

REQUEST FOR COMMITTEE ACTION

HENDERSON COUNTY

Technical Review Committee

MEETING DATE: October 2, 2018

SUBJECT: Major Site Plan Review for a Utility Substation for Duke Energy Progress

PRESENTER: Toby Linville, Code Enforcement Director

ATTACHMENTS:

1. Staff Report
2. Photographs
3. Site Plan

SUMMARY OF REQUEST:

Major site plan review for a utility substation.

Suggested Motion:

I move to approve the site plan for Duke Energy Progress because it meets the requirements of the Land Development Code.



Henderson County, North Carolina Code Enforcement Services

1. Board Request

- 1.1. **Applicant:** Duke Energy Progress, LLC
- 1.2. **Request:** Major Site Plan Review for a utility substation
- 1.3. **PIN:** 9690868883
- 1.4. **Size:** 16.92 acres +/-
- 1.5. **Location:** The subject area is at the intersection of Clark Rd and Laycock Rd.
- 1.6. **Supplemental Requirements:**

SR 9.14. Utility Substations

- (1) Site Plan. Major *Site Plan* required in accordance with §42-331 (Major Site Plan Review).
- (2) Lighting. *Lighting mitigation* required.
- (3) Separation. *Utility substations* shall not be placed within 75 feet of an existing *dwelling unit* (located in a *residential zoning district* and not located on the same property as the *use*).
- (4) Security. Transformer stations shall be enclosed by a woven wire fence at least eight (8) feet in height. Other utility stations shall be completely enclosed either by a *building* or a wire fence at least eight (8) feet in height.
- (5) Screening. Screen Class One (1), Two (2), Three (3) or Four (4) shall be provided where the *structure footprint* exceeds 200 square feet if adjacent to an existing residential use, consistent with the requirements of §42-182 (Screen Classification).

Map A: Aerial Photo/Pictometry



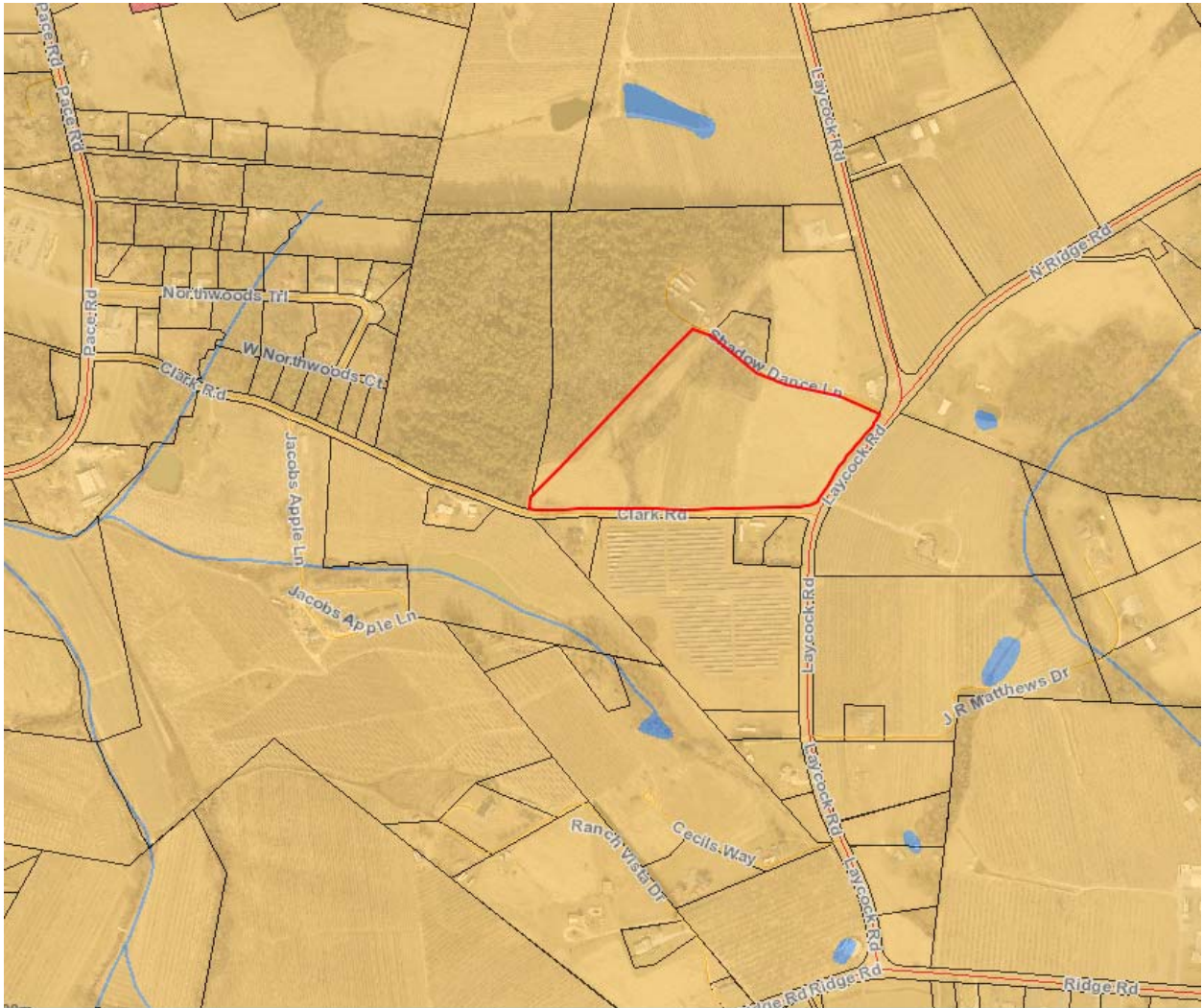
2. Current Conditions

2.1 Current Use: This parcel is currently vacant.

2.2 Adjacent Area Uses: The surrounding properties consist of residential and agricultural uses and is adjacent to a solar energy generation facility.

2.3 Zoning: The surrounding properties are zoned Residential Two Rural (R2R).

Map B: Current Zoning



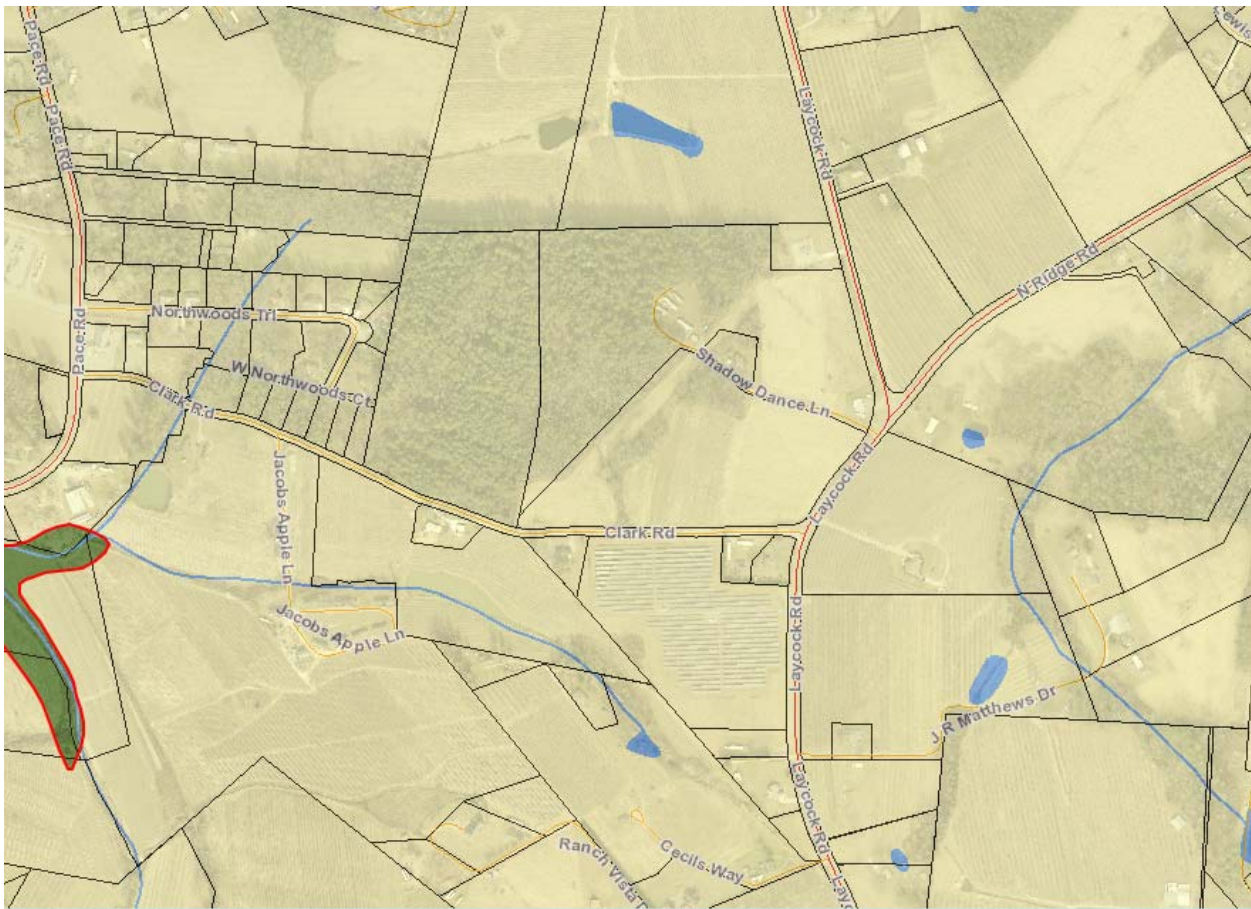
3. Floodplain /Watershed Protection: The property is not located in a special flood hazard area. The property is not in a Water Supply Watershed district.

4. Water and Sewer: This property is not served by public utilities.

Public Water: N/A

Public Sewer: N/A

C: CCP Future Land Use Map



5. Staff Comments

The 2020 CCP: The CCP Future Land Use Map places the Subject Area in the Rural / Urban Transition Area (RTA). The text and map of the 2020 CCP suggest that the Subject Area would be more suitable for the following:

Rural/Urban Transition Area: The CCP states that, “The RTA is currently rural in character, with existing pockets of limited higher density residential and commercial development. The text of the 2020 CCP suggests that the subject area would be suitable for clustering development and conservation design encouraged with the intent of maintaining a rural environment, protecting sensitive natural areas, and reserving land for future development. (2020 CCP, Pg. 134).

- 3. Local, state or federally-managed natural areas
- 4. Areas managed for agricultural or forestry land uses

6. Staff Recommendations

Staff’s position at this time, under the guidelines of current plans, policies and studies, is to recommend approval of the major site plan because it is consistent with the current surrounding land uses and future land use recommendations.

7. Photographs

Duke Energy Progress Laycock Rd Substation





**HENDERSON COUNTY
MAJOR SITE PLAN REVIEW APPLICATION**

CONTACT INFORMATION

Property Owner:

Name: Duke Energy Progress, LLC Phone: N/A
Complete Address: 550 S Tryon St., Charlotte NC 28202

Applicant:

Name: Duke Energy Progress, LLC Phone: N/A
Complete Address: 550 S Tryon St., Charlotte NC 28202

Agent:

Name: Mayur T. Patel, PE (c/o Duke Energy Progress, LLC) Phone: 704-382-2381
Complete Address: 526 S. Church Street, EC-I, 08Q, Charlotte NC 28202
Agent Form (Circle One): Yes No

Plan Preparer:

Name: HDR Engineering Inc. of the Carolinas Phone: 704-973-6888
Complete Address: 440 S Church St., Suite 1000, Charlotte NC 28202

GENERAL INFORMATION

Date of Application: _____
Site Plan Attached (Circle One): Yes No

PARCEL INFORMATION

PIN: <u>9690868883</u>	Tract Size (Acres): <u>16.92</u>
Zoning District: <u>R2R</u>	Fire District: <u>Edneyville Fire</u>
Supplemental Requirement# <u>N/A</u>	Watershed: <u>French Broad River Basin</u>
Permitted by Right <u>Yes</u>	Floodplain: <u>Outside of Floodplain</u>
Special Use Permit <u>N/A</u>	

Location / Property to be developed: _____
Property is located at the corner of Laycock Road and Clark Road and is bordered to the east by Laycock Road, to the south by Clark Road, to the north by Shadow Dance Lane, and to the west by an adjacent property.

County Use Only

Fee: \$ _____ Paid: _____ Method: _____ Received by: _____

APPLICATION IDENTIFICATION		N.C. DEPARTMENT OF TRANSPORTATION STREET AND DRIVEWAY ACCESS PERMIT APPLICATION
Driveway Permit No.	Date of Application	
County:	Henderson	
Development Name: Laycock Retail Electrical Substation		

LOCATION OF PROPERTY:

Route/Road: Laycock Road (S.R. 1724)

Exact Distance 150 Miles Feet N S E W

From the Intersection of Route No. 1724 and Route No. 1861 Toward Blue Ridge

Property Will Be Used For: Residential /Subdivision Commercial Educational Facilities TND Emergency Services Other

Property: is is not within Hendersonville City Zoning Area.

AGREEMENT

- I, the undersigned property owner, request access and permission to construct driveway(s) or street(s) on public right-of-way at the above location.
- I agree to construct and maintain driveway(s) or street entrance(s) in absolute conformance with the current "Policy on Street and Driveway Access to North Carolina Highways" as adopted by the North Carolina Department of Transportation.
- I agree that no signs or objects will be placed on or over the public right-of-way other than those approved by NCDOT.
- I agree that the driveway(s) or street(s) will be constructed as shown on the attached plans.
- I agree that that driveway(s) or street(s) as used in this agreement include any approach tapers, storage lanes or speed change lanes as deemed necessary.
- I agree that if any future improvements to the roadway become necessary, the portion of driveway(s) or street(s) located on public right-of-way will be considered the property of the North Carolina Department of Transportation, and I will not be entitled to reimbursement or have any claim for present expenditures for driveway or street construction.
- I agree that this permit becomes void if construction of driveway(s) or street(s) is not completed within the time specified by the "Policy on Street and Driveway Access to North Carolina Highways".
- I agree to pay a \$50 construction inspection fee. Make checks payable to NCDOT. This fee will be reimbursed if application is denied.
- I agree to construct and maintain the driveway(s) or street(s) in a safe manner so as not to interfere with or endanger the public travel.
- I agree to provide during and following construction proper signs, signal lights, flaggers and other warning devices for the protection of traffic in conformance with the current "Manual on Uniform Traffic Control Devices for Streets and Highways" and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the District Engineer.
- I agree to indemnify and save harmless the North Carolina Department of Transportation from all damages and claims for damage that may arise by reason of this construction.
- I agree that the North Carolina Department of Transportation will assume no responsibility for any damages that may be caused to such facilities, within the highway right-of-way limits, in carrying out its construction.
- I agree to provide a Performance and Indemnity Bond in the amount specified by the Division of Highways for any construction proposed on the State Highway system.
- The granting of this permit is subject to the regulatory powers of the NC Department of Transportation as provided by law and as set forth in the N.C. Policy on Driveways and shall not be construed as a contract access point.
- I agree that the entire cost of constructing and maintaining an approved private street or driveway access connection and conditions of this permit will be borne by the property owner, the applicant, and their grantees, successors, and assignees.
- **I AGREE TO NOTIFY THE DISTRICT ENGINEER WHEN THE PROPOSED WORK BEGINS AND WHEN IT IS COMPLETED.**

SIGNATURES OF APPLICANT

PROPERTY OWNER (APPLICANT)		WITNESS	
COMPANY	Duke Energy Progress, LLC	NAME	Joel Causey
SIGNATURE	MP Patel 1/9/12/2018	SIGNATURE	[Signature]
ADDRESS	550 S Tryon St Charlotte NC 28202 Phone No. 9803737222	ADDRESS	440 S Chapel St, Suite 1000 Charlotte NC 28202

AUTHORIZED AGENT		WITNESS	
COMPANY	_____	NAME	_____
SIGNATURE	_____	SIGNATURE	_____
ADDRESS	_____	ADDRESS	_____
	Phone No. _____		_____

APPROVALS

APPLICATION RECEIVED BY DISTRICT ENGINEER

SIGNATURE DATE

APPLICATION APPROVED BY LOCAL GOVERNMENTAL AUTHORITY (when required)

SIGNATURE TITLE DATE

APPLICATION APPROVED BY NCDOT

SIGNATURE TITLE DATE

INSPECTION BY NCDOT

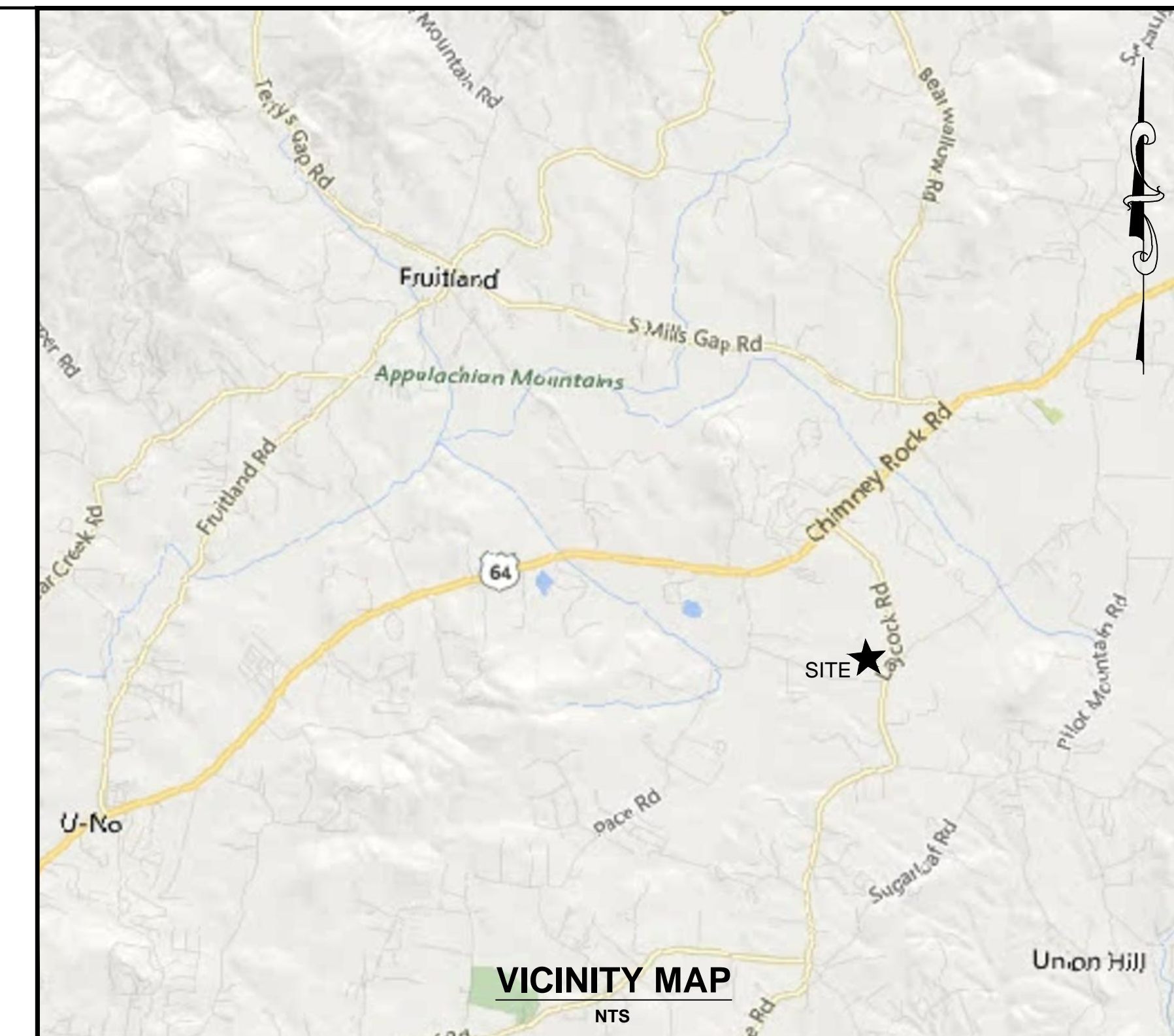
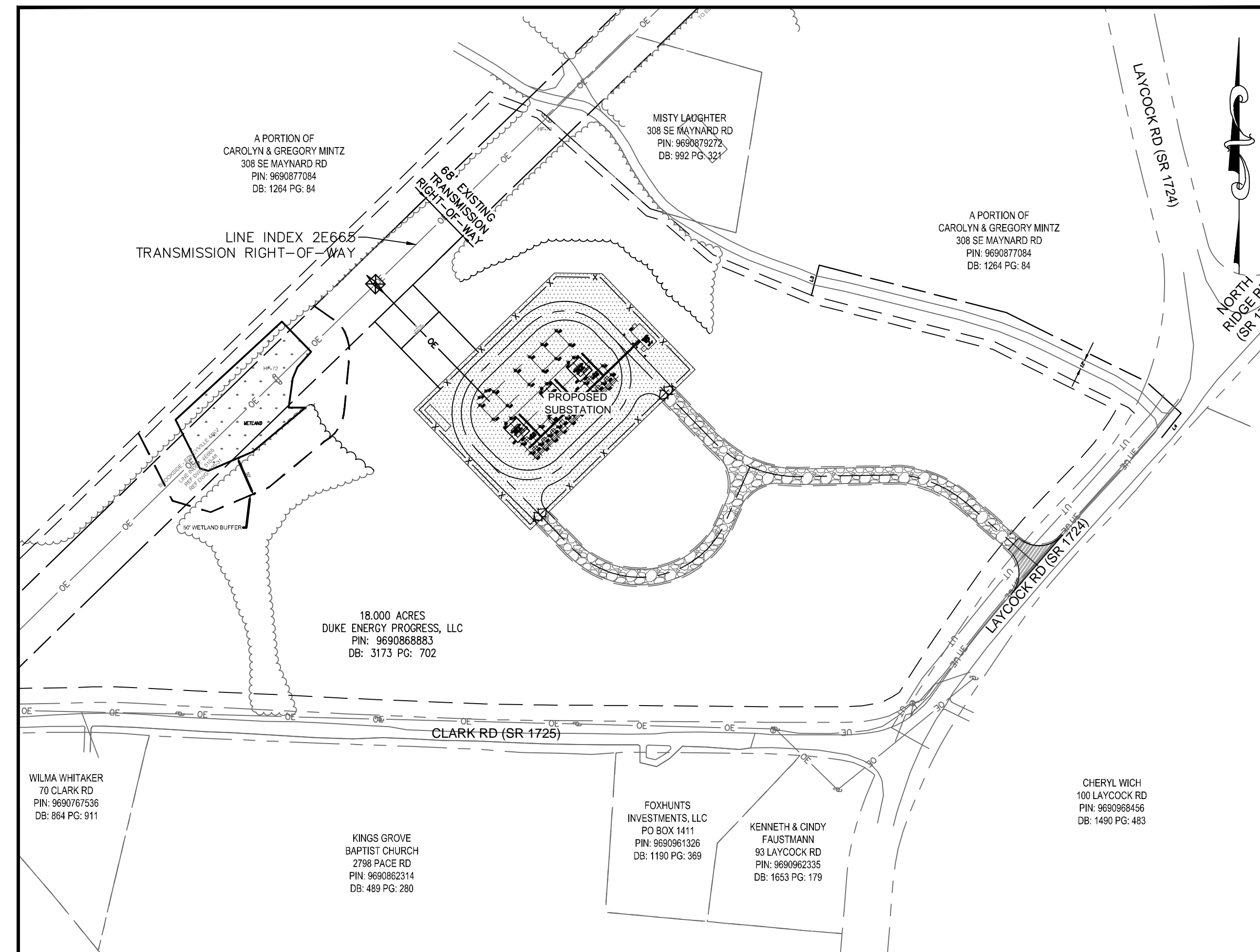
SIGNATURE TITLE DATE

COMMENTS:

LAYCOCK RETAIL BLUE RIDGE TOWNSHIP HENDERSON COUNTY, NC

SHEET SCHEDULE

- 3174234SDV
 - SHT 1 COVER SHEET
 - SHT 2 EXISTING CONDITIONS
 - SHT 3 OVERALL SITE PLAN
 - SHT 4 SITE PLAN ENLARGEMENT
 - SHT 5 SIGHT DISTANCE PLAN
- 3174234ERC
 - SHT 1 CLEARING AND GRUBBING PLAN
 - SHT 2 EROSION AND SEDIMENT CONTROL PHASE 1
 - SHT 3 EROSION AND SEDIMENT CONTROL PHASE 2
 - SHT 4 EROSION CONTROL DETAILS 1
 - SHT 5 EROSION CONTROL DETAILS 2
 - SHT 6 EROSION CONTROL DETAILS 3
 - SHT 7 GENERAL NOTES
- 3174234GRA
 - SHT 1 GRADING PLAN
 - SHT 2 ACCESS DRIVE PLAN AND PROFILE
- 3174234SDR
 - SHT 1 STORM DRAINAGE PLAN
 - SHT 2 STORM DRAIN PROFILES
 - SHT 3 STORM DRAIN DETAILS 1
 - SHT 4 STORM DRAIN DETAILS 2
 - SHT 5 STORM DRAIN DETAILS 3
- 3174234DRG
 - SHT 1 SKIMMER BASIN DRAINAGE AREA
 - SHT 2 SOILS MAP
 - SHT 3 USGS MAP
 - SHT 4 BUILT UPON AREA ANALYSIS
 - SHT 5 STORM CONVEYANCE DRAINAGE AREAS
- 3174234LND
 - SHT 1 LANDSCAPE PLAN
- 3174234SPC
 - SHT 1 SPCC OVERVIEW
 - SHT 2 SPCC FACILITY DIAGRAM
 - SHT 3 OIL-WATER SEPARATOR DETAILS



LEGEND:	
PROPERTY LINES	---
EXISTING TREE LINE	~ ~ ~ ~ ~
PROPOSED TREE LINE	~ ~ ~ ~ ~
ROAD R/W LIMITS	====
EXISTING LINE R/W LIMITS	-----
PROPOSED LINE R/W LIMITS	-----
EXISTING DISTRIBUTION LINE	OE OE
EXISTING TRANSMISSION LINE	OE OE
STATION FENCE	-X -X -X -X
EXISTING MAJOR CONTOUR	-----
PROPOSED MAJOR CONTOUR	-----
EXISTING MINOR CONTOUR	-----
PROPOSED MINOR CONTOUR	-----
BARBED WIRE FENCE	XXX XXX
UNDERGROUND ELECTRIC	UE UE
UNDERGROUND GAS	GAS GAS
UNDERGROUND TELEPHONE	UT UT
REINFORCED CONCRETE PIPE	RCP
EXISTING WETLANDS	-----
LIGHT POLE	⊙
WELL	⊕
IRRIGATION CONTROL VALVE	⊕
PROPOSED UTILITY POLE	⊕
EXISTING UTILITY POLE	⊕
EXISTING TRANSMISSION STRUCTURE	⊕
PROPOSED TRANS TOWER	⊕
PROPOSED AGGREGATE BASE COURSE (A.B.C.)	-----
PROPOSED WASHED STONE	-----
PROPOSED ASPHALT PAVEMENT	-----

PROJECT DATA:

PROPERTY OWNER: DUKE ENERGY PROGRESS, LLC 550 S TRYON ST PO BOX 1007 ---- PHONE: 704-382-2381	PROPERTY DATA: ZONE CLASSIFICATION: R2R TOTAL PROPERTY SIZE: 18.00 AC PROPOSED DEVELOPMENT: GRAVEL RETAIL STATION PAD & ACCESS ROAD LIMITS OF DISTURBANCE: 6.0 AC RIVER BASIN: FRENCH BROAD
PROPERTY CONTACT: CHELSEA THOMPSON C/O DUKE ENERGY 526 S. CHURCH STREET CHARLOTTE, NC 28202 PHONE: 704-382-2381	PURPOSE STATEMENT: CONSTRUCT A NEW RETAIL STATION AND ACCESS DRIVE
PROJECT NAME: LAYCOCK RETAIL	EROSION CONTROL: CONTACT PERSON RESPONSIBLE FOR EROSION CONTROL AND MEASURES MAINTENANCE: RYAN KORMANIK PHONE: (864) 387-9611
PROJECT LOCATION: PIN #: 9690877084 D.B. 1264, PG. 84 LAYCOCK RD BLUE RIDGE TOWNSHIP HENDERSON COUNTY, NC	SETBACKS (REQUIRED): STREET: 20' FRONT: 20' SIDE: 10' REAR: 10'

GENERAL NOTES:

1. SEE 3174234SDV SHEET 3 FOR SITE NOTES
2. SEE 3174234ERC SHEET 1 FOR EROSION CONTROL NOTES
3. SPECIFICATIONS FOR THE SITE DEVELOPMENT OF THIS PROJECT SHALL BE:
 - 3.1. THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL MANUAL FOR EROSION & SEDIMENT CONTROL.
 - 3.2. NCDOT SPECIFICATIONS FOR DRAINAGE AND DRIVEWAY
 - 3.3. DUKE ENERGY SPECIFICATIONS FOR ACCESS DRIVE AND SUBSTATION PREPARATION



HDR Engineering Inc.
of the Carolinas
N.C.B.E.L.S # F-0116
440 S. Church St. Suite 1000
Charlotte, NC 28202-2075
704.338.6700

REV	DESCRIPTION	DESIGN	HB00212C1	BNTI/HR	JCC/HR	RMB/HR	9/7/2018
0	ISSUED FOR PERMIT						
REVISION HISTORY							
PRELIMINARY <input type="checkbox"/> PRELIMINARY <input type="checkbox"/> AS BUILT		TITLE: COVER SHEET					
CONTRACTOR:		LOCATION: LAYCOCK RETAIL					
COMPANY:		CITY: BLUE RIDGE TOWNSHIP COUNTY: HENDERSON STATE: NC					
PHONE:		ARCH D NC-SC		STATION NUMBER: 5577		DRAWING NUMBER: 3174234SDV	
DATE:		SHEET SIZE:		REV: 0		FILENAME: 3174234SDV.DWG	



BEFORE YOU DIG! CALL 811

3174234SDV REV: 0

POINT NO.	NORTHING	EASTING	DESCRIPTION
1	606978.03	999088.85	CORNER OF PAD
2	607101.26	998969.11	CORNER OF PAD
3	607102.14	998908.41	CORNER OF PAD
4	606926.31	998727.43	CORNER OF PAD
5	606772.26	998877.10	CORNER OF PAD
6	607087.72	998678.31	TRANSMISSION TOWER
7	606753.97	999497.04	ACCESS DRIVE CL AT RW
8	606716.22	999464.25	ENTRANCE CENTER OF RADIUS RETURN
9	606791.71	999529.84	ENTRANCE CENTER OF RADIUS RETURN
10	606690.10	999494.55	MATCH EXISTING
11	606765.38	999559.95	MATCH EXISTING
12	606779.35	998877.18	CORNER OF FENCE
13	606978.13	999081.77	CORNER OF FENCE

POINT NO.	NORTHING	EASTING	DESCRIPTION
14	607096.29	998966.97	CORNER OF FENCE
15	607097.11	998910.40	CORNER OF FENCE
16	606926.27	998734.44	CORNER OF FENCE
17	607011.69	998989.80	STATION DRIVE CL/ACCESS CL TANGENT
18	606922.52	998855.56	STATION DRIVE CL CENTER OF RADIUS
19	606857.02	998825.78	STATION DRIVE CL/SEC ACCESS CL TANGENT
20	606903.71	998873.83	STATION DRIVE CL CENTER OF RADIUS
21	606967.47	998939.46	STATION DRIVE CL CENTER OF RADIUS
22	606986.28	998921.18	STATION DRIVE CL CENTER OF RADIUS
23	606787.79	998893.04	SEC ACCESS CL AT EDGE OF PAD
24	606944.87	999054.72	ACCESS CL AT EDGE OF PAD
25	606937.11	998824.65	TRANSMISSION TIE IN

LINE #	LENGTH	DIRECTION	START POINT	END POINT
L1	130.81	S48° 51' 22.25"E	(999436.38,606806.97)	(999534.89,606720.91)
L2	115.80	N88° 53' 53.99"E	(999222.41,606840.52)	(999338.19,606842.75)
L3	82.12	S44° 10' 27.18"E	(999054.72,606944.87)	(999111.94,606885.97)
L4	55.94	S44° 10' 27.18"E	(998893.04,606787.79)	(998932.03,606747.66)
L5	76.99	N23° 48' 47.27"E	(999127.88,606782.84)	(999158.96,606853.27)

CURVE #	RADIUS	LENGTH	CHORD DIRECTION	START POINT	END POINT
C1	145.00	106.91	S69° 58' 44.13"E	(999338.19,606842.75)	(999436.38,606806.97)
C2	150.00	122.86	S67° 38' 16.59"E	(999111.94,606885.97)	(999222.41,606840.52)
C3	120.00	234.60	N79° 49' 10.05"E	(998932.03,606747.66)	(999127.88,606782.84)

GENERAL NOTES:

- SEE COVER 3174234SDV SHEET 1 FOR PROJECT DATA.
- SEE 3174234SDV SHEET 4 FOR ENLARGED SITE PLAN
- PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, OBTAIN THE LATEST SUBSTATION PHYSICAL DESIGN FROM DUKE ENERGY. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN STAKEOUT/CONTROL.
- COORDINATE DRIVEWAY CONSTRUCTION WITH NCDOT.

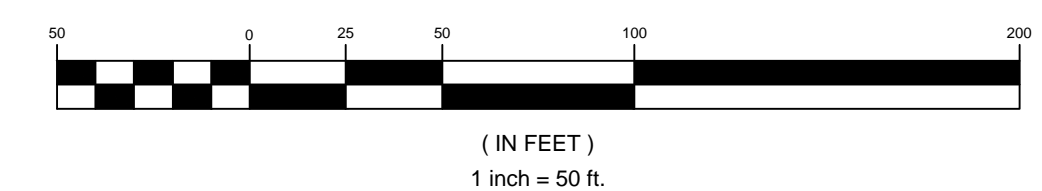
SITE NOTES:

- ALL DIMENSIONS ARE AT 90° UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL ESTABLISH AND VERIFY POINT OF BEGINNING (P.O.B.) AND STAKE SITE AS INDICATED ON CONSTRUCTION DOCUMENTS PRIOR TO COMMENCEMENT OF CONSTRUCTION. NOTIFY HDR ENGINEERING, INC. IMMEDIATELY OF ANY DISCREPANCIES.
- ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF BUILDING, OR CENTERLINE UNLESS OTHERWISE NOTED.
- ALL DETAILS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH SPECIFICATIONS AND CONSTRUCTION DOCUMENTS.
- NO DEMOLITION LANDFILLS ALLOWED ON SITE.
- CONTACT THE UTILITY COMPANY TO RELOCATE ANY EXISTING UTILITY POLES. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT MUST BE RELOCATED AT THE EXPENSE OF THE APPLICANT.
- BEFORE YOU DIG STOP AND CALL THE NC ONE-CALL CENTER AT 1-800-632-4949. ITS THE LAW.

LEGEND:

PROPERTY LINES	---
EXISTING TREE LINE	~ ~ ~
PROPOSED TREE LINE	- - -
ROAD R/W LIMITS	---
EXISTING LINE R/W LIMITS	---
EXISTING DISTRIBUTION LINE	OE OE
EXISTING TRANSMISSION LINE	OE OE
STATION FENCE	X X X X
EXISTING MAJOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
UNDERGROUND ELECTRIC	UE UE
UNDERGROUND GAS	GAS GAS
UNDERGROUND TELEPHONE	UT UT
REINFORCED CONCRETE PIPE	ROP
EXISTING WETLANDS	~ ~ ~
LIGHT POLE	☆
WELL	⊗
IRRIGATION CONTROL VALVE	⊗
PROPOSED UTILITY POLE	⊗
EXISTING UTILITY POLE	⊗
PROPOSED TRANS TOWER	⊗
EXISTING TRANSMISSION STRUCTURE	⊗
PROPOSED AGGREGATE BASE COURSE (A.B.C.)	~ ~ ~
WASHED STONE BY OTHERS	~ ~ ~
PROPOSED ASPHALT PAVEMENT	~ ~ ~

GRAPHIC SCALE



BEFORE YOU DIG! CALL 811

A PORTION OF
CAROLYN & GREGORY MINTZ
308 SE MAYNARD RD
PIN: 9690877084
DB: 1264 PG: 84

SHADOW DANCE LANE
12' GRAVEL RD
EXISTING 20' R/W
(DB 992, PG 321)

A PORTION OF
CAROLYN & GREGORY MINTZ
308 SE MAYNARD RD
PIN: 9690877084
DB: 1264 PG: 84

18,000 ACRES
DUKE ENERGY PROGRESS, LLC
PIN: 9690868883
DB: 3173 PG: 702

MARY WILSON BALLARD
467 LAMB MOUNTAIN RD
PIN: 9690868047
DB: 1482 PG: 6

FOXHUNTS INVESTMENTS, LLC
PO BOX 1411
PIN: 9690961326
DB: 1190 PG: 369

KENNETH & CI
93 LAY
PIN: 96
DB: 16:



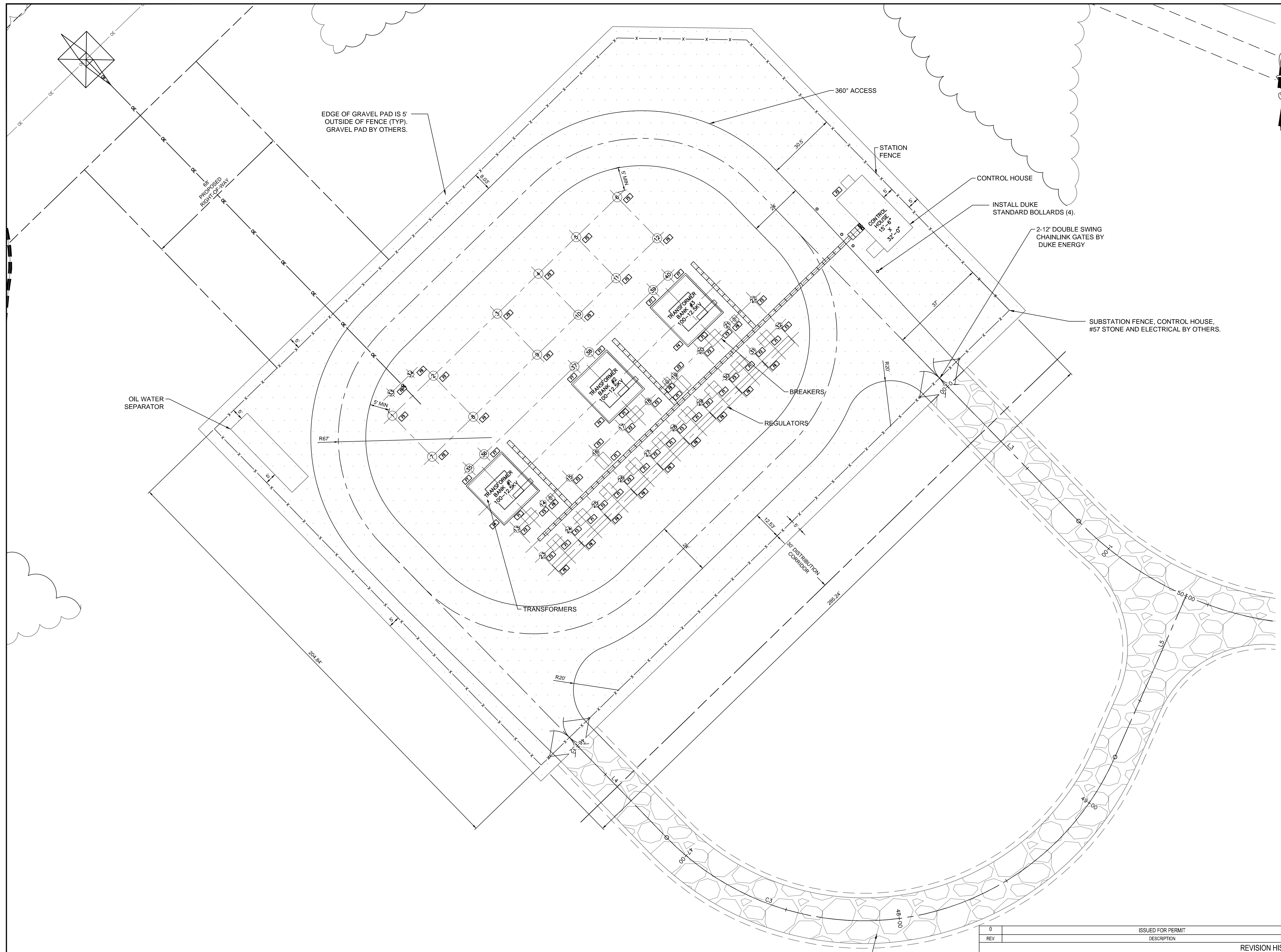
HDR Engineering Inc.
of the Carolinas
N.C.B.E.L.S. #F-0116
440 S. Church St. Suite 1000
Charlotte, NC 28202-2075
704.338.6700

REV	DESCRIPTION	DESIGN	HBO212C1	BNT/HDR	JCC/HDR	RMB/HDR	9/7/2018
0	ISSUED FOR PERMIT	DESIGN	HBO212C1	BNT/HDR	JCC/HDR	RMB/HDR	9/7/2018
1	REV	ISSUE TYPE	DPN	DFT	CHK	ENG	DATE

SEAL	TITLE
	OVERALL SITE PLAN

ARCH	NC-SC	STATION NUMBER	DRAWING NUMBER	REV
D	NC-SC	5577	3174234SDV	0

3174234SDV REV: 0

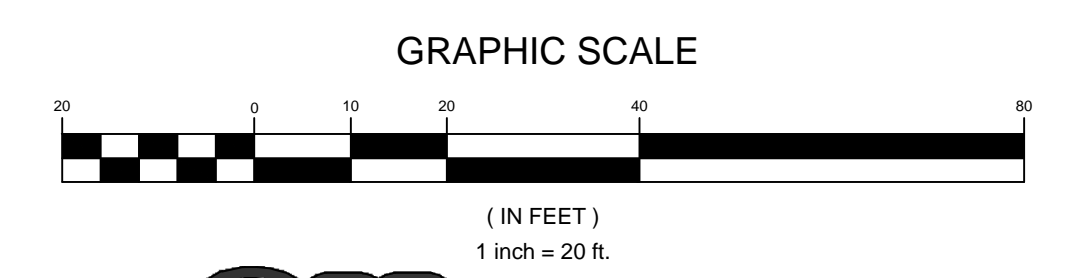


- GENERAL NOTES:**
- SEE COVER 3174234SDV SHEET 1 FOR PROJECT DATA.
 - SEE 3174234SDV SHEET 3 FOR OVERALL SITE PLAN.
 - PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, OBTAIN THE LATEST SUBSTATION PHYSICAL DESIGN FROM DUKE ENERGY. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN STAKEOUT/CONTROL.
 - COORDINATE DRIVEWAY CONSTRUCTION WITH NCDOT.

- SITE NOTES:**
- REFER TO SITE NOTES ON 3174234SDV SHEET 3

LEGEND:

PROPERTY LINES	---
EXISTING TREE LINE	~ ~ ~ ~
PROPOSED TREE LINE	~ ~ ~ ~
ROAD R/W LIMITS	---
EXISTING LINE R/W LIMITS	---
EXISTING DISTRIBUTION LINE	—○—○—○—
EXISTING TRANSMISSION LINE	—○—○—○—
STATION FENCE	-x-x-x-x-
EXISTING MAJOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
UNDERGROUND ELECTRIC	—○—○—○—
UNDERGROUND GAS	—○—○—○—
UNDERGROUND TELEPHONE	—○—○—○—
REINFORCED CONCRETE PIPE	—○—○—○—
EXISTING WETLANDS	~ ~ ~ ~
LIGHT POLE	⊙
VIBRATION CONTROL VALVE	⊙
PROPOSED UTILITY POLE	⊙
EXISTING UTILITY POLE	⊙
PROPOSED TRANS TOWER	⊙
EXISTING TRANSMISSION STRUCTURE	⊙
PROPOSED AGGREGATE BASE COURSE (A.B.C.)	~ ~ ~ ~
WASHED STONE BY OTHERS	~ ~ ~ ~
PROPOSED ASPHALT PAVEMENT	~ ~ ~ ~

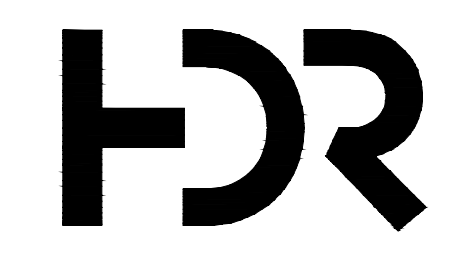


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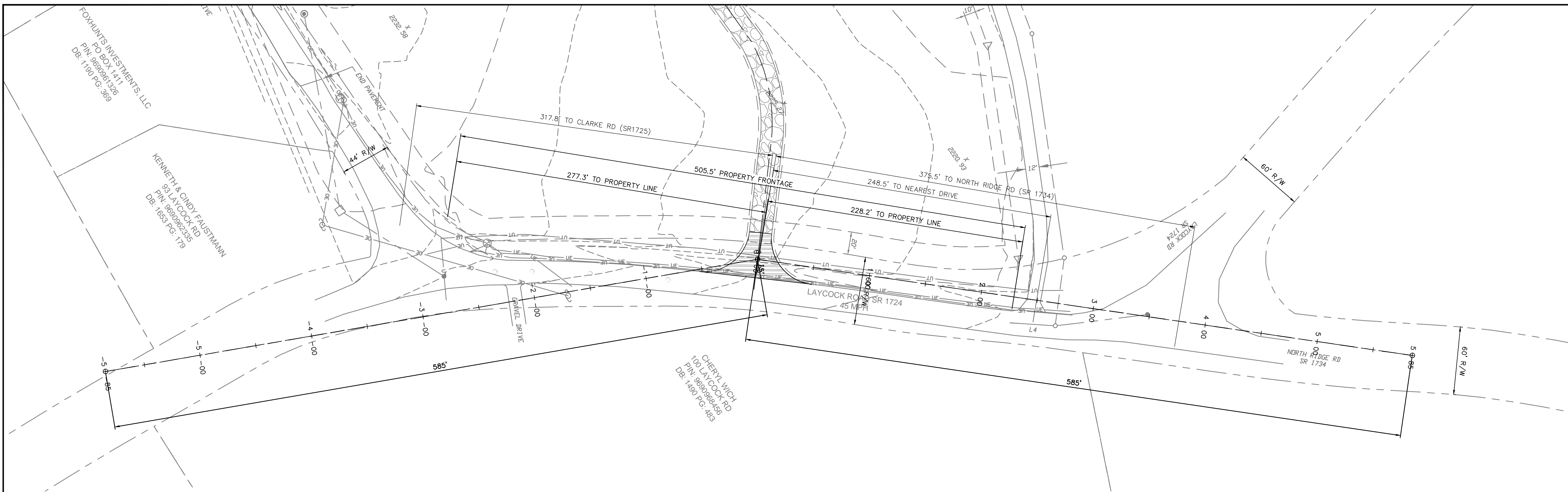
REV	DESCRIPTION	DESIGN	HBO0212C1	BNT/HR	JCC/HR	RMB/HR	9/7/2018
0	ISSUED FOR PERMIT						

REV	DESCRIPTION	ISSUE TYPE	DPN	DFT	CHK	ENG	DATE
REVISION HISTORY							

<p>SEAL:</p>	<p>THIS DRAWING OR ANY OF MATERIAL IS CONFIDENTIAL AND MAY NOT BE LOANED, REPRODUCED OR COPIED, EITHER WHOLLY OR IN PART, OR MADE PUBLIC IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF DUKE ENERGY CORPORATION.</p>	<p><input type="checkbox"/> PRELIMINARY</p> <p><input type="checkbox"/> AS BUILT</p>	<p>TITLE:</p> <p>SITE PLAN ENLARGEMENT</p>
<p>HDR Engineering Inc. of the Carolinas N.C.B.E.L.S. #F-0116 440 S. Church St. Suite 1000 Charlotte, NC 28202-2075 704.338.6700</p>		<p>CONTRACT:</p> <p>COMPANY:</p> <p>PHONE:</p> <p>DATE:</p>	<p>LOCATION:</p> <p>LAYCOCK RETAIL</p> <p>CITY: BLUE RIDGE TOWNSHIP COUNTY: HENDERSON STATE: NC</p> <p>SHEET SIZE: ARCH D REGION: NC-SC STATION NUMBER: 5577 DRAWING NUMBER: 3174234SDV REV: 0</p> <p>FILENAME: 3174234SDV.DWG</p>



3174234SDV REV: 0



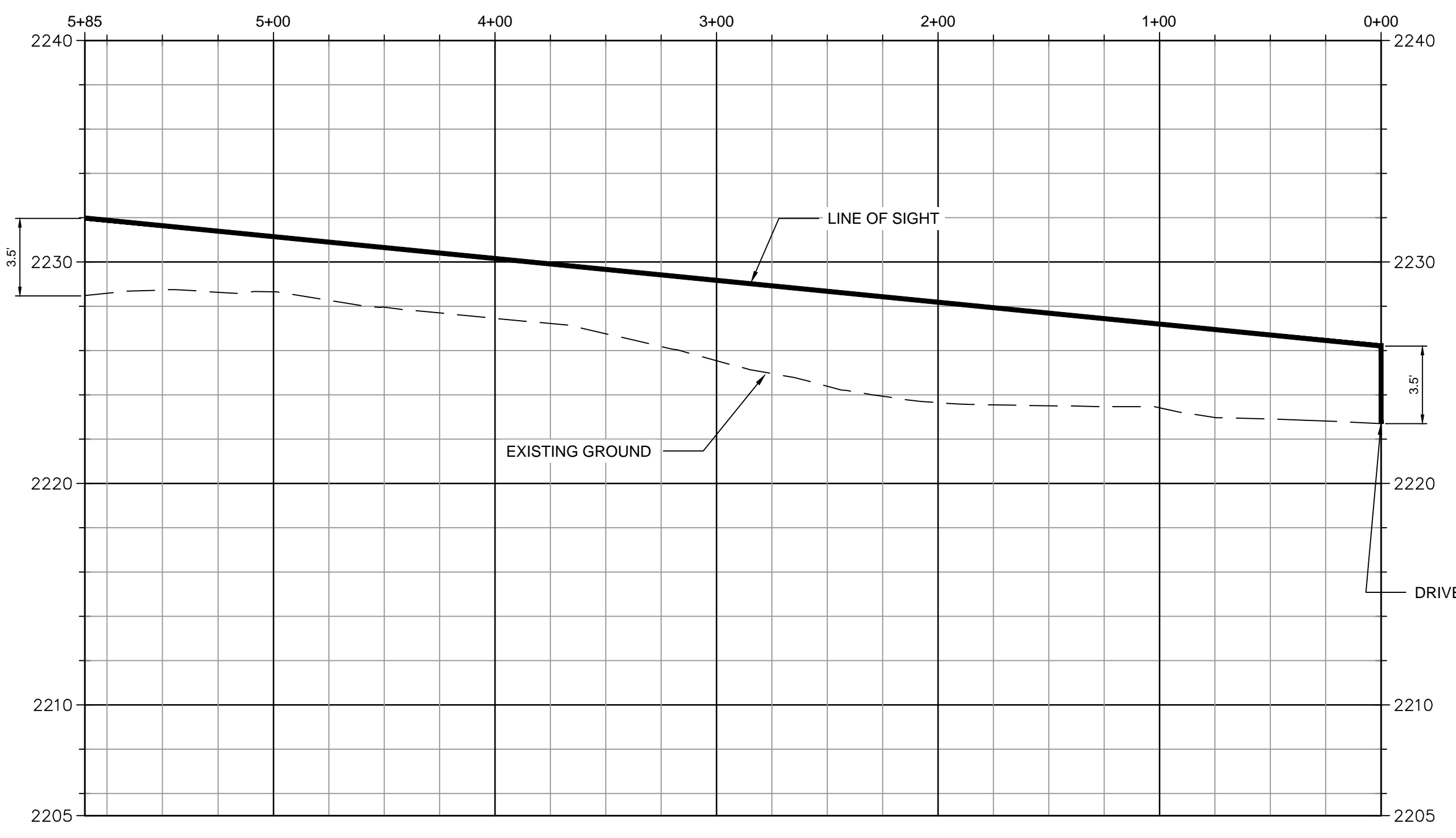
- GENERAL NOTES:**
- SEE COVER 3174234SDV SHEET 1 FOR PROJECT DATA.
 - SEE 3174234SDV SHEET 3 FOR OVERALL SITE PLAN.
 - PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, OBTAIN THE LATEST SUBSTATION PHYSICAL DESIGN FROM DUKE ENERGY. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN STAKEOUT/CONTROL.
 - COORDINATE DRIVEWAY CONSTRUCTION WITH NCDOT.

- SITE NOTES:**
- REFER TO SITE NOTES ON 3174234SDV SHEET 3

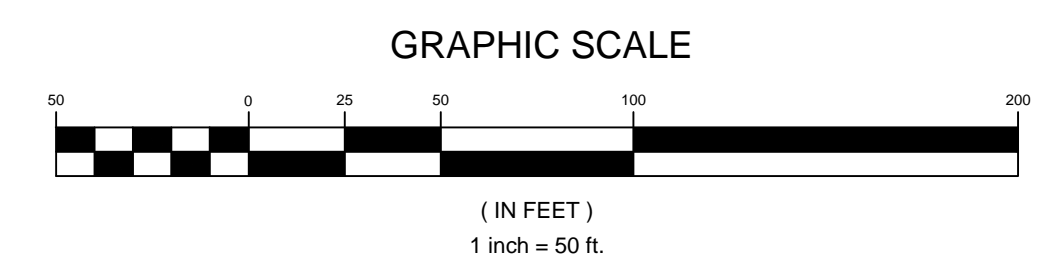
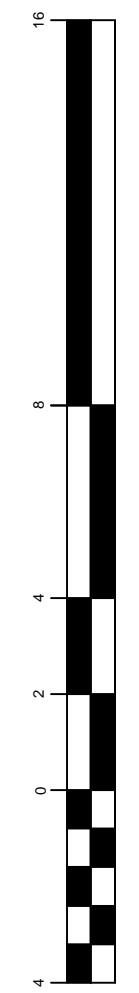
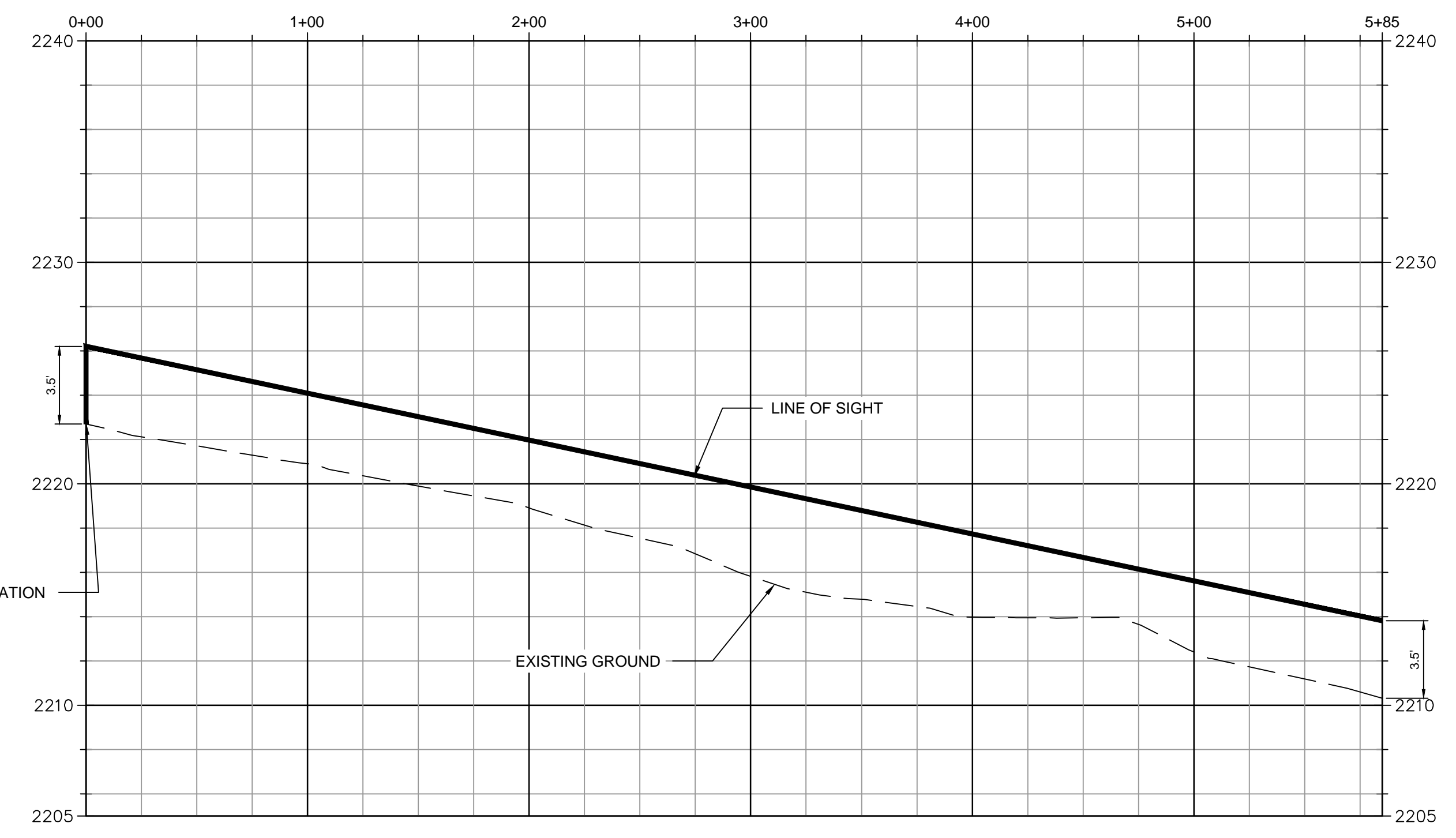
LEGEND:

PROPERTY LINES	---
EXISTING TREE LINE	~ ~ ~
PROPOSED TREE LINE	~ ~ ~
ROAD R/W LIMITS	---
EXISTING LINE R/W LIMITS	---
EXISTING DISTRIBUTION LINE	--- OE --- OE
EXISTING TRANSMISSION LINE	--- OE --- OE
STATION FENCE	-x-x-x-x-
EXISTING MAJOR CONTOUR	---
PROPOSED MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	---
PROPOSED MINOR CONTOUR	---
BARBED WIRE FENCE	-XXX-XXX-
UNDERGROUND ELECTRIC	-UE-UE-
UNDERGROUND GAS	-GAS-GAS-
UNDERGROUND TELEPHONE	-UT-UT-
REINFORCED CONCRETE PIPE	--- RCP ---
EXISTING WETLANDS	~ ~ ~
LIGHT POLE	⊙
WELL	⊗
IRRIGATION CONTROL VALVE	⊕
PROPOSED UTILITY POLE	⊕
EXISTING UTILITY POLE	⊕
PROPOSED TRANS TOWER	⊗
EXISTING TRANSMISSION STRUCTURE	⊗
PROPOSED AGGREGATE BASE COURSE (A.B.C.)	~ ~ ~
PROPOSED WASHED STONE	~ ~ ~
PROPOSED ASPHALT PAVEMENT	~ ~ ~

RIGHT SIGHT DISTANCE PROFILE



LEFT SIGHT DISTANCE PROFILE



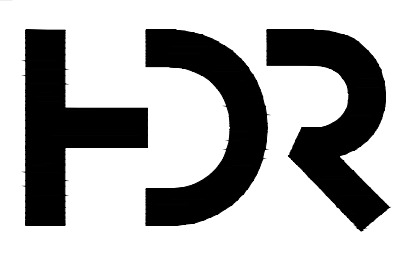
BEFORE YOU DIG! CALL 811

NOTE: LAYCOCK ROAD IS A TWO LANE ROAD WITH 45 MPH SPEED LIMIT.

SIGHT DISTANCE (ft) VALUE PER 10 MPH OF ARTERIAL DESIGN SPEED FOR APPROPRIATE ARTERIAL WIDTH OF CROSSING

Design Vehicle Crossing the Arterial	Two Lanes	Four Lanes	Six Lanes
Passenger Vehicle	100	120	130
Single Unit Truck	130	150	170
WB-50 Tractor Trailer	170	200	210

CALCULATION USED FOR INTERSECTION SIGHT DISTANCE
45 mph for Single Unit Truck



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0	ISSUED FOR PERMIT	DESIGN	H800212C1	BNT/HDR	JCC/HDR	RMB/HDR	9/7/2018
REV	DESCRIPTION	ISSUE TYPE	DPN	DFT	CHK	ENG	DATE
REVISION HISTORY							
SEAL:		<input type="checkbox"/> PRELIMINARY <input checked="" type="checkbox"/> AS BUILT	TITLE: SIGHT DISTANCE PLAN				
THIS DRAWING OR ANY OF MATERIAL IS CONFIDENTIAL AND MAY NOT BE LOANED, REPRODUCED OR COPIED, EITHER WHOLLY OR IN PART, OR MADE PUBLIC IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF DUKE ENERGY CORPORATION.		Contract: Company: Phone: Date:	LOCATION: LAYCOCK RETAIL CITY: BLUE RIDGE TOWNSHIP COUNTY: HENDERSON STATE: NC SHEET SIZE: REGION: STATION NUMBER: DRAWING NUMBER: REV:				
			ARCH D NC-SC 5577 3174234SDV FILENAME: 3174234SDV.DWG	0			

3174234SDV REV: 0

EARTHWORK SUMMARY - 8/22/2018:

BANK CUT: 18,721 CY
 *BANK FILL: 15,033 CY
 NET: 3,688 CY

STRIPPINGS: (ASSUMED 6" OVER SITE): 1,819 CY

AFTER STRIPPINGS W/ 15% FILL FACTOR
 CUT: 17,088 CY
 FILL: 18,956 CY
 NET: -1,867 CY

SUMMARY:
 ADDITIONAL 48 CY OF STRUCTURAL FILL NEEDED TO BE SPREAD ON SITE.
 1,819 CY OF STRIPPINGS TO BE SPREAD UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER OVER SLOPES, AND AREAS OUTSIDE OF THE STATION TO THE MAXIMUM EXTENT POSSIBLE.

EARTHWORK CALCULATIONS INCLUDE SKIMMER SEDIMENT BASIN.

GENERAL NOTES:

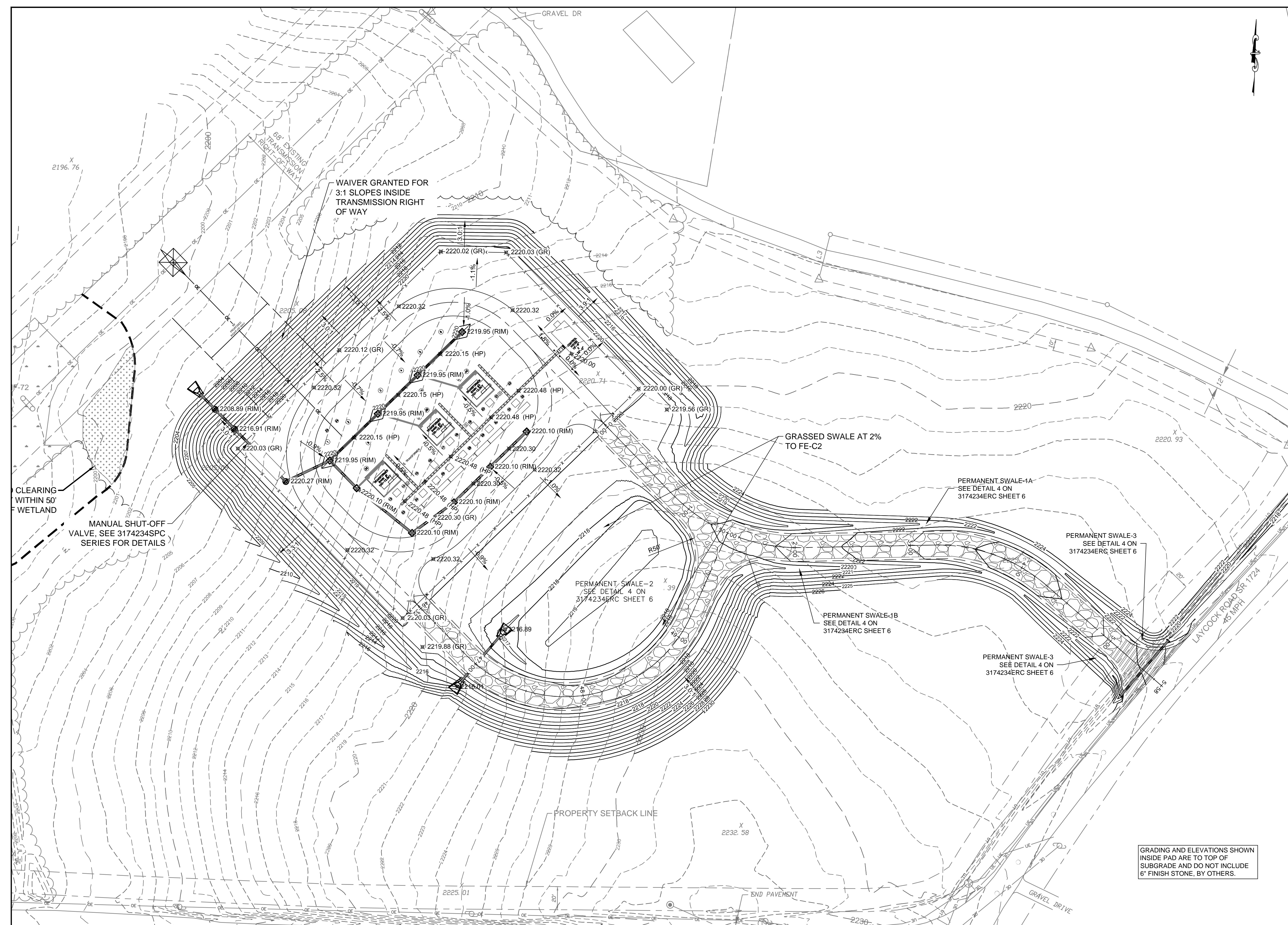
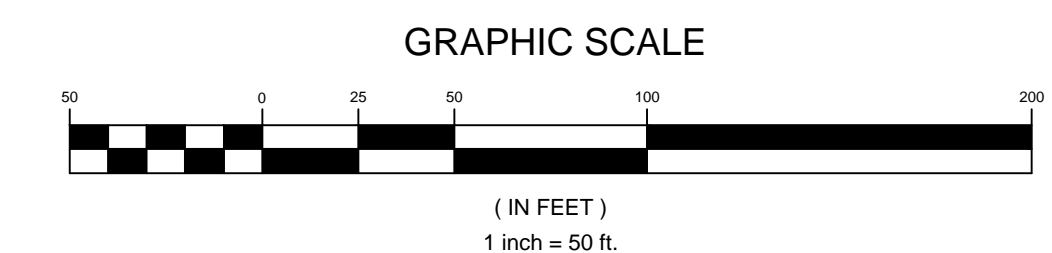
- SEE 3174234SDV SHEET 1 FOR PROJECT DATA.
- UPON SITE STABILIZATION, CONTRACTOR IS TO REMOVE ALL ACCUMULATED SEDIMENT, SKIMMER, AND RISER THEN GRADE TO FINAL GRADES AS SHOWN. RE-SEED ALL AREAS IN FORMER SEDIMENT BASIN LOCATION WITH PERMANENT SEEDING.
- GRADING AND ELEVATIONS SHOWN INSIDE THE PAD ARE TO SUBGRADE AND ELEVATIONS ALONG ACCESS ROAD ARE TO TOP OF STONE.
- REFER TO 317234ERC SHEET 2 FOR MORE INFORMATION AND DETAIL ON SKIMMER BASIN REMOVAL SEQUENCING.

GRADING NOTES:

- REFER TO GEOTECHNICAL REPORT COMPLETED BY TBD FOR SITE DATA AND RECOMMENDATIONS.
- TOP SOIL SHALL BE STRIPPED FROM SITE AFTER VEGETATION REMOVAL AND STOCKPILED FOR SPREADING UPON THE FINAL GRADING OF SLOPES AND SWALES. SEE EROSION 3174234ERC SHEET 1 AND 3174234ERC SHEET 2 FOR POTENTIAL TOPSOIL STOCKPILE AREA.
- CONTRACTOR TO PROVIDE COMPACTED PAD FOR PROPOSED DUKE ENERGY RETAIL STATION. FENCE IS SHOWN FOR LOCATION PURPOSES ONLY AND WILL BE PROVIDED BY DUKE ENERGY AT TIME OF CONSTRUCTION. COMPACTED PAD TO EXTEND 5' BEYOND PROPOSED FENCE.
- PAD SUB-GRADE WILL BE GRADED TO ALLOW FOR POSITIVE DRAINAGE TO DROP INLETS LOCATED INSIDE OF THE DRIVE AND PAD.
- ALL NATIVE FILL SHALL CONSIST OF NATIVE SOILS EXCLUDING ORGANIC CLAYS, PEAT, TOPSOIL AND OTHER DELETERIOUS MATERIAL.
- ALL GRADED FILL AREAS, INCLUDING ACCESS DRIVE SUB-GRADE, SHALL BE COMPACTED TO 95% STANDARD PROCTOR
- CRUSHER-RUN MATERIAL FOR ACCESS DRIVES SHALL BE COMPACTED TO 95%.

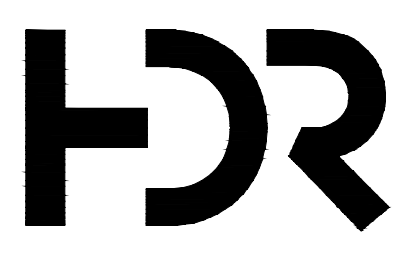
LEGEND:

PROPERTY LINES	---
EXISTING TREE LINE	---(S)---
PROPOSED TREE LINE	---(D)---
ROAD R/W LIMITS	---(R)---
EXISTING LINE R/W LIMITS	---(L)---
EXISTING DISTRIBUTION LINE	---(D)---
EXISTING TRANSMISSION LINE	---(T)---
STATION FENCE	---(F)---
EXISTING MAJOR CONTOUR	---(M)---
PROPOSED MAJOR CONTOUR	---(P)---
EXISTING MINOR CONTOUR	---(m)---
PROPOSED MINOR CONTOUR	---(p)---
UNDERGROUND ELECTRIC	---(E)---
UNDERGROUND GAS	---(G)---
UNDERGROUND TELEPHONE	---(T)---
REINFORCED CONCRETE PIPE	---(RCP)---
EXISTING WETLANDS	---(W)---
LIGHT POLE	○
WELL	⊕
IRRIGATION CONTROL VALVE	⊕
PROPOSED UTILITY POLE	○
EXISTING UTILITY POLE	○
PROPOSED TRANS TOWER	⊕
EXISTING TRANSMISSION STRUCTURE	⊕
PROPOSED AGGREGATE BASE COURSE (A.B.C.)	---(ABC)---
PROPOSED WASHED STONE	---(S)---
PROPOSED ASPHALT PAVEMENT	---(A)---



GRADING AND ELEVATIONS SHOWN INSIDE PAD ARE TO TOP OF SUBGRADE AND DO NOT INCLUDE 6" FINISH STONE, BY OTHERS.

0	ISSUED FOR PERMIT	DESIGN	HB00212C1	BNT/HR	JCC/HR	RMB/HR	9/7/2018
REV	DESCRIPTION	ISSUE TYPE	DPN	DFT	CHK	ENG	DATE
REVISION HISTORY							
SEAL:		<input type="checkbox"/> PRELIMINARY <input type="checkbox"/> AS BUILT	TITLE: GRADING PLAN				
CONTRACTOR: DUKE ENERGY		LOCATION: LAYCOCK RETAIL CITY: BLUE RIDGE TOWNSHIP COUNTY: HENDERSON STATE: NC					
ARCH D	NC-SC	5577	3174234GRA	0	SHEET 01 OF 02 FILENAME: 3174234GRA.DWG		



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3174234GRA REV: 0

GENERAL NOTES:
1. SEE COVER SHEET - 2709484SDV SHEET 1 FOR PROJECT DATA.

LEGEND:
 SMALL MATURING

TOPSOIL/PLANTING MIX—MINIMUM REQUIREMENTS:
WHERE PAVEMENT CUTOUPS ON RENOVATED SITES ARE REQUIRED AND/OR WHERE NEW PLANTING STRIPS OR ISLANDS ARE REQUIRED, ALL PAVEMENT, CONSTRUCTION DEBRIS AND GRAVEL SUB-BASE MUST BE REMOVED BEFORE PREPARING SOIL AND PLANTING TREES. EXISTING COMPACTED SOIL MUST BE REMOVED AND REPLACED WITH 24" OF TOPSOIL/PLANTING MIX -OR- EXISTING SOIL MAY BE UNCOMPACTED TO A DEPTH OF 24" AND AMENDED TO MEET TOPSOIL STANDARDS FOR THE ENTIRE PLANTING AREA.

SOIL IN ALL PLANTING STRIPS OR ISLANDS, WHETHER EXISTING OR NEW (ON NEW OR RENOVATED SITES), MUST MEET THE MINIMUM TOPSOIL/PLANTING MIX SPECIFICATIONS. SOIL AMENDMENTS OR FRESH TOPSOIL/PLANTING MIX ARE OFTEN NEEDED FOR PLANTING AREAS AT SITES WHERE ORIGINAL TOPSOIL IS OF POOR QUALITY, HEAVILY COMPACTED OR WHERE TOPSOIL HAS BEEN COMPLETELY REMOVED DURING GRADING.

TOPSOIL/PLANTING MIX SHOULD BE NATURAL, FERTILE, AGRICULTURAL SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH. IT SHOULD BE UNIFORM COMPOSITION THROUGHOUT, WITH ADMIXTURE OF SUBSOIL. IT SHOULD BE FREE OF STONES, LUMPS, LIVE PLANTS AND THEIR ROOTS, STICKS AND OTHER EXTRANEUS MATTER. TOPSOIL SHOULD NOT BE USED WHILE IN A FROZEN OR MUDDY CONDITION.

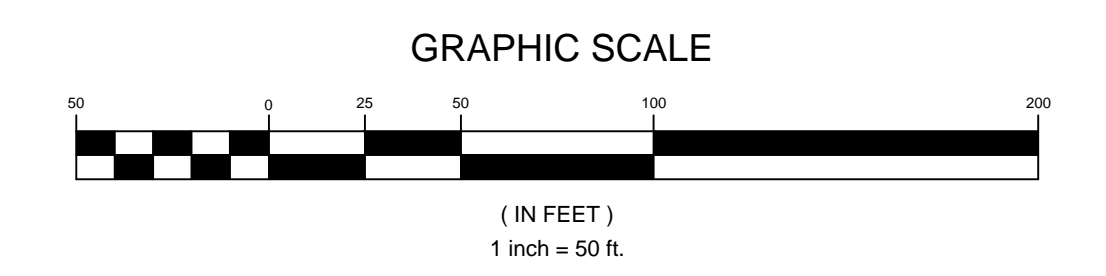
TOPSOIL/PLANTING MIX SHALL HAVE AN ACIDITY RANGE OF PH 5.5-7.0 AND THE FOLLOWING COMPOSITION:

CLAY (RED CLAY, WELL PULVERIZED)	MINIMUM 10%; MAXIMUM 35%
COMPOST/ORGANIC	MINIMUM 5%; MAXIMUM 10%
SILT	MINIMUM 30%; MAXIMUM 50%
COARSE SAND (FREE OF ROCKS, 0.5 TO 1.0 MM F)	MINIMUM 30%; MAXIMUM 45%

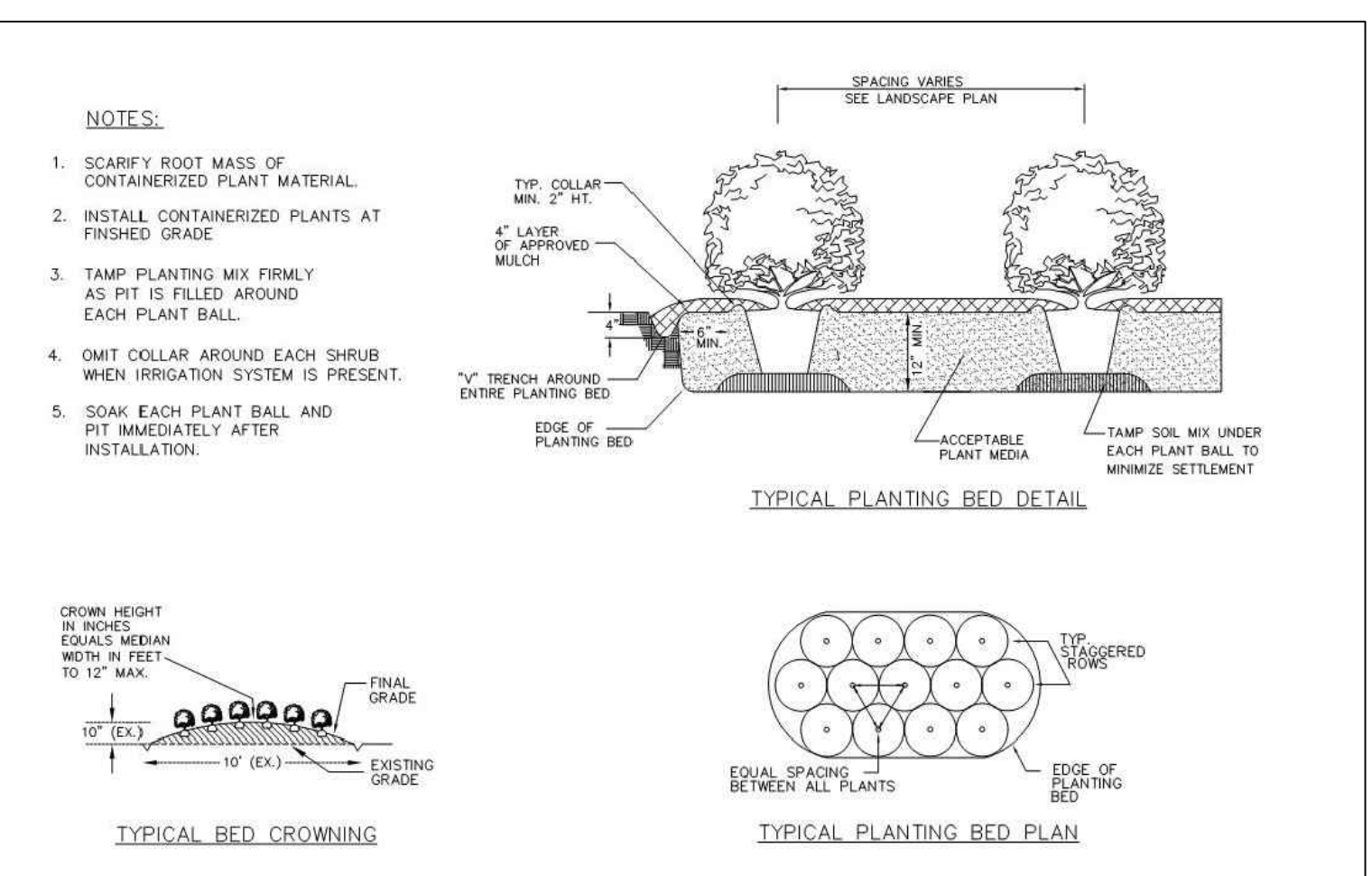
* ORGANIC MATERIAL SUCH AS SAWDUST OR LEAF MOLD THAT HAS COMPLETED THE DECOMPOSITION PROCESS

RECOMMENDATIONS:
ALL PLANTING AREAS SHOULD BE TESTED FOR PROPER DRAINAGE. DRAINAGE SHOULD BE CORRECTED AS NECESSARY TO INSURE PROPER TREE GROWTH AND SURVIVAL. THE FOLLOWING LEVEL OF NUTRIENT ELEMENTS IS RECOMMENDED FOR PROPER GROWTH:

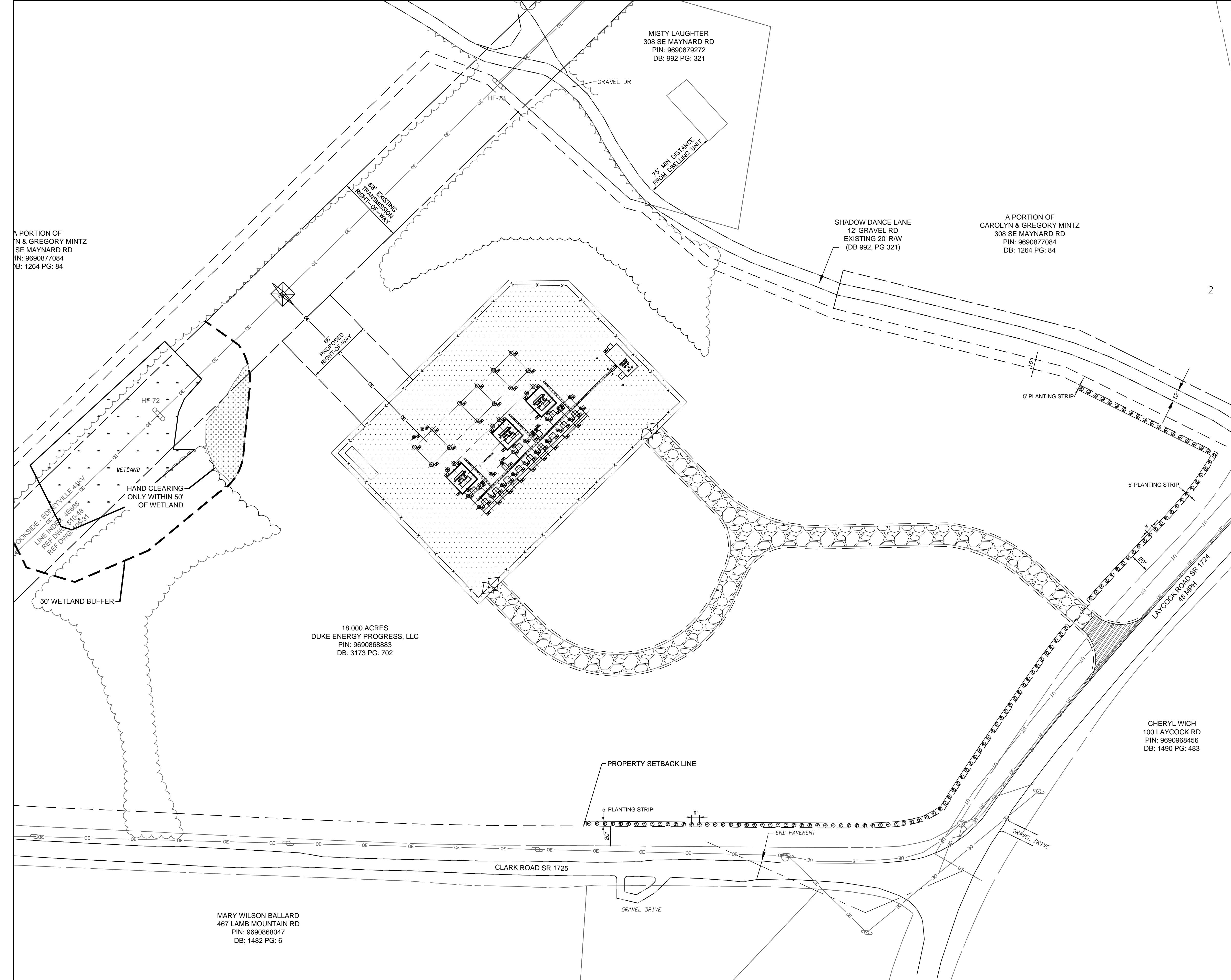
CALCIUM	55 - 80%
MAGNESIUM	10 - 30%
POTASSIUM	5 - 8%



ABRV.	LATIN NAME	ENGLISH NAME	SIZE	SPACING	COMMENTS
LANDSCAPING VEGETATION					
TREES/SHURBS					
NS	ILEX X NELLIE R STEVENS	NELLIE STEVENS HOLLY	6' TALL MULTI-STEM	AS SHOWN	SMALL MATURING EVERGREEN



3 SHRUB PLANTING BED



MARY WILSON BALLARD
467 LAMB MOUNTAIN RD
PIN: 9690868047
DB: 1482 PG: 6

18,000 ACRES
DUKE ENERGY PROGRESS, LLC
PIN: 9690868883
DB: 3173 PG: 702

FOXHUNTS INVESTMENTS, LLC
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REV	DESCRIPTION	DESIGN	DATE
0		HB00212C1	9/7/2018

REVISION HISTORY

DESIGN	HB00212C1	BNT/HR	JCC/HR	RMB/HR	9/7/2018
ISSUE TYPE	DPN	DFT	CHK	ENG	DATE

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PRELIMINARY
 AS BUILT

Contract: _____
Company: _____
Phone: _____
Date: _____

DUKE ENERGY

TITLE: **LANDSCAPE PLAN**

LOCATION: **LAYCOCK RETAIL**

CITY: BLUE RIDGE TOWNSHIP; COUNTY: HENDERSON STATE: NC

SHEET SIZE: ARCH D REGION: NC-SC STATION NUMBER: 5577 DRAWING NUMBER: 3174234LND

FILENAME: 3174234LND.DWG

3174234LND REV: 0