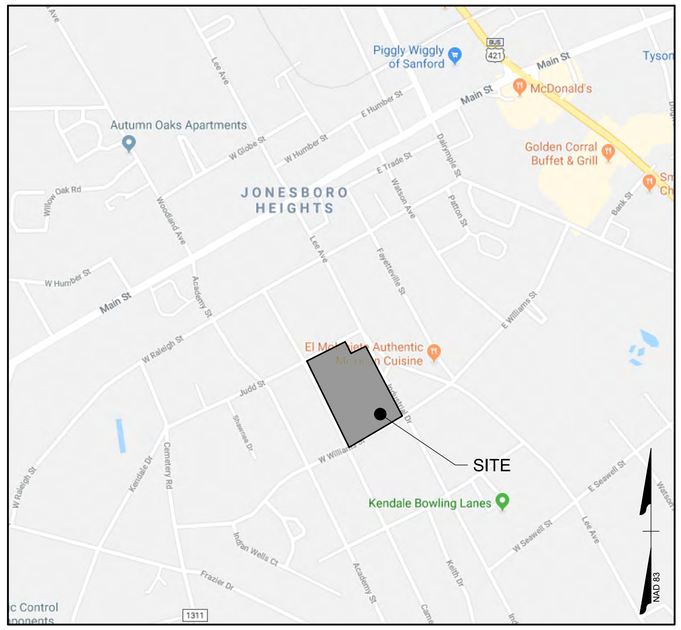
TRC SUBMITTAL

MINA CHARTER SCHOOL

CITY OF SANFORD
2727 INDUSTRIAL DRIVE, SANFORD, NC

SITE DATA

OWNER:	SOCKEYE HOLDINGS LLC
PROJECT:	MINA CHARTER SCHOOL
SITE ADDRESS:	2727 INDUSTRIAL DRIVE SANFORD, NC
TOTAL TRACT AREA:	8.0 AC
PIN:	9651-59-2630-00
ZONING:	C-2
CITY LIMITS:	SANFORD
PROPOSED USE:	SCHOOLS (CHARTER ELEMENTARY AND MIDDLE)



VICINITY MAP
NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS & DEMOLITION PLAN
C3.0	SITE, UTILITY & GRADING PLAN
C4.0	SITE NOTES & DETAILS
L1.0	LANDSCAPE PLAN
--	LIGHTING PLAN
--	BUILDING ELEVATIONS

OWNER
SOCKEYE HOLDINGS, LLC
775 WEST 1200 NORTH, SUITE 100
SPRINGVILLE, UTAH 84663
CONTACT: MR. TAFT MORLEY
PHONE: (810) 489-9535

ARCHITECT
MUSSMAN ARCHITECTS
610 N. MAIN STREET
GREENVILLE, SOUTH CAROLINA 29601
CONTACT: MR. AARON WELLS
PHONE: (864) 626-6330

SITE DEVELOPMENT
TIMMONS GROUP
5410 TRINITY ROAD, SUITE 102
RALEIGH, NORTH CAROLINA 27607
CONTACT: MR. WILL ALTMAN
PHONE: (919) 866-4938
FACSIMILE: (919) 859-5663

mussman ARCHITECTS
24 Verdry Street Suite 301 Greenville, SC 29601
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44849-333

BOUMA CONSTRUCTION

NOT FOR CONSTRUCTION

MINA
2726 INDUSTRIAL DRIVE
SANFORD, NC 27332

SHEET ISSUE:

NO.	DATE	DESCRIPTION	BY
1	11-27-19	TRC- 1ST SUBMITTAL	WA
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-
6	-	-	-
7	-	-	-
8	-	-	-
9	-	-	-

PRINCIPAL IN CHARGE:	BH
PROJECT ENGINEER:	WA
DRAWN BY:	WA

SHEET TITLE:
COVER SHEET

SHEET NO. C0.0
PROJ. NO. 44849

DEMOLITION NOTES:

1. NOTIFY OWNER AND ARCHITECT IMMEDIATELY OF UTILITY SERVICE INTERRUPTIONS TO NEIGHBORING PROPERTIES.
2. UTILITIES ENCOUNTERED THAT ARE NOT INCLUDED WITHIN THE EXISTING CONDITIONS PLANS SHALL BE REMOVED OR RELOCATED PER THE OWNER, ARCHITECT AND UTILITY PROVIDERS DIRECTION.
3. EVERYTHING WITHIN THE LIMITS OF DISTURBANCE SCHEDULED TO BE DEMOLISHED SHALL ONLY PROCEED AFTER ALL TREE PROTECTION FENCE AND PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND INSPECTED PER THE EROSION CONTROL PLAN. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT LADEN RUNOFF FROM EXITING THE SITE.
4. ALL TRASH AND MISCELLANEOUS DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANOR.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF SANFORD STANDARDS.
6. OPEN BURNING OF TREES, LIMBS, STUMPS, AND CONSTRUCTION DEBRIS ASSOCIATED WITH THIS DEVELOPMENT IS PROHIBITED.
7. ALL EXISTING FIRE HYDRANTS TO REMAIN CLEAR AND OPERATIONAL DURING ALL PHASES OF CONSTRUCTION

DEMOLITION LEGEND

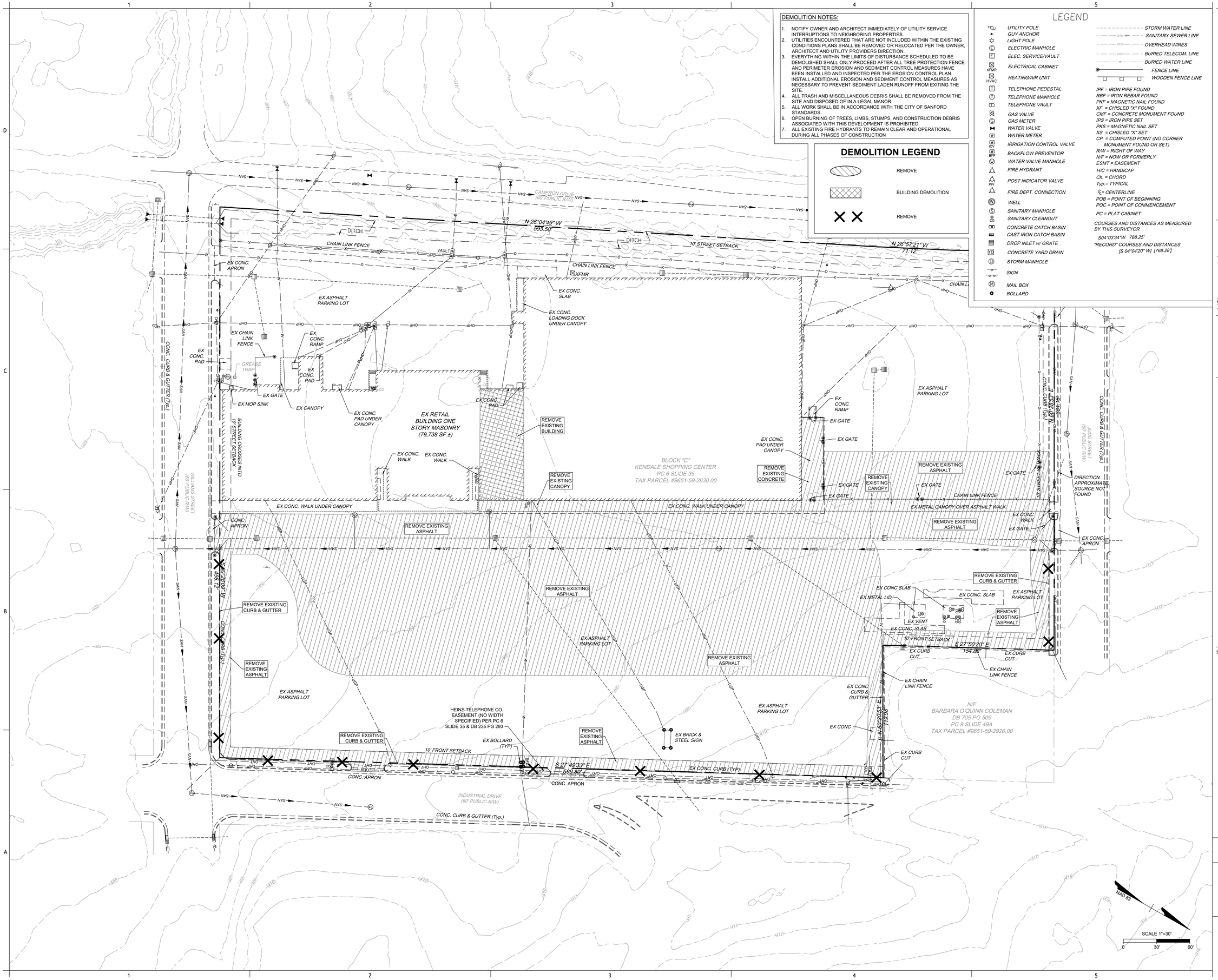
- REMOVE
- BUILDING DEMOLITION
- REMOVE

LEGEND

- UTILITY POLE
- GUY ANCHOR
- LIGHT POLE
- ELECTRIC MANHOLE
- ELEC. SERVICE/VAULT
- XFMR ELECTRICAL CABINET
- HVAC HEATING/AIR UNIT
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- TELEPHONE VAULT
- GAS VALVE
- GAS METER
- WATER VALVE
- WATER METER
- ICV IRRIGATION CONTROL VALVE
- BFP BACKFLOW PREVENTOR
- WATER VALVE MANHOLE
- FIRE HYDRANT
- PIV POST INDICATOR VALVE
- FIRE DEPT. CONNECTION
- WELL
- SANITARY MANHOLE
- CO SANITARY CLEANOUT
- CONCRETE CATCH BASIN
- CAST IRON CATCH BASIN
- DROP INLET w/ GRATE
- YD CONCRETE YARD DRAIN
- STORM MANHOLE
- SIGN
- MAIL BOX
- BOLLARD
- STORM WATER LINE
- SAN SANITARY SEWER LINE
- OHP OVERHEAD WIRES
- UGP BURIED TELECOM. LINE
- W BURIED WATER LINE
- FENCE LINE
- WOODEN FENCE LINE

IPF = IRON PIPE FOUND
RBF = IRON REBAR FOUND
PKF = MAGNETIC NAIL FOUND
XF = CHISLED "X" FOUND
CMF = CONCRETE MONUMENT FOUND
IPS = IRON PIPE SET
PKS = MAGNETIC NAIL SET
XS = CHISLED "X" SET
CP = COMPUTED POINT (NO CORNER MONUMENT FOUND OR SET)
R/W = RIGHT OF WAY
N/F = NOW OR FORMERLY
ESMT = EASEMENT
H/C = HANDICAP
Ch. = CHORD
Typ.= TYPICAL
℄= CENTERLINE
POB = POINT OF BEGINNING
POC = POINT OF COMMENCEMENT
PC = PLAT CABINET

COURSES AND DISTANCES AS MEASURED BY THIS SURVEYOR
S04°03'34"W 768.25'
"RECORD" COURSES AND DISTANCES
[S 04°04'20" W] [768.28']



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1	11-27-19	TRC 1ST SUBMITTAL	WA
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5	- -	- -	- -
6	- -	- -	- -
7	- -	- -	- -
8	- -	- -	- -
9	- -	- -	- -

PRINCIPAL IN CHARGE:	BH
PROJECT ENGINEER:	WA
DRAWN BY:	WA

SHEET TITLE:
EXISTING CONDITIONS & DEMOLITION PLAN

SHEET NO. C1.0

PROJ. NO. 44849

PAVEMENT HATCHING LEGEND

- LIGHT DUTY PAVEMENT
- CONCRETE SIDEWALK

SITE DATA NOTES:

JURISDICTION: CITY OF SANFORD

ZONING: C-2

EXISTING USE:

PROPOSED USE: SCHOOLS (CHARTER ELEMENTARY AND MIDDLE)

SETBACKS:
FRONT- 10 FT
STREET- 10FT

REQUIRED PARKING:
PHASE I- 46 SPACES
PHASE II- 16 SPACES
TOTAL- 62 SPACES

PROPOSED PARKING:
PHASE I- 46 SPACES (2 ADA COMPLIANT)

SITE AREA: 8.0± ACRES

DISTURBED AREA: 7.5± ACRES

PRE DEVELOPMENT IMPERVIOUS AREA: 7.4± ACRES (320,892± SF)

POST DEVELOPMENT IMPERVIOUS AREA: 6.4± ACRES (275,641 SF)

CAMERON DRIVE (60' PUBLIC R/W)
N 26°04'49" W 593.50'
10' STREET SETBACK
N 26°57'21" W 71.12'
N 29°12'59" W 90.70'
EXISTING ASPHALT PARKING LOT
XFMR
VAULT
BUILDING CROSSES INTO 10' STREET SETBACK
WILLIAMS STREET (60' PUBLIC R/W)
S 60°28'29" W 430.12'
CANOPY
ADA RAMP
MINA CHARTER SCHOOL
PLAY AREA
FENCE
LANDSCAPE AREA
10' STREET SETBACK
JUDD STREET (60' PUBLIC R/W)
N 60°20'53" E 96.16'
CROSSWALK
DOUBLE SWING GATE WITH KNOX BOX
CONCRETE SIDEWALK
PHASE II CONCRETE SIDEWALK
EXISTING GATE
EXISTING GATE TO REMAIN
EDGE OF EXISTING ASPHALT
PHASE II PARKING
R3'
R72'
R50'
R5'
R10'
R26'
R15'
R60'
10' FRONT SETBACK
S 27°50'20" E 154.88'
N 60°20'53" E 119.98'
LA CUSTOM MUFFLER
INSTALL CURB AND GUTTER AND CLOSE EXISTING DRIVEWAY
S 27°49'33" E 599.80'
INDUSTRIAL DRIVE (60' PUBLIC R/W)
NAD 83
SCALE 1"=30'
0 30' 60'

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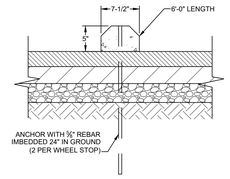
8	-	-	-
9	-	-	-

PRINCIPAL IN CHARGE: BH
PROJECT ENGINEER: WA
DRAWN BY: WA

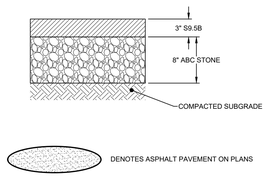
SHEET TITLE:
SITE, UTILITY & GRADING PLAN

SHEET NO. C3.0

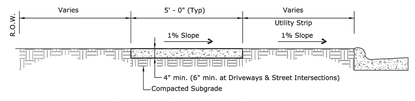
PROJ. NO. 44849



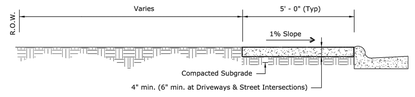
PRECAST BUMPER BLOCK
NO SCALE



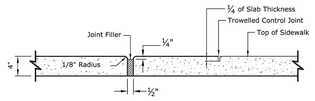
ASPHALT PAVEMENT
NO SCALE



Sidewalk w/ Utility Strip Behind Curb



Sidewalk at Back of Curb

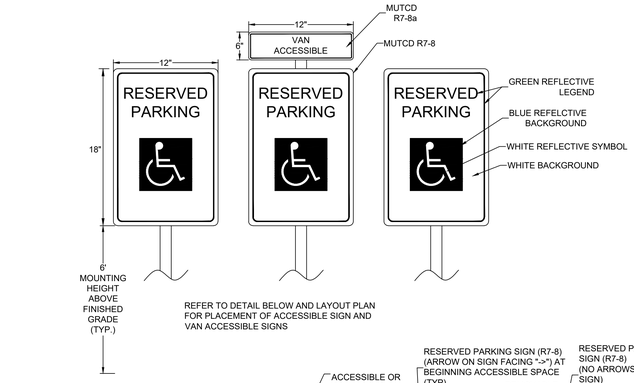


TRANSVERSE EXPANSION JOINT

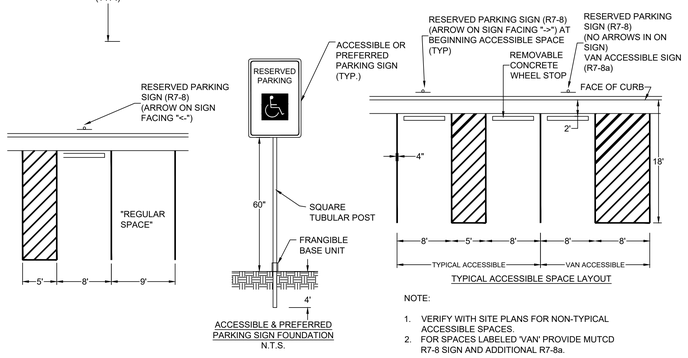
Notes:

Concrete shall be 3000 psi at 28 days.
Expansion joints shall be 1/2" and have a maximum spacing of 50'.
Contraction joints equals 1/4 of slab thickness.
Control joint spacing shall be divided into 5'± sections using a grooving tool.

CITY OF SANFORD, N.C. ESTABLISHED 1874	Sidewalk City of Sanford Engineering Dept - P.O. Box 3729 - Sanford, NC 27331	Dwg. No. SD-R-004 Date: 07/10/14 Scale: Not To Scale Drawn By: Staff



REFER TO DETAIL BELOW AND LAYOUT PLAN FOR PLACEMENT OF ACCESSIBLE SIGN AND VAN ACCESSIBLE SIGNS



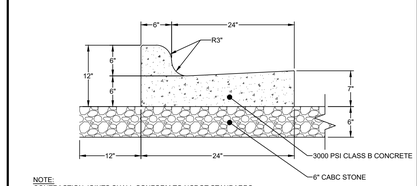
ACCESSIBLE & PREFERRED PARKING SIGN FOUNDATION
N.T.S.

TYPICAL ACCESSIBLE SPACE LAYOUT

NOTE:

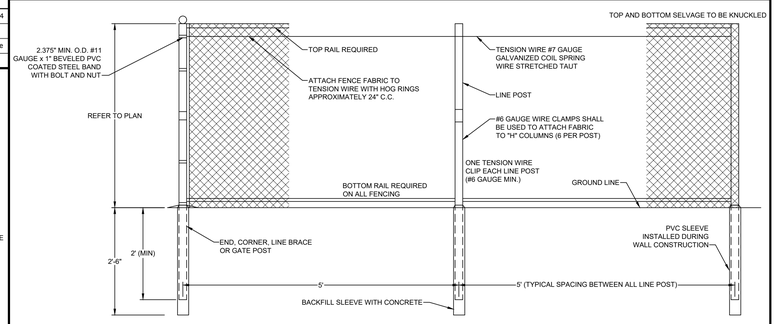
1. VERIFY WITH SITE PLANS FOR NON-TYPICAL ACCESSIBLE SPACES.
2. FOR SPACES LABELED 'VAN' PROVIDE MUTCD R7-8 SIGN AND ADDITIONAL R7-8a.

ACCESSIBLE PARKING SPACE MARKINGS AND SIGNAGE
NO SCALE

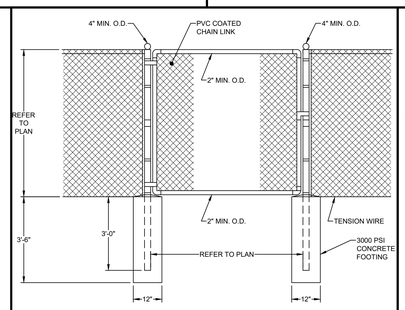


NOTE:
CONTRACTION JOINTS SHALL CONFORM TO NCDOT STANDARDS

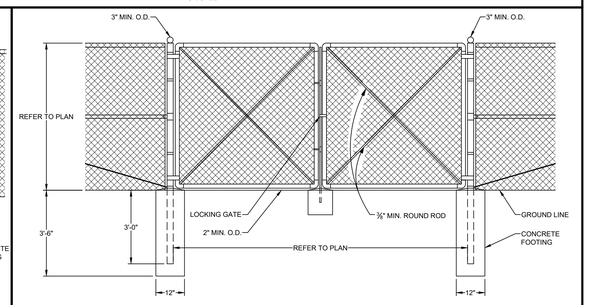
STANDARD 30" CURB & GUTTER
NO SCALE



BLACK PVC CLAD CHAIN LINK FENCE DETAIL
NO SCALE



BLACK PVC CLAD CHAIN LINK SINGLE SWING GATE
NO SCALE



BLACK PVC CLAD CHAIN LINK DOUBLE SWING GATE
NO SCALE

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BOUMA CONSTRUCTION

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SHEET ISSUE:

NO.	DATE	DESCRIPTION	BY
1	11-27-19	TRC - 1ST SUBMITTAL	WA
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9	-	-	-

PRINCIPAL IN CHARGE:	BH
PROJECT ENGINEER:	WA
DRAWN BY:	WA

SHEET TITLE:
SITE NOTES & DETAILS

SHEET NO. C4.0

PROJ. NO. 44849

BUFFER YARD A FOR ADJACENT LAND USE:

8' TYPE A BUFFER:
274.86 LF
274.86 LF x 0.2= 54.97
55 POINTS REQUIRED

274.86LF /100= 2.74= 3
5 TREES x 12 PTS = 60 POINTS
60 POINTS PROVIDED

STREET YARDS:
ALL STREET TREES ARE UNDERSTORY SMALL TREES DUE TO OVERHEAD POWER. REMOVE ASPHALT WITHIN 6' SURROUNDING THE PLACEMENT OF THE PROPOSED TREES. PROVIDE SOIL SAMPLES FOR TREE PLANTING AREAS. TILL SOIL AND ADD THE PROPER AMENDMENTS BASED ON THE SOIL REPORTS.

WILLIAMS STREET:
50' OC
498.12 LF (EXCLUDE BUILDING, EX. DRIVEWAY, & PROPOSED DRIVEWAY ENTRANCE) = 183 LF
183LF /50' = 3.6= 4
4 TREES

INDUSTRIAL DRIVE:
50' OC
599.80LF (EXCLUDE EX DRIVEWAY)= 569.80 LF
569.80LF/50'= 11.40= 12
12 TREES

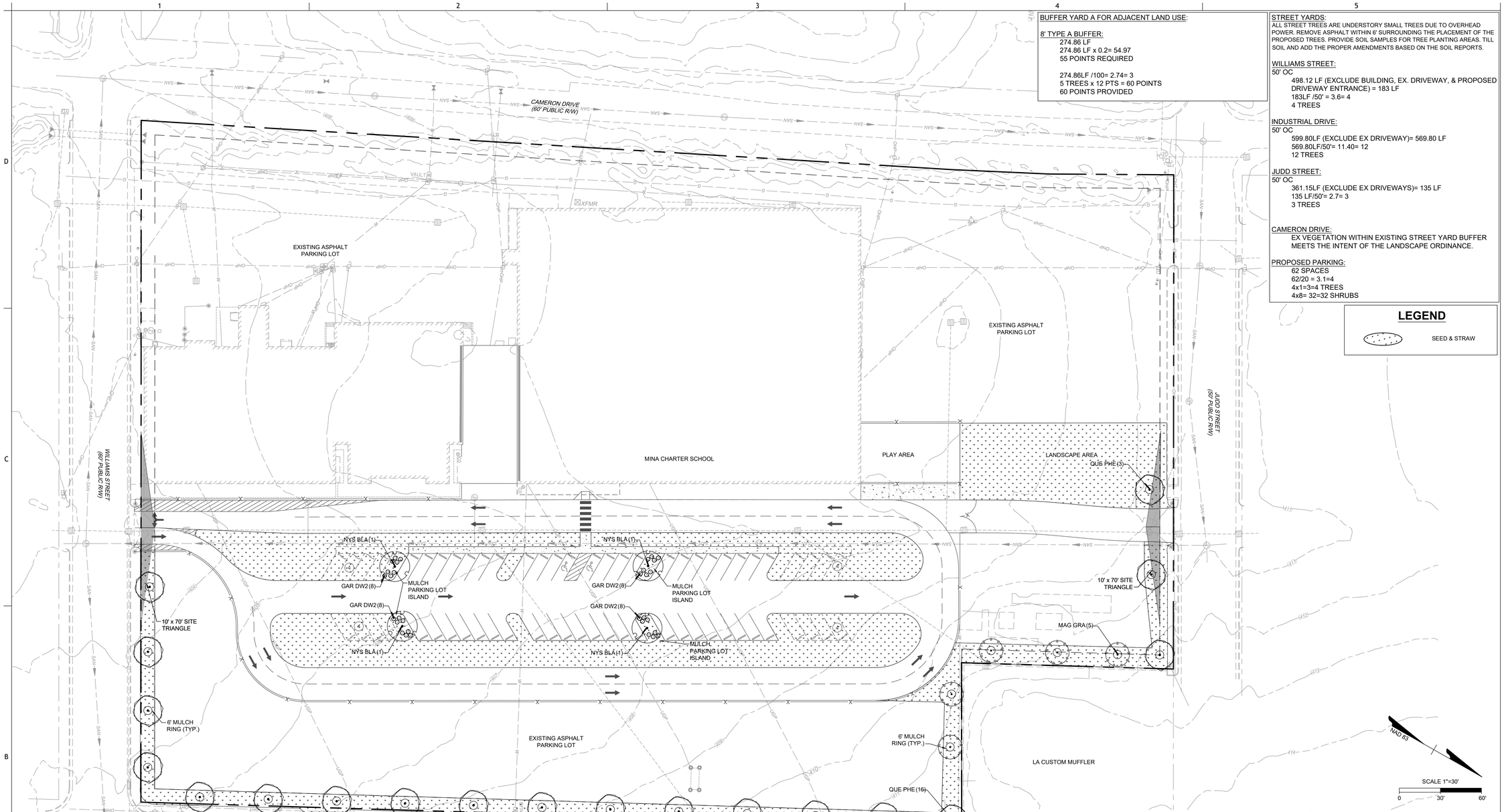
JUDD STREET:
50' OC
361.15LF (EXCLUDE EX DRIVEWAYS)= 135 LF
135 LF/50'= 2.7= 3
3 TREES

CAMERON DRIVE:
EX VEGETATION WITHIN EXISTING STREET YARD BUFFER MEETS THE INTENT OF THE LANDSCAPE ORDINANCE.

PROPOSED PARKING:
62 SPACES
62/20 = 3.1=4
4x1=3=4 TREES
4x8= 32=32 SHRUBS

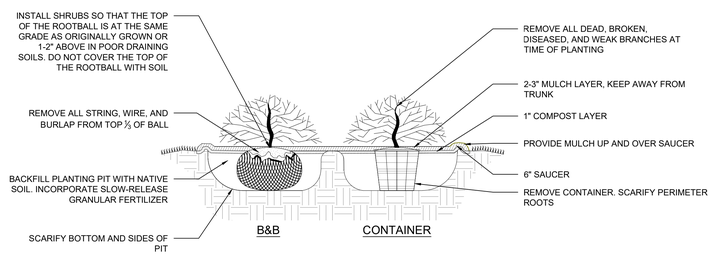
LEGEND

SEED & STRAW

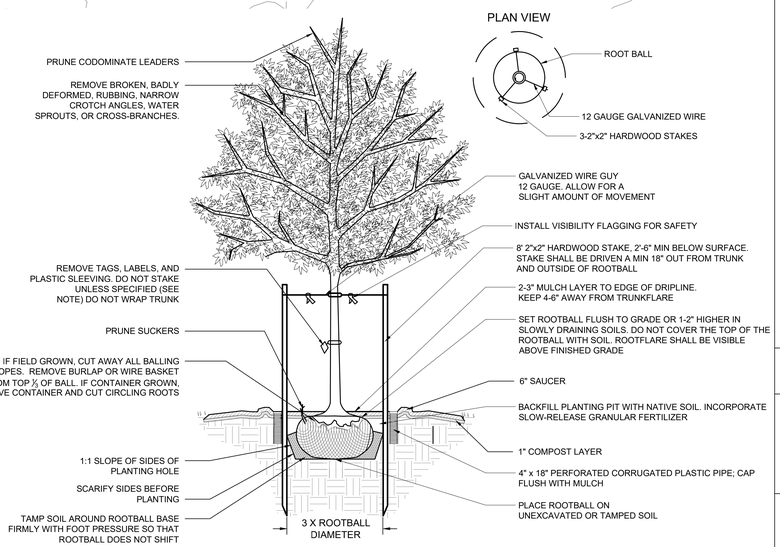


PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	REMARKS
	MAG GRA	5	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	1.5" CAL, 8` HT	DENSE AND FULL
	NYS BLA	4	NYSSA SYLVATICA `BLACK TUPELO`	SOUR GUM	1.5" CAL, 8` HT	DENSE AND FULL
	QUE PHE	19	QUERCUS PHELLOS	WILLOW OAK	1.5" CAL, 8` HT	SHADE TREE
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	REMARKS
	GAR DW2	32	GARDENIA RADICANS	DWARF GARDENIA	18"-24" HT./SPRD.	DENSE AND FULL



SHRUB PLANTING DETAIL
NOT TO SCALE



DECIDUOUS TREE - STAKING SPECIFIED
NOT TO SCALE

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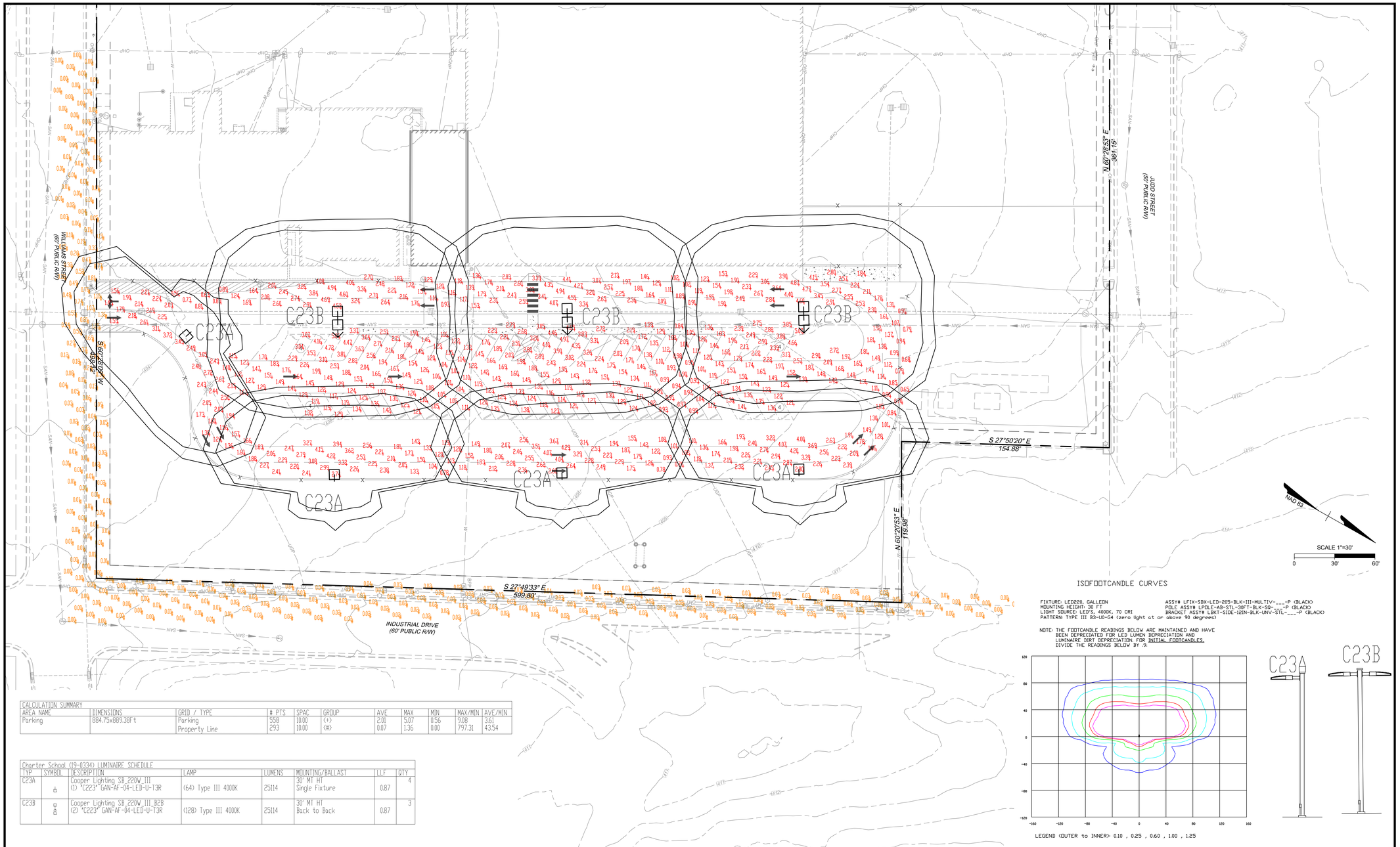
PRINCIPAL IN CHARGE: BH
PROJECT ENGINEER: WA
DRAWN BY: WA

SHEET TITLE:
LANDSCAPE PLAN

SHEET NO. L1.0
PROJ. NO. 44849



ISOFOOTCANDLE CURVES

FIXTURE: LED220, GALLEON
MOUNTING HEIGHT: 30 FT
LIGHT SOURCE: LED'S, 4000K, 70 CRI
PATTERN: TYPE III B3-U0-G4 (zero light at or above 90 degrees)

ASSY# LFIX-SBX-LED-205-BLK-III-MULTIV-___-P (BLACK)
POLE ASSY# LPOLE-AB-STL-30FT-BLK-SQ-___-P (BLACK)
BRACKET ASSY# LBKT-SIDE-12IN-BLK-UNV-STL-___-P (BLACK)

NOTE: THE FOOTCANDLE READINGS BELOW ARE MAINTAINED AND HAVE BEEN DEPRECIATED FOR LED LUMEN DEPRECIATION AND LUMINAIRE DIRT DEPRECIATION. FOR INITIAL FOOTCANDLES, DIVIDE THE READINGS BELOW BY .9

LEGEND (OUTER to INNER): 0.10 , 0.25 , 0.60 , 1.00 , 1.25

CALCULATION SUMMARY

AREA NAME	DIMENSIONS	GRID / TYPE	# PTS	SPAC	GROUP	AVE	MAX	MIN	MAX/MIN	AVE/MIN
Parking	884.75x889.38ft	Parking	558	10.00	(*)	2.01	5.07	0.56	9.08	3.61
		Property Line	293	10.00	(#)	0.07	1.36	0.00	797.31	43.54

Charter School (19-0334) LUMINAIRE SCHEDULE

TYP	SYMBOL	DESCRIPTION	LAMP	LUMENS	MOUNTING/BALLAST	LLF	QTY
C23A		Cooper Lighting SB_220W_III (1) "C223" GAN-AF-04-LED-U-T3R	(64) Type III 4000K	25114	30' MT HT Single Fixture	0.87	4
C23B		Cooper Lighting SB_220W_III_B2B (2) "C223" GAN-AF-04-LED-U-T3R	(128) Type III 4000K	25114	30' MT HT Back to Back	0.87	3

LIGHTING DESIGN TOLERANCE

The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Duke Energy Progress. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.

Customer approval_____ Date_____

DISTANCE CALIBRATION (INCHES)

0 0.5 1.0 2.0 3.0 4.0

DUKE ENERGY® PROGRESS

PROPRIETARY & CONFIDENTIAL

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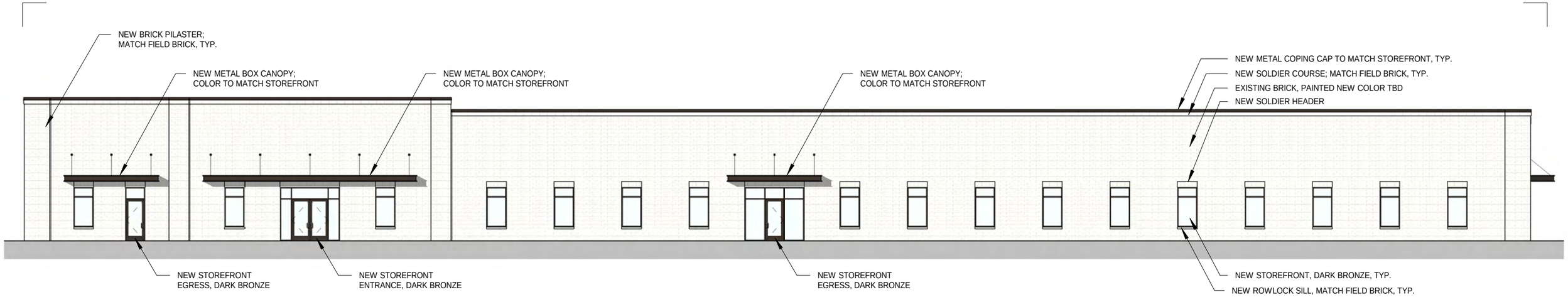
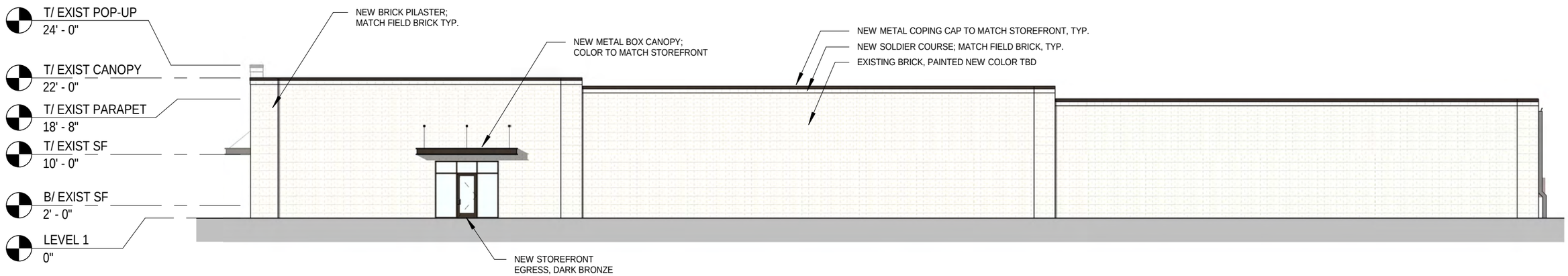
CHATER SCHOOL
SANFORD, NC
SITE LIGHTING PLAN

Designed by DEP LIGHTING SOLUTIONS
Reviewed by G. STERKEN Scale 1" = 40'
Date 11/21/2019 Size "Arch D"
Description LED 205 Shoebox
Drawing No. 19-0334A Sht. 1 OF 1



FRONT ELEVATION



RIGHT ELEVATION

MINA CHARTER SCHOOL
2726 INDUSTRIAL DRIVE
SANFORD, NC 27332

mussman▪ARCHITECTS

SITE CONSTRUCTION PLANS FOR:

NOBLE OIL SERVICES® HQ

NEW OFFICE BUILDING

CLYDE RHYNE DRIVE
LEE COUNTY, NORTH CAROLINA

OWNER INFORMATION

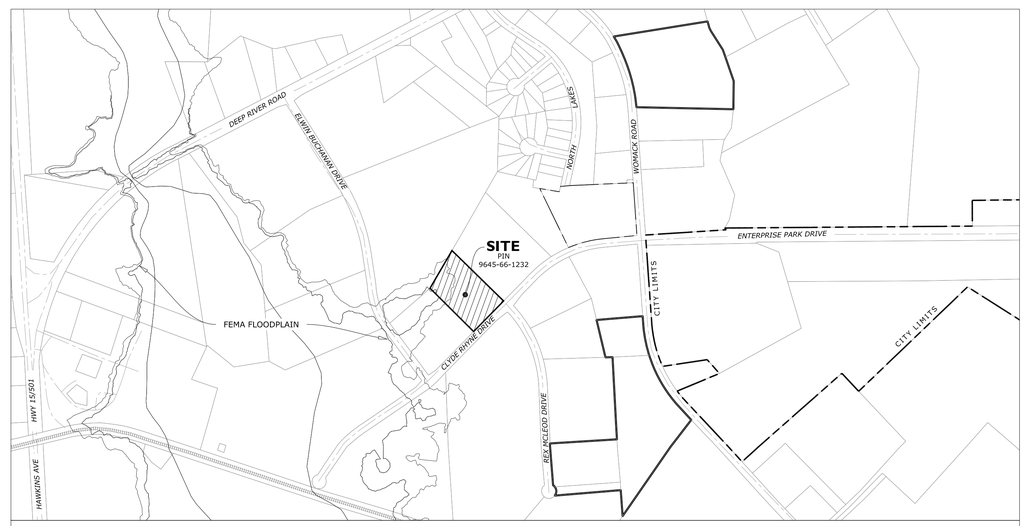
NOBILE OIL SERVICES INC
5617 CLYDE RHYNE DRIVE
SANFORD, NC 27330
919.774.8180
NOBLEHQ@NOBLEOIL.COM

CONTRACTOR INFORMATION

RUFTY PEEDIN COMMERCIAL DESIGN BUILD
5121 KINGDOM WAY, STE 208
RALEIGH, NC 27607
CONTACT: ADAM ZAYTOUN
ADAM@RUFTY-PEEDIN.COM
919.459.8688

ARCHITECT INFORMATION

MAURER ARCHITECTURE
115.5 EAST HARGETT STREET, STE 300
RALEIGH, NC 27601



LOCATION MAP
SCALE: 1 INCH = 500 FT

NORTH

LEGEND OF ABBREVIATIONS

BC	BACK OF CURB	LP	LIGHT POLE
CB	CATCH BASIN	N/F	NOW OR FORMERLY
CO	CLEAN OUT	P.E.	PERMANENT EASEMENT
CPP	CORRUGATED PLASTIC PIPE	PVC	POLYVINYL CHLORIDE PIPE
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
C & G	CURB & GUTTER	RCP	REINFORCED CONCRETE PIPE
DI	DROP INLET	RRX	RAILROAD CROSSING
DIP	DUCTILE IRON PIPE	R / W	RIGHT OF WAY
EG	EDGE OF GRAVEL	SS OR SAN	SANITARY SEWER
EP	EDGE OF PAVEMENT	SSMH	SANITARY SEWER MANHOLE
EB	ELECTRICAL BOX	TC	TOP OF CURB
EV	ELECTRICAL VAULT	T.C.E.	TEMPORARY CONSTRUCTION EASEMENT
EL	ELEVATION	TMH	TELECOMMUNICATION MANHOLE
ECM	EXISTING CONCRETE MONUMENT	TF	TRANSFORMER
EIP	EXISTING IRON PIN	TP	TELEPHONE PEDESTAL
EPK	EXISTING PK NAIL	TS	TOP OF SIDEWALK
FO	FIBER OPTIC	TSP	TRAFFIC SIGNAL POLE
FOM	FIBER OPTIC MARKER	TW	TOP OF WALL
FOB	FIBER OPTIC BOX	UC	UNDERGROUND COMMUNICATIONS
FH	FIRE HYDRANT	VB	VALVE BOX
GUY	GUY WIRE	WM	WATER METER
HP	HIGH POINT	WV	WATER VALVE
INV	INVERT	WCR	WHEELCHAIR RAMP
JB	JUNCTION BOX (STORM)	YI	YARD INLET
IPS	IRON PIN SET		

SHEET INDEX

C1 COVER SHEET
C2 EXISTING CONDITIONS / DEMOLITION
C3 SITE LAYOUT
C4 GRADING / STORM DRAINAGE
C5 UTILITY
C6 EROSION CONTROL
C7 EROSION CONTROL NOTES
C8 STANDARD DRAWINGS (NCDOT AND CITY OF SANFORD)
C9 CONSTRUCTION DETAILS
C10 CONSTRUCTION DETAILS
C11 EROSION CONTROL DETAILS
C12 EROSION CONTROL DETAILS
L1.1 LANDSCAPE

LEGEND OF SYMBOLS AND LINES

PROPERTY CORNER		RIGHT OF WAY	
UTILITY POLE		PROPERTY LINE (ADJ)	
LIGHT POLE		UTILITY EASEMENT	
TELEPHONE PEDESTAL		CENTER LINE	
GATE VALVE		BUFFER	
WATER METER	WM	SETBACK	
FIRE HYDRANT		LIMIT OF DISTURBANCE	
SEWER MANHOLE		UNDERGROUND ELECTRIC LINE	UE
SEWER CLEANOUT		OVERHEAD ELECTRIC LINE	OHE
CATCH BASIN		SANITARY SEWER (GRAVITY)	SAN
YARD INLET / DROP INLET		SANITARY SEWER (FORCEMAIN)	FM
STORM JUNCTION BOX / MH		STORM DRAIN PIPE	
HANDICAP		WATER LINE	W
SPOT ELEVATION	100.00	GAS LINE	GAS
CONTOUR ELEVATION	100	COMMUNICATIONS LINE	T
SIGN		FIBER OPTIC LINE	FO
ALIGNMENT CHANGE		FENCE LINE	
PVI		TREE LINE	
DELTA		DRAINAGE FLOW	
		CURB AND GUTTER	
		CURB AND GUTTER (SPILL)	
		CONCRETE PAVEMENT	
		ASPHALT PAVEMENT	
		GRAVEL SURFACE	

NOTE:
EXISTING FEATURES ARE SHOWN SHADED.

NOVEMBER 27, 2019

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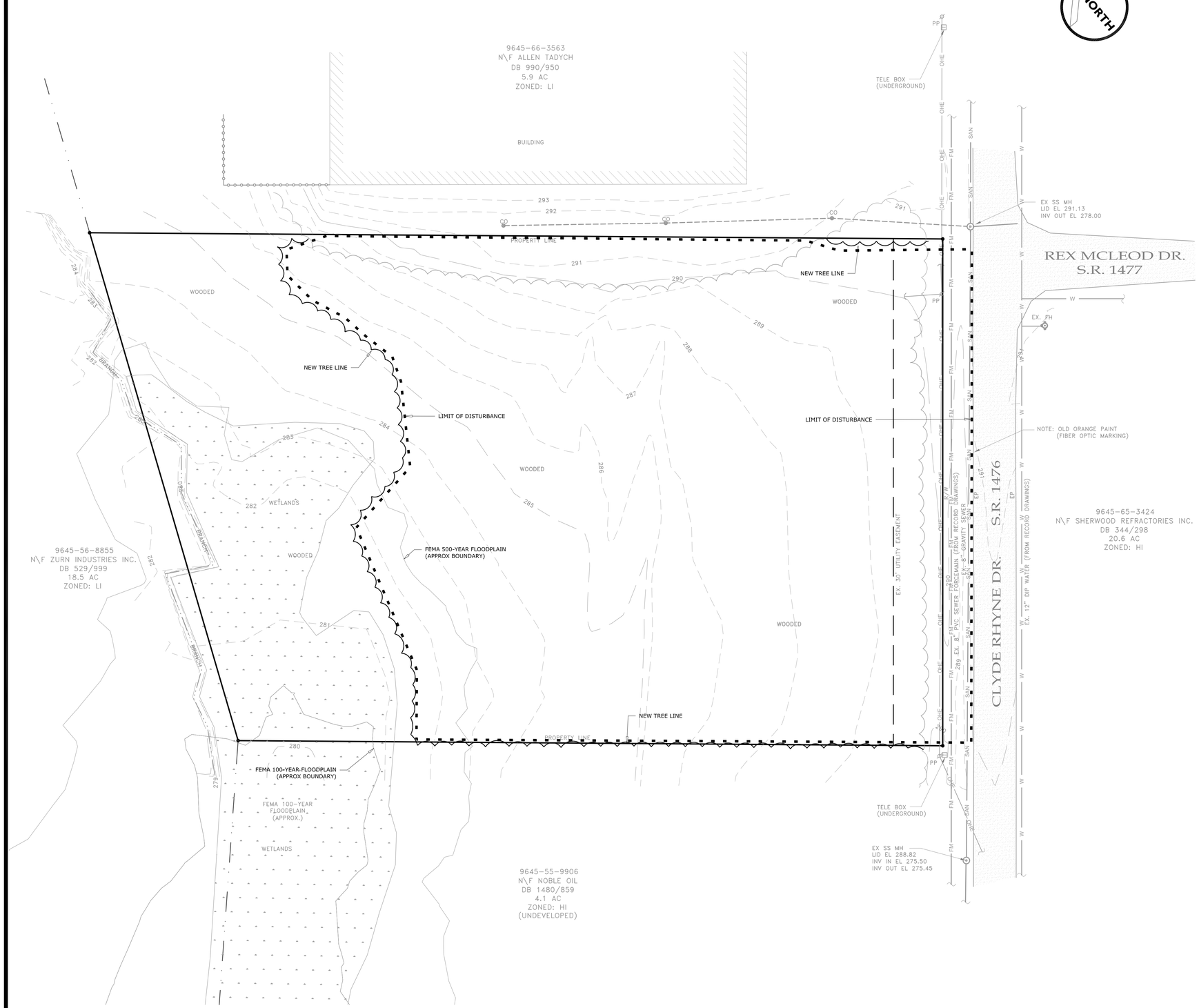

30 0 15 30 60

SCALE: 1" = 30'

MAURER architecture 919 829 4969

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NOTES

1. THE PROPERTY IS CURRENTLY ZONED LI - LIGHT INDUSTRIAL.
2. PROPOSED LIMIT OF DISTURBANCE IS GREATER THAN ONE ACRE. A NCDEQ EROSION CONTROL PERMIT IS REQUIRED. SEE SHEET C6, EROSION CONTROL PLAN FOR MEASURES REQUIRED DURING THE INITIAL AND PROJECT PHASE OF CONSTRUCTION. SEE SHEET C7 FOR THE CONSTRUCTION SEQUENCE.
3. SURVEY PROVIDED BY OWNER. PROPERTY BOUNDARY TAKEN FROM PLAT RECORDED IN PC 2016 SLIDE 118.
4. WETLANDS IDENTIFICATION AND DELINEATION PROVIDED BY OWNER.
5. NO IMPACT TO THE EXISTING WETLANDS LOCATED ON THE PROPERTY (OUTSIDE PROPOSED LIMIT OF DISTURBANCE) IS ALLOWED.
6. DEMOLITIONED ITEMS TO BE DISPOSED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
7. CONTRACTOR SHALL NOT REMOVE EXISTING VEGETATION / LANDSCAPING OUTSIDE THE LIMIT OF DISTURBANCE UNLESS APPROVED BY THE OWNER.
8. OWNER RESPONSIBLE FOR OBTAINING TEMPORARY CONSTRUCTION EASEMENT (OR AGREEMENT) FROM ADJACENT PROPERTY OWNER(S) FOR ANY WORK THAT MAY BE REQUIRED ON PRIVATE / PUBLIC PROPERTY(S).
9. THE OWNER MUST OBTAIN APPROPRIATE APPROVALS FOR ANY OFF-SITE WORK INCLUDING WORK IN NCDOT R/W (CLYDE RHYNE DRIVE).
10. UNDERGROUND UTILITIES SHOWN ON THESE PLANS SHALL BE CONSIDERED APPROXIMATE. ADDITIONAL UTILITIES MAY BE PRESENT WITHIN THE WORK AREA. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO BEGINNING WORK.
11. CONTRACTOR TO REVIEW SITE ACCESS, MATERIAL STORAGE, AND STAGING AREAS WITH OWNER PRIOR TO BEGINNING WORK.

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PROFESSIONAL ENGINEER'S SEAL

NOBLE OIL SERVICES® HQ

CLYDE RHYNE DRIVE
LEE COUNTY, NORTH CAROLINA

EXISTING CONDITIONS / DEMOLITION

REVISIONS

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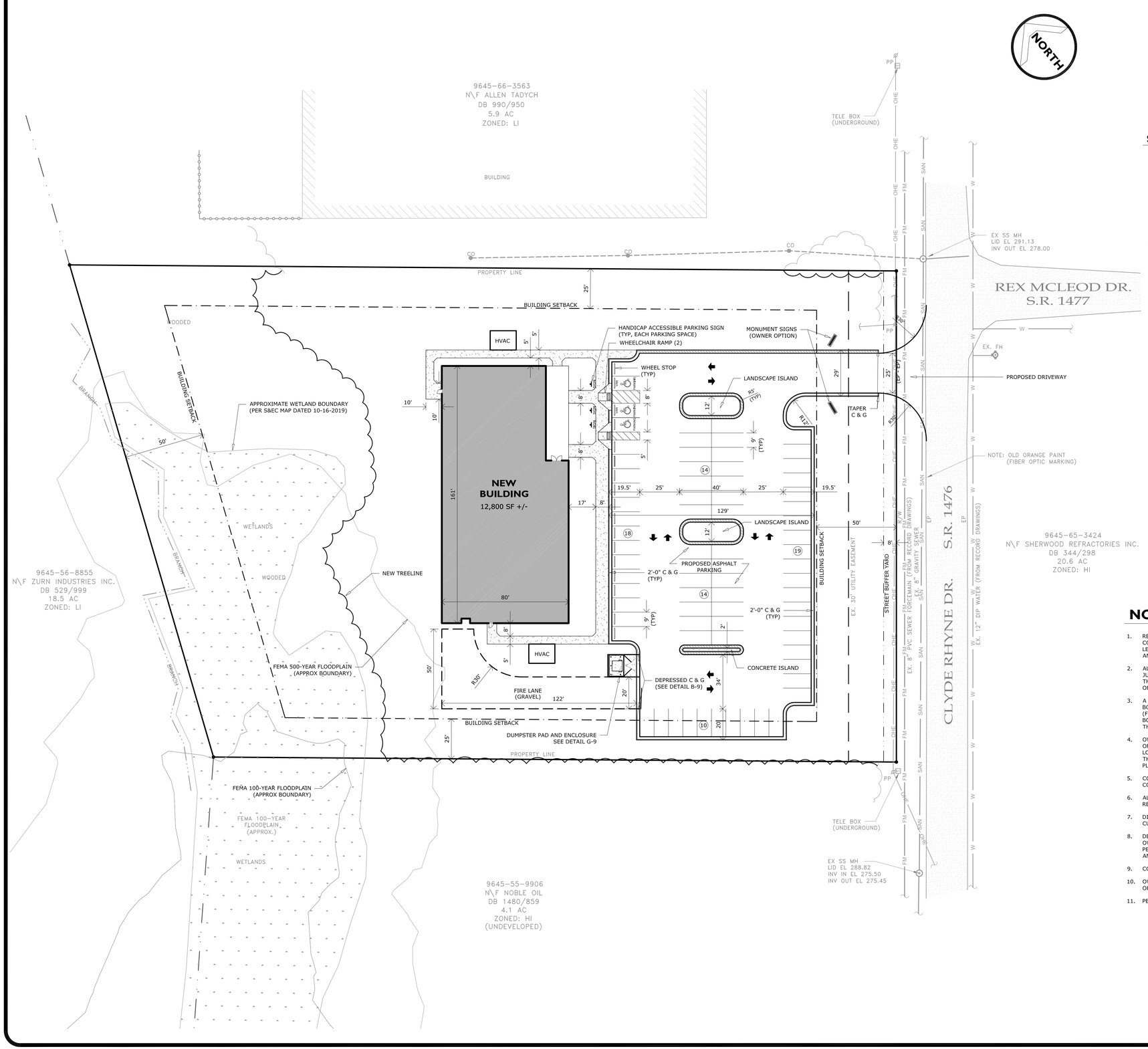

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Rufty Peedin COMMERCIAL DESIGN BUILD

SITE DATA

OWNER:

NOBILE OIL SERVICES INC.
5617 CLYDE RHYNE DRIVE
SANFORD, NORTH CAROLINA 27330

PROPERTY ID:

LEE COUNTY, NORTH CAROLINA
DEED REFERENCE: 1447 / 956
LEE COUNTY PIN NO.: 9645-66-1232

SITE INFO:

JURISDICTION:	LEE COUNTY
TOWNSHIP:	DEEP RIVER / WEST SANFORD
ZONING CLASSIFICATION:	LI
WATER SUPPLY WATERSHED:	NONE DESIGNATED
PROPERTY ACREAGE:	3.19 AC
EXISTING USE:	UNDEVELOPED
INTENDED USE:	OFFICE BUILDING
BUILDING GSF EXISTING:	0 SF (UNDEVELOPED)
BUILDING GSF PROPOSED:	18,674 SF (12,831 SF (1ST FLOOR) + 5,843 (2ND FLOOR))
PARKING SPACES EXISTING:	0 (UNDEVELOPED)
PARKING SPACES REQUIRED:	63 (1 SPACE PER 300 SF BUILDING)
PARKING SPACES PROPOSED:	75 (INCLUDES 1 HANDICAP SPACE)
IMPERVIOUS AREA EXISTING:	0.00 AC +/- (0%)
IMPERVIOUS AREA NEW:	1.15 AC +/- (36%)
IMPERVIOUS AREA TOTAL (EX. + NEW):	1.15 AC +/- (36%)
STREET YARD REQUIRED:	8 FT
BUFFER YARD REQUIRED:	NONE (ABUTS HI OR LI ZONED PROPERTY)
SETBACK REQUIRED, FRONT (UDO):	30 FT
SETBACK REQUIRED, REAR/SIDES (UDO):	0 FT
SETBACK REQUIRED, FRONT (PLAT 2016/118):	50 FT
SETBACK REQUIRED, REAR (PLAT 2016/118):	50 FT
SETBACK REQUIRED, SIDES (PLAT 2016/118):	25 FT
WATER SUPPLY:	PUBLIC (CITY OF SANFORD)
WATERLINE PROPOSED (PUBLIC):	0 LF (NEW PRIVATE SERVICE LINE ONLY)
SANITARY SEWER:	PUBLIC (CITY OF SANFORD)
SANITARY SEWER PROPOSED (PUBLIC):	0 LF (NEW PRIVATE SERVICE LINE ONLY)
STREETS PROPOSED (PUBLIC):	0 LF (NEW PRIVATE DRIVE ONLY)

NOTES

1. REVIEW AND APPROVAL OF THE PLANS DOES NOT RELIEVE THE OWNER OR CONTRACTOR FROM MEETING ALL THE REQUIREMENTS OF THE CITY OF SANFORD / LEE COUNTY UNIFIED DEVELOPMENT ORDINANCE, AND ANY OTHER LOCAL, STATE, AND FEDERAL REGULATIONS AND APPROVALS.
2. ALL IMPROVEMENTS OR EXTENSIONS OF PUBLIC INFRASTRUCTURE UNDER THE JURISDICTION OF THE CITY OF SANFORD SHALL BE IN STRICT ACCORDANCE WITH THE ORDINANCES, REGULATIONS, POLICIES, REQUIREMENTS, AND SPECIFICATIONS OF THE CITY OF SANFORD.
3. A PORTION OF THIS PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD HAZARD BOUNDARY AREAS AS DELINEATED ON THE LEE COUNTY FLOOD INSURANCE MAP (FIRM) MAP NUMBER: 3710964500K, DATED FEBRUARY 2, 2007. THE APPROXIMATE BOUNDARY IS SHOWN ON THESE PLANS. NO DEVELOPMENT IS PROPOSED WITHIN THE 100-YEAR FLOOD HAZARD AREA (FLOODPLAIN).
4. OWNER HAS IDENTIFIED JURISDICTIONAL WATERS ON THIS PROPERTY. THE LIMITS OF THE WETLAND BOUNDARY IS SHOWN ON THESE PLANS AS IDENTIFIED AND LOCATED BY THE OWNER'S CONSULTANTS. NO JURISDICTIONAL WATERS ARE WITHIN THE LIMITS OF DISTURBANCE OF THIS PROJECT (SEE SHEET C6, EROSION CONTROL PLAN), THEREFORE, NO IMPACTS TO THESE WATERS ARE PROPOSED.
5. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON THESE PLANS WITH ACTUAL FIELD CONDITIONS.
6. ALL HANDICAP ACCESSIBLE AREAS ON THE SITE SHALL CONFORM TO THE REQUIREMENTS OF VOLUME 1-C OF THE NC STATE BUILDING CODE.
7. DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED. RADII ON BACK OF CURB IS 5' UNLESS SHOWN OTHERWISE.
8. DETAILED DESIGN OF ANY RETAINING WALLS SHOWN SHALL BE BY THE OWNER/CONTRACTOR. THE FINAL LAYOUT AND LENGTH MAY NEED TO BE ADJUSTED PER THE FINAL DESIGN AND ACTUAL FIELD CONDITIONS. (NO RETAINING WALLS ANTICIPATED FOR THIS PROJECT).
9. CONTACT DUKE ENERGY WHEN WORKING WITHIN 15' OF THEIR POLES.
10. OWNER IS RESPONSIBLE FOR SECURING NECESSARY EASEMENTS FOR WORKING OFF-SITE, INCLUDING ANY WORK WITHIN THE NCDOT R/W.
11. PERMITS REQUIRED FOR THE SITE WORK AS PROPOSED:
    - -LEE COUNTY TRC APPROVAL
    - -NCDOT ENCROACHMENT AGREEMENT
    - -NCDOT DRIVEWAY PERMIT
    - -NCDEQ LQS EROSION CONTROL PERMIT

30 0 15 30 60

SCALE: 1" = 30'

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SITE LAYOUT

REVISIONS

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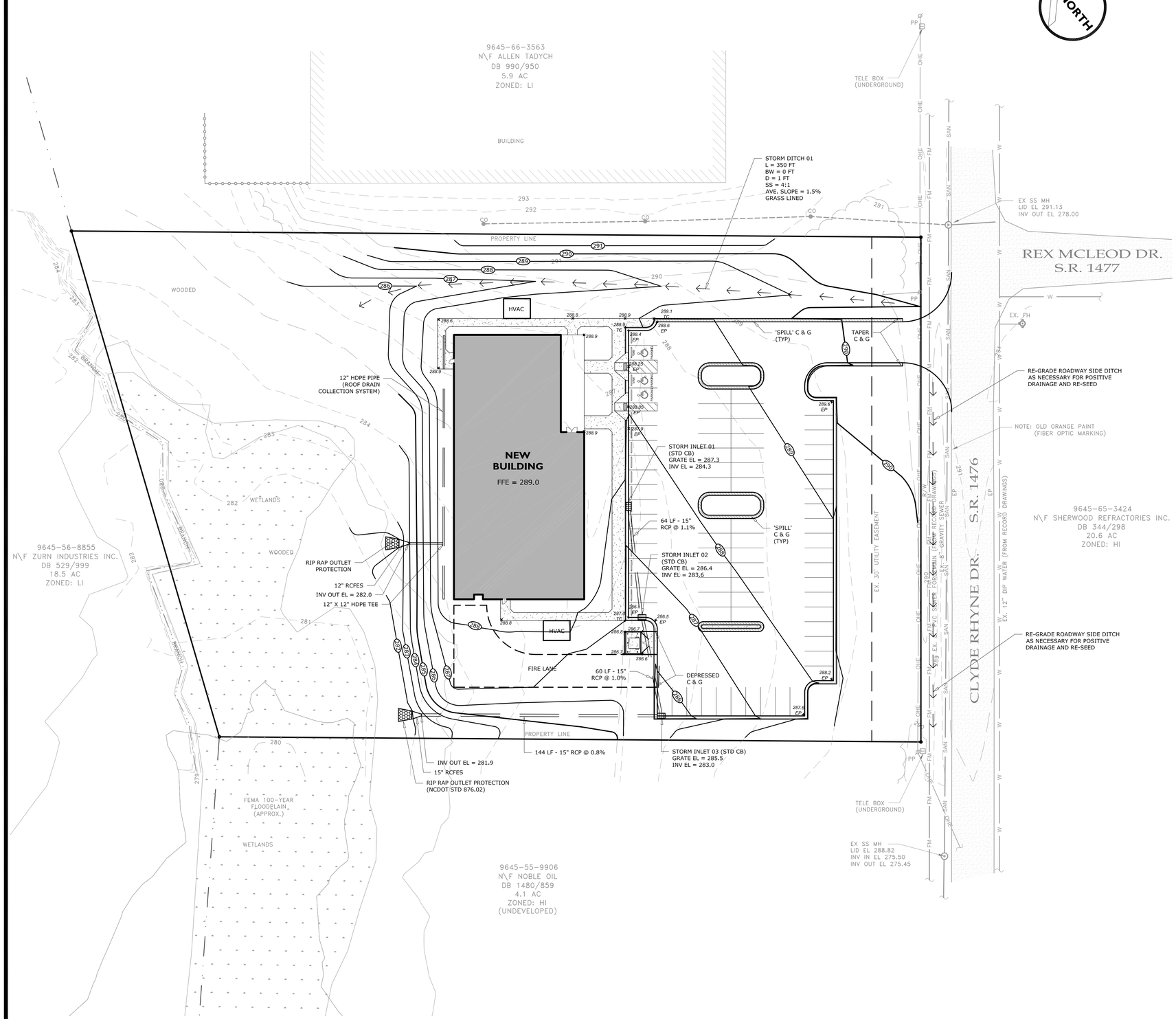

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NOTES

1. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING UTILITIES WHILE WORKING. EXISTING UNDERGROUND UTILITIES SHOWN HERE SHALL BE CONSIDERED APPROXIMATE. OTHER UTILITIES MAY BE PRESENT. CONTRACTOR SHALL CALL 'ONE CALL MARKED BY 811 ONE CALL PRIOR TO BEGINNING WORK.
2. CONTRACTOR SHALL KEEP WORK WITHIN THE LIMITS OF DISTURBANCE. THE LIMITS OF DISTURBANCE IS 2.5 AC. A NCDEQ EROSION CONTROL PERMIT IS REQUIRED FOR THIS PROJECT (GREATER THAN 1.0 AC OF DISTURBANCE). SEE SHEET C6 FOR EROSION CONTROL PLAN.
3. BORROW (FILL) MATERIAL IS EXPECTED FOR THIS PROJECT. BORROW / DISPOSAL SITES MUST COMPLY WITH NCDEQ RULES FOR LAND DISTURBANCE.
4. CONTRACTOR TO SECURE TEMPORARY CONSTRUCTION EASEMENT (OR AGREEMENT) FOR WORK ON ADJACENT PROPERTY(S).
5. CONTRACTOR TO COORDINATE WITH POWER COMPANY PRIOR TO GRADING WITH THEIR EASEMENT OR WITHIN 15' OF THEIR POWER POLES AND EQUIPMENT.
6. CONTRACTOR TO VERIFY FINAL ELEVATIONS WITH ACTUAL FIELD CONDITIONS.
7. CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING WALLS AT ALL TIMES DURING CONSTRUCTION.
8. FINAL GRADE ON THE HANDICAP PARKING SPACES SHALL BE 2% MAX IN ANY DIRECTION.
9. CONTRACTOR TO DIRECT ROOF LEADERS INTO ENCLOSED DRAIN SYSTEM USING HDPE UNDERGROUND PIPING. TIE THE BUILDING DOWNSPOUTS (ROOF LEADERS) TO THE UNDERGROUND PIPING USING AN APPROPRIATE FITTING. ALL PIPING SHOULD HAVE 1% MIN. SLOPE. VERIFY EXACT LOCATIONS OF DOWNSPOUTS PER ARCHITECTURAL PLANS. COORDINATE LOCATION OF UNDERGROUND PIPING AROUND THE BUILDING WITH ARCHITECTURAL DRAWINGS, CIVIL DRAWINGS, AND LANDSCAPE PLAN TO AVOID CONFLICTS WITH OTHER PROPOSED IMPROVEMENTS.
10. ELEVATIONS BASED ON NAVD 88. PROPOSED AND EXISTING CONTOUR LINES ARE SHOWN AT 1' INCREMENTS.
11. SEE SHEET C6 FOR EROSION CONTROL PLAN.

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GRADING AND STORM DRAINAGE

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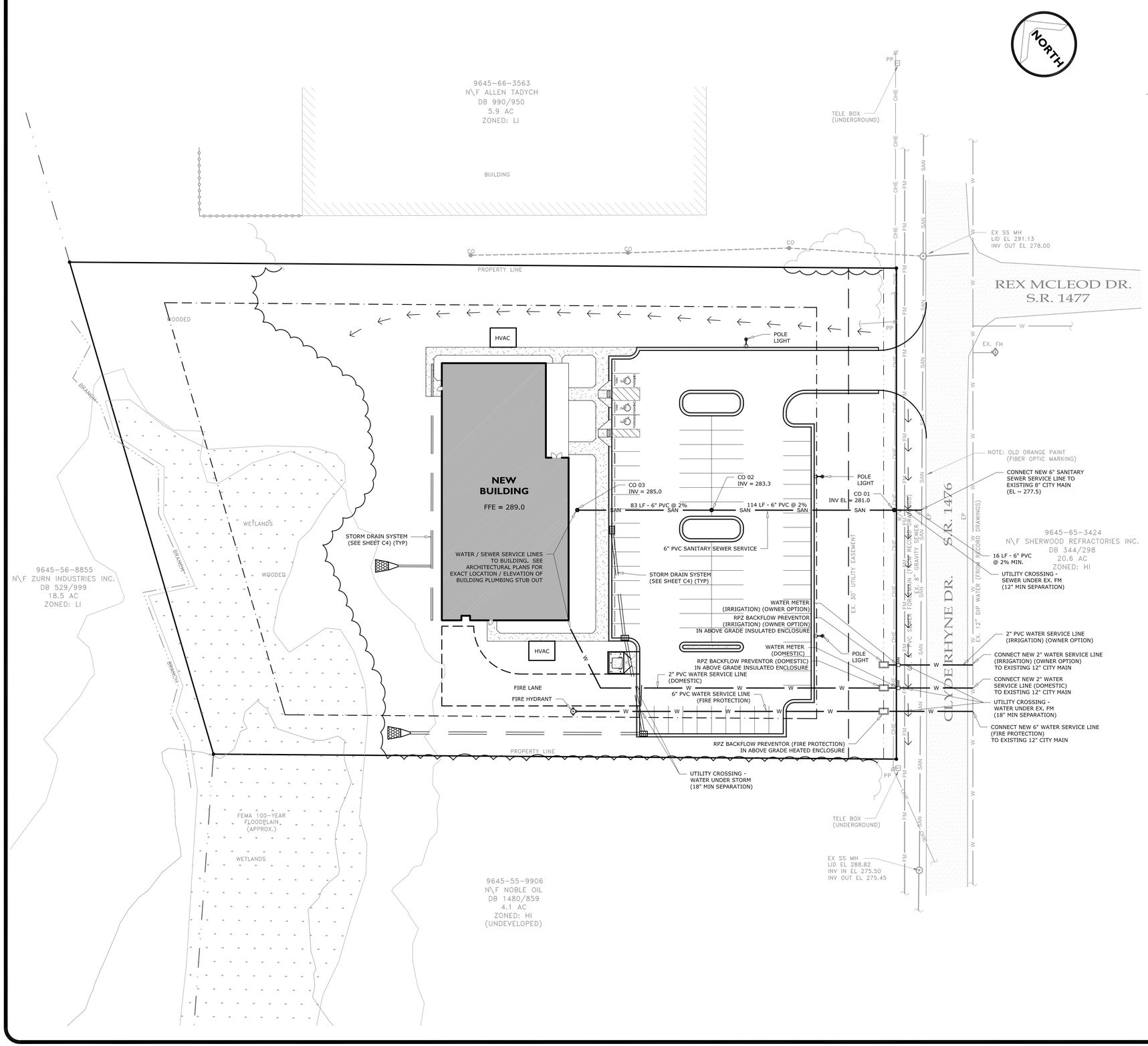

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COMMERCIAL DESIGN BUILD

NOTES

1. CONSTRUCTION OF UTILITY LINES MAY NOT BEGIN UNTIL ALL FEES ARE PAID, ALL PERMITS ARE PRESENT ON SITE, AND NOTIFICATION OF CONSTRUCTION IS MADE TO THE APPLICABLE PERMITTING AGENCIES IN ACCORDANCE WITH THEIR POLICES.
2. EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE - OTHER UNDERGROUND UTILITIES NOT SHOWN MAY BE PRESENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCURATELY LOCATE EXISTING UTILITIES WITHIN THE WORK AREA PRIOR TO START OF CONSTRUCTION. THE EXACT LOCATION AND SIZE OF THE EXISTING UTILITIES TO BE CONNECTED TO SHOULD BE VERIFIED PRIOR TO THE START OF CONSTRUCTION.
3. WATER SERVICE SIZES SHALL BE CONSIDERED PRELIMINARY. FINAL SIZES FOR SERVICE LINES, METERS, AND BACKFLOW PREVENTION TO BE PROVIDED BY BUILDING ENGINEER / OWNER.
4. WATER AND SEWER SERVICE LINES ARE TO BE BURIED WITH A MINIMUM 3' COVER. THE SERVICE LINES SHALL BE EXTENDED TO WITHIN 5' OF BUILDING. COORDINATE SERVICE SIZE, LOCATIONS, AND DEPTHS WITH ARCHITECTURAL PLANS.
5. THE PROPOSED FIRE PROTECTION SERVICE LINE FOR THIS BUILDING IS PRIVATE (NOT AN EXTENSION OF THE CITY'S SYTEM). ALTHOUGH THIS LINE IS PRIVATE, THE INSTALLATION SHALL BE IN ACCORDANCE WITH CITY OF SANFORD STANDARDS AND SPECIFICATIONS FOR WATER MAINS. THE PIPE MATERIAL SHALL BE PVC C900 WITH DIP FITTINGS. PROPER THRUST RESTRAINT MUST BE PROVIDED AT ALL TEES AND BENDS.
6. MAINTAIN 10' HORIZONTAL SEPARATION BETWEEN WATER AND SEWER SERVICES. WHERE NOT PRACTICAL, PROVIDE 18" VERTICAL SEPARATION.
7. CONTRACTOR TO NOTIFY THE CITY OF SANFORD PRIOR TO TAPPING THE EXISTING WATER MAIN AND SEWER MAIN.
8. IRRIGATION SUPPLY SYSTEM DESIGN BY OTHERS.
9. FINAL SITE LIGHTING DESIGN BY OTHERS. THIS PLAN SHOWS PRELIMINARY LIGHT LOCATIONS ONLY. THE FINAL SITE LIGHTING PLAN IS REQUIRED TO BE SUBMITTED TO THE CITY OF SANFORD PLANNING DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION.
10. AN ENCROACHMENT AGREEMENT IS REQUIRED WITH NCDOT TO INSTALL THE SERVICE LINES WITHIN THEIR R/W.

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UTILITY

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TEMP. SKIMMER BASIN SCHEDULE																		
BASIN NO	DRAINAGE AREA (AC)	DISTURBED AREA (AC)	Q_{10} FLOW (CFS)	S.A. REQ'D (325 SF/AC D.A.) (SF)	BASIN WIDTH (AT 'TOP OF STORAGE') (FT)	BASIN LENGTH (AT 'TOP OF STORAGE') (FT)	S.A. PROVIDED (AT 'TOP OF STORAGE') (SF)	VOL REQ'D (1,800 CF/AC DISTURBED D.A.) (CF)	VOL PROVIDED (CF)	STORAGE DEPTH (FT)	BASIN BOTTOM ELEV (FT)	TOP OF STORAGE ELEV (FT)	WEIR ELEV (FT)	WEIR LENGTH	TOP OF BERM ELEV	SKIMMER PIPE SIZE (IN)	ORIFICE DIA. (IN)	BASIN DRAWDOWN TIME (DAY)
1	1.9	1.8	5.7	1,853	25	85	2,125	3,240	3,434	2	282.0	284.0	284.5	6	286.0	1.5	1 1/4	4

TEMP. DIVERSION SCHEDULE											
DIVERSION NO	DRAINAGE AREA (AC)	Q_{10} FLOW (CFS)	BOTTOM WIDTH (BW) (FT)	DEPTH (D) (FT)	Q_{10} FLOW DEPTH (FT)	Q_{10} VELOCITY (FT/SEC)	LENGTH (FT)	SIDESLOPE (Z:1)	AVE. SLOPE (%)	SHEAR (LB/FT^2)	LINER
1	1.3	3.9	0	1	0.7	2.8	360	3	1.5	0.7	R.E.C.P.
2	1.7	5.1	0	1	0.8	3.9	240	2	2.5	1.2	R.E.C.P.
3	1.2	3.6	0	1	0.7	3.3	50	2	2.0	0.9	R.E.C.P.

LEGEND OF EROSION CONTROL MEASURES

- TEMP. SKIMMER BASIN (TOE OF BERM, TOP OF BERM, WEIR SKIMMER, BAFFLE BOTTOM)
- TEMP. SILT FENCE
- TEMP. SILT FENCE OUTLET
- TEMP. INLET PROTECTION
- TEMP. DIVERSION DITCH (TD)
- LIMIT OF DISTURBANCE
- TEMP. ROCK SILT CHECK (NCDOT STD DWG 1633.01)
- RECP / DITCH LINER / MATTING
- ROCK LINER / PROTECTION
- TEMP. CONSTRUCTION ENTRANCE

NOTES

1. THIS PLAN SHOWS THE EROSION CONTROL MEASURES FOR TWO PHASES OF CONSTRUCTION. PHASE A - INITIAL CONSTRUCTION AND PHASE B - PROJECT CONSTRUCTION.
2. LIMIT OF DISTURBANCE = 2.5 AC +/-. NCDEQ EROSION CONTROL PERMIT REQUIRED.
3. SEE SHEET C7 FOR THE CONSTRUCTION SEQUENCE, MAINTENANCE PLAN, AND SPECIFICATIONS.
4. OFF-SITE BORROW / WASTE SITES MUST COMPLY WITH NCDEQ RULES AND REGULATIONS FOR LAND DISTURBANCE.
5. CONTRACTOR MAY NEED TO FIELD ADJUST PROPOSED SEDIMENT BASIN ELEVATIONS TO FIT ACTUAL FIELD CONDITIONS.
6. CONTRACTOR TO KEEP ALL CONSTRUCTION/STORAGE OPERATIONS WITHIN LIMIT OF DISTURBANCE. ANY DISTURBANCE OUTSIDE THE LIMIT OF DISTURBANCE WILL REQUIRE A MODIFICATION TO THE NCDEQ EROSION CONTROL PERMIT.
7. CUT/FILL SLOPES SHALL BE 2:1 MAXIMUM.
8. THIS PROPERTY IS LOCATED IN THE CAPE FEAR RIVER BASIN. SITE DRAINS TO LITTLE BUFFALO CREEK, A CLASS 'C' WATERS.
9. THE MAJORITY SOIL TYPES (ACCORDING TO THE NRCS MAP) ON THE SITE IS MfB (MAYODAN FINE SANDY LOAM, HYDROLOGIC GROUP 'B'), AND Wn (WEHADKEE FINE SANDY LOAM, HYDROLOGIC GROUP 'B/D').
10. ROLLED EROSION CONTROL PRODUCT (R.E.C.P.) SHALL BE NORTH AMERICAN GREEN (N.A.G.) OR EQUAL AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS OR NCDOT STANDARD DRAWING 1631.01.

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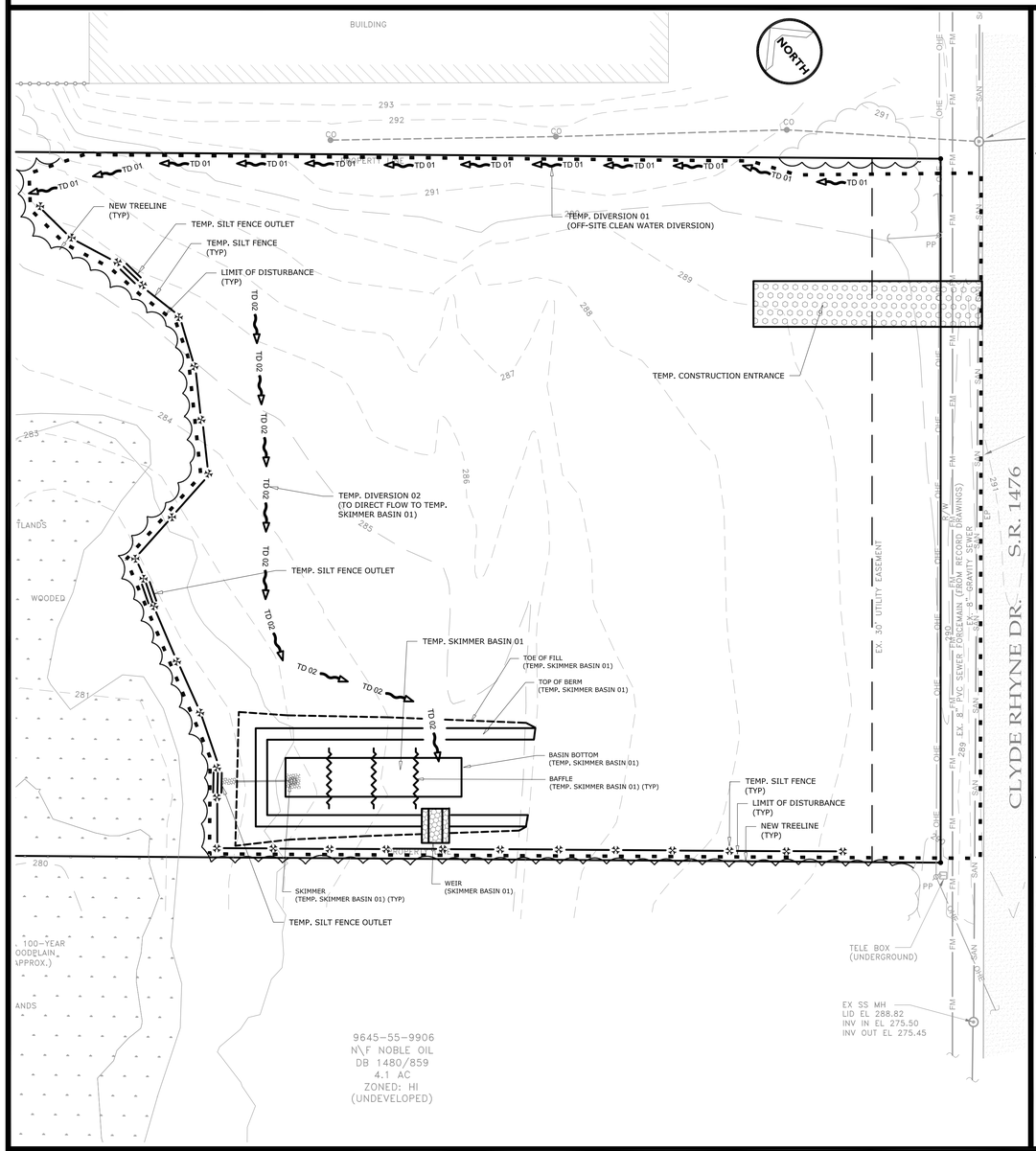

PHASE A - INITIAL CONSTRUCTION

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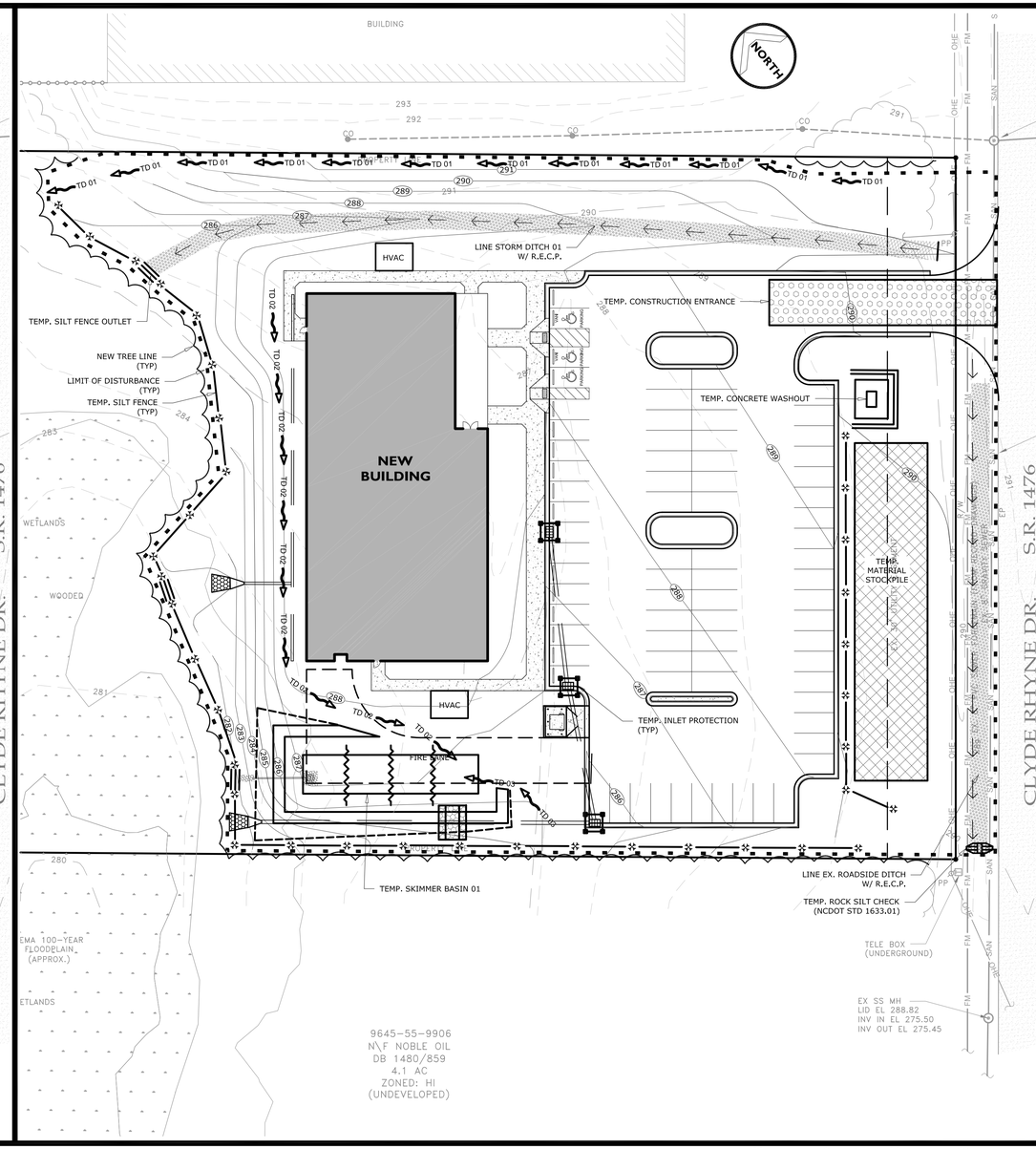
SCALE: 1" = 30'



PHASE B - PROJECT CONSTRUCTION

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SCALE: 1" = 30'

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EROSION CONTROL

REVISIONS

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CONSTRUCTION SEQUENCE

1. PROJECT NARRATIVE: THE PURPOSE OF THIS PROJECT IS TO INSTALL INFRASTRUCTURE (DRIVES, PARKING, STORM DRAINAGE, WATER SERVICES, AND SEWER SERVICES) FOR A NEW OFFICE BUILDING.
3. THE FOLLOWING TEMPORARY EROSION CONTROL MEASURES ARE SPECIFIED FOR THIS PROJECT:
   TEMP. CONSTRUCTION ENTRANCE
   TEMP. SILT FENCE
   TEMP. SILT FENCE OUTLET
   TEMP. SKIMMER BASIN
   TEMP. DIVERSION
   TEMP. INLET PROTECTION
   TEMP. ROCK CHECK DAM WITH WEIR
   TEMP. SEEDING AND MULCHING (AS REQUIRED)
   ROLLED EROSION CONTROL PRODUCT (R.E.C.P.)
4. THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES AND COMPETE THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE DEMLR WEBSITE: HTTPS://FILES.NC.GOV/NCDEQ/ENERGY%20MINERAL%20AND%20LAND%20RESOURCES /STORMWATER/NPDES%20GENERAL%20PERMITS/DEMLR-CSW-MONITORING-FORM- REV-APRIL-1-2019.PDF. TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE KEPT ON- SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX." (GS113A-54.1 (E), 15A NCAC 04B.0131, NCG01 SECTION IIB (3))
5. EROSION AND SEDIMENT CONTROL (E&SC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR. A COPY OF THE E&SC PERMIT, THE COC, AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX, AND ACCESSIBLE DURING INSPECTION.
6. SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING.
7. CONTACT THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY (NCDEQ), DEPARTMENT OF ENERGY, MINERAL, AND LAND RESOURCES (DEMLR) RALEIGH REGIONAL OFFICE (919-791-4200) TO SET PRE-CONSTRUCTION CONFERENCE PRIOR TO BEGINNING ANY WORK.

PHASE A - INITIAL CONSTRUCTION

8. SEE SHEET C6 FOR THE PLAN SHOWING PHASE A - INITIAL CONSTRUCTION.
9. STAKE THE LIMITS OF DISTURBANCE AS SHOWN. CLEAR ONLY WHAT IS NECESSARY TO INSTALL THE TEMPORARY EROSION CONTROL MEASURES.
10. INSTALL THE TEMP. CONSTRUCTION ENTRANCE.
11. INSTALL THE TEMP. SILT FENCE AS SHOWN ON THE EROSION CONTROL PLAN.
12. INSTALL TEMP. SILT FENCE OUTLETS WHERE CONCENTRATED WATER FLOW IS EXPECTED AND AS SHOWN ON THE EROSION CONTROL PLAN.
13. INSTALL TEMP. DIVERSION 01 TO DIRECT OFF-SITE RUNOFF COMING ONTO THE SITE FROM THE NORTH AWAY FROM THE PROJECT CONSTRUCTION. THIS DIVERSION IS A 'CLEAN WATER' DIVERSION. IMMEDIATELY LINE THE TEMP. DIVERSION PER THE SCHEDULE ON THE PLAN.
14. INSTALL THE TEMP. ROCK SILT CHECK WITHIN THE EXISTING ROADSIDE DITCH OF CLYDE RHYNE DRIVE AS SHOWN ON THE PLAN.
15. INSTALL THE TEMP. SKIMMER BASIN 01. STABILIZE BASIN WITH TEMPORARY SEEDING ON SLOPES AND RIP RAP BELOW SKIMMER OUTLET, EMERGENCY SPILLWAY, AND ENTRANCE CHANNELS IMMEDIATELY UPON CONSTRUCTION OF THE BASIN.
16. INSTALL TEMP. DIVERSION 02 TO DIRECT DRAINAGE FROM DISTURBED AREAS INTO THE SKIMMER BASIN. IMMEDIATELY LINE THE TEMP. DIVERSION PER THE SCHEDULE ON THE PLAN.

PHASE B - PROJECT CONSTRUCTION

17. SEE SHEET C6 FOR THE PLAN SHOWING PHASE B - PROJECT CONSTRUCTION.
18. BEGIN ROUGH GRADING OF SITE. THE TEMP. STOCKPILE AREAS ARE DESIGNATED ON THE EROSION CONTROL PLAN. ENSURE TEMP. SILT FENCE IS ALONG THE STOCKPILE PERIMETER AS SHOWN ON THE EROSION CONTROL PLAN.
19. INSTALL THE TEMPORARY CONCRETE WASHOUT AREA AS SHOWN ON EROSION CONTROL PLAN.
20. INSTALL THE SANITARY SEWER SERVICE. DEWATER TRENCHES USING SILT BAGS ON THE OUTLET END OF THE PUMP EFFLUENT LINE.
21. INSTALL THE WATER SERVICES. DEWATER TRENCHES USING SILT BAGS ON THE OUTLET END OF THE PUMP EFFLUENT LINE.
22. INSTALL THE STORM DRAIN SYSTEM. INSTALL THE 16' LF OF 15" PIPE DOWNSTREAM OF INLET 03. INSTALL TEMP. DIVERSION 03 TO DIRECT FLOW TO THE TEMP. SKIMMER BASIN 01. ONCE STORM INLETS 01 - 03 HAVE BEEN COMPLETED, INSTALL TEMP. INLET PROTECTION. USE 'GUTTER GUARDS' ON INLETS 01 - 03 ONCE THE CURB AND GUTTER IS INSTALLED.
23. CONTINUE ROUGH GRADING FOR BUILDING, DRIVES, PARKING, SIDEWALK, AND FIRE LANE. TEMP. DIVERSIONS MAY ALSO NEED TO BE ADJUSTED WITH THE EARTHWORK. THE SITE EARTHWORK IS UNBALANCED (REQUIRES FILL). FOR ANY AND ALL BORROW AND WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY SHALL CONSTITUTE PART OF THE LAND-DISTURBING ACTIVITY UNLESS THE BORROW OR WASTE ACTIVITY IS REGULATED BY THE MINING ACT OF 1971, OR IS A LANDFILL REGULATED BY THE DIVISION OF WASTE MANAGEMENT. IF THE LAND-DISTURBING ACTIVITY AND RELATED BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND-DISTURBING ACTIVITIES AND MUST BE PERMITTED EITHER THROUGH THE SEDIMENTATION POLLUTION CONTROL ACT AS A ONE-USE BORROW SITE OR THROUGH THE MINING ACT.
24. REMOVE TEMPORARY CONSTRUCTION ENTRANCE, BRING DRIVES AND PARKING TO SUBGRADE ELEVATION, AND COMPACT TO STANDARD.
25. INSTALL CURB AND GUTTER AND SIDEWALK.
26. INSTALL STONE BASE FOR DRIVES AND PARKING, AND FIRST LAYER OF ASPHALT SURFACE COURSE.
27. RE-GRADE ROADSIDE DITCH (OF CLYDE RHYNE DRIVE) AS NECESSARY TO RESTORE APPROPRIATE SECTION AND FOR POSITIVE DRAINAGE. LINE THE DITCH PER PLAN.
28. FINE GRADE REMAINING AREAS, REMOVING ALL TEMP. DIVERSIONS.
29. INSTALL LINING FOR THE PERMANENT STORM DITCH 01 PER THE PLAN.
30. REMOVE TEMP. SKIMMER BASIN 01. DEWATER BASIN THROUGH A SILT BAG. THE DRAINAGE AREA TO SKIMMER BASIN 01 MUST BE STABILIZED PRIOR TO ITS REMOVAL.
31. PROVIDE PERMANENT SEEDING TO THE ENTIRE SITE (WHERE TEMPORARY SEEDING WAS PLACED, IF ANY). INSPECT SITE FOR ANY AREAS THAT NEED RE-SEEDING AND MULCHING TO ESTABLISH A GOOD GROUND COVER.
32. REMOVE REMAINING SILT FENCE AND SILT FENCE OUTLETS.
33. RE-SEED / SOD / LANDSCAPE AREAS BARE AREAS OR AREA OF POOR GROWTH WITHIN THE PROJECT AREA.
34. WHEN THE PROJECT IS COMPLETE, THE PERMITTEES SHALL CONTACT DEMLR TO CLOSE OUT THE E&SC PLAN.

MAINTENANCE PLAN

THE SITE GRADING CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES THROUGHOUT THE PROJECT DURATION.

ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL OR RAINFALL > 0.5 INCHES IN 24 HOURS BUT IN NO CASE LESS THAN ONCE EVERY 7 CALENDAR DAYS. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN ALL DEVICES AS DESIGNED. RECORDS OF INSPECTIONS FOR PREVIOUS 30 DAYS SHALL REMAIN ON SITE AND AVAILABLE FOR AGENCY INSPECTORS DURING NORMAL WORKING HOURS.

TEMP. SKIMMER BASIN:
SEE SHEET C12

BAFFLES (FOR SKIMMER BASIN):
SEE SHEET C12

ROLLED EROSION CONTROL PRODUCTS (RECP):
SEE SHEET C12

SEDIMENT FILTER BAG (FOR DEWATERING:
PER MANUFACTURER'S RECOMMENDED SCHEDULE.

TEMP. SILT FENCE:
1. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FT DEEP AT THE FENCE. THE FENCE SHALL BE REPAIRED AS REQUIRED TO MAINTAIN A SUFFICIENT BARRIER.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, DECOMPOSE, TEAR, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. AFTER ALL AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT. GRADE AREA TO GRADING PLAN OR BLEND WITH ADJACENT GRADES. STABILIZE AREA.

TEMP. SILT FENCE OUTLET:
1. CLEAR THE HARDWARE CLOTH OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. BE CAREFUL NOT TO DAMAGE OR UNDERCUT THE HARDWARE CLOTH.
2. REPLACE STONE AS NEEDED.

TEMP. INLET PROTECTION:
1. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. BE CAREFUL NOT TO DAMAGE OR UNDERCUT THE WIRE MESH.
2. REPLACE STONE AS NEEDED.

TEMP. CHECK DAM WITH WEIR:
1. CLEAN OUT SEDIMENT, STRAW, LIMBS, OR OTHER DEBRIS THAT COULD CLOG THE CHECK DAM.
2. ANTICIPATE SUBMERGENCE AND DEPOSITION ABOVE THE CHECK DAM FROM EROSION FROM HIGH FLOWS AROUND THE EDGES OF THE DAM. CORRECT ALL DAMAGE IMMEDIATELY.
3. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAM AS NEEDED TO: PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO THE DAM AS NEEDED TO MAINTAIN THE DESIGN DIMENSIONS.

TEMP. CONSTRUCTION ENTRANCE:
1. MAINTAIN GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE.
2. IMMEDIATELY REMOVE ALL MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

TEMP. DIVERSIONS:
1. IMMEDIATELY REMOVE EXCESS SEDIMENT FROM FLOW AREA AND REPAIR DIVERSION RIDGE.
2. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED.
3. AFTER ALL AREAS HAVE BEEN STABILIZED REMOVE THE RIDGE AND THE CHANNEL AND GRADE ACCORDING TO GRADING PLAN OR BLEND WITH ADJACENT GRADES. STABILIZE AREA.

RIP RAP LINED DITCHES/CHANNELS/OUTLETS:
1. PAY CLOSE ATTENTION TO INLET AND OUTLET SECTIONS WHERE CONCENTRATED FLOW ENTERS.
2. INSPECT FOR INDICATIONS OF DISPLACED ROCK, SCOUR HOLES, OR BANK FAILURES. MAKE REPAIRS IMMEDIATELY.
3. MAINTAIN VEGETATION ADJACENT TO THE ROCK LINING IN A HEALTHY, VIGOROUS CONDITION TO PROTECT THE AREA FROM EROSION AND SCOUR.

GRASS LINED DITCHES/CHANNELS/SWALES:
1. DURING GRASS ESTABLISHMENT PERIOD, INSPECT AFTER EVERY RAINFALL.
2. AFTER GRASS HAS ESTABLISHED, INSPECT PERIODICALLY AND AFTER HEAVY RAINFALL. IMMEDIATELY MAKE REPAIRS.
3. PAY CLOSE ATTENTION TO INLET AND OUTLET SECTIONS WHERE CONCENTRATED FLOW ENTERS.
4. GRASS SHOULD BE MAINTAINED IN A HEALTHY VIGOROUS CONDITION AT ALL TIMES, SINCE IT IS THE PRIMARY EROSION PROTECTION.

BUILDING WASTES HANDLING:
1. NO PAINT OR LIQUID WASTES TO BE DISCHARGED INTO STREAMS OR STORM DRAINS.
2. DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION, AND OTHER WASTES SHALL BE LOCATED 50' FROM STORM DRAINS UNLESS NO REASONABLE ALTERNATIVES EXIST.
3. EARTHERN MATERIAL STOCKPILES SHALL BE LOCATED 50' FROM STREAMS UNLESS NO REASONABLE ALTERNATIVES EXIST.
4. CONCRETE MATERIALS AND WASHOUT AREAS MUST BE CONTROLLED SO THERE IS NO DISCHARGE TO SURFACE WATERS, WETLANDS, OR BUFFERS. SEE PLAN FOR LOCATION OF CONCRETE WASHOUT AREA.

TEMPORARY SEEDING

PROVIDE TEMPORARY SEEDING TO ALL DENUDED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN THE FOLLOWING SCHEDULE:

GROUNDCOVER SCHEDULE
PERMANENT DITCHES --> IMMEDIATELY PER LINING SPECIFIED ON PLANS
SLOPES 4:1 OR STEEPER --> 7 DAYS
ALL OTHER AREAS --> 14 DAYS

IF SOILS BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6-8 INCHES.

SEEDBED PREPARATION:

LIME: APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE SOIL PH IS NOT KNOWN, APPLY AT A RATE OF 1 TO 1 ½ TONS PER ACRE ON COARSE-TEXTURED SOILS AND 2-3 TONS PER ACRE OF FINE-TEXTURED SOILS. APPLY LIME UNIFORMLY AND INCORPORATE INTO THE TOP 4-6 INCHES OF SOIL. SOILS WITH PH HIGHER THAN 6 DO NOT NEED LIME.

FERTILIZER: FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS. WHERE SOIL TESTS ARE NOT AVAILABLE, APPLY A 10-10-10 GRADE FERTILIZER AT 700-1,000 LB/ACRE. INCORPORATE FERTILIZER INTO THE TOP 4-6 INCHES OF SOIL. IF A HYDRAULIC SEEDER IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES BEFORE APPLICATION.

SURFACE ROUGHENING: IF AREAS TO BE SEEDED BECOME HARDENED, SEALED, OR CRUSTED, LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING.

PLANT SELECTION:

SELECT THE APPROPRIATE SPECIES BASED ON THE PLANTING SEASON.

SEEDING:

APPLY SEED WITH A BROADCAST SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. USE SEEDING RATES GIVEN IN TABLES. BROADCAST SEEDING AND HYDROSEEDING IS ACCEPTABLE ON STEEP SLOPES WHERE EQUIPMENT CANNOT BE DRIVEN. HAND BROADCASTING IS NOT RECOMMENDED.

SMALL GRAINS SHOULD BE PLANTED NO MORE THAN ONE INCH DEEP AND GRASSES AND LEGUMES ON MORE THAN ½ INCH. BROADCAST SEED MUST BE COVERED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRMED WITH A ROLLER OR CULTIPACKER. HYDROSEEDED MIXTURES SHOULD NOT INCLUDE A WOOD FIBER MULCH.

MULCHING:

MULCHING IS REQUIRED UNDER THE FOLLOWING CONDITIONS:
- SEEDING IN FALL (WOOD FIBER MULCHES NOT ACCEPTABLE)
- SLOPES STEEPER THAN 3:1
- EXCESSIVELY HOT OR DRY WEATHER
- ADVERSE SOILS (SHALLOW, ROCKY, OR HIGH IN CLAY OR SAND)
- AREAS RECEIVING CONCENTRATED FLOW.

FOR CONCENTRATED FLOW AREAS (DITCHES, CHANNELS, SWALES, ETC.) ANCHOR MULCH WITH NETTING OR LIQUID ASPHALT AT A RATE OF 0.10 GALLON PER SQUARE YARD (10 GAL / 1000 SQ FT).

MAINTENANCE:

CONTRACTOR TO MONITOR GRASS ESTABLISHMENT. PROMPTLY RESEEED AREAS WHERE A HEALTHY. DENSE GROWTH DOES NOT ESTABLISH. CONTRACTOR MAY NEED TO PROVIDE NETTING OR TEMPORARY LINERS TO AREAS WHERE GRASS CANNOT BE ESTABLISHED DUE TO EROSION.

PERMANENT SEEDING

PROVIDE PERMANENT SEEDING TO ALL DENUDED AREAS THAT WILL NOT BE COVERED BY PAVING, BUILDINGS, OR OTHER LANDSCAPING. AREAS RECEIVING PERMANENT VEGETATION MUST BE STABILIZED WITHIN THE FOLLOWING TIMEFRAMES AFTER FINAL GRADE IS REACHED, UNLESS TEMPORARY STABILIZATION IS APPLIED.

GROUNDCOVER SCHEDULE
PERMANENT DITCHES --> IMMEDIATELY (ROCK LINED)
SLOPES 4:1 OR STEEPER --> 7 DAYS
ALL OTHER AREAS --> 14 DAYS

COMPLETE GRADING BEFORE PREPARING SEEDBEDS. IF SOILS BECOME COMPACTED DURING GRADING, LOOSEN THEM TO A DEPTH OF 6-8 INCHES.

SEEDBED REQUIREMENTS:

THE SOIL SHOULD MEET THE FOLLOWING MINIMUM CRITERIA FOR VEGETATION ESTABLISHMENT:
- ENOUGH FINE-GRAINED (SILT AND CLAY) MATERIAL TO MAINTAIN ADEQUATE MOISTURE AND NUTRIENT SUPPLY (AVAILABLE WATER CAPACITY OF AT LEAST 0.05 INCHES OF WATER TO 1 INCH OF SOIL
- SUFFICIENT PORE SPACE TO PERMIT ROOT PENETRATION.
- SUFFICIENT DEPTH OF SOIL TO PROVIDE AN ADEQUATE ROOT ZONE. THE DEPTH OF ROCK OR IMPERMEABLE LAYERS SUCH AS HARDPANS SHOULD BE 12 INCHES OR MORE, EXCEPT ON SLOPES STEEPER THAN 2:1 WHERE THE ADDITION OF SOIL IS NOT FEASIBLE.
- A FAVORABLE PH RANGE FOR PLANT GROWTH, USUALLY 6.0-6.5.
- NO LARGE ROOTS, BRANCHES, STONES, LARGE CLODS OF EARTH, AND TRASH. CLODS AND STONES MAY BE LEFT ON SLOPES STEEPER THAN 3:1 IF THEY ARE TO BE HYDROSEEDED.

IF THE ABOVE CRITERIA CANNOT BE MET, SPECIAL SOIL CONDITIONERS OR TOPSOIL MAY BE APPLIED.

SEEDBED PREPARATION:

LIME: APPLY LIME ACCORDING TO SOIL TEST RECOMMENDATIONS. IF THE SOIL PH IS NOT KNOWN, FOLLOW RATES ON THE SEEDING SPEC TABLE.

FERTILIZER: FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS. WHERE SOIL TESTS ARE NOT AVAILABLE, FOLLOW RATES ON THE SEEDING SPEC TABLE.

SURFACE ROUGHENING: IF AREAS TO BE SEEDED BECOME HARDENED, SEALED, OR CRUSTED, LOOSEN IT JUST PRIOR TO SEEDING BY DISKING, RAKING, HARROWING OR OTHER SUITABLE METHODS. GROOVE OR FURROW SLOPES STEEPER THAN 3:1 ON THE CONTOUR BEFORE SEEDING.

PLANT SELECTION:

SELECT THE APPROPRIATE SPECIES BASED ON THE PLANTING SEASON, SOIL TYPE, SLOPES, AND LAND USES. SEE LANDSCAPE PLAN IN THIS PLAN SET FOR RECOMMENDED PERMANENT SEEDING MIXTURE AND RATE.

SEEDING:

USE CERTIFIED SEED (INSPECTED BY THE NORTH CAROLINA CROP IMPROVEMENT ASSOCIATION).

APPLY SEED WITH A BROADCAST SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. USE SEEDING RATES GIVEN IN TABLES.

WHEN USING A DRILL OR CULTIPACKER SEEDER, SMALL GRAINS SHOULD BE PLANTED NO MORE THAN ONE INCH DEEP AND GRASSES AND LEGUMES ON MORE THAN ½ INCH.

WHEN BROADCAST SEEDING, SUBDIVIDE AREA INTO WORKABLE SECTIONS AND DETERMINE THE AMOUNT OF SEED NEEDED FOR EACH SECTION. APPLY ONE-HALF THE SEED WHILE MOVING BACK AND FORTH ACROSS THE AREA AND APPLY THE REMAINING SEED IN THE SAME MANNER BUT AT RIGHT ANGLES TO THE FIRST PASS. COVER SEED BY RAKING OR CHAIN DRAGGING, AND THEN LIGHTLY FIRM WITH A ROLLER OR CULTIPACKER.

MULCH AREAS IMMEDIATELY AFTER SEEDING IN ACCORDANCE WITH RATES GIVEN IN TABLES. ANCHOR MULCH WITH NETTING OR LIQUID ASPHALT AT A RATE OF 0.10 GALLON PER SQUARE YARD (10 GAL / 1000 SQ FT).

HYDROSEEDING:

SURFACE ROUGHENING IS REQUIRED. FINE SEEDBED PREPARATION IS NOT NECESSARY.

RATE OF WOOD FIBER APPLICATION SHOULD BE AT LEAST 2 TONS/ACRE.

APPLY LEGUME INOCULATES AT FOUR TIMES THE RECOMMENDED RATE WHEN ADDING INOCULATE TO HYDROSEEDER SLURRY.

APPLY LIME IN DRY FROM.

IRRIGATION:

IRRIGATE DURING DRY PERIODS OR TO SPEED DEVELOPMENT OF FULL COVER.

MAINTENANCE:

IF STAND IS INADEQUATE. RE-EVALUATE PLANT CHOICE AND QUANTITIES OF LIME AND FERTILIZER. REESTABLISH THE STAND AFTER SEEDBED PREPARATION OR OVER-SEED THE STAND. CONSIDER SEEDING TEMPORARY. ANNUAL SPECIES IF THE TIME OF YEAR IS NOT APPROPRIATE FOR PERMANENT SEEDING.

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Table 6.10b Temporary Seeding Recommendations for Summer

Seeding mixture

Species	Rate (lb/acre)
German millet	40

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

Seeding dates
Mountains—May 15 - Aug. 15
Piedmont—May 1 - Aug. 15
Coastal Plain—Apr. 15 - Aug. 15

Soil amendments
Follow recommendations of soil tests or apply **4,000** lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting,

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

Table 6.10c Temporary Seeding Recommendations for Fall

Seeding mixture

Species	Rate (lb/acre)
Rye (grain)	120

Seeding dates
Mountains—Aug. 15 - Dec. 15
Coastal Plain and Piedmont—Aug. 15 - Dec. 30

Soil amendments
Follow soil tests or apply **4,000** lb/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting,

Maintenance
Repair and refertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extent temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

Table 6.10a Temporary Seeding Recommendations for Late Winter and Early Spring

Seeding mixture

Species	Rate (lb/acre)
Rye (grain)	120
Switchgrass	50

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

Seeding dates
Mountains—Above 2500 feet: Feb. 15 - May 15
Below 2500 feet: Feb. 1- May 1
Piedmont—Jan. 1 - May 1
Coastal Plain—Dec. 1 - Apr. 15

Soil amendments
Follow recommendations of soil tests or apply 4,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

Mulch
Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting,

Maintenance
Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

RECOMMENDED PERMANENT SEEDING MIXTURE

SEED TYPE	SEEDING RATE	SEEDING SEASON
SEE LANDSCAPE PLAN		

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EROSION CONTROL NOTES

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Project Number: 19-024	Date: 27 NOV 2019

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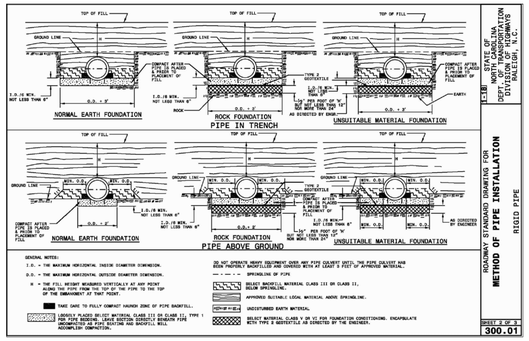

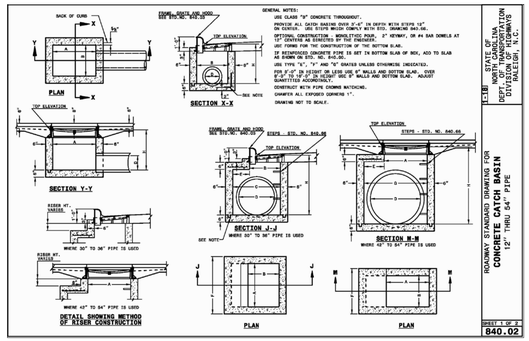

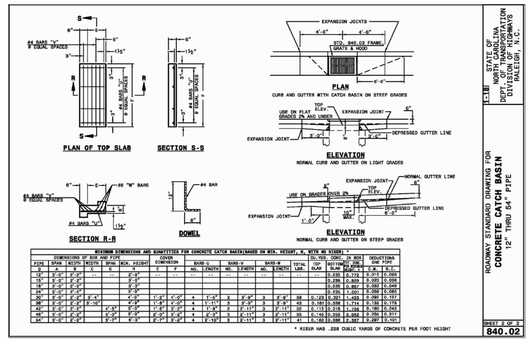

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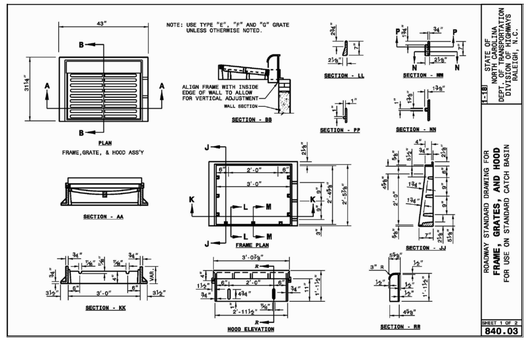
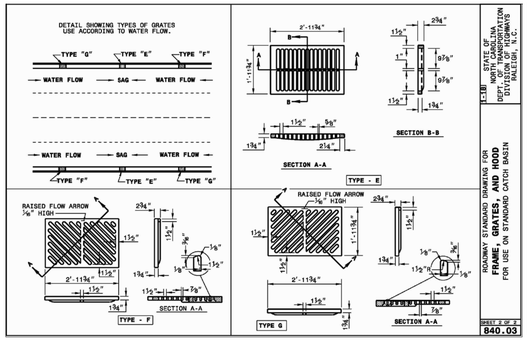
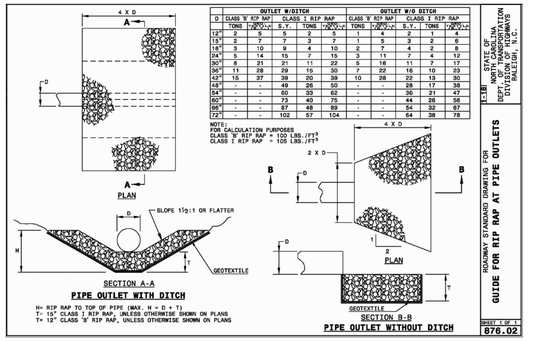
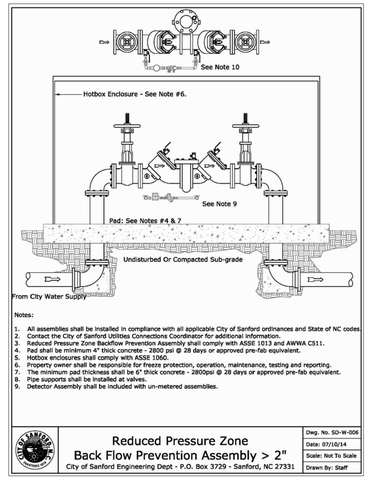
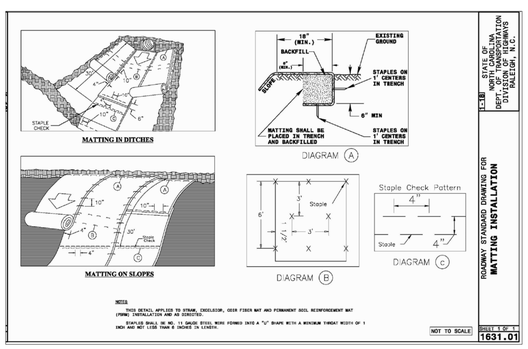
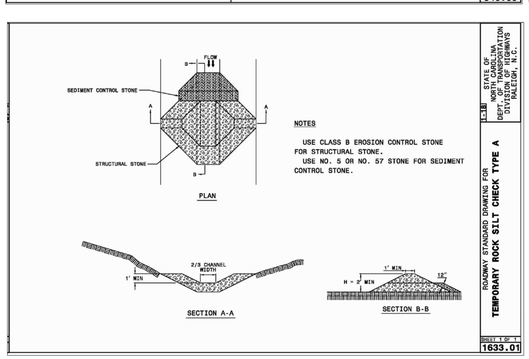


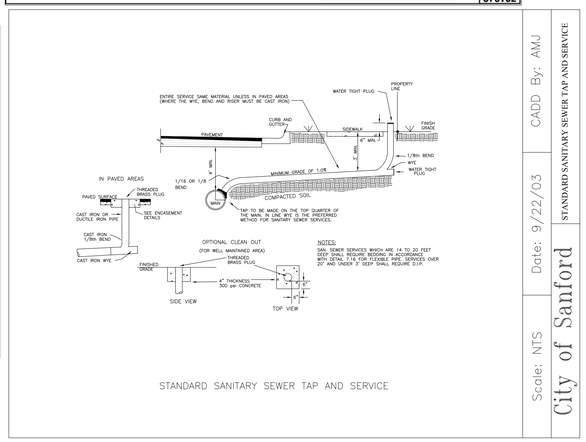


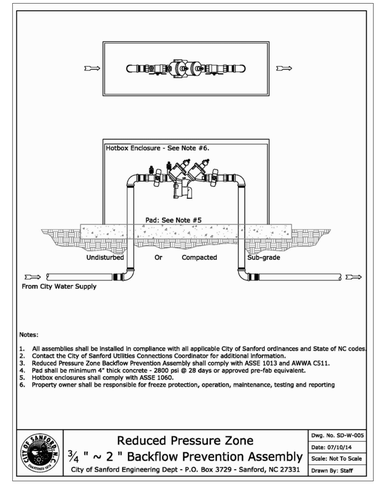


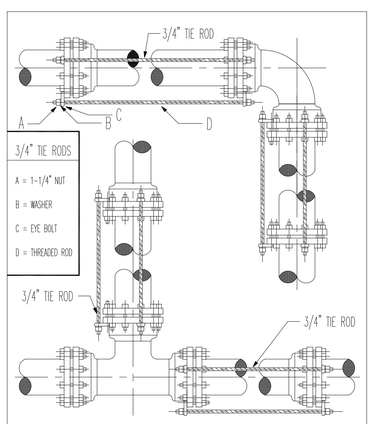


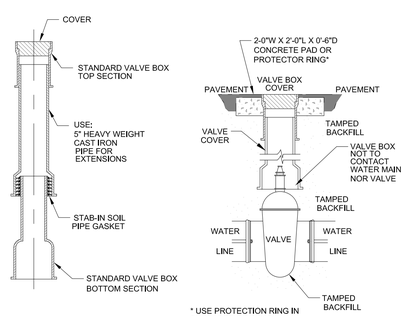




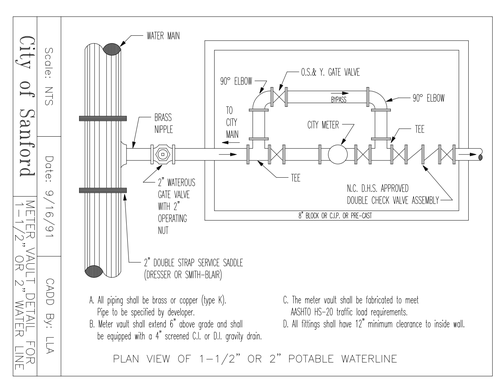


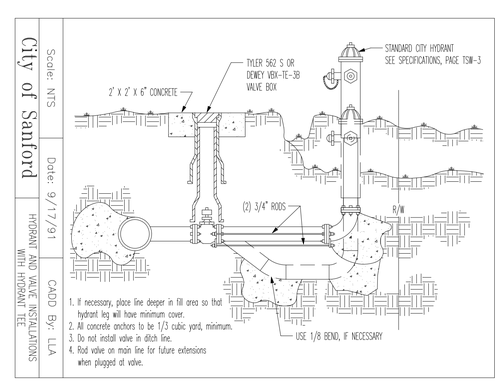






WATER VALVE
CITY OF SANFORD





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STANDARD DRAWINGS

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Sheet: C8 of 13	Designed by: JRT
	Reviewed by: JRT
Project Number: 19-024	Date: 27 NOV 2019

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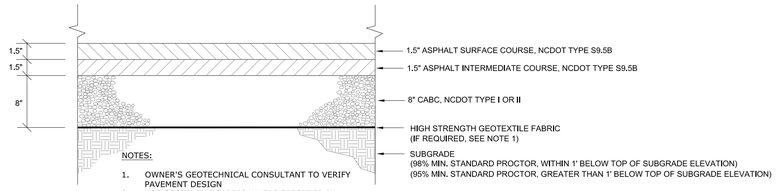
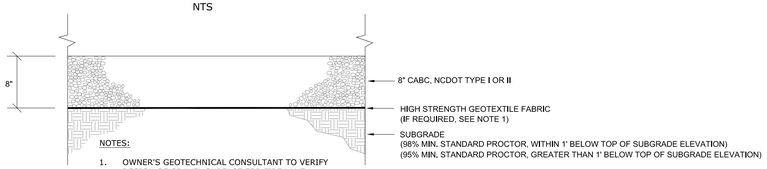


NOTES:

1. OWNER'S GEOTECHNICAL CONSULTANT TO VERIFY PAVEMENT DESIGN
2. USE GEOTEXTILE FABRIC WHERE SPECIFIED IN FIELD BY OWNER'S GEOTECHNICAL CONSULTANT.
3. SEE OWNER'S GEOTECHNICAL REPORT FOR MORE INFORMATION ON CONSTRUCTION SPECIFICATIONS.

A-9 ASPHALT PAVEMENT

NTS

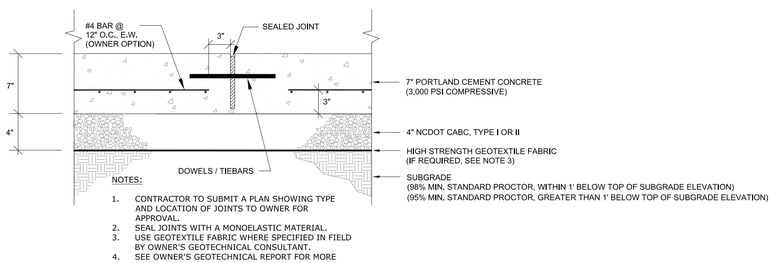


NOTES:

1. OWNER'S GEOTECHNICAL CONSULTANT TO VERIFY DESIGN OF GRAVEL SURFACE FOR FIRE LANE.
2. USE GEOTEXTILE FABRIC WHERE SPECIFIED IN FIELD BY OWNER'S GEOTECHNICAL CONSULTANT.
3. SEE OWNER'S GEOTECHNICAL REPORT FOR MORE INFORMATION ON CONSTRUCTION SPECIFICATIONS.

C-9 GRAVEL SURFACE (FIRE LANE)

NTS

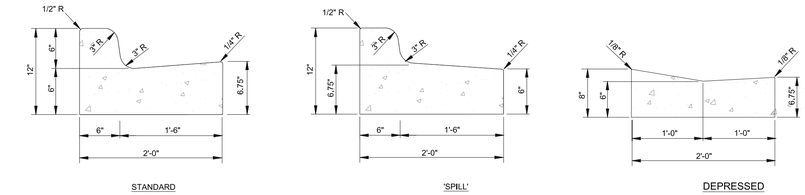


NOTES:

1. CONTRACTOR TO SUBMIT A PLAN SHOWING TYPE AND LOCATION OF JOINTS TO OWNER FOR APPROVAL.
2. SEAL JOINTS WITH A MONOELASTIC MATERIAL.
3. USE GEOTEXTILE FABRIC WHERE SPECIFIED IN FIELD BY OWNER'S GEOTECHNICAL CONSULTANT.
4. SEE OWNER'S GEOTECHNICAL REPORT FOR MORE INFORMATION ON CONSTRUCTION SPECIFICATIONS.

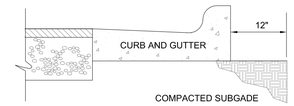
F-9 CONCRETE PAVEMENT (DUMPSTER)

NTS



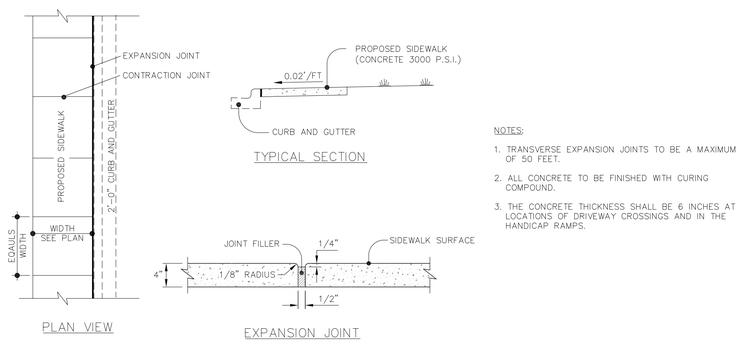
NOTES:

1. CURB AND GUTTER TO BE CONCRETE (MIN. COMPRESSIVE STRENGTH OF 3,000 PSI).
2. 1/2" EXPANSION JOINTS SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 50 FEET, AT THE ENDS AND MID-POINT OF RETURNS, AND AT ANY POINT WHERE THE NEW CURB AND GUTTER ABUTS OTHER CONCRETE STRUCTURES.
3. 5' LONG TRANSITION SECTIONS SHALL BE PROVIDED BETWEEN 'STANDARD' TO 'SPILL' OR TO 'DEPRESSED' GUTTER, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
4. USE 'SPILL' GUTTER WHERE ABUTTING ASPHALT SURFACE SLOPES AWAY FROM GUTTER. GUTTER AND AS SPECIFIED ON PLANS.



B-9 CONCRETE C & G

NTS

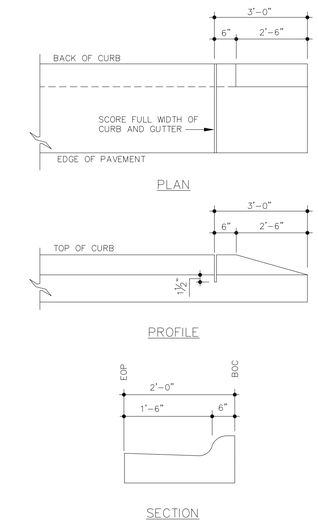


NOTES:

1. TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 50 FEET.
2. ALL CONCRETE TO BE FINISHED WITH CURING COMPOUND.
3. THE CONCRETE THICKNESS SHALL BE 6 INCHES AT LOCATIONS OF DRIVEWAY CROSSINGS AND IN THE HANDICAP RAMPS.

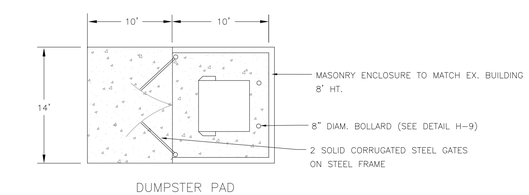
D-9 SIDEWALK

NTS

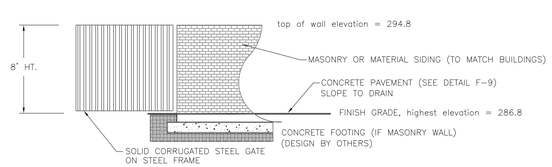


E-9 METHOD OF TAPERING C & G

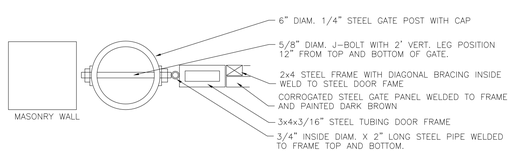
NTS



DUMPSTER PAD



OPAQUE SCREEN

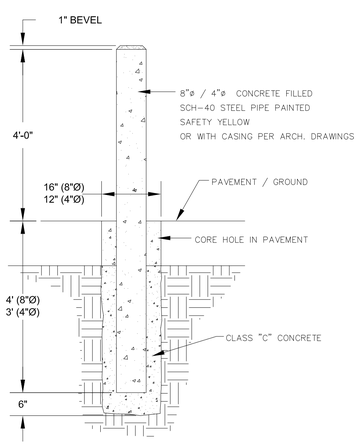


GATE DETAIL

NOTE: FINAL LAYOUT AND DESIGN BY CONTRACTOR WITH INPUT FROM WASTE DISPOSAL CONTRACTOR

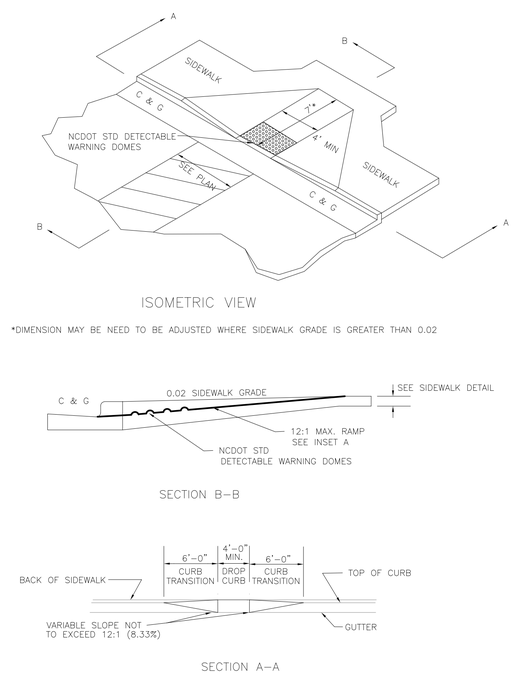
G-9 DUMPSTER ENCLOSURE

NTS



H-9 BOLLARD

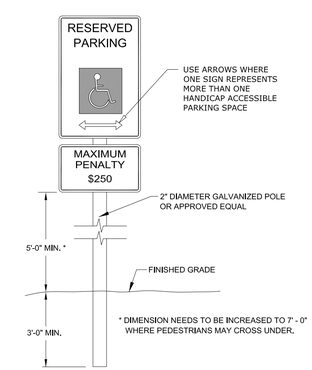
NTS



I-9 WHEELCHAIR RAMP

NTS

STANDARD HANDICAP ACCESSIBLE PARKING SIGN



J-9 HANDICAP ACCESSIBLE PARKING SIGN

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CONSTRUCTION DETAILS

REVISIONS

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Sheet: C9 of 13	Designed by: JRT
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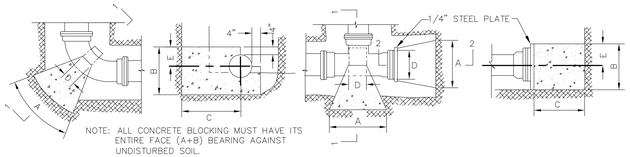


PLAN – 90°, 45°, 22 1/2°, 11 1/4° | SECTION 1–1 | PLAN – DEAD END OR TEE | SECTION 2–2

TABLE OF MINIMUM DIMENSIONS

DIA.	11 1/4° BEND			22 1/2° BEND			45° BEND			90° BEND			TEE–DEAD END		
	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.	A	B	C.Y.
4"							1'–4"	1'–4"	.19	2'–0"	1'–4"	.25	1'–6"	1'–4"	.19
6"				1'–4"	1'–4"	.19	2'–2"	1'–8"	.31	3'–4"	1'–10"	.44	2'–6"	2'–10"	.54
8"	1'–4"	1'–4"	.18	2'–0"	1'–8"	.29	3'–3"	1'–10"	.43	3'–6"	2'–3"	.56	3'–4"	2'–3"	.52
10"	1'–8"	1'–8"	.26	2'–8"	1'–10"	.38	4'–0"	2'–3"	.61	5'–8"	3'–0"	1.07	4'–6"	2'–8"	.77
12"	2'–0"	1'–9"	.42	3'–4"	2'–0"	.91	5'–0"	2'–8"	1.52	6'–8"	3'–4"	2.38	5'–6"	3'–2"	1.92
14"	2'–3"	2'–0"	.74	4'–0"	2'–3"	1.13	5'–8"	3'–2"	2.00	8'–0"	4'–0"	3.26	6'–6"	3'–8"	2.49
16"	2'–8"	2'–3"	.90	4'–6"	2'–8"	1.44	6'–6"	3'–8"	2.57	9'–2"	4'–8"	4.22	7'–6"	4'–0"	3.01
18"	3'–3"	2'–6"	1.46	4'–9"	3'–2"	2.36	7'–4"	4'–0"	4.03	10'–0"	5'–4"	6.83	8'–2"	4'–8"	4.99
20"	3'–6"	2'–8"	1.62	5'–3"	3'–8"	2.92	8'–2"	4'–6"	4.91	11'–2"	6'–0"	8.45	8'–9"	5'–4"	6.01
24"	4'–8"	3'–0"	2.68	6'–8"	4'–0"	4.64	10'–2"	5'–2"	8.29	13'–0"	7'–4"	14.43	11'–4"	6'–0"	10.37

DIMENSION C
4"–10" DIA=2'–8"
12'–16" DIA.=4'–0"
18"–20" DIA.=5'–4"
24" DIA.=6'–8"

DIMENSION D
4"–10" DIA.=1'–4"
12"–24" DIA.=2'–8"

DIMENSION E
FOR ALL DIAMETERS
E=D/2+4"

NOTES: BLOCKING DESIGN BASED ON WORKING PRESSURE 200 PSI AND 100 PSI WATER HAMMER AND SOIL BEARING 3000 PSF.
ALL MECHANICAL JOINTS SHALL BE WRAPPED WITH 6 MIL PLASTIC PRIOR TO PLACING CONCRETE.
ADDITIONAL BLOCKING AS DIRECTED BY THE ENGINEER.

A-10 THRUST BLOCKING FOR HORIZONTAL WATERLINE BENDS

NTS

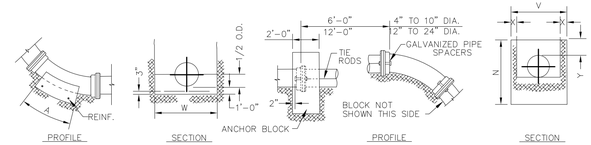


TABLE OF MINIMUM DIMENSIONS

SAG BENDS

DIA.	11 1/4° BEND			22 1/2° BEND			45° BEND		
	A	W	C.Y.	A	W	C.Y.	A	W	C.Y.
4"							1'–0"	1'–4"	.06
6"				1'–0"	1'–3"	.06	1'–0"	2'–8"	.12
8"	1'–0"	1'–0"	.05	1'–0"	2'–4"	.12	1'–8"	3'–3"	.27
10"	1'–0"	1'–3"	.07	1'–3"	3'–0"	.20	2'–3"	3'–6"	.41
12"	1'–0"	2'–0"	.11	1'–4"	3'–8"	.27	3'–0"	4'–0"	.67
14"	1'–4"	2'–0"	.16	2'–0"	4'–0"	.47	3'–9"	4'–3"	.93
16"	2'–0"	2'–0"	.25	2'–3"	4'–3"	.59	4'–8"	4'–6"	1.30
18"	2'–0"	2'–4"	.30	2'–8"	4'–6"	.78	5'–9"	4'–8	1.74
20"	2'–3"	2'–8"	.41	3'–3"	4'–8"	1.03	5'–9"	5'–8"	2.21
24"	2'–6"	3'–6"	.65	4'–0"	5'–4"	1.58	6'–0"	7'–9"	3.44

OVER BENDS

11 1/4°, 22 1/2°, 45°, 90° BENDS					
X	V	Y	N	C.Y.*	TIE RODS – NO. AND SIZE**
1'–0"	5'–8"	1'–0"	3'–3"	1.36	2–3/4" Dia.
1'–0"	6'–0"	1'–0"	3'–4"	1.48	2–3/4" Dia.
1'–0"	6'–3"	1'–0"	3'–8"	1.70	2–3/4" Dia.
1'–0"	6'–6"	1'–0"	4'–3"	2.05	4–3/4" Dia.
1'–0"	6'–8"	1'–0"	6'–6"	3.21	4–3/4" Dia.
1'–0"	7'–0"	1'–0"	7'–0"	3.11	6–3/4" Dia.

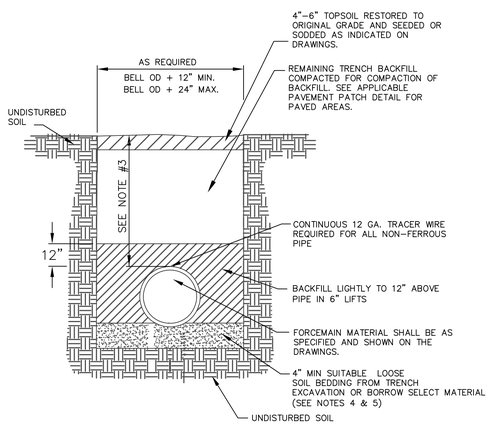
*QUANTITY SHOWN FOR EACH ANCHOR BLOCK
**DOUBLE NUT EACH ROD EACH END

REINFORCING FOR SAG BENDS
11 1/4° BEND – #4 @ 8 1/2" C/C
22 1/2° BEND – #4 @ 5 1/4" C/C
45° BEND – #6 @ 6" C/C

NOTE: BLOCKING DESIGN BASED ON WORKING PRESSURE 200 PSI AND 100 PSI WATER HAMMER AND SOIL BEARING 3000 PSF.
ALL MECHANICAL JOINTS SHALL BE WRAPPED WITH 6 MIL PLASTIC PRIOR TO PLACING CONCRETE
ADDITIONAL BLOCKING AS DIRECTED BY ENGINEER

B-10 THRUST BLOCKING FOR VERTICAL WATERLINE BENDS

NTS

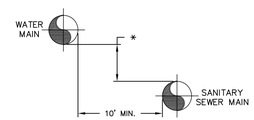


NOTES:
1. ALL EXCAVATIONS SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE CONSTRUCTION STANDARDS FOR EXCAVATIONS IN OSHA "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION", CHAPTER XV11 OF TITLE 29, CFR, PART 1926. THE CONTRACTOR SHALL HAVE A COMPETENT PERSON ON SITE AT ALL TIMES DURING EXCAVATION AND BACKFILLING.
2. CONTRACTOR SHALL USE TRENCH BOX SHORING IN ALL OPEN CUTS IN PAVED AREAS. TRENCH WIDTH SHALL BE MAINTAINED AT THE MINIMUM PRACTICAL WIDTH.
3. TYPE 3 TRENCH CONDITIONS AND A MINIMUM OF 3' OF COVER MUST BE MAINTAINED FOR MAINS 8" & SMALLER & 3.5' FOR MAINS GREATER THAN 8" UNLESS SHOWN OTHERWISE ON THE PLAN PROFILE.
4. LOOSE SOIL IS DEFINED AS "NATIVE" SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH.
5. BEDDING MATERIAL SHALL EXTEND TO UNDISTURBED TRENCH WALLS AND TRENCH BOTTOM. SELECT MATERIAL (BORROW) USED FOR BEDDING WILL NOT BE PAID FOR UNLESS SPECIFICALLY APPROVED BY THE ENGINEER AND ONLY FOR THE AUTHORIZED QUANTITY.
6. BEDDING MATERIAL SHALL BE PROPERLY RODDED AND COMPACTED AROUND THE PIPE HAUNCHES.
7. TEST FOR DENSITY OF COMPACTION MAY BE MADE AT THE OPTION OF THE ENGINEER AND DEFICIENCIES SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE ENGINEER MAY HAVE COMPACTION TEST PERFORMED AFTER THE BACKFILL IS COMPLETE. CONTRACTOR SHALL BE REQUIRED TO EXCAVATE TO VARIOUS ELEVATIONS FOR DENSITY TESTING EXCAVATION, BACKFILL AND RECOMPACTION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.

C-10 WATERLINE BEDDING

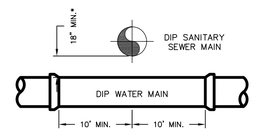
NTS

* IF MINIMUM 10' LATERAL SEPARATION CANNOT BE MAINTAINED THEN BOTTOM OF WATERLINE SHALL BE A MINIMUM 18" ABOVE TOP OF SEWER LINE



* IF MINIMUM 18" VERTICAL SEPARATION CANNOT BE MAINTAINED THEN BOTH THE SEWER MAIN AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE W/JOINTS SET 10' ON EITHER SIDE OF POINT OF CROSSING

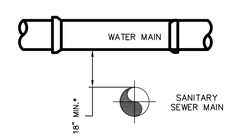
PARALLEL LINES



* BOTH WATER AND SEWER MAINS ARE TO BE DUCTILE IRON PIPE FOR A DISTANCE OF 10' EACH SIDE OF CROSSING. IF SEWER MAIN IS PVC, WATER MAIN IS TO BE ENCASED IN EITHER A WATER–TIGHT STEEL OR DUCTILE IRON PIPE ENCASEMENT

CROSSING WATER UNDER SEWER

* IF MINIMUM 18" VERTICAL SEPARATION CANNOT BE MAINTAINED THEN BOTH THE SEWER MAIN AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE W/JOINTS SET 10' ON EITHER SIDE OF POINT OF CROSSING



CROSSING WATER OVER SEWER

D-10 WATER AND SEWER SEPARATION

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CONSTRUCTION DETAILS

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Sheet: C10 of 13	Designed by: JRT
	Reviewed by: JRT
Project Number: 19-024	Date: 27 NOV 2019

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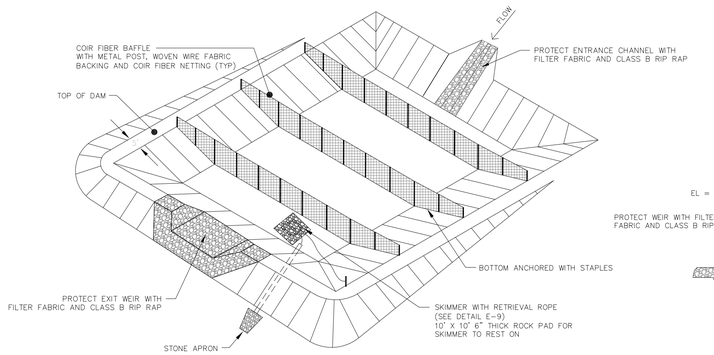
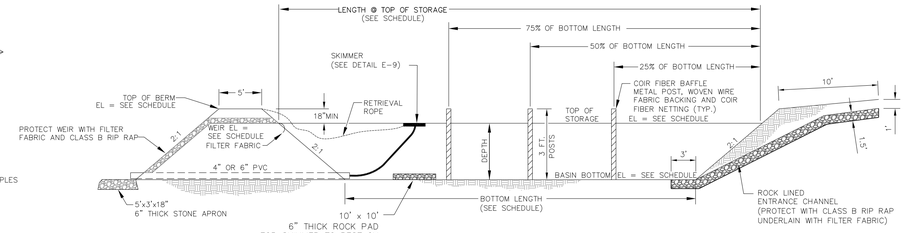
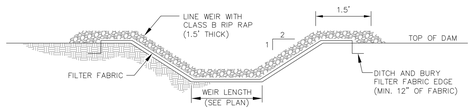


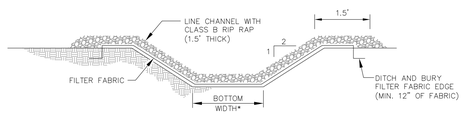
PERSPECTIVE VIEW



PERSPECTIVE VIEW



WEIR SECTION

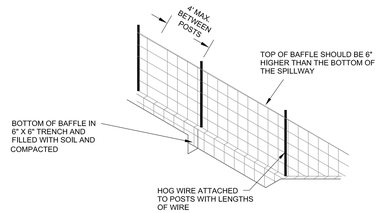


*BOTTOM WIDTH SHALL EQUAL THAT OF THE TEMPORARY DIVERSION, HOWEVER SHALL BE 2' MIN.

ENTRANCE CHANNEL SECTION

A-11 TEMPORARY SKIMMER BASIN

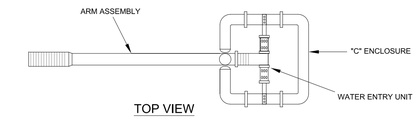
NTS



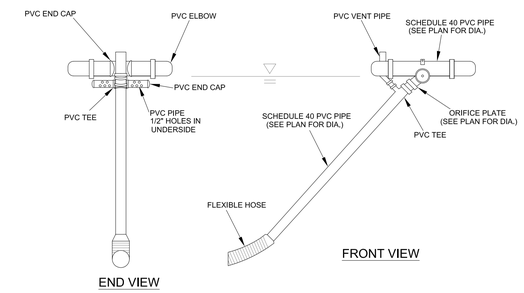
COIR FIBER BAFFLE INSTALLATION

NOTES:

1. **NO SILT FENCE ALLOWED. POROUS BAFFLE LIKE JUTE REQUIRED.**
2. DRIVE STEEL FENCE POST AT LEAST 18" INTO SOLID GROUND
3. WOOD POSTS ARE NOT ACCEPTABLE
4. USE STAPLES 1' APART TO ATTACH FABRIC O "HOG WIRE"
5. BAFFLES SPACED A MAXIMUM OF 8' IN FRONT TWO-THIRDS OF SEDIMENT TRAP (CLOSEST TO RIP-RAP WEIR),

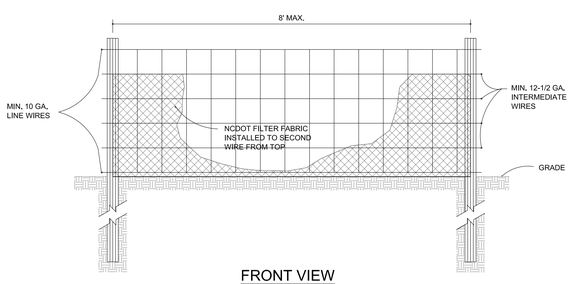


TOP VIEW



B-11 SKIMMER DEWATERING DEVICE

NTS

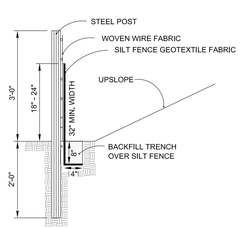


FRONT VIEW

NOTE:

-USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW

-END OF SILT FENCE NEEDS TO BE TURNED UPHILL.

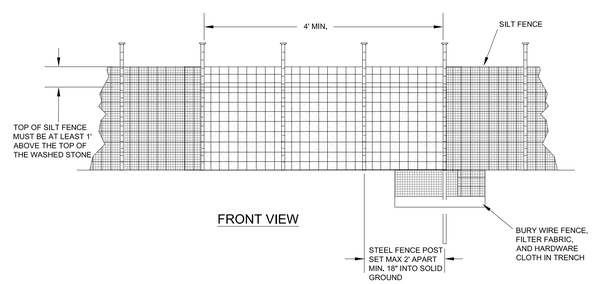


SECTION VIEW

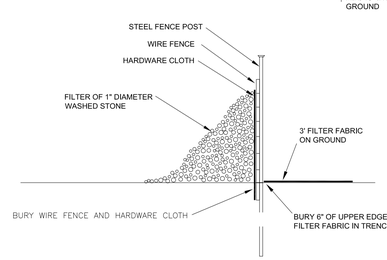
* FOR REPAIR OF SILT FENCE FAILURES, USE No. 57 WASHED STONE. FOR ANCHOR WHEN SILT FENCE IS PROTECTING CATCH BASIN.

C-11 TEMPORARY SILT FENCE

NTS



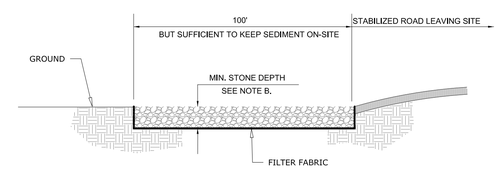
FRONT VIEW



SECTION VIEW

D-11 TEMPORARY SILT FENCE OUTLET

NTS



PROFILE

NOTES:

A) MINIMUM WIDTH OF CONSTRUCTION ENTRANCE PAD SHALL BE 20 FT.

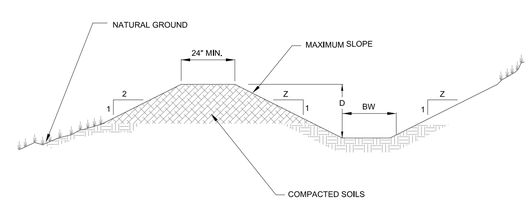
B) STONE SHALL BE NCDOT CLASS A STONE AND 12" THICK.

C) THE ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

D) INSTALL PADS WHERE SHOWN ON PLANS OR OTHERWISE DIRECTED BY ENGINEER.

E-11 TEMPORARY CONSTRUCTION ENTRANCE

NTS



F-11 TEMPORARY DIVERSION

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EROSION CONTROL DETAILS

REVISIONS

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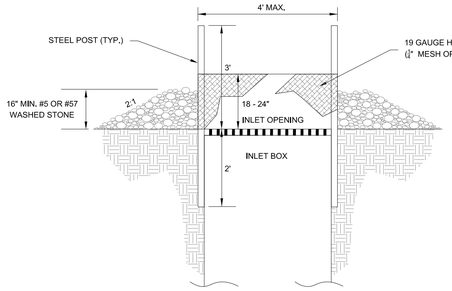
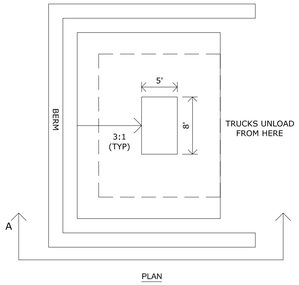


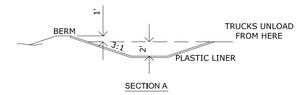
A-12 TEMPORARY INLET PROTECTION

NTS



NOTES:

1. INSTALL SIGN INDICATING LOCATION OF CONCRETE WASHOUT AREA.
2. AFTER ALL CONCRETE FOR JOB IS PLACED, REMOVE WASTE COLLECTED IN PIT AND DISPOSE OF PROPERLY.
3. INSTALL 10 MIL PLASTIC SHEETING TO LINE WASHOUT AREA AS SHOWN ON THE SECTION. ANCHOR SECURELY IN PLACE.



B-12 TEMPORARY CONCRETE WASHOUT AREA

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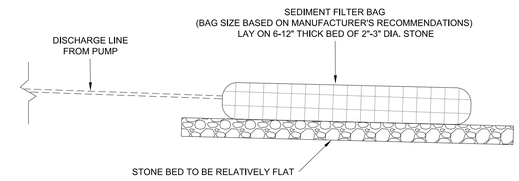

C-12 TEMPORARY SEDIMENT FILTER BAG

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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, clear up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

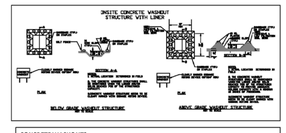
1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, 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.



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 for maintenance.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal location. 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.

NORTH CAROLINA Environmental Quality

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 these un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Director.
(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 measures, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days (and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Presence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site,
(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	6. Description, evidence, and date of corrective actions taken. 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. Documentation as to the actions taken to control future releases.
(5) Streams or wetlands crossed or offsite (when 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 discharge 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. Date of grading completion, 2. Date ground cover was installed on permeter E&SC measures, clearing and grubbing, installation of main stormwater 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 timeframes and 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 documented in the manner described:

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

In addition to the E&SC Plan documents above, the following items shall be kept on the site

and available for agency 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 30 days. 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.

(c) All data used to complete the Notice of Intent and older 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).

(a) 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.

(b) Anticipated bypasses and unanticipated bypasses.

(c) 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 Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

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)(6)]	• ***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 recurrence 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.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING | EFFECTIVE: 04/01/19

Construction Specifications

1. Clear, grub, and strip the area under the embankment of all vegetation and root mat. Remove all surface soil containing high amounts of organic matter and stockpile or dispose of it properly. Haul all objectionable material to the designated disposal area. Place temporary sediment control measures below basin as needed.

2. Remove that fill material for the embankment in lifts of roots, woody vegetation, organic matter, and other objectionable material. Place the fill in lifts not to exceed 9 inches, and machine compact it. Over fill the embankment 6 inches to allow for settlement.

3. Shape the basin to the specified dimensions. Prevent the skimming device from settling into the mud by excavating a shallow pit under the skimmer or providing a low support under the skimmer of stone or timber.

4. Place the barrel (typically 4-inch Schedule 40 PVC pipe) on a firm, smooth foundation of impervious soil. Do not use pervious material such as sand, gravel, or crushed stone as backfill around the pipe. Place the fill material around the pipe spillway in 4-inch layers and compact it under and around the pipe to at least the same density as the adjacent embankment. Care must be taken not to raise the pipe from the firm contact with its foundation when compacting under the pipe haunches.

Place a minimum depth of 2 feet of compacted backfill over the pipe spillway before crossing it with construction equipment. In no case should the pipe conduit be installed by cutting a trench through the dam after the embankment is complete.

5. Assemble the skimmer following the manufacturers instructions, or as designed.

6. Lay the assembled skimmer on the bottom of the basin with the flexible joint at the inlet of the barrel pipe. Attach the flexible joint to the barrel pipe and position the skimmer over the excavated pit or support. Be sure to attach a rope to the skimmer and anchor it to the side of the basin. This will be used to pull the skimmer to the side for maintenance.

7. Enlarge spillways—Install the spillway in undisturbed soil to the greatest extent possible. The achievement of planned elevations, grade, design width, and minimum and exit channel slopes are critical to the successful operation of the spillway. The spillway should be lined with laminated plastic or impermeable geotextile fabric. The fabric must be wide and long enough to cover the bottom and sides and extend onto the top of the dam for anchoring in a trench. The edges may be secured with 8-inch staples or pins. The fabric must be long enough to extend down the slope and exit onto stable ground. The width of the fabric must be one piece, not joined or spliced; otherwise water can get under the fabric. If the length of the fabric is insufficient for the entire length of the spillway, multiple sections, spanning the complete width, may be used. The upper section(s) should overlap the lower section(s) so that water cannot flow under the fabric. Secure the upper edge and sides of the fabric in a trench with staples or pins. (Adapted from "A Manual for Designing, Installing and Maintaining Skimmer Sediment Basins." February, 1999. J. W. Faircloth & Son.).

8. Inlets—Discharge water into the basin in a manner to prevent erosion. Use temporary slope drains or diversions with outlet protection to divert sediment-laden water to the upper end of the pool area to improve basin trap efficiency (Reference: *Runoff Control Measures and Outlet Protection*).

Rev. 4/06

9. Erosion control—Construct the structure so that the disturbed area is minimized. Divert surface water away from basin areas. Comprise the embankment before the area is cleared. Stabilize the emergency spillway embankment and all other disturbed areas above the crest of the principal spillway immediately after construction (Reference: *Surface Stabilization*).

10. Install porous baffles as specified in Practice 6.65, *Porous Baffles*.

11. After all the sediment-producing areas have been permanently stabilized, remove the structure and fill the unstable sediment. Smooth the area to blend with the adjoining areas and stabilize properly (Reference: *Surface Stabilization*).

Maintenance Inspect skimmer sediment basins at least weekly and after each significant (one-half inch or greater) 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. Make sure vegetation growing in the bottom of the basin does not hold down the skimmer.

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, usually jerking on the rope will make the skimmer bob up and down and 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.

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 outlet 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.

Freezing weather can result in ice forming in the basin. Some special precautions should be taken in the winter to prevent the skimmer from plugging with ice.

6.64.9

SKIMMER BASINS

Construction Specification

1. Grade the basin so that the bottom is level front to back and side to side.
2. Install posts or saw horses across the width of the sediment trap (Practice 6.62, *Sediment Fence*).
3. Staked posts should be driven to a depth of 24 inches, spaced a maximum of 4 feet apart, and installed up the sides of the basin as well. The top of the fabric should be 6 inches higher than the lowest point in the spillway. Tops of baffles should be 2 inches lower than the top of the berms.
4. Install at least three rows of baffles between the inlet and outlet discharge point. Baffles less than 20 feet in length may use 2 baffles.
5. When using posts, add a support wire or rope across the top of the measure to prevent sagging.
6. Wrap porous material, like jute backed by coir material, over a sawhorse or the top wire. Hammer other into the sawhorse legs for anchoring. The fabric should have five to ten percent openings in the weave. Attach fabric to a rope and a support structure with zip ties, wire, or staples.
7. The bottom and sides of the fabric should be anchored in a trench or pinned with 8-inch erosion control matting staples.
8. Do not splice the fabric, but use a continuous piece across the basin.

Maintenance 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 fall 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. Sediment spoils should never exceed half the designed storage depth.

After the contributing drainage area has been properly stabilized, remove all baffle materials and unstable sediment deposits, bring the area to grade, and stabilize it.

References

Sediment Traps and Barriers
6.60 Temporary Sediment Trap
6.61 Sediment Basins
6.62 Sediment Fence
6.63 Rock Dams
6.64 Skimmer Sediment Basin

McLaughlin, Richard. "SediTrain: Baffles to Improve Sediment Basins." N. C. State University Cooperative Extension Service Fact Sheet AGW-439-78, 2005.

Sullivan, Brian. City of High Point Erosion Control Specifications.

Thaxton, C. S., J. Calantoni, and R. J. McLaughlin. 2004. Hydrodynamic assessment of various types of baffles in a sediment detention pond. Transactions of the ASAE. Vol. 47(3): 741-749.

6.65.5

TEMPORARY BAFFLES

Construction Specifications

Installation in Channels—Excavate terminal trenches (12 inches deep and 6 inches wide) across the channel at the upper and lower end of the lined channel sections. Air 25-foot intervals along the channel, anchor the RECP across the channel either in 6 inch by 6 inch trenches or by installing two closely spaced rows of anchors. Excavate longitudinal trenches 6 inches deep and wide along channel edges (above water line) in which to bury the outside RECP edges. Place the first RECP at the downstream end of the channel. Place the end of the first RECP in the terminal trench and pin it at 1 foot intervals along the bottom of the trench.

Note: The RECP should be placed upside down in the trench with the roll on the downstream side of the bench.

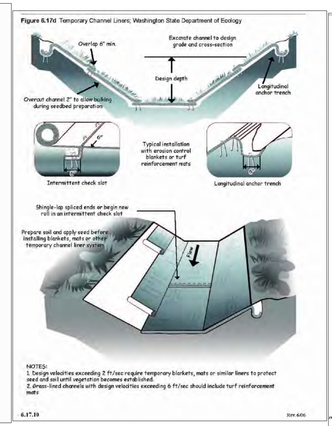
Once pinned and backfilled, the RECP is deployed by wrapping over the top of the trench and unrolling upstream. If the channel is wider than the provided rolls, place ends of adjacent rolls in the terminal trench, overlapping the adjacent rolls a minimum of 4 inches. Pin at 1 foot intervals; backfill, and compact. Unroll the RECP in the upstream direction until reaching the first intermittent trench. Fold the RECP back over itself, positioning the roll on the downstream side of the trench, and allowing the mat to conform to the trench.

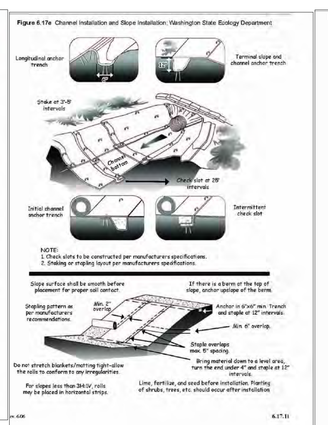
Then pin the RECP (two layers) to the bottom of the trench, backfill, and compact. Continue up the channel (wrapping over the top of the intermittent trench) repeating this step at other intermittent trenches, until reaching the upper terminal trench.

At the upper terminal trench, allow the RECP to conform to the trench, secure with pins or staples, backfill, compact and then bring the mat back over the top of the trench and onto the existing mat (2 to 3 feet overlap in the downstream direction), and pin at 1 foot intervals across the RECP. When starting installation of a new roll, begin in a trench or single-lap ends of rolls a minimum of 1 foot with upstream RECP on top to prevent uplifting. Place the outside edges of the RECP(s) in longitudinal trenches, pin, backfill, and compact.

Anchoring Devices—11 gauge, at least 6 inches length by 1 inch with staples or 12 inch minimum length wooden stakes are recommended for anchoring the RECP to the ground.

Drive staples or pins so that the top of the staple or pin is flush with the ground surface. Anchor each RECP every 3 feet along its center. Longitudinal overlaps must be sufficient to accommodate a row of anchors and uniform along the entire length of overlap and anchored every 3 feet along the overlap length. Roll ends may be spliced by overlapping 1 foot (in the direction of water flow), with the upstream/upslope mat placed on top of the downstream/ downslope RECP. This overlap should be anchored at 1 foot spacing across the RECP. When installing multiple width mats heat seamed in the factory, all factory seams and field overlaps should be similarly anchored.





Maintenance

1. Inspect Rolled Erosion Control Products at least weekly and after each significant (1/2 inch or greater) rain fall event repair immediately.
2. Good contact with the ground must be maintained, and erosion must not occur beneath the RECP.
3. Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and stapled.
4. If erosion occurs due to poorly controlled drainage, the problem shall be fixed and the eroded area protected.
5. Monitor and repair the RECP as necessary until ground cover is established.

References

Sprague, C. Joel. TRU Environmental, Inc. "Green Engineering: Design principles and applications using rolled erosion control products"

Storm Water Management Manual for Western Washington, Washington State Department of Ecology, Water Quality Program http://www.ecy.wa.gov/programs/wq/stormwater/index.html

Erosion Control Technology Council, http://www.ectc.org

6.17.9

ROLLED EROSION CONTROL PRODUCTS (R.E.C.P.)

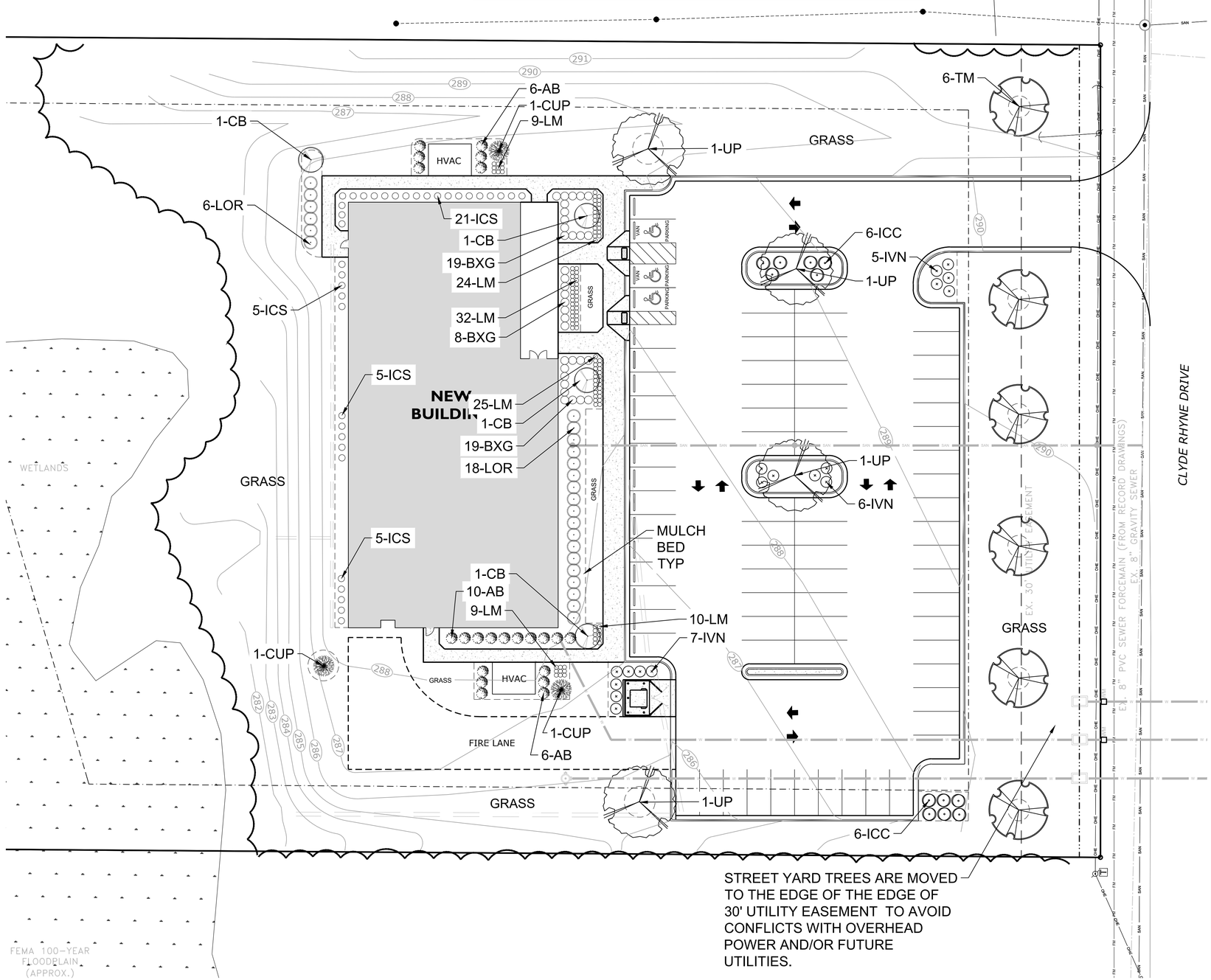
Know what's **below.**
Call before you dig.

20' 10' 0 20' 40'
SCALE: 1" = 20'

NORTH

PLANT LIST					
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.
TM	Acer buergerianum	Trident Maple	2" CAL	B&B	6
UP	Ulmus parvifolia 'Lacebark'	Lacebark Elm	2" CAL	B&B	4
ICC	Ilex cornuta 'Carissa'	Carissa Holly	18"	Cont.	12
IVN	Ilex vomitoria 'Nana'	Dwarf Yaupon Holly	18"	Cont.	18

PLANT LIST	FOUNDATION OF BUILDING				
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	QTY.
CB	Carpinus betulus 'Frans Fontaine'	Columnar European Hornbeam	2" CAL	B&B	4
CUP	Cupressus arizonica 'Carolina Sapphire'	Blue Cypress	8-10' HT	B&B	3
LOR	Loropetalum chinensis vr. 'Daruma Compacta"	Daruma Loropetalum	18"	Cont.	24
AB	Abelia grandiflora 'Little Richard'	Little Richards Abelia	18"	Cont.	22
ICS	Ilex crenata 'Soft Touch'	Soft Touch Holly	12"	Cont.	36
BXG	Buxus x 'Greenvelvet'	Greenvelvet Boxwood	18"	Cont.	45
LM	Liriope muscari 'Variegata'	Variegated Liriope	1 gal	Cont.	109



STREET YARD TREES ARE MOVED TO THE EDGE OF THE EDGE OF 30' UTILITY EASEMENT TO AVOID CONFLICTS WITH OVERHEAD POWER AND/OR FUTURE UTILITIES.

LANDSCAPE CALCULATIONS AND REQUIREMENTS

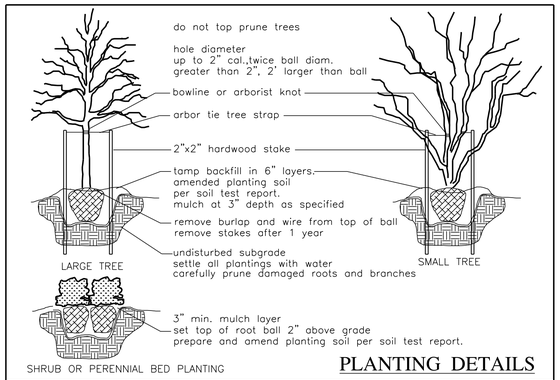
BUFFER YARD
NOT REQUIRED

STREET YARD
REQUIRED - 1 LARGE TREE PER 50 LINEAR FEET OF ROW.
PROVIDED - 308 FEET OF ROW / 50 * 1 = 6.16 = 6 TREES PROVIDED.

PARKING AREA
REQUIRED - 1 LARGE TREE AND 8 SHRUBS PER 20 PARKING SPACES.
PROVIDED - 75 SPACES / 20 = 3.75 REQUIRED = 4 LARGE TREES PROVIDED.
PROVIDED - 75 SPACES / 20 *8 = 30 REQUIRED = 30 SHRUBS PROVIDED.

LANDSCAPE NOTES

1. All landscaping shall be installed and maintained in accordance with City of Sanford development code and the latest edition of nursery standards by the American Nursery and Landscape Association (ANLA).
2. Call utility locator service prior to any disturbance on this site. Contractor shall be responsible for confirmation of marked utilities within the area of work.
3. Do not change the design without approval from the the Owner and/or code compliance authority .
4. All areas not otherwise specified shall be established as turf.
5. All exposed soils with in limits of disturbance shall be mulched, seeded, or covered with sod and stabilized per sediment and erosion control requirements.
6. Planting areas shall consist of native topsoil or imported eqv.
7. Grass areas shall consist of native topsoil or imported eqv and fertilized/limed per soil test report.
8. All grass and landscape areas shall be finely graded and exhibit positive drainage.
9. Grass areas are to be permanently seeded with tall turf fescue such as Rebel IV or eqv at a rate of 8 lbs per 1000 SF.
10. Permanently seeded grass shall be established for vegetative coverage per sediment and erosion control requirements.
11. Landscape contractor shall verify plant quantities. If discrepancy exists, use higher quantity or as required by Permit Authority.
12. Contractor shall provide a one year replacement guarantee and is responsible for the replacement of any required plantings deemed stressed or dead.
13. All landscape beds shall be mulched with uniform double or triple shredded hardwood mulch that exhibits no large chunks, debris, rock or trash.



PLANTING DETAILS

GENERAL PLANTING NOTES

1. VERIFICATION OF TOTAL QUANITIES AS SHOWN SHALL BE THE RESPONSIBILITY OF THE PLANTING CONTRACTOR.
2. ALL TREES, SHRUBS, AND BEDDING PLANTS SHALL CONFORM TO THE ACCEPTED STANDARDS ESTABLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
3. ALL SAUCERS SHALL BE SOAKED WITH WATER AND MULCHED IMMEDIATELY FOLLOWING PLANTING.
4. SET TOP OF TREE ROOT BALL 3" ABOVE GRADE, SHRUBS 2" ABOVE GRADE.
5. PLANT MATERIAL SHALL CARRY A ONE YEAR WARRANTY AND REPLACEMENT GUARANTEE.
6. AMEND PLANTING SOIL WITH FERTILIZE AND/OR LIME PER SOIL TEST REPORT AT THE RECOMMENDED MANUFACTURERS APPLICATION RATE.
7. THOROUGHLY MIX AGED COMPOST WITH PLANTING SOIL TO ACHIEVE A 5%–10% ORGANIC CONTENT BY VOLUME.
8. GUYING AND STAKING, IF NECESSARY, SHALL BE REMOVED AFTER ONE GROWING SEASON.
9. ALL ROOT BALLS REMOVED FROM CONTAINERS SHALL BE SCARIFIED PRIOR TO BACKFILLING.
10. ALL TREES HAVE BEEN LOCATED WITH RESPECT TO KNOWN OR EXISTING FACILITIES OR STRUCTURES, COORDINATE FIELD ADJUSTMENT WITH PROJECT OWNER OR AGENT.
11. ALL PLANT BEDS AND PLANT MATERIAL SHALL BE MAINTAINED IN GOOD HEALTH, AND ANY DEAD, UNHEALTHY OR MISSING PLANTS SHALL BE REPLACED WITH LOCALLY ADAPTED VEGETATION WHICH CONFORMS TO THE INITIAL PLANTING STANDARDS OF THE LANDSCAPE ORDINANCE.
12. REPORT ANY DESCREPANCIES TO THE PROJECT OWNER OR AGENT.
13. SUBSTITUTIONS OR ALTERATIONS SHALL NOT BE MADE WITHOUT PRIOR WRITTEN NOTIFICATION BY THE OWNER OR AGENT.
14. APPLY MULCH TO ALL PLANTING AREAS AS SPECIFIED.
15. ADD COMPOST TO PLANTING SOIL TO ACHIEVE 5% ORGANIC CONTENT.
16. ALL BEDS ARE TO HAVE A SPADE CUT MULCH EDGE WHEN ADJACENT TO TURF.

TMTLA ASSOCIATES
5011 SOUTHPARK DRIVE, STE. 200 - DURHAM, NC 27713
p: (919) 484-8880 e: info@tmtla.com

NORTH CAROLINA No. C-551 LANDSCAPE ARCHITECTURE CORPORATE DESIGN FIRM
DBA TMTLA ASSOCIATES

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 11-26-19 1994 JOHN G. BAKER

REVISIONS:

LANDSCAPE PLAN
Noble Oil
CLYDE RHYNE DRIVE
Lee County, NC

SCALE: on drawing
DRAWN BY: JGB
PROJECT # 19159
DATE: 11-25-19

SHEET
L-1.1
OF

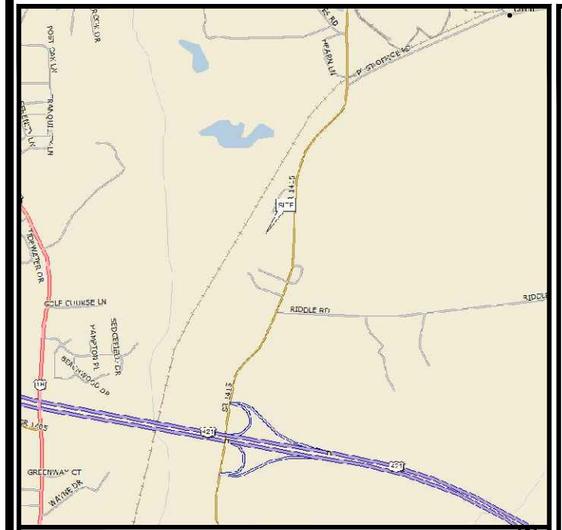
SCI SITE NAME:	SANFORD
PROJECT DESCRIPTION:	PROPOSED WIRELESS TELECOMMUNICATIONS FACILITY
TOWER TYPE:	225' MONOPOLE (229' OVERALL HEIGHT)
SITE ADDRESS:	1344 COLON RD. SANFORD, NC 27330 (LEE COUNTY)
JURISDICTION:	LEE COUNTY
DISTURBED AREA:	23,095 ± SQ. FT. (AREA OF CONSTRUCTION)
PRESENT OCCUPANCY TYPE:	VACANT
CURRENT ZONING:	RR
PIN:	9654-02-5305-00

PROJECT INFORMATION

LATITUDE N 35° 31' 00.56" (NAD '83)
LONGITUDE W 79° 09' 57.39" (NAD '83)

EXISTING GROUND ELEV. (AMSL) = 329.8' (NAVD '88)
PROPOSED GROUND ELEV. (AMSL) = 329.3' (NAVD 88')

1-A CERTIFICATION



VICINITY MAP

FROM TOWER ENGINEERING PROFESSIONALS: TAKE I-40 W AND EXIT AT 293, KEEP LEFT TO TAKE 293 A. KEEP LEFT AT FORK TO CONTINUE TOWARD US-1 S/US-64 W. KEEP LEFT TO MERGE ONTO ONTO US-1 S/US-64 W. EXIT US-1 S AT EXIT 74 FOR COLON ROAD. TURN LEFT ONTO COLON ROAD AND CONTINUE FOR APPROXIMATELY 3 MILES. SITE WILL BE ON THE RIGHT.

DRIVING DIRECTIONS

PLANS PREPARED FOR:

SCI TOWERS

SITE PLAN
SCI SITE NAME: SANFORD

1344 COLON RD.
(E911 ADDRESS TO BE DETERMINED)
SANFORD, NC 27330
(LEE COUNTY)

TOWER OWNER:
NAME: SCI TOWERS, LLC
ADDRESS: PO BOX 3469
CITY, STATE, ZIP: CARY, NC 27519
CONTACT: DAVE HERRING
PHONE: (888) 318-2803

SITE APPLICANT :
NAME: SCI TOWERS, LLC
ADDRESS: PO BOX 3469
CITY, STATE, ZIP: CARY, NC 27519
CONTACT: DAVE HERRING
PHONE: (888) 318-2803

SURVEYOR:
NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603
CONTACT: DAVE A. LOVELANCE, P.L.S.
PHONE: (919) 661-6351

CIVIL ENGINEER:
NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603
CONTACT: JEREMY K. WOOSTER, P.E.
PHONE: (919) 661-6351

ELECTRICAL ENGINEER:
NAME: TOWER ENGINEERING PROFESSIONALS
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603
CONTACT: MARK S. QUAKENBUSH, P.E.
PHONE: (919) 661-6351

PROPERTY OWNER:
NAME: GRAYSON ROSSER
ADDRESS: 1313 COLON ROAD
CITY, STATE, ZIP: SANFORD, NC 27330
CONTACT: GRAYSON ROSSER
PHONE: UNKNOWN

CONTACT INFORMATION

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

1. NORTH CAROLINA BUILDING CODE (2018 EDITION)
2. NORTH CAROLINA CODE COUNCIL
3. ANSI/TIA-222-G-2-2009
4. 2017 NCEC (NCEC 2017 & NC ADDENDUM)
5. CITY/COUNTY ORDINANCES
6. LOCAL BUILDING CODE

CODE COMPLIANCE

UTILITIES:

POWER COMPANY:	CENTRAL ELEC. MEMBERSHIP CORP.
CONTACT:	CUSTOMER SERVICE
PHONE:	(919) 774-4900
METER # NEAR SITE:	UNKNOWN
FIBER COMPANY:	CHANNEL
CONTACT:	CUSTOMER SERVICE
PHONE:	(951) 719-2600
PHONE # NEAR SITE:	(919) 776-8821
PEDESTAL # NEAR SITE:	UNKNOWN

SHEET	DESCRIPTION	REV
T1	TITLE SHEET	3
T2-T6	APPENDIX B	0
N1	GENERAL NOTES	0
C1	SITE PLAN	3
C2	COMPOUND DETAIL	3
C3	TOWER ELEVATION	3
C4	FENCE DETAILS	0
C5	SIGNAGE DETAILS	0
C6	ACCESS ROAD DETAILS	2
C7	SOIL & EROSION CONTROL PLAN	3
C8	SILT FENCE DETAILS	1
C9	CULVERT & DISSIPATOR PAD DETAILS	2
L1	LANDSCAPING PLAN	3
L2	LANDSCAPING DETAILS	3

INDEX OF SHEETS

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

N.C. LICENSE # C-1794

REV	DATE	ISSUED FOR:
3	11-20-19	ZONING
2	11-07-19	ZONING
1	10-30-19	ZONING
0	10-17-19	ZONING

DRAWN BY: LKR CHECKED BY: ANG

SEAL:

ZONING REVIEW

SEAL:

ZONING REVIEW

SHEET NUMBER: T-1

REVISION: 3

TEP #: 239281

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: SANFORD
Address: 1344 COLON ROAD, SANFORD, NC Zip Code 27330
Owner/Authorized Agent: DAVE HERRING Phone # (888) 318 - 2803 E-Mail dave@scitowers.com
Owned By: ☐ City/County ☒ Private ☐ State
Code Enforcement Jurisdiction: ☐ City_____ ☒ County LEE ☐ State

CONTACT: Tower Engineering Professionals

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural				( )	
Civil	Tower Engineering Professionals	Jeremy K. Wooster	048394	(919) 661-6351	jkwooster@tepgroup.net
Electrical	Tower Engineering Professionals	Mark S. Quakenbush	042109	(919) 661-6351	mquakenbush@tepgroup.net
Fire Alarm				( )	
Plumbing				( )	
Mechanical				( )	
Sprinkler-Standpipe				( )	
Structural				( )	
Retaining Walls >5' High				( )	
Other				( )	

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: ☒ New Building ☐ Addition ☐ Renovation
☐ 1st Time Interior Completion
☐ Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
☐ Phased Construction - Shell/Core- Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 NC EXISTING BUILDING CODE: EXISTING: ☐ Prescriptive ☐ Repair ☐ Chapter 14
Alteration: ☐ Level I ☐ Level II ☐ Level III
☐ Historic Property ☐ Change of Use

CONSTRUCTED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): _____
RENOVATED: (date) _____ **PROPOSED OCCUPANCY(S)** (Ch. 3): _____

OCCUPANCY CATEGORY (Table 1604.5): **Current:** ☐ I ☐ II ☐ III ☐ IV
Proposed: ☐ I ☐ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
(check all that apply) ☐ I-B ☒ II-B ☐ III-B ☐ V-B
Sprinklers: ☒ No ☐ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☒ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☐ No ☐ Yes **Flood Hazard Area:** ☒ No ☐ Yes
Special Inspections Required: ☐ No ☐ Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor		N/A	
2nd Floor		N/A	
Mezzanine		N/A	
1st Floor		N/A	
Basement		N/A	
TOTAL		N/A	

ALLOWABLE AREA

Primary Occupancy Classification(s): Select one Select one Select one Select one Select one Select one
Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
Business ☐
Educational ☐
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 Condition ☐ 1 ☐ 2
☐ I-2 Condition ☐ 1 ☐ 2
☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ I-4
Mercantile ☐
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ☐ S-1 Moderate ☒ S-2 Low ☐ High-piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous ☐

Accessory Occupancy Classification(s): N/A
Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 – List Code Sections): N/A
Special Provisions: (Chapter 5 – List Code Sections): N/A
Mixed Occupancy: ☒ No ☐ Yes Separation: Exception: _____

☐ Non-Separated Use (508.3) - The required typ the building shall be determined by applying the ns for each of the applicable occupanci The most restrictive type of constru ll apply to the entire building.

☐ Separated Use (508.4) - See belo or each story, the area of the occupancy shall be su ios of the actual floor area of each use divided by the each use shall not exceed 1.

Actual Area of Occupan rea of Occupancy B ≤ 1
Allowable Area of Occu le Area of Occupancy B

_____ + ... = _____ ≤ 1.00

N/A
NOT A BUILDING

PLANS PREPARED FOR:
SCI TOWERS
PO BOX 3469, CARY, NC 27519
(888) 318-2803

PROJECT INFORMATION:
SCI SITE NAME: SANFORD
1344 COLON RD.
(E911 ADDRESS TO BE DETERMINED)
SANFORD, NC 27330
(LEE COUNTY)

PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:
ZONING REVIEW

REV	DATE	ISSUED FOR:
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DRAWN BY: LKR CHECKED BY: ANG

SHEET TITLE:
APPENDIX B

SHEET NUMBER: **T-2**
REVISION: 3
TEP #: 239281

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3]

[1] Frontage area increases from Section 506.2 are
a. Perimeter which fronts a public way
feet minimum width = _____ (F)
b. Total Building Perimeter
c. Ratio (F/P) = _____ (F/
d. W = Minimum width of publ
W)
e. Percent of frontage increa
x W/30 = _____ (%)
[2] Unlimited area applicable under con
507.
[3] Maximum Building Area = total numb
n the building x D (maximum3 stories) (506.2).
[4] The maximum area of open parking garag
t comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412
.1.
[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

N/A
NOT A BUILDING

ALLOWABLE HEIGHT

	ALLOWABLE	PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)			
Building Height in Stories (Table 504.4)			

[1] Provide code reference if the "Shown on Plans" quantity is not ba

N/A
NOT A BUILDING

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/_____* REDUCTION)	DETAIL # AND SHE	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction Including supporting beams and joists							
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy/Fire Barrier Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
Tenant/Dwelling Unit/ Sleeping Unit Separation							
Incidental Use Separation							

* Indicate section number permitting reduction

N/A
NOT A BUILDING

N/A
NOT A BUILDING

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APPENDIX B

SHEET NUMBER: **T-3**
REVISION: 3
TEP #: 239281

PERCENTAGE OF WALL OPENING CALCULATIONS

Fire Separation Distance (Feet) from Property Lines	Degree of Openings Protection (Table 705.8)	Allowable Area (%)	Actual Shown on Plans (%)

N/A
NOT A BUILDING

LIF[illegible] REQUIREMENTS

Emergency Lighting: [illegible]
Exit Signs: [illegible]
Fire Alarm: [illegible]
Smoke Detection Systems: [illegible] ☐ Yes ☐ Partial _____
Panic Hardware: ☐ [illegible] ☐ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: _____

- ☐ Fire and/or smoke rated wall locations (Chapter 7)
- ☐ Assumed and real property line locations (if not on the site plan)
- ☐ Exterior wall opening area with respect to distance to assum[illegible] property lines (705.8)
- ☐ Occupancy Use for each area as it relates to occupant loa[illegible]tion (Table 1004.1.2)
- ☐ Occupant loads for each area
- ☐ Exit access travel distances (1017)
- ☐ Common path of travel distances (Tables 1006[illegible]
- ☐ Dead end lengths (1020.4)
- ☐ Clear exit widths for each exit door
- ☐ Maximum calculated occupant load [illegible] can accommodate based on egress width (1005.3)
- ☐ Actual occupant load for each exi[illegible]
- ☐ A separate schematic plan ind[illegible] floor/ceiling and/or roof structure is provided for purposes of occupancy sep[illegible]
- ☐ Location of doors with pan[illegible]10)
- ☐ Location of doors with delaye[illegible] and the amount of delay (1010.1.9.7)
- ☐ Location of doors with electroma[illegible]gress locks (1010.1.9.9)
- ☐ Location of doors equipped with hold-open devices
- ☐ Location of emergency escape windows (1030)
- ☐ The square footage of each fire area (202)
- ☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
- ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

N/A
NOT A BUILDING

ACCESSIBLE DWELLING UNITS
(SECTION 1107)

Total Units	Accessible Units Required	Accessible Units Provided	Type A Units Required	Type A Units Provi[illegible]	[illegible] B	Type B Units Provided	Total accessible Units provided

N/A
NOT A BUILDING

AC[illegible]

Lot or Parking Area	Total # of Parking [illegible]		Accessible Spaces Provided			Total # Accessible Provided
	Required	[illegible]	[illegible]th Aisle	Van Spaces With 132" Access Aisle	Van Spaces With 8' Access Aisle	
Total						

N/A
NOT A BUILDING

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

Use		Waterclosets			Urinals	Lavatories			Showers /Tubs	Drinking Fountains	
		Male	Female	Unisex		Male	Fem[illegible]	Unisex		Regular	Accessible
Space	Exist'g										
	New										
	Req'd										

N/A
NOT A BUILDING

SPE[illegible]

Special approval: (Local Jurisdiction, Dep[illegible]C, DPI, DHHS, etc., describe below)

_____

_____

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APPENDIX B

SHEET NUMBER: **T-4**

REVISION: 3

TEP #: 239281

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ N (remainder of this section is not applicable)

Exempt Building: ☐ No ☐ Yes (Provide code o _____

Climate Zone: ☐ 3A ☐ 4A ☐

Method of Compliance: Energy e ☐ Prescriptive
ASH ance ☐ Prescriptive
rce here)_____

N/A
NOT A BUILDING

THERMAL ENVELOPE (Prescrip y)

Roof/ceiling Assembly (each ass y)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly: _____
U-Value of skylight: _____
total square footage of skylights in each assembly: _____

Exterior Walls (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gain coefficient: _____
projection factor:
Door R-Values:

Walls below grade (each assembly)
Description of assembly: _____
U-Value of total assembly
R-Value of insulation

Floors over unconditio y)
Description of asse _____
U-Value of total asse _____
R-Value of insulation: _____

Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
slab heated: _____

N/A
NOT A BUILDING

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) _____
Seismic (I_E) _____

Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ p

Ground Snow Load: _____ psf

Wind Load: Basic Wind Speed E-7)
Exposure Category

SEISMIC DESIGN CATEGORY: ☐ ☐ D
Provide the following Seismic Design
Risk Category (Table 160 ☐ III ☐ IV
Spectral Response Acc _____ %g S_1_____ %g
Site Classification (ASCE ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ Test ☐ Presumptive ☐ Historical Data
Basic structural system ☐ earing Wall ☐ Dual w/Special Moment Frame
☐ Building Frame ☐ Dual w/Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure: ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☐ Yes ☐ No

LATERAL DESIGN CONTROL: Earthquake ☐ Wind ☐

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) _____ psf
Presumptive Bearing capacity _____ psf
Pile size, type, and capacity _____

N/A
NOT A BUILDING

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APPENDIX B

SHEET NUMBER: **T-5**
REVISION: 3
TEP #: 239281

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQ[illegible]T

N/A
NOT A BUILDING

Thermal Zone

winter dry bulb: _____
summer dry bulb: _____

Interior design conditions

winter dry bulb: _____
summer dry bulb: _____
relative humidity: _____

Building heating load: _____

Building cooling load: _____

Mechanical Spacing Conditioning System

Unitary
- description of unit: _____
- heating efficiency: _____
- cooling efficiency: _____
- size category of unit: _____

Boiler
- Size category. If oversized, state reason.: _____

Chiller
- Size category. If oversized, state reason.: _____

List equipment efficiencies: _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

N/A
NOT A BUILDING

Method of Compliance: Energy Code ☐ Perf[illegible] ☐ Prescriptive
ASHRAE 90.1 ☐ P[illegible] Prescriptive

Lighting schedule (each fixture type)

lamp type required in fixtur[illegible]
number of lamps in fixtu[illegible]
ballast type used in th[illegible]
number of ballasts [illegible]
total wattage pe[illegible]
total interior w[illegible]owed (whole building or space by space)
total exterior wat[illegible] allowed

Additional Efficiency Packag[illegible]ons
(When using the 2018 NCECC; not required for ASHRAE 90.1)

- ☐ C406.2 More Efficient HVAC Equipment Performance
- ☐ C406.3 Reduced Lighting Power Density
- ☐ C406.4 Enhanced Digital Lighting Controls
- ☐ C406.5 On-Site Renewable Energy
- ☐ C406.6 Dedicated Outdoor Air System
- ☐ C406.7 Reduced Energy Use in Service Water Heating

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APPENDIX B

SHEET NUMBER: **T-6**
REVISION: 3
TEP #: 239281

PROJECT NOTES:

1. ALL REFERENCES MADE TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED SCI OR ITS DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING TO HAVE SUFFICIENT EXPERIENCE AND ABILITY, IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF NORTH CAROLINA.
3. THE STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH ANSI/TIA-222-G-2-2009 AND CONFORM TO THE REQUIREMENTS OF THE NORTH CAROLINA BUILDING CODE, 2018 EDITION.
4. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE, 2018 EDITION.
5. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
6. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
7. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
8. ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
9. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK. RENTAL CHARGES, SAFETY, PROTECTION, AND MAINTENANCE OF RENTED EQUIPMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
11. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE OWNER PROJECT MANAGER.
12. BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR/OWNER. CONTRACTOR/OWNER SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
13. ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
14. 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
15. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED OR REPLACED.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
17. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.
18. ANY BUILDINGS ON THIS SITE ARE INTENDED TO SHELTER EQUIPMENT WHICH WILL ONLY BE PERIODICALLY MAINTAINED AND ARE NOT INTENDED FOR HUMAN OCCUPANCY.
19. TEMPORARY FACILITIES FOR PROTECTION OF TOOLS AND EQUIPMENT SHALL CONFORM TO LOCAL REGULATIONS AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
20. THE CONTRACTOR AND ITS SUBCONTRACTORS SHALL CARRY LIABILITY INSURANCE IN THE AMOUNTS AND FORM IN ACCORDANCE WITH OWNER SPECIFICATIONS. CERTIFICATES DEMONSTRATING PROOF OF COVERAGE SHALL BE PROVIDED TO OWNER PRIOR TO THE START OF THE WORK ON THE PROJECT.
21. THE CONTRACTOR SHALL CONTACT ALL APPLICABLE UTILITY SERVICES TO VERIFY LOCATIONS OF EXISTING UTILITIES AND REQUIREMENTS FOR NEW UTILITY CONNECTIONS PRIOR TO EXCAVATING.
22. THE CONTRACTOR SHALL MAINTAIN THE JOB CLEAR OF TRASH AND DEBRIS. ALL WASTE MATERIALS SHALL BE REMOVED FROM THE SITE PRIOR TO SUBSTANTIAL COMPLETION AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL FURNISH ONE 55 GALLON BARREL, AND TRASH BAGS, AND SHALL REMOVE TRASH, DEBRIS, ETC., ON A DAILY BASIS.
23. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO SUBMITTING THE PROPOSAL. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS WITH THOSE AT THE SITE. ANY VARIATION WHICH REQUIRES PHYSICAL CHANGE SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER PROJECT ENGINEER FOR FACILITIES/CONSTRUCTION.
24. THE CONTRACTOR SHALL GUARANTEE THE WORK PERFORMED ON THE PROJECT BY THE CONTRACTOR AND ANY OR ALL OF THE SUBCONTRACTORS WHO PERFORMED WORK FOR THE CONTRACTOR ON THIS PROJECT. THE GUARANTEE SHALL BE FOR A FULL YEAR FOLLOWING ISSUANCE OF THE FINAL PAYMENT OF RETAINAGE. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.

UTILITY NOTES

1. APPLY FOR THE UTILITY SERVICE (ELECTRIC) NO LATER THAN THE NEXT BUSINESS DAY FOLLOWING AWARD OF CONTRACT. COORDINATE WITH THE ELECTRIC UTILITY COMPANY FOR EXACT TRANSFORMER LOCATION, METERING REQUIREMENTS, AND THE SERVICE ROUTING. COORIDNATE WITH THE TELEPHONE UTILITY COMPANY FOR EXACT TELEPHONE REQUIREMENTS AND ROUTING OF SERVICE.
2. ALL UTILITY RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE UTILITY REQUIREMENTS. FIELD VERIFY EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CONTACT UTILITIES AND LOCATOR SERVICE A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION. (NC ONE-CALL 1-800-632-4949).
4. CONTRACTOR SHALL PROVIDE TRENCHING AND CONDUITS AS SHOWN OR AS REQUIRED BY LOCAL UTILITY.
5. NO PENETRATIONS TO THE TOWER FOUNDATION OF ANY KIND.

PLANS PREPARED FOR:

SCI TOWERS
PO BOX 3469, CARY, NC 27519
(888) 318-2803

PROJECT INFORMATION:

SCI SITE NAME:
SANFORD

1344 COLON RD.
(E911 ADDRESS TO BE DETERMINED)
SANFORD, NC 27330
(LEE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:

ZONING REVIEW

REV	DATE	ISSUED FOR:
3	11-25-19	ZONING
2	11-07-19	ZONING
1	10-30-19	ZONING
0	10-17-19	ZONING

DRAWN BY: LKR | CHECKED BY: ANG

SHEET TITLE:

GENERAL NOTES

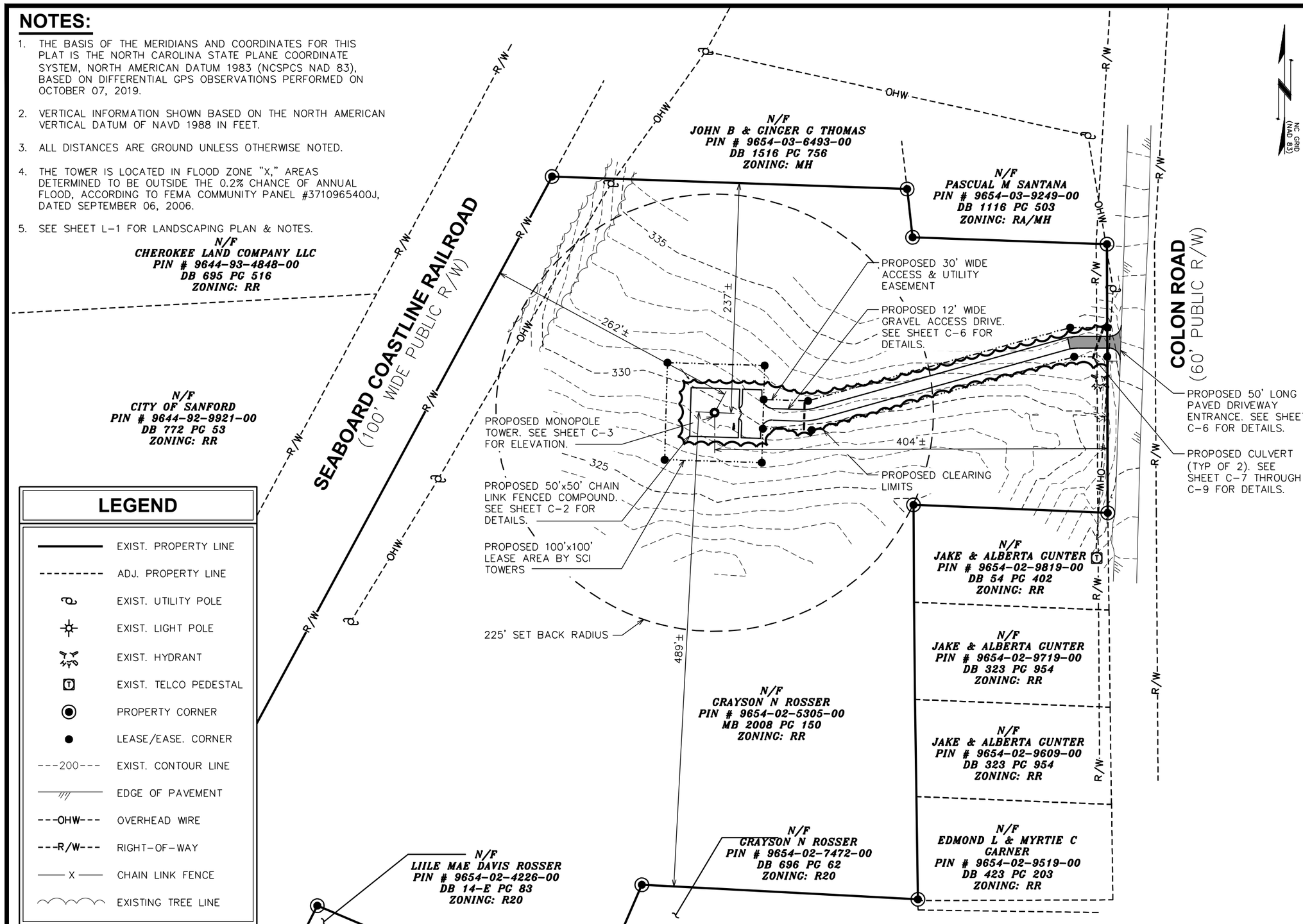
SHEET NUMBER: **N-1**

REVISION: 3

TEP #: 239281

NOTES:

1. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAT IS THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NCSPCS NAD 83), BASED ON DIFFERENTIAL GPS OBSERVATIONS PERFORMED ON OCTOBER 07, 2019.
2. VERTICAL INFORMATION SHOWN BASED ON THE NORTH AMERICAN VERTICAL DATUM OF NAVD 1988 IN FEET.
3. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
4. THE TOWER IS LOCATED IN FLOOD ZONE "X," AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE OF ANNUAL FLOOD, ACCORDING TO FEMA COMMUNITY PANEL #3710965400J, DATED SEPTEMBER 06, 2006.
5. SEE SHEET L-1 FOR LANDSCAPING PLAN & NOTES.



LEGEND

———	EXIST. PROPERTY LINE
- - - - - -	ADJ. PROPERTY LINE
	EXIST. UTILITY POLE
	EXIST. LIGHT POLE
	EXIST. HYDRANT
	EXIST. TELCO PEDESTAL
	PROPERTY CORNER
	LEASE/EASE. CORNER
---200---	EXIST. CONTOUR LINE
	EDGE OF PAVEMENT
---OHW---	OVERHEAD WIRE
---R/W---	RIGHT-OF-WAY
—— X ——	CHAIN LINK FENCE
	EXISTING TREE LINE

SITE PLAN

SCALE: 1" = 100'

0 100 200
SCALE IN FEET

PLANS PREPARED FOR:

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DRAWN BY: LKR CHECKED BY: ANG

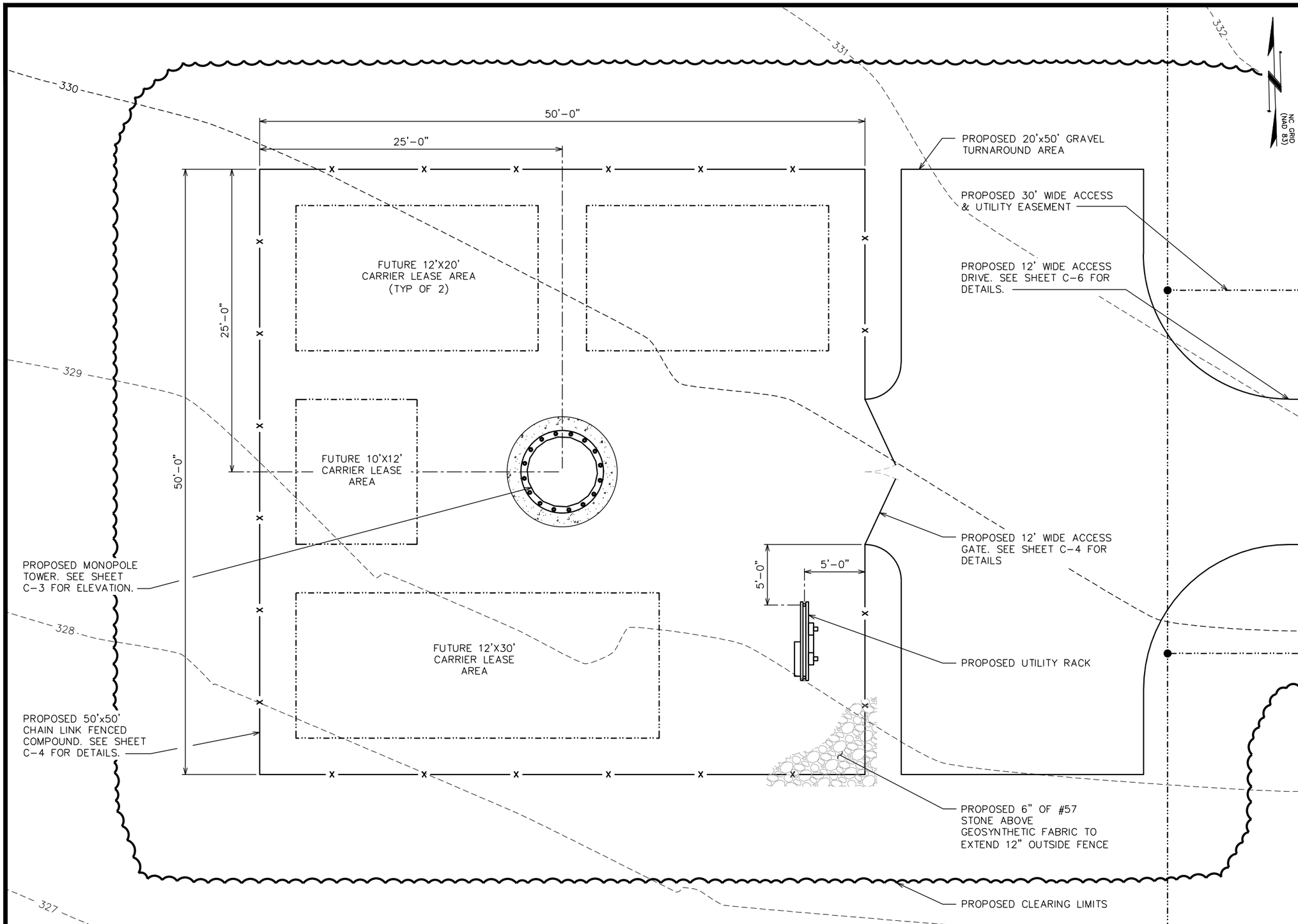
SHEET TITLE:

SITE PLAN

SHEET NUMBER: **C-1**

REVISION: 3

TEP #: 239281



COMPOUND DETAIL

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

0 8 16
SCALE IN FEET

PLANS PREPARED FOR:

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PO BOX 3469, CARY, NC 27519
(888) 318-2803

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0	10-17-19	ZONING

DRAWN BY: LKR | CHECKED BY: ANG

SHEET TITLE:

COMPOUND DETAIL

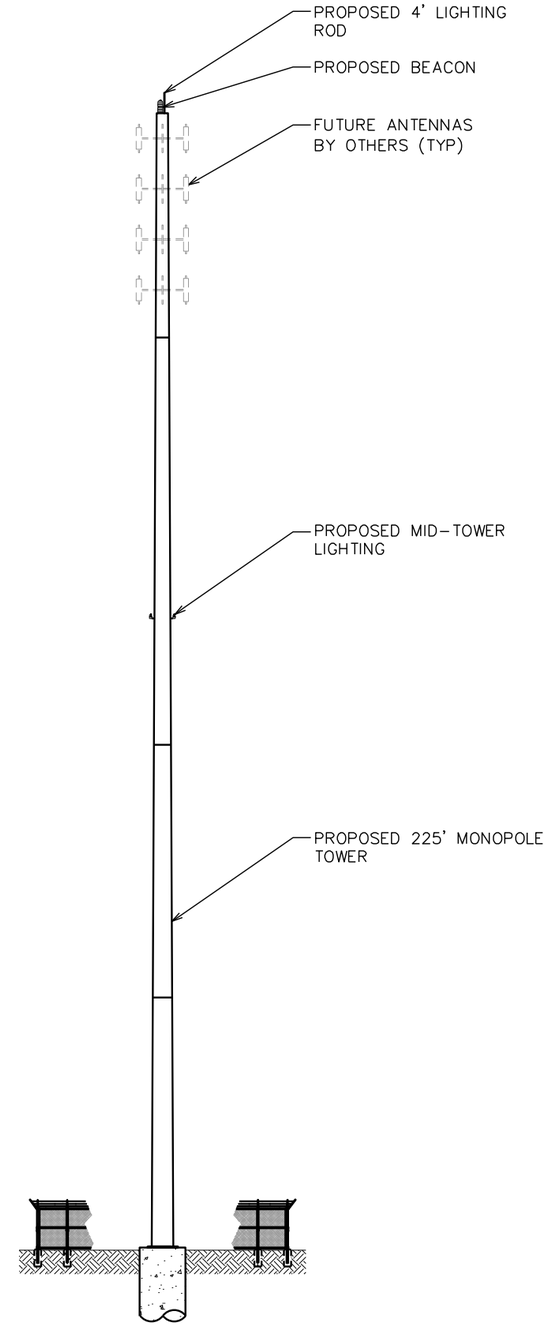
SHEET NUMBER: **C-2**

REVISION: 3

TEP #: 239281

229'-0"±
T/LIGHTNING ROD

225'-0"±
T/TOWER



0'-0" (REF)
T/GRADE

NOTES:

1. PROPOSED COAX TO BE RUN INSIDE TOWER USING HOISTING GRIPS (AS DIRECTED BY TOWER MANUFACTURER).
2. TOWER SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR PAINTED PER APPLICABLE STANDARDS OF THE FAA OR OTHER APPLICABLE FEDERAL OR STATE AGENCY.
3. TOWER ELEVATION SHOWN FOR REFERENCE ONLY. VERIFY ACTUAL TOWER DESIGN & LOADING WITH TOWER DRAWINGS FROM MANUFACTURER AND/OR PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO VERIFY PROPOSED LOADING WITH PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION. CONTACT SCI IN THE EVENT OF ANY DISCREPANCIES.

TOWER ELEVATION

SCALE: 1" = 30'

0 30 60
SCALE IN FEET

PLANS PREPARED FOR:

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DRAWN BY: LKR | CHECKED BY: ANG

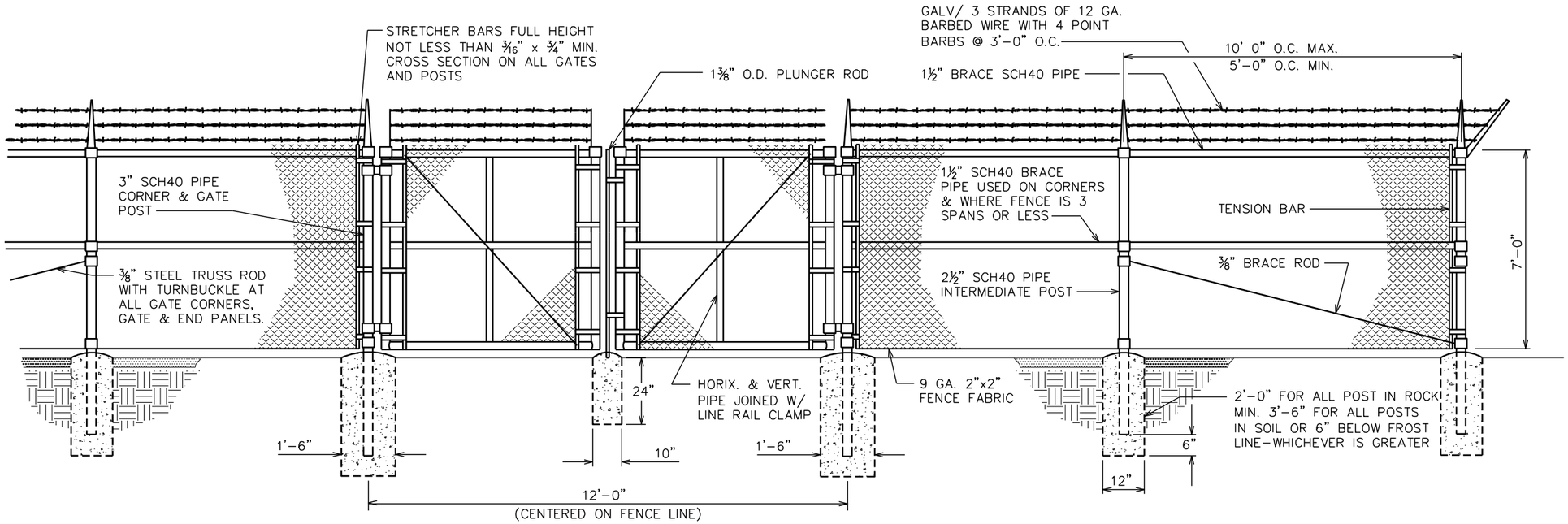
SHEET TITLE:

TOWER ELEVATION

SHEET NUMBER: **C-3**

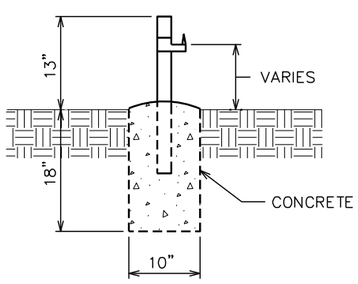
REVISION: 3

TEP #: 239281



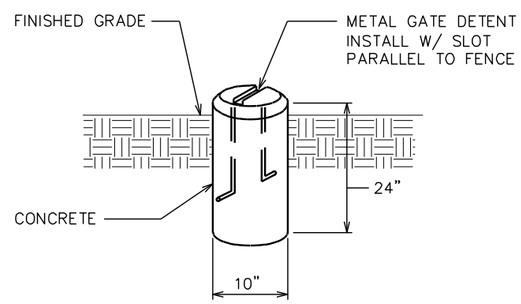
TYPICAL FENCE ELEVATION

SCALE: N.T.S.



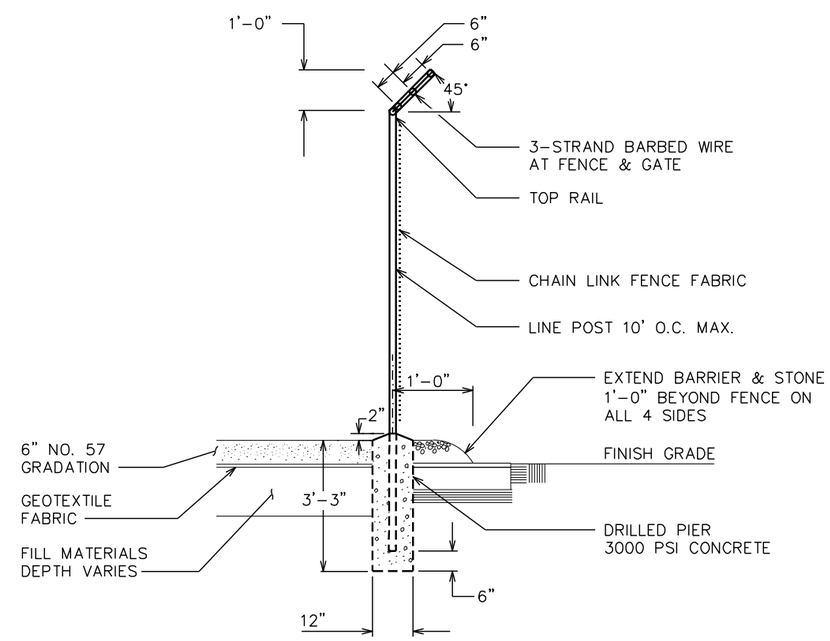
GATE STOP / KEEPER DETAIL

SCALE: N.T.S.



GATE DETENT DETAIL

SCALE: N.T.S.



FENCE / BARBED WIRE ARM DETAIL

SCALE: N.T.S.

PLANS PREPARED FOR:

SCI TOWERS
PO BOX 3469, CARY, NC 27519
(888) 318-2803

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N.C. LICENSE # C-1794

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0	10-17-19	ZONING

DRAWN BY: LKR CHECKED BY: ANG

SHEET TITLE:

FENCE DETAILS

SHEET NUMBER: **C-4**

REVISION: 3

TEP #: 239281

NOTES:

1. SIGNS SHALL BE MADE OF ALUMINUM WITH 1/4" HOLES 1/2" FROM EACH CORNER TO HANG SIGNS ON FENCE.
2. SIGNS SHALL BE INSTALLED AS FOLLOWS:
   GATE: SCI TOWERS LLC AND FCC TOWER REGISTRATION NUMBER, NO TRESPASSING, RF WARNING SIGN
   FENCE FACING ACCESS DRIVE: E911 STREET NUMBER SIGN
3. SIGNS SHALL BE INSTALLED WITH CENTER AT 5' ABOVE FINISHED GRADE.

SCI TOWERS

SITE NAME: SANFORD
FCC#: (TBD–COORDINATE WITH OWNER)

LEASING/EMERGENCY: (888)318–2803
WWW.SCITOWERS.COM

(1) SCI TOWERS LLC AND FCC REGISTRATION SIGN
SIZE: 12"X 24" (0.063" ALUMINUM)
(TO BE MOUNTED ON GATE)

(2) NO TRESPASSING SIGN
SIZE: 18"X 24"
(TO BE MOUNTED ON GATE)

(3) RF WARNING SIGN
SIZE: 18"X 12" (0.040" ALUMINUM)
(TO BE MOUNTED ON GATE)

000

(4) E911 STREET #
LETTERS MUST BE A MINIMUM 5" TALL
(TO BE MOUNTED ON THE FENCE FACING THE ACCESS DRIVE)

TYPICAL SIGNS AND SPECIFICATIONS

SCALE: N.T.S.

PLANS PREPARED FOR:

SCI TOWERS
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DRAWN BY: LKR | CHECKED BY: ANG

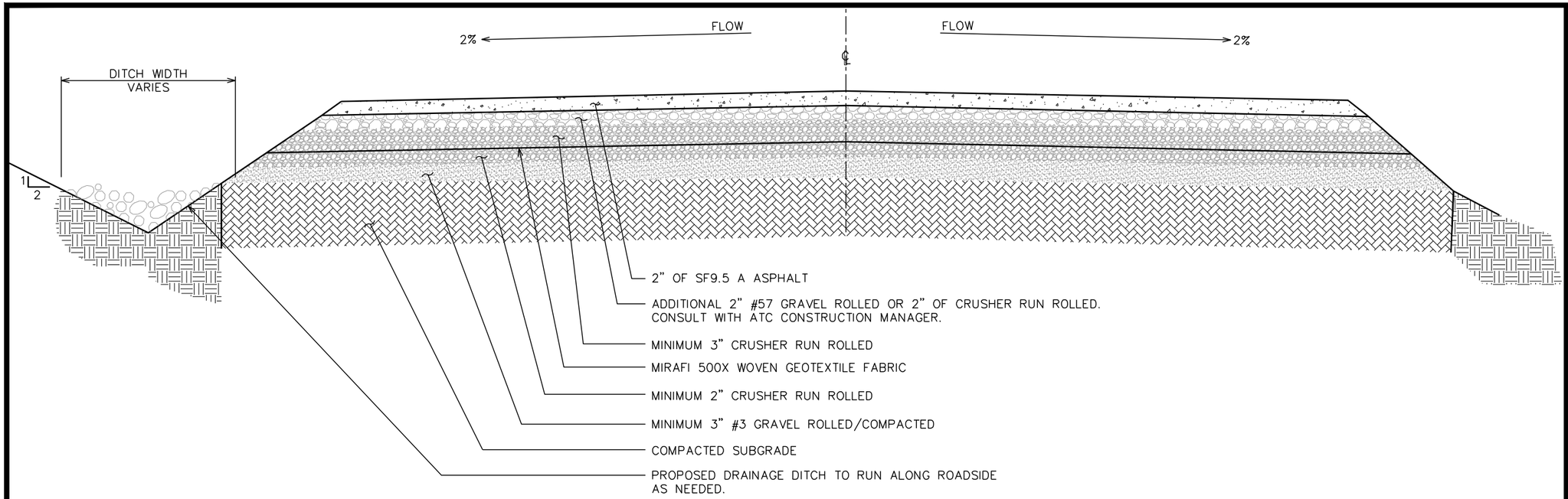
SHEET TITLE:

SIGNAGE DETAILS

SHEET NUMBER: **C-5**

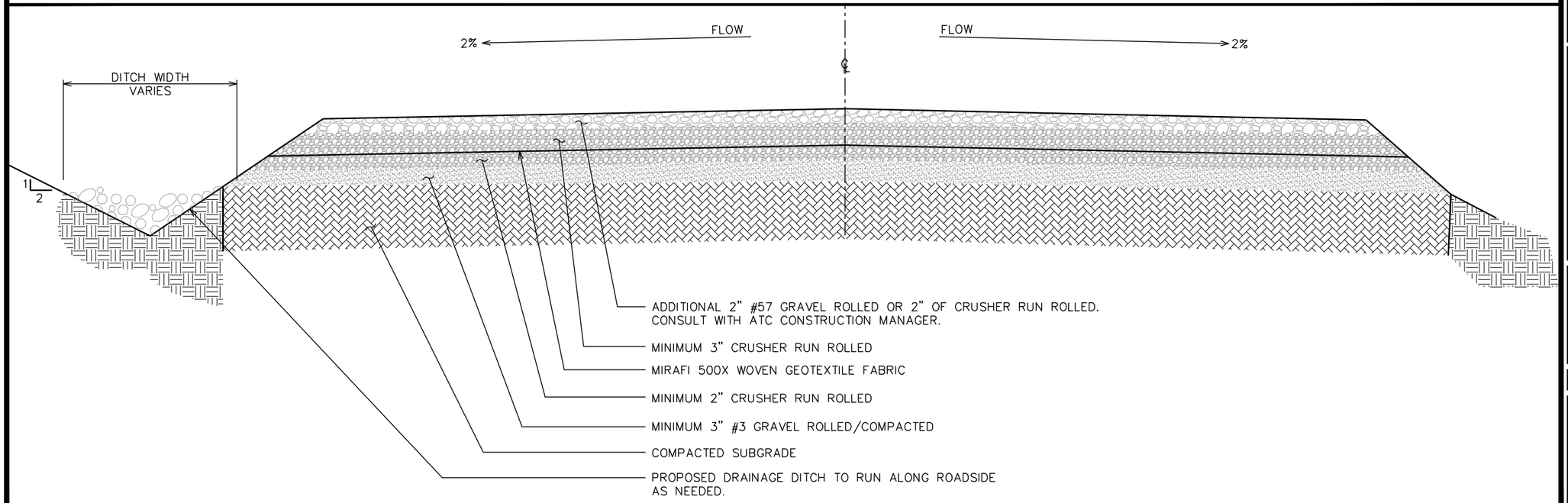
REVISION: 3

TEP #: 239281



DRIVEWAY ENTRANCE DETAILS

SCALE: N.T.S.



ACCESS ROAD DETAILS

SCALE: N.T.S.

PLANS PREPARED FOR:

SCI TOWERS
PO BOX 3469, CARY, NC 27519
(888) 318-2803

PROJECT INFORMATION:

SCI SITE NAME:
SANFORD

1344 COLON RD.
(E911 ADDRESS TO BE DETERMINED)
SANFORD, NC 27330
(LEE COUNTY)

PLANS PREPARED BY:

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RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
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N.C. LICENSE # C-1794

SEAL:

ZONING REVIEW

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1	10-30-19	ZONING
0	10-17-19	ZONING

DRAWN BY: LKR | CHECKED BY: ANG

SHEET TITLE:

ACCESS ROAD DETAILS

SHEET NUMBER: **C-6**

REVISION: 3

TEP #: 239281

GRADING NOTES:

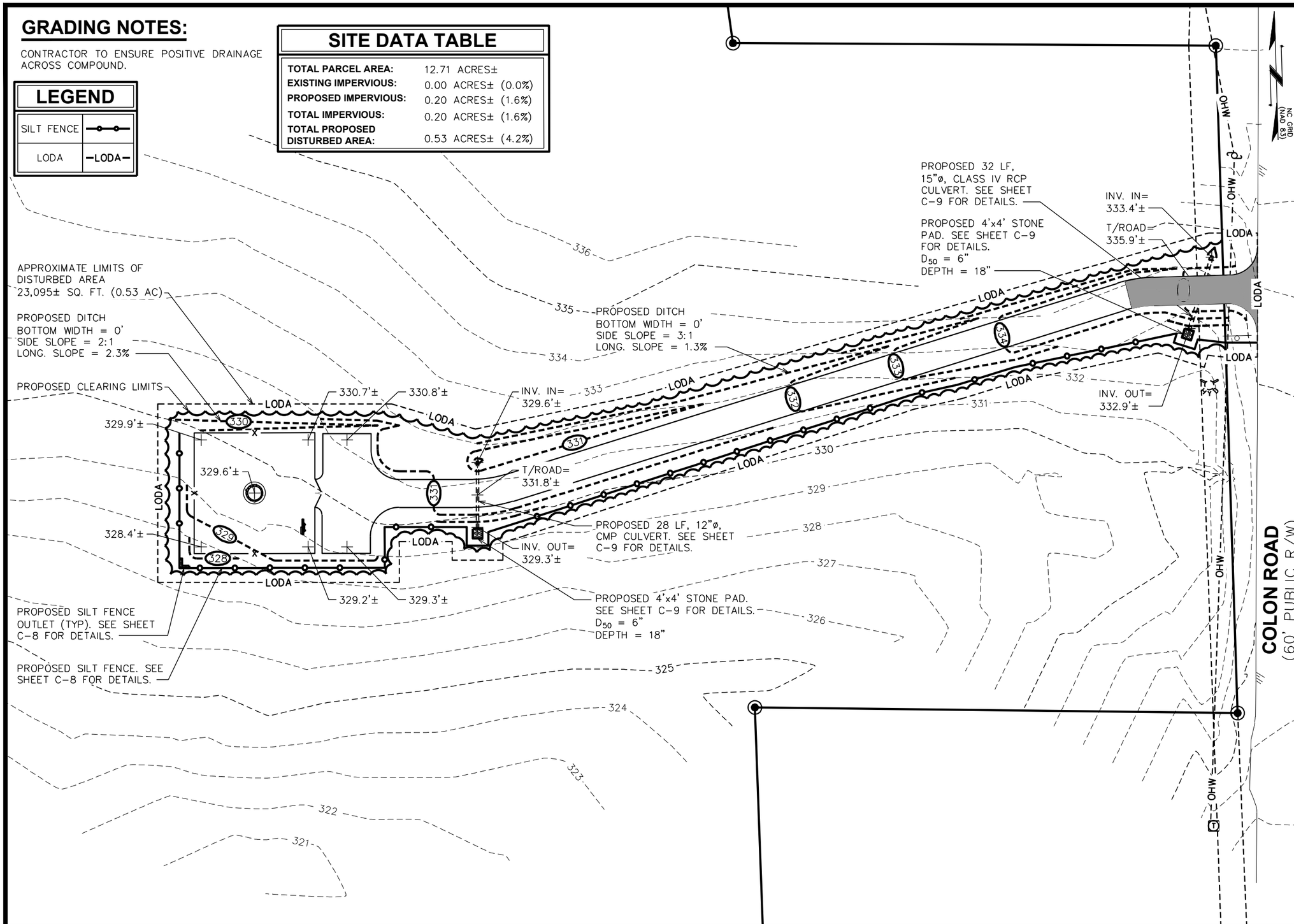
CONTRACTOR TO ENSURE POSITIVE DRAINAGE ACROSS COMPOUND.

LEGEND

SILT FENCE	—o—o—
LODA	—LODA—

SITE DATA TABLE

TOTAL PARCEL AREA:	12.71 ACRES±
EXISTING IMPERVIOUS:	0.00 ACRES± (0.0%)
PROPOSED IMPERVIOUS:	0.20 ACRES± (1.6%)
TOTAL IMPERVIOUS:	0.20 ACRES± (1.6%)
TOTAL PROPOSED DISTURBED AREA:	0.53 ACRES± (4.2%)



SOIL & EROSION CONTROL PLAN

SCALE: 1" = 40'

0 40 80
SCALE IN FEET

PLANS PREPARED FOR:

SCI TOWERS
PO BOX 3469, CARY, NC 27519
(888) 318-2803

PROJECT INFORMATION:

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DRAWN BY: LKR | CHECKED BY: ANG

SHEET TITLE:

SOIL & EROSION CONTROL PLAN

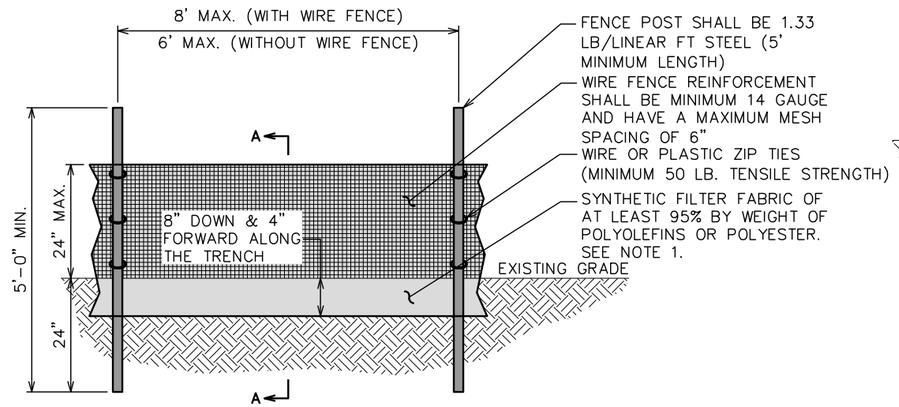
SHEET NUMBER: **C-7**

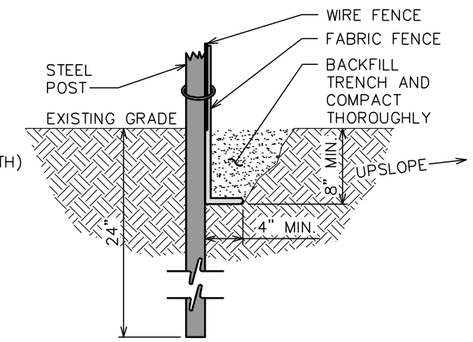
REVISION: 3

TEP #: 239281

NOTES:

1. FILTER FABRIC SHALL CONFORM TO THE REQUIREMENTS LISTED IN ASTM D 6461.
2. ENDS OF INDIVIDUAL FILTER FABRIC SHALL BE SECURELY FASTENED AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST.
3. PLACE 12 INCHES OF FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
4. INSPECT SEDIMENT FENCE(S) AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL.
5. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE.
6. AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE AND PROPERLY STABILIZE THE SITE.

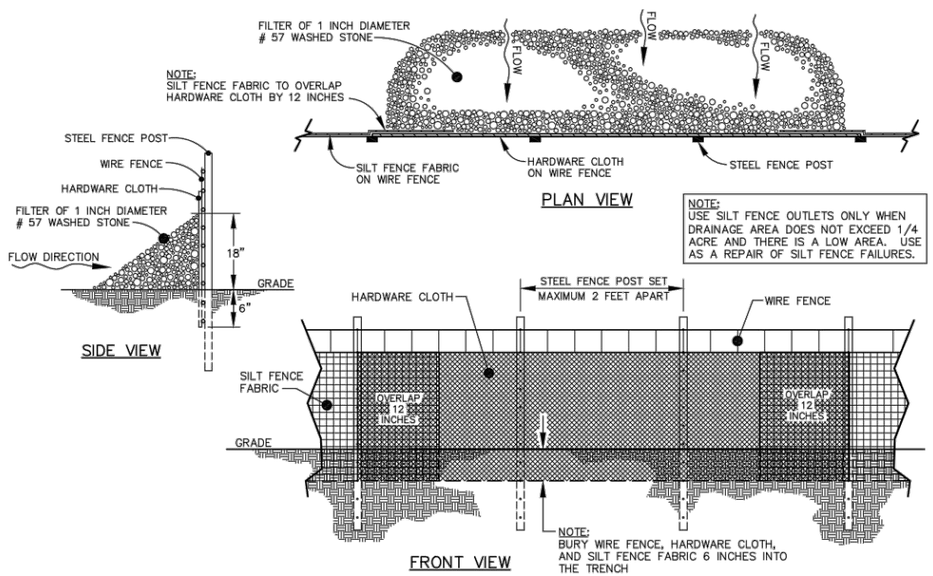




SECTION A-A

SILT FENCE DETAIL

SCALE: N.T.S.



STANDARD SILT FENCE OUTLET DETAIL

SCALE: N.T.S.

PLANS PREPARED FOR:

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PO BOX 3469, CARY, NC 27519
(888) 318-2803

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DRAWN BY: LKR | CHECKED BY: ANG

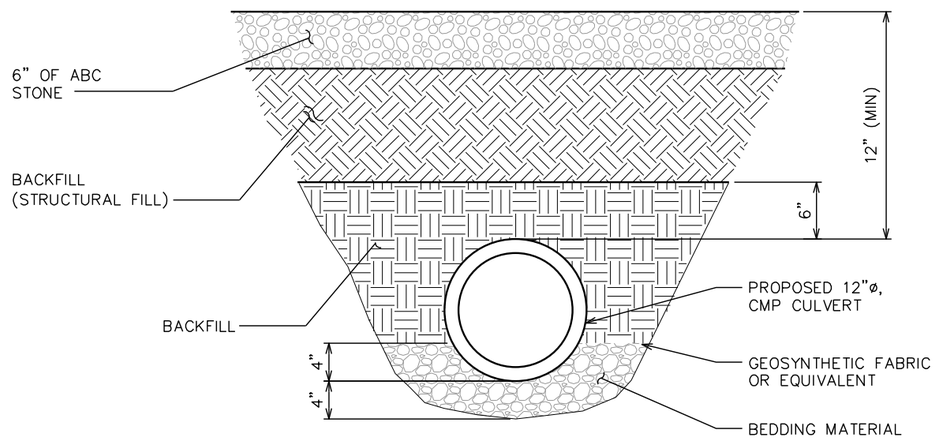
SHEET TITLE:

SILT FENCE DETAILS

SHEET NUMBER: **C-8**

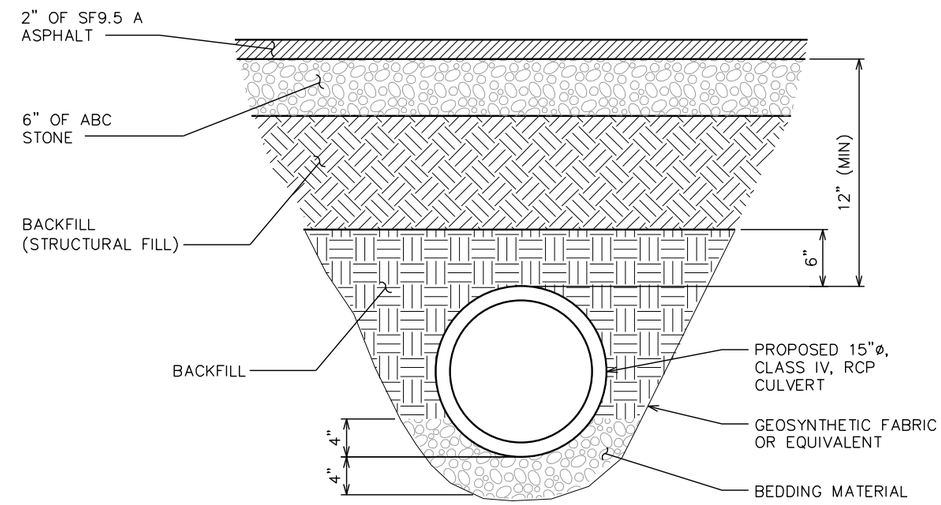
REVISION: 3

TEP #: 239281



12"Ø CULVERT DETAIL

SCALE: N.T.S.



15"Ø CULVERT DETAIL

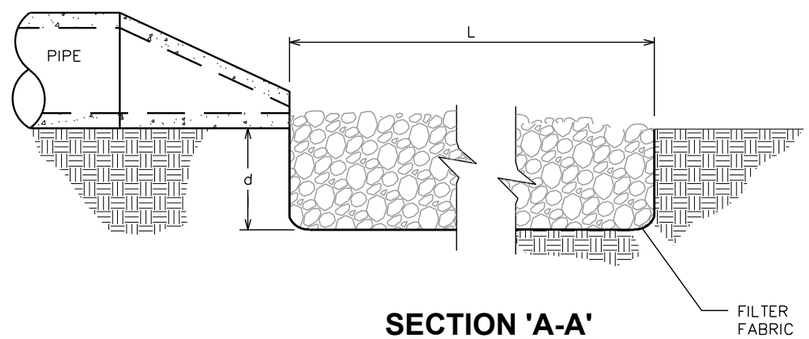
SCALE: N.T.S.

NOTES:

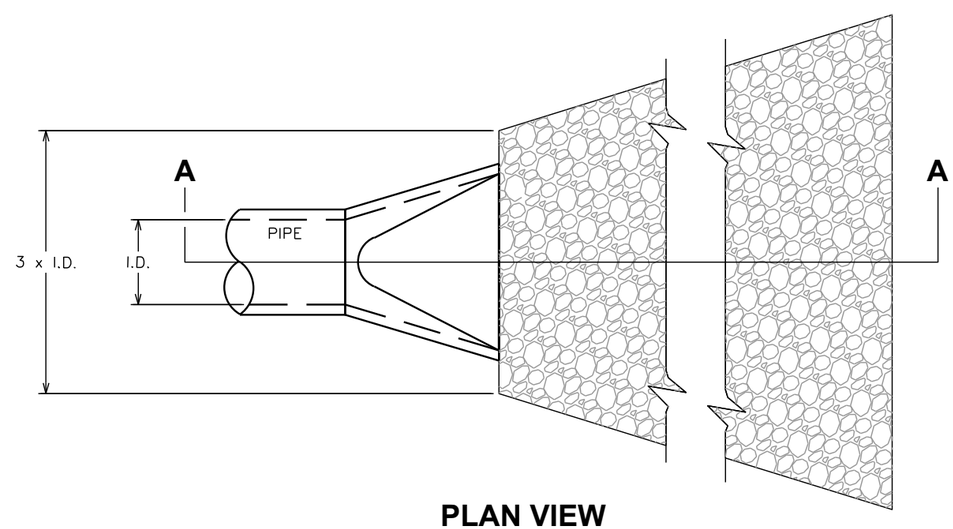
1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

DISSIPATOR PAD SIZING

RIP-RAP APRON NO.	CULVERT DIAMETER (IN)	WIDTH (FT)	LENGTH (FT)	DEPTH (IN)	D_{50} (IN)
1	12	4	4	18	6
2	15	4	4	18	6



SECTION 'A-A'



PLAN VIEW

PROPOSED DISSIPATOR PAD DETAILS

SCALE: N.T.S.

PLANS PREPARED FOR:

SCI TOWERS
PO BOX 3469, CARY, NC 27519
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DRAWN BY: LKR | CHECKED BY: ANG

SHEET TITLE:

CULVERT & DISSIPATOR PAD DETAILS

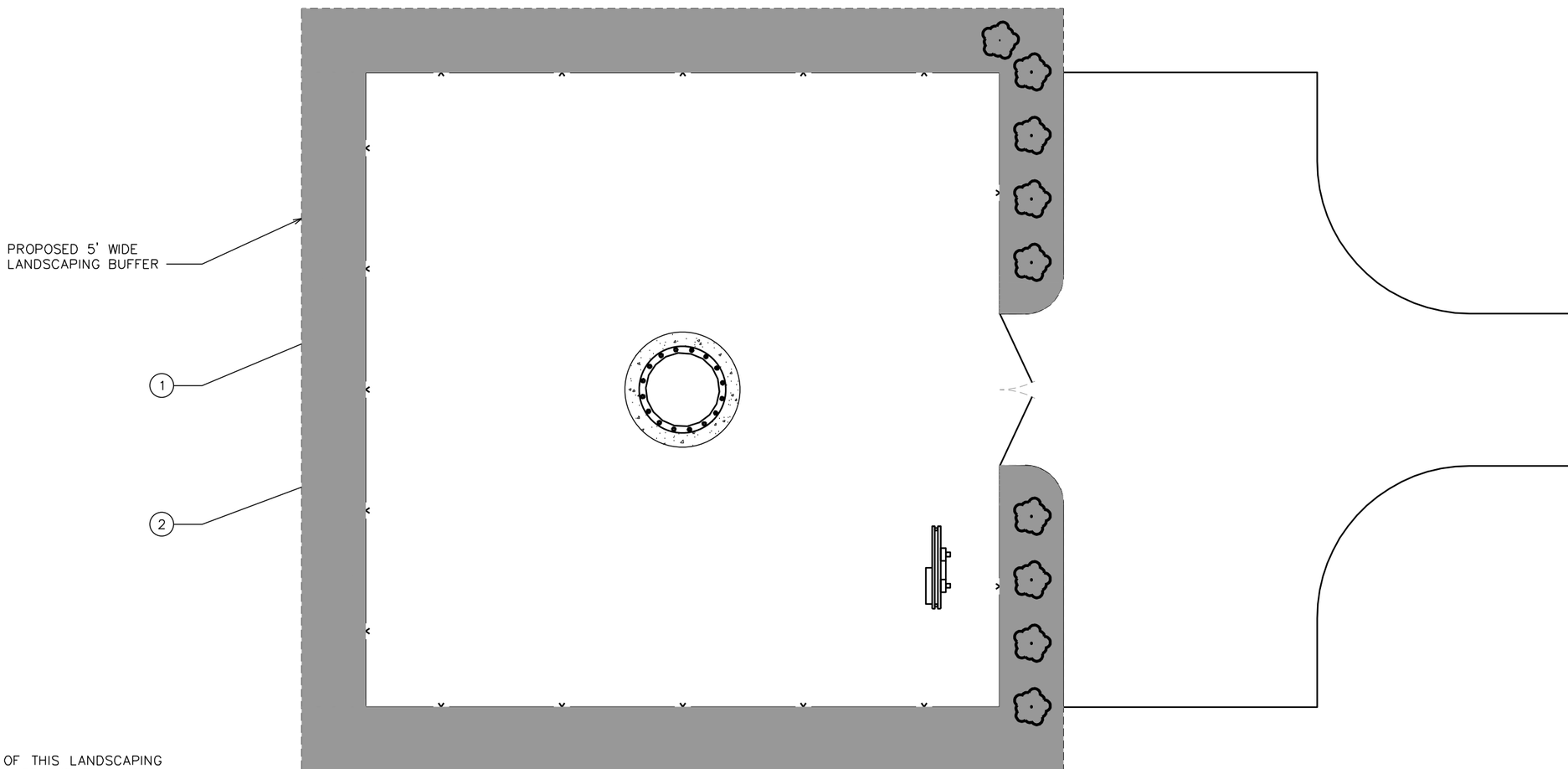
SHEET NUMBER: **C-9**

REVISION: 3

TEP #: 239281

PLANTING SCHEDULE

ITEM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT @ PLANTING	HEIGHT @ MATURITY	CALIPER/ SPREAD	SPACING	REMARKS
SHRUBS								
1	41	LIGUSTRUM SINENSE	SUNSHINE LIGUSTRUM	36"	4'-0" (MIN)	(3) GALLON	5'-0"	SHOWN AS
MULCH								
2	–	-	–	–	–	–	–	APPLY 3"-4" DEEP FROM THE TRUNKLINE TO THE DRIPLINE. FOR GROUND COVER – APPLY 1"-2" DEEP.



NOTE:

THE PURPOSE OF THIS LANDSCAPING PLAN IS TO SUPPLEMENT EXISTING VEGETATION. CONTRACTOR TO UTILIZE EXISTING FOLIAGE IN LIEU OF NEW PLANTINGS WHEN POSSIBLE.

LANDSCAPING PLAN

SCALE: 1" = 10'

0 10 20
SCALE IN FEET

NC GRID (NAD 83)

PLANS PREPARED FOR:

SCI TOWERS
PO BOX 3469, CARY, NC 27519
(888) 318-2803

PROJECT INFORMATION:

SCI SITE NAME: SANFORD

1344 COLON RD.
(E911 ADDRESS TO BE DETERMINED)
SANFORD, NC 27330
(LEE COUNTY)

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

N.C. LICENSE # C-1794

SEAL:

ZONING REVIEW

REV	DATE	ISSUED FOR:
3	11-25-19	ZONING
2	11-07-19	ZONING
1	10-30-19	ZONING
0	10-17-19	ZONING

DRAWN BY: LKR | CHECKED BY: ANG

SHEET TITLE:

LANDSCAPING PLAN

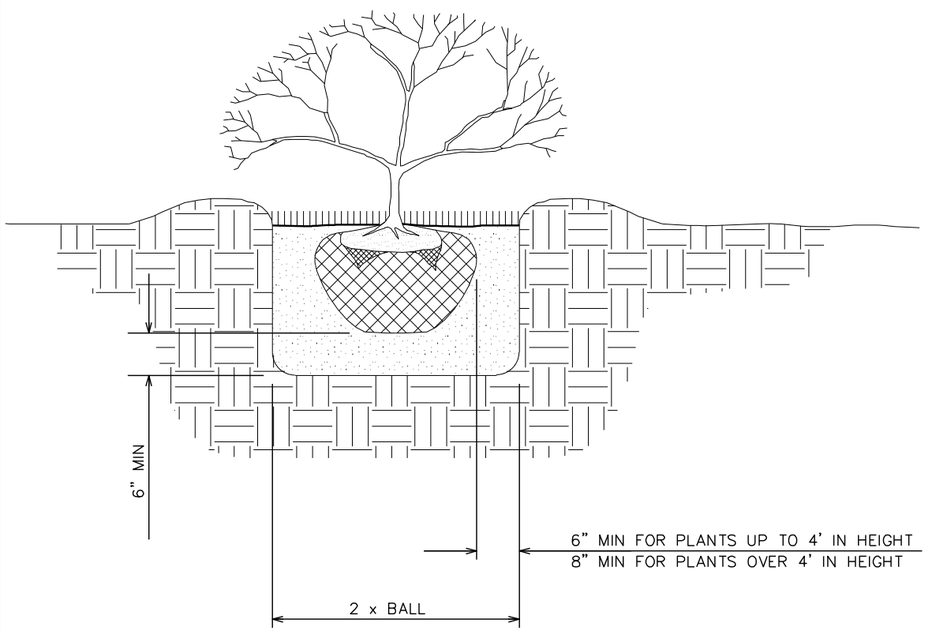
SHEET NUMBER: **L-1**

REVISION: 3

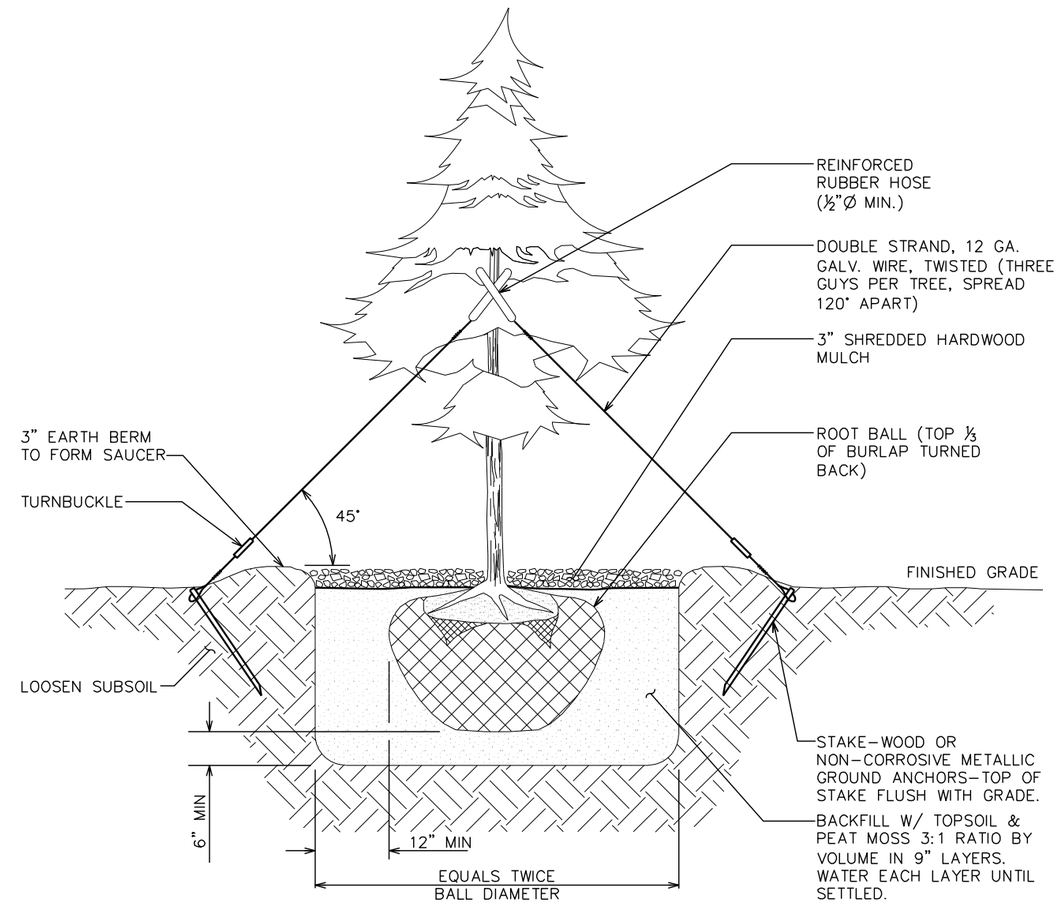
TEP #: 239281

LANDSCAPE NOTES:

1. TOPSOIL TO BE PROVIDED BY SITE CONTRACTOR IN ROUGH GRADE TO WITHIN 1" OF FINISH GRADE.
2. EACH PLANT TO BE IN GOOD CONDITION AFTER SHEARING AND PRUNING.
3. EACH PLANT TO BE FREE FROM DISEASE, INSECT INFESTATION, AND MECHANICAL INJURIES, AND IN ALL RESPECTS BE SUITABLE FOR FIELD PLANTING.
4. ALL PLANTS TO BE FULLY GUARANTEED (LABOR AND MATERIALS) FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF INSTALLATION.
5. ALL PLANTS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK. ANSI Z60.I–1973 IN REGARD TO SIZING, GROWING, AND B&B SPECIFICATIONS.
6. THE CONTRACTOR SHALL PROTECT ALL EXISTING TREES AND SHRUBS WITHIN THE CONSTRUCTION AREA IDENTIFIED AS "TO REMAIN" FROM DAMAGE BY EQUIPMENT AND CONSTRUCTION ACTIVITIES.



SHRUB PLANTING DETAIL



TREE PLANTING DETAIL

LANDSCAPING DETAILS

SCALE: N.T.S.

PLANS PREPARED FOR:

SCI TOWERS
PO BOX 3469, CARY, NC 27519
(888) 318–2803

PROJECT INFORMATION:

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SEAL:

ZONING REVIEW

REV	DATE	ISSUED FOR:
3	11-25-19	ZONING
2	11-07-19	ZONING
1	10-30-19	ZONING
0	10-17-19	ZONING

DRAWN BY: LKR | CHECKED BY: ANG

SHEET TITLE:

LANDSCAPING DETAILS

SHEET NUMBER: **L-2**

REVISION: 3

TEP #: 239281