

# SITE CONSTRUCTION PLANS DRAM TREE TAVERN

302 KENTUKY AVENUE  
WILMINGTON, NC 28401

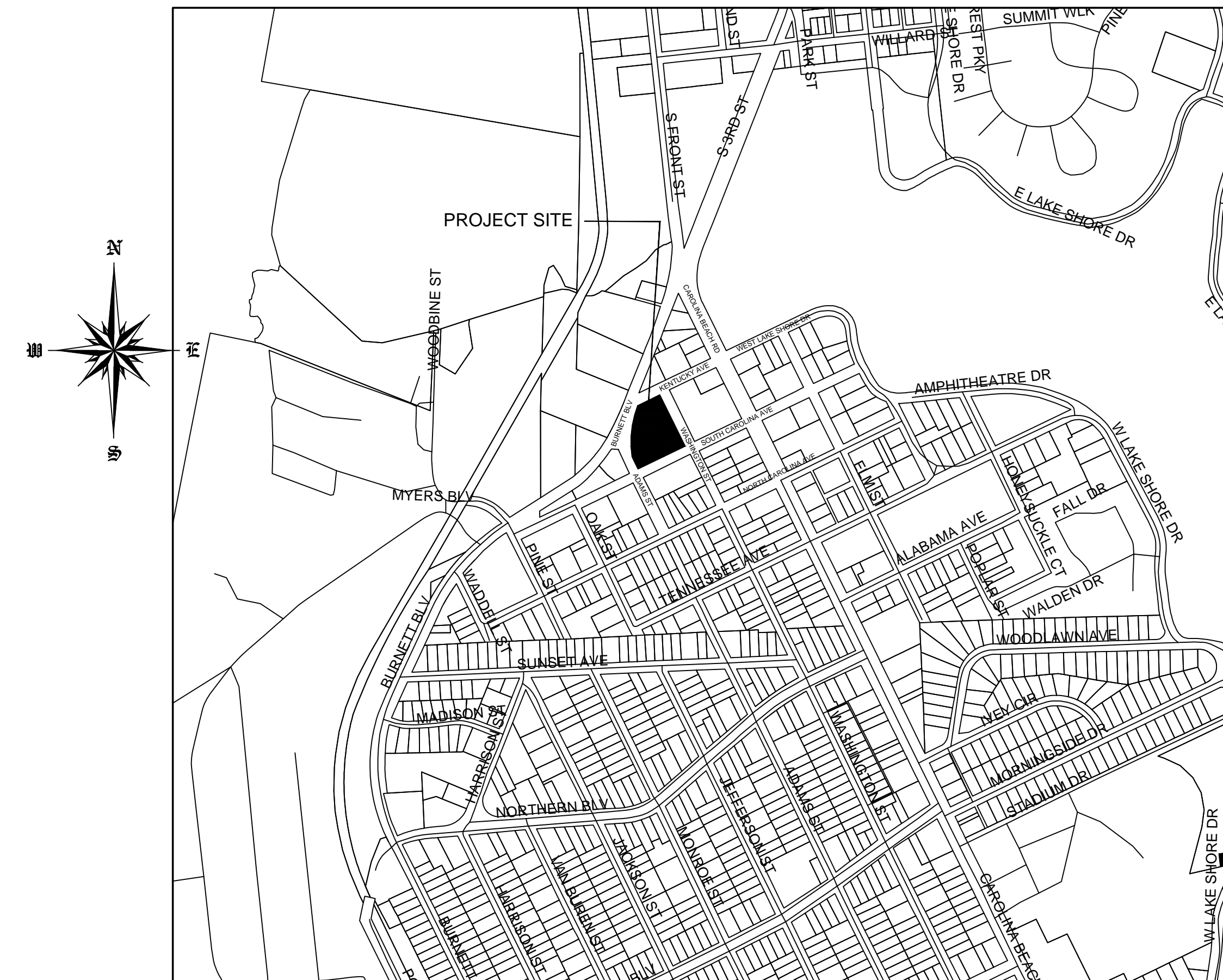
Approved Construction Plan	
Name	Date
Planning	
Traffic	
Fire	

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED PLAN - NO PERMIT REQUIRED  
Signed: \_\_\_\_\_

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

## NOTES

1. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING (IF REQUIRED) WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION.
2. ANY TREES AND/OR AREAS DESIGNATED TO BE PROTECTED MUST BE PROPERLY BARRICADED WITH FENCING AND PROTECTED THROUGHOUT CONSTRUCTION TO INSURE THAT NO CLEARING, GRADING OR STAGING OF MATERIALS OCCUR IN THOSE AREAS.
3. NO EQUIPMENT IS ALLOWED ON SITE UNTIL ALL TREE PROTECTION FENCING AND SILT FENCING IS INSTALLED AND APPROVED. PROTECTIVE FENCING IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND CONTRACTORS SHALL RECEIVE ADEQUATE INSTRUCTION ON TREE PROTECTION METHODS.
4. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY AND FOR DRIVEWAY ARE TO BE THERMO PLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
5. ONCE STREETS ARE OPEN TO TRAFFIC, CONTACT TRAFFIC ENGINEERING REGARDING THE INSTALLATION OF TRAFFIC AND STREET NAME SIGNS. PROPOSED STREET NAMES MUST BE APPROVED PRIOR TO INSTALLATION OF STREET SIGN NAMES.
6. TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS AND BE MAINTAINED BY THE OWNER.
7. CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNAL FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
8. TRAFFIC ENGINEERING TO BE NOTIFIED AT 341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT OF WAY.
9. TRAFFIC ENGINEERING MUST APPROVE OF PAVEMENT MARKING PRIOR TO ACTUAL STRIPING.
10. ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN PARKING AREAS SHALL BE WHITE. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS OF WAY FOR DRIVEWAY ARE TO BE THERMO PLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
11. ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT OF WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER.
12. STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
13. TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEEL CHAIR RAMPS.
14. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET.
15. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
16. CONTACT TRAFFIC ENGINEERING AT 341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
17. WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY DETAILS AND SPECIFICATIONS.
18. PROJECT SHALL COMPLY WITH CFPWA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METERS CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
19. IF THE CONTRACTOR DESIRES CFPWA WATER FOR CONSTRUCTION HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST SUPPLY A RPZ BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
20. ANY IRRIGATION SYSTEM SUPPLIED BY CFPWA SHALL COMPLY WITH THE CFPWA CROSS CONNECTION REGULATIONS.
21. ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZE SENSOR.
22. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPWA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCOCHR.
23. CONTRACTOR TO FILED VERIFY EXISTING WATER AND SEWER LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF CONFLICTS.
24. AN ALL WEATHER DRIVING SURFACE FOR EMERGENCY VEHICLES MUST BE MAINTAINED DURING CONSTRUCTION.
25. UNDERGROUND FIRE LINE(S) MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC ROW TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT/DIVISION OF FIRE AND LIFE SAFETY AT 910-341-0696.
26. NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (TEN) FEET ABOVE THE GROUND WITHIN THE TRIANGLE SIGHT DISTANCE.
27. CONTRACTOR IS TO NOTIFY (AT A MINIMUM) THE FOLLOWING COMPANIES FOR LOCATION SERVICES:  
ULOCO .....1-800-632-4949, 48 HOURS IN ADVANCE  
BELL SOUTH.....1-800-392-8712 (STEVE DAYVAULT)  
CAROLINA ONE CALL CENTER 1-800-632-4949
28. THERE SHALL BE NO ENCUMBRANCES WITHIN THE NCDOT RIGHT OF WAY.
29. A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAT (SD 15-14 Co/W TECH STDS)
30. FIRE HYDRANTS CANNOT BE FURTHER THAN 8' FROM THE CURB.
31. PARKING AND LANDSCAPING CANNOT BLOCK FIRE HYDRANTS OF FDC'S
32. FDC'S CAN BE NO FURTHER THAN 40' FROM FIRE DEPARTMENT VEHICLE PLACEMENT
33. FDC'S CAN BE NO FURTHER THAN 150' FROM A FIRE HYDRANT
34. BICYCLE PARKING IS PROVIDED ON THE SOUTHWEST CORNER OF PROPOSED BUILDING



SCALE 1" = 600'  
VICINITY MAP  
OCTOBER, 2016

## LIST OF DRAWINGS

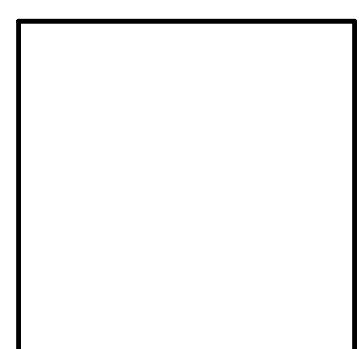
XX	COVER SHEET
C1	SITE PLAN
C2	GRADING, DRAINAGE & EROSION CONTROL
C3	LANDSCAPE PLAN
C4	DETAILS
C5	DETAILS

**OWNER/DEVELOPER**  
CARTIER CONSTRUCTION, INC.  
MR. WALT CARTIER  
PO BOX 980  
WRIGHTSVILLE BEACH, NC 28480  
1-336-404-0009  
1-910-616-5171

**CIVIL ENGINEER**  
JBS CONSULTING, PA  
BRAD SEDGWICK, PE  
7332 COTESWORTH DRIVE  
WILMINGTON, NC 28405  
1-910-619-9990

**SURVEYOR**  
PROGRESSIVE LAND DEVELOPMENT  
CONSULTANTS, PLLC  
SCOTT BAGGINE, PLS  
112 PALM BREEZE DRIVE  
CAROLINA BEACH, NC 28428  
1-910-707-0168

NUMBER	DATE	REVISION
R2	12/13/16	ADDRESSED 11/14/16 TRC COMMENTS
R1	10/19/16	SUBMITTED FOR TRC REVIEW




**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_



Public Services • Engineering Division  
APPROVED PLAN - NO PERMIT REQUIRED

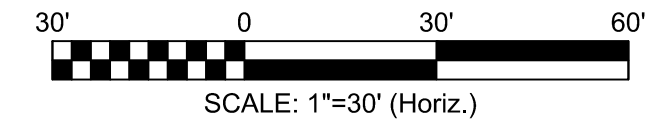
Signed: \_\_\_\_\_

SAMUEL FRANK MNEIL  
R06005-001-002-000  
1808 BURNETT BLVD  
ZONING - CS  
DB 1559 PG 1449  
USE: EMPTY

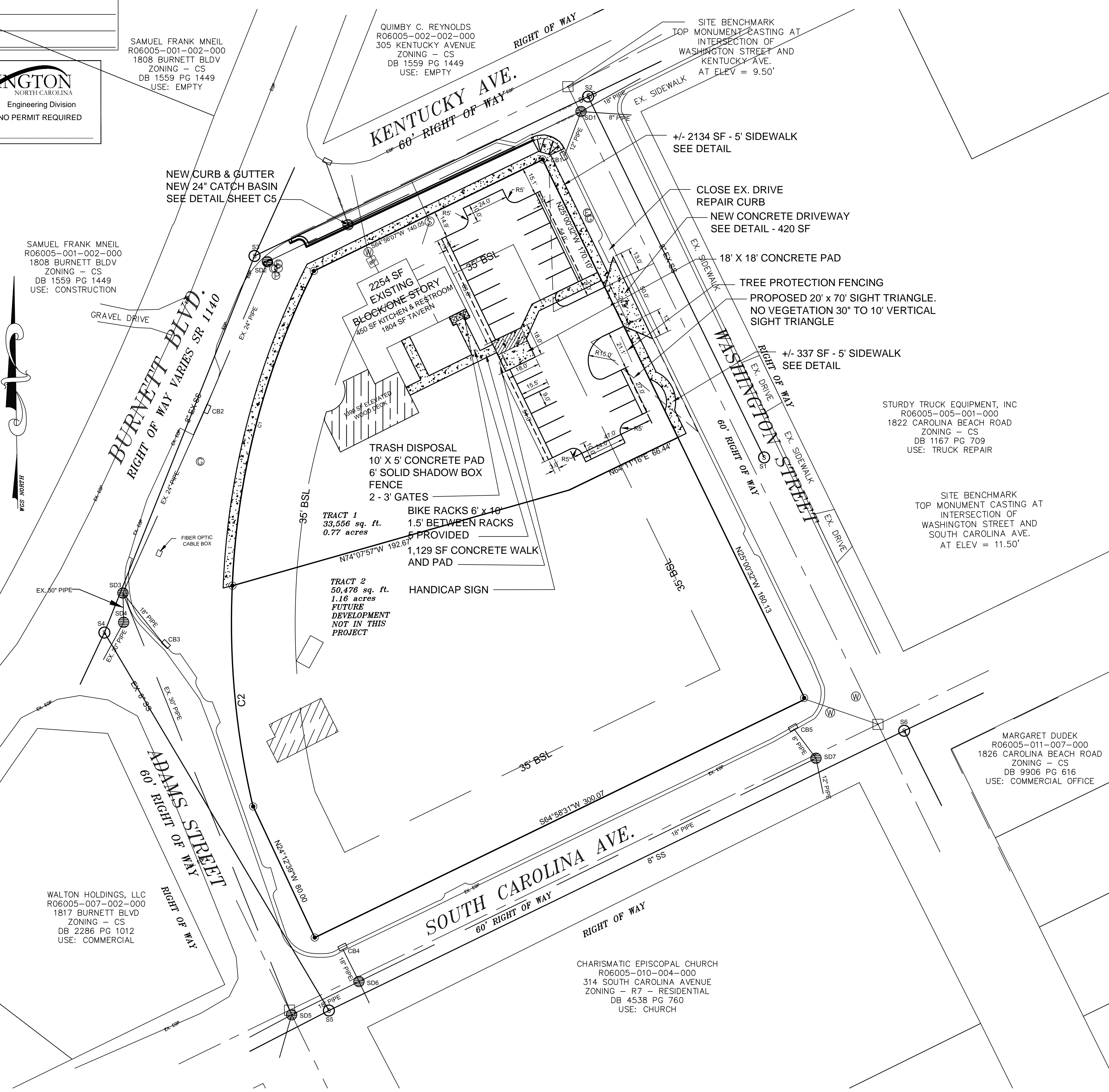
SAMUEL FRANK MNEIL  
R06005-001-002-000  
1808 BURNETT BLVD  
ZONING - CS  
DB 1559 PG 1449  
USE: CONSTRUCTION



REVISION	DATE	DESCRIPTION
R2	12/13/16	ADDRESSED 11/4/16 TRC COMMENTS
R1	10/19/16	SUBMITTED FOR TRC REVIEW



**NO WETLAND WITHIN PROJECT AREA**



**SITE PLAN**  
SCALE 1" = 30'

**SITE DATA**

ADDRESS ..... 302 KENTUCKY AVENUE  
WILMINGTON, NC

PARCEL ID NUMBERS ..... R06005-006-001-000

DEED BOOK & PAGE ..... D.B. 5972 PG. 1206

MAP BOOK & PAGE ..... MB n/g PG. n/g

ZONING ..... CS - COMMERCIAL SERVICES DISTRICT  
CITY OF WILMINGTON

TOTAL LOT AREA ..... 0.77 ACRES - TRACT 1

CAMA LAND USE CLASSIFICATION .. CAMA

OVERLAY DISTRICT - PROPERTY IS NOT IN A SPECIAL HIGHWAY OVERLAY DISTRICT

PROPOSED USE.....NIGHTCLUB

FLOOD INFO  
EAST SIDE OF PROPERTY = ZONE AE - BASE FLOOD ELEVATION = 9.0'  
WEST SIDE OF PROPERTY = ZONE X

PANEL 3116  
MAP # 3720311600K  
APRIL 2, 2006

SEE FLOOD LINE ON DETAIL SHOWN ON SHEET C5

NUMBER OF BUILDINGS ..... 1 EXISTING

	REQUIRED	PROPOSED
MIN. LOT AREA	7,500 SF	84,302 SF
MIN. LOT WIDTH	65'	137'
MAX. LOT COVERAGE	N/A	2254' / 33,566 = 6.7%
FRONT BUILDING SETBACK	35'	35'
REAR BUILDING SETBACK	15'	35'
SIDE BUILDING SETBACK	N/A	35'
MINIMUM CORNER LOT	35'	35'
SIDE SETBACK	35'	17'
MAX. BUILDING HEIGHT	35'	17'

TOTAL IMPERVIOUS SURFACE ON-SITE	EXISTING	PROPOSED
BUILDINGS - EXISTING	2,254 SF	2,254 SF
CONCRETE SIDEWALK	0 SF	1,129 SF
GRAVEL PARKING	0 SF	0 SF
TOTAL	2,254 SF	3,383 SF

TOTAL IMPERVIOUS SURFACE OFF-SITE

SIDEWALK	0 SF	2,471 SF
DRIVEWAY APRON	0 SF	420 SF
TOTAL	0 SF	2,891 SF

\*\*PER COW ENGINEERING GRAVEL PARKING PROPOSED = 0% IMPERVIOUS

ENTIRE SITE BUA = 3,383 SF/33,566 SF = 10%

**PARKING REQUIREMENTS:**  
NIGHTCLUBS

MAXIMUM 1 SPACE PER 65 SF EXCLUSIVE OF RESTROOM AND KITCHEN  
MINIMUM 1 SPACE PER 80 SF EXCLUSIVE OF RESTROOM AND KITCHEN  
PROPOSED NIGHTCLUB = 1804 SF BAR AREA + 450 KITCHEN/RESTROOMS = 2254 SF  
MINIMUM SPACES = 23 MAXIMUM SPACES = 28 SPACES

SPACES PROVIDED 22 + 1 H/C = 23 SPACES

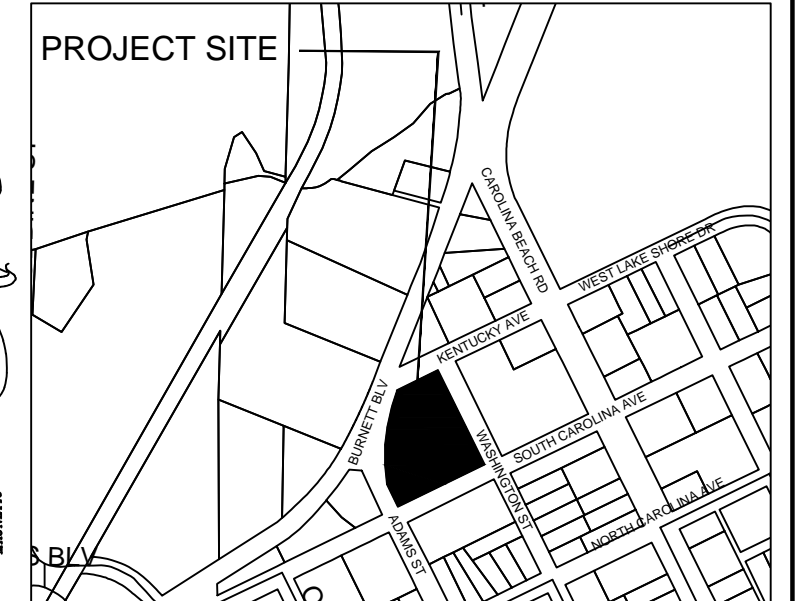
SOLID WASTE - FACILITY WILL BE SERVED WITH ROLLER CARTS AS SHOWN

**UTILITY INFORMATION**

WATER EXISTING USAGE 240 GPD  
WATER USAGE PROPOSED 360 GPD  
SEWER USAGE - EXISTING 240 GPD  
SEWER USAGE - PROPOSED 360 GPD

UTILITIES NEEDS WILL BE SERVED VIA EXISTING UTILITY TAPS

LIMITS OF DISTURBANCE LIMITED TO 43,000 SF AS SHOWN ON SHEET C2.



**VICINITY MAP**  
SCALE: 1" = 600'

**SANITARY SEWER MANHOLE TABLE**

S1	TOP ELEV = 10.62'
	INVERT OUT = 7.12'
S2	TOP ELEV = 9.45'
	INVERT IN (FROM MH S1) = 6.15'
	INVERT OUT (TO MH S3) = 4.95'
	INVERT IN (NORTHEAST) = 4.95'
S3	TOP ELEV = 6.60'
	INVERT IN (FROM MH S2) = 3.05'
	INVERT IN (FROM MH S4) = 3.05'
	INVERT OUT (NORTHEAST) = 2.65'
S4	TOP ELEV = 7.37'
	INVERT IN (FROM MH S5) = 3.57'
	INVERT OUT (TO MH S3) = 3.52'
	INVERT IN (SOUTHWEST) = 3.52'
S5	TOP ELEV = 11.88'
	INVERT = N/A
S6	TOP ELEV = 13.79'
	INVERT OUT (TO MH S5) = 6.94'
	INVERT IN (NORTHEAST) = 7.09'
	INVERT IN (SOUTHEAST) = 7.79'

**STORM DRAIN TABLE**

CB1	CURB INLET TOP GRATE ELEV = 9.70'
	INVERT OUT = 5.35'
SD1	SDMH TOP ELEV = 9.48'
	INVERT IN (FROM MH CB1) = 4.48'
	INVERT OUT (TO MH SD2) = 4.41'
	INVERT IN (NORTHEAST) = 4.55'
	INVERT IN (EAST) = 4.58'
SD2	SDMH TOP ELEV = 6.83'
	INVERT IN (FROM MH SD1) = 2.23'
	INVERT OUT (TO MH CB2) = 2.08'
CB2	CURB INLET TOP GRATE ELEV = 6.40'
	INVERT IN (FROM MH SD2) = 1.65'
	INVERT OUT (TO MH SD3) = 1.65'
SD3	SDMH TOP ELEV = 6.92'
	INVERT IN (FROM CB2) = 3.07'
	INVERT IN (FROM SD4) = -0.13'
	INVERT OUT (TO SD5) = -0.13'
CB3	CURB INLET TOP GRATE ELEV = 7.50'
	INVERT OUT (TO SD3) = 3.70'
SD4	SDMH TOP ELEV = 7.24'
	INVERT IN (FROM SD3) = -0.26'
	INVERT OUT (SOUTHWEST) = -0.26'
SD5	SDMH TOP ELEV = 11.64'
	INVERT = N/A
SD6	SDMH TOP ELEV = 12.02'
	INVERT IN (FROM MH CB4) = 9.52'
	INVERT IN (FROM MH SD7) = 7.24'
	INVERT IN (SOUTHEAST) = 9.17'
	INVERT OUT (TO SD5) = 7.22'
CB4	CURB INLET TOP GRATE ELEV = 12.15'
	INVERT OUT (TO SD6) = 9.50'
SD7	SDMH TOP ELEV = 13.47'
	INVERT IN (FROM MH CB5) = 10.57'
	INVERT IN (SOUTH) = 10.67'
	INVERT OUT (TO SD6) = 9.37'
CB5	CURB INLET TOP GRATE ELEV = 13.50'
	INVERT OUT (TO SD7) = 10.55'

**LEGEND**

- GRAVEL SURFACE
- STANDARD CONCRETE
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION
- WAVE STYLE BIKE RACK & BIKE SPOTS EACH
- TREE PROTECTION FENCING SEE DETAIL

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	180.24'	436.07'	23°40'54"	S 15°26'18" W	178.96'
C2	122.17'	436.07'	16°03'06"	S 04°25'42" E	121.77'

DESIGNED BY: BDS  
DRAWN BY: BDS  
CHECKED BY: BDS  
DATE: OCTOBER, 2016

**SITE PLAN**  
**DRAM TREE TAVERN**  
302 KENTUCKY AVENUE  
WILMINGTON, NC 28401

**CARTIER CONSTRUCTION, INC**  
WALT CARTER  
PO BOX 980  
WRIGHTSVILLE BEACH, NC 28480

**CONSULTING, PA**  
7332 Cotesworth Drive  
Wilmington, NC 28405  
(910) 619-9990  
License Number C-2525

**JBS**  
PLANNING - ENGINEERING - PROJECT MANAGEMENT

SHEET  
**C1**  
of 6

JOB NO. 109-001

**Approved Construction Plan**

Name \_\_\_\_\_ Date \_\_\_\_\_

Planning \_\_\_\_\_

Traffic \_\_\_\_\_

Fire \_\_\_\_\_

**CITY OF WILMINGTON**  
NORTH CAROLINA  
Public Services • Engineering Division  
APPROVED PLAN - NO PERMIT REQUIRED

Signed: \_\_\_\_\_

400 GALLON GREASE TRAP  
SEE DETAIL SHEET SSD 4  
EXISTING SEWER TAP

NEW 24" CURB & GUTTER  
NEW ASPHALT INLAY  
SEE DETAIL SHEET C5  
+/- 1087 SF

EXISTING WATER METER  
PROPOSED BFP  
SEE DETAIL SHEET WDS 1

INSTALL SIDEWALK  
AT EXISTING GRADE

**BURNETT BLVD.**  
RIGHT OF WAY VARIES SR 1140

**ADAMS STREET**  
60' RIGHT OF WAY

**KENTUCKY AVE.**  
60' RIGHT OF WAY

**SOUTH CAROLINA AVE.**  
60' RIGHT OF WAY

PROPOSED 20' x 70' SIGHT TRIANGLE.  
NO VEGETATION 30' TO 10' VERTICAL  
SIGHT TRIANGLE

PROPOSED 20' x 70' SIGHT TRIANGLE.  
NO VEGETATION 30' TO 10' VERTICAL  
SIGHT TRIANGLE

TRACT 1  
33,556 sq. ft.  
0.77 acres

TRACT 2  
50,476 sq. ft.  
1.16 acres  
FUTURE DEVELOPMENT  
NOT IN THIS PROJECT

43,000 SF WITHIN LIMITS  
OF DISTURBANCE

TREE PROTECTION FENCING  
SEE LANDSCAPE PLAN

**GRADING DRAINAGE & EROSION CONTROL**

SCALE 1" = 30'

NO WETLAND WITHIN PROJECT AREA

**GRADING NOTES**

- INITIATE EROSION CONTROL SEQUENCE BEFORE BEGINNING CLEARING, GRUBBING AND GRADING OPERATIONS.
- CLEAR AREAS TO BE GRADED OF ALL VEGETATION. PROTECT VEGETATION BEYOND GRADING LIMITS.
- STRIP TOPSOIL TO FULL DEPTH IN AREAS TO BE GRADED AND STOCKPILE.
- COMPACT ALL FILL AREAS TO 95% OF MAXIMUM DENSITY.
- ALL BANKS AND SWALE SIDE SLOPES SHALL BE GRADED WITH NO GREATER THAN 3:1 SLOPES.
- ALL AREAS ARE TO BE GRADED SO THAT NO AREAS OF STANDING WATER OCCUR.
- PROPOSED SPOT ELEVATIONS ARE SHOWN AT FINISHED GRADE.
- OPERATOR SHALL FIELD VERIFY EXISTING TOPOGRAPHY IN RELATION TO THE PROPOSED GRADES TO ENSURE DRAINAGE IN THE DIRECTIONS INDICATED ON THE PLAN.

**CONSTRUCTION SEQUENCE**

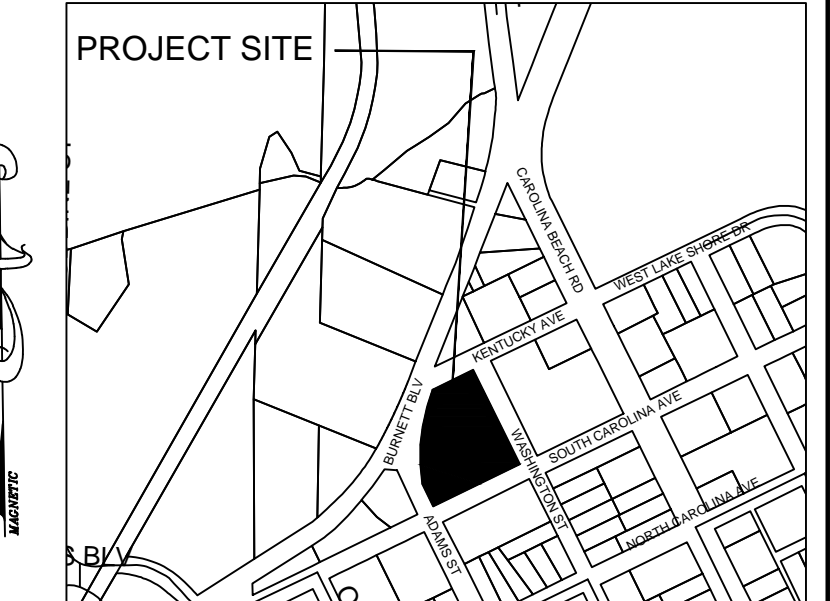
- OBTAIN ALL NECESSARY PERMIT APPROVALS PRIOR TO ANY LAND DISTURBING ACTIVITY.
- NO PRE-CONSTRUCTION MEETING WITH THE EROSION CONTROL INSPECTOR IS REQUIRED FOR THIS PROJECT.
- INSTALL GRAVEL CONSTRUCTION ENTRANCE AND SILT FENCE. COMMENCE CLEARING AND ROUGH GRADING OPERATIONS TO ESTABLISH DIVERSION SWALES AND SEDIMENT TRAPS AND BASIN.
- ROUGH GRADE SITE AND INSTALL UNDERGROUND UTILITIES.
- PROVIDE TEMPORARY PROTECTION MEASURES AND DEVICES AS REQUIRED UNTIL UNDERGROUND UTILITIES AND PAVEMENT SECTION IS COMPLETE AND FINAL GRADES ARE STABILIZED WITH TEMPORARY VEGETATIVE COVER.
- STABILIZE (FERTILIZE, SEED, AND MULCH) ALL DISTURBED AREAS AS SOON AS FINAL GRADES ARE ESTABLISHED.
- ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS ARE STABILIZED, REMOVE TEMPORARY EROSION CONTROL MEASURES.

**EROSION CONTROL MAINTENANCE PLAN**

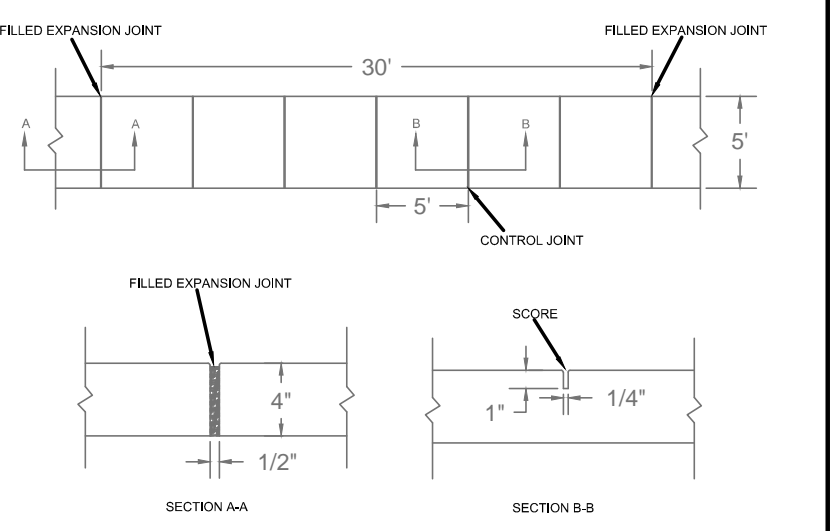
- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF - PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED.
- INSPECT SEDIMENT TRAPS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT, AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN DESIGNATED DISPOSAL AREA, AND REPLACE THE PART OF THE GRAVEL FACING THAT IS IMPAIRED BY SEDIMENT.
- SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES ABOUT 0.5 FEET DEEP AT THE FENCE. THE SEDIMENT FENCE WILL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
- ALL AREAS WILL BE FERTILIZED, RESEED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
- GRAVEL CONSTRUCTION ENTRANCE TO BE CLEANED WHEN SEDIMENT ACCUMULATIONS ARE VISIBLE OR SEDIMENT IS DEPOSITED ON THE ASPHALT AND STONE WILL BE PERIODICALLY TOP DRESSED WITH 2 INCHES OF #4 STONE TO MAINTAIN 6 INCH DEPTH.
- INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (2" OR GREATER) RAINFALL EVENT. CLEAR THE WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

**EROSION CONTROL NOTES**

- THIS PROJECT DOES NOT QUALIFY FOR A NHC S&E PERMIT. REGARDLESS CONTRACTOR SHALL FOLLOW GOOD PRACTICE TECHNIQUES.
- CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN ROAD RIGHT OF WAYS UNLESS OTHERWISE DESIGNATED TO REMAIN.
- CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN THE LIMITS OF CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY UNSUITABLE SOILS.
- CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
- THE CONTRACTOR SHALL FURNISH ANY REQUIRED BORROW MATERIALS FROM A PROPERLY PERMITTED OFF-SITE FACILITY.
- ALL GRADED SLOPES MUST BE SEEDED AND MULCHED WITHIN 21 CALENDAR DAYS OF COMPLETION OF GRADING. STABILIZE AREAS OTHER THAN SLOPES WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER.
- ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY ENGINEERING DEPARTMENT.
- SLOPES SHALL BE GRADED NO STEEPER THAN 3:1.
- ADDITIONAL DEVICES MAY BE REQUIRED AS AGREED UPON BY THE FIELD INSPECTOR, ENGINEER, AND OWNER.
- IF ACTIVE CONSTRUCTION CEASES IN ANY AREA FOR MORE THAN 15 CALENDAR DAYS, ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, AND TACKED.



VICINITY MAP  
SCALE: 1" = 600'



**CONCRETE WALK SECTION**

SECTION A-A  
SECTION B-B

NOTES:  
1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.  
2. SANITARY SEWER CLEANOUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE BROWLINE WHERE FEASIBLE.  
3. MANHOLE BENCHMARKS TO BE 4" MINIMUM IF PLACED AT BACK OF CURB.  
4. CONCRETE FOR ALL SIDEWALKS EXCEPT ANY PORTION CONTAINING A DRIVEWAY APPROX SHALL BE CLASS 24" x 3,000 PSI.  
5. MANHOLE REPAIRMENT FOR REPAIRS IS 6' x 6' PANEL.  
6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS.  
7. MINIMUM DEPTH FOR TUMBLING BELOW SIDEWALKS 12"  
8. MAX ADJACENT GROUND SLOPE WITHOUT A RISE IS 2:1  
9. MIN GRADING FOR PROPOSED SIDEWALKS IS 18" IN MAX CLEARANCE. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 1/4". 1/4" IF DRAINED BY EXISTING. THE SLOPE OF THE EXISTING ADJACENT ROAD.

**LEGEND**

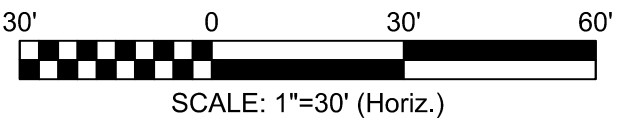
- GRAVEL SURFACE
- STANDARD CONCRETE
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION
- WAVE STYLE BIKE RACK
- 8 BIKE SPOTS EACH
- TREE PROTECTION FENCING
- SEE DETAIL

LABEL	1) GROUND STABILIZATION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
[Cross-hatch pattern]	PERIMETER DIKES, DITCHES AND SLOPES	7 DAYS	NONE
	HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
[Diagonal line pattern]	SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1 14 DAYS ARE ALLOWED
	SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
[Dotted pattern]	ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)

- 2) BUILDING WASTES HANDLING
- NO PAINT OR LIQUID WASTES IN STREAM OF STORM DRAINS
  - DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE
  - EARTHEN MATERIALS STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE
  - CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS.
- 3) INSPECTIONS
- SAME WEEKLY INSPECTION REQUIREMENTS
  - SAME RAIN GAUGE & INSPECTIONS AFTER 0.5" RAIN EVENT
  - INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS"
  - INSPECTION REPORTS MUST BE AVAILABLE ON-SITE DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS APPROVED
  - RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE UPON REQUEST
  - ELECTRONICALLY-AVAILABLE RECORDS MAY BE SUBSTITUTES UNDER CERTAIN CONDITIONS
- 4) SEDIMENT BASINS
- OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACES UNLESS DRAINAGE AREA IS LESS THAN 1 ACRE
  - USE ONLY DWM-APPROVED FLOCCULANTS
- NPDES - SPECIFIC PLAN SHEET NOTES**
- THIS PAGE IS SUBMITTED TO COMPLY WITH NPDES GENERAL STORMWATER PERMIT NCG010000.
  - THIS PAGE CAN BE APPROVED BY THE COUNTY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000 ONLY.
  - THIS PAGE OF THE APPROVED PLANS IS ENFORCEABLE EXCLUSIVELY PURSUANT TO NPDES GENERAL STORMWATER PERMIT NCG010000.
  - THE COUNTY IS NOT AUTHORIZED TO ENFORCE THIS PAGE OF THE PLANS AND IT IS NOT PART OF THE APPROVED PLANS FOR THE PURPOSES OF ENFORCEMENT ACTION UNDER THE CITY CODE.

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	180.24'	436.07'	23°40'54"	S 15°26'18" W	178.96'
C2	122.17'	436.07'	16°03'06"	S 04°25'42" E	121.77'

NO.	DATE	REVISION
R2	12/13/16	ADDRESSED 11/4/16 TRC COMMENTS
R1	10/18/16	SUBMITTED FOR TRC REVIEW



DESIGN BY: BDS  
DRAWN BY: BDS  
CHECKED BY: BDS  
DATE: OCTOBER, 2016

**GRADING, DRAINAGE & EROSION CONTROL UTILITY PLAN**

**CARTIER CONSTRUCTION, INC**  
WALT CARTER  
PO BOX 980  
WRIGHTSVILLE BEACH, NC 28480

**JBS CONSULTING, PA**  
7332 Cotesworth Drive  
Wilmington, NC 28405  
(910) 619-9990  
License Number C-2525

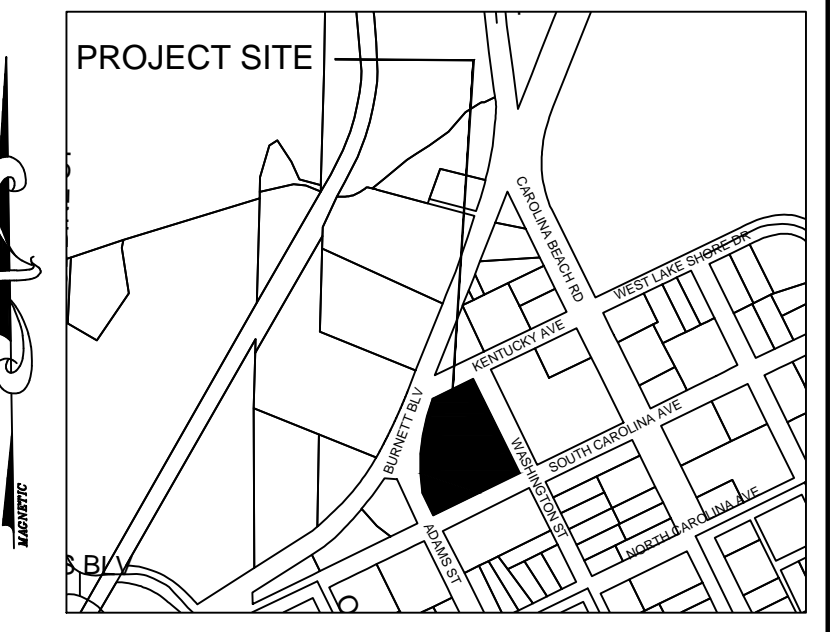
PLANNING - ENGINEERING - PROJECT MANAGEMENT

SHEET **C2** of 6

JOB NO. 109-001

Approved Construction Plan  
 Name \_\_\_\_\_ Date \_\_\_\_\_  
 Planning \_\_\_\_\_  
 Traffic \_\_\_\_\_  
 Fire \_\_\_\_\_

**CITY OF WILMINGTON**  
 NORTH CAROLINA  
 Public Services • Engineering Division  
 APPROVED PLAN - NO PERMIT REQUIRED  
 Signed: \_\_\_\_\_



DESIGN BY: BDS  
 DRAWN BY: BDS  
 CHECKED BY: BDS  
 DATE: OCTOBER, 2016

GRADING, DRAINAGE & EROSION CONTROL  
 LANDSCAPE PLAN  
**DRAM TREE TAVERN**  
 302 KENTUCKY AVENUE  
 WILMINGTON, NC 28401

**CARTIER CONSTRUCTION, INC**  
 WALT CARTER  
 PO BOX 980  
 WRIGHTSVILLE BEACH, NC 28480

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 7332 Cotesworth Drive  
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SHEET  
**C3**  
 of 6  
 JOB NO. 109-001

**LANDSCAPE DATA**

**STREET YARD LANDSCAPING**  
 PRIMARY - BURNETT BLVD  
 180' X 25' = 4,500 SF REQUIRED  
 450%<sub>600</sub> = 8 (8 CANOPY TREE + 48 12" SHRUBS)  
 USE 7 NEW WILLOW OAKS AND CREDIT FOR EX. PECAN TREE  
 SECONDARY - KENTUCKY AVENUE  
 140' X 25' X 50% = 1,750 SF REQUIRED  
 175%<sub>600</sub> = 3 (3 CANOPY TREES + 18 12" SHRUBS)  
 SECONDARY - WASHINGTON  
 170' X 25' X 50% = 2,125 SF  
 212%<sub>600</sub> = 4 (4 CANOPY TREES + 24 12" SHRUBS)

**PARKING LOT LANDSCAPING**  
 PARKING LOT SHADING WILL BE ACCOMPLISHED WITH PROPOSED TREES SHOWN ON PLAN. PER COV CRITERIA THE PARKING LOT SHALL HAVE A 20% SHADING COVERAGE.  
 PARKING & ISLES ON SITE EQUAL 7,183 SF X 20% = 1,437 SF  
 SHADING FROM PROPOSED TREES 7 WILLOW OAKS + 2 EXISTING WITH 10' RADIUS = 314 SF X 9 = 2,826 SF OF SHADING. MEETS ORDINANCE.

**PERIMETER LANDSCAPING - PERIMETER PLANTING AROUND ENTIRE PARKING LOT. 100% OPACITY TO 3' IN HEIGHT.**

**FOUNDATION PLANTINGS**  
 HEIGHT X WIDTH X 12%  
 12' X 95' X 12% = 137 SF REQUIRED  
 631 SF PROVIDED

PLAN SHOWS PROPOSED PLANTINGS. SHRUBS OTHER THAN SHOWN MAY BE SUBSTITUTED WITH SELECTIONS FROM THE APPROVED PLANTING LIST AS SHOWN IN THE MOST CURRENT COV TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL.

**BUFFER YARDS**  
 NOT APPLICABLE FOR THIS PROJECT

**GROUND COVER**  
 ALL ISLANDS SHALL BE PLANTED WITH GROUND COVER PLANTING SHOWN IN THE APPROVED PLANT LIST MENTIONED ABOVE OR PINE STRAW/MULCH

**LANDSCAPE NOTES**

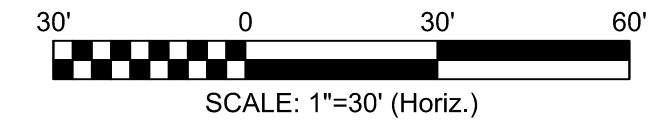
- ALL PLANTED AND RETAINED LIVING MATERIAL, REQUIRED TO MEET THE PROVISIONS OF THE CITY OF WILMINGTON, LAND DEVELOPMENT CODE, SHALL BE PERPETUALLY PROTECTED AND MAINTAINED, TO PROFESSIONALLY ACCEPTED STANDARDS BY JOINT AND SEVERAL RESPONSIBILITY OF THE OWNER, OCCUPANTS, TENANT AND RESPECTIVE LIVE AGENTS OF THE PROPERTY ON WHICH THE MATERIAL IS LOCATED.
- LANDSCAPING SHOWN IS MINIMAL AMOUNT OF LANDSCAPING PER THE UMX ZONING. OWNER WILL PLANT MORE MATERIAL IN LANDSCAPE BEDS AS SHOWN.
- INSTALL TREE PROTECTION AT A RATE OF 1" OF FENCING PER 1" DIA AT DBH.

LANDSCAPE SCHEDULE				
Scientific Name	Common Name	Size	Symbol	Quantity
QUERCUS PHELLOS	WILLOW OAK	Min. 2" Caliper	☼	19
ILEX VOMBERA	DWARF YALPOUNNELLY	9" caliper/ shrub	☼	40
PISTIACUM TORBA	DWARF PISTIACUM	9" caliper/ shrub	☼	40
VIB. LIGERUM	COMMON PRIVET	7" caliper/ 2' ht	☼	50
LIRIOPE ALICARI	LIRIOPE BLUE	1-1 GALLON	☼	55

**LEGEND**

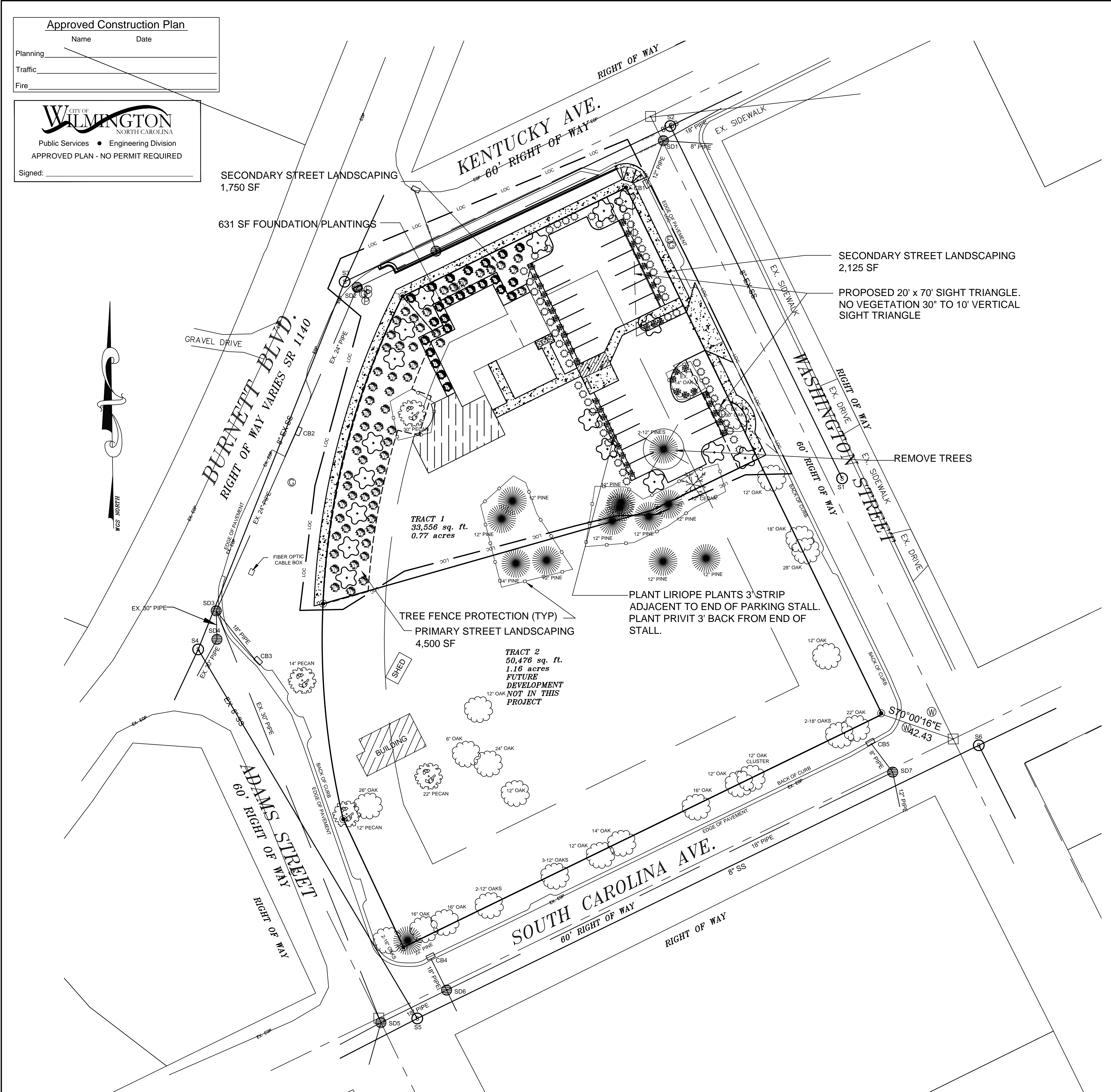
- GRAVEL SURFACE
- STANDARD CONCRETE
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION
- WAVE STYLE BIKE RACK  
8 BIKE SPOTS EACH
- TREE PROTECTION FENCING  
SEE DETAIL

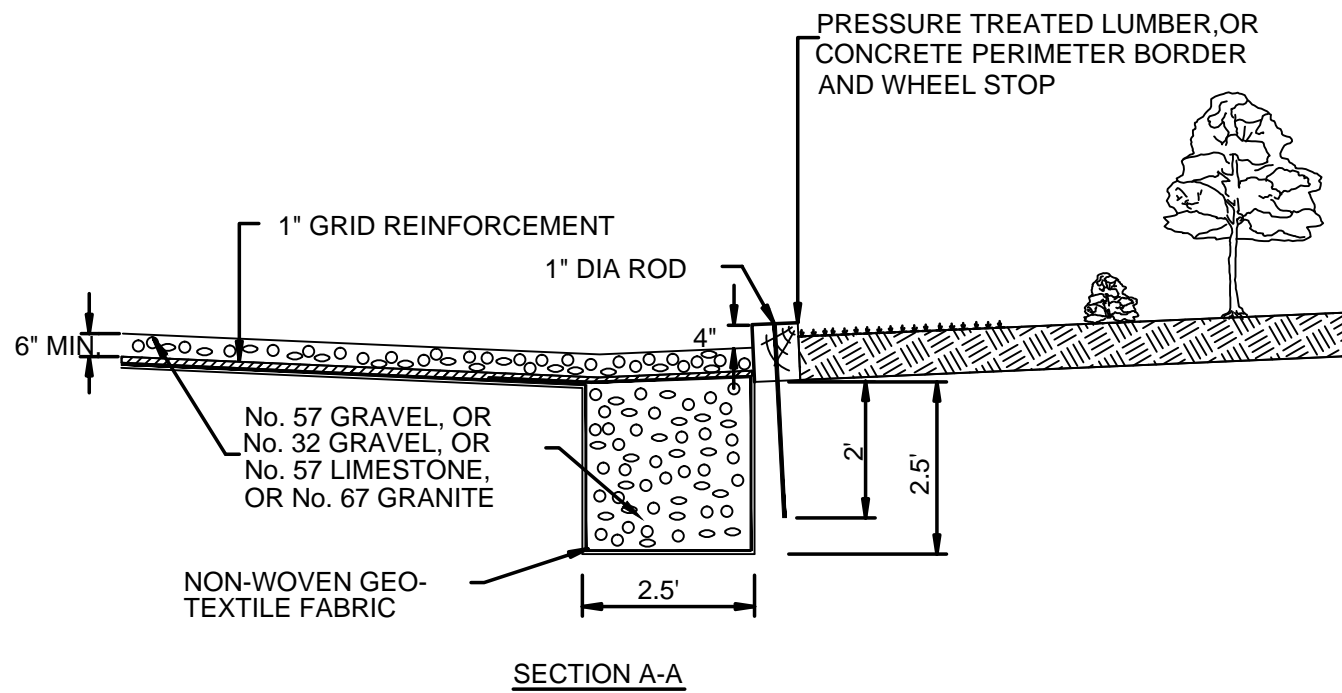
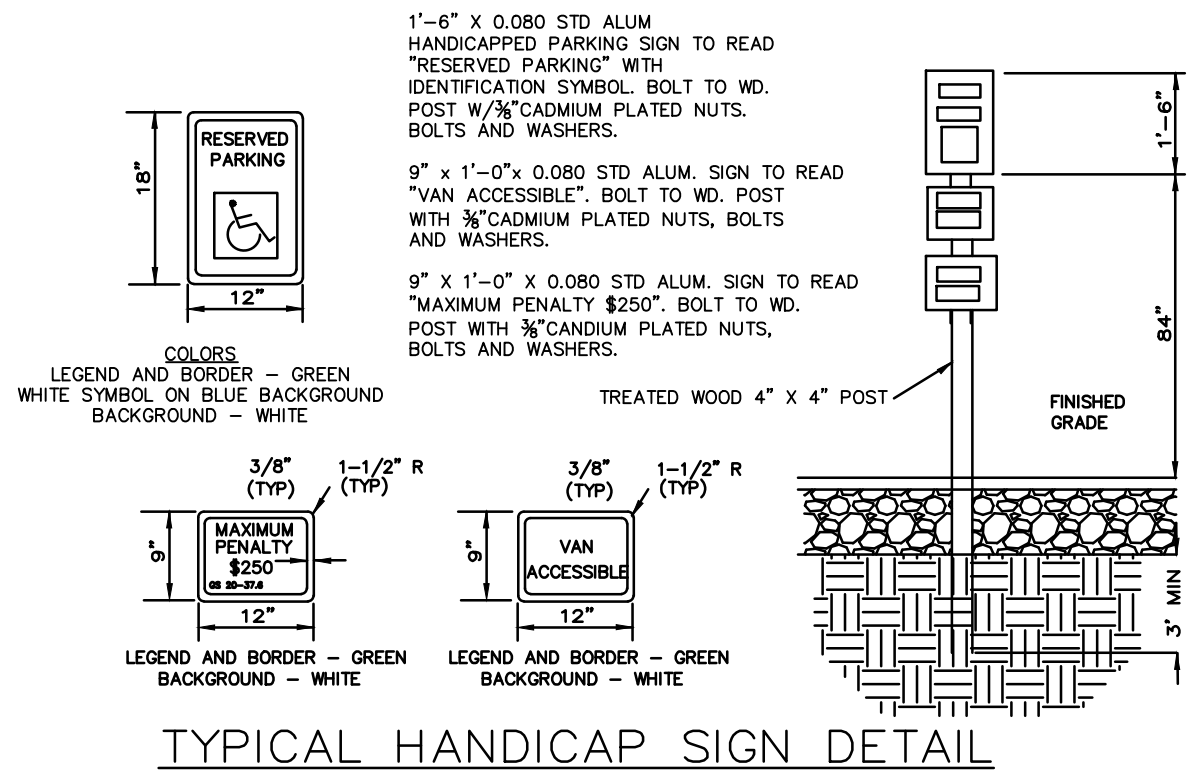
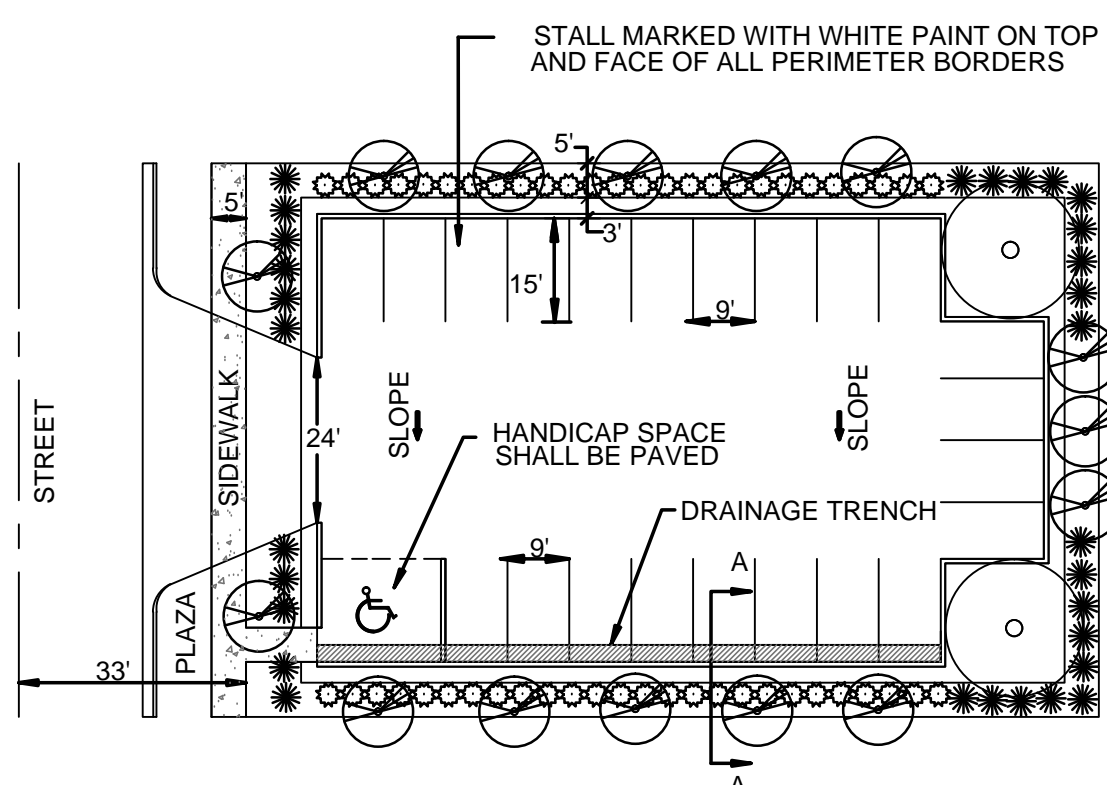
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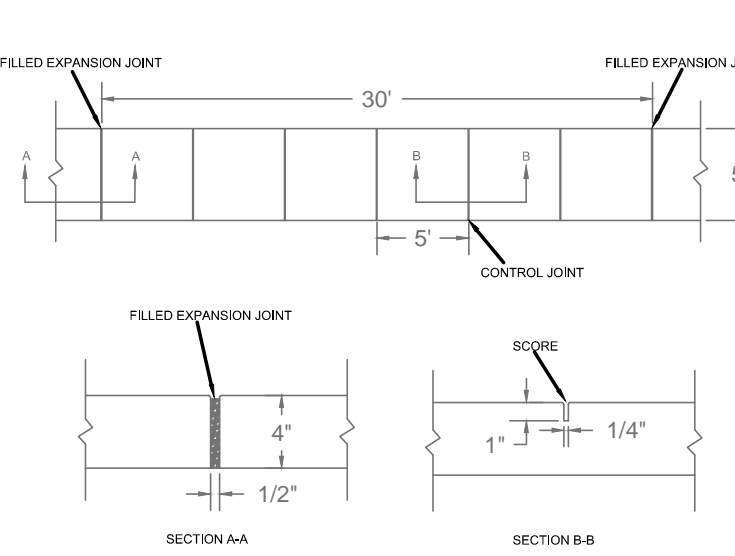
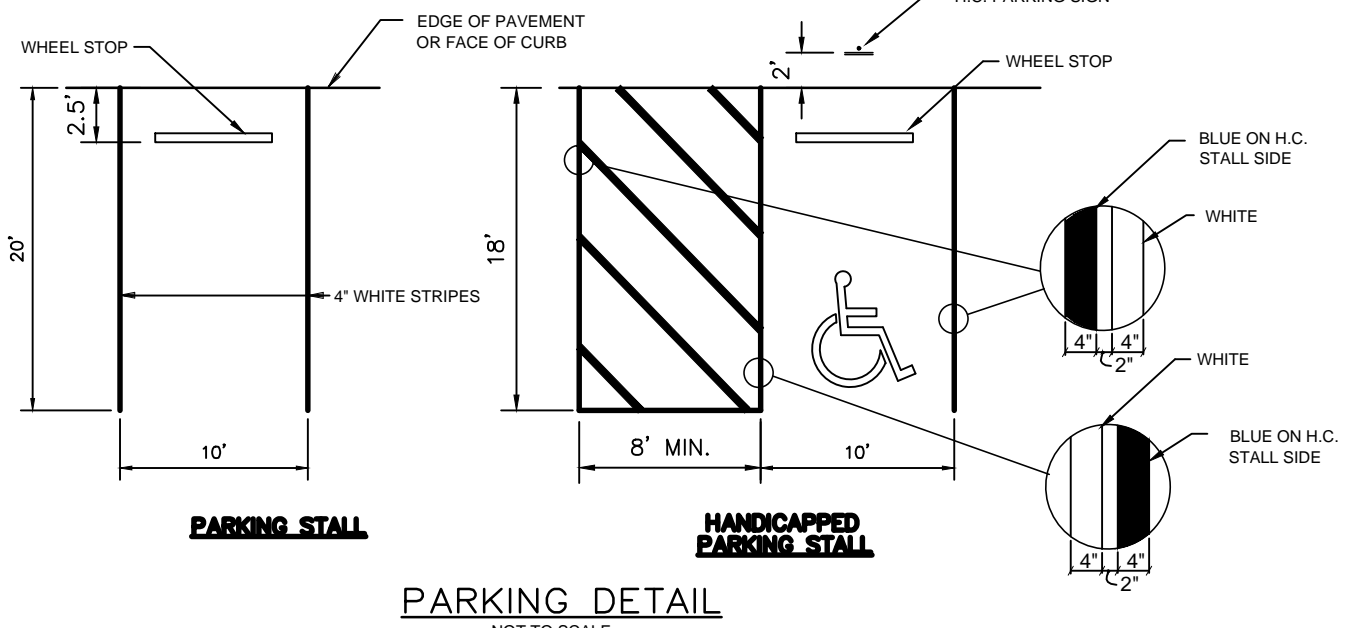
NO WETLAND WITHIN PROJECT AREA

**GRADING DRAINAGE & EROSION CONTROL  
 LANDSCAPE**  
 SCALE 1" = 30'

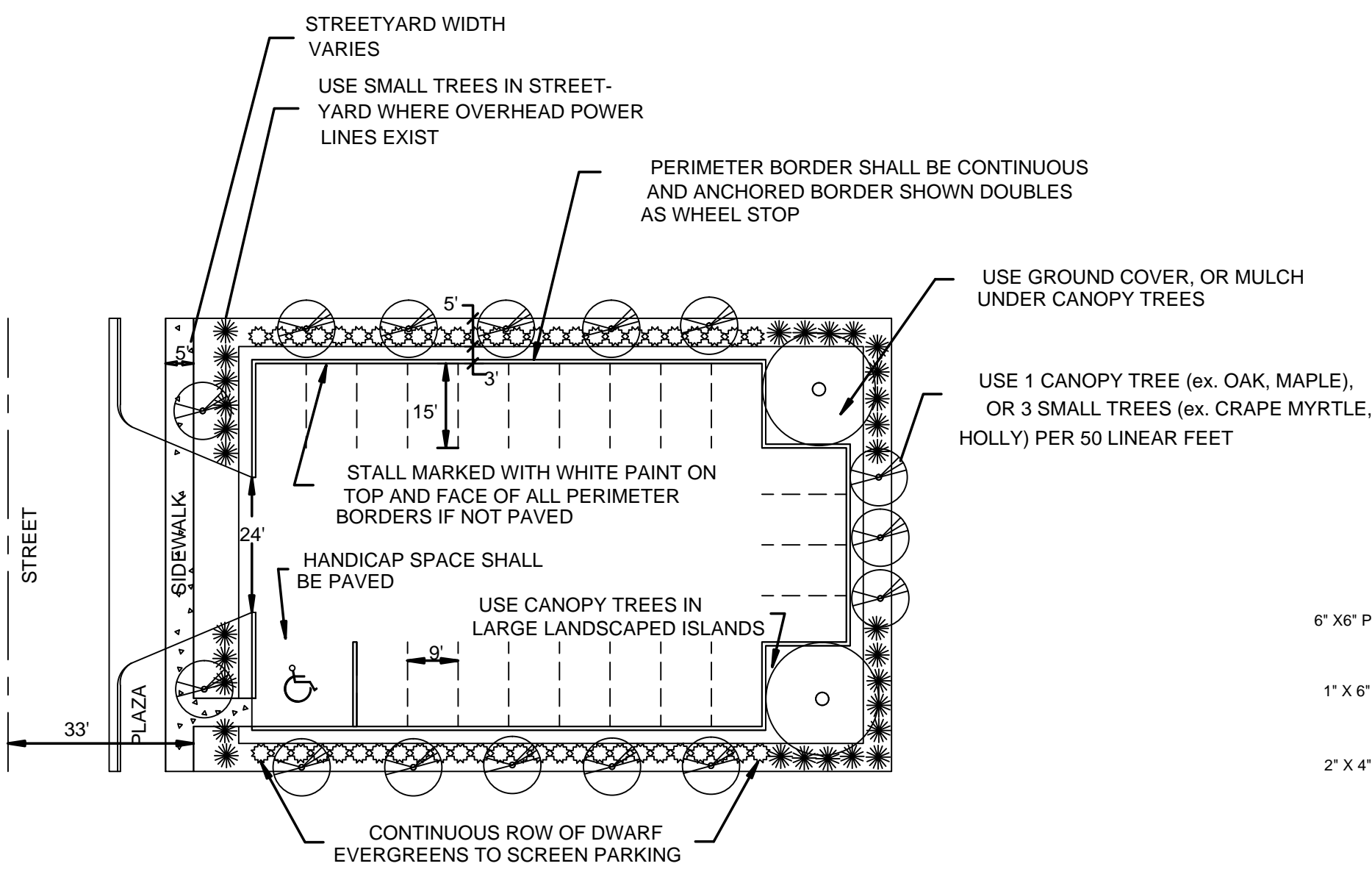




TYPICAL UNPAVED  
PARKING FACILITY  
UNDER 25 STALLS  
SCALE: NTS  
SD 15-10



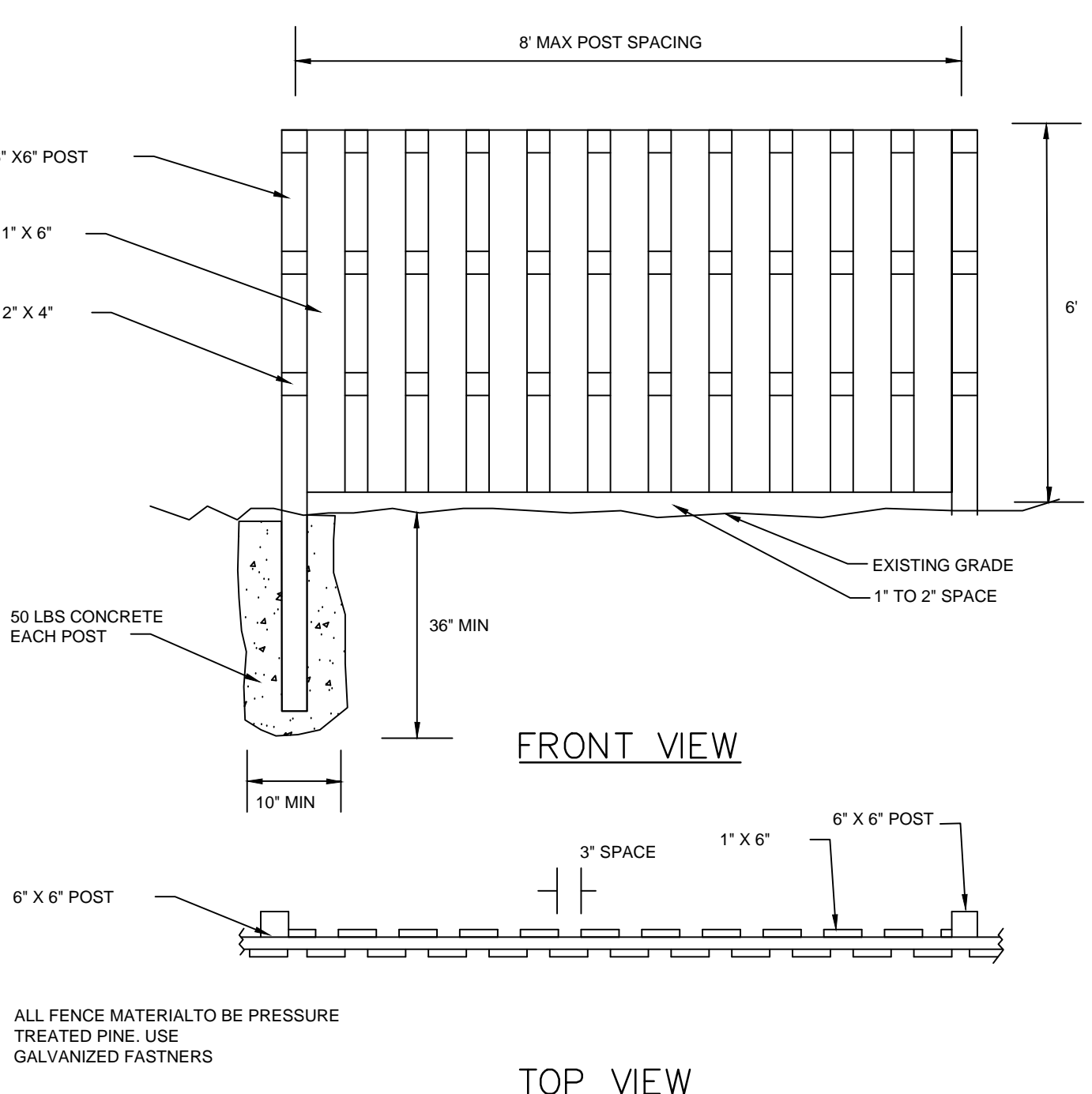
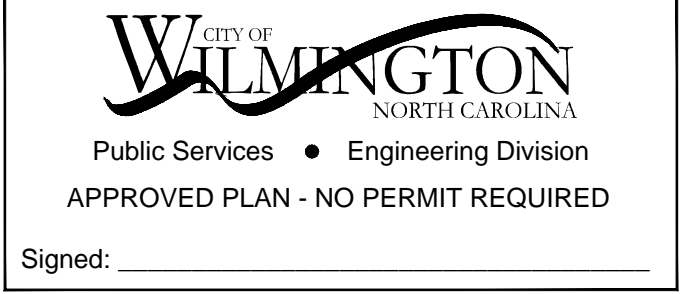
CONCRETE WALK SECTION  
SD 15-10



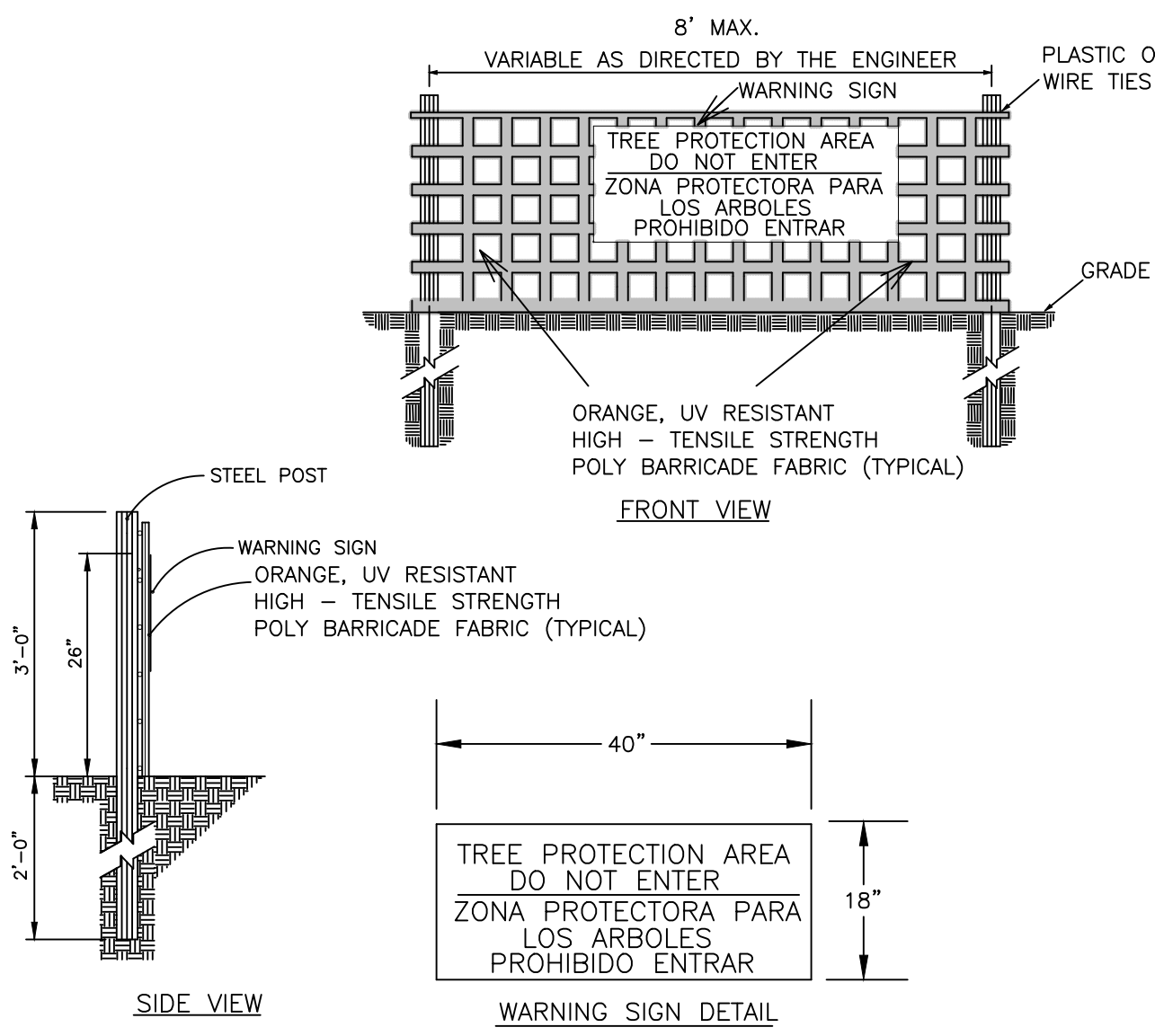
STANDARD DETAIL  
PARKING FACILITY  
UNDER 25 STALLS  
PAVED OR UNPAVED  
SCALE: NTS  
SD 15-11

Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	



SHADOW BOX FENCE DETAIL  
N.T.S.

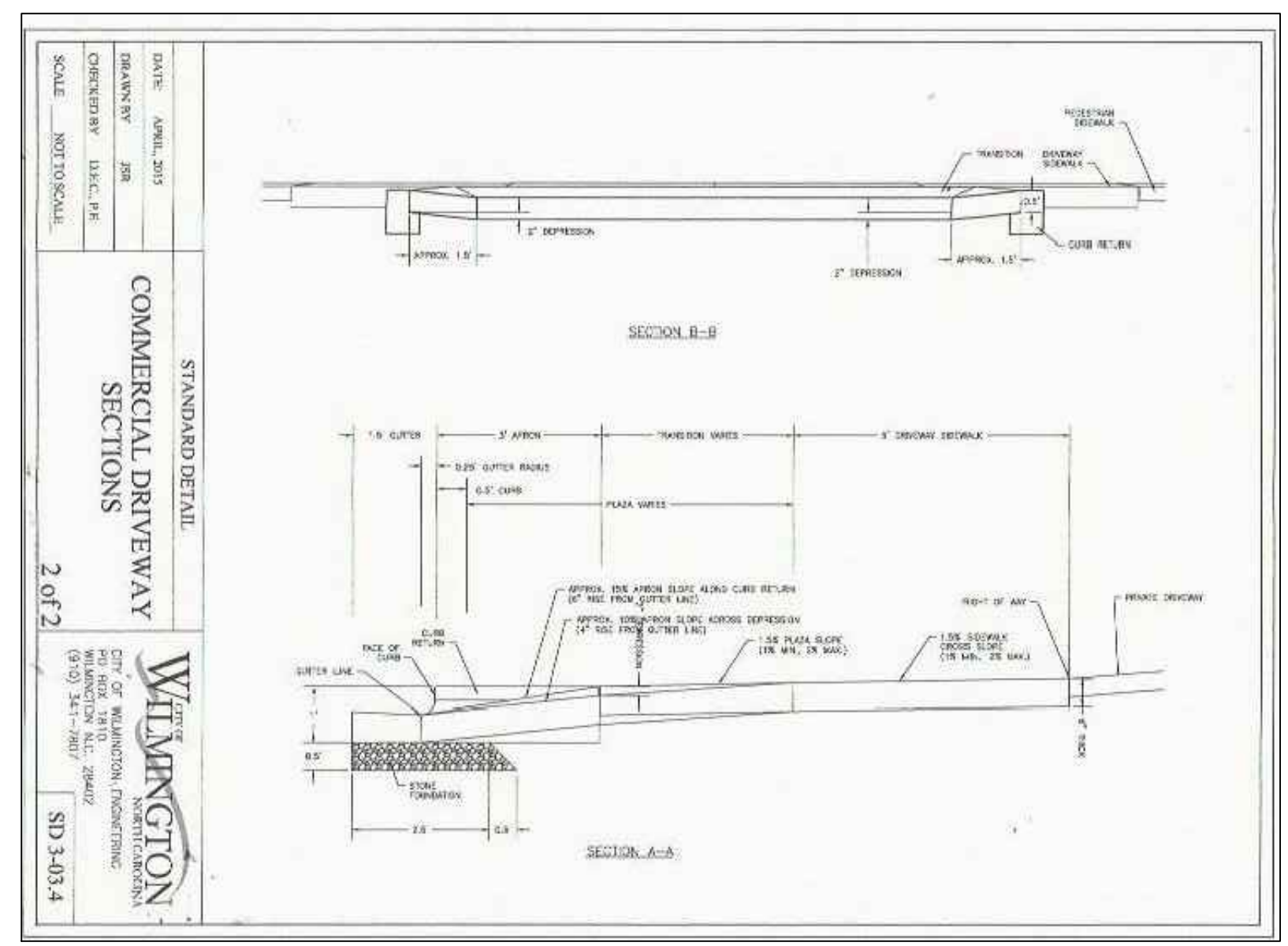
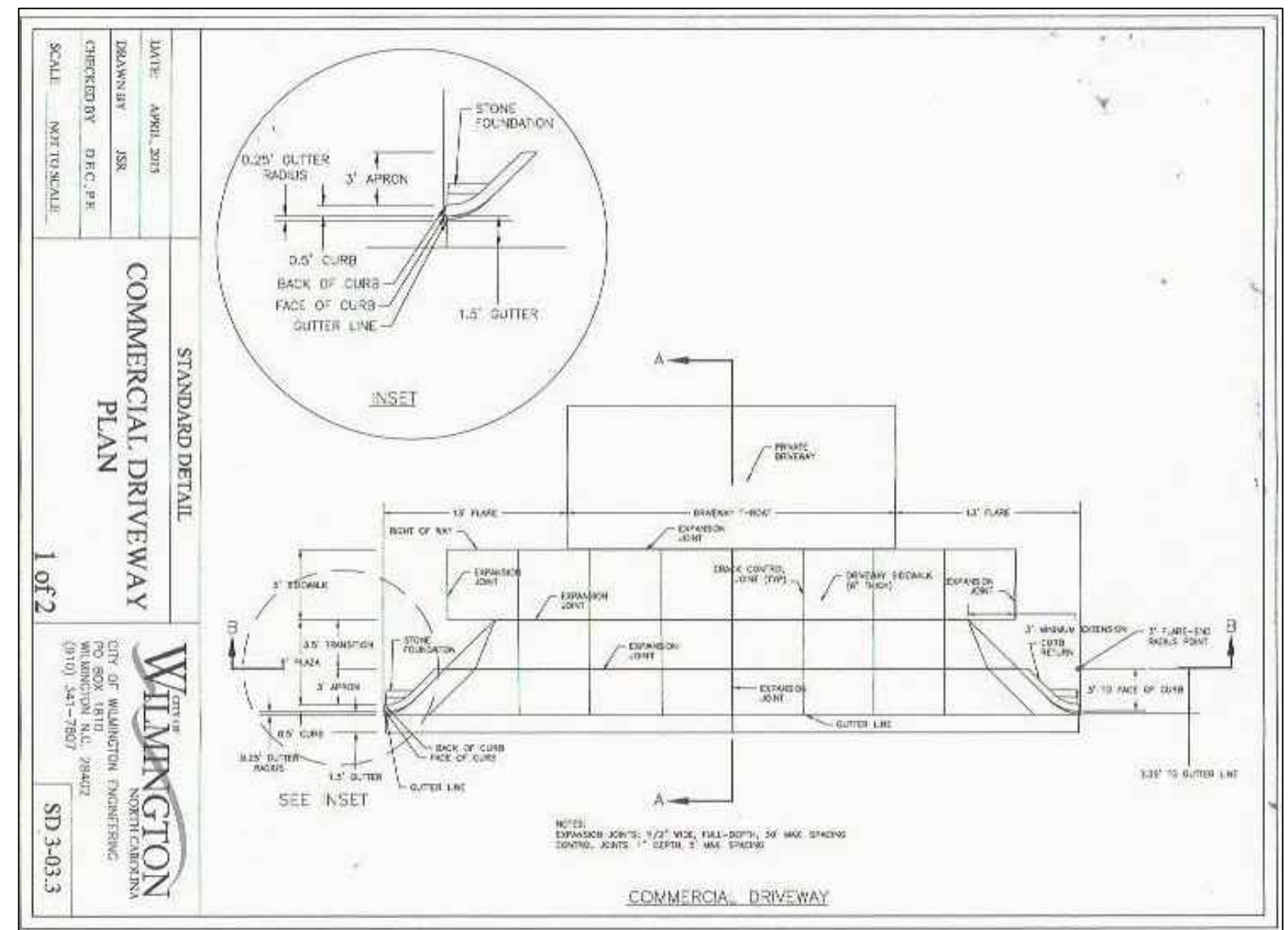


NOTE: THE CRITICAL ROOT ZONE (CRZ) OF A TREE IS WHERE THE MAJORITY OF A TREE'S ROOTS LAY. 85% OF MOST TREE ROOTS ARE FOUND IN THE TOP 24" OF THE SOIL AND SUPPLY THE MAJORITY OF NUTRIENTS AND WATER. GENERALLY, ROOTS SPREAD OUT 2-3X THE HEIGHT OF THE TREE.

NOTE: CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.

- NOTES:
1. PROTECT CRITICAL ROOT ZONE (CRZ) OF TREES PRIOR TO CONSTRUCTION. CLEARLY MARK THE TREES AND ERECT A PROTECTIVE BARRIER AT THE CRZ. BARRIER SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.
  2. CRZ RADIUS IS 1 FT PER INCH OF TREE DIAMETER AT BREAST HEIGHT (DBH).
  3. IF CONSTRUCTION OCCURS WITHIN THE CRZ, AT LEAST 12" OF MULCH AND/OR LOGGING MATS SHALL BE PLACED WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE.
  4. WHERE SIDEWALKS AND PATHWAYS PASS WITHIN CRZ, EXTRA CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE ROOTS. ALTERNATE CONSTRUCTION METHODS, SUCH AS A REINFORCED SIDEWALK, SHALL BE IMPLEMENTED AS NECESSARY.
  5. FOR ALL TREES, CUTTING OF LARGE STRUCTURAL ROOTS LOCATED NEAR THE BASE OF THE TRUNK IS PROHIBITED. DO NOT COMPACT SOIL BENEATH TREES. NO VEHICLE SHALL BE ALLOWED TO PARK UNDER TREES. NO MATERIALS OR EQUIPMENT SHALL BE STORED BENEATH TREES. DAMAGING THE BARK WITH LAWNMOWERS, CONSTRUCTION EQUIPMENT, OR ANYTHING ELSE IS PROHIBITED. CONTRACTOR SHALL REPAIR DAMAGE TO TREES.
  6. FAILING TO INSTALL OR MAINTAIN PROTECTION MEASURES SHALL RESULT IN A STOP WORK ORDER AND FINE OF \$500/DAY. DISTURBANCE OTHER THAN THAT ALLOWED ON THE APPROVED PLAN WILL REQUIRE OWNER TO POST A LETTER OF CREDIT FOR 3 YRS FOR TREE MITIGATION.

TREE PROTECTION  
DURING  
CONSTRUCTION



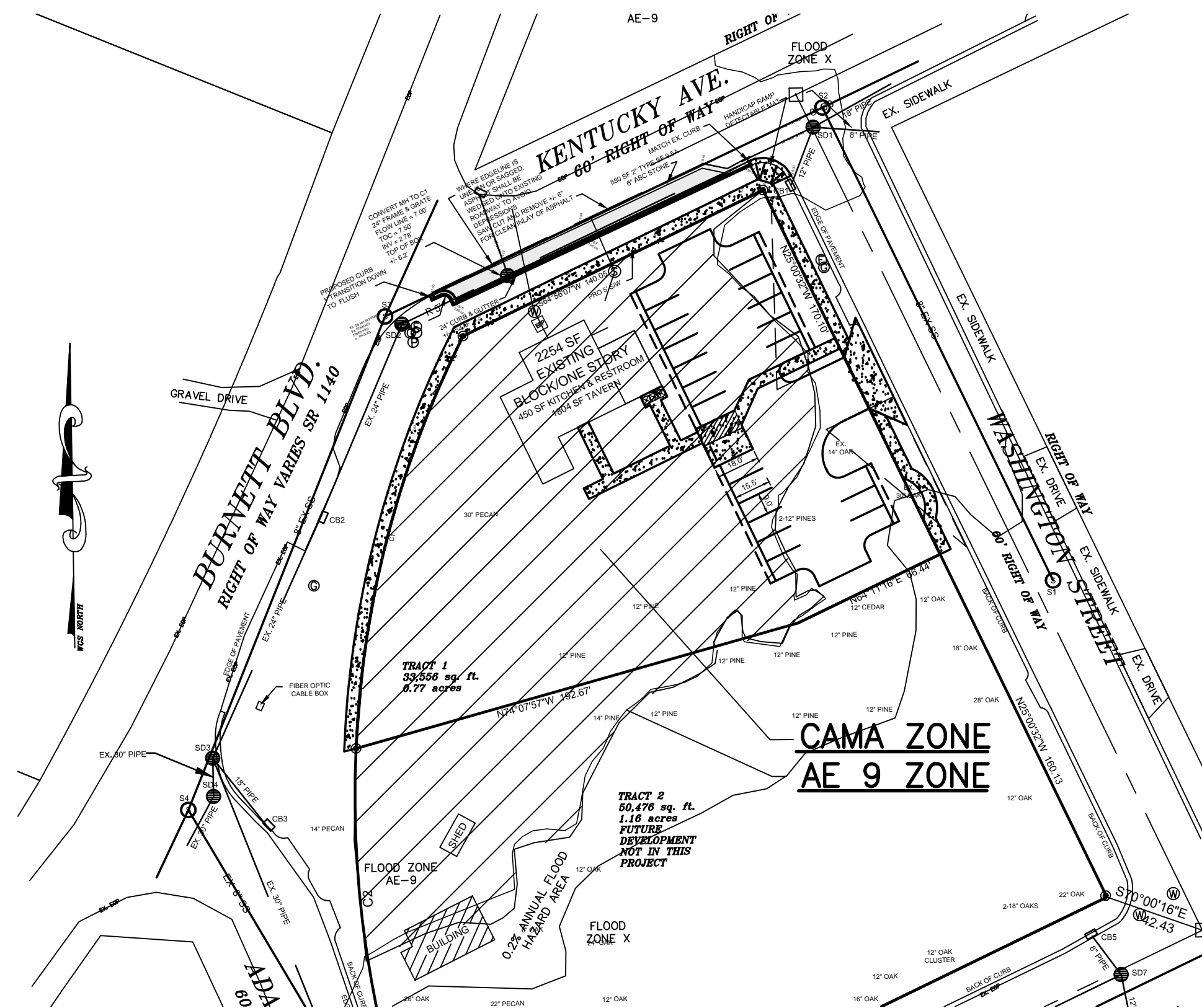
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DESIGN BY:	BDS
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DATE	OCTOBER, 2016

DETAILS  
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302 KENTUCKY AVENUE  
WILMINGTON, NC 28401

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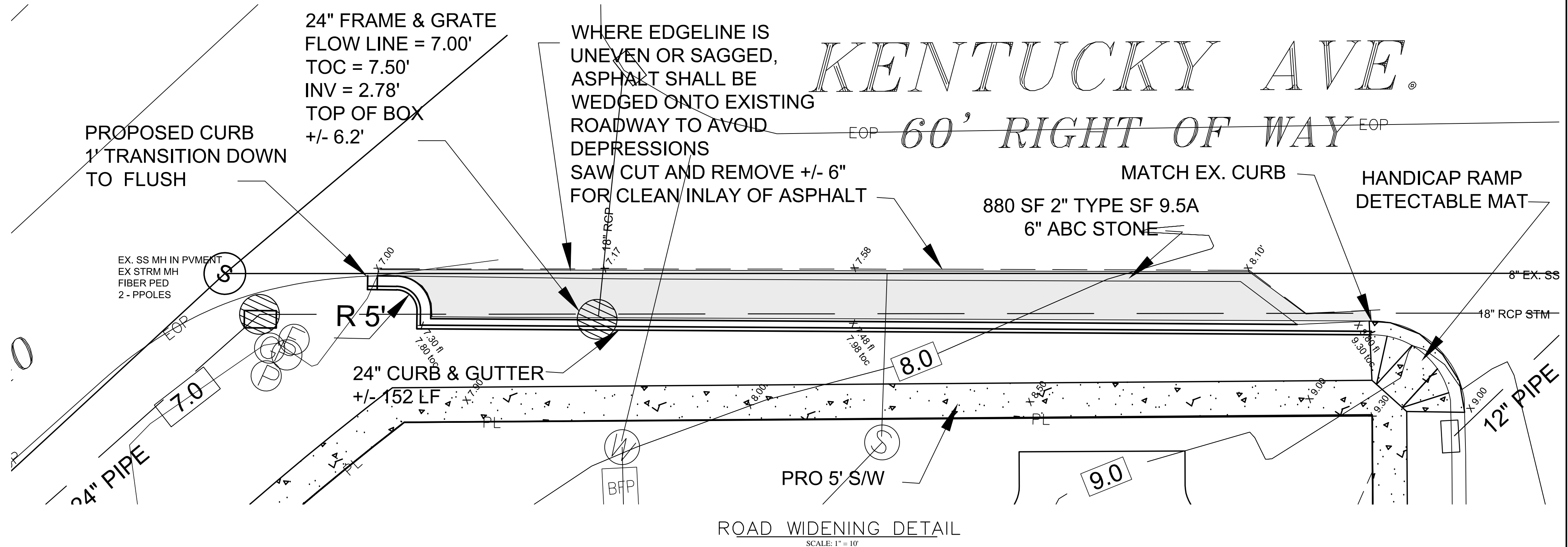
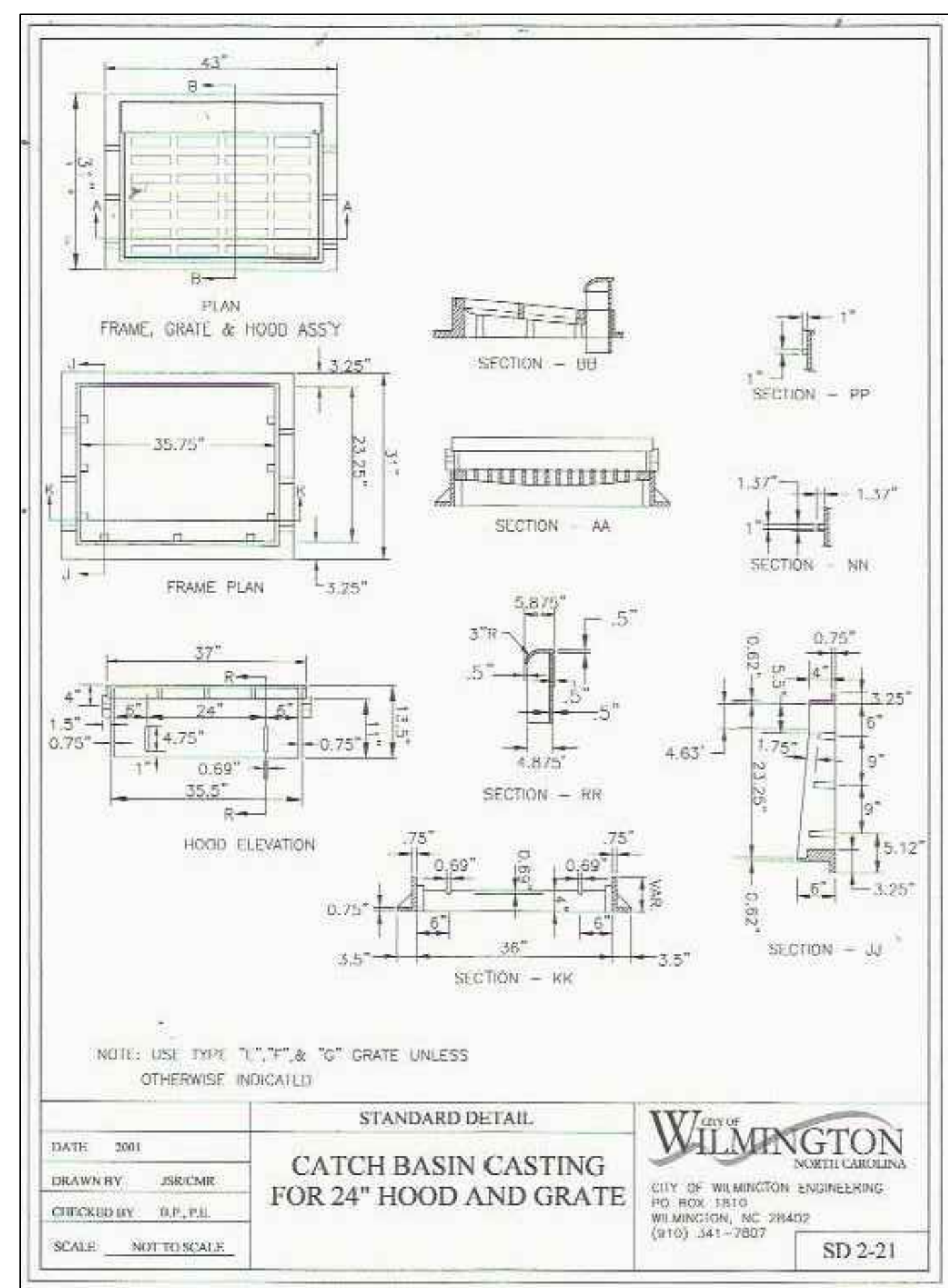
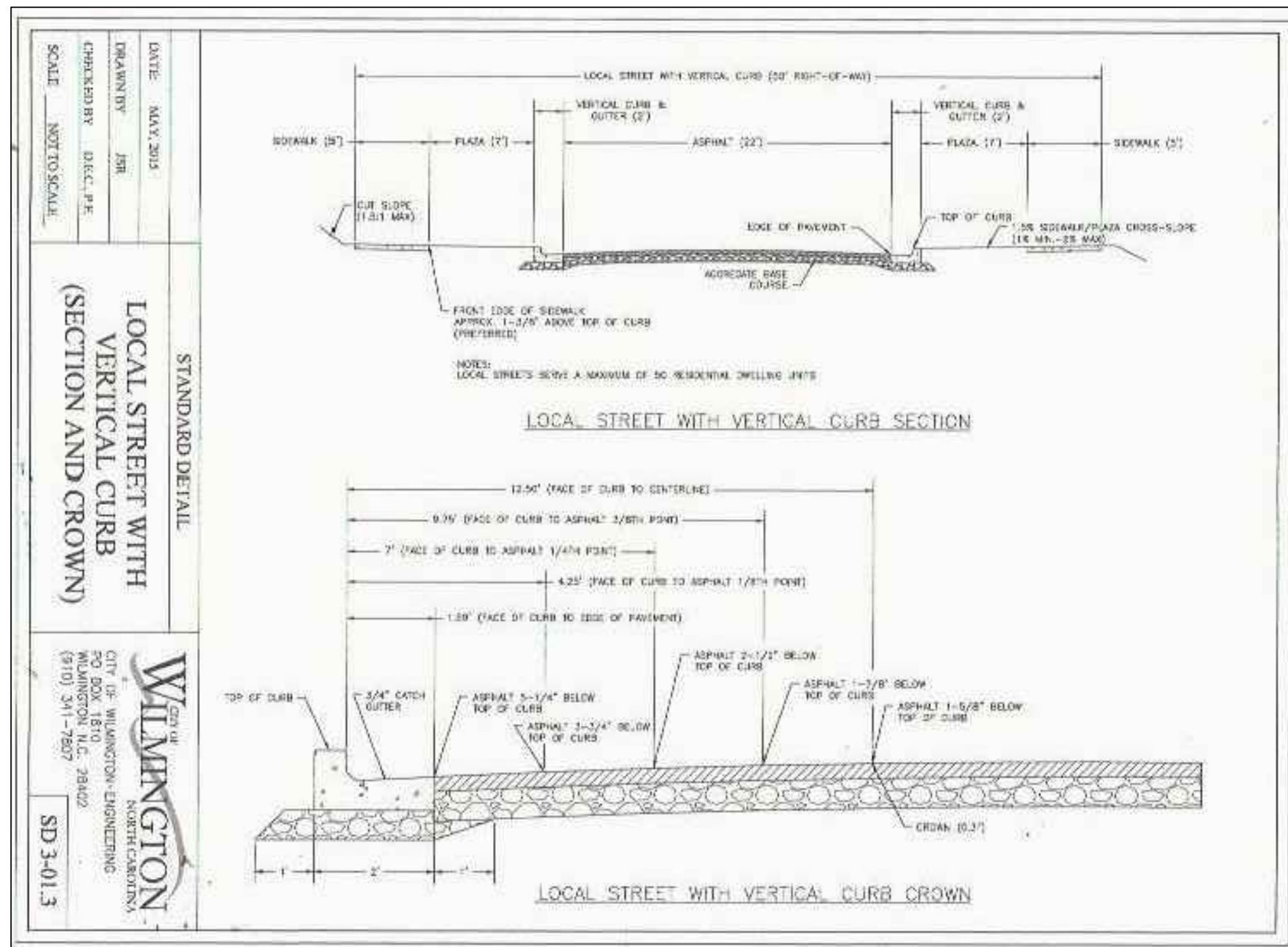


**CAMA DATA**

TRACT #1 = 33,556 SF  
 CAMA AREA IN TRACT #1 = 27,748 SF  
 BUA IN CAMA ZONE = 2,254 SF - BUILDING  
 = 993 SF - CONCRETE SIDEWALK  
 TOTAL = 3,247 SF  
 NOTE: PER COW ENGINEERING PARKING LOT IS CONSIDERED 100% IMPERVIOUS. SEE ENGINEERING COMMENT.  
 BUA IN CAMA ZONE = 3,247/27,748 = 11.7 %

**CAMA AREA MAP**

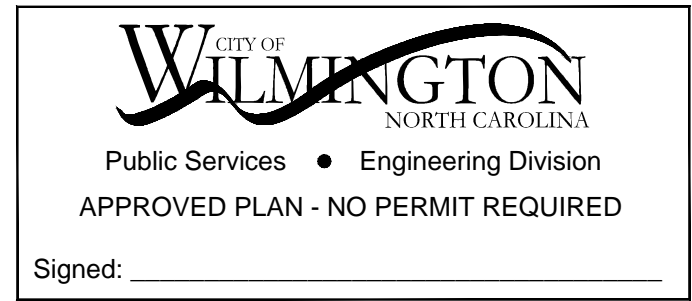
SCALE: 1" = 50'



REVISION	DATE	NUMBER	DESCRIPTION
R2	12/13/16	1	ADDRESSED 11/4/16 TRC COMMENTS
R1	10/19/16	1	SUBMITTED FOR TRC REVIEW

Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	



DESIGN BY: BDS	<b>DETAILS</b>  <b>DRAM TREE TAVERN</b> 302 KENTUCKY AVENUE WILMINGTON, NC 28401
DRAWN BY: BDS	
CHECKED BY: BDS	
DATE: OCTOBER, 2016	
<b>CARTIER CONSTRUCTION, INC</b> WALT CARTER PO BOX 980 WRIGHTSVILLE BEACH, NC 28480	
<b>JBS CONSULTING, PA</b> 7332 Colesworth Drive Wilmington, NC 28405 (910) 619-9990 License Number: C-2525 PLANNING - ENGINEERING - PROJECT MANAGEMENT	
SHEET <b>C5</b> JOB NO. 109-001	