

SITE LOCATION MAP
SCALE: 1" = 400'

Harnett County Northwest Convenience Center

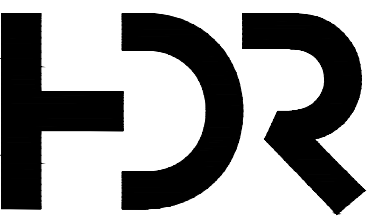
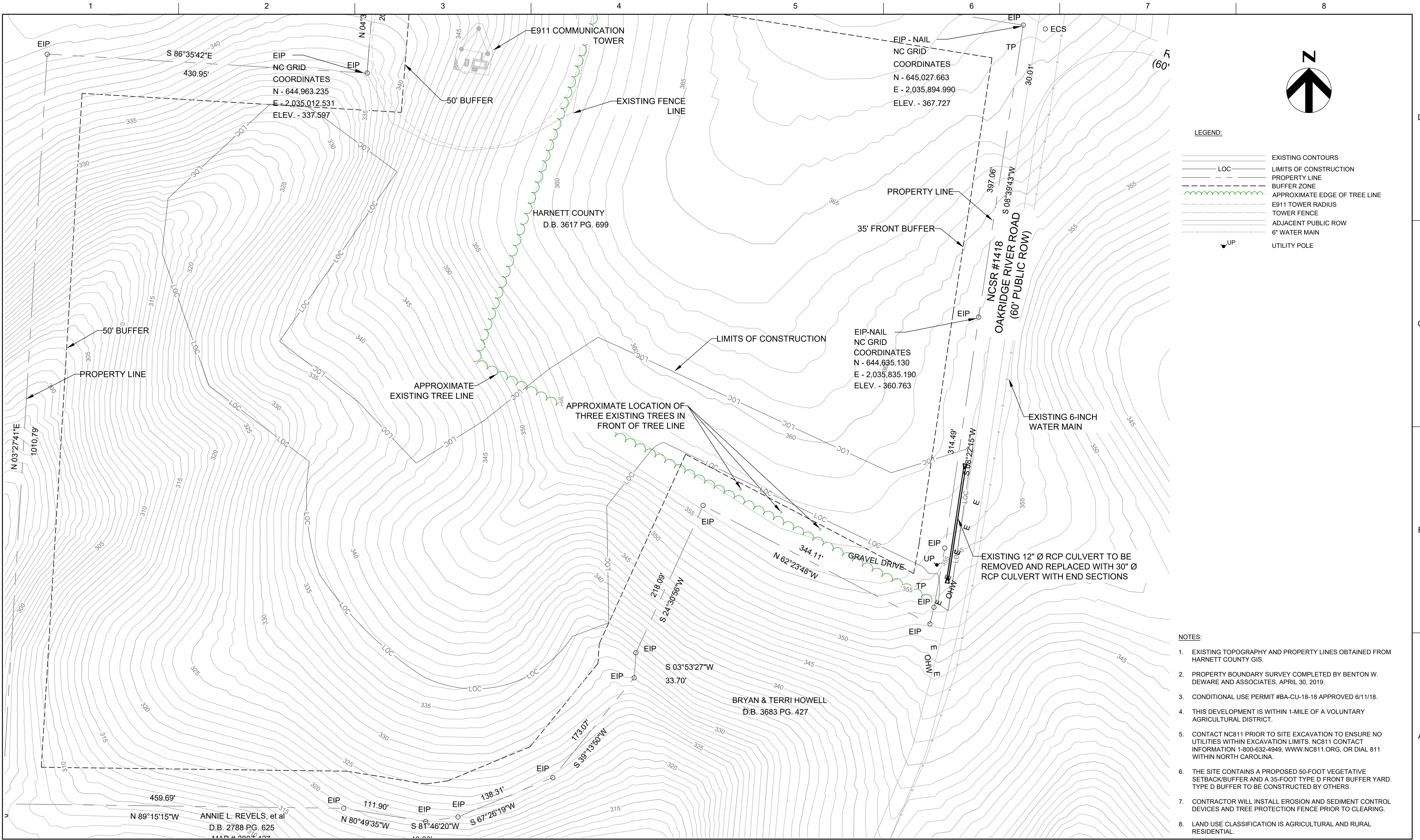
Project No.
10354679

Harnett County, North Carolina
Issued for Request for Proposals
May 2024

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| C | 05/2024 | ISSUED FOR BIDDING |
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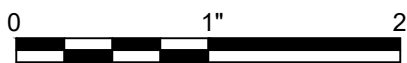
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| PROJECT MANAGER | J. MURRAY, PE |
| PROJECT ENGINEER | A. MCGREW, PE |
| DRAWN BY | A. MCGREW, PE |
| PROJECT NUMBER | 10354679 |



HARNETT COUNTY
NORTHWEST CONVENIENCE CENTER

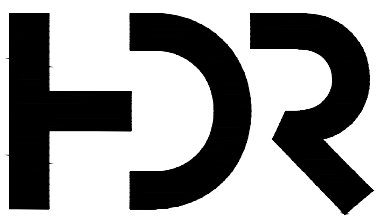
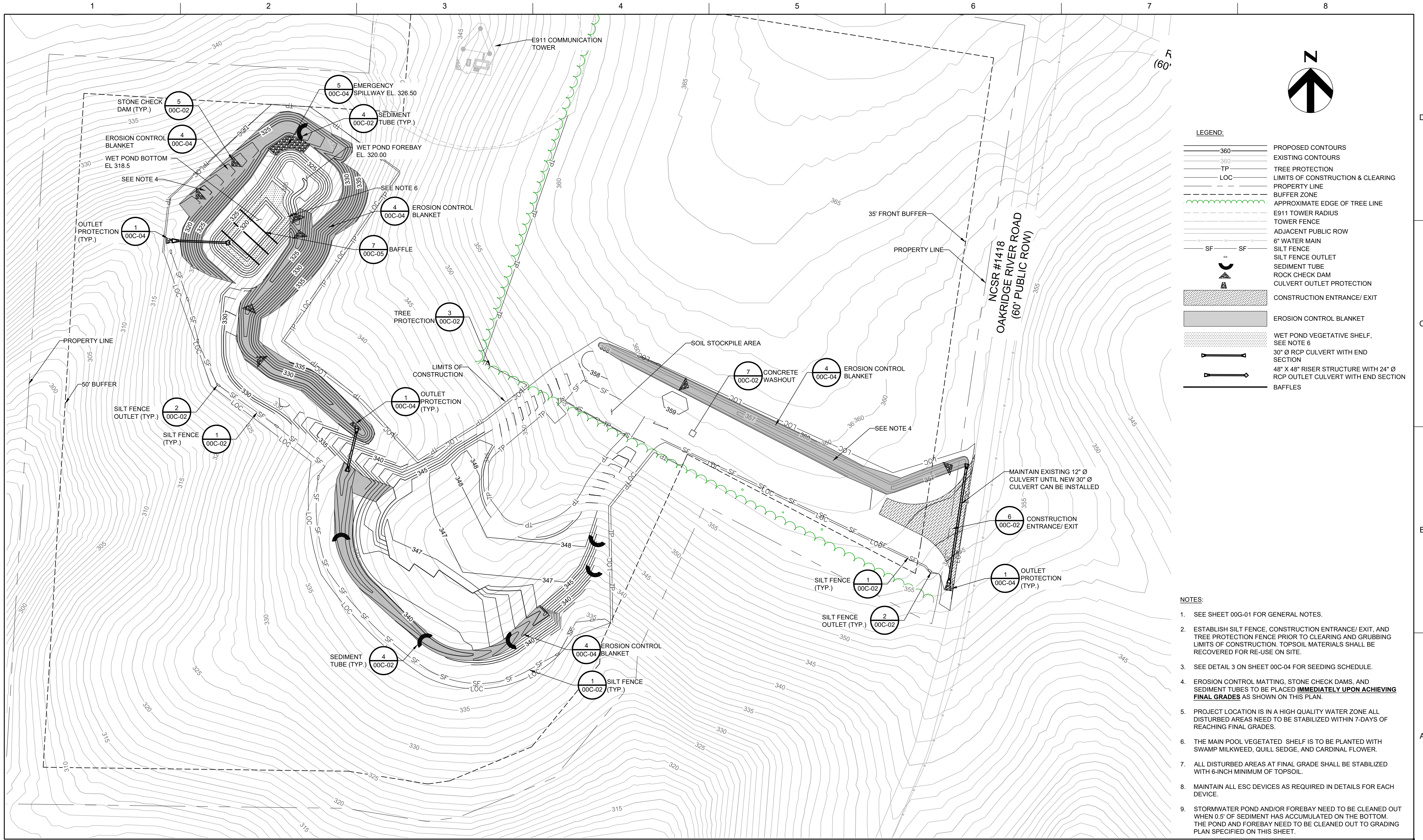
HARNETT COUNTY **NORTH CAROLINA**

EXISTING CONDITIONS



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SCALE | 1" = 60'

SHEET
00G-01



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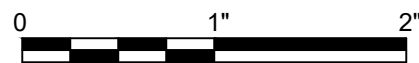
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HARNETT COUNTY
NORTHWEST CONVENIENCE CENTER

HARNETT COUNTY

NORTH CAROLINA



FILENAME 00G-02.dwg
SCALE 1" = 60'

EROSION AND SEDIMENT CONTROL PLAN

SHEET
00G-02

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

| Required Ground Stabilization Timeframes | | |
|--|---|---|
| Site Area Description | Stabilize within this many calendar days after ceasing land disturbance | Timeframe variations |
| (a) Perimeter dikes, swales, ditches, and perimeter slopes | 7 | None |
| (b) High Quality Water (HQW) Zones | 7 | None |
| (c) Slopes steeper than 3:1 | 7 | If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed |
| (d) Slopes 3:1 to 4:1 | 14 | -7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed |
| (e) Areas with slopes flatter than 4:1 | 14 | -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope |

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

| Temporary Stabilization | Permanent Stabilization |
|---|--|
| <ul style="list-style-type: none">Temporary grass seed covered with straw or other mulches and tackifiersHydroseedingRolled erosion control products with or without temporary grass seedAppropriately applied straw or other mulchPlastic sheeting | <ul style="list-style-type: none">Permanent grass seed covered with straw or other mulches and tackifiersGeotextile fabrics such as permanent soil reinforcement mattingHydroseedingShrubs or other permanent plantings covered with mulchUniform and evenly distributed ground cover sufficient to restrain erosionStructural methods such as concrete, asphalt or retaining wallsRolled erosion control products with grass seed |

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

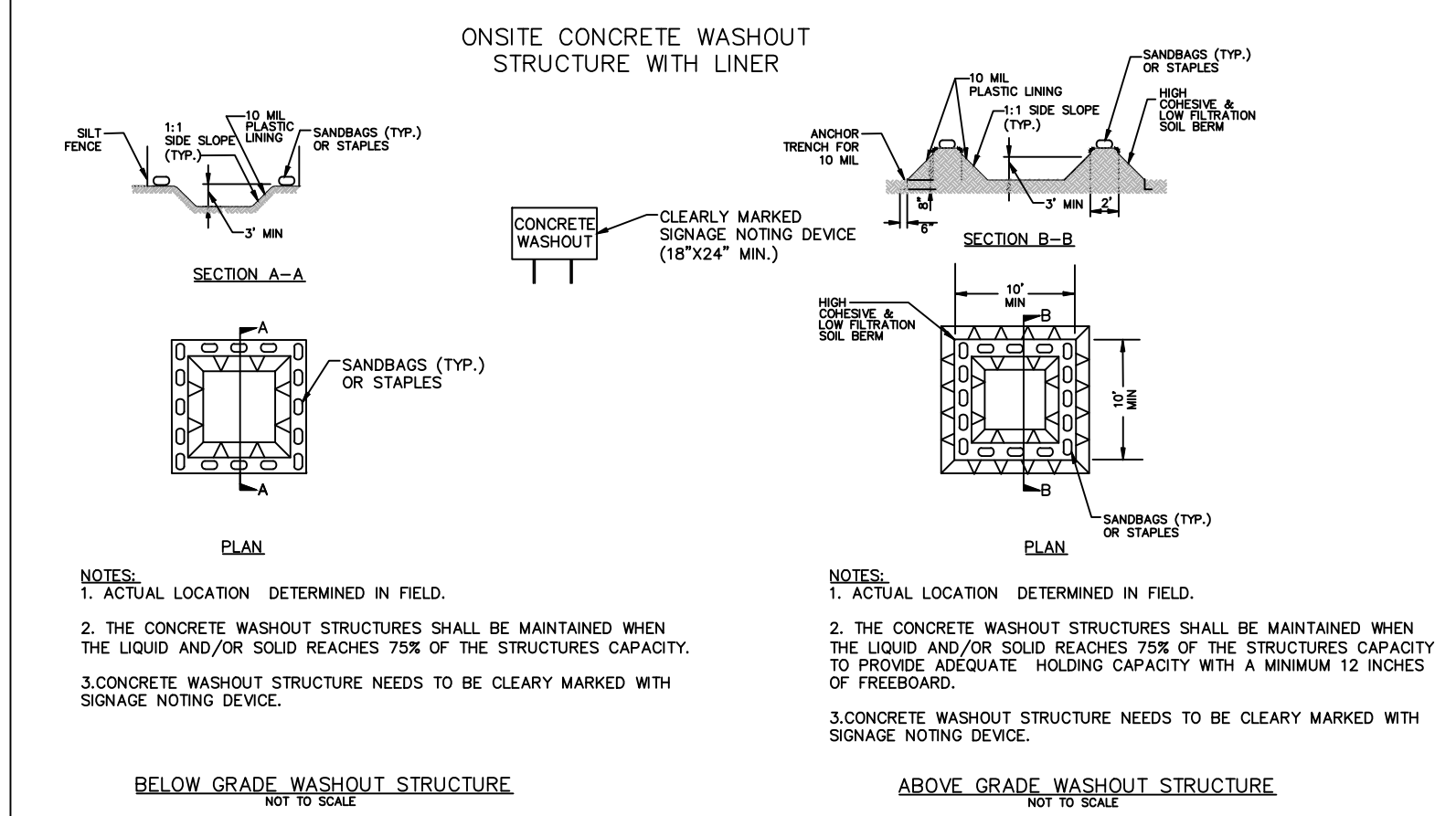
- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

PORTABLE TOILETS

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

**CONCRETE WASHOUTS**

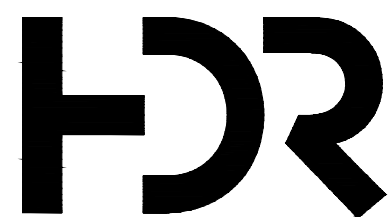
- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING**EFFECTIVE: 04/01/19**

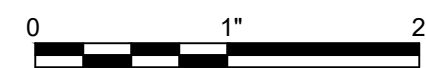
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**HARNETT COUNTY**
NORTHWEST CONVENIENCE CENTER**HARNETT COUNTY****NORTH CAROLINA****NCG01 GROUND STABILIZATION AND MATERIALS HANDLING**FILENAME | 00G-03.dwg
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SHEET

00G-03

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

| Inspect | Frequency (during normal business hours) | Inspection records must include: |
|--|--|--|
| (1) Rain gauge maintained in good working order | Daily | Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division. |
| (2) E&SC Measures | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | 1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken. |
| (3) Stormwater discharge outfalls (SDOs) | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | 1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken. |
| (4) Perimeter of site | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases. |
| (5) Streams or wetlands onsite or offsite (where accessible) | At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours | If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit. |
| (6) Ground stabilization measures | After each phase of grading | 1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible. |

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- (a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- (b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
- (c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
- (d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
- (e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- (f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

| Item to Document | Documentation Requirements |
|---|---|
| (a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan. | Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation. |
| (b) A phase of grading has been completed. | Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase. |
| (c) Ground cover is located and installed in accordance with the approved E&SC plan. | Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications. |
| (d) The maintenance and repair requirements for all E&SC measures have been performed. | Complete, date and sign an inspection report. |
| (e) Corrective actions have been taken to E&SC measures. | Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action. |

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- (a) This General Permit as well as the Certificate of Coverage, after it is received.
- (b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

- (a) Visible sediment deposition in a stream or wetland.
- (b) Oil spills if:
 - They are 25 gallons or more,
 - They are less than 25 gallons but cannot be cleaned up within 24 hours,
 - They cause sheen on surface waters (regardless of volume), or
 - They are within 100 feet of surface waters (regardless of volume).
- (c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- (d) Anticipated bypasses and unanticipated bypasses.
- (e) Noncompliance with the conditions of this permit that may endanger health or the environment.

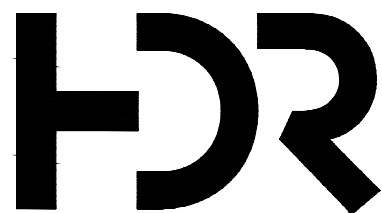
2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

| Occurrence | Reporting Timeframes (After Discovery) and Other Requirements |
|---|--|
| (a) Visible sediment deposition in a stream or wetland | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions. |
| (b) Oil spills and release of hazardous substances per Item 1(b)-(c) above | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release. |
| (c) Anticipated bypasses [40 CFR 122.41(m)(3)] | <ul style="list-style-type: none">A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass. |
| (d) Unanticipated bypasses [40 CFR 122.41(m)(3)] | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass. |
| (e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)] | <ul style="list-style-type: none">Within 24 hours, an oral or electronic notification.Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6).Division staff may waive the requirement for a written report on a case-by-case basis. |

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19



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HARNETT COUNTY
NORTHWEST CONVENIENCE CENTER

HARNETT COUNTY

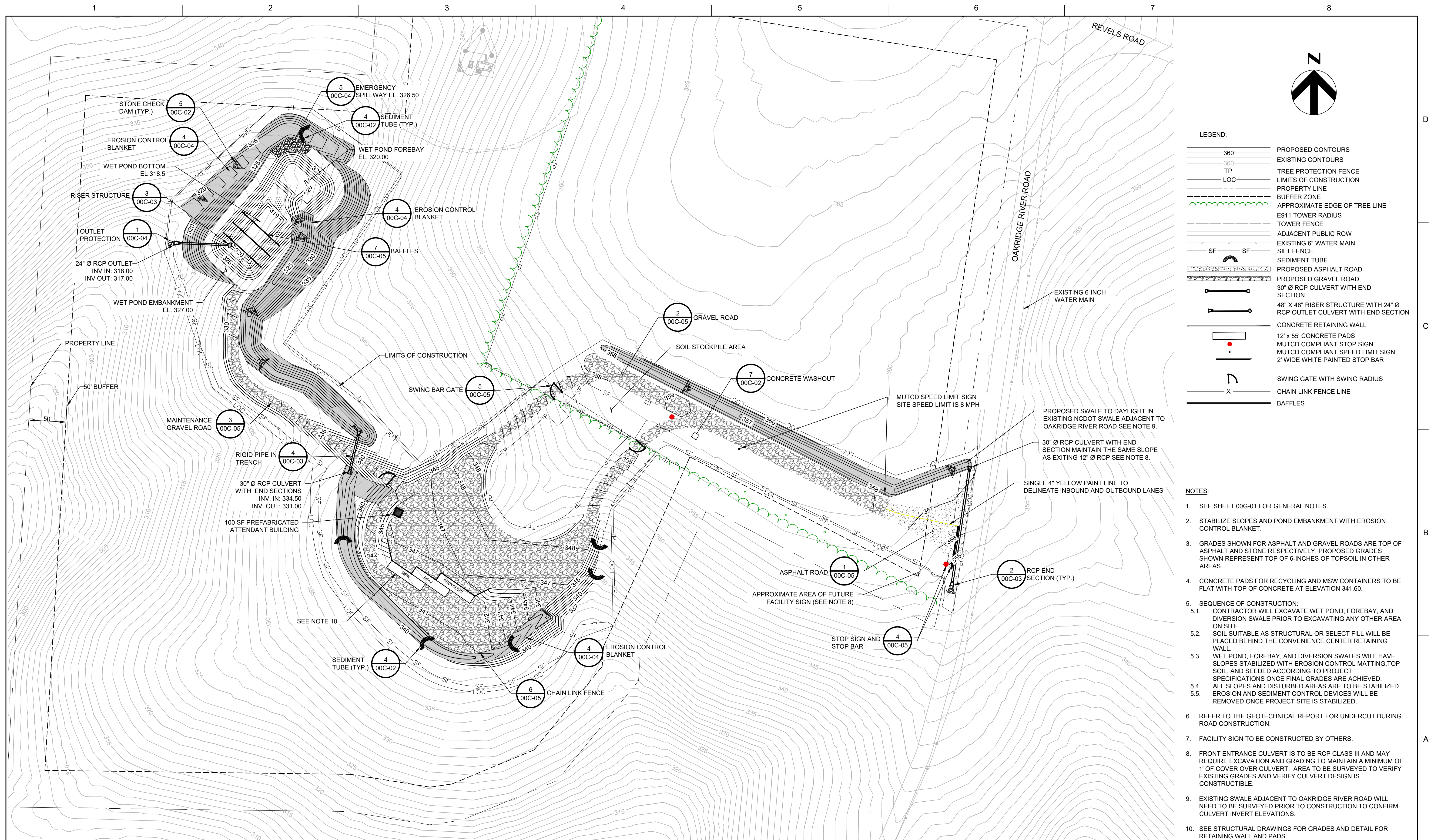
NORTH CAROLINA

NCG01 SELF INSPECTION,
RECORDKEEPING AND REPORTING



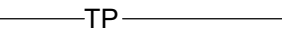
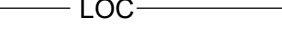







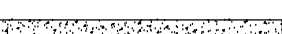





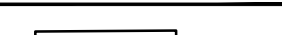
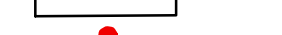








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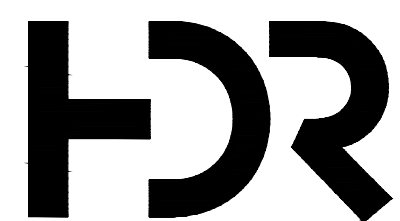


LEGEND:

- | | |
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|  | PROPOSED CONTOURS |
|  | EXISTING CONTOURS |
|  | TREE PROTECTION FENCE |
|  | LIMITS OF CONSTRUCTION |
|  | PROPERTY LINE |
|  | BUFFER ZONE |
|  | APPROXIMATE EDGE OF TREE LINE |
|  | E911 TOWER RADIUS |
|  | TOWER FENCE |
|  | ADJACENT PUBLIC ROW |
|  | EXISTING 6" WATER MAIN |
|  | SILT FENCE |
|  | SEDIMENT TUBE |
|  | PROPOSED ASPHALT ROAD |
|  | PROPOSED GRAVEL ROAD |
|  | 30" Ø RCP CULVERT WITH END SECTION |
|  | 48" x 48" RISER STRUCTURE WITH 24" Ø RCP OUTLET CULVERT WITH END SECTION |
|  | CONCRETE RETAINING WALL |
|  | 12' x 55' CONCRETE PADS |
|  | MUTCD COMPLAINT STOP SIGN |
|  | MUTCD COMPLAINT SPEED LIMIT SIGN |
|  | 2' WIDE WHITE PAINTED STOP BAR |
|  | SWING GATE WITH SWING RADIUS |
|  | CHAIN LINK FENCE LINE |
|  | BAFFLES |

NOTES:

1. SEE SHEET 00G-01 FOR GENERAL NOTES.
2. STABILIZE SLOPES AND POND EMBANKMENT WITH EROSION CONTROL BLANKET.
3. GRADES SHOWN FOR ASPHALT AND GRAVEL ROADS ARE TOP OF ASPHALT AND STONE RESPECTIVELY. PROPOSED GRADES SHOWN REPRESENT TOP OF 6-INCHES OF TOPSOIL IN OTHER AREAS
4. CONCRETE PADS FOR RECYCLING AND MSW CONTAINERS TO BE FLAT WITH TOP OF CONCRETE AT ELEVATION 341.60.
5. SEQUENCE OF CONSTRUCTION:
 - 5.1. CONTRACTOR WILL EXCAVATE WET POND, FOREBAY, AND DIVERSION SWALE PRIOR TO EXCAVATING ANY OTHER AREA ON SITE.
 - 5.2. SOIL SUITABLE AS STRUCTURAL OR SELECT FILL WILL BE PLACED BEHIND THE CONVENIENCE CENTER RETAINING WALL.
 - 5.3. WET POND, FOREBAY, AND DIVERSION SWALES WILL HAVE SLOPES STABILIZED WITH EROSION CONTROL MATTING, TOP SOIL, AND SEEDED ACCORDING TO PROJECT SPECIFICATIONS ONCE FINAL GRADES ARE ACHIEVED.
 - 5.4. ALL SLOPES AND DISTURBED AREAS ARE TO BE STABILIZED.
 - 5.5. EROSION AND SEDIMENT CONTROL DEVICES WILL BE REMOVED ONCE PROJECT SITE IS STABILIZED.
6. REFER TO THE GEOTECHNICAL REPORT FOR UNDERCUT DURING ROAD CONSTRUCTION.
7. FACILITY SIGN TO BE CONSTRUCTED BY OTHERS.
8. FRONT ENTRANCE CULVERT IS TO BE RCP CLASS III AND MAY REQUIRE EXCAVATION AND GRADING TO MAINTAIN A MINIMUM OF 1' OF COVER OVER CULVERT. AREA TO BE SURVEYED TO VERIFY EXISTING GRADES AND VERIFY CULVERT DESIGN IS CONSTRUCTIBLE.
9. EXISTING SWALE ADJACENT TO OAKRIDGE RIVER ROAD WILL NEED TO BE SURVEYED PRIOR TO CONSTRUCTION TO CONFIRM CULVERT INVERT ELEVATIONS.
10. SEE STRUCTURAL DRAWINGS FOR GRADES AND DETAIL FOR RETAINING WALL AND PADS



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| C | 05/2024 | ISSUED FOR BIDDING |
| B | 01/2023 | REVISED BASED ON REVIEWER COMMENTS |
| A | 10/2022 | ISSUED FOR PERMITTING |
| ISSUE | DATE | DESCRIPTION |

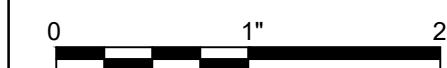
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|-------------------------|---------------|
| PROJECT MANAGER | J. MURRAY, PE |
| PROJECT ENGINEER | A. MCGREW, PE |
| DRAWN BY | A. MCGREW, PE |
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| | |
| PROJECT NUMBER | 10354679 |



**HARNETT COUNTY
NORTHWEST CONVENIENCE CENTER**

HARNETT COUNTY

NORTH CAROLINA

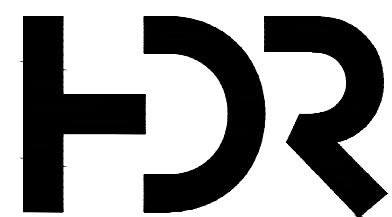
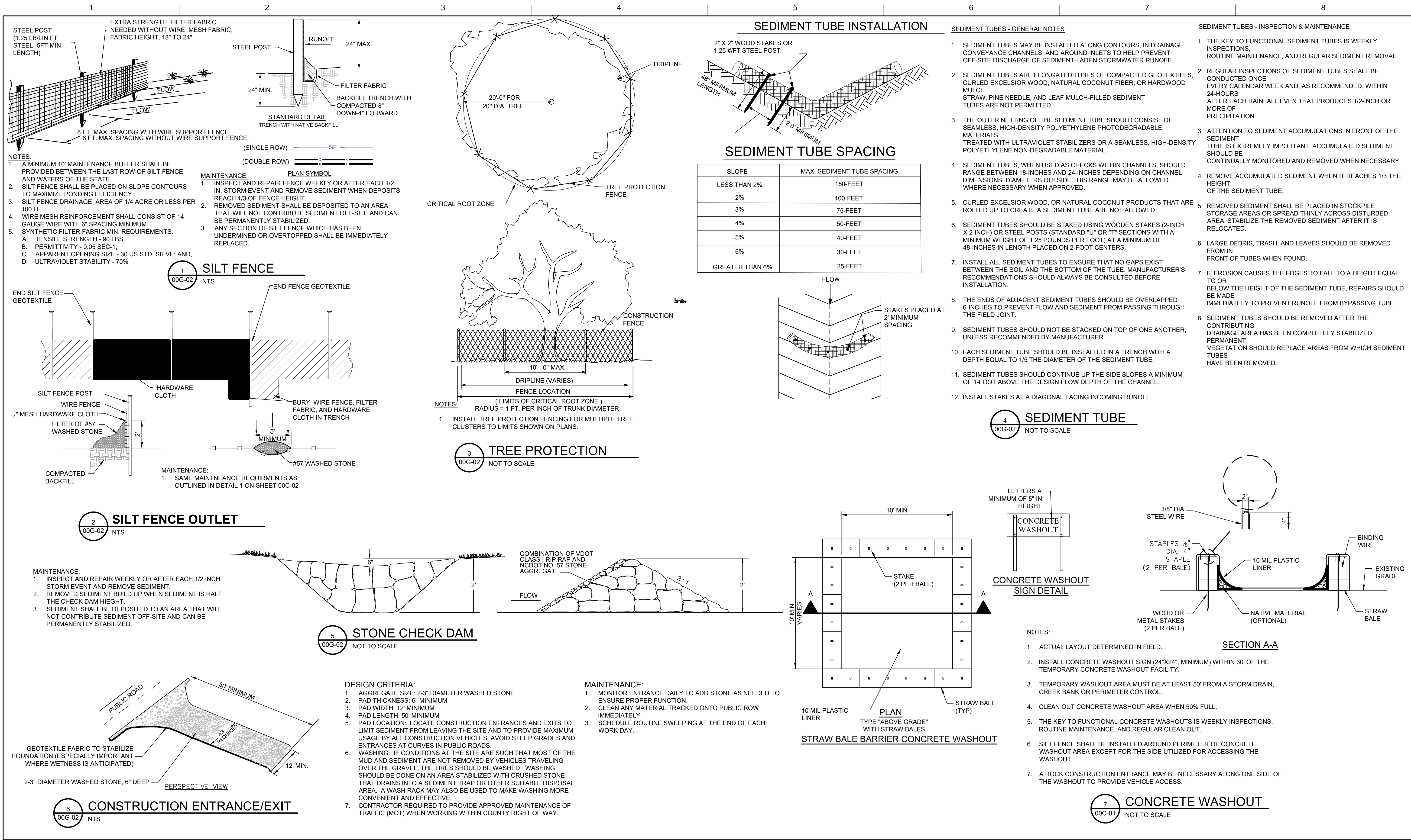


SITE PLAN

| | |
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| FILENAME | 00C-01.dwg |
| SCALE | 1" = 60' |

SHEET

00C-01



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| DRAWN BY | A. MCGREW, PE |
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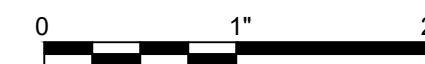


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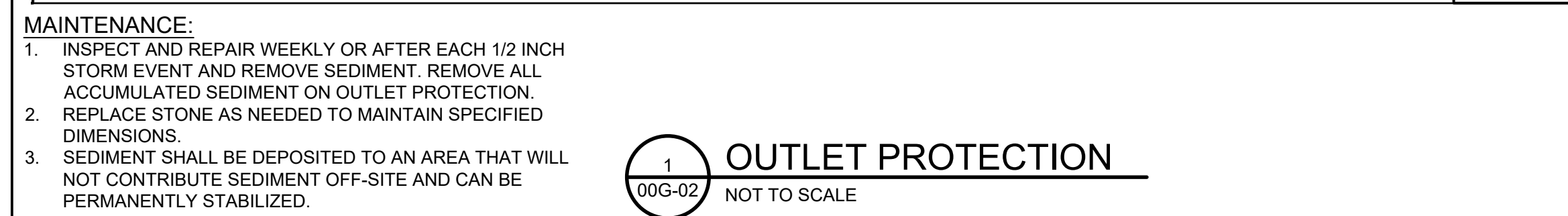
NORTH CAROLINA

SITE DETAILS (1 OF 4)



FILENAME 00C-02.dwg
SCALE AS SHOWN

SHEET
00C-02



NOTE:
FOR CALCULATION PURPOSES
CLASS 'B' RIP RAP = 100 LBS./FT³
CLASS I RIP RAP = 105 LBS./FT³

The diagram illustrates the construction of a pipe outlet without a ditch. It includes a plan view (top) and a section view (bottom). The plan view shows a rectangular area with a width of $4 \times D$ and a height of $2 \times D$. The area is divided into two sections: a top section labeled '1' and a bottom section labeled '2'. The top section is filled with a pattern representing rip rap. The bottom section is also filled with a pattern representing rip rap. The plan view is labeled 'PLAN'. The section view shows a cross-section of the pipe outlet. The pipe is labeled 'PIPE' and has a diameter of D . The pipe is surrounded by a layer of rip rap, which is labeled 'GEOTEXTILE'. The section view is labeled 'SECTION B-B'. The overall width of the structure is $4 \times D$ and the height is $2 \times D$. The plan view also shows a 'FLATTER' and a 'GEOTEXTILE' layer. The section view shows a 'GEOTEXTILE' layer and a 'PIPE'.

FLATTER

GEOTEXTILE

PLAN

SECTION B-B

PIPE OUTLET WITHOUT DITCH

SHEET 1 OF 1
876.02



3
00G-02

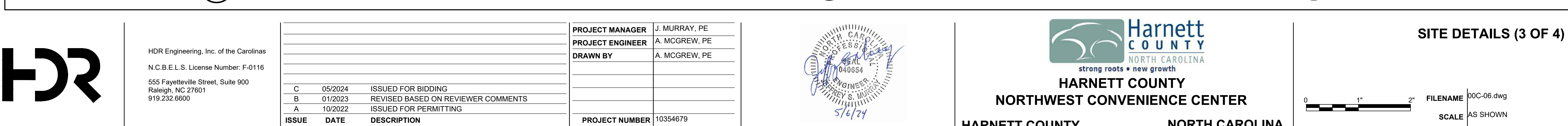
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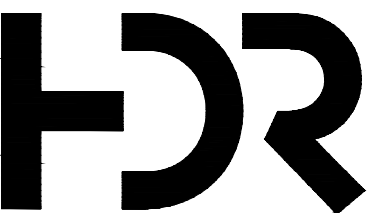
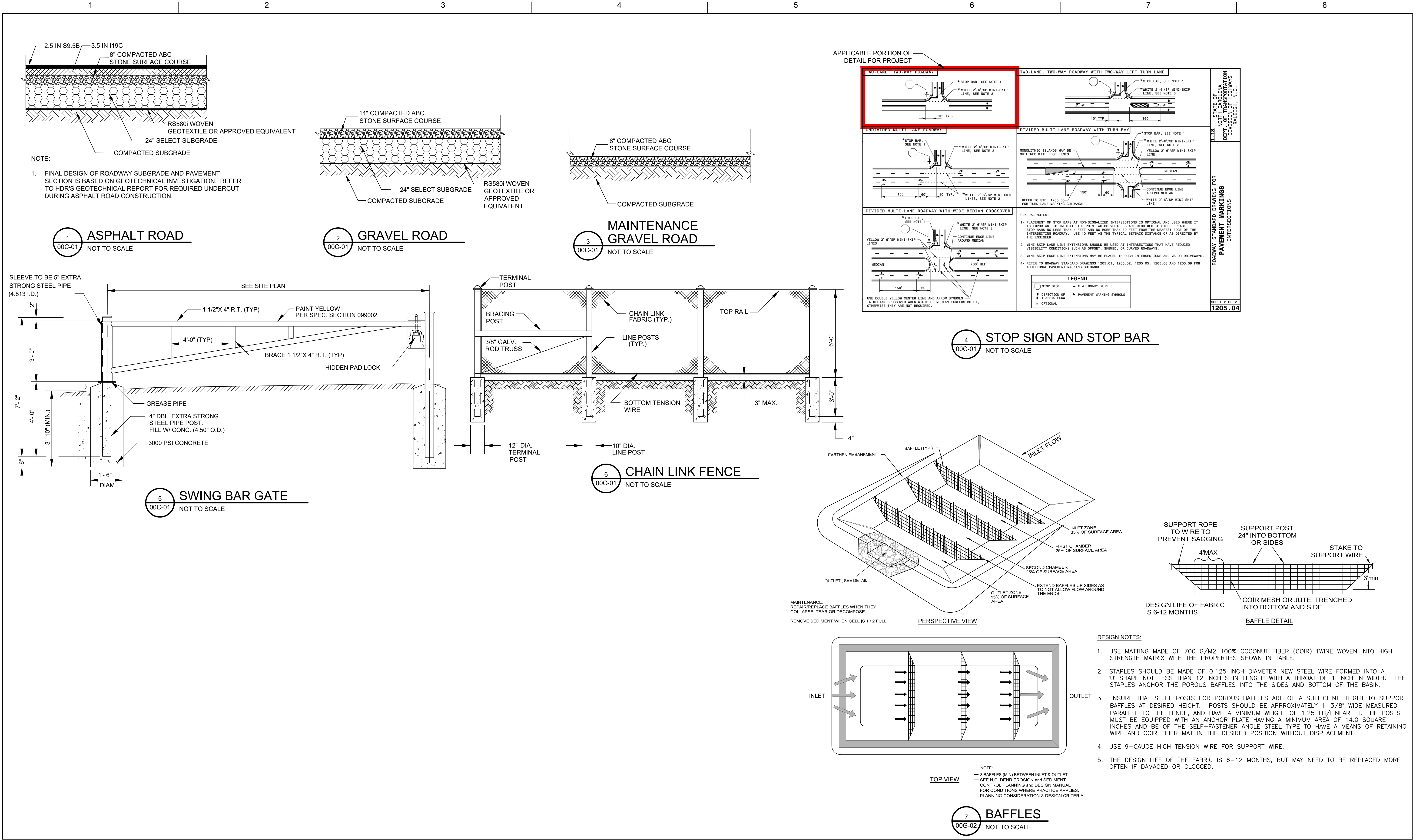
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EROSION CONTROL BLANKET
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EMERGENCY SPILLWAY
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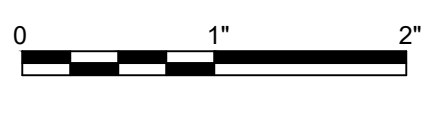
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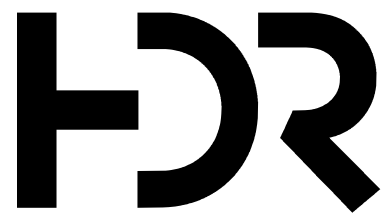
Harnett County
strong roots • new growth
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HARNETT COUNTY **NORTH CAROLINA**



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SHEET
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| PROJECT MANAGER | J. MURRAY, PE |
| PROJECT ENGINEER | M. TEPEDINO |
| DESIGNED BY | N. FANOUS |
| DRAWN BY | J. ARROYO |
| PROJECT NUMBER | 10354679 |

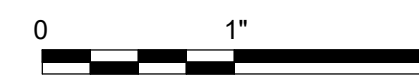


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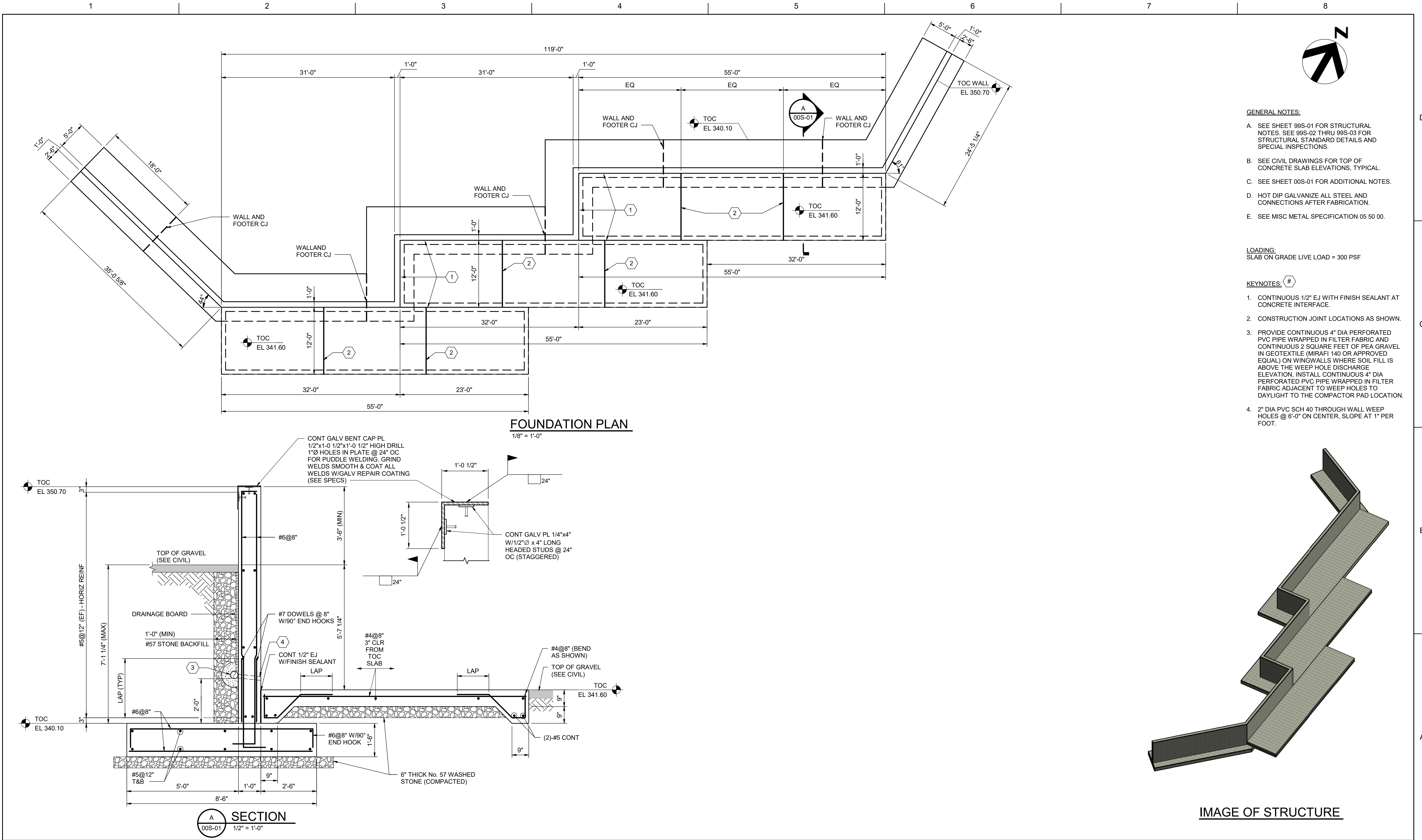
NORTH CAROLINA

FOUNDATION PLAN AND SECTION



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SHEET
00S-01



GENERAL NOTES:

- SEE SHEET 99S-01 FOR STRUCTURAL NOTES. SEE 99S-02 THRU 99S-03 FOR STRUCTURAL STANDARD DETAILS AND SPECIAL INSPECTIONS.
- SEE CIVIL DRAWINGS FOR TOP OF CONCRETE SLAB ELEVATIONS, TYPICAL.
- SEE SHEET 00S-01 FOR ADDITIONAL NOTES.
- HOT DIP GALVANIZE ALL STEEL AND CONNECTIONS AFTER FABRICATION.
- SEE MISC METAL SPECIFICATION 05 50 00.

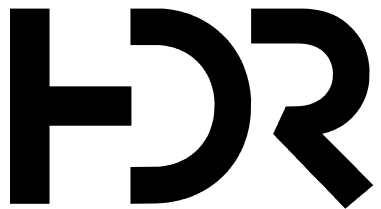
LOADING:
SLAB ON GRADE LIVE LOAD = 300 PSF

KEYNOTES:

- CONTINUOUS 1/2" EJ WITH FINISH SEALANT AT CONCRETE INTERFACE.
- CONSTRUCTION JOINT LOCATIONS AS SHOWN.
- PROVIDE CONTINUOUS 4" DIA PERFORATED PVC PIPE WRAPPED IN FILTER FABRIC AND CONTINUOUS 2 SQUARE FEET OF PEA GRAVEL IN GEOTEXTILE (MIRAFI 140 OR APPROVED EQUAL) ON WINGWALLS WHERE SOIL FILL IS ABOVE THE WEEP HOLE DISCHARGE ELEVATION. INSTALL CONTINUOUS 4" DIA PERFORATED PVC PIPE WRAPPED IN FILTER FABRIC ADJACENT TO WEEP HOLES TO DAYLIGHT TO THE COMPACTOR PAD LOCATION.
- 2" DIA PVC SCH 40 THROUGH WALL WEEP HOLES @ 8'-0" ON CENTER, SLOPE AT 1" PER FOOT.

IMAGE OF STRUCTURE

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| PROJECT ENGINEER | M. TEPEDINO |
| DESIGNED BY | N. FANOUS |
| DRAWN BY | J. ARROYO |
| | |
| | |
| | |
| PROJECT NUMBER | 10354679 |



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GENERAL AND MATERIAL NOTES



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SHEET
99S-01

- STRUCTURAL GENERAL NOTES:
- G1. SCOPE

THE NOTES ON THIS SHEET AND ALL THE STANDARD STRUCTURAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT WHETHER SPECIFICALLY CALLED OUT OR NOT, UNLESS OTHERWISE SPECIFIED.
- G2. APPLICABLE SPECIFICATIONS AND CODES

1. NORTH CAROLINA BUILDING CODE, 2018 EDITION, INCLUDING LOCAL JURISDICTION AMENDMENTS

2. IBC 2015 INTERNATIONAL BUILDING CODE WITH NORTH CAROLINA AMENDMENTS

3. ASCE 7-10 MINIMUM DESIGN LOADS

4. ACI 318-14 STRUCTURAL CONCRETE

5. ACI 530-13 STRUCTURAL MASONRY

6. AISC STEEL CONSTRUCTION MANUAL 14th EDITION, AISC 360-10
- G3. DESIGN CRITERIA

1. MINIMUM VERTICAL LIVE LOADS: SEE INDIVIDUAL PLANS.

A. UNIFORM LIVE LOAD INCLUDES ALLOWANCE FOR:
* UNIFORM SNOW LOAD.
* UNIFORM PIPING LOAD (ONLY FOR PIPES SMALLER THAN 12" DIA).
* LIGHTING

2. WIND LOADS:
A. BASIC WIND SPEED: 116 MPH
B. WIND EXPOSURE: C
C. OPEN STRUCTURES
D. RISK CATEGORY: II

3. SEISMIC:
A. RISK CATEGORY: II
B. SEISMIC IMPORTANCE FACTOR (IE): 1.0
C. SPECTRAL RESPONSE ACCELERATIONS: SS=0.176, S1=0.084
D. SITE CLASS: D
E. SPECTRAL RESPONSE COEFF: SDS=0.188, SD1=0.134
F. SEISMIC DESIGN CATEGORY: C
BASIC SEISMIC-FORCE-RESISTING SYSTEM
ORDINARY REINFORCED CONCRETE SHEAR WALLS
RESPONSE MODIFICATION FACTOR: R=4
SYSTEM OVERSTRENGTH FACTOR: Ω =2.5
DEFLECTION AMPLIFICATION FACTOR: Cd=4

4. SNOW LOAD:
A. FLAT ROOF SNOW (PF): 15 PSF
B. SNOW EXPOSURE FACTOR (CE): 1.0
C. SNOW IMPORTANCE FACTOR (IS): 1.0
D. THERMAL FACTOR (CT): 1.0
E. GROUND SNOW (PG) = 15 PSF

5. FUTURE UNLESS SPECIFICALLY NOTED, THERE ARE NO PROVISIONS MADE FOR FUTURE FLOOR, ROOF, OR OTHER LOADS.
- G4. SITEWORK/EXCAVATION

1. IF OPEN CUT EXCAVATIONS ARE PERFORMED, THEY SHALL BE SLOPED NO STEEPER THAN 1V:2H. IF DOING THIS BRINGS THE TOP OF THE EXCAVATION SLOPE WITHIN 5-FEET OF AN ADJACENT STRUCTURE OR UTILITY SUPPORTED ON SHALLOW FOUNDATIONS, THEN AN EXCAVATION SUPPORT SYSTEM WILL BE REQUIRED TO SAFEGUARD THE ADJACENT STRUCTURE.

2. FOR EXCAVATION REQUIREMENTS SEE SPECIFICATIONS 31 23 00 AND GEOTECHNICAL REPORT BY HDR ENGINEERING INC. FOR NORTHWEST CONVENIENCE CENTER PROJECT No. 10354679, DATED JANUARY 19, 2022.

3. FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE BEARING PRESSURE OF 2,500 PSF BY HDR ENGINEERING INC. DATED JANUARY 19, 2022.

4. THE CONTRACTOR SHALL PROPERLY DEWATER THE SITE AS NEEDED SO THAT ALL CONCRETE CAN BE PLACED IN DRY SOIL CONDITIONS. THE DEWATERING PROGRAM SHALL BE AS DICTATED BY THE GEOTECHNICAL REPORT AS MENTIONED HEREIN.

5. DEWATERING WELL POINTS, SUMPS, WELLS, ETC. SHALL ONLY BE PLACED INSIDE THE EXCAVATION AREA.
- G5. SAFETY

SAFETY AND STRUCTURE STABILITY DURING CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURES HAVE BEEN DESIGNED TO RESIST THE DESIGN LIVE LOADS ONLY AS A COMPLETED STRUCTURE.
- G6. STANDARD DETAILS

THE STANDARD DETAILS DEPICT TYPICAL DETAILING TO BE USED ON THIS PROJECT. IF CONDITIONS ARE NOT EXPLICITLY SHOWN ON THE DRAWINGS THEY SHALL BE MADE SIMILAR TO THE STANDARD DETAILS. OBTAIN ENGINEER APPROVAL IN WRITING FOR SIMILAR CONDITIONS PRIOR TO CONSTRUCTION.
- G7. CONFLICTS

IF THERE ARE CONFLICTS BETWEEN CONTRACT DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT INTERPRETATION SHALL CONTROL.

- CONCRETE
- C1. DESIGN PROPERTIES:

Fc = 4,000 PSI (UNO)
Fy = 60,000 PSI
- C2. CONCRETE COVER:

UNLESS OTHERWISE NOTED, PROVIDE CONCRETE COVER FOR REINFORCING AS FOLLOWS:
CONCRETE DEPOSITED AGAINST EARTH: 3"
UNDER WATERSTOPS (WALL TO SLAB): 3"
ALL OTHER: 2"
SEE DRAWINGS FOR EXCEPTIONS.
- C3. SEE SPECIFICATIONS FOR REINFORCING PLACEMENT REQUIREMENTS.
- C4. PROVIDE 3/4" CHAMFERS AT ALL EXPOSED EDGES AND 1/2" CHAMFERS AT JOINTS AS SHOWN. NOT ALL CHAMFERS MAY BE SHOWN ON DRAWINGS.
- C5. FIELD ADJUST REINFORCING AT OPENINGS AND EMBEDDED ITEMS AS SPECIFIED OR AS REQUIRED BY STANDARD DETAILS.
- C6. ANCHOR BOLTS NOT SPECIFIED BY ENGINEER SHALL BE DESIGNED BY CONTRACTOR IN ACCORDANCE WITH APPLICABLE PROJECT CODE REQUIREMENTS. COORDINATE LOCATION, SIZE AND EMBEDMENT PRIOR TO CASTING CONCRETE.
- C7. ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT WRITTEN SPECIFIC APPROVAL FROM THE STRUCTURAL ENGINEER.

- SPECIAL INSPECTIONS
- SP01. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 17 OF THE 2018 NORTH CAROLINA BUILDING CODE (IBC) BY A SPECIAL INSPECTOR HIRED BY THE OWNER TO PERFORM THE SPECIAL INSPECTIONS LISTED BELOW. THE SPECIAL INSPECTOR SHALL BE QUALIFIED BY AN APPROVED AGENCY ACCORDING TO THE COUNTY'S BUILDING OFFICIAL TO PERFORM THE SPECIAL INSPECTIONS FOR WHICH THEY WILL BE UNDERTAKING. THE CONTRACTOR SHALL COORDINATE WITH AND NOTIFY THE SPECIAL INSPECTOR OF ALL TESTS. THE SPECIAL INSPECTOR SHALL BE RESPONSIBLE TO VERIFY THAT THE ITEMS DETAIL IN THE CONSTRUCTION DOCUMENTS WERE BUILT ACCORDINGLY AND SHALL PREPARE, SIGN, AND FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE ARCHITECT FOR ALL TIME SPENT AT THE SITE. THE INSPECTOR SHALL BRING DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE ENGINEER PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THESE SPECIAL INSPECTIONS ARE IN ADDITION TO THE OTHER INSPECTIONS LISTED IN THESE STRUCTURAL NOTES OR PROJECT SPECIFICATIONS.

THE FOLLOWING IS A LIST OF INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 17 OF THE 2018 NORTH CAROLINA BUILDING CODE.
· EXCAVATION AND PROOF ROLLING
· STRUCTURAL FILL PLACEMENT AND COMPACTION
· BACK FILLING
· REINFORCING STEEL FOR CONCRETE STRUCTURES
· ANCHOR ROD, BOLT PLACEMENT
· CONCRETE CONSTRUCTION
· WELDING
· EXPANSION ANCHORS AND ADHESIVE BOLTS/ DOWELS/ RODS/ INSTALLATION

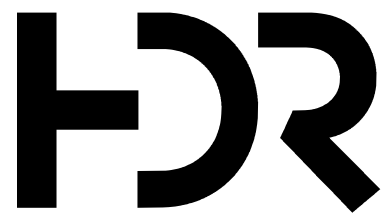
- DEFERRED SUBMITTALS
- DS01. DEFERRED SUBMITTALS ARE THOSE PORTIONS OF THE DESIGN WHICH ARE NOT SUBMITTED AT THE TIME OF PERMIT APPLICATION AND WHICH ARE TO BE SUBMITTED TO THE PERMITTING AGENCY FOR ACCEPTANCE PRIOR TO INSTALLATION OF THAT PORTION OF THE WORK.

DS02. THE FOLLOWING IS A LIST OF DEFERRED SUBMITTALS PER IBC SECTION 107.3.4.1 THAT ARE EXPECTED TO CONTAIN STRUCTURAL CALCULATIONS OF SAFETY RELATED SYSTEM INFORMATION FOR REVIEW TO MEET BUILDING PERMITTING REQUIREMENTS FOR DESIGNED SYSTEMS. PRIOR TO INSTALLATION OF THE INDICATED STRUCTURAL ELEMENT, EQUIPMENT, DISTRIBUTION SYSTEM, OR COMPONENT OR ITS ANCHORAGE THE CONTRACTOR SHALL SUBMIT THE REQUIRED ENGINEER CERTIFICATION SUPPORTING DATA AND DRAWINGS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER. ADDITIONALLY, ACCEPTANCE INDICATED ON THE ENGINEER'S COMMENT FORM, ALONG WITH THE COMPLETED FINAL SUBMITTAL SHALL THEN BE FILED BY THE CONTRACTOR AND ACKNOWLEDGED AS ACCEPTED BY THE PERMITTING AGENCY PRIOR TO INSTALLATION OF THESE ITEMS.

DEFERRED SUBMITTALS LIST:
SPECIFICATION SECTIONS ITEM
05 50 00 MISC. METAL FABRICATIONS

ANY OTHER EQUIPMENT OF COMPONENT IN WHICH A TECHNICAL SPECIFICATION REQUIRES SUBMITTAL OF EQUIPMENT OF ANCHORAGE SYSTEM CALCULATIONS

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| PROJECT ENGINEER | M. TEPEDINO |
| DESIGNED BY | N. FANOUS |
| DRAWN BY | J. ARROYO |
| PROJECT NUMBER | 10354679 |

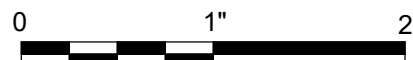


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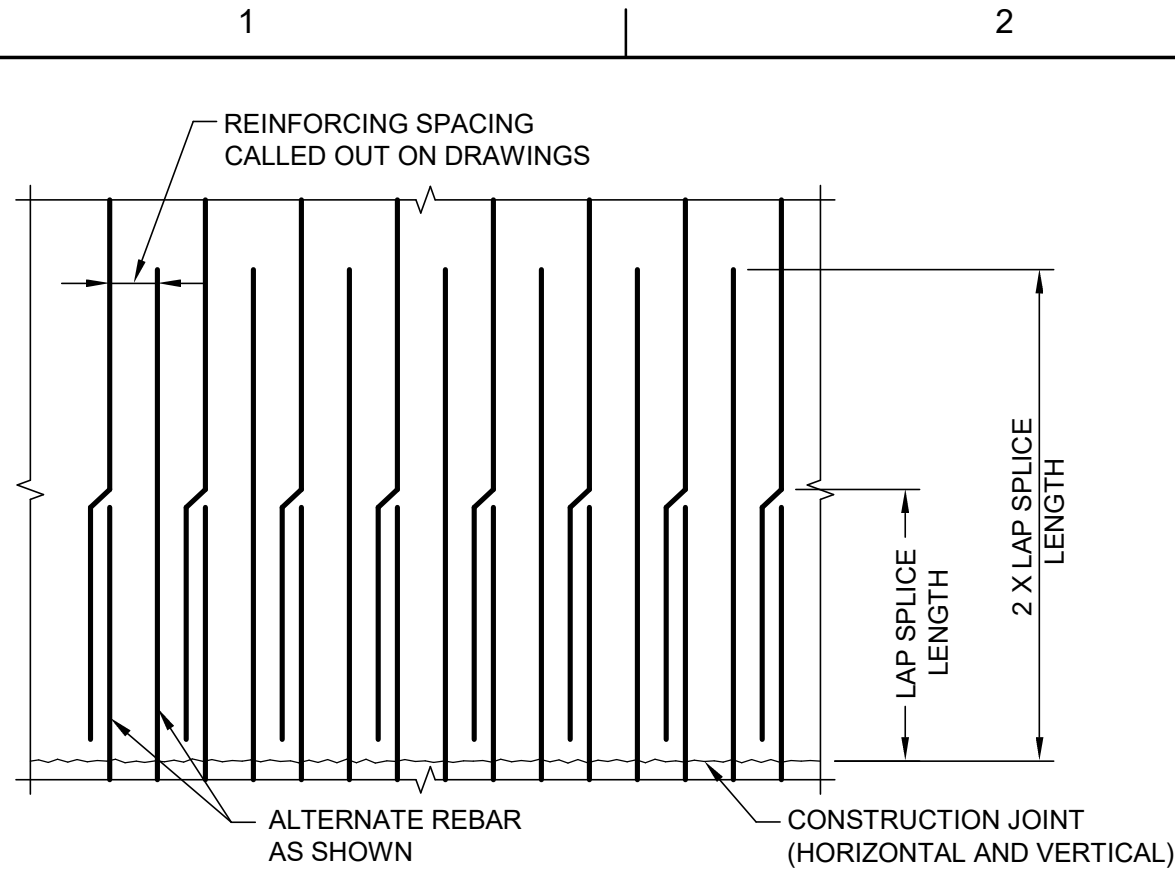
NORTH CAROLINA

STRUCTURAL STANDARD DETAILS 1

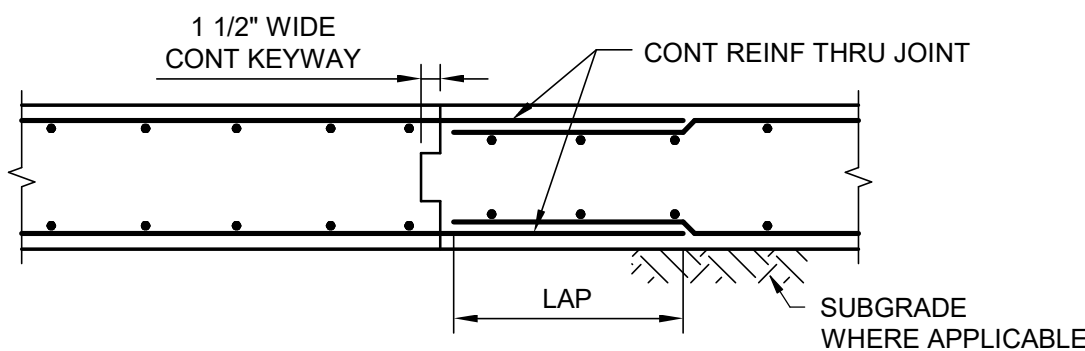


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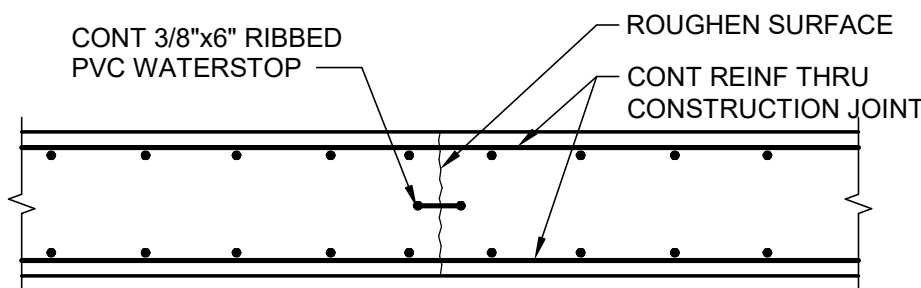
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99S-02



WALL VERTICAL REINFORCING AT CONSTRUCTION JOINT



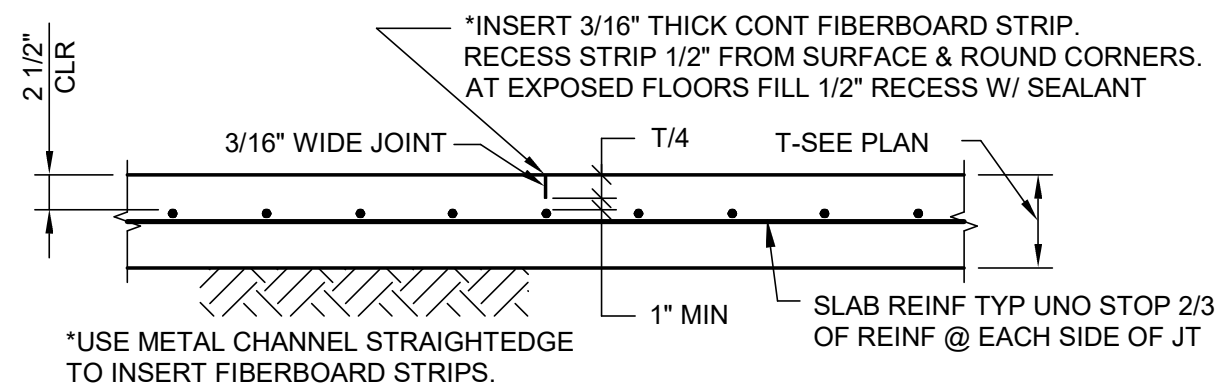
KEYED CONSTRUCTION JOINT (KCJ)



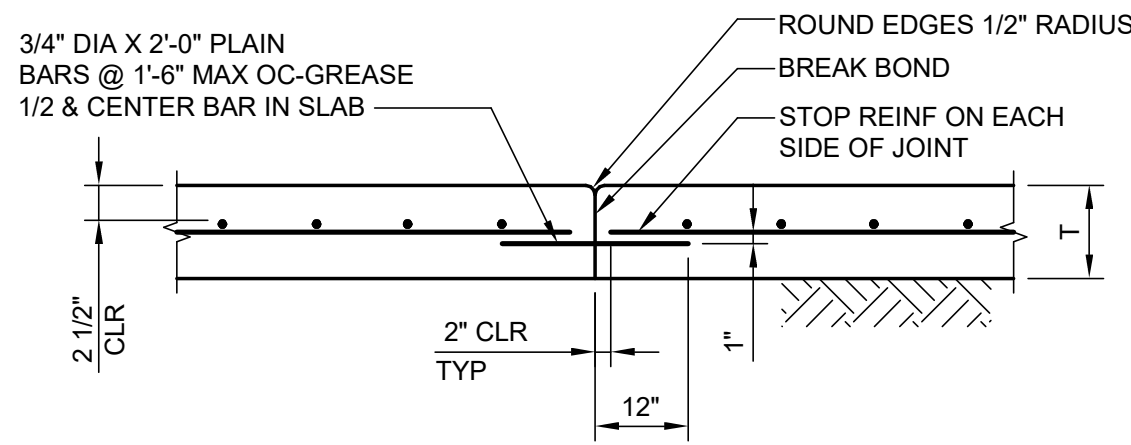
ROUGHEN CONSTRUCTION JOINT

- NOTES:
- FURNISH CONSTRUCTION JOINTS SHOWN HERE AT ALL WALL VERTICAL AND SLAB CONSTRUCTION JOINTS.
 - ALL FORMED CJ MUST BE KCJ TYPE.
 - SEE SPECIFICATION FOR REQUIREMENT TO TIE WATERSTOPS IN PLACE TO PREVENT MOVEMENT OR FOLDING OVER.

CONSTRUCTION JOINT (CJ)

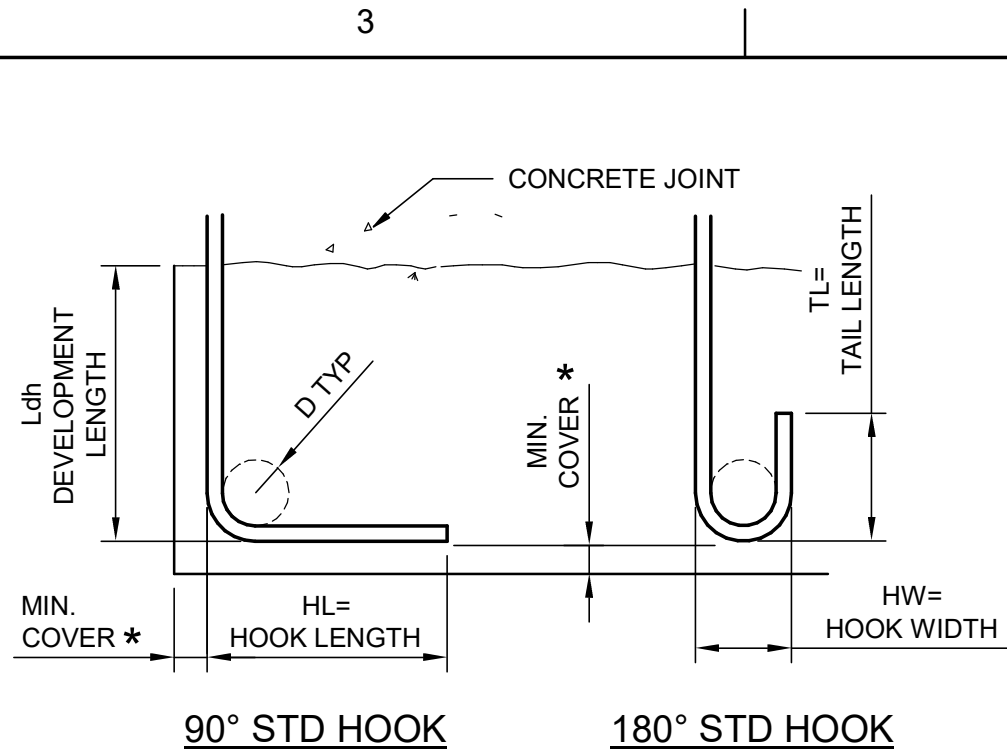


FORMED CONTROL JOINT



DOWELLED CONSTRUCTION JOINT

SLAB-ON-GRADE JOINT (SJ)



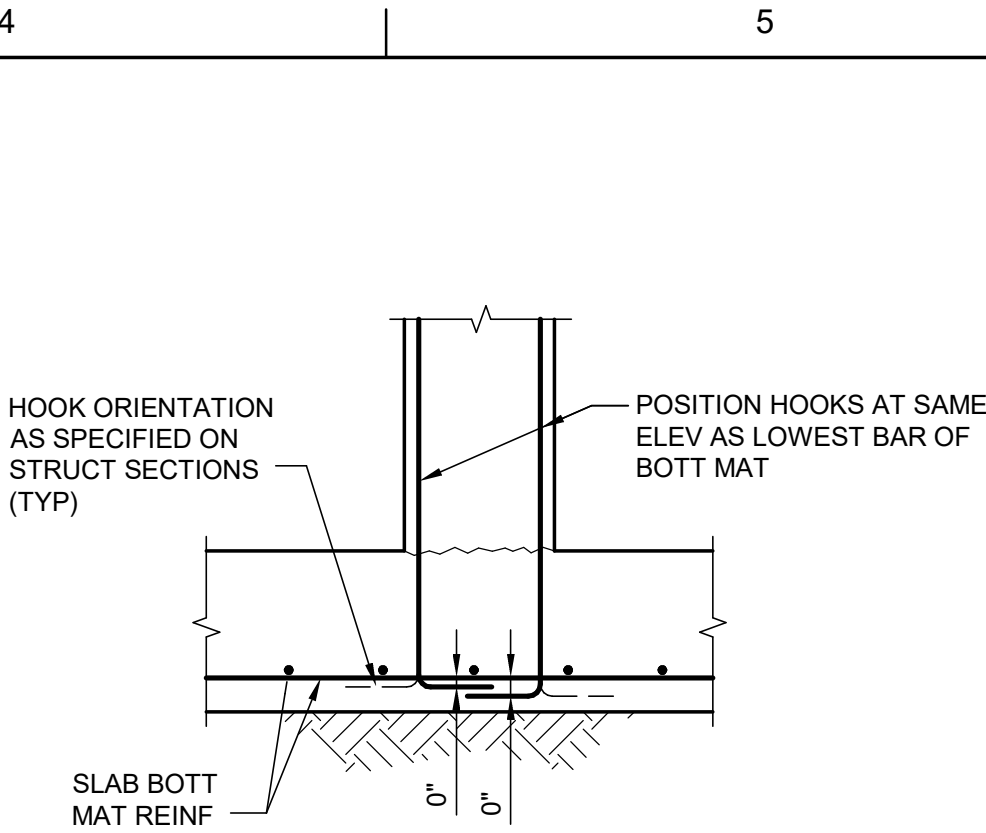
90° STD HOOK

180° STD HOOK

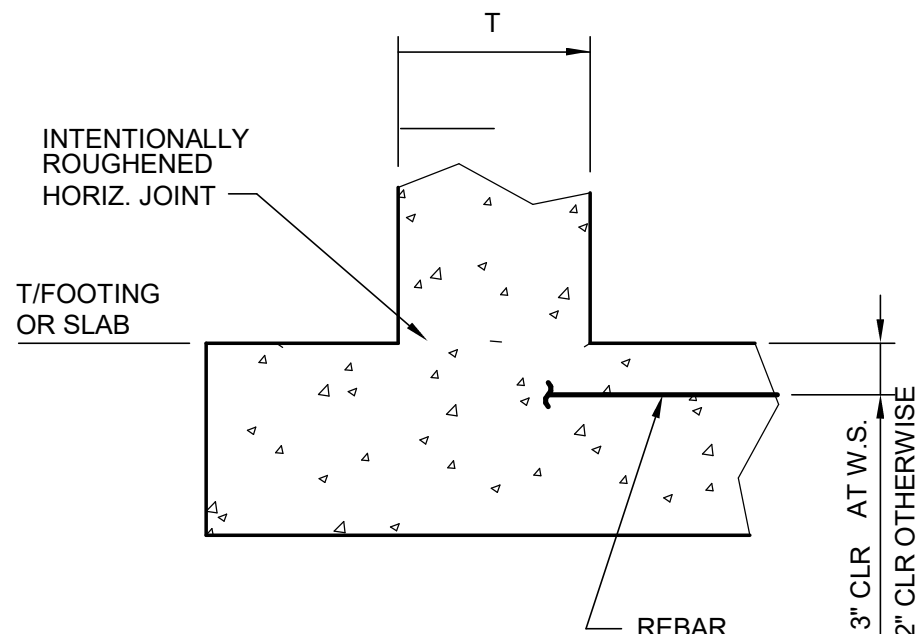
| BAR SIZE | HL | HW | TL | D | f _c =4000 psi OR GREATER L _{dh} * |
|----------|--------|-----------|---------|---------|---|
| #3 | 6" | 3" | 4" | 2 1/4" | 6" |
| #4 | 8" | 4" | 4 1/2" | 3" | 7" |
| #5 | 10" | 5" | 5" | 3 3/4" | 9" |
| #6 | 1'-0" | 6" | 6" | 4 1/2" | 10" |
| #7 | 1'-2" | 7" | 7" | 5 1/4" | 12" |
| #8 | 1'-4" | 8" | 8" | 6" | 14" |
| #9 | 1'-7" | 11 3/4" | 10 1/2" | 9 1/2" | 15" |
| #10 | 1'-10" | 1'-1 1/4" | 11 1/2" | 10 3/4" | 17" |
| #11 | 2'-0" | 1'-2 3/4" | 1'-1" | 12" | 19" |

* COMPLYING WITH MINIMUM COVER REQUIREMENTS OF ACI 318, 12.5.3. OTHERWISE L_{dh} MUST BE RE-CALCULATED.

REINFORCING HOOK SCHEDULE

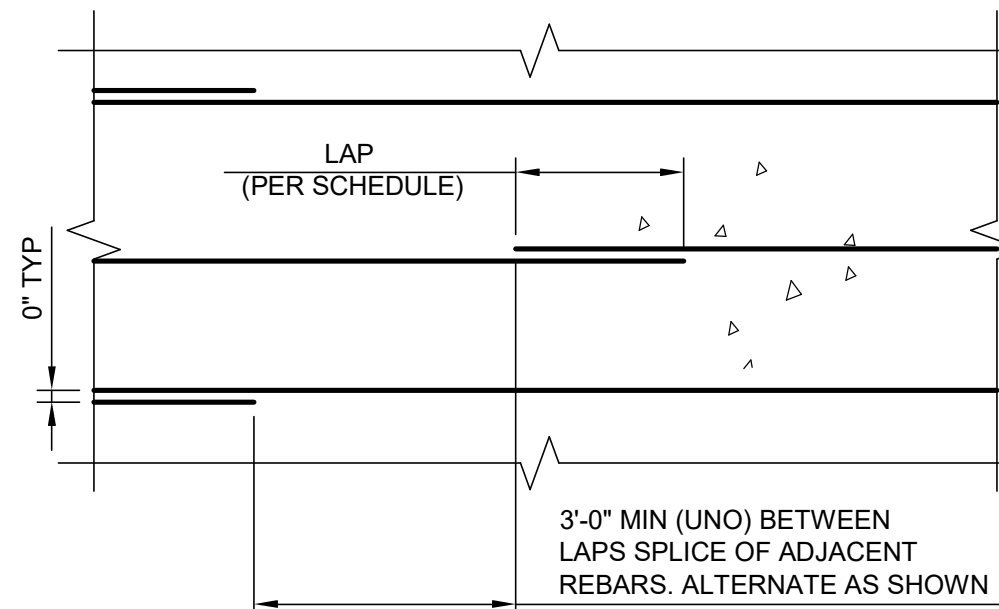


WALL DOWEL HOOK LOCATION



WALL/SLAB

CONSTRUCTION JOINT (CJ)



NOTE:

1. APPLIES TO SLABS AND WALLS (BOTH HORIZONTAL AND VERTICAL)

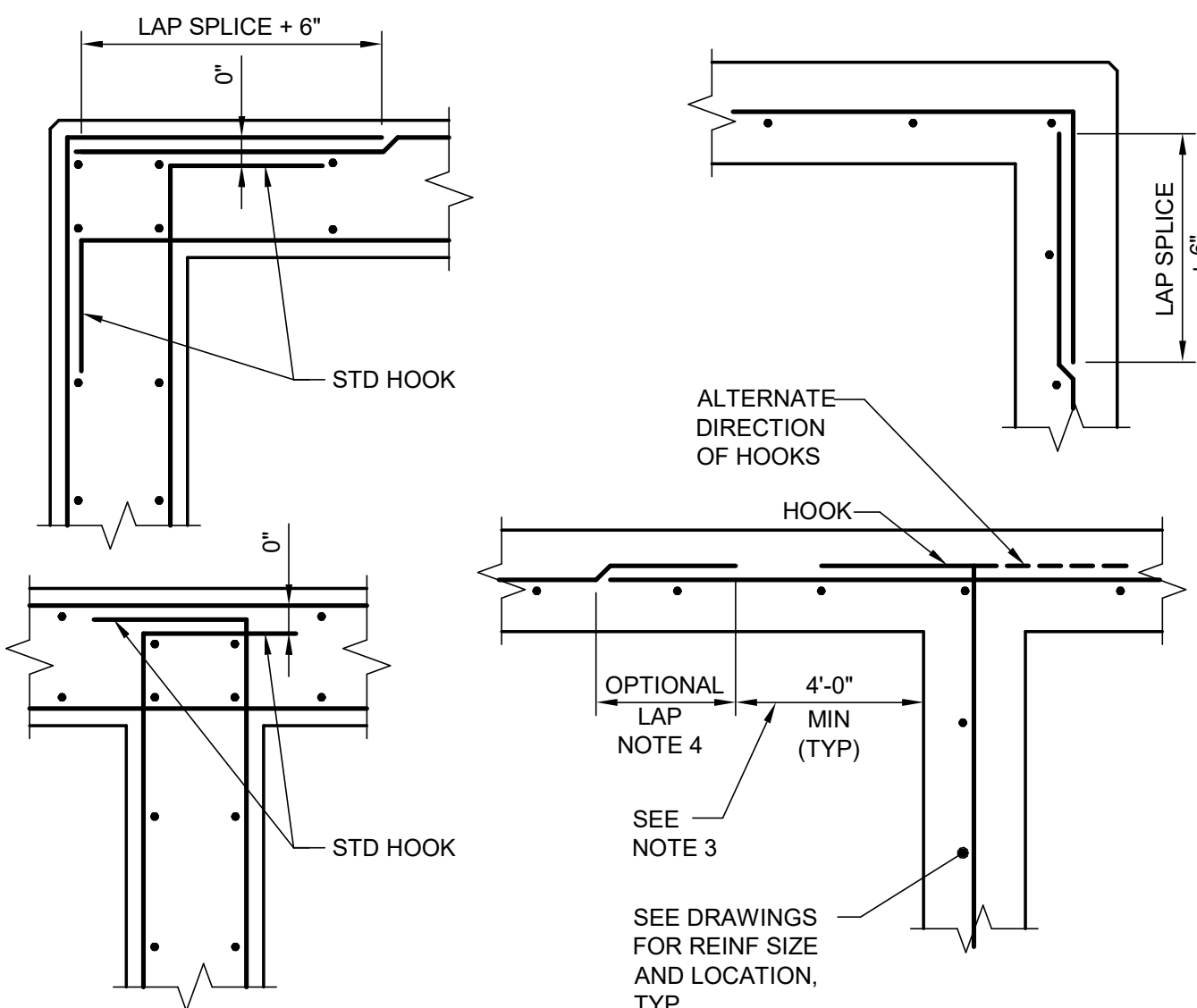
REINFORCING SPLICE WHEN NOT AT CJ

| LAP SPLICE AND EMBEDMENT LENGTHS f _c = 4.0 ksi f _y = 60 ksi | | |
|---|-----------------------------|--------------------------------------|
| BAR | BARS SPACED GREATER THAN 4" | BARS SPACED LESS THAN OR EQUAL TO 4" |
| #3 | 14" | 14" |
| #4 | 19" | 19" |
| #5 | 24" | 30" |
| #6 | 29" | 43" |
| #7 | 46" | 74" |
| #8 | 60" | 96" |
| #9 | 76" | 122" |
| #10 | 97" | 155" |
| #11 | 120" | 191" |

NOTES:

- PROVIDE MINIMUM LAP SPLICE LENGTHS AND EMBEDMENTS PER TABLE UNLESS NOTED OTHERWISE. EMBEDMENT LENGTH EQUALS THE LAP SPLICE LENGTH UNLESS OTHERWISE NOTED.
- BAR SPACING AT LAP SPLICE IS THE MINIMUM CLEAR DISTANCE BETWEEN LAPPED BARS PLUS ONE BAR DIAMETER.
- ALL SPLICES TO BE CONTACT SPLICES AND WIRED TOGETHER UNLESS OTHERWISE APPROVED BY ENGINEER.
- REQUIREMENTS FOR SPACINGS 4 INCHES OR LESS SHALL NOT APPLY TO "ADD" BARS AROUND OPENINGS.

REINFORCING LAP AND EMBEDMENT SCHEDULE



NOTES:

- ALL HOOKS SHALL BE STD 90 DEGREE HOOKS.
- SEE DRAWINGS FOR ADDITIONAL HORIZONTAL BARS. STAGGER BETWEEN TYPICAL REINF SPACING, EXTEND TO 1/5 OF DISTANCE TO NEAREST ADJACENT WALL IN EACH DIRECTION, UNO.
- OPTIONAL LAP LOCATION APPLIES TO BOTH DOUBLE AND SINGLE LAYER CONDITIONS TYP.
- BARS MAY BE ONE PIECE CONTINUOUS, THUS TWO PIECE REBAR NOT REQUIRED WITH LAP.

TYPICAL WALL REINFORCEMENT AT CORNERS & INTERSECTIONS

Statement of Special Inspections

Project: HARNETT COUNTY NORTHWEST
Location: OAKRIDGE RIVER ROAD AND REVELS ROAD INTERSECTION, NC
Owner: HARNETT COUNTY

Design Professional in Responsible Charge: Michael Tepedino, PE #027764

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This Statement of Special Inspections encompass the following disciplines:
☒ Structural ☐ Mechanical/Electrical/Plumbing
☐ Architectural ☐ Other: _____

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge.

A Final Report of Special Inspections documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: 14 Days or ☐ per attached schedule.

Prepared by:

Michael Tepedino, PE 027764
(type or print name)

Signature _____ Date _____
Design Professional Seal

Owner's Authorization: _____ Building Official's Acceptance: _____

Signature _____ Date _____ Signature _____ Date _____

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- ☒ Soils and Foundations
☒ Cast-in-Place Concrete
☐ Precast Concrete
☐ Masonry
☐ Structural Steel
☐ Cold-Formed Steel Framing
- ☐ Spray Fire Resistant Material
☐ Wood Construction
☐ Exterior Insulation and Finish System
☐ Mechanical & Electrical Systems
☐ Architectural Systems
☐ Special Cases

| Special Inspection Agencies | Firm | Address, Telephone, e-mail |
|---|--|---|
| 1. Special Inspection Coordinator | TBD Contact: | |
| 2. Inspector Geotechnical/soils | TBD Contact: | |
| 3. Inspector/Testing Agency Site Resident Inspector | TBD Contact: | |
| 4. Inspector/Testing Agency Cast-in-place concrete | TBD Contact: | |
| 5. Inspector/Testing Agency Structural Steel | TBD Contact: | |
| 6. Other Engineer of Record | HDR Engineering Inc. of the Carolinas Contact: Michael Tepedino, PE | 440 South Church Street Suite 1000 Charlotte, NC 28202 Michael.Tepedino@hdrinc.com |
| | | |

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category C
Quality Assurance Plan Required (Y/N) N

Description of seismic force resisting system and designated seismic systems:

1. Ordinary Reinforced Concrete Shear Walls

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) 116 mph
Wind Exposure Category C
Quality Assurance Plan Required (Y/N) N

Description of wind force resisting system and designated wind resisting components:

1. Ordinary Reinforced Concrete Shear Walls

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the Agency Number on the Schedule.

PE/SE Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT Concrete Field Testing Technician – Grade 1
ACI-COI Concrete Construction Inspector
ACI-LTT Laboratory Testing Technician – Grade 1&2
ACI-STT Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI Certified Welding Inspector
AWS/AISC-SSI Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT Non-Destructive Testing Technician – Level II or III.

International Code Council (ICC) Certification

ICC-SMSI Structural Masonry Special Inspector
ICC-SWSI Structural Steel and Welding Special Inspector
ICC-SFSI Spray-Applied Fireproofing Special Inspector
ICC-PCSI Prestressed Concrete Special Inspector
ICC-RCSI Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT Concrete Technician – Levels I, II, III & IV
NICET-ST Soils Technician - Levels I, II, III & IV
NICET-GET Geotechnical Engineering Technician - Levels I, II, III & IV

Exterior Design Institute (EDI) Certification

EDI-EIFS EIFS Third Party Inspector

Other _____

Soils and Foundations

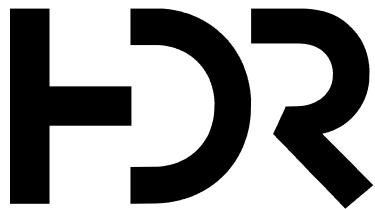
Page of

| Item | Agency # (Qualif.) | Scope |
|-------------------------------|----------------------------|---|
| 1. Shallow Foundations | Agency 2 or 3 PE/GE | Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report. Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill |
| 2. Controlled Structural Fill | Agency 2 or 3 PE/GE | Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material. Inspect placement, lift thickness and compaction of controlled fill. Test density of each lift of fill by nuclear methods (ASTM D2922) Verify extent and slope of fill placement. |
| 3. Deep Foundations | N/A PE/GE | |
| 4. Load Testing | | |
| 4. Other: | | |

Cast-in-Place Concrete

Page of

| Item | Agency # (Qualif.) | Scope |
|---|--------------------------------------|---|
| 1. Mix Design | Agency 4 ACI-CCI ICC-RCSI | Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design. |
| 2. Material Certification | Agency 4 | Verify material certifications conform to specification requirements. |
| 3. Reinforcement Installation | Agency 3 or 4 ACI-CCI ICC-RCSI | Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters |
| 4. Post-Installed Anchors | Agency 3 ICC-PCSI | Inspect size, spacing and installation. Inspect per IBC section 1705.1.1 and ACI 308: 17.8.2.4. |
| 5. Welding of Reinforcing | N/A | N/A |
| 6. Anchor Rods (Continuous) | Agency 3 or 4 | Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors. Verify that concrete is properly consolidated. |
| 7. Concrete Placement (Continuous) | Agency 3 or 4 ACI-CCI ICC-RCSI | Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated. |
| 8. Sampling and Testing of Concrete | Agency 4 ACI-CFTT ACI-SIT | Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064). |
| 9. Curing and Protection | Agency 3 or 4 ACI-CCI ICC-RCSI | Inspect curing, cold weather protection and hot weather protection procedures. |
| 10. Batching Plant | Agency 4 | Verify submitted batch plant certification conforms to specification and ACI requirements. |
| 10. Formwork Installation Shoring and Reshoring (Periodic): | Agency 3 | Confirm adequacy; verify conformance with approved submittals |



HDR Engineering, Inc. of the Carolinas
N.C.B.E.L.S. License Number: F-0116
555 Fayetteville Street, Suite 900
Raleigh, NC 27601
919.232.6600

| ISSUE | DATE | DESCRIPTION |
|-------|---------|-----------------------|
| B | 05/2024 | ISSUED FOR BIDDING |
| A | 11/2022 | ISSUED FOR PERMITTING |

| | |
|------------------|---------------|
| PROJECT MANAGER | J. MURRAY, PE |
| PROJECT ENGINEER | M. TEPEDINO |
| DESIGNED BY | N. FANOUS |
| DRAWN BY | J. ARROYO |
| PROJECT NUMBER | 10354679 |



HARNETT COUNTY
NORTHWEST CONVENIENCE CENTER

HARNETT COUNTY

NORTH CAROLINA

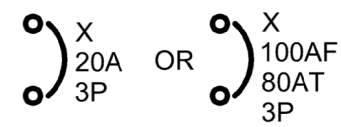
STRUCTURAL STANDARD DETAILS 2



FILENAME | 10354679-00-S.rvt
SCALE | NOT TO SCALE

SHEET
99S-03

ONE-LINE, POWER, AND LIGHTING SYMBOLOLOGY



LOW - VOLTAGE CIRCUIT BREAKER (CB). RATING AND NO. OF POLES AS SHOWN. WHEN SPECIFIC TYPE, OTHER THAN MCCB, IS REQUIRED, X INDICATES TYPE.

TYPES:

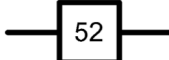
MCCB - MOLDED CASE
ICCB - INSULATED CASE
LVP - LOW VOLTAGE POWER
MCP - MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD)

TRIP UNIT:

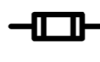
L - LONG TIME PICKUP
S - SHORT TIME PICKUP
I - INSTANTANEOUS PICKUP
G - GROUND FAULT PICKUP
A - ARC FLASH MAINTENANCE



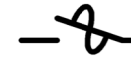
GROUND FAULT PROTECTION



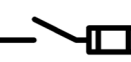
MEDIUM - VOLTAGE CIRCUIT BREAKER



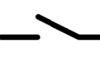
FUSE, SIZE, AND NUMBER OF FUSES AS NOTED



FUSED CUTOUT, CURRENT RATING, FUSE SIZE, AND NUMBER OF POLES AS NOTED



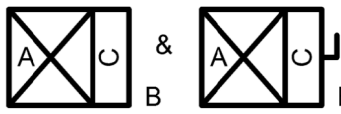
FUSIBLE SWITCH, CURRENT RATING, FUSE SIZE, AND QUANTITY AS NOTED



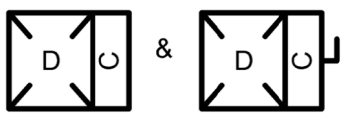
NON-FUSED SWITCH, CURRENT RATING, AND NUMBER OF POLES AS NOTED



DISCONNECT OR DRAWOUT CONNECTION



MAGNETIC MOTOR STARTER AND SEPARATELY MOUNTED COMBINATION MAGNETIC MOTOR STARTER



MOTOR CONTROLLER AND SEPARATELY MOUNTED MOTOR CONTROLLER WITH SHORT CIRCUIT PROTECTION AND DISCONNECT

MOTOR STARTER AND CONTROLLER SUBSCRIPTS:

A - MAGNETIC STARTER NEMA SIZE

B - STARTER TYPE

NONE - FULL VOLTAGE NON-REVERSING (FVNR)
FVR - FULL VOLTAGE REVERSING
2S - TWO SPEED
RVAT - REDUCED VOLTAGE AUTO TRANSFORMER

C - CONTROL DIAGRAM OR CONTROLS SCHEDULE NUMBER (IF REQUIRED)

D - CONTROLLER TYPE

VFD - VARIABLE FREQUENCY DRIVE
SS - SOLID STATE
CONT - CONTACTOR



SEPARATELY MOUNTED COMBINATION MOTOR STARTER OR CONTROLLER; SEE ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION



SEPARATELY MOUNTED MOTOR STARTER OR CONTROLLER; SEE ELECTRICAL ONE-LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION.



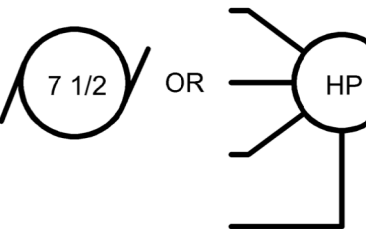
DISCONNECT OR SAFETY SWITCH, 30A, 3P, X INDICATES AMP RATING GREATER THAN 30A, NON-FUSED UNLESS OTHERWISE NOTED



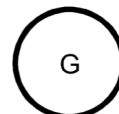
FUSED DISCONNECT OR SAFETY SWITCH, 3P, X INDICATES AMP RATING GREATER THAN 30A, Y INDICATES FUSE SIZE



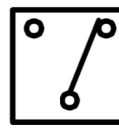
SEPARATELY MOUNTED CIRCUIT BREAKER; SEE ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION



MOTOR WITH DESIGN HORSEPOWER (WHEN INDICATED)



GENERATOR



TRANSFER SWITCH, CURRENT RATING, AND NUMBER OF POLES AS NOTED

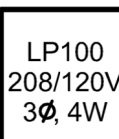
ATS - AUTOMATIC
MTS - MANUAL



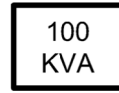
TRANSFORMER

Δ 3-PHASE, 3-WIRE DELTA CONNECTION

⏚ 3-PHASE, 4-WIRE GROUNDED WYE CONNECTION



SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED



NON-MOTOR LOAD WITH DESIGN KVA, KW, OR AMP



VOLTAGE TRANSFORMER (VT OR PT)



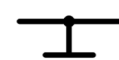
CURRENT TRANSFORMER (CT)



UTILITY WATT-HOUR METER PER UTILITY REQUIREMENTS



DIGITAL METERING PACKAGE



GROUND



LIGHTNING ARRESTER



LOW VOLTAGE SURGE PROTECTIVE DEVICE



SELECTOR SWITCH



PUSHBUTTON



INSTRUMENTATION/CONTROL DEVICE



CONTROL PANEL INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT



CONTROL PANEL WITH DISCONNECT SWITCH INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT



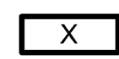
JUNCTION OR PULL BOX



PANELBOARD (250V TO 600V)



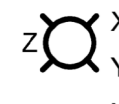
PANELBOARD (LESS THAN 250V)



ELECTRICAL EQUIPMENT ENCLOSURE: SWITCHBOARD, MOTOR CONTROL CENTER, CONTROL PANEL, TRANSFORMER OR OTHER EQUIPMENT AS INDICATED. ESTIMATED SIZE AS INDICATED. WHEN USED X INDICATES EQUIPMENT TYPE.

EQUIPMENT TYPES:

ATS - AUTOMATIC TRANSFER SWITCH
CP - CONTROL PANEL
MTS - MANUAL TRANSFER SWITCH
MCC - MOTOR CONTROL CENTER
UPS - UNINTERRUPTIBLE POWER SUPPLY
VFD - VARIABLE FREQUENCY DRIVE
SB - SWITCHBOARD
SG - SWITCHGEAR
T - TRANSFORMER



CEILING/PENDANT/BOLLARD MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED



CEILING/PENDENT/BOLLARD MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED, EMERGENCY (INTERNAL OR EXTERNAL POWER SOURCE AS INDICATED)



WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED



WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED, EMERGENCY (INTERNAL OR EXTERNAL POWER SOURCE AS INDICATED)



WALL MOUNTED FLOOD LUMINAIRE, LAMP TYPE AS SPECIFIED



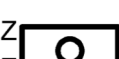
POLE/STANCHION MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED



POLE/STANCHION MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED, EMERGENCY (INTERNAL OR EXTERNAL POWER SOURCE AS INDICATED)



POLE/STANCHION MOUNTED FLOOR LUMINAIRE, LAMP TYPE AS SPECIFIED



CEILING/PENDANT MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED



WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED



CEILING/PENDANT MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED, ALL OR PARTIAL EMERGENCY (INTERNAL OR EXTERNAL POWER SOURCE AS INDICATED)



WALL MOUNTED LUMINAIRE, LAMP TYPE AS SPECIFIED, ALL OR PARTIAL EMERGENCY (INTERNAL OR EXTERNAL POWER SOURCE AS INDICATED)



EMERGENCY LIGHT, 2 ATTACHED HEADS AS SHOWN



EMERGENCY LIGHT, REMOTE MOUNTED HEAD



DOUBLE-FACED CEILING OR WALL MOUNTED EXIT LIGHT; DIRECTIONAL ARROWS (IF REQUIRED) AS INDICATED ON PLANS



SINGLE-FACED CEILING OR WALL MOUNTED EXIT LIGHT; DIRECTIONAL ARROWS (IF REQUIRED) AS INDICATED ON PLANS

LIGHTING FIXTURE SUBSCRIPTS:

X - INDICATES LUMINAIRE TYPE PER LUMINAIRE SCHEDULE
Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD
Z - INDICATES CONTROLLING SWITCH (IF REQUIRED)
NL - NIGHT LIGHT UNSWITCHED



WALL SWITCH

SUBSCRIPTS:

X - INDICATES TYPE

NONE - SINGLE POLE
2 - DOUBLE POLE
3 - THREE-WAY
4 - FOUR-WAY
K - KEY SWITCH
P - PILOT LIGHT
L - LIGHTED HANDLE
DM - DIMMING
MC - MOMENTARY CONTACT
T - TIMER

Y - INDICATES CONTROLLING SWITCH (IF REQUIRED)



MANUAL MOTOR STARTER

SUBSCRIPTS:

X - INDICATES TYPE

HP - HORSEPOWER RATED
TE - HORSEPOWER RATED WITH THERMAL ELEMENT
FT - HORSEPOWER RATED WITH FUSETRON FUSE

Y - INDICATES SWITCH TYPE

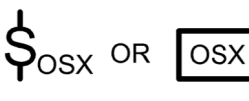
NONE - TOGGLE SWITCH TYPE
R - ROTORY SWITCH TYPE



PHOTOCELL



TIME CLOCK



LIGHTING CONTROL OCCUPANCY SENSOR, WALL MOUNTED, X INDICATES SPECIFIC TYPE AS SPECIFIED



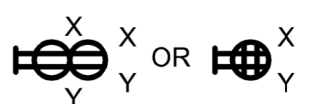
LIGHTING CONTROL OCCUPANCY SENSOR, CEILING MOUNTED, X INDICATES SPECIFIC TYPE AS SPECIFIED



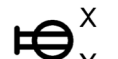
PLUG-IN RECEPTACLE STRIP, QUANTITY AND SPACING OF RECEPTACLES AS NOTED OR SPECIFIED



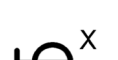
SPECIAL-PURPOSE RECEPTACLE AS DEFINED ON PLANS



TWO RECEPTACLES IN 2-GANG BOX UNDER COMMON COVER PLATE



DUPLEX RECEPTACLE



SIMPLEX RECEPTACLE



RECESSED FLOOR MOUNTED BOX, QUANTITY AND TYPE OF RECEPTACLES AS INDICATED

SUBSCRIPTS:

X - INDICATES TYPE

GFCI - GROUND FAULT CIRCUIT INTERRUPTER
IG - ISOLATED GROUND
TR - TAMPER RESISTANT
PLH - PLUG LOAD HALF CONTROLLED
PLD - PLUG LOAD DUAL CONTROLLED
USB - USB CHARGING STATION
SPD - SURGE PROTECTIVE DEVICE
Y - INDICATES CIRCUIT NUMBER FROM PANELBOARD



CONDUIT TURNING UP



CONDUIT TURNING DOWN



HOMERUN TO PANEL
SINGLE PHASE: 2 #12, 1 #12G IN 3/4" C
THREE PHASE: 3 #12, 1 #12G IN 3/4" C
UNLESS OTHERWISE NOTED



CONDUIT CONNECTION TO EQUIPMENT



CIRCUIT RUN BETWEEN DEVICES EXPOSED IN NON-ARCHITECTURALLY FINISHED AREAS; CONCEALED IN ARCHITECTURALLY FINISHED AREAS. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.



CONDUIT RUN BETWEEN DEVICES CONCEALED IN NON-ARCHITECTURALLY FINISHED AREAS OR UNDER FLOOR SLAB. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.



CIRCUIT HASH MARKS (WHEN INDICATED); LONG, SHORT, SINGLE DOT, AND DOUBLE DOT REPRESENT PHASE, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED EQUIPMENT GROUND, RESPECTIVELY. #12 IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.



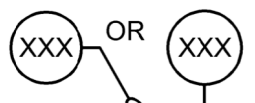
CIRCUIT CONTINUATION



CONDUIT STUBBED OUT AND CAPPED



CORD AND PLUG CONNECTION



CONDUIT TAG OR CIRCUIT NUMBER - WIRE AND CONDUIT SIZE AS SPECIFIED IN CIRCUIT SCHEDULE ON THE SHEETS



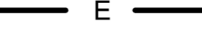
GROUND CABLE



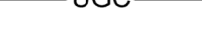
GROUND ROD



UGE UNDERGROUND ELECTRICAL



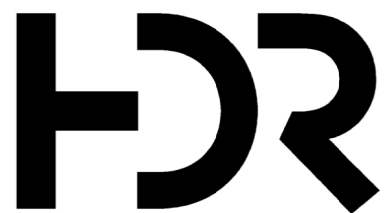
E DIRECT BURIED ELECTRICAL



UGC UNDERGROUND TELECOMMUNICATIONS

GENERAL NOTES:

- THIS IS A STANDARD ELECTRICAL SYMBOLOLOGY SHEET. NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
- SEE P&ID LEGEND SHEET FOR PROJECT SPECIFIC EQUIPMENT SYMBOLS, EQUIPMENT ABBREVIATIONS, AND PIPING SYSTEM ABBREVIATIONS.



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|-------|---------|-----------------------|
| A | 11/2022 | ISSUED FOR PERMITTING |
| ISSUE | DATE | DESCRIPTION |

| | |
|------------------|----------------|
| PROJECT MANAGER | J. MURRAY, PE |
| PROJECT ENGINEER | E. CHINNIS, PE |
| DESIGNED BY | L. KOSAKOWSKI |
| DRAWN BY | J. SPACHER |
| PROJECT NUMBER | 10354679 |



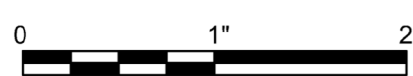
HARNETT COUNTY

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HARNETT COUNTY

NORTH CAROLINA

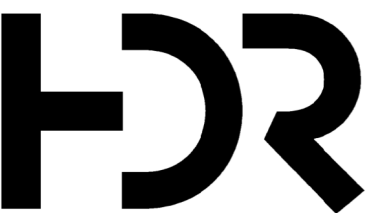
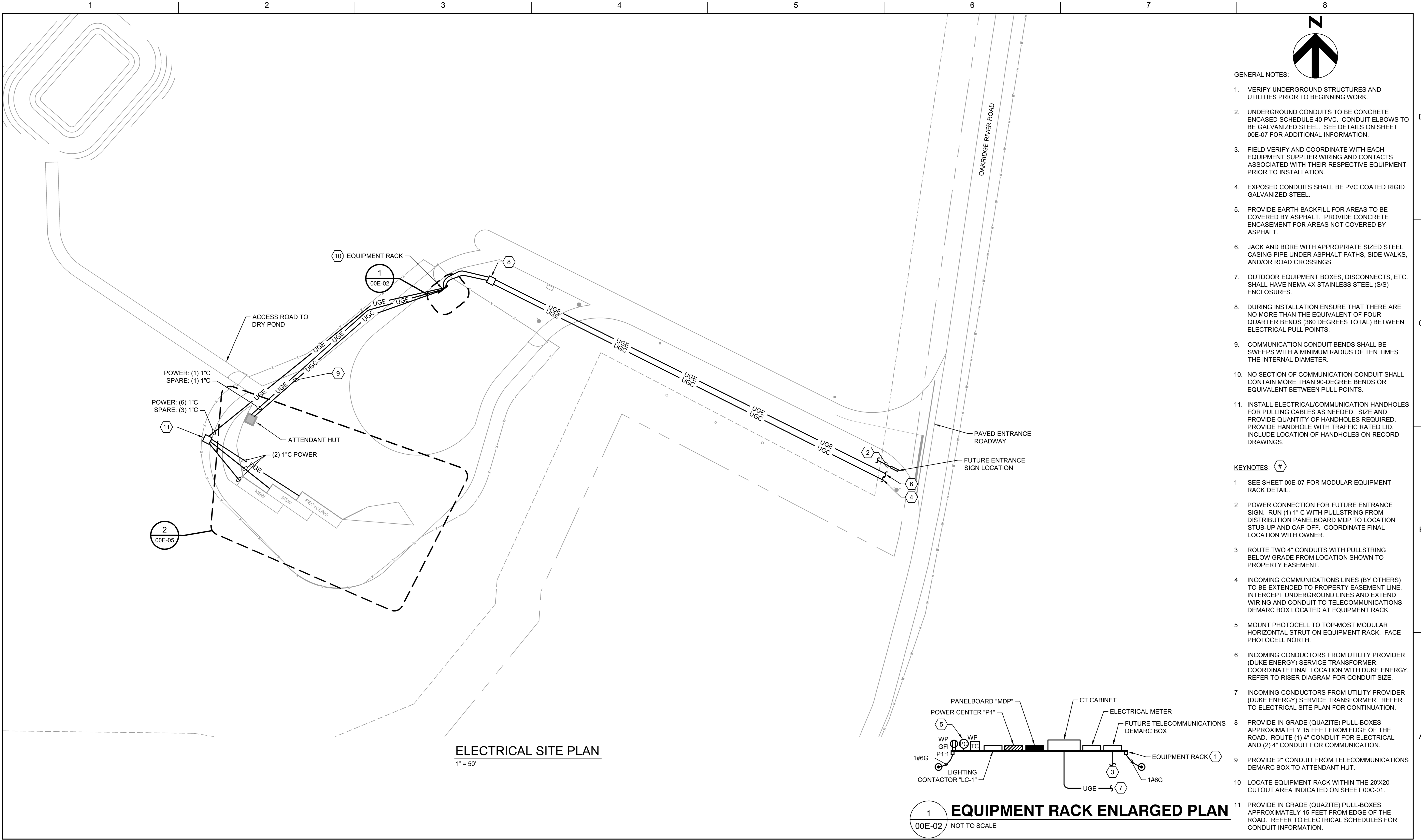
ELECTRICAL LEGEND



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| SCALE | NONE |

SHEET

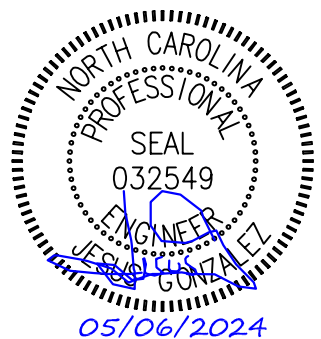
00E-01



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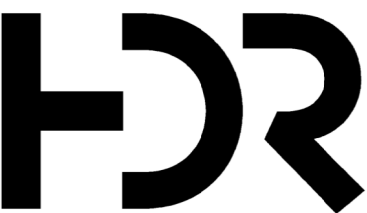
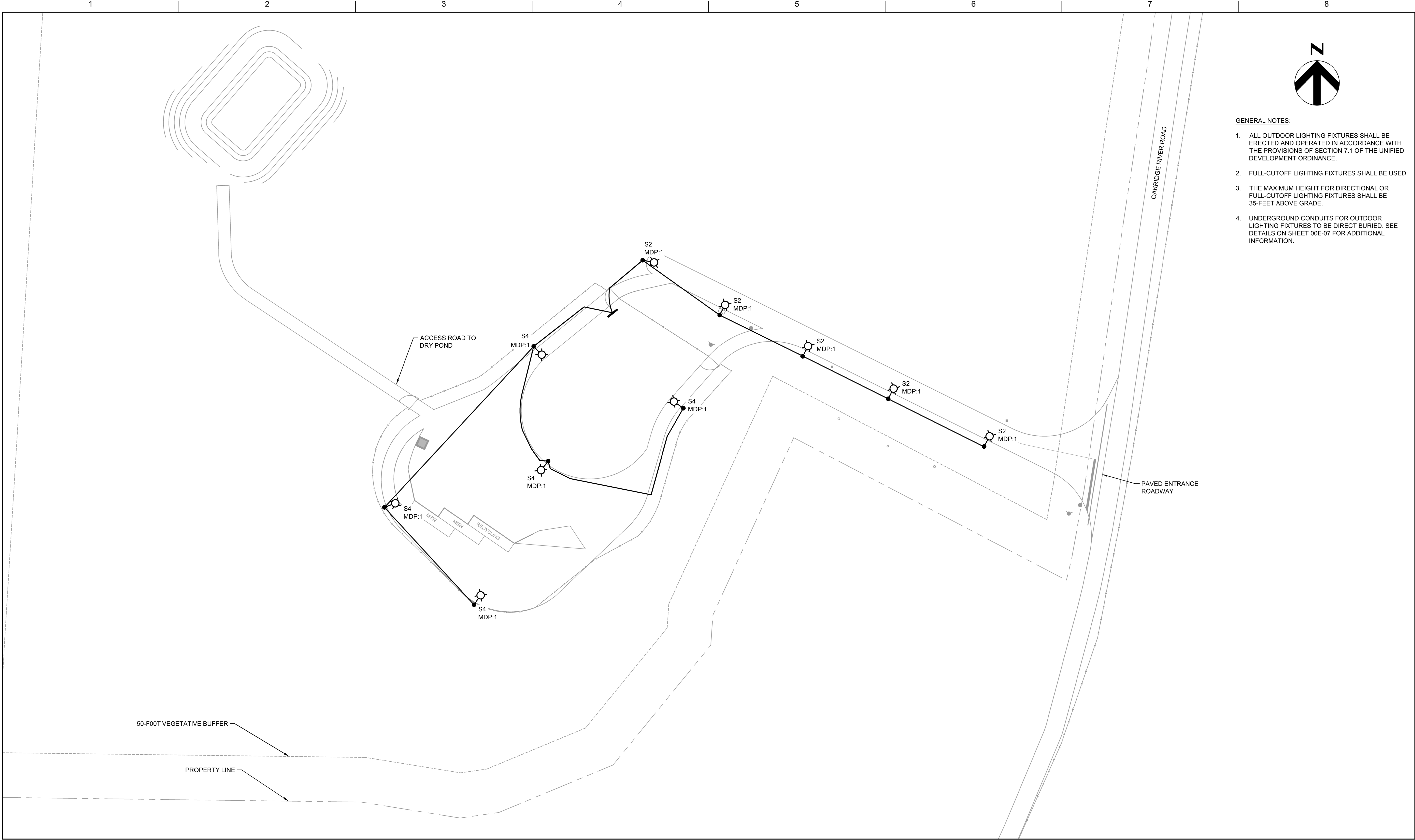


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ELECTRICAL SITE PLAN



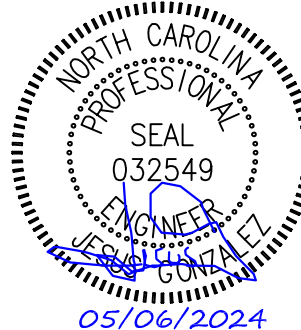
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SCALE | 1" = 50'
SHEET | **00E-02**



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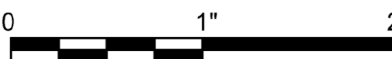
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| DESIGNED BY | L. KOSAKOWSKI |
| DRAWN BY | J. SPACHER |
| PROJECT NUMBER | 10354679 |



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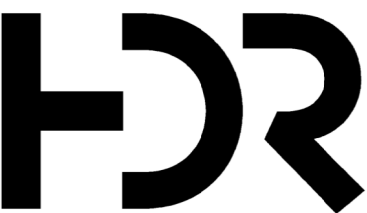
HARNETT COUNTY **NORTH CAROLINA**

ELECTRICAL SITE LIGHTING PLAN



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SCALE | 1" = 50'

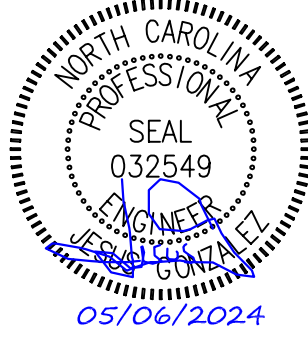
SHEET
00E-03



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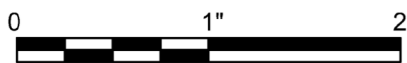
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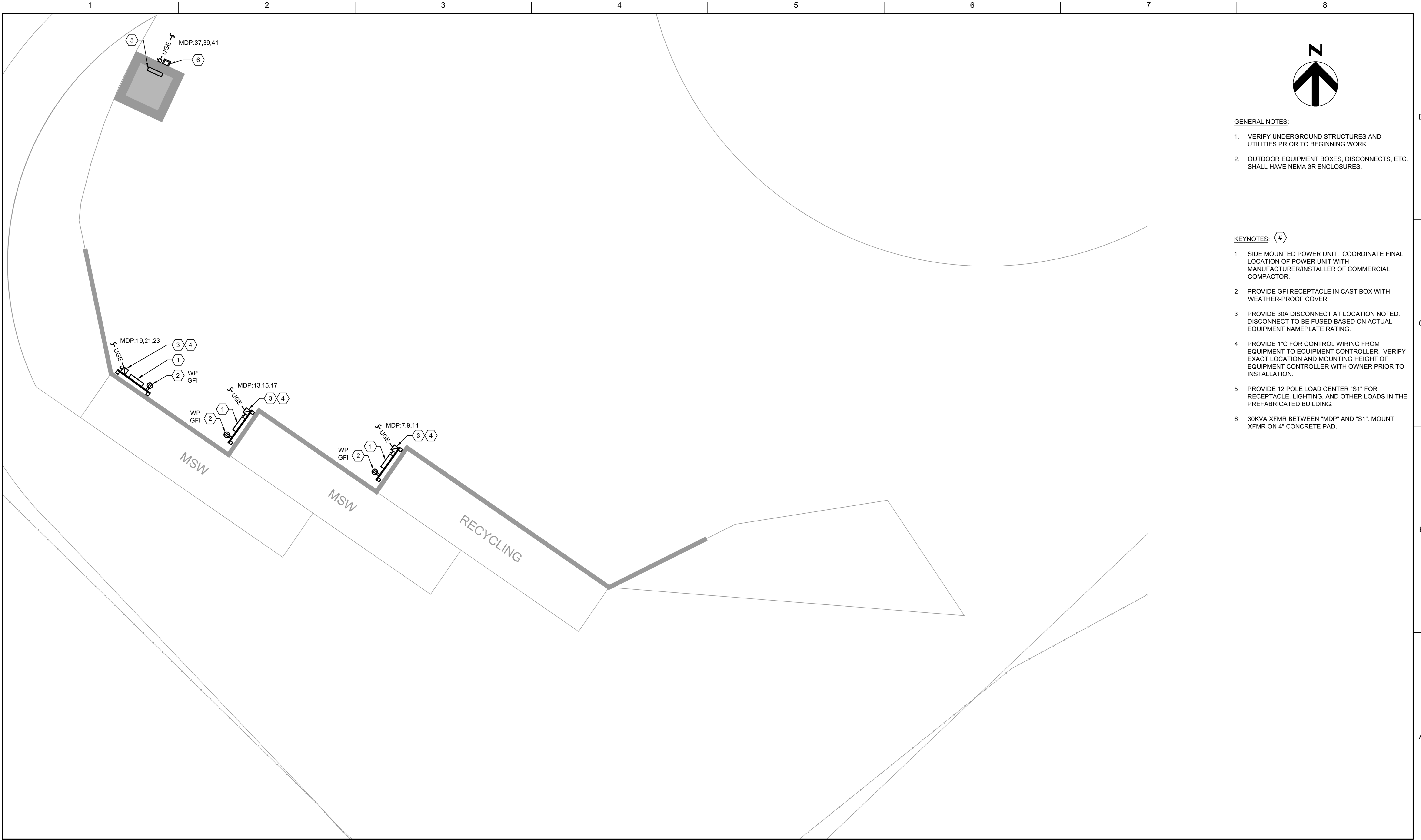
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ELECTRICAL SITE PHOTOMETRIC PLAN



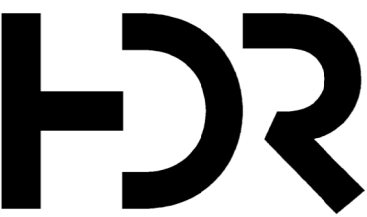
FILENAME | 00E-04.dwg
SCALE | 1" = 50'

SHEET
00E-04



- GENERAL NOTES:**
1. VERIFY UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO BEGINNING WORK.
 2. OUTDOOR EQUIPMENT BOXES, DISCONNECTS, ETC., SHALL HAVE NEMA 3R ENCLOSURES.

- KEYNOTES:** (#)
- 1 SIDE MOUNTED POWER UNIT. COORDINATE FINAL LOCATION OF POWER UNIT WITH MANUFACTURER/INSTALLER OF COMMERCIAL COMPACTOR.
 - 2 PROVIDE GFI RECEPTACLE IN CAST BOX WITH WEATHER-PROOF COVER.
 - 3 PROVIDE 30A DISCONNECT AT LOCATION NOTED. DISCONNECT TO BE FUSED BASED ON ACTUAL EQUIPMENT NAMEPLATE RATING.
 - 4 PROVIDE 1" C FOR CONTROL WIRING FROM EQUIPMENT TO EQUIPMENT CONTROLLER. VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF EQUIPMENT CONTROLLER WITH OWNER PRIOR TO INSTALLATION.
 - 5 PROVIDE 12 POLE LOAD CENTER "S1" FOR RECEPTACLE, LIGHTING, AND OTHER LOADS IN THE PREFABRICATED BUILDING.
 - 6 30KVA XFMR BETWEEN "MDP" AND "S1". MOUNT XFMR ON 4" CONCRETE PAD.



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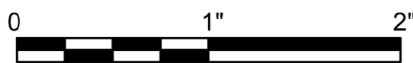
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| PROJECT ENGINEER | E. CHINNIS, PE |
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| DRAWN BY | J. SPACHER |
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ELECTRICAL SITE ENLARGED PLAN



FILENAME | 00E-05.dwg
SCALE | 1" = 10'

SHEET
00E-05

| | | | | | | | | | | | |
|------------------|--|---------|--|---------------------------|--|--------|--|------------|--|----------------|--|
| POWER CENTER NO: | | P1 | | BUS RATING (A): | | 100 | | ENCLOSURE: | | NEMA 3R | |
| VOLTAGE (L-L): | | 208 | | MAIN OC DEVICE (A/PHASE): | | 60 MCB | | MOUNTING: | | SURFACE | |
| VOLTAGE (L-N): | | 120 | | INTERRUPTING RATING (KA): | | 10 | | LOCATION: | | EQUIPMENT RACK | |
| PHASE / WIRE: | | 3 / 4+G | | SERVICE ENTRANCE LABEL: | | NO | | BUILDING: | | | |
| 200% NEUTRAL: | | NO | | | | | | | | | |

| WIRING | | | | CKT NO. | DESCRIPTION | CONNECTED LOAD (VA) | | | | OCF | | | | CONNECTED LOAD (VA) | | | | DESCRIPTION | CKT NO. | WIRING | | | | | |
|--------|-------|-------|-------|---------|-------------|---------------------|-----|------|------|------|---|------|----|---------------------|-----|------|------|-------------|---------|-------------------|-------|-------|-------|----|----|
| PHASE | NEUT. | GRND. | COND. | | | LTS | REC | MECH | MISC | AMPS | P | AMPS | P | LTS | REC | MECH | MISC | | | PHASE | NEUT. | GRND. | COND. | | |
| 12 | 12 | 12 | 3/4" | 1 | RECEPTACLES | | 180 | | | 20 | 1 | A | 20 | 1 | | 180 | | | | COMPACTOR RECEPTS | 2 | 10 | 10 | 12 | 1" |
| | | | | 3 | SPARE | | | | | 20 | 1 | B | 20 | 1 | | 180 | | | | COMPACTOR RECEPTS | 4 | 10 | 10 | 12 | 1" |
| | | | | 5 | SPARE | | | | | 20 | 1 | C | 20 | 1 | | 180 | | | | COMPACTOR RECEPTS | 6 | 10 | 10 | 12 | 1" |
| | | | | 7 | SPARE | | | | | 20 | 1 | A | 20 | 1 | | | | | | SPARE | 8 | | | | |
| | | | | 9 | SPARE | | | | | 20 | 1 | B | 30 | 1 | | | | | | SPARE | 10 | | | | |
| | | | | 11 | SPARE | | | | | 20 | 1 | C | 30 | 1 | | | | | | SPARE | 12 | | | | |
| | | | | 13 | SPARE | | | | | 20 | 1 | A | 30 | 1 | | | | | | SPARE | 14 | | | | |
| | | | | 15 | SPARE | | | | | 20 | 1 | B | 30 | 1 | | | | | | SPARE | 16 | | | | |
| | | | | 17 | SPARE | | | | | 20 | 1 | C | 20 | 1 | | | | | | SPARE | 18 | | | | |
| | | | | 19 | SPARE | | | | | 20 | 1 | A | 30 | 1 | | | | | | SPARE | 20 | | | | |
| | | | | 21 | SPARE | | | | | 20 | 1 | B | 30 | 1 | | | | | | SPARE | 22 | | | | |
| | | | | 23 | SPARE | | | | | 20 | 1 | C | 20 | 1 | | | | | | SPARE | 24 | | | | |

| | | | | | | | | | | | | | | |
|--------|----------------------|------|------|------|------|-------|-------|-----|--------------------|---------------|---------------|--|--|--|
| NOTES: | LOAD SUMMARY | | | | | | | | | | | | NOTES: * REFER TO ONE-LINE DIAGRAM ** MISC DEMAND INCLUDES 25% OF LARGEST MOTOR KVA | |
| | | LTS | REC | MECH | MISC | SPARE | TOTAL | | | | PHASE BALANCE | | | |
| | CONNECTED LOAD (KVA) | 0.0 | 0.7 | 0.0 | 0.0 | --- | 0.7 | 208 | LINE-TO-LINE VOLTS | PHASE A (KVA) | 0 | | | |
| | DEMAND FACTOR ** | 1.25 | 1.25 | --- | --- | 20% | --- | 2 | CONNECTED AMPS | PHASE B (KVA) | 0 | | | |
| | DESIGN LOAD (KVA) | 0.0 | 0.7 | 0.0 | 0.0 | 0.1 | 0.9 | 2 | DESIGN AMPS | PHASE C (KVA) | 0 | | | |

| LUMINAIRE SCHEDULE | | | | | | | | | | |
|--|--|---|-------------|---------|---------|-----------|-----------|-----------|----------|------------|
| DWG ID | MANUFACTURER AND LUMINAIRE TYPE | DESCRIPTION | WATTS (MAX) | VOLTAGE | CCT (K) | CRI (MIN) | LUMENS DN | LUMENS UP | MOUNTING | |
| | | | | | | | | | TYPE | HEIGHT |
| S2 | HOLOPHANE LEDG2 P2 40K MVOLT STD L2 OR APPROVED EQUAL | LED AREA LUMINAIRE WITH RUGGED DIE-CAST ALUMINUM HOUSING AND ADJUSTABLE ARM MOUNT. TYPE I OPTICS WITH FULL LIGHT CUTOFF AND BUY AMERICA COMPLIANCE LISTED FOR WET LOCATIONS. | 80W | MVOLT | 4000K | 80 | 12,271 | 0 | POLE | 35'-0" AFG |
| S4 | HOLOPHANE LEDG2 P2 40K MVOLT STD L4 OR APPROVED EQUAL | LED AREA LUMINAIRE WITH RUGGED DIE-CAST ALUMINUM HOUSING AND ADJUSTABLE ARM MOUNT. TYPE IV OPTICS WITH FULL LIGHT CUTOFF AND BUY AMERICA COMPLIANCE LISTED FOR WET LOCATIONS. | 80W | MVOLT | 4000K | 80 | 12,362 | 0 | POLE | 35'-0" AFG |
| <u>LUMINAIRE SCHEDULE NOTES:</u> 1. LUMINAIRE SUBMITTALS SHALL INCLUDE LAMP DATA SHEET, DRIVER DATA SHEET,IES (LM-79, LM-80, TM-21) TESTING REPORTS. 2. SUBSTITUTIONS APPROVED BY THE ENGINEER PRIOR TO BIDDING SHALL BE ACCEPTABLE BASED ON THE FACT THAT THEY ARE EQUAL TO THE LUMINAIRE SPECIFIED IN ALL CHARACTERISTICS. | | | | | | | | | | |

PROVIDE METER BASE AND C.T. CABINET PER DUKE ENERGY REQUIREMENTS

WH

1" C

C.T. CABINET

4-600KCMIL, 4" C

5.7kA AFC

MDP NEMA 3R SE RATED

15KVA

3#10, 1#10G, 1" C

POWER CENTER NEMA 3R

P1

60A-3P 3R

NEMA 3R

XMFR TS1 30KVA

4#2, 1#6G, 2" C

S1

ATTENDANT HUT

APPROX. 600FT

PROVIDE 4" CONDUIT W/ PULLSTRING. CONDUCTORS BY UTILITY (DUKE ENERGY)

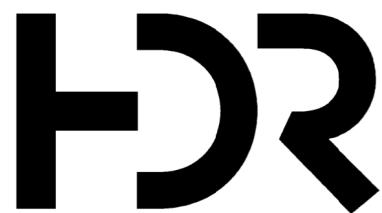
#1/0G (MIN)

#8G (MIN)

#6G (MIN)

3#6, 1#10G, 1" C

RISER DIAGRAM



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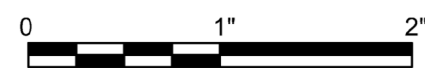
| B | 05/2024 | ISSUED FOR BIDDING |
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| DRAWN BY | J. SPACHER |
| | |
| | |
| PROJECT NUMBER | 10354679 |



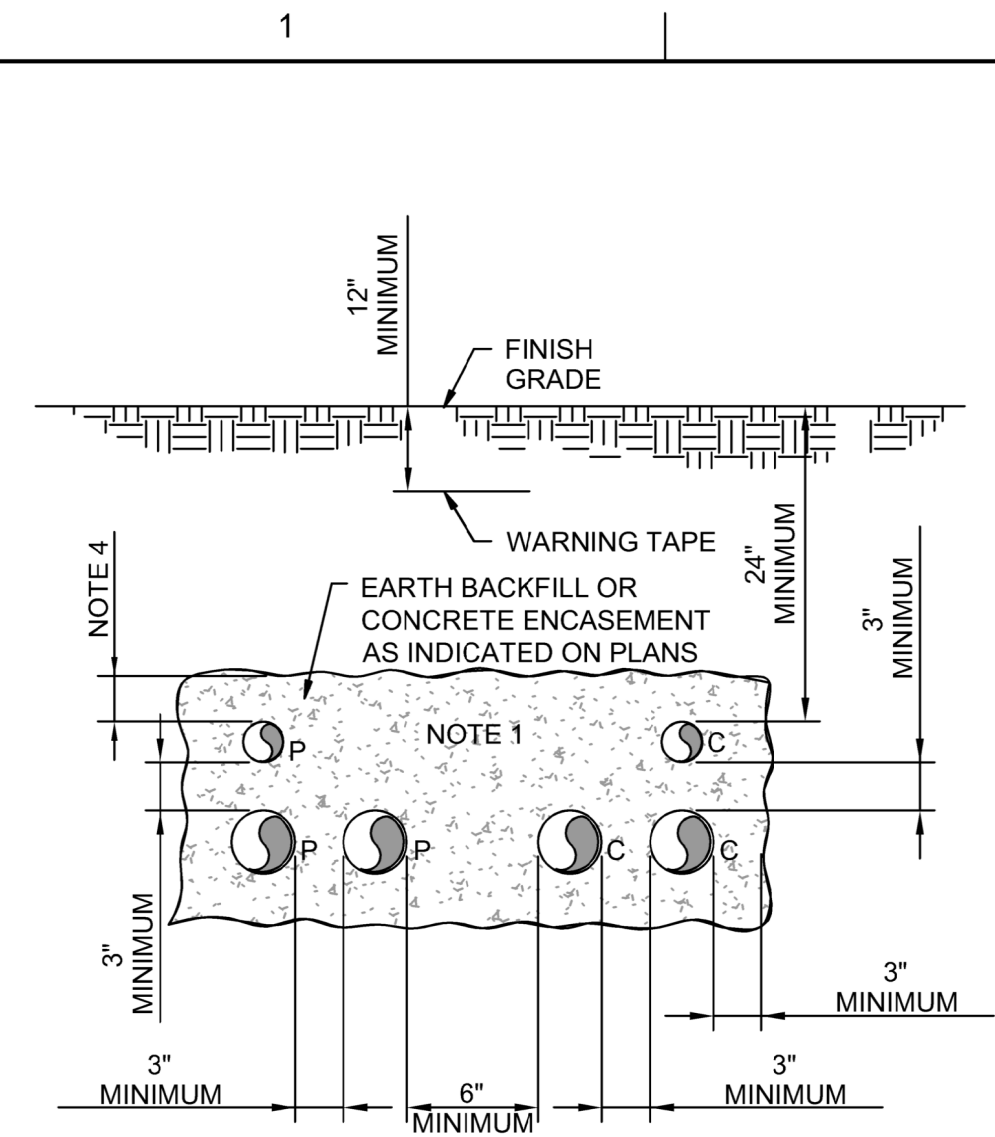
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ELECTRICAL SCHEDULES AND RISER DIAGRAM



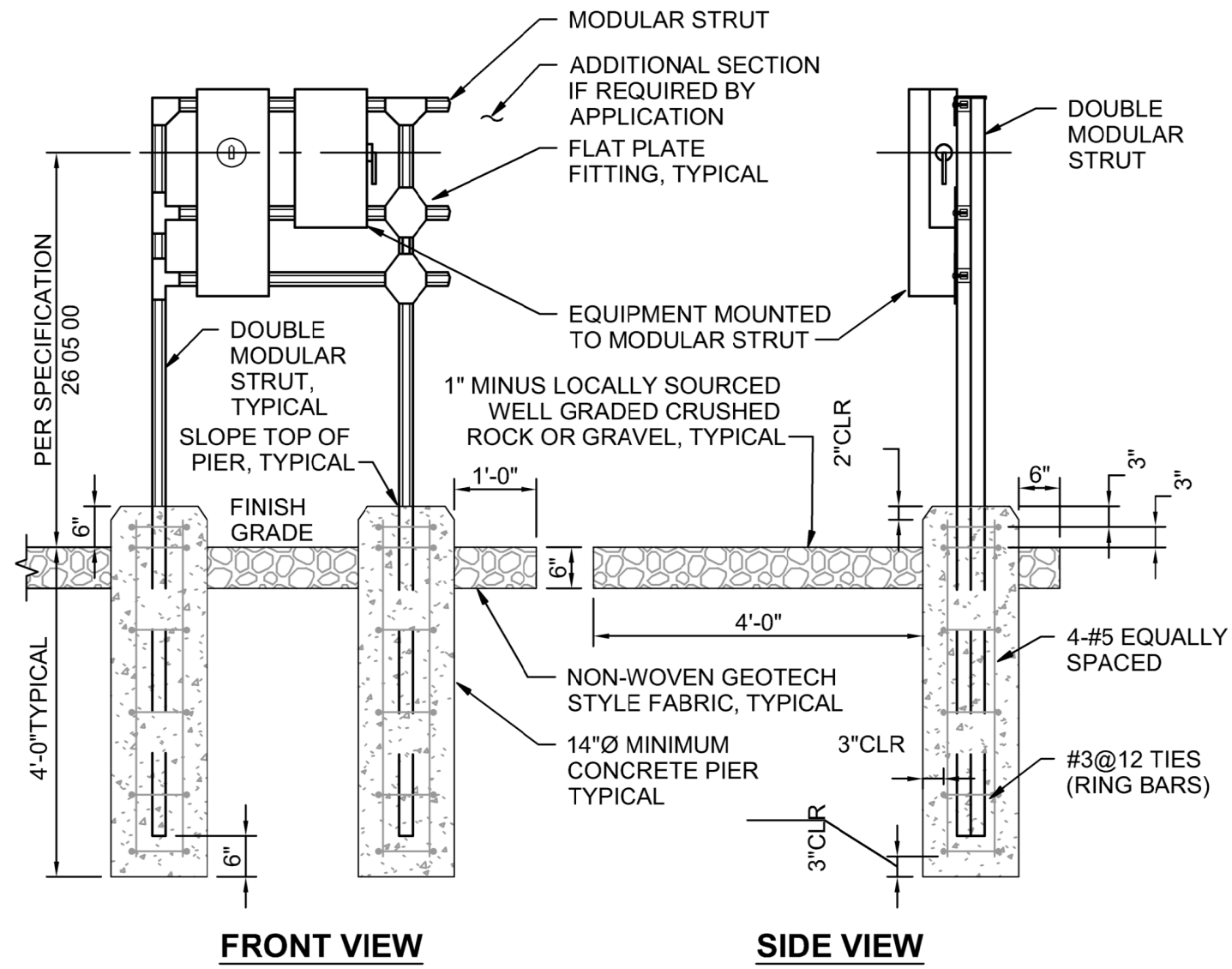
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SHEET
00E-06



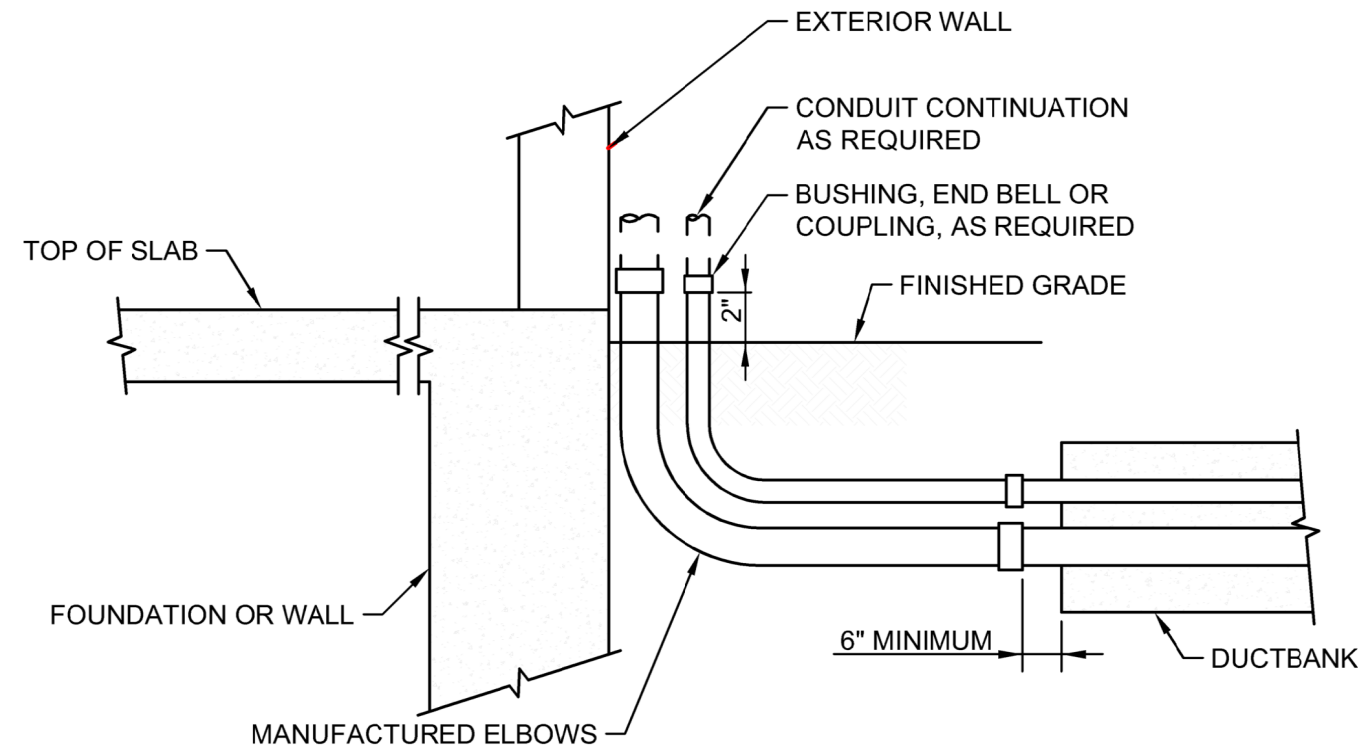
- NOTES THIS SECTION:
1. NUMBER OF CONDUITS AS REQUIRED FOR THE APPLICATION.
 2. P SUBSCRIPT ELECTRICAL POWER OR CONTROL CONDUIT.
 3. C SUBSCRIPT COMMUNICATION (TELEPHONE, DATA, INSTRUMENTATION CONDUIT).
 4. PROVIDE 3" MINIMUM COVER ON EACH SIDE OF CONDUITS ENCASED IN CONCRETE.

1
-
CONDUIT DUCTBANK SECTION
(DIRECT BURIED OR
CONCRETE ENCASED)
NOT TO SCALE



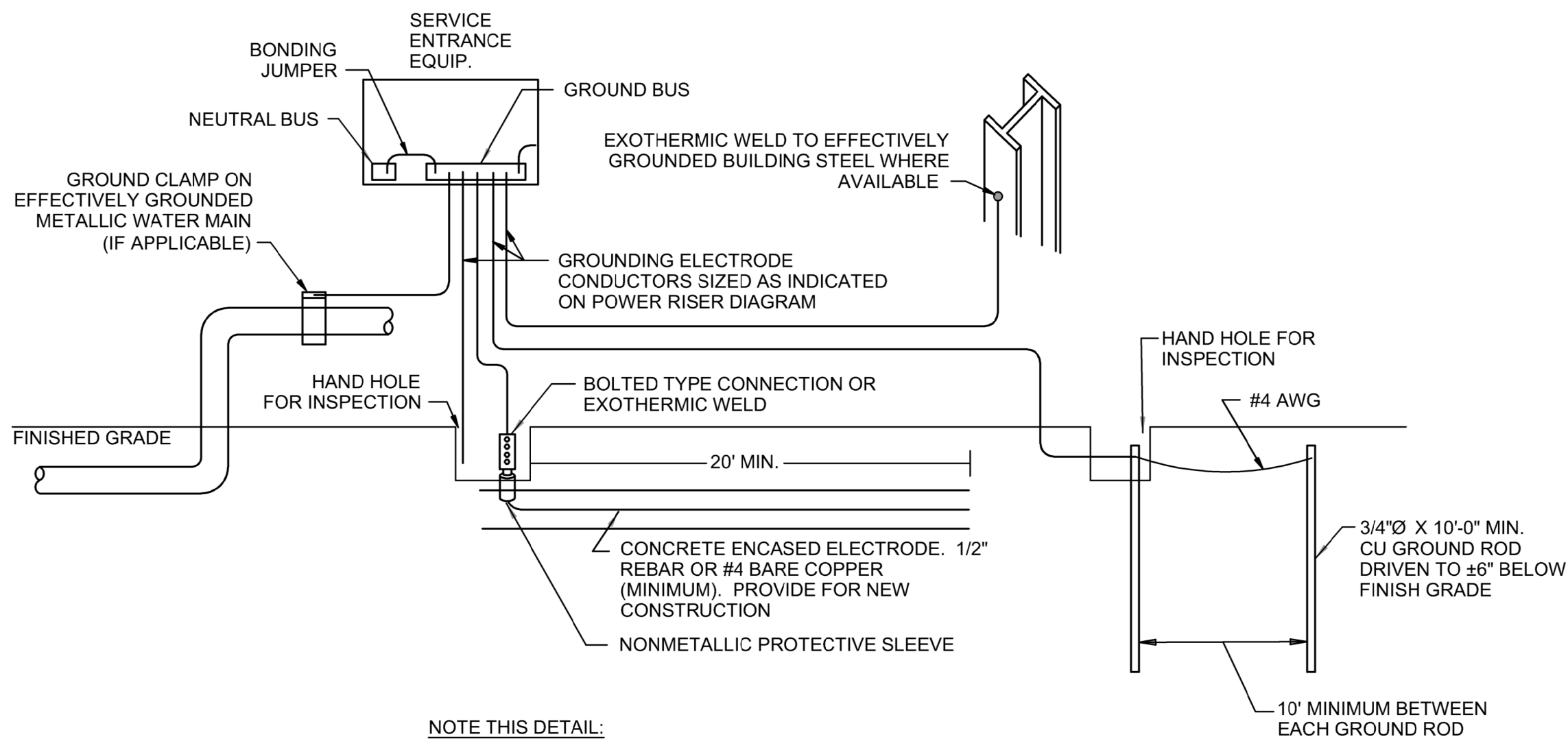
- NOTES THIS DETAIL:
1. COMBINED EQUIPMENT LOADS PER 36" SPAN SHALL NOT EXCEED 500LBS.
 2. MODULAR STRUCT WIDTH: 15/8".
 3. RACK ASSEMBLY MATERIAL: GALVANIZED PER SPECIFICATION SECTION 26.
 4. REPAIR CUT ENDS AND DAMAGED SURFACES IN ACCORDANCE WITH SPECIFICATION SECTION 05.

2
-
MODULAR EQUIPMENT RACK DETAIL
(MOUNTING ON EMBEDDED POSTS)
NOT TO SCALE



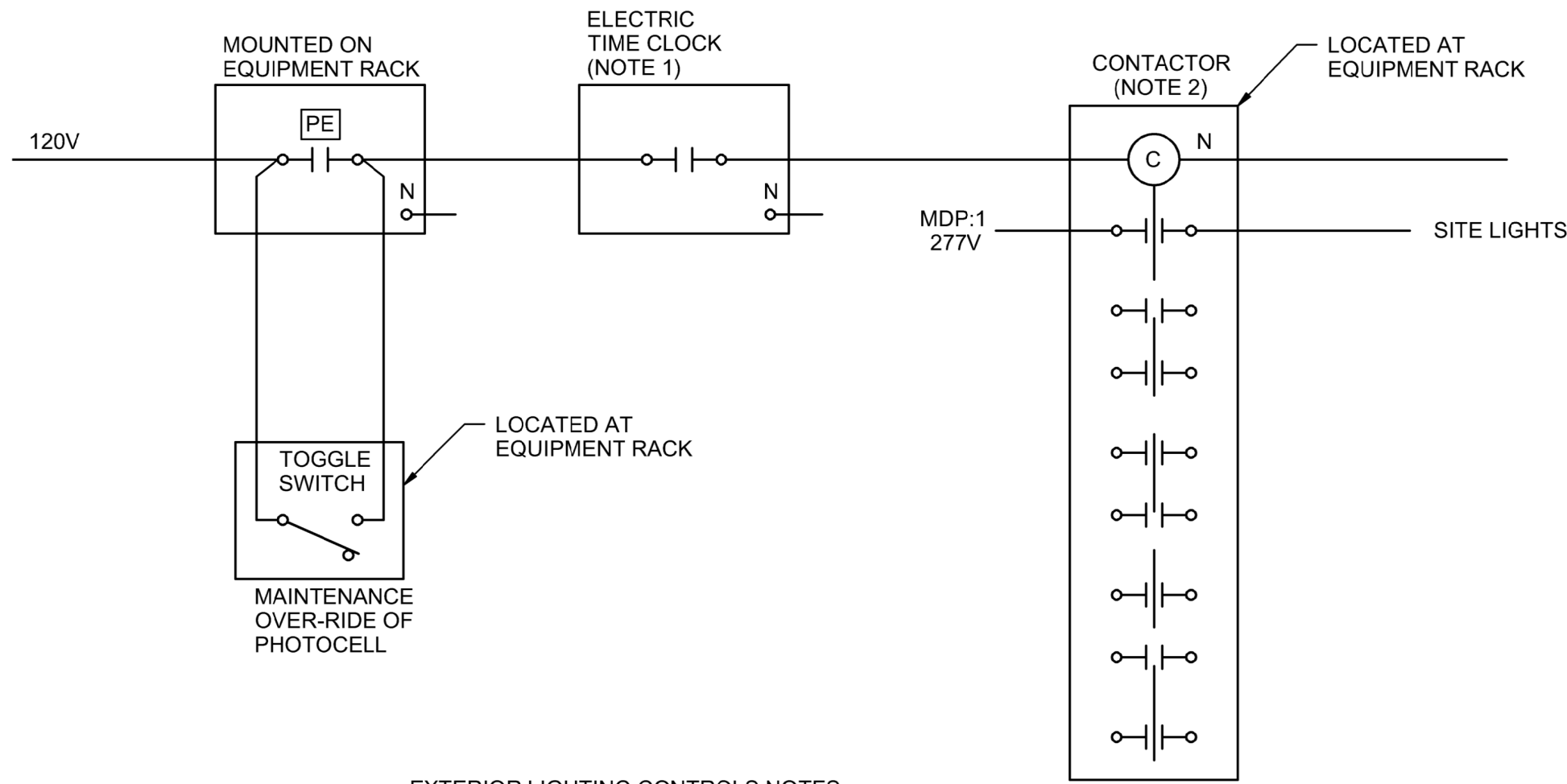
- NOTE THIS DETAIL:
1. SEE DUCTBANK DETAIL FOR ADDITIONAL REQUIREMENTS.

3
-
CONCRETE TRANSITION TO ABOVE GRADE
(EXTERIOR TO EXTERIOR) DETAIL
NOT TO SCALE



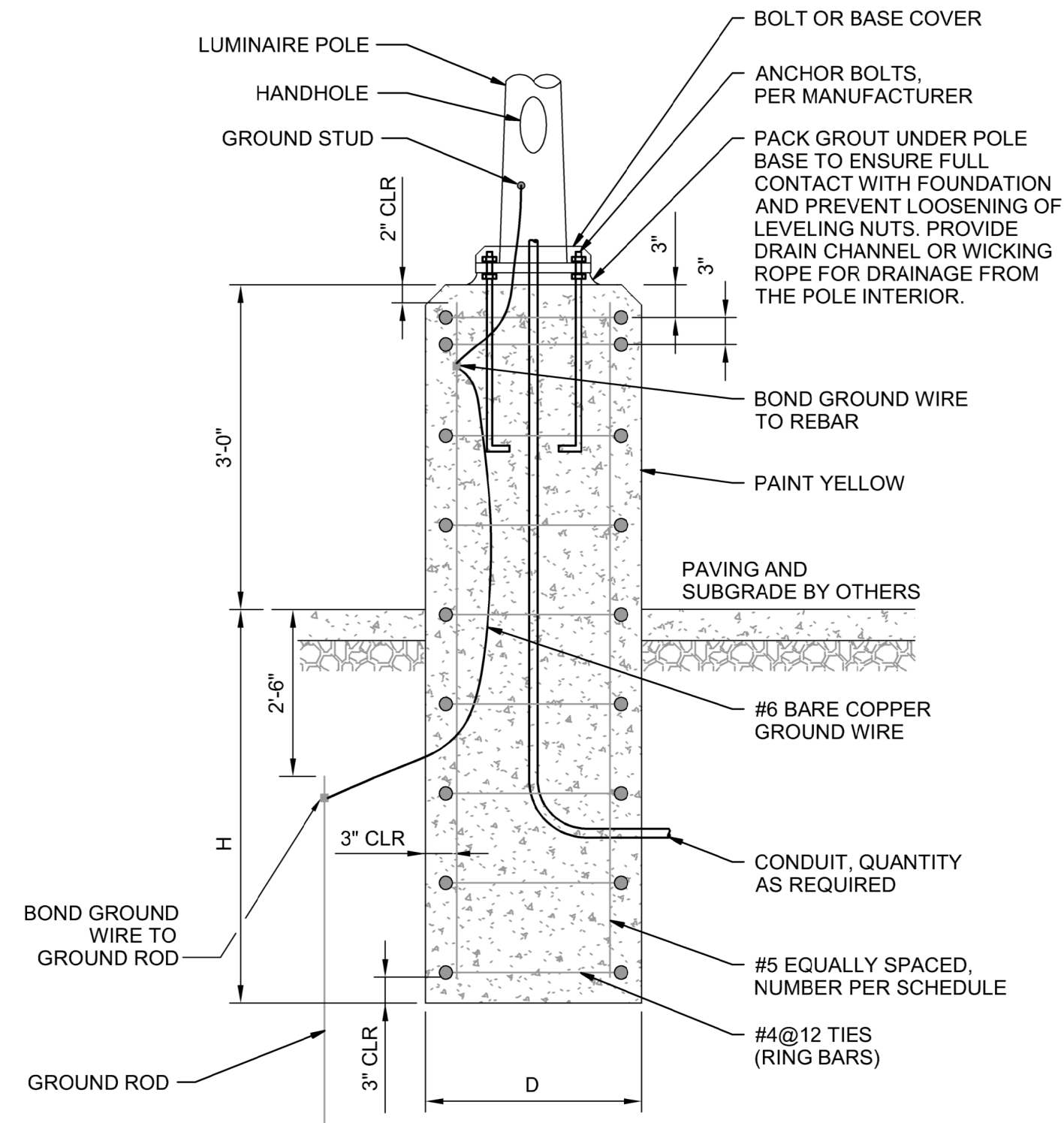
- NOTE THIS DETAIL:
1. GROUNDING ELECTRODES SHALL BE PROVIDED IN ACCORDANCE WITH NEC SECTION 250. ALL GROUNDING ELECTRODE CONDUCTORS SIZED AS INDICATED ON POWER RISER DIAGRAM. ALL METHODS OF CREATING THE GROUNDING SYSTEM MAY NOT BE REQUIRED OR AVAILABLE.

4
-
SERVICE GROUND DETAIL
NOT TO SCALE



- EXTERIOR LIGHTING CONTROLS NOTES:
1. TIME CLOCK SHALL BE ELECTRONIC, 2 CHANNEL, 7 DAY PROGRAMMABLE TYPE WITH DAYLIGHT SAVINGS, PERMANENT SCHEDULE RETENTION, 4 DAYS REAL TIME BACKUP AND NEMA 3R ENCLOSURE.
 2. ELECTRONICALLY HELD CONTACTOR IN NEMA 3R ENCLOSURE.

5
-
EXTERIOR LIGHTING CONTROLS DETAIL
NOT TO SCALE



6
-
LIGHTPOLE FOUNDATION AND
GROUNDING DETAIL
NOT TO SCALE



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| | |
| | |
| PROJECT NUMBER | 10354679 |



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ELECTRICAL DETAILS



FILENAME | 00E-08.dwg
SCALE | NOT TO SCALE

SHEET
00E-07