

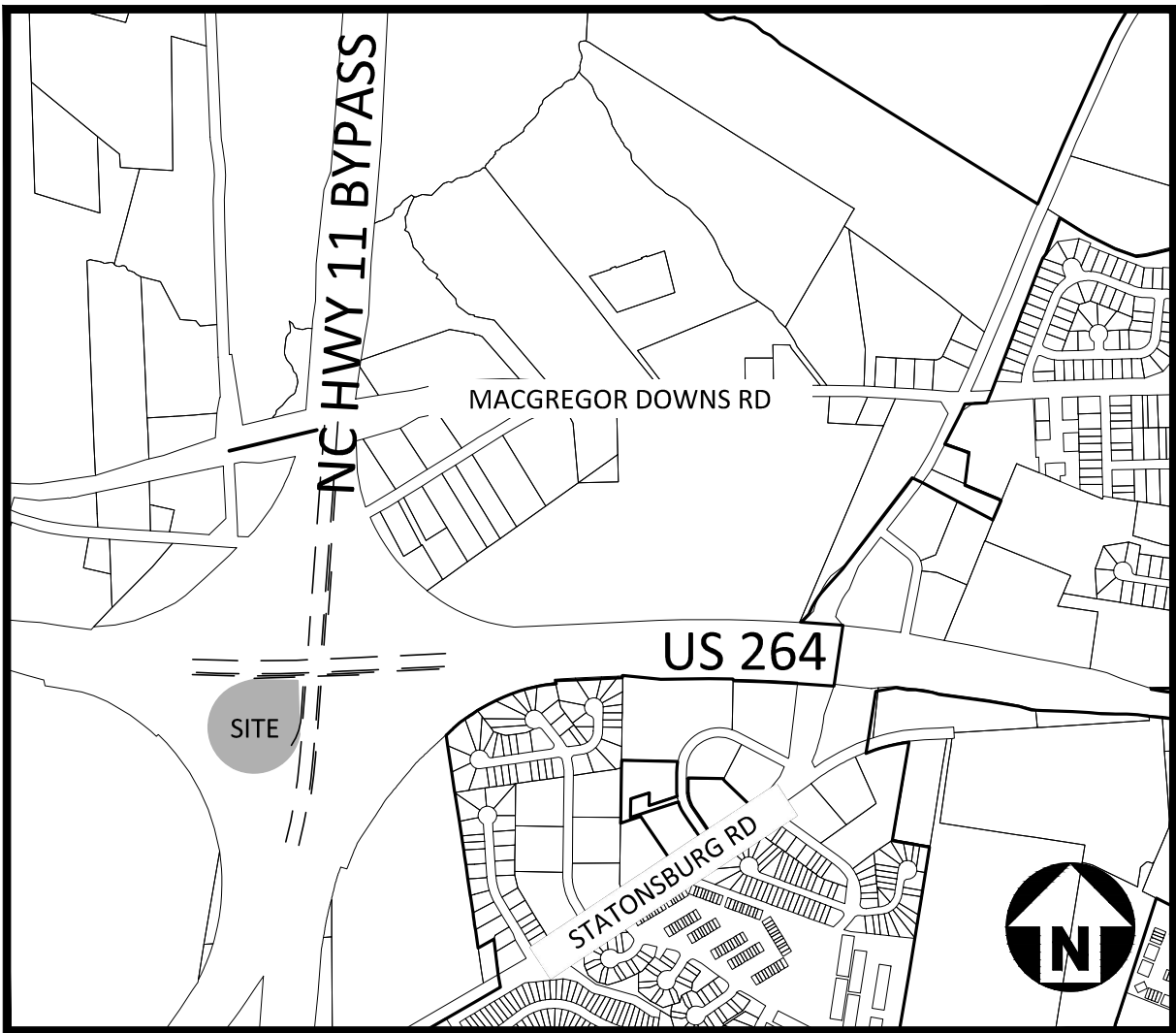
GREENVILLE SIGNAGE

GREENVILLE, NORTH CAROLINA

CONSTRUCTION DRAWINGS SIGN PACKAGE

PROJECT NUMBER: GVL21001

DATE: OCTOBER 26, 2023



VICINITY MAP
N.T.S.

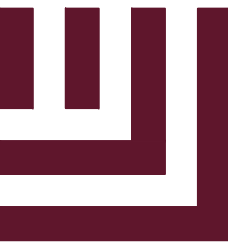
SHEET INDEX

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NOTE:
SHEETS C2.00, C3.00, AND L5.00 ARE PROVIDED FOR REFERENCE ONLY AND ARE NOT IN THE CONTRACT. THE CITY OF GREENVILLE WILL SELF-PERFORM THE WORK SHOWN ON THESE SHEETS AND WILL COORDINATE CONSTRUCTION OF THE SIGN WITH THE SIGN CONTRACTOR.

NCDOT CONDITIONS:

1. INDEMNIFICATION OF THE DEPARTMENT FROM LIABILITY FOR PERSONAL INJURY AND PROPERTY DAMAGE INCLUDING HIGHWAY RELATED DAMAGE.
2. NCDOT'S RIGHT TO REMOVE ART FROM THE RIGHT OF WAY DUE TO SAFETY/MAINTENANCE CONCERNS OR CONFLICT WITH FUTURE ROAD MAINTENANCE / CONSTRUCTION AT NO COST TO DOT.
3. NCDOT RESERVES THE RIGHT TO REPRODUCE ART FOR PROMOTIONAL PURPOSES WITHOUT PAYING COMPENSATION, REGARDLESS OF COPYRIGHT STATUS.
4. NCDOT RESERVES THE RIGHT TO ALTER INFRASTRUCTURE, LANDSCAPE, AN OTHER TRANSPORTATION RELATED ELEMENTS NEAR AND ADJACENT TO THE ART WHEN REQUIRED FOR MAINTENANCE AND OPERATION OF THE TRANSPORTATION ACILITY.



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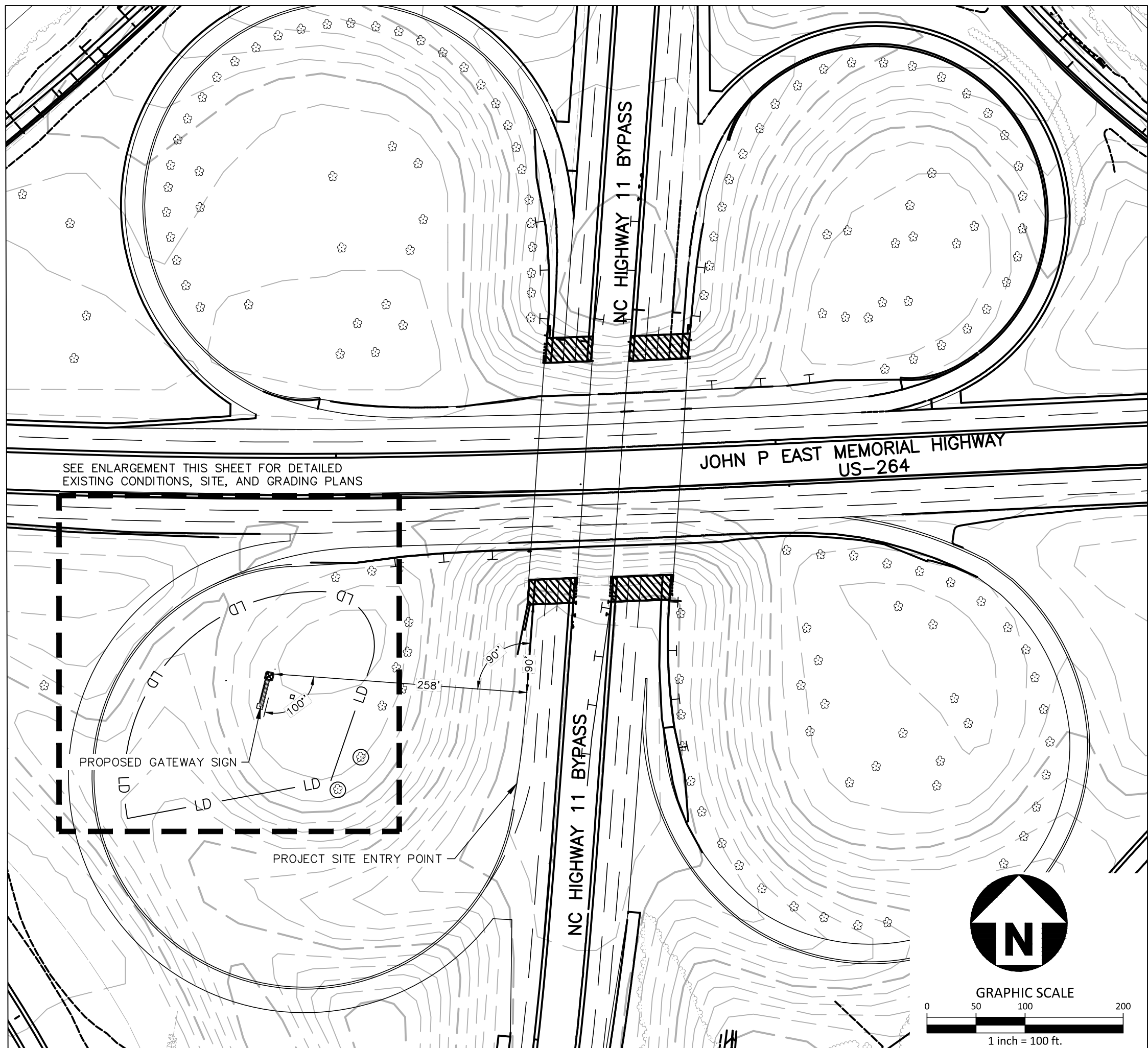


REVISIONS

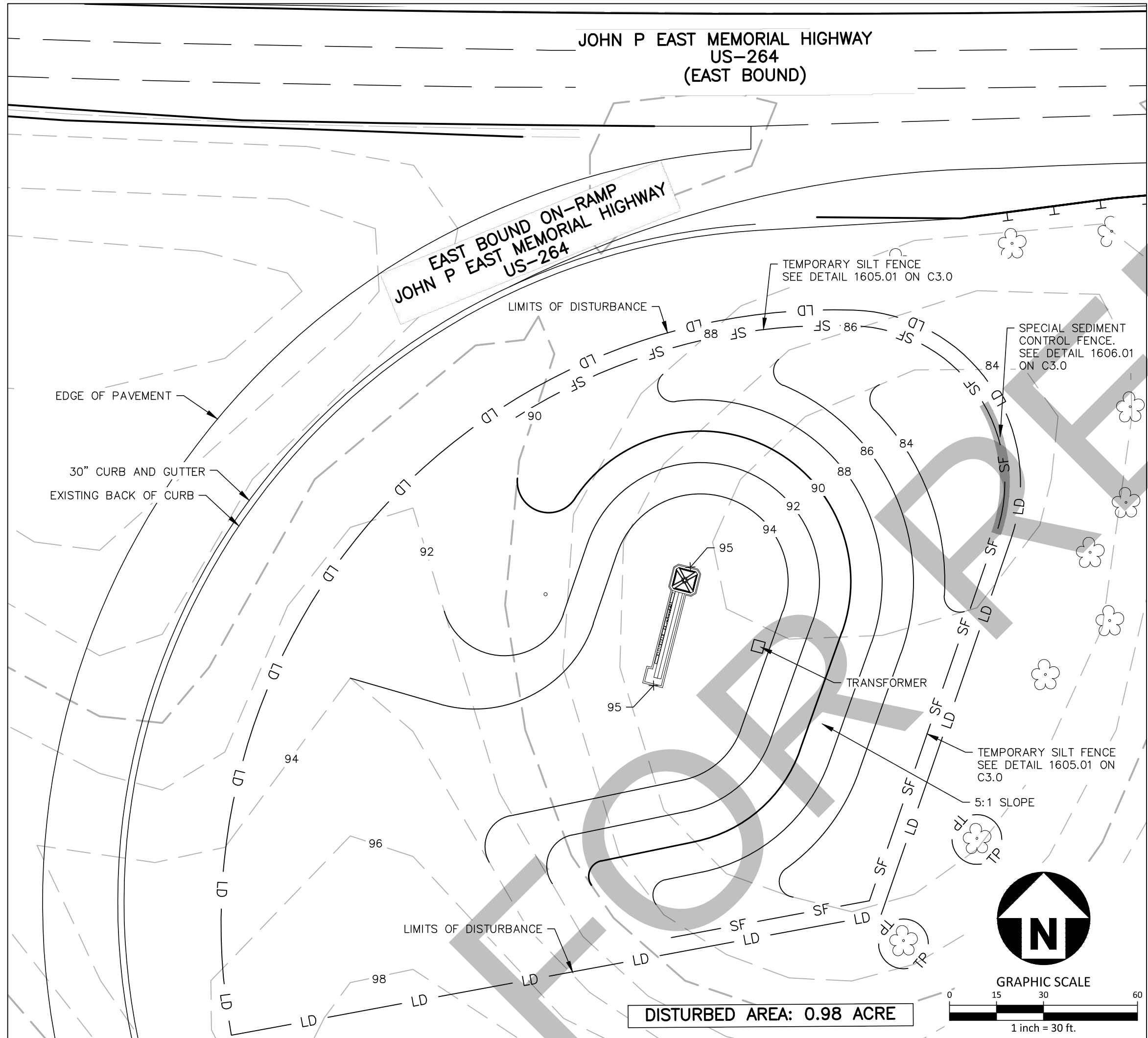
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CONSTRUCTION DRAWINGS FOR:

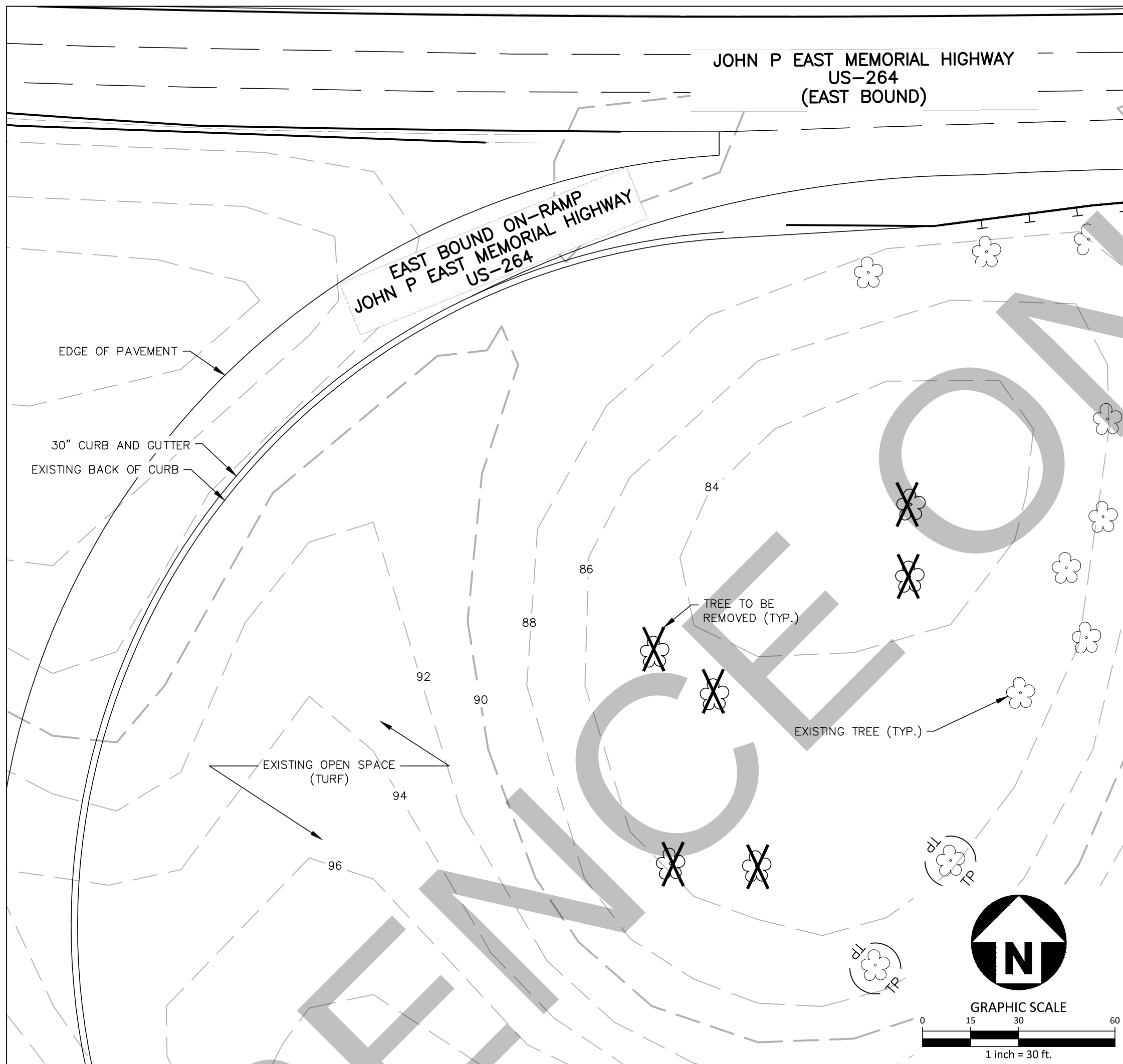
GREENVILLE SIGNAGE
GREENVILLE, NORTH CAROLINA
PROJECT NUMBER: GVL21001



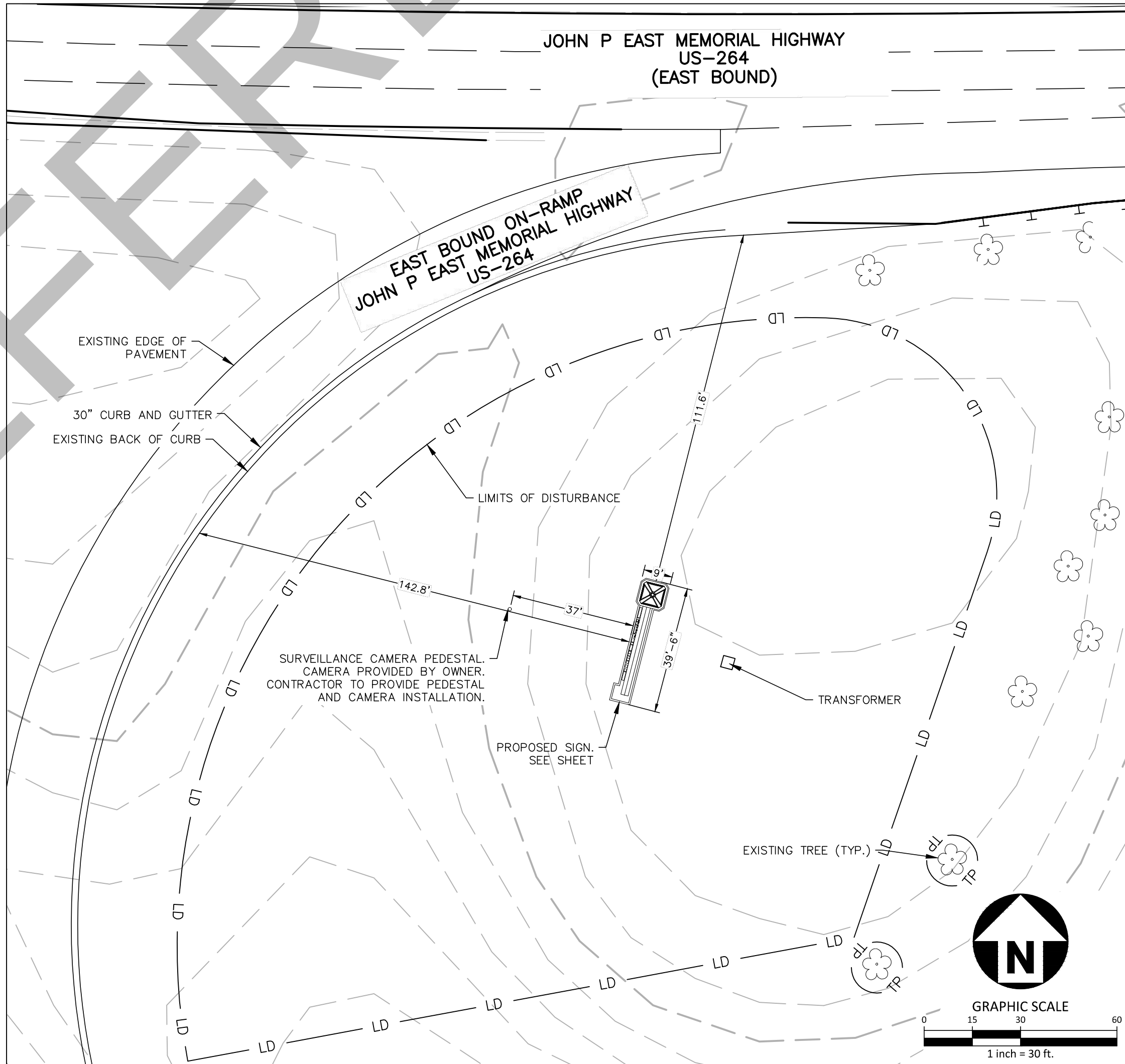
OVERALL MAP



GRADING PLAN



EXISTING CONDITIONS AND DEMOLITION PLAN



SITE PLAN

GENERAL SITE PLAN NOTES:

1. THIS CONSTRUCTION DOCUMENTS SET HAS BEEN CREATED TO ILLUSTRATE THE GENERAL DESIGN INTENT OF THE PROJECT. THE CONTRACTOR SHALL WORK CLOSELY WITH THE OWNER'S REP. AND NOTIFY HIM AS ADDITIONAL INFORMATION IS NEEDED TO PROPERLY CONSTRUCT/INSTALL/BUILD ELEMENTS DEPICTED HEREIN.
2. THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS TO THE EXTENT NECESSARY TO DETERMINE THE EFFECTS OF SUB-SURFACE CONDITIONS ON THE WORK AND SHALL BID AND CONSTRUCT THE WORK IN ACCORDANCE WITH HIS FINDINGS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES AND FOR AVOIDING ALL CONFLICTS WITH SAME. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
4. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES AND UNUSUAL CONDITIONS TO OWNER'S REP PRIOR TO CONSTRUCTION.
5. ALL DISTURBED AREAS AND PROPOSED EARTH GRADING NOT TO BE COVERED BY OTHER SURFACES SHALL BE GRASSED BY SEEDING, FERTILIZING, MULCHING, AND WATERING AS REQUIRED TO OBTAIN AN ACCEPTABLE GROUND COVER, UNLESS SPECIFIED OTHERWISE. ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION INSIDE OR OUTSIDE THE LIMIT OF WORK SHALL BE REPAIRED, GRADED, AND GRASSED AT THE CONTRACTOR'S EXPENSE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING PROPER DRAINAGE OF ANY AND ALL AREAS WHICH ARE FIELD ADJUSTED DURING CONSTRUCTION.
7. CONTRACTOR SHALL RESTORE DAMAGED FINISHES AND REPLACE DAMAGED OR DEFECTIVE UNITS.
8. CONTRACTOR SHALL STAKE ALL HARDSCAPE AREAS TO BE COMPLETED AND OBTAIN APPROVAL FROM OWNER'S REP. AND/OR LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE RESOLVED PRIOR TO CONSTRUCTION. ANY WORK PERFORMED WITHOUT APPROVAL IS AT RISK FOR REPLACEMENT BY THE CONTRACTOR.
9. ALL FIELD ADJUSTMENTS SHALL RECEIVE APPROVAL FROM OWNER'S REP. PRIOR TO CONSTRUCTION.
10. TEMPORARY EROSION & SEDIMENT CONTROLS (SILT FENCES, ETC.) SHALL BE INSTALLED AT INLETS, PIPES, AND LIMITS OF WORK AREAS WHERE SURFACE RUN-OFF OCCURS UNTIL SOIL STABILIZATION IS COMPLETE.
11. CONTRACTOR SHALL MAINTAIN ALL GRASSED AREAS, INCLUDING THE REPAIR OF EROSION AREAS UNTIL GRASS HAS REACHED THE LEVEL OF FINAL ACCEPTANCE.
12. ALL EXISTING TREES TO BE SAVED WILL HAVE TREE BARRICADES INSTALLED AROUND THEM PRIOR TO BEGINNING OF DEMOLITION. ALL WORK IN THOSE AREAS TO BE DONE BY HAND. FENCES SHALL BE MAINTAINED AND KEPT IN PLACE AT ALL TIMES.
13. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ALL LOCAL, STATE, AND FEDERAL AGENCIES AND REGULATIONS.
14. CONTRACTOR SHALL PROTECT THE PUBLIC FROM CONSTRUCTION AREAS AND ASSOCIATED ACTIVITY DURING CONSTRUCTION.
15. DIGITAL BASE FILE SHALL BE MADE AVAILABLE FOR USE IN FIELD LOCATION OF ELEMENTS AND SITE FEATURES. ANY HARD COPY INFORMATION THAT CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REP. AND/OR LANDSCAPE ARCHITECT. HARD COPY INFORMATION SHALL PREVAIL.
16. CONTRACTOR SHALL COORDINATE CONDUIT LOCATIONS (I.E., ELECTRICAL, ETC.)
17. NO SPECIMEN TREES FOUND ON SITE. NO SPECIMEN TREES TO BE REMOVED.

GENERAL LAYOUT NOTES:

1. ALL DIMENSIONS ARE TO EDGE OF PAVING UNLESS OTHERWISE INDICATED.

2. BASE MAP INFORMATION AND TOPOGRAPHY FROM NCDOT DESIGN DRAWINGS PROVIDED BY OWNER.

GENERAL GRADING NOTES:

1. NO DEMOLITION TO OCCUR PRIOR TO PRE-CONSTRUCTION MEETING.
2. EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO ANY WORK BEING DONE.
3. WASHED STONE AND WIRE BACKING SHALL BE USED WITH SILT FENCE WHENEVER SILT FENCE IS PLACED AT THE TOE OF A SLOPE >10° VERTICAL OR ALONG ANY CHANNEL OR WATER COURSE WHERE 50' OF BUFFER IS NOT PROVIDED.
4. CONSTRUCTION OPERATION SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
5. ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATION MATTER, WASTE CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. SAID MATERIAL SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER THE TAMPING BLOWS OR PROOF ROLLING.
6. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDING & STRUCTURE FOUNDATIONS.
7. EXISTING SPOT ELEVATIONS TO BE FIELD VERIFIED.
8. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER, UNLESS CERTIFIED BY REGISTERED GEOTECHNICAL ENGINEER.
9. FOR SLOPES GREATER THAN 10° IN LENGTH AND PROTECTED BY SILT FENCE AT THE TOE OF THE SLOPE, SLOPE TERRACING WILL BE REQUIRED.
10. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVERSIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE BEING CONSTRUCTED. SPILLWAYS SHOULD NOT BE CONSTRUCTED THROUGH FILL SECTIONS. ALL SPILLWAYS SHOULD BE LINED AND/OR RIP-RAPPED.
11. ALL DISTURBED AREAS TO BE SEEDED PER THE SCHEDULE ON L5.00.

GRADING NOTES

1. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION, FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
2. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER, PROVIDED BY CONTRACTOR RESPONSIBLE FOR EXCAVATION.
3. CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
4. A PRE-CONSTRUCTION CONFERENCE WILL BE HELD PRIOR TO ANY LAND DISTURBING ACTIVITY. AS DEEMED NECESSARY, THE OWNER, ENGINEER, CONTRACTOR, AND REPRESENTATIVES FROM NCDOT WILL BE INVITED TO ATTEND THE MEETING.
5. CONSTRUCTION, MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. TIMING OF REMOVAL SHALL BE COORDINATED WITH NCDOT AND THE OWNER REPRESENTATIVE.
6. SOIL UNDER FOUNDATIONS AND WITHIN SLOPES LESS THAN 4:1 (H:V) SHALL BE APPROVED, PLACED AND COMPACTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

GRADING LEGEND

	DRAINAGE FLOW ARROW
+ 250.60	SPOT ELEVATION
— TP — TP — TP —	TREE PROTECTION FENCE
— LD — LD — LD —	LIMITS OF DISTURBANCE
— SF — SF — SF —	SILT FENCE
— SF — SF — SF —	SPECIAL SILT FENCE
250	MAJOR CONTOUR
252	MINOR CONTOUR
250	EXISTING MAJOR CONTOUR
252	EXISTING MINOR CONTOUR

NOTES:

1. NO STORAGE OF MATERIALS, PARKING OF VEHICLES OR DELIVERIES SHALL TAKE PLACE OUTSIDE OF THE LIMIT OF WORK.
2. ALL WORK SHALL BE CONTAINED TO THE LIMIT OF WORK AS SHOWN ON THE PLANS.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.



PLANS PROVIDED FOR REFERENCE ONLY. WORK SHOWN IS NOT IN CONTRACT. CITY OF GREENVILLE TO PROVIDE ALL DEMOLITION, GRADING AND LANDSCAPING SCOPE.



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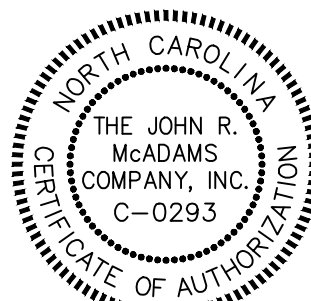
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GREENVILLE GATEWAY
SIGNAGE
GREENVILLE, NORTH CAROLINA



REVISIONS

NO. DATE

PLAN INFORMATION

PROJECT NO. GVL21001
FILENAME GVL21001-S1
CHECKED BY EMD
DRAWN BY JJB
SCALE PER PLAN
DATE 10. 26. 2023

SHEET

OVERALL, SITE, GRADING
AND EXISTING
CONDITIONS PLANS

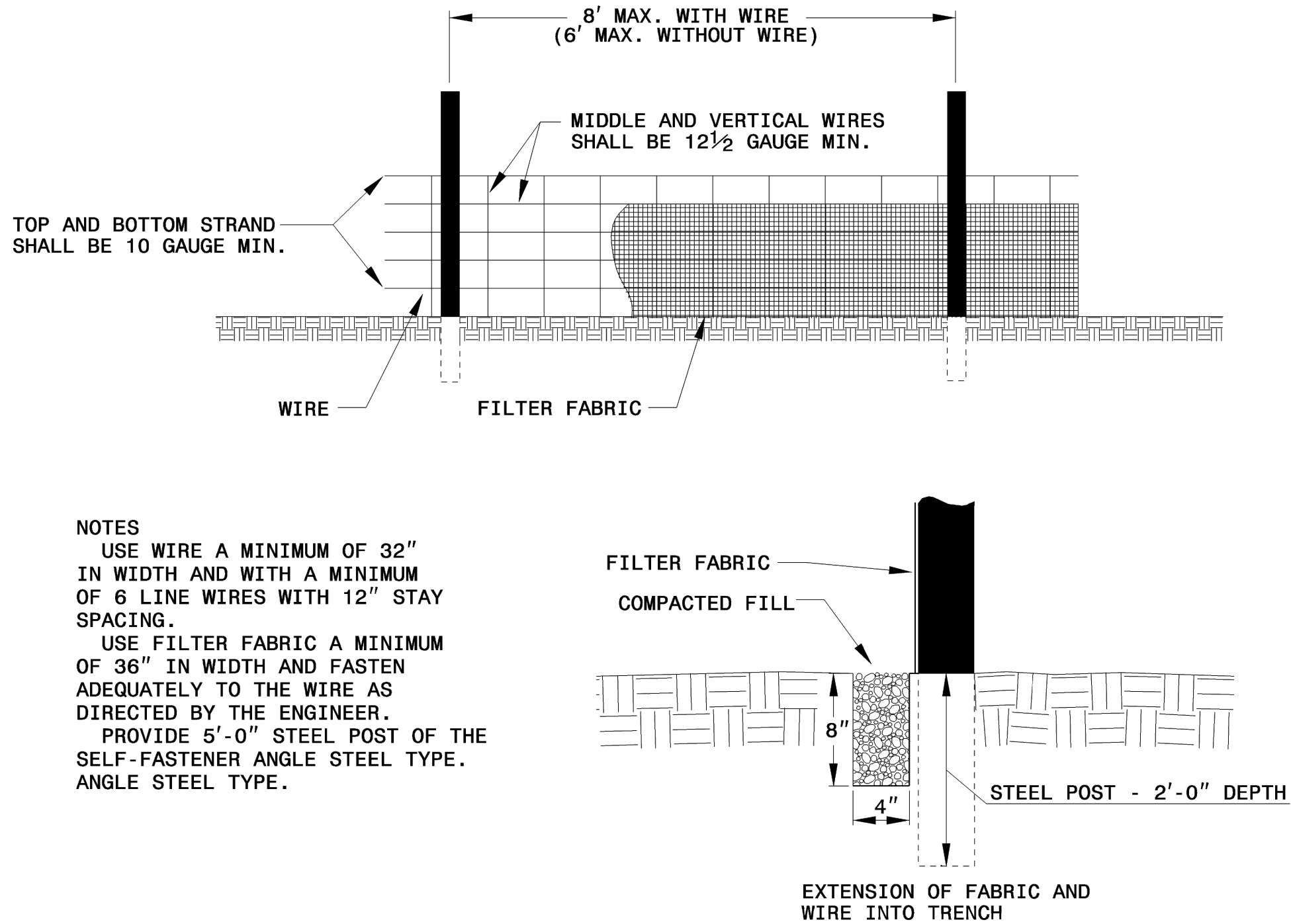
C2.00

STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR
TEMPORARY SILT FENCE

SHEET 1 OF 1
1605.01



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

7-06

ENGLISH STANDARD DRAWING FOR
TEMPORARY SILT FENCE

SHEET 1 OF 1
1605.01



McAdams

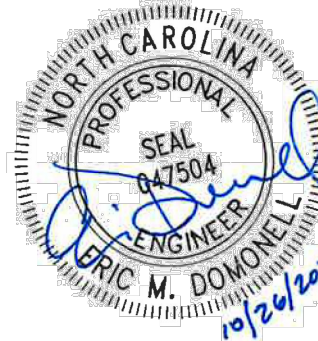
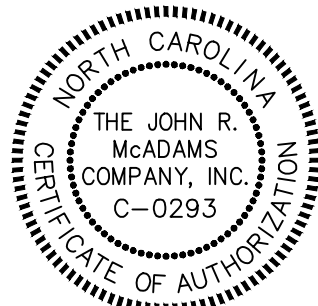
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GREENVILLE GATEWAY
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REVISIONS

NO. DATE

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PROJECT NO. GVL21001
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SHEET

DETAILS

C3.00

PLANS PROVIDED FOR REFERENCE ONLY. WORK SHOWN IS NOT IN CONTRACT. CITY OF GREENVILLE TO PROVIDE ALL DEMOLITION, GRADING AND LANDSCAPING SCOPE.

NC DOT SEEDING SPECIFICATION
STABILIZATION REQUIREMENTS:
(9-11-2016)
Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective April 1, 2019 issued by the North Carolina Department of Environmental Quality Division of Water Resources. Temporary or permanent ground cover stabilization shall occur within 7 calendar days from the last land-disturbing activity, with the following exceptions in which temporary or permanent ground cover shall be provided in 14 calendar days from the last land-disturbing activity:
Slopes between 2:1 and 3:1, with a slope length of 10 ft. or less
Slopes 3:1 or flatter, with a slope of length of 50 ft. or less
Slopes 4:1 or flatter
The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A-NCAC 09A.0205 (25). Temporary and permanent ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed.

SEEDING AND MULCHING: (East)
The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined. All rates are in pounds per acre.

All Roadway Areas
March 1 - August 31
September 1 - February 28
50# Tall Fescue
10# Centipede
25# Bermudagrass (hulled)
35# Bermudagrass (unhulled)
500# Fertilizer
4000# Limestone

On cut and fill slopes 2:1 or steeper Centipede shall be applied at the rate of 5 pounds per acre and add 20# of Service Limestone from January 1 - December 31.
Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

TEMPORARY SEEDING:
Fertilizer shall be the same analysis as specified for Seeding and Mulching and applied at the rate of 400 pounds and seeded at the rate of 50 pounds per acre. Sweet Sudan Grass, German Millet or Browntop Millet shall be used in summer months and Rye Grain during the remainder of the year. The Engineer will determine the exact dates for using each kind of seed.

FERTILIZER TOPDRESSING:
Fertilizer used for topdressing on all roadway areas except slopes 2:1 and steeper shall be 10-20-20 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 10-20-20 analysis and as directed.
Fertilizer used for topdressing on slopes 2:1 and steeper and waste and borrow areas shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. A different analysis of fertilizer may be used provided the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis and as directed.

SUPPLEMENTAL SEEDING:
The kinds of seed and proportions shall be the same as specified for Seeding and Mulching, with the exception that no centipede seed will be used in the seed mix for supplemental seeding. The rate of application for supplemental seeding may vary from 25# to 75# per acre. The actual rate per acre will be determined prior to the time of topdressing and the Contractor will be notified in writing of the rate per acre, total quantity needed, and areas on which to apply the supplemental seed. Minimum tillage equipment, consisting of a sod seeder shall be used for incorporating seed into the soil as to prevent disturbance of existing vegetation. A clodbuster (ball and chain) may be used where degree of slope prevents the use of a sod seeder.

MOWING:
The minimum mowing height on this project shall be 4 inches.

NOTES:

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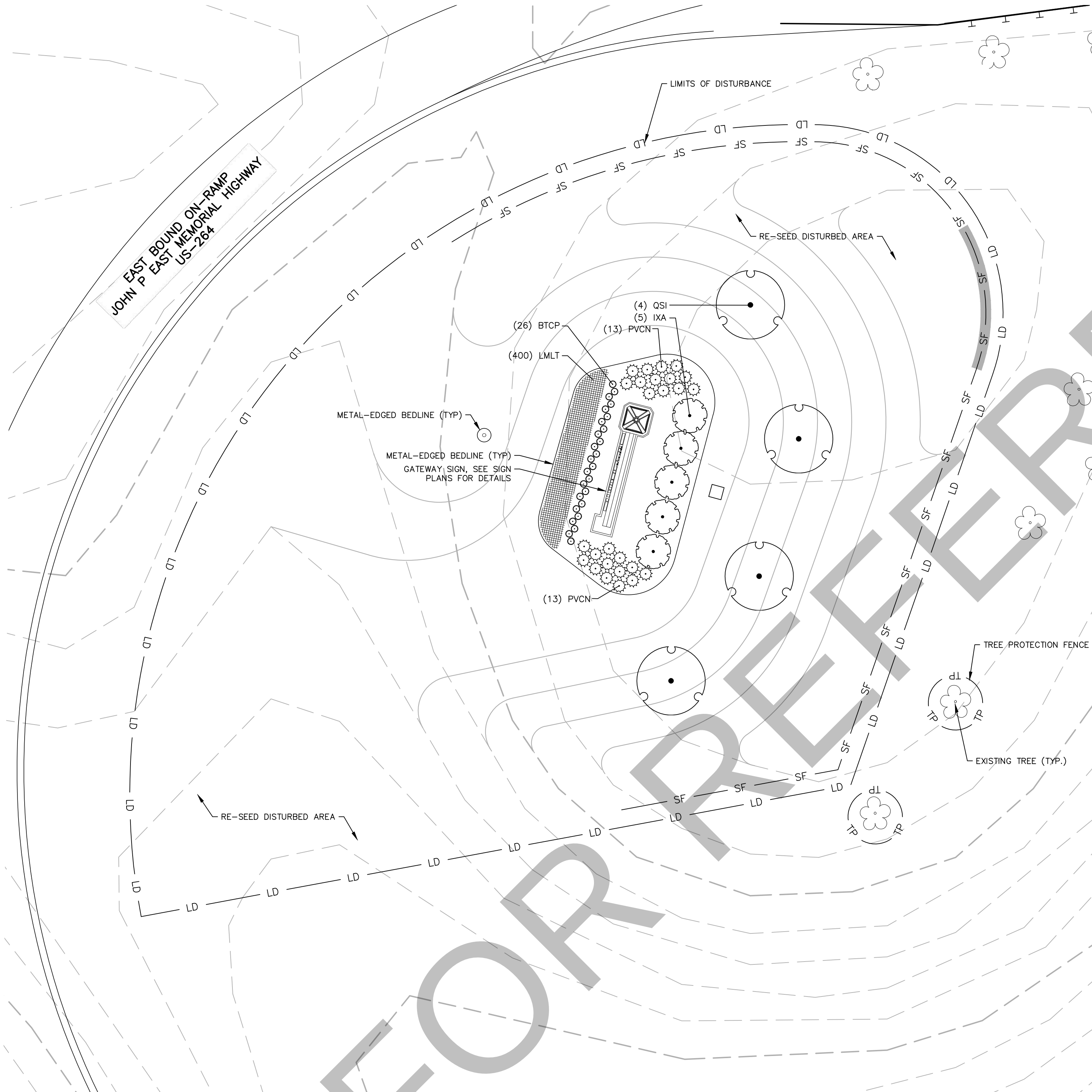
PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CAL	
	IXA	5	Ilex x attenuata 'Foster' Foster's Holly	3" min	
	QSI	4	Quercus shumardii Shumard Oak	3" min	
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	HEIGHT	
	BTCP	26	Berberis thunbergii 'Crimson Pygmy' Crimson Pygmy Japanese Barberry	12" min	
	PVCN	26	Panicum virgatum 'Cloud Nine' Cloud Nine Switch Grass	15 gal	
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING
	LMLT	399	Liriope muscari Lilyturf	Flat	12" o.c.
	DOTM	38,984 sf	NCDOT stabilization seed mix See NCDOT Specifications	Seed	

GENERAL LANDSCAPE NOTES:

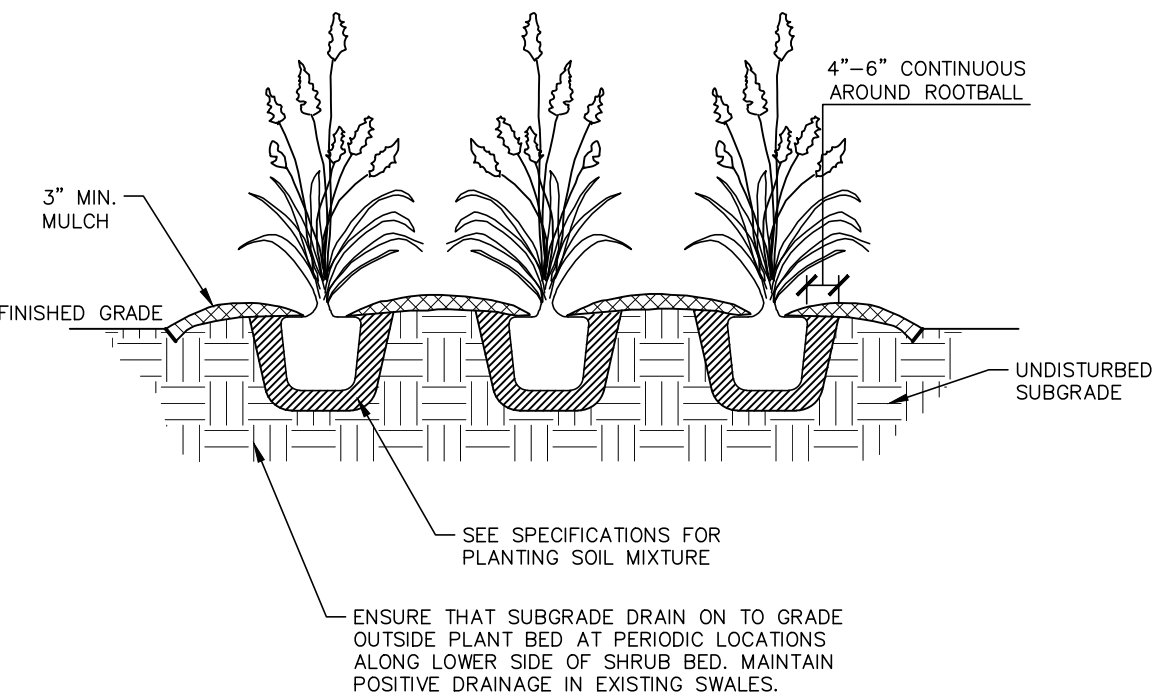
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF GREENVILLE AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR THE SITE INSPECTION BEFORE LANDSCAPE CONSTRUCTION AND INSTALLATION IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BEFORE BEGINNING DEMOLITION OR INSTALLATION.
- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE NOTES, SPECIFICATIONS, DRAWINGS OR SITE CONDITIONS FOR RESOLUTION PRIOR TO INSTALLATION.
- ANY DAMAGE TO UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THIS PLAN IS FOR PLANTING PURPOSES ONLY. FOR INFORMATION REGARDING STRUCTURES, GRADING, ETC., REFER TO STRUCTURAL, SITE AND GRADING PLANS.
- VERIFICATION OF TOTAL PLANT QUANTITIES AS SHOWN IN THE PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
- CONTRACTOR TO ENSURE PROPER STABILIZATION AND SEEDING OF THE SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.
- LANDSCAPE MATERIAL SHALL BE WELL FORMED, VIGOROUS, GROWING SPECIMENS WITH GROWTH TYPICAL OF VARIETIES SPECIFIED AND SHALL BE FREE FROM DAMAGE, INSECTS AND DISEASES. MATERIAL SHALL EQUAL OR SURPASS #1 QUALITY AS DEFINED IN THE CURRENT ISSUE OF "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
- ALL PLANT MATERIAL IS TO BE CAREFULLY HANDLED BY THE ROOT BALL, NOT THE TRUNK, BRANCHES AND/OR FOLIAGE OF THE PLANT. MISHANDLED PLANT MATERIAL MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
- ALL PLANT MATERIAL IS TO BE WELL ROOTED, NOT ROOT BOUND, SUCH THAT THE ROOT BALL REMAINS INTACT, THROUGHOUT THE PLANTING PROCESS. DEFICIENT PLANT MATERIAL MAY BE REJECTED BY THE LANDSCAPE ARCHITECT OR OWNER.
- ALL PLANTS TO BE A MINIMUM OF WHAT IS SPECIFIED IN THE PLANT SCHEDULE. ANY CHANGES OR SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND GOVERNING JURISDICTION PRIOR TO ANY HOLE BEING DUG.
- CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT TO ESTABLISH THE EXTENTS OF MULCH/SEED/SOD IF NOT SPECIFICALLY SHOWN ON PLANS.
- CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN ALL PLANTING AREAS.

- CONTRACTOR SHALL COMPLETE SOIL TEST IN ALL PLANTING AREAS TO DETERMINE SOIL AMENDMENT REQUIREMENTS. CONTRACTOR SHALL ADJUST PH AND FERTILITY BASED UPON THE SOIL TEST RESULTS.
- TOPSOL SHALL BE FREE OF MATERIAL LARGER THAN 1.0 INCH IN DIAMETER OR LENGTH AND SHALL NOT CONTAIN SLAG, CINDERS, STONES, LUMBS OF SOIL, STICKS, ROOTS, TRASH OR OTHER EXTRANEOUS MATERIAL.
- LOOSEN SUBGRADE / SURFACE SOIL TO A MINIMUM DEPTH OF 6 INCHES. APPLY SOIL AMENDMENTS AND FERTILIZERS AS REQUIRED BY THE SOIL TEST RESULTS TO ACHIEVE A HEALTHY GROWING MEDIA AND MIX THOROUGHLY INTO TOP 4 INCHES OF SOIL. SPREAD PLANTING SOIL MIX TO A DEPTH OF 6 INCHES BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
- IF IMPORTED TOPSOIL IS REQUIRED, THE SUBGRADE SHALL BE SCARIFIED OR TILLED TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO INSTALLATION OF IMPORTED TOPSOIL. FOLLOWING INSTALLATION OF IMPORTED TOPSOIL, THE TOPSOIL SHALL BE TILLED TO INTEGRATE THE SOIL PROFILES.
- PLANT MATERIALS ARE TO BE GUARANTEED FOR A PERIOD OF 12 MONTHS. PLANT MATERIALS WHICH REMAIN UNHEALTHY WILL BE REPLACED BY THE LANDSCAPE CONTRACTOR BEFORE THE EXPIRATION OF THE GUARANTEE PERIOD.
- ALL TREE PLANTINGS SHALL BE MULCHED TO A DEPTH OF 3 INCHES, AND WITH A MINIMUM 3 FOOT RADIUS FROM BASE OF TREE OR TO CURBLINE. MULCH SHALL BE FREE OF TRASH AND MAINTAINED WEED FREE. MULCH SHALL NOT COVER THE ROOT FLARE. CONFIRM MULCH SPECIFICATIONS WITH OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT.
- DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF EXTERIOR PLANTS DURING DELIVERY. DO NOT DROP EXTERIOR PLANTS DURING DELIVERY AND HANDLING.
- DELIVER EXTERIOR PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND INSTALL IMMEDIATELY. IMMEDIATELY AFTER UNLOADING, STAND THE TREES UP TO REDUCE THE RISK OF SUN SCALD. PROPERLY STAGED TREES ARE STANDING, UNUNITED AND SPACED. UNLESS IMMEDIATELY INSTALLED, SET EXTERIOR PLANTS AND TREES IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.
- SEE LANDSCAPE DETAILS FOR TREE STAKING REQUIREMENTS.
- EXCAVATE EDGES OF ALL PLANTING BEDS TO 2 INCH DEPTH TO FORM A NEAT AND CRISP DEFINITION.
- CONTRACTOR SHALL REMOVE DEBRIS AND FINE GRADE ALL PLANTING AREAS PRIOR TO INSTALLATION.
- REMOVE GUY WIRES AND STAKES AT END OF WARRANTY PERIOD OR ESTABLISHMENT.
- FINISH GRADING: GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN PLUS OR MINUS 1/2 INCH OF FINISH ELEVATION. ROLL AND RAKE. REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINISHED GRADING TO AREAS THAT CAN BE PLANTED IN THE IMMEDIATE FUTURE.



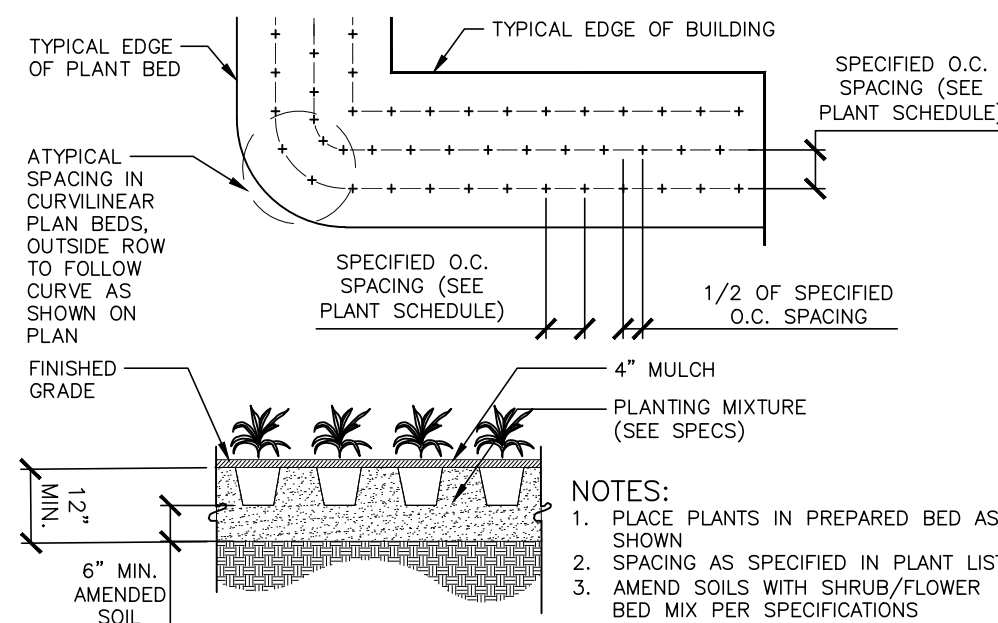
01 TREE INSTALLATION

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



03 ORNAMENTAL GRASS PLANTING

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

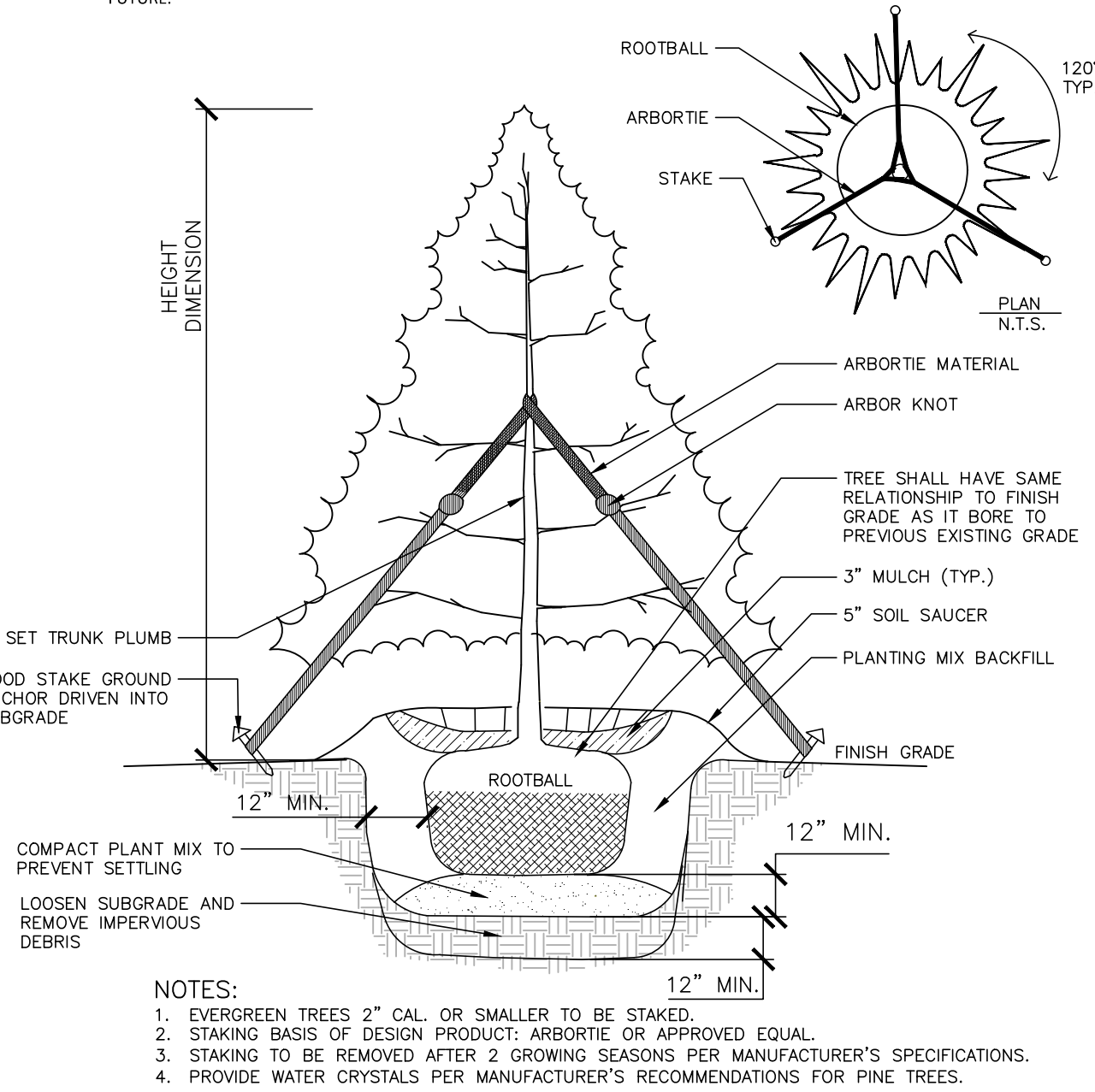


05 GROUND COVER PLANTING

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

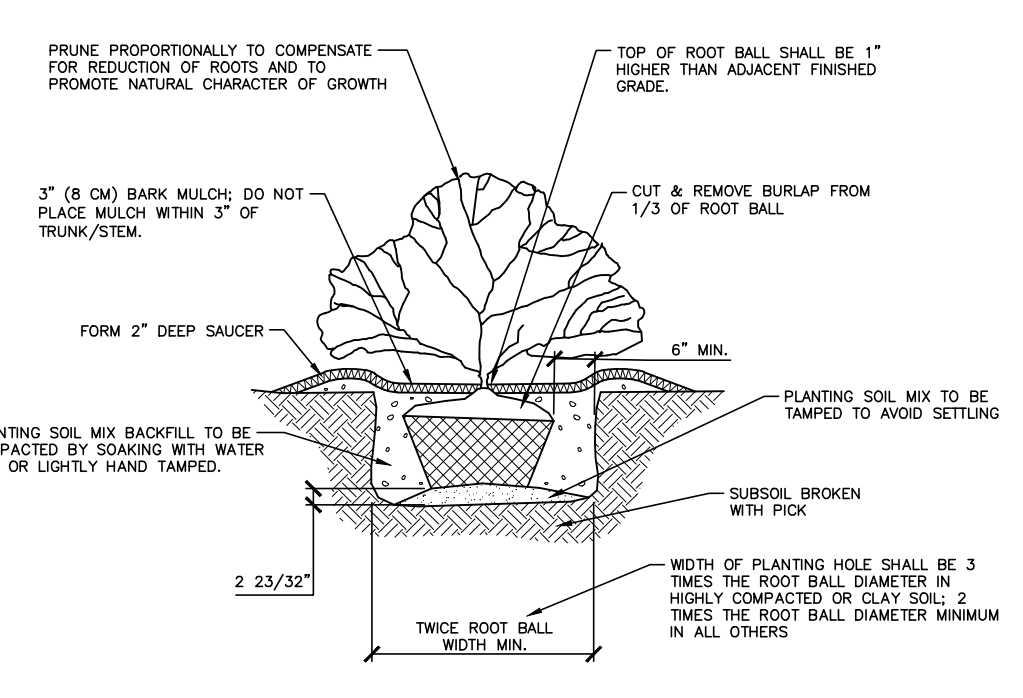
02 EVERGREEN TREE INSTALLATION

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

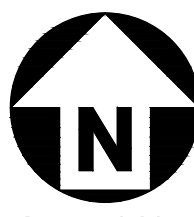


04 SHRUB INSTALLATION

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



CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.



0 10 20 40
1 inch = 20 ft.

McAdams
The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713
phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT

CITY OF GREENVILLE
200W 5TH ST
GREENVILLE, NORTH CAROLINA
PHONE: 252. 329. 4521



GREENVILLE GATEWAY SIGNAGE

GREENVILLE, NORTH CAROLINA



REVISIONS

NO. DATE

PLAN INFORMATION

PROJECT NO. GVL21001
FILENAME GVL21001-L51
CHECKED BY JBG
DRAWN BY JBG
SCALE 1"=20'
DATE 10. 26. 2023

SHEET

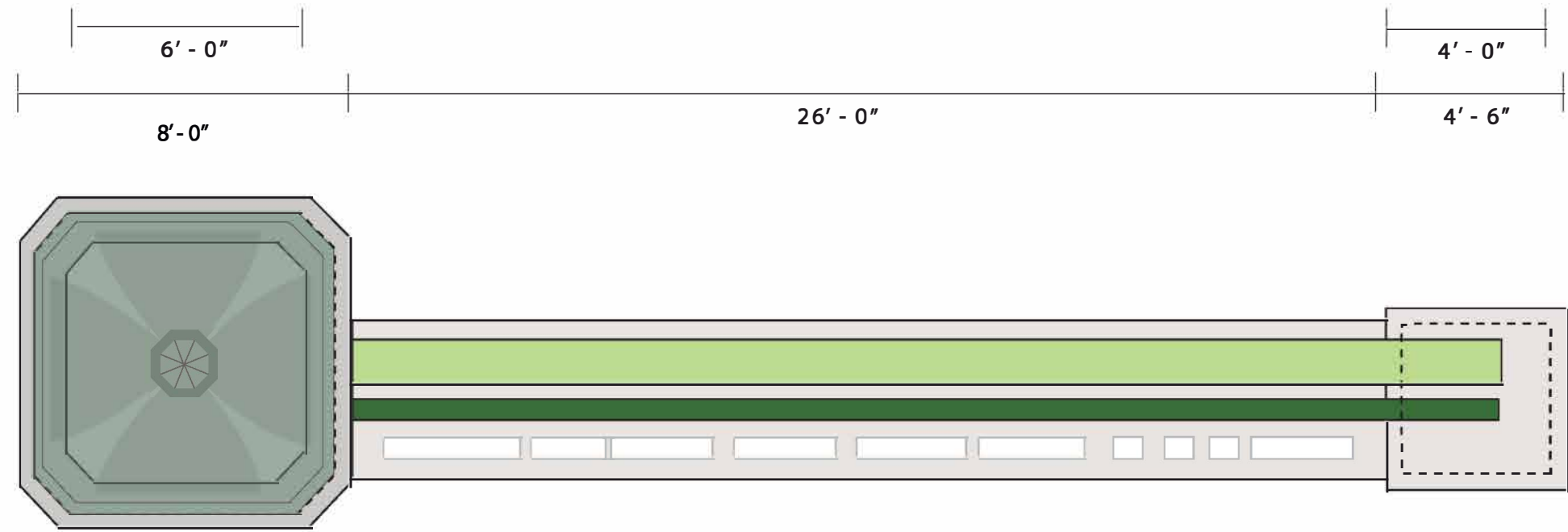
LANDSCAPE PLAN AND NOTES

L5.00

LANDSCAPE PLAN

PLANS PROVIDED FOR REFERENCE ONLY. WORK SHOWN IS NOT IN CONTRACT. CITY OF GREENVILLE TO PROVIDE ALL DEMOLITION, GRADING AND LANDSCAPING SCOPE.

- NOTES:
1. PAINT COLORS TO BE THE BRAND MATTHEWS.
LIGHT GRAY: MP 02650 GARBO SILVER
DARK GREEN: MP22118 FOREST PARC GREEN
LIGHT GREEN: MP11856 LASER LIME
PATINA: MP56851 BLUE SMOKE WITH BROWN AND WHITE ACCENT
WASH PER BASIS OF DESIGN

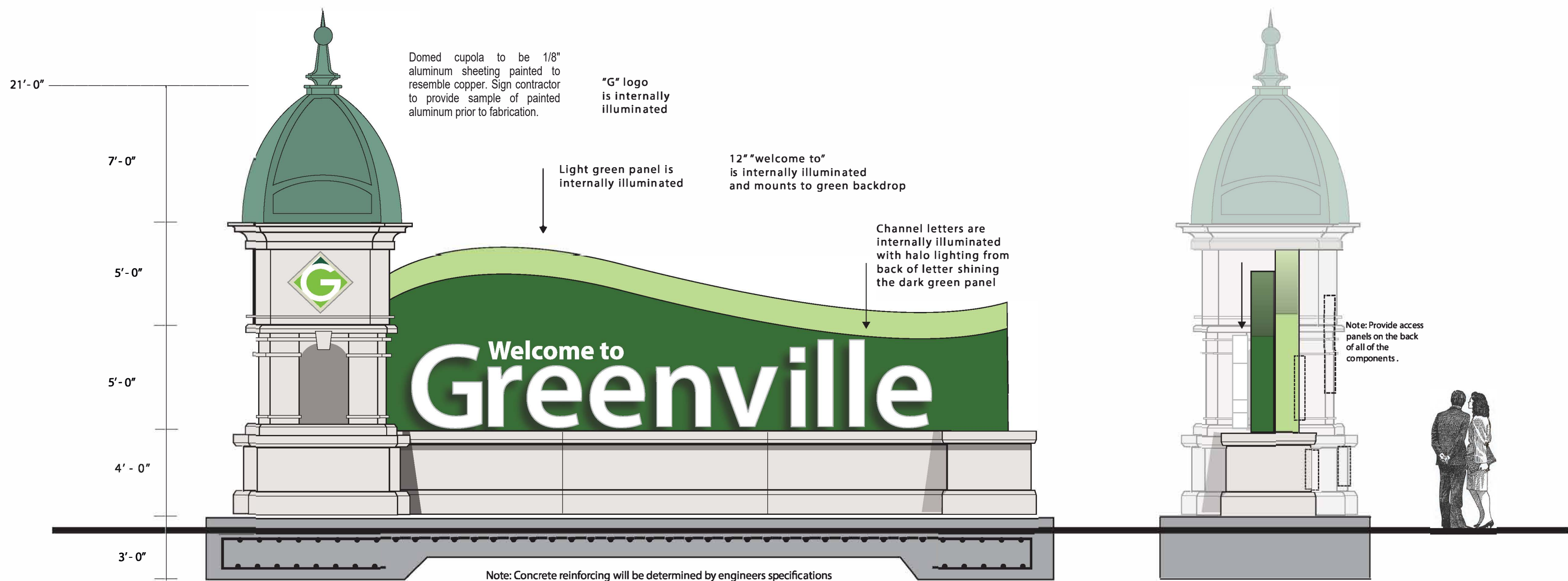


Note, if we fabricated this tower and cupola in true octagon shape it would be too large, making the signage portion of the gateway appear small. Therefore we created a beveled 8-sided structure.



CUPOLA BASIS OF DESIGN
SIGN CONTRACTOR TO MATCH APPEARANCE OF CUPOLA PER THIS BASIS OF DESIGN. SEE NOTES ON THIS SHEET FOR COLOR

Right Side View



General Fabrication Notes:

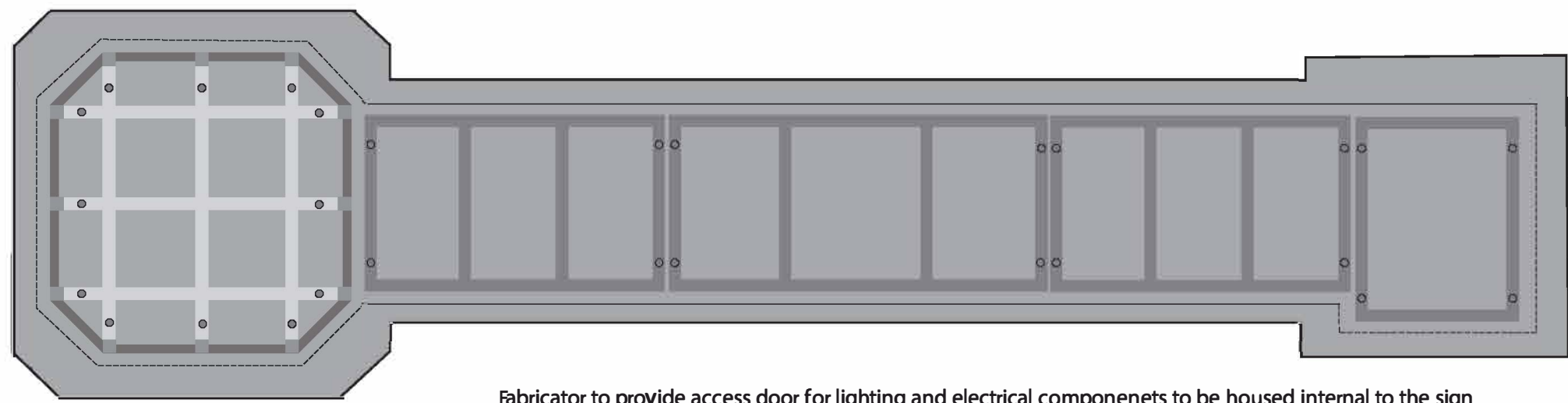
The entire tower structure is fabricated using 1/8" aluminum sheeting on frame structure for all vertical surfaces. Horizontal surfaces will require 1/4" thick aluminum sheeting for load bearing purposes. The aluminum frame system requires 4"x4" aluminum sq. tubing. All joints are welded and ground smooth. Aluminum sheeting is welded to the frame from the inside of the cabinets.

Based on the plan, the entire structure is shop fabricated as 8- separate components that assemble on site and stack as a final unit. Access doors will be placed in the back side of the unit to allow room for assembly and maintenance.

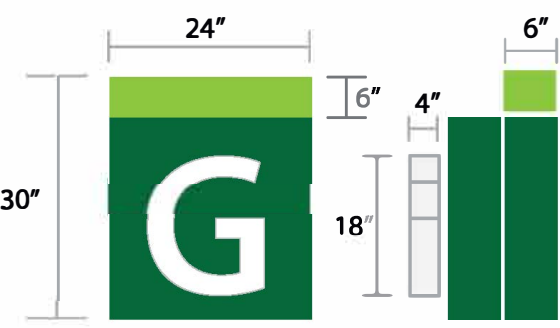
All letters custom fabricated internally illuminated aluminum channel letters with white LED lighting system. All wiring, transformers and controllers will be hidden inside the green sign cabinet. The large "Greenville" channel letters have an illuminated faced and halo lighting back. The return thickness is 10" . They are stem mounted to the sign base and reinforced with mounting studs into the green backdrop panel.

The sign backdrop panels are self supporting fabricated 1/8" aluminum cabinets built in three sections. The lighted, curved accent is fabricated like a channel letter with green translucent sign face.

Before final fabrication - the sign company will be required to provide the City of Greenville a fabricated - lighted test panel showing the white LED lighting and the curved accent top panel.

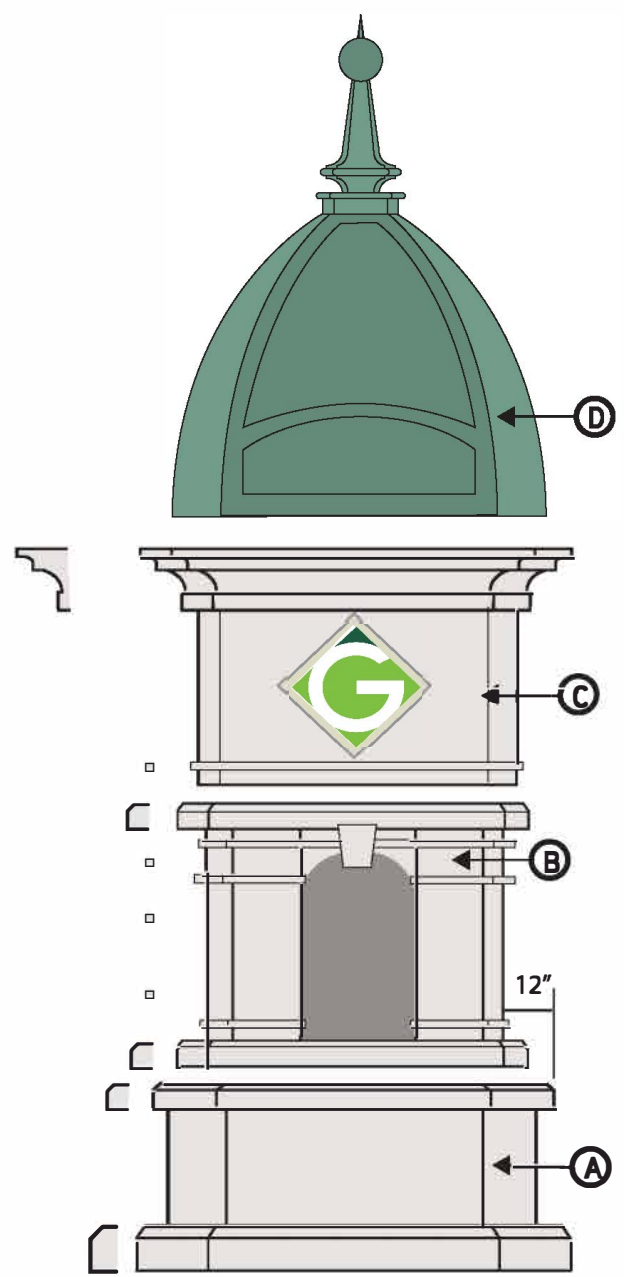


Fabricator to provide access door for lighting and electrical components to be housed internal to the sign



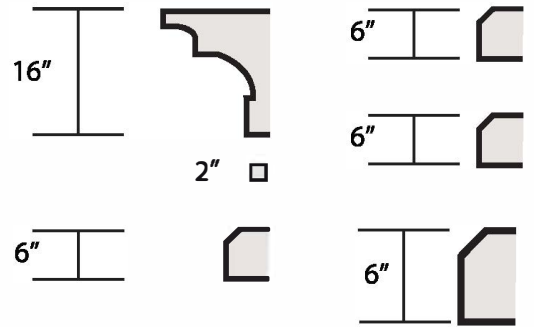
Mock Up Dimensions

SHEET A1.00



Extruded Aluminum Trim Details

Note: Extruded metal details and cupola can be fabricated by KW Sheet Metal and Gutter Supply. In Durham NC | Phone: (919) 544-8887



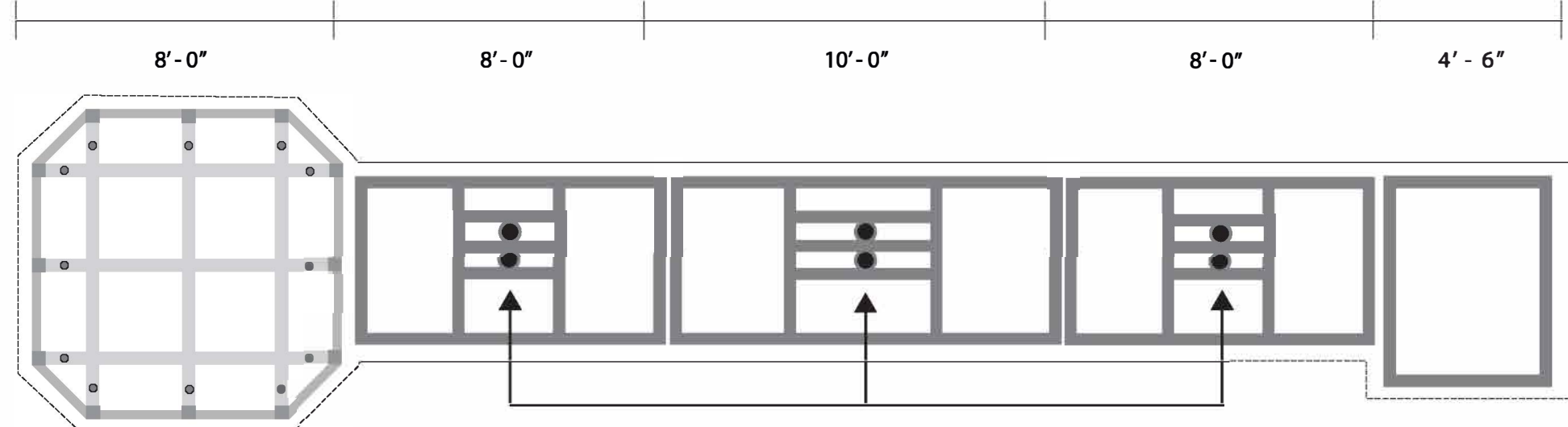
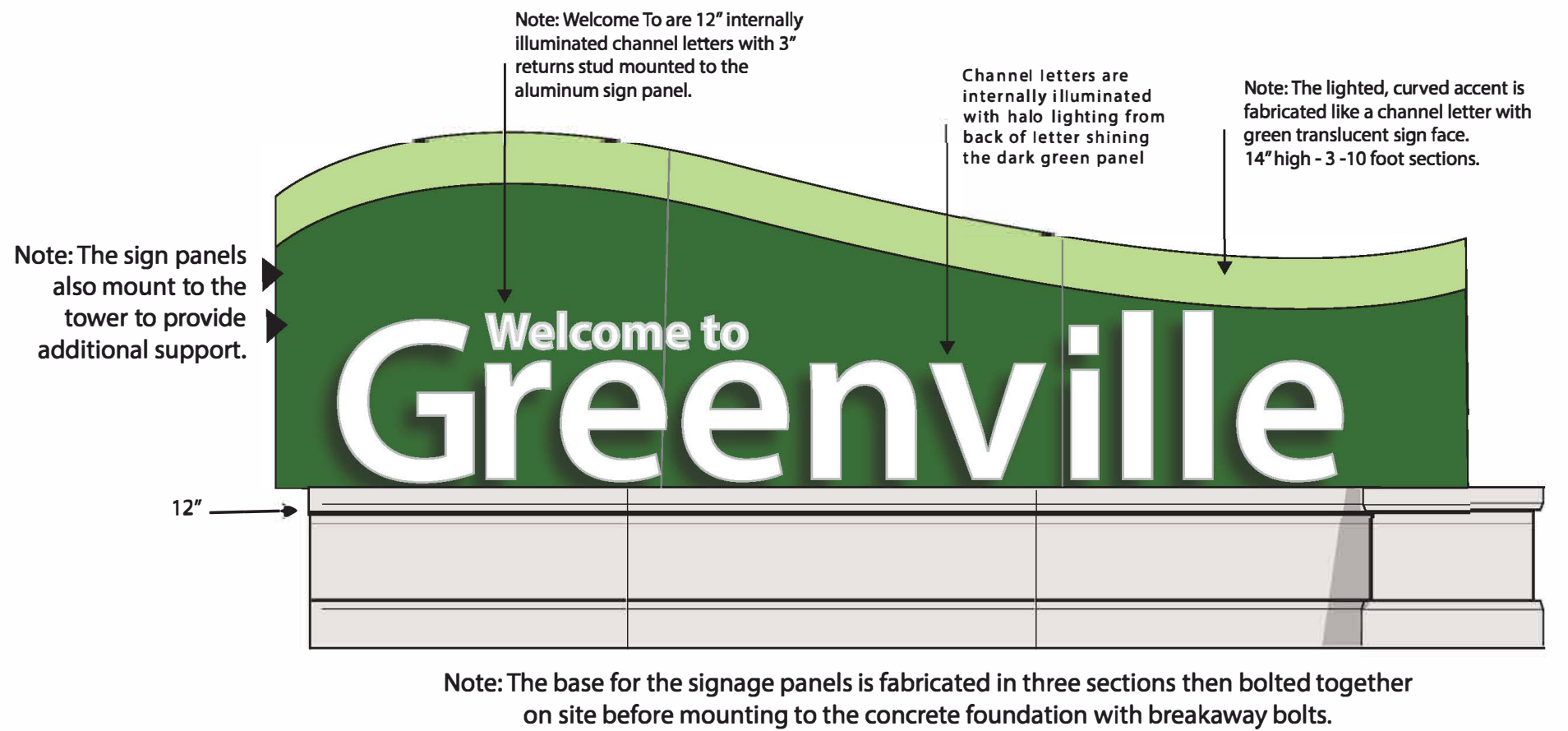
Note: 2-120V 30 amp circuits are required for the internally illuminated sign letters and the green wave background.



Illuminated Logo
Typical extruded 8" thick aluminum sign cabinet with LED lighting and lexan sign face.



Channel letters are internally illuminated with halo lighting from back of letter shining the dark green panel

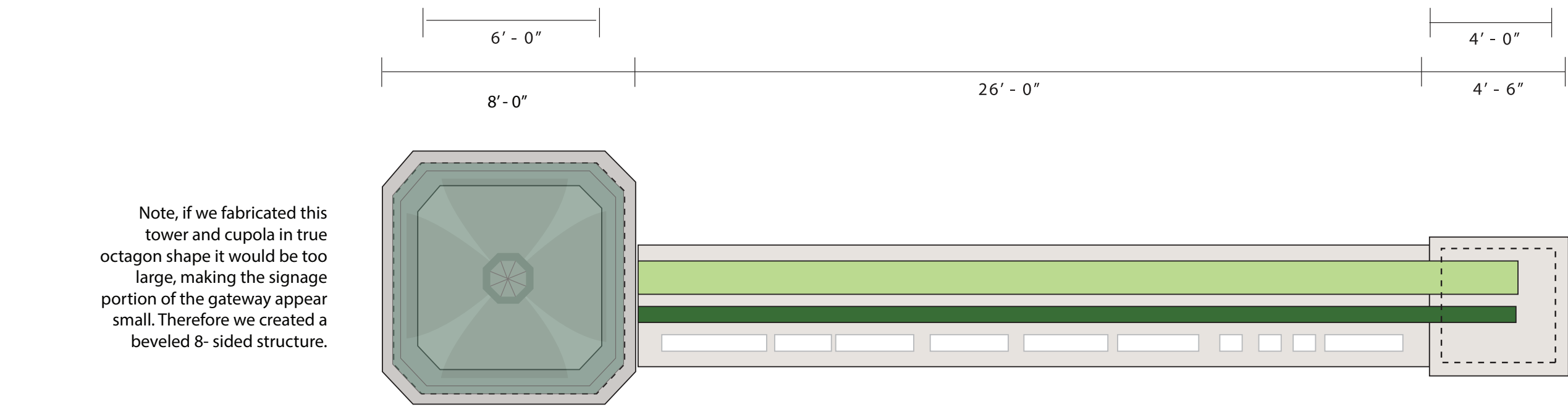


Note: Five inch diameter poles provide wind load support for the backdrop panels.

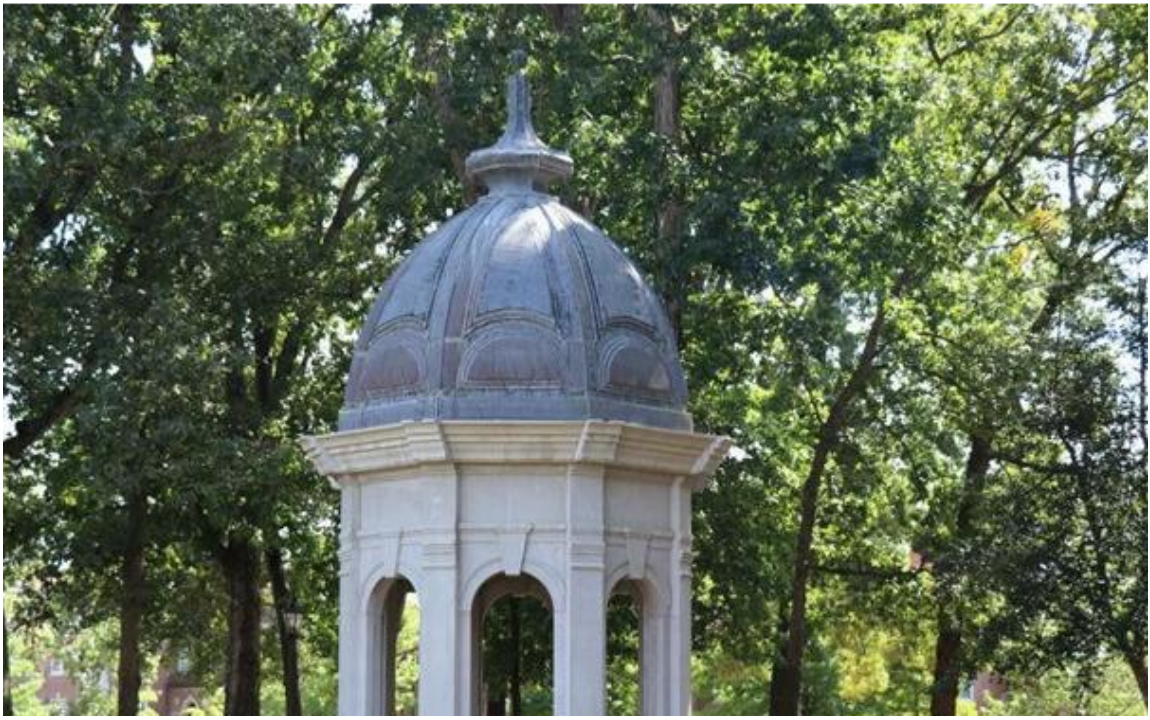


Alternate Design

DESIGN INTENT FOR ALTERNATE: SIGN TO BE FABRICATED IN MODULAR UNITS TO ALLOW PART B TO BE REPLACED TO INCREASE HEIGHT OF SIGN.



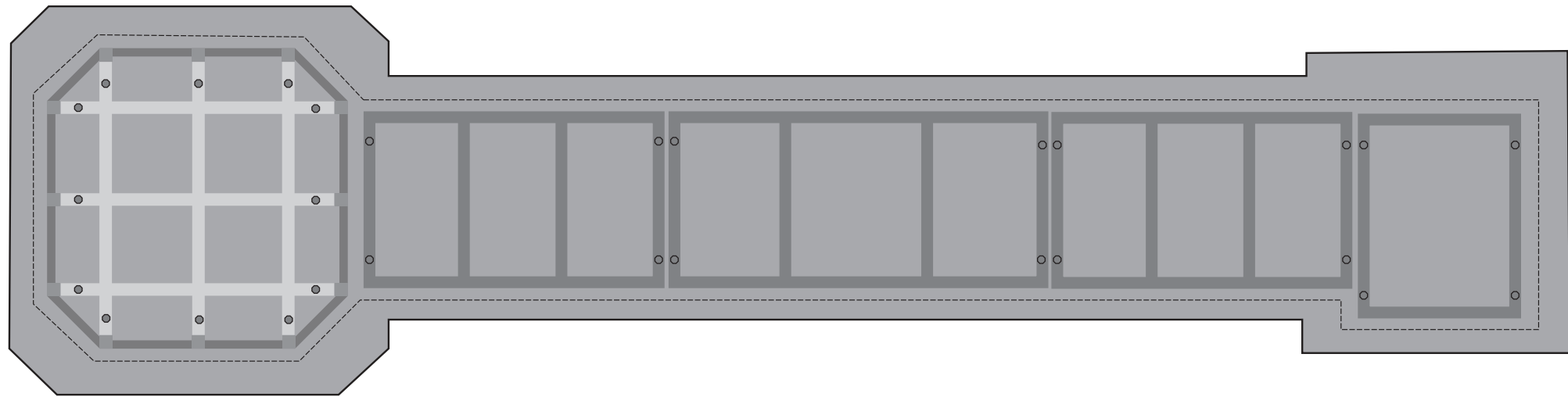
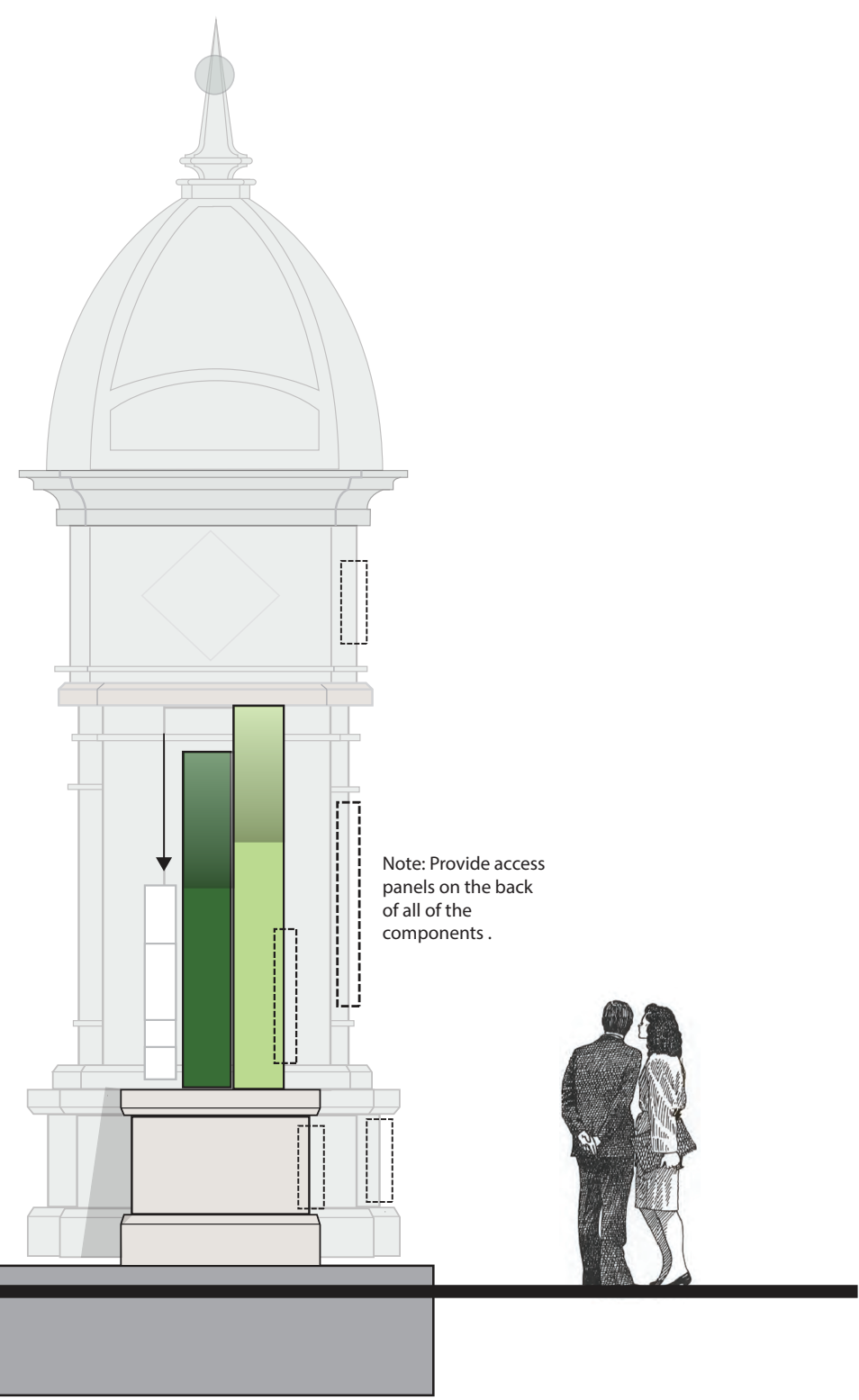
Note, if we fabricated this tower and cupola in true octagon shape it would be too large, making the signage portion of the gateway appear small. Therefore we created a beveled 8-sided structure.



CUPOLA BASIS OF DESIGN - SIGN CONTRACTOR TO MATCH APPEARANCE OF CUPOLA PER THIS BASIS OF DESIGN. SEE NOTES ON THIS SHEET FOR COLOR



Right Side View



Fabricator to provide access door for lighting and electrical componenets to be housed internal to the sign

General Fabrication Notes:

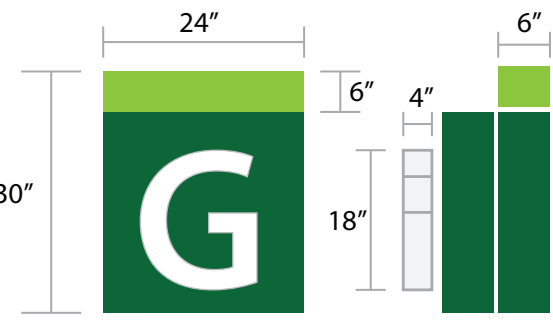
The entire tower structure is fabricated using 1/8" aluminum sheeting on frame structure for all vertical surfaces. Horizontal surfaces will require 1/4" thick aluminum sheeting for load bearing purposes. The aluminum frame system requires 4"x 4" aluminum sq. tubing. All joints are welded and ground smooth. Aluminum sheet-ing is welded to the frame from the inside of the cabinets.

Based on the plan, the entire structure is shop fabricated as 8- separate components that assemble on site and stack as a final unit. Access doors will be placed in the back side of the unit to allow room for assembly and maintenance.

All letters custom fabricated internally illuminated aluminum channel letters with white LED lighting system. All wiring, transformers and controllers will be hidden inside the green sign cabinet. The large "Greenville" channel letters have an illuminated faced and halo lighting back. The return thickness is 10" . They are stem mounted to the sign base and reinforced with mounting studs into the green backdrop panel.

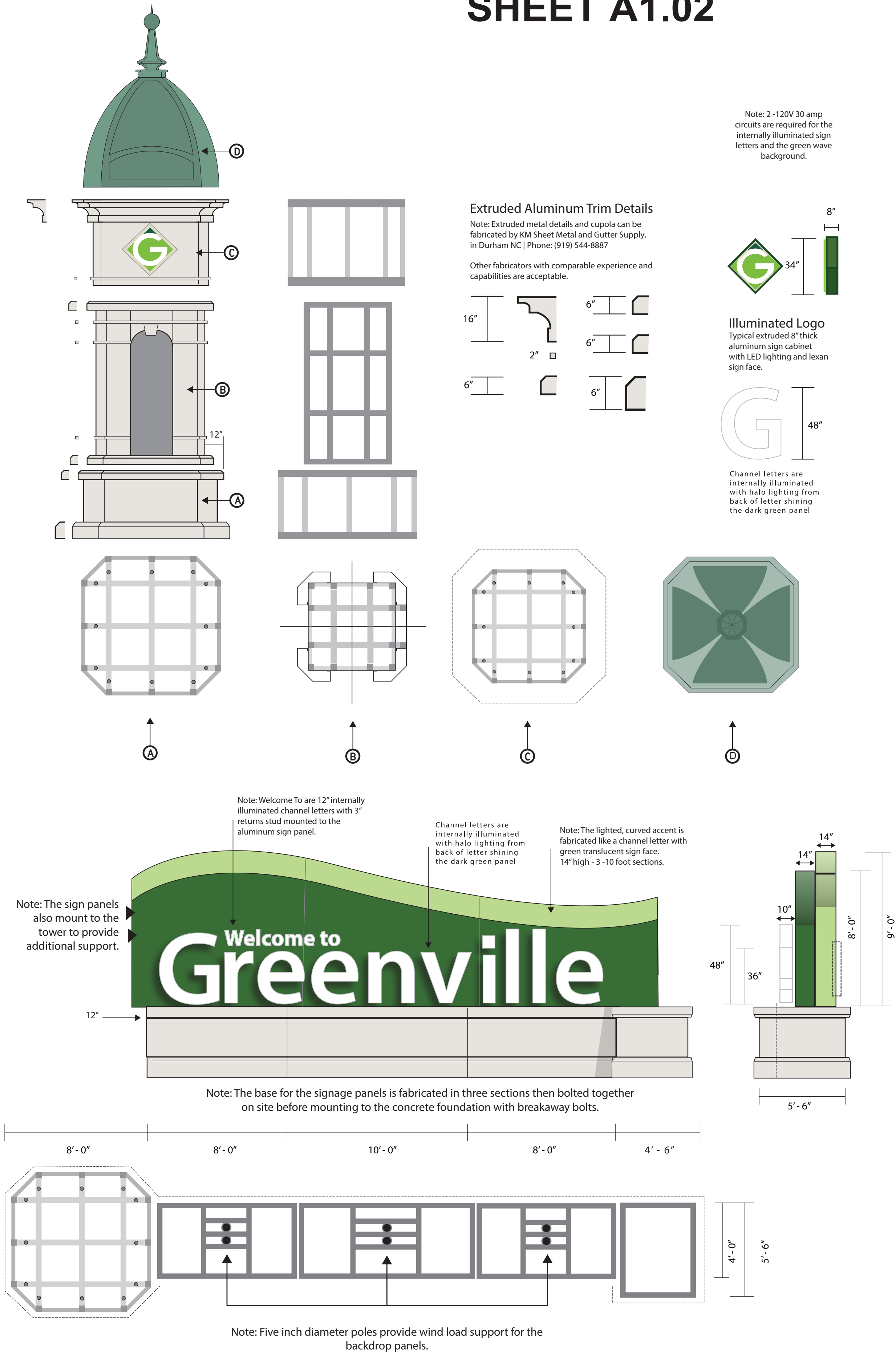
The sign backdrop panels are self supporting fabricated 1/8" aluminum cabinets built in three sections. The lighted, curved accent is fabricated like a channel letter with green translucent sign face.

Before final fabrication - the sign company will be required to provide the City of Greenville a fabricated - lighted test panel showing the white LED lighting and the curved accent top panel.



Mock Up Dimensions

SHEET A1.02



ELECTRICAL ABBREVIATIONS

A	AMPERES OR AMP METER	PT	POINT; POTENTIAL TRANSFORMER
AC	ALTERNATING CURRENT	PUN	PER UNIT NAMEPLATE
AF	AMP FRAME	PVC	POLYVINYL CHLORIDE (CONDUIT)
AFB	ABOVE FINISHED CEILING	RD	ROUND
AFD	ABOVE FINISHED FLOOR	REV	REVISION
AFG	ABOVE FINISHED GRADE	RLA	RATED LOAD AMPS
AIC	AMPERE INTERRUPTING CAPACITY	RMC	RIGID METAL CONDUIT
ALT	ALTERNATE	SNAC	SOLID NEUTRAL
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	SN	SIGNAL NOTIFICATION APPLIANCE CIRCUIT
ARCH	ARCHITECTURAL	SP	SURGE PROTECTED
AT	AMP TRIP	SPD	SURGE PROTECTED DEVICE
ATS	AUTOMATIC TRANSFER SWITCH	SPDT	SINGLE POLE DOUBLE THROW
AWG	AMERICAN WIRE GAGE	SPEC	SPECIFICATION
BFC	BELOW FINISHED CEILING	SPST	SINGLE POLE SINGLE THROW
BFG	BELOW FINISHED GRADE	SQ	SQUARE
C	CELSIUS; COIL	SWBD	SWITCHBOARD
CB	CIRCUIT BREAKER	SWGR	SWITCHGEAR
CCTV	CLOSED CIRCUIT TELEVISION SYSTEM	TBB	TELEPHONE BACK BOARD
CD/Gd	CANDELA	TELECO	TELECOMMUNICATIONS
CLG	CEILING	M	
COAX	COAXIAL CABLE	TEMP	TEMPERATURE
CONTR	CONTRACTOR	THD	TOTAL HARMONIC DISTORTION
CT	CURRENT TRANSFORMER	THD	TELEVISION
CTV	CABLE TELEVISION	TV	TYPICAL
CU	COPPER	UL	UNDERWRITERS LABORATORIES INC.
DWG	DRAWING	UNO	UNLESS NOTED OTHERWISE
EC	ELECTRICAL CONTRACTOR	V	VOLTAGE; VOLT
ECB	ENCLOSED CIRCUIT BREAKER	VAC	VOLTS ALTERNATING CURRENT
EF	EXHAUST FAN	VDC	VOLTS DIRECT CURRENT
EGC	EQUIPMENT GROUNDING CONDUCTOR	VFD	VARIABLE FREQUENCY DRIVE
ELEC	ELECTRICAL	VOL	VOLUME
EM	EMERGENCY	W	WIRE
EMT	ELECTRICAL METALLIC TUBING	W/	WITH
EPO	EMERGENCY POWER OFF	WG	WIREGUARD
ETR	EXISTING TO REMAIN	WP	WEATHERPROOF
EW	ELECTRIC WATER COOLER	XFMR	TRANSFORMER
FACP	FIRE ALARM CONTROL PANEL	XP	EXPLOSION PROOF
FATC	FIRE ALARM TERMINATION CABINET	Z	IMPEDANCE
FFE	FINISHED FLOOR ELEVATION	ø	ROUND; DIAMETER; PHASE
FL	FLOOR		
FLA	FULL LOAD AMPS		
FLC	FLEXIBLE LIQUIDTIGHT CONDUIT		
FLEX	FLEXIBLE		
FMC	FLEXIBLE METAL CONDUIT		
FT	FEET; FOOT		
FU	FUSE		
GA	GAUGE; GAGE		
GB	GROUND BUS		
GC	GENERAL CONTRACTOR		
GEC	GROUNDING ELECTRODE CONDUCTOR		
GFL	GROUND FAULT (CIRCUIT) INTERRUPTER		
GFCT			
GND	GROUND		
HD	HEAVY DUTY		
HOA	HANDS-OFF-AUTOMATIC		
HP	HORSEPOWER		
HVAC	HEATING, VENTILATING & AIR CONDITIONING		
HZ	HERTZ		
IG	ISOLATED GROUND		
IMC	INTERMEDIATE METAL CONDUIT		
JB	JUNCTION BOX		
KV	KILOVOLT		
KVA	KILOVOLT AMPERE		
KW	KILOWATT		
KWH	KILOWATT HOUR		
LED	LIGHT EMITTING DIODE		
LRA	LOCKED ROTOR AMPS		
LS	LIFE SAFETY		
LTG	LIGHTING		
M	MOTOR; METERING		
MC	METAL CLAD		
MCB	MAIN CIRCUIT BREAKER		
MCC	MOTOR CONTROL CENTER		
MCP	MOTOR CONTROL PROTECTOR		
MCS	MOLDED CASE SWITCH		
MH	MANHOLE		
MIN	MINIMUM		
MLO	MAIN LUG ONLY		
N, NEU	NEUTRAL		
NEC	NATIONAL ELECTRICAL CODE		
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION		
	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION		
NF	NON-FUSED		
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION		
NIC	NOT IN CONTRACT		
NL	NIGHT LIGHT		
NO	NORMALLY OPEN; NUMBER		
NOM	NOMINAL		
NTS	NOT TO SCALE		
OC	ON CENTER		
OL	OVERLOAD		
OLC	OUTDOOR LIGHTING CONTACTOR		
P	POLE		
PB	PULL BOX		
PC	PHOTOCELL		
PF	POWER FACTOR		
PH	PHASE		
PNL	PANEL		

ELECTRICAL ABBREVIATIONS

	POINT; POTENTIAL TRANSFORMER
	PER UNIT NAMEPLATE
	POLYVINYL CHLORIDE (CONDUIT)
	ROUND
	REVISION
	RATED LOAD AMPS
	RIGID METAL CONDUIT
	SOLID NEUTRAL
	SIGNAL NOTIFICATION APPLIANCE CIRCUIT
	SURGE PROTECTED
	SURGE PROTECTED DEVICE
	SINGLE POLE DOUBLE THROW
	SPECIFICATION
	SINGLE POLE SINGLE THROW
	SQUARE
	SWITCHBOARD
	SWITCHGEAR
	TELEPHONE BACK BOARD
	TELECOMMUNICATIONS
	TEMPERATURE
	TOTAL HARMONIC DISTORTION
	TELEVISION
	TYPICAL
	UNDERWRITERS LABORATORIES INC.
	UNLESS NOTED OTHERWISE
	VOLTAGE; VOLT
	VOLTS ALTERNATING CURRENT
	VOLTS DIRECT CURRENT
	VARIABLE FREQUENCY DRIVE
	VOLUME
	WIRE
	WITH
	WIREGUARD
	WEATHERPROOF
	TRANSFORMER
	EXPLOSION PROOF
	IMPEDANCE
	ROUND; DIAMETER; PHASE
	PHOTOCELL
	FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W
	FLUSH MTD DUPLEX GFCI RECEPTACLE, 20A, 125V, 3W
	FLUSH MTD DUPLEX RECEPTACLE WITH DUPLEX USB OUTLETS, 20A, 125V, 3W
	FLUSH MTD SINGLE RECEPTACLE, 20A, 125V, 3W
	FLUSH MTD QUADRUPLX RECEPTACLE, 20A, 125V, 3W
	FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W, SPLIT WIRED WITH TOP OUTLET SWITCHED
	FLUSH MTD DUPLEX RECEPTACLE, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPLASH OR COUNTERTOP IF NO BACKSPLASH EXISTS
	FLUSH MTD QUADRUPLX RECEPTACLE, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPLASH OR COUNTERTOP IF NO BACKSPLASH EXISTS
	WALL MOUNTED POWER DEVICE, REFER TO SCHEDULES FOR MARK
	FLOOR BOX WITH DEVICE(S). REFER TO SCHEDULES FOR MARK
	WALL MTD TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
	CEILING MTD DUPLEX RECEPTACLE AND OUTLET, 20A, 125V, 3W
	CEILING MTD DUPLEX OUTLET, REFER TO SCHEDULES FOR MARK
	CEILING MTD DUPLEX RECEPTACLE & TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
	CEILING MTD PUBLIC ADDRESS SPEAKER
	FLUSH MTD VOLUME CONTROL FOR SPEAKER
	WALL MTD TELEVISION ANTENNA/ELECTRICAL OUTLET
	PANELBOARD, 250V LEVEL
	PANELBOARD, 600V LEVEL
	HOMERUN; ARROW HEADS INDICATE NUMBER OF CIRCUITS, LETTERS AND NUMBERS DESIGNATE PANEL AND CIRCUITS. SHORT TICK MARKS INDICATE NUMBER OF CURRENT CARRYING PHASE CONDUCTORS. LONG TICK MARK(S) INDICATE NEUTRAL(S). GROUNDING CONDUCTORS REQUIRED BY SPECIFICATIONS ARE NOT SHOWN. CONDUCTOR SIZES SPECIFIED ON THE PANEL SCHEDULES ARE MANDATORY FOR THE ENTIRE CIRCUIT. EXCEPT WHERE SPECIFICATIONS REQUIRE A SIZE INCREASE FOR VOLTAGE DROP.
	SURFACE METAL RACEWAY WITH DEVICES, LETTER DESIGNATES TYPE
	PENDANT MTD, PLUG-IN BUS DUCT WITH PLUG-IN CIRCUIT BREAKER OR FUSIBLE SWITCH AND TAP BOX. DUCT AND SWITCH RATING AS NOTED.
	TOP # - DEVICE MAXIMUM RATING OR FRAME SIZE
	BOTTOM # - FUSE SIZE OR DEVICE SETTING
	DISCONNECT SWITCH.
	COMBINATION DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER. SEE SCHEDULE OR NOTE.
	FLUSH MTD MANUAL MOTOR STARTER SWITCH WITHOUT OVERLOAD HEATERS
	MAGNETIC MOTOR STARTER
	3 POLE CIRCUIT BREAKER IN ENCLOSURE. NO INDICATES CB RATING.
	VARIABLE FREQUENCY DRIVE CONTROLLER, 40" AFF, PROVIDED BY HVAC OR PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR
	MAGNETIC CONTACTOR, SIZE PER SCHEDULE
	JUNCTION, PULL, TAP OR OUTLET BOX (CODE SIZE)
	TIME CLOCK
	MAGNETIC RELAY, SIZE PER SCHEDULE

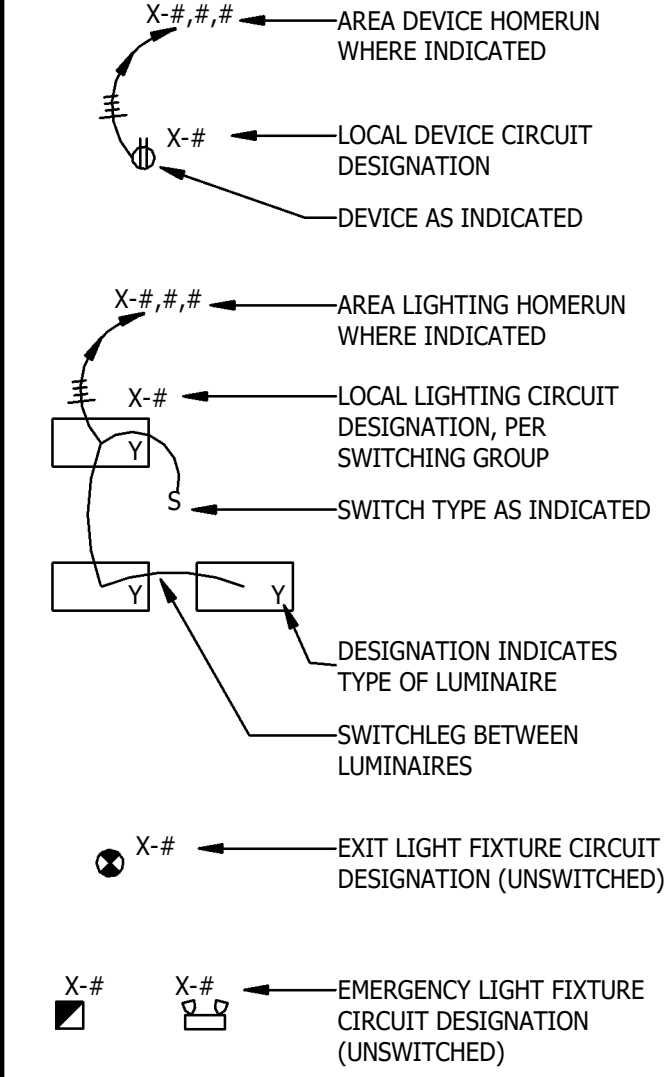
ELECTRICAL SYMBOLS

	FLUSH MOUNTED MUSHROOM HEAD PUSH BUTTON
	FLUSH MOUNTED PUSH BUTTON
	SUPPLEMENTAL GROUND BAR
	GROUND PER NEC
	ELECTRICAL DEMAND METER
	SURGE PROTECTION DEVICE
	WALL MTD FIRE ALARM PULL STATION
	SMOKE DETECTOR, CEILING MTD
	SMOKE DETECTOR WITH SOUNDER BASE, CEILING MTD
	SMOKE DETECTOR, CEILING MTD, MULTI SENSOR
	CEILING MTD REMOTE ALARM INDICATOR LAMP
	SMOKE DETECTOR, DUCT MTD (WITH RAIL)
	HEAT DETECTOR, CEILING MTD
	SMOKE DETECTOR, WALL MTD
	SMOKE DETECTOR WITH SOUNDER BASE, WALL MTD
	WALL MTD HEAT DETECTOR
	WALL MTD REMOTE ALARM INDICATOR LAMP (RAIL)
	WALL MTD HORN TYPE AUDIO/VISUAL APPLIANCE
	WALL MTD SPEAKER TYPE AUDIO/VISUAL APPLIANCE
	WALL MTD CHIME TYPE AUDIO/VISUAL APPLIANCE
	WALL MTD VISUAL ALARM APPLIANCE
	CEILING MTD HORN TYPE AUDIO/VISUAL ALARM APPLIANCE
	CEILING MTD SPEAKER TYPE AUDIO/VISUAL ALARM APPLIANCE
	CEILING MTD CHIME TYPE AUDIO/VISUAL ALARM APPLIANCE
	CEILING MTD FIRE ALARM VISUAL DEVICE
	DOOR HOLDER
	FIRE ALARM MONITOR MODULE
	FLOW SWITCH FIRE ALARM CONNECTION, SWITCH PROVIDED BY OTHERS
	TAMPER SWITCH FIRE ALARM CONNECTION, SWITCH PROVIDED BY OTHERS
	POST INDICATOR VALVE FIRE ALARM CONNECTION, VALVE PROVIDED BY OTHERS
	FIRE ALARM TEMPERATURE SENSOR
	FIRE ALARM CONTROL MODULE OR RELAY
	CEILING MTD FIRE ALARM SPEAKER
	FIRE ALARM BELL; # INDICATED DIAMETER IN INCHES
	LINEAR BEAM TRANSMITTER
	LINEAR BEAM RECEIVER
	FIRE ALARM WALL MTD SPEAKER
	FIREMAN'S 2-WAY TELEPHONE
	FIRE ALARM ISOLATION MODULE
	FIRE ALARM ASPIRATION SMOKE DETECTOR
	DIGITAL ALARM COMMUNICATIONS TRANSMITTER
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE ALARM CONTROL PANEL
	FIRE ALARM TERMINAL CABINET
	SUPPLEMENTAL NOTIFICATION APPLIANCE CABINET
	DOOR CONTROL ID TAG
	SECURITY SYSTEM KEYPAD, 60" AFF
	ACCESS CONTROL CARD READER
	SECURITY PANIC BUTTON
	CCTV SECURITY CAMERA WITH FIXED MOUNT
	CCTV SECURITY CAMERA WITH PTZ FEATURES
	EMERGENCY TELEPHONE
	MASTER RESCUE ASSISTANCE STATION
	RESCUE ASSISTANCE STATION
	RESCUE ASSISTANCE LIGHT
	NEW WORK
	EXISTING TO REMAIN
	EXISTING TO BE DEMOLISHED

ELECTRICAL GENERAL NOTES

- ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE UTILIZED FOR THIS PROJECT.
- SYMBOLS NOT SHOWN ON THIS ELECTRICAL SYMBOL LEGEND ARE IDENTIFIED ON THE DRAWINGS WHERE THEY OCCUR.
- UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS, MOUNTING HEIGHT OF DEVICES IS TO BE THE CENTERLINE OF THE DEVICE.
- UNLESS OTHERWISE INDICATED, SWITCHES AND SIMILAR DEVICES ARE TO BE LOCATED 42" AFF; RECEPTACLES ARE TO BE VERTICALLY MOUNTED AT 18" AFF WITH THE GROUNDING TERMINAL ON THE BOTTOM.
- TELEPHONE & DATA OUTLETS ARE TO BE MOUNTED AT 18" AFF UNLESS OTHERWISE INDICATED. "W" INDICATES MOUNTING AT 42" AFF; "C" INDICATES MOUNTING ABOVE COUNTERTOP WITH ALIGNMENT AND HEIGHT AS INDICATED FOR RECEPTACLES SIMILARLY MOUNTED.
- UPPER CASE LETTER (OR LETTER/NUMBER COMBINATION) ADJACENT TO FIXTURE OR SWITCH DESIGNATES TYPE. SEE FIXTURE SCHEDULE FOR DETAILS.
- LOWER CASE LETTER ADJACENT TO FIXTURE OR SWITCH DESIGNATES CONTROL RELATIONSHIP.
- NUMBER ADJACENT TO FIXTURE, SWITCH, OR RECEPTACLE DESIGNATES CIRCUIT CONNECTION.
- SINGLE DIAGONAL LINE ACROSS A FIXTURE INDICATES FIXTURE IS UNSWITCHED FOR 24 HOUR OPERATION.

ELECTRICAL CIRCUITING KEY



ELECTRICAL DRAWING LIST	
NO.	TITLE
E001	STANDARDS, SYMBOLS & ABBREVIATIONS
E002	ELECTRICAL SPECIFICATIONS
E101	ELECTRICAL SITE PLAN
E201	ELECTRICAL DETAILS
E202	ELECTRICAL SCHEDULES

GENERAL SYMBOLS

	PLAN OR DETAIL NUMBER SHEET NUMBER		COLUMN NUMBER OR LETTER
	ELEVATION LETTER SHOWN ON SHEET NUMBER		DRAWING REVISION NUMBER
	SECTION NUMBER		KEYED NOTE NUMBER
	SHOWN ON SHEET NUMBER		CONNECT TO EXISTING
	DIMENSION LINE		REMOVE TO THIS POINT
	DETAIL NUMBER WITH SHEET NO.		NORTH ARROW

APPENDIX B
2018 BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:	
Energy Code:	☒ Prescriptive ☐ Performance
ASHRAE 90.1:	☐ Prescriptive ☐ Performance
Lighting schedule (each fixture type)	
lamp type required in fixture	See fixture Schedule on Drawing Sheet
number of lamps in fixture	
ballast type used in the fixture	
number of ballasts in fixture	
total wattage per fixture	
total interior wattage specified vs. allowed: (whole building or space by space)	N/A vs. N/A
total exterior wattage specified vs. allowed:	90 VA vs. 600 VA
Additional Efficiency Package Options (When using the 2018 NCECC; not required for ASHRAE 90.1)	
☐ C406.2 More Efficient Mechanical Equipment	
☒ C406.3 Reduced Lighting Power Density	
☐ C406.4 Enhanced Digital Lighting Controls	
☐ C406.5 On-Site Renewable Energy	
☐ C406.6 Dedicated Outdoor Air System	
☐ C406.7 Reduced Energy Use in Service Water Heating	

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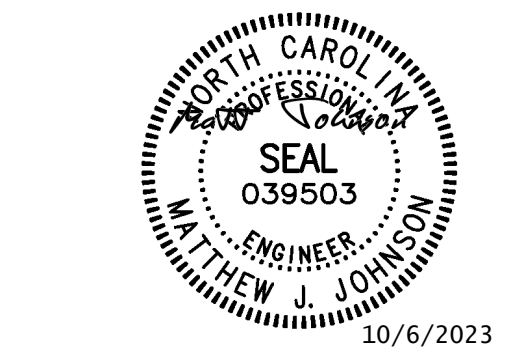
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GREENVILLE GATEWAY
SIGNAGE
GREENVILLE, NORTH CAROLINA



REVISIONS

PLAN INFORMATION

PROJECT NO.	GVL21001
FILENAME	GVL21001-LS1
CHECKED BY	MJJ
DRAWN BY	ZJS
SCALE	PER PLAN
DATE	10.26.2023

SHEET

STANDARDS, SYMBOLS
& ABBREVIATIONS

E001

DESCRIPTION OF WORK

Scope: The scope of work under this section includes the furnishing and installation of complete electrical distribution system modifications and any other miscellaneous systems or items as are shown on the Drawings or described in these specifications. Work included in this section is described on drawing sheets prefixed with "E-", and any other sheets referenced by these sheets or these specifications. The Contractor shall provide all supervision, labor, materials, equipment, machinery and any and all other items necessary to complete the described systems.

Other Documents: Notice to Bidders, Instructions to Bidders, General Conditions of the Contract, General Requirements, Addenda (if Issued), and Supplementary General Conditions that are provided with the Drawing package are a part of the Specifications for the electrical work and together with the Electrical Drawings comprise the Contract Documents for the electrical work.

Codes, Laws, and Regulations: All work performed under this contract shall be accomplished in strict accordance with National, State, and Local codes.

License & Privilege Permits: The Contractor in submitting his proposal certifies that he has the proper class NC license, privilege permit(s), and any local licenses or privilege permits required for the work being bid.

Entire Cost to Owner: The entire cost to the Owner of the work in this section, including any necessary fees, permits or tax shall be included in the proposal of the Contractor.

Construction Permits: The Contractor shall obtain, in a timely manner, all necessary permits to perform the work described by the contract documents at no additional expense to the Owner. The Contractor shall make all arrangements for required progress inspections. All inspections shall be made in a timely manner; any reinspection necessary to obtain final approval of the work shall be made with no additional cost to the Owner.

Intent: The intent of these Specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. Any apparatus, appliance, material or work not shown on drawings but mentioned in the Specifications or vice versa, or any incidental accessories necessary to make the work complete in all respects and ready for operation, even if not particularly specified, shall be furnished, delivered, and installed by the Contractor without additional expense to the Owner.

Basic Design: The electrical design for this project is based on the requirements of the National Electrical Code (NEC), NFPA-70, 2020 Edition. Where not restricted to more stringent requirements by the Electrical Specifications or Drawings the minimum requirements of the NEC shall prevail.

Drawings: The Drawings are diagrammatic in nature and indicate generally the locations of materials and equipment. Where such locations are not clear, obtain the exact locations from the Engineer. The Drawings do not give exact details as to elevations and locations of various pipe, ducts, fittings, conduit, etc., and do not show all offsets or installation details which may be required. Where Drawings modify specifications requirements the modification is to be made only in the indicated location. Minor details not usually shown or specified, but necessary for proper installation and operation, shall be included in the Contractor's proposal, the same if herein specified or shown. This paragraph is not intended to hold the Contractor responsible for the design, or to require him to furnish equipment not remotely indicated, but to ensure that a complete job will be provided without requests for minor "extras".

Discrepancies: The Contractor shall give written notice to the Engineer immediately upon discovery of any discrepancy or points of conflict in the Drawings or the Specifications. The Engineer will clarify such discrepancy or points of conflict in writing prior to the progress of the work beyond the point concerned. In the absence of such written notice, it is mutually agreed the Contractor has included the cost of all required items in his proposal and that he will be responsible for the approved satisfactory functioning of the entire system(s) without extra compensation.

Shop Drawings: The Contractor shall furnish and a digital copy in pdf format of shop drawings or brochures for all fixtures, equipment, and accessories to the Engineer for the Engineer's approval. The Contractor shall furnish and a digital copy in pdf format of a schedule of manufacturers of all materials for which shop drawings or brochures are not presented. No equipment shall be ordered, purchased or installed prior to approval of the shop drawings, brochures and schedules. Checking of submitted items by the Engineer is only for general conformance with the design concept of the project and general compliance.

The Contractor shall maintain a set of "as built" drawings at the construction site at all times that construction work is in progress. The "as built" drawings shall be a set of the contract Drawings which shall be marked in colored pencil by the Contractor to indicate deviations from equipment locations or other changes in the issued Contract Documents. The "as built" drawings shall not be a set of "working drawings", but rather shall be an independent drawing set, updated at the conclusion of each days work. The "as built" drawings shall be available for examination by the Engineer at any time work is in progress; the "as built" set of drawings shall be delivered to the Engineer at the conclusion of the project.

Brand Names: Brand names, where used in the specification of a product, are intended to denote the standard of quality required for the particular material or product. It is not the intent of such specification to limit the use of any product to a specific manufacturer. Products by any manufacturer that are equal in type, quality, size, capacity, composition, finish, color, and other applicable characteristics to the material or product specified by trade name and in the opinion of the Engineer, are suitable for the same use and are capable of performing the same function as the material or product specified may be submitted for approval.

Substitutes: If the acceptance of a substitute or if changes by the manufacturer of any item necessitates changes in any plumbing, mechanical, electrical or other service or utility to such item to insure its operation at peak efficiency, the Contractor responsible for the substituted or modified item shall pay the extra costs that accrue to other contractors or to the Owner as a result of such changes made by them to accommodate the substitution of or changes to the specific item. Such extra costs shall be included in the proposal of the contractor responsible for the substituted or modified item. Space required to accommodate proposed substitute equipment, together with accessibility for service and maintenance will be considered in comparing such items for approval.

Contractor to be Responsible: The Contractor shall be responsible for all work included in this section and the delegation of work to a subcontractor(s) shall not relieve him of this responsibility. The Contractor and his subcontractors who perform work under this section shall be responsible to the General Contractor in matters of coordination.

Coordination: The Contractor shall coordinate work with other contractors and shall notify the Engineer of apparent conflicts early to expedite construction. If structural damage seems imminent, work shall be stopped and the Engineer shall be notified for decision before operations are resumed. This shall also apply to site work such as primary and secondary electrical distribution, site lighting, etc. which are the responsibility of the Contractor.

Site Visitation: Prior to submitting a proposal, the Contractor shall visit the site to familiarize himself with the existing conditions. It is the responsibility of the Contractor to determine the exact point of delivery for the electric power utility, telephone service, and CATV (where such services are modified or installed).

Site Cleaning: During construction the Contractor shall keep the site reasonably clean of debris and upon completion of construction he shall clean up the premises to remove all evidence of his work. The Contractor shall provide, at no additional cost to the Owner, additional cleaning of the site as directed by the Engineer. In addition, upon completion of construction, he shall clean, wash and/or polish all fixtures, equipment and exposed material and leave items clean, bright, and without blemish. Damaged items shall be replaced or repaired in a manner satisfactory to the Engineer by the Contractor at no additional cost to the Owner.

Final Inspection and Tests: Final inspection and tests of the completed construction shall take place in the presence of the Engineer's representative and shall be at such times that are convenient to the Engineer. Final tests should show conclusively that all equipment performs its intended and specified function and that all work complies with the provisions of these Specifications. All material, equipment, and instruments required for the tests shall be furnished by the Contractor at his own expense. In addition, the Contractor shall furnish a Certificate of Inspection from the Electrical Inspector prior to acceptance of work by the Owner. The Contractor shall arrange, in a timely manner, for all "in progress" and final inspections by the Electrical Inspector(s).

Operating Manuals and Instructions: Contractor shall furnish to the Engineer, four (4) copies of all operating manuals, instruction books, parts lists, installation drawings, etc., for all items of equipment furnished under his Contract. It shall be the Contractor's responsibility to satisfy the Engineer's requirements regarding such data. Manuals, parts lists, etc., shall be presented to the Engineer for review at least thirty (30) days prior to anticipated date of final inspection.

Owner Training: On completion of the work and before final acceptance by Owner, the Contractor shall have his authorized representative visit the work and give full instructions to Owner's designated operating and maintenance personnel regarding operation, maintenance, care and adjustment of all equipment and special construction elements.

Warranty: This contract includes a one-year warranty on all materials and workmanship from date of acceptance of the installation by the Owner. If, during the warranty period, any defects should become manifest due to any defective materials, workmanship, negligence or want of proper care on the part of the Contractor, the Contractor shall furnish any new materials as necessary, repair said defects, and put the system in order at his own expense on receipt of notice of such defects from the Owner.

PRODUCTS

All Products to be Listed and Labeled: All products and materials shall be listed and labeled for the specific application by a NC approved testing agency. All products shall be new except where specifically noted otherwise.

SUBMITTALS & SHOP DRAWINGS

Submittals: Submittals shall be in the form of manufacturer's published data showing compliance with the specified requirements. The Engineer reserves the right to require testing of proposed and in-place work or materials in order to determine compliance with specified requirements. All costs of in-place testing are the responsibility of the Contractor.

Submit the following items to the Engineer for approval:

Boxes & gutters	Switchgear & panelboards
Wiring devices and connectors	Overcurrent devices
Light Fixtures	Raceway & fittings

EQUIPMENT SCHEDULES & LOADS

Power Requirements Detailed on Drawings: See Drawings for sizes and descriptions of fixtures, panelboards, switchgear, etc., as may be required.

Equipment Loads from Other Trades: Loads shown on Equipment Schedule(s) of other trades, if used, take precedence in the event of conflict with panel schedule information.

Complete Branch Circuits Required: This contract includes complete branch circuits in accordance with Codes to all electrical components shown on the Electrical Drawings and on the equipment schedule(s) for other trades whether or not breakers for such loads are shown on electrical riser diagram or panel schedules.

MINIMUM SERVICE CLEARANCES

Service Clearances: Provide service clearances to all equipment, panels, motors and accessories as required by Codes and manufacturer's instructions. If such access is not available due to conflicts with the work of other trades, notify Engineer and attempt to work out necessary changes with other trades. In no case shall Contractor bid, submit or install equipment or other components in situations that do not meet Code requirements or manufacturer's installation requirements. Where otherwise impossible to provide access the Contractor shall furnish and install access panels as may be required to service all equipment. All access panels in toilets and shower rooms shall be stainless steel.

GROUND FAULT PROTECTION REQUIRED

GFCI Receptacles: Personnel ground fault protection is to be provided for certain receptacles as may be indicated on the Drawings. Protection is to be provided by the use of GFCI receptacles; the use of GFCI circuit breakers is not acceptable for the protection of general use receptacles. GFCI receptacles may not be used to protect other downstream non-GFCI receptacles.

GFCI Circuit Breakers: Use GFCI circuit breakers to protect equipment or dedicated receptacles in locations as indicated on the panel schedules. GFCI receptacles may not be used to protect downstream circuit components.

WIRE AND CONDUCTING COMPONENTS

Conductors: All wire and conducting components shall be copper; aluminum conductors or conducting components are not acceptable.

Feeders: THWN copper

Branch Circuits: THWN copper

Color Codes: All wiring shall be color coded as follows:

System Voltage	120/240	208Y/120	480Y/277
Phase A:	Black	Black	Brown
Phase B:	Red	Red	Orange
Phase C:		Blue	Yellow
Neutral:	White	White	Gray

For each voltage system defined above, grounding conductors shall have green color coding.

For isolated grounding conductors the green color coding shall have a yellow tracer. Insulation may be identified or marked with colored tape or other means only as specifically permitted by the NEC. Where neutrals from different circuits appear in the same junction box or enclosure the neutrals will be distinguished one from another by use of colored tracers as required. A green tracer may not be used for this purpose.

Conductor Sizes: In general, wire sizes are indicated on the drawings. In all instances wire capacities are to equal or exceed breaker ratings for light, receptacle, appliance, motor and HVAC circuits; this requirement may force the use of larger conductors than would be required by the equipment nameplate. Minimum project wire size is AWG #12. Unreferenced wire sizes are AWG #12. For all circuits with home runs longer than 100 feet in length, the home run conductors shall be increased one wire size. Wire sizes AWG #12 and #10 are to have solid standing.

Combined Runs & Common Neutrals: Conductor and conduit configurations are shown on the Drawings. Conductor and conduit configurations may not be modified without approval in writing from the Engineer. Neutral conductors may not be combined for home runs except as specifically indicated on the Drawings.

PANELBOARDS AND DISTRIBUTION PANELS

Panelboards: Feeder, and distribution panels shall be as indicated on the panel schedules. All panels shall have bolt-on breakers. AIC ratings for feeder and branch circuit breakers are indicated on the panel schedules. All circuit breakers must be fully rated unless series ratings are specifically indicated. All panelboards shall have copper bussing. Panel enclosures are to be furnished without knockouts.

Panelboard Schedules: Panelboard circuit breaker and connection schedules are described in the Drawings. Circuit layouts as shown in Drawings are mandatory unless modifications are approved in writing by the Engineer. Panelboard submittals may not be used to modify circuit designations or layouts.

Spare Conduit Required: Each lighting and appliance branch circuit panelboard shall have a minimum of two (2) empty 3/4" EMT stubs routed from the top of the panel into the space above the ceiling for future use. This applies only if the ceiling is a non-removable type or if the panel is flush mounted. Each lighting and appliance branch circuit panelboard shall have a minimum of two (2) empty 3/4" EMT stubs routed from the bottom of the panel into the crawl space for future use.

Panelboard Wall Penetrations: All flush mounted panel wall penetrations must be protected in such a manner that the fire rating of the wall is maintained. It is the responsibility of the Contractor to assure that fire and smoke integrity of all walls is maintained at all equipment penetration points. See "Fire Protection Methods" for additional information concerning fire protection.

RACEWAY AND FITTINGS

Raceway Types: Raceways shall be of the types described below for the particular application:

Service conductors: Rigid Metallic Conduit (RMC).

Grounding Electrode(s) & below slab: RMC.

Feeders: RMC in general or Electrical Metallic Tubing (EMT) where specifically indicated on the Drawings.

Branch Circuits and Other Wiring: Typical wiring is individual conductors routed in EMT. Minimum conduit size is 3/4" except that 1/2" may be used for runs containing only two (2) current carrying conductors. All branch circuit wiring must be either in RMC or in EMT.

Use of Flexible Metal Conduit: Flexible Metal Conduit (FMC) may be used only where specifically permitted in the Drawings or elsewhere in these Specifications. Any such use of FMC is limited to dry locations in lengths not to exceed 6'-0".

Use of Flexible Liquidtight (Metal) Conduit: Flexible Liquidtight (Metal) Conduit (FLC) may be used only where specifically permitted in the Drawings or elsewhere in these Specifications. Any such use of FLC is limited to lengths not to exceed 6'-0".

Raceway Fittings: Fittings shall be steel insulated throat compression type. Set screw fittings, fittings constructed of alloys of aluminum or fittings of the indenter type are not acceptable. Fittings used with rigid conduit shall be of the double threaded steel type where such use is possible.

Routing of Raceway: The Contractor is required to coordinate such routing with others. Exposed raceway shall line up work true to adjacent surfaces and be placed in a workmanlike manner. Raceway shall be run at right angles to building lines; this requirement does not apply to raceway located below concrete placed as a part of this project. Where required, raceway is to be sturdily supported and separated in a manner satisfactory to Engineer; raceway shall not be supported by the ceiling grid or ceiling grid support wires. In general all raceways is to be concealed and routed overhead, below the floor, or in walls except in electrical or mechanical equipment rooms. Raceway in such rooms may be surface mounted.

JUNCTION, DEVICE, AND PULL BOXES

Device Boxes: Device boxes for use in sheetrock or paneled surfaces shall be of galvanized steel, 4 inches square of a depth necessary to contain the intended device(s) and associated conductors. Boxes shall be sized to have no less than the minimum volume as required by the NEC; boxes must be flush mounted and accommodate device(s) and all wires and connections without crowding. Boxes shall be furnished with a suitable plaster ring of the depth required to match the wall (or ceiling) material. Where the surface material or covering is combustible the front edge of the plaster ring shall be absolutely flush with the surface. Where the wall material is non-combustible, the front edge of the plaster ring must be recessed into the wall no further than 3/16" inch. These mounting requirements will be rigidly enforced.

Device boxes for use in masonry walls shall be of the concrete light masonry type sized for the number of conductors and devices. Provide 1/2" raised cover 1/4"Jand suitable plaster ring for exposed sheet metal device boxes where these boxes are permitted

Junction Boxes: Junction boxes shall be of galvanized steel of size, type, and shape for intended use and having adequate volume as required by NEC. All junction boxes shall be concealed unless specifically permitted elsewhere in these Specifications or on the Drawings. Boxes must be supported from the building structure without dependence on support of conduit. Junction boxes for use with flexible conduit surface extensions shall be mounted at 18" above finished floor level unless otherwise specified in the Drawings.

Exposed Boxes: Exposed device or junction boxes with one or more Rigid Metal Conduit entries must be cast steel with threaded conduit entries.

Auxiliary Gutters: Auxiliary gutters shall be galvanized steel, weatherproof where used in outside locations. All conduit and conductors in auxiliary gutters and large junction boxes shall meet the bending space and size requirement of the NEC.

Power Distribution Blocks Required: All connections in auxiliary gutters or large junction boxes shall be made by use of power distribution blocks. No "split bolt" or similar connectors shall be used for any conductor splices or taps.

Minor Relocation of Electrical Boxes: If directed by the Engineer, the Contractor shall, without extra charge, make reasonable modifications in the layout as needed to prevent conflict with the work of other trades or for proper execution of the work.

WIRING DEVICES.

Receptacles: Receptacles shall be heavy duty specification grade 3 wire grounding duplex 20 Amp (5-20R), 120 volt, strap mounted receptacles, located 18" above finished floor level unless otherwise indicated on the Drawings. All receptacles shall be of the grounding type and shall be checked for grounding efficiency prior to inspection. A typical receptacle is equal to Hubbell #8300 series. Receptacle color shall be ivory for normal system receptacles and red for receptacles that are supplied by a generator source.

Equipment Servicing Receptacles: The Contractor shall locate 120V receptacles adjacent to HVAC equipment and/or plumbing items as shown on the Drawings. Where used in outdoor locations the receptacle enclosure shall be of the weatherproof type.

Dedicated Receptacles: Dedicated receptacles shall be of the proper type required for the equipment to be used. First verify the following items for each dedicated receptacle: 1. Maximum circuit breaker size that is allowed to supply the equipment to be used. 2. Requirements for separate grounding conductor in all cases where more than one phase is carried to a receptacle. 3. Proper mounting position for receptacle with respect to equipment to be used. The above information may be obtained from equipment nameplates or from literature supplied with equipment.

Device Plates: Wall plates for all wiring and control devices shall be burnished stainless steel, standard size. Oversized wall plates may not be used. Device plate screws shall be constructed from stainless steel. Provide circuit identification labels as described elsewhere for all receptacle and surface extension box plates. Equivalent wiring devices by Leviton, Bryant, Arrow-Hart, or General Electric or other manufacturer may be submitted for consideration.

Minor Relocation of Electrical Devices: If directed by the Owner or Engineer, the Contractor shall, without extra charge or cost to the Owner, make reasonable modifications in the layout of device locations as needed to prevent conflict with the work of other trades or for proper execution of the work. Where such are used, Owner supplied drawings shall take precedence over the Electrical Drawings regarding building construction, dimensions and arrangement.

Weather Proof While in Use Cover: Weather proof covers shall be Extra Duty rated and shall be power coated metal type covers.

Device Box Wall Penetrations: All wall penetrations at device or equipment locations must be protected in such a manner that the fire rating of the wall is maintained. It is the responsibility of the Contractor to assure that fire and smoke integrity of all walls is maintained at all penetration points. See "Fire Protection Methods" for additional information concerning fire protection.

LIGHTING FIXTURES

Lighting Fixtures: Lighting fixtures and lamps shall be furnished and installed as indicated on the drawings in the approximate locations shown. The fixture types shall be as shown on the fixture schedule. The Contractor shall furnish and install all suspension accessories, canopies, hickies, sockets, holders, reflectors, ballasts, louvers, frames, hangers, and all other items necessary to install fixtures. The Contractor shall install lamps of the size and types indicated in each fixture.

GROUNDING

Equipment Grounding (Load Side): All electrical equipment shall be grounded. Grounding on the load side of the main disconnect shall be accomplished by means of a separate insulated grounding conductor sized in accordance with NEC Table 250.122. This conductor shall be run along with the circuit supply conductors. The grounding conductor(s) shall be attached by means of a dedicated screw to a common point in each junction box, cabinet, enclosure, or utilization equipment to which it runs or through which it passes. Grounding methods depending on the continuity of electrical raceway, clips, or mounting screws are not acceptable.

Equipment Grounding (Line Side): All junction boxes, equipment cabinets, or enclosures on the line side of the main disconnect shall be grounded by means of bonding jumpers, sized in accordance with the NEC Table 250.66, connected to the grounded service entrance conductor.

EQUIPMENT IDENTIFICATION

Laminated Nameplates Required: Identify each item of electrical equipment installed under this contract by an etched laminated plastic nameplate in addition to the manufacturer's nameplate. The plastic plate shall clearly identify the item or its intended use. The nameplates shall be fastened securely to equipment. Identify all breakers with raised plastic lettering or by the use of directory cards where provided. Directory cards must be typed and installed in space provided by the manufacturer. Hand printed identification is not acceptable. All circuit breakers in electrical panels shall be identified by typed or printed legend that describes the items served by the circuit breaker.

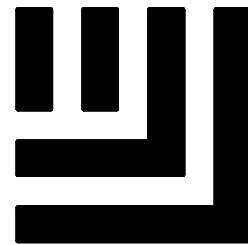
CONSTRUCTION SITE POWER AND LIGHTING

Power Distribution: The Contractor shall provide, at the Contractor's expense, all necessary items for electric power distribution for use by the General Contractor and all sub-contractors for the duration of the construction.

Site Lighting: The Contractor shall provide, at no additional cost, necessary luminaries for general illumination and for task illumination for the duration of the construction.

Insufficient Power or Lighting: Should the lighting level or power distribution in a specific area be deemed insufficient by the Engineer, the Contractor shall provide additional lighting or power distribution as directed by the Engineer; the additional luminaries or distribution circuitry and devices shall be provided at no additional cost to the Owner. All temporary electric construction shall be in full compliance with NEC Article 305.

Electrical Energy Provided by Owner: A connection point for electric power will be provided by the Owner in the construction area. Electric energy is provided by the Owner.



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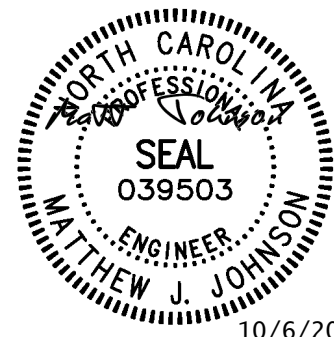
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GREENVILLE GATEWAY

SIGNAGE

GREENVILLE, NORTH CAROLINA



10/6/2023

REVISIONS

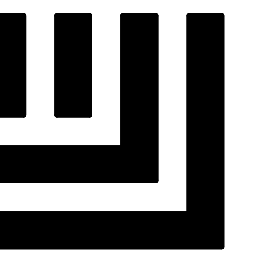
PLAN INFORMATION

PROJECT NO. GVL21001
FILENAME GVL21001-LS1
CHECKED BY Checker
DRAWN BY Designer
SCALE PER PLAN
DATE 10.26.2023

SHEET

ELECTRICAL
SPECIFICATIONS

E002



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GREENVILLE GATEWAY SIGNAGE

GREENVILLE, NORTH CAROLINA



REVISIONS

PLAN INFORMATION

PROJECT NO.	GVL21001
FILENAME	GVL21001-LS1
CHECKED BY	MJJ
DRAWN BY	ZJS
SCALE	PER PLAN
DATE	10.26.2023

SHEET

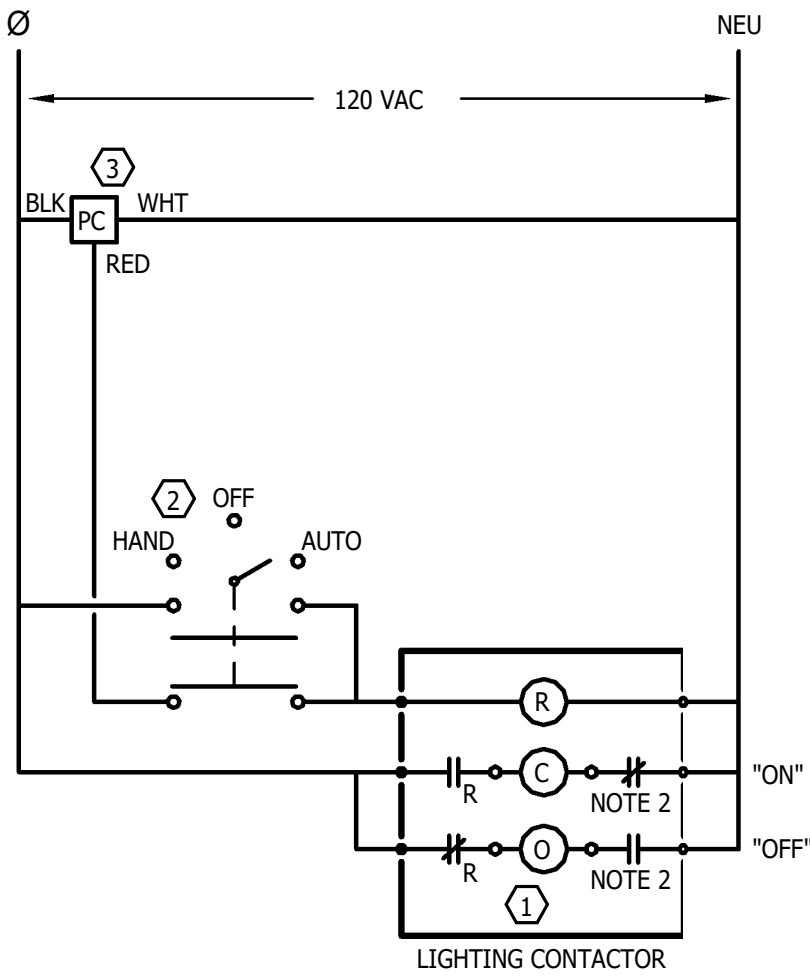
ELECTRICAL SITE PLAN

E101

1 ELECTRICAL SITE PLAN
SCALE: 1" = 10'-0"

10' 5' 0 10' 20'

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SSO Project No: 2022-05511



GENERAL NOTES :

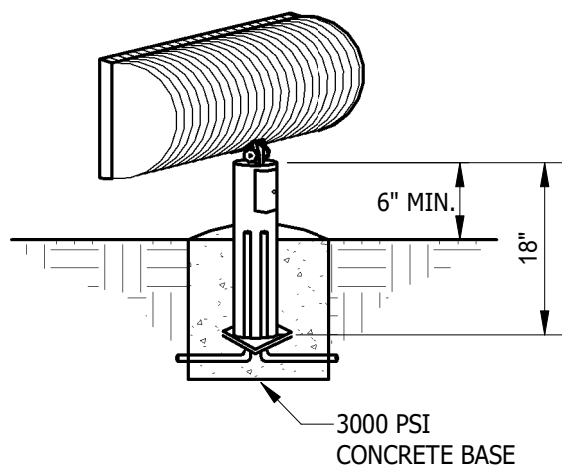
1. MAIN CONTACTS NOT SHOWN AT CONTACTOR.
2. COIL CLEARING CONTACTS INTERLOCKED WITH MAIN CONTACTS.
3. ALL LIGHTING CONTROL CONDUCTORS ARE TO BE AWG #10 OR #12.

KEYED NOTES :

- 1 LIGHTING CONTACTOR. RATED FOR USE AT 120 VOLT, 30 AMP, 1-POLE. PROVIDE MECHANICALLY HELD TYPE CONFIGURED FOR 2- WIRE 120 VAC CONTROL MOUNTED IN NEMA-1 ENCLOSURE.
- 2 HAND-OFF-AUTOMATIC SWITCH. 30.5 mm DIAMETER TYPE MOUNTED IN NEMA-1 ENCLOSURE. PROVIDE LEGEND PLATE AND PHENOLIC EQUIPMENT IDENTIFICATION LABEL. H-O-A SWITCH MAY BE MOUNTED ON FACE OF LIGHTING CONTACTOR ENCLOSURE IF ENCLOSURE IS FACTORY CONFIGURED FOR SUCH USE.
- 3 120 VOLT, 2000 WATT, WEATHERPROOF LIGHTING CONTROL PHOTOCELL LOCATED AS INDICATED ON PLANS.

SW DETAIL: CN0026

7 EXTERIOR LIGHT CONTROL DIAGRAM
SCALE: NTS



GENERAL NOTES :

1. TO ASSURE A RIGID INSTALLATION AND PRODUCT LONGEVITY, STANCHION MUST BE SET IN CONCRETE.

SW DETAIL: OL0002

8 STANCHION MOUNT FOR FLOOD LIGHT
SCALE: NTS

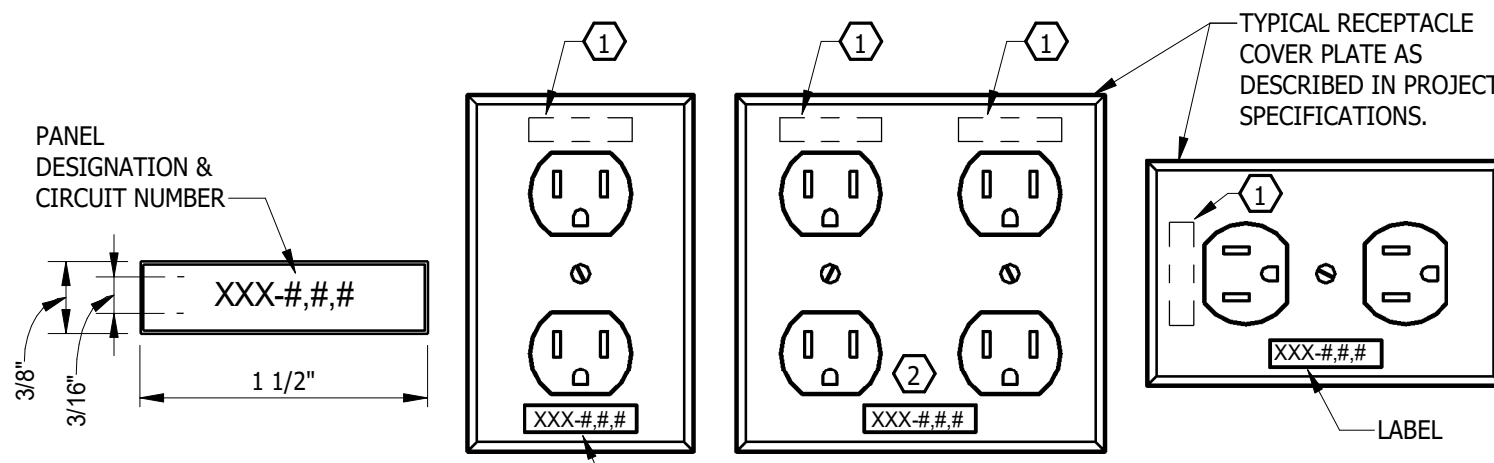


FIG. 1 - LABEL DIMENSIONS

FIG. 2 - LABEL LOCATION ON DEVICE PLATE

GENERAL NOTES :

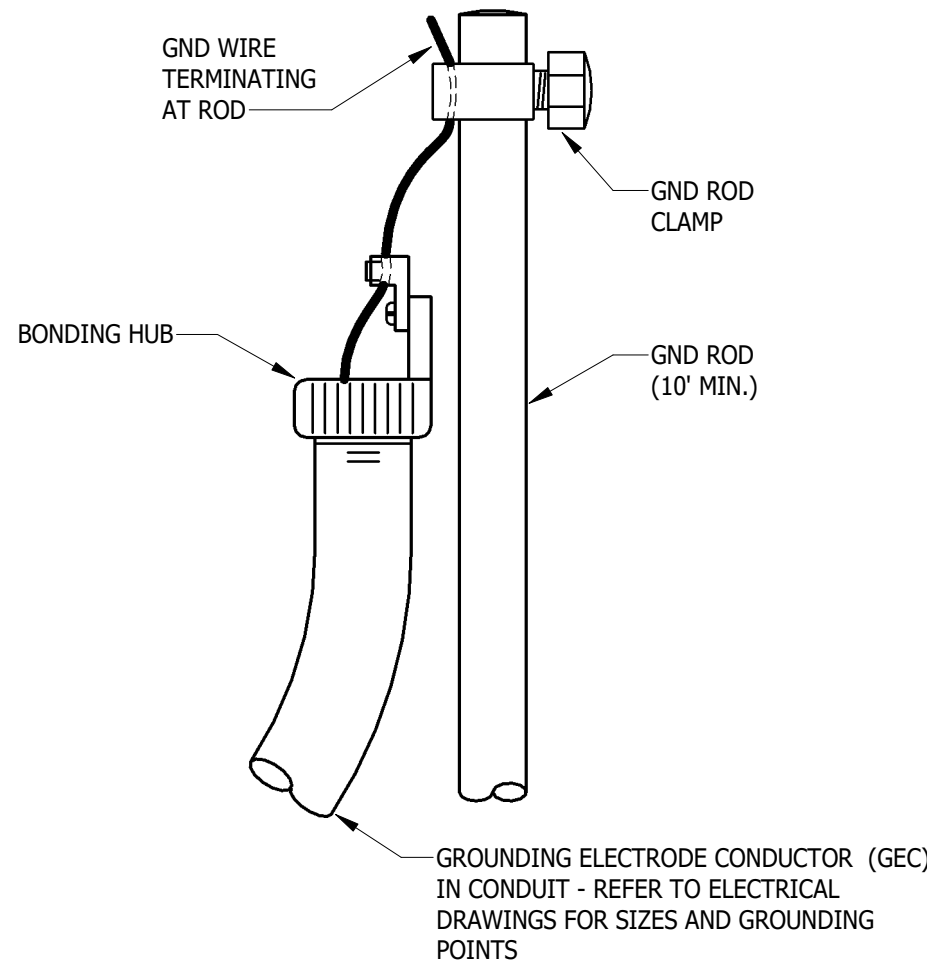
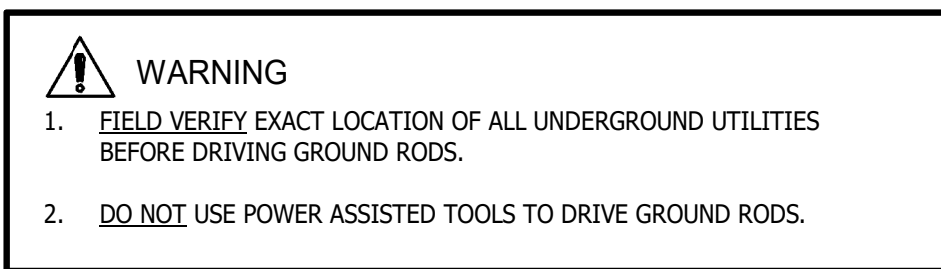
1. LABELS ARE TO BE MACHINE PRODUCED USING A THERMAL TRANSFER PROCESS WITH DIMENSIONS AS SHOWN ABOVE. LABELS ARE TO BE SUITABLE FOR EITHER INDOOR OR OUTDOOR USE.
2. LABEL COLOR TO BE CLEAR WITH BLACK LETTERING.
3. LABELS ARE TO BE ATTACHED AS INDICATED ABOVE TO ALL PROJECT RECEPTACLE COVER PLATES.

KEYED NOTES :

- 1 WRITE PANEL DESIGNATION NUMBER ON DEVICE YOKE WITH A FINE TIP, PERMANENT MARKER AS AN AID TO PROPER FACEPLATE LOCATION. ALL MARKING ON DEVICES MUST BE COVERED BY FACEPLATE.
- 2 FOR DUPLEX RECEPTACLES CENTER LABEL IF BOTH DEVICES ARE SUPPLIED BY THE SAME CIRCUIT. IF DEVICES ARE SUPPLIED BY DIFFERENT CIRCUITS PROVIDE A LABEL BELOW EACH RECEPTACLE.

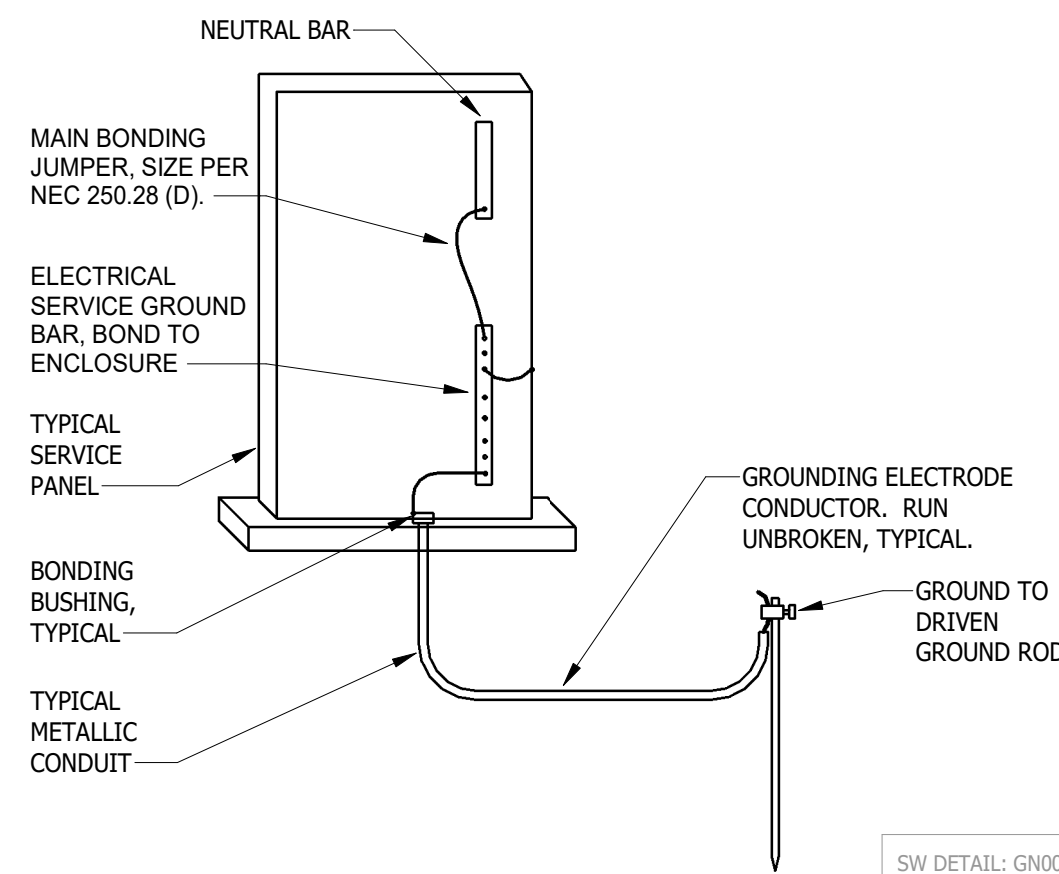
SW DETAIL: LA0002

4 DEVICE LABELS
SCALE: NTS



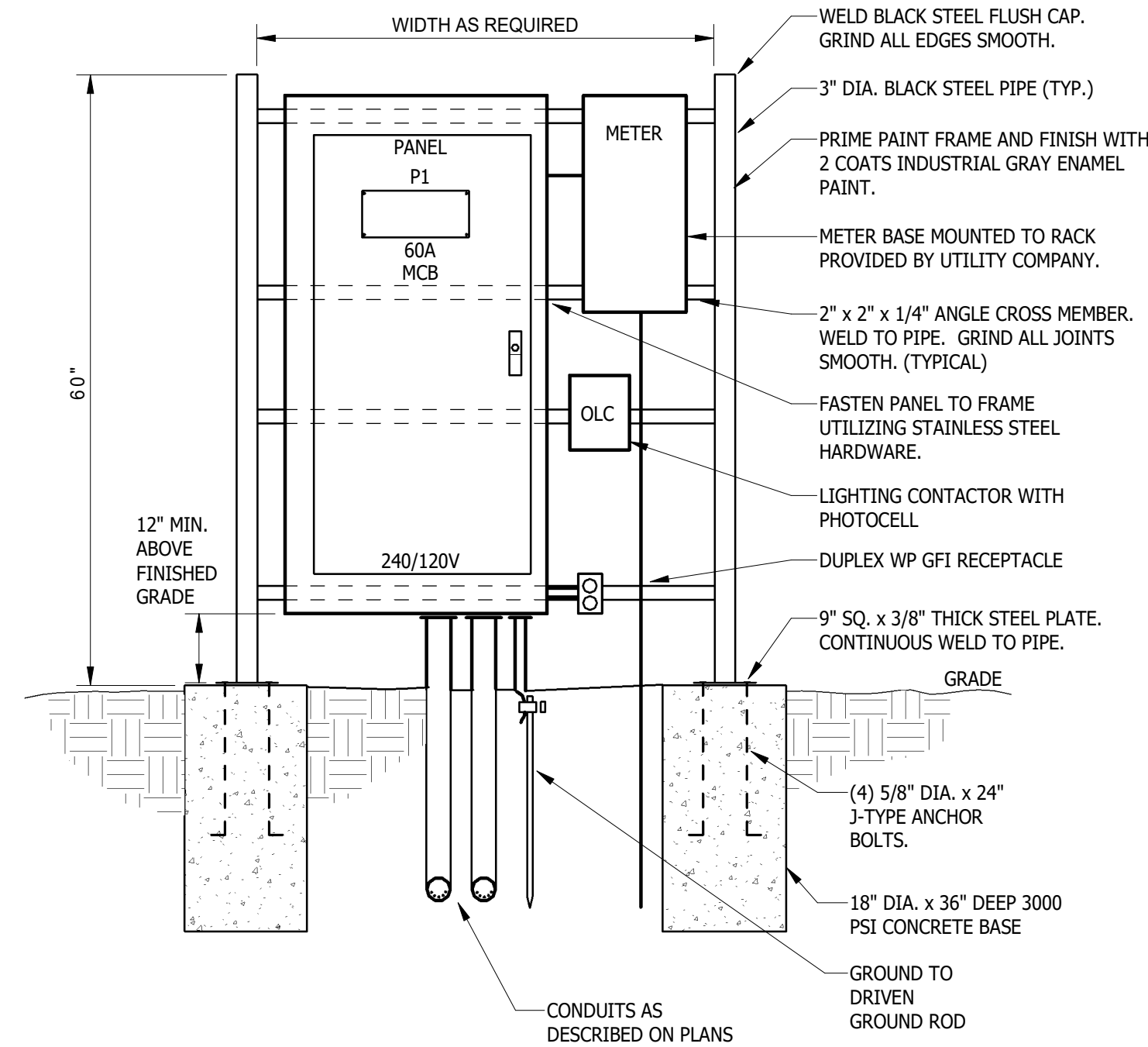
SW DETAIL: GN0004-R1

5 GROUND ROD CONNECTIONS
SCALE: NTS



SW DETAIL: GN0010-R1

6 SERVICE GROUNDING AND BONDING
SCALE: NTS



SW DETAIL: OC0023

1 PANEL RACK DETAIL
SCALE: NTS

GENERAL NOTES :

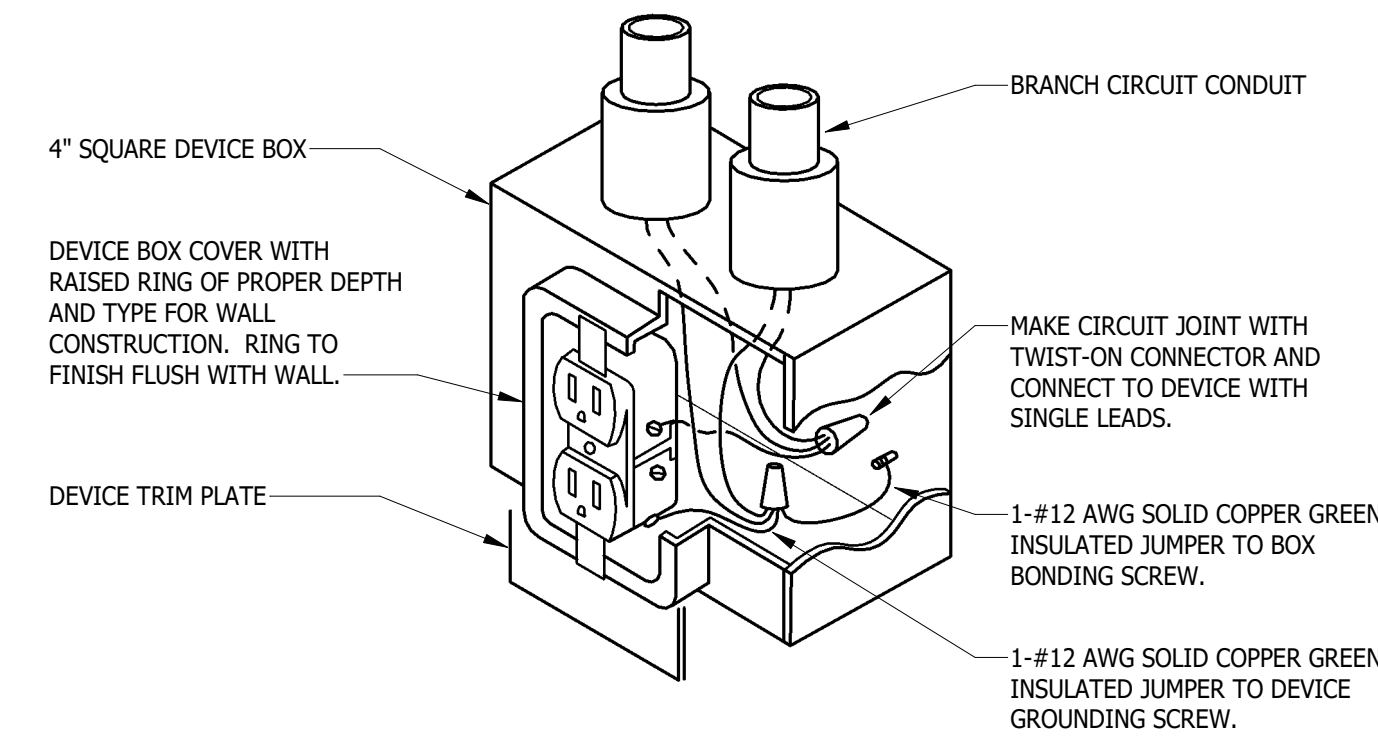
1. INSTALL NEW LABELS ON ALL PROJECT EQUIPMENT (PANELBOARDS, ENCLOSED BREAKERS, DISCONNECTS, TRANSFORMERS).
2. CONSTRUCT LABELS FROM 2 COLOR PLASTIC LAMINATE. DIMENSIONS ARE 5" WIDE X 1 1/2" HIGH. TEXT HEIGHT IS 3/16", EXCEPT AS NOTED OTHERWISE.
3. LABEL COLORS ARE TO BE SELECTED FROM THE FOLLOWING CHOICES:
NORMAL SYSTEM: BLACK BACKGROUND/WHITE LETTERS
4. SECURE TO TOP CENTER OF EQUIPMENT COVER WITH #4-40 STAINLESS STEEL SCREWS WITH MATCHING NUTS AND LOCKWASHERS. USE OF ADHESIVES TO SECURE LABEL TO EQUIPMENT IS NOT ACCEPTABLE.

KEYED NOTES :

- 1 INSERT EQUIPMENT DESIGNATION WHERE X'S ARE INDICATED.
- 2 INSERT VOLTAGE WHERE X'S ARE INDICATED. POSSIBLE VOLTAGES ARE:
"120/240, 1ø"
- 3 INSERT SUPPLY SOURCE DESIGNATION HERE.
- 4 INSERT SUPPLY SYSTEM WHERE X'S ARE INDICATED POSSIBLE CHOICES ARE:
"NORMAL POWER"
- 6 ADD THIS LABEL AT ALL PANELBOARDS.
- 7 INSERT VALUE INDICATED ON PROJECT ELECTRICAL DRAWINGS.
- 8 INSERT DATE OF PROJECT DRAWING BID SET.

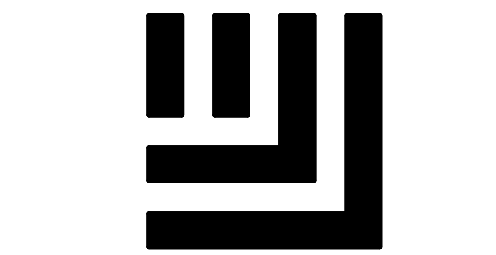
SW DETAIL: LA0003 R1

2 EQUIPMENT LABEL
SCALE: NTS



SW DETAIL: GE0033

3 RECEPTACLE GROUNDING DETAIL
SCALE: NTS



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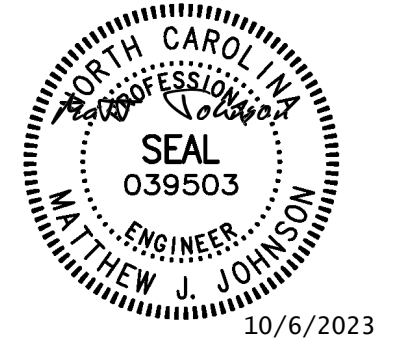
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GREENVILLE GATEWAY
SIGNAGE
GREENVILLE, NORTH CAROLINA



REVISIONS

PLAN INFORMATION

PROJECT NO. GVL21001
FILENAME GVL21001-LS1
CHECKED BY Checker
DRAWN BY Designer
SCALE PER PLAN
DATE 10.26.2023

SHEET

ELECTRICAL DETAILS

E201

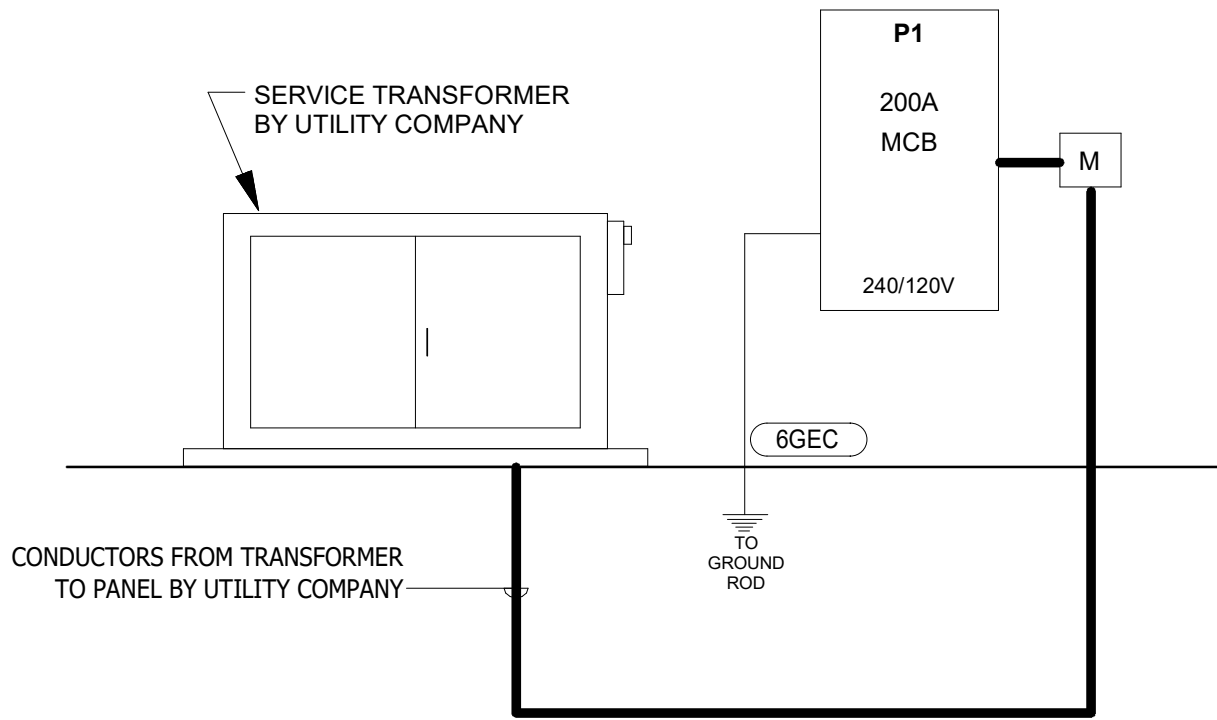
PANEL ID: P1		VOLTAGE: 120/240		SERVICE EQUIP: Yes		MOUNTING: Surface									
SOURCE: UTILITY		AMPS: 200		MAIN: MCB		TYPE: BOLT ON									
LOCATION: RACK MOUNTED		PANEL AIC: 22,000		APPROX. DIM: 20" W X 5.75" D X 50" H		NEMA 3R									
LOAD	NO TE	COND	Phase, Neu, Grd Size	PO LE	BKR	CKT	A	B	CKT	BKR	PO LE	Phase, Neu, Grd Size	COND	NO TE	LOAD
REC		3/4	1-#12, 1-#12, 1-#12	1	20	1	360	--		2	--	1	--	--	SPACE
SIGN POWER		3/4	1-#10, 1-#10, 1-#10	1	30	3		2880	--	4	--	1	--	--	SPACE
SIGN POWER		--	1-#10, 1-#10, 1-#10	1	30	5	2880	--		6	--	1	--	--	SPACE
LIGHTING - EXTERIOR		--	1-#12, 1-#12, 1-#12	1	20	7		90	--	8	--	1	--	--	SPACE
FUTURE CAMERA		--	--	1	20	9	0	--		10	--	1	--	--	SPACE
SPARE		--	--	1	20	11		0	--	12	--	1	--	--	SPACE
SPARE		--	--	1	20	13	0	--		14	--	1	--	--	SPACE
SPARE		--	--	1	20	15		0	--	16	--	1	--	--	SPACE
SPARE		--	--	1	20	17	0	--		18	--	1	--	--	SPACE
SPARE		--	--	1	20	19		0	--	20	--	1	--	--	SPACE
SPARE		--	--	1	20	21	0	--		22	--	1	--	--	SPACE
SPARE		--	--	1	20	23		0	--	24	--	1	--	--	SPACE
				3240 VA		2966 VA									
				27 A		25 A									
Load Classification				Connected Load		Demand Factor		Estimated Demand		Panel Totals					
Power				5760 VA		100.00%		5760 VA							
REC				360 VA		100.00%		360 VA		CONNECTED LOAD 6206 VA					
Lighting - Exterior				90 VA		125.00%		113 VA		DEMAND LOAD 6227 VA					
										AVG. CONNECTED CURRENT 26 A					
										AVG. DEMAND CURRENT 26 A					
NOTES:															
CALCULATED SHORT CIRCUIT CURRENT: 6.484 A															

LIGHTING FIXTURE SCHEDULE									
TYPE MARK	DESCRIPTION	LUMENS	MOUNTING	VOLTAGE	WATTAGE	CONTROL	FIXTURE MEETING SPECIFICATION	COMMENTS	ICON
FL	GROUND MOUNTED FLOOD LIGHT	5242	GROUND	120	45 VA	PHOTOCELL	NLS NV-F1-15-16L-45-35K-SNL	PROVIDE NARROW SPOT LIGHT DISTRIBUTION AND FULL VISOR	

FIXTURE SCHEDULE NOTES:

- THIS FIXTURE SCHEDULE IDENTIFIES A FIXTURE THAT MEETS THE SPECIFIED PERFORMANCE REQUIREMENTS AND A LEVEL OF QUALITY REQUIRED FOR THE PROJECT. **MANUFACTURER'S NAMES AND FIXTURE SERIES/MODELS IN SCHEDULE ARE NOT A BRAND NAME SPECIFICATION.** EQUIVALENT FIXTURES BY MANUFACTURERS OTHER THAN THOSE LISTED MAY BE SUBMITTED FOR THIS PROJECT.
- PROVIDE LED DRIVERS SUITABLE FOR FULL RANGE DIMMING, INTEGRAL SURGE PROTECTION, CURRENT TOTAL HARMONIC DISTORTION (THD) OF <20% AND A POWER FACTOR >0.90. IN ADDITION, DRIVERS MUST BE RF SUPPRESSED FOR MINIMUM INJECTION OF FEEDBACK INTO SUPPLY LINES. MAXIMUM CURRENT THD AND MINIMUM POWER FACTOR MUST BE SUBMITTED AS A PART OF THE FIXTURE SUBMITTAL DATA.
- UNLESS OTHERWISE INDICATED, PROVIDE SINGLE DRIVER PER FIXTURE.
- PROVIDE MOUNTING FRAME AND RELATED ACCESSORIES FOR ALL FIXTURES AS REQUIRED TO MATCH CEILING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MODIFICATION OF FIXTURE SCHEDULE MANUFACTURER'S PART NUMBERS FOR PURPOSES OF MATCHING CEILING CONSTRUCTION.
- PROVIDE DIMMING DRIVERS WHERE DIMMING CONTROLS ARE INDICATED ON THE PLANS.
- ALL FIXTURES TO HAVE A COLOR TEMPERATURE OF 4000K UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE, ALL FIXTURES SHALL INCLUDE INTEGRAL DRIVER.
- ALL FIXTURES SHALL BE UL OR THIRD PARTY LISTED AS COMPLETE ASSEMBLY.

SW DETAIL: IN0011 LED



1 ELECTRICAL DISTRIBUTION RISER
SCALE: NTS

GENERAL NOTES TO POWER RISERS:

- PROVIDE 4" (NOMINAL) THICK, 3000 PSI CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED GEAR AND TRANSFORMERS. FINISH SMOOTH AND CHAMFER EDGES.
- COORDINATE LOCATIONS FOR ALL DRY TYPE TRANSFORMERS TO PROVIDE NEC MANDATED WORKING CLEARANCES AND PROVIDE CLEARANCES FROM WALLS AS RECOMMENDED BY PRODUCT MANUFACTURER TO PROMOTE AIR CIRCULATION (6" MIN.)

ELECTRICAL FEEDER SCHEDULE		
Mark	Ampacity	Description
6GEC	N/A	GROUNDING ELECTRODE CONDUCTOR. 1-#6 IN 1/2" RMC. SEE NOTE 3.

NOTES TO FEEDER SCHEDULE:

- ALL AMPACITIES ARE BASED ON 75° C. RATING. CONTRACTOR IS RESPONSIBLE FOR THE MODIFICATION OF CONDUCTOR SIZES AS NECESSARY TO MEET THE REQUIREMENTS OF NEC 110-14(C) WHERE TERMINATIONS ARE NOT LISTED AND LABELED FOR USE AT 75° C. THIS REQUIREMENT APPLIES TO TERMINATIONS IN BOTH NEW EQUIPMENT AND IN EXISTING EQUIPMENT TO WHICH TERMINATIONS ARE MADE AS A PART OF THIS PROJECT.
- DESIGNATION "C" IN THE ABOVE TABLE REFERS TO "CONDUIT". SEE SPECIFICATIONS FOR EXACT TYPE OF RACEWAY REQUIRED. TYPE OF RACEWAY, UNLESS INDICATED IN TABLE OR ELSEWHERE IN THE DRAWINGS, IS TO BE DETERMINED BY USE CONDITIONS.
- PROVIDE A BONDING BUSHING AT THE EQUIPMENT END OF THIS CONDUIT RUN AND A BONDING HUB AT THE CONNECTION TO THE GROUNDING ELECTRODE.



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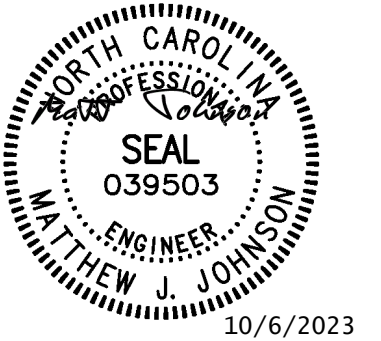


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GREENVILLE GATEWAY
SIGNAGE
GREENVILLE, NORTH CAROLINA



10/6/2023

REVISIONS

PLAN INFORMATION

PROJECT NO. GVL21001
FILENAME GVL21001-LS1
CHECKED BY Checker
DRAWN BY Designer
SCALE PER PLAN
DATE 10.26.2023

SHEET

ELECTRICAL SCHEDULES

E202

1. GENERAL

- 1.01. THE STRUCTURE IS DESIGNED AND MEETS THE DESIGN CRITERIA OF THE FOLLOWING CODES AND STANDARDS:
2018 NORTH CAROLINA STATE BUILDING CODE (2015 INTERNATIONAL BUILDING CODE WITH CHANGES)
ASCE 7-10, MINIMUM DESIGN LOAD FOR BUILDINGS AND OTHER STRUCTURES
AISC 360-10, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
ALL OTHER REFERENCED CODES OR STANDARDS SHALL REFER TO THE EDITION OF THE CODE/STANDARD ENFORCED AT THE TIME THE STRUCTURAL CONTRACT DRAWINGS ARE ISSUED FOR PERMIT.
- 1.02. ALL METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURE, AS DEPICTED ON THE CONTRACT DRAWINGS, IS STRUCTURALLY STABLE IN ITS COMPLETED FORM; BRACING, SHORING, OR OTHER ADDITIONAL SUPPORT MAY BE NECESSARY TO ENSURE STRUCTURAL STABILITY DURING VARIOUS STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND PROVIDE ALL NECESSARY BRACING OR SHORING, TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
- 1.03. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL DETERMINE THE SCOPE OF THE STRUCTURAL WORK FROM THE CONTRACT DOCUMENTS TAKEN AS A WHOLE. THE STRUCTURAL DRAWINGS SHALL NOT BE CONSIDERED SEPARATELY FOR PURPOSES OF BUILDING THE STRUCTURAL WORK.
- 1.04. SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL REFERENCE ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY DIRECT SCALING OF THE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS RELEVANT TO ALL NEW CONSTRUCTION AND DEMOLITION, PRIOR TO COMPLETION OF SHOP DRAWINGS OR COMMENCEMENT OF WORK. ANY EXISTING DIMENSIONS IN CONTRADICTION TO WHAT IS SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS SHALL BE REPORTED TO DRYE-McGLAMERY ENGINEERING PROMPTLY.
- 1.05. IN ANY INSTANCE OF CONFLICT BETWEEN THE STRUCTURAL CONTRACT DRAWINGS OR SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT SHALL BE ADHERED TO. ALL REQUEST FOR CLARIFICATION AS TO WHICH REQUIREMENT WILL CONTROL SHALL BE DIRECTED TO DRYE-McGLAMERY ENGINEERING. IN NO CASE SHALL THE CONTRACT DOCUMENTS OR SPECIFICATIONS BE DEVIATED FROM WITHOUT THE CONSENT OF DRYE-McGLAMERY ENGINEERING.
- 1.06. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL INSPECTIONS AND SPECIAL INSPECTIONS, AS REQUIRED BY THE BUILDING CODE AND AUTHORITY HAVING JURISDICTION.
- 1.07. ALL PRODUCT DATA, SHOP DRAWINGS, AND OTHER SUBMITTALS SHALL CONFORM TO THE REQUIREMENTS OF THE RELEVANT STANDARD AND/OR SPECIFICATION ENFORCED IN THE BUILDING CODE AT THE TIME PERMITS ARE ISSUED. IN ANY INSTANCE OF CONFLICT BETWEEN VERSIONS OF A STANDARD/SPECIFICATION REFERENCED IN THE STRUCTURAL DRAWINGS AND THE BUILDING CODE, THE CODE-REFERENCED VERSION SHALL BE ADHERED TO.

2. MATERIAL STRENGTHS

2.01. CONCRETE (COMPRESSIVE STRENGTH, f_c AT 28 DAYS) FOUNDATIONS * CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED *	5,000 PSI	MAX w/c RATIO 0.45
2.02. REINFORCING STEEL (MINIMUM SPECIFIED YIELD STRESS, F_y) REBAR (ASTM A615 GRADE 60) DEFORMED STEEL WELDED WIRE REINFORCING (ASTM A1034)	60,000 PSI 65,000 PSI	
2.03. STRUCTURAL STEEL (MINIMUM SPECIFIED YIELD STRESS, F_y) PIPE (ASTM A53 GRADE B) ANCHOR RODS (ASTM F1554 GRADE 36, UNF) WELDING RODS (E70XX, UNF)	35,000 PSI 36,000 PSI 70,000 PSI (F_{EXX})	
2.04. SOIL/SUBGRADE PROPERTIES ALLOWABLE SOIL BEARING PRESSURE (q)	1,500 PSF (ASSUMED)	

3. SUBMITTAL

- 3.01. SUBMITTALS AND SHOP DRAWINGS SHALL BE SUBMITTED TO DRYE-McGLAMERY ENGINEERING FOR REVIEW, AS REQUIRED PER PROJECT SPECIFICATIONS. SUBMITTALS SHALL INCLUDE:
- CONCRETE REBAR SHOPS
- SIGN/TOWER FABRICATION AND ANCHORAGE DRAWINGS
- 3.02. DRYE-McGLAMERY ENGINEERING SHALL HAVE 15 DAYS AFTER THE DATE OF RECEIPT OF THE SUBMITTAL FOR REVIEWING AND COMMENTING ON ANY SUBMITTALS.
- 3.03. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS SHALL REVIEW SUBMITTALS PRIOR TO SUBMITTING THEM TO DRYE-McGLAMERY ENGINEERING. HIGHLIGHT, CLOUD, OR OTHERWISE INDICATE ITEMS THAT DEViate FROM THE CONTRACT DOCUMENTS ON THE SUBMITTAL.

4. FOUNDATION AND SLAB ON GRADE

- 4.01. THE FOUNDATION HAS BEEN DESIGNED FOR A PRESUMED ALLOWABLE SOIL BEARING PRESSURE OF 1,500 POUNDS PER SQUARE FOOT (PSF). THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE VERIFIED IN THE FIELD BY THE OWNERS SPECIAL INSPECTOR.
- 4.02. ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL OR APPROVED ENGINEERED COMPACTED FILL, BUT NOT HIGHER THAN THE MINIMUM DEPTH SHOWN ON DRAWINGS. CONTRACTOR SHALL PROVIDE A MINIMUM 4" LAYER OF COMPACTED STONE BELOW ALL FOOTINGS AND SLAB ON GRADE, UNLESS NOTED OTHERWISE ON DRAWINGS.
- 4.03. ALL SLABS ON GRADE SHALL BEAR ON ORIGINAL UNDISTURBED SOIL OR APPROVED ENGINEERED COMPACTED FILL. CONTRACTOR SHALL PROVIDE A MINIMUM 4" THICK LAYER OF COMPACTED STONE BELOW ALL SLABS ON GRADE.
- 4.04. CONTRACTOR TO KEEP EXCAVATIONS DRY AND PROTECTED FROM FROST AT ALL TIMES DURING THE FOUNDATION CONSTRUCTION. CONTRACTOR SHALL DEWATER WHERE REQUIRED PRIOR TO ANY EXCAVATION WORK BEING DONE. ALL UNSUITABLE OR DELETERIOUS SOILS OR MATERIAL SHALL BE REMOVED FROM THE EXISTING GROUND SURFACE PRIOR TO ANY EXCAVATION WORK BEING DONE.
- 4.05. FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THE DESCRIBED ASSUMED VALUES SHOWN ON THE CONTRACT DRAWINGS OR HIGHLIGHTED IN THE GEOTECHNICAL REPORT SHALL BE REPORTED TO DRYE-McGLAMERY ENGINEERING, BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

5. REINFORCED CONCRETE

- 5.01. THE OWNER'S SPECIAL INSPECTOR SHALL VERIFY THAT CONCRETE WORK AND REINFORCEMENT ARE FABRICATED AND PLACED IN CONFORMITY WITH THE APPLICABLE EDITION OF ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, THESE DOCUMENTS, AND WITH ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY WHEN WORK REINFORCING STEEL IS TIED IN ITS FINAL LOCATION FOR VERIFICATION PRIOR TO POURING ANY CONCRETE.
- 5.02. THE CONTRACTOR SHALL SUBMIT ALL CONCRETE MIXES TO DRYE-McGLAMERY ENGINEERING FOR REVIEW ALONG WITH STANDARD ACI STRENGTH DOCUMENTATION, PRIOR TO USE.
- 5.03. CONCRETE REINFORCING SHALL HAVE THE FOLLOWING MINIMUM PROTECTIVE COVER:
CONCRETE POURED ON EARTH OR GROUND 3 IN.
CONCRETE EXPOSED TO WEATHER 2 IN.
#6 THROUGH #18 BARS 2 IN.
#5 BAR, W31 OR D31 WIRE AND SMALLER 1 1/2 IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER 1 1/2 IN.
#14 AND #18 BARS 1 1/2 IN.
#11 BAR AND SMALLER 1 IN.
- 5.04. SLEEVES, CONDUITS, OR PIPES THROUGH SLABS AND WALLS SHALL BE PLACED SO THAT THEY ARE NOT CLOSER THAN THREE DIAMETERS ON CENTER AND THEY DO NOT DISPLACE REINFORCING STEEL.
- 5.05. DO NOT CUT OR PLACE HOLES IN CONCRETE SLABS, WITHOUT PRIOR APPROVAL OF DRYE-McGLAMERY ENGINEERING.
- 5.06. BARS SHALL BE SPLICED PER DETAILS WHERE PROVIDED. OTHERWISE BARS SHALL BE CLASS "B" LAP SPLICED IN LONGEST CONVENIENT LENGTHS WITH ADJACENT LAPS STAGGERED. 3'-0" MINIMUM BARS SHALL BE CONTACT SPLICED OR SPACED A MINIMUM DISTANCE APART PER CRSI "REINFORCEMENT ANCHORAGES AND SPLICES", AND A MAXIMUM DISTANCE APART OF THE LESSER OF 1/5 THE LAP LENGTH OR 6 INCHES.
- 5.07. CLEAR SPACING BETWEEN REBARS (UNLESS SHOWN TO BE CONTACT LAP SPLICED) SHALL BE A MINIMUM OF 1-1/2 BAR DIAMETER, 1-1/2", OR 1-1/3 TIMES THE AGGREGATE SIZE, WHICHEVER IS GREATER.
- 5.08. ALL HOOKS NOT NOTED SHALL BE ACI STANDARD HOOKS.
- 5.09. NO TACK WELDING WILL BE PERMITTED ON GRADE 40 OR 60 STEEL.

5. REINFORCED CONCRETE (CONTD.)

- 5.10. ANCHOR BOLTS SHALL BE SET AND CONCRETE BEARING SURFACE FOR COLUMNS SHALL BE FINISHED TO THE FOLLOWING TOLERANCE:
A. ELEVATION OF CONCRETE SURFACE PLUS OR MINUS 3/8"
B. ELEVATION TOP OF ANCHOR BOLTS PLUS 1" TO MINUS 3/8"
C. OUT OF POSITION OF ANCHOR BOLTS PLUS OR MINUS 1/8".
- 5.11. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND DIMENSIONS OF CONCRETE REVEALS, NOTCHES, REGLETS, DRIPS, FADS, CURBS, CHAMFER BLOCKOUTS AT DOORWAYS, AND ALL OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- 5.12. GROUT FOR BASE PLATES SHALL BE NONSHRINKABLE, NON-METALLIC CONFORMING TO ASTM C827, AND SHALL HAVE A SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS OF 5000 PSI. PRE-GROUTING OF BASE PLATES WILL NOT BE PERMITTED. GROUT BASE PLATES AFTER TORQUE IS ACHIEVED ON ALL ANCHOR BOLTS.
- 5.13. ALL POST-INSTALLED EPOXY ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ALL EPOXY ANCHOR SYSTEM MANUFACTURER'S REQUIREMENTS. WHERE POST-INSTALLED EPOXY ANCHORS ARE USED, CONCRETE SHALL BE ALLOWED TO ADEQUATELY CURE PRIOR TO DRILLING OF ANCHOR HOLES, OR INSTALLATION OF ANCHORS.
- 5.14. IN NO INSTANCE SHALL WATER BE ADDED TO CONCRETE MIXES ON SITE. IF A MORE EASILY WORKABLE CONCRETE IS DESIRED, THE CONTRACTOR SHALL REQUEST A HIGH-RANGE WATER REDUCER, OR SUPERPLASTICIZER, BE ADDED TO THE CONCRETE MIX PRIOR TO ORDERING OR POURING THE CONCRETE.
- 5.15. ALL CONCRETE MIXES SHALL MEET THE REQUIREMENTS FOR THE ASSIGNED EXPOSURE CLASS, PER ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY. REFER TO THE PROVIDED TABLE FOR ALL EXPOSURE CLASSES, BY EXPOSURE CATEGORY, FOR EACH STRUCTURAL CONCRETE ELEMENT. IN ANY INSTANCE OF UNCERTAINTY AS TO THE EXPOSURE CLASS FOR A STRUCTURAL CONCRETE ELEMENT, THE CONTRACTOR OR CONCRETE SUPPLIER SHALL CONTACT THE ENGINEER OF RECORD (DRYE-McGLAMERY ENGINEERING) TO CONFIRM THE CONTROLLING EXPOSURE CLASS, PRIOR TO POURING ANY CONCRETE.
- 5.16. CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED WITH 4% - 6% AIR ENTRAINMENT. REFER TO THE ASSIGNED EXPOSURE CLASS FOR ADDITIONAL INFORMATION AND REQUIREMENTS FOR AIR ENTRAINMENT FOR CONCRETE ELEMENTS.
- 5.17. THE CONTRACTOR SHALL TAKE CAUTION TO ENSURE ALL REQUIRED REINFORCED CONCRETE SPECIAL INSPECTIONS ARE COMPLETED, ONCE THE RELEVANT CONCRETE ELEMENTS ARE INSTALLED. REFER TO THE SPECIAL INSPECTION TABLES OR THE BUILDING CODE FOR ALL REQUIRED REINFORCED CONCRETE SPECIAL INSPECTIONS.

REINFORCED CONCRETE MINIMUM BAR DEVELOPMENT LENGTHS

BAR SIZE	TENSION LENGTH	COMPRESSION LENGTH
#4 (1/2")	24 INCHES	10 INCHES
#6 (3/4")	34 INCHES	14 INCHES
#8 (1")	56 INCHES	20 INCHES

*NOTE: FOR HOOKED BARS, DEVELOPMENT LENGTHS MAY BE LESS THAN SHOWN IN TABLE. FOR BARS WITH STANDARD HOOKS, TENSION, THE DEVELOPMENT LENGTH OF BARS SHALL NOT BE LESS THAN 25 BAR DIAMETERS.

REINFORCED CONCRETE MINIMUM LAP SPLICE LENGTHS

BAR SIZE	TENSION SPLICE	COMPRESSION SPLICE
#4 (1/2")	30 INCHES	16 INCHES
#6 (3/4")	44 INCHES	24 INCHES
#8 (1")	72 INCHES	30 INCHES

*NOTE: ALL TENSION LAP SPLICES SHALL BE NO LESS THAN 1.3 TIMES THE BAR DEVELOPMENT LENGTH. ALL COMPRESSION LAP SPLICES SHALL BE NO LESS THAN 40 TIMES THE BAR DIAMETER.

REINFORCED CONCRETE EXPOSURE CLASSES

REINFORCED CONCRETE ELEMENT	FREEZE-THAW CLASS	SULFATE CLASS	WATER-CONTACT CLASS	CORROSION CLASS
FOUNDATIONS	F2	S0	W0	C0

6. STRUCTURAL STEEL

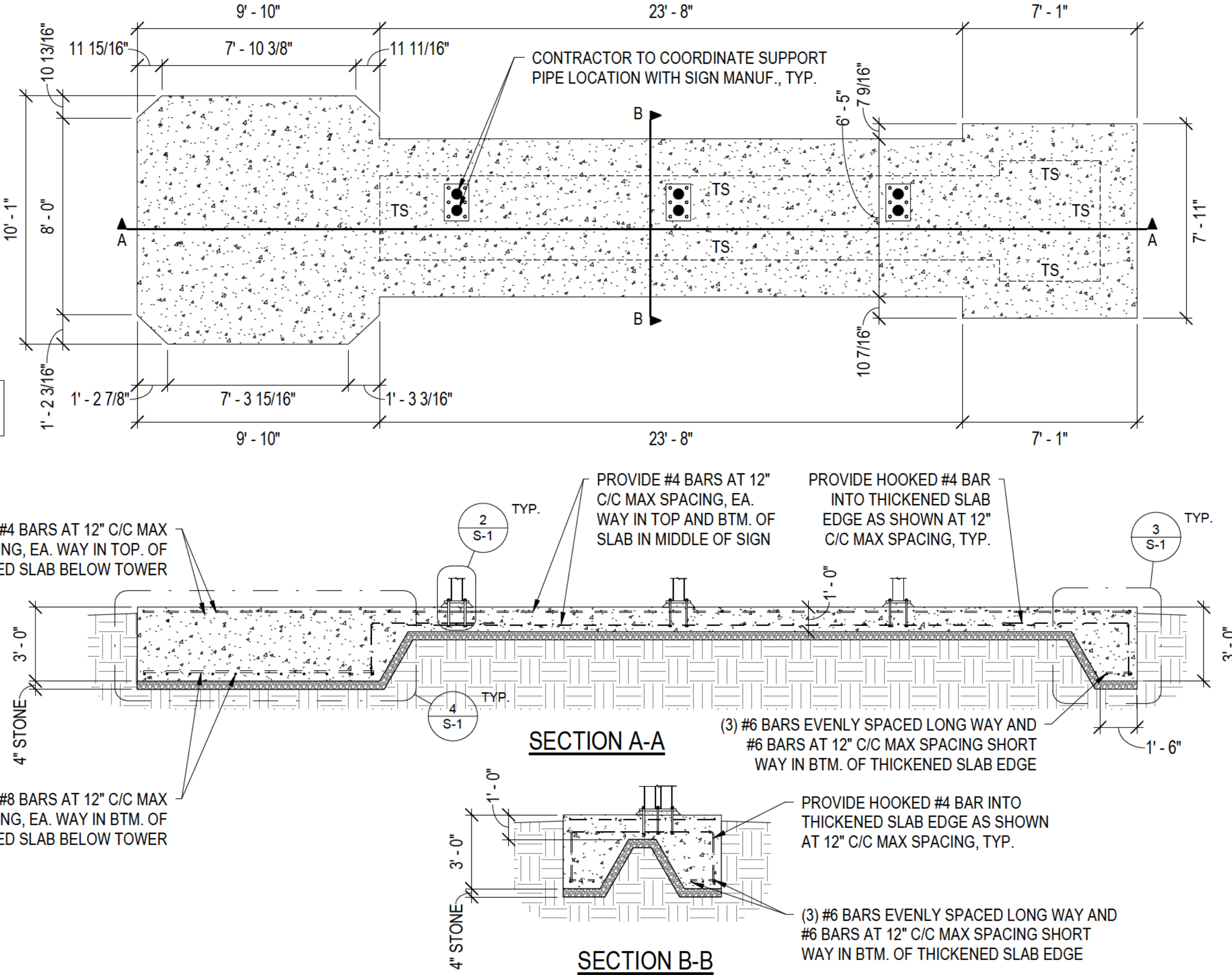
- 6.01. FABRICATOR QUALIFICATIONS: ENGAGE A FIRM EXPERIENCED IN FABRICATING STRUCTURAL STEEL SIMILAR TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE, AS WELL AS SUFFICIENT PRODUCTION CAPACITY TO FABRICATE STRUCTURAL STEEL WITHOUT DELAYING THE WORK.
- 6.02. FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AISC 360, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. SET STRUCTURAL STEEL ACCURATELY IN LOCATIONS AND TO ELEVATIONS INDICATED AND ACCORDING TO THE ACI SPECIFICATIONS REFERENCED IN THIS SECTION.
- 6.03. PRIOR TO GROUTING, COLUMNS SHALL BE ERECTED AND ALIGNED AS TO PLUMBNESS AND ELEVATION BY MEANS OF STEEL SHIMS OR LEVELING NUTS UNDER THE BASE PLATES. SETTING PLATES SHALL ONLY BE USED AS TEMPLATES TO LOCATE ANCHOR BOLTS DURING CONCRETE PLACEMENT.
- 6.04. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED ON THE CONTRACT DOCUMENTS IS PROHIBITED WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE AND CONNECTION TO BE MADE.
- 6.05. STEEL MEMBERS, FABRICATIONS, AND ASSEMBLIES INDICATED ON THE DRAWINGS TO BE GALVANIZED SHALL BE GALVANIZED AFTER FABRICATION BY HOT DIP PROCESS IN ACCORDANCE WITH ASTM A123, WEIGHT OF ZINC COATING TO CONFORM TO THE REQUIREMENTS SPECIFIED UNDER "WEIGHT OF COATING" IN ASTM A123 OR ASTM A36, AS APPLICABLE. THE AFFECTED PORTIONS OF FIELD WELDED GALVANIZED ASSEMBLIES SHALL BE FIELD PAINTED WITH CORROSION RESISTANT PAINT.
- 6.06. THE CONTRACTOR SHALL TAKE CAUTION TO ENSURE ALL REQUIRED STEEL SPECIAL INSPECTIONS ARE COMPLETED, ONCE THE RELEVANT STEEL MEMBER/CONNECTION ELEMENTS ARE FULLY ERECTED AND INSTALLED. REFER TO THE SPECIAL INSPECTIONS TABLES OR THE BUILDING CODE FOR ALL REQUIRED STEEL SPECIAL INSPECTIONS.
- 6.07. ALL STRUCTURAL STEEL WELDING SHALL CONFORM TO AWS D1.1 - STRUCTURAL WELDING CODE - STEEL. ALL WELD FILLER METALS SHALL CONFORM TO AN APPROVED AWS SPECIFICATION LISTED IN AISC 360 AND AWS D1.1, ALL FILLER METALS SHALL BE E70XX (70 KSI), UNLESS NOTED OTHERWISE.
- 6.08. ALL ANCHOR RODS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F1554, UNLESS NOTED OTHERWISE. THREADS ON ANCHOR RODS AND THREADED RODS SHALL CONFORM TO THE UNIFIED STANDARD SERIES OF ASME B18.2.6 AND SHALL HAVE CLASS 2A TOLERANCES.

DESIGN DATA

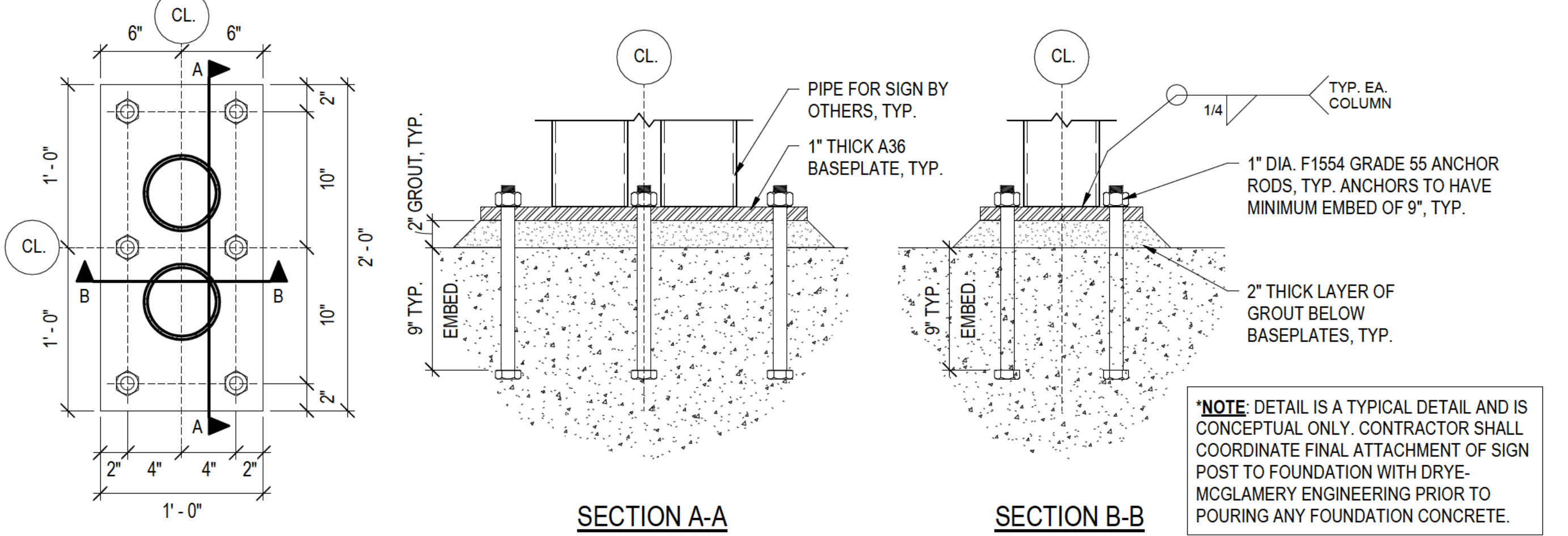
1. ALL CONSTRUCTION SHALL COMPLY AS APPROPRIATE WITH THE FOLLOWING CODES AND/OR SPECIFICATIONS:
2018 NORTH CAROLINA STATE BUILDING CODE (IBC 2015)
ASCE 7-10, MINIMUM DESIGN LOAD FOR BUILDINGS AND OTHER STRUCTURES
ACI 318-14, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AND OTHER APPLICABLE CRITERIA, REFERENCE TO OTHER STANDARD SPECS. OR CODES SHALL MEAN THE LATEST VERSION.
2. DESIGN LOADS:
A. WIND LOADS:
BASIC WIND SPEED (3-SEC GUST), V 121 MPH
EXPOSURE CATEGORY C
IMPORTANCE FACTOR, I_w 1.00
DIRECTIONALITY FACTOR, k_d 0.85
B. SEISMIC LOAD:
SOIL SITE CLASS D
IMPORTANCE FACTOR, I_e 1.00
0.2 SECOND, S_s 0.123g
1.0 SECOND, S_1 0.062g
0.2 SECOND, S_{ds} 0.132g
1.0 SECOND, S_{d1} 0.100g
SEISMIC DESIGN CATEGORY B
3. FOUNDATION DESIGN DATA
ALLOWABLE SOIL BEARING PRESSURE, q 1500 PSF (ASSUMED)

NOTE: CONTRACTOR TO COORDINATE TOWER ATTACHMENT TO FOUNDATION WITH DRYE-McGLAMERY ENGINEERING PRIOR TO POURING ANY CONCRETE.

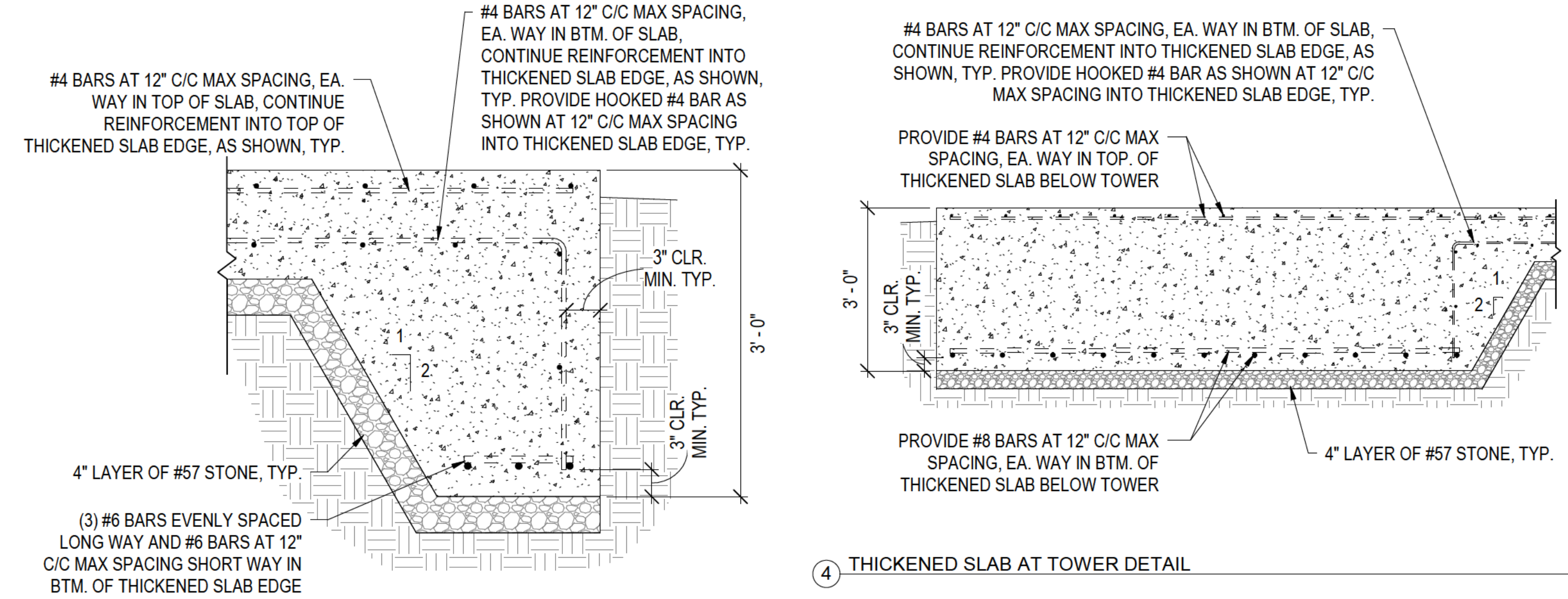
NOTE: "TS" DENOTES THICKENED SLAB EDGE



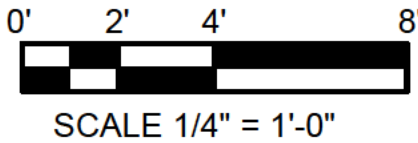
1. SIGN FOUNDATION PLAN
1/4" = 1'-0"



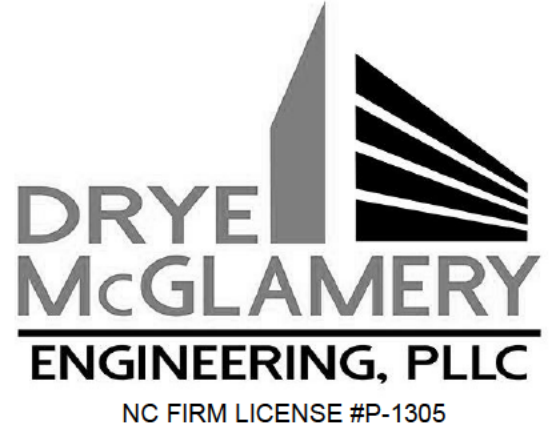
2. TYPICAL SIGN COLUMN BASEPLATE DETAIL



3. TYPICAL THICKENED SLAB EDGE DETAIL



SCALE 1/4" = 1'-0"



No.	Description	Date
A	ISSUED FOR PERMIT	2022-12-21

MCADAMS, INC.
GREENVILLE SIGNAGE
NC HIGHWAY 264
GREENVILLE, NORTH CAROLINA

DRYE-McGLAMERY
ENGINEERING, PLLC
PO BOX 19558
RALEIGH, NC 27619

ISSUED FOR PERMIT

DME PROJECT #: 2022214

DRAWN BY LCH

CHECKED BY DJM

MONUMENT SIGN
FOUNDATION PLAN