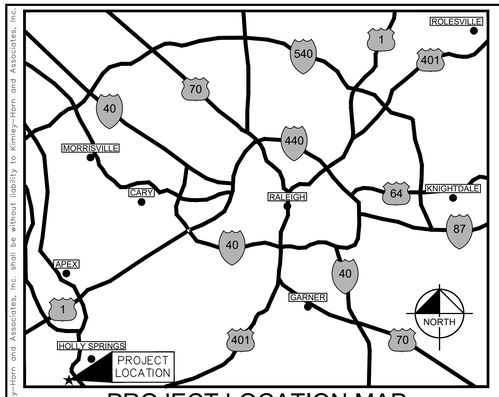
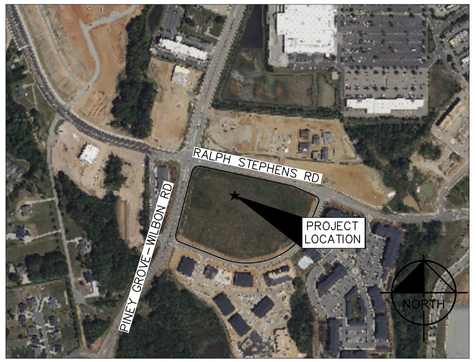


PROJECT LOCATION MAP

SCALE: NOT TO SCALE



VICINITY MAP

SCALE: 1" = 500'

EIS CONTROL CORNER
N – 685261.51'
E – 2049130.28'
EL – 442.69'

EIS CONTROL CORNER
N – 685001.84'
E – 2048519.88'
EL – 441.83'

INFRASTRUCTURE DATA	
8" SEWER MAIN	540 LF
6" SEWER SERVICE	490 LF
FIRE LANES	1250 LF
SIDEWALKS	3,000 LF

LTC Sewer Flow Calculations

Nursing home- 120 beds x 120 GPD/bed: 14,400 GPD

Office staff: 3 shifts (60, 30, 20 staff) x 25 GPD/Employee/Shift= 2,750 GPD

Total: 17, 150 GPD

PROJECT CONSULTANTS

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
421 FAYETTEVILLE ST, SUITE 600
RALEIGH, NORTH CAROLINA 27601
CONTACT: CHRIS BOSTIC, P.E.
PHONE: +1 (919) 653-2927
EMAIL: CHRIS.BOSTIC@KIMLEY-HORN.COM

SURVEYOR
BENTON W. DEWAR AND ASSOCIATES
PROFESSIONAL LAND SURVEYOR
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HOLLY SPRINGS, NORTH CAROLINA 27540
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ARCHITECT
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OWNER
BRITTHAVEN, INC.
1435 HIGHWAY 258
KINSTON, NC 28504-7208
CONTACT: JON WHITE
PHONE: (919) 428-7361
EMAIL: JONWHITE.NC@OUTLOOK.COM

CERTIFICATION STATEMENT

I CERTIFY THAT THESE PLANS WERE PREPARED AND THAT THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING PLANS, THE LATEST EDITION OF THE ENGINEERING DESIGN AND CONSTRICTION STANDARDS OF THE TOWN OF HOLLY SPRINGS AND OTHER APPLICABLE TOWN ORDINANCES AND POLICIES. THE ENGINEER WHOSE SEAL AND SIGNATURE APPEAR BELOW CERTIFIES THAT THE TOWN OF HOLLY SPRINGS ENGINEERING DESIGN AND CONSTRUCTION STANDARDS HAVE BEEN THOROUGHLY REVIEWED FOR APPLICABILITY TO THIS PARTICULAR PROJECT.

NORTH CAROLINA PROFESSIONAL SEAL 032582 ENGINEER CHRISTOPHER O. BOSTIC

NOTES:

1. CONSTRUCTION DRAWING APPROVAL IS REQUIRED BEFORE CONSTRUCTION ON THIS PROJECT MAY BEGIN.
2. DEVELOPMENT FEES ARE DUE BEFORE CONSTRUCTION DRAWING APPROVAL.

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "BRITTHAVEN, INC." AND DATED FEBRUARY 12, 2026. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON THE FLOOD INSURANCE RATE MAP COMMUNITY MAP NUMBER 3720064800J. DATED MAY 5, 2006.

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

DEVELOPMENT PLAN FOR:

1936 RALPH STEPHENS ROAD

25-DP-02 (APPROVAL 8/19/2025)
PLDP202500009
MASTER PLAN: SOUTHERN CROSSROADS 16-MAS-02-A04
ZONING: CB

LOCATION: 1936 RALPH STEPHENS ROAD
TOWN OF HOLLY SPRINGS
WAKE COUNTY, NORTH CAROLINA
WAKE COUNTY PIN: 0648857286

A DEVELOPMENT BY:

BRITTHAVEN, INC.
1435 HIGHWAY 258
KINSTON, NC 28504-7208
PH: (919) 428-7361

Sheet List Table	
Sheet Number	Sheet Title

C0.0	COVER SHEET
C0.1	REPRESENTATIVE 3D IMAGE
C1.0	EXISTING CONDITIONS AND DEMOLITION PLAN
C2.0	SITE PLAN
C2.1	OFF-SITE ROADWAY PLAN
C2.2	OFF-SITE ROADWAY PLAN
C2.3	OFF-SITE ROADWAY PLAN
C3.0	EROSION CONTROL PLAN PHASE 1
C3.1	EROSION CONTROL PLAN PHASE 2
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C4.1	STORM DATA TABLE
C5.0	UTILITY PLAN
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C5.2	WATER PLAN AND PROFILE
C6.0	SITE DETAILS
C6.1	SITE DETAILS
C7.0	STORM DRAINAGE DETAILS
C8.0	UTILITY DETAILS
C8.1	UTILITY DETAILS
C8.2	UTILITY DETAILS
C9.0	EROSION CONTROL DETAILS
C9.1	EROSION CONTROL DETAILS
C10.0	WET POND DETAILS
C11.0	NPDES DETAILS
C12.0	LIGHTING PLAN
C12.1	OVERALL PHOTOMETRIC PLAN
C12.2	PHOTOMETRIC PLAN ENLARGEMENT
C12.3	PHOTOMETRIC PLAN ENLARGEMENT
L1.0	LANDSCAPE PLAN
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A1.1	ARCHITECTURAL ELEVATIONS SHEET 1
A1.2	ARCHITECTURAL ELEVATIONS SHEET 2
A1.3	ARCHITECTURAL ELEVATIONS SHEET 3
A1.4	ARCHITECTURAL ELEVATIONS SHEET 4
A1.5	ARCHITECTURAL ELEVATIONS SHEET 5

PREPARED IN THE OFFICE OF:

Kimley»Horn

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421 FAYETTEVILLE STREET - SUITE 600 - RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000 NC CERTIFICATE OF AUTHORIZATION: F-0102

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REWISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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#F-0102

NORTH CAROLINA PROFESSIONAL SEAL 032582 ENGINEER CHRISTOPHER O. BOSTIC 03/11/26

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

COVER SHEET

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C0.0

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Plotted By:Schingel, Jared Sheet Set:PRINCIPLE LTC Layout:C0.1 REPRESENTATIVE 3D IMAGE March 11, 2026 09:54:19am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C0.1 REPRESENTATIVE 3D IMAGE.dwg
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SHEET NUMBER
C0.1

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

REPRESENTATIVE 3D IMAGE

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

Kimley»Horn

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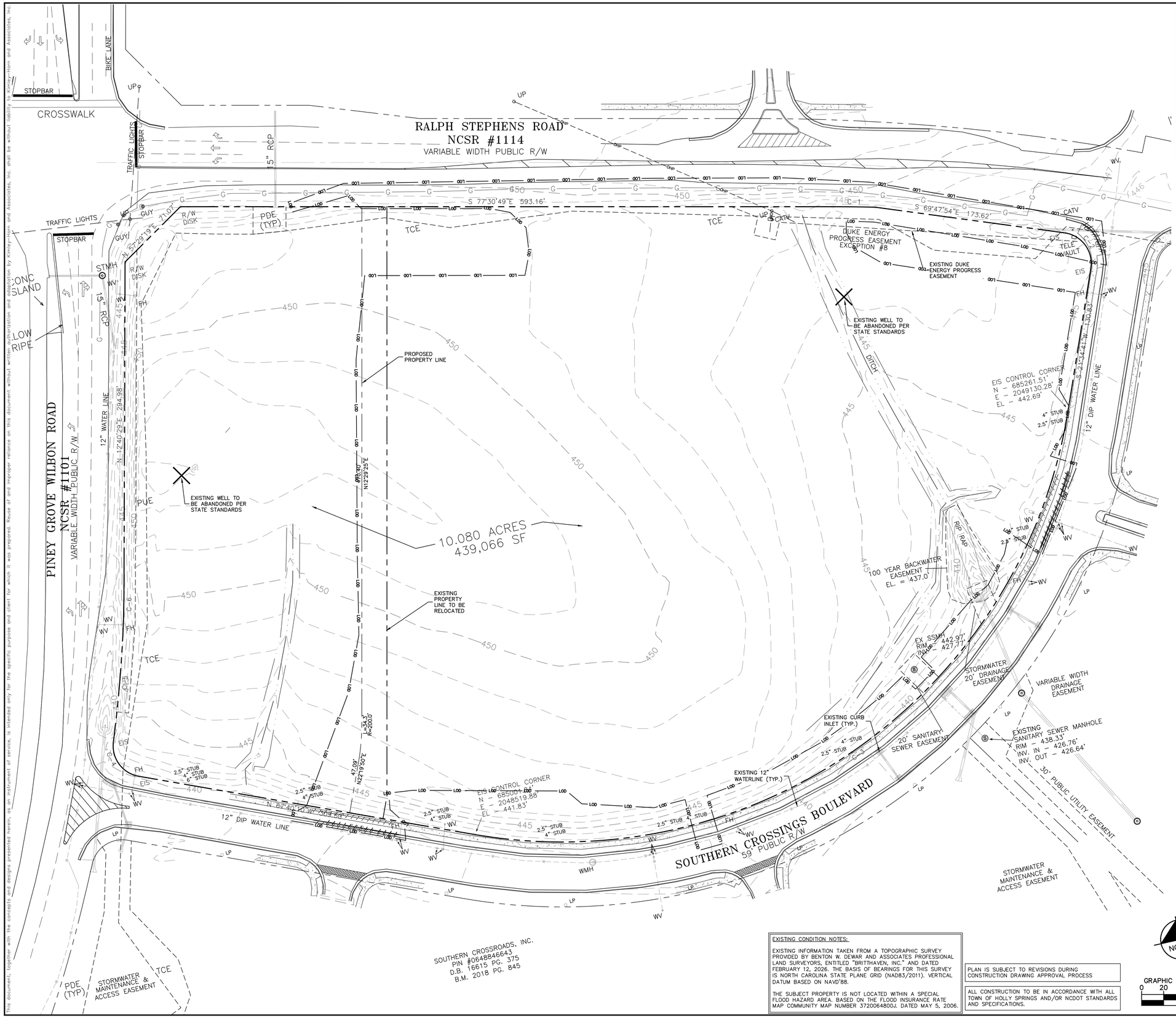

DEMOLITION LEGEND

- PROPERTY LINE
- LOD — LIMITS OF DISTURBANCE
- DEMOLISH SITE ITEM
- DEMOLISH UNDERGROUND UTILITY
- ABANDON UTILITY IN PLACE
- SAWCUT
- DEMOLISH SITE ITEM/ TREE TO BE REMOVED
- BUILDINGS TO BE REMOVED
- SIDEWALK/PAVEMENT TO BE REMOVED

DEMOLITION NOTES

1. THE ITEMS IDENTIFIED FOR DEMOLITION ARE INTENDED TO AID THE CONTRACTOR. THE ITEMS IDENTIFIED MAY NOT INCLUDE ALL ASPECTS OF DEMOLITION REQUIRED TO CONSTRUCT THE PROPOSED IMPROVEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY DEMOLITION TO CONSTRUCT THE PROPOSED IMPROVEMENTS.
2. VEGETATION SHALL NOT BE CLEARED UNTIL ALL EROSION CONTROL DEVICES HAVE BEEN INSTALLED AND A CERTIFICATE OF COMPLIANCE HAS BEEN ISSUED BY THE TOWN OF HOLLY SPRINGS EROSION CONTROL INSPECTOR.
3. CLEAR VEGETATION TO LIMITS SHOWN ON PLAN, REFER TO TREE PRESERVATION PLANS.
4. THE LOCATIONS OF EXISTING UTILITIES, STORM DRAINAGE STRUCTURES, AND OTHER ABOVE AND BELOW GRADE APPURTENANCES ARE APPROXIMATE AS SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, AND INVERT ELEVATIONS OF SUCH PRIOR TO BEGINNING CONSTRUCTION.
5. INSTALL ALL EROSION CONTROL MEASURES PRIOR TO BEGINNING CONSTRUCTION; SEE SHEET ####.
6. NO SOIL DISTURBANCE, SOIL COMPACTION, CONSTRUCTION MATERIALS, OR CONSTRUCTION TRAFFIC ALLOWED BEYOND THE TREE PROTECTION BARRICADES OR WITHIN TREE PROTECTION ZONE.
7. TREE PROTECTION BARRICADES MUST BE INSTALLED PRIOR TO ANY GRADING, DEMOLITION, OR CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL PROJECT IS COMPLETED.
8. EXISTING SEPTIC DRAIN FIELD INFRASTRUCTURE TO BE REMOVED IN ITS ENTIRETY PER NCDEQ REQUIREMENTS. PULL PERMIT FOR WAKE COUNTY DHHS TO ASSESS DRAIN FIELD LOCATION AND EXTENTS. CONTRACTOR TO COORDINATE AND OBTAIN ANY NECESSARY PERMITS/APPROVALS PRIOR TO PRE-CONSTRUCTION MEETING.
9. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES AT EXISTING HEADWALL LOCATION PRIOR TO REMOVAL OF HEADWALL AND CONNECTION OF THE PROPOSED 48" STORM BYPASS PIPE. SUE TEST PIT DATA AND SUE SIGNALS INDICATE UTILITIES ARE BELOW AND BEHIND THE STORM CONNECTION. CONTRACTOR TO CONDUCT EXPLORATORY SOFT DIGS IN THESE AREAS PRIOR TO STORM BYPASS PIPE CONSTRUCTION AND REPORT FINDINGS TO ENGINEER.

SURVEY NOTES

AREA BY COORDINATES
NC GRID COORDINATES OBTAINED USING
RTK GPS OBSERVATIONS, REFERENCED TO
NAD 83(2012B) IN FEET.

PROPERTY SUBJECT TO BOTH ABOVE AND/OR BELOW GROUND UTILITIES AND/OR EASEMENTS. SEE BOOK OF MAPS 2015 PAGE 1608 FOR EASEMENTS THAT HAVE BEEN REMOVED PER THE TOWN OF HOLLY SPRINGS REQUEST ON BOOK OF MAPS 2018 PAGE 845. ONLY VISIBLE UTILITIES SHOWN ON THIS PLAT, 811 SHOULD BE CALLED BEFORE ANY DIGGING OR CONSTRUCTION.

NO TITLE SEARCH PERFORMED FOR THIS SURVEY.

THIS LOT IS NOT LOCATED IN A
FLOOD HAZARD AREA PER
F.E.M.A. MAP #3720064800J
EFF. DATE: 5/2/2006 ZONE X

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "BRITTHAVEN, INC." AND DATED FEBRUARY 12, 2026. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

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NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
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2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JAMES M. SMITH

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

EXISTING CONDITIONS AND DEMOLITION PLAN

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
C1.0

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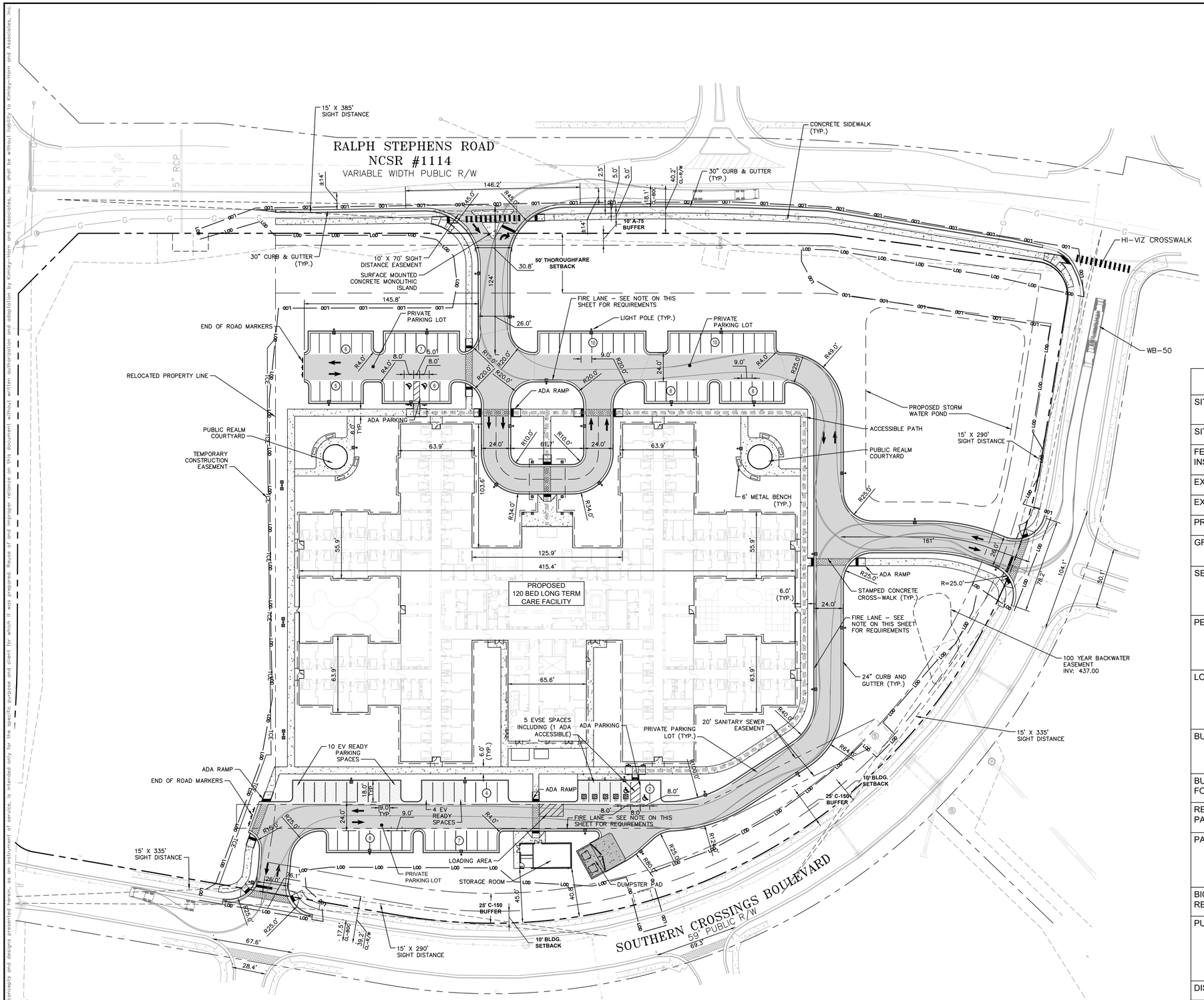

SITE LEGEND

- PROPERTY LINE
- EASEMENT LINE
- FENCE
- STANDARD CURB AND GUTTER
- SIGN (SEE PLAN)
- LIGHT POLE
- ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
- DIRECTIONAL PAVEMENT ARROWS
- EVSE SPACES
- ACCESSIBLE PATH
- STAMPED CONCRETE CROSS-WALK
- HEAVY DUTY CONCRETE
- CONCRETE SIDEWALK
- STANDARD DUTY ASPHALT
- HEAVY DUTY ASPHALT
- EV READY PARKING SPACE

SITE DATA TABLE

SITE ADDRESS	1936 RALPH STEPHENS ROAD, HOLLY SPRINGS, NC 27540
SITE PIN	0648857286
FEMA DIGITAL FLOOD INSURANCE MAP	DFIRM PANEL 3720064800K (EFFECTIVE JULY 18, 2007)
EXISTING ZONING	CB
EXISTING USE	VACANT LAND
PROPOSED USE	RESIDENTIAL CARE FACILITY
GROSS SITE AREA	TOTAL SITE AREA 7.46 AC. (324,797 SF)
SETBACKS	FRONT: 30' SIDE CORNER SETBACK: 30' SIDE: 5' THOROUGHFARE: MIN. 25'
PERIMETER BUFFER:	10' A-75 BUFFER ALONG RALPH STEPHENS RD. 25' TYPE C-150 BUFFER ALONG SOUTHER CROSSINGS BLVD. 5' TYPE A BUFFER ALONG WESTERN PROPERTY LINE
LOT REQUIREMENTS:	MIN LOT AREA: 7,200 SF MIN LOT WIDTH: 120' ON A US HIGHWAY, 40' ON ALL OTHER STREETS MIN OPEN SPACE: NOT REQUIRED DUE TO MAS
BUILDING HEIGHT:	MINIMUM HEIGHT: 25' MAXIMUM HEIGHT: 60' ***PROPOSED BUILDING HEIGHT: 33'-2"*** *MEASURED FROM THE EAVE LINE AT THE BASE OF THE CUPOLA*
BUILDING SQUARE FOOTAGE:	NURSING HOME – 67,953 SQFT STORAGE BUILDING– 937 SQFT
REQUIRED VEHICLE PARKING:	NO MAXIMUM REQUIRED PARKING
PARKING PROVIDED:	***96 SPACES (92 STANDARD AND 4 ACCESSIBLE)*** ***EV SPACES REQUIRED: 5% EVSE (5 SPACES), 15% EV READY (14 SPACES)*** ***- EV SPACES PROVIDED: 5***
BICYCLE PARKING REQUIRED:	NONE (EXEMPT)
PUBLIC REALM PROVIDED:	1. [8.3.B.1] (2) 40'X40' PRIVATE COURTYARDS FACING ONTO PUBLIC ROW. AND 2. [8.3.B.11] 75% TYPE 1 MATERIALS ON PRIMARY FAÇADES PER UDO SECTION 8.2.G.2.a.ii.
DISTURBED AREA:	7.41 ACRES

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "BRITTHAVEN, INC." AND DATED FEBRUARY 12, 2026. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

ALL FIRE LANES SHALL BE MARKED WITH CONTINUOUSLY PAINTED YELLOW THERMOPLASTIC PAINT STRIPING ALONG THE FIRE LANE WITH "NO PARKING – FIRE LANE PRINTED WITH MINIMUM 8-INCH-HIGH LETTERS AT 40-FOOT INTERVALS OR AS DIRECTED BY THE FIRE MARSHAL.

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

No.	REVISIONS	DATE	BY
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#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JAMES M. SCHEFFLER 1/7/26

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

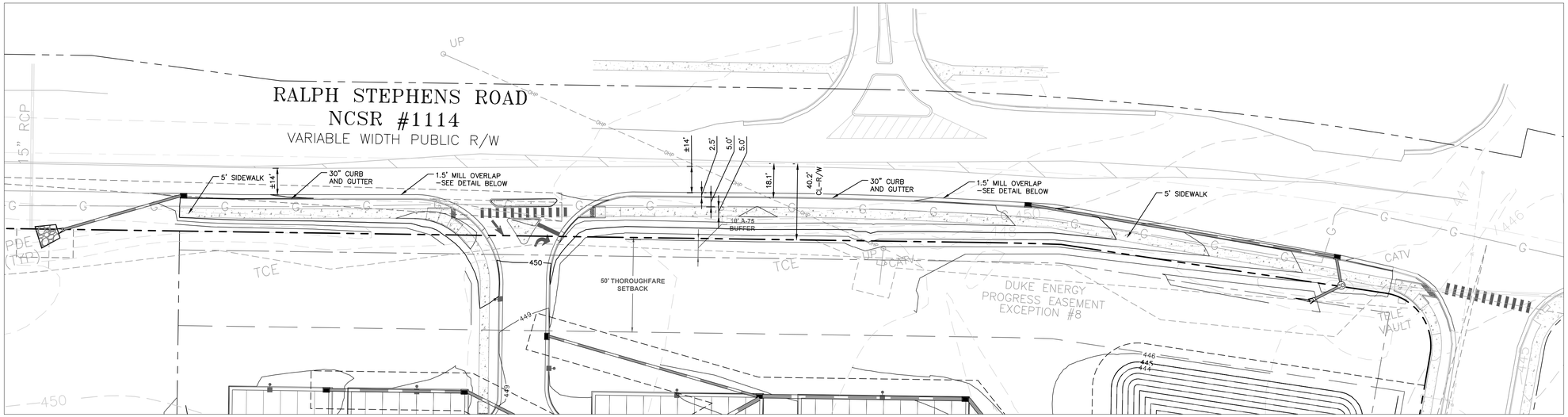
SITE PLAN

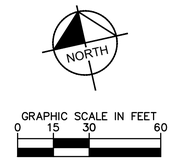
1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.

NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
C2.0

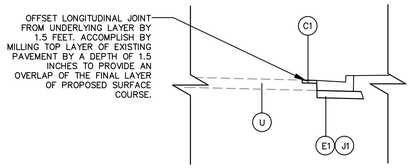




NOTES:

1. ALL CONSTRUCTION SHALL BE PER NCDOT AND THE LOCAL MUNICIPALITY STANDARDS, SPECIFICATIONS AND DETAILS.
2. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT & PROPOSED DESIGN BASELINE UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL RELOCATE AND/OR ADJUST ALL UTILITIES THAT CONFLICT WITH THE PROPOSED ROAD IMPROVEMENTS. EASEMENTS WILL BE REQUIRED AND SHOWN ON PLAN SHEETS WHEN WARRANTED.
4. CONTRACTOR SHALL REMOVE, STOCKPILE, AND RESET ANY NCDOT SIGNAGE WITHIN THE PROJECT LIMITS.
5. THE LOCATION AND SIZE OF EXISTING UTILITIES AS SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE NORTH CAROLINA ONE–CALL UTILITIES LOCATION SERVICE (ULOCO) AT 811 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE SITE.
6. REFER TO DRAINAGE & EROSION CONTROL SHEETS FOR ALL DRAINAGE DESIGN INFORMATION. DRAINAGE SHOWN CROSSING EXISTING PAVEMENT SHALL BE INSTALLED BY OPEN CUTTING THE EXISTING ROADWAY. REFER TO NCDOT AND AASHTO STANDARDS FOR APPROPRIATE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR ALL CONSTRUCTION AND EASEMENTS REQUIRED FOR UNDERGROUND AND OVERHEAD UTILITY RELOCATIONS, INCLUDING OVERHEAD UTILITIES ADJACENT TO ALL TRAFFIC SIGNALS.
8. CONTRACTOR SHALL MILL THE INDICATED SECTIONS OF EXISTING PAVEMENT AT THE LIMITS OF PROPOSED OVERLAY TO PROVIDE A SMOOTH TIE–IN TO THE EXISTING PAVEMENT.
9. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
10. CONTRACTOR SHALL TIE PROPOSED MARKINGS TO EXISTING MARKINGS AT PROJECT LIMITS.
11. RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED ACCORDING TO NCDOT ROADWAY STANDARD DRAWINGS.
12. PAVEMENT MARKING AND MARKER CHANGES SHALL BE ACCOMPLISHED BY AN APPROVED METHOD OF GRINDING.
13. CONTRACTOR TO INSTALL TEMPORARY PAINT PAVEMENT MARKINGS AS NECESSARY IN AREAS OF PROPOSED ASPHALT OVERLAY.

MILL OVERLAP DETAIL



PAVEMENT SCHEDULE

C1	*PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD. (OVERLAY)*
E1	*PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YARD. (REQUIRED IN AREAS LESS THAN OR EQUAL TO 6' WIDE. AREAS > 6' MAY BE SUBSTITUTED WITH J1)*
J1	*PROP. 10" AGGREGATE BASE COURSE (MAY BE SUBSTITUTED WITH E1)*
U	*EXISTING PAVEMENT*

NOTE: PAVEMENT SECTIONS ARE BASED ON NCDOT REQUIREMENTS.

TRAFFIC CONTROL NOTES:

- TRAFFIC CONTROL PLANS FOR THIS PROJECT CONSIST OF SEVERAL TYPICAL DRAWINGS SHOWING TRAFFIC CONTROL DEVICES TO BE USED WHERE VARIOUS TYPES OF CONSTRUCTION ACTIVITIES ARE OCCURRING ON THE PROJECT. THESE DRAWINGS ARE FOR TYPICAL SITUATIONS AND SHOULD BE ADAPTED TO THE ACTUAL FIELD CONDITIONS WHICH EXIST.
- ACCESS SHALL BE MAINTAINED TO ALL BUSINESSES AND RESIDENCES AFFECTED BY THE PROJECT.
- ALL GRADING, CONSTRUCTION, SIGNING, AND PAVEMENT MARKINGS SHALL CONFORM TO NCDOT AND THE LOCAL MUNICIPALITY STANDARDS. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- ANY WORK REQUIRING EQUIPMENT OR PERSONNEL WITHIN 5 FEET OF ANY TRAVEL LANE SHALL REQUIRE A FULL LANE CLOSURE WITH APPROPRIATE TAPERS.
- LANE CLOSURES SHALL BE LIMITED TO THE TIMES SET FORTH IN THE NCDOT ENCROACHMENT AGREEMENT APPROVAL LETTER.
- EXCAVATIONS ADJACENT TO THE ROADWAY SHALL NOT BE LEFT OPEN OVERNIGHT. EXCAVATED AREAS ADJACENT TO PAVEMENT HAVING MORE THAN A 2 INCH DROP SHALL BE MADE SAFE WITH A 6:1 OR FLATTER SLOPE AND SHALL BE DESIGNATED BY APPROPRIATE DELINEATION DURING PERIODS OF CONSTRUCTION INACTIVITY, INCLUDING, BUT NOT LIMITED TO, NIGHTS AND WEEKEND HOURS.
- NO PARKING OR MATERIAL STORAGE SHALL BE ALLOWED ALONG THE SHOULDERS OF NCDOT ROADWAYS.

PHASE 1

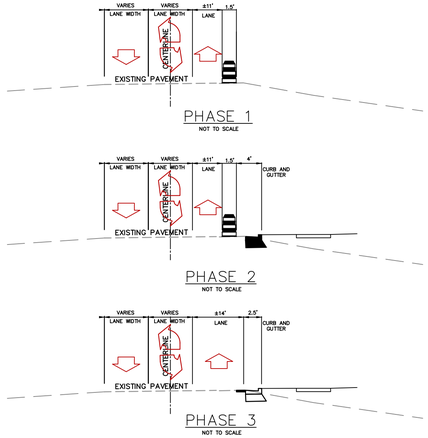
CONTRACTOR SHALL PLACE ALL CONSTRUCTION APPROACH WARNING SIGNS PRIOR TO BEGINNING WORK. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED. CONTRACTOR SHALL SET UP AND MAINTAIN BARRELS OR CONES ALONG THE CONSTRUCTION AREA ACCORDING TO NCDOT STANDARDS FOR TRAFFIC CONTROL. CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS ACCORDING TO NCDOT STANDARD DRAWING NO. 1101.01.

PHASE 2

BEGIN GRADING ALONG SHOULDER. INSTALL DRAINAGE AND BASE COURSE. INSTALL STANDARD 30" CURB AND GUTTER.

PHASE 3

PLACE FINAL 1.5 INCH LAYER OF SURFACE COURSE WHERE DESIGNATED ON PLANS. PLACE FINAL THERMOPLASTIC PAVEMENT MARKINGS, AND RAISED REFLECTIVE PAVEMENT MARKERS. GRIND/REMOVE/ADJUST EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED AND REMOVE TRAFFIC BARRELS.



RALPH STEPHENS ROAD

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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##-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JOSEPH C. BOSTIC

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

OFF-SITE ROADWAY PLAN

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C2.1

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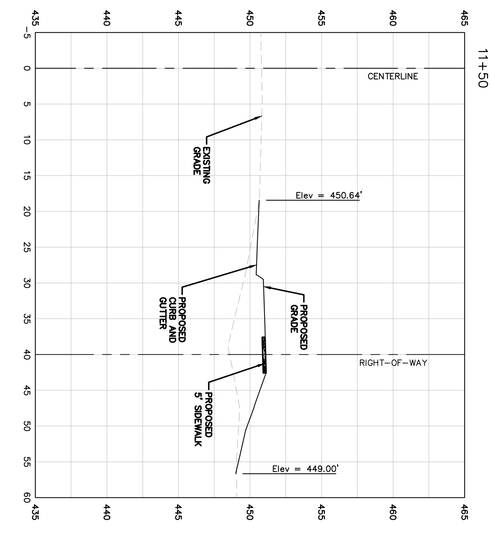
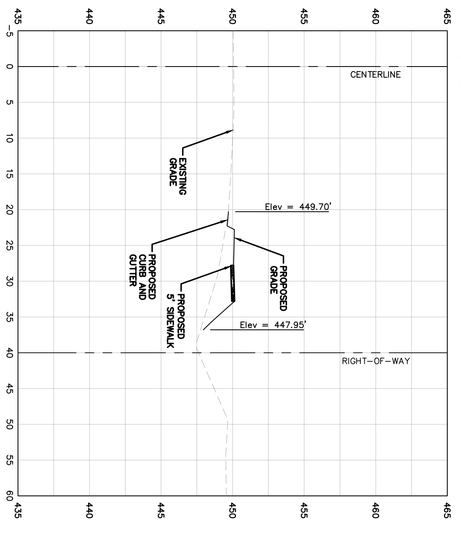
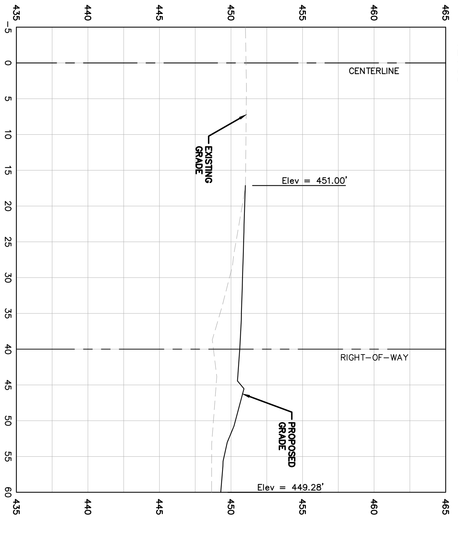
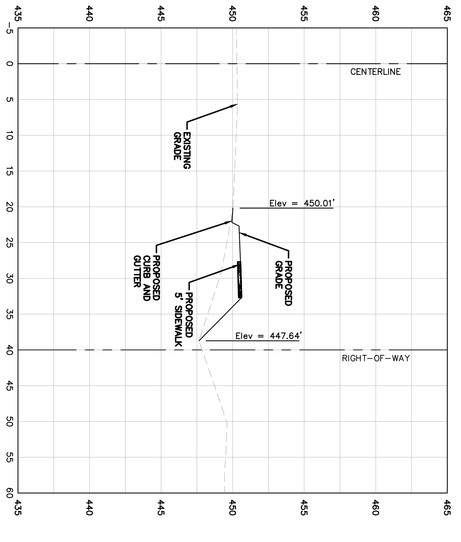
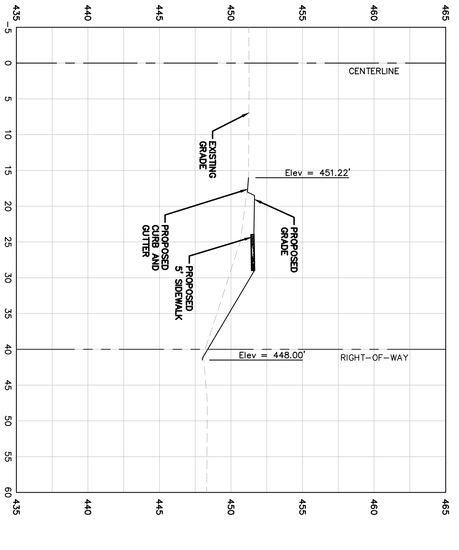
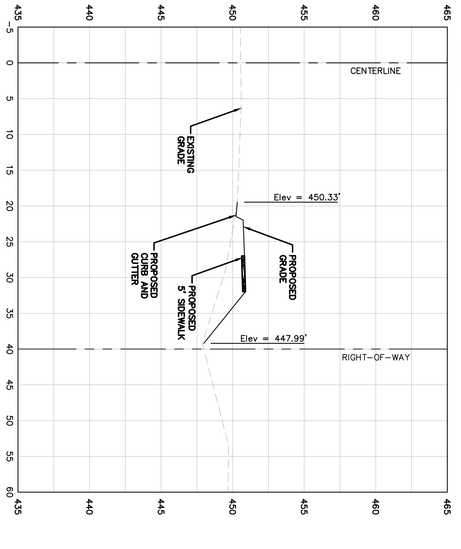


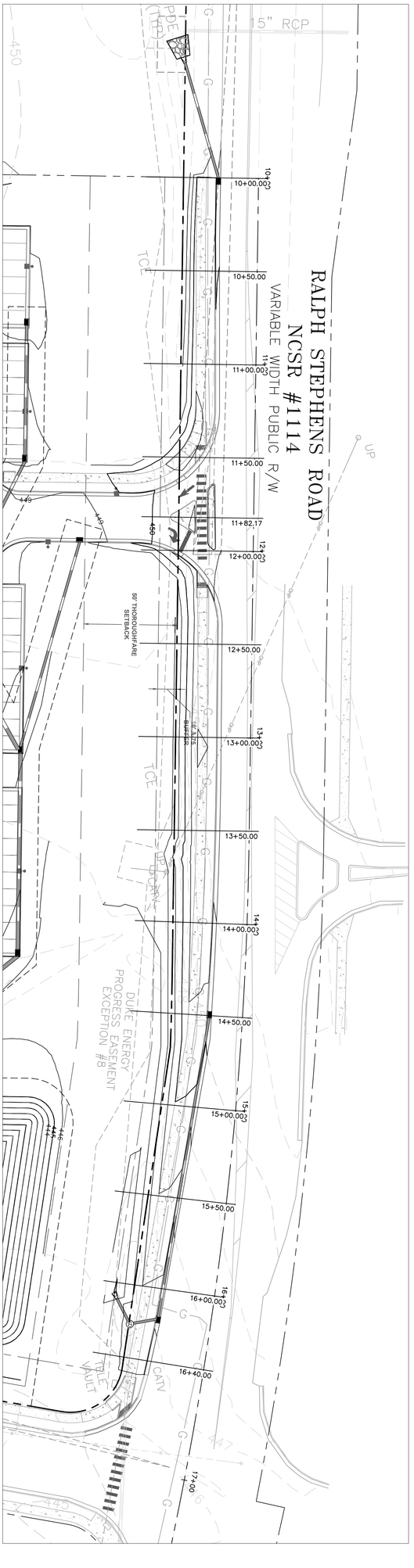


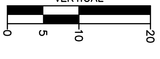


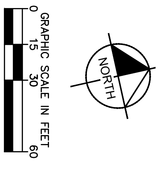












SHEET NUMBER C2.2

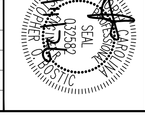
1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

OFF-SITE ROADWAY PLAN

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB



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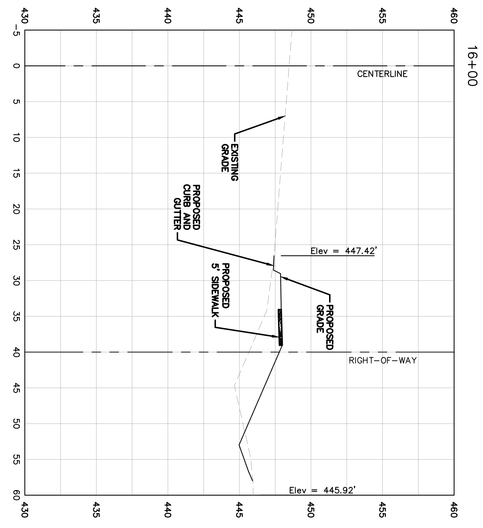

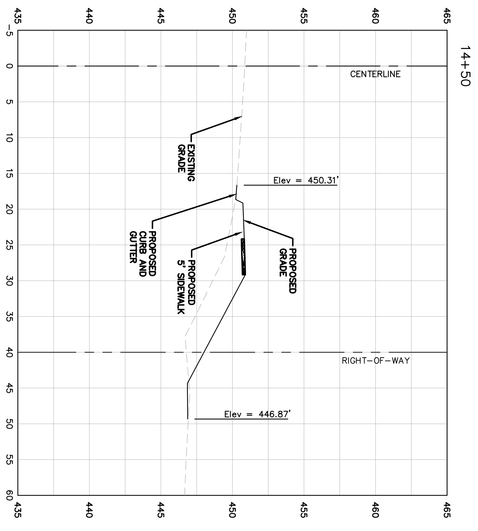

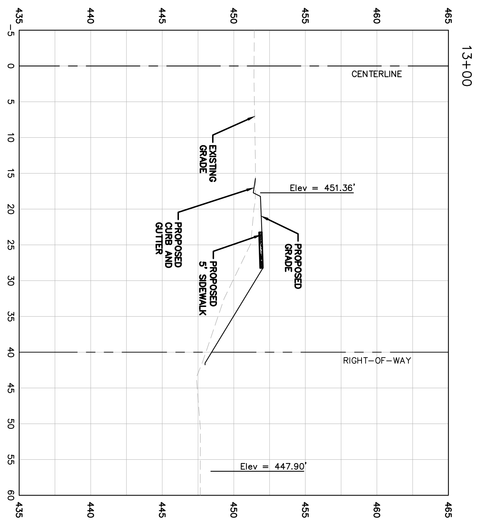

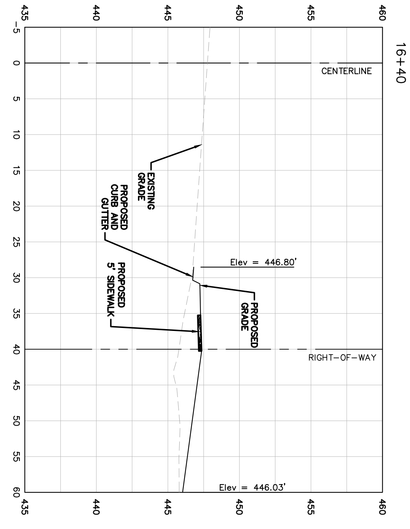

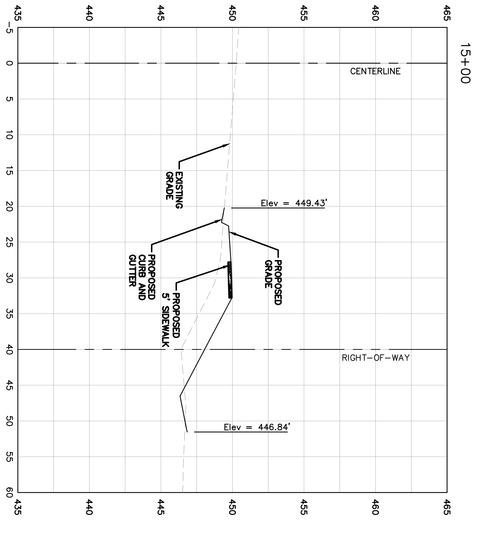

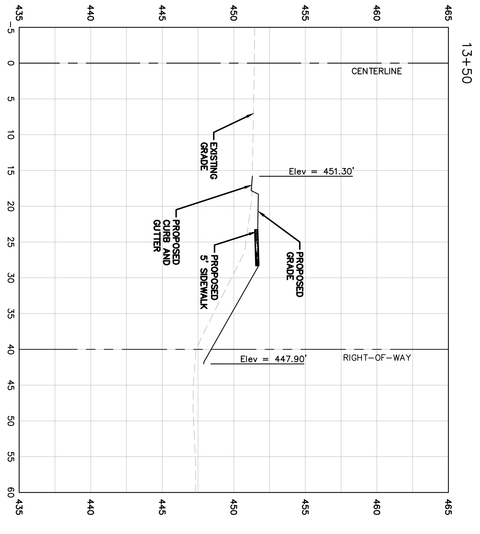

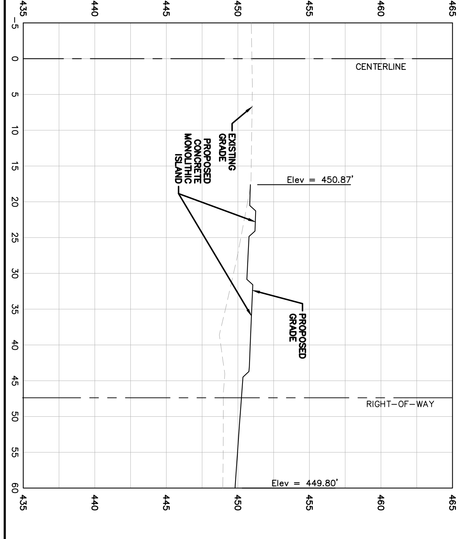

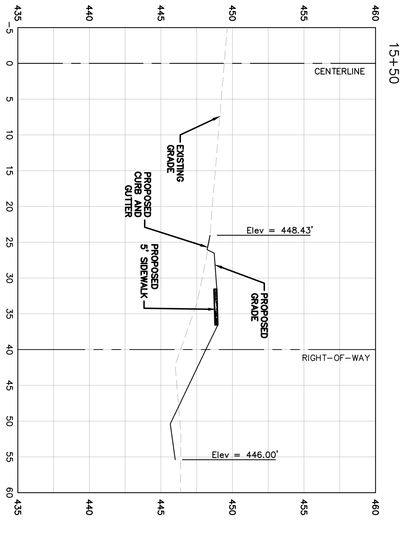

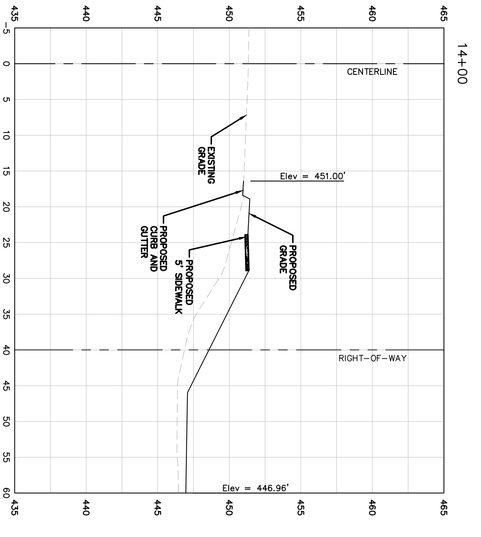

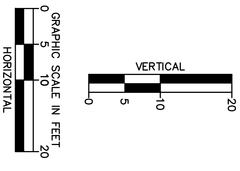

SHEET NUMBER C2.3

1936 RALPH STEPHENS ROAD

PREPARED FOR

BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

OFF-SITE ROADWAY PLAN

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JAMES C. BRIGHT

Kimley»Horn

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EROSION CONTROL MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED AND MAINTAINED DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5 INCHES. ANY SEDIMENT THAT HAS BEEN TRANSPORTED BEYOND THE PROJECT LIMITS SHALL BE REMOVED. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

CONSTRUCTION ENTRANCE:

INSPECT CONSTRUCTION ROADS AND PARKING AREAS PERIODICALLY FOR CONDITION OF SURFACE. TOP DRESS WITH NEW GRAVEL AS NEEDED. CHECK SEEDED AREAS FOR EROSION AND SEDIMENTATION AFTER RUNOFF–PRODUCING RAINS. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION. SEDIMENT PRODUCING AREAS SHOULD BE TREATED IMMEDIATELY.

SILT FENCE:

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

INLET PROTECTION/SILT FENCE OUTLET:

INSPECT INLET PROTECTION AND SILT FENCE OUTLETS AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET OR OUTLET.

EROSION CONTROL MAINTENANCE

1. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
2. MAINTAIN AND VERTICALLY ADJUST ALL TEMPORARY DIVERSION DITCHES AND SILT FENCE THROUGHOUT GRADING ACTIVITIES TO MAINTAIN DRAINAGE PATTERNS TO TEMPORARY SEDIMENT TRAPS.
3. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY OR AFTER RAINFALL EVENTS OF 1/2" OR MORE. CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS.
4. AS SITE IS BROUGHT TO GRADE CONTRACTOR TO DREDGE SEDIMENT TRAPS AND FILL IN WITH SUITABLE FILL MATERIAL. DREDGE MATERIAL MUST BE REMOVED FROM SITE.
5. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
6. INSPECT INLET PROTECTION AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

SELF MONITORING AND INSPECTION NOTIFICATION

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND–DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED.
RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010.
TO SIMPLIFY DOCUMENTATION OF SELF–INSPECTION REPORTS AND NPDES SELF–MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. BEGINNING AUGUST 1, 2013, THE DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF–INSPECTION REQUIREMENTS.
THE COMBINED SELF–MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE,
HTTP://PORTAL.NCDENR.ORG/WEB/LR/EROSION
IF YOU HAVE QUESTIONS, PLEASE CONTACT THE LAND QUALITY SECTION AT A DENR REGIONAL OFFICE.

Sediment Basin #1					Sediment Basin #2				
TOTAL DISTURBED DRAINAGE AREA	4.450	AC			TOTAL DISTURBED DRAINAGE AREA	1.740	AC		
10-YEAR PEAK FLOW	13.23	CFS			10-YEAR PEAK FLOW	5.17	CFS		
SURFACE AREA REQUIRED	5753	SF			SURFACE AREA REQUIRED	2250	SF		
SURFACE AREA PROVIDED	10564	SF			SURFACE AREA PROVIDED	2548	SF		
VOLUME REQUIRED	8010	CF			VOLUME REQUIRED	3132	CF		
VOLUME PROVIDED	26393	CF			VOLUME PROVIDED	5350	CF		
STORAGE DEPTH	3	FT			STORAGE DEPTH	3	FT		
TOP OF BERM	441	ELEV			TOP OF BERM	449	ELEV		
EMGY. SPILLWAY LENGTH	20	FT	439.00	ELEV	EMGY. SPILLWAY LENGTH	20	FT	447.50	ELEV
BOTTOM OF BASIN	7128	SF	436.00	ELEV	BOTTOM OF BASIN	1093	SF	444.00	ELEV
SKIMMER SIZE	2.5	IN			SKIMMER SIZE	2.5	IN		
SKIMMER ORIFICE DIAMETER	2	IN			SKIMMER ORIFICE DIAMETER	3	IN		
*BASED ON POND SIZING					*BASED ON POND SIZING				

EROSION CONTROL SEQUENCE

1. ATTEND PRE–CONSTRUCTION CONFERENCE.
2. OBTAIN LAND DISTURBANCE (GRADING) PERMIT.
3. INSTALL TREE PROTECTION ON SITE
4. INSTALL ALL EROSION CONTROL MEASURES AS SHOWN ON THE APPROVED PLAN.
5. CALL FOR ON–SITE INSPECTION BY UTILITIES AND INFRASTRUCTURE SERVICES PERSONNEL (919 557 3938) TO OBTAIN CERTIFICATE OF COMPLIANCE.
6. PROCEED WITH GRADING.
7. CLEAN SEDIMENT TRAPS AND BASINS WHEN ONE–HALF FULL AND CHECK FOR MAINTENANCE OF ALL EROSION CONTROL DEVICES WEEKLY OR AFTER EVERY ½" OF RAIN.
8. SEED AND MULCH DENUDED AREA WITHIN 7 DAYS FOR SLOPES AND 14 DAYS FOR ALL OTHER AREAS.
9. MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
10. CALL FOR ON–SITE MEETING TO OBTAIN APPROVAL FOR REMOVAL OF TEMPORARY EROSION CONTROL MEASURES, STABILIZE THESE AREAS, AND INSTALL APPLICABLE PERMANENT MEASURES AND STORMWATER BMP'S.
11. REQUEST FINAL APPROVAL BY UTILITIES AND INFRASTRUCTURE SERVICES – CERTIFICATE OF COMPLETION. IN COMPLEX PROJECTS, THIS BASIC CONSTRUCTION SEQUENCE SHALL BE EXPANDED TO SHOW THE ORDER OF DEVICES INSTALLED, NECESSARY PHASING, SPECIAL CIRCUMSTANCES, ETC.
12. IN INSTANCES WHERE AN EROSION CONTROL DEVICE WILL BE CONVERTED TO A PERMANENT STRUCTURAL STORMWATER BMP, A SPECIFIC CONSTRUCTION SEQUENCE FOR CONVERSION FROM THE EROSION CONTROL DEVICE TO THE BMP, AS DESCRIBED IN SECTION 8, IS REQUIRED.

EROSION CONTROL LEGEND

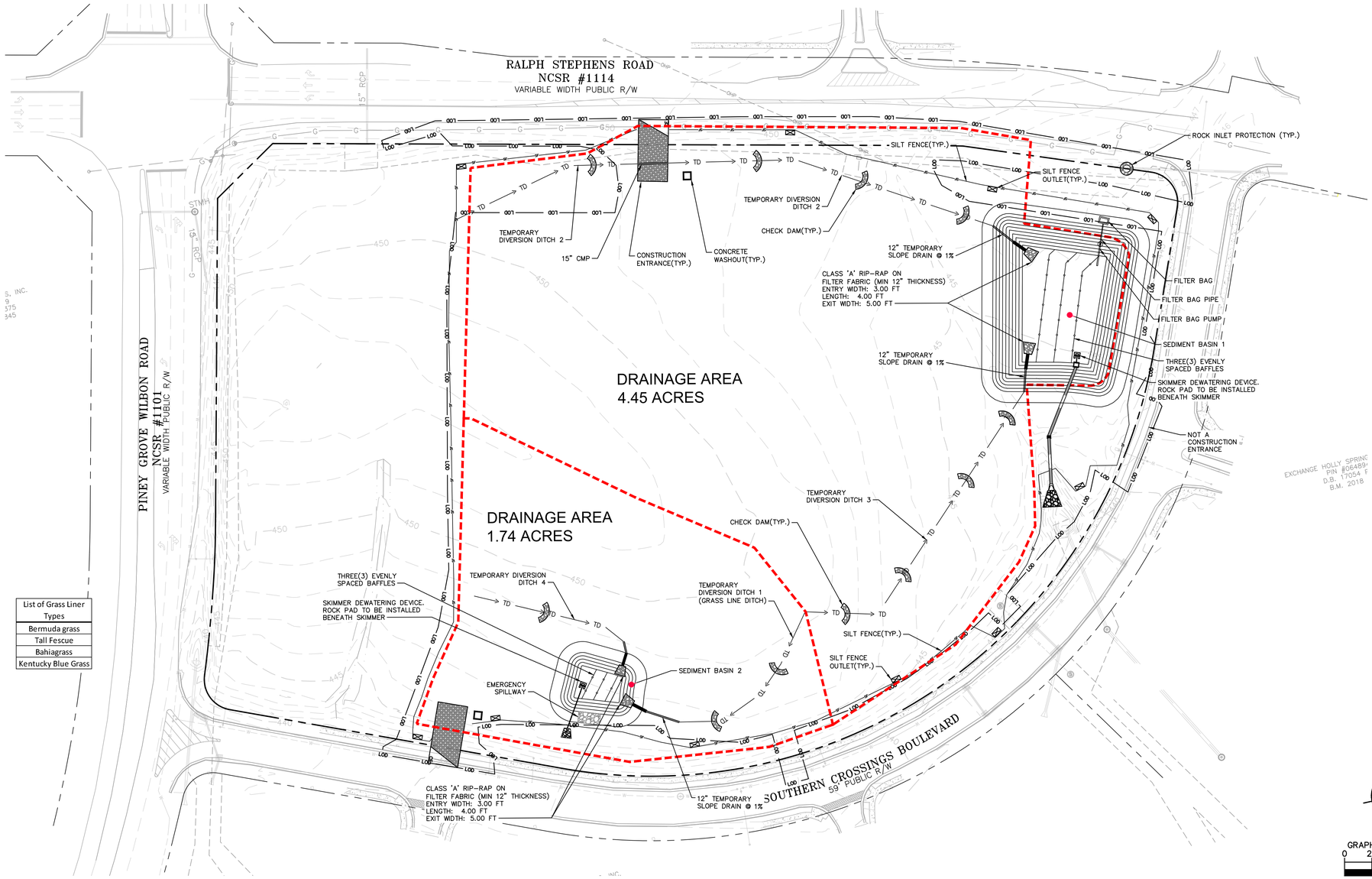
- PROPERTY LINE
- LOD — LIMITS OF DISTURBANCE
- SF — SILT FENCE
- TD → TD — TEMPORARY DIVERSION DITCH
- SEDIMENT BASIN POROUS BAFFLES
- 805 — EXISTING CONTOUR
- 805 — PROPOSED CONTOUR
- CE — CONSTRUCTION ENTRANCE
- SILT FENCE OUTLET
- CONCRETE WASHOUT STATION
- ROCK CHECK DAM
- INLET PROTECTION
- ROCK PIPE INLET PROTECTION
- SKIMMER
- TEMPORARY SLOPE DRAIN
- RIP–RAP OUTLET PROTECTION
- SILT BAG
- DESIGNATED AREAS TO BE STABILIZED WITHIN 7 DAYS
- TEMPORARY EROSION CONTROL MATTING

LIMITS OF DISTURBANCE = 7.41 ACRES

EROSION AND SEDIMENT CONTROL NOTES

1. CONCRETE DUST/WASTE/WASTEWATER MUST NOT BE RELEASED TO THE STORM DRAIN SYSTEM OR OFF–SITE. CONTRACTOR IS TO CLEAN OFF ALL SEDIMENT FROM ROADWAYS BY DRY SWEEPING METHODS ONLY. CONTRACTOR MUST NOT USE WATER TO WASH SEDIMENT OFF OF ROADS, DRIVEWAYS, OR PARKING LOTS.
2. THE FOLLOWING MUST BE KEPT ON SITE UNTIL THE E&SC PLAN HAS BEEN CLOSED OUT BY LAND QUALITY:
   - PREVIOUS 30 DAYS OF SELF–INSPECTION RECORDS
   - RAIN GAUGE
   - APPROVAL CERTIFICATE/LETTER
   - APPROVED PLAN
   - NPDES PERMIT

   THESE ITEMS SHOULD BE LOCATED NEAR THE MAIN CONSTRUCTION ENTRANCE. CONTRACTOR IS TO COORDINATE WITH THE INSPECTOR IF AN ALTERNATIVE LOCATION IS PREFERRED. FAILURE TO MAINTAIN THESE ON SITE VIOLATES THE NPDES PERMIT.
3. SILT FENCE SHALL BE INSTALLED ON ALL DOWNSLOPE PORTIONS OF THE DISTURBED AREA. SILT FENCE AND/OR TREE PROTECTION FENCE SHALL NOT NOT BE INSTALLED ON THE HIGH SIDE OF THE DISTURBED AREA.
4. SILT FENCE OUTLETS ARE TO BE PROVIDED ALONG ALL LOW POINTS OF SILT FENCE AND AREAS WHERE RUNOFF MAY CONCENTRATE CAUSING POOLING AND DAMAGE TO THE SILT FENCE. CONTRACTOR TO INSTALL OUTLETS AS NECESSARY TO ENSURE THE SILT FENCE IS FULLY FUNCTIONAL THROUGHOUT THE DURATION OF CONSTRUCTION.
5. A COMPOST SOCK MAY BE SUBSTITUTED FOR SILT FENCE OUTLET GRAVEL, SLOPE BREAKS, CHECK DAMS AND INLET PROTECTION.
   - THE COMPOST SOCK MUST BE INSTALLED PER MANUFACTURER SPECIFICATIONS. THE SOCK MUST BE SIZED TO PREVENT OVERTOPPING.
   - FOR SILT FENCE OUTLETS, THE INSTALLED HEIGHT CAN BE NO LESS THAN 16 INCHES.
   - WATTLES, COIR LOGS, FILTER LOGS, ETC. ARE NOT ACCEPTABLE FOR THESE USES.
6. INLET PROTECTION IS TO BE INSTALLED AS SHOWN ON THE PLANS ON ALL STORMWATER INLETS ACCEPTING DRAINAGE AND ARE TO BE MAINTAINED ACCORDING TO THE MAINTENANCE NOTES LOCATED ON THE DETAILS SHEET AND IN THE NCDENR DESIGN MANUAL.
7. TEMPORARY DIVERSION DITCHES ARE TO BE LINED WITH APPROPRIATE ROLLED EROSION CONTROL PRODUCT (RECP), SEEDED WITH BERMUDA/FESCUE AND STABILIZED WITHIN 7 CALENDAR DAYS.
8. ANY SEDIMENT IN STREET TO BE CLEANED DAILY.
9. SILT FENCES SHOWN ON PLANS ARE FOR REPRESENTATIVE PURPOSES, CONSTRUCT DIRECTLY ALONG THE CLEARING LIMITS.
10. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF HOLLY SPRINGS EROSION AND SEDIMENT CONTROL UNIFIED DEVELOPMENT ORDINANCE / DESIGN MANUAL AND U.S. DEPARTMENT OF AGRICULTURE REGULATIONS.



List of Grass Liner Types
Bermuda grass
Tall Fescue
Bahiagrass
Kentucky Blue Grass

SILT FENCES SHOWN ON PLANS ARE FOR REPRESENTATIVE PURPOSES. CONSTRUCT DIRECTLY ALONG CLEARING LIMITS WHERE APPLICABLE.

SILT FENCE OUTLETS ARE TO BE PROVIDED ALONG ALL LOW POINTS OF SILT FENCE AND AREAS WHERE RUNOFF MAY CONCENTRATE CAUSING DAMAGE TO SILT FENCE. CONTRACTOR TO INSTALL OUTLETS AS NECESSARY TO ENSURE SILT FENCE IS FULLY FUNCTIONAL THROUGHOUT THE DURATION OF CONSTRUCTION.

ALL EROSION CONTROL DEVICES AND DIVERSIONS SHOULD BE INSTALLED AS PART OF PHASE 1 EROSION CONTROL PLAN

NPDES GROUND COVER REQUIREMENTS

SITE AREA DESCRIPTION	STABILIZATION	TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES.	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE EXCEPT FOR PERIMETERS AND HQW ZONES.

NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
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2	REVISE PER TOWN COMMENTS	04/14/25	JCB
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WWW.KIMLEY–HORN.COM
#F–0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JOSEPH C. BOSTIC

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

EROSION CONTROL PLAN PHASE 1

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C3.0

Plotted By:Schingel, Jared Sheet Set:PRINCIPLE LTC Layout:C3.0 EROSION CONTROL PLAN PHASE 1 March 11, 2026 09:55:18am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C3.0 EROSION CONTROL PLAN.dwg
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EROSION CONTROL MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED AND MAINTAINED DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5 INCHES. ANY SEDIMENT THAT HAS BEEN TRANSPORTED BEYOND THE PROJECT LIMITS SHALL BE REMOVED. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

CONSTRUCTION ENTRANCE:

INSPECT CONSTRUCTION ROADS AND PARKING AREAS PERIODICALLY FOR CONDITION OF SURFACE. TOP DRESS WITH NEW GRAVEL AS NEEDED. CHECK SEEDED AREAS FOR EROSION AND SEDIMENTATION AFTER RUNOFF–PRODUCING RAINS. MAINTAIN ALL VEGETATION IN A HEALTHY, VIGOROUS CONDITION. SEDIMENT PRODUCING AREAS SHOULD BE TREATED IMMEDIATELY.

SILT FENCE:

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT IMMEDIATELY. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

INLET PROTECTION/SILT FENCE OUTLET:

INSPECT INLET PROTECTION AND SILT FENCE OUTLETS AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET OR OUTLET.

EROSION CONTROL MAINTENANCE

1. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
2. MAINTAIN AND VERTICALLY ADJUST ALL TEMPORARY DIVERSION DITCHES AND SILT FENCE THROUGHOUT GRADING ACTIVITIES TO MAINTAIN DRAINAGE PATTERNS TO TEMPORARY SEDIMENT TRAPS.
3. EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY OR AFTER RAINFALL EVENTS OF 1/2" OR MORE. CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS.
4. AS SITE IS BROUGHT TO GRADE CONTRACTOR TO DREDGE SEDIMENT TRAPS AND FILL IN WITH SUITABLE FILL MATERIAL. DREDGE MATERIAL MUST BE REMOVED FROM SITE.
5. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
6. INSPECT INLET PROTECTION AFTER EACH RAIN AND MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.

SELF MONITORING AND INSPECTION NOTIFICATION

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND–DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED.
RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010.
TO SIMPLIFY DOCUMENTATION OF SELF–INSPECTION REPORTS AND NPDES SELF–MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. BEGINNING AUGUST 1, 2013, THE DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES IS RESPONSIBLE FOR ADMINISTERING BOTH THE SPCA AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF–INSPECTION REQUIREMENTS.
THE COMBINED SELF–MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE,
HTTP://PORTAL.NCDENR.ORG/WEB/LR/EROSION
IF YOU HAVE QUESTIONS, PLEASE CONTACT THE LAND QUALITY SECTION AT A DENR REGIONAL OFFICE.

Sediment Basin #1					Sediment Basin #2				
TOTAL DISTURBED DRAINAGE AREA	4.450	AC			TOTAL DISTURBED DRAINAGE AREA	1.740	AC		
10-YEAR PEAK FLOW	13.23	CFS			10-YEAR PEAK FLOW	5.17	CFS		
SURFACE AREA REQUIRED	5753	SF			SURFACE AREA REQUIRED	2250	SF		
SURFACE AREA PROVIDED	10564	SF			SURFACE AREA PROVIDED	2548	SF		
VOLUME REQUIRED	8010	CF			VOLUME REQUIRED	3132	CF		
VOLUME PROVIDED	26393	CF			VOLUME PROVIDED	5350	CF		
STORAGE DEPTH	3	FT			STORAGE DEPTH	3	FT		
TOP OF BERM	441	ELEV			TOP OF BERM	449	ELEV		
EMGY. SPILLWAY LENGTH	20	FT	439.00	ELEV	EMGY. SPILLWAY LENGTH	20	FT	447.50	ELEV
BOTTOM OF BASIN	7128	SF	436.00	ELEV	BOTTOM OF BASIN	1093	SF	444.00	ELEV
SKIMMER SIZE	2.5	IN			SKIMMER SIZE	2.5	IN		
SKIMMER ORIFICE DIAMETER	2	IN			SKIMMER ORIFICE DIAMETER	3	IN		
*BASED ON POND SIZING					*BASED ON POND SIZING				

EROSION CONTROL SEQUENCE

1. ATTEND PRE–CONSTRUCTION CONFERENCE.
2. OBTAIN LAND DISTURBANCE (GRADING) PERMIT.
3. INSTALL TREE PROTECTION ON SITE
4. INSTALL ALL EROSION CONTROL MEASURES AS SHOWN ON THE APPROVED PLAN.
5. CALL FOR ON–SITE INSPECTION BY UTILITIES AND INFRASTRUCTURE SERVICES PERSONNEL (919 557 3938) TO OBTAIN CERTIFICATE OF COMPLIANCE.
6. PROCEED WITH GRADING.
7. CLEAN SEDIMENT TRAPS AND BASINS WHEN ONE–HALF FULL AND CHECK FOR MAINTENANCE OF ALL EROSION CONTROL DEVICES WEEKLY OR AFTER EVERY ½" OF RAIN.
8. SEED AND MULCH DENUDED AREA WITHIN 7 DAYS FOR SLOPES AND 14 DAYS FOR ALL OTHER AREAS.
9. MAINTAIN SOIL EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
10. CALL FOR ON–SITE MEETING TO OBTAIN APPROVAL FOR REMOVAL OF TEMPORARY EROSION CONTROL MEASURES, STABILIZE THESE AREAS, AND INSTALL APPLICABLE PERMANENT MEASURES AND STORMWATER BMP'S.
11. REQUEST FINAL APPROVAL BY UTILITIES AND INFRASTRUCTURE SERVICES – CERTIFICATE OF COMPLETION. IN COMPLEX PROJECTS, THIS BASIC CONSTRUCTION SEQUENCE SHALL BE EXPANDED TO SHOW THE ORDER OF DEVICES INSTALLED, NECESSARY PHASING, SPECIAL CIRCUMSTANCES, ETC.
12. IN INSTANCES WHERE AN EROSION CONTROL DEVICE WILL BE CONVERTED TO A PERMANENT STRUCTURAL STORMWATER BMP, A SPECIFIC CONSTRUCTION SEQUENCE FOR CONVERSION FROM THE EROSION CONTROL DEVICE TO THE BMP, AS DESCRIBED IN SECTION 8, IS REQUIRED.

EROSION CONTROL LEGEND

- PROPERTY LINE
- LOD — LIMITS OF DISTURBANCE
- SF — SILT FENCE
- TD → TD — TEMPORARY DIVERSION DITCH
- SEDIMENT BASIN POROUS BAFFLES
- 805 — EXISTING CONTOUR
- 805 — PROPOSED CONTOUR
- CE — CONSTRUCTION ENTRANCE
- SILT FENCE OUTLET
- CONCRETE WASHOUT STATION
- ROCK CHECK DAM
- INLET PROTECTION
- ROCK PIPE INLET PROTECTION
- SKIMMER
- TEMPORARY SLOPE DRAIN
- RIP–RAP OUTLET PROTECTION
- SILT BAG
- DESIGNATED AREAS TO BE STABILIZED WITHIN 7 DAYS
- TEMPORARY EROSION CONTROL MATTING

LIMITS OF DISTURBANCE = 7.41 ACRES

EROSION AND SEDIMENT CONTROL NOTES

1. CONCRETE DUST/WASTE/WASTEWATER MUST NOT BE RELEASED TO THE STORM DRAIN SYSTEM OR OFF–SITE. CONTRACTOR IS TO CLEAN OFF ALL SEDIMENT FROM ROADWAYS BY DRY SWEEPING METHODS ONLY. CONTRACTOR MUST NOT USE WATER TO WASH SEDIMENT OFF OF ROADS, DRIVEWAYS, OR PARKING LOTS.
2. THE FOLLOWING MUST BE KEPT ON SITE UNTIL THE E&SC PLAN HAS BEEN CLOSED OUT BY LAND QUALITY:
   - PREVIOUS 30 DAYS OF SELF–INSPECTION RECORDS
   - RAIN GAUGE
   - APPROVAL CERTIFICATE/LETTER
   - APPROVED PLAN
   - NPDES PERMIT

   THESE ITEMS SHOULD BE LOCATED NEAR THE MAIN CONSTRUCTION ENTRANCE. CONTRACTOR IS TO COORDINATE WITH THE INSPECTOR IF AN ALTERNATIVE LOCATION IS PREFERRED. FAILURE TO MAINTAIN THESE ON SITE VIOLATES THE NPDES PERMIT.
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6. INLET PROTECTION IS TO BE INSTALLED AS SHOWN ON THE PLANS ON ALL STORMWATER INLETS ACCEPTING DRAINAGE AND ARE TO BE MAINTAINED ACCORDING TO THE MAINTENANCE NOTES LOCATED ON THE DETAILS SHEET AND IN THE NCDENR DESIGN MANUAL.
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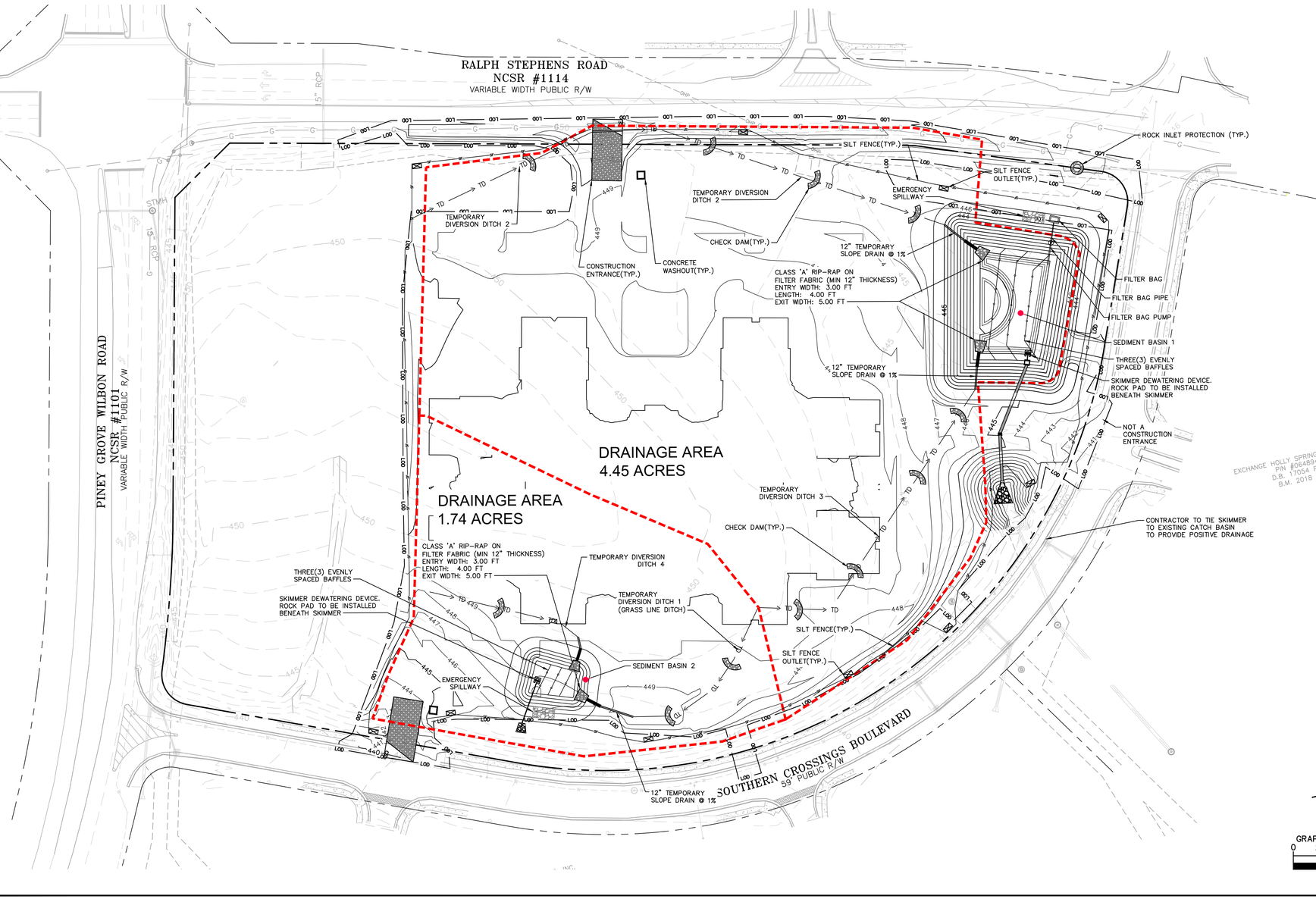

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ALL EROSION CONTROL DEVICES AND DIVERSIONS SHOULD BE INSTALLED AS PART OF PHASE 1 EROSION CONTROL PLAN

NPDES GROUND COVER REQUIREMENTS

SITE AREA DESCRIPTION	STABILIZATION	TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1. 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
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NORTH

GRAPHIC SCALE IN FEET
0 25 50 100

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
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#F–0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 CHRISTOPHER G. ROSTIC

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

EROSION CONTROL PLAN PHASE 2

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C3.1

Plotted By:Schnagel, Jared Sheet Set:PRINCIPLE LTC Layout:C3.1 EROSION CONTROL PLAN PHASE 2 March 11, 2026 09:55:30am K:\RAL_LDE\016582000_Principle LTC\Planning Phase\15 CAD Files\PlanSheets\C3.1 EROSION CONTROL PLAN PHASE 2.dwg
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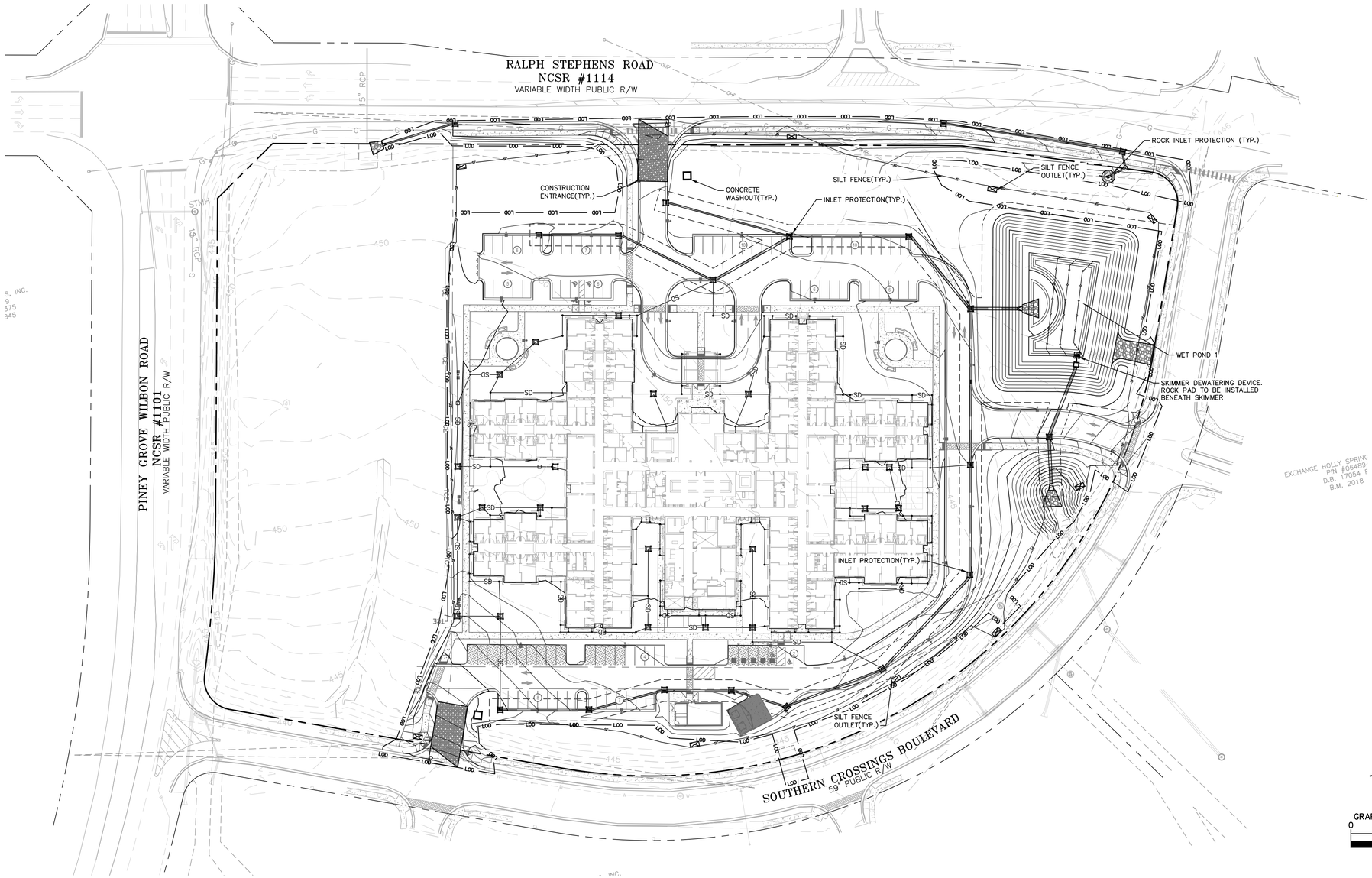

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SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1. 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE EXCEPT FOR PERIMETERS AND HQW ZONES.

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 WATER RESOURCES

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

EROSION CONTROL PLAN PHASE 3

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C3.2

Plotted By:Schnigel, Jared Sheet Set:PRINCIPLE LTC Layout:C3.2 EROSION CONTROL PLAN PHASE 3 March 11, 2026 09:45:45am K:\RAL_DEV\016582000_Principle LTC\Planning Phase\15 CAD Files\PlanSheets\C3.2 EROSION CONTROL PLAN PHASE 3.dwg
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RALPH STEPHENS ROAD
NCSR #1114
VARIABLE WIDTH PUBLIC R/W

SOUTHERN CROSSINGS BOULEVARD
59' PUBLIC R/W

PROPOSED
120 BED LONG TERM
CARE FACILITY
FFE=450.00

GRADING AND DRAINAGE LEGEND

	PROPERTY LINE
TCE	TEMPORARY CONSTRUCTION EASEMENT
	STORM DRAIN (≥ 12 INCH)
SD	STORM DRAIN (< 12 INCH)
RD	ROOF DRAIN
UD	UNDER DRAIN
	CURB AND GUTTER
	SPILL CURB AND GUTTER
LOD	LIMITS OF DISTURBANCE
805	EXISTING CONTOUR
805	PROPOSED CONTOUR
826.00	SPOT ELEVATION
	CATCH BASIN (CB)
SD	MANHOLE (SDMH)
	CLEANOUT (SDCO)
	DROP INLET (DI)
	AREA DRAIN (AD)
	CONTROL STRUCTURE (CS)
	FLARED END SECTION (FES)
	CONCRETE HEADWALL (HW)
	RIP-RAP APRON
	FLOW ARROW
TW	TOP OF WALL (GRADE ELEV.)
BW	BOTTOM OF WALL (GRADE ELEV.)
TP	TOP OF PAVEMENT (GRADE ELEV.)
TC	TOP OF CURB (GRADE ELEV.)
TC/TP	FLUSH CURB (GRADE ELEV.)
WT	WATER TIGHT JOINTS (WT)

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

No.	REVISIONS	DATE	BY
1	PRE-APPLICATION COMMENTS	01/03/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
5	REVISED PER TOWN COMMENTS	03/11/26	JMS

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JOSEPH C. BOSTIC 03/11/26

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

GRADING AND DRAINAGE PLAN

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C4.0

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STRUCTURE TABLE

STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT:
CB-1	CI RIM: 446.42 INV IN: 441.40 INV IN: 436.86 INV OUT: 436.23	FROM CB-2, 24" REINFORCED CONCRETE INV IN: 441.40 @ 0.50% FROM CB-8, 24" REINFORCED CONCRETE INV IN: 436.86 @ 0.50%	TO FES-1, 30" REINFORCED CONCRETE INV OUT: 436.23 @ 0.50%
CB-2	CI RIM: 446.74 INV IN: 441.94 INV OUT: 441.84	FROM CB-3, 24" REINFORCED CONCRETE INV IN: 441.94 @ 0.50%	TO CB-1, 24" REINFORCED CONCRETE INV OUT: 441.84 @ 0.50%
CB-3	CI RIM: 447.56 INV IN: 442.59 INV IN: 443.59 INV OUT: 442.49	FROM CB-4, 24" REINFORCED CONCRETE INV IN: 442.59 @ 0.50% FROM CB-7, 15" REINFORCED CONCRETE INV IN: 443.59 @ 1.18%	TO CB-2, 24" REINFORCED CONCRETE INV OUT: 442.49 @ 0.50%
CB-4	CI RIM: 448.31 INV IN: 443.09 INV OUT: 442.99	FROM CB-5, 15" REINFORCED CONCRETE INV IN: 443.09 @ 0.50%	TO CB-3, 24" REINFORCED CONCRETE INV OUT: 442.99 @ 0.50%
CB-5	CI RIM: 448.31 INV IN: 443.68 INV OUT: 443.58	FROM CB-6, 15" REINFORCED CONCRETE INV IN: 443.68 @ 0.50%	TO CB-4, 15" REINFORCED CONCRETE INV OUT: 443.58 @ 0.50%
CB-6	CI RIM: 448.07 INV OUT: 444.04		TO CB-5, 15" REINFORCED CONCRETE INV OUT: 444.04 @ 0.50%
CB-7	CI RIM: 448.37 INV OUT: 444.95		TO CB-3, 15" REINFORCED CONCRETE INV OUT: 444.95 @ 1.18%
CB-8	CI RIM: 447.42 INV IN: 437.30 INV OUT: 437.20	FROM CB-9, 24" REINFORCED CONCRETE INV IN: 437.30 @ 0.50%	TO CB-1, 24" REINFORCED CONCRETE INV OUT: 437.20 @ 0.50%
CB-9	CI RIM: 447.99 INV IN: 437.78 INV OUT: 437.68	FROM CB-10, 24" REINFORCED CONCRETE INV IN: 437.78 @ 0.50%	TO CB-8, 24" REINFORCED CONCRETE INV OUT: 437.68 @ 0.50%
CB-10	CI RIM: 448.65 INV IN: 438.38 INV OUT: 438.28	FROM CB-11, 24" REINFORCED CONCRETE INV IN: 438.38 @ 0.50%	TO CB-9, 24" REINFORCED CONCRETE INV OUT: 438.28 @ 0.50%
CB-11	CI RIM: 447.05 INV IN: 439.08 INV OUT: 438.98	FROM CB-12, 18" REINFORCED CONCRETE INV IN: 439.08 @ 0.50%	TO CB-10, 24" REINFORCED CONCRETE INV OUT: 438.98 @ 0.50%
CB-12	CI RIM: 447.93 INV IN: 439.65 INV OUT: 439.55	FROM CB-13, 18" REINFORCED CONCRETE INV IN: 439.65 @ 0.50%	TO CB-11, 18" REINFORCED CONCRETE INV OUT: 439.55 @ 0.50%
CB-13	CI RIM: 448.14 INV IN: 440.01 INV OUT: 439.91	FROM CB-13A, 18" REINFORCED CONCRETE INV IN: 440.01 @ 0.50%	TO CB-12, 18" REINFORCED CONCRETE INV OUT: 439.91 @ 0.50%
CB-13A	CI RIM: 448.80 INV IN: 440.42 INV OUT: 440.32	FROM CB-14, 18" REINFORCED CONCRETE INV IN: 440.42 @ 0.50%	TO CB-13, 18" REINFORCED CONCRETE INV OUT: 440.32 @ 0.50%
CB-14	CI RIM: 447.35 INV IN: 440.88 INV OUT: 440.78	FROM CB-15, 15" REINFORCED CONCRETE INV IN: 440.88 @ 0.50%	TO CB-13A, 18" REINFORCED CONCRETE INV OUT: 440.78 @ 0.50%
CB-15	CI RIM: 444.75 INV OUT: 441.28		TO CB-14, 15" REINFORCED CONCRETE INV OUT: 441.28 @ 0.50%
CB-16	CI RIM: 444.54 INV IN: 433.64 INV OUT: 433.54	FROM CS-1, 30" REINFORCED CONCRETE INV IN: 433.64 @ 0.50%	TO FES-2, 30" REINFORCED CONCRETE INV OUT: 433.54 @ 0.50%
CB-17	CI RIM: 447.08 INV IN: 442.77 INV OUT: 442.67	FROM CB-18, 15" REINFORCED CONCRETE INV IN: 442.77 @ 2.07%	TO MH-1, 15" REINFORCED CONCRETE INV OUT: 442.67 @ 0.50%
CB-18	CI RIM: 450.23 INV OUT: 446.20		TO CB-17, 15" REINFORCED CONCRETE INV OUT: 446.20 @ 2.07%
CB-19	CI RIM: 449.64 INV OUT: 446.68		TO FES-3, 15" REINFORCED CONCRETE INV OUT: 446.68 @ 0.50%
CS-1	CI RIM: 436.79 INV OUT: 434.00		TO CB-16, 30" REINFORCED CONCRETE INV OUT: 434.00 @ 0.50%
EX PIPE	NULL STRUCTURE RIM: 1.05 INV IN: 440.55	FROM MH-1, 18" RCP INV IN: 440.55 @ 1.30%	
FES-1	FES RIM: 438.88 INV IN: 436.00	FROM CB-1, 30" REINFORCED CONCRETE INV IN: 436.00 @ 0.50%	
FES-2	FES RIM: 436.17 INV IN: 433.30	FROM CB-16, 30" REINFORCED CONCRETE INV IN: 433.30 @ 0.50%	
FES-3	FES RIM: 447.87 INV IN: 446.35	FROM CB-19, 15" REINFORCED CONCRETE INV IN: 446.35 @ 0.50%	
FES-4	FES RIM: 446.42 INV OUT: 444.90		TO MH-1, 15" REINFORCED CONCRETE INV OUT: 444.90 @ 7.97%
MH-1	MH RIM: 447.34 INV IN: 442.60	FROM CB-17, 15" REINFORCED CONCRETE INV IN: 442.60 @ 0.50% FROM FES-4, 15" REINFORCED CONCRETE INV IN: 443.40 @ 7.97%	TO EX PIPE, 18" RCP INV OUT: 442.47 @ 1.30%

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
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WWW.KIMLEY-HORN.COM
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NORTH CAROLINA SEAL 032582 ENGINEERING

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

STORM DATA TABLE

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C4.1

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RALPH STEPHENS ROAD
NCSR #1114
VARIABLE WIDTH PUBLIC R/W

SOUTHERN CROSSINGS BOULEVARD
59' PUBLIC R/W

PROPOSED
120 BED LONG TERM
CARE FACILITY
FFE=450.00

50' THOROUGHFARE SETBACK
10' A-75 BUFFER
DUKE ENERGY PROGRESS EASEMENT EXCEPTION #8
STORMWATER 20' DRAINAGE EASEMENT
VARIABLE WIDTH DRAINAGE EASEMENT
20' SANITARY SEWER EASEMENT
30' PUBLIC UTILITY EASEMENT
STORMWATER MAINTENANCE & ACCESS EASEMENT
PROPOSED UTILITY EASEMENT
10' BLDG. SETBACK
25' C-150 BUFFER

SOUTHERN CROSSROADS, INC.
PIN #0648846643
D.B. 16615 PG. 375
B.M. 2018 PG. 845

45 DEGREE BEND TYP.
6" DIP FIRE LINE
61.5' FIRE HYDRANT
FDC
4" FIRE LINE
CHECK VALVE WITH BALL DRIP INSIDE 4" MANHOLE
PROPOSED STORM WATER POND
INSTALL THRUST BLOCKING AT BENDS ALONG 6" FIRE LINE
GATE VALVE TYP.
CONNECT TO EXISTING WATER STUB. CONTRACTOR TO VERIFY SIZE.
EXISTING FIRE HYDRANT
KNOX BOX
RISER ROOM
TRANSFORMER
GENERATOR
GREASE TRAP
EV CHARGING CONDUIT
EV CHARGING STATION
3" DOMESTIC DIP WATER LINE
3" DOMESTIC WATER METER AND RPZ BACKFLOW PREVENTER IN ABOVE GROUND HEATED ENCLOSURE. RPZ TYPE TO BE APPROVED BY USC/ASSE.
6" FIRE RPZ BACKFLOW PREVENTER TO BE INSTALLED IN THE RISER ROOM. RPZ TYPE TO BE APPROVED BY USC/ASSE.
PIV
4" TO 3" REDUCER
GATE VALVE
12" X 6" TAPPING SLEEVE AND VALVE
12" X 4" TAPPING SLEEVE AND VALVE
EXISTING 12" DIP WATER LINE
TRENCHING AREA
EXISTING FIRE HYDRANT
EXISTING FIRE HYDRANT
EX SSWR MH-01
RIM: 442.97
INV IN: 428.67 (SSWR MH-2)
INV IN: 428.67 (BLDG CONNECTION 3)
INV OUT: 427.77 ()
PROPOSED 20' SANITARY SEWER EASEMENT
157 LF OF 8" PVC @ 4.59%
SSWR MH-2
RIM: 447.94
INV IN: 436.78 (SSWR MH-3)
INV OUT: 435.88 (EX SSWR MH-01)
SSWR MH-3
RIM: 448.49
INV IN: 437.52 (SSWR MH-4)
INV IN: 438.22 (BLDG CONNECTION 2)
INV OUT: 437.32 (SSWR MH-2)
SSWR MH-4
RIM: 444.89
INV IN: 438.72 (SSWR MH-5)
INV IN: 439.42 (BLDG CONNECTION 1)
INV OUT: 438.52 (SSWR MH-3)
SSWR MH-5
RIM: 446.52
INV OUT: 439.12 (SSWR MH-4)
222 LF OF 8" PVC @ 0.45%
40 LF OF 8" PVC @ 1.00%
120 LF OF 8" PVC @ 0.45%
SANITARY SEWER MANHOLE
RIM – 438.33'
INV. IN – 426.76'
INV. OUT – 426.64'

SANITARY CLEANOUT INV: 445.0
SANITARY BUILDING CONNECTION 6" PVC @ 2.03%
SANITARY BUILDING CONNECTION INV: 445.00
SANITARY CLEANOUT INV: 443.00
SANITARY CLEANOUT INV: 441.17
SANITARY BUILDING CONNECTION 6" PVC @ 2.03%
SANITARY CLEANOUT INV: 439.61
SANITARY BUILDING CONNECTION 6" PVC @ 9.5%
SANITARY BUILDING CONNECTION 4" PVC @ 9.5%
SANITARY BUILDING CONNECTION 6" PVC @ 4.46%
SANITARY CLEANOUT INV: 445.00
SANITARY BUILDING CONNECTION 6" PVC @ 4.46%
SANITARY CLEANOUT INV: 440.60
SANITARY CLEANOUT INV: 436.19
SANITARY CLEANOUT INV: 429.73

UTILITY LEGEND

- PROPERTY LINE
- WATER LINE
- FW — FIRE LINE
- SANITARY SEWER LINE
- E — ELECTRIC
- FO — FIBER OPTIC
- G — GAS
- P — POWER
- T — TELECOMMUNICATION
- TV — CABLE
- LIGHT POLE
- M — WATER METER
- GATE VALVE
- POINT OF CONNECTION
- BACKFLOW PREVENTOR
- PIPE TEE/BENDS
- REDUCER
- FIRE HYDRANT (FH)
- FIRE DEPARTMENT CONNECTION (FDC)
- SANITARY SEWER CLEANOUT (SSCO)
- SS — SANITARY SEWER MANHOLE (SSMH)
- SANITARY SEWER GREASE TRAP

UTILITY NOTE:

1. KNOX BOX WILL BE PROVIDED ON BUILDING.
2. ALL NEW UTILITY LINES (POWER, CABLE, ETC.) MUST BE UNDERGROUND
3. A MINIMUM OF 6" ADDRESS/ SUITE NUMBERS REQUIRED

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

No.	DATE	BY	REVISIONS
1	01/03/25	JCB	PRE-APPLICATION COMMENTS
2	04/14/25	JCB	REVISE PER TOWN COMMENTS
3	09/04/25	JCB	REVISED INCLUDING PHOTOMETRICS
4	12/17/25	JMS	REVISED PER TOWN COMMENTS
5	03/11/26	JMS	REVISED PER TOWN COMMENTS

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PHONE: 919-677-2000 FAX: 919-677-2050
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#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JOSEPH C. BOSTIC

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

UTILITY PLAN

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C5.0

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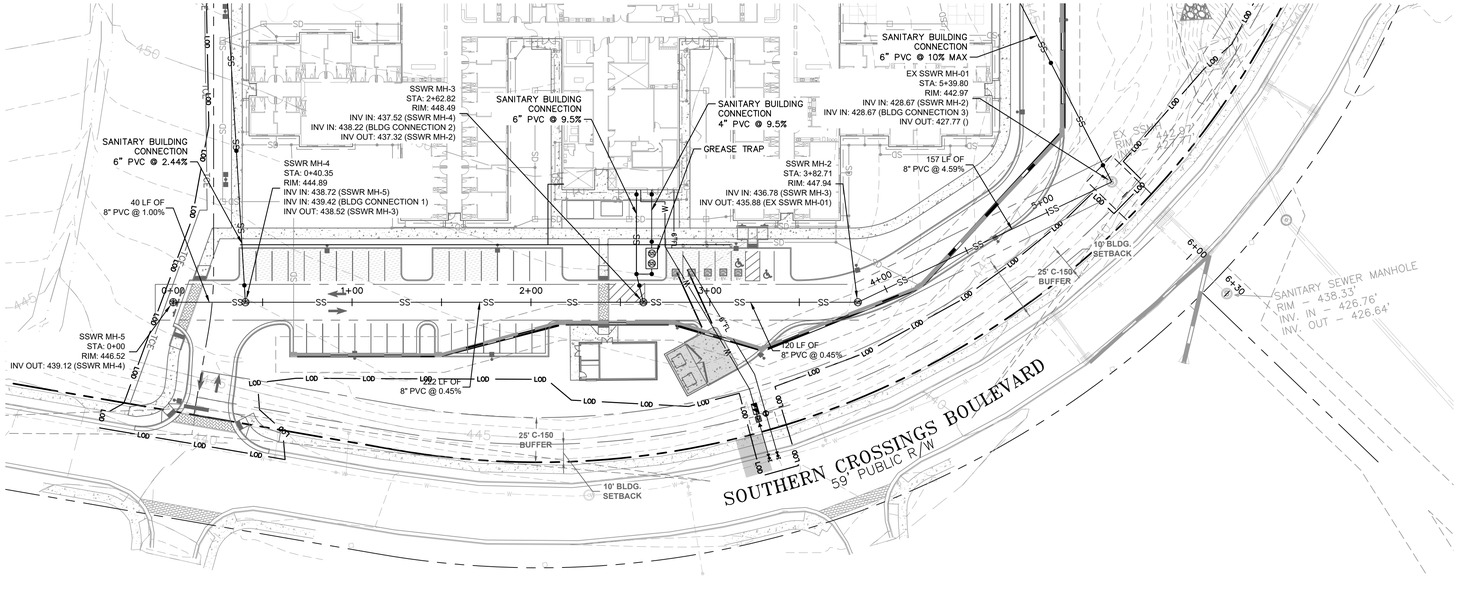

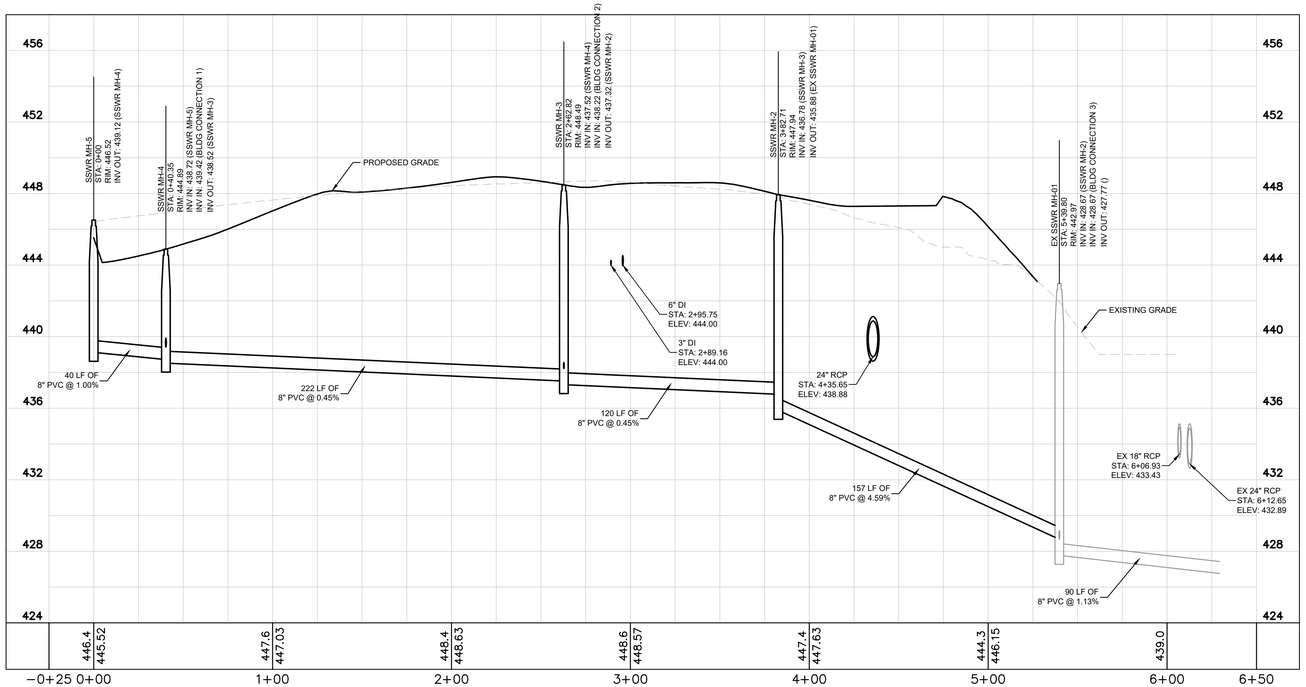

MANHOLES NOT IN THE ROADWAY SHALL HAVE A TOP ELEVATION A MINIMUM OF 12 INCHES ABOVE FINISHED GRADE.

UTILITY LEGEND

- PROPERTY LINE
- WATER LINE
- FW — FIRE LINE
- SANITARY SEWER LINE
- E — ELECTRIC
- FO — FIBER OPTIC
- G — GAS
- P — POWER
- T — TELECOMMUNICATION
- TV — CABLE
- LIGHT POLE
- M — WATER METER
- GATE VALVE
- POINT OF CONNECTION
- BACKFLOW PREVENTOR
- PIPE TEE/BENDS
- REDUCER
- FIRE HYDRANT (FH)
- FIRE DEPARTMENT CONNECTION (FDC)
- SANITARY SEWER CLEANOUT (SSCO)
- SS — SANITARY SEWER MANHOLE (SSMH)
- SG — SANITARY SEWER GREASE TRAP

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
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NORTH CAROLINA ENGINEERING SEAL 032582 JAMES C. OWEN, JR. 3/11/2026 REGISTERED PROFESSIONAL ENGINEER

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

SEWER PLAN AND PROFILE

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C5.1

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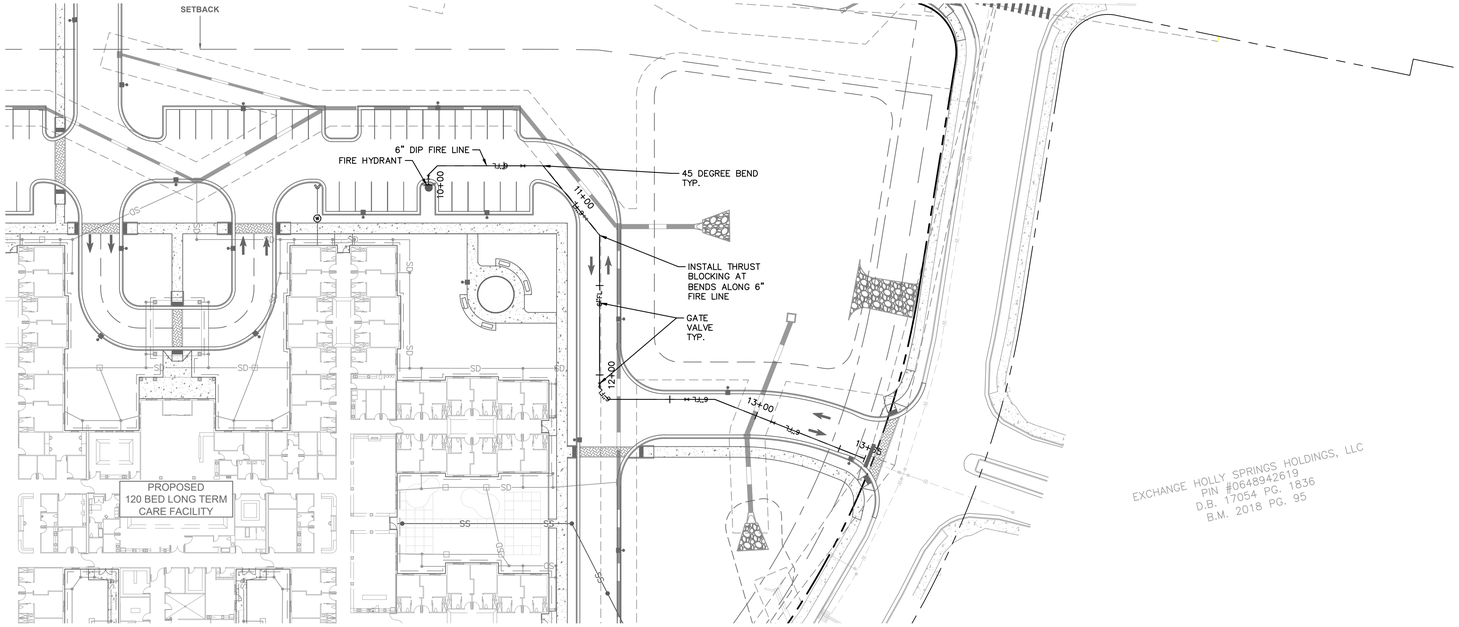
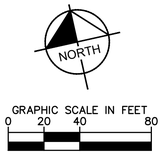


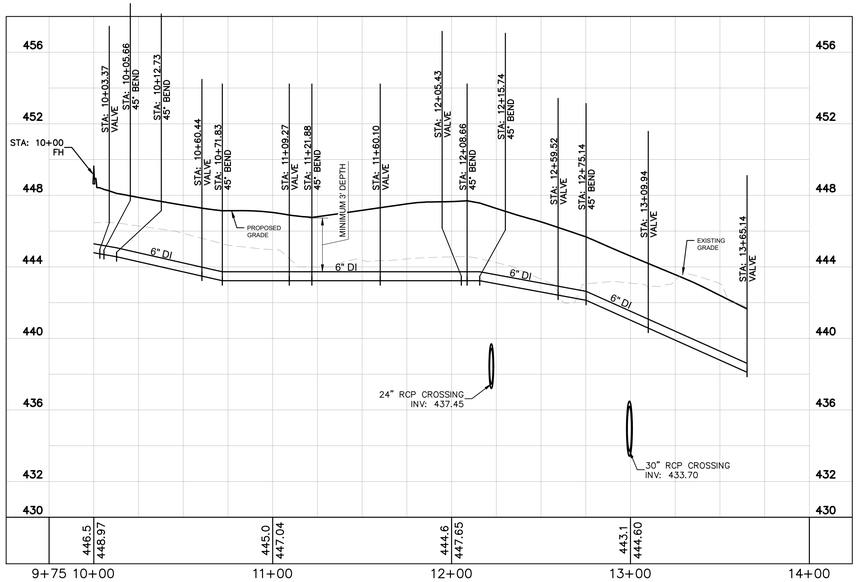
EXCHANGE HOLLY SPRINGS HOLDINGS, LLC
PIN #0648942619
D.B. 17054 PG. 1836
B.M. 2018 PG. 95



GRAPHIC SCALE IN FEET
0 20 40 80

UTILITY LEGEND

	PROPERTY LINE
	WATER LINE
FW	FIRE LINE
	SANITARY SEWER LINE
E	ELECTRIC
FO	FIBER OPTIC
G	GAS
P	POWER
T	TELECOMMUNICATION
TV	CABLE
	LIGHT POLE
M	WATER METER
	GATE VALVE
	POINT OF CONNECTION
	BACKFLOW PREVENTOR
	PIPE TEE/BENDS
	REDUCER
	FIRE HYDRANT (FH)
	FIRE DEPARTMENT CONNECTION (FDC)
	SANITARY SEWER CLEANOUT (SSCO)
SS	SANITARY SEWER MANHOLE (SSMH)
GG	SANITARY SEWER GREASE TRAP



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##-0102

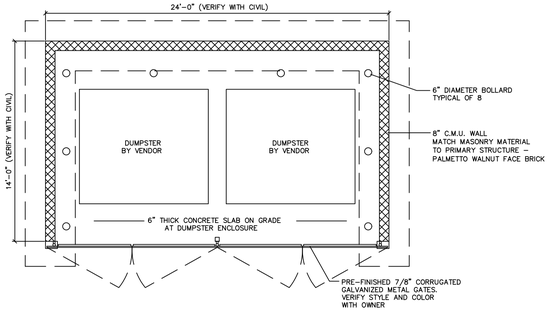
NORTH CAROLINA
ENGINEERING
SEAL
032582
PROFESSIONAL

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

WATER PLAN AND PROFILE

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

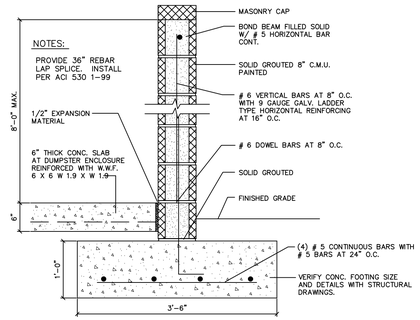
SHEET NUMBER
C5.2



SEE CIVIL DRAWINGS FOR LOCATION OF DUMPSTER ENCLOSURE.

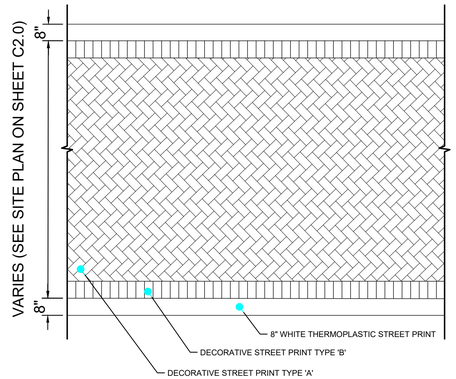
FLOOR PLAN — DUMPSTER PLAN

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



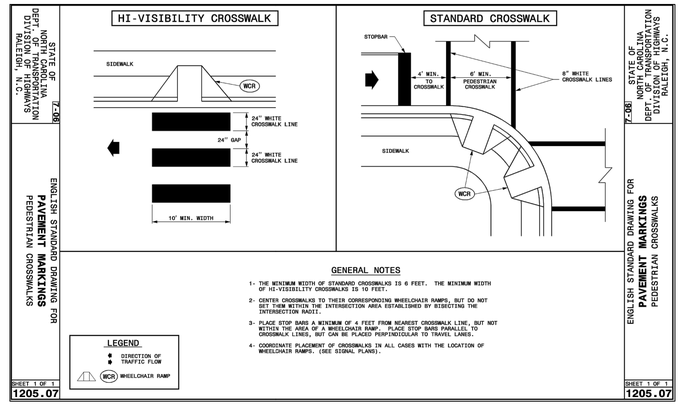
SECTION — DUMPSTER WALL

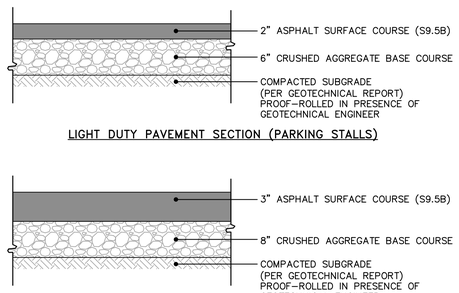
SCALE: 1"=1'-0"



STAMPED CONCRETE DETAIL

NTS





LIGHT DUTY PAVEMENT SECTION (PARKING STALLS)

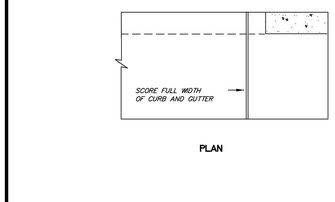
HEAVY DUTY PAVEMENT SECTION (DRIVE AISLES)

NOTES

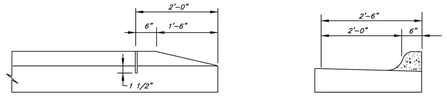
1. ALL PAVEMENT MATERIALS SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARD SPECIFICATIONS.
2. PAVEMENT SECTION MUST MEET THE CRITERIA GIVEN IN THE SITE SOIL REPORT.

ASPHALT PAVEMENT SECTIONS (XX)

N.T.S. KHA DETAIL NO: 02.101.R02



PLAN



FRONT END

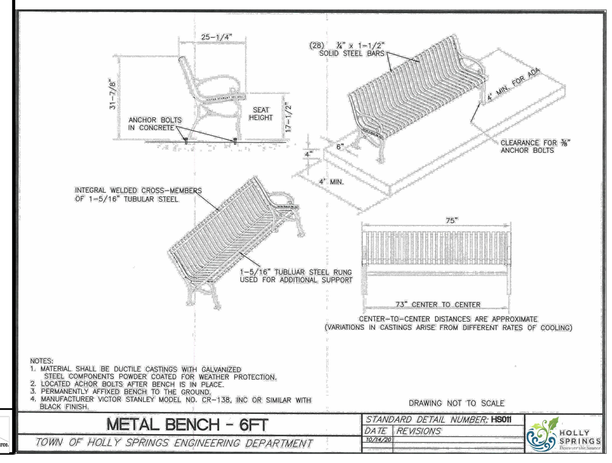
DRAWING NOT TO SCALE

STANDARD METHOD OF ENDING CURB AND GUTTER

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS323

DATE	REVISIONS
2/8/16	



NOTES:
1. MATERIAL SHALL BE DUCTILE CASTINGS WITH GALVANIZED STEEL COMPONENTS POWDER COATED FOR WEATHER PROTECTION.
2. LOCATED ACHOR BOLTS AFTER BENCH IS IN PLACE.
3. PERMANENTLY AFFIXED BENCH TO THE GROUND.
4. MANUFACTURER VICTOR STANLEY MODEL NO. CR-138, INC OR SIMILAR WITH BLACK FINISH.

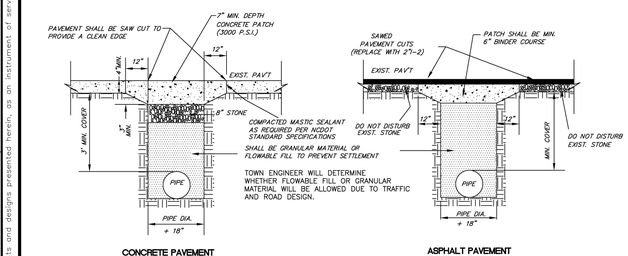
DRAWING NOT TO SCALE

METAL BENCH - 6FT

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS011

DATE	REVISIONS
10/24/20	



CONCRETE PAVEMENT ASPHALT PAVEMENT

NOTE TO CONTRACTOR

ALL PAVEMENT CUTS SHALL BE REPAIRED WITHIN A MAXIMUM OF TWO (2) DAYS FROM THE DATE THE CUT IS MADE. IF CONDITIONS DO NOT PERMIT A PERMANENT REPAIR WITHIN THE GIVEN TIME LIMIT, PERMISSION TO MAKE A TEMPORARY REPAIR MUST BE OBTAINED FROM THE DIRECTOR OF ENGINEERING. THOROUGHFARES SHALL BE REQUIRED TO BE REPAIRED ON THE SAME DAY.

DRAWING NOT TO SCALE

STANDARD TRENCH AND PAVEMENT REPAIR SECTION

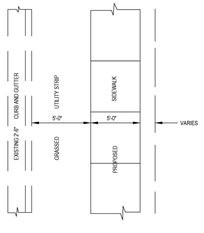
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS326

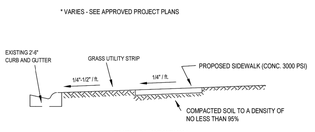
DATE	REVISIONS
2/8/16	

NOTES:
1. SIDEWALK SHALL BE 6" DEPTH AT ALL DRIVEWAYS.
2. SIDEWALK SHALL BE 6" DEPTH AT ALL HANDICAP RAMPS.
3. TRANSVERSE EXPANSION JOINT TO BE A MAX OF 50 FEET.

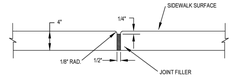
* VARIES - SEE APPROVED PROJECT PLANS



PLAN VIEW



TYPICAL SECTION



TRANSVERSE EXPANSION JOINT

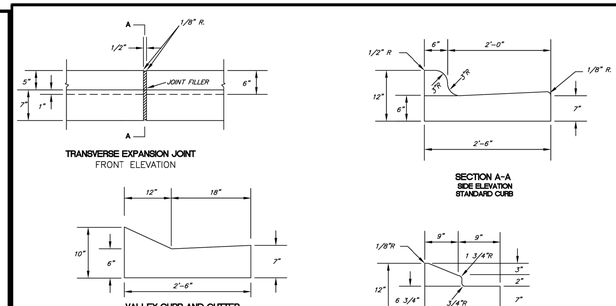
DRAWING NOT TO SCALE

STANDARD CONCRETE SIDEWALK

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS327

DATE	REVISIONS
7/31/23	



NOTES:
1. CONCRETE SHALL BE 3,000 P.S.I.
2. CONTRACTION JOINTS SHALL BE SPACED AT 10' INTERVALS. (15' SPACING WILL BE ALLOWED WHEN A MACHINE IS USED)
3. REMOVAL OF ANY PORTION OF CURB AND GUTTER SHALL REQUIRE FULL REMOVAL AND REPLACEMENT SO THAT NO LONGITUDINAL SEAMS ARE CREATED.
4. MAINTAIN 50' MAX. BETWEEN JOINTS OR AT ALL RIGID OBJECTS.

DRAWING NOT TO SCALE

STANDARD CONCRETE CURB AND GUTTER

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS321

DATE	REVISIONS
2/8/16	

No.	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26 JMS
4	REVISED PER TOWN COMMENTS	12/17/25 JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25 JCB
2	REVISE PER TOWN COMMENTS	04/14/25 JCB
1	PRE-APPLICATION COMMENTS	01/03/25 JCB

REVISIONS

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WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JAMES C. MCGUIRE

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

1936 RALPH STEPHENS ROAD

PREPARED FOR BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

SITE DETAILS

SHEET NUMBER C6.0

Plotted By: Schnaak, Jared Sheet Set: PRINCIPLE LTC Layout: C6.0 SITE DETAILS March 11, 2026 09:57:21am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C6.0 SITE DETAILS.dwg
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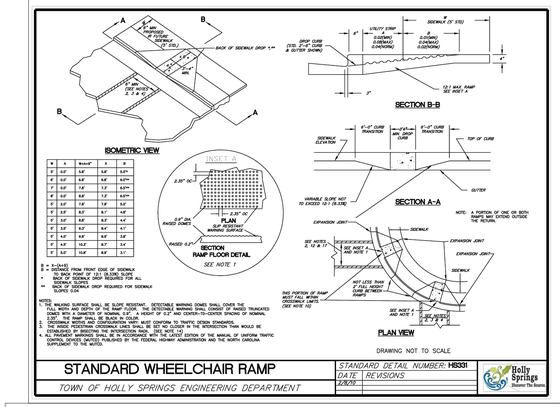


DRAWING NOT TO SCALE

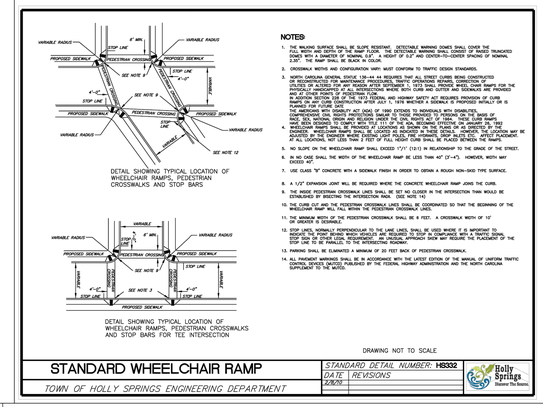
STANDARD WHEELCHAIR RAMP

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS331

DATE | REVISIONS

2/6/15



DETAIL SHOWING TYPICAL LOCATION OF WHEELCHAIR RAMPS, PEDESTRIAN CROSSWALKS AND STOP BARS FOR TEE INTERSECTION

NOTES:

1. THE WALKING SURFACE SHALL BE SLOPE RESISTANT. DETECTABLE WARNING DOMES SHALL COVER THE FULL WIDTH AND DEPTH OF THE RAMP FLOOR. THE DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9", A HEIGHT OF 0.2" AND CENTER-TO-CENTER SPACING OF NOMINAL 2.35". THE RAMP SHALL BE BLACK IN COLOR.
2. CROSSWALK MOTIVE AND CONFIGURATION MAY MUST CONFORM TO TRAFFIC DESIGN STANDARDS.
3. NORTH CAROLINA GENERAL STATUE 136-44.14 REQUIRES THAT ALL STREET CURBS BEING CONSTRUCTED OR RECONSTRUCTED FOR MAINTENANCE PROCEDURES, TRAFFIC OPERATIONS REPAIRS, CORRECTION OF DEFICIENCIES, OR IMPROVEMENTS SHALL BE CONSTRUCTED OR RECONSTRUCTED TO INCLUDE CURB RAMPS FOR THE PHYSICALLY HANDICAPPED AT ALL INTERSECTIONS WHERE BOTH CURB AND GUTTER AND SIDEWALKS ARE PROVIDED IN ACCORDANCE WITH THE FOLLOWING:
IN SECTION SECTION 228 OF THE 1973 FEDERAL AID HIGHWAY SAFETY ACT, REQUIRES PROVISION OF CURB RAMPS OR ANY CURB CONSTRUCTION AFTER JULY 1, 1976 WHETHER A SIDEWALK IS PROPOSED INITIALLY OR IS ADDED AT A LATER DATE.
THE HANDICAPPED WITH DISABILITY ACT (ADA) OF 1990 EXTENDS TO INDIVIDUALS WITH DISABILITIES, COMPREHENSIVE CIVIL RIGHTS PROTECTIONS SIMILAR TO THOSE PROVIDED TO PERSONS ON THE BASIS OF RACE, SEX, NATIONAL ORIGIN, AND RELIGION. THE ADA IS A LAW THAT WENT INTO EFFECT ON JULY 26, 1992 AND HAVE BEEN DESIGNED TO COMPLY WITH TITLE III OF THE ADA, BECOMING EFFECTIVE ON JANUARY 26, 1992
4. CURB RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS WHERE BOTH CURB AND GUTTER AND SIDEWALKS ARE ENGINEER. WHEELCHAIR RAMPS SHALL BE LOCATED AS INDICATED IN THESE DETAILS. HOWEVER, THE LOCATION MAY BE ADJUSTED TO ACCOMMODATE EXISTING CONDITIONS. CURB RAMPS SHALL BE PROVIDED AT ALL CROSSWALKS AT ALL LOCATIONS, NOT LESS THAN 2 PER 90° FULL RADIUS CURB SHALL BE PLACED SEPARATELY FOR EACH RAMP.
5. NO SLOPE ON THE WHEELCHAIR RAMP SHALL EXCEED 1"/1" (12:1) IN RELATIONSHIP TO THE GRADE OF THE STREET.
6. IN NO CASE SHALL THE WIDTH OF THE WHEELCHAIR RAMP BE LESS THAN 40" (3'-4"). HOWEVER, WIDTH MAY EXCEED 40".
7. USE CLASS "B" CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NON-SKID TYPE SURFACE.
8. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE CONCRETE WHEELCHAIR RAMP JOINS THE CURB.
9. THE INSIDE PEDESTRIAN CROSSWALK LINES SHALL BE SET NO CLOSER IN THE INTERSECTION THAN WOULD BE ESTABLISHED BY THE EXTENSION OF THE CURB LINE OF THE CROSS STREET.
10. THE CURB CUT AND THE PEDESTRIAN CROSSWALK LINES SHALL BE COORDINATED SO THAT THE BEGINNING OF THE WHEELCHAIR RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
11. THE MINIMUM WIDTH OF THE PEDESTRIAN CROSSWALK SHALL BE 6 FEET. A CROSSWALK WIDTH OF 10' OR GREATER IS DESIRABLE.
12. STOP LINES, NORMALLY PERPENDICULAR TO THE CURB LINES, SHALL BE USED WHERE IT IS IMPORTANT TO INDICATE THE POINT AT WHICH VEHICLES ARE REQUIRED TO STOP. WHERE A TRAFFIC SIGNAL OPERATES, THE STOP LINE SHALL BE PLACED A MINIMUM OF FOUR FEET IN ADVANCE OF THE NEAREST EDGE OF THE PLACEMENT OF THE STOP LINE TO BE PARALLEL TO THE INTERSECTING ROADWAY.
13. PARKING SHALL BE ELIMINATED A MINIMUM OF 30 FEET BACK OF PEDESTRIAN CROSSWALK.
14. ALL PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.

DRAWING NOT TO SCALE

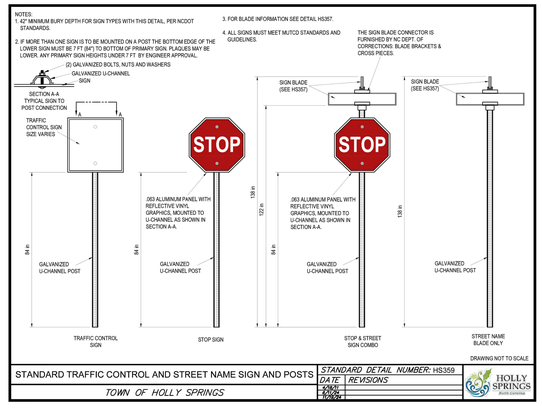
STANDARD WHEELCHAIR RAMP

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS332

DATE | REVISIONS

2/6/15



DRAWING NOT TO SCALE

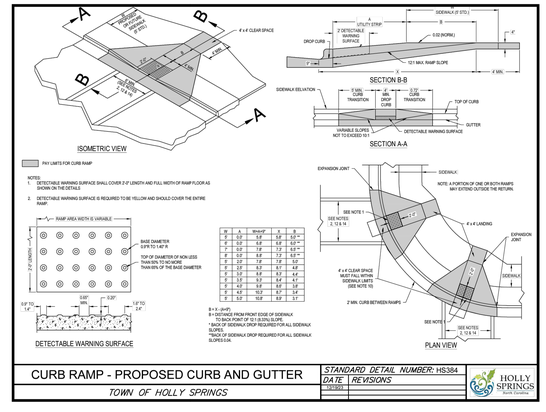
STANDARD TRAFFIC CONTROL AND STREET NAME SIGN AND POSTS

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS359

DATE | REVISIONS

2/6/15



DRAWING NOT TO SCALE

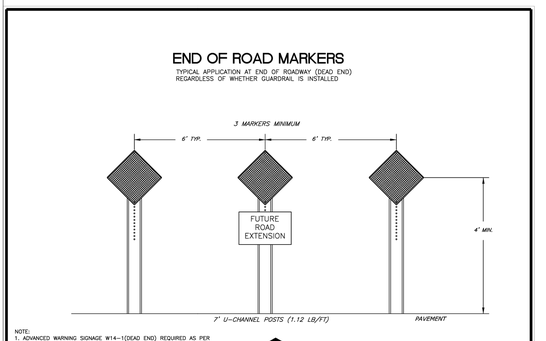
CURB RAMP - PROPOSED CURB AND GUTTER

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS384

DATE | REVISIONS

2/6/15



DRAWING NOT TO SCALE

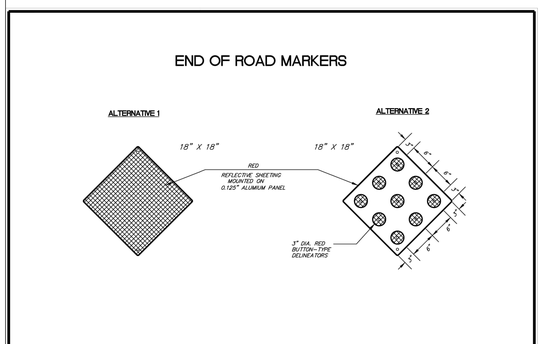
DIRECTIONAL RAMP

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS389

DATE | REVISIONS

2/6/15



DRAWING NOT TO SCALE

DIRECTIONAL RAMP

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS390

DATE | REVISIONS

2/6/15

NOTES:

1. CONSTRUCT THE RAMP SURFACE TO BE STABLE, FIRM, AND SLIP RESISTANT. CONSTRUCT THE CURB RAMP TYPE AS SHOWN IN THE PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER.
2. LOCATE CURB RAMPS AND PLACE PEDESTRIAN CROSSWALK MARKINGS AS SHOWN UN THE PAVEMENT MARKING PLANS. WHEN FIELD ADJUSTMENTS REQUIRE MOVING CURB RAMPS OR MARKINGS AS SHOWN, CONTACT THE SIGNING AND DELINEATION UNIT TO LOCATE AS DIRECTED BY THE ENGINEER.
3. COORDINATE THE CURB RAMP AND THE PEDESTRIAN CROSSWALK MARKINGS SO A 4' x 4' CLEAR SPACE AT THE BASE OF THE CURB RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES.
4. SET BACK DISTANCE FROM INSIDE OF CROSSWALK MARKING TO THE NEAREST EDGE OF TRAVEL LANE IS 4' MINIMUM.
5. REFER TO PAVEMENT MARKING PLANS FOR STOP BAR LOCATIONS AT SIGNALIZED INTERSECTIONS. IF A PAVEMENT MARKING PLAN IS NOT PROVIDED, CONTACT THE SIGNAL DESIGN SECTION FOR THE STOP BAR LOCATIONS OR LOCATE AS DIRECTED BY THE ENGINEER.
6. TERMINATE PARKING A MINIMUM OF 20' FROM THE BACK OF PEDESTRIAN CROSSWALK.
7. CONSTRUCT CURB RAMPS A MINIMUM OF 4' WIDE.
8. CONSTRUCT THE RUNNING SLOPE OF THE RAMP 8.33% MAXIMUM.
9. ALLOWABLE CROSS SLOPE ON SIDEWALKS AND CURB RAMPS WILL BE 2% MAXIMUM.
10. CONSTRUCT THE SIDE FLARE SLOPE A MAXIMUM OF 10% MEASURED ALONG THE CURB LINE.
11. CONSTRUCT THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE BASE OF THE CURB RAMP A MAXIMUM OF 5% AND MAINTAIN A SMOOTH TRANSITION.
12. CONSTRUCT CLEAR SPACES FOR SIDEWALK A MINIMUM OF 4' x 4' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. CONSTRUCT CLEAR SPACES FOR MEDIAN ISLANDS A MINIMUM OF 5' x 5' WITH A MAXIMUM SLOPE OF 2% IN ANY DIRECTION. IF CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4' MINIMUM X 5' MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.
13. TO USE A MEDIAN ISLAND AS A PEDESTRIAN REFUGE AREA, MEDIAN ISLANDS WILL BE A MINIMUM OF 6' WIDE. CONSTRUCT MEDIAN ISLANDS TO PROVIDE PASSAGE OVER OR THROUGH THE ISLAND.
14. SMALL CHANNELIZATION ISLANDS THAT CANNOT PROVIDE A 5'x5' CLEAR SPACE AT THE TOP OF RAMPS, WILL BE CUT THOUGH LEVEL WITH THE SURFACE STREET.
15. CURB RAMPS WITH RETURNED CURBS MAY BE SUED ONLY WHERE PEDESTRIAN WOULD NOT NORMALLY WALK ACROSS THE RAMP. WHERE THE ADJACENT SURFACE IS PLATING OR OTHER NON-WALKING SURFACE, OR THE APPROACH IS SUBSTANTIALLY OBSTRUCTED.
16. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE RAMP JOINS THE CURB RAMP AS SHOWN IN ROADWAY STANDARD DRAWING 848.01.
17. PLACE ALL PEDESTRIAN PUSH BUTTON ACTUATORS AND CROSSING SIGNALS AS SHOWN IN THE PLANS OR AS SHOWN IN THE MUTCD.
18. DETECTABLE WARNING SURFACES WILL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
19. DETECTABLE WARNING SURFACE IS REQUIRED TO BE YELLOW AND SHOULD COVER THE ENTIRE RAMP.

CURB RAMP NOTES

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS396

DATE | REVISIONS

2/6/15

DRAWING NOT TO SCALE

UPGRADED TRAFFIC CONTROL AND STREET NAME SIGN AND POSTS FOR DOWNTOWN

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS361

DATE | REVISIONS

2/6/15

DRAWING NOT TO SCALE

END OF ROAD MARKERS (DEAD END)

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS353

DATE | REVISIONS

2/23/16

DRAWING NOT TO SCALE

END OF ROAD MARKERS

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS354

DATE | REVISIONS

3/26/19

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "BRITTHAVEN, INC." AND DATED FEBRUARY 12, 2026. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON THE FLOOD INSURANCE RATE MAP COMMUNITY MAP NUMBER 3720064800J. DATED MAY 5, 2006.

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NO.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	PRE-APPLICATION COMMENTS	01/03/25	JCB
1	REVISIONS	DATE	BY

Kimley»Horn
421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601
PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
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NORTH CAROLINA ENGINEERING SEAL 032582 PROFESSIONAL

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

SITE DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C6.1

Plotted By:Schingel, Jared Sheet Set:PRINCIPLE LTC Layout:C6.1 SITE DETAILS March 11, 2026 09:57:33pm K:\RAL_LGE\V016582000 Principle LTC\Planning Phase\V5 CAD Files\PlanSheets\V5.1 SITE DETAILS.dwg
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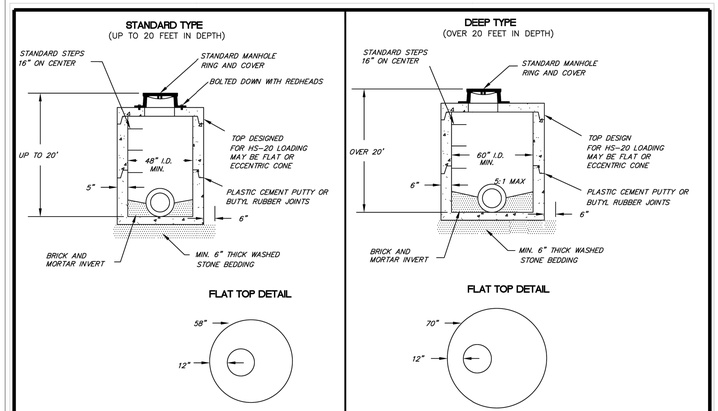
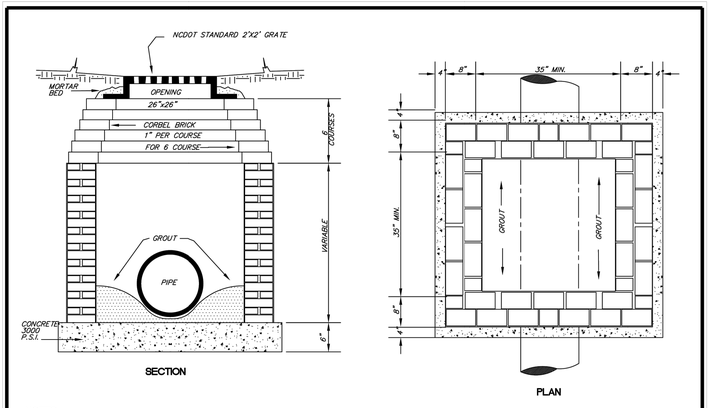


DRAWING NOT TO SCALE

PRECAST CONCRETE MANHOLE STORM DRAINAGE JUNCTION BOX

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS801	
DATE	REVISIONS
7/24/08	



NOTES:

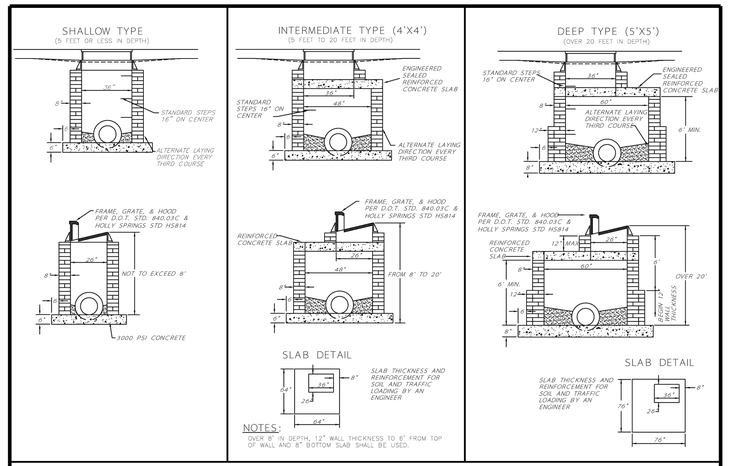
1. EITHER SOLID BRICK, SOLID BLOCK OR PRECAST CONCRETE MAY BE USED.
2. FOR 24" R.C.P. AND LARGER USE PIPE DIA. PLUS 12" FOR MINIMUM INSIDE DIMENSION.
3. GRATED INLETS SHALL NOT BE USED WITHIN TRAVEL AREAS WITHOUT APPROVAL OF DIRECTOR OF ENGINEERING.
4. STANDARD STEPS REQUIRED @ 16" O.C. WHERE DEPTH EXCEEDS 3'.

DRAWING NOT TO SCALE

STANDARD YARD INLET WITH GRATE AND FRAME

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS802	
DATE	REVISIONS
7/24/08	



NOTES:
OVER 8' IN DEPTH, 12" WALL THICKNESS TO 6" FROM TOP OF WALL AND 8" BOTTOM SLAB SHALL BE USED.

DRAWING NOT TO SCALE

CONCRETE BLOCK OR BRICK CATCH BASIN

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS804	
DATE	REVISIONS
7/24/08	

MUST MEET NCDOT STANDARDS
ROADWAY STANDARD DRAWING 840.03

DRAWING NOT TO SCALE

STANDARD FRAME LABEL FOR CATCH BASIN

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS814	
DATE	REVISIONS
7/24/08	

MUST MEET NCDOT STANDARDS
ROADWAY STANDARD DRAWING 840.03

DRAWING NOT TO SCALE

STANDARD PLACEMENT OF STORM DRAIN MARKER

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS815	
DATE	REVISIONS
7/24/08	

NOTES:

1. PENETRATION OF THE BOX SHALL BE BY CORING METHOD ONLY (MAXIMUM ONE PER BOX).
2. ANNULUS BETWEEN BOX WALL AND PIPE SHALL BE FILLED WITH NON-SHRINKING GROUT AND FLUSH WITH THE INTERIOR WALL OF THE BOX.
3. MULTIPLE PIPES SHALL BE MANIFOLDED PRIOR TO BOX PENETRATION.
4. CORRUGATED HDPE IS NOT PERMITTED TO PENETRATE THE BOX WALL.

DRAIN CONNECTION TO STORM DRAIN BOX

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS824	
DATE	REVISIONS
12/18/23	

No.	DATE	BY
5	03/11/26	JMS
4	12/17/25	JMS
3	09/04/25	JCB
2	04/14/25	JCB
1	01/03/25	JCB

REVISIONS

- 5 REVISED PER TOWN COMMENTS
- 4 REVISED PER TOWN COMMENTS
- 3 REVISED INCLUDING PHOTOMETRICS
- 2 REVISE PER TOWN COMMENTS
- 1 PRE-APPLICATION COMMENTS

Kimley»Horn
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WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JOSEPH C. BRITT 03-11-26

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

STORM DRAINAGE DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C7.0

Plotted By:Schinagle, Jared Sheet Set:PRINCIPLE LTC Layout:C7.0 STORM DRAINAGE DETAILS March 11, 2026 09:58:07am K:\RAL_LDEV\016582000_Principle_LTC\Planning Phase\15_CAD Files\PlanSheets\C7.0 STORM DRAINAGE DETAILS.dwg
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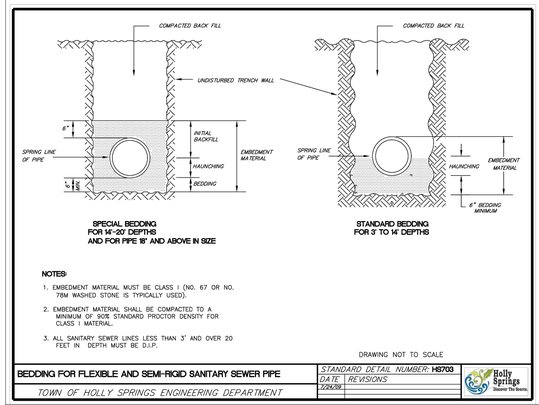


NOTES:

1. EMBEDMENT MATERIAL MUST BE CLASS I (NO. 67 OR NO. 78M WASHED STONE IS TYPICALLY USED).
2. EMBEDMENT MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY FOR CLASS I MATERIAL.
3. ALL SANITARY SEWER LINES LESS THAN 3' AND OVER 20 FEET IN DEPTH MUST BE D.I.P.

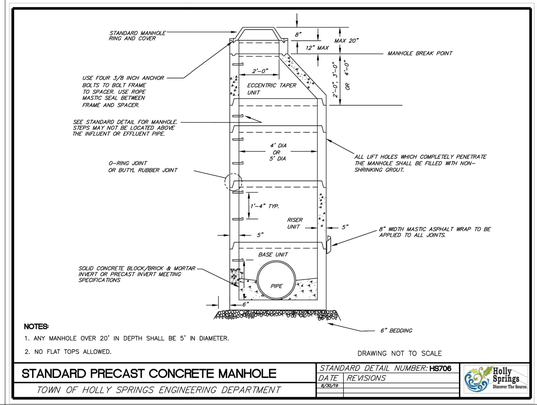
DRAWING NOT TO SCALE

BEDDING FOR FLEXIBLE AND SEMI-RIGID SANITARY SEWER PIPE

STANDARD DETAIL NUMBER: **HS703**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



NOTES:

1. ANY MANHOLE OVER 20' IN DEPTH SHALL BE 5' IN DIAMETER.
2. NO FLAT TOPS ALLOWED.

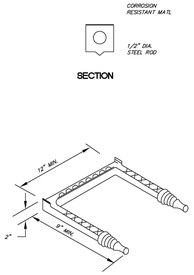
DRAWING NOT TO SCALE

STANDARD PRECAST CONCRETE MANHOLE

STANDARD DETAIL NUMBER: **HS706**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



NOTES:

1. VERTICAL SPACING – 16" O.C.
2. STEPS TO PROTRUDE 5" FROM FACE OF STRUCTURE WALL, AND SHALL WITHSTAND A VERTICAL LOAD OF 400 LBS. AND A HORIZONTAL PULL OUT LOAD OF 1000 LBS.

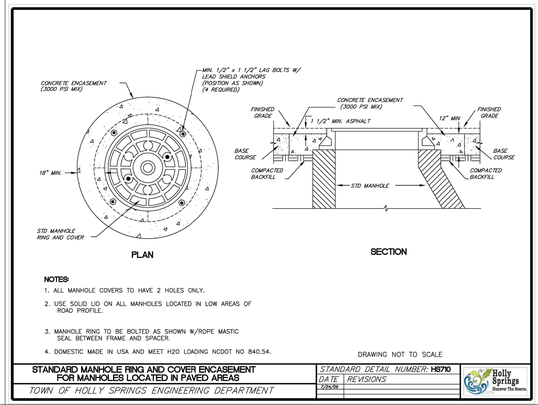
DRAWING NOT TO SCALE

MANHOLE STEPS

STANDARD DETAIL NUMBER: **HS709**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



NOTES:

1. ALL MANHOLE COVERS TO HAVE 2 HOLES ONLY.
2. USE SOLID LID ON ALL MANHOLES LOCATED IN LOW AREAS OF ROAD PROFILE.
3. MANHOLE RING TO BE BOLTED AS SHOWN W/ROPE MASTIC SEAL BETWEEN FRAME AND SPACER.
4. DOMESTIC MADE IN USA AND MEET H20 LOADING NCDOT NO 840.54.

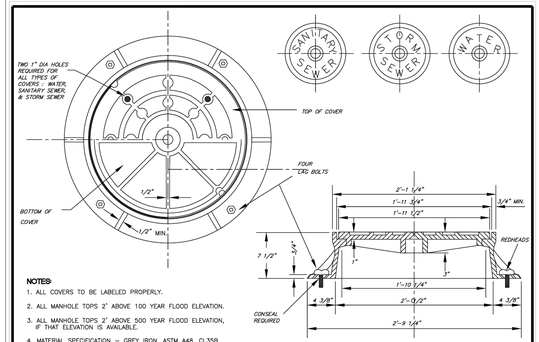
DRAWING NOT TO SCALE

STANDARD MANHOLE RING AND COVER ENCASEMENT FOR MANHOLES LOCATED IN PAVED AREAS

STANDARD DETAIL NUMBER: **HS710**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



NOTES:

1. ALL COVERS TO BE LABELED PROPERLY.
2. ALL MANHOLE TOPS 2' ABOVE 100 YEAR FLOOD ELEVATION.
3. ALL MANHOLE TOPS 2' ABOVE 500 YEAR FLOOD ELEVATION, IF THAT ELEVATION IS AVAILABLE.
4. MATERIAL SPECIFICATION – GREY IRON, ASTM A48, CL35B, MADE IN USA.

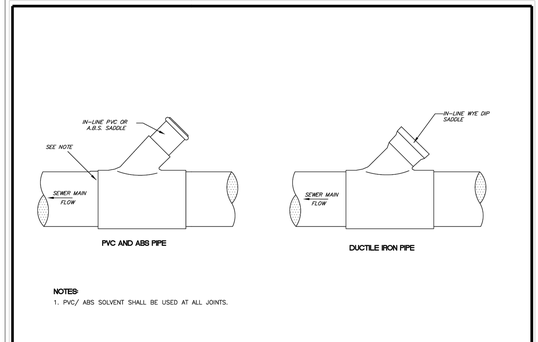
DRAWING NOT TO SCALE

STANDARD MANHOLE RING AND COVER FOR OUTSIDE OF PAVEMENT

STANDARD DETAIL NUMBER: **HS711**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



NOTES:

1. PVC/ ABS SOLVENT SHALL BE USED AT ALL JOINTS.

DRAWING NOT TO SCALE

STANDARD SANITARY SEWER LATERAL CONNECTIONS FOR NEW LINES

STANDARD DETAIL NUMBER: **HS716**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

SPECIFICATION TIME (min-sec) REQUIRED FOR PRESSURE DROP FROM 3-1/2 TO 2-1/2 PSIG WHEN TESTING ONE PIPE DIAMETER ONLY

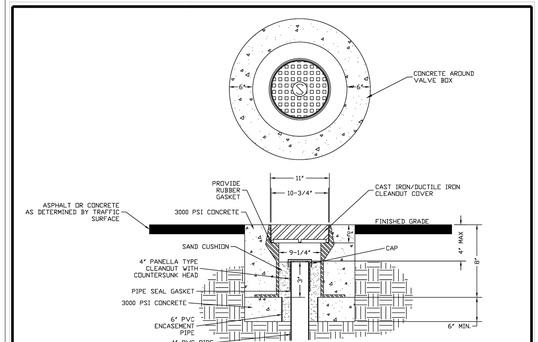
LENGTH OF LINE, FEET	PIPE DIAMETER, INCHES								
	4	6	8	10	12	15	18	21	24
25	0:04	0:10	0:18	0:28	0:40	1:02	1:29	2:01	2:38
50	0:09	0:20	0:35	0:55	1:19	2:04	2:58	4:03	5:17
75	0:13	0:30	0:53	1:23	1:59	3:06	4:27	6:04	7:55
100	0:18	0:40	1:10	1:50	2:38	4:08	5:56	8:05	10:34
125	0:22	0:50	1:28	2:18	3:18	5:09	7:26	9:55	11:20
150	0:26	0:59	1:46	2:45	3:58	6:11	8:30		
175	0:31	1:09	2:03	3:13	4:37	7:05			12:06
200	0:35	1:19	2:21	3:40	5:17			12:06	
225	0:40	1:29	2:38	4:08	5:40			10:25	13:36
250	0:44	1:39	2:56	4:35			8:31	11:55	15:07
275	0:48	1:49	3:14	4:43			9:21	12:44	16:38
300	0:53	1:59	3:31				10:12	13:53	18:09
350	1:02	2:19	3:47			8:16	11:54	16:12	21:10
400	1:10	2:38			6:03	9:27	13:36	18:31	24:12
450	1:19	2:50			6:48	10:38	15:19	20:50	27:13
500	1:28			5:14	7:34	11:49	17:01	23:09	30:14

STANDARD AIR TEST TABLE

STANDARD DETAIL NUMBER: **HS719**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



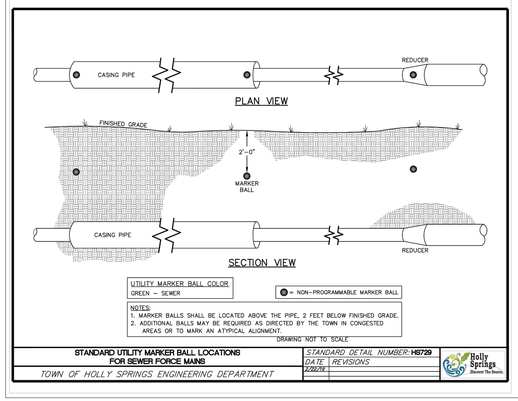
DRAWING NOT TO SCALE

SEWER MINI-MANHOLE CLEANOUT COVER ASSEMBLY FOR TRAFFIC AREA

STANDARD DETAIL NUMBER: **HS723**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT



NOTES:
1. MARKER BALLS SHALL BE LOCATED ABOVE THE PIPE, 2 FEET BELOW FINISHED GRADE.
2. ADDITIONAL BALLS MAY BE REQUIRED AS DIRECTED BY THE TOWN IN CONGESTED AREAS OR TO MARK AN ATYPICAL ALIGNMENT.

DRAWING NOT TO SCALE

STANDARD UTILITY MARKER BALL LOCATIONS FOR SEWER FORCE MAINS

STANDARD DETAIL NUMBER: **HS729**

DATE | *REVISIONS*
3/26/08

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

No.	DATE	BY
	REVISIONS	
1	PRE-APPLICATION COMMENTS	01/03/25 JCB
2	REVISE PER TOWN COMMENTS	04/14/25 JCB
3	REVISED INCLUDING PHOTOMETRICS	09/04/25 JCB
4	REVISED PER TOWN COMMENTS	12/17/25 JMS
5	REVISED PER TOWN COMMENTS	03/11/26 JMS

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WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JARED M. SCHINGLE

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

UTILITY DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C8.0

Plotted By:Schingle, Jared Sheet Set:PRINCIPLE LTC Layout:C8.0 UTILITY DETAILS March 11, 2026 09:58:27am K:\RAL_LOEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C8.0 UTILITY DETAILS.dwg
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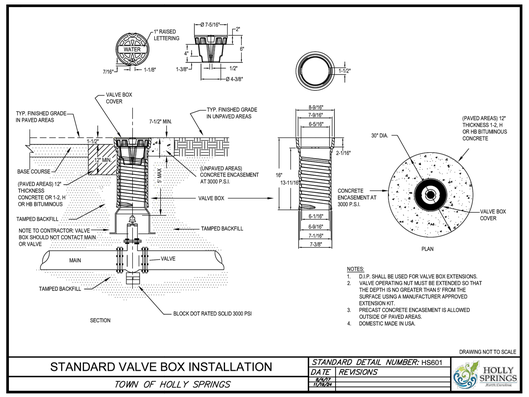


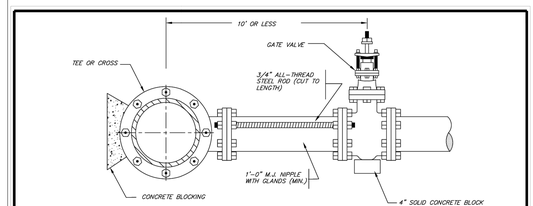
NOTES:
1. D.I.P. SHALL BE USED FOR VALVE BOX EXTENSIONS.
2. VALVE OPERATING NUT MUST BE EXTENDED SO THAT THE DEPTH IS NO GREATER THAN 5' FROM THE SURFACE USING A MANUFACTURER APPROVED EXTENSION KIT.
3. PRECAST CONCRETE ENCASEMENT IS ALLOWED OUTSIDE OF PAVED AREAS.
4. DOMESTIC MADE IN USA.

DRAWING NOT TO SCALE

STANDARD VALVE BOX INSTALLATION

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS601	
DATE	REVISIONS
10/6/21	



ROD REQUIREMENTS

BRANCH SIZE	NO. OF RODS
4"	2
6"	2
8"	4
12"	4
16"	6
24"	6

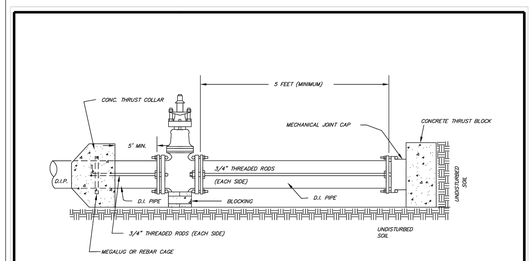
NOTES:
1. ONCE INSTALLED AND TIGHT, THE STEEL RODS AND BOLTS SHALL BE COATED WITH 2 COATS OF BITUMINOUS BASE PAINT, STAINLESS STEEL AND GALVANIZED RODS CAN BE USED.
2. SEE STANDARD THRUST BLOCK.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL FITTINGS.
4. CAN USE GALVANIZED RODS AND COAT RODS WHERE THEY ARE CUT.

DRAWING NOT TO SCALE

STANDARD VALVE RODDING

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS603	
DATE	REVISIONS
7/24/18	



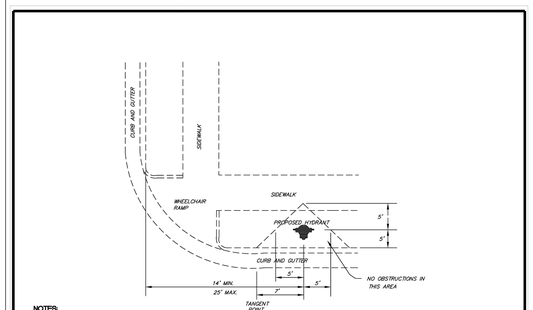
NOTES:
THIS DETAIL SHALL APPLY ONLY TO TEMPORARY CAPPING. PERMANENT DEAD END LINES TO BE IN ACCORDANCE WITH DETAIL HS29.

DRAWING NOT TO SCALE

STANDARD CAPPING DETAIL

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS604	
DATE	REVISIONS
8/26/14	



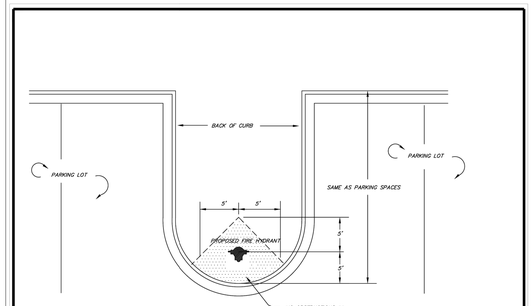
NOTES:
1. LOCATION SHOULD BE COORDINATED WITH NCDOT ALONG STATE MAINTAINED ROADWAYS.
2. HYDRANTS NOT TO BE LOCATED IN RADIUS.

DRAWING NOT TO SCALE

STANDARD HYDRANT LOCATION

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS613	
DATE	REVISIONS
11/9/21	

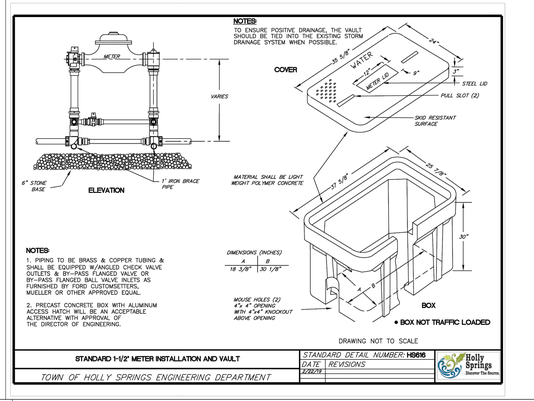


DRAWING NOT TO SCALE

STANDARD HYDRANT LOCATION (FOR PARKING LOT)

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS614	
DATE	REVISIONS
11/9/21	



NOTES:
TO ENSURE POSITIVE DRAINAGE, THE VAULT SHOULD BE TIED INTO THE EXISTING STORM DRAINAGE SYSTEM WHEN POSSIBLE.

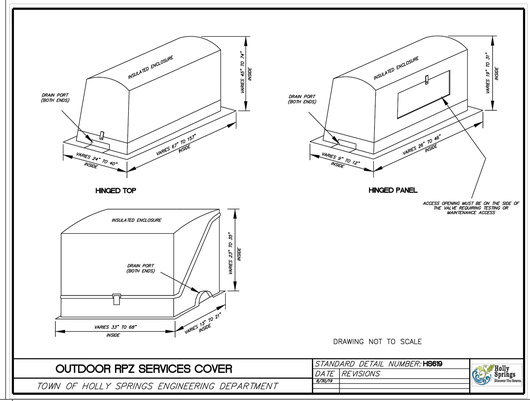
NOTES:
1. PIPING TO BE BRASS & COPPER TUBING & SHALL BE EQUIPPED W/ANGLED CHECK VALVE OUTLETS & BY-PASS FLANGED VALVE OR BY-PASS FLANGED BALL VALVE INLETS AS FURNISHED BY FORD CUSTOMSETTERS, MUELLER OR OTHER APPROVED EQUAL.
2. PRECAST CONCRETE BOX WITH ALUMINUM ACCESS HATCH WILL BE AN ACCEPTABLE ALTERNATIVE WITH APPROVAL OF THE DIRECTOR OF ENGINEERING.

DRAWING NOT TO SCALE

STANDARD 1-1/2" METER INSTALLATION AND VAULT

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS615	
DATE	REVISIONS
7/26/18	

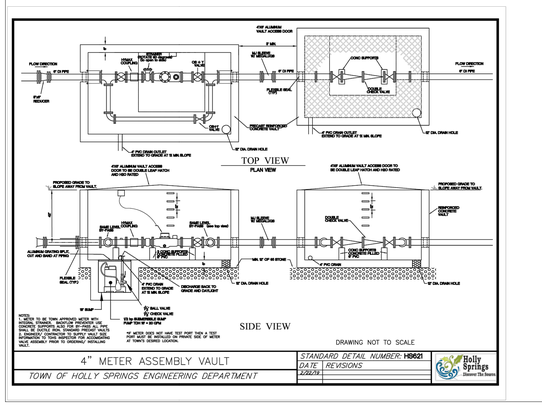


DRAWING NOT TO SCALE

OUTDOOR RPZ SERVICES COVER

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS619	
DATE	REVISIONS
5/16/19	

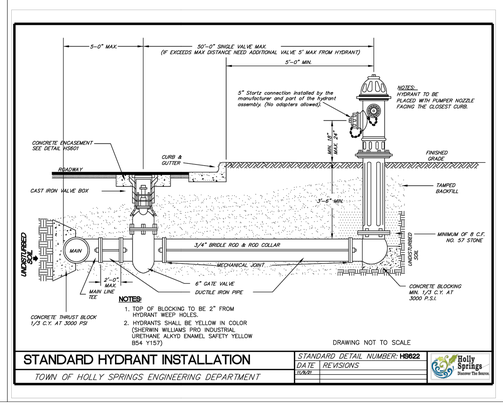


DRAWING NOT TO SCALE

4" METER ASSEMBLY VAULT

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS621	
DATE	REVISIONS
4/30/19	



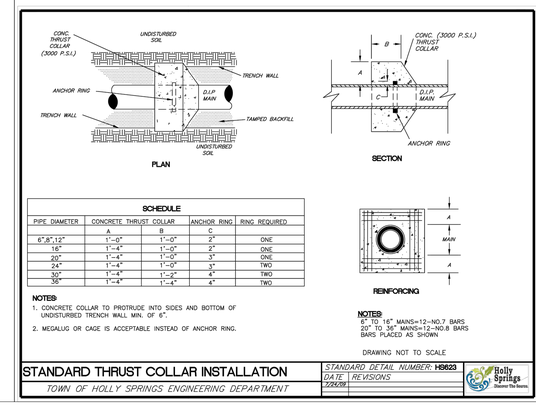
NOTES:
1. TOP OF BLOCKING TO BE 3" FROM HYDRANT WEEP HOLES.
2. HYDRANTS SHALL BE YELLOW IN COLOR (SHERWIN WILLIAMS PRO INDUSTRIAL URETHANE ALKYD ENAMEL SAFETY YELLOW B54 Y157)

DRAWING NOT TO SCALE

STANDARD HYDRANT INSTALLATION

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS622	
DATE	REVISIONS
10/6/21	



SCHEDULE				
PIPE DIAMETER	CONCRETE THRUST COLLAR		ANCHOR RING	RING REQUIRED
	A	B	C	
6",8",12"	1'-0"	1'-0"	2"	ONE
16"	1'-4"	1'-0"	2"	ONE
20"	1'-4"	1'-0"	3"	ONE
24"	1'-4"	1'-0"	3"	TWO
30"	1'-4"	1'-2"	4"	TWO
36"	1'-4"	1'-4"	4"	TWO

NOTES:
1. CONCRETE COLLAR TO PROTRUDE INTO SIDES AND BOTTOM OF UNDISTURBED TRENCH WALL MIN. OF 6".
2. MEGALUG OR CAGE IS ACCEPTABLE INSTEAD OF ANCHOR RING.

NOTES:
6" TO 16" MAINS=12-NO.7 BARS
20" TO 36" MAINS=12-NO.8 BARS
BARS PLACED AS SHOWN

DRAWING NOT TO SCALE

STANDARD THRUST COLLAR INSTALLATION

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS623	
DATE	REVISIONS
7/24/18	

No.	DATE	BY
1	PRE-APPLICATION COMMENTS	01/03/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
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5	REVISED PER TOWN COMMENTS	03/11/26	JMS

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PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 WILLIAM C. BOSTIC IV

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

UTILITY DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C8.1

Plotted By:Schinger, Jared Sheet Set:PRINCIPLE LTC Layout:C8.1 UTILITY DETAILS March 11, 2026 09:58:42am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C8.1 UTILITY DETAILS.dwg
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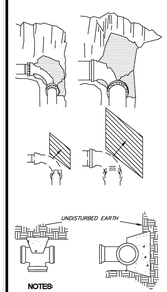


MINIMUM CONCRETE BLOCKING (C.Y.)*					
NOM. PIPE DIA. IN.	TEES & DEAD ENDS	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	1/3	1/3	1/3	1/3	1/3
6	1/3	1/3	1/3	1/3	1/3
8	1/3	1/2	1/3	1/3	1/3
10	2/3	3/4	1/2	1/3	1/3
12	3/4	1.0	2/3	1/3	1/3
14	1.0	1 1/2	3/4	1/2	1/3
16	1 1/3	2.0	1.0	1/2	1/3
18	1 2/3	2 1/3	1 1/3	2/3	1/3
20	2.0	3.0	1 2/3	3/4	1/2
24	3.0	4 1/3	2 1/3	1 1/3	2/3

*CONCRETE SHALL BE 3000 P.S.I. MIX.

NOTES:
1. 4 MIL PLASTIC MUST BE WRAPPED AROUND ALL FITTINGS PRIOR TO POURING CONCRETE.
2. NO CONCRETE SHALL COVER BOLTS OR GLANDS.

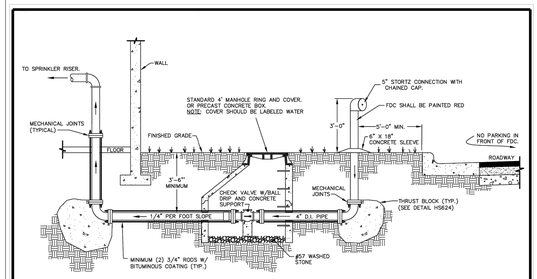
DRAWING NOT TO SCALE

STANDARD REACTION BLOCKING

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS624

DATE	REVISIONS
3/26/09	



NOTES:
1) ALL CONNECTION'S MUST BE WITHIN 100 FEET OF A FIRE HYDRANT.
2) FDC CONNECTION CAN BE ATTACHED TO SINGLE STORY BUILDINGS ONLY. CHECK VALVE W/ BALL DRIP NOT REQUIRED IF CONNECTION IS TIED DIRECTLY TO THE BUILDING.

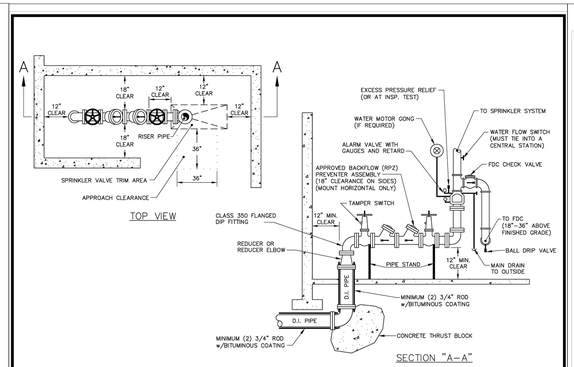
DRAWING NOT TO SCALE

STANDARD DETACHED FDC CONNECTION

TOWN OF HOLLY SPRINGS

STANDARD DETAIL NUMBER: HS625

DATE	REVISIONS
3/26/09	



DRAWING NOT TO SCALE

STANDARD SPRINKLER RISER

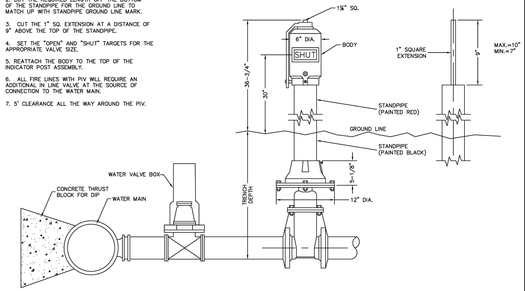
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS626

DATE	REVISIONS
3/26/09	

FIELD ADJUSTMENT INSTRUCTIONS

1. REMOVE THE BODY FROM THE TOP OF THE INDICATOR POST ASSEMBLY.
2. CUT THE REQUIRED LENGTH OFF THE BOTTOM OF THE STANDPIPE FOR THE GROUND LINE TO MATCH UP WITH STANDPIPE GROUND LINE MARK.
3. CUT THE 1" SQ. EXTENSION AT A DISTANCE OF 9" ABOVE THE TOP OF THE STANDPIPE.
4. SET THE "OPEN" AND "SHUT" TARGETS FOR THE APPROPRIATE VALVE SIZE.
5. REATTACH THE BODY TO THE TOP OF THE INDICATOR POST ASSEMBLY.
6. ALL FIRE LINES WITH PIV WILL REQUIRE AN ADDITIONAL IN LINE VALVE AT THE SOURCE OF CONNECTION TO THE WATER MAIN.
7. 5' CLEARANCE ALL THE WAY AROUND THE PIV.



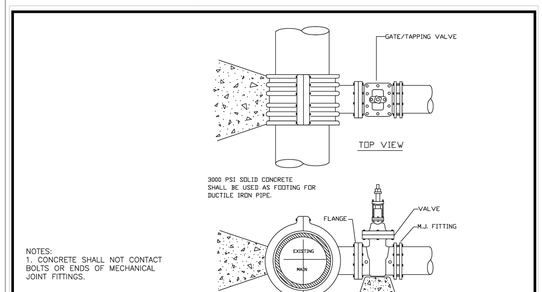
DRAWING NOT TO SCALE

POST INDICATOR VALVE

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS627

DATE	REVISIONS
11/26/01	



NOTES:
1. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT FITTINGS.

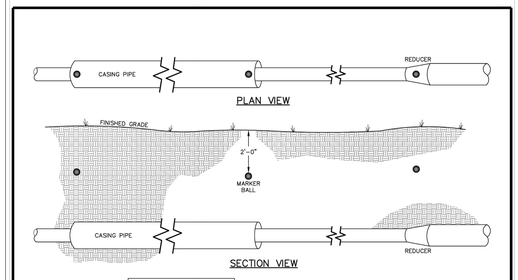
DRAWING NOT TO SCALE

4" – 24" STANDARD TAPPING SLEEVE AND VALVE ASSEMBLY

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS628

DATE	REVISIONS
3/26/09	



UTILITY MARKER BALL COLOR
BLUE – POTABLE WATER

◉ = NON-PROGRAMMABLE MARKER BALL

NOTES:
1. MARKER BALLS SHALL BE LOCATED ABOVE THE PIPE, 2 FEET BELOW FINISHED GRADE.
2. ADDITIONAL BALLS MAY BE REQUIRED AS DIRECTED BY THE TOWN IN CONGESTED AREAS OR TO MARK AN ATYPICAL ALIGNMENT.

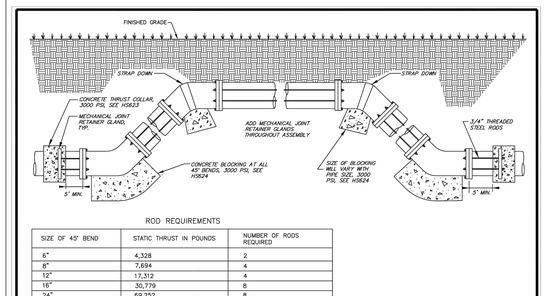
DRAWING NOT TO SCALE

STANDARD UTILITY MARKER BALL LOCATIONS FOR WATER MAINS

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS633

DATE	REVISIONS
1/26/09	



ROD REQUIREMENTS

SIZE OF 45° BEND	STATIC THRUST IN POUNDS	NUMBER OF RODS REQUIRED
6"	4,328	2
8"	7,694	4
12"	17,312	4
16"	30,779	8
24"	69,252	8

NOTES:
1. VERTICAL BENDS ARE NOT PERMITTED UNLESS OTHERWISE APPROVED BY TOHS DEVELOPMENT INSPECTOR.
2. STEEL RODS AND BOLTS SHALL BE 3/4" HOT DIPPED GALVANIZED.
3. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.
4. RESTRAINED MECHANICAL GLANDS TO BE USED AT ALL FITTINGS.
5. MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY.
6. 3' MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS

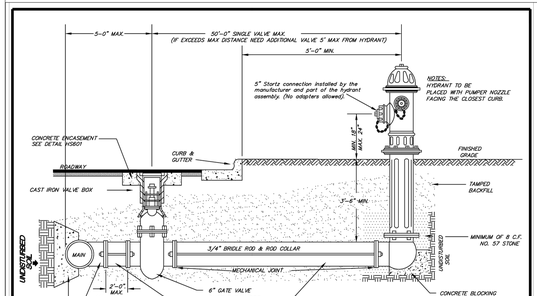
DRAWING NOT TO SCALE

STANDARD VERTICAL BEND

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS635

DATE	REVISIONS
6/21/21	



NOTES:
1. TOP OF BLOCKING TO BE 2" FROM HYDRANT WEEP HOLES.
2. HYDRANTS SHALL BE YELLOW IN COLOR (SHERWIN WILLIAMS PRO INDUSTRIAL URETHANE ALKYD ENAMEL SAFETY YELLOW B54 Y157)

DRAWING NOT TO SCALE

STANDARD HYDRANT INSTALLATION

TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT

STANDARD DETAIL NUMBER: HS622

DATE	REVISIONS
1/26/09	

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JARED SCHINGEL

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

UTILITY DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C8.2

Plotted By:Schingel, Jared Sheet Set:PRINCIPLE LTC Layout:C8.2 UTILITY DETAILS March 11, 2026 09:59:01am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C8.2 UTILITY DETAILS.dwg
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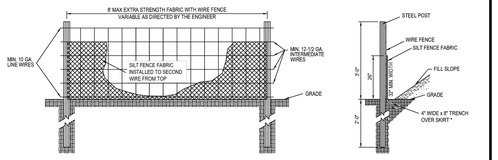


NOTES:
1. USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.
2. UV RESISTANT SILT FENCE FABRIC MUST BE USED NO ORANGE SILT FENCE PERMITTED.

MAINTENANCE:
INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.

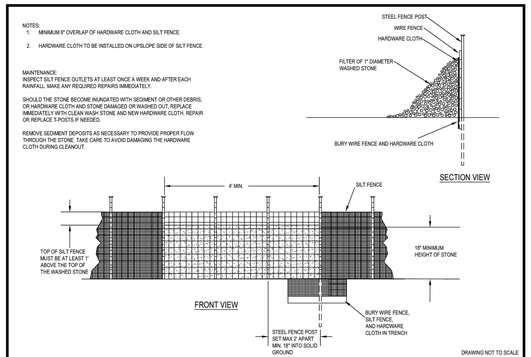
DRAWING NOT TO SCALE

STANDARD TEMPORARY SILT FENCE

STANDARD DETAIL NUMBER: HS401

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS



NOTES:
1. MINIMUM 6" OVERLAP OF HARDWARE CLOTH AND SILT FENCE.
2. HARDWARE CLOTH TO BE INSTALLED ON UPSLOPE SIDE OF SILT FENCE.

MAINTENANCE:
INSPECT SILT FENCE OUTLETS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

SHOULD THE STONE BECOME INUNDATED WITH SEDIMENT OR OTHER DEBRIS, OR HARDWARE CLOTH AND STONE DAMAGED OR WASHED OUT, REPLACE IMMEDIATELY WITH CLEAN WASH STONE AND NEW HARDWARE CLOTH. REPAIR OR REPLACE T-POSTS IF NEEDED.

REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE PROPER FLOW THROUGH THE STONE. TAKE CARE TO AVOID DAMMGING THE HARDWARE CLOTH DURING CLEANOUT.

DRAWING NOT TO SCALE

SILT FENCE OUTLET

STANDARD DETAIL NUMBER: HS404

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS

MAINTENANCE:
INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USE ROPE TO SHAKE AND TRY TO DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER SEE IF IT IS CLOGGED. IF SO REMOVE THE DEBRIS. ENSURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLETS FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS.

NOTES:
1. STONE PAD INSTALLED AT LOCATION SKIMMER SETTLES (3'X3'X1'D).

*IF BASIN WILL BE CONVERTED TO PERMANENT SCM, PERMANENT RISER STRUCTURE MUST BE INSTALLED PRIOR TO ISSUANCE OF CERTIFICATE OF COMPLIANCE, WITH THE SKIMMER ATTACHED TO THE RISER STRUCTURE AT THE PROPER ELEVATION.

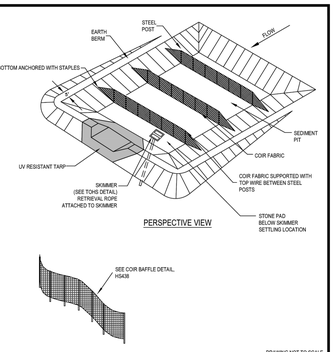
DRAWING NOT TO SCALE

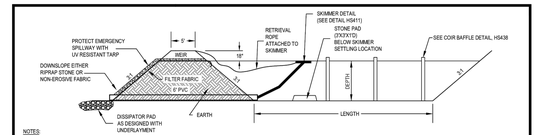
STANDARD SKIMMER FILTER BASIN (PLAN VIEW)

STANDARD DETAIL NUMBER: HS409

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS





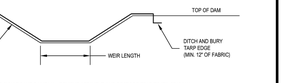
NOTES:
1. USE FOR DRAINAGE AREAS NOT EXCEEDING 5 (FIVE) ACRES.
2. EARTH BERM SHALL BE STABILIZED W/ SEEDING ACCORDING TO TOWN SPECIFICATIONS.

EMERGENCY SPILLWAY DETAIL

DESIGN OF SPILLWAYS

DRAINAGE AREA (ACRES)	WEIR LENGTH (FT) [1]
1	4.0
2	6.0
3	8.0
4	10.0
5	12.0

[1] DIMENSIONS SHOWN ARE MINIMUM.



MAINTENANCE
INSPECT TEMPORARY SEDIMENT TRAPS AND EMPTY SKIMMER OF ALL DEBRIS AFTER EACH PERIOD OF SIGNIFICANT RAINFALL. REMOVE SEDIMENT AND RESTORE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN A DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.

CHECK THE STRUCTURE FOR DAMAGE FROM EROSION OR PIPING. PERIODICALLY CHECK THE DEPTH OF THE SPILLWAY TO ENSURE IT IS A MINIMUM OF 1.5 FT BELOW THE LOW POINT OF THE EMBANKMENT. IMMEDIATELY FILL ANY SETTLEMENT OF THE EMBANKMENT TO SLIGHTLY ABOVE DESIGN GRADE. ANY RIPRAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY.

STABILIZE THE EMBANKMENT AND ALL DISTURBED AREAS ABOVE THE SEDIMENT POOL AND DOWNSTREAM FROM THE TRAP IMMEDIATELY AFTER CONSTRUCTION WITH SEEDING.

DRAWING NOT TO SCALE

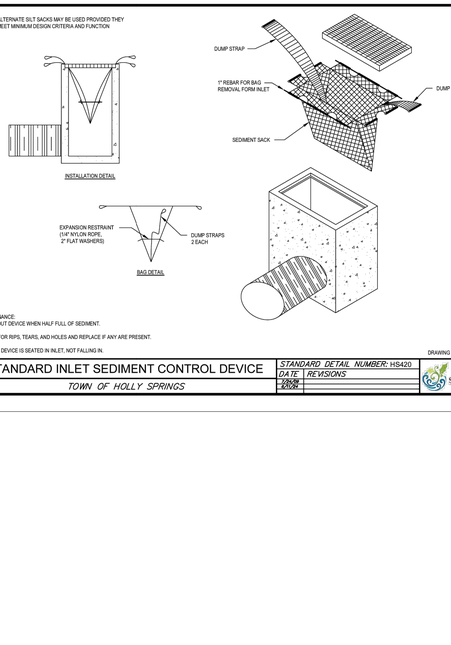
STANDARD SKIMMER FILTER BASIN (PROFILE VIEW)

STANDARD DETAIL NUMBER: HS410

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS

NOTES:
1. SKIMMER IS TO BE A SURFACE DEWATERING DEVICE SUCH AS IMP SKIMMER OR APPROVED DEVICE.
2. *ORIFICE SIZE TO BE DETERMINED BY DESIGN ENGINEER.



MAINTENANCE:
IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USE ROPE TO SHAKE AND TRY TO DISLODGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED. IF SO REMOVE THE DEBRIS. ENSURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.

IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.

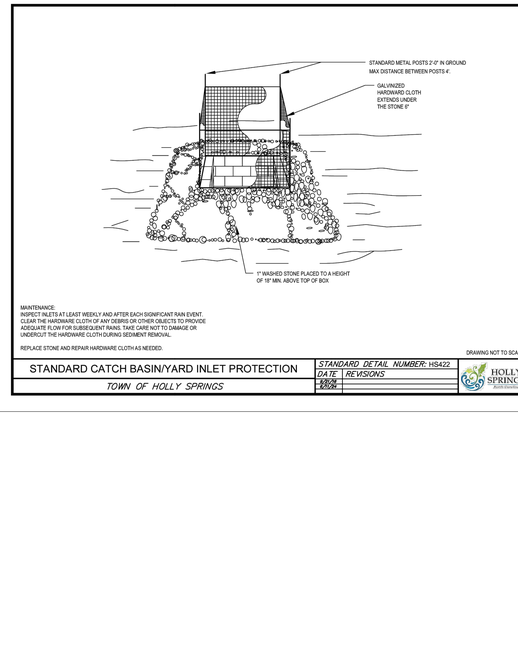
DRAWING NOT TO SCALE

STANDARD SKIMMER DETAIL

STANDARD DETAIL NUMBER: HS411

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS



NOTES:
1. HEIGHT & WIDTH DETERMINED BY EXISTING TOPOGRAPHY AND SEDIMENT STORAGE REQUIRED.
2. KEY RIPRAP INTO THE DAM FOR STABILIZATION.
3. TOP OF DOWNHILL CHECK DAM IS TO BE SAME ELEVATION OF BOTTOM OF UPHILL CHECK DAM.

MAINTENANCE:
INSPECT CHECK DAMS AND CHANNELS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT AND REPAIR IMMEDIATELY. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHANNEL AND STONE AS NEEDED.

INSPECT FOR EROSION AROUND EDGES OF CHECK DAM AND UNDERMINING. CORRECT ALL DAMAGE IMMEDIATELY. REPLACE STONE AS NEEDED.

DRAWING NOT TO SCALE

CHECK DAM

STANDARD DETAIL NUMBER: HS413

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS

NOTES:
1. ALL PARTIALLY COMPLETED STORM DRAINS SHALL BE PROTECTED AT THE END OF EACH DAY IN ACCORDANCE WITH THESE DETAILS.

MAINTENANCE:
CLEAN SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA TO ITS ORIGINAL DIMENSIONS WHEN ACCUMULATED HALFWAY UP THE PIPE OR GREATER.

INSPECT AND REPAIR AS NEEDED THE PLYWOOD OR HARDWARE CLOTH/STONE AT LEAST WEEKLY AND AFTER EVERY SIGNIFICANT RAIN EVENT.

DRAWING NOT TO SCALE

PIPE INLET PROTECTION (PLYWOOD AND STONE)

STANDARD DETAIL NUMBER: HS423

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS

NOTES:
1. TEMPORARY DIVERSION TO BE USED WHERE TOE OF FILL SLOPES EXCEEDS 3 FEET IN VERTICAL HEIGHT AND ALONG STREAMS TO INTERCEPT FLOW AND/OR DIVERT TO A CONTROLLED OUTLET.
2. SILT SHALL BE REMOVED WHEN SILT TEMPORARY DIVERSION IS ONE-HALF FULL.
3. TEMPORARY DIVERSION SHALL BE RECONSTRUCTED WHEN DAMAGED BY EQUIPMENT OR COVERED BY FILL.
4. ALL TEMPORARY AND PERMANENT DIVERSIONS ARE REQUIRED TO BE LINED WITH AN EROSION CONTROL MATTING THAT MEETS DESIGN CRITERIA.

DRAWING NOT TO SCALE

TEMPORARY DIVERSION

STANDARD DETAIL NUMBER: HS424

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS

NOTES:
1. ALTERNATE SILT SACKS MAY BE USED PROVIDED THEY MEET MINIMUM DESIGN CRITERIA AND FUNCTION

MAINTENANCE:
CLEAN OUT DEVICE WHEN HALF FULL OF SEDIMENT.

CHECK FOR RIPS, TEARS, AND HOLES AND REPLACE IF ANY ARE PRESENT.

ENSURE DEVICE IS SEATED IN INLET, NOT FALLING IN.

DRAWING NOT TO SCALE

STANDARD INLET SEDIMENT CONTROL DEVICE

STANDARD DETAIL NUMBER: HS420

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS

MAINTENANCE:
INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAIN EVENT.
CLEAR THE HARDWARE CLOTH OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE HARDWARE CLOTH DURING SEDIMENT REMOVAL.

REPLACE STONE AND REPAIR HARDWARE CLOTH AS NEEDED.

DRAWING NOT TO SCALE

STANDARD CATCH BASIN/YARD INLET PROTECTION

STANDARD DETAIL NUMBER: HS422

DATE	REVISIONS
1/26/26	
2/17/26	

TOWN OF HOLLY SPRINGS

NO.	DATE	BY
5	03/11/26	JMS
4	12/17/25	JMS
3	09/04/25	JCB
2	04/14/25	JCB
1	01/03/25	JCB

REVISIONS

- 5 REVISED PER TOWN COMMENTS
- 4 REVISED PER TOWN COMMENTS
- 3 REVISED INCLUDING PHOTOMETRICS
- 2 REVISE PER TOWN COMMENTS
- 1 PRE-APPLICATION COMMENTS

Kimley»Horn
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#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEERING SEAL 032582 ENGINEER

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

EROSION CONTROL DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C9.0

Plotted By:Schingel, Jared Sheet Set:PRINCIPLE LTC Layout:C9.0 EROSION CONTROL DETAILS March 11, 2026 09:59:21am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C9.0 EROSION CONTROL DETAILS.dwg
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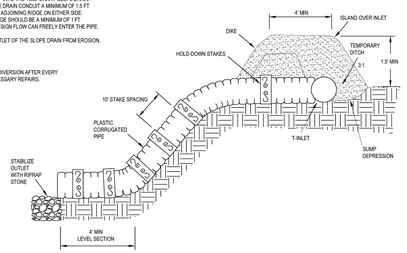
NOTES:

1. ENTRANCE-CONSTRUCT THE ENTRANCE TO THE SLOPE DRAIN OF A STANDARD FLARED END SECTION OF PIPE WITH A MINIMUM 9-INCH METAL TOE PLATE (CROSS-SECTION VIEW). MAKE ALL FITTINGS WATERTIGHT. A STANDARD T-SECTION FITTING MAY ALSO BE USED AT THE INLET.

2. TEMPORARY DIVERSION-GENERALLY, USE AN EARTHEN DIVERSION WITH A DIKE RIDGE TO DIRECT SURFACE RUNOFF INTO THE TEMPORARY SLOPE DRAIN. MAKE THE HEIGHT OF THE RIDGE OVER THE DRAIN CONDUIT A MINIMUM OF 1.5 FT AND AT LEAST 6 INCHES HIGHER THAN THE ADJOINING RIDGE ON EITHER SIDE THE LOWEST POINT OF THE DIVERSION RIDGE SHOULD BE A MINIMUM OF 1 FT ABOVE THE TOP OF THE DRAIN SO THAT DESIGN FLOW CAN FREELY ENTER THE PIPE.

3. OUTLET PROTECTION-PROTECT THE OUTLET OF THE SLOPE DRAIN FROM EROSION.

MAINTENANCE:
INSPECT SLOPE DRAIN AND SUPPORTING DIVERSION AFTER EVERY RAINFALL AND PROMPTLY MAKE ANY NECESSARY REPAIRS.



CROSS-SECTION VIEW

DRAWING NOT TO SCALE

TEMPORARY SLOPE DRAIN	STANDARD DETAIL NUMBER: HS425
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	1/26/26
	8/7/08

MAINTENANCE NOTES:

INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.

BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.

REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL, TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT, AND REPLACE IF DAMAGED DURING CLEANOUT OPERATIONS. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.

NOTES:
1. DRIVE STEEL FENCE POST AT LEAST 18" INTO SOLID GROUND.

2. WOOD POSTS ARE NOT ACCEPTABLE.

3. USE STAPLES 1' APART TO ATTACH FABRIC TO BOTTOM OF BASIN.

4. 4' MAX BETWEEN POSTS.

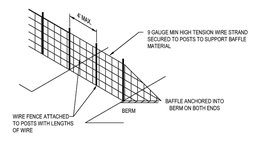
5. CLEAN OUT BASIN WHEN 1/2 FULL AND RESTORE TO ORIGINAL DIMENSIONS.

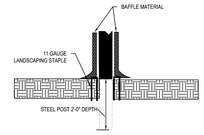
6. 700-900 GRAMS PER SQ. METER COIR FABRIC AS POROUS BAFFLE.

7. BAFFLES SHALL BE INSTALLED PERPENDICULAR TO FLOW.

8. INSTALL THREE COIR BAFFLES IN BASINS BETWEEN THE INLETS AND THE SKIMMER/OUTLET TO CREATE A SPACING OF 1/4 OF THE BASIN LENGTH BETWEEN BAFFLES.

9. BAFFLES SHOULD BE THE HEIGHT OF THE EMERGENCY SPILLWAY OR TOP OF THE RISER ELEVATION.





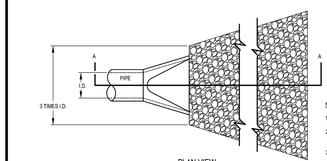
BAFFLE MATERIAL SHOULD BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

DRAWING NOT TO SCALE

COIR FIBER BAFFLE	STANDARD DETAIL NUMBER: HS438
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	1/26/26
	8/7/08

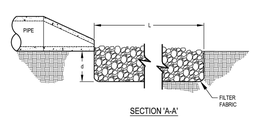
MAINTENANCE:
INSPECT RIPRAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT RAIN EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

CLEAN OUT SEDIMENT/REPLACE ONCE INUNDATED WITH SEDIMENT AND NO LONGER FUNCTIONING TO DIFFUSE OR SLOW DOWN FLOW.



PLAN VIEW

NOTES:
1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
4. TOP OF STONE MUST BE BELOW OUTLET ELEVATION TO PREVENT OBSTRUCTION.



SECTION 'A-A'

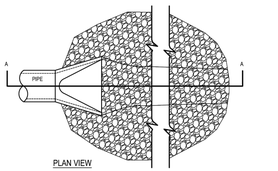
DRAWING NOT TO SCALE

PIPE OUTLET TO FLAT AREA (NO WELL-DEFINED CHANNEL)	STANDARD DETAIL NUMBER: HS427
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	1/26/26
	8/7/08

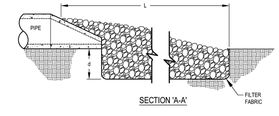
MAINTENANCE:
INSPECT RIPRAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT RAIN EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

CLEAN OUT SEDIMENT/REPLACE RIPRAP ONCE INUNDATED WITH SEDIMENT AND NO LONGER FUNCTIONING TO DIFFUSE OR SLOW DOWN FLOW.

NOTES:
1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. IN A WELL-DEFINED CHANNEL EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" (INCHES) ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
5. TOP OF STONE MUST BE BELOW OUTLET ELEVATION TO PREVENT OBSTRUCTION.



PLAN VIEW



SECTION 'A-A'

DRAWING NOT TO SCALE

PIPE OUTLET TO WELL-DEFINED CHANNEL	STANDARD DETAIL NUMBER: HS428
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	1/26/26
	8/7/08

TABLE 4.1
SEEDING EROSION CONTROL SCHEDULE
(MAXIMUM SLOPE 3:1)

DATE**	TYPE	PLANTING RATE
AUGUST 15 – NOVEMBER 1	TALL FESCUE OR HARD FESCUE	300 LBS/ACRE
NOVEMBER 1 – MARCH 1	TALL FESCUE AND ABRUZZI RYE OR ANNUAL RYE	300 LBS/ACRE
MARCH 1 – APRIL 15	TALL FESCUE OR HARD FESCUE	300 LBS/ACRE
MARCH 1 – JULY 15	HULLED COMMON BERMUDA GRASS OR HYBRID BERMUDA GRASS OR CENTIPEDE GRASS OR ZOYSIA GRASS OR ST. AUGUSTINE GRASS	200 LBS/ACRE
APRIL 15 – JUNE 30	WEEPING LOVE GRASS OR BAHIA GRASS	25 LBS/ACRE
JULY 15 – AUGUST 15	TALL FESCUE, AND BROWNTOP MILLET OR SORGHUM-SUDAN HYBRID*	35 LBS/ACRE

*Temporary – Reseed according to optimum season for desired vegetation. Do not allow temporary cover to grow over 12 inches in height before mowing to keep fescue from being shaded out.
**Seeding dates will vary depending on weather conditions (e.g. temperature, rainfall, etc.)

Note on maintenance: refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

RIPARIAN AREAS TO BE RESEEDED WITH NATIVE GRASS MIX/ VEGETATION

DRAWING NOT TO SCALE

SEEDING EROSION CONTROL SCHEDULE – TABLE 4.1	STANDARD DETAIL NUMBER: HS429
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	3/31/26

TABLE 4.2
SEEDING EROSION CONTROL SCHEDULE
SLOPES (3:1 AND 2:1 – NOT MOWED)

DATE	TYPE	PLANTING RATE
MARCH 1 – JUNE 1	SERICEA LESPEDEZA (SCARIFIED), AND ADD TALL FESCUE, OR	50 LBS/ACRE 120 LBS/ACRE
MARCH 1 – APRIL 15	ADD WEEPING LOVEGRASS, OR	10 LBS/ACRE
MARCH 1 – JUNE 30	ADD HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUNE 1 – SEPTEMBER 1	TALL FESCUE, AND ADD BROWNTOP MILLET,* OR ADD SORGHUM-SUDAN HYBRIDS*	120 LBS/ACRE 25 LBS/ACRE 30 LBS/ACRE
SEPTEMBER 1 – MARCH 1	SERICEA LESPEDEZA (UNHULLED-UNSCARIFIED), AND ADD TALL FESCUE, AND ADD ABRUZZI RYE AND ANNUAL RYE	70 LBS/ACRE 120 LBS/ACRE 25 LBS/ACRE

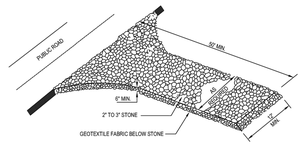
*For temporary seeding purposes.

Note on maintenance: refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

RIPARIAN AREAS TO BE RESEEDED WITH NATIVE SEED MIX.

DRAWING NOT TO SCALE

SEEDING EROSION CONTROL SCHEDULE – TABLE 4.2	STANDARD DETAIL NUMBER: HS430
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	3/31/26

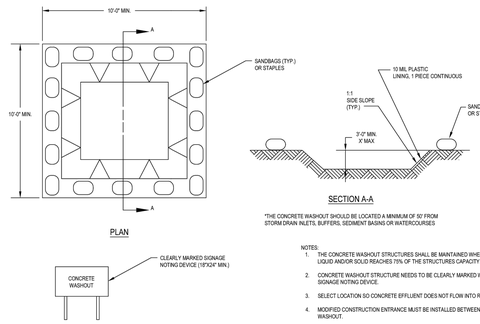


APPLICABLE AT ALL POINTS OF INGRESS & EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.

NOTES:
1. TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGER TRUCKS IS TO BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR MAXIMUM UTILIZATION BY ALL CONSTRUCTION TRUCKS.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF TRAFFIC ONTO STREETS. PERIODIC TOP DRESSING WITH STONE WILL BE NECESSARY, KEEP SOME ON HAND.
4. ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED IMMEDIATELY.

DRAWING NOT TO SCALE

CONSTRUCTION ENTRANCE	STANDARD DETAIL NUMBER: HS432
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	1/26/26
	8/7/08



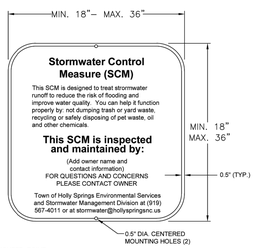
*THE CONCRETE WASHOUT SHOULD BE LOCATED A MINIMUM OF 50' FROM STORM DRAIN INLETS, BUFFERS, SEDIMENT BASINS OR WATERCOURSES

NOTES:
1. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.
2. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.
3. SELECT LOCATION SO CONCRETE EFFLUENT DOES NOT FLOW INTO ROADS.
4. MODIFIED CONSTRUCTION ENTRANCE MUST BE INSTALLED BETWEEN ROAD AND WASHOUT.

DRAWING NOT TO SCALE

BELOW GRADE CONCRETE WASHOUT STRUCTURE	STANDARD DETAIL NUMBER: HS435
TOWN OF HOLLY SPRINGS	DATE / REVISIONS
	1/26/26
	8/7/08

MINIMUM REQUIREMENTS FOR EDUCATIONAL SIGNAGE
FOR USE IN CONJUNCTION WITH STRUCTURAL
STORMWATER CONTROL MEASURES PRACTICES



MOUNTING:
1. SIGN SHOULD NOT BE OVER 8 FT TALL AT HIGHEST POINT.
2. SIGN SHOULD BE MOUNTED TO A U-CHANNEL POST (ADD SPECS) OR AFFIXED TO FENCE.

NOTE:
1. DECORATIVE SCM EDUCATIONAL SIGNAGE WILL BE REVIEWED ON A CASE BY CASE BASIS.
2. MATERIAL TO BE ALUMINUM, LETTERS TO BE BLACK ON A WHITE BACKGROUND.
3. SIGN SIZE AND MATERIAL MAY BE MODIFIED FOR THE SPECIFIC NEEDS OF THE SCM, BUT SHOULD BE NO SMALLER THAN 18" X 18" AND NO LARGER THAN 36" X 36".

DRAWING NOT TO SCALE

SCM Educational Signage	STANDARD DETAIL NUMBER: HS437
TOWN OF HOLLY SPRINGS ENGINEERING DEPARTMENT	DATE / REVISIONS
	3/26/26

No.	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26 JMS
4	REVISED PER TOWN COMMENTS	12/17/25 JMS
3	REWISED INCLUDING PHOTOMETRICS	09/04/25 JCB
2	REVISE PER TOWN COMMENTS	04/14/25 JCB
1	PRE-APPLICATION COMMENTS	01/03/25 JCB

REVISIONS

Kimley»Horn
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WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

EROSION CONTROL DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C9.1

Plotted By:Schingel, Jared Sheet Set:PRINCIPLE LTC Layout:C9.1 EROSION CONTROL DETAILS March 11, 2026 09:59:38am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C9.1 EROSION CONTROL DETAILS.dwg
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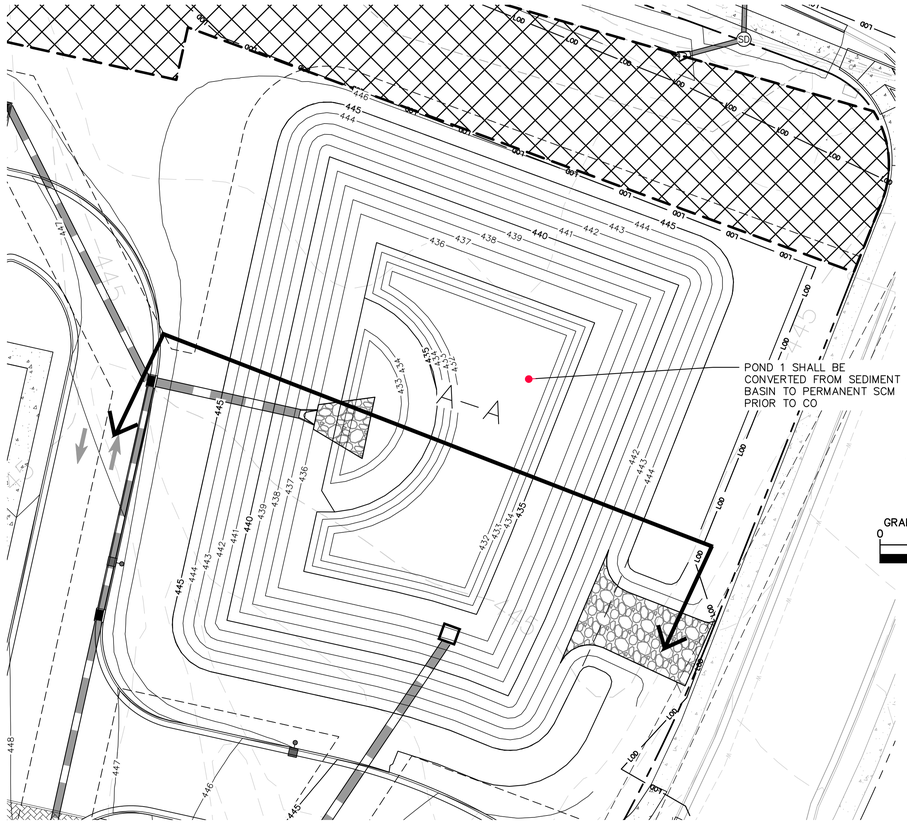
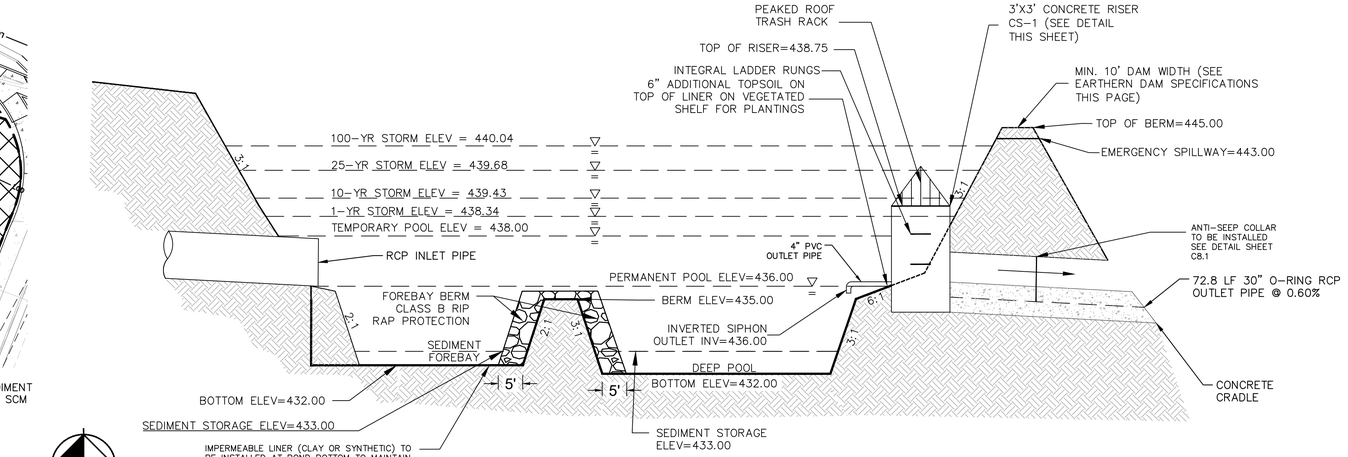




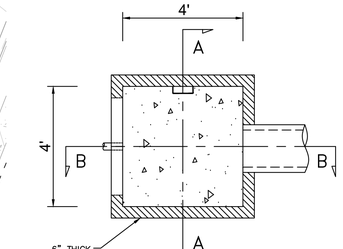
IMPERMEABLE LINER (CLAY OR SYNTHETIC) TO BE INSTALLED AT POND BOTTOM TO MAINTAIN PERMANENT POOL ELEVATION (MAX. INFILTRATION RATE OF 0.01 IN/HR). LINER DESIGN TO BE APPROVED BY GEOTECHNICAL ENGINEER. LINER MAY NOT BE REQUIRED IF TESTING OF POND BOTTOM AFTER COMPLETION OF CONSTRUCTION BUT PRIOR TO STABILIZATION INDICATES THAT THE LINER IS NO LONGER REQUIRED.

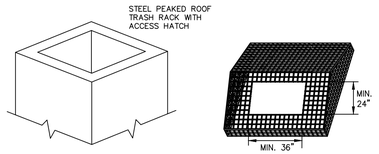
NOTE:
UPON CONVERSION OF THE SEDIMENT BASIN TO WET DETENTION POND, THE DEVICE MUST BE CLEANED OUT AND RETURNED TO THE DESIGN STATE.

NORTH

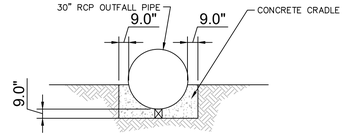
GRAPHIC SCALE IN FEET
0 10 20 40

WET DETENTION POND A-A
NOT TO SCALE





NOTES:
- MUST HAVE A MINIMUM ROOF SLOPE OF 2:1.
- SHALL INCLUDE A ACCESS HATCH WITH A MINIMUM CLEAR SPACE OPENING OF 2'x3'.
- OPENINGS SHALL BE NO GREATER THAN 5.5" AND THE MATERIAL SHALL BE NON-CORROSIVE.
- THE ACCESS HATCH SHALL ALIGN WITH THE ACCESS STEPS INSIDE THE STRUCTURE.
- HATCH MAY BE SECURED BY LOCK AND CHAIN.
- SHALL BE BOLTED TO THE TOP OF THE STRUCTURE (BOLTS IN SHEAR SHALL BE PROHIBITED).
- SHALL BE GALVANIZED PRIMED OR PAINTED.
- BOLTS SHALL BE STAINLESS STEEL.



1. BRING GRADE TO SPRING LINE FOR PIPE
2. EXCAVATE TRENCH AS SHOWN AND PLACE PIPE ON SUPPORTS
3. FILL TO SPRINGLINE WITH CONCRETE
4. WRAP PIPE JOINTS WITH A NONWOVEN GEOTEXTILE
5. CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
6. THE CONCRETE FOR THE CRADLE SHALL BE CONSOLIDATED PRIMARILY BY INTERNAL VIBRATION, AND SHALL BE FINISHED "ROUGH" SO AS TO ACHIEVE A MORE ADEQUATE BOND BETWEEN THE CONCRETE IN THE CRADLE AND THE FIRST LIFT OF STRUCTURAL FILL.

TYPICAL CRADLE DETAIL
NOT TO SCALE

EARTHERN DAM SPECIFICATIONS

-OTHERWISE PROVIDED, THE WIDTH OF A BUFFER ZONE IS MEASURED HORIZONTALLY FROM THE EDGE OF THE WATER TO THE NEAREST EDGE OF THE DISTURBED AREA, WITH THE 25 PERCENT OF THE STRIP NEARER THE LAND-DISTURBING ACTIVITY CONTAINING NATURAL OR ARTIFICIAL MEANS OF CONFINING VISIBLE SILTATION.

-THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 14 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. THE ANGLE FOR GRADED SLOPES AND FILLS MUST BE DEMONSTRATED TO BE STABLE. STABLE IS THE CONDITION WHERE THE SOIL REMAINS IN ITS ORIGINAL CONFIGURATION, WITH OR WITHOUT MECHANICAL CONSTRAINTS.

-UNLESS A PERMIT FROM THE DEPARTMENT'S DIVISION OF WASTE MANAGEMENT TO OPERATE A LANDFILL IS ON FILE FOR THE OFFICIAL SITE, ACCEPTABLE FILL MATERIAL SHALL BE FREE OF ORGANIC OR OTHER DEGRADABLE MATERIALS, MASONRY, CONCRETE AND BRICK IN SIZES EXCEEDING 12 INCHES, AND ANY MATERIALS WHICH WOULD CAUSE THE SITE TO BE REGULATED AS A LANDFILL BY THE STATE OF NORTH CAROLINA.

-WHENEVER LAND-DISTURBING ACTIVITY THAT WILL DISTURB MORE THAN ONE ACRE IS UNDERTAKEN ON A TRACT, THE PERSON CONDUCTING THE LAND-DISTURBING ACTIVITY SHALL INSTALL EROSION AND SEDIMENTATION CONTROL DEVICES AND PRACTICES THAT ARE SUFFICIENT TO RETAIN THE SEDIMENT GENERATED BY THE LAND DISTURBING ACTIVITY WITHIN THE BOUNDARIES OF THE TRACT DURING CONSTRUCTION UPON AND DEVELOPMENT OF SAID TRACT, AND SHALL PLANT OR OTHERWISE PROVIDE A PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION AFTER COMPLETION OF CONSTRUCTION OR DEVELOPMENT.

-ALL SUBGRADE TO RECEIVE FILL SHALL BE EVALUATED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING NEW FILL. METHODS FOR EVALUATION SHALL INCLUDE PROOF ROLLING USING TANDEM AXLE DUMP TRUCK OR SIMILAR PNEUMATIC TIRED EQUIPMENT, OR OTHER METHODS AS SPECIFIED BY THE ON-SITE GEOTECHNICAL ENGINEER. ALL SOIL THAT RUTS, PUMPS, OR DEFLECTS EXCESSIVELY AS DETERMINED BY THE GEOTECHNICAL ENGINEER SHALL BE CORRECTED AS SPECIFIED BY THE ON-SITE GEOTECHNICAL ENGINEER.

-UNLESS OTHERWISE PROVIDED, THE WIDTH OF A BUFFER ZONE IS MEASURED HORIZONTALLY FROM THE EDGE OF THE WATER TO THE NEAREST EDGE OF THE DISTURBED AREA, WITH THE 25 PERCENT OF THE STRIP NEARER THE LAND DISTURBING ACTIVITY CONTAINING NATURAL OR ARTIFICIAL MEANS OF CONFINING VISIBLE SILTATION.

-THE SURFACE OF THE GROUND AND MOISTURE CONTENT OF THE LOOSENED MATERIAL SHALL BE SUCH THAT IT WILL READILY BOND WITH THE FIRST LAYER OF FILL MATERIAL.

-CONTROLLED FILL, AS SPECIFIED BY THE GEOTECHNICAL ENGINEER, IN THE DAM EMBANKMENT SHALL BE PLACED IN 6-INCH LOOSE LAYERS (3-INCH LOOSE LAYERS WITHIN 3-FEET OF EITHER SIDE OF THE PRINCIPAL SPILLWAY PIPE TO A DEPTH OF 2-FEET OVER THE PIPE) AND SHALL BE COMPACTED TO A DENSITY OF NO LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY AT A MOISTURE CONTENT OF + OR - TWO PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D698.

-ANY FILL LAYER THAT IS SMOOTH DRUM ROLLED TO REDUCE MOISTURE PENETRATION DURING A STORM EVENT SHALL BE PROPERLY SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT SOIL LIFT.

-FILL ADJACENT TO THE RISER AND PRINCIPAL SPILLWAY PIPE SHALL BE PLACED SO THAT LIFTS ARE AT THE SAME LEVEL ON BOTH SIDES OF THE STRUCTURES.

-EARTHWORK COMPACTION WITHIN 3-FEET OF ANY STRUCTURES SHALL BE ACCOMPLISHED BY MEANS OF HAND TAMPERS, MANUALLY DIRECTED POWER TAMPERS OR PLATE COMPACTORS OR MINIATURE SELF-PROPELLED ROLLERS.

-SURFACE WATER AND STREAM FLOW SHALL BE CONTINUOUSLY CONTROLLED THROUGHOUT CONSTRUCTION AND THE PLACEMENT OF CONTROLLED FILL.

-AT THE END OF EACH DAYS ACTIVITIES, CONTRACTOR SHALL SEAL SURFACE OF NEW FILL BY USE OF A SMOOTH WHEEL ROLLER AND PROVIDE POSITIVE DRAINAGE OFF OF NEW FILL SURFACE.

-THE GEOTECHINCAL ENGINEER MUST INSPECT AND APPROVE ALL SUBGRADES AND FILL LAYERS BEFORE FURTHER CONSTRUCTION WORK IS PERFORMED THEREON.

-THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRYING SOILS TOO WET TO ACHIEVE COMPACTION OR STABILITY. SOILS SHALL NOT BE CONSIDERED UNSUITABLE SOLELY DUE TO MOISTURE CONTENT.

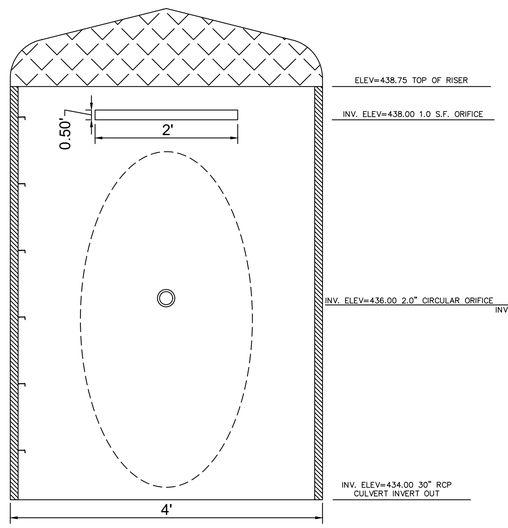
-COMPACTION BY MEANS OF DROP WEIGHTS FROM A CRANE OR HOIST SHALL NOT BE PERMITTED.

-HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO PASS OVER CAST-IN-PLACE STRUCTURES UNTIL ADEQUATE CURING TIME HAS ELAPSED.

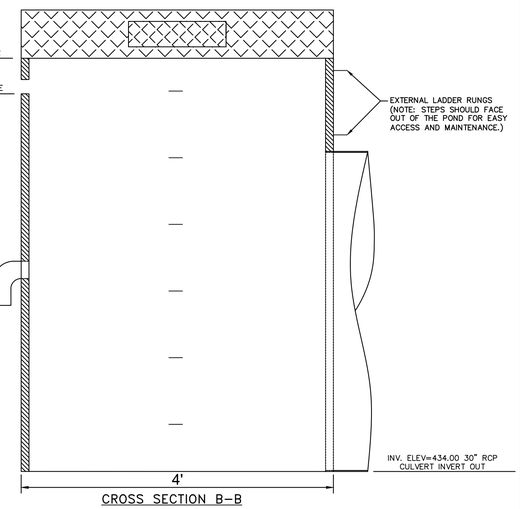
-TESTS OF THE DEGREE (%) OF COMPACTION OF THE PLACED FILL IN THE DAM SHALL BE PERFORMED AS A PART OF THE CONTRACTOR'S NORMAL QUALITY CONTROL PROGRAM FOR THE CONSTRUCTION OF THE DAM. TESTS SHALL BE CONDUCTED CONCURRENT WITH THE INSTALLATION OF THE COMPACTED FILL, AND THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE DAM SO THAT THE TESTING CAN BE COMPLETED. SHOULD THE RESULTS OF THE TESTS INDICATE THAT THE SPECIFIED DEGREE OF COMPACTION HAS NOT BEEN OBTAINED, THE PORTIONS OF THE DAM REPRESENTED BY SUCH TESTS SHALL BE REWORKED OR REBUILT. ALL PORTIONS OF THE DAM SHALL ACHIEVE THE SPECIFIED MINIMUM DEGREE OF COMPACTION.

WET POND DESIGN PARAMETERS

PARAMETER	EXISTING/ REQUIRED	DESIGN/ PROVIDED	AS-BUILT
DRAINAGE AREA	5.80 AC	5.80 AC	
POND SURFACE AREA	0.13 AC	0.13 AC	
IMPERVIOUS AREA	3.57 AC	3.57 AC	
FREEBOARD	1.0'	1.0'	
1-YEAR STORM FLOW	15.86 CFS	2.45 CFS	
10-YEAR STORM FLOW	33.35 CFS	24.82 CFS	
25-YEAR STORM FLOW	41.13 CFS	32.56 CFS	
100-YEAR STORM FLOW	53.45 CFS	41.98 CFS	
1-YEAR STORM SURFACE ELEVATION	N/A	438.34'	
10-YEAR STORM SURFACE ELEVATION	N/A	439.43'	
25-YEAR STORM SURFACE ELEVATION	N/A	439.68'	
100-YEAR STORM SURFACE ELEVATION	N/A	440.04'	



CROSS SECTION A-A



CROSS SECTION B-B

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
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#F-0102

SEAL 032582 ENGINEER JOHN C. BOSTIC NORTH CAROLINA PROFESSIONAL

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

1936 RALPH STEPHENS ROAD
PREPARED FOR BRITTHAVEN, INC.
HOLLY SPRINGS, NORTH CAROLINA

WET POND DETAILS

SHEET NUMBER
C10.0

Plotted By:Sprinkel, Jared Sheet Set:PRINCIPLE LTC Layout:C10.0 WET POND DETAILS March 11, 2026 10:00:25am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C10.0 WET POND DETAILS.dwg
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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

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

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes

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

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

GROUND STABILIZATION SPECIFICATION

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

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

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

EQUIPMENT AND VEHICLE MAINTENANCE

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

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

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

PAINT AND OTHER LIQUID WASTE

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

PORTABLE TOILETS

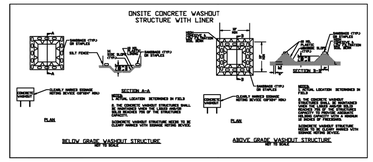
1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.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

EARTHEN STOCKPILE MANAGEMENT

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

NORTH CAROLINA Environmental Quality

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



CONCRETE WASHOUTS

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

HERBICIDES, PESTICIDES AND RODENTICIDES

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

HAZARDOUS AND TOXIC WASTE

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

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

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

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

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

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

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

2. Additional Documentation to be Kept on Site

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

(a) This General Permit as well as the Certificate of Coverage, after it is received.

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

3. Documentation to be Retained for Three Years

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

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

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours,*** an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours,*** an oral or electronic notification. • ***Within 7 calendar days,*** a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

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

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

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

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

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#F-0102

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 032582 JOSEPH C. BOSTIC III

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

NPDES DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C11.0

Plotted By:Schlegel, Jared Sheet Set:PRINCIPLE LTC Layout:C11.0 NPDES DETAILS March 11, 2026 10:00:59am K:\RAL_LDEV\016582000_Principle LTC\Planning Phase\15_CAD Files\PlanSheets\C11.0 NPDES DETAILS.dwg
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LIGHTING FIXTURE SCHEDULE

KEYNOTE	PRODUCT NUMBER	QUANTITY	MOUINTING STYLE	LAMPS	LUMENS	WATTS	DESCRIPTION
A	DSX1 LED P8 40K 70CRI T5W	3	DOUBLE 25FT POLE	LED	(2) 29,743	(2) 138W	FULL AREA THROW BACK-BACK POLE MOUNTED LIGHT
B	DSX1 LED P8 40K 70CRI T2M HS	28	SINGLE 25FT POLE	LED	27,709	128W	WIDE THROW POLE MOUNTED AREA LIGHT
C	DSX1 LED P8 40K 70CRI TFTM HS	5	SINGLE 25FT WALL	LED	28,645	133W	FORWARD THROW POLE MOUNTED AREA LIGHT
D	CANOPY LIGHTING DESIGNED BY OTHERS. MODELED FOR CONTRIBUTING ILLUMINANCE.						

RALPH STEPHENS ROAD
NCSR #1114
VARIABLE WIDTH PUBLIC R/W

SOUTHERN CROSSINGS BOULEVARD
59' PUBLIC R/W

PROPOSED
120 BED LONG TERM
CARE FACILITY

LIGHT POLE (TYP.)

10' A-75 BUFFER

50' THOROUGHFARE SETBACK

DUKE ENERGY PROGRESS EASEMENT

TELE VAULT

12" DIP WATER LINE

EX. 12" WATER LINE

30" RCP W/HEADWALL
INV = 432.10'

JUNCTION BOX
RIM = 438.41'
INV IN = 429.41'

VARIABLE WIDTH
DRAINAGE
EASEMENT

SANITARY SEWER MANHOLE
RIM = 438.33'
INV. IN = 426.76'
INV. OUT = 426.64'

JUNCTION BOX
RIM = 435.84'
INV IN = 428.32'
INV OUT = 428.23'

8" SANITARY SEWER

30' PUBLIC UTILITY EASEMENT

STORMWATER
20' DRAINAGE
EASEMENT

STORMWATER
MAINTENANCE &
ACCESS EASEMENT

10' BLDG. SETBACK

25' C-150 BUFFER

GRAPHIC SCALE IN FEET
0 20 40 80

NORTH

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KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

LIGHTING PLAN

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C12.0

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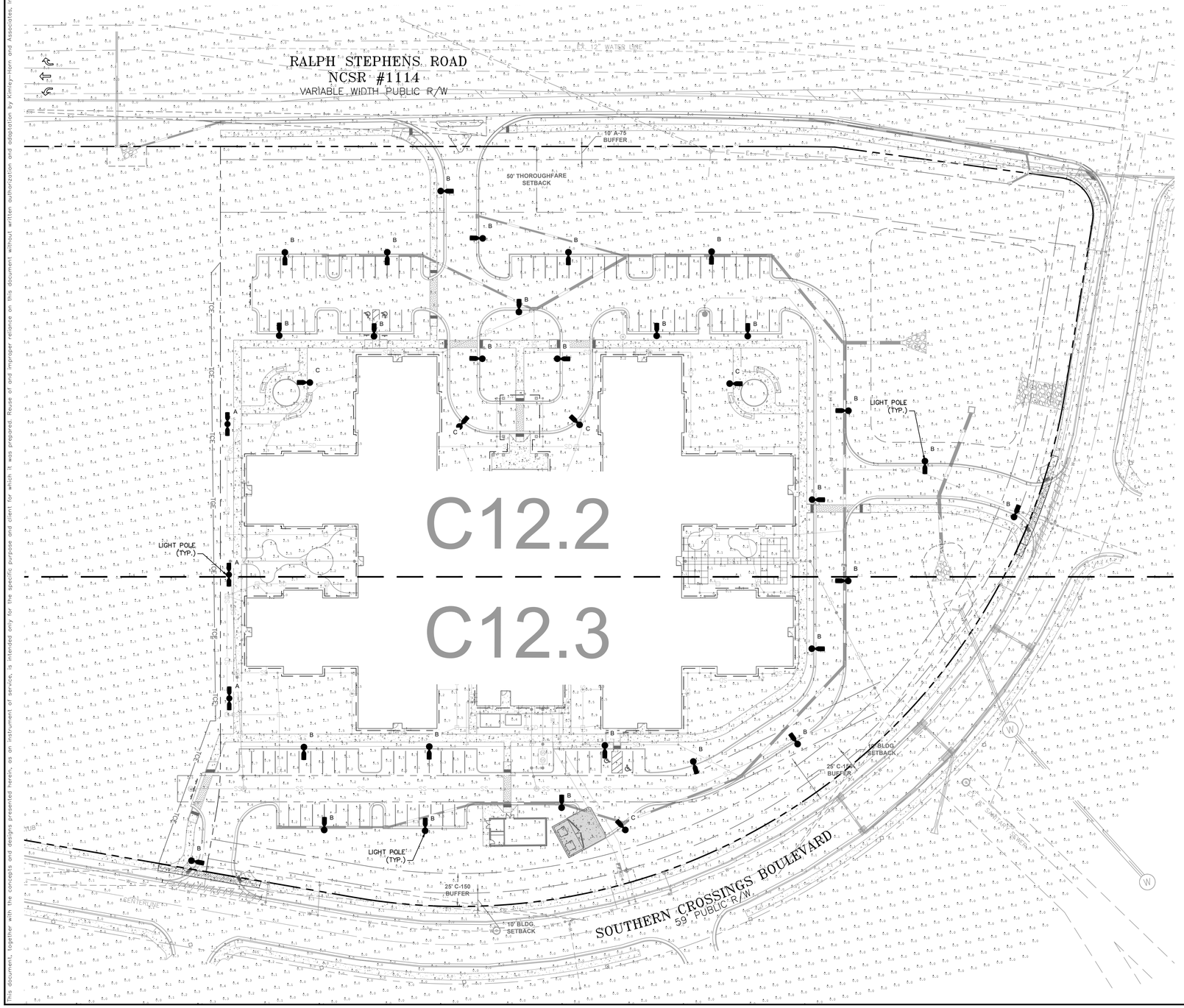


CALCULATION SUMMARY (FC)				
	AVERAGE	MAXIMUM	MINIMUM	MAX/MIN
NORTH PARKING LOT	6.71	10.30	3.20	3.22
SOUTH PARKING LOT	6.33	8.70	3.60	2.42
ACCESS ROADS	5.20	9.70	1.88	5.16

LEGEND

	PROPOSED POLE MOUNTED LIGHT FIXTURE
	BUILDING MOUNTED LIGHT FIXTURE
	CANOPY MOUNTED LIGHT FIXTURE (DESIGNED BY OTHERS)
*X.X	CALCULATION POINT

SHEET NOTES

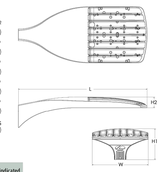
1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY/STATE REGULATION AND CODES.
2. ALL PHOTOMETRIC VALUES SHOWN ON SITE PLAN IN TABLES ARE IN FOOTCANDLES (FC). 1FC = 10.76 LUX.
3. CALCULATED VALUES ARE DERIVED THROUGH A COMPUTER BASED MODEL WITH LIGHT FIXTURE DATA AS SUPPLIED BY MANUFACTURER THROUGH IES FILES.
4. ANY DEVIATION FROM SPECIFIED FIXTURE MODELS AND MOUNTING HEIGHTS IN THIS EXHIBIT WILL DISCOUNT THE VALIDITY OF THESE CALCULATIONS.
5. THE PHOTOMETRIC ANALYSIS EXCLUDES ALL EXISTING PROPOSED OFF SITE STREET LIGHTING AND LANDSCAPE LIGHTING.
6. ALL LUMINAIRE SYMBOLS ARE DIAGRAMMATIC ONLY. CONTRACTOR TO FIELD COORDINATE EXACT LOCATIONS AND SETBACKS AGAINST UNDERGROUND UTILITY AND OTHER OBSTRUCTIONS.
7. PROPOSED POLE MOUNTED LIGHTS TO BE MOUNTED ON 25' POLE WITH 3' CONCRETE FOUNDATION.

D-Series Size 1
LED Area Luminaire

dsseries

Specifications

EPA:	0.69 ft² (0.06 m²)
Length:	32.71" (83.1 cm)
Width:	14.26" (36.2 cm)
Height H1:	7.88" (20.0 cm)
Height H2:	2.73" (6.9 cm)
Weight:	34 lbs (15.4 kg)



Design Select options indicated by this color background.

Catalog Number
Notes
Type

Hit Tab to go to next field. Hit Shift+Tab to go to previous field. Hit Ctrl+Tab to go to next set of interactive elements.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Ordering Information **EXAMPLE:** DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature[1]	Color Rendering Index[1]	Distribution	Voltage	Mounting
DSX1 LED	**Forward optics** P1 P6 P2 P7 P3 P8 P4 P9 P5 **Rotated optics** P10[1] P12[1] P11[1] P13[1]	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare[2] T4M Type IV medium T4LG Type IV low glare[2] TFTM Forward throw medium TSM Type V medium TSLG Type V low glare TSW Type V wide BLC3 Type III backlight control[1] BLC4 Type IV backlight control[1] LCCO Left corner cutoff[1] RCCO Right corner cutoff[1]	MVOLT (120V-277V)[3] HVOLT (347V-480V)[3,4] XVOLT (277V - 480V)[3,5] 120[3,26] 208[3,26] 240[3,26] 277[3,26] 347[3,26] 480[3,26]	**Shipped included** SPA Square pole mounting (#8 drilling) RPA Round pole mounting (#8 drilling) SPA5 Square pole mounting #5 drilling[6] RPA5 Round pole mounting #5 drilling[6] SPA8N Square narrow pole mounting #8 drilling WBA Wall bracket[7] MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options		Other options		Finish (required)	
Shipped installed NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc,[8,9,10,26,27] PIR High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc,[8,9,26,27] PER NEMA twist-lock receptacle only (controls ordered separately)[11] PERS Five-pin receptacle only (controls ordered separately)[14,27]	PER7 Seven-pin receptacle only (controls ordered separately)[14,27] FAO Field adjustable output[15,27] BL30 Bi-level switched dimming, 30%[8,27] BL50 Bi-level switched dimming, 50%[8,27] DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[27] DS Dual switching[16,18,27]	**Shipped installed** SPD20KV 20kV surge protection HS Houseside shield (black finish standard)[22] L90 Left rotated optics[1] R90 Right rotated optics[1] CCE Coastal Construction[23] HA 50°C ambient operation[26] BAA Buy America(n) Act and/or Build America Buy America Qualified SF Single fuse (120, 277, 347V)[26] DF Double fuse (208, 240, 480V)[26] **Shipped separately** EGSR External Glare Shield (reversible, field install required, matches housing finish) BSDB Bird Spikes (field install required)	DDBXD Dark Bronze DBLXD Black DNAXD Natural Aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white	

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

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DSX1-LED
Rev. 04/29/25
Page 1 of 10

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REWISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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WWW.KIMLEY-HORN.COM
#F-0102

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY JCB
DRAWN BY JCB
CHECKED BY COB

OVERALL PHOTOMETRIC PLAN

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
C12.1

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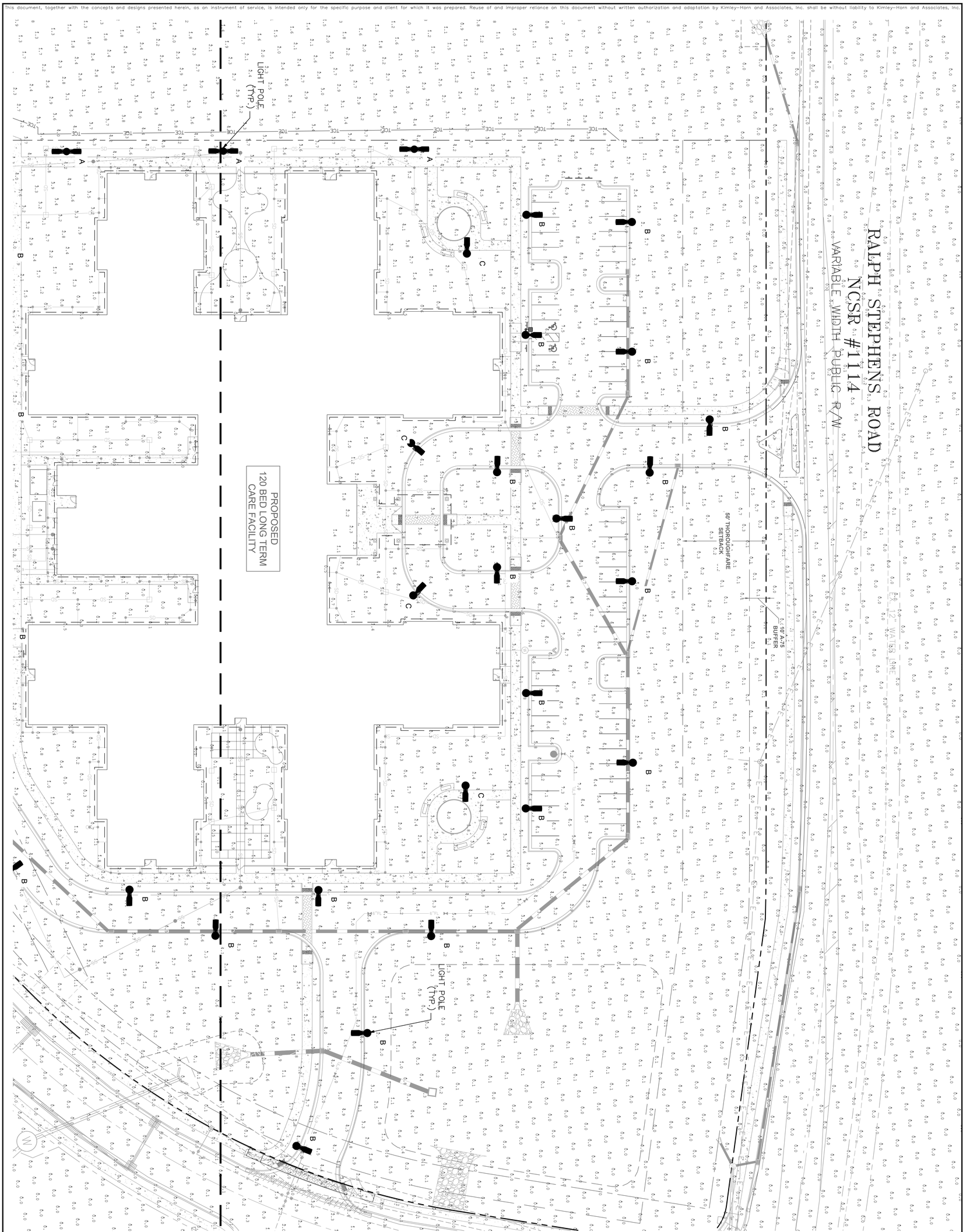

1936 RALPH STEPHENS ROAD

PREPARED FOR

BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

PHOTOMETRIC PLAN ENLARGEMENT

SHEET NUMBER C12.2

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

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4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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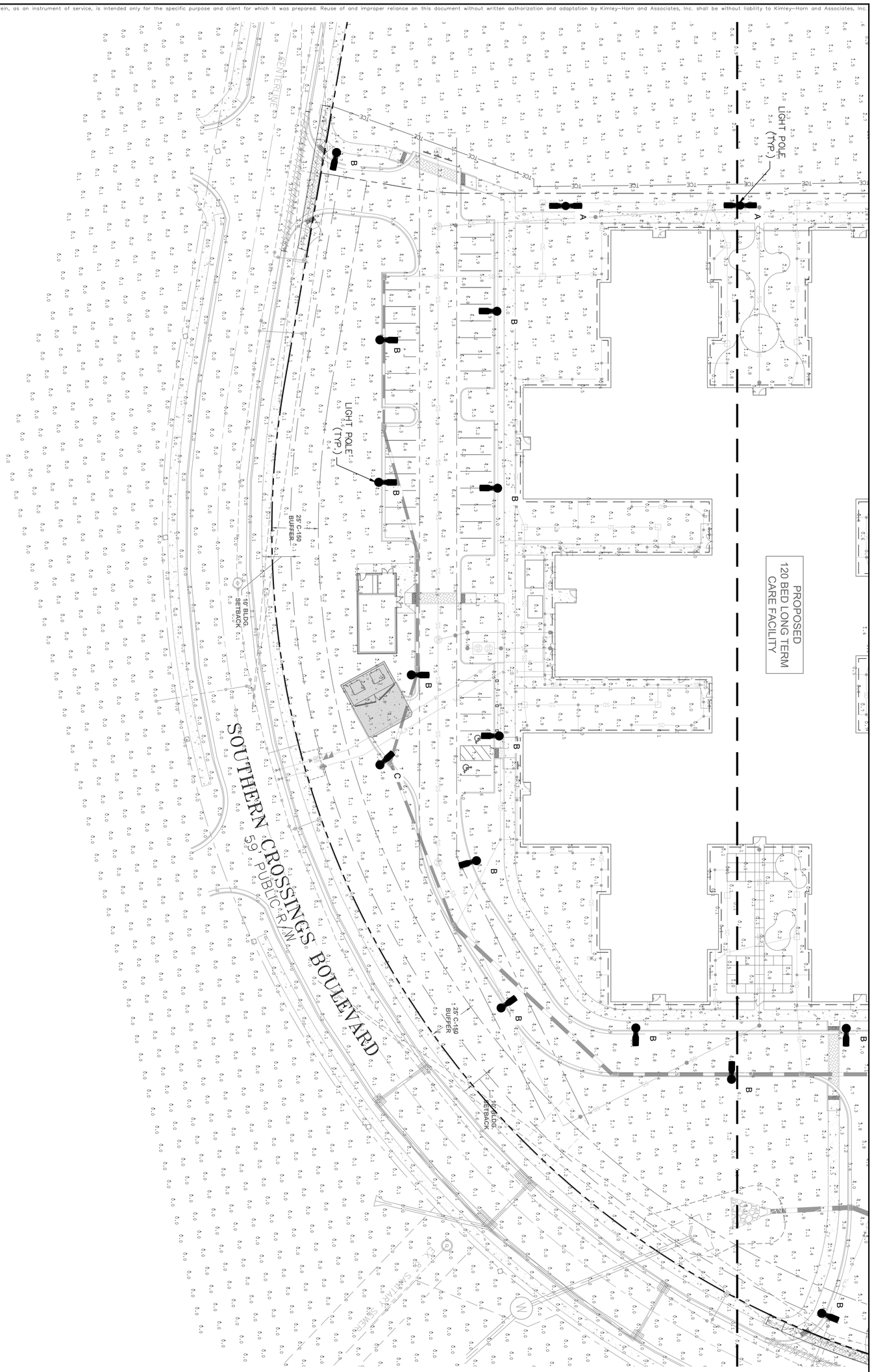

GRAPHIC SCALE IN FEET
0 20 40 60

NORTH

SHEET NUMBER
C12.3

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

PHOTOMETRIC PLAN ENLARGEMENT

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	JCB
DRAWN BY	JCB
CHECKED BY	COB

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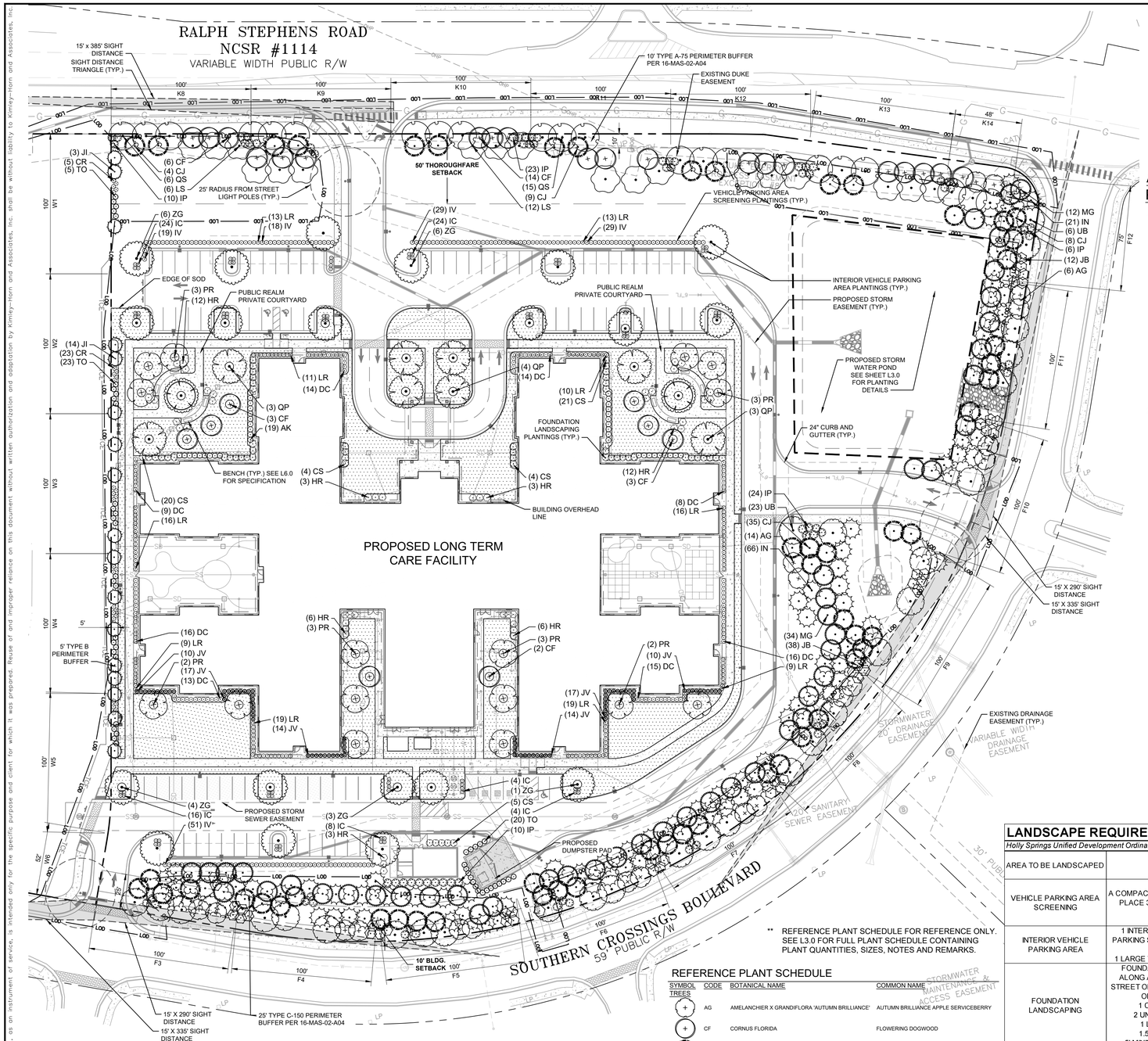

ALTERNATIVE LANDSCAPE PLAN NOTES:

1. IN COMPLIANCE WITH HOLLY SRPINGS UDO SECTION 5.2.3 ALTERNATE LANDSCAPE PLAN APPROVAL, SEVERAL BUFFER INCREMENTS, OR PORTIONS OF BUFFER INCREMENTS, HAVE BEEN RELOCATED DUE TO EASEMENTS, DRIVEWAYS, AND OTHER HARDSCAPE ELEMENTS OF THE PLANS. IN ACCORDANCE WITH SECTION 5.2.3:
   - 1.1. THE PLANS MAINTAIN THE TOTAL QUANTITY OF PLANT MATERIAL OTHERWISE REQUIRED AND IS THE SAME QUALITY, SIZE, DURABILITY AND HARDINESS
   - 1.2. THE PLANTINGS ARE APPROPRIATE TO THE SITE AND IT'S SURROUNDINGS
   - 1.3. IS CONSISTENT WITH THE INTENT AND PURPOSE OF THE LANDSCAPING CHAPTER
   - 1.4. PROVIDES EQUAL LANDSCAPING FOR NORMAL COMPLIANCE
   - 1.5. SAFETY CONSIDERATIONS MAKE ALTERNATIVE COMPLIANCE NECESSARY. TREES MUST REMAIN OUTSIDE OF SIGHT DISTANCE TRIANGLES, AND CANNOT BE WITHIN DUKE POWER EASEMENTS.
2. SEE BUFFER INCREMENTS & CODE LANDSCAPE REQUIREMENTS, THIS SHEET FOR RELOCATION NOTES IN COMPLIANCE WITH ALTERNATE LANDSCAPE PLANS. SEE L3.0 LANDSCAPE DETAILS FOR FULL PLANT SCHEDULE, MASTER PLAN BUFFER DETAILS, LANDSCAPE DETAILS AND PLANTING NOTES.

ID	Type	Width	Length	Requirements per increment	Proposed per increment
K8, K10	A-75	10 FT	100 FT	6 LARGE DECIDUOUS TREES, 2.5" CALIPER 3 SMALL DECIDUOUS TREES, 1" CALIPER 2 LARGE EVERGREEN TREES, 6' HEIGHT 5 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	3 QUERCUS SHUMARDII 3 LIQUIDAMBAR STYRACIFLUA 3 CORNUS FLORIDA 2 CRYPTOMERIA JAPONICA 5 ILLICIUM PARVIFLORUM
K9	A-75	10 FT	100 FT	6 LARGE DECIDUOUS TREES, 2.5" CALIPER 3 SMALL DECIDUOUS TREES, 1" CALIPER 2 LARGE EVERGREEN TREES, 6' HEIGHT 5 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	RELOCATED PORTION OF BUFFER OUTSIDE OF BUFFER LINE PER ALTERNATE LANDSCAPE PLAN 3 QUERCUS SHUMARDII 3 LIQUIDAMBAR STYRACIFLUA 3 CORNUS FLORIDA 2 CRYPTOMERIA JAPONICA 5 ILLICIUM PARVIFLORUM
K11-K13	A-75	10 FT	100 FT	6 LARGE DECIDUOUS TREES, 2.5" CALIPER 3 SMALL DECIDUOUS TREES, 1" CALIPER 2 LARGE EVERGREEN TREES, 6' HEIGHT 5 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	RELOCATED PORTION OF BUFFER OUTSIDE OF BUFFER LINE PER ALTERNATE LANDSCAPE PLAN 3 QUERCUS SHUMARDII 3 LIQUIDAMBAR STYRACIFLUA 3 CORNUS FLORIDA 2 CRYPTOMERIA JAPONICA 5 ILLICIUM PARVIFLORUM
K14	A-75	10 FT	48 FT	3 LARGE DECIDUOUS TREES, 2.5" CALIPER 2 SMALL DECIDUOUS TREES, 1" CALIPER 1 LARGE EVERGREEN TREES, 6' HEIGHT 3 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	RELOCATED PORTION OF BUFFER OUTSIDE OF BUFFER LINE PER ALTERNATE LANDSCAPE PLAN 3 QUERCUS SHUMARDII 2 CORNUS FLORIDA 1 CRYPTOMERIA JAPONICA 3 ILLICIUM PARVIFLORUM
F3-F4	C-150	25 FT	100 FT	3 LARGE DECIDUOUS TREES, 2.5" CALIPER 2 SMALL DECIDUOUS TREES, 1" CALIPER 18 LARGE EVERGREEN TREES, 6' HEIGHT 5 SMALL EVERGREEN TREES, 6' HEIGHT 3 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	RELOCATED PORTION OF BUFFER OUTSIDE OF BUFFER LINE PER ALTERNATE LANDSCAPE PLAN 3 ULMUS PARVIFLORA 'UPMTF' 2 AMELANCHIER X GRANDIFLORA 4 CRYPTOMERIA JAPONICA 9 ILEX X NELLIE R. STEVENS 5 MAGNOLIA GRANDIFLORA 5 JUNIPERUS VIRGINIANA 3 ILLICIUM PARVIFLORUM
F5-F7	C-150	25 FT	100 FT	3 LARGE DECIDUOUS TREES, 2.5" CALIPER 2 SMALL DECIDUOUS TREES, 1" CALIPER 18 LARGE EVERGREEN TREES, 6' HEIGHT 5 SMALL EVERGREEN TREES, 6' HEIGHT 3 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	3 ULMUS PARVIFLORA 'UPMTF' 2 AMELANCHIER X GRANDIFLORA 4 CRYPTOMERIA JAPONICA 9 ILEX X NELLIE R. STEVENS 5 MAGNOLIA GRANDIFLORA 5 JUNIPERUS VIRGINIANA 3 ILLICIUM PARVIFLORUM
F8-F10	C-150	25 FT	100 FT	3 LARGE DECIDUOUS TREES, 2.5" CALIPER 2 SMALL DECIDUOUS TREES, 1" CALIPER 18 LARGE EVERGREEN TREES, 6' HEIGHT 5 SMALL EVERGREEN TREES, 6' HEIGHT 3 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	RELOCATED PORTION OF BUFFER OUTSIDE OF BUFFER LINE PER ALTERNATE LANDSCAPE PLAN 3 ULMUS PARVIFLORA 'UPMTF' 2 AMELANCHIER X GRANDIFLORA 4 CRYPTOMERIA JAPONICA 9 ILEX X NELLIE R. STEVENS 5 MAGNOLIA GRANDIFLORA 5 JUNIPERUS VIRGINIANA 3 ILLICIUM PARVIFLORUM
F11	C-150	25 FT	100 FT	3 LARGE DECIDUOUS TREES, 2.5" CALIPER 2 SMALL DECIDUOUS TREES, 1" CALIPER 18 LARGE EVERGREEN TREES, 6' HEIGHT 5 SMALL EVERGREEN TREES, 6' HEIGHT 3 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	3 ULMUS PARVIFLORA 'UPMTF' 2 AMELANCHIER X GRANDIFLORA 4 CRYPTOMERIA JAPONICA 9 ILEX X NELLIE R. STEVENS 5 MAGNOLIA GRANDIFLORA 5 JUNIPERUS VIRGINIANA 3 ILLICIUM PARVIFLORUM
F12	C-150	25 FT	75 FT	2 LARGE DECIDUOUS TREES, 2.5" CALIPER 2 SMALL DECIDUOUS TREES, 1" CALIPER 14 LARGE EVERGREEN TREES, 6' HEIGHT 4 SMALL EVERGREEN TREES, 6' HEIGHT 2 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	RELOCATED PORTION OF BUFFER OUTSIDE OF BUFFER LINE PER ALTERNATE 2 ULMUS PARVIFLORA 'UPMTF' 2 AMELANCHIER X GRANDIFLORA 4 CRYPTOMERIA JAPONICA 6 ILEX X NELLIE R. STEVENS 4 MAGNOLIA GRANDIFLORA 5 JUNIPERUS VIRGINIANA 3 ILLICIUM PARVIFLORUM
W1-W3	Type B	5 FT	100 FT	3 LARGE EVERGREEN TREES, 2.5" CALIPER 10 SHRUBS, 18" MIN. HEIGHT, 40% EVERGREEN	3 JUNIPERUS VIRGINIANA 'BURKII' 5 CLETHRA ALNIFOLIA 5 THUJA OCCIDENTALIS 'SMARAGD'
W4	Type B	5 FT	100 FT	3 LARGE EVERGREEN TREES, 2.5" CALIPER 10 SHRUBS, 18" MIN. HEIGHT, 40% EVERGREEN	5 JUNIPERUS VIRGINIANA 'BURKII' 8 CLETHRA ALNIFOLIA 8 THUJA OCCIDENTALIS 'SMARAGD'
W5	Type B	5 FT	100 FT	3 LARGE EVERGREEN TREES, 2.5" CALIPER 10 SHRUBS, 18" MIN. HEIGHT, 40% EVERGREEN	3 JUNIPERUS VIRGINIANA 'BURKII' 5 CLETHRA ALNIFOLIA 5 THUJA OCCIDENTALIS 'SMARAGD'
W6	Type B	5 FT	52 FT	2 LARGE EVERGREEN TREES, 2.5" CALIPER 6 SHRUBS, 18" MIN. HEIGHT, 40% EVERGREEN	RELOCATED TO W4 PER ALTERNATE LANDSCAPE PLAN

BUFFER INCREMENT NAMING CONVENTION ALIGNS WITH 16-MAS-02-A04. BUFFER AREAS K & F ARE PER 16-MAS-02-A04. BUFFER AREA W IS BASED ON UDO 2024 SUPPLEMENT 3. SEE CODE LANDSCAPE REQUIREMENTS TABLE FOR TOTAL NUMBER REQUIRED AND PROVIDED AND FOR OTHER APPLICABLE CODE REQUIREMENTS. SEE PLANT SCHEDULE FOR INSTALLATION SIZES.

LANDSCAPE REQUIREMENTS & CALCULATIONS

Holly Springs Unified Development Ordinance Last Amended June 18, 2024

AREA TO BE LANDSCAPED	CODE REQUIREMENT	LOCATION	SQUARE FEET/ LINEAR FEET	TOTAL QUANTITY REQUIRED	TOTAL QUANTITY PROVIDED	CODE SECTION
VEHICLE PARKING AREA SCREENING	A COMPACT ROW OF SHRUBS/HEDGE PLANTS PLACE 3' O.C. AT MINIMUM 24" HEIGHT AT PLANTING	PARKING IN A FRONT YARD, PARKING FACING A STREET OR RESIDENTIAL USE DISTRICT	**502 LF**	502 LF / 3 = **167** SHRUBS	**172** SHRUBS	*5.3.2*
INTERIOR VEHICLE PARKING AREA	1 INTERIOR LANDSCAPE ISLAND PER 10 PARKING SPACES. EACH ISLAND MUST BE 8' WIDTH AND 17' LENGTH. 1 LARGE TREE AND 4 SHRUBS PER ISLAND.	PARKING LOT ISLANDS	**20 ISLANDS**	20 ISLANDS x 1 = **20** TREES 20 ISLANDS x 4 = **80** SHRUBS	**20** LARGE TREES **80** SHRUBS	*5.3.3*
FOUNDATION LANDSCAPING	FOUNDATION LANDSCAPING REQUIRED ALONG ANY BUILDING FAÇADE FACING A STREET OR PARKING AREA, AS WELL AS 25% OF THE ADJACENT FAÇADE. 1 CANOPY TREE PER 75 FT OR 2 UNDERSTORY TREE PER 75 FT, 1 LARGE SHRUB PER 5 FT OR 1.5 MEDIUM SHRUBS PER 5 FT 5' MINIMUM WIDTH OF PLANTING AREA	ALONG BUILDING FACADES FACING A STREET OR PARKING AREA	**1527 LF + 125 LF (25% OF ADJACENT FACADES) = 1652 LF**	752 LF / 75 FT = **10** CANOPY TREES 900 LF / 75) x 2 LF = **24** UNDERSTORY TREES 545 LF / 5 FT = **109** LARGE SHRUBS 1107 LF x (1.5/5) = **332** MEDIUM SHRUBS	**10** CANOPY TREES **24** UNDERSTORY TREES **109** LARGE SHRUBS **334** MEDIUM SHRUBS	*5.3.4*
TYPE A-75 BUFFER PLANTING	6 LARGE DECIDUOUS TREES, 2.5" CALIPER 3 SMALL DECIDUOUS TREES, 1" CALIPER 2 LARGE EVERGREEN TREES, 6' HEIGHT 5 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT	NORTH BOUNDARY	**648 LF**	(648 LF / 100 LF) x 6 = **39** LARGE DECIDUOUS TREES (648 LF / 100 LF) x 3 = **19** SMALL DECIDUOUS TREES (648 LF / 100 LF) x 2 = **13** LARGE EVERGREEN TREES (648 LF / 100 LF) x 5 = **32** LARGE SHRUB/HEDGE PLANT	**39** LARGE DECIDIOUS TREES **20** SMALL DECIDIOUS TREES **13** LARGE EVERGREEN TREES **33** LARGE SHRUBS	*16-MAS-02-A04, 2002 UDO*
TYPE C-150 BUFFER PLANTING	3 LARGE DECIDUOUS TREES, 2.5" CALIPER 2 SMALL DECIDUOUS TREES, 1" CALIPER 18 LARGE EVERGREEN TREES, 6' HEIGHT 5 SMALL EVERGREEN TREES, 6' HEIGHT 3 LARGE SHRUB / HEDGE PLANTS, 36" HEIGHT PER 100 FT SEGMENT	SOUTH AND EAST BOUNDARY	**975 LF**	(975 LF / 100 LF) x 3 = **29** LARGE DECIDUOUS TREES (975 LF / 100 LF) x 2 = **20** SMALL DECIDUOUS TREES (975 LF / 100 LF) x 18 = **176** LARGE EVERGREEN TREES (975 LF / 100 LF) x 5 = **49** SMALL EVERGREEN TREES (975 LF / 100 LF) x 3 = **29** LARGE SHRUB/HEDGE PLANT	**29** LARGE DECIDIOUS TREES **21** SMALL DECIDIOUS TREES **176** LARGE EVERGREEN TREES **50** SMALL EVERGREEN TREES **30** LARGE SHRUBS	*16-MAS-02-A04, 2002 UDO*
TYPE A BUFFER (5' WIDTH) (TYPE B DENSITY PER TOWN COUNCIL REQUEST)	3 LARGE DECIDUOUS TREES/ 100 FT & 10 SHRUBS/ 100 FT, 5 FT WIDTH 4' MIN. HEIGHT, 40% OPACITY	WEST PROPERTY BOUNDARY	**552 LF**	(552 LF / 100 LF) x 3 = **17** LARGE DECIDUOUS TREES (552 LF / 100 LF) x 10 = **56** SHRUBS	**17** EVERGREEN TREES **56** SHRUBS	*5.3.1*

** REFERENCE PLANT SCHEDULE FOR REFERENCE ONLY. SEE L3.0 FOR FULL PLANT SCHEDULE CONTAINING PLANT QUANTITIES, SIZES, NOTES AND REMARKS.

REFERENCE PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
TREES			
+	AG	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICEBERRY
+	CF	CORNUS FLORIDA	FLOWERING DOGWOOD
+	CJ	CRYPTOMERIA JAPONICA 'RADICANS'	RADICANS JAPANESE CEDAR
+	IN	ILEX X 'NELLIE R. STEVENS'	NELLIE R. STEVENS HOLLY
+	JB	JUNIPERUS VIRGINIANA 'BRODIE'	BRODIE EASTERN REDCEDAR
+	JI	JUNIPERUS VIRGINIANA 'BURKII'	BURKII EASTERN REDCEDAR
+	LS	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA'	FRUITLESS SWEETGUM
+	MG	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA
+	PR	PRUNUS X 'KANZAN'	KANZAN FLOWERING CHERRY
+	QP	QUERCUS PHELLOS	WILLOW OAK
+	QS	QUERCUS SHUMARDII	SHUMARD OAK
+	UB	ULMUS PARVIFOLIA 'UPMTF'	BOSQUE® LACEBARK ELM
+	ZG	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE JAPANESE ZELKOVA

REFERENCE PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME
SHRUBS			
+	AK	ABELIA X GRANDIFLORA 'KALEIDOSCOPE'	KALEIDOSCOPE GLOSSY ABELIA
+	CR	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET
+	CS	CAMELLIA SASANQUA 'SHISHI GASHIRA'	SHISHI GASHIRA CAMELLIA
+	DC	DISTYLIUM X 'PIIDIST-III'	FIRST EDITIONS® COPPERTONE™ DISTYLIUM
+	HR	HYDRANGEA QUERCIFOLIA 'RUBY SLIPPERS'	RUBY SLIPPERS OAKLEAF HYDRANGEA
+	IC	ILEX CRENATA 'SOFT TOUCH'	SOFT TOUCH JAPANESE HOLLY
+	IP	ILLICIUM PARVIFLORUM	ANISE TREE
+	IV	ILEX VOMITORIA 'NANA'	DWARF YAUPON HOLLY
+	JV	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL EASTERN REDCEDAR
+	LR	LOROPETALUM CHINENSE PIILC-III PP25471	PURPLE DAYDREAM DWARF LOROPETALUM
+	TO	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE
GROUND COVERS			
	AB	AJUGA REPTANS 'BLACK SCALLOP'	BLACK SCALLOP CARPET BUGLE
	CA	CHINODOXA FORBESII 'PINK GIANT'	PINK GIANT GLORY-OF-THE-SNOW

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

No.	REVISIONS	DATE	BY
1	PRE-APPLICATION COMMENTS	01/03/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
5	REVISED PER TOWN COMMENTS	03/11/26	JMS

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#F-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2420 ADAM W. FULLERTON

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY MKP
DRAWN BY MKP
CHECKED BY AWF

LANDSCAPE PLAN

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
L1.0

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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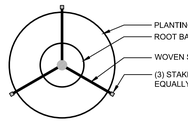
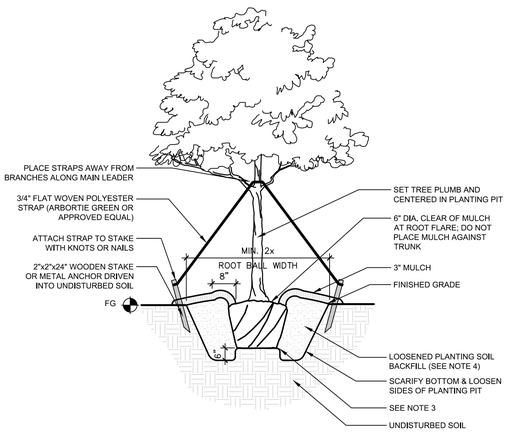


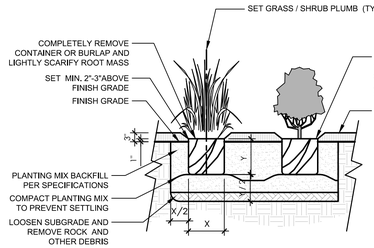
PLAN VIEW



SECTION VIEW

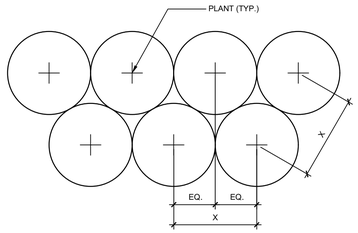
TREE PLANTING NOTES:
1. FOR CONTAINER PLANTS, REMOVE CONTAINER & SCARIFY ROOT MASS PRIOR TO PLANTING.
2. FOR B&B PLANTS, COMPLETELY REMOVE TOP HALF OF WIRE BASKET AND BURLAP MATERIAL; REMOVE ALL TWINE, ROPE AND WIRE FROM ROOT BALL.
3. SET ROOT BALL ON UNDISTURBED STABLE SUBSOIL SO THAT TOP OF ROOT BALL IS 2-3" ABOVE FINISHED GRADE. TAMP SOIL FIRMLY AROUND BOTTOM OF ROOT BALL TO SET TREE PLUMB.
4. DIG & TURN PLANTING SOIL TO REDUCE COMPACTION. LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE THE TREE. DO NOT OVER-COMPACT. MIX COMPOST INTO EACH LIFT OF BACKFILL AS RECOMMENDED IN SOIL REPORT. POUR WATER AROUND ROOT BALL TO SETTLE SOIL, AND BACKFILL AS REQUIRED TO MEET REQUIRED FINISHED GRADE.
5. A 3" HIGH x 8" WIDE BERM SHALL BE MADE AROUND THE ROOT BALL EDGE.
6. PRUNE TREES ONLY AS NEEDED TO REMOVE DEAD OR BROKEN BRANCHES.

1 L2.0 — TREE PLANTING
1/2" = 1'-0" — PLAN/SECTION



SHRUB AND ORNAMENTAL GRASS PLANTING NOTES:
1. ALL PLANT MATERIAL PRICING SHALL INCLUDE MULCH, SOIL AMENDMENTS, BED PREPARATION, AND STAKING.
2. ALL PLANTING BEDS SHALL RECEIVE 3" (THREE INCHES) OF MULCH.
3. MULCH TYPE FOR PROJECT: DOUBLE SHREDDED HARDWOOD DESIGNER MULCH IN DARK BROWN.
4. PLANT MATERIAL SPACING SHOWN ON LANDSCAPE PLANS SHALL OVERRIDE TYPICAL PLANT SPACING INDICATED ON PLANT SCHEDULE. LANDSCAPE CONTRACTOR RESPONSIBLE FOR VERIFYING ALL PLANT SPACING AND MAKING MINOR FIELD ADJUSTMENTS DUE TO UTILITY CONFLICTS.
5. ALL SHRUBS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MOST RECENT 'AMERICAN STANDARDS FOR NURSERY STOCK' PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (A.A.N.)
6. SOIL ANALYSIS SHALL BE OBTAINED PRIOR TO PLANTING. SOIL SHALL BE AMENDED AS RECOMMENDED BY CERTIFIED TESTING AGENCY.
7. SEE PLAN FOR SPACING.

2 L2.0 — SHRUBS AND ORNAMENTAL PLANTINGS
1/2" = 1'-0" — P-FL-02

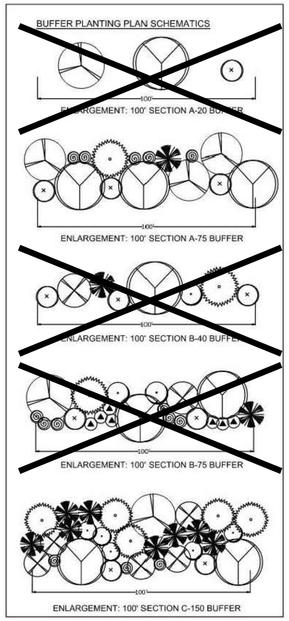


PLANT SPACING NOTES:
1. SEE PLANTING PLAN FOR GROUNDCOVER PLANTING AREAS.
2. PLANTS SHALL BE INSTALLED IN STRAIGHT AND PARALLEL ROWS UNLESS OTHERWISE SHOWN ON DRAWINGS.
3. SEE PLANT SCHEDULE FOR PLANT SPACING REQUIREMENTS ("X" DIMENSION IN THIS DETAIL).

3 L2.0 — PLANT SPACING
1/2" = 1'-0" — PLAN

GENERAL LANDSCAPE NOTES:

1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.
2. ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
3. ALL TREES MUST HAVE A STRAIGHT TRUNK AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
4. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
5. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
6. ALL TREES LOCATED WITHIN VEHICLE SIGHT TRIANGLES SHALL BE BRANCHED MIN. 8' (MEASURED FROM ADJACENT PROJECTED CURB LINE ELEVATION) PER ANSI Z60.1 STANDARDS FOR HEIGHT OF BRANCHING - STREET TREES.
7. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED. MULCH TO BE THREE(3) INCHES OF DOUBLE SHREDDED HARDWOOD DESIGNER MULCH IN DARK BROWN.
8. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION. CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATING ALL UTILITY ADJUSTMENTS WITH FINAL FINISH GRADE. ALL UTILITIES SHALL SIT FLUSH WITH FINISH GRADES (BOTH PAVED AND LANDSCAPED SURFACES).
9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THE LANDSCAPE PLANS BEFORE PRICING THE WORK. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT LANDSCAPE ARCHITECT AND ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO ORDERING AND PLANTING.
10. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, WEEDING, FERTILIZING, ETC.) OF THE PLANTING AREAS AND LAWN UNTIL SUBSTANTIAL COMPLETION.
11. THE CONTRACTOR SHALL COMPLETELY WARRANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE WARRANTEE PERIOD.
12. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION. CONTRACTOR SHALL CONTACT THE PROJECT LANDSCAPE ARCHITECT A MINIMUM OF ONE (1) WEEK IN ADVANCE TO SCHEDULE STAKING.
13. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE MEETING ALL PLANT SCHEDULE SPECIFICATIONS.
14. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
15. ALL PLANTING BEDS ARE TO BE COMPLETELY COVERED WITH DOUBLE SHREDDED HARDWOOD MULCH IN DARK BROWN OR CURRENT HOLLY SPRINGS STANDARD TO A DEPTH OF THREE (3) INCHES. ANY EXISTING LANDSCAPE BEDS THAT ARE DISTURBED MUST BE MULCHED TO MATCH EXISTING MULCH FOUND WITHIN LANDSCAPE BED.
16. LOCATIONS OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASED UPON BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF UTILITY LINES AND ADJACENT TO THE WORK AREA. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITY LINES DURING THE CONSTRUCTION PERIOD.
17. SAFE, CLEARLY MARKED PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
18. ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
19. THE TOP OF ALL ROOT BALLS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE, AS BORN TO PREVIOUS GRADE AND GROWING CONDITIONS.
20. ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TREES AND SHRUBS THAT WILL MEET BOTH MINIMUM SIZE AND SPACING FOR TREE AND THE TOWN OF HOLLY SPRINGS UNIFIED DEVELOPMENT ORDINANCE (UDO). FAILURE TO INSTALL PLANT MATERIAL PER THIS PLAN WILL JEOPARDIZE ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING INSPECTIONS OF PLANT MATERIAL.
22. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES & ORDINANCES REGARDING LANDSCAPING. GENERAL CONTRACTOR IS TO CLEAN THE ENTIRE SITE OF ALL CONSTRUCTION DEBRIS PRIOR TO FINAL INSPECTION.
23. THE CONTRACTOR SHALL INSTALL NON-WOVEN GEOTEXTILE UNDER PLANTING BED MULCH IN ALL LANDSCAPE BEDS TO PREVENT WEED GROWTH.
24. THESE PLANT SCHEDULES AND LANDSCAPE CALCULATIONS HAVE BEEN PREPARED FOR MUNICIPAL REVIEW ONLY AND ARE SUBJECT TO CHANGE PENDING FINAL APPROVALS. THE REQUIRED PLANT MATERIAL QUANTITIES PROPOSED HEREIN SHALL BE COORDINATED WITH FINAL CONSTRUCTION DRAWINGS PRIOR TO INSTALLATION OF ANY AND ALL PLANT MATERIAL.



4 2.0 — BUFFER DETAILS FROM 16-MAS--02-A04
NOT TO SCALE — PLAN

MASTER PLAN NOTES:
1. PER MASTER PLAN 16-MAS-02-A04, STREET TREES ARE INCLUDED IN BUFFERS. SEE PLANS AND PLANT SCHEDULE FOR PLANT SPECIES.

PLANTING NOTES:

(SEE PLANTING PLANS)

1. ALL PLANTS PROVIDED BY CONTRACTOR SHALL MEET OR SURPASS THE SPECIFICATIONS GIVEN IN THE PLANT TABLE AND CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z601-1973 IN REGARD TO SIZING, GROWING AND B&B SPECIFICATIONS. PLANTS SHALL BE FULL AND HEAVY, AND IN HEALTHY CONDITION AT THE TIME OF PLANTING. LANDSCAPE ARCHITECT SHALL REJECT ANY PLANT NOT MEETING THESE GUIDELINES AND REQUIRE REPLACEMENT.
2. ALL PLANTS ARE TO BE FULLY GUARANTEED (LABOR AND MATERIALS) FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF INSTALLATION.
3. ALL PLANTS THAT ARE UNABLE TO BE IMMEDIATELY PLANTED SHALL BE STORED IN A PROTECTED AREA OUT OF DIRECT SUN AND WIND. PLANTS SHALL BE EVENLY AND CONSISTENTLY WATERED, AS NEEDED, TO PREVENT DRYING OF ROOTS. ROOT BALLS OF B&B STOCK SHALL BE COVERED WITH AT LEAST 4 INCHES OF HARDWOOD MULCH TO MAINTAIN MOISTURE IN ROOTS.
4. THE CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES SHOWN ON PLANS AND CLARIFY ANY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS. CONTRACTOR SHALL TAG ALL TREES (AS DESIGNATED IN THE MASTER PLANT LIST) AT THE NURSERY FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS.
5. LANDSCAPE ARCHITECT SHALL BE NOTIFIED IN WRITING OF ANY PROPOSED PLANT SUBSTITUTIONS BY THE CONTRACTOR. NO SUBSTITUTIONS SHALL BE MADE UNDER ANY CIRCUMSTANCES WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT.
6. ALL PLANTS AND PLANTING BEDS SHALL BE LOCATED BY SCALED DIMENSIONS FROM BUILDINGS, CURBS, PAVEMENTS, ETC. SPECIFIC ATTENTION SHALL BE GIVEN TO ENSURE THAT PLANTS INDIVIDUALLY SHOWN ON THE PLAN ARE ACCURATELY LOCATED. LOCATION OF ALL PLANTS SHALL BE REVIEWED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE FOR REVIEW.
7. A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANTING BEDS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ALLOWED TO DISSIPATE BEFORE PLANTING.
8. ALL LANDSCAPE AREAS TO BE GRADED FOR POSITIVE DRAINAGE AND TO ENSURE NO STANDING WATER. SEE GRADING PLAN AND DRAINAGE PLANS FOR SPECIFIC GRADING INFORMATION AND PIPE INVERTS.
9. ESTABLISH AND MAINTAIN TOP OF GRADE BELOW ADJACENT CURBS, WALKWAYS AND OTHER HARDSCAPE AREAS TO ALLOW FOR INSTALLATION OF MULCH.
10. ALL SHRUB, GROUND COVER & ANNUAL PLANTING BEDS SHALL BE FILLED WITH MULCH TO A MINIMUM DEPTH OF 3 INCHES. MULCH SHALL BE DARK BROWN, DESIGNER-GRADE, DOUBLE-SHREDDED HARDWOOD. CONTRACTOR TO SUBMIT A SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND DELIVERY TO PROJECT SITE.
11. FINISH OFF 2' - 4' CLEAR ZONE AROUND TREES WITH A 3" LAYER OF MULCH, BUT DO NOT PLACE UP AGAINST OR MOUND AROUND ROOT FLARE.
12. MIXED GROUNDCOVER AND PLANTS SPECIFIED FOR MASS PLANTINGS SHALL BE PLANTED IN GROUPS OF 3 - 7 AND LOCATED AS REQUIRED TO PROVIDE A GENERAL MIXING OF SPECIES. DO NOT PLANT IN ROWS OR REPETITIVE PATTERNS UNLESS OTHERWISE DIRECTED.
13. ALL SHADE TREES ADJACENT TO PEDESTRIAN WALKWAYS AND IN VEHICULAR SITE TRIANGLES SHALL BE UNDER-TRIMMED SUFFICIENTLY TO ALLOW CLEAR SIGHT AND PEDESTRIAN ACCESS UP TO 6 FEET ABOVE SIDEWALK ELEVATION. ALL PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST, AND ADHERE TO THE ANSI A300 PRUNING STANDARD. PRUNING CUTS ARE TO BE DELIBERATE AND TARGETED ONLY TO THE NECESSARY BRANCHES IN ORDER TO SATISFY SIGHT AND CLEARANCE REQUIREMENTS WHILE MAINTAINING THE INTEGRITY OF THE TREES.
14. CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING, BUT NOT LIMITED TO WATERING, MULCHING, SPRAYING, FERTILIZING, ETC.) OF THE PLANTING AREAS UNTIL SUBSTANTIAL COMPLETION.
15. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY AND SIZE TO MEET PLANT SPECIFICATIONS.
16. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES & ORDINANCES REGARDING LANDSCAPING.

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	HEIGHT	PERCENTAGE OF PLANT TYPE
TREES								
	AG	20	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' TYPE C-150 BUFFER	AUTUMN BRILLIANCE APPLE SERVICEBERRY	B&B	1.5" MIN.	6' MIN	5%
	CF	28	CORNUS FLORIDA TYPE A-75 BUFFER, FOUNDATION PLANTING	FLOWERING DOGWOOD	B&B	1.5" MIN.	6' MIN	7%
	CJ	56	CRYPTOMERIA JAPONICA 'RADICANS' TYPE C-150 BUFFER, TYPE A-75 BUFFER	RADICANS JAPANESE CEDAR	B&B	-	6' MIN	13%
	IN	87	ILEX X 'NELLIE R. STEVENS' TYPE C-150 BUFFER	NELLIE R. STEVENS HOLLY	B&B	-	6' MIN	21%
	JB	50	JUNIPERUS VIRGINIANA 'BRODIE' TYPE C-150 BUFFER	BRODIE EASTERN REDCEDAR	B&B	-	6' MIN	12%
	JI	17	JUNIPERUS VIRGINIANA 'BURKII' TYPE A BUFFER	BURKII EASTERN REDCEDAR	B&B		6' MIN.	4%
	LS	18	LIQUIDAMBAR STYRACIFLUA 'ROTUNDILOBA' TYPE A-75 BUFFER	FRUITLESS SWEETGUM	B&B	2.5" MIN.	8' MIN.	4%
	MG	46	MAGNOLIA GRANDIFLORA TYPE A-75 BUFFER, TYPE C-150 BUFFER	SOUTHERN MAGNOLIA	B&B		6' MIN	11%
	PR	16	PRUNUS X 'KANZAN' FOUNDATION PLANTING	KANZAN FLOWERING CHERRY	B&B	1.5" MIN.	6' MIN	4%
	QP	10	QUERCUS PHELLOS FOUNDATION PLANTING	WILLOW OAK	B&B	2.5" MIN.	8' MIN.	2%
	QS	21	QUERCUS SHUMARDII TYPE A-75 BUFFER	SHUMARD OAK	B&B	2.5" MIN.	8' MIN.	5%
	UB	29	ULMUS PARVIFOLIA 'UPMTF' TYPE C-150 BUFFER	BOSQUE® LACEBARK ELM	B&B	2.5" MIN.	8' MIN.	7%
	ZG	20	ZELKOVA SERRATA 'GREEN VASE' INTERIOR VEHICLE PARKING AREA	GREEN VASE JAPANESE ZELKOVA	B&B	2.5" MIN.	8' MIN.	5%

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT	FIELD	PERCENTAGE OF PLANT TYPE
SHRUBS								
	AK	38	ABELIA X GRANDIFLORA 'KALEIDOSCOPE' FOUNDATION PLANTING	KALEIDOSCOPE GLOSSY ABELIA	3 GAL	24" MIN.		5%
	CR	28	CLETHRA ALNIFOLIA 'RUBY SPICE' TYPE A BUFFER	RUBY SPICE SUMMERSWEET	3 GAL	18" MIN.		3%
	CS	54	CAMELLIA SASANQUA 'SHISHI GASHIRA' FOUNDATION PLANTING	SHISHI GASHIRA CAMELLIA	5 GAL	36" MIN.		6%
	DC	105	DISTYLIUM X 'PIIDIST-III' FOUNDATION PLANTING	FIRST EDITIONS® COPPERTONE™ DISTYLIUM	3 GAL	24" MIN.		13%
	HR	45	HYDRANGEA QUERCIFOLIA 'RUBY SLIPPERS' FOUNDATION PLANTING	RUBY SLIPPERS OAKLEAF HYDRANGEA	5 GAL	36" MIN.		5%
	IC	80	ILEX CRENATA 'SOFT TOUCH' INTERIOR VEHICLE PARKING AREA	SOFT TOUCH JAPANESE HOLLY	3 GAL	18" MIN.		10%
	IP	73	ILLICIUM PARVIFLORUM BUFFERS, FOUNDATION	ANISE TREE	5 GAL	36" MIN.		9%
	IV	146	ILEX VOMITORIA 'NANA' VEHICLE PARKING AREA SCREENING	DWARF YAUPON HOLLY	3 GAL	24" MIN.		18%
	JV	82	JUNIPERUS VIRGINIANA 'GREY OWL' FOUNDATION PLANTING	GREY OWL EASTERN REDCEDAR	3 GAL	24" MIN.		10%
	LR	135	LOROPETALUM CHINENSE PIILC-III PP25471 FOUNDATION, VEHICLE PARKING AREA SCREENING	PURPLE DAYDREAM DWARF LOROPETALUM	3 GAL	24" MIN.		16%
	TO	48	THUJA OCCIDENTALIS 'SMARAGD' UTILITY SCREENING	EMERALD GREEN ARBORVITAE	5 GAL	36" MIN.		6%

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	PERCENTAGE OF PLANT TYPE	SPACING
GROUND COVERS							
	CA	39,719 SF	CYNODON DACTYLON 'PRINCESS 77'	PRINCESS 77 BERMUDAGRASS	SOD		
WET POND							
	AA	96	ACORUS AMERICANUS	SWEET FLAG	POT / FLAT	22%	18" o.c.
	NL	87	NELUMBO LUTEA	AMERICAN LOTUS	POT / FLAT	20%	30" o.c.
	OA	64	ORONTIUM AQUATICUM	GOLDENCLUB	POT / FLAT	15%	18" o.c.
	PC	92	PONTEDERIA CORDATA	PICKEREL WEED	POT / FLAT	22%	24" o.c.
	SC	88	SAURURUS CERNUUS	LIZARD'S TAIL	POT / FLAT	21%	24" o.c.

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
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##-0102

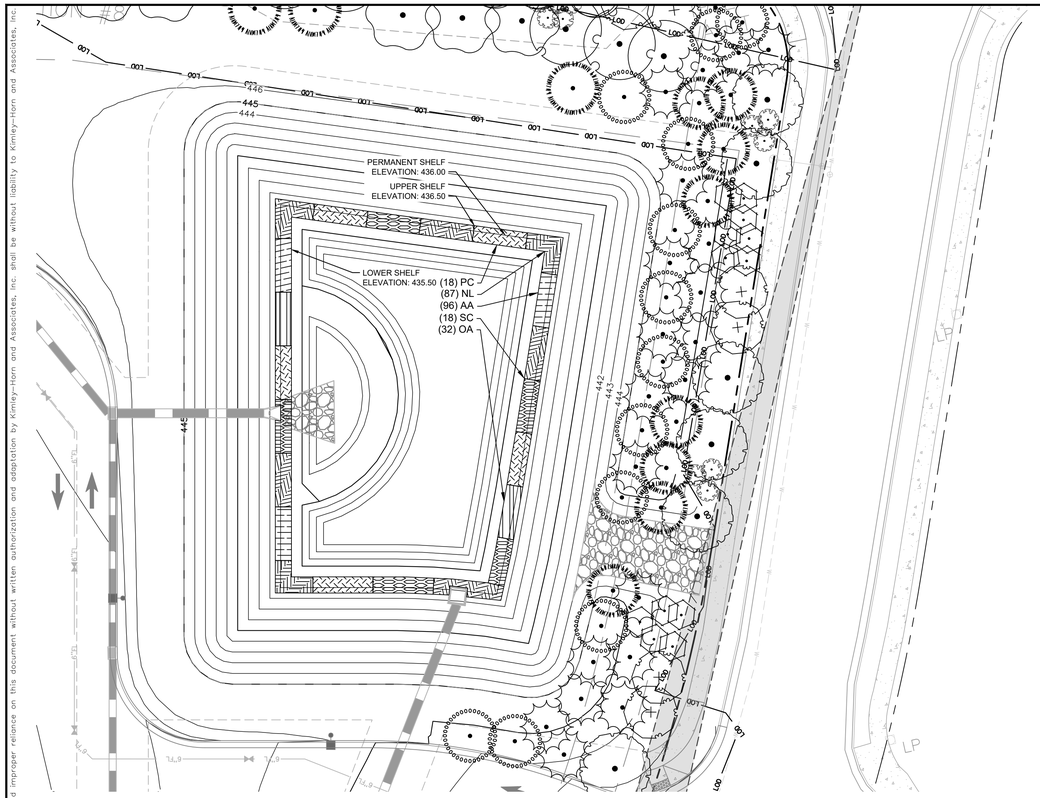
REGISTERED LANDSCAPE ARCHITECT — NORTH CAROLINA — 2420 — ADAM W. FULLERTON

KHA PROJECT	016582000
DATE	02/23/2026
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LANDSCAPE DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS — NORTH CAROLINA

SHEET NUMBER
L2.0



** REFERENCE PLANT SCHEDULE FOR REFERENCE ONLY.
SEE L3.0 FOR FULL PLANT SCHEDULE CONTAINING
PLANT QUANTITIES, SIZES, NOTES AND REMARKS.

PLANT SCHEDULE WETPOND

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING
WET POND						
	AA	96	ACORUS AMERICANUS	SWEET FLAG	POT / FLAT	18" o.c.
	NL	87	NELUMBO LUTEA	AMERICAN LOTUS	POT / FLAT	30" o.c.
	OA	64	ORONTIUM AQUATICUM	GOLDENCLUB	POT / FLAT	18" o.c.
	PC	92	PONTEDERIA CORDATA	PICKEREL WEED	POT / FLAT	24" o.c.
	SC	88	SAURURUS CERNUUS	LIZARD'S TAIL	POT / FLAT	24" o.c.

WET POND GRADING & PLANTING NOTES:

1. ALL PLANTING PROCEDURES SHALL BE DONE IN ACCORDANCE WITH NCDEQ STANDARDS.
2. ADEQUATE ACCESS MUST BE AVAILABLE FOR INSPECTIONS, MAINTENANCE, AND EQUIPMENT.
3. ALL MAINTENANCE ACTIVITIES SHOULD BE RECORDED. NOTES SHOULD INCLUDE THE DATES AND TYPES OF WORK PERFORMED AS WELL AS WHO PERFORMED THE WORK.
4. DEVELOPMENTAL PHASE MAINTENANCE EXTENDS THROUGH 2 TO 5 GROWING SEASONS.
5. INFERTILE SOILS SHOULD BE AMENDED BEFORE INSTALLATION AND THEN FERTILIZED PERIODICALLY THEREAFTER.
6. SOIL AMENDMENTS TO BE DETERMINED BY A SOIL TEST REPORT.
7. ACCEPTABLE FERTILIZERS CAN BE: MINERAL, ORGANIC (MANURE), COMPOST OR GREEN CROPS.
8. WEEDING IS OFTEN NECESSARY IN THE FIRST GROWING SEASON, PARTICULARLY IF HERBACEOUS GRASSES ARE OUT-COMPETING THE YOUNG WOODY VEGETATION GROWTH. GRASS SHOULD BE REMOVED TO ABOUT 6" ON ALL SIDES OF THE SOIL BIOENGINEERING ELEMENT. THE NEED FOR WEEDING MAY BE LARGELY ELIMINATED BY MINIMIZING THE AMOUNT OF SEED USED FOR TEMPORARY EROSION CONTROL.
9. SOILS SHOULD BE LOOSENED TO A DEPTH OF 6". HARD SOILS MAY REQUIRE DISKING.
10. WHENEVER POSSIBLE, TOPSOIL SHOULD BE SPREAD TO A DEPTH OF 4-10" AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 6".
11. THE OPTIMAL PERIOD FOR TRANSPLANTING EXTENDS FROM EARLY APRIL TO MID-JUNE SO THAT THE PLANTS WILL HAVE A FULL GROWING SEASON TO BUILD THE ROOT RESERVES NEEDED TO SURVIVE THE WINTER.
12. POST-NURSERY CARE OF PLANTS IS VERY IMPORTANT IN THE INTERVAL BETWEEN DELIVERY OF THE PLANTS AND THEIR INSTILLATION BECAUSE THEY ARE PRONE TO DESICCATION. THE STOCK SHOULD BE FREQUENTLY WATERED, FERTILIZED AND SHADED.
13. A WET HYDROSEED MIX OR OTHER METHOD SHALL BE USED TO ESTABLISH VEGETATIVE COVER IN THE POND WITHIN 14 DAYS OF CONSTRUCTION. FOR RAPID GERMINATION, SCARIFY THE SOIL TO A HALF-INCH PRIOR TO HYDROSEEDING.
14. SEE EROSION AND SEDIMENTATION CONTROL DETAIL SHEETS FOR DESIGN INFORMATION FOR THE CONTROL STRUCTURE, OUTFALL PIPE, AND RIPRAP APRONS.
15. THE OPTIMAL PERIOD FOR TRANSPLANTING FROM EARLY APRIL TO MID-JUNE. CONTRACTOR SHALL ACQUIRE PLANTS FROM A REGIONAL NURSERY.
16. ALL DISTURBED GROUND AREAS SURROUNDING THE WET POND SHALL HAVE PERMANENT GROUND COVER ESTABLISHED IN ACCORDANCE WITH TOWN OF CARY GUIDELINES PRIOR TO FINAL ACCEPTANCE. SERICEA LESPEDEZA, WEEPING LOVEGRASS AND CROWN VETCH SHALL NOT BE INCORPORATED INTO THE GROUND COVER FOR THE DAM EMBANKMENT, AS THESE TYPES OF VEGETATION ARE DIFFICULT TO MAINTAIN, ENCOURAGE BURROWING ANIMAL HABITATS, AND PREVENT A THOROUGH INSPECTION OF THE DAM EMBANKMENT.

WET POND

PERMANENT POOL ELEVATION: 436.00 FT

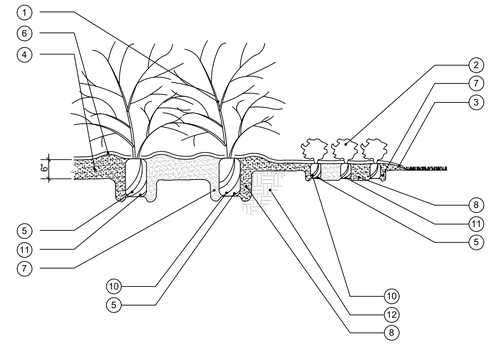
	LOWER ELEV	UPPER ELEV
SHALLOW WATER AREA	435.50	436.50

SHELF AREA:

TOTAL SHELF AREA	=	1,526.60 SF
REQUIRED PLANTS	=	(1,526.60 SF / 200) * 50 = 382
PROPOSED PLANTS	=	427

SEEDING INSTALLATION AROUND WET POND:

1. NEWLY GRADED SUBGRADES
   - BEFORE PLACING TOPSOIL, RAKE SUBSOIL SURFACE CLEAR OF STONES, DEBRIS, AND ROOTS. DISK, DRAG, HARROW, OR HAND RAKE SUBGRADE TO DEPTH OF 4 INCHES AND REMOVE STONES LARGER THAN 1-1/2 INCHES TO PROVIDE BOND FOR TOPSOIL.
   - SPREAD TOPSOIL TO A DEPTH OF 4 INCHES BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. ADJUST DEPTH OF TOPSOIL IN AREAS ADJACENT TO PAVED SURFACES OR CURBS TO ALLOW FOR THE PLACEMENT OF SOD OR SEED.
2. UNCHANGED SUBGRADES: IF AREAS TO BE SEEDED ARE UNALTERED OR UNDISTURBED BY EXCAVATING, GRADING, OR SURFACE-SOIL STRIPPING OPERATIONS, PREPARE SURFACE AS FOLLOWS:
   - REMOVE EXISTING GRASS, VEGETATION, AND TURF. DO NOT MIX INTO SURFACE SOIL.
   - DISK, DRAG, OR HARROW SURFACE SOIL TO A DEPTH OF AT LEAST 6 INCHES.
   - REMOVE STONES LARGER THAT 1-1/2 INCH IN ANY DIMENSION AND STICKS, ROOTS, TRASH, AND OTHER EXTRANEOUS MATTER.
   - LEGALLY DISPOSE OF WASTE MATERIAL, INCLUDING GRASS, VEGETATION, AND TURF.
3. INCORPORATE SOIL AMENDMENTS AND COMMERCIAL FERTILIZER INTO THE TOP 4 INCHES OF TOPSOIL TO ACHIEVE THE SPECIFIED TOPSOIL REQUIREMENTS. TILL SOIL TO A HOMOGENOUS MIXTURE OF FINE TEXTURE.
4. GRADE AREAS TO FINISH GRADES, FILLING AS NEEDED OR REMOVING SURPLUS TOPSOIL. FLOAT AREAS TO SMOOTH, UNIFORM GRADE AS INDICATED ON THE DRAWINGS. AREAS SHALL SLOPE TO DRAIN.
5. WHERE NO GRADES ARE SHOWN, AREAS SHALL HAVE A SMOOTH AND CONTINUAL GRADE BETWEEN EXISTING OR FIXED CONTROLS, SUCH AS WALKS, CURBS, CATCH BASIN, STEPS, OR BUILDINGS. ROLL, SCARIFY, RAKE, AND LEVEL AS NECESSARY TO OBTAIN TRUE, EVEN LAWN SURFACES. FINISH GRADES SHALL MEET APPROVAL OF OWNER BEFORE GRASS SEED IS SOWN OR SOD IS PLACED.
6. SEED BEDS SHALL BE PERMITTED TO SETTLE OR SHALL BE FIRMED BY ROLLING BEFORE SEEDING BEGINS.
7. THE SURFACE OF THE SOIL SHOULD BE LOOSENED JUST BEFORE BROADCASTING THE SEED. SEED SHOULD BE APPLIED EVENLY BY THE MOST CONVENIENT METHOD AVAILABLE FOR THE TYPE OF SEED TO BE USED AND THE LOCATION OF THE SEEDING. TYPICALLY APPLICATION METHODS INCLUDE BUT ARE NOT LIMITED TO CYCLONE SEEDERS, ROTARY SPREADERS, DROP SPREADERS BROADCAST SPREADERS, HAND SPREADERS, CULTIPACKER SEEDER, AND HYDRO-SEEDERS. COVER APPLIED SEED BY RAKING OR DRAGGING A CHAIN, AND THEN TIGHTLY FIRM THE AREA WITH A ROLLER OR CULTIPACKER. DO NOT ROLL SEED THAT IS APPLIED WITH A HYDRO-SEEDER AND HYDRO-MULCH.
8. IF A MINIMUM COVERAGE OF 70 PERCENT IS NOT ACHIEVED IN THE PLANTED VEGETATIVE SHELF AFTER THE SECOND GROWING SEASON, SUPPLEMENTAL PLANTING SHOULD BE COMPLETED. COVERAGE OF 90 TO 95 PERCENTAGE IS DESIRABLE. ONE YEAR (1 YR.) WARRANTY PERIOD IS CUSTOMARY AND ACCEPTABLE. THIS WARRANTY SHALL BE FULLY TRANSFERABLE TO ANY SUBSEQUENT OWNER UPON CONVEYANCE OF THE PROPERTY PRIOR TO ITS EXPIRATION.
9. TREES OR SHRUBS SHALL NOT BE PLANTED ON ANY PORTIONS OF WATER IMPOUNDING EMBANKMENTS, WITHIN THEIR SPILLWAYS/CHANNELS, AND THE REQUIRED ACCESS AND MAINTENANCE EASEMENT.



TYPICAL VEGETATED SHELF PLANTING DETAIL

1. SHALLOW LAND PLANT
2. SHALLOW WATER PLANT
3. VEGETATED SHELF SEED MIX (SEE DESCRIPTION THIS SHEET)
4. 6" DEPTH TILLED/AMENDED SOIL PER SPECIFICATIONS.
5. ROOT BALL
   - IN SANDY / WELL DRAINED SOIL CONDITIONS: SET TOP SURFACE ELEVATION OF ROOTBALL FLUSH WITH FINAL EXISTING GRADE.
   - IN HEAVY CLAY / POORLY DRAINED SOIL CONDITIONS: SET TOP SURFACE ELEVATION OF ROOTBALL 1/4 - 1/3 OF ROOTBALL ABOVE FINAL EXISTING GRADE.
6. EARTHEN SAUCER
7. BACKFILL WITH SOIL PER SPECIFICATIONS
8. EXCAVATE PIT TO 2 TIMES THE WIDTH OF ROOTBALL. SCARIFY SIDES OF PIT SO THAT SIDES ARE NOT SMOOTH/GLAZED.
9. LARGER B&B MATERIAL:
   -REMOVE TOP 2/3 OF WIRE ROOT BALL BASKET OR ROOTBALL STRAPS. REMOVE ALL SYNTHETIC STRAP MATERIAL FROM ENTIRE ROOTBALL
   -REMOVE TOP 1/3 OF BURLAP ROOT BALL COVERING. REMOVE ALL SYNTHETIC COVERING FROM ENTIRE ROOTBALL
10. CONTAINER GROWN MATERIAL: REMOVE ENTIRE CONTAINER FROM AROUND PLANT AND SCARIFY PRIOR TO PLANTING.
11. PLACE ROOTBALL ON SOLID SUBGRADE, NOT LOOSE BACKFILL MATERIAL
12. UNDISTURBED SUBGRADE

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

GRAPHIC SCALE IN FEET
0 10 20 40

No.	REVISIONS	DATE	BY
5	REVISED PER TOWN COMMENTS	03/11/26	JMS
4	REVISED PER TOWN COMMENTS	12/17/25	JMS
3	REVISED INCLUDING PHOTOMETRICS	09/04/25	JCB
2	REVISE PER TOWN COMMENTS	04/14/25	JCB
1	PRE-APPLICATION COMMENTS	01/03/25	JCB

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##-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2420 ADAM W. FULLERTON

KHA PROJECT 016582000
DATE 02/23/2026
SCALE AS SHOWN
DESIGNED BY MKP
DRAWN BY MKP
CHECKED BY AWF

WETPOND LANDSCAPE PLAN

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
L3.0

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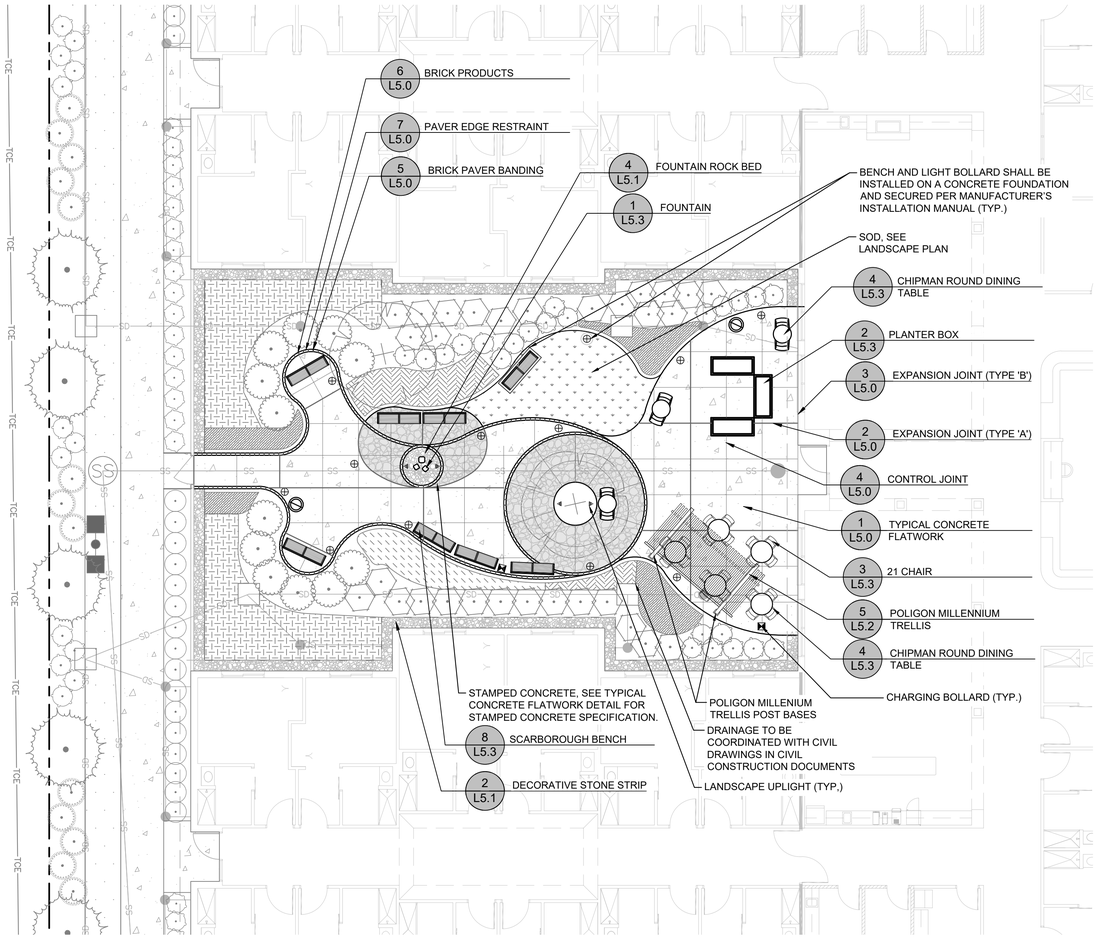

LIGHTING MATERIALS LEGEND

REFER TO SHEETS L8.0 - L9.0 FOR LIGHTING PLANS

- LANDSCAPE UPLIGHT
- CHARGING BOLLARD
- BOLLARD LIGHT

HARDSCAPE MATERIALS LEGEND

- STANDARD CONCRETE
- STAMPED CONCRETE
- ROCK PATH
- ARTIFICIAL TURF AREA
- MULCH
- ASPHALT WITH THERMOPLASTIC MARKINGS
- DECOMPOSED GRANITE
- RUBBERIZED SURFACE
- BRICK BANDING
- FOUNTAIN
- TABLE W/ TWO (2) CHAIRS CHIPMAN 31" TABLE, TWO 21 CHAIR
- TABLE W/ FOUR (4) CHAIRS CHIPMAN 36" TABLE, FOUR 21 CHAIR
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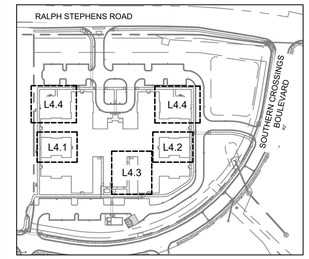
- SCARBOROUGH BENCH
- PLANTER BOX



KEY PLAN 1" = 200'

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "SOUTHERN CROSSROADS" AND DATED OCTOBER 22, 2018 DATED. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON THE FLOOD INSURANCE RATE MAP COMMUNITY MAP NUMBER 3720064800J. DATED MAY 5, 2006.

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

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NORTH

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1321 W. FULLERTON
PRELIMINARY NOT RELEASED FOR CONSTRUCTION
320

KHA PROJECT 016582000
DATE 11/28/2025
SCALE AS SHOWN
DESIGNED BY MKP
DRAWN BY MKP
CHECKED BY AWF

HARDSCAPE PLAN - WEST COURTYARD

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
L4.1

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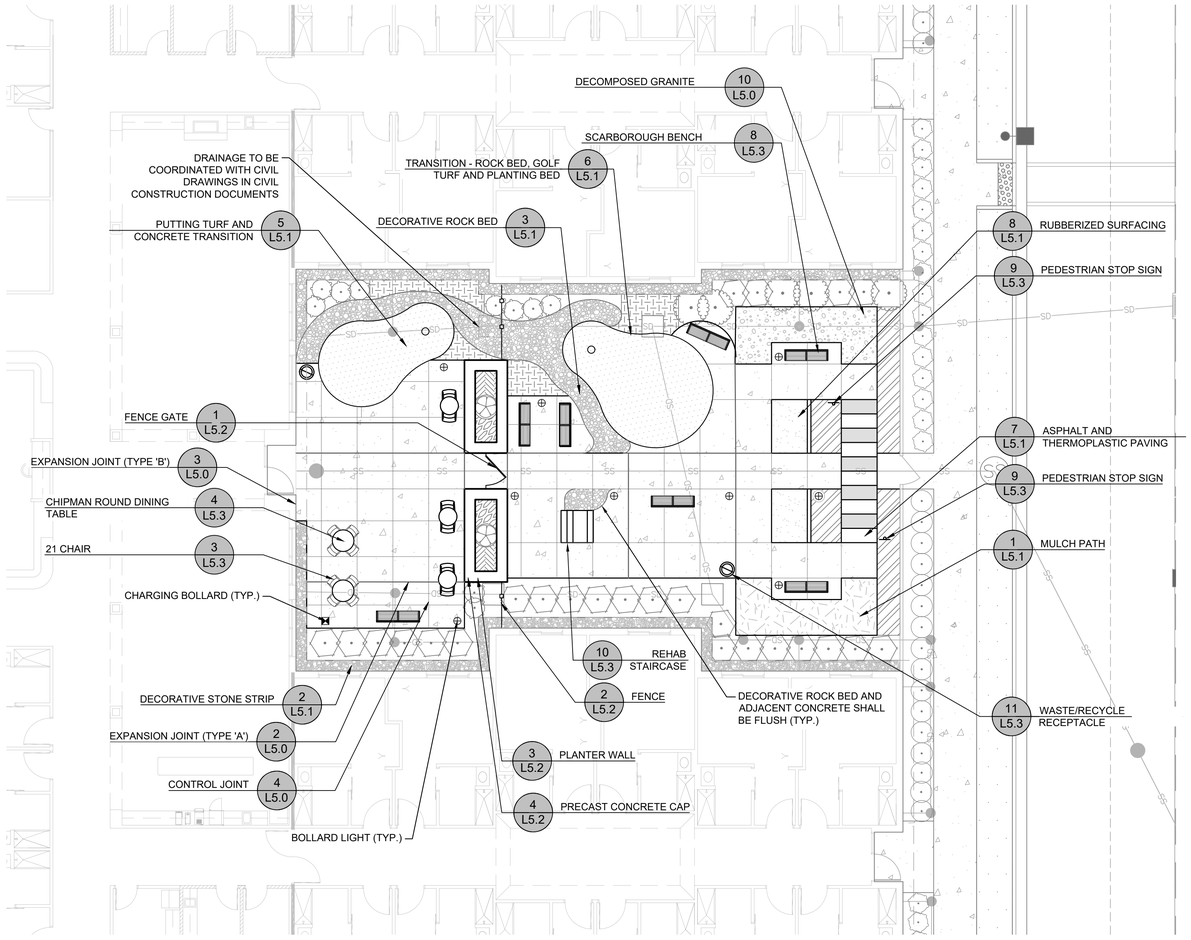

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- CHARGING BOLLARD
- BOLLARD LIGHT

HARDSCAPE MATERIALS LEGEND

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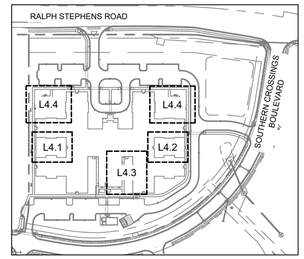

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EXISTING CONDITION NOTES:

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PRELIMINARY
NOT RELEASED FOR CONSTRUCTION
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
320
W. FULLERTON

KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

HARDSCAPE PLAN - EAST COURTYARD

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L4.2

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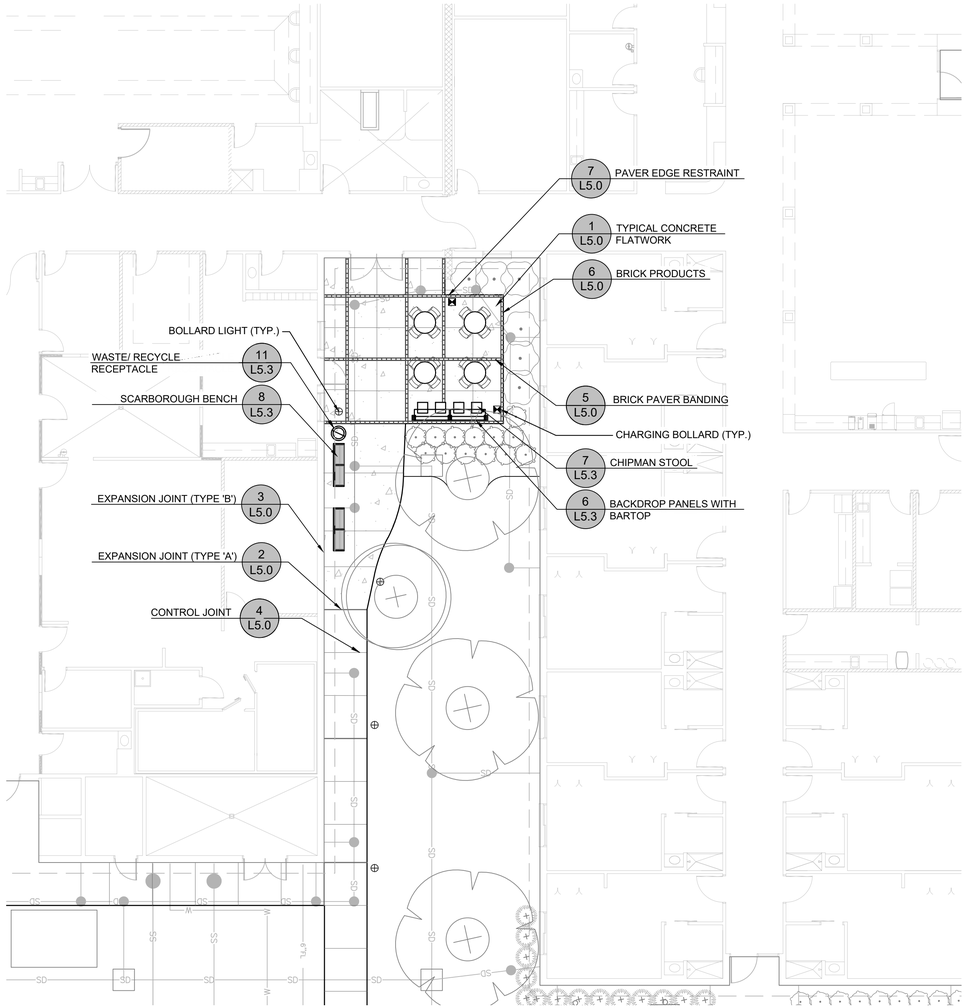

LIGHTING MATERIALS LEGEND

REFER TO SHEETS L8.0 - L9.0 FOR LIGHTING PLANS

- LANDSCAPE UPLIGHT
- CHARGING BOLLARD
- BOLLARD LIGHT

HARDSCAPE MATERIALS LEGEND

- STANDARD CONCRETE
- STAMPED CONCRETE
- ROCK PATH
- ARTIFICIAL TURF AREA
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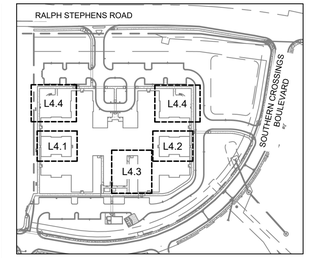
- PLANTER BOX



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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT ANDREW W. FULLERTON 1320 PRELIMINARY NOT RELEASED FOR CONSTRUCTION

KHA PROJECT	016582000
DATE	11/26/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

HARDSCAPE PLAN - EMPLOYEE COURTYARD

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L4.3

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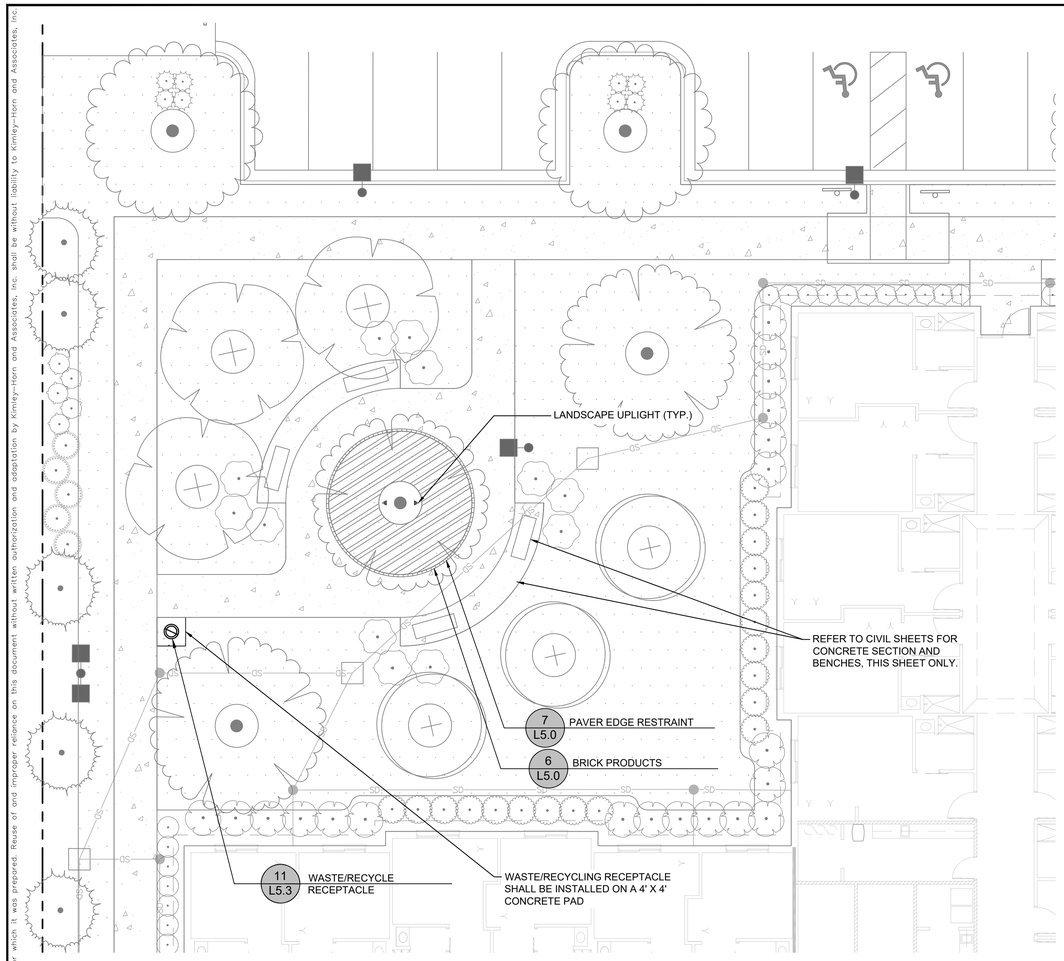

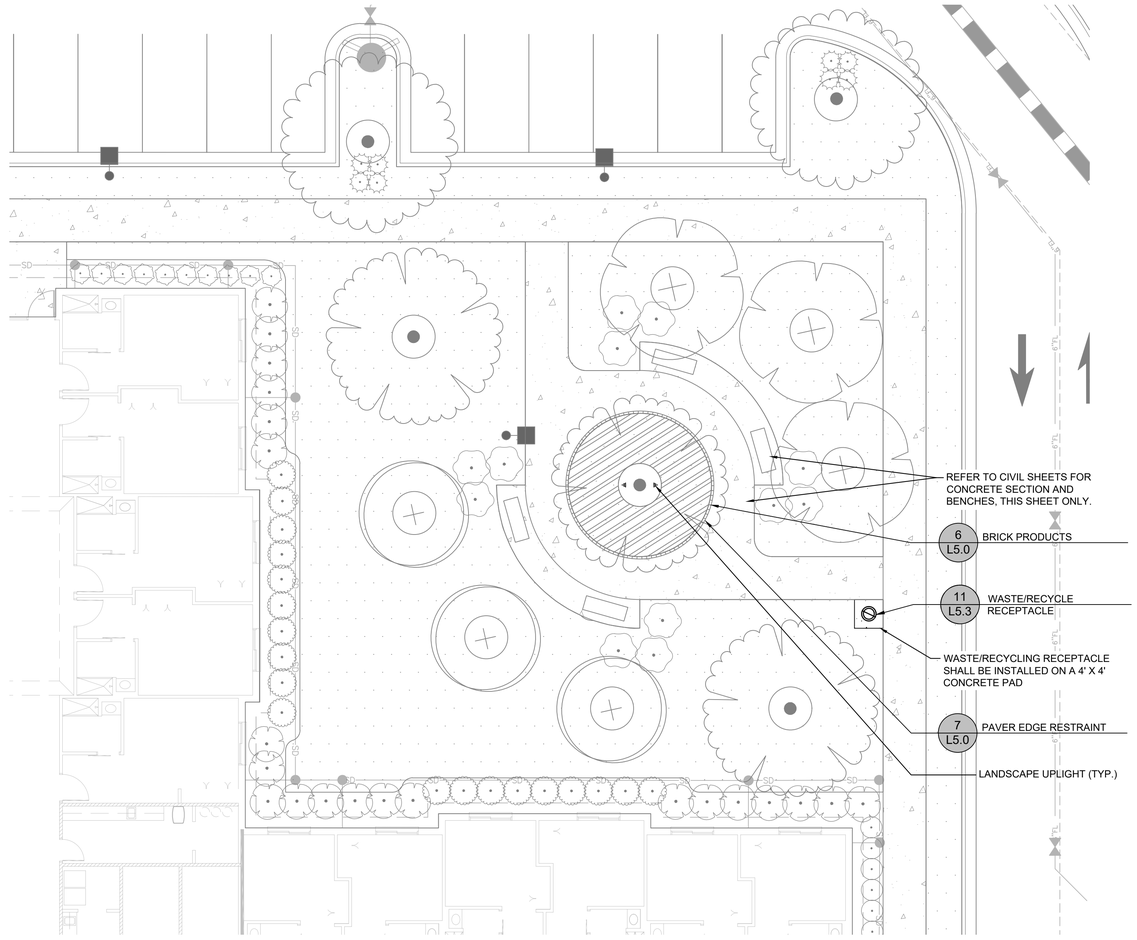

LIGHTING MATERIALS LEGEND

REFER TO SHEETS L8.0 - L9.0 FOR LIGHTING PLANS

- LANDSCAPE UPLIGHT
- CHARGING BOLLARD
- BOLLARD LIGHT

HARDSCAPE MATERIALS LEGEND

- STANDARD CONCRETE
- STAMPED CONCRETE
- ROCK PATH
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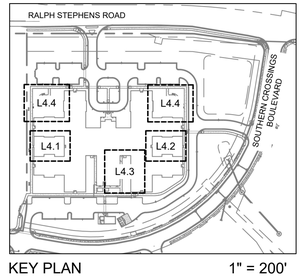

KEY PLAN 1" = 200'

EXISTING CONDITION NOTES:

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PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NORTH

GRAPHIC SCALE IN FEET
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No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
##-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1320 A. W. FULLERTON PRELIMINARY NOT FOR CONSTRUCTION

KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

HARDSCAPE PLAN - PUBLIC REALM

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L4.4

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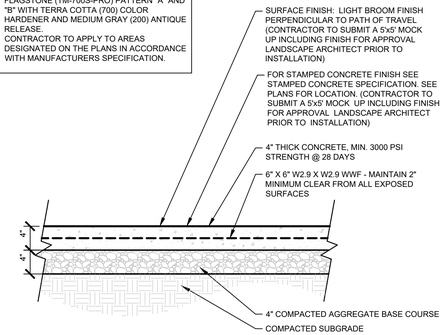
GENERAL NOTES:
1. CONTRACTOR SHALL CONFIRM REQUIRED MATERIAL AND COMPACTION REQUIREMENTS FOR COMPACTED ABC WITH GEOTECHNICAL ENGINEER.

STAMPED CONCRETE NOTES:
1. STAMPED CONCRETE TO BE BRICKFORMS FLAGSTONE (TM-700S-PRO) PATTERN "A" AND "B" WITH TERRA COTTA (700) COLOR HARDENER AND MEDIUM GRAY (200) ANTIQUE RELEASE.
2. CONTRACTOR TO APPLY TO AREAS DESIGNATED ON THE PLANS IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.

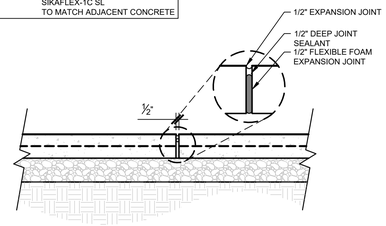


1 L5.0 **TYPICAL CONCRETE FLATWORK**
1" = 1'-0" SECTION

EXPANSION JOINT NOTE:
1. EXPANSION JOINTS SHALL BE PLACED APPROXIMATELY EVERY 15'-20' O.C. EACH WAY.
2. SEE DETAIL 3 / L5.0 FOR TYPE B EXPANSION JOINTS.

EXPANSION JOINT MATERIAL NOTE:
MANUFACTURER: W.R. MEADOWS
PRODUCT: CERAMAR

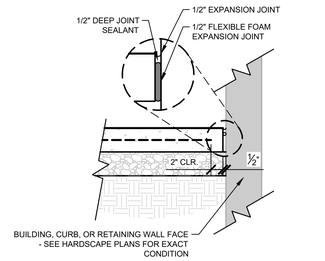
EXPANSION JOINT SEALANT NOTE:
MANUFACTURER:SIKA
PRODUCT: SIKAFLEX-1C SL
COLOR: TO MATCH ADJACENT CONCRETE



2 L5.0 **EXPANSION JOINT (TYPE 'A')**
1" = 1'-0" SECTION

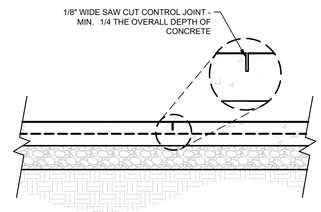
EXPANSION JOINT MATERIAL NOTE:
MANUFACTURER: W.R. MEADOWS
PRODUCT: CERAMAR

EXPANSION JOINT SEALANT NOTE:
MANUFACTURER:SIKA
PRODUCT: SIKAFLEX-1C SL
COLOR: TO MATCH ADJACENT HARDSCAPE

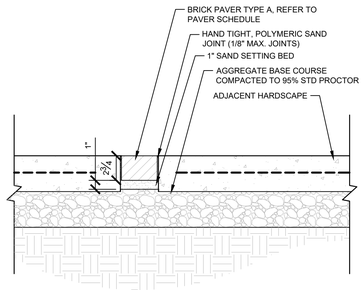


3 L5.0 **EXPANSION JOINT (TYPE 'B')**
1" = 1'-0" SECTION

CONTROL JOINT NOTE:
1. CONTROL JOINTS SHALL BE SAWCUT WITHIN 24 HOURS OF CONCRETE INSTALLATION.
2. SEE DETAIL 4 / L5.0 FOR CONTROL JOINT DETAILS. REFER TO SHEETS L4.1 AND L4.2 FOR CONTROL JOINT LOCATIONS AND PATTERNS.



4 L5.0 **CONTROL JOINT**
1" = 1'-0" SECTION

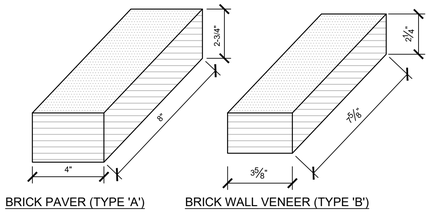


5 L5.0 **BRICK PAVER BANDING**
1 1/2" = 1'-0" SECTION

TYPE 'A' BRICK PAVER PRODUCT DATA:	
MANUFACTURER:	PINE HALL BRICK
MODEL:	SQUARE EDGE PATHWAY
COLOR:	DARK ACCENT
SIZE:	8" X 4" X 2-1/4""

TYPE 'B' BRICK PAVER PRODUCT DATA:	
MANUFACTURER:	PALMETTO
MODEL:	FACE BRICK
COLOR:	WALNUT
SIZE:	7 - 5/8" x 3 - 5/8" x 2 -1/4"

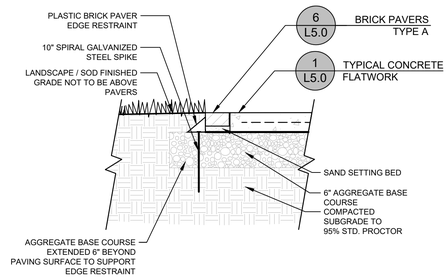
BRICK PAVER NOTES:
1. CONTRACTOR TO SUBMIT PRODUCT AND COLOR SAMPLES PRIOR TO ORDERING AND INSTALLATION TO THE PROJECT LANDSCAPE ARCHITECT FOR APPROVAL.



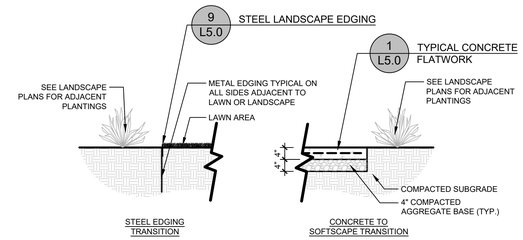
BRICK PAVER (TYPE 'A') BRICK WALL VENEER (TYPE 'B')

6 L5.0 **BRICK PRODUCTS**
3" = 1'-0" AXION

STEEL LANDSCAPE EDGING PRODUCT DATA:	
MANUFACTURER:	SURE LOC (OR APPROVED EQUAL)
PRODUCT:	STEEL LANDSCAPE EDGING WITH STANDARD STAKES
SIZE:	1/8" THICKNESS X 4" HEIGHT
COLOR:	BROWN
NOTES:	USE UNIVERSAL CORNERS AND TREE RING PIECES AS NECESSARY



7 L5.0 **PAVER EDGE RESTRAINT**
1" = 1'-0" SECTION

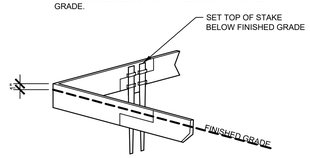


NOTES:
1. SEE MATERIALS DETAILS FOR MATERIAL SPECIFICATIONS.
2. CONTRACTOR TO SUBMIT SAMPLES TO OWNER/LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
3. CONTRACTOR TO PROVIDE OWNER'S REPRESENTATIVE A 5'X5' MOCK-UP WITH STEEL EDGING, STONE MULCH AND FIELD CONCRETE FOR APPROVALS PRIOR TO INSTALLATION.
4. ALL CONCRETE SHALL BE 3,000 PSI UNLESS OTHERWISE REQUIRED BY GEOTECHNICAL/STRUCTURAL ENGINEER. REFER TO STRUCTURAL FOR CONCRETE REINFORCEMENT.
5. CONTRACTOR TO VERIFY DEPTHS OF CONCRETE AND AGGREGATE BASE WITH GEOTECHNICAL ENGINEER.
6. SEE HARDSCAPE PLANS FOR LOCATION OF PERFORATED PIPE. REFER TO DRAWINGS BY PROJECT CIVIL ENGINEER FOR DRAINAGE DIRECTION AND SIZING ADJUSTMENTS.

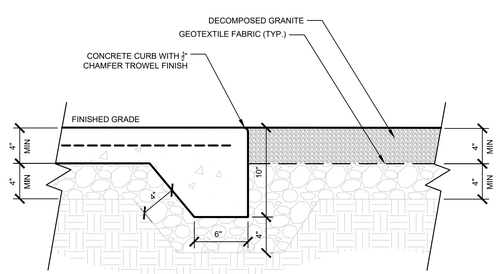
8 L5.0 **EDGE TRANSITION**
1/2" = 1'-0" RAL-P-PRHSC-42

STEEL LANDSCAPE EDGING PRODUCT DATA:	
MANUFACTURER:	SURE LOC (OR APPROVED EQUAL)
PRODUCT:	STEEL LANDSCAPE EDGING WITH STANDARD STAKES
SIZE:	1/8" THICKNESS X 4" HEIGHT
COLOR:	BROWN
NOTES:	USE UNIVERSAL CORNERS AND TREE RING PIECES AS NECESSARY

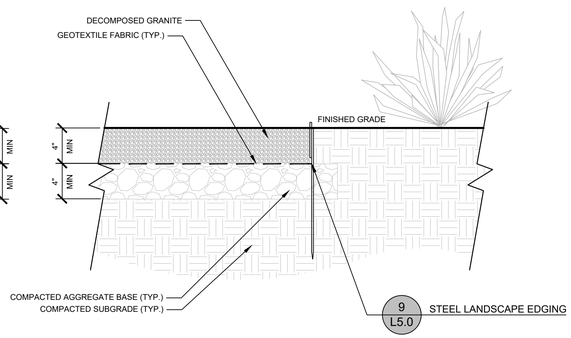
STEEL EDGING NOTES:
1. TYPICAL CONDITION SHOWN.
2. AT GRAVEL EDGES SET TOP OF EDGING AT FINISHED GRADE.



9 L5.0 **STEEL LANDSCAPE EDGING**
1" = 1'-0" SECTION



NOTES:
1. PROVIDE MAX. 2% CROSS-SLOPE FOR ADEQUATE DRAINAGE.
2. DECOMPOSED GRANITE TO BE GRAY IN COLOR, OR OWNER APPROVED EQUAL.
3. INSTALL DECOMPOSED GRANITE IN TWO (2) 2" LIFTS AND COMPACT AS REQUIRED.



10 L5.0 **DECOMPOSED GRANITE**
1 1/2" = 1'-0" SECTION

No.	REVISIONS	DATE	BY

Kimley»Horn
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421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601
PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
##-0102

PRELIMINARY
NOT RELEASED FOR CONSTRUCTION
ANDREW W. FULLERTON
NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
4320

KHA PROJECT	016582000
DATE	11/26/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

HARDSCAPE DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L5.0

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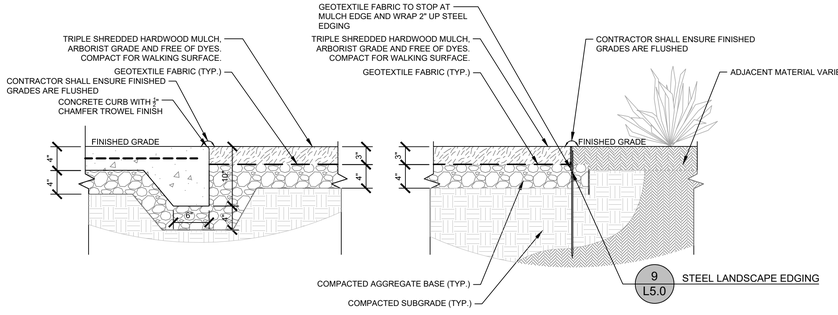


NOTES:
1. PROVIDE MAX. 2% CROSS-SLOPE FOR ADEQUATE DRAINAGE.
2. INSTALL MULCH IN (2) 1.5" LIFTS AND COMPACT AS REQUIRED.
3. ALL DEPTH DIMENSIONS ARE TO BE CONSIDERED MINIMUM REQUIREMENTS.

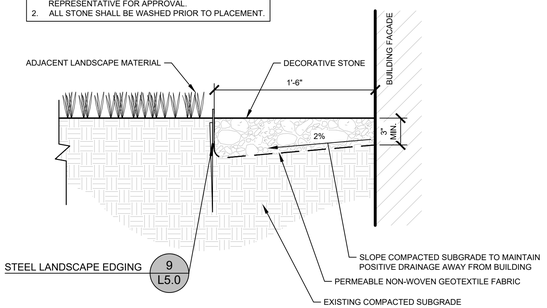
1 L5.1 MULCH PATH

1" = 1'-0" SECTION

DECORATIVE STONE STRIP PRODUCT DATA:

SUPPLIER:	THE STONE CENTER
PRODUCT:	NEW ENGLAND RIVER ROCK
DESCRIPTION:	FLAT, OBLONG AND ROUNDED
COLOR:	BLACKS/PINKS/GRAYS/TANS/WHITE
SIZE:	2" - 3"

NOTES:
1. CONTRACTOR SHALL SUBMIT SAMPLE OF STONE TO LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE FOR APPROVAL.
2. ALL STONE SHALL BE WASHED PRIOR TO PLACEMENT.



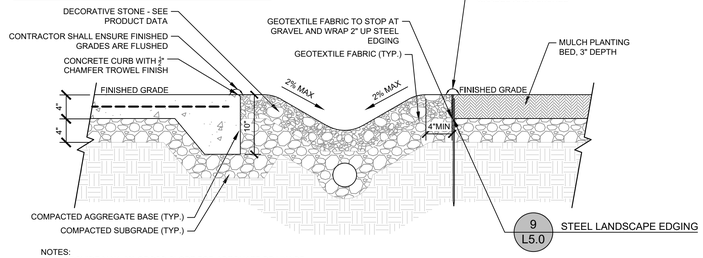
2 L5.1 DECORATIVE STONE STRIP

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

DECORATIVE STONE STRIP PRODUCT DATA:

SUPPLIER:	THE STONE CENTER
PRODUCT:	NEW ENGLAND RIVER ROCK
DESCRIPTION:	FLAT, OBLONG AND ROUNDED
COLOR:	BLACKS/PINKS/GRAYS/TANS/WHITE
SIZE:	2" - 3"

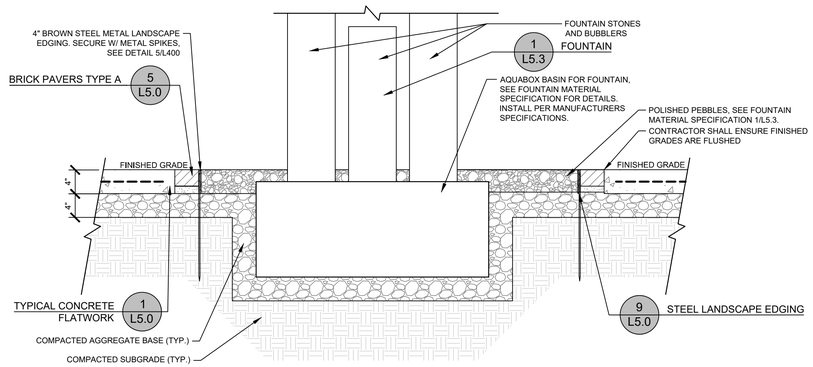
NOTES:
1. CONTRACTOR SHALL SUBMIT SAMPLE OF STONE TO LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE FOR APPROVAL.
2. ALL STONE SHALL BE WASHED PRIOR TO PLACEMENT.



NOTES:
1. PROVIDE MAX. 2% CROSS-SLOPE FOR ADEQUATE DRAINAGE.
2. FINAL MATERIAL SPECIFICATION OF DECORATIVE STONE TO BE APPROVED BY LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE
3. INSTALL DECORATIVE GRAVEL IN (2) 2" LIFTS AND COMPACT AS REQUIRED.
4. ALL DEPTH DIMENSIONS ARE TO BE CONSIDERED MINIMUM REQUIREMENTS
5. PROVIDE A MINIMUM 4-INCH FLAT SECTION AT TOP OF DECORATIVE ROCK BED PRIOR TO SLOPE TRANSITION.

3 L5.1 DECORATIVE ROCK BED

1" = 1'-0" SECTION



NOTES:
1. PROVIDE MAX. 2% CROSS-SLOPE FOR ADEQUATE DRAINAGE.
2. INSTALL POLISHED PEBBLES IN (2) 2" LIFTS AND COMPACT AS REQUIRED.
3. ALL DEPTH DIMENSIONS ARE TO BE CONSIDERED MINIMUM REQUIREMENTS.

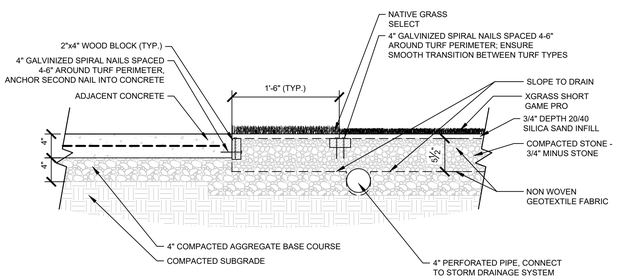
4 L5.1 FOUNTAIN ROCK BED

1" = 1'-0" SECTION

GENERAL NOTES:
1. CONTRACTOR SHALL CONFIRM REQUIRED MATERIAL AND COMPACTION REQUIREMENTS FOR COMPACTED ABC WITH GEOTECHNICAL ENGINEER.
2. CONTRACTOR TO INSTALL ALL TURF IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS,
3. CONTRACTOR TO INSTALL STANDARD 6" DEPTH GOLF CUP IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. INCLUDE BALL SAVER, FLAGPOLE AND FLAG.

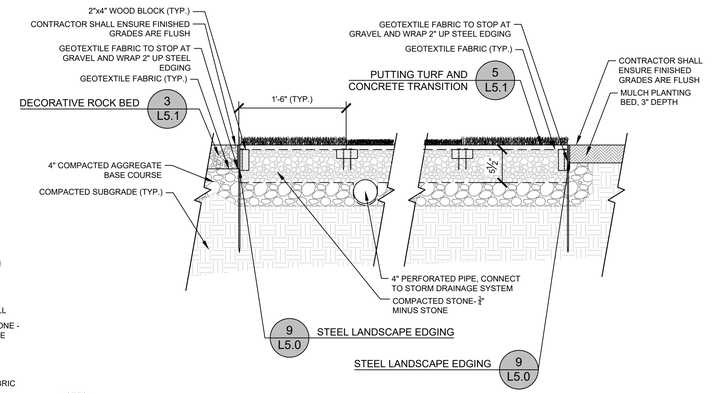
PUTTING TURF MATERIAL NOTES:
PRIMARY AREA PRODUCT: SHORT GAME PRO
MANUFACTURER: XGRASS
PILE HEIGHT: 7/8"
THATCH: N/A
BACKING: URETHANE
FIBER TYPE: PP

1' - 6" EDGE AREA PRODUCT: NATIVE GRASS SELECT
MANUFACTURER: XGRASS
PILE HEIGHT: 1.55"
THATCH: TAN
BACKING: URETHANE
FIBER TYPE: OMEGA/HORESHOE



5 L5.1 PUTTING TURF AND CONCRETE TRANSITION

1" = 1'-0" SECTION



NOTES:
1. PROVIDE MAX. 2% CROSS-SLOPE FOR ADEQUATE DRAINAGE.
2. FINAL MATERIAL SPECIFICATION OF DECORATIVE STONE TO BE APPROVED BY LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE
3. INSTALL DECORATIVE GRAVEL IN (2) 2" LIFTS AND COMPACT AS REQUIRED.
4. ALL DEPTH DIMENSIONS ARE TO BE CONSIDERED MINIMUM REQUIREMENTS.

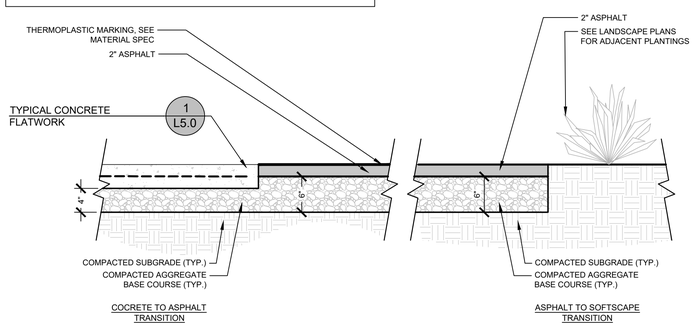
6 L5.1 TRANSITION - ROCK BED, GOLF TURF AND PLANTING BED

1" = 1'-0" SECTION

THERMOPLASTIC ASPHALT MARKING PRODUCT DATA:

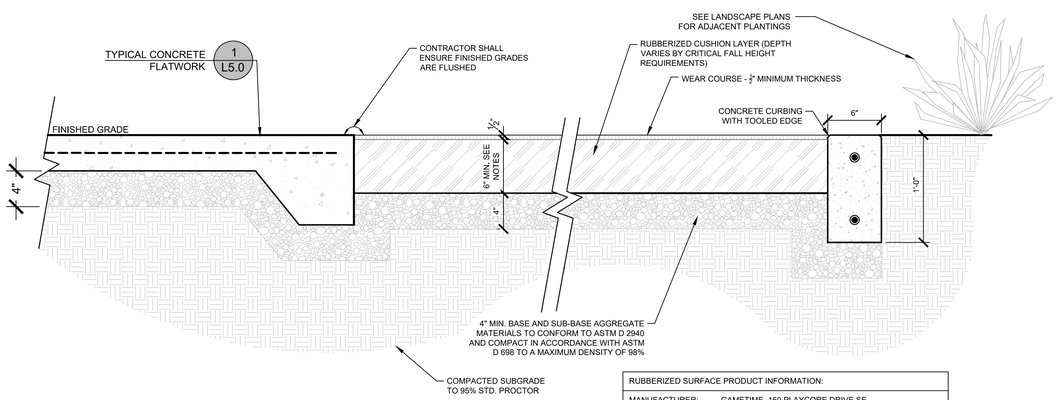
SUPPLIER:	PPG
PRODUCT:	PREMARKXF PREFORMED THERMOPLASTIC
SIZE:	5' X 2'
QTY:	FIVE (5)
COLOR:	WHITE

NOTES:
1. CONTRACTOR SHALL SUBMIT SAMPLE OF THERMOPLASTIC MARKING TO LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE FOR APPROVAL.
2. APPLY USING MANUFACTURER'S SPECIFICATIONS TO ASPHALT PATH.



7 L5.1 ASPHALT AND THERMOPLASTIC PAVING

1" = 1'-0" SECTION



RUBBERIZED SURFACE PRODUCT INFORMATION:

MANUFACTURER:	GAMETIME, 150 PLAYCORE DRIVE SE, FORT PAYNE, AL 35967
COLOR:	BEIGE OR APPROVED EQUAL
WEBSITE:	WWW.GAMETIME.COM
MODEL:	POURED-IN-PLACE RUBBER
INSTALLATION:	INSTALL USING MANUFACTURER'S RECOMMENDATIONS.

8 L5.1 RUBBERIZED SURFACING

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

No.	REVISIONS	DATE	BY

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##-0102

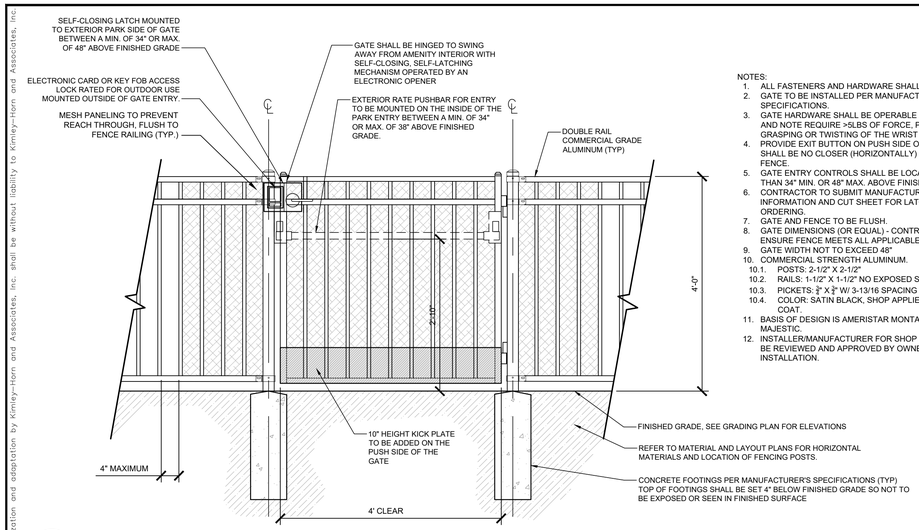
NORTH CAROLINA LANDSCAPE ARCHITECT REGISTRATION — PRELIMINARY NOT RELEASED FOR CONSTRUCTION — 1320 — MICHAEL W. FULLERTON

KHA PROJECT 016582000	SCALE	AS SHOWN	
DATE 11/28/2025	DESIGNED BY	MKP	MKP
	DRAWN BY	MKP	AWF
	CHECKED BY	AWF	

HARDSCAPE DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS, NORTH CAROLINA

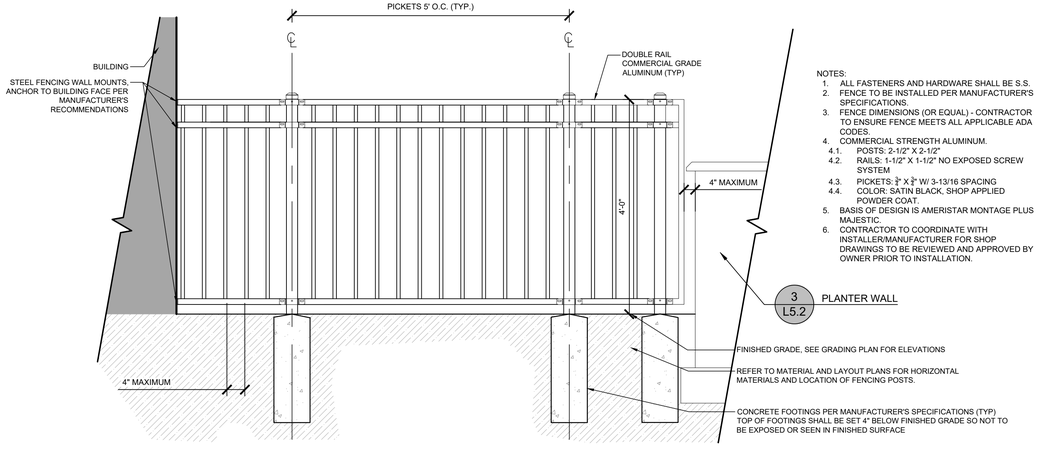
SHEET NUMBER
L5.1



NOTES:
1. ALL FASTENERS AND HARDWARE SHALL BE S.S.
2. GATE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. GATE HARDWARE SHALL BE OPERABLE WITH ONE HAND AND NOTE REQUIRE >5LBS OF FORCE, PINCHING, TIGHT GRASPING OR TWISTING OF THE WRIST TO OPERATE.
4. PROVIDE EXIT BUTTON ON PUSH SIDE OF GATE, BUTTON SHALL BE NO CLOSER (HORIZONTALLY) THAN 36" FROM FENCE.
5. GATE ENTRY CONTROLS SHALL BE LOCATED NOT LESS THAN 34" MIN. OR 48" MAX. ABOVE FINISHED GRADE.
6. CONTRACTOR TO SUBMIT MANUFACTURER'S INFORMATION AND CUT SHEET FOR LATCH PRIOR TO ORDERING.
7. GATE AND FENCE TO BE FLUSH.
8. GATE DIMENSIONS (OR EQUAL) - CONTRACTOR TO ENSURE FENCE MEETS ALL APPLICABLE ADA CODES.
9. GATE WIDTH NOT TO EXCEED 48"
10. COMMERCIAL STRENGTH ALUMINUM.
    - 10.1. POSTS: 2-1/2" X 2-1/2"
    - 10.2. RAILS: 1-1/2" X 1-1/2" NO EXPOSED SCREW SYSTEM
    - 10.3. PICKETS: ¾" X ¾" W/ 3-13/16 SPACING
    - 10.4. COLOR: SATIN BLACK, SHOP APPLIED POWDER COAT.
11. BASIS OF DESIGN IS AMERISTAR MONTAGE PLUS MAJESTIC.
12. INSTALLER/MANUFACTURER FOR SHOP DRAWINGS TO BE REVIEWED AND APPROVED BY OWNER PRIOR TO INSTALLATION.

1 L5.2 FENCE GATE

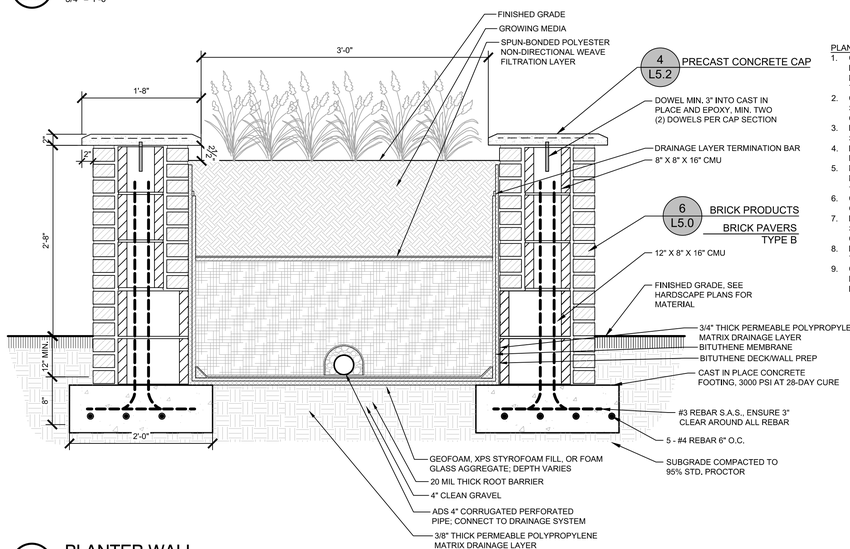
3/4" = 1'-0" — PLAN/SECTION/AXON



NOTES:
1. ALL FASTENERS AND HARDWARE SHALL BE S.S.
2. FENCE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. FENCE DIMENSIONS (OR EQUAL) - CONTRACTOR TO ENSURE FENCE MEETS ALL APPLICABLE ADA CODES.
4. COMMERCIAL STRENGTH ALUMINUM.
    - 4.1. POSTS: 2-1/2" X 2-1/2"
    - 4.2. RAILS: 1-1/2" X 1-1/2" NO EXPOSED SCREW SYSTEM
    - 4.3. PICKETS: ¾" X ¾" W/ 3-13/16 SPACING
    - 4.4. COLOR: SATIN BLACK, SHOP APPLIED POWDER COAT.
5. BASIS OF DESIGN IS AMERISTAR MONTAGE PLUS MAJESTIC.
6. CONTRACTOR TO COORDINATE WITH INSTALLER/MANUFACTURER FOR SHOP DRAWINGS TO BE REVIEWED AND APPROVED BY OWNER PRIOR TO INSTALLATION.

2 L5.2 FENCE

3/4" = 1'-0" — PLAN/SECTION/AXON

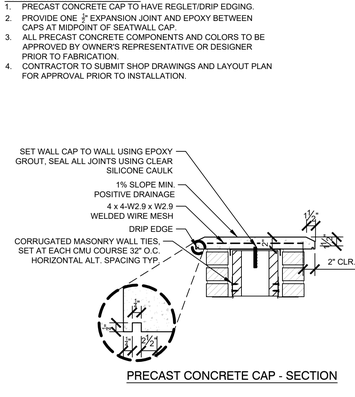


PLANTER WALL SECTION NOTES:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ILLUSTRATING THE LAYOUT OF ALL PROPOSED MASONRY WALLS FOR OWNER APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
2. CONTRACTOR SHALL SUBMIT PHYSICAL MATERIAL SAMPLES FOR OWNER APPROVAL PRIOR TO ORDERING.
3. PROVIDE MINIMUM 2" CAP OVERHANG ON BOTH SIDES.
4. DETAILS CONVEY DESIGN INTENT ONLY. REFER TO LANDSCAPE PLANS FOR PLANT MATERIALS.
5. MAXIMUM AVERAGE UNIT WEIGHT OF PLANTING MEDIA AND ALL PLANTER FILL SHALL NOT EXCEED 120 PCF.
6. CONTRACTOR TO VERIFY MINIMUM DEPTH OF GROWING MEDIA SPECIFIED IN ALL LOCATIONS.
7. PROTECT ALL PLANTER WALLS, PLAZA SLABS, AND STRUCTURAL ELEMENTS FROM DAMAGE DURING CONSTRUCTION.
8. PLANTER DRAINAGE SYSTEM SHALL CONNECT TO THE SITE STORMWATER SYSTEM.
9. CONTRACTOR TO INSTALL EXPANSION JOINT BETWEEN WALL AND ADJACENT HARDSCAPE. SEE DETAIL 3/L5.0

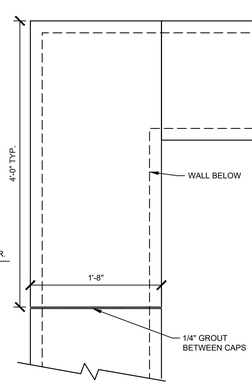
3 L5.2 PLANTER WALL

1" = 1'-0" — SECTION

PRECAST CONCRETE CAP NOTES:
1. PRECAST CONCRETE CAP TO HAVE REGLET/DRIP EDGING.
2. PROVIDE ONE ½" EXPANSION JOINT AND EPOXY BETWEEN CAPS AT MIDPOINT OF SEATWALL CAP.
3. ALL PRECAST CONCRETE COMPONENTS AND COLORS TO BE APPROVED BY OWNER'S REPRESENTATIVE OR DESIGNER PRIOR TO FABRICATION.
4. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND LAYOUT PLAN FOR APPROVAL PRIOR TO INSTALLATION.



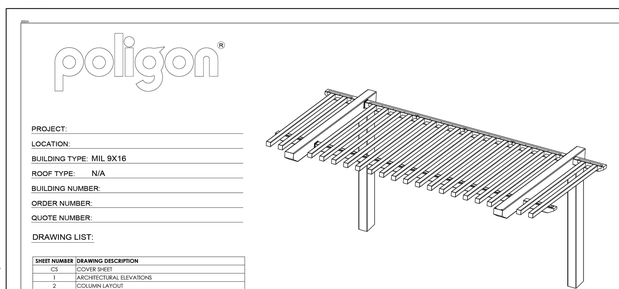
PRECAST CONCRETE CAP - SECTION

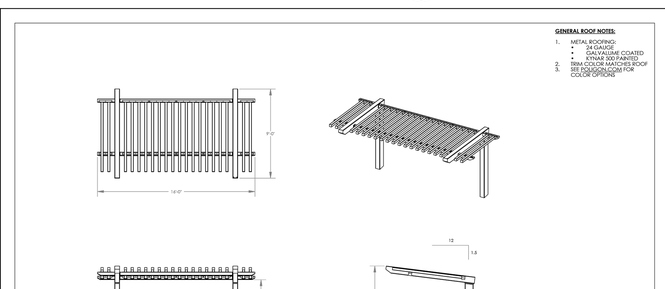


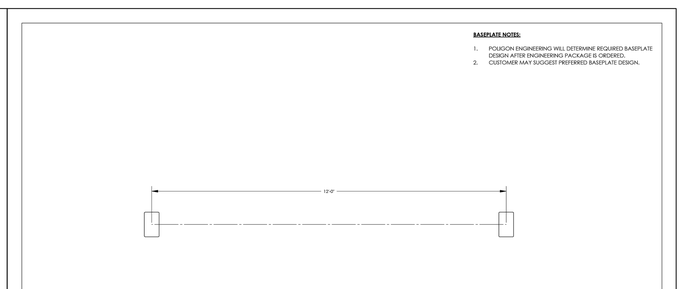
PRECAST CONCRETE CAP - PLAN

4 L5.2 PRECAST CONCRETE CAP

1" = 1'-0" — SECTION







POLIGON MILLENNIUM TRELLIS NOTES:
1. CONTRACTOR TO COORDINATE ENGINEERED SHOP DRAWINGS FROM MANUFACTURER. INSTALL PER MANUFACTURER SPECIFICATIONS. CONTRACTOR TO COORDINATE STRUCTURE ATTACHMENT TO GROUND PLANE.
2. CONTRACTOR TO COORDINATE FOOTER WITH STRUCTURAL ENGINEER IF FOOTER IS REQUIRED.
3. PRODUCT: POLIGON MILLENNIUM TRELLIS (MI- 9X16)
4. COLOR: TUDOR BROWN OR OWNER APPROVED EQUAL
5. SIZE: 9' X 16' STANDARD SIZE

5 L5.2 POLIGON MILLENIUM TRELLIS

NOT TO SCALE — PRODUCT CUTSHEET

No.	REVISIONS	DATE	BY

Kimley»Horn
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421 FAYETTEVILLE STREET, SUITE 600, RALEIGH, NC 27601
PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
##-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT — PRELIMINARY NOT FOR CONSTRUCTION — 1320 — W. FULLERTON

KHA PROJECT 016582000 | DATE 11/28/2025 | SCALE AS SHOWN | DESIGNED BY MKP | DRAWN BY MKP | CHECKED BY AWF

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS, NORTH CAROLINA

HARDSCAPE DETAILS

SHEET NUMBER
L5.2

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FOUNTAIN NOTES:
1. CONTRACTOR TO INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS

FOUNTAIN MATERIAL NOTE:
PRODUCT: TRIPLE RUSTIC BASALT STONE OUTDOOR FOUNTAIN (TALL KIT)
SKU: ABBC125
MANUFACTURER: BLUE THUMB
DISTRIBUTOR: OUTDOOR FOUNTAIN PROS
SIZE(S): 24" H, 30" H, 36" H; 8"-10" DIAMETER
INCLUDES ARCHELOUS AQUABOX BASIN (36") AND POLISHED PEBBLES (MIXED).

1 L5.3 FOUNTAIN
NOT TO SCALE — PRODUCT

PLANTER BOX NOTES:
1. CONTRACTOR TO FURNISH AND INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS

PLANTER BOX MATERIAL NOTE:
PRODUCT: ALUMINUM VEG TRUG
MANUFACTURER: VEG TRUG
COLOR: WOOD LOOK ALUMINUM
SIZE: 72" L, 30" W, 32" H

2 L5.3 PLANTER BOX
NOT TO SCALE — PRODUCT

INSTALLATION NOTES:
1. CONTRACTOR TO INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. VERIFY ALL DIMENSIONS AND CONDITIONS IN FIELD PRIOR TO INSTALLATION.

MATERIAL NOTE:
PRODUCT: 21 CHAIR WITH ARMS
MANUFACTURER: LANDSCAPE FORMS
FRAME: STEEL TUBE FRAME
SEAT/BACK: DIE-CAST ALUMINUM SLATS
FINISH: PANGARD II POWDERCOAT
COLOR: NUTMEG
STACKING: UP TO 4 CHAIRS
WEIGHT: 25 LBS

3 L5.3 21 CHAIR
NOT TO SCALE — PRODUCT

INSTALLATION NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. SURFACE MOUNT WHEN USING UMBRELLA (IF APPLICABLE).

MATERIAL NOTE:
PRODUCT: CHIPMAN ROUND DINING TABLE (36" DIA. & 31" DIA)
MANUFACTURER: LANDSCAPE FORMS
CONSTRUCTION: CAST ALUMINUM BASE & TUBE, STEEL TOP
HEIGHT: 29.25"
FINISH: PANGARD II POWDERCOAT
COLOR: NUTMEG

4 L5.3 CHIPMAN ROUND DINING TABLE
NOT TO SCALE — PRODUCT

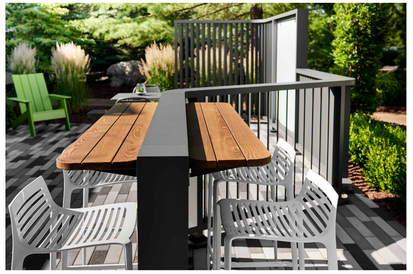
INSTALLATION NOTES:
1. INSTALL PER MANUFACTURER'S SPECIFICATIONS AND ELECTRICAL CODES.
2. STATION TO BE ANCHORED WITH FOUR L-BOLTS.
3. VERIFY LOCATION FOR ACCESSIBILITY CLEARANCES.

MATERIAL NOTE:
PRODUCT: OUTDOOR CHARGING STATION WITH AREA LIGHT
MANUFACTURER: LEGRAND / LANDSCAPE FORMS
HEIGHT: 48"
CONSTRUCTION: POWDER-COATED ALUMINUM (NEMA 3R RATED)
OUTLETS: GFCI + USB (PREWIRED OPTIONS)
FEATURES: LED AREA LIGHT, AUTO-CLOSING DOOR
FINISH: BLACK, BRONZE, OR SILVER

5 L5.3 OUTDOOR CHARGING STATION (AREA LIGHT)
NOT TO SCALE — PRODUCT

INSTALLATION NOTES:
1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. ENSURE POSTS ARE SECURELY ANCHORED.

MATERIAL NOTE:
PRODUCT: BACKDROP PANEL SYSTEM WITH BARTOP
MANUFACTURER: LANDSCAPE FORMS
TYPE: BAR-HEIGHT STRAIGHT PANELS WITH ANGLED VERTICAL LOUVER (41°), POSTS AND BARTOP
INFILL: SLATTED METAL, VERTICAL
POSTS: STANDARD POSTS
FINISH: PANGARD II POWDERCOAT
COLOR:
POSTS AND PANELS: NUTMEG
BARTOP: THERMALLY MODIFIED ASH

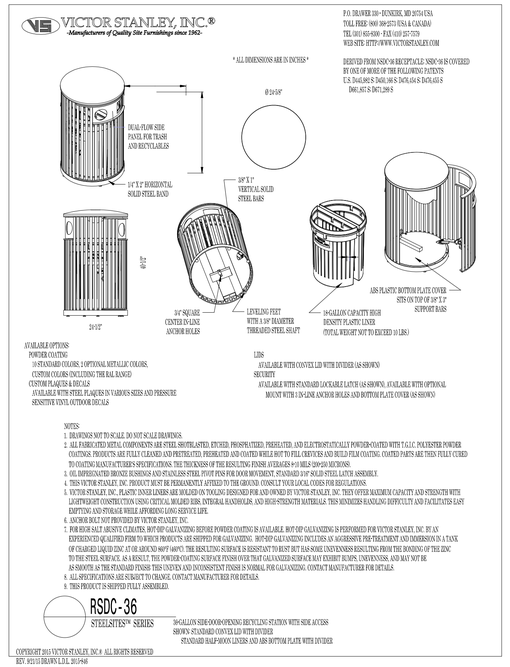


6 L5.3 BACKDROP PANELS WITH BARTOP
NOT TO SCALE — PRODUCT

INSTALLATION NOTES:
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

MATERIAL NOTE:
PRODUCT: CHIPMAN STOOL
MANUFACTURER: LANDSCAPE FORMS
CONSTRUCTION: CAST ALUMINUM FORMS
HEIGHT: 35"
FINISH: PANGARD II POWDERCOAT
COLOR: NUTMEG

7 L5.3 CHIPMAN STOOL
NOT TO SCALE — PRODUCT



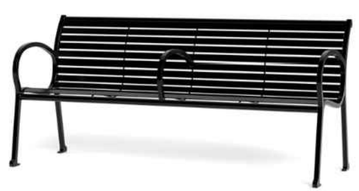
WASTE/RECYCLE RECEPTACLE PRODUCT INFORMATION

MANUFACTURER:	VICTOR STANLEY
WEBSITE:	WWW.VICTORSTANLEY.COM
MODEL:	RSDC-36
COLOR:	BLACK
NOTES:	SURFACE MOUNT

11 L5.3 WASTE/RECYCLE RECEPTACLE
NOT TO SCALE — CUTSHEET

INSTALLATION NOTES:
1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. VERIFY SURFACE MOUNTING WHERE REQUIRED.

MATERIAL NOTE:
PRODUCT: SCARBOROUGH BENCH (BACKED, 72" WITH CENTER ARM)
MANUFACTURER: LANDSCAPE FORMS
STYLE: HORIZONTAL STRAP BACK
CONSTRUCTION: STEEL + SPUN METAL COMPONENTS
FINISH: PANGARD II POWDERCOAT



8 L5.3 SCARBOROUGH BENCH
NOT TO SCALE — PRODUCT

INSTALLATION NOTES:
1. CONTRACTOR TO INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

MATERIAL NOTE:
SIGN PRODUCT: 18" X 18" "STOP" SIGN
MANUFACTURER: ULINE
MANUFACTURER NUMBER: H-2380
DIMENSIONS: 18" X 18" X 1/12"

POST PRODUCT: 1 - 1/2" DIAMETER PVC, 6' HEIGHT

POST BASE PRODUCT: HEAVY DUTY SIGN BASE - 30 LB
MANUFACTURER: ULINE
MANUFACTURER NUMBER: H-4588
DIMENSIONS: 18" X 18" X 3"

9 L5.3 PEDESTRIAN STOP SIGN
NOT TO SCALE — PRODUCT

INSTALLATION NOTES:
1. CONTRACTOR TO INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. VERIFY ALL DIMENSIONS AND CONDITIONS IN FIELD PRIOR TO INSTALLATION.

MATERIAL NOTE:
PRODUCT: ADJUSTABLE SMALL REHAB STAIRCASE - 36"
MANUFACTURER: CLINTON INDUSTRIES
DISTRIBUTOR: TIGER MEDICAL
MANUFACTURER NUMBER: 4-6500-36
TIGER#: TM94974
DIMENSIONS: 54" L X 40" W X 36/5" -50" H

10 L5.3 REHAB STAIRCASE
NOT TO SCALE — PRODUCT

No.	REVISIONS	DATE	BY

Kimley»Horn
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##-0102

PRELIMINARY — NOT RELEASED FOR CONSTRUCTION — 11/21/2025 — W. FULLERTON

KHA PROJECT	016582000
DATE	11/26/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

HARDSCAPE DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS, NORTH CAROLINA

SHEET NUMBER
L5.3

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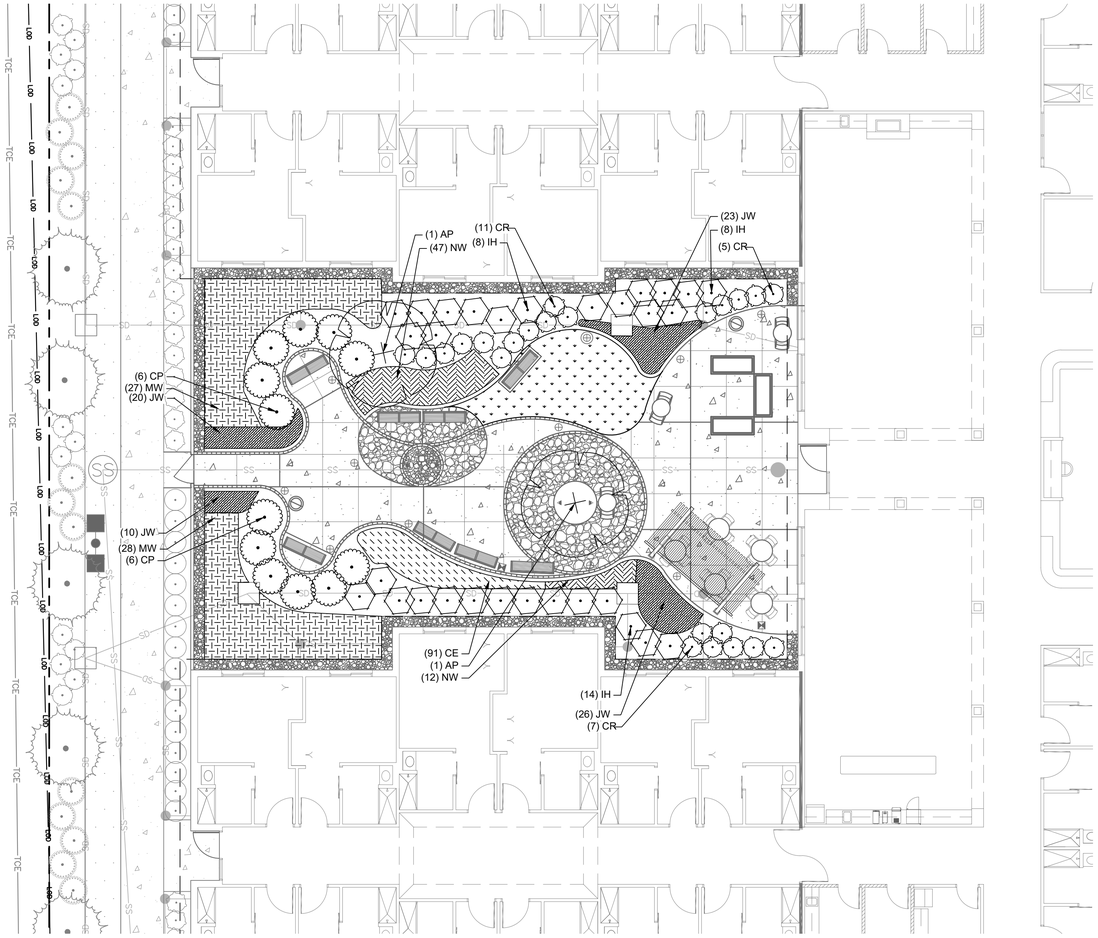
(1) AP
(47) NW
(11) CR
(8) IH
(23) JW
(8) IH
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(6) CP
(27) MW
(20) JW
(10) JW
(28) MW
(6) CP
(91) CE
(1) AP
(12) NW
(14) IH
(26) JW
(7) CR
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SS
SS

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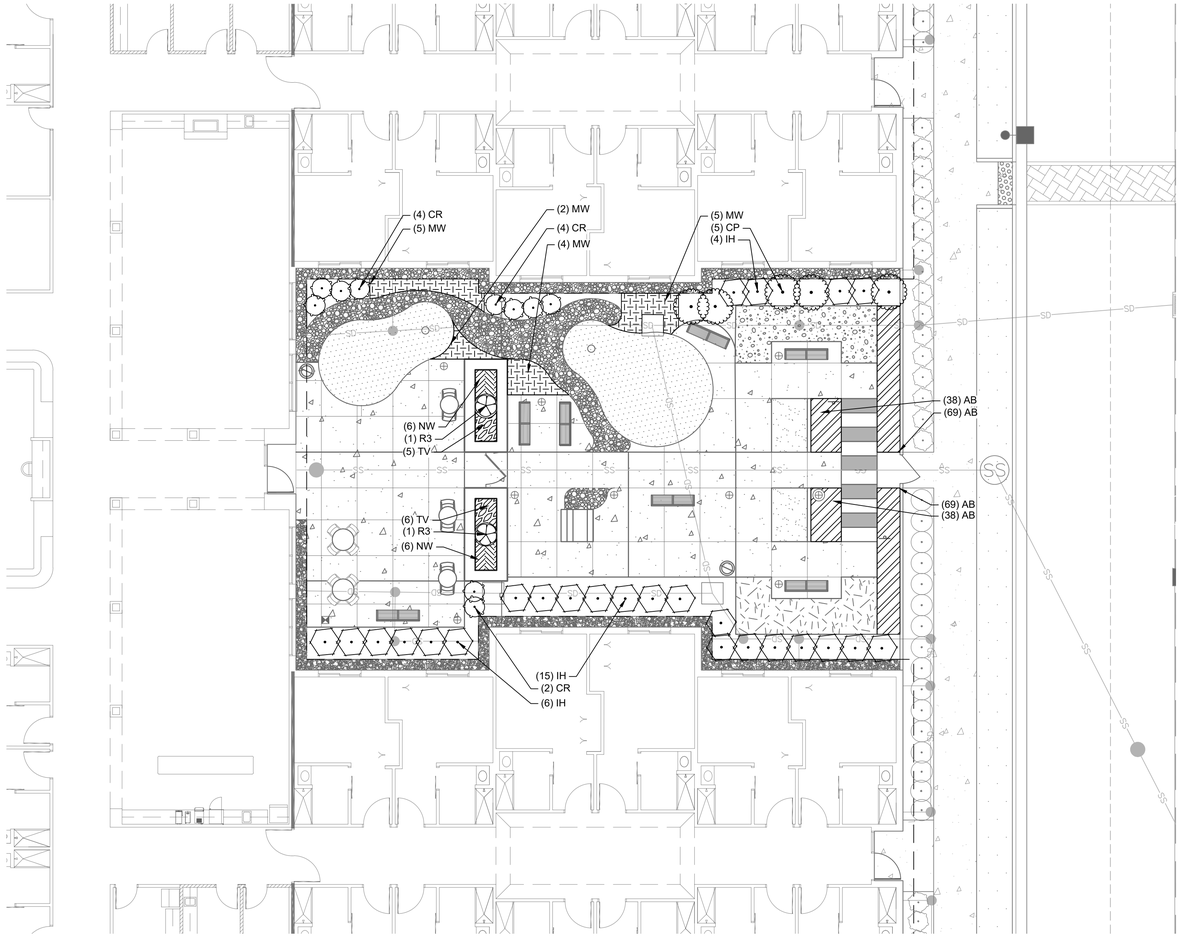
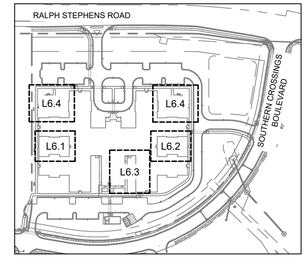


GENERAL NOTES:
1. SEE SHEET L7.0 FOR LANDSCAPE DETAILS



KEY PLAN 1" = 200'

PLANT SCHEDULE EAST COURTYARD

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT
SHRUBS						
	CP	5	CAMELLIA SASANQUA LIGHT PINK SHI SHI	LIGHT PINK SHI SHI CAMELLIA	5 GAL	36" MIN.
	CR	10	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	3 GAL	18" MIN.
	IH	25	ILEX CRENATA 'HELLERI'	HELER JAPANESE HOLLY	5 GAL	18" MIN.
	R3	2	ROSA X 'MEIGGILI'	PEACH DRIFT® ROSE	3 GAL	18" MIN.

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING
GROUND COVERS						
	AB	203	AJUGA REPTANS 'BLACK SCALLOP'	BLACK SCALLOP CARPET BUGLE	1 GAL	12" o.c.
	MW	16	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD'	WHITE CLOUD MUHLY GRASS	1 GAL	36" o.c.
	NW	12	NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	QUART	18" o.c.
	TV	11	TRACHELOSPERMUM ASIATICUM 'VARIEGATA'	VARIEGATED ASIATIC JASMINE	1 GAL	18" o.c.

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "SOUTHERN CROSSROADS" AND DATED OCTOBER 22, 2018 DATED. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON THE FLOOD INSURANCE RATE MAP COMMUNITY MAP NUMBER 3720064800J. DATED MAY 5, 2006.

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NORTH

GRAPHIC SCALE IN FEET
0 5 10 20

No.	REVISIONS	DATE	BY

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#F-0102

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
PRELIMINARY
NOT FOR CONSTRUCTION
M. K. PHILLIPS
3220
W. FULLERTON

KHA PROJECT	016582000
DATE	11/26/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LANDSCAPE PLAN - EAST COURTYARD

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
L6.2

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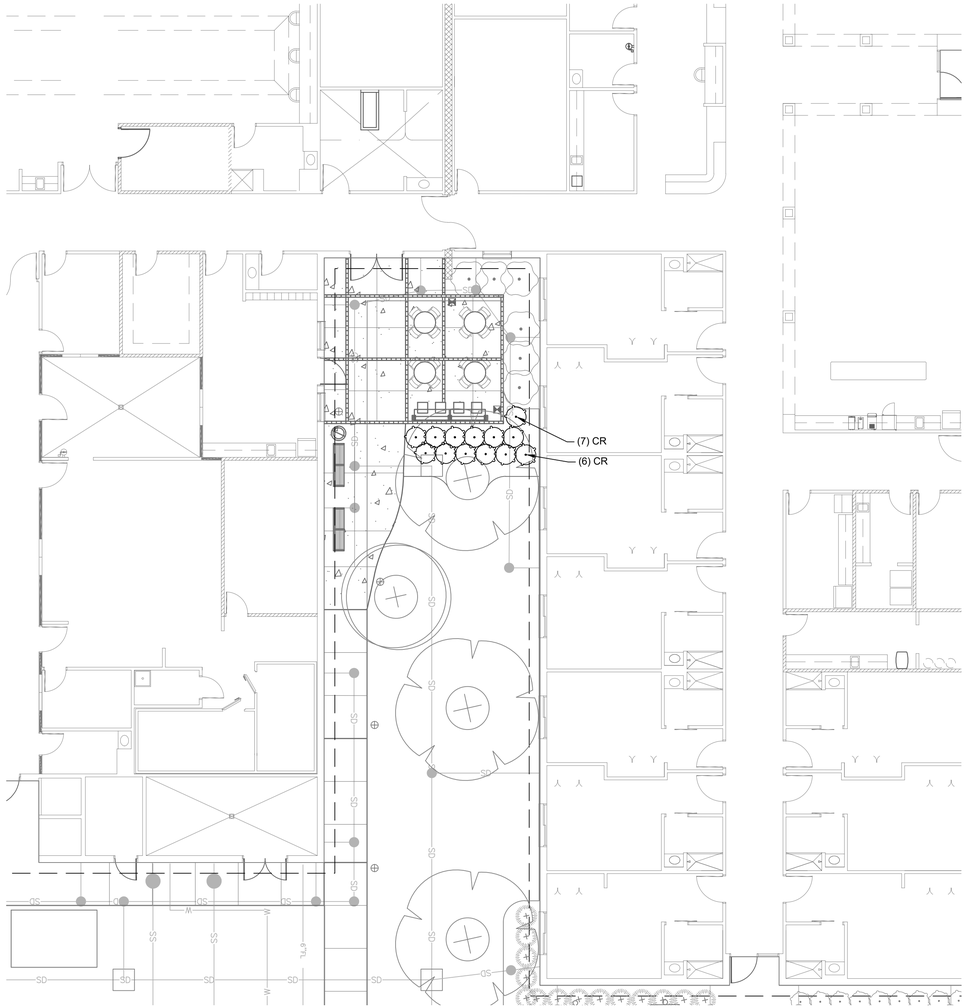
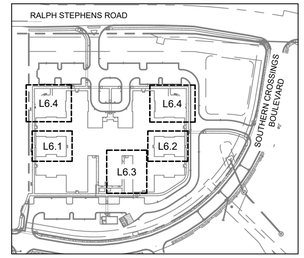


GENERAL NOTES:
1. SEE SHEET L7.0 FOR LANDSCAPE DETAILS



KEY PLAN 1" = 200'

PLANT SCHEDULE EMPLOYEE COURTYARD

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT
SHRUBS						
	CR	13	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	3 GAL	18" MIN.
	HR	6	HYDRANGEA QUERCIFOLIA 'RUBY SLIPPERS'	RUBY SLIPPERS OAKLEAF HYDRANGEA	5 GAL	36" MIN.

NOTE:
FOR REFERENCE ONLY. SEE CODE REQUIRED LANDSCAPE SHEETS FOR DETAILS.

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "SOUTHERN CROSSROADS" AND DATED OCTOBER 22, 2018 DATED. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

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PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NORTH

GRAPHIC SCALE IN FEET
0 5 10 20

No.	REVISIONS	DATE	BY

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WWW.KIMLEY-HORN.COM
##-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
MICHAEL K. PELLINI, PLA
NOT VALID UNLESS SIGNED AND SEALED FOR CONSTRUCTION
2320
NORTH W. FULLERTON

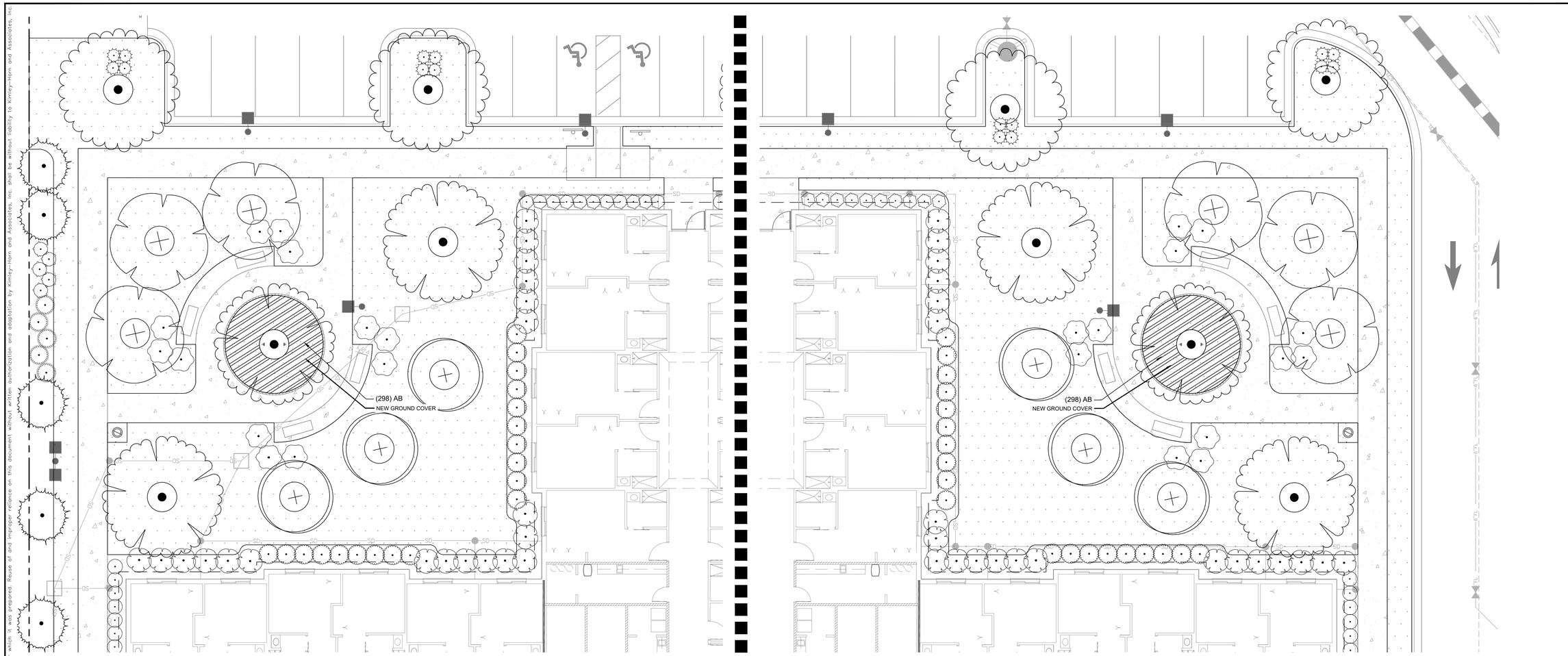
KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LANDSCAPE PLAN - EMPLOYEE COURTYARD

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L6.3



GENERAL NOTES:
1. SEE SHEET L7.0 FOR LANDSCAPE DETAILS

PLANT SCHEDULE PUBLIC REALM AREA

NOTE:
1. THIS SCHEDULE FOR REFERENCE ONLY. SEE CODE REQUIRED LANDSCAPE SHEETS FOR DETAILS.

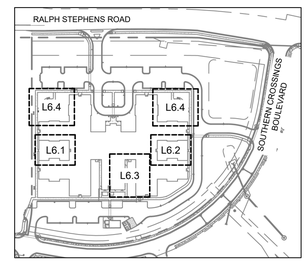
SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	HEIGHT
TREES						
	QP	QUERCUS PHELLOS	WILLOW OAK	B&B	2.5" MIN.	8` MIN.

SYMBOL	CODE	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT	FIELD3
SHRUBS						
	AK	ABELIA X GRANDIFLORA 'KALEIDOSCOPE'	KALEIDOSCOPE GLOSSY ABELIA	3 GAL	24" MIN.	
	CS	CAMELLIA SASANQUA 'SHISHI GASHIRA'	SHISHI GASHIRA CAMELLIA	5 GAL	36" MIN.	
	HR	HYDRANGEA QUERCIFOLIA `RUBY SLIPPERS`	RUBY SLIPPERS OAKLEAF HYDRANGEA	5 GAL	36" MIN.	
	LR	LOROPETALUM CHINENSE PIILC-III PP25471	PURPLE DAYDREAM DWARF LOROPETALUM	3 GAL	24" MIN.	

PLANT SCHEDULE L6.4

NOTE:
1. NEW GROUND COVER AREA LABELED FOR AMENITY LANDSCAPE PLAN. SEE CODE REQUIRED SHEETS FOR OTHER PLANTING MATERIAL, THIS SHEET ONLY.

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING
GROUND COVERS						
	AB	596	AJUGA REPTANS 'BLACK SCALLOP'	BLACK SCALLOP CARPET BUGLE	1 GAL	12" o.c.



KEY PLAN 1" = 200'

EXISTING CONDITION NOTES:

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PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NORTH

GRAPHIC SCALE IN FEET
0 5 10 20

No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
##-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT ANDREW W. FULLERTON 3220 NOT FOR CONSTRUCTION

KHA PROJECT 016582000
DATE 11/28/2025
SCALE AS SHOWN
DESIGNED BY MKP
DRAWN BY MKP
CHECKED BY AWF

LANDSCAPE PLAN - PUBLIC REALM

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
L6.4

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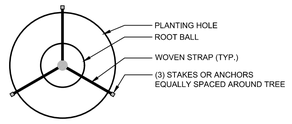
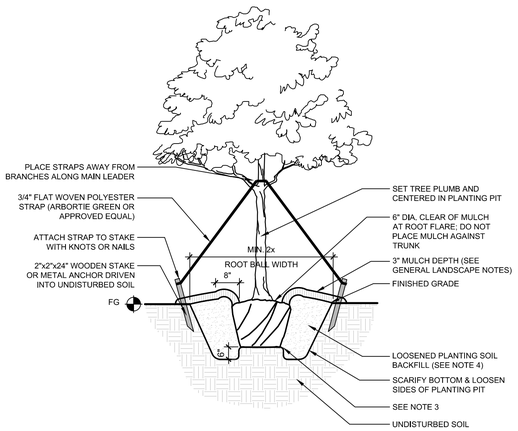


PLAN VIEW

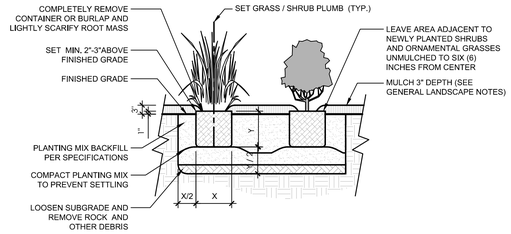


SECTION VIEW

TREE PLANTING NOTES:
1. FOR CONTAINER PLANTS, REMOVE CONTAINER & SCARIFY ROOT MASS PRIOR TO PLANTING.
2. FOR B&B PLANTS, COMPLETELY REMOVE TOP HALF OF WIRE BASKET AND BURLAP MATERIAL; REMOVE ALL TWINE, ROPE AND WIRE FROM ROOT BALL.
3. SET ROOT BALL ON UNDISTURBED STABLE SUBSOIL SO THAT TOP OF ROOT BALL IS 2-3" ABOVE FINISHED GRADE. TAMP SOIL FIRMLY AROUND BOTTOM OF ROOT BALL TO SET TREE PLUMB.
4. DIG & TURN PLANTING SOIL TO REDUCE COMPACTION. LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE THE TREE. DO NOT OVER-COMPACT. MIX COMPOST INTO EACH LIFT OF BACKFILL AS RECOMMENDED IN SOIL REPORT. POUR WATER AROUND ROOT BALL TO SETTLE SOIL, AND BACKFILL AS REQUIRED TO MEET REQUIRED FINISHED GRADE.
5. A 3" HIGH x 8" WIDE BERM SHALL BE MADE AROUND THE ROOT BALL EDGE.
6. PRUNE TREES ONLY AS NEEDED TO REMOVE DEAD OR BROKEN BRANCHES.

1 L7.0 STANDARD TREE PLANTING

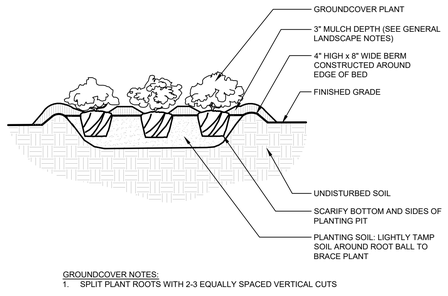
1/2" = 1'-0" PLAN/SECTION



SHRUB AND ORNAMENTAL GRASS PLANTING NOTES:
1. ALL PLANT MATERIAL PRICING SHALL INCLUDE MULCH, BED PREPARATION, AND STAKING.
2. ALL PLANTING BEDS SHALL RECEIVE 3" (THREE INCHES) OF MULCH.
3. PLANT MATERIAL SPACING SHOWN ON LANDSCAPE PLANS SHALL OVERRIDE TYPICAL PLANT SPACING INDICATED ON PLANT SCHEDULE. LANDSCAPE CONTRACTOR RESPONSIBLE FOR VERIFYING ALL PLANT SPACING AND MAKING MINOR FIELD ADJUSTMENTS DUE TO UTILITY CONFLICTS.
4. ALL SHRUBS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MOST RECENT 'AMERICAN STANDARDS FOR NURSERY STOCK' PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (A.A.N.)
5. SOIL ANALYSIS SHALL BE OBTAINED PRIOR TO PLANTING. SOIL SHALL BE AMENDED AS RECOMMENDED BY CERTIFIED TESTING AGENCY.
6. SEE PLAN FOR SPACING.

2 L7.0 SHRUB AND ORNAMENTAL GRASS PLANTING

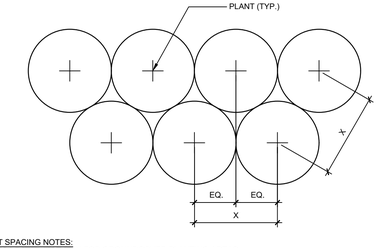
1/2" = 1'-0" SECTION



GROUNDCOVER NOTES:
1. SPLIT PLANT ROOTS WITH 2-3 EQUALLY SPACED VERTICAL CUTS

3 L7.0 GROUNDCOVER PLANTING

1/2" = 1'-0" SECTION



PLANT SPACING NOTES:
1. SEE PLANTING PLAN FOR GROUNDCOVER PLANTING AREAS.
2. PLANTS SHALL BE INSTALLED IN STRAIGHT AND PARALLEL ROWS UNLESS OTHERWISE SHOWN ON DRAWINGS.
3. SEE PLANT SCHEDULE FOR PLANT SPACING REQUIREMENTS ("X" DIMENSION IN THIS DETAIL).

4 L7.0 PLANT SPACING

1/2" = 1'-0" PLAN

GENERAL LANDSCAPE NOTES:
1. ALL PLANTS MUST BE HEALTHY, VIGOROUS MATERIAL, FREE OF PESTS AND DISEASE.
2. ALL PLANTS MUST BE CONTAINER GROWN OR BALLED AND BURLAPPED AS INDICATED IN THE PLANT LIST.
3. ALL TREES MUST HAVE A STRAIGHT TRUNK AND FULL HEADED AND MEET ALL REQUIREMENTS SPECIFIED.
4. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT BEFORE, DURING, AND AFTER INSTALLATION.
5. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
6. ALL TREES LOCATED WITHIN VEHICLE SIGHT TRIANGLES SHALL BE BRANCHED MIN. 8' (MEASURED FROM ADJACENT PROJECTED CURB LINE ELEVATION) PER ANSI Z60.1 STANDARDS FOR HEIGHT OF BRANCHING - STREET TREES.
7. ALL PLANTING AREAS MUST BE COMPLETELY MULCHED AS SPECIFIED. ANY EXISTING LANDSCAPE AREAS THAT ARE DISTURBED MUST BE MULCHED TO MATCH EXISTING MULCH FOUND WITHIN LANDSCAPE AREA. MULCH TO BE THREE(3) INCHES OF DOUBLE SHREDDED HARDWOOD DESIGNER MULCH IN DARK BROWN.
8. LOCATION OF EXISTING BURIED UTILITY LINES SHOWN ON THE PLANS ARE BASE UPON THE BEST AVAILABLE INFORMATION AND ARE TO BE CONSIDERED APPROXIMATE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE CONSTRUCTION. CONTRACTOR IS ALSO RESPONSIBLE FOR COORDINATING ALL UTILITY ADJUSTMENTS WITH FINAL FINISHED GRADE. ALL UTILITIES SHALL SIT FLUSH WITH FINISHED GRADES (BOTH PAVED AND LANDSCAPED SURFACES).
9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THE LANDSCAPE PLANS BEFORE PRICING THE WORK. ANY DISCREPANCIES BETWEEN QUANTITIES ON PLAN AND PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT LANDSCAPE ARCHITECT AND ANY FIELD ADJUSTMENTS OR QUANTITY ADJUSTMENTS MUST BE AUTHORIZED PRIOR TO ORDERING AND PLANTING.
10. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, WEEDING, FERTILIZING, ETC.) OF THE PLANTING AREAS AND LAWN UNTIL SUBSTANTIAL COMPLETION.
11. THE CONTRACTOR SHALL COMPLETELY WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE WARRANTEE PERIOD.
12. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION. CONTRACTOR SHALL CONTACT THE PROJECT LANDSCAPE ARCHITECT A MINIMUM OF ONE (1) WEEK IN ADVANCE TO SCHEDULE STAKING.
13. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE MEETING ALL PLANT SCHEDULE SPECIFICATIONS.
14. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
15. SAFE, CLEARLY MARKED PEDESTRIAN AND VEHICULAR ACCESS TO ALL ADJACENT PROPERTIES MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
16. ALL PLANT MATERIAL QUANTITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COVERAGE OF ALL PLANTING BEDS AT SPACING SHOWN.
17. THE TOP OF ALL ROOT BALLS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE, AS BORN TO PREVIOUS GRADE AND GROWING CONDITIONS.
18. ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING TREES AND SHRUBS THAT WILL MEET BOTH MINIMUM SIZE AND SPACING FOR TREE AND THE TOWN OF HOLLY SPRINGS UDO. FAILURE TO INSTALL PLANT MATERIAL PER THIS PLAN WILL JEOPARDIZE ISSUANCE OF FINAL CERTIFICATE OF OCCUPANCY. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING INSPECTIONS OF PLANT MATERIAL.
20. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES & ORDINANCES REGARDING LANDSCAPING. GENERAL CONTRACTOR IS TO CLEAN THE ENTIRE SITE OF ALL CONSTRUCTION DEBRIS PRIOR TO FINAL INSPECTION.
21. THE CONTRACTOR SHALL INSTALL PERMEABLE NON-WOVEN GE0TEXTILE UNDER PLANTING BED MULCH IN ALL LANDSCAPE BEDS TO PREVENT WEED GROWTH.

SOIL AMENDMENT NOTES:
1. SOIL INSTRUCTIONS FOR ALL EXISTING PLANTING AREAS (NOT PREVIOUSLY PAVED LOCATIONS): THE CONTRACTOR SHALL TAKE A MINIMUM OF FOUR (4) SAMPLES THROUGHOUT THE PROJECT SITE AND SHALL SUBMIT THEM TO BE TESTED TO A CERTIFIED SOIL TESTING AGENCY. THE CONTRACTOR SHALL AMEND ALL EXISTING SOIL WITHIN EXISTING DISTURBED PLANTING AREAS PER THE RECOMMENDATIONS FOUND WITHIN THE SOILS ANALYSIS. AREAS TO RECEIVE TREES, SHRUBS, GROUNDCOVERS, AND / OR ORNAMENTAL GRASSES SHALL BE AMENDED TO A DEPTH OF 6" MINIMUM. AREAS TO RECEIVE SOD SHALL BE AMENDED TO A DEPTH OF 3" MINIMUM.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	HEIGHT
TREES							
	AP	2	ACER PALMATUM `BLOODGOOD`	BLOODGOOD JAPANESE MAPLE	B&B	1.5" MIN.	8'-10' HT.

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT	FIELD3
SHRUBS							
	CP	17	CAMELLIA SASANQUA LIGHT PINK SHI SHI	LIGHT PINK SHI SHI CAMELLIA	5 GAL	36" MIN.	
	CR	46	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	3 GAL	18" MIN.	
	IH	55	ILEX CRENATA 'HELLERI'	HELER JAPANESE HOLLY	5 GAL	18" MIN.	
	R3	2	ROSA X 'MEIGGILI'	PEACH DRIFT® ROSE	3 GAL	18" MIN.	

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING
GROUND COVERS						
	AB	799	AJUGA REPTANS 'BLACK SCALLOP'	BLACK SCALLOP CARPET BUGLE	1 GAL	12" o.c.
	CA	232 SF	CYNODON DACTYLON 'PRINCESS 77'	PRINCESS 77 BERMUDAGRASS	SOD	
	CE	91	CAREX OSHIMENSIS 'EVERILLO'	EVERCOLOR® EVERILLO JAPANESE SEDGE	QUART	12" o.c.
	JW	79	JUNIPERUS HORIZONTALIS 'WILTONII'	BLUE RUG JUNIPER	1 GAL	18" o.c.
	MW	71	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD'	WHITE CLOUD MUHLY GRASS	1 GAL	36" o.c.
	NW	71	NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	QUART	18" o.c.
	TV	11	TRACHELOSPERMUM ASIATICUM 'VARIEGATA'	VARIEGATED ASIATIC JASMINE	1 GAL	18" o.c.

No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 919-677-2000 FAX: 919-677-2050
WWW.KIMLEY-HORN.COM
#F-0102

NORTH CAROLINA LANDSCAPE ARCHITECT NOT FOR CONSTRUCTION PRELIMINARY NOT RELEASED FOR CONSTRUCTION 1320 NORMAN W. FULLERTON

KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LANDSCAPE DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L7.0

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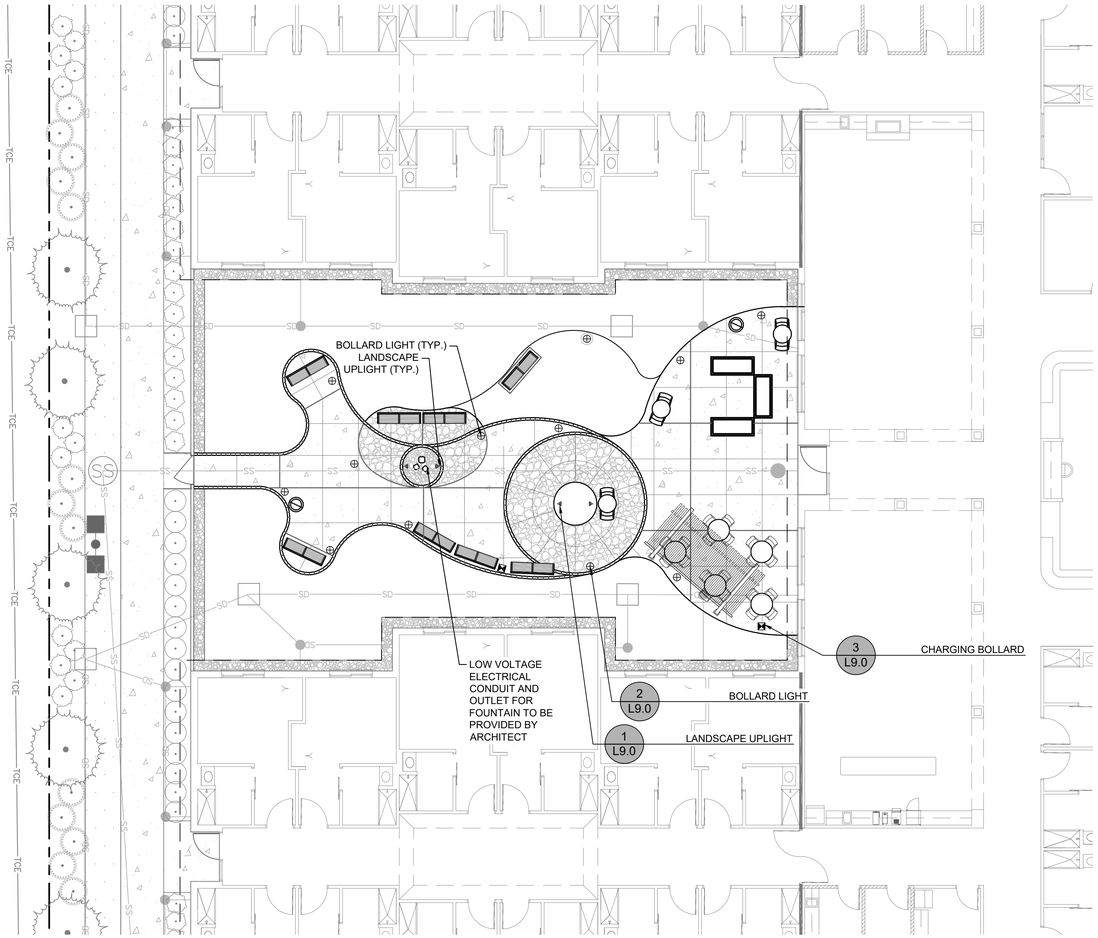

LIGHTING MATERIALS LEGEND

QUANTITIES SHOWN FOR THIS SHEET ONLY

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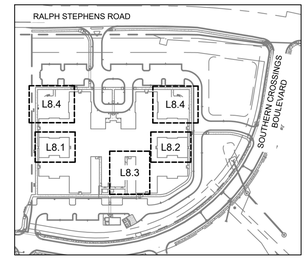
⊕	BOLLARD LIGHT	QTY. 12



KEY PLAN 1" = 200'

EXISTING CONDITION NOTES:

EXISTING INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY PROVIDED BY BENTON W. DEWAR AND ASSOCIATES PROFESSIONAL LAND SURVEYORS, ENTITLED "SOUTHERN CROSSROADS" AND DATED OCTOBER 22, 2018 DATED. THE BASIS OF BEARINGS FOR THIS SURVEY IS NORTH CAROLINA STATE PLANE GRID (NAD83/2011). VERTICAL DATUM BASED ON NAVD'88.

THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. BASED ON THE FLOOD INSURANCE RATE MAP COMMUNITY MAP NUMBER 3720064800J. DATED MAY 5, 2006.

PLAN IS SUBJECT TO REVISIONS DURING CONSTRUCTION DRAWING APPROVAL PROCESS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NORTH

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No.	REVISIONS	DATE	BY

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NORTH CAROLINA LANDSCAPE ARCHITECTURE REGISTRATION BOARD — PRELIMINARY — NOT RELEASED FOR CONSTRUCTION — 1320 W. FULLERTON, CHICAGO, IL

KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LIGHTING PLAN - WEST COURTYARD

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L8.1

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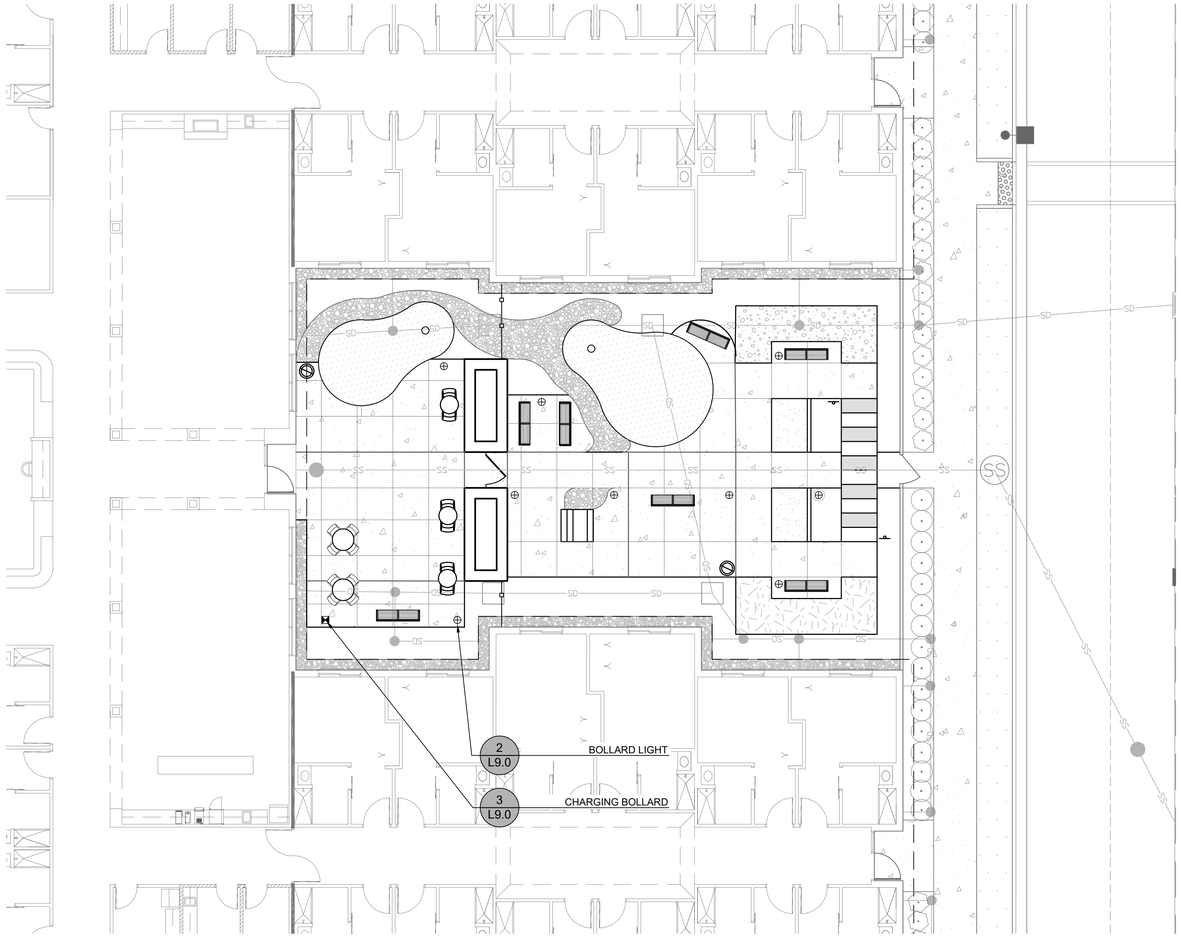

LIGHTING MATERIALS LEGEND

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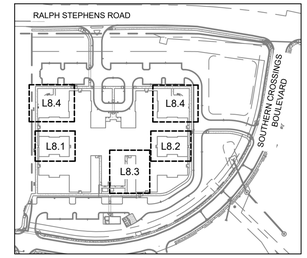
	CHARGING BOLLARD	QTY. 1
⊕	BOLLARD LIGHT	QTY. 9



KEY PLAN 1" = 200'

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NORTH

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No.	REVISIONS	DATE	BY

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##-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
PRELIMINARY
NOT RELEASED FOR CONSTRUCTION
LICENSE NUMBER
320
AMY W. FULLERTON

KHA PROJECT 016582000
DATE 11/28/2025
SCALE AS SHOWN
DESIGNED BY MKP
DRAWN BY MKP
CHECKED BY AWF

LIGHTING PLAN - EAST COURTYARD

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L8.2

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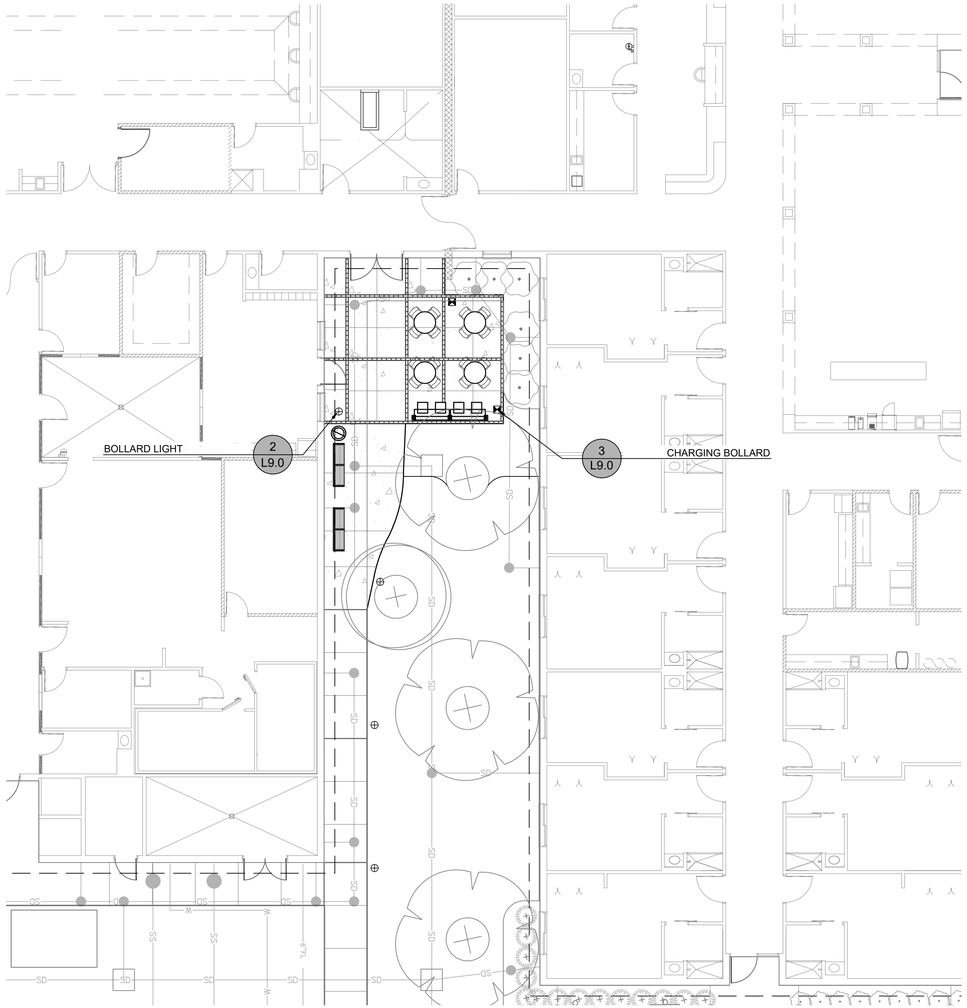
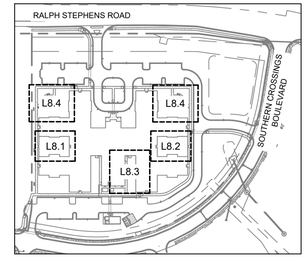


LIGHTING MATERIALS LEGEND

QUANTITIES SHOWN FOR THIS SHEET ONLY

▶	LANDSCAPE UPLIGHT	QTY. 0
	CHARGING BOLLARD	QTY. 2
⊕	BOLLARD LIGHT	QTY. 4



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NORTH

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No.	REVISIONS	DATE	BY

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
MARK K. PELLINI, PLA
NOT VALID UNLESS SIGNED AND SEALED FOR CONSTRUCTION PURPOSES
1320 W. FULLERTON, SUITE 120

KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LIGHTING PLAN - EMPLOYEE COURTYARD

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.

HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L8.3

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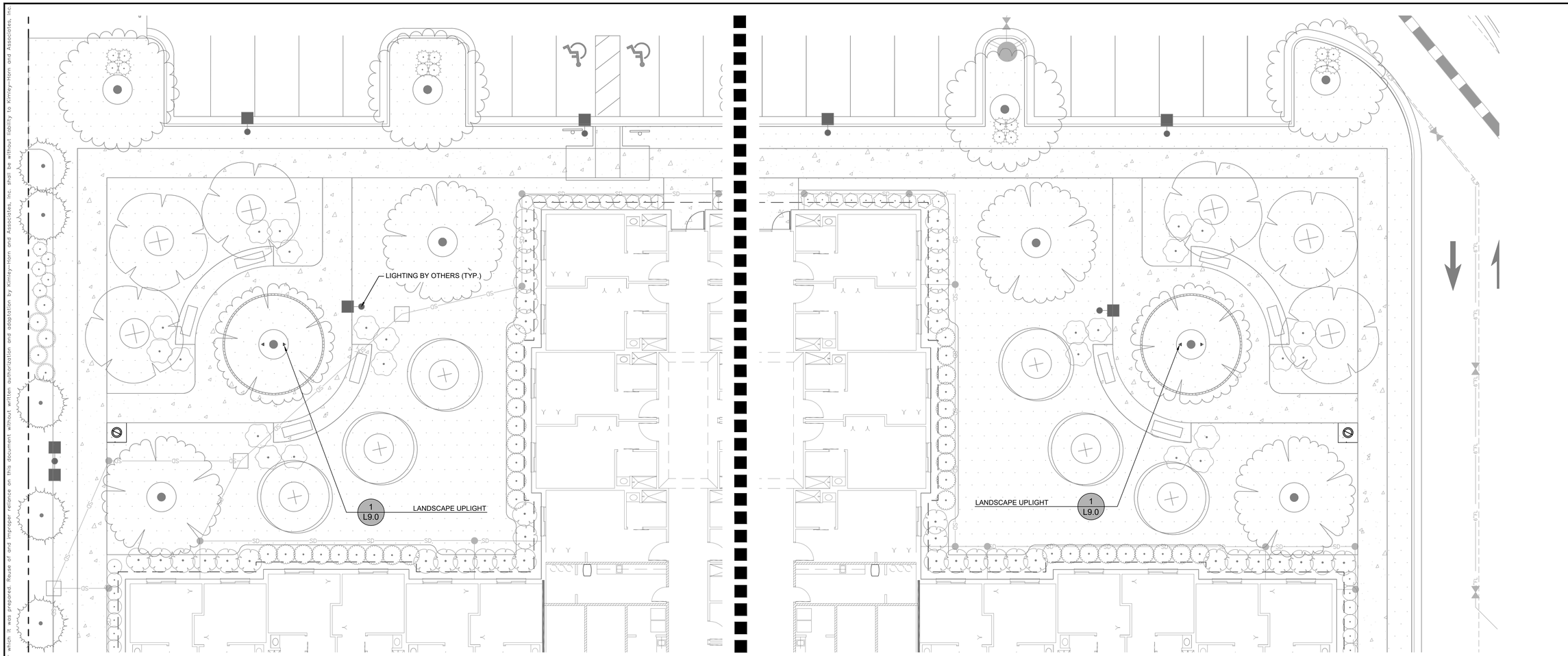
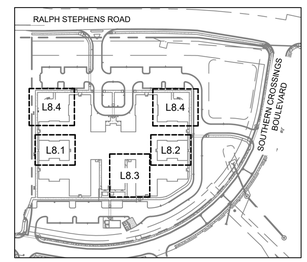


LIGHTING MATERIALS LEGEND

QUANTITIES SHOWN FOR THIS SHEET ONLY

▸	LANDSCAPE UPLIGHT	QTY. 4
◘	CHARGING BOLLARD	QTY. 0
⊕	BOLLARD LIGHT	QTY. 0



KEY PLAN 1" = 200'

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF HOLLY SPRINGS AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

NORTH

GRAPHIC SCALE IN FEET
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No.	REVISIONS	DATE	BY

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##-0102

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
MARK K. PETTINATO
2120
W. FULLERTON

KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LIGHTING PLAN - PUBLIC REALM

1936 RALPH STEPHENS ROAD

PREPARED FOR
BRITTHAVEN, INC.
NORTH CAROLINA
HOLLY SPRINGS

SHEET NUMBER
L8.4

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AURORALIGHT

PROJECT:

SKU #: TYPE:

TELLURIDE

DIR160164

The Telluride, the flagship directional from Auroralight, utilizes our Interchangeable LED Module coupled to an all brass body. This union provides superior heat dissipation critical for long life and high performance.

- Storm Drain™ system to expel dirt, dust & water
- Interchangeable light module featuring Cree LED™
- 3 interchangeable PMMA acrylic optics from 20° to 60°
- Ideal for trees, large greenery, architecture or facade

CONFIGURATOR:

DIR160164 — LED: 3006 — FINISH: BLPX

( ) = Most common configuration

LED:
- (2706) 2700K 6W
- (2708) 2700K 8W
- (2712) 2700K 12W
- (3006) 3000K 6W
- (3008) 3000K 8W
- (3012) 3000K 12W

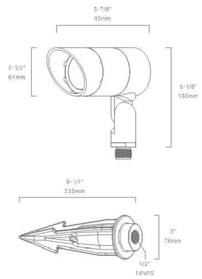
FINISH:
- (MAT) Natural Brass
- (BLP) Bronze Living Patina
- (BLPX) Extra Dark BLP
- (NI) Nickel PVD

AVAILABLE FINISHES:

NAT Natural Brass | BLP Bronze Living Patina | BLPX Extra Dark Bronze Living Patina | NI Nickel PVD

FIXTURE DIMENSIONS	L5-7/8" x H5-1/8" x D2-1/2"
LIGHT SOURCE	Included LM16 LED Module
COLOR TEMPERATURES	2700K, 3000K
WATTAGES	6W, 8W, 12W
CRI (RA)	80 CRI
VOLTAGE	12V
DELIVERED LUMENS	676lm (3000K 12W)
DIMMABLE	Yes, Dim to <10% via Transformer
DRIVER	Yes, 12V Integral Constant Current
TRANSFORMER	12V AC/DC (Supplied by others)
MOUNT	Yes, Included 1/2" NPS Adapter
GROUND STAKE	Yes, Included MG0001109
ACCESSORIES	Yes, Included 60° Glare Shield
OPTICS	Yes, Included 20°, 40° & 60°
FINISH	Included Natural Brass
MATERIAL	Brass
WIRE LENGTH	24"
LOCATION	Exterior Wet
CERTIFICATIONS	UL, IP66, IP67

*For complete warranty terms, please visit: www.auroralight.com/warranty/



P. 760.931.2910
O. 2742 Loker Ave. W Carlsbad CA 92010
W. www.auroralight.com

MADE IN USA
BOTH DOMESTIC & IMPORTED MATERIALS

c UL us LISTED

1 L9.0 LANDSCAPE UPLIGHT
NOT TO SCALE CUTSHEET

Ashbery

landscapeforms

Specification Sheet | AP400

Ashbery collection pays tribute to traditional lantern-style luminaires that have a special place in the American lexicon. The line includes pedestrian scale pole and wall mount luminaires alongside the pathlight. Standing at 3 feet tall, the pathlight is ideal for illuminating walkways and other pedestrian zones—enhancing safety and ambiance while maintaining a cohesive visual language across the site. Ashbery's warm, familiar silhouette complements a variety of architectural styles, from historic to contemporary.

Housing & Materials
Cast aluminum LED cartridge and structure. LED light engine attached to aluminum cartridge housing using magni-coated steel screws. Housing features an acrylic diffused lens. All hardware is magni-coated steel.

Electrical
120V - 277V, 50/60Hz electronic driver. Phase cut dimming. -20°C start temperature. Surge protected. Cast aluminum driver compartment doors with weather-tight seal assembly located in the lower section of the path light.

Light Engine
Sealed and vented LED cartridge with weatherproof quick disconnect provides ease of installation and serviceability. High powered LEDs mounted to a RoHS compliant circuit board with PMMA optics affixed to each LED on the board. Available in 2700K, 3000K, 3500K and 4000K. >80 CRI across all available color temperatures.

Distributions

Warranty
LED lighting products are warranted for six years.

Certification
UL Listed for Wet Location, CE, DarkSky Approved (3000K CCT or lower)

Designed by Robert A.M. Stern Architects
Click here for patent information related to this product.

Ashbery

landscapeforms

Specification Sheet | AP400

Specification
Luminaire AP401-T4-035F-30K-UV1-SM-NMG

Luminaire

Product	LED Configuration	Light Engine Power	Color Temp	Input Voltage	Mounting	Powdercoat
AP401 *(Ashbery)*	**T4** *(6 LED/Type IV)* **T5** *(12 LED/Type V)*	**035F** *(350 mA)*	**27K** *(2700K)* **30K** *(3000K)* **35K** *(3500K)* **40K** *(4000K)*	**UV1** *(100-277VAC)*	**SM** *(Surface Mount)*	**See powdercoat color options on the Material / Colors Sheet.**

AP401 – T4 – 035F – 30K – UV1 – SM - MBK

Modifications

Part Number	Modification	Description
CPH	Custom Pole Height	
CLH	Custom Lens Height	
CPC	Custom Powdercoat Color	
--	Other	

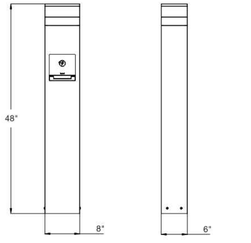
Modifications listed are the most common changes/additions requested. If your requirements aren't shown here, select 'other' and write in the modification needed. Please provide as much detail as possible to streamline the quoting process. All modifications to standard products will require evaluation and quoting approved by Landscape Forms prior to order placement.

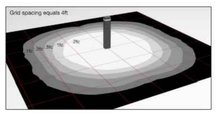
2 L9.0 BOLLARD LIGHT
NOT TO SCALE CUTSHEET

landscapeforms

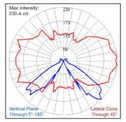
OUTDOOR POWER
Product Data Sheet

Charging Station with Area Light
- Station features rugged aluminum construction and includes an area LED light for path way illumination and easy identification at night.
- NEMA 3R listed for use in outdoor locations.
- Aluminum body is 0.188" (4.78mm) thick and powder coated with durable, outdoor-rated paint. Mounts into concrete with four L bolts.
- Available prewired with two or three devices, per chart below. Devices include weather-resistant 20A GFCIs and 4-port USB outlets.
- Power and lighting are prewired on separate circuits. Lighting circuit can be controlled by a timer at the panel if desired.
- Also available unwired in two- or three-gang versions. Unwired versions can be populated with any combination of weather-resistant GFCI receptacles and USB outlets.
- Includes color-matched door, which can be easily replaced by a color-matched locking door or a transparent door.
- Interior illuminates when door is open. Door closes automatically to meet while-in-use requirements.
- A/V and communication devices can be added to unwired three-gang versions with addition of A/V-Communication Kit. Kit includes two replacement device plates to accommodate:
  - two decorator-style power devices and one decorator style A/V or communication device,
  - two decorator-style power devices and four Wiremold AVP device plates.
- Use unwired two- or three-gang pedestal versions for dedicated low voltage applications where power is not required – no A/V-Communication kit needed.
- Product weight: 34.6 lbs





Area Light Performance
Lamp: Samsung Rouno-110C LED
L70: >60,000 hrs
Drive Current: 700mA
Lens: Diffused Polycarbonate
Power Supply: 100V-277V
LED Driver: TRP LED20W-28-C0700
Total Lumen Output: 457 Lumens
Power Consumption: 20.8 Watts
Color Accuracy (CRI): 84
Color Temperature (CCT): 4000K
BUG Rating: B0 U0 G0



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OUTDOOR POWER
Product Data Sheet

To Order
Specify: Product, Model, Power Module and Color.

Product	Model	Power Module	Color
BM Outdoor Power	PP (Power Pedestal)	2UW (2-gang, Unwired)	LBLK (L-Black)
	CSA (Charging Station with Accent Light)	2U (2-gang, 2 4-port USB Outlets)	LBZ (L-Bronze)
	CSL (Charging Station with Area Light)	2G (2-gang, 2 Duplex GFCI Receptacles)	LSIL (L-Silver)
		1G1U (2-gang, 1 Duplex GFCI Receptacle & 1 4-Port USB Outlet)	
		3UW (3-gang, Unwired)	
		1G2U (3-gang, 1 Duplex GFCI Receptacle & 2 4-Port USB Outlets)	
		2G1U (3-gang, 2 Duplex GFCI Receptacles & 1 4-Port USB Outlet)	

EXAMPLE: BM – CSL – 2G1U – LSIL

Accessories

Product	Model	Color
BM Outdoor Power	RDR (Replacement Door)	LBLK (L-Black)
	LDR (Locking Door)	LBZ* (L-Bronze)
	DSF (Device Shelf Kit)	LSIL (L-Silver)
	TDR (Transparent Door)	No Color Choices
	AVM (A/V-Communication Kit)	

EXAMPLE: BM – RDR – LBLK

*Not available for Device Shelf Kit

3 L9.0 CHARGING BOLLARD
NOT TO SCALE CUTSHEET

No.	REVISIONS	DATE	BY

Kimley»Horn
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##-0102

NORTH CAROLINA LANDSCAPE ARCHITECTURE REGISTRATION BOARD — LICENSED LANDSCAPE ARCHITECT — 320 — NOT RELEASED FOR CONSTRUCTION — 12/31/2026 — MODIFIED — JOSEPH W. FULLERTON

KHA PROJECT	016582000
DATE	11/28/2025
SCALE	AS SHOWN
DESIGNED BY	MKP
DRAWN BY	MKP
CHECKED BY	AWF

LIGHTING DETAILS

1936 RALPH STEPHENS ROAD
PREPARED FOR
BRITTHAVEN, INC.
HOLLY SPRINGS NORTH CAROLINA

SHEET NUMBER
L9.0