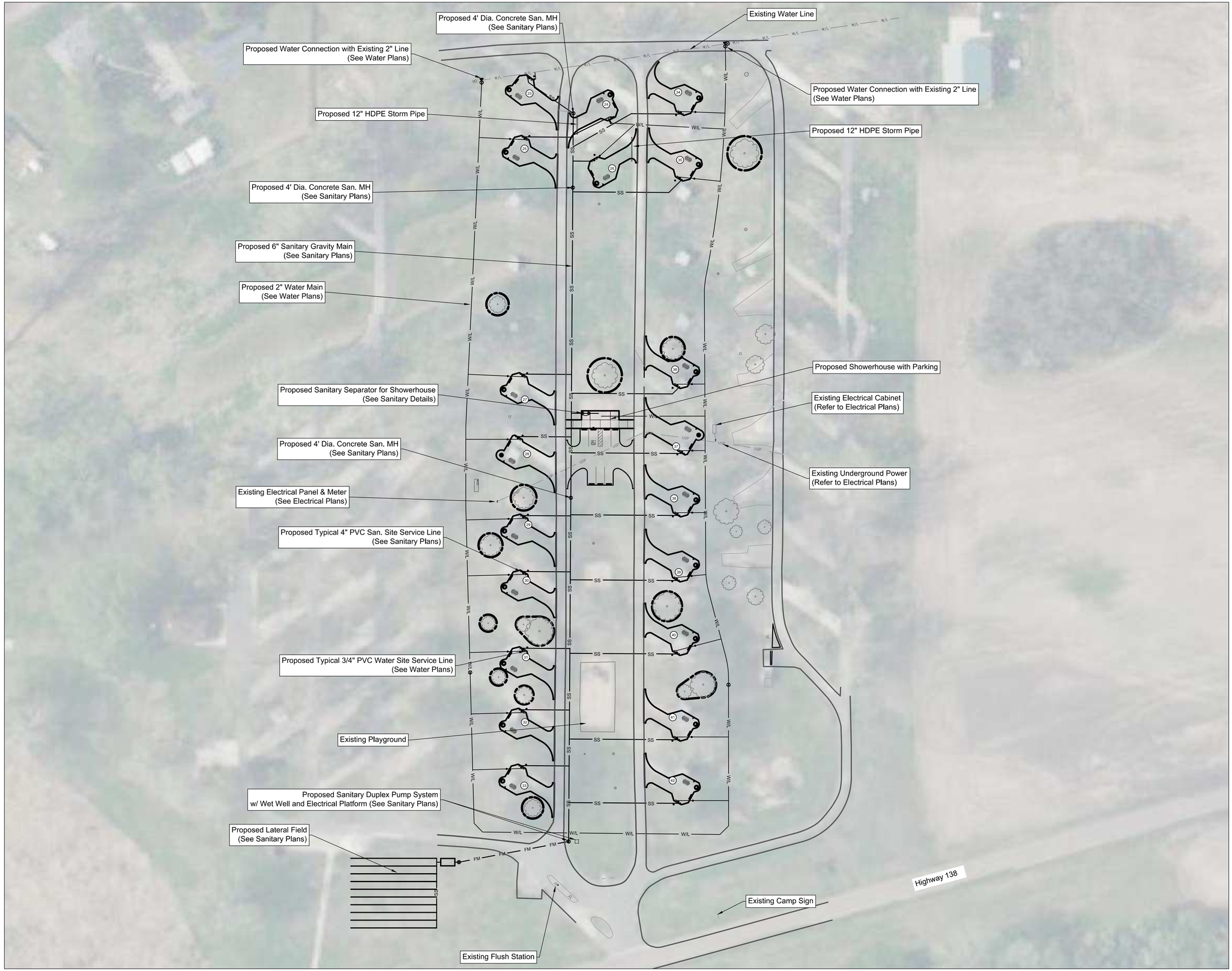
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C-101



NORTH

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DATE:
REVISION:
DATE:
ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

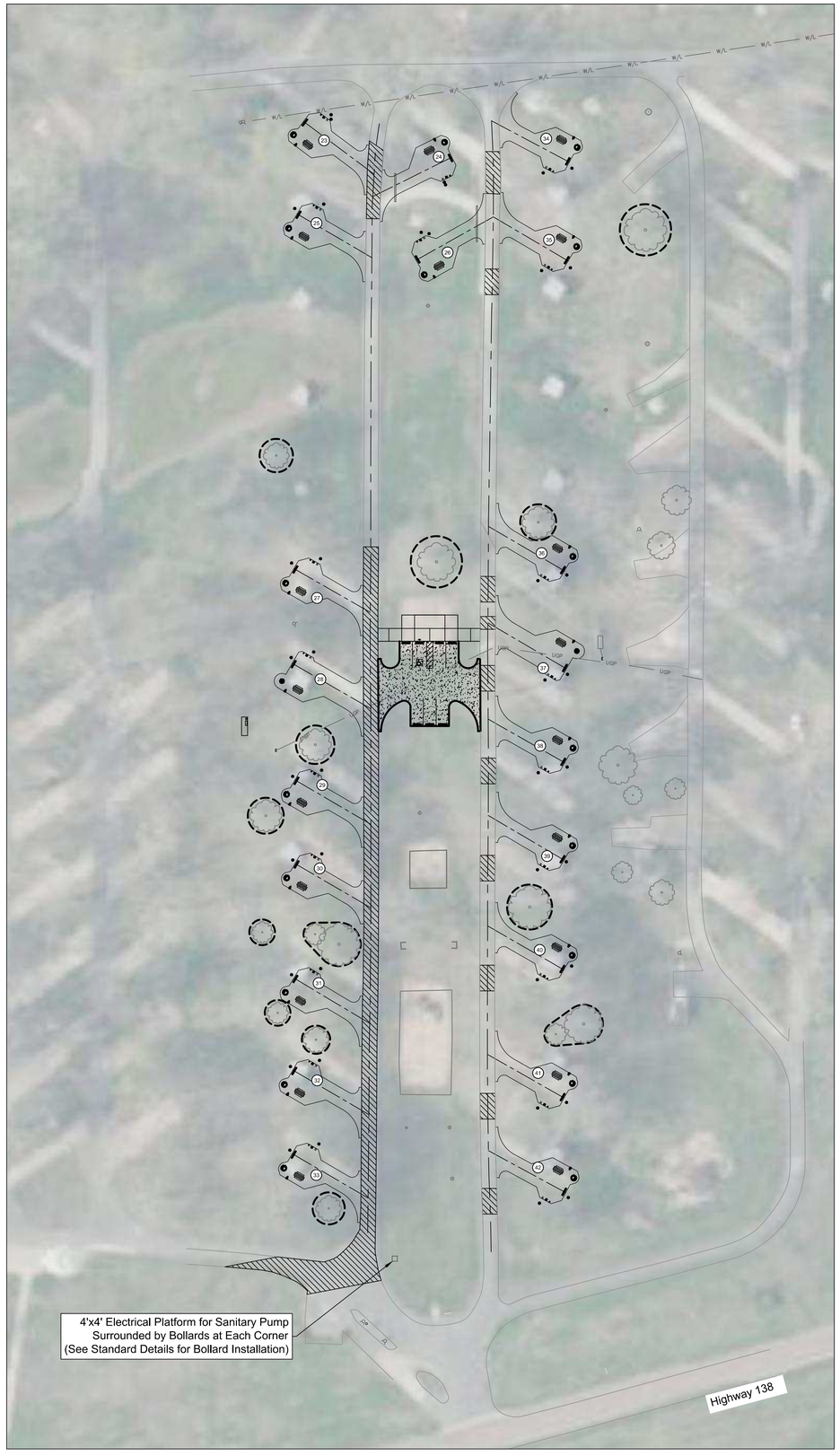
SHEET TITLE:

GENERAL LAYOUT

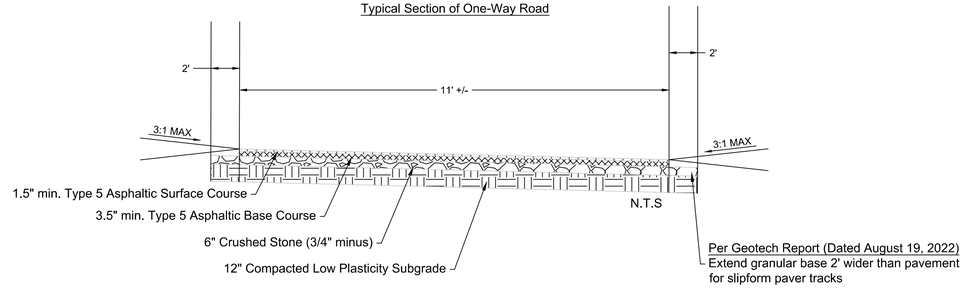
SHEET NUMBER:

C-102

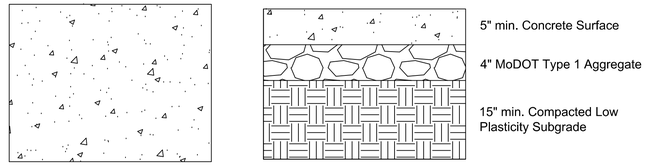
SHEET 11 OF 35
4/28/2023



Typical Section of One-Way Road



Concrete Pavement

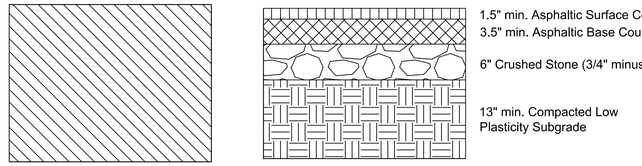


5" min. Concrete Surface

4" MoDOT Type 1 Aggregate

15" min. Compacted Low Plasticity Subgrade

Asphalt Pavement



1.5" min. Asphaltic Surface Course
3.5" min. Asphaltic Base Course

6" Crushed Stone (3/4" minus)

13" min. Compacted Low Plasticity Subgrade

Note:
See Intertek PSI Geotech Report Dated August 19, 2022
Pavement Sections are provided for information only, Contractor shall refer to Intertek PSI Geotech Report Dated August 19, 2022

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

LANDSCAPE ARCHITECT:
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VIREO
414 Oak Street, Suite 101
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P 816-756-5690

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MEP:
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P 816-421-0950

STRUCTURAL:
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Lee's Summit, Missouri 64086
P 816-444-3144

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

DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
DATE:
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ISSUE DATE: 04/28/2023

CAD DWG FILE:
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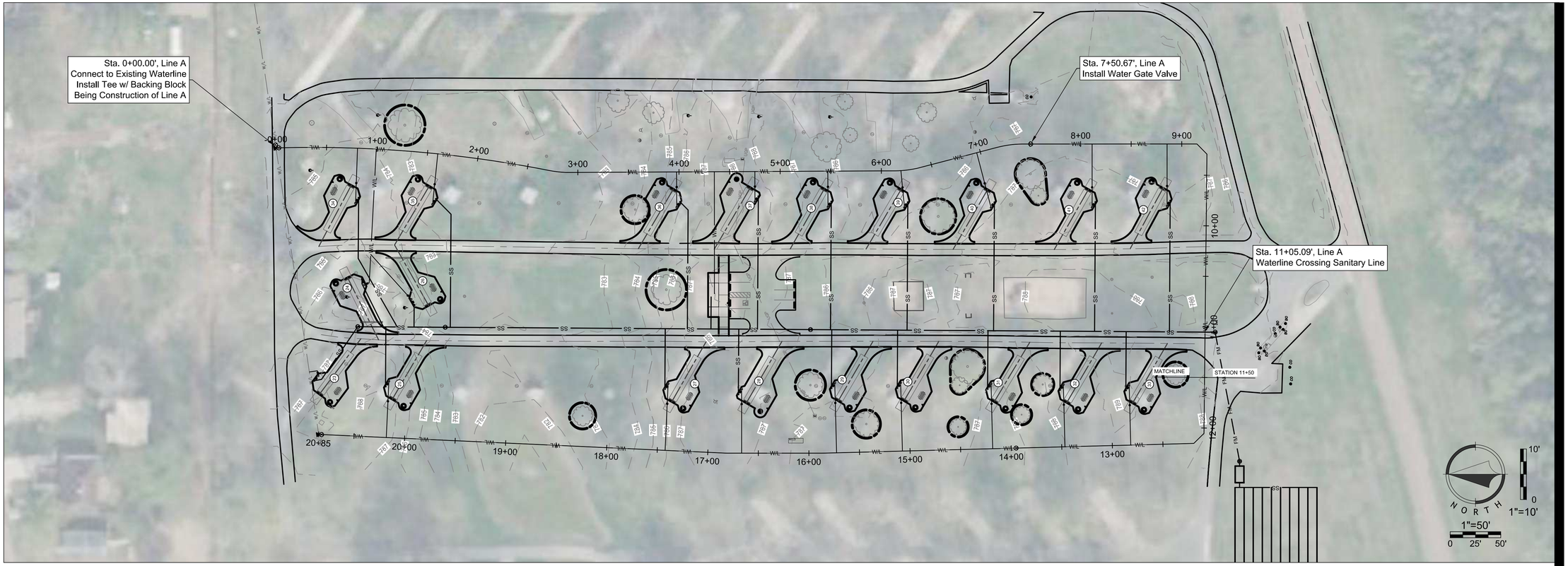
SHEET TITLE:

PAVEMENT PLAN

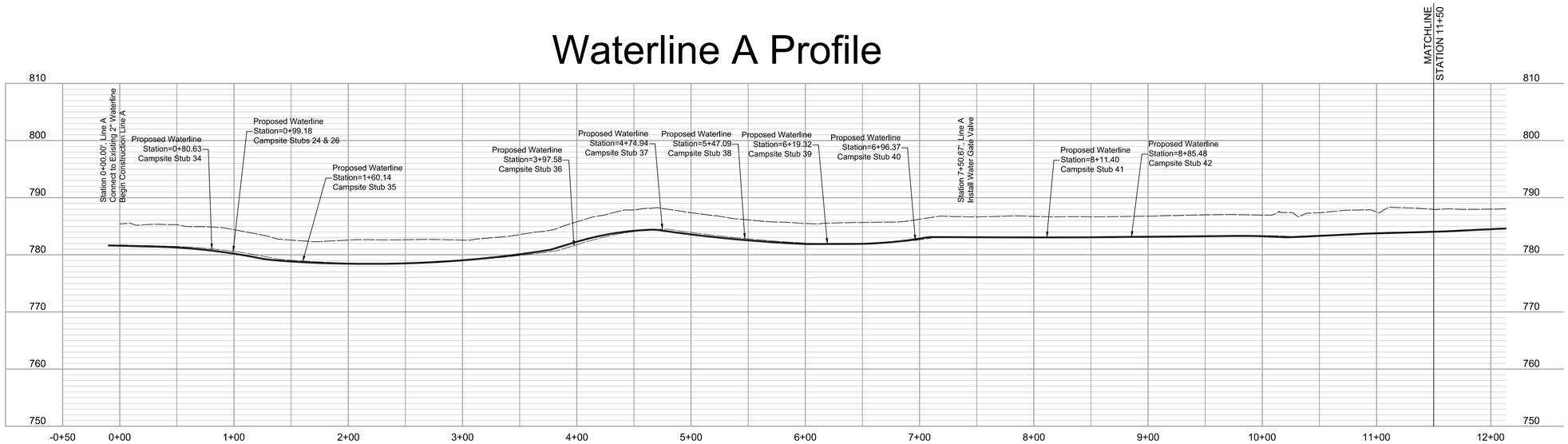
SHEET NUMBER:

C-103

SHEET 12 OF 35
4/28/2023



Waterline A Profile



STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MITCHELL SLUTTER
NUMBER PE-2002003418
PROFESSIONAL ENGINEER
4·28·23
MITCHELL E. SLUTTER PE-2002003418

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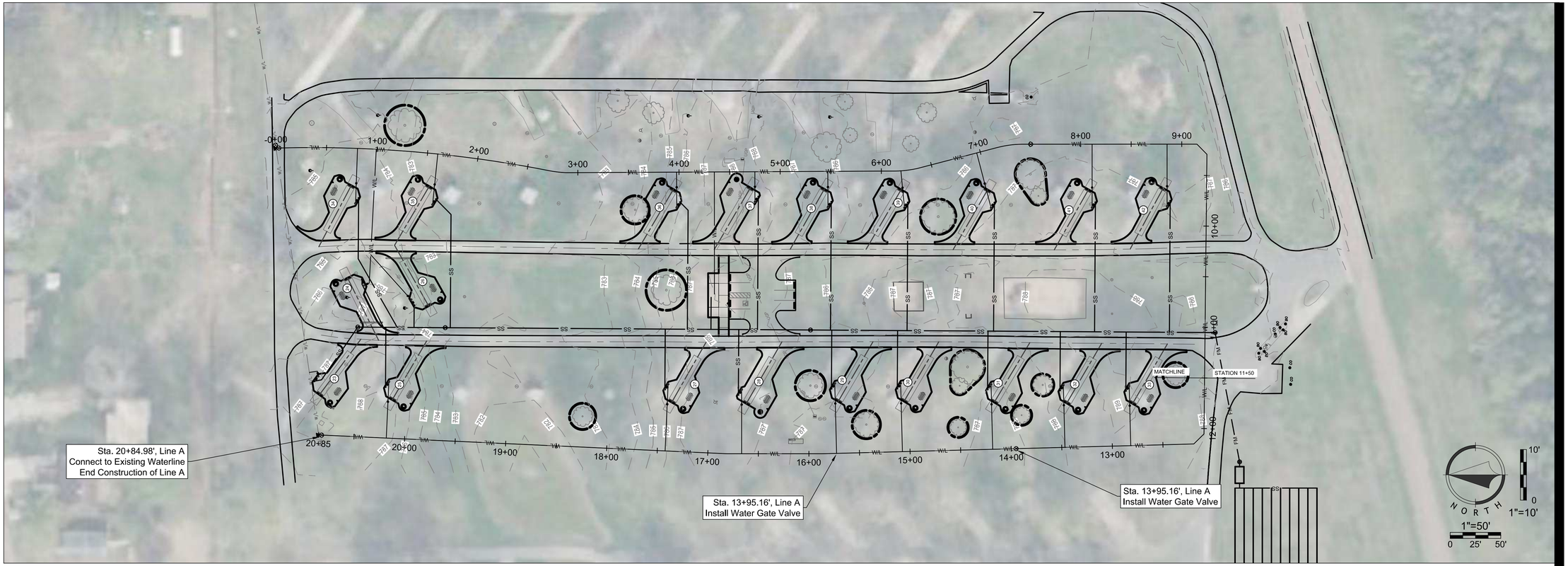
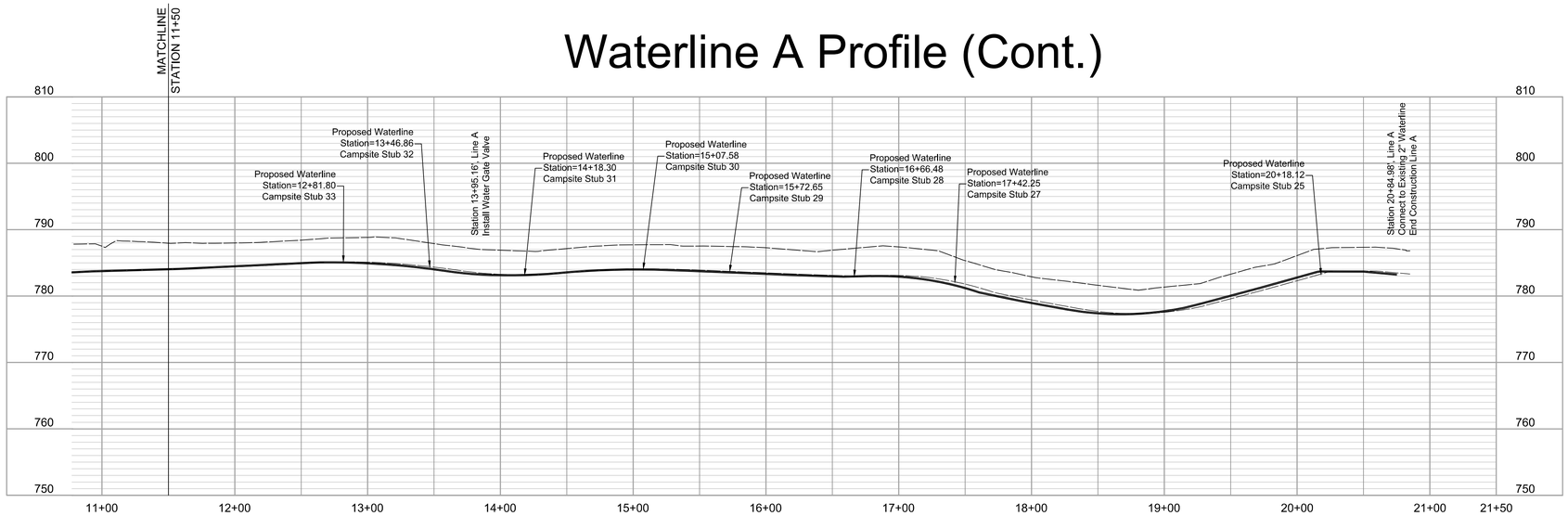
SHEET TITLE:
WATERLINE A
PLAN & PROFILE I

SHEET NUMBER:
C-401

SHEET 13 OF 35
4/28/2023



Waterline A Profile (Cont.)



STATE OF MISSOURI
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NEW PREMIUM CAMPSITES

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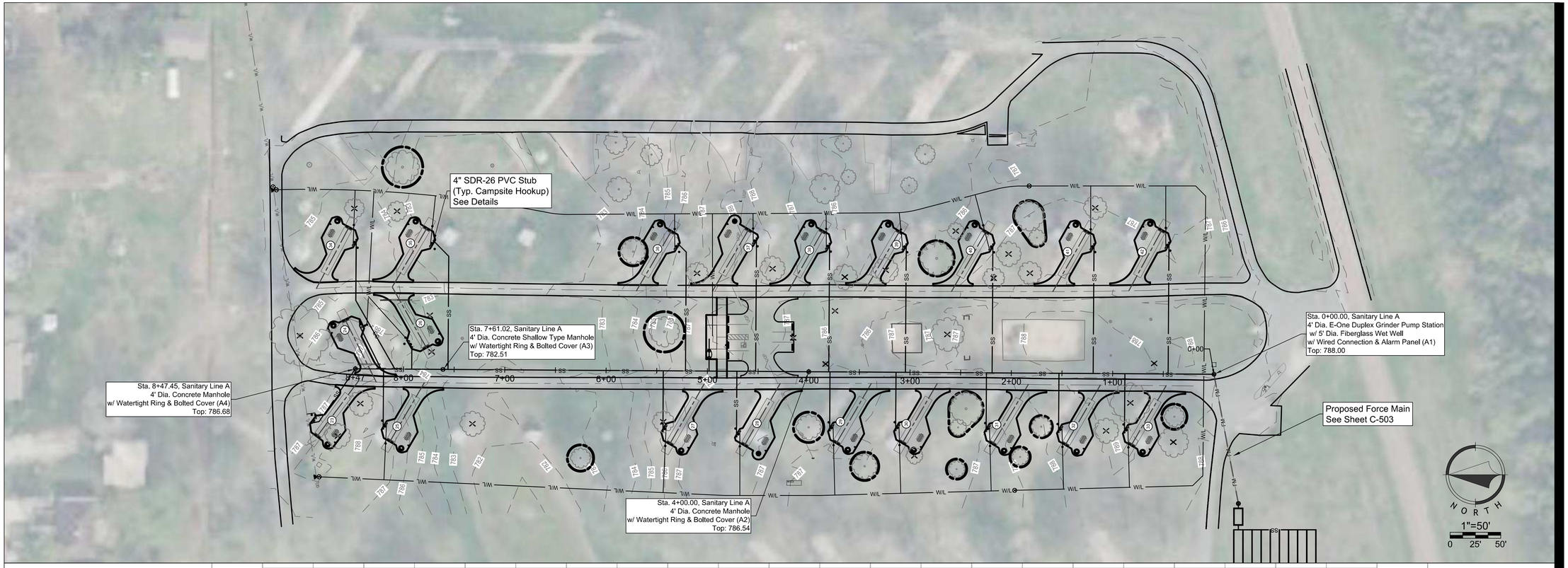
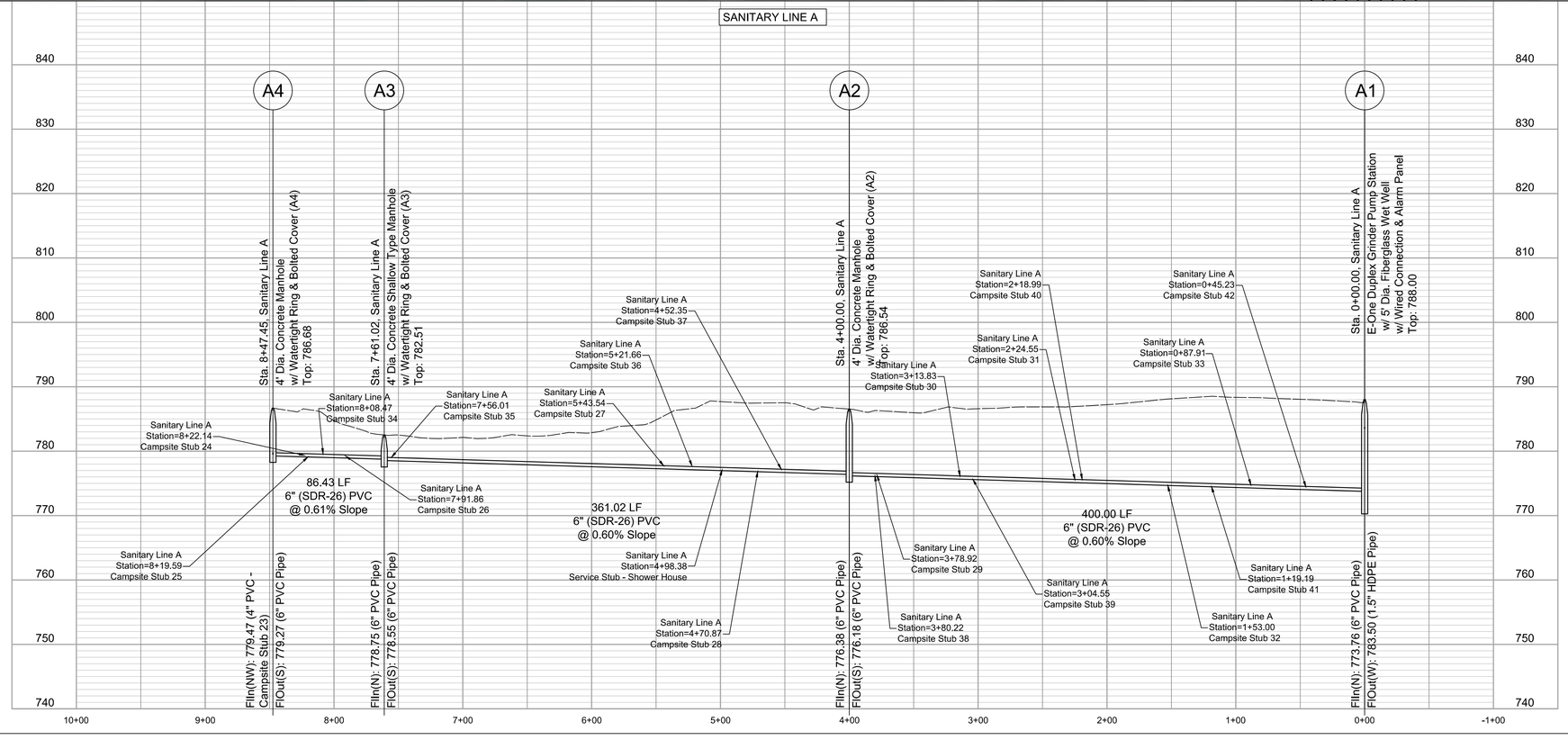
SHEET TITLE:
WATERLINE A
PLAN & PROFILE II

SHEET NUMBER:
C-402

SHEET 14 OF 35
4/28/2023





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RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

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SHEET TITLE:
SANITARY PLAN & PROFILE

SHEET NUMBER:
C-501

SHEET 15 OF 35
04/28/2023

SANITARY CAPACITY CALCS

Downstream Manhole	Users	Sewer Demand (GPD)	Contributing Flow (GPD)	Total Average Flow (GPD)	Total Average Flow (cfs)	Peak Factor	Total Peak Flow (cfs)	Pipe Size (inches)	Slope %	Full Flow Velocity (fps)	67% Capacity (cfs)	Q	A	n	R	P
A3	6	120	720	720	0.0011	3	0.0033	6	0.60%	2.2	0.3	0.43	0.20	0.013	0.13	1.57
A2	5	120	600	1320	0.0020	3	0.0061	6	0.60%	2.2	0.3	0.43	0.20	0.013	0.13	1.57
Shower House	30	15	450	1770	0.0027	3	0.0082	6	0.60%	2.2	0.3	0.43	0.20	0.013	0.13	1.57
A1	10	120	1200	2970	0.0046	3	0.0138	6	0.60%	2.2	0.3	0.43	0.20	0.013	0.13	1.57

Note: Minimum Cleansing Velocity = 2 fps per MDNR Minimum Design Standards for Gravity Sewers

SEPTIC TANK AND LATERAL FIELD CALCS

	Peaking Factor	Daily Sewage Flow (GPD)	Calculated Required Tank Size (GPD)	Tank Size Used (Gallons)
Septic Tank Size:	1.5	2970	4955	5000
Lateral Field Calculations:				
Saturated Hydraulic Conductivity: 9.0 micrometers per second				
Saturated Hydraulic Conductivity: 30.6 inches per day				
Estimated Percolation Rate: Less than 5 Minutes per inch				
Application Rate:		1	gallons per square foot	
Absorption Area:		2970	square feet	
Trench Width:		3	feet	
Lineal Feet of Trench:		990	lineal feet	
Length of Each Trench:		100	lineal feet	
Number of Trenches		10	trenches	

SANITARY STUBS

LINE A

Campsite Number	Downstream Manhole	Distance Down Stream (LF)	Connection Type	Length of Service Line (LF)	Type of Service Line	Slope of Service Line	FL @ Connection	Tee Offset (T)	Length of Riser (R)	Length of Lateral (L)	Proposed Grade @ EOS +/- (LLC)	Service Line EOS FL Elevation	Vertical Stub (LF)
42	A1	45.23	6"x4" TEE	129.76	4" PVC (SDR-26)	2.00%	774.02	0.50	7.25	125.95	786.70	783.21	3.49
33	A1	87.91	6"x4" TEE	58.06	4" PVC (SDR-26)	2.00%	774.28	0.50	12.25	51.62	789.72	786.23	3.48
41	A1	119.19	6"x4" TEE	127.86	4" PVC (SDR-26)	2.00%	774.47	0.50	7.25	124.05	787.22	783.62	3.60
32	A1	153	6"x4" TEE	58.05	4" PVC (SDR-26)	2.00%	774.67	0.50	9.83	52.89	788.12	784.59	3.53
40	A1	218.99	6"x4" TEE	126.99	4" PVC (SDR-26)	2.00%	775.06	0.50	5.00	124.36	785.92	782.31	3.61
31	A1	245.55	6"x4" TEE	57.57	4" PVC (SDR-26)	2.00%	775.22	0.50	7.67	53.54	786.92	783.32	3.60
39	A1	304.55	6"x4" TEE	126.56	4" PVC (SDR-26)	2.00%	775.58	0.50	4.16	124.37	785.32	782.10	3.21
30	A1	313.83	6"x4" TEE	57.27	4" PVC (SDR-26)	2.00%	775.63	0.50	9.00	52.54	788.32	784.84	3.47
29	A1	378.92	6"x4" TEE	57.78	4" PVC (SDR-26)	2.00%	776.02	0.50	7.75	53.71	787.74	784.19	3.54
38	A1	380.22	6"x4" TEE	126.70	4" PVC (SDR-26)	2.00%	776.03	0.50	4.25	124.47	786.22	782.64	3.58
37	A2	52.35	6"x4" TEE	131.43	4" PVC (SDR-26)	2.00%	776.69	0.50	6.75	127.88	789.02	785.50	3.52
28	A2	70.87	6"x4" TEE	64.49	4" PVC (SDR-26)	2.00%	776.81	0.50	7.00	60.81	788.12	784.48	3.64
SH	A2	98.38	6"x4" TEE	31.64	4" PVC (SDR-26)	2.00%	776.97	0.50	4.00	29.54	784.97	781.46	3.50
36	A2	121.66	6"x4" TEE	128.77	4" PVC (SDR-26)	2.00%	777.11	0.50	2.00	127.72	785.52	781.87	3.65
27	A2	143.54	6"x4" TEE	59.69	4" PVC (SDR-26)	2.00%	777.24	0.50	4.75	57.19	786.52	782.93	3.59
35	A2	356.01	6"x4" TEE	133.06	4" PVC (SDR-26)	1.00%	778.52	0.50	0.00	133.06	783.02	780.35	2.67
26	A3	30.84	6"x4" TEE	21.89	4" PVC (SDR-26)	2.00%	778.94	0.50	0.00	21.89	783.32	779.87	3.44
34	A3	47.45	6"x4" TEE	137.96	4" PVC (SDR-26)	1.00%	779.03	0.50	0.00	137.96	783.72	780.91	2.80
25	A3	58.57	6"x4" TEE	58.82	4" PVC (SDR-26)	2.00%	779.10	0.50	0.00	58.82	784.92	780.78	4.14
24	A3	61.12	6"x4" TEE	52.3	4" PVC (SDR-26)	2.00%	779.12	0.50	2.00	51.25	785.92	782.34	3.57
23	A4	0	MANHOLE	70.44	4" PVC (SDR-26)	2.00%	779.47	0.00	3.00	68.86	786.12	783.40	2.72

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MITCHELL L. SLUTTER NUMBER PE-2002003418 PROFESSIONAL ENGINEER
4-28-23
MITCHELL E. SLUTTER PE-2002003418

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DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

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RUSHVILLE, MO 64484

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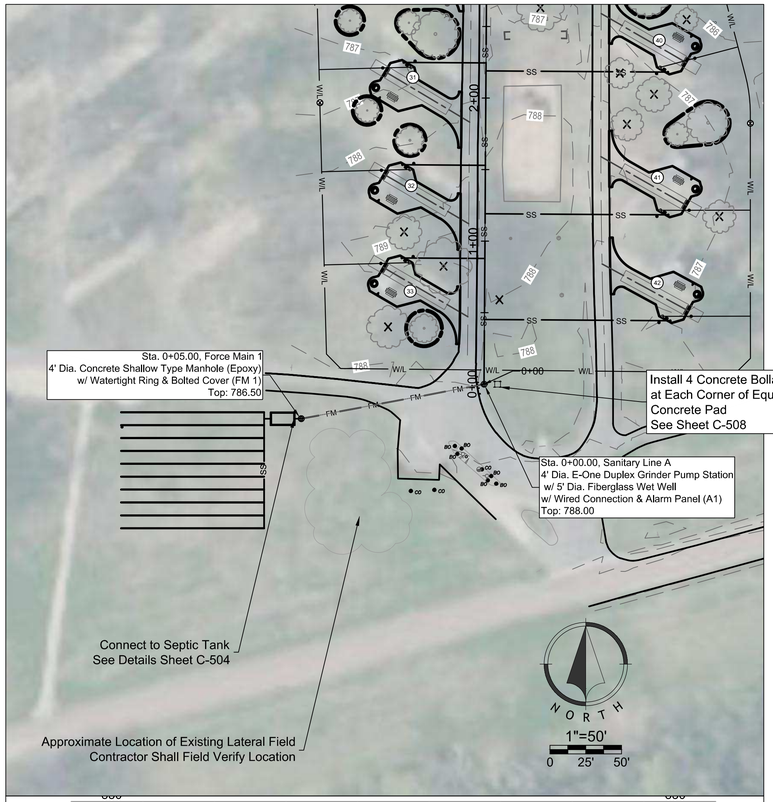
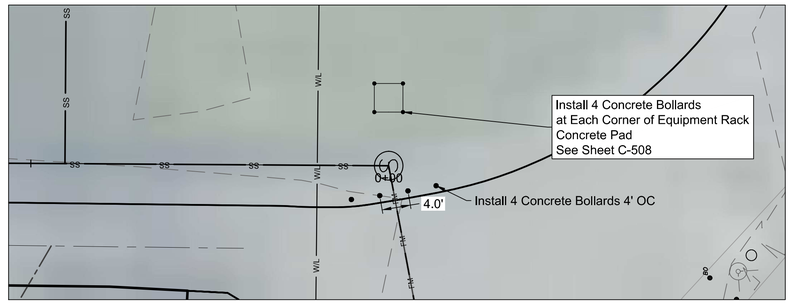
SANITARY STUBS & CALCULATIONS

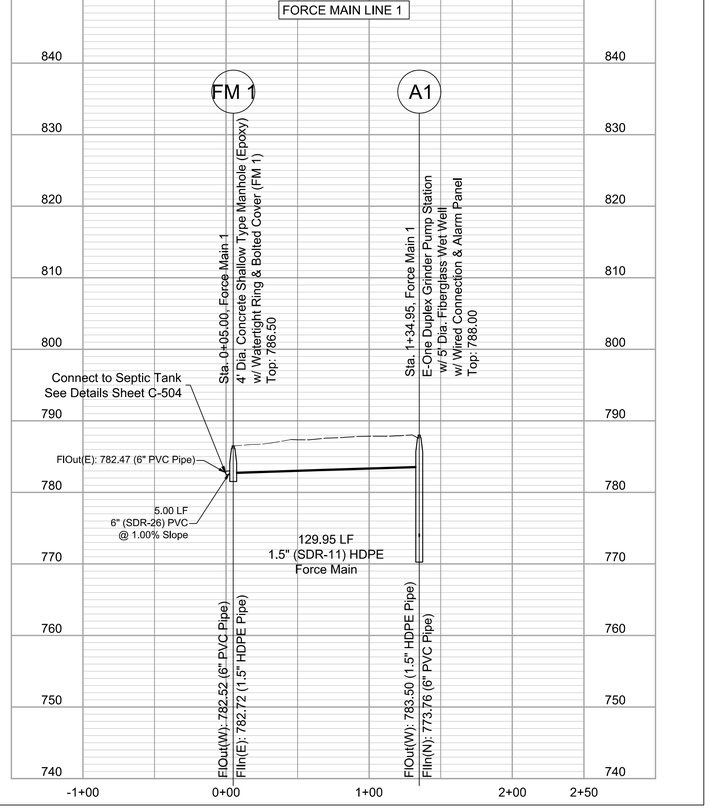
SHEET NUMBER:

C-502

SHEET 16 OF 35
4/28/2023

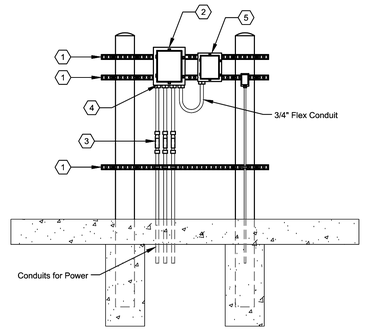






LIFT STATION PUMPS AND PIPING NOTES:

1. SEE ELECTRICAL PLANS FOR UTILITY POWER.
2. FURNISH TWO (2) IDENTICAL TOTALLY SEALED SUBMERSIBILE ELECTRICALLY OPERATED PUMPS FOR INSTALL IN THE PUMP STATION THAT ARE CAPABLE OF PUMPING RAW SEWAGE CONTAINING THREE (3) INCH SOLIDS. PROVIDE PUMPS COMPLETE WITH PUMPING ASSEMBLIES, GUIDE RAILS, ANCHOR HOLD, MOTORS, CONTROLS, POWER CABLE AND OTHER PARTS AND ACCESSORIES REQUIRED FOR PROPER INSTALLATION, OPERATION AND MAINTENANCE.
3. ANCHOR BOLTS SIZE NUMBER LOCATION AND EMBEDMENT DEPTH FOR ATTACHING PUMPS AND GUIDE RAILS TO LIFT STATION STRUCTURES SHALL BE AS REQUIRED BY PUMP MANUFACTURER.
4. DISTANCE BETWEEN SUMP FLOOR ELEVATION AND BOTTOM OF PUMP SHALL BE BASED UPON THE PUMP MANUFACTURER'S MINIMUM RECOMMENDED FLOOR CLEARANCE.
5. ALL BURIED DIP FITTINGS SHALL BE FURNISHED WITH RESTRAINED MECHANICAL JOINTS.
6. THE PUMP SUPPLIER SHALL PROVIDE STARTUP AND TESTING SERVICES FOR ALL EQUIPMENT. THE SERVICES SHALL INCLUDE CHECKING PERFORMANCE OF ALL COMPONENTS AS A FUNCTIONING UNIT. CHECK ALIGNMENT OF EACH UNIT. CONDUCT SUCH OPERATIONAL TESTS AS NECESSARY TO DETERMINE THAT THE PERFORMANCE OF EQUIPMENT AND CONTROLS IS AS SPECIFIED. TESTS WILL GENERALLY CONSIST OF PLACING EQUIPMENT IN OPERATION UNDER VARYING CONDITIONS AND OBSERVING PERFORMANCE. MAKE ALL NECESSARY EQUIPMENT ADJUSTMENTS AND CORRECTIVE WORK INDICATED BY TESTS. SUBMIT A WRITTEN TEST REPORT TO OWNER (WITH ONE COPY TO ENGINEER) IN A LETTER FORM STATING OPERATIONS PERFORMED AND RESULTS OBTAINED FOR EACH UNIT.
7. ALL EXPOSED DIP PIPING INSIDE WET WELL, VALVE VAULT, AND METER VAULT SHALL BE PAINTED WITH BITUMINOUS PAINT THAT IS SUITABLE FOR EXPOSURE TO SEWAGE AND/OR SEWAGE VAPOR. PAINT SHALL BE APPLIED PER MANUFACTURERS SPECIFICATIONS.



WET WELL EQUIPMENT RACK DETAIL
Scale: NTS

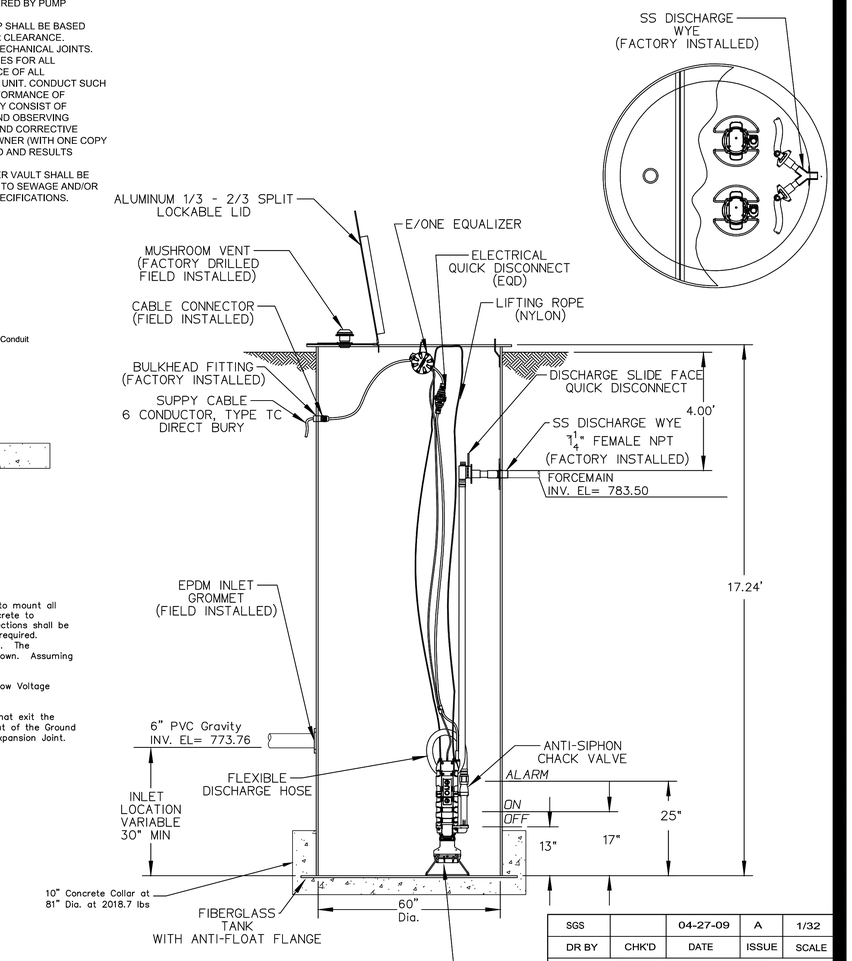
EQUIPMENT RACK DETAIL NOTES:

1. Aluminum Unistrut Rack. Provide additional supports as required to mount all Equipment shown. Provide connection between rack legs and concrete to adequately support the Equipment shown. All hardware and connections shall be Aluminum. Provide Intermediate Supports and Lateral Bracing as required. Vertical Supports shall be minimum 3" Round Painted Steel Tubing. The Equipment Rack shall be bonded to the Grounding Electrode as shown. Assuming Conduit and Steel is adequate for Ground is not acceptable.
2. Low Voltage Control Panel (Hinged, NEMA 4x Stainless Steel) for Low Voltage Wiring.
3. Provide Slip Sleeves/Expansion Joint on all Conduits 1" or larger that exit the Ground and Connect to the Equipment. Where Conduit extends out of the Ground without connection to Equipment does not require a Slip Sleeve/Expansion Joint. Provide Appleton, Carlon or Equivalent.
4. Provide Weather-Proof Hubs where Conduits enter Equipment.
5. MOD T260 DUPLEX PANEL

STATION TO BE USED WITH (1) MOD T260 DUPLEX PANEL

DIAMETER CHOICES	
"D"	
36	☐
42	☐
48	☐
60	☒

W SERIES DUPLEX STATIONS



INLET CHOICES
4" DWV PIPE (4.50 OD) ☐
4" DR35 PIPE (4.22 OD) ☐
6" DWV PIPE (6.63 OD) ☐
6" DR35 PIPE (6.28 OD) ☐

SGS		04-27-09	A	1/32
DR BY	CHK'D	DATE	ISSUE	SCALE

SEWER SYSTEMS

DETAIL SHEET, W SERIES DUPLEX

NA0156P01

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MITCHELL E. SLUTTER
NUMBER PE-2002003418
PROFESSIONAL ENGINEER
4-28-23
MITCHELL E. SLUTTER PE-2002003418

LANDSCAPE ARCHITECT:
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MEP:
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STRUCTURAL:
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250 NE Mulberry, Suite 201
Lee's Summit, Missouri 64086
P 816-444-3144

GEOTECHNICAL:
INTERTEK-PSI
1211 W. Cambridge Circle Drive
Kansas City, Kansas 66103
P 913-310-1600

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

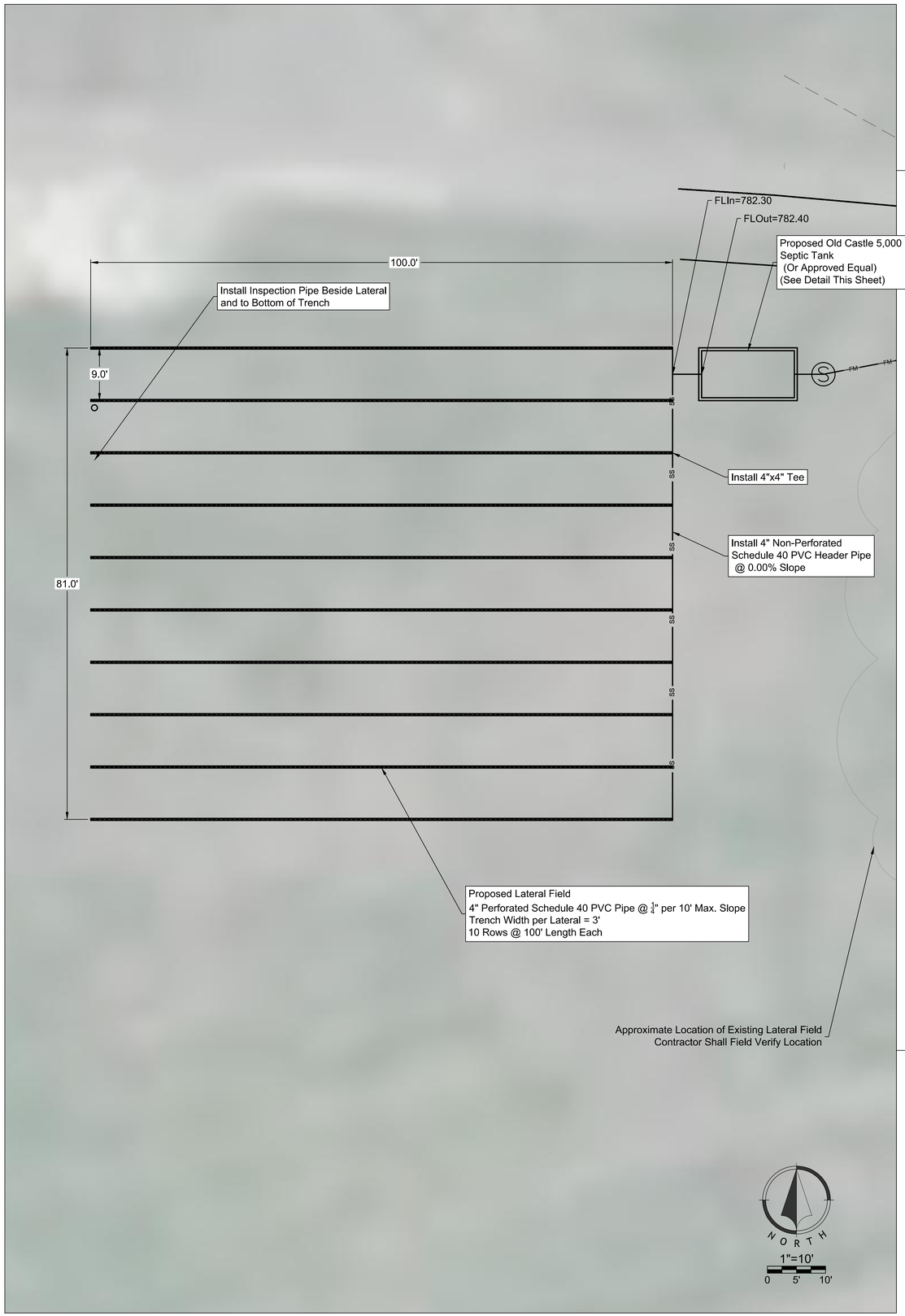
PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

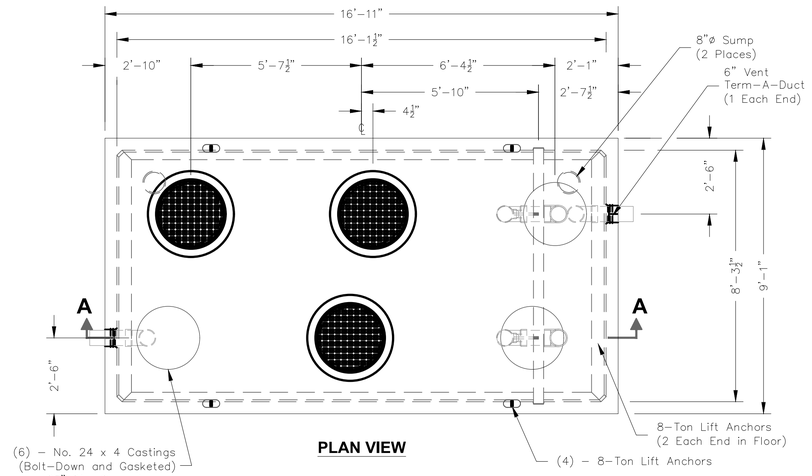
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

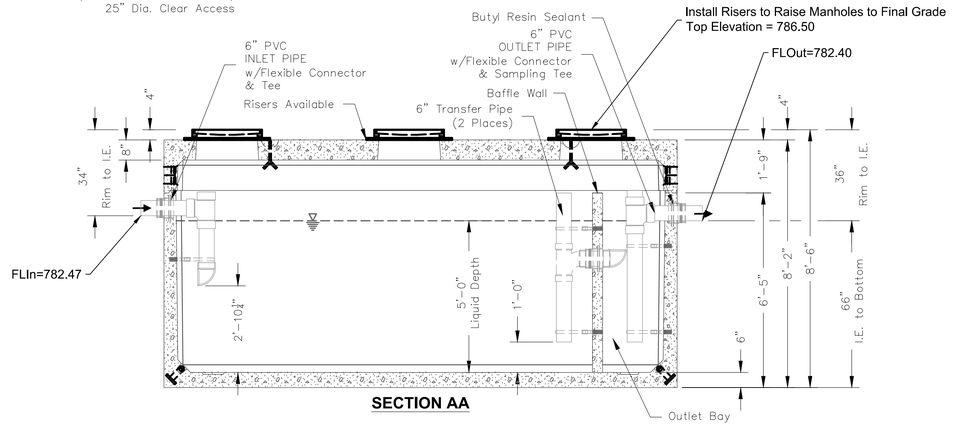
SHEET TITLE:
FORCE MAIN PLAN & PROFILE

SHEET NUMBER:
C-503





PLAN VIEW



SECTION AA

Gravity Grease Interceptor:
- Designed in accordance with IAPMO/ANSI Z1001, Manufactured per ASTM C1613
- Loading per ASTM C890 for AASHTO HS20-44 vehicle loading and maximum soil cover of 5'-0"
- Maximum allowable DFUs (Drainage Fixture Units) = 576 (equivalent to 5,000 gallon size)
- Corrosion resistant plastic liner available to extend the life of the tank.

Manufacturer's recommendations:
- Fill lift anchor pockets with grout.
- Ventilate each end to open atmosphere.
- Prior to "Start Up" of System, fill with clean water through inlet bay to bottom of transfer pipe (approx. one foot deep).
- Follow Regular Inspection, Cleaning, & Maintenance Schedule (See Clean Out & Maintenance Instructions).

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ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:

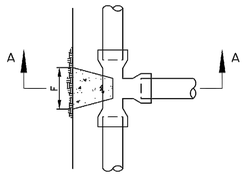
LATERAL FIELD PLAN

SHEET NUMBER:

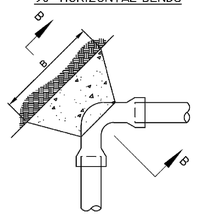
C-504

SHEET 18 OF 35
4/28/2023

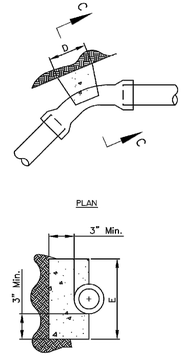
TEES & PRESSURE SHC'S



90° HORIZONTAL BENDS



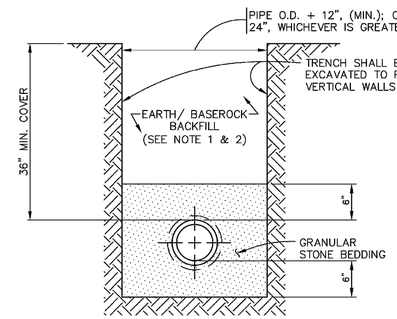
11¼°, 22½°, 45° HORIZONTAL AND LOWER VERTICAL BENDS



BLOCKING SCHEDULE						
PIPE SIZE	B	C	D	E	F	G
1" THRU 1 1/2"	8"	8"	10"	5"	6"	6"
2"	10"	10"	14"	7"	10"	10"
2 ½"	10"	10"	14"	7"	10"	10"
3"	12"	12"	18"	9"	12"	12"
4"	13"	12"	24"	12"	16"	16"

NOTES:
1. USE TYPE 1 CONCRETE
2. CARRY ALL BEARING SURFACES TO UNDISTURBED GROUND OR FIRM SUBGRADE.
3. BUTTRESS SIZED FOR 160 PSI
4. DO NOT ENCASE JOINTS
5. ONLY MIX WITH POTABLE WATER

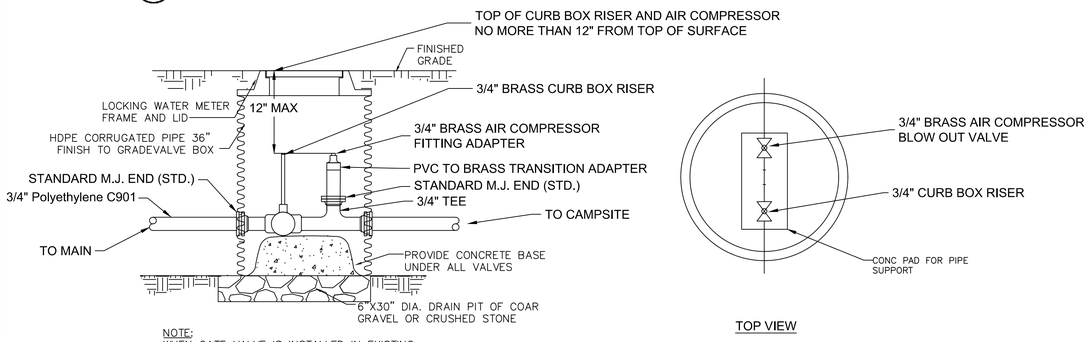
3/C18 THRUST BLOCKING
NTS



NOTE:

1. TRENCH SHALL BE BACKFILLED AND COMPACTED FULL DEPTH WITH GRANULAR STONE ON ALL ROAD CROSSINGS.
2. WATER LINES INSTALLED WITHIN ROAD DITCH SHALL REPAIR DITCH WITH A 6" MINIMUM DEPTH OF CLEAN ROCK WITH A NOMINAL DIAMETER OF 4".

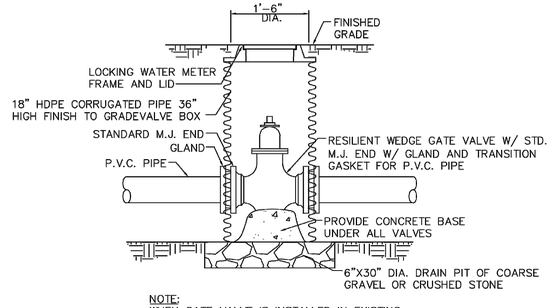
8/C18 WATER LINE TRENCH & BEDDING DETAIL
N.T.S.



NOTE:
WHEN GATE VALVE IS INSTALLED IN EXISTING DUCTILE OR C.I. PIPE, REPLACE TRANSITION GASKET W/ STANDARD M.J. GASKET.

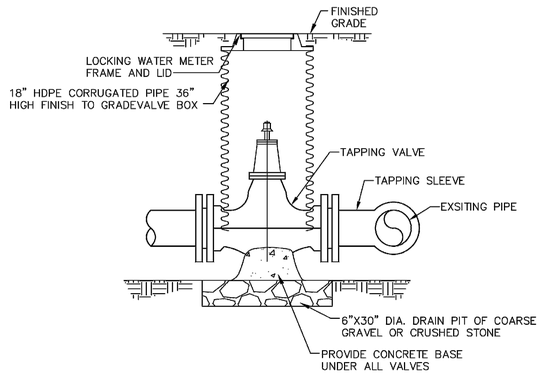
TOP VIEW

2/C18 VALVE BOX - CAMPSITE
NTS

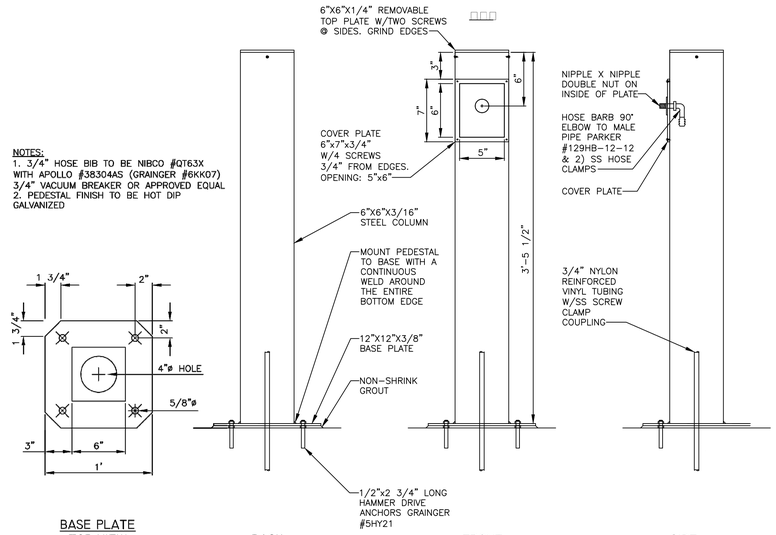


NOTE:
WHEN GATE VALVE IS INSTALLED IN EXISTING DUCTILE OR C.I. PIPE, REPLACE TRANSITION GASKET W/ STANDARD M.J. GASKET.

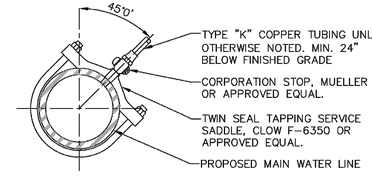
5/C18 GATE VALVE INSTALLATION DETAIL
NTS



6/C18 TAPPING VALVE & SLEEVE INSTALLATION
NTS



1/C18 WATER PEDESTAL
NTS



4/C18 SERVICE TAP DETAIL
NTS

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NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

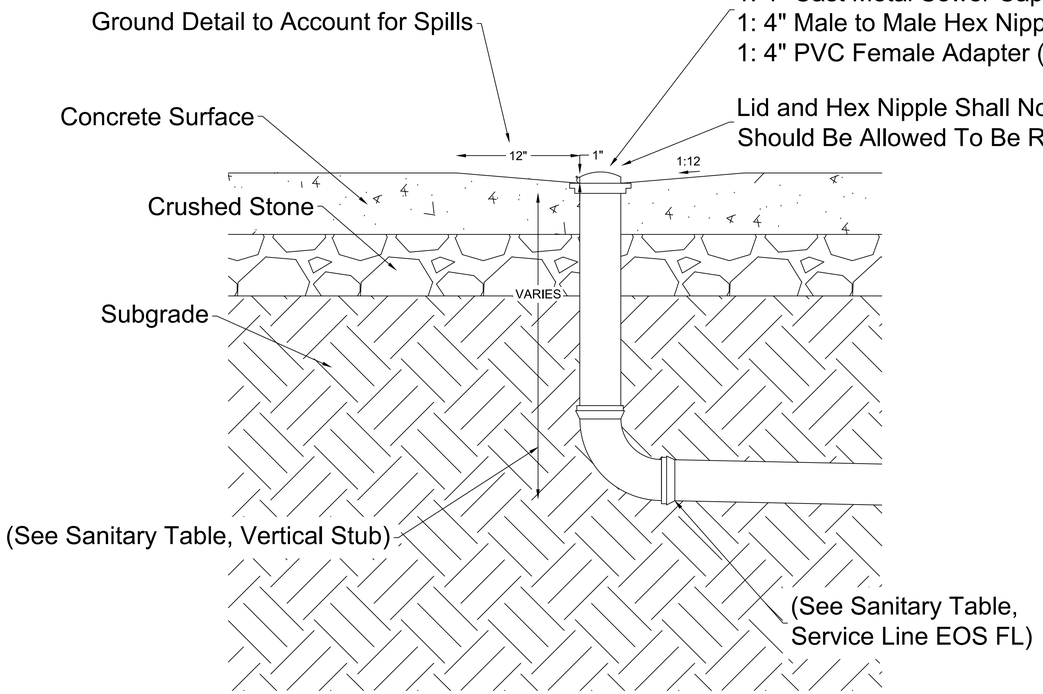
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
WATER DETAILS

SHEET NUMBER:
C-505

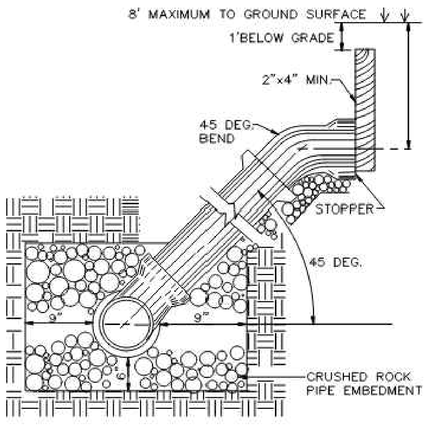
SHEET 19 OF 35
4/28/2023

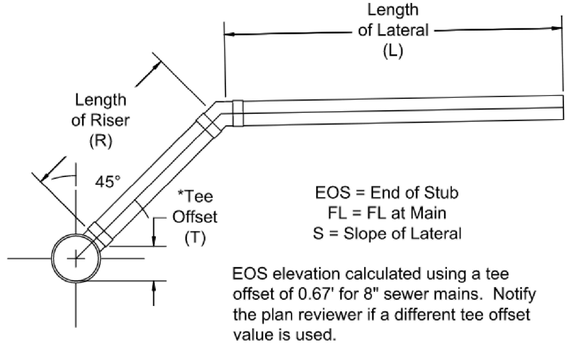


EOS Top Detail, Install:
1: 4" Cast Metal Sewer Cap
1: 4" Male to Male Hex Nipple
1: 4" PVC Female Adapter (Installed flush in concrete)

Lid and Hex Nipple Shall Not Be Cemented &
Should Be Allowed To Be Removed for Maintenance

The Tower Company, Inc.
4" RV Site Sewer Cap, Cast Metal
(Or approved equal)



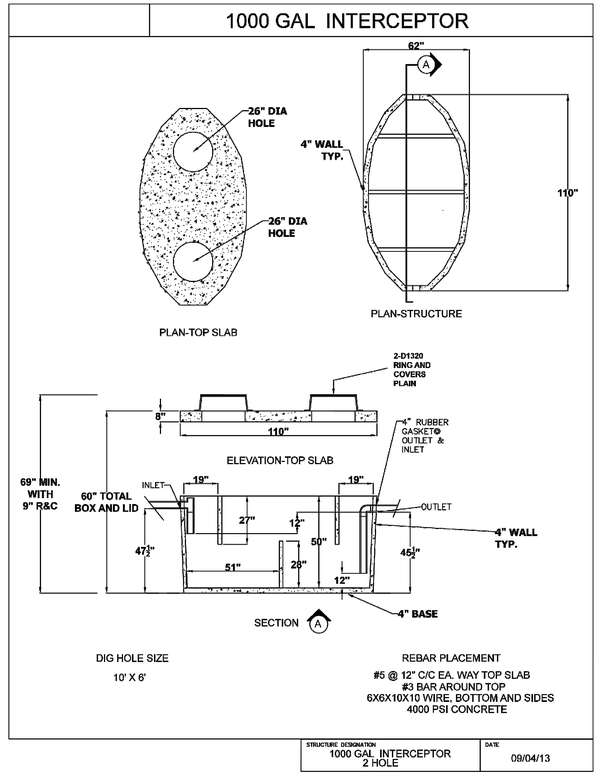


EOS = End of Stub
FL = FL at Main
S = Slope of Lateral

EOS elevation calculated using a tee offset of 0.67' for 8" sewer mains. Notify the plan reviewer if a different tee offset value is used.

$$EOS = FL + T + (R \times \sin(45)) + (L \times S)$$

STANDARD DEEP TRENCH SERVICE RISER
NOT TO SCALE



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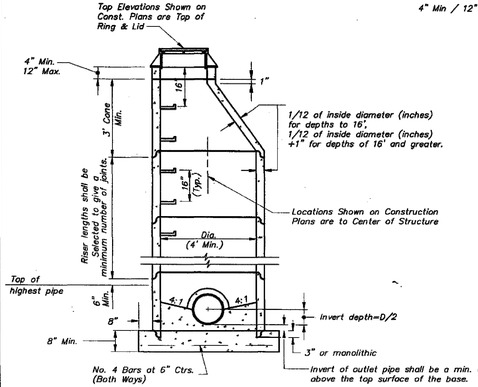
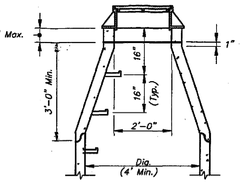
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
SANITARY
DETAILS

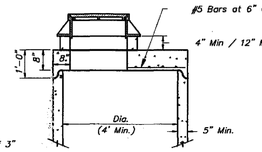
SHEET NUMBER:
C-506



STANDARD PRECAST MANHOLE (ECCENTRIC CONE)



STANDARD PRECAST MANHOLE (CONCENTRIC CONE)
(See Eccentric Cone For Other Details)

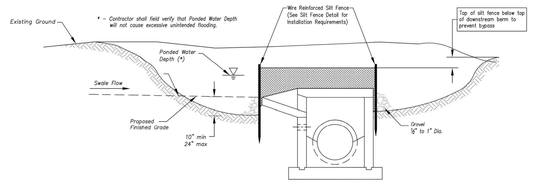


STANDARD PRECAST MANHOLE (SHALLOW TYPE)
(See Eccentric Cone For Other Details)

GENERAL NOTES:

1. All manholes are to be precast concrete and of Eccentric Cone type unless otherwise specified.
2. Manhole top adjustments shall be accomplished by the use of concrete adjustment rings.
3. Top of manhole casting shall be set flush and on same slope as finished surface or as directed by the Engineer.
4. Reinforcement in all sections shall equal or exceed A.S.T.M. C-478 specifications.
5. The engineer shall designate modifications for manholes with special designs.
6. The inside diameter of the manhole shall be 4'-0" for pipe diameters from 12" thru 24", 5'-0" for pipe diameters from 27" thru 36", and 6'-0" for pipe diameters 42" thru 48".
8. Clearance Tolerance of Pipe Openings: The Maximum Allowable Pipe Opening on a Horizontal Axis Shall be the Outside Diameter of the Pipe Plus 12". The Maximum Allowable Pipe Opening on Vertical Axis Shall be the Outside Diameter Plus 8". The Minimum Clearance Between the Outside Surface of an Installed pipe and the Concrete of the Manhole Shall be 2".
9. Installation of Pipe Openings: All required pipe openings shall be plant cast in manhole units. Field alterations of openings will be permitted provided walls are scored with a masonry saw to a depth sufficient to sever reinforcing steel. A chipping hammer may then be used to remove the concrete. Minimum distance between any two adjacent pipes shall be 4".
10. No direct payment for shaping floor or connecting pipes as shown on plans.
11. Ring & Cover to be Neenah R-1736, Clay & Bailey #2008, Deeter #1316, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)
12. Sanitary Sewers shall be coated and conform to Section 2600.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METROPOLITAN CHAPTER
MANHOLE DETAILS	STANDARD DRAWING NUMBER MH - 1
	ADOPTED: APRIL 17, 1995



Section A-A
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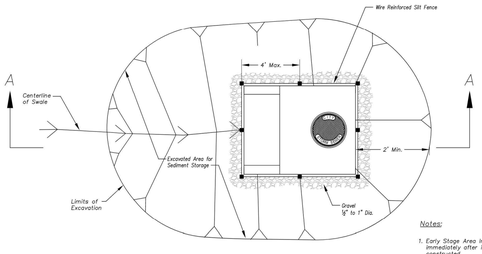
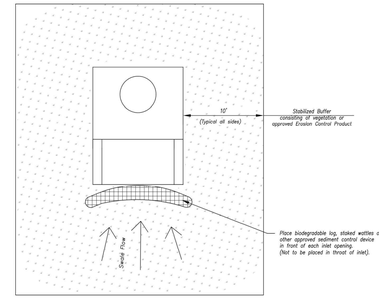


Plan
Not to Scale

EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.



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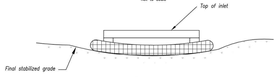


Front View

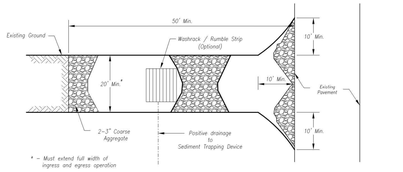
LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION	STANDARD DRAWING NUMBER ESC-07
	ADOPTED: 10/24/2016



Plan View
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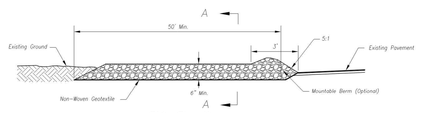

Side Elevation
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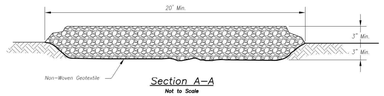


Section A-A
Not to Scale

Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

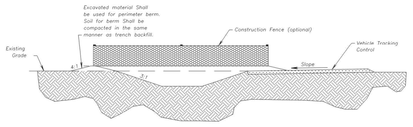
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

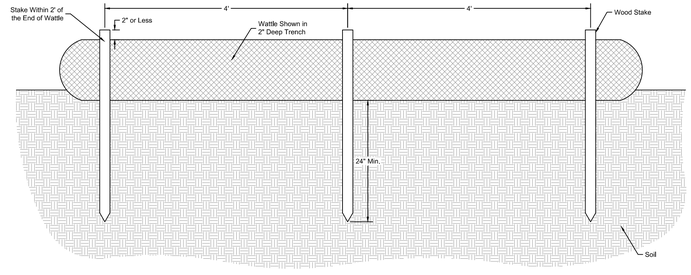
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



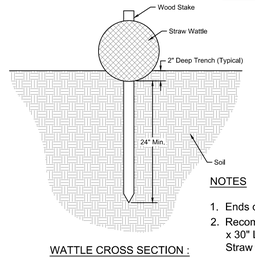
CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

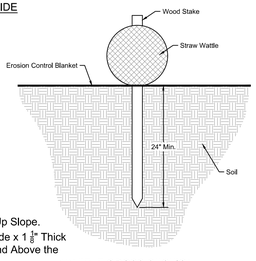
AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT	STANDARD DRAWING NUMBER ESC-01
	ADOPTED: 10/24/2016



WATTLE STAKING PATTERN GUIDE



WATTLE CROSS SECTION : ON BARE SOIL



WATTLE CROSS SECTION : ON EROSION CONTROL BLANKET

NOTES

1. Ends of Wattles Shall be Slightly Up Slope.
2. Recommended Stakes are 1 3/8" Wide x 1 3/8" Thick x 30" Long. Stakes Shall not Extend Above the Straw Wattle More that 2".

STRAW WATTLE DETAIL
Not to Scale

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI MITCHELL SLUTTER NUMBER PE-2002003418 PROFESSIONAL ENGINEER
11-28-23
MITCHELL E. SLUTTER PE-2002003418

LANDSCAPE ARCHITECT:
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

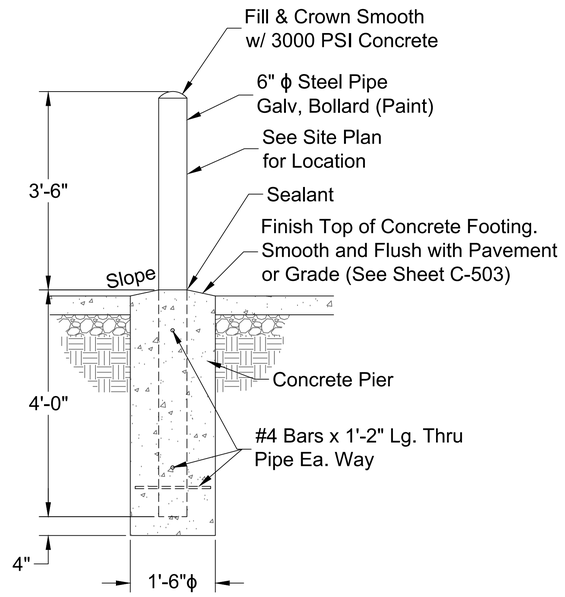
REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
SANITARY DETAILS & EROSION CONTROL DETAILS

SHEET NUMBER:
C-507

SHEET 21 OF 35
4/28/2023



BOLLARD DETAIL

Not to Scale

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MITCHELL SLUTTER
NUMBER PE-2002003418
PROFESSIONAL ENGINEER
04-28-23
MITCHELL E. SLUTTER PE-2002003418

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DATE:
ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

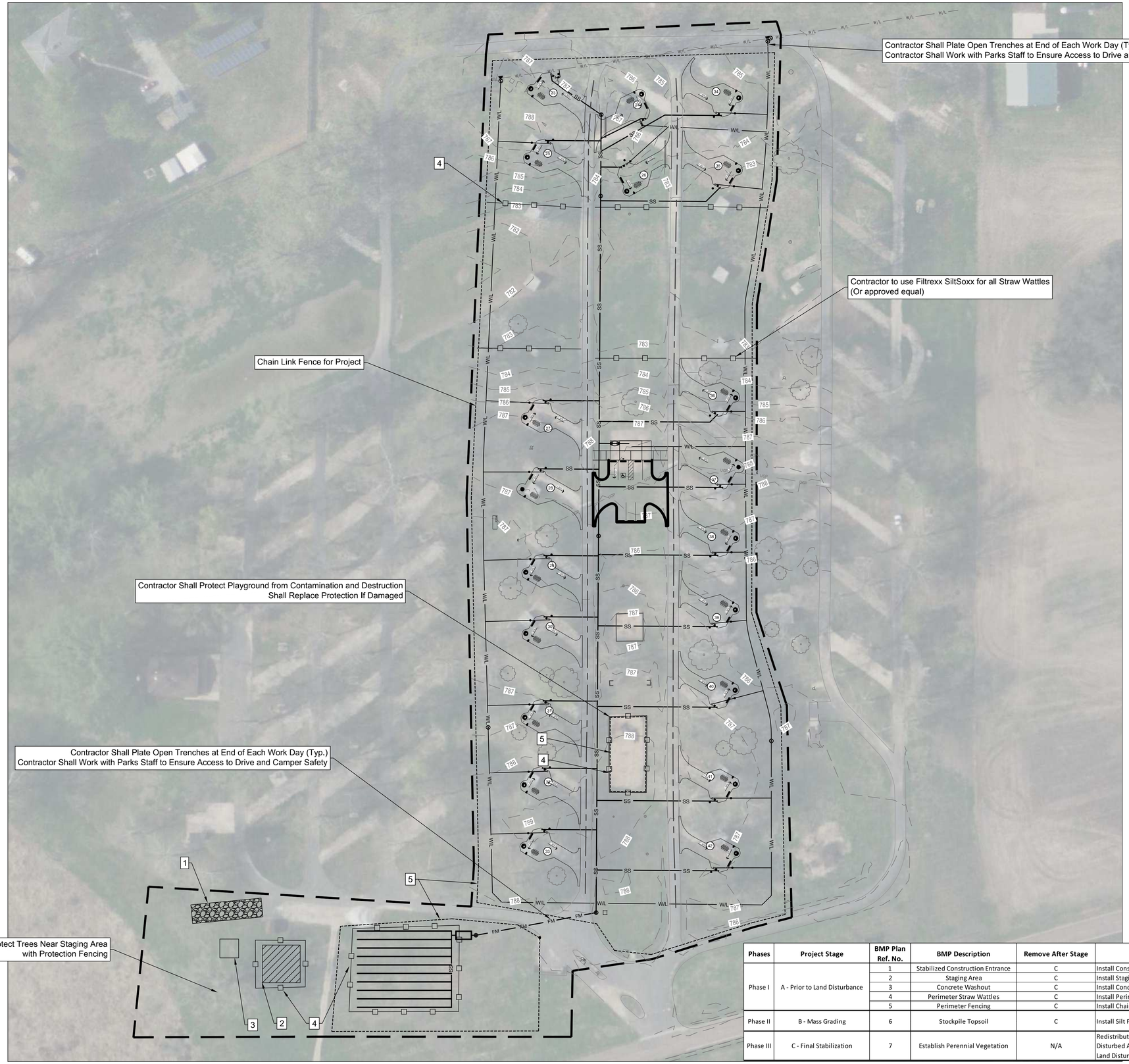
SHEET TITLE:

STANDARD DETAILS

SHEET NUMBER:

C-508

SHEET 22 OF 35
04/28/2023



Disturbed Area: 8.578 Acres

EROSION CONTROL LEGEND

- Staging Area
- Concrete Washout
- Limits of Disturbance
- Perimeter Fencing
- Straw Wattles
- Seed/Sod

Phases	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage	Notes
Phase I	A - Prior to Land Disturbance	1	Stabilized Construction Entrance	C	Install Construction Vehical Entry per APWA Standards (see Standard Details).
		2	Staging Area	C	Install Staging Area.
		3	Concrete Washout	C	Install Concrete Washout as shown on plans prior to pouring any concrete.
		4	Perimeter Straw Wattles	C	Install Perimeter Straw Wattles. As Shown on the Plans.
		5	Perimeter Fencing	C	Install Chain Link Fence around the perimeter of the working area.
Phase II	B - Mass Grading	6	Stockpile Topsoil	C	Install Silt Fence a Minimum of 5' Beyond Toe of Slope.
Phase III	C - Final Stabilization	7	Establish Perennial Vegetation	N/A	Redistribute Topsoil and Seed all Disturbed Areas. Stabilization Complete when 100% Disturbed Area is Established with Perennial Vegetation with a Density of 70% per MDNR Land Disturbance Permit.

NORTH

1"=50'

0 25' 50'

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MITCHELL L. SLUTTER
NUMBER PE-2002003418
PROFESSIONAL ENGINEER
4.28.23
MITCHELL E. SLUTTER PE-2002003418

LANDSCAPE ARCHITECT:
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NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
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REVISION:
DATE:
ISSUE DATE: 04/28/2023

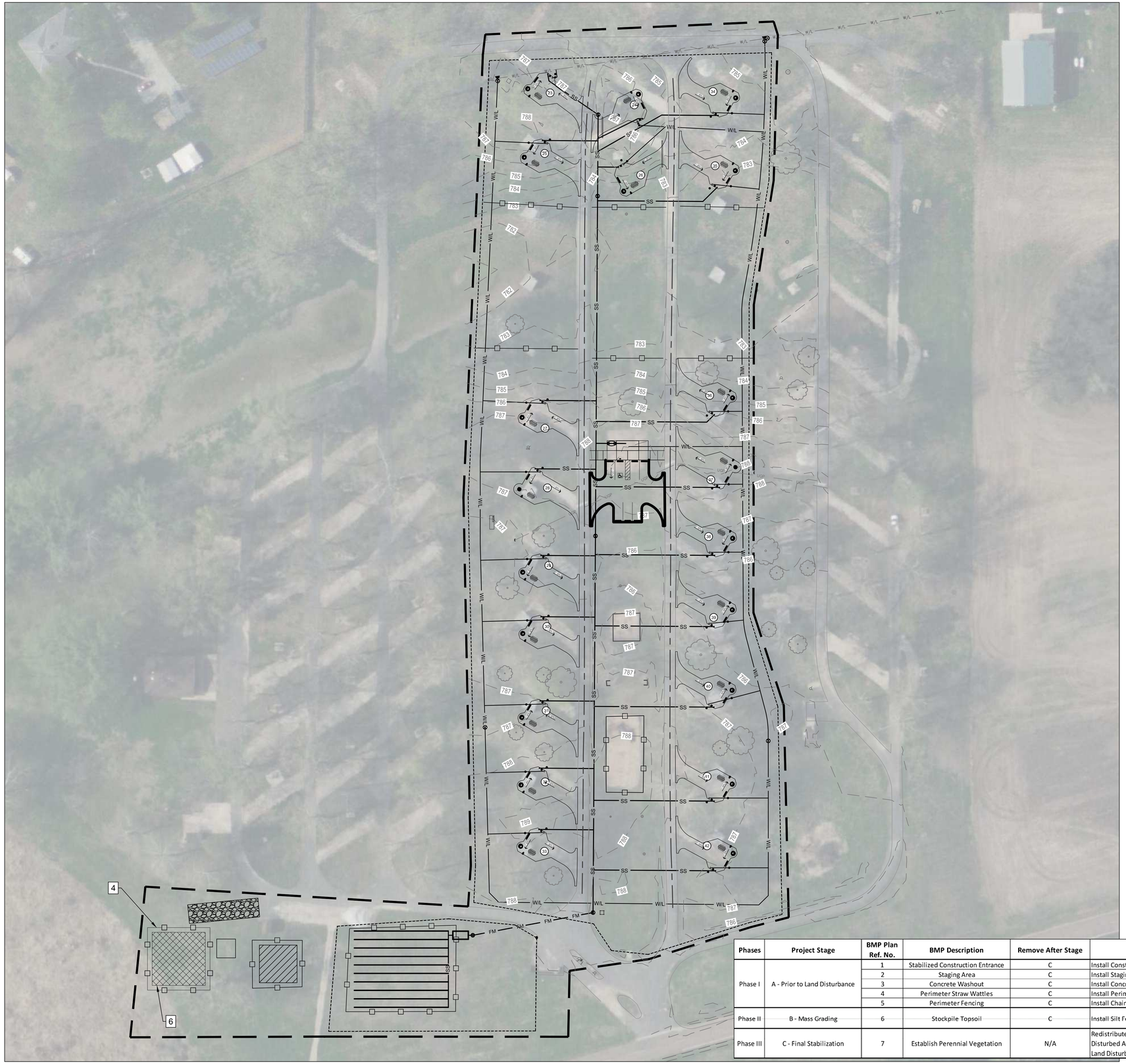
CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
EROSION CONTROL PHASE I

SHEET NUMBER:

C-601

SHEET 23 OF 35
04/28/2023



Disturbed Area: 8.578 Acres

EROSION CONTROL LEGEND

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- Concrete Washout
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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MITCHELL L. SLUTTER
NUMBER PE-2002003418
PROFESSIONAL ENGINEER
4-28-23
MITCHELL E. SLUTTER PE-2002003418

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NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
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REVISION:
DATE:
ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
EROSION CONTROL PHASE II

SHEET NUMBER:

C-602

SHEET 24 OF 35
04/28/2023

*Contractor shall reseed all areas disturbed in accordance with spec. section 329200

Straw Wattles Must Remain Until Vegetation is Fully Established

7

Straw Wattles Must Remain Until Vegetation is Fully Established

Disturbed Area: 8.578 Acres

EROSION CONTROL LEGEND

- Staging Area
- Concrete Washout
- Limits of Disturbance
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STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
MITCHELL E. SLUTTER
NOTARY NUMBER
PE-2002003418
PROFESSIONAL ENGINEER
4-28-23
MITCHELL E. SLUTTER PE-2002003418

LANDSCAPE ARCHITECT:
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NEW PREMIUM CAMPSITES

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801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 04/28/2023

CAD DWG FILE:
DRAWN BY: NPH / ZMM
CHECKED BY: MES
DESIGNED BY: NPH / ZMM

SHEET TITLE:
EROSION CONTROL PHASE III

SHEET NUMBER:

C-603

SHEET 25 OF 35
4/28/2023

1. ALL WORK SHALL CONFORM TO 2018 INTERNATIONAL BUILDING CODE.
2. DESIGN LOADS
   - A. OVERALL BUILDING CLASSIFICATIONS
     - 1. RISK CATEGORY — II
     - 2. SNOW IMPORTANCE FACTOR, I_s — 1.00
     - 3. ICE IMPORTANCE FACTOR - WIND, I_w — 1.00
     - 4. SEISMIC IMPORTANCE FACTOR, I_e — 1.00
   - B. PLATFORM FLOOR LOADS
     - 1. LIVE LOAD — 40 PSF
     - 2. CONCENTRATED LOAD — 300 LB
   - C. ROOF SNOW LOADS
     - 1. GROUND SNOW LOAD, P_g — 20 PSF
     - 2. SNOW EXPOSURE FACTOR, C_e — 0.9
     - 3. THERMAL FACTOR, C_t — 1.2
     - 4. SLOPE FACTOR, C_s — 0.6
     - 5. DRIFTING — PER CODE
   - D. WIND LOADS
     - 1. BASIC WIND SPEED (3 SECOND GUST) — 110 MPH
     - 2. EXPOSURE CATEGORY — C
   - E. SEISMIC LOADS
     - 1. S_S — 0.083
     - 2. S_1 — 0.056
     - 3. SITE CLASS — D
     - 4. S_{DS} — 0.088
     - 5. S_{D1} — 0.089
     - 6. SEISMIC DESIGN CATEGORY — B
     - 7. SEISMIC FORCE RESISTING SYSTEM — STEEL ORDINARY CANTILEVER COLUMN SYSTEM
     - 8. DESIGN BASE SHEAR — C_SW
     - 9. DESIGN RESPONSE COEFFICIENT, C_S — 0.132
     - 10. RESPONSE MODIFICATION COEFFICIENT, R — 1.25
     - 11. ANALYSIS PROCEDURE USED — EQUIVALENT LATERAL FORCE (ELF) PROCEDURE
   - F. ROOF RAIN LOADS
     - 1. 60-MIN DURATION/100 YEAR RAIN INTENSITY, i — 3.83 IN
     - 2. 15-MIN DURATION/100 YEAR RAIN INTENSITY, i — 1.93 IN
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO FABRICATION.
4. IF DISCREPANCIES EXIST BETWEEN CONTRACT DRAWINGS, AND/OR SHOP DRAWINGS NOTIFY THE ENGINEER OF RECORD.
5. THE CONTRACTOR SHALL REVIEW DRAWINGS FROM ALL OTHER DISCIPLINES FOR PERTINENT MISC. ITEMS OR INFORMATION RELATED TO THE STRUCTURAL WORK AND COORDINATE AS REQUIRED.
6. THE BUILDING IS NOT STRUCTURALLY STABLE UNTIL ALL CONNECTIONS, FRAMING, SHEAR WALLS, PERMANENT BRACING, AND EXTERIOR LOAD-BEARING WALLS ARE COMPLETE AND HAVE ACHIEVED THEIR RESPECTIVE DESIGN STRENGTHS. CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING STRUCTURAL STABILITY DURING ERECTION AND CONSTRUCTION. TEMPORARY BRACING SYSTEMS ARE NOT TO BE REMOVED UNTIL STRUCTURAL WORK IS COMPLETE.
7. PROVIDE ADEQUATE SHORING DURING CONSTRUCTION TO RESIST FORCES SUCH AS WIND AND UNBALANCED LOADS DUE TO CONSTRUCTION. DO NOT BACKFILL UNTIL CONCRETE HAS CURED 14 DAYS.
8. FOUNDATIONS
   - A. FOUNDATIONS ARE DESIGNED TO BEAR ON 1500 PSF FOR FOOTINGS ON SOIL.
   - B. CONTRACTOR SHALL REMOVE EXISTING FOOTINGS AND FOUNDATIONS THAT ARE LOCATED WITHIN THE FOOTPRINT OF THE NEW BUILDING.
   - C. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNUSUAL SOIL CONDITIONS THAT ARE IN VARIANCE WITH THE GEOTECHNICAL REPORT OR WHEN DIFFERENT BEARING MATERIAL IS EVIDENT AND THERE IS A QUESTION OF BEARING CAPACITY.
9. CONCRETE
   - A. CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO LATEST APPLICABLE AMERICAN CONCRETE INSTITUTE DOCUMENTS, ACI-301, 305, 306, 315, 318, AND 347 UNLESS NOTED OTHERWISE IN THESE CONTRACT DOCUMENTS.
   - B. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH AND HAVE MAXIMUM DRY SHRINKAGE PER ASTM C157 AS FOLLOWS:
     - 1. FOOTINGS, GRADE BEAMS, WALLS, BEAMS, COLUMNS: 4000 PSI (DS MAX 0.05%)
     - 2. AIR ENTRAIN ALL EXTERIOR CONCRETE TO 5% ± 1.5%
   - C. IT IS THE INTENT OF THESE CONCRETE SPECIFICATIONS THAT THE CONTRACTOR SUPPLY CONCRETE MIXES WITH A MINIMUM AMOUNT OF WATER IN ORDER TO LIMIT PLASTIC SHRINKAGE CRACKING IN FRESHLY PLACED CONCRETE. IT IS EXPECTED THAT PRODUCING WORKABILITY FOR CONCRETE MIXES WILL REQUIRE THE ADDITION OF WATER-REDUCING CHEMICAL ADMIXTURES.
   - D. CONCRETE MIX DESIGNS SHALL INCLUDE ALL APPLICABLE ADMIXTURES.
   - E. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C-145) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY IF ADMIXTURE IS TO BE ADDED IN THE FIELD IS SHALL BE ADDED THROUGH THE USE OF AN EXTERNAL MEASURING DEVICE (I.E. 5 GALLON BUCKET).
   - F. CONCRETE EXPOSED TO WEATHER, PARKED VEHICLES, AND/OR DEICING CHEMICAL SHALL CONTAIN 5% (+/- 1.5%) ENTRAINED AIR BY VOLUME.
   - G. CHAMFER ALL EXPOSED CORNERS OF CONCRETE WALLS, 3/4" UNLESS NOTED OTHERWISE.
   - H. PRIOR TO PLACING CONCRETE IN ANY LOCATION, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE THOROUGHLY CHECKED AND COORDINATED ALL DIMENSIONS, ELEVATIONS, OPENINGS, RECESS, AND BLOCKOUTS AS SHOWN ON ANY CONTRACT DRAWINGS. IN THE EVENT ERRORS, CONFLICTS, OR OMISSIONS EXIST, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ARCHITECT OR ENGINEER FOR NECESSARY CORRECTIVE ACTION.
   - I. EMBEDDED ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR PRIOR TO PLACING CONCRETE.
   - J. ANCHOR RODS AND ANCHOR BOLTS SHALL BE HELD IN PLACE WITH A RIGID TEMPLATE
10. REINFORCING STEEL
    - A. ALL REINFORCING SHALL BE ASTM A615 GRADE 60, EXCEPT WELDED REINFORCING WHICH SHALL BE ASTM A706 GRADE 60.
    - B. ALL WELDED WIRE FABRIC SHALL BE ASTM A82 COLD DRAWN WIRE.
    - C. ALL ACCESSORIES FOR SUPPORTING REINFORCING SHALL BE GALVANIZED OR HAVE PLASTIC-COATED FEET.
    - D. PROVIDE CORNER BARS AT THE EXTERIOR FACE OF ALL WALL AND FOOTING CORNERS EQUAL TO HORIZONTAL BARS.
    - E. REINFORCING SHALL BE DETAILED, FABRICATED, PLACE, AND SUPPORTED IN ACCORDANCE WITH ACI 315, LATEST APPLICABLE EDITION.
    - F. STANDARD COVERAGE OF REINFORCING SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.
      - 1. PERMANENTLY EXPOSED TO WEATHER
        - A. CAST AGAINST EARTH — 3"
        - B. IN CONTACT WITH WATER — 3"
        - C. FORMED — 2"
      - 2. NOT EXPOSED TO EARTH OR WEATHER
        - A. SLABS AND WALLS — 3/4"
        - B. BEAMS AND COLUMNS — 1 1/2"
    - G. SPLICE LENGTH
      - 1. 3000 PSI CONCRETE
        - A. NON-COATED — 55 db (BAR DIAMETER)
        - B. EPOXY COATED — 83 db
      - 2. 4000 PSI CONCRETE
        - A. NON-COATED — 48 db
        - B. EPOXY COATED — 72 db
      - 3. 5000 PSI CONCRETE
        - A. NON-COATED — 43 db
        - B. EPOXY COATED — 64 db
    - H. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, EXCEPT AS SHOWN AND NOTED ON THE CONTRACT DRAWINGS OR PERMITTED BY THE ENGINEER OF RECORD.
    - I. ALL REINFORCEMENT AND EMBEDDED ITEMS INCLUDING PLATES AND ANCHOR RODS SHALL BE ACCURATELY PLACED, ADEQUATELY SUPPORTED, AND SECURED AGAINST DISPLACEMENT BEFORE CONCRETE IS PLACED. NEITHER REINFORCEMENT NOR EMBEDDED ITEMS SHALL BE PLACED INTO FRESHLY PLACED CONCRETE UNLESS APPROVED BY THE ENGINEER OF RECORD.
16. STRUCTURAL STEEL
    - A. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST APPLICABLE EDITION AND AISC CODE OF STANDARD PRACTICE.
    - B. ALL STRUCTURAL STEEL FOR WIDE FLANGE SHALL BE A992 GRADE 50 UNLESS NOTED OTHERWISE. ALL ANGLES, PLATES AND CHANNELS SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. ALL RECTANGULAR AND ROUND HSS SHAPES SHALL BE ASTM A500, GRADE B.
    - C. ALL BOLTS SHALL BE 3/4" Ø A-325 BOLTS WITH HEAVY HEX HEADS UNLESS NOTED OTHERWISE. ALL CONNECTIONS SHALL HAVE A MINIMUM OF (2) 3/4" Ø BOLTS, BEARING TYPE CONNECTIONS ONLY.
    - D. ALL STRUCTURAL STEEL WELDS IN THE SHOP OR IN THE FIELD SHALL BE PERFORMED BY A QUALIFIED WELDER AND SHALL CONFORM TO THE CURRENT REQUIREMENTS OF A.W.S.
    - E. SHOP WELDED AND FIELD BOLTED CONNECTIONS ARE PREFERRED UNLESS NOTED OTHERWISE.
    - F. ALL STEEL EXPOSED TO THE EXTERIOR, EXHIBITS, POOLS, AND LSS AREAS SHALL BE HOT-DIP GALVANIZED AND PAINTED PER ARCHITECT UNLESS NOTED OTHERWISE.
    - G. THE CONTRACTOR SHALL PROVIDE SHELF ANGLES, GLASS SUPPORTS, LINTELS, AND OTHER MISC. STEEL AS SHOWN ON THESE DRAWINGS AS REQUIRED TO PROVIDE SUPPORT (STABILIZATION) AROUND AND THROUGHOUT THE BUILDING. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL MISC. STEEL DETAILS.
14. STRUCTURAL ENGINEER SITE OBSERVATIONS
    - A. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES.
    - B. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, PROCEDURES,TECHNIQUES, OR SEQUENCES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR AN OTHER PERSONS PERFORMING ANY OF THE WORK, OR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
    - C. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF LEIGH & O'KANE L.L.C. IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR.
15. SUBMITTALS
    - A. ALL SHOP DRAWINGS AND SUBMITTALS MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL. ENGINEER'S REVIEW OF SHOP DRAWINGS IS LIMITED TO CHECKING FOR GENERAL CONFORMANCE WITH DESIGN DRAWINGS AND STRENGTH OF COMPONENTS AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES FROM THE DESIGN DRAWINGS, QUANTITIES, DIMENSIONAL ERRORS, OR OMISSIONS IN THE SHOP DRAWINGS.
    - B. ALL SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS AND SHALL NOT BE REPRODUCTIONS OF THESE CONTRACT DOCUMENTS.
    - C. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING ITEMS.
      - 1. CONCRETE MIX DESIGN AND MATERIALS
      - 2. CONCRETE REINFORCING STEEL
      - 3. STRUCTURAL STEEL FRAMING
    - D. PROVIDE A FINAL, "FOR CONSTRUCTION" SET OF ALL SHOP DRAWINGS TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION OF THOSE ITEMS.
16. SPECIAL INSPECTIONS
    - A. THE FOLLOWING MINIMUM ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH THE BUILDING CODE.
      - 1. CONCRETE PLACING
      - 2. CONCRETE REINFORCING
      - 3. BOLTS EMBEDDED IN CONCRETE / POST-INSTALLED ANCHORS
      - 4. ANCHOR RODS
      - 5. SOIL VERIFICATION
    - B. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK.

PLAN SYMBOL KEY

- F? = FOOTING TYPE (REFER TO FOOTING SCHEDULE)
- C? = COLUMN TYPE (REFER TO COLUMN SCHEDULE)
- W? = WOOD WALL TYPE (REFER TO WOOD WALL SCHEDULE)
- SW? = SHEAR WALL TYPE (REFER TO WOOD WALL SCHEDULE)
- CW? = CONCRETE WALL TYPE (REFER TO CONCRETE WALL SCHEDULE)
- MW? = MASONRY WALL TYPE (REFER TO MASONRY WALL SCHEDULE)
- = SHEAR WALL HOLDOWN
- = MOMENT FRAME CONNECTION
- = BEAM SPLICE CONNECTION

WALL TYPE KEY

- = LOAD BEARING WALL
- = NON-LOAD BEARING WALL
- = SHEAR WALL

STANDARD ABBREVIATIONS

ALT.	ALTERNATE
A.B.	ANCHOR BOLT
ARCH.	ARCHITECT
@	AT
BM.	BEAM
BOT.	BOTTOM
B.O.	BOTTOM OF
BLDG.	BUILDING
CL.	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUOUS
C.J.	CONTROL JOINT
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DWG(S)	DRAWING(S)
EA.	EACH
ELEV.	ELEVATION
EL.	ELEVATION
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXT.	EXTERIOR
F.S.	FAR SIDE
FIN.	FINISH
FLR.	FLOOR
FTG.	FOOTING
FOUND.	FOUNDATION
GALV.	GALVANIZED
GYP.	GYPSUM
H.S.	HEADED STUD
HI	HIGH
HORIZ.	HORIZONTAL
INSUL.	INSULATION
INT.	INTERIOR
LOC.	LOCATION
LLH	LONG LEG HORIZONTAL
LLO	LONG LEG OUT
LLV	LONG LEG VERTICAL
LONG.	LONGITUDINAL
LO	LOW
MSRY.	MASONRY
MAX.	MAXIMUM
MECH.	MECHANICAL
MIN.	MINIMUM
MIR.	MIRRORED
N.S.	NEAR SIDE
N.A.	NOT APPLICABLE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
PL.	PLATE
R.	RADIUS
RE:	REFERENCE
REINF.	REINFORCING
REQ'D	REQUIRED
SCHED.	SCHEDULE
SEC.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SQ.	SQUARE
S.S.	STAINLESS STEEL
STL.	STEEL
T&B	TOP & BOTTOM
T.O.	TOP OF
TRANS.	TRANSVERSE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W/	WITH
W/O	WITHOUT

HATCH PATTERN KEY

- = CONCRETE IN SECTION
- = EARTH IN SECTION
- = EPOXY IN SECTION
- = EXISTING IN PLAN AND SECTION
- = GRANULAR FILL IN SECTION
- = GRATING IN PLAN AND SECTION
- = GROUT IN SECTION
- = INSULATION IN SECTION
- = PLYWOOD IN SECTION
- = SNOW DRIFT LOADING IN PLAN
- = STEEL IN SECTION
- = TOPPING IN SECTION
- = WOOD END GRAIN IN SECTION
- = WOOD FACE GRAIN IN SECTION

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — WAYNE NEEL HESS — NUMBER PE-2010019551 — 04/21/23 — PROFESSIONAL ENGINEER

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DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 4/28/2023

CAD DWG FILE:
DRAWN BY: WNH
CHECKED BY: WNH
DESIGNED BY: WNH

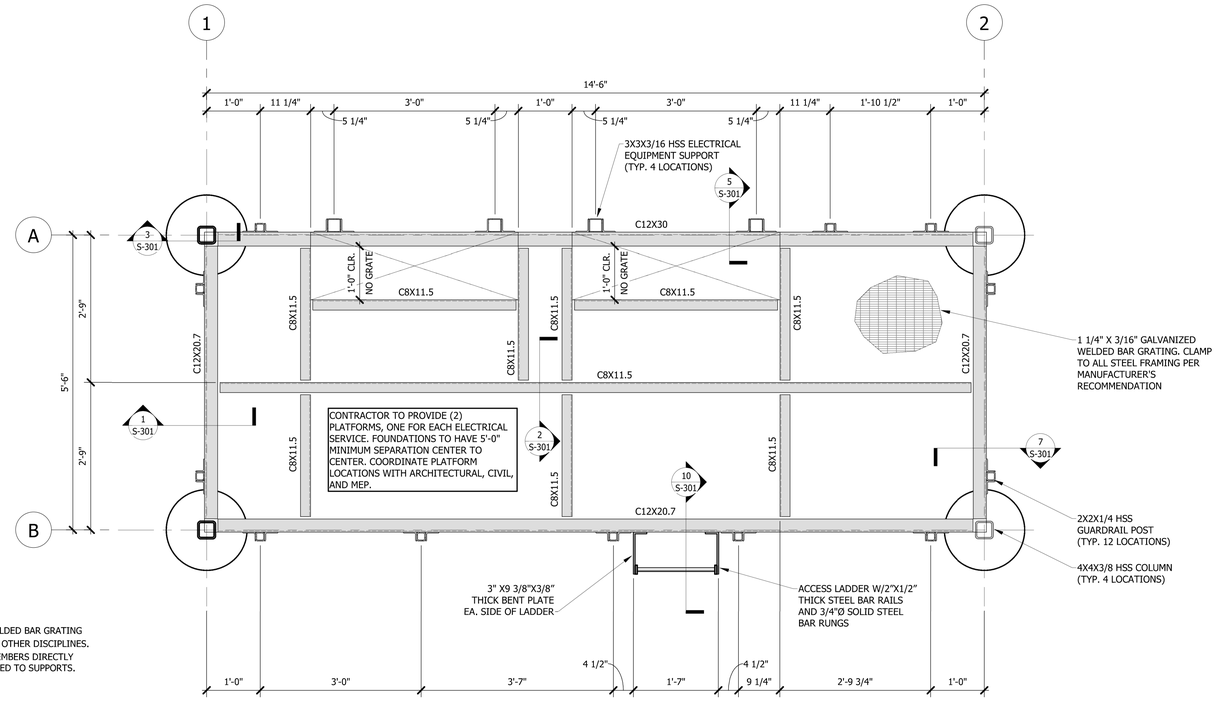
SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

S-001

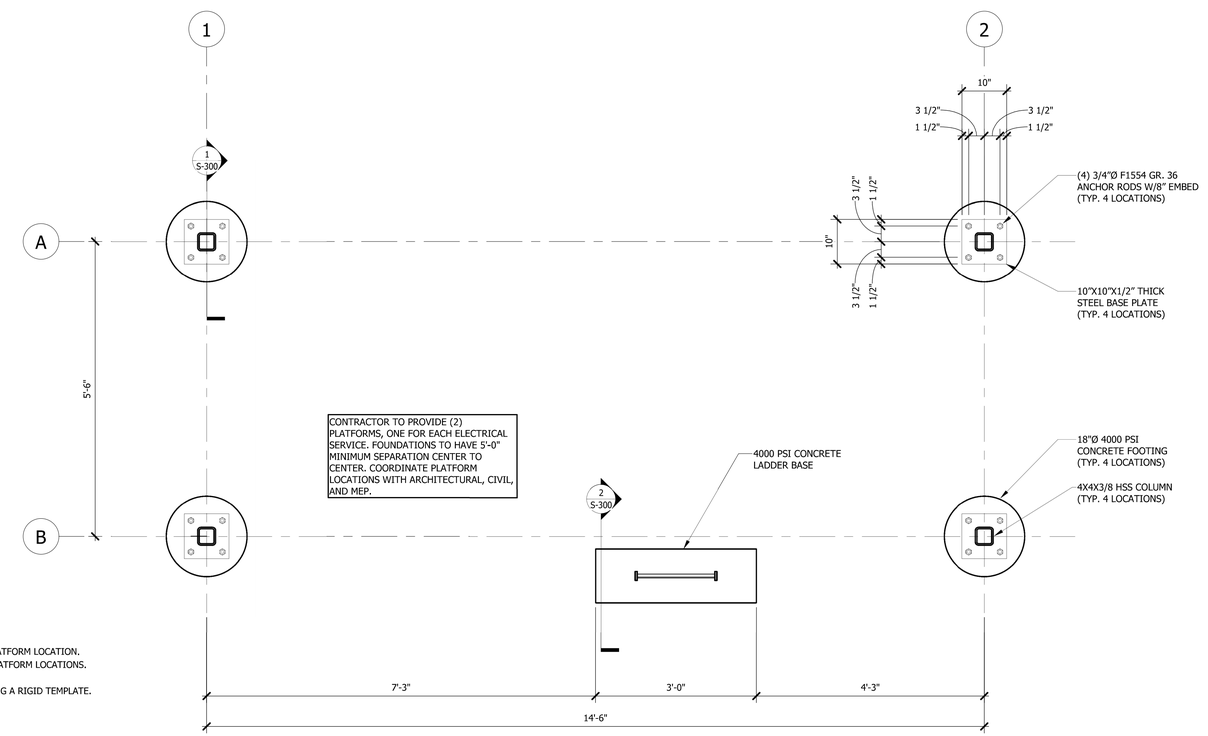
SHEET 26 OF 35
4/28/2023



2 PLATFORM LEVEL FRAMING PLAN
3/4" = 1'-0"

FRAMING PLAN NOTES

1. ALL STEEL TO BE HOT DIPPED GALVANIZED.
2. ALL BOLTS TO BE A325N.
3. FLOOR GRATING TO BE 1 1/4" X 3/16" GALVANIZED WELDED BAR GRATING
4. COORDINATE ALL OPENINGS IN FLOOR GRATING WITH OTHER DISCIPLINES.
5. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF MEMBERS DIRECTLY SUPPORTING THE ELECTICAL EQUIPMENT AND ATTACHED TO SUPPORTS.



1 PLATFORM FOUNDATION PLAN
3/4" = 1'-0"

FOUNDATION PLAN NOTES

1. ALL CONCRETE TO HAVE 4000 PSI COMPRESSIVE STRENGTH.
2. BASE ELEVATIONS VARY BETWEEN THE NORTH AND SOUTH PLATFORM LOCATION.
3. REFER TO OTHER DISCIPLINES DRAWINGS FOR ELECTRICAL PLATFORM LOCATIONS.
4. ALL ANCHOR RODS TO BE F1554 GRADE 36.
5. ANCHOR RODS TO BE CAST-IN-PLACE AND HELD IN PLACE USING A RIGID TEMPLATE.

STATE OF MISSOURI
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ISSUE DATE:4/28/2023

CAD DWG FILE:
DRAWN BY: WNH
CHECKED BY: WNH
DESIGNED BY: WNH

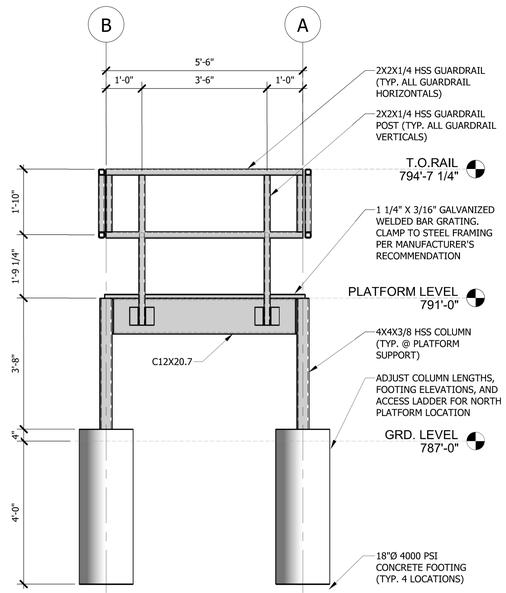
SHEET TITLE:
PLANS

SHEET NUMBER:
S-100

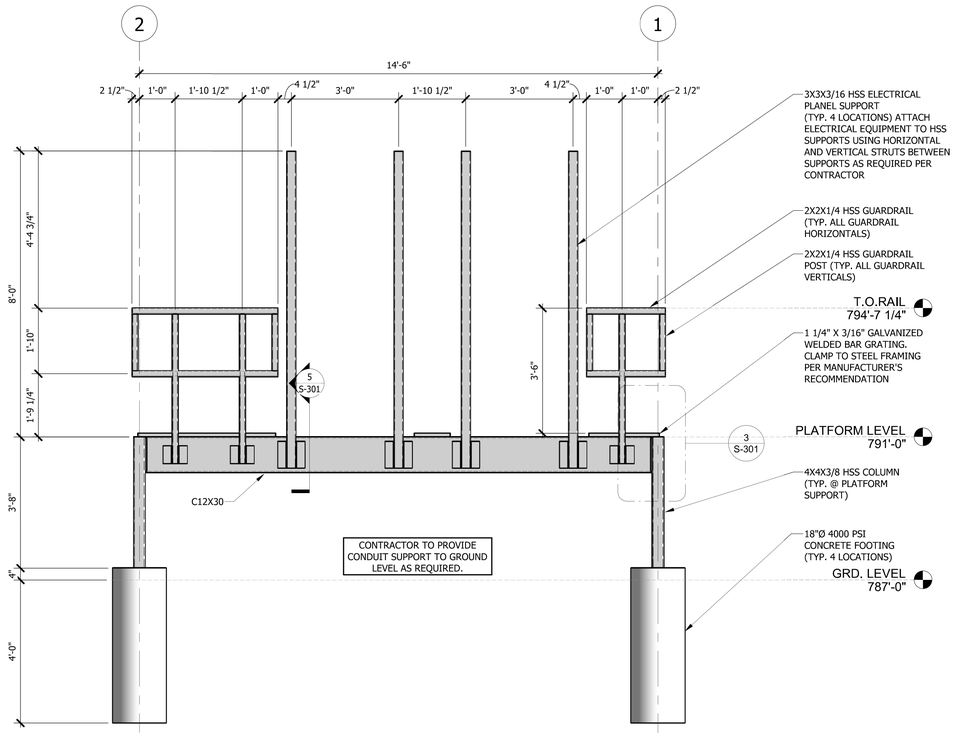
CAUTION SIGN TO BE ATTACHED TO PLATFORM STRUCTURE COORDINATE SIZE, QUANTITY, TYPE, AND LOCATIONS WITH OWNER. CONTRACTOR TO INSTALL SIGNS IN LOCATIONS PROVIDED BY OWNER.

CAUTION!!!
DO NOT CLIMB
DO NOT ENTER

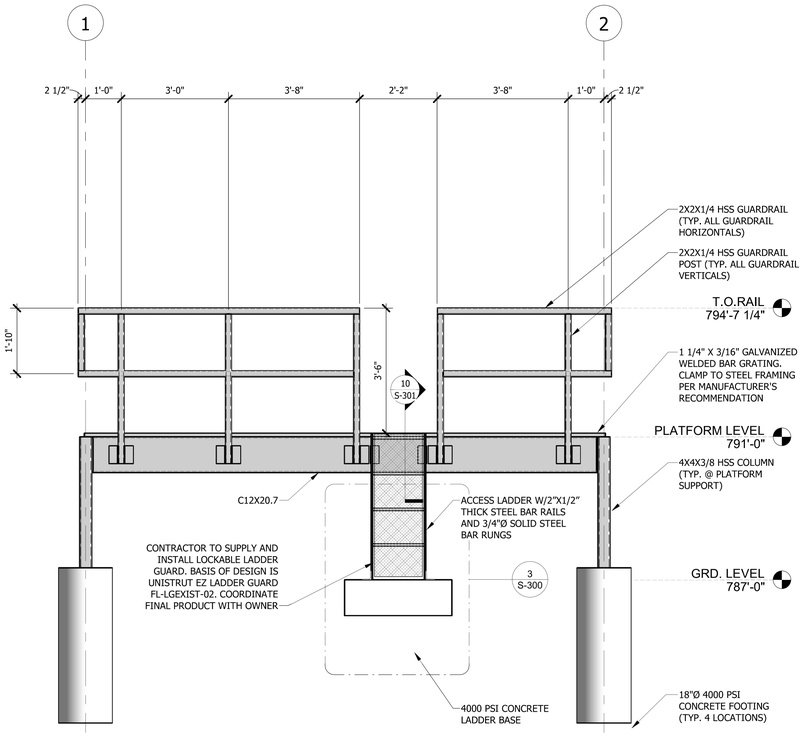
4 CAUTION SIGN
3" = 1'-0"



3 ELEVATION - SIDE (1 THUS, 1 REVERSE)
1/2" = 1'-0"



2 ELEVATION - ELECTRIC EQUIPMENT SUPPORT SIDE
1/2" = 1'-0"



1 ELEVATION - ACCESS LADDER SIDE
1/2" = 1'-0"

STATE OF MISSOURI
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ISSUE DATE: 4/28/2023

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DESIGNED BY: WNH

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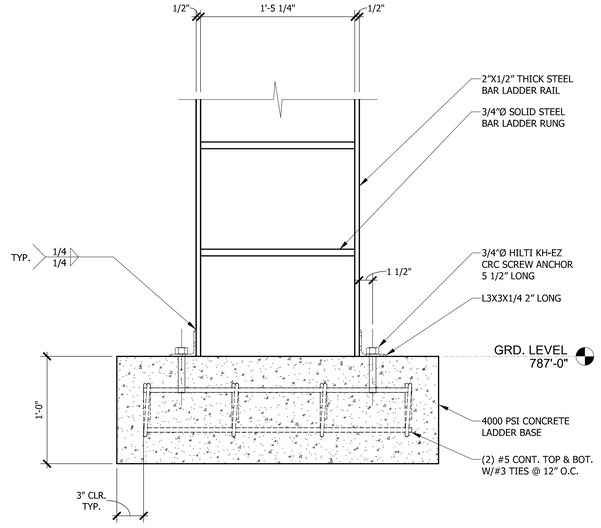
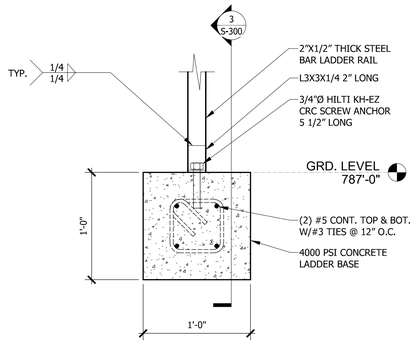
ELEVATIONS

SHEET NUMBER:
S-200

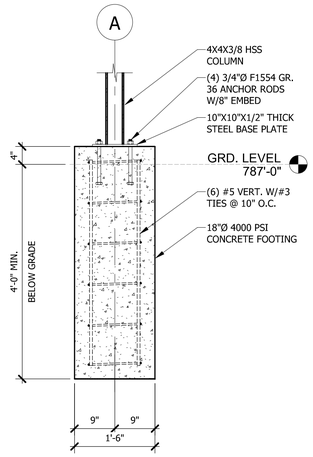
SHEET 28 OF 35
4/28/2023



3 LADDER BASE SECTION - LONGITUDINAL
1 1/2" = 1'-0"



2 LADDER BASE SECTION
1 1/2" = 1'-0"



1 PLATFORM FOUNDATION SECTION
3/4" = 1'-0"

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI
WAYNE NEEL HESS
NUMBER PE-2010019551
04/21/23
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RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

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ISSUE DATE:4/28/2023

CAD DWG FILE:
DRAWN BY: WNH
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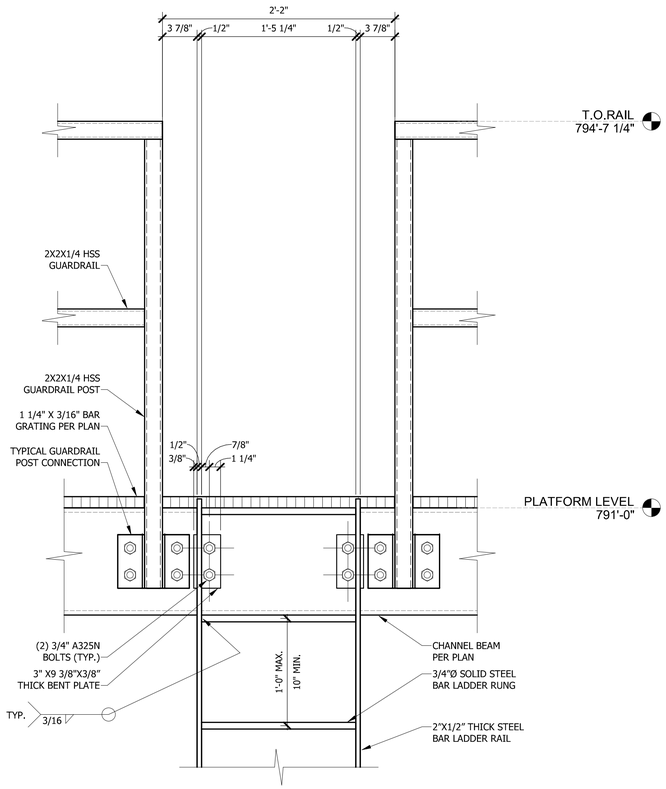
DESIGNED BY: WNH

SHEET TITLE:

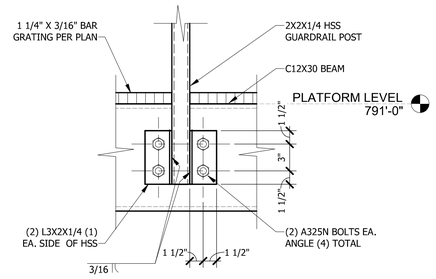
FOUNDATION SECTIONS

SHEET NUMBER:

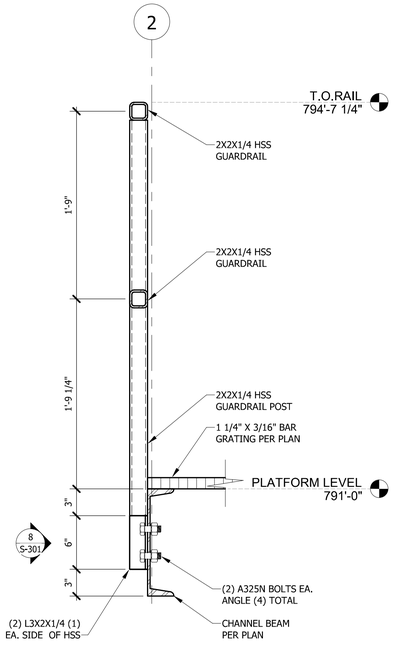
S-300



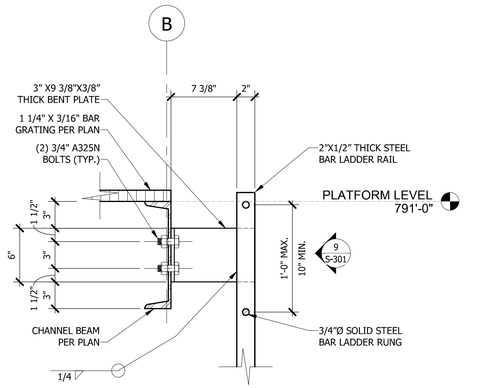
9 LADDER TOP SECTION - LONGITUDINAL
1 1/2" = 1'-0"



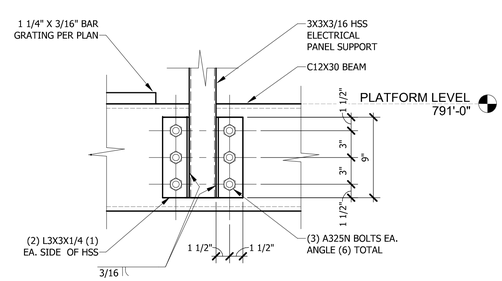
8 GUARDRAIL POST CONN. ELEV.
1 1/2" = 1'-0"



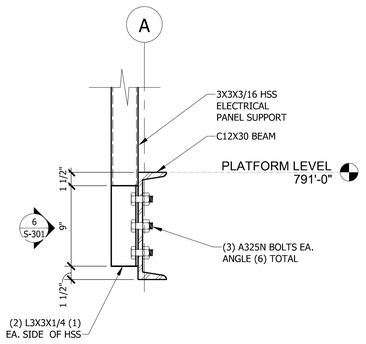
7 GUARDRAIL POST TO CHANNEL CONN. SECTION
1 1/2" = 1'-0"



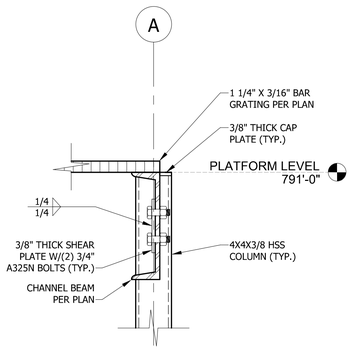
10 LADDER TO CHANNEL CONN. SECTION
1 1/2" = 1'-0"



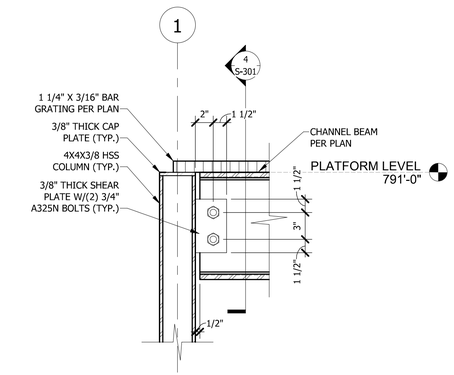
6 EQUIPMENT SUPPORT CONN. ELEV.
1 1/2" = 1'-0"



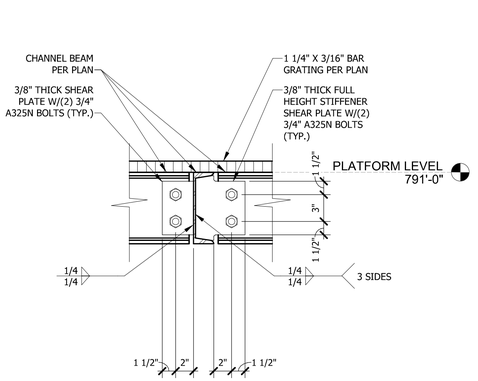
5 EQUIPMENT SUPPORT TO CHANNEL CONN. SECTION
1 1/2" = 1'-0"



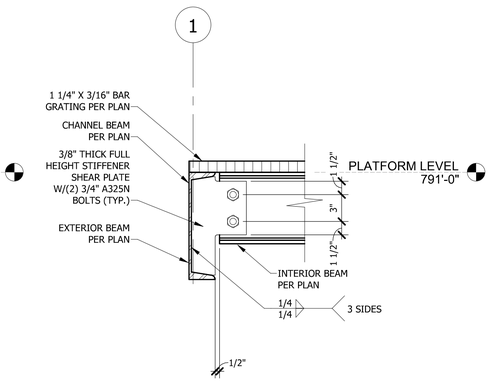
4 TYPICAL SHEAR PLATE LOCATION SECTION
1 1/2" = 1'-0"



3 TYPICAL CHANNEL TO COLUMN CONN. SECTION
1 1/2" = 1'-0"



2 TYPICAL 8" CHANNEL CONN. SECTION
1 1/2" = 1'-0"



1 TYPICAL EXTERIOR @ PLATFORM SECTION1
1 1/2" = 1'-0"

STATE OF MISSOURI
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CAD DWG FILE:
DRAWN BY: WNH
CHECKED BY: WNH
DESIGNED BY: WNH

SHEET TITLE:
FRAMING SECTIONS

SHEET NUMBER:
S-301

SHEET 30 OF 35
4/28/2023

GENERAL NOTES: (TYPICAL ALL SHEETS)

A) ALL WORK SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE LATEST NATIONAL ELECTRICAL CODE, UNDERWRITER'S LABORATORIES, INC;, OCCUPATIONAL SAFETY AND HEALTH ACT, AND ALL STATE, LOCAL, MUNICIPAL, AND STATUTORY REQUIREMENTS.

B) PEDESTAL FEEDER WIRING TO BE COPPER: XLPE, RHW-2 OR USE-2 TYPE, DIRECT BURIED. ROUTE IN CONDUIT WHERE RUN UNDER GRAVEL OR PAVING AS NOTED IN DETAILS.

C) ALL SINGLE PHASE, SINGLE POLE LOADS TO HAVE DEDICATED NEUTRALS. LABEL NEUTRAL CONDUCTORS WITH CORRESPONDING CIRCUIT NUMBER AT EACH PULL BOX, JUNCTION BOX, HANDHOLE AND OTHER SPLICE POINTS. USE OF BREAKER TIES IS NOT PERMITTED. SHARING OF NEUTRALS IS NOT PERMITTED.

D) WHERE ELECTRICAL SITE WORK IS REQUIRED, CONTRACTOR SHALL RESTORE EXISTING SITE TO IT'S ORIGINAL CONDITION. INCLUDING BUT NOT LIMITED TO REPLACING VEGETATION, SOFTSCAPE AND HARDSCAPE REQUIRED TO BE DISTURBED DURING INSTALLATION OF ELECTRICAL COMPONENTS.

E) CONTRACTOR SHALL PROVIDE A MINIMUM OF 1" CONDUIT PER SPECIFICATIONS OR AS OTHERWISE NOTED ON PLANS.

F) USE OF 3M SCOTCHLOK CONNECTORS OR PUSH-IN WIRE CONNECTORS (SIMILAR TO WAGO PUSH-IN CONNECTORS) ARE NOT PERMITTED. ALL WIRING CONNECTIONS TO BE DONE WITH WIRE NUT CONNECTORS.

G) IF CONTRACTOR CHOOSES TO GROUP CIRCUITS FOR HOMERUNS, CONTRACTOR SHALL APPLY ADJUSTMENT FACTORS FOR MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A RACEWAY PER NEC TABLE 310.15(B)(3)(a). CONDUCTORS SHALL BE UPSIZED AS REQUIRED TO MAINTAIN FULL AMPACITY RATING.

H) ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.

I) ALL PANELBOARDS, SWITCHBOARDS AND LINE VOLTAGE CONTROL EQUIPMENT SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATINON, ADJUSTING, SERVICING OR MAINTENANCE OF EQUIPMENT. MARKING SHALL BE SELF ADHESIVE, COMMERCIAL LABEL CONFORMING TO NEC AND ANSI REQUIREMENTS.

J) ANY MATERIAL REMOVED THAT OWNER DOES NOT WISH TO RETAIN SHALL BE REMOVED FROM PROJECT SITE AND DISPOSED OF BY THE CONTRACTOR.

K) UPDATED, TYPEWRITTEN PANELBOARD DIRECTORY SHALL BE PROVIDED FOR EACH PANELBOARD THAT CIRCUITS HAVE BEEN ADDED TO OR MODIFIED.

GENERAL DEMO NOTES:

A) REMOVE ALL WIRING (CONDUIT, CONDUCTORS, BOXES, ETC.) ABANDONED AS PART OF THIS PROJECT.

C) ANY EXISTING DEVICE AND/OR CIRCUIT SHOWN ARE INDICATED ONLY FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL CONDITIONS AS THEY EXIST AND SHALL REMOVE, RELOCATE AND/OR REWORK ANY ELECTRICAL EQUIPMENT OR CIRCUITS NECESSARY FOR A COMPLETE REWIRING SYSTEM.

D) UNLESS NOTED OTHERWISE,THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL WORK TO BE DONE BY OBSERVATION OF THE SITE. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR PERFORMING ALL WORK NECESSARY TO PROVIDE A WORKMANLIKE INSTALLATION.

E) THE CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ANY MODIFICATIONS TO THE EXISTING SYSTEMS WHICH ARE TO REMAIN AND SHALL, UPON COMPLETION OF THIS PROJECT, DELIVER "RECORD" DRAWINGS TO THE ARCHITECT INDICATING ALL SUCH CHANGES. THE CONTRACTOR SHALL MAINTAIN IN THE PROJECT OFFICE, AS WORK PROGRESSES, AN UP-TO-DATE NEATLY MARKED COPY OF THESE DRAWINGS FOR REVIEW BY THE APPROPRIATE PARTIES.

F) WHERE NEW WORK INTERFERES WITH CIRCUITS OTHERWISE UNDISTURBED, EXISTING CIRCUITS SHALL BE REWORKED AS REQUIRED TO MAINTAIN SERVICE.

G) THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES, THE CONDITION OF EXISTING DEVICES AND MATERIALS, AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE SAME DURING THE COURSE OF THIS WORK. EXISTING UTILITIES, EXISTING BUILDING, AND/OR MATERIALS WHICH ARE DAMAGED BY NEGLIGENCE ON THIS CONTRACTOR'S PART OR ANY PARTIES ASSOCIATED WITH THIS CONTRACTOR, SHALL BE REPAIRED OR REPLACED AT THIS CONTRACTOR'S EXPENSE, IN A TIMELY MANNER, AND TO THE ARCHITECT'S AND OWNER'S WRITTEN ACCEPTANCE.

H) CIRCUIT ROUTINGS SHOWN MAY BE MODIFIED TO SUIT FIELD CONDITIONS, HOWEVER, KEEP CIRCUITS AS INDICATED TO AVOID OVERLOADING OF THE CIRCUIT.

I) WHERE EXISTING ELECTRICAL DISTRIBUTION PANELBOARDS ARE TO BE REMOVED, THE CONTRACTOR SHALL PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN POWER TO FEEDER CIRCUITS UNTIL A PERMANENT PANEL IS INSTALLED TO RECONNECT THE EXISTING REMAINING CIRCUITS.

J) MAINTAIN CONTINUITY OF EXISTING CIRCUITS SERVING DEVICES, FIXTURES OR EQUIPMENT TO REMAIN.

CODE SUMMARY:

INTERNATIONAL BUILDING CODE	2018
NFPA 70 NATIONAL ELECTRICAL CODE	2020

ELECTRICAL SYMBOLS:

	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL. ARROWS INDICATE HOMERUNS TO PANEL. ALL CONDUCTORS #12 AWG UNLESS NOTED OTHERWISE. EACH SINGLE PHASE CIRCUIT TO HAVE DEDICATED NEUTRAL. PHASE CONDUCTORS NEUTRAL CONDUCTOR GROUND CONDUCTOR DENOTES PARTIAL CIRCUIT
LP1-10	PANEL - BREAKER NUMBER (IDENTIFICATION)
1,3; 1,3,5	INDICATES X,X= 2-POLE C.B.; X,X,X = 3-POLE C.B.
3 5 1	HOMERUN INDICATED LIKE THIS INDICATED THREE SEPARATE SINGLE PHASE CIRCUITS. EACH CIRCUIT TO HAVE DEDICATED NEUTRAL.
	CONDUIT CONCEALED IN CEILING OR WALL WITH THREE CONDUCTORS: 1-PHASE; 1-NEUTRAL; 1-GROUND WIRE, NO.12 AWG UNLESS OTHERWISE SPECIFIED ON DRAWINGS.
	CONDUIT RUN UNDERGROUND OR CONCEALED IN FLOOR SLAB.
	GROUNDING CONDUCTOR NO.12 WIRE EXCEPT AS NOTED.
	MOTOR
	208Y/120V OR 120/240V PANELBOARD TOP MOUNTED 72" AFF
	DISTRIBUTION PANEL (SURFACE OR FLOOR MOUNTED).
	SURFACE MOUNTED EQUIPMENT, TYPE AS INDICATED ON DRAWINGS
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT STUBBED THRU WALL WITH BUSHINGS ON BOTH ENDS. SIZE AS NOTED ON PLANS.
	EMPTY CONDUIT STUB-UP INSIDE WALL TO ABOVE ACCESSIBLE CEILING WITH BUSHING ON THE END. SIZE AS NOTED ON DRAWINGS.
	GROUND
	POWER CONNECTION POINT
	DISCONNECT SWITCH, SIZE AND TYPE AS NOTED TOP MOUNTED 60" AFF
T	PAD MOUNTED TRANSFORMER.
	PAD MOUNTED POWER PEDESTAL. REFER TO DETAILS/SPECS FOR TYPE.
WP	GFI DUPLEX RECEPTACLE WITH WEATHERPROOF WHILE-IN-USE COVER. HEIGHT AS NOTED.
G	DUPLEX RECEPTACLE W/GROUND FAULT PROTECTION, +18" AFF OR AS NOTED
	OVERHEAD POWER POLE WITH A RISER POLE.
	OVERHEAD POWER POLE WITH POLE MOUNTED TRANSFORMERS.
(J) OR (J)	WALL MOUNTED OR CEILING MOUNTED JUNCTION BOX.
	INDICATES DEVICE ABOVE RE: DRAWING
XX-X	ELECTRICAL EQUIPMENT PROVIDED BY AND INSTALLED BY E.C.
+48"	TOP OF OUTLET BOX ABOVE FINISHED FLOOR
AFF	ABOVE FINISH FLOOR
ETR	EXISTING TO REMAIN
ER	EXISTING RELOCATED
G	GFCI (GROUND FAULT CIRCUIT INTERRUPTER) PROTECTION

PLAN NOTE LEGEND

TAG VALUE	PLAN NOTE TEXT
ED000	ELECTRICAL DEMOLITION
EP000	POWER

WIRING SCHEDULE-VOLTAGE DROP

DISTANCE	CONDUCTOR SIZE
120V-20A BRANCH CIRCUIT	
UP TO 100'	#12
100'-150'	#10
150'-250'	#8
250'-OVER	#6
277V-20A BRANCH CIRCUIT	
UP TO 200'	#12
200'-375'	#10
375'-OVER	#8

NOTE:
FOR ALL CIRCUITS WITH #6 CONDUCTORS, REDUCE TO #8 CONDUCTORS AT PANEL FOR FINAL CONNECTION TO CIRCUIT BREAKER.

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DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

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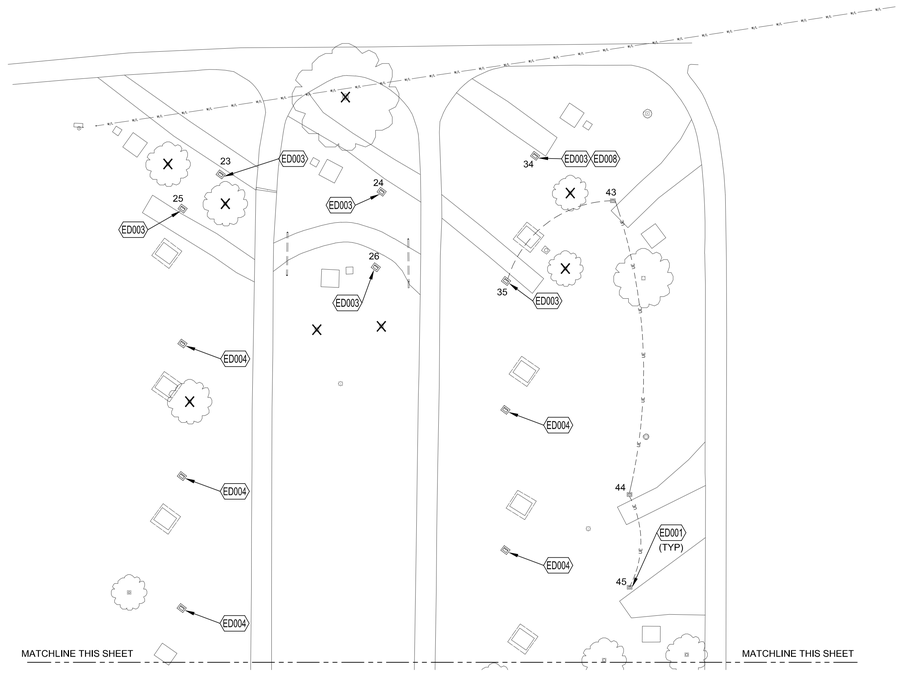
ELECTRICAL SYMBOLS & GENERAL NOTES

SHEET NUMBER:
E-001

SHEET 31 OF 35
4/28/2023



ELECTRICAL SITE PLAN - DEMOLITION
1"=40'
NORTH
0 40' 80'

GENERAL NOTES

1	CIRCUIT ROUTING SHOWN IS DIAGRAMMATIC ONLY.
2	CONTRACTOR TO FIELD LOCATE, MAINTAIN AND PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED.

DEMOLITION PLAN NOTES

ED001	EXISTING POWER PEDESTAL TO REMAIN. MAINTAIN CONTINUITY OF CIRCUIT FEEDING PEDESTAL. WIRING SHOWN TO SHOW GROUPING OF PEDESTALS AND FOR REFERENCE ONLY.
ED002	EXISTING PANEL TO REMAIN. MAINTAIN POWER TO CAMPSITES TO REMAIN. UPDATE BREAKER DESCRIPTIONS TO CAPTURE CIRCUITS REMOVED.
ED003	EXISTING PEDESTAL TO BE REMOVED. REMOVE ALL ASSOCIATED WIRING BACK TO SOURCE. CONTRACTOR SHALL ENSURE CONTINUITY OF CIRCUIT FEEDING ANY PEDESTALS TO REMAIN.
ED004	EXISTING ABANDONED PEDESTAL TO BE REMOVED. REMOVE ALL ASSOCIATED WIRING BACK TO PANEL.
ED005	EXISTING UTILITY TRANSFORMER TO REMAIN.
ED006	DISCONNECT AND REMOVE EXISTING PANEL. REMOVE ALL ASSOCIATED WIRING AND CONDUIT BACK TO TRANSFORMER. COORDINATE WITH THE UTILITY TO DISCONNECT POWER. REFER TO NEW WORK PLANS FOR NEW PANEL
ED007	SALVAGE METER AND TURN OVER TO UTILITY
ED008	THIS PEDESTAL CURRENT FED FROM 800A PANEL. UPDATE PANEL SCHEDULE INDICATING THAT LOAD CAMPGROUND UNIT HAS BEEN REMOVED.

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RUSHVILLE, MO 64484

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SITE # 5109
FACILITY # 7815109022

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ELECTRICAL SITE PLAN DEMOLITION

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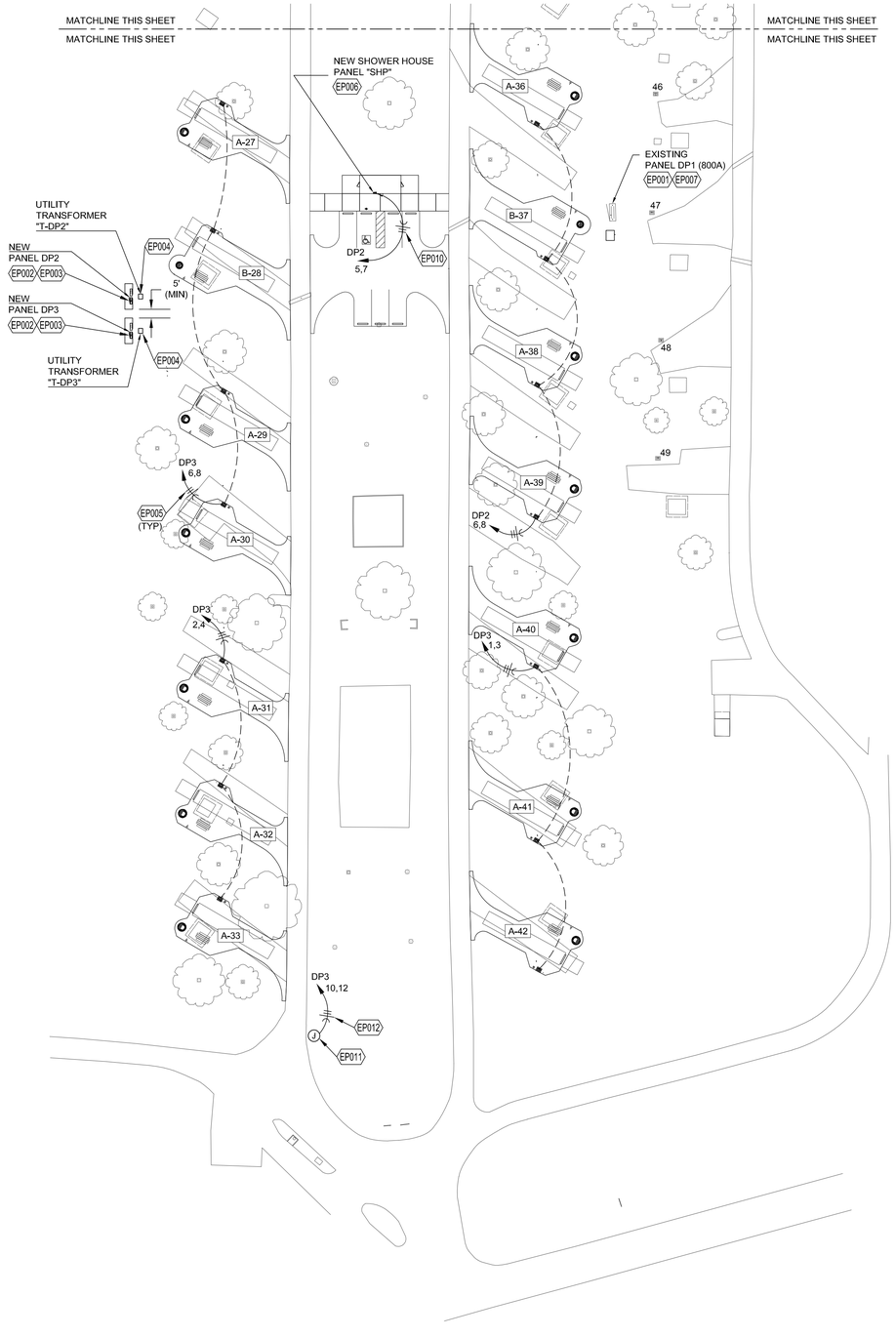
SHEET 32 OF 35
4/28/2023



LEWIS AND CLARK SITE PLAN - ELECTRICAL

1"=40'

0 40' 80'

GENERAL NOTES

1	CIRCUIT ROUTING SHOWN IS DIAGRAMMATIC ONLY.
2	CONTRACTOR TO FIELD LOCATE, MAINTAIN AND PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED.
3	COORDINATE UTILITY POWER WITH EVERGY. CALL CUSTOMER SERVICE NUMBER 1-888-471-5275 FOR A SERVICE REQUEST. (DESIGN CONTACT: SHELLEY SIMPSON - GENERAL DESIGN TECHNICIAN - ST JOSEPH SHELLEY.SIMPSON@EVERGY.COM)
4	REFER TO SHEET E-501 FOR TRENCH DETAILS AND WHERE CONDUIT SLEEVES ARE REQUIRED.

NEW WORK PLAN NOTES

EP001	EXISTING PANEL TO REMAIN. PROTECT FEEDERS AND PANEL DURING NEW WORK.
EP002	PROVIDE NEW SINGLE PHASE, 240/120V PANELBOARD IN NEMA 3R ENCLOSURE. SEE ASSOCIATED PANEL SCHEDULE AND RISER DIAGRAM FOR ADDITIONAL INVORMATION AND REQUIREMENTS.
EP003	PANELBOARD TO BE MOUNTED SO THAT BOTTOM OF PANEL IS A MINIMUM OF ONE (1) FOOT ABOVE THE 100 YEAR FLOOD PLAIN (791) AS NOTED ON SHEET L-401: PANELBOARD, C.T. CABINET, AND METER TO BE MOUNTED ON ELEVATED GALVANIZED STEEL PLATFORM. PROVIDE ALL THE REQUIRED UNI-STRUT SUPPORT FRAMING TO PROPERLY SUPPORT THE CONDUIT RISERS FROM THE GROUND AND TO PROPERLY SUPPORT THE PANELBOARD, C.T. CABINET AND METER FROM THE ELEVATED PLATFORM. REFER TO S-100 & S-200 FOR PLATFORM DETAILS.
EP004	NEW TRANSFORMER TO BE LOCATED CLOSE TO THE ELEVATED PLATFORM MAINTAINING PROPER CLEARANCES AS REQUIRED BY EVERGY.
EP005	PROVIDE 3 #250 KCMIL AND 1 #4 GROUND (TYPE CU USE-2/RHW-2/XLPE CABLE) DIRECT BURIED A MINIMUM OF 24 INCHES THROUGHOUT FULL LENGTH OF CIRCUIT.
EP006	MAKE FINAL CONNECTIONS TO SHOWER HOUSE PANEL. SHOWER HOUSE PANEL TO HAVE MAIN BREAKER. CONFIRM SIZE OF MAIN SUPPLIED PRIOR TO ROUGH-IN.
EP007	RE-LABEL EXISTING PANEL AS NOTED. PROVIDE NEW PANEL ID ON SIDE FACE OF CABINET.
EP008	PROVIDE 3 #300 KCMIL AND 1 #3 GROUND (TYPE CU USE-2/RHW-2/XLPE CABLE) DIRECT BURIED A MINIMUM OF 24 INCHES FOR HOMERUN. UPSIZED DUE TO VOLTAGE DROP.
EP009	PROVIDE 3 #250 KCMIL AND 1 #4 GROUND (TYPE CU USE-2/RHW-2/XLPE CABLE). DIRECT BURIED A MINIMUM OF 24 INCHES
EP010	PROVIDE 3 #1 AWG AND 1 #8 GROUND (TYPE CU USE-2/RHW-2/XLPE CABLE) DIRECT BURIED A MINIMUM OF 24 INCHES THROUGHOUT FULL LENGTH OF CIRCUIT.
EP011	MAKE ALL FINAL CONNECTIONS TO GRINDER PUMP CONTROL PANEL AND PUMPS AS PER MANUFACTURER INSTRUCTIONS. CIRCUIT TO BE RUN IN CONDUIT AS NOTED. COORDINATE EXACT LOCATION OF PUMP WITH CIVIL DRAWINGS PRIOR TO ROUGH-IN.
EP012	PROVIDE 2 #2 AWG AND 1 #4 GROUND IN 1-1/2" CONDUIT. (UPSIZED DUE TO VOLTAGE DROP)

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SITE # 5109
FACILITY # 7815109022

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ELECTRICAL SITE PLAN

SHEET NUMBER:

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SHEET 33 OF 35
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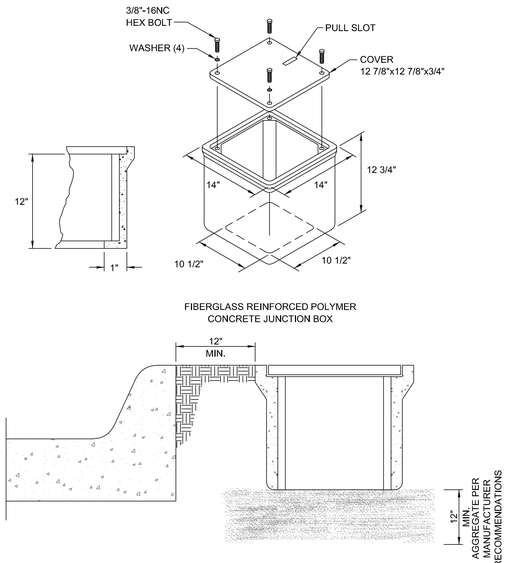
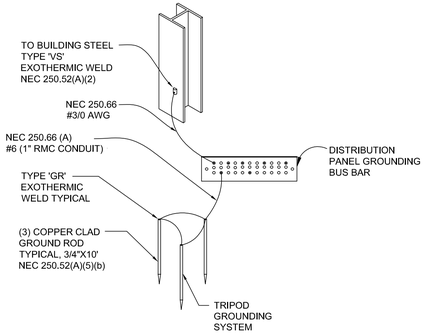


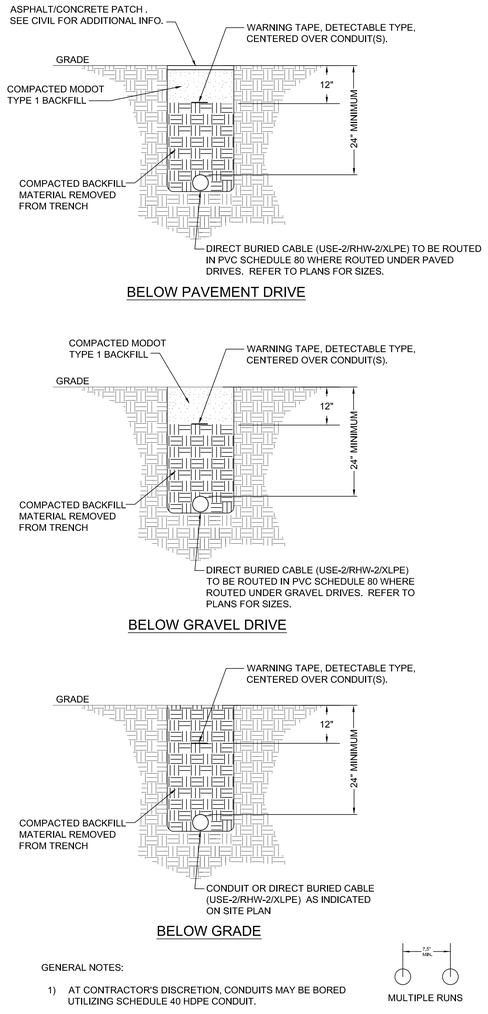
5 JUNCTION BOX DETAIL
NO SCALE



NOTES:

1. EXOTHERMIC WELD DESIGNATION INDICATED ABOVE ARE ERICO 'CADWELD'.
2. ALL GROUND BUS CONNECTIONS TO BE MADE WITH COPRESSION TYPE CONNECTORS.
3. ALL WIRING TO BE TYPE THHN/THWN-2.
4. MAIN GROUP OF RODS ARE TO BE LOCATED AT SERVICE ENTRANCE WITH SIZE AND QUANTITY PER SPECIFICATIONS.
5. EACH CABLE TIED TO THE MAIN PANEL GROUNDING BUS TO BE LABELED.
6. SIZING AND CODE REFERENCES ARE BASED ON NEC 2020.

3 MAIN SERVICE GROUNDING
NO SCALE



BELOW PAVEMENT DRIVE

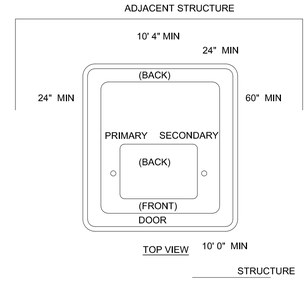
BELOW GRAVEL DRIVE

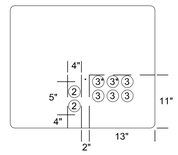
BELOW GRADE

GENERAL NOTES:

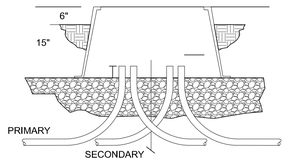
1) AT CONTRACTOR'S DISCRETION, CONDUITS MAY BE BORED UTILIZING SCHEDULE 40 HDPE CONDUIT.

2 UP TO 600V CONDUIT TRENCH DETAILS
NO SCALE





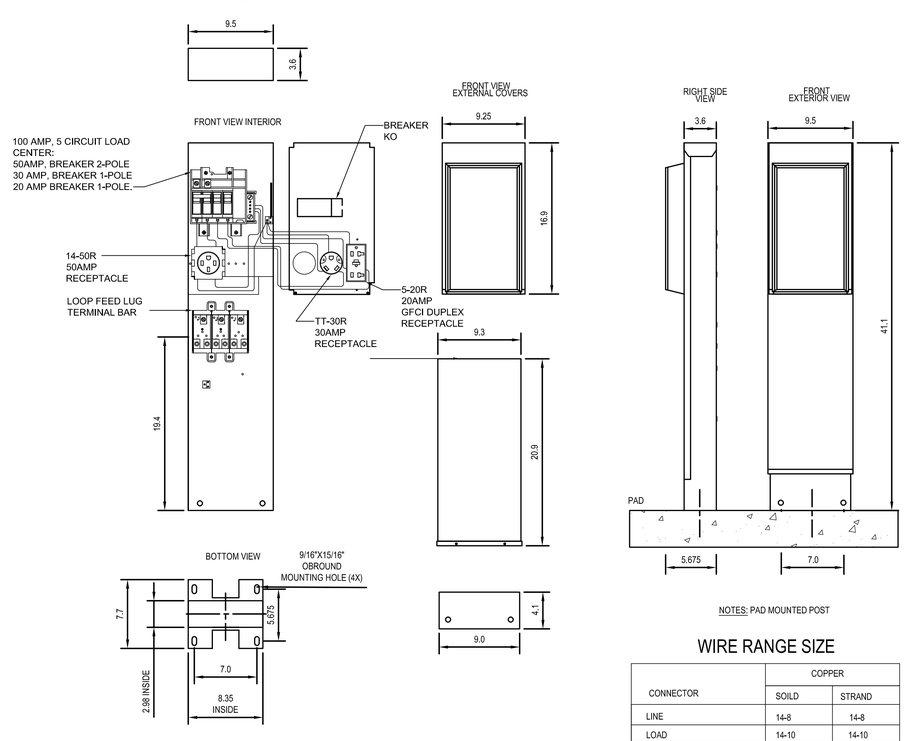
DETAIL A
*PREFERRED 4" CONDUIT
PLACEMENT WHEN REQUIRED.



NOTES:

1. CONDUIT INSTALLED FOR FUTURE CABLE RUNS SHALL EXTEND AT LEAST 24" BEYOND THE BASE AND BE CAPPED ON BOTH ENDS. ANCHOR BOLT INSERTS ARE POSITIONED FOR TRANSFORMERS.
2. A MINIMUM WIDTH OF 10'4" WORKING SPACE BETWEEN STRUCTURES WILL BE REQUIRED FOR TRANSFORMER INSTALLATION AND MAINTENANCE.
3. ANY FENCE OR WALL INFRONT OF TRANSFORMER DOOR LESS THAN 10' AWAY MUST BE REMOVABLE OR OPENABLE.
4. COORDINATE WITH EVERGY. SINGLE PHASE TRANSFORMER "BOX" PAD CONSTRUCTED OF POLYETHYLENE FIBERGLASS, SUPPLIED BY THE COMPANY.
5. EXCAVATE 12" DOWN AND 6" WIDER THAN THE FLANGE OF THE BOX PAD BASE.
6. PAD SHALL SIT 3" - 6" ABOVE GRADE.
7. PAD SHALL BE SET ON FIRM LEVEL UNDISTURBED EARTH OR FIRMLY COMPACTED LEVEL BACKFILL. (THE COMPANY DEFINES THE FIRM LEVEL AND/OR FIRMLY COMPACTED LEVEL BACKFILL AS A PAD SITE TOPPED WITH A MINIMUM OF 6" CRUSHED ROCK). COMPACTION SHALL BE TO 95% OF MAXIMUM DENSITY (PROCTOR - ASTM D698).
8. FOR STREET SIDE INSTALLATIONS, PAD AND PRIMARY/SECONDARY CONDUITS SHALL BE ORIENTED SO THAT THE FRONT OF THE PAD, AND THE FRONT OF THE TRANSFORMER AFTER IT IS INSTALLED, FACES THE STREET.

4 BOX STYLE SINGLE PHASE TRANSFORMER PAD
NO SCALE



NOTES: PAD MOUNTED POST

WIRE RANGE SIZE

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

1 POWER PEDESTAL DETAIL
NO SCALE

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SHEET 34 OF 35
4/28/2023

PANELBOARD DP2 (LC) SCHEDULE

SERVICE: 240/120 VOLT, 1 PHASE, 3 WIRE — BUS: COPPER, SIN GND BUS — RATING: 42000 A.I.C.
AMP: 800 AMP — LOCATION: EXTERIOR
MAINS: MCB - 600 AMP MAIN BREAKER — MOUNTING: SURFACE — NEMA 3R

REV NO.	NOTE NO.	LOAD DESCRIPTION	CKT	P	AMP	LOAD KVA A	LOAD KVA B	CKT	LOAD DESCRIPTION	CKT	P	AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		SITES A 01, A 03, A 05	1	2	240	27		2	SITES A 01, A 03, A 05	2	240	12				
			3				12	4						24		
		SHUNTER HJUGLE	5	2	100	12		6	SITES A 09, B 37, A 09, A 09	2	200	24				
			7				12	8						24		
		SPACE ONLY	9	1				10	SPACE ONLY	1						
		SPACE ONLY	11	1				12	SPACE ONLY	1						
		SPACE ONLY	13	1				14	SPACE ONLY	1						
		SPACE ONLY	15	1				16	SPACE ONLY	1						
		SPACE ONLY	17	1				18	SPACE ONLY	1						
		SPACE ONLY	19	1				20	SPACE ONLY	1						
		SPACE ONLY	21	1				22	SPACE ONLY	1						
		SPACE ONLY	23	1				24	SPACE ONLY	1						
		SPACE ONLY	25	1				26	SPACE ONLY	1						
		SPACE ONLY	27	1				28	SPACE ONLY	1						
		SPACE ONLY	29	1				30	SPACE ONLY	1						
					TOTAL	53	24					TOTAL	36	48		
													36	24		
		NOTES:								PHASE TOTAL			72	72		
		MAIN BREAKER TO BE FULLY RATED.								AMP PHASE TOTAL			300	600		

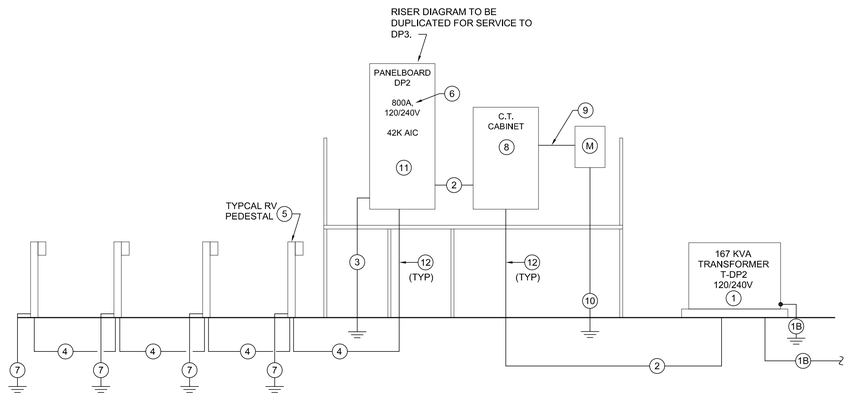
TOTAL CONNECTED LOAD: 180.00 KVA
TOTAL CONNECTED CURRENT: 250.00 AMPS
TOTAL DEMAND CURRENT: 250.00 AMPS

PANELBOARD DP3 (LC) SCHEDULE

SERVICE: 240/120 VOLT, 1 PHASE, 3 WIRE — BUS: COPPER, SIN GND BUS — RATING: 42000 A.I.C.
AMP: 800 AMP — LOCATION: EXTERIOR
MAINS: MCB - 600 AMP MAIN BREAKER — MOUNTING: SURFACE — NEMA 3R

REV NO.	NOTE NO.	CKT	LOAD DESCRIPTION	CKT	P	AMP	LOAD KVA A	LOAD KVA B	CKT	LOAD DESCRIPTION	CKT	P	AMP	LOAD KVA A	LOAD KVA B	NOTE NO.	REV NO.
		1	SITES A 05, A 01, A 07	1	2	240	27		2	SITES A 01, A 03, A 05	2	240	12				
		3						12	4						24		
		5	SPARE	5	2	200			6	SITES A 27, B 28, A 29, A 29	2	200	24				
		7							8						24		
		9	SPACE ONLY	9	1				10	SPARE	2	30	2.88				
		11	SPACE ONLY	11	1				12						2.88		
		13	SPACE ONLY	13	1				14	SPACE ONLY	1						
		15	SPACE ONLY	15	1				16	SPACE ONLY	1						
		17	SPACE ONLY	17	1				18	SPACE ONLY	1						
		19	SPACE ONLY	19	1				20	SPACE ONLY	1						
		21	SPACE ONLY	21	1				22	SPACE ONLY	1						
		23	SPACE ONLY	23	1				24	SPACE ONLY	1						
		25	SPACE ONLY	25	1				26	SPACE ONLY	1						
		27	SPACE ONLY	27	1				28	SPACE ONLY	1						
		29	SPACE ONLY	29	1				30	SPACE ONLY	1						
						TOTAL	36	12					TOTAL	39.88	29.88		
														24	12		
		NOTES:									PHASE TOTAL			63.88	41.88		
											AMP PHASE TOTAL			124	124		

TOTAL CONNECTED LOAD: 105.76 KVA
TOTAL CONNECTED CURRENT: 264.40 AMPS
TOTAL DEMAND CURRENT: 264.40 AMPS



1 120/240V TYPICAL ELECTRICAL RISER DIAGRAM
NO SCALE

120/240V FEEDER SCHEDULE

SYMBOL NUMBER	AMPACITY	NUMBER OF RUNS	FEEDER SIZE/NOTE	TEMP RATING
1			PROVIDE TRANSFORMER PAD PER EVERGY DESIGN GUIDELINES. COORDINATE WITH EVERGY FOR INSTALLATION OF TRANSFORMER. REFER TO DETAIL ON SHEET E501.	
1B			PROVIDE 3" CONDUIT FOR PRIMARY WIRING BY EVERGY. COORDINATE EXACT ROUTING WITH EVERGY PRIOR TO INSTALLATION	
2	800	3	(3) #350 KCMIL IN 3" CONDUIT.	90 DEG
3			#3/0 COPPER GROUNDING CONDUCTOR TO 3/4" X 10' GROUND ROD.	
4	250	1	(3) #250 KCMIL & (1) # 4 GROUND IN 2-1/2" CONDUIT. (UNLESS NOTED OTHERWISE IN ON PLANS.	90 DEG
5			PROVIDE NEW NEMA 3R, SURFACE MOUNTED, 125A, 120/240V, 1 PH, 3 WIRE SINGLE SIDED PEDESTAL (MILLBANK U5200-XL-75 SERIES OR APPROVED EQUAL) WITH FULLY RATED LOOP-FEED LUG ASSEMBLY (MIN. #250 KCMIL). TO INCLUDE ONE (1) 20A, 1P, GFCI; ONE (1) 30A, 1P AND ONE (1) 50A, 2P BREAKER TO SERVE THE FOLLOWING RECEPTACLES: 20A NEMA 5-20 (WEATHER RESISTANT TYPE); 30A NEMA TT-30 AND 50A, NEMA 14-50R. PEDESTAL TO BE PROVIDED WITH PAD MOUNT KIT.	
6			PANELBOARD TO BE RATED AS NOTED ON SCHEDULE.	
7			#6 COPPER GROUNDING CONDUCTOR TO 3/4" X 10' GROUND ROD.	
8			PROVIDE EVERGY APPROVED C.T. CABINET SIZED FOR 800 AMP SERVICE: KCPLM-831UGBX (36"WX48"HX15"D) OR APPROVED EQUAL. INSTALL C.T.S AS PROVIDED BY EVERGY PER EVERGY STANDARDS. COORDINATE WITH EVERGY PRIOR TO RELEASING ORDER.	
9			EXTEND 1-1/4" GRC TO METER SOCKET.	
10			1" GRAY SCHEDULE 40 PVC CONDUIT TO GROUND. PROVIDE MINIMUM OF 6 AWG SOLID BARE COPPER GROUND WIRE AND ATTCHED TO 5/8" X 8FT COPER CLAD STEEL GROUND ROD. PER EVERGY DESIGN GUIDELINES.	
11			PANELBOARD TO BE MOUNTED ON ELEVATED PLATFORM. REFER TO PLANS AND STRUCTURAL DETAILS FOR PLATFORM DETAILS. CONTRACTOR TO PROVIDE HORIZONTAL UNISTRUT SUPPORT AS REQUIRED TO MOUNT OFF PLATFORM VERICAL SUPPORTS FOR PANELBOARD AND METER.	
12			CONTRACTOR TO PROVIDE UNI-STRUT SUPPORT AS REQUIRED TO PROPERLY SUPPORT VERTICAL RUNS OF CONDUIT.	

STATE OF MISSOURI
MICHAEL L. PARSON, GOVERNOR

STATE OF MISSOURI — MONICA SANTOYO SANTOS — NUMBER E-2000174546 — REGISTERED PROFESSIONAL ENGINEER — 04/28/2023

LANDSCAPE ARCHITECT:
LAC# MO-2002023826
VIREO
414 Oak Street, Suite 101
Kansas City, Missouri 64106
P 816-756-5690

SURVEYOR & CIVIL ENGINEER:
RENAISSANCE INFRASTRUCTURE CONSULTING
400 E. 17th Street
Kansas City, Missouri 64108
P 816-800-0950

MEP:
ANTELLA CONSULTING ENGINEERS
1600 Genessee Street, Suite 260
Kansas City, Missouri 64102
P 816-421-0950

STRUCTURAL:
LEIGH + O'KANE
250 NE Mulberry, Suite 201
Lee's Summit, Missouri 64086
P 816-444-3144

GEOTECHNICAL:
INTERTEK-PSI
1211 W. Cambridge Circle Drive
Kansas City, Kansas 66103
P 913-310-1600

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

DEPARTMENT OF NATURAL RESOURCES, MISSOURI STATE PARKS

NEW PREMIUM CAMPSITES

LEWIS & CLARK STATE PARK
801 LAKECREST BLVD.
RUSHVILLE, MO 64484

PROJECT # X2219-01
SITE # 5109
FACILITY # 7815109022

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 4/28/2023

CAD DWG FILE:
DRAWN BY: MSS
CHECKED BY: MSS
DESIGNED BY: MSS

SHEET TITLE:
ELECTRICAL RISER & SCHEDULES

SHEET NUMBER:
E-801

SHEET 35 OF 35
4/28/2023