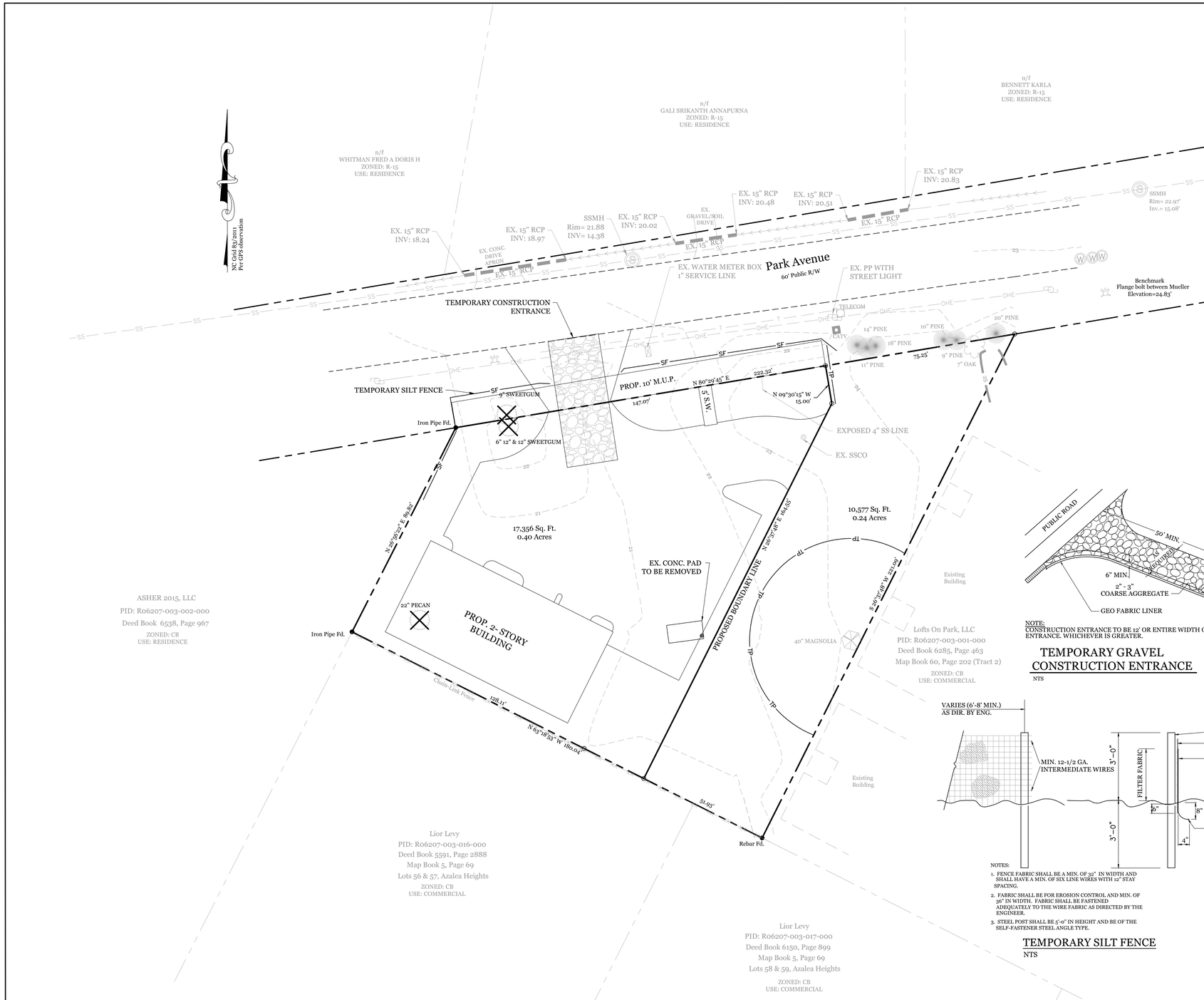
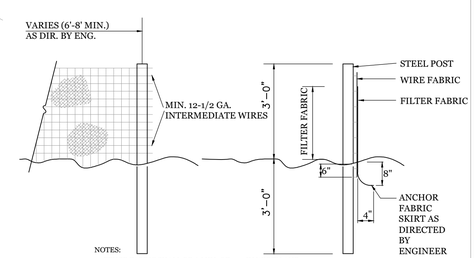


NOTE:
CONSTRUCTION ENTRANCE TO BE 12' OR ENTIRE WIDTH OF ENTRANCE. WHICHEVER IS GREATER.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

NTS



NOTES:

1. FENCE FABRIC SHALL BE A MIN. OF 32" IN WIDTH AND SHALL HAVE A MIN. OF SIX LINE WIRES WITH 12" STAY SPACING.
2. FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 36" IN WIDTH. FABRIC SHALL BE FASTENED ADEQUATELY TO THE WIRE FABRIC AS DIRECTED BY THE ENGINEER.
3. STEEL POST SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL ANGLE TYPE.

TEMPORARY SILT FENCE

NTS

SITE DATA

PARCEL ID:	R06207-003-019-000
ZONING:	CB-COMMUNITY BUSINESS
CAMA LAND USE CLASSIFICATION:	WATERSHED RESOURCE PROTECTION
PROJECT ADDRESS	5740 PARK AVE. WILMINGTON, NC 28403
CURRENT OWNERS:	STEPHEN & HOPE CONWAY 6252 TOWLES RD WILMINGTON, NC 28409
TOTAL ACREAGE IN PROJECT BOUNDARY	17,356 S.F. (±0.40 AC.))
TOTAL DISTURBED AREA:	0.45 AC.

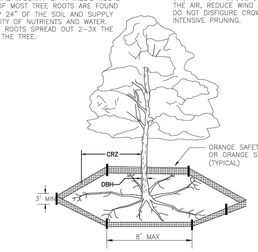
EXISTING ONSITE IMPERVIOUS AREAS: (ALL TO BE REMOVED)
CONCRETE: 100 S.F.

SOIL TYPE:

Se (Seagate Fine Sand) 100%
(Per the USDA websoil survey map)

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.

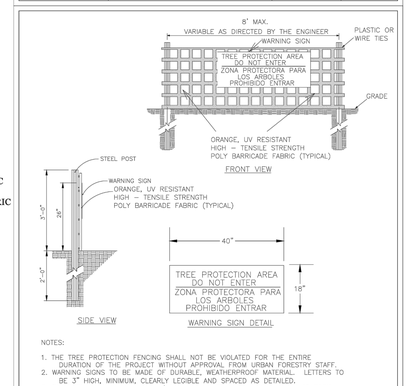
NOTE:
CROWN OF THE TREE IS NEEDED FOR LEAF GROWTH TO PRODUCE OXYGEN, FILTER THE AIR, REDUCE WIND AND SOFTEN NOISE. DO NOT DISFIGURE CROWN WITH INTENSIVE PRUNING.



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 MATTS 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.

DATE: JAN, 2015	STANDARD DETAIL	CITY OF WILMINGTON NORTH CAROLINA	
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION	CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341–7807	
CHECKED BY RDG, P.E.			
SCALE NOT TO SCALE	SHEET 1 of 2		SD 15-09

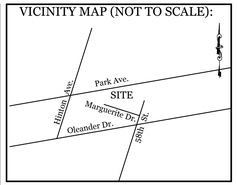


NOTES:

1. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE ENTIRE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
2. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS TO BE 3" HIGH, MINIMUM, CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. SIGNS SHALL BE PLACED AT 50' MAXIMUM INTERVALS. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER. FOR TREE PROTECTION AREAS LESS THAN 100' IN PERIMETER, PROVIDE NO LESS THAN TWO SIGNS PER PROTECTION AREA.
4. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC. MAINTAIN TREE PROTECTION FENCE AND SIGNS THROUGHOUT DURATION OF PROJECT.
5. TREE PROTECTION FENCING AND SIGNAGE SHALL BE REMOVED AFTER CONSTRUCTION.
6. ADDITIONAL SIGNS MAY BE REQUIRED BY CITY OF WILMINGTON, BASED ON ACTUAL FIELD CONDITIONS.

DATE: JAN, 2015	STANDARD DETAIL	CITY OF WILMINGTON NORTH CAROLINA	
DRAWN BY JSR	TREE PROTECTION DURING CONSTRUCTION	CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON, NC 28402 (910) 341–7807	
CHECKED BY RDG, P.E.			
SCALE NOT TO SCALE	SHEET 2 of 2		SD 15-09

VICINITY MAP (NOT TO SCALE):



REVISIONS

INTRACOASTAL ENGINEERING, PLLC
5725 Oleander Dr. Unit E-7
Wilmington, North Carolina 28403
Phone: 910.859.8983
Email: Charlie@intracoastalengineering.com
License Number P-0662

EXISTING CONDITIONS, TREE REMOVAL & PROTECTION PLAN FOR CONWAY PARK

WILMINGTON, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 032555 ENGINEER CHARLES D. CAZIER

2/15/2023

CLIENT INFORMATION:
Stephen Conway
6252 Towles Road
Wilmington, NC 28409

DRAWN:	JAE	SHEET SIZE:	24 X 36
CHECKED:	CDC	DATE:	2/15/2023
APPROVED:	CDC	SCALE:	1" = 20'
PROJECT NUMBER:	2022-012		

DRAWING NUMBER: C-0

1 OF 3

REQUIRED TREE MITIGATION CHART

QTY	SIZE	TYPE	% MITIGATION	REPLACEMENT TREE INCHES
1	22"	PECAN	100%	44.00
TOTAL REPLACEMENT INCHES				**44**
TOTAL REPLACEMENT 2" TREES				**22**

* OWNER REQUESTS TO PROVIDE A PAYMENT IN LIEU FOR REQUIRED MITIGATION.

NOTES:

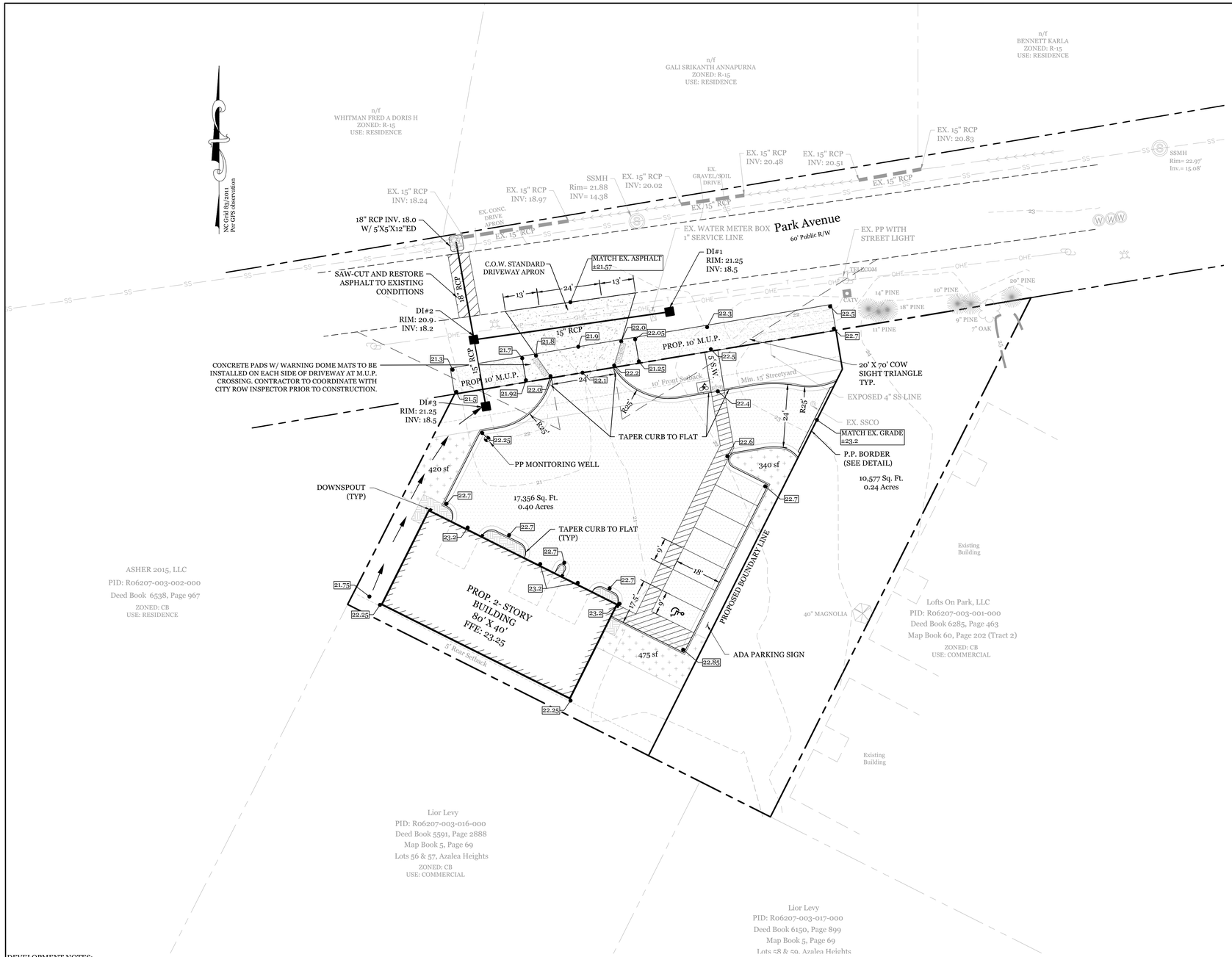
1. EXISTING SURVEY DATA PROVIDED BY NORRIS AND WARD LAND SURVEYORS.
2. NO WETLANDS EXIST ON SITE.
3. PROPERTY IS LOCATED IN ZONE "X" ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP 3720314600K, DATED 08/28/18
4. THIS PROPERTY IS NOT AFFECTED BY AN AEC.
5. NO CONSERVATION RESOURCES EXIST ON SITE.
6. THIS PROPERTY IS NOT AFFECTED BY ANY HISTORIC OR ARCHAEOLOGICAL SITES.
7. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, A CONSTRUCTION ENTRANCE AND SILT FENCING SHALL BE INSTALLED.
8. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES.
9. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
10. TREE PROTECTION SIGNAGE SHALL BE ADDED ALONG THE LIMITS OF DISTURBANCE ADJACENT TO TREES EVERY 100' TO PROTECT TREES ADJACENT TO THE CONSTRUCTION SITE.

LEGEND

- PROPERTY LINE
- ADJOINERS
- TP — TREE PROTECTION FENCE
- LIMITS OF DISTURBANCE
- EX. EOP
- W — EX. WATER MAIN
- SS — EX. SS MAIN
- EX. FIRE HYDRANT
- TREE TO BE REMOVED

20' 10' 0' 20' 40'

Scale: 1"=20'



SITE DATA

PARCEL ID:	R06207-003-019-000
ZONING:	CB-COMMUNITY BUSINESS
CAMA LAND USE CLASSIFICATION:	WATERSHED RESOURCE PROTECTION
PROJECT ADDRESS	5740 PARK AVE. WILMINGTON, NC 28403
CURRENT OWNERS:	STEPHEN & HOPE CONWAY 6252 TOWLES RD WILMINGTON, NC 28409
TOTAL ACREAGE IN PROJECT BOUNDARY	17,356 S.F. (±0.40 AC.)
PROPOSED USE:	GENERAL BUSINESS SERVICES
PROPOSED CONSTRUCTION TYPE:	II-B (COMMERCIAL)
BUILDING SIZE:	4,700 GFA
BUILDING HEIGHT:	±24' / 2 STORY (45' MAX PER ZONING)

BUILDING SETBACKS:

FRONT:	REQUIRED= 10'	PROPOSED= 15'
SIDE:	REQUIRED= 0'/25 TO RES.	PROPOSED= 36.5'L / 11'R
REAR:	REQUIRED= 5'/25' TO RES.	PROPOSED= 6'

CALCULATION FOR BUILDING COVERAGE:
PROPOSED COVERAGE 3,200 S.F. ÷ 17,356 S.F. = 18.4% (30% MAX)

PROPOSED ON-SITE IMPERVIOUS AREAS:
BUILDING 3,200 S.F.
CONCRETE SIDEWALK, C&G, ETC. 845 S.F.
TOTAL: 4,045 S.F. (23.3%)*
Site required to meet Exceptional Design Criteria for impervious surfaces in excess of 25.0% up to a MAXIMUM site impervious area of 50%

PROPOSED ON-SITE PERVIOUS AREAS:
PERMEABLE CONCRETE PARKING 7,922 S.F.

PROPOSED OFF-SITE IMPERVIOUS AREAS:
CONCRETE DRIVEWAY APRON 1,007 S.F.
ASPHALT M.U.P. 1,183 S.F.
TOTAL: 2,190 S.F.

PARKING REQUIREMENTS (4,700 S.F. GENERAL BUSINESS SERVICES):
1 per 300 square feet of GFA, plus 1 for each service vehicle
BASELINE (MAX): 16 SPACES

MIN. REQUIRED**: 7 SPACES (1 ADA)
40% of Max required due to being within 650' of a residential district

PARKING PROVIDED= 7 SPACES (1 ADA)

BICYCLE PARKING REQUIRED: (2 spaces or 1 per 5,000 square feet of GFA, whichever is greater)
REQUIRED: 2 SPACES
PROVIDED: 3 SPACES

FOUNDATION PLANTINGS:
REQUIRED: 192 SF (80 L.F. X 20' FACADE X 12%)
PROVIDED: 205 SF

STREETSCAPE: 15' MIN. - 40' MAX. (147 LF - 25 LF = 122 LF)

ESTIMATED TRIP GENERATION: (Per Trip Generation Manual):

3,200 SF WAREHOUSE (ITE CODE 150)	AM PEAK: 1	PM PEAK: 1	DAILY: 10
1,500 SF OFFICE (ITE CODE 710)	AM PEAK: 2	PM PEAK: 1	DAILY: 17
PROJECT TOTAL:	AM PEAK: 3	PM PEAK: 2	DAILY: 27

DEVELOPMENT NOTES:
1. ALL DEVELOPMENT SHALL BE IN ACCORDANCE WITH CITY OF WILMINGTON ZONING ORDINANCE.
2. PROJECT SHALL COMPLY WITH ALL FEDERAL, STATE & CITY OF WILMINGTON REGULATIONS.
3. ROOF DRAINS TO BE SCREENED AND DIRECTED TO PERMEABLE PAVEMENT.

FIRE & SAFETY NOTES:
1. CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
2. NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
3. LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDCS .
4. ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
5. CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ/FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.

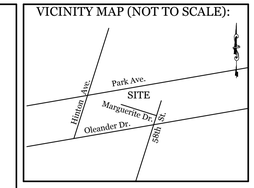
GENERAL TRAFFIC NOTES:
1. ALL TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS OFF THE R/W TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
2. ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS. [DETAIL SD 15-13 & SD 11-3 COFW TECH STDS]
3. ALL SIGNS AND PAVEMENT MARKINGS OFF RIGHT OF WAY ARE TO MEET/BE MAINTAINED TO MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS. [DETAIL SD 15-13 & SD 11-3 COFW TECH STDS]
4. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. NOTE THIS ON THE PLAN AND CONTACT 341-5899 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.
5. ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
6. CONTACT 811 PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING THE UTILITIES IN ROW.
7. ALL PROPOSED VEGETATION WITHIN SIGHT TRIANGLES SHALL NOT INTERFERE WITH CLEAR VISUAL SIGHT LINES FROM 30" TO 10'.
8. STREET TREES MUST BE LOCATED A MINIMUM OF 15 FEET FROM STREET LIGHTS. [COFW SD 15-17]
9. A UTILITY CUT PERMIT IS REQUIRED FOR EACH OPEN CUT OF A CITY STREET. NOTE THIS ON THE PLAN AND CONTACT 341-5899 FOR MORE DETAILS. IN CERTAIN CASES AN ENTIRE RESURFACING OF THE AREA BEING OPEN CUT MAY BE REQUIRED.

UTILITY NOTES:
1. EXISTING WATER AND SANITARY SEWER SERVICES ARE CURRENTLY AVAILABLE TO THE SITE FROM CAPE FEAR PUBLIC UTILITY AUTHORITY PUBLIC MAINS.
2. ALL PROPOSED UTILITY SERVICES, SUCH AS ELECTRIC POWER, CATV, GAS & TELEPHONE SHALL BE INSTALLED UNDERGROUND.
3. ALL WATER & SEWER UTILITIES TO BE INSTALLED PER CFPUA TECHNICAL SPECIFICATIONS & STANDARDS.
4. ANY BACKFLOW PREVENTION DEVICES REQUIRED BY THE CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES BY USCFCCCHR OR ASSE.
5. IF CONTRACTOR DESIRES CFPUA WATER FOR CONSTRUCTION, HE SHALL APPLY IN ADVANCE FOR THIS SERVICE AND MUST PROVIDE A REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTION DEVICE ON THE DEVELOPER'S SIDE OF THE WATER METER BOX.
6. WHEN PVC WATER MAINS AND SERVICES ARE PROPOSED, THE PIPES ARE TO BE MARKED WITH NO. 10 INSULATED, SINGLE-STRAND COPPER WIRE INSTALLED & STRAPPED TO THE PIPES WITH DUCT TAPE. THIS IS TO BE ACCESSIBLE IN ALL VALVES AND METER BOXES TO AID IN FUTURE LOCATION OF FACILITIES.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION. CALL NC811 AT 811 OR 1-800-632-4949. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY UTILITIES, CURB & GUTTER, PAVEMENT, ETC. THAT MAY BE BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OR WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
8. THE PROCESS FOR TELEPHONE CABLE PLACEMENT: * FINAL GRADE WILL NEED TO BE ESTABLISHED. * POWER WILL PLACE THEIR CABLE FIRST - APPROXIMATELY 3' DEEP. * TELEPHONE & CABLE TV WILL THEN PLACE THEIR CABLE AT APPROXIMATELY 2' DEEP.
9. SOLID WASTE DISPOSAL BY ROLL OUT CARTS FOR CURBSIDE PICKUP.
10. 3' SEPARATION REQUIRED BETWEEN ALL JOINTS, FITTINGS AND SERVICE SADDLES.
11. 4" SEWER SERVICE SHALL BE UTILIZED. IF EXISTING SERVICE IS FOUND TO BE INADEQUATE, CONTRACTOR TO PROVIDE NEW SERVICE PER CFPUA SPECIFICATIONS AND DETAILS.
12. 1" WATER SERVICE SHALL BE UTILIZED. IF EXISTING SERVICE IS FOUND TO BE INADEQUATE, CONTRACTOR TO PROVIDE NEW SERVICE PER CFPUA SPECIFICATIONS AND DETAILS.
13. SHOULD ADDITIONAL SERVICES BE LOCATED DURING CONSTRUCTION, THEY MUST EITHER BE UTILIZED OR ABANDONED .
14. NO FORMAL SITE LIGHTING IS PROPOSED. THERE MAY BE SOME SMALL LIGHTS INSTALLED ON THE BUILDING ITSELF.

LEGEND
- PROPERTY LINE
- EASEMENT
- CENTER LINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- RUNOFF FLOW DIRECTION
- 25.5 SPOT ELEVATION
- FOUNDATION PLANTINGS
- BIKE RACK
- PERMEABLE CONCRETE PARKING

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

VICINITY MAP (NOT TO SCALE):



REVISIONS

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Wilmington, North Carolina 28403
Phone: 910.859.8983
Email: Charlie@intracoastalengineering.com
License Number P-0662

SITE, GRADING, DRAINAGE, & UTILITIES PLAN FOR CONWAY PARK

WILMINGTON, NORTH CAROLINA

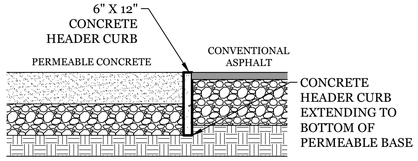
NORTH CAROLINA PROFESSIONAL SEAL 032555 ENGINEER CHARLES D. CAZIER

2/15/2023

CLIENT INFORMATION:
Stephen Conway
6252 Towles Road
Wilmington, NC 28409

DRAWN:	JAE	SHEET SIZE:	24 X 36
CHECKED:	CDC	DATE:	2/15/2023
APPROVED:	CDC	SCALE:	1" = 20'
PROJECT NUMBER:	2022-012		

DRAWING NUMBER: C-1



PERMEABLE CONCRETE BORDER

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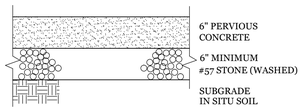
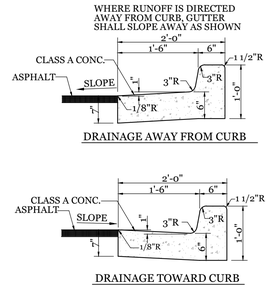


NOTE: SUBGRADE MUST BE EITHER SCARIFIED, RIPPED, OR TRENCHED TO MAINTAIN THE PRE-CONSTRUCTION SUBGRADE INFILTRATION RATE.

PERVIOUS CONCRETE SECTION

NTS



24" CURB SECTION

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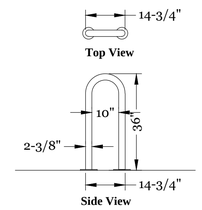


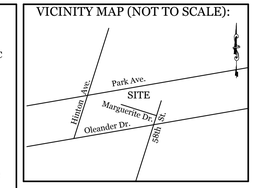
WAVE STYLE BIKE RACK DETAIL

3 BIKE RACK
NTS

SITE WORK NOTES:

1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND ADJACENT TO THE SITE.
2. CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
3. GRUBBING AND STRIPPING: CONTRACTOR SHALL RAKE AND REMOVE ROOTS, STUMPS, VEGETATION, DEBRIS, EXISTING STRUCTURES ABOVE AND BELOW GRADE, ORGANIC MATERIAL OR ANY OTHER UNSUITABLE MATERIAL WITHIN LIMITS OF CONSTRUCTION.
4. MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
5. DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
6. FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL RECOMMENDATIONS.
7. THE CONTRACTOR SHALL NOTE THAT THE GRADING PLAN MAY NOT REPRESENT A BALANCED EARTHWORK CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUT AND FILL QUANTITIES AND COMPLETE INSTALLATION TO SPECIFIED GRADES.
8. THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
9. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES AT ALL CROSSINGS PRIOR TO COMMENCING TRENCH EXCAVATION. IF ACTUAL CLEARANCES ARE LESS THAN INDICATED ON PLAN, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. ANY CONDITION DISCOVERED OR EXISTING THAT WOULD NECESSITATE A MODIFICATION OF THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
10. NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. BEFORE COMMENCING ANY EXCAVATIONS IN OR ALONG ROADWAYS OR RIGHT-OF-WAYS, PUBLIC AREAS OR IN PRIVATE EASEMENTS, THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE PERSONNEL OF THEIR INTENT TO EXCAVATE, IN WRITING, NOT LESS THAN 10 DAYS PRIOR TO EXCAVATING.
12. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
13. CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE & CURB BOXES TO FINAL GRADE UPON COMPLETION OF ALL CONSTRUCTION. ANY BOXES DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
14. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AT THE SITE. FURTHERMORE THE CONTRACTOR SHALL REPORT ALL DISCREPANCIES OR QUESTIONS TO THE ENGINEER PRIOR TO INSTALLATION.
15. THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
16. ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL, STATE, AND CFPUA CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
17. ALL BACKFILL FROM UTILITY INSTALLATION MUST BE COMPACTED OR AMENDED TO PROVIDE TRAFFIC BEARING CAPACITY. GEOTECHNICAL ENGINEER TO BE CONSULTED AT CONTRACTORS COST AS NECESSARY.
18. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION. ALL AREAS SHALL BE SLOPED TO DRAIN AWAY FROM BUILDINGS AT ALL TIMES.
19. CONCRETE FOR WALKS, CURBS AND DRIVES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
20. FIELD TESTING SHALL BE DONE BY AN INDEPENDENT TESTING LABORATORY PAID FOR BY THE OWNER. FURTHER TESTING REQUIRED DUE TO A FAILED TEST WILL BE PAID FOR BY THE CONTRACTOR.
21. ALL SIDEWALKS SHALL BE FREE OF CRACKS, BREAKS, OR ANY OTHER DEFECT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.

VICINITY MAP (NOT TO SCALE):



REVISIONS

INTRACOASTAL ENGINEERING, PLLC
5725 Oleander Dr. Unit E-7
Wilmington, North Carolina 28403
Phone: 910.859.8983
Email: Charlie@intracoastalengineering.com
License Number P-0662

DETAILS FOR CONWAY PARK WILMINGTON, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 032555 ENGINEER CHARLES D. CAZIER

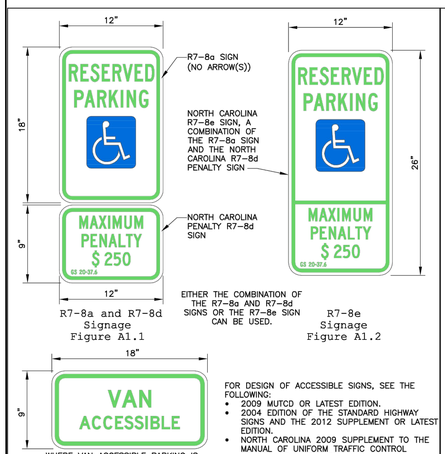
2/15/2023

CLIENT INFORMATION:
Stephen Conway
6252 Towles Road
Wilmington, NC 28409

DRAWN:	JAE	SHEET SIZE:	24 X 36
CHECKED:	CDC	DATE:	2/15/2023
APPROVED:	CDC	SCALE:	NTS
PROJECT NUMBER:	2022-012		

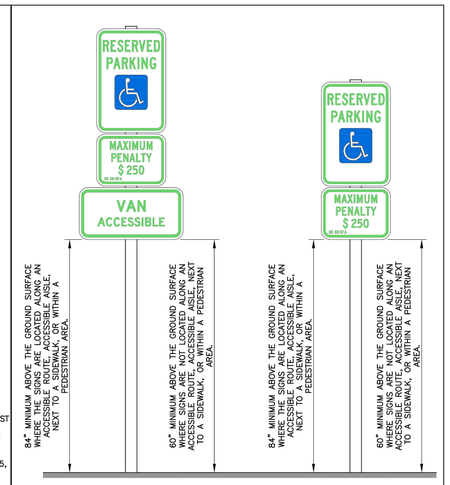
DRAWING NUMBER: C-2

3 OF 3



FOR DESIGN OF ACCESSIBLE SIGNS, SEE THE FOLLOWING:

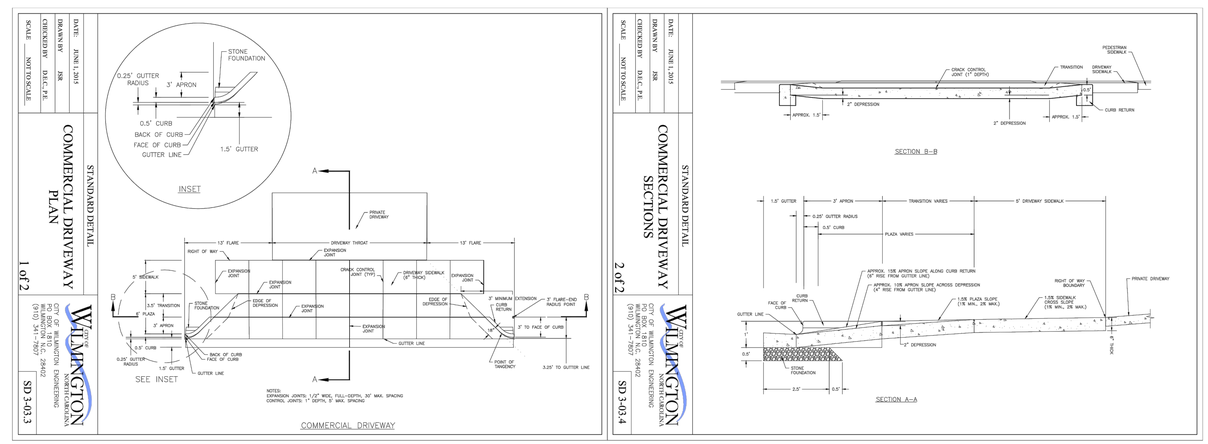
- 2009 MUTCD OR LATEST EDITION.
- 2004 EDITION OF THE STANDARD HIGHWAY SIGNS AND THE 2012 SUPPLEMENT OR LATEST EDITION.
- NORTH CAROLINA 2009 SUPPLEMENT TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OR LATEST EDITION
- NCDOT DRAWING H-1_S FOR SIGNS SP00075, SP00076, AND SP00077.

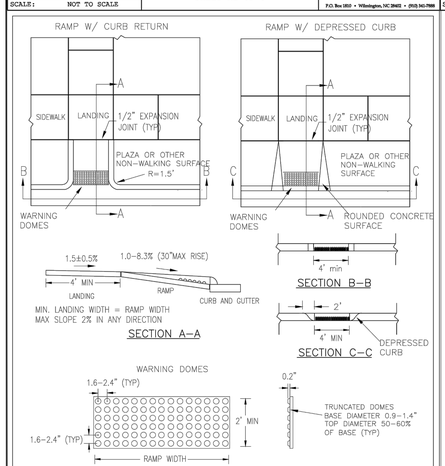


Signage Height
Figure A2.1

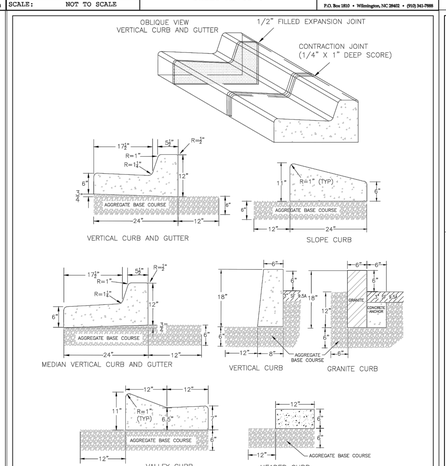
DATE:	NOVEMBER 8, 2016	ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A1 OF 5	CITY OF WILMINGTON TRAFFIC ENGINEERING P.O. Box 1810 • Wilmington, NC 28402 • (910) 341-7800
DRAWN BY:	DALE THOMPSON		
CHECKED BY:	RANDALL GLAZIER		
SCALE:	NOT TO SCALE		

DATE:	NOVEMBER 8, 2016	ACCESSIBLE PARKING SIGNS AND INSTALLATION DETAILS SHEET A2 OF 5	CITY OF WILMINGTON TRAFFIC ENGINEERING P.O. Box 1810 • Wilmington, NC 28402 • (910) 341-7800
DRAWN BY:	DALE THOMPSON		
CHECKED BY:	RANDALL GLAZIER		
SCALE:	NOT TO SCALE		

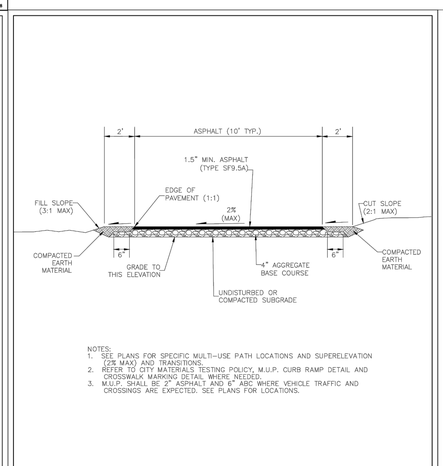




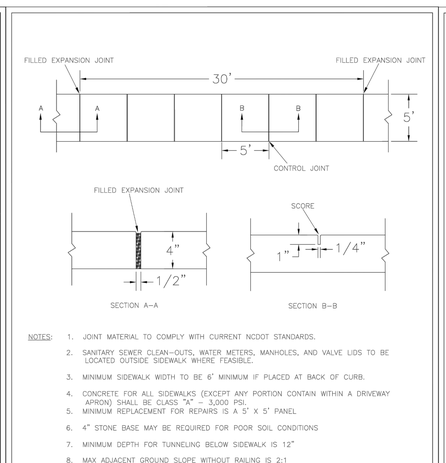
DATE:	DECEMBER, 2010	STANDARD DETAIL PERPENDICULAR CURB RAMP ADJACENT TO PLAZA	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807
DRAWN:	PB/JSR		
CHECKED:	DEC		
SCALE	NOT TO SCALE		SD3-08



DATE:	AUGUST, 2011	STANDARD DETAIL CURBING	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807
DRAWN:	PB/JSR		
CHECKED:	DEC		
SCALE	NOT TO SCALE		SD 3-11



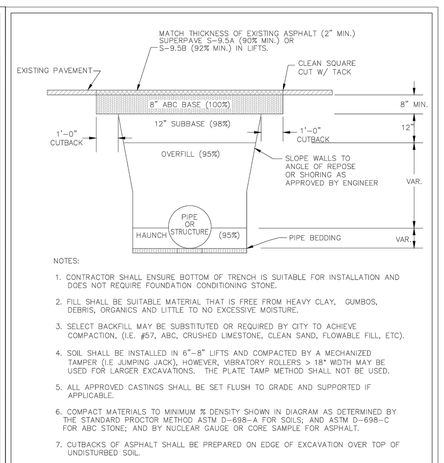
DATE:	JANUARY, 2018	STANDARD DETAIL MULTI-USE PATH	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807 DRAFT
DRAWN BY	JSR		
CHECKED BY	D.E.C., P.E.		
SCALE	NOT TO SCALE		SD X-XX



NOTES:

1. JOINT MATERIAL TO COMPLY WITH CURRENT NCDOT STANDARDS.
2. SANITARY SEWER CLEAN-OUTS, WATER METERS, MANHOLES, AND VALVE LIDS TO BE LOCATED OUTSIDE SIDEWALK WHERE FEASIBLE.
3. MINIMUM SIDEWALK WIDTH TO BE 6' MINIMUM IF PLACED AT BACK OF CURB.
4. CONCRETE FOR ALL SIDEWALKS (EXCEPT ANY PORTION CONTAIN WITHIN A DRIVEWAY APRON) SHALL BE CLASS "A" – 3,000 PSI.
5. MINIMUM REPLACEMENT FOR REPAIRS IS A 5' X 5' PANEL
6. 4" STONE BASE MAY BE REQUIRED FOR POOR SOIL CONDITIONS
7. MINIMUM DEPTH FOR TUNNELING BELOW SIDEWALK IS 12"
8. MAX ADJACENT GROUND SLOPE WITHOUT RAILING IS 2:1
9. MIN GRADE FOR PROPER DRAINAGE IS 1% IN AT LEAST 1 DIRECTION. MAX CROSS SLOPE IS 2%. MAX LONGITUDINAL SLOPE IS 8.3%, 10% IF LIMITED BY EXISTING CONDITIONS, OR NO GREATER THAN THE SLOPE OF THE EXISTING ADJACENT ROAD.

DATE:	OCTOBER, 2010	STANDARD DETAIL SIDEWALK	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING PO BOX 1810 WILMINGTON N.C. 28402 (910) 341-7807
DRAWN BY	PB/JSR		
CHECKED BY	DEC		
SCALE	NOT TO SCALE		SD 3-10



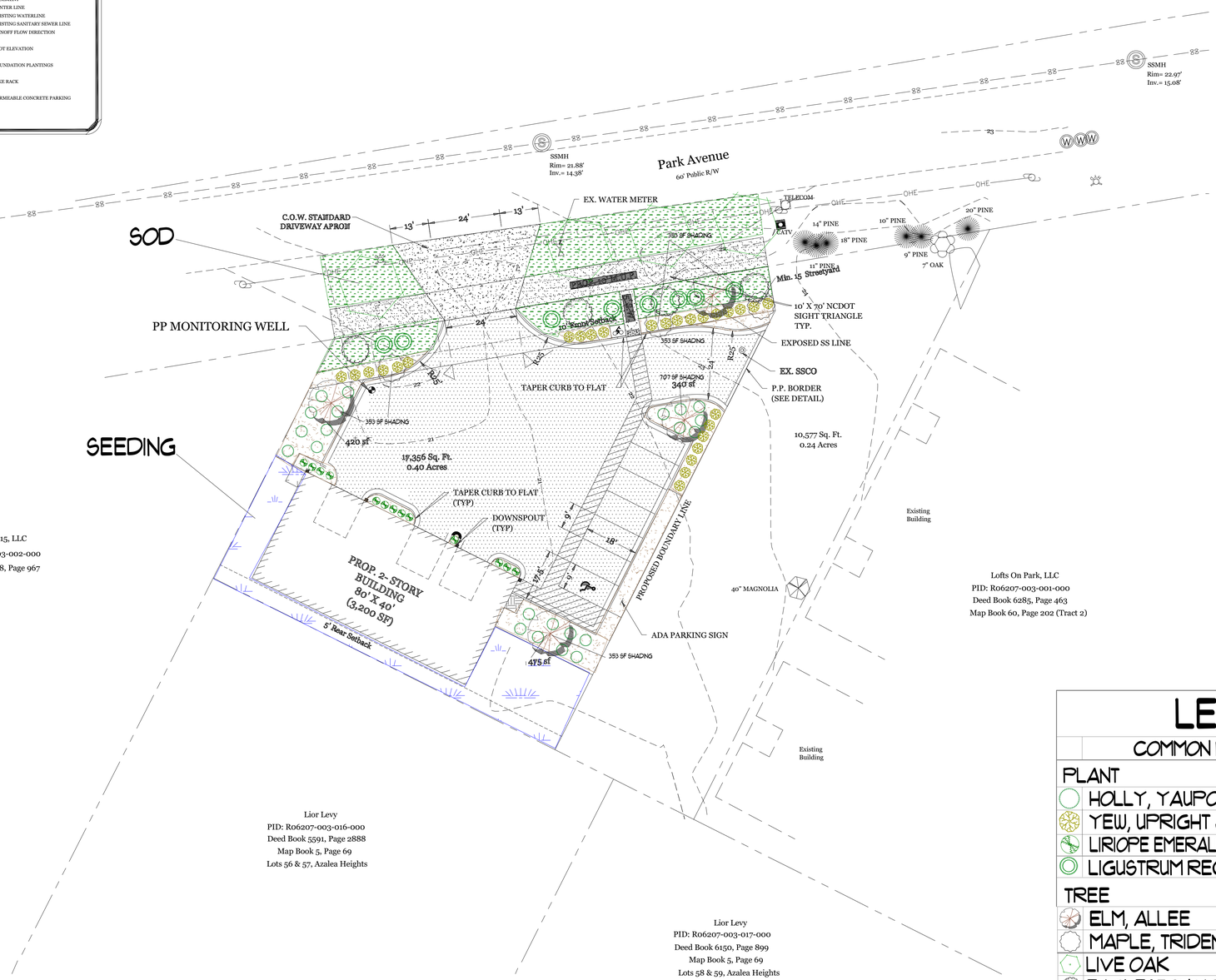
NOTES:

1. CONTRACTOR SHALL ENSURE BOTTOM OF TRENCH IS SUITABLE FOR INSTALLATION AND DOES NOT REQUIRE FOUNDATION CONDITIONING STONE.
2. FILL SHALL BE SUITABLE MATERIAL THAT IS FREE FROM HEAVY CLAY, GUMBOS, DEBRIS, ORGANICS AND LITTLE TO NO EXCESSIVE MOISTURE.
3. SELECT BACKFILL MAY BE SUBSTITUTED OR REQUIRED BY CITY TO ACHIEVE COMPACTION, (I.E. #57, ABC, CRUSHED LIMESTONE, CLEAN SAND, FLOWABLE FILL, ETC).
4. SOIL SHALL BE INSTALLED IN 6"–8" LIFTS AND COMPACTED BY A MECHANIZED TAMPER (I.E JUMPING JACK), HOWEVER, VIBRATORY ROLLERS > 18" WIDTH MAY BE USED FOR LARGER EXCAVATIONS. THE PLATE TAMP METHOD SHALL NOT BE USED.
5. ALL APPROVED CASTINGS SHALL BE SET FLUSH TO GRADE AND SUPPORTED IF APPLICABLE.
6. COMPACT MATERIALS TO MINIMUM % DENSITY SHOWN IN DIAGRAM AS DETERMINED BY THE STANDARD PROCTOR METHOD ASTM D-698-A FOR SOILS; AND ASTM D-698-C FOR ABC STONE; AND BY NUCLEAR GAUGE OR CORE SAMPLE FOR ASPHALT.
7. CUTBACKS OF ASPHALT SHALL BE PREPARED ON EDGE OF EXCAVATION OVER TOP OF UNDISTURBED SOIL.

DATE:	MAY, 2013	STANDARD DETAIL PAVEMENT REPAIRS-UTILITY CUTS	CITY OF WILMINGTON NORTH CAROLINA CITY OF WILMINGTON ENGINEERING OFFICE 212 OPERATIONS CENTER DRIVE WILMINGTON N.C. 28412 (910) 341-7807
DRAWN BY	JSR		
CHECKED BY	D.E.C., P.E.		
SCALE	NOT TO SCALE		SD 1-05

LEGEND

- PROPERTY LINE
- EASEMENT
- CENTER LINE
- EXISTING WATERLINE
- EXISTING SANITARY SEWER LINE
- RUNOFF FLOW DIRECTION
- 25.5 SPOT ELEVATION
- FOUNDATION PLANTINGS
- BIKE RACK
- PERMEABLE CONCRETE PARKING



SITE DATA

PARCEL ID:	R06207-003-019-000
ZONING:	CB-COMMUNITY BUSINESS
CAMA LAND USE CLASSIFICATION:	WATERSHED RESOURCE PROTECTION
PROJECT ADDRESS	5740 PARK AVE. WILMINGTON, NC 28403
CURRENT OWNERS:	STEPHEN & HOPE CONWAY 6252 TOWLES RD WILMINGTON, NC 28409
TOTAL ACREAGE IN PROJECT BOUNDARY	17,356 S.F. (±0.40 AC.) X 15 = 6 TREES 2" CAL. REQ'D & PROV'D.
PROPOSED USE:	GENERAL BUSINESS SERVICES
PROPOSED CONSTRUCTION TYPE:	II-B (COMMERCIAL)
BUILDING SIZE:	4,700 GFA
BUILDING HEIGHT:	±24' / 2 STORY (45' MAX PER ZONING)

BUILDING SETBACKS:

FRONT:	REQUIRED= 10'	PROPOSED= 15'
SIDE:	REQUIRED= 0'/25 TO RES.	PROPOSED= 36.5'L / 11'R
REAR:	REQUIRED= 5'/25' TO RES.	PROPOSED= 6'

CALCULATION FOR BUILDING COVERAGE:
PROPOSED COVERAGE **3,200 S.F. ÷ 17,356 S.F. = 18.4% (30% MAX)**

PROPOSED ON-SITE IMPERVIOUS AREAS:
BUILDING 3,200 S.F.
CONCRETE SIDEWALK, C&G, ETC. 845 S.F.
TOTAL: 4,045 S.F. (23.3%)*
Site required to meet Exceptional Design Criteria for impervious surfaces in excess of 25.0% up to a MAXIMUM site impervious area of 50%

PROPOSED ON-SITE PERVIOUS AREAS:
PERMEABLE CONCRETE PARKING 7,922 S.F. 7922 SF X .10 = 792 SF SHADING REQ'D.
2113 SF SHADING PROV'D.

PROPOSED OFF-SITE IMPERVIOUS AREAS:
CONCRETE DRIVEWAY APRON 1,007 S.F.
ASPHALT M.U.P. 1,183 S.F.
TOTAL: 2,190 S.F.

PARKING REQUIREMENTS (4,700 S.F. GENERAL BUSINESS SERVICES):
1 per 300 square feet of GFA, plus 1 for each service vehicle
BASELINE (MAX): 16 SPACES

MIN. REQUIRED**: 7 SPACES (1 ADA)
40% of Max required due to being within 650' of a residential district

PARKING PROVIDED= 7 SPACES (1 ADA)

BICYCLE PARKING REQUIRED: (2 spaces or 1 per 5,000 square feet of GFA, whichever is greater)
REQUIRED: 2 SPACES
PROVIDED: 3 SPACES

FOUNDATION PLANTINGS:
REQUIRED: 192 SF (80 L.F. X 20' FACADE X 12%)
PROVIDED: 205 SF

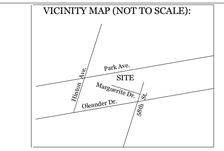
STREETSCAPE: 15' MIN. - 40' MAX. (147 LF - 25 LF = 122 LF) 122 LF / 100 = 1.22, 1 CANOPY & 4 UNDERSTORY TREES & 7 SHRUBS REQ'D. & PROV'D.

ESTIMATED TRIP GENERATION: (Per Trip Generation Manual):
3,200 SF WAREHOUSE (ITE CODE 150)
AM PEAK: 1 PM PEAK: 1 DAILY: 10

1,500 SF OFFICE (ITE CODE 710)
AM PEAK: 2 PM PEAK: 1 DAILY: 17

PROJECT TOTAL: AM PEAK: 3 PM PEAK: 2 DAILY: 27

VICINITY MAP (NOT TO SCALE):



LEGEND

	COMMON NAME	QTY	SIZE	
PLANT				
	HOLLY, YAUPON, DWARF	22	3 GAL.	
	YEW, UPRIGHT JAPANESE	27	7 GAL.	3' HT. LOW BUFFER
	LIRIOPE EMERALD GODDESS	13	1 GAL.	
	LIGUSTRUM RECURVE	8	3 GAL.	
TREE				
	ELM, ALLEE	4	2" CAL.	CANOPY
	MAPLE, TRIDENT	3	2" CAL.	CANOPY
	LIVE OAK	4	2" CAL.	CANOPY
	EAGLESTON HOLLY, TF	4	8' HT.	UNDERSTORY

LANDSCAPE NOTES:
1. PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES. NO CONSTRUCTION WORKERS, TOOLS, MATERIALS OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
2. THE AREAS WITHIN THE TRIANGULAR SIGHT DISTANCE SHALL BE MAINTAINED FREE OF ALL OBSTRUCTIONS BETWEEN 30" AND 10'.
3. A RAIN/FREEZE SENSOR SHALL BE USED IF THERE IS AN IRRIGATION SENSOR.
4. ALL PLANT BEDS ARE TO RECEIVE 3-4" OF PINESTRAW OR MULCH.
5. LANDSCAPING SHALL BE COMPLETE BEFORE ISSUANCE OF A CO.

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

FREEMAN LANDSCAPE, INC.
Landscape Installation Professionals
james@freemanlandscape.com
(910) 796-1166

Revision #: 1	Scale:	Landscape Plan:	Landscape Design by: Jim Freeman - NCLC# 0071
Date: 2/1/2023	1" = 20'	Conway Park	Freeman Landscape, Inc.

CLIENT INFORMATION:
STEPHEN CONWAY
6252 TOWLES ROAD
WILMINGTON, NC 28409