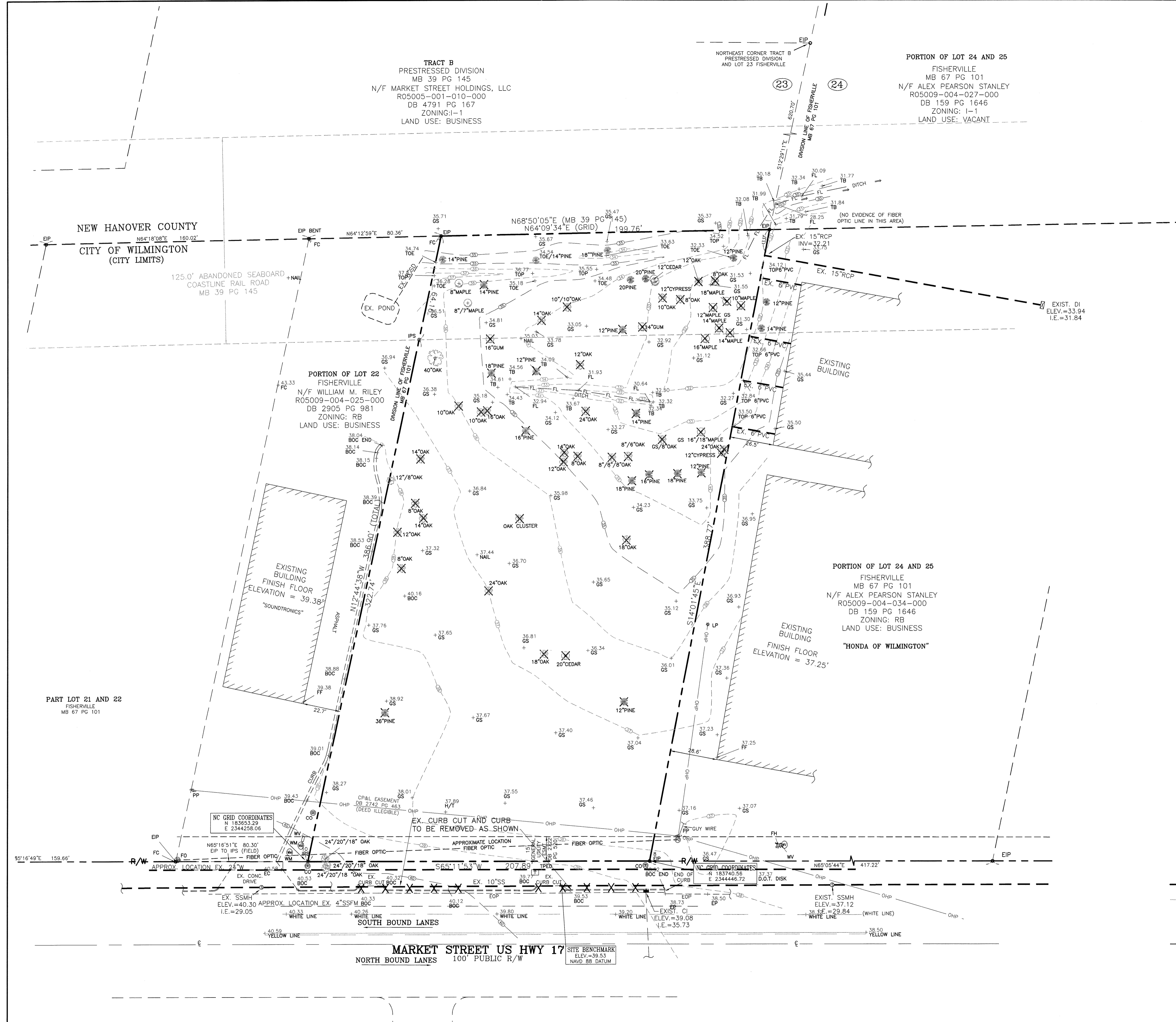
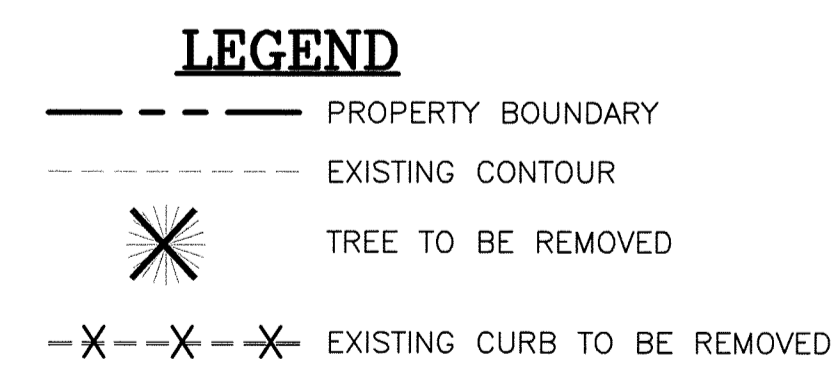


REVISIONS		
No.	Date	Description



- SITE INVENTORY NOTES:**
- PREPARER OF THE PLAN: TRIPP ENGINEERING, P.C.
 - APPLICANT NAME: MATTHEWS MOTORS, INC.
 - SITE ADDRESS OF THE DEVELOPMENT: 5723 MARKET STREET
 - PROPERTY OWNER: ESSEX FIVE, LLC
 - DEVELOPER: MATTHEWS MOTORS, INC.
 - PROPERTY BOUNDARY: SEE PLAN
TAX PARCEL INFORMATION: R05009-004-026-000
 - PROPERTY ZONING: RB-REGIONAL BUSINESS DISTRICT
 - ADJACENT PROPERTY OWNER INFORMATION: SEE PLAN
 - VICINITY MAP: SEE PLAN
 - TOPOGRAPHY: SEE PLAN
 - 100-YEAR FLOOD BOUNDARY: N/A
 - EXISTING DITCHES, CREEKS AND STREAMS: SEE PLAN
 - SOIL: Ly; LYNN HAVEN FINE SAND AND Se; SEAGATE FINE SAND
 - CAMA AEC: N/A
 - CAMA LAND CLASSIFICATION: URBAN
 - CONSERVATION RESOURCES: NONE
ASSOCIATED SETBACKS: N/A
 - HISTORIC OR ARCHAEOLOGICAL SITE: N/A
 - CEMETERIES, BURIAL SITES/GROUNDS: N/A
 - FORESTED AREAS, HABITAT AND DOMINANT SPECIES: N/A
 - WETLANDS: NONE
 - PROTECTED SPECIES OR HABITAT: N/A
 - EXISTING OR PROPOSED THOROUGHFARES, BIKE ROUTES, PEDESTRIAN SIDEWALKS OR TRAILS AND TRANSIT FACILITIES: SEE SITE PLAN
 - EXISTING TREES TO BE REMOVED AS SHOWN.



Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

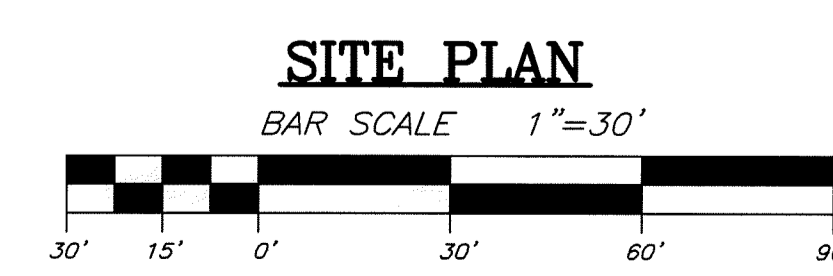
STORMWATER MANAGEMENT PLAN
APPROVED

CITY OF WILMINGTON
ENGINEERING DEPARTMENT

DATE _____ PERMIT # _____

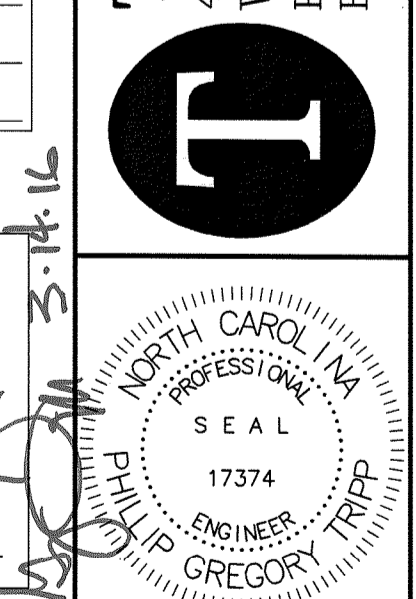
SIGNED _____

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



EXISTING CONDITIONS, SITE INVENTORY MAP, AND DEMOLITION PLAN
MATTHEWS MOTORS
WILMINGTON, NORTH CAROLINA

TRIPP ENGINEERING, P.C.
419 Chestnut Street
Wilmington, North Carolina 28401
Phone 910-763-5100
Fax 910-763-5631
© TRIPP ENGINEERING, P.C.



DATE 03-14-16
DESIGN PGT
DRAWN MLV

C1
SHEET 1 OF 6
15037

REVISIONS		
No./Date	Description	By

LOCATION MAP
NTS

SITE DATA:

PROPERTY OWNER	ESSEX FIVE LLC
PROJECT ADDRESS	5723 MARKET ST
PIN NUMBER	R05009-004-025-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE.	
ZONING DISTRICT	RB-REGIONAL BUSINESS
DISTURBED AREA	2.0 AC.
SETBACKS REQUIRED	FRONT: 25' REAR: 15' SIDE: 0'
PROPOSED BUILDING SETBACKS	FRONT: 110' REAR: 11' SIDE: 55'
TRACT AREA	77,347 SF (1.78 AC)
BUILDING USE	AUTOMOBILE DEALER
PROPOSED BUILDING AREA (GROSS)	7,120 SF
BUILDING LOT COVERAGE (3,560/77,347)	9.2%
NUMBER OF UNITS	1
NUMBER OF BUILDINGS	1
BUILDING HEIGHT	27'
NUMBER OF STORIES	1
EXISTING IMPERVIOUS AREAS:	
EXISTING BUILDING	0 SF
EXISTING CONCRETE	0 SF
EXISTING CRUSHED STONE	0 SF
EXISTING ASPHALT	0 SF
EXISTING IMPERVIOUS AREA	0 SF (0%)
PROPOSED IMPERVIOUS AREAS:	
PROPOSED BUILDING FOOTPRINT	7,120 SF
PROPOSED ASPHALT	46,120 SF
PROPOSED SIDEWALK	380 SF
EXISTING IMPERVIOUS	0 SF
TOTAL IMPERVIOUS AREA	53,620 SF (69%)
PARKING REQUIRED: (AUTOMOBILE DEALERS)	
MAXIMUM: NONE	14
MINIMUM: 1/500 SF (7,120/500)	14
TOTAL PARKING PROVIDED:	92
CAMA LAND USE:	URBAN
PUBLIC WATER AND SEWER BY CFPUA	
EXISTING WATER FLOW:	0 GPD
EXISTING SEWER FLOW:	0 GPD
PROPOSED WATER FLOW:	939 GPD
(120 GPD/1000 SF x 7,120 SF x 110%)	
PROPOSED SEWER FLOW:	854 GPD
(120 GPD /1000 SF x 7,120 SF)	
HANDICAP SPACES REQUIRED	PROPOSED
(1-25 SPACES = 1 HANDICAP SPACE)	4 HANDICAP SPACES
87 SPACES/25=1	
BICYCLE PARKING REQUIRED (87 SPACES)	5 BICYCLE SPACES
BICYCLE PARKING PROPOSED	5 BICYCLE PARKS

NOTES:

- ZONING**
- 1) TOPOGRAPHY COMPLETED BY DANFORD & ASSOCIATES LAND SURVEYING, P.C.
 - 2) PERMITTING OF BUSINESS IDENTIFICATION SIGNAGE IS A SEPARATE PROCESS. CITY OF WILMINGTON WILL NOT ALLOW OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY.
 - 3) CONTRACTOR SHALL FIELD VERIFY SIZE, MATERIAL, INVERTS AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PROPOSED CONNECTIONS.
 - 4) EXISTING EASEMENTS AS SHOWN.
 - 5) CONTRACTOR SHALL MAINTAIN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
 - 6) UNDERGROUND FIRE LINE(S) MUST BE PERMITTED AND INSPECTED BY THE WILMINGTON FIRE DEPARTMENT FROM THE PUBLIC RIGHT-OF-WAY TO THE BUILDING. CONTACT THE WILMINGTON FIRE DEPARTMENT DIVISION OF FIRE AND LIFE SAFETY AT 910-341-0696.
- SOLID WASTE**
- 1) SITE TO USE DUMPSTER AS SHOWN ON PLAN.
- TRAFFIC**
- 1) ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
 - 2) TRAFFIC CONTROL DEVICES (INCLUDING SIGNS AND PAVEMENT MARKINGS) IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) STANDARDS.
 - 3) CONTACT TRAFFIC ENGINEERING AT 910-341-7888 TO ENSURE THAT ALL TRAFFIC SIGNALS FACILITIES AND EQUIPMENT ARE SHOWN ON THE PLAN.
 - 4) CALL TRAFFIC ENGINEERING AT 910-341-7888 FORTY-EIGHT HOURS PRIOR TO ANY EXCAVATION IN THE RIGHT-OF-WAY.
 - 5) ANY BROKEN OR MISSING SIDEWALK PANELS, DRIVEWAY PANELS AND CURBING WILL BE REPLACED.
 - 6) CONTACT 910-341-7888 TO DISCUSS STREET LIGHTING OPTIONS.
 - 7) ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
 - 8) NO ROWS TO BE CLOSED.
 - 9) NO STREETS PROPOSED.
 - 10) OFF SITE PARKING PROPOSED AS SHOWN.
 - 11) DRIVEWAYS TO MEET CITY STANDARDS.
 - 13) ALL PARKING STALL MARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
 - 14) STOP SIGNS AND STREET SIGNS TO REMAIN IN PLACE DURING CONSTRUCTION.
 - 15) TACTILE WARNING MATS WILL BE INSTALLED ON ALL WHEELCHAIR RAMPS.
 - 16) POSTED SPEED LIMIT: 45 MPH
 - 17) ANY TRAFFIC SIGNAL INFRASTRUCTURE ADJUSTMENTS, INCLUDING OVERHEAD OR UNDERGROUND SIGNAL SYSTEM FIBER COMMUNICATION LINES, ARE THE RESPONSIBILITY OF THE APPLICANT/DEVELOPER.
 - 18) THE CITY SHALL BE NOTIFIED IMMEDIATELY OF ANY TRAFFIC SIGNAL FACILITIES DAMAGED DURING CONSTRUCTION.
- LANDSCAPING**
- 1) A LANDSCAPING PLAN INDICATING THE LOCATION OF REQUIRED STREET TREES SHALL BE SUBMITTED TO THE CITY OF WILMINGTON TRAFFIC ENGINEERING DIVISION AND THE PARKS AND RECREATION DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO THE RECORDING OF THE FINAL PLAN.
 - 2) NO OBSTRUCTIONS ARE PERMITTED IN THE SPACE BETWEEN THIRTY (30) INCHES AND TEN (10) FEET ABOVE THE GROUND WITHIN THE TRIANGULAR SITE DISTANCE.
 - 3) PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
 - 4) 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 WILL OCCUR IN THOSE AREAS.
 - 5) 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 INSTRUCTIONS ON TREE PROTECTION METHODS.
- CFPUA**
- 1) WATER AND SEWER SERVICE SHALL MEET CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) DETAILS AND SPECIFICATIONS.
 - 2) PROJECT SHALL COMPLY WITH THE CFPUA CROSS CONNECTION CONTROL REQUIREMENTS. WATER METER(S) CANNOT BE RELEASED UNTIL ALL REQUIREMENTS ARE MET AND THE STATE HAS GIVEN THEIR FINAL APPROVAL.
 - 3) IF THE 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 DEVELOPERS SIDE OF THE WATER METER BOX.
 - 4) ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA'S CONNECTION CONTROL REGULATION. CALL 910-332-6419 FOR INFORMATION.
 - 5) ANY BACKFLOW PREVENTION DEVICES REQUIRED BY CFPUA WILL NEED TO BE ON THE LIST OF APPROVED DEVICES FOR USE WITHIN THE STATE.
 - 6) PUBLIC WATER AND SEWER EXISTING.
 - 7) CONTACT THE NORTH CAROLINA ONE CALL CENTER AT 1-800-632-4949 PRIOR TO DOING ANY DIGGING, CLEARING OR GRADING.
 - 8) ANY IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A RAIN AND FREEZER SENSOR.
 - 9) CONTRACTOR TO FIELD VERIFY EXISTING WATER AND SEWER SERVICE LOCATIONS, SIZES AND MATERIALS PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED OF ANY CONFLICTS.
- DRAINAGE**
- 1) SHEET FLOW TO PROPOSED DROP INLETS TO UNDERGROUND INFILTRATION SYSTEM.

LEGEND

- PROPERTY BOUNDARY
- ☀ EXISTING TREE
- SS PROPOSED SEWER
- W PROPOSED WATER
- SD PROPOSED STORM WATER
- LIMITS OF DISTURBANCE
- ⊘ TREE PROTECTION - DO NOT DISTURB

SITE PLAN

BAR SCALE 1"=30'



Approved Construction Plan
Name _____ Date _____

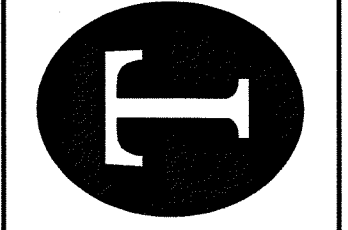
Planning _____
Traffic _____
Fire _____

STORMWATER MANAGEMENT PLAN
APPROVED
CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
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.

TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 © TRIPP ENGINEERING, P.C.

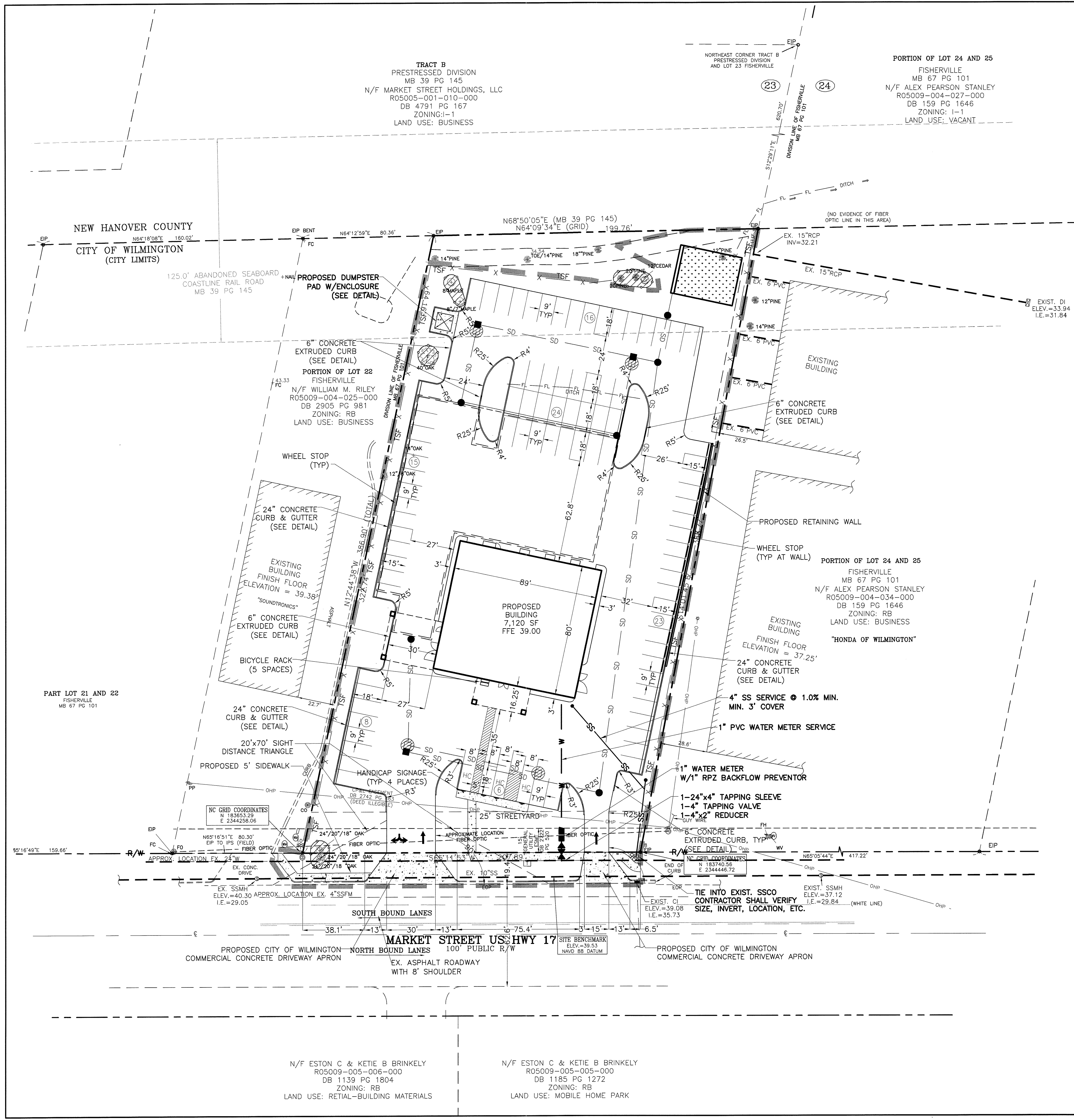
SITE AND UTILITY PLAN
MATTHEWS MOTORS
 WILMINGTON, NORTH CAROLINA



DATE 03-14-16
DESIGN PGT
DRAWN MLV

C2

SHEET 2 OF 6
15037



N/F ESTON C & KETIE B BRINKLEY
R05009-005-006-000
DB 1139 PG 1804
ZONING: RB
LAND USE: RETAIL-BUILDING MATERIALS

N/F ESTON C & KETIE B BRINKLEY
R05009-005-005-000
DB 1185 PG 1272
ZONING: RB
LAND USE: MOBILE HOME PARK

NEW HANOVER COUNTY
CITY OF WILMINGTON
(CITY LIMITS)

125.0' ABANDONED SEABOARD
COASTLINE RAIL ROAD
MB 39 PG 145

TRACT B
PRESTRESSED DIVISION
MB 39 PG 145
N/F MARKET STREET HOLDINGS, LLC
R05005-001-010-000
DB 4791 PG 167
ZONING: I-1
LAND USE: BUSINESS

PORTION OF LOT 24 AND 25
FISHERVILLE
MB 67 PG 101
N/F ALEX PEARSON STANLEY
R05009-004-027-000
DB 159 PG 1646
ZONING: I-1
LAND USE: VACANT

PORTION OF LOT 24 AND 25
FISHERVILLE
MB 67 PG 101
N/F ALEX PEARSON STANLEY
R05009-004-034-000
DB 159 PG 1646
ZONING: RB
LAND USE: BUSINESS
"HONDA OF WILMINGTON"

PART LOT 21 AND 22
FISHERVILLE
MB 67 PG 101

PROPOSED DUMPSTER
PAD W/ENCLOSURE
(SEE DETAIL)

6" CONCRETE
EXTRUDED CURB
(SEE DETAIL)

PORTION OF LOT 22
FISHERVILLE
N/F WILLIAM M. RILEY
R05009-004-025-000
DB 2905 PG 981
ZONING: RB
LAND USE: BUSINESS

24" CONCRETE
CURB & GUTTER
(SEE DETAIL)

EXISTING BUILDING
FINISH FLOOR
ELEVATION = 39.38'

"SOUNDTRONICS"

6" CONCRETE
EXTRUDED CURB
(SEE DETAIL)

BICYCLE RACK
(5 SPACES)

24" CONCRETE
CURB & GUTTER
(SEE DETAIL)

20'x70' SIGHT
DISTANCE TRIANGLE

PROPOSED 5' SIDEWALK

HANDICAP SIGNAGE
(TYP. 4 PLACES)

NC GRID COORDINATES
N 182853.29
E 2344258.08

PROPOSED CITY OF WILMINGTON
COMMERCIAL CONCRETE DRIVEWAY APRON

MARKET STREET US HWY 17
100' PUBLIC R/W

PROPOSED CITY OF WILMINGTON
COMMERCIAL CONCRETE DRIVEWAY APRON

TIE INTO EXIST. SSCO
CONTRACTOR SHALL VERIFY
SIZE, INVERT, LOCATION, ETC.

4" SS SERVICE @ 1.0% MIN.
MIN. 3' COVER

1" PVC WATER METER SERVICE

1" WATER METER
W/1" RPZ BACKFLOW PREVENTOR

1-24"x4" TAPPING SLEEVE
1-4" TAPPING VALVE
1-4"x2" REDUCER

EXIST. CI
ELEV.=39.08
I.E.=35.73

EXIST. SSMH
ELEV.=37.12
I.E.=29.84 (WHITE LINE)

WHEEL STOP
(TYP AT WALL)

6" CONCRETE
EXTRUDED CURB
(SEE DETAIL)

(NO EVIDENCE OF FIBER
OPTIC LINE IN THIS AREA)

EX. 15" RCP
INV.=32.21

EX. 6" PVC

EX. 15" RCP

EX. 6" PVC

EX. 15" RCP

EX. 6" PVC

EX. 15" RCP

EX. 6" PVC

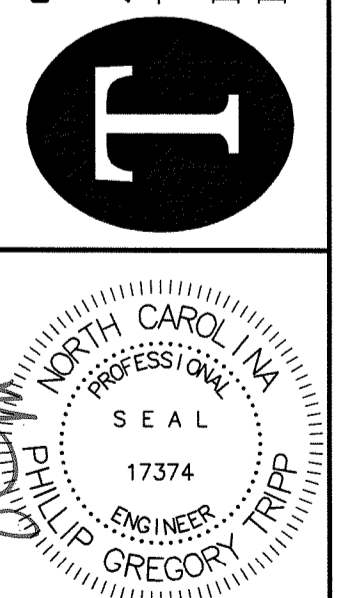
REVISIONS		
No.	Date	Description

LOCATION MAP
NTS



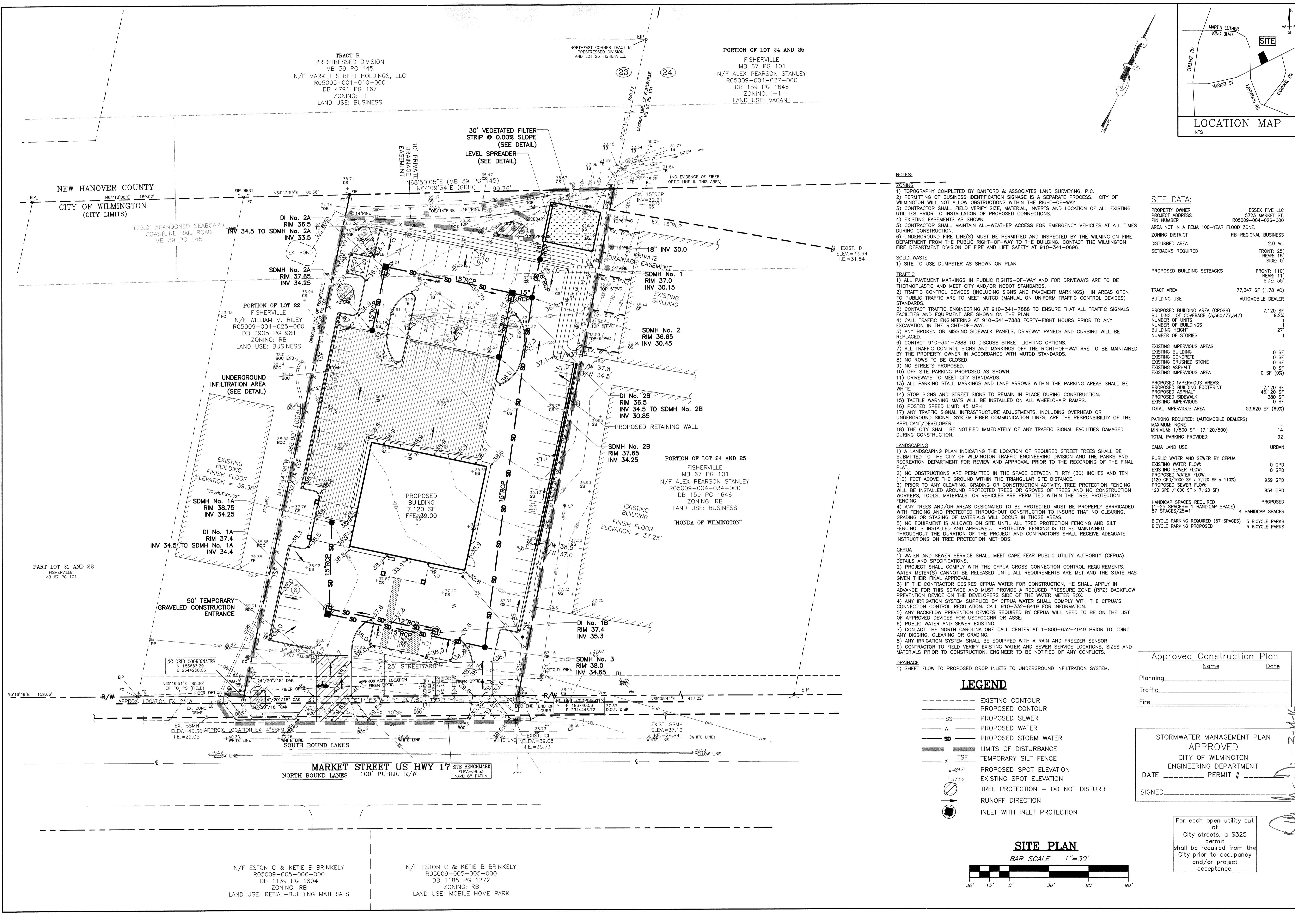
UTILITY
 GRADING, DRAINAGE, EROSION CONTROL,
 AND STORMWATER MANAGEMENT PLAN
MATTHEWS MOTORS
 WILMINGTON, NORTH CAROLINA

TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-5100
 Fax 910-763-5631
 © 2015 TRIPP ENGINEERING, P.C.
 LICENSE NO. E-127



DATE 03-14-16
 DESIGN PGT
 DRAWN MLV

C3
 SHEET 3 OF 6
 15037



- NOTES:**
- ZONING**
- 1) TOPOGRAPHY COMPLETED BY DANFORD & ASSOCIATES LAND SURVEYING, P.C.
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 - 9) NO STREETS PROPOSED.
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 - 3) PRIOR TO ANY CLEARING, GRADING OR CONSTRUCTION ACTIVITY, TREE PROTECTION FENCING WILL BE INSTALLED AROUND PROTECTED TREES OR GROVES OF TREES AND NO CONSTRUCTION WORKERS, TOOLS, MATERIALS, OR VEHICLES ARE PERMITTED WITHIN THE TREE PROTECTION FENCING.
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 - 3) IF THE 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 DEVELOPERS SIDE OF THE WATER METER BOX.
 - 4) ANY IRRIGATION SYSTEM SUPPLIED BY CFPUA WATER SHALL COMPLY WITH THE CFPUA'S CONNECTION CONTROL REGULATION. CALL 910-332-6419 FOR INFORMATION.
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 - 6) PUBLIC WATER AND SEWER EXISTING.
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- DRAINAGE**
- 1) SHEET FLOW TO PROPOSED DROP INLETS TO UNDERGROUND INFILTRATION SYSTEM.

SITE DATA:

PROPERTY OWNER	ESSEX FIVE LLC
PROJECT ADDRESS	5723 MARKET ST.
PIN NUMBER	R05009-004-026-000
AREA NOT IN A FEMA 100-YEAR FLOOD ZONE.	
ZONING DISTRICT	RB-REGIONAL BUSINESS
DISTURBED AREA	2.0 AC.
SETBACKS REQUIRED	FRONT: 25' REAR: 15' SIDE: 0'
PROPOSED BUILDING SETBACKS	FRONT: 110' REAR: 11' SIDE: 55'
TRACT AREA	77,347 SF (1.78 AC)
BUILDING USE	AUTOMOBILE DEALER
PROPOSED BUILDING AREA (GROSS)	7,120 SF
BUILDING LOT COVERAGE (3,560/77,347)	9.2%
NUMBER OF UNITS	1
NUMBER OF BUILDINGS	1
BUILDING HEIGHT	27'
NUMBER OF STORIES	27
EXISTING IMPERVIOUS AREAS:	
EXISTING BUILDING	0 SF
EXISTING CONCRETE	0 SF
EXISTING CRUSHED STONE	0 SF
EXISTING ASPHALT	0 SF
EXISTING IMPERVIOUS AREA	0 SF (0%)
PROPOSED IMPERVIOUS AREAS:	
PROPOSED BUILDING FOOTPRINT	7,120 SF
PROPOSED ASPHALT	46,120 SF
PROPOSED SIDEWALK	380 SF
EXISTING IMPERVIOUS	0 SF
TOTAL IMPERVIOUS AREA	53,620 SF (69%)
PARKING REQUIRED: (AUTOMOBILE DEALERS)	
MAXIMUM: NONE	14
MINIMUM: 1/500 SF (7,120/500)	14
TOTAL PARKING PROVIDED:	92
CAMA LAND USE:	URBAN
PUBLIC WATER AND SEWER BY CFPUA	
EXISTING WATER FLOW:	0 GPD
EXISTING SEWER FLOW:	0 GPD
PROPOSED WATER FLOW: (120 GPD/1000 SF x 7,120 SF x 110%)	939 GPD
PROPOSED SEWER FLOW: (120 GPD/1000 SF x 7,120 SF)	854 GPD
HANDICAP SPACES REQUIRED (1-25 SPACES=1 HANDICAP SPACE) 87 SPACES/25=1	4 HANDICAP SPACES
BICYCLE PARKING REQUIRED (87 SPACES)	5 BICYCLE SPACES
BICYCLE PARKING PROPOSED	5 BICYCLE SPACES

- LEGEND**
- EXISTING CONTOUR
 - - - - PROPOSED CONTOUR
 - SS PROPOSED SEWER
 - W PROPOSED WATER
 - SD PROPOSED STORM WATER
 - LIMITS OF DISTURBANCE
 - x TSF TEMPORARY SILT FENCE
 - o PROPOSED SPOT ELEVATION
 - o EXISTING SPOT ELEVATION
 - o TREE PROTECTION - DO NOT DISTURB
 - o RUNOFF DIRECTION
 - o INLET WITH INLET PROTECTION

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

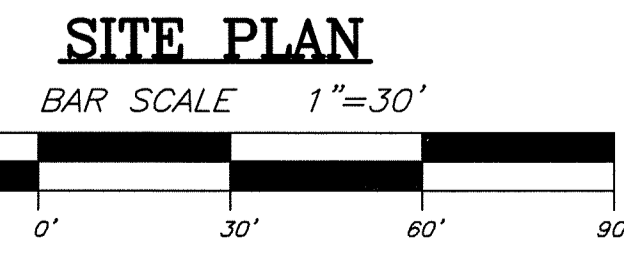
STORMWATER MANAGEMENT PLAN
 APPROVED

CITY OF WILMINGTON
 ENGINEERING DEPARTMENT

DATE _____ PERMIT # _____

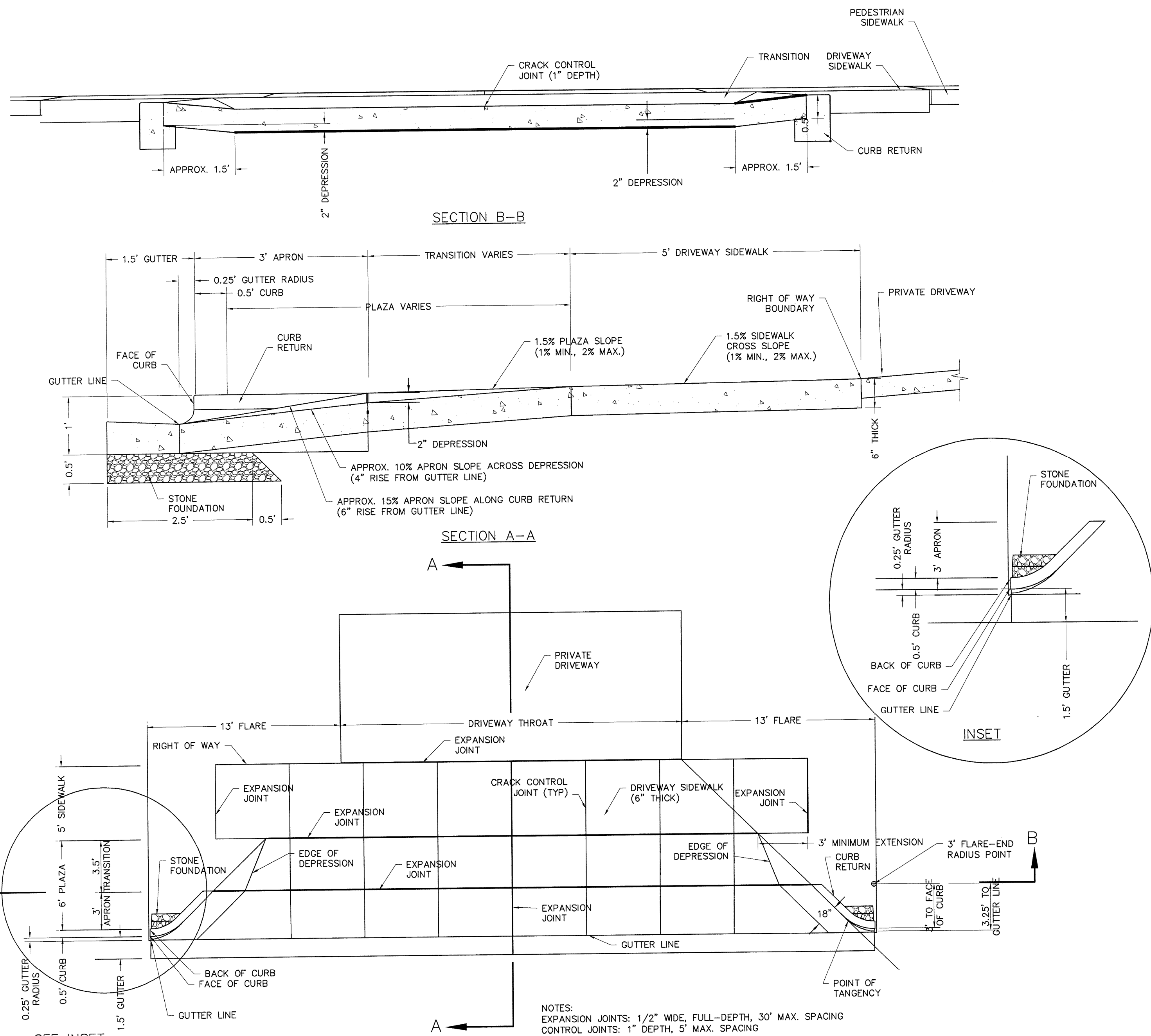
SIGNED _____

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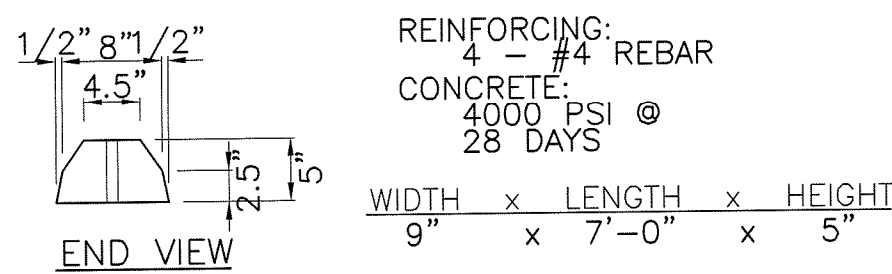
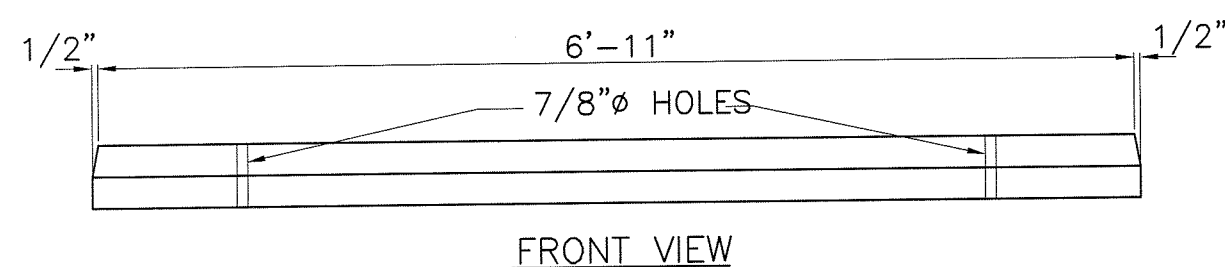
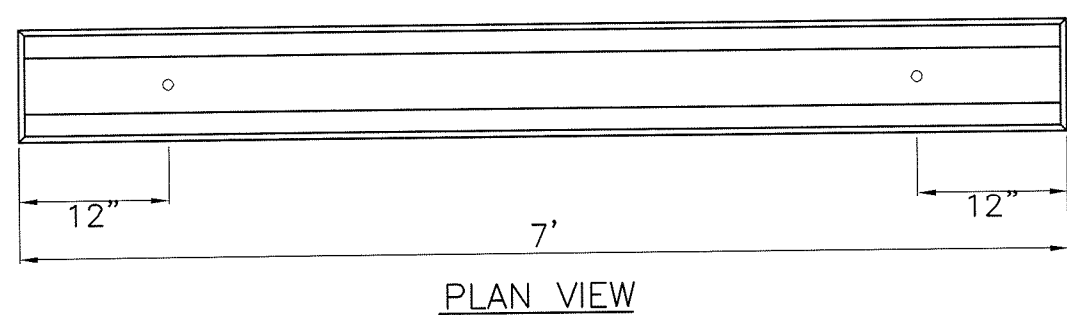


N/F ESTON C & KETIE B BRINKELY
 R05009-005-006-000
 DB 1139 PG 1804
 ZONING: RB
 LAND USE: RETAIL-BUILDING MATERIALS

N/F ESTON C & KETIE B BRINKELY
 R05009-005-005-000
 DB 1185 PG 1272
 ZONING: RB
 LAND USE: MOBILE HOME PARK



CITY OF WILMINGTON COMMERCIAL DRIVEWAY SD 3-03



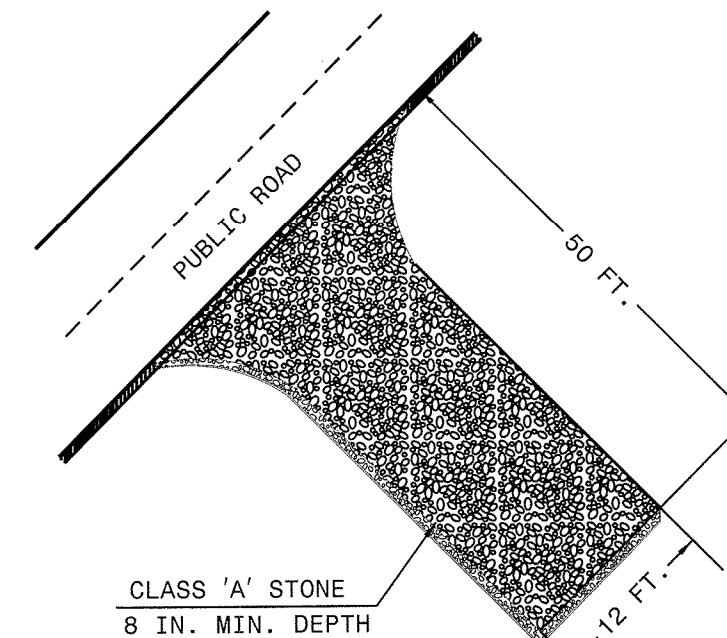
REINFORCING:
 4 - #4 REBAR
 CONCRETE:
 4000 PSI
 28 DAYS

WIDTH x LENGTH x HEIGHT
 9" x 7'-0" x 5"

WHEEL STOP DETAIL

NTS

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ENGLISH STANDARD DRAWING FOR GRAVEL CONSTRUCTION ENTRANCE
 SHEET 1 OF 1
1607.01



NOTES:

1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
8. INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

NOTE: PLACE FILTRATION GEOTEXTILE BENEATH STONE

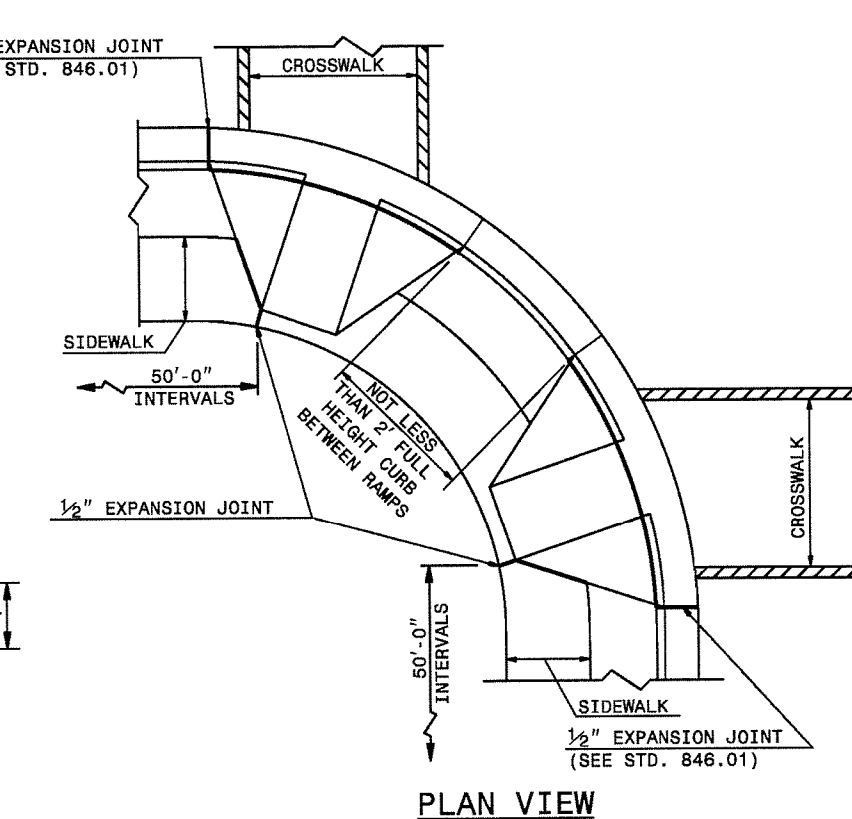
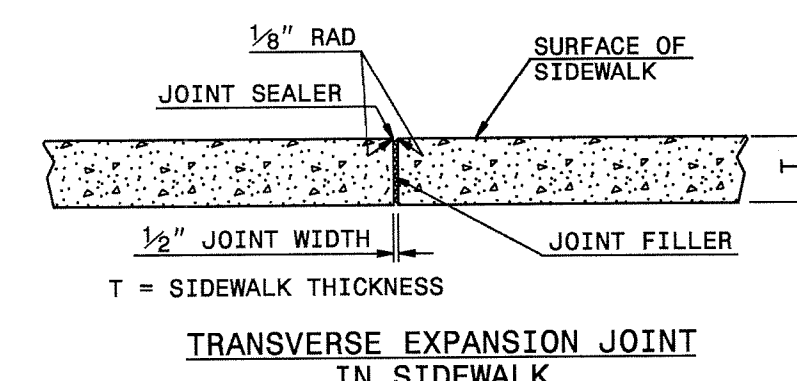
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ENGLISH STANDARD DRAWING FOR GRAVEL CONSTRUCTION ENTRANCE
 SHEET 1 OF 1
1607.01

REVISIONS		
No./Date	Description	By

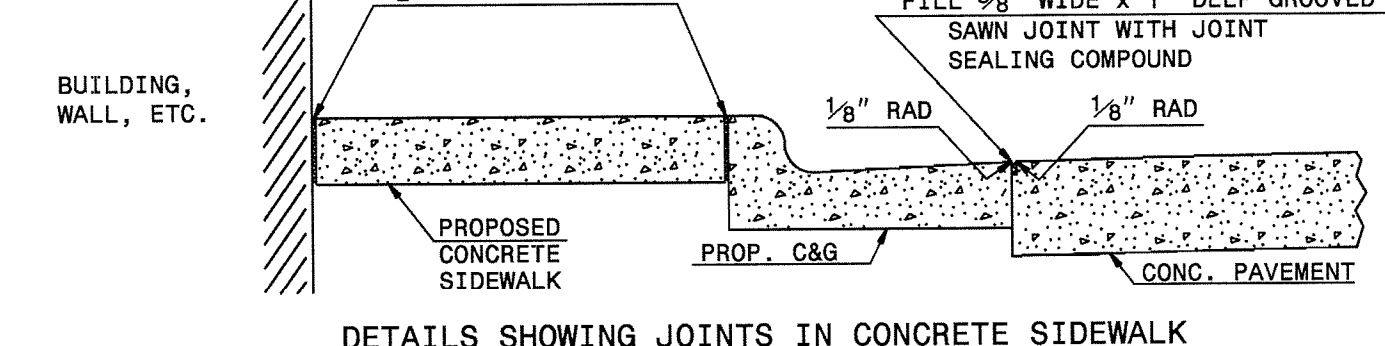
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ENGLISH STANDARD DRAWING FOR CONCRETE SIDEWALK
 SHEET 1 OF 1
848.01

NOTES:

- CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.
- PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADIUS IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
- SEE STD. DWG. 848.05 FOR WHEELCHAIR RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



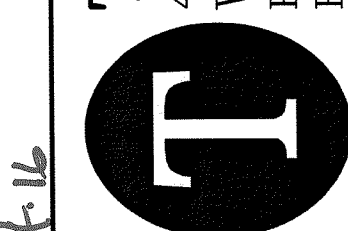
TRANSVERSE EXPANSION JOINT IN SIDEWALK



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
 ENGLISH STANDARD DRAWING FOR CONCRETE SIDEWALK
 SHEET 1 OF 1
848.01

DETAILS AND NOTES
MATTHEWS MOTOTS
 WILMINGTON, NORTH CAROLINA

TRIPP ENGINEERING, P.C.
 419 Chestnut Street
 Wilmington, North Carolina 28401
 Phone 910-763-6100
 Fax 910-763-5631
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Approved Construction Plan

Name	Date
Planning	
Traffic	
Fire	

STORMWATER MANAGEMENT PLAN
 APPROVED
 CITY OF WILMINGTON
 ENGINEERING DEPARTMENT
 DATE _____ PERMIT # _____
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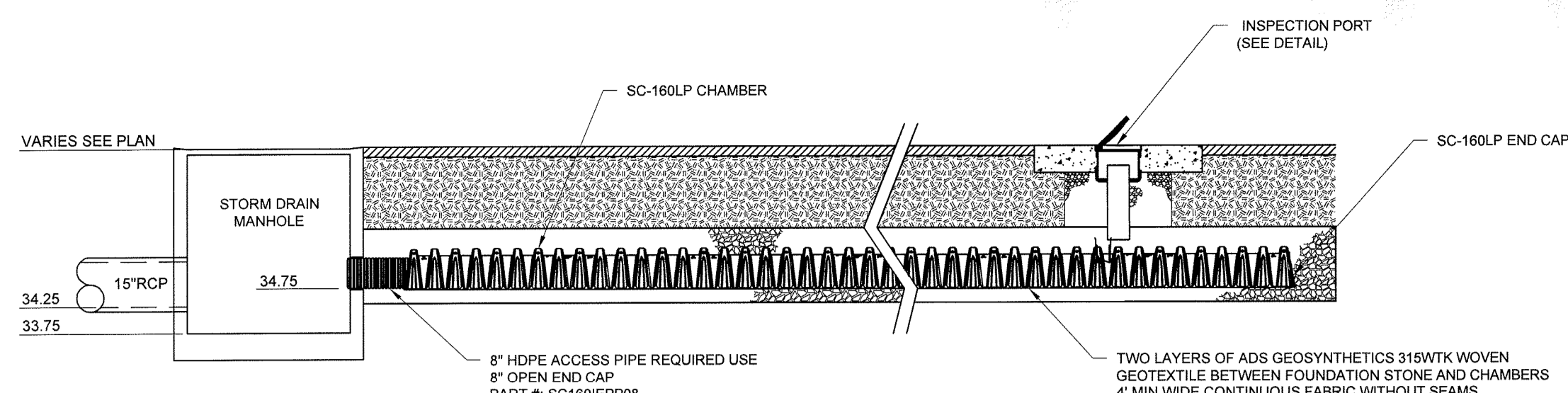
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DATE 03-14-16
 DESIGN PGT
 DRAWN MLV

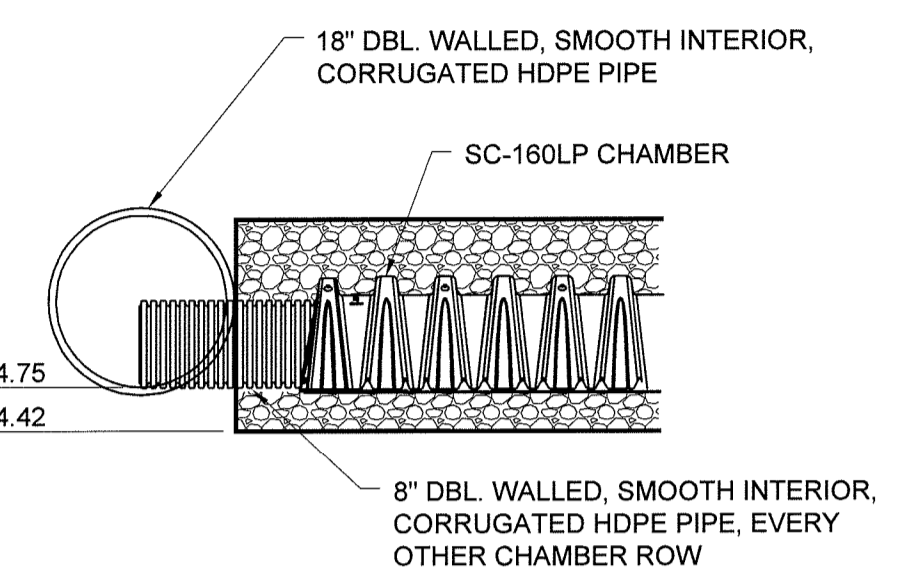
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SHEET 5 OF 6

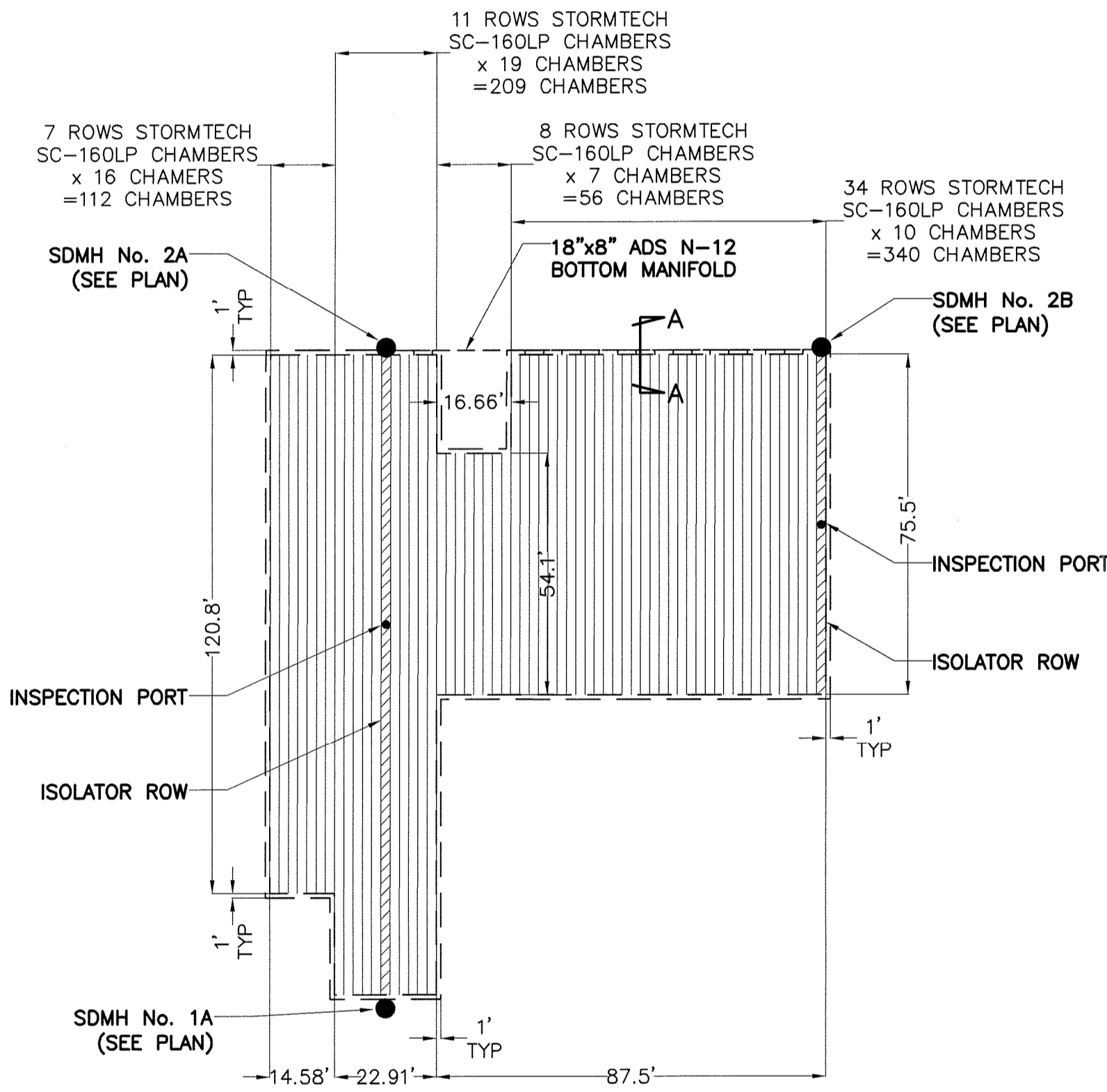
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SC-160LP 6" ISOLATOR ROW DETAIL
NTS



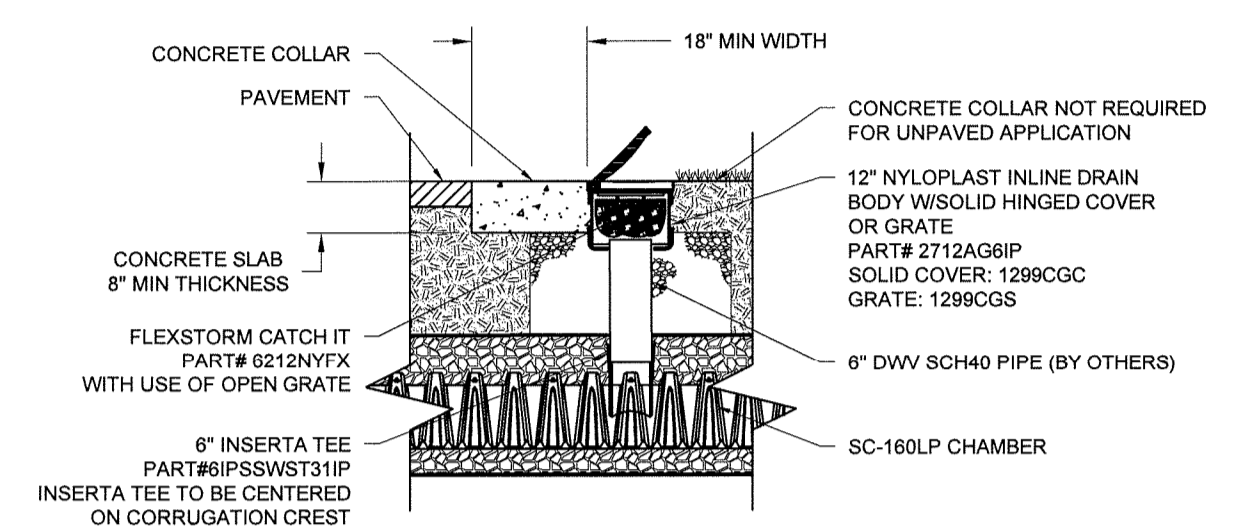
SECTION A-A
NTS



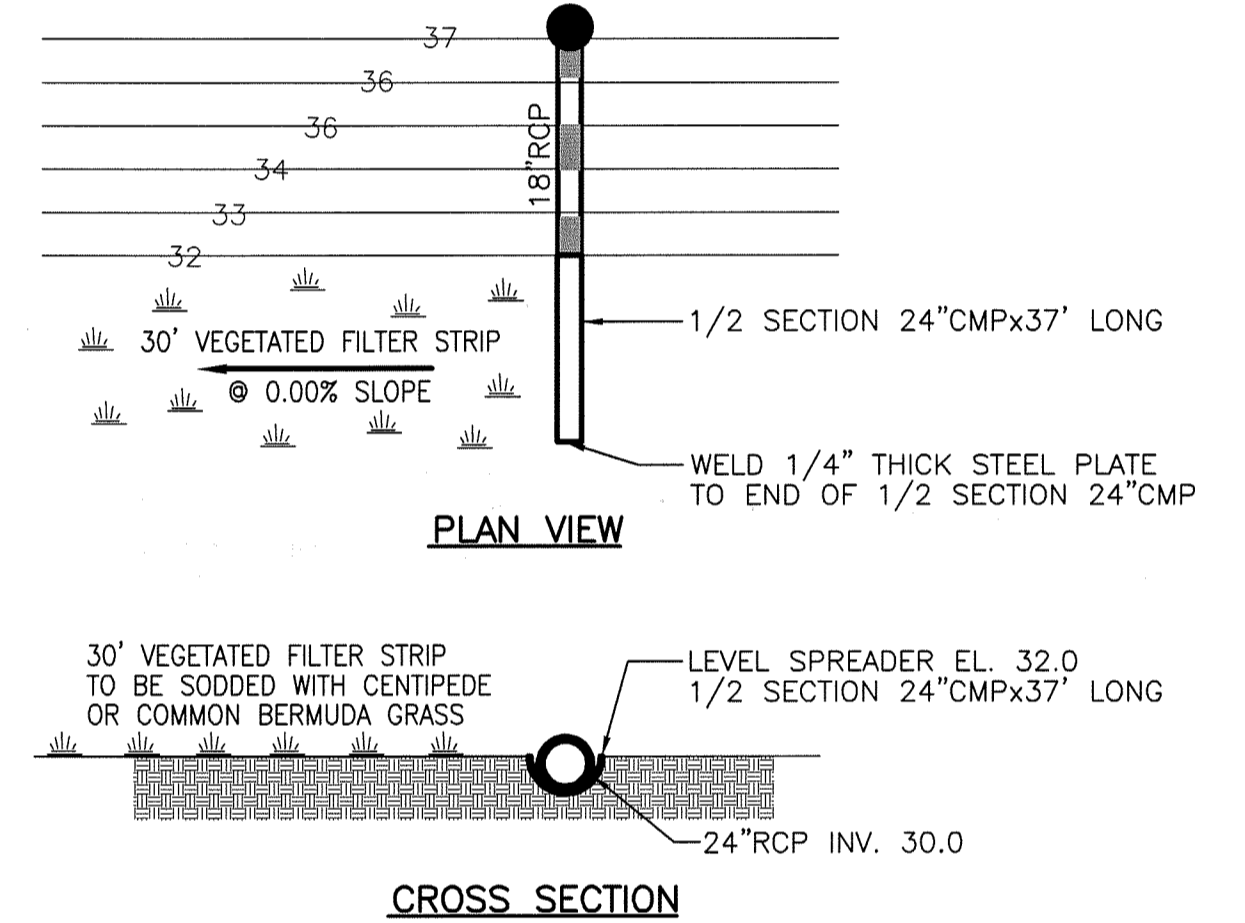
STORMWATER CHAMBER PLAN DETAIL
NTS

- INSPECTION & MAINTENANCE**
- STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
 - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
 - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
 - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
 - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
 - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
 - B. ALL ISOLATOR ROWS
 - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
 - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
 - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
 - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
 - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
 - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
 - C. VACUUM STRUCTURE SLUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

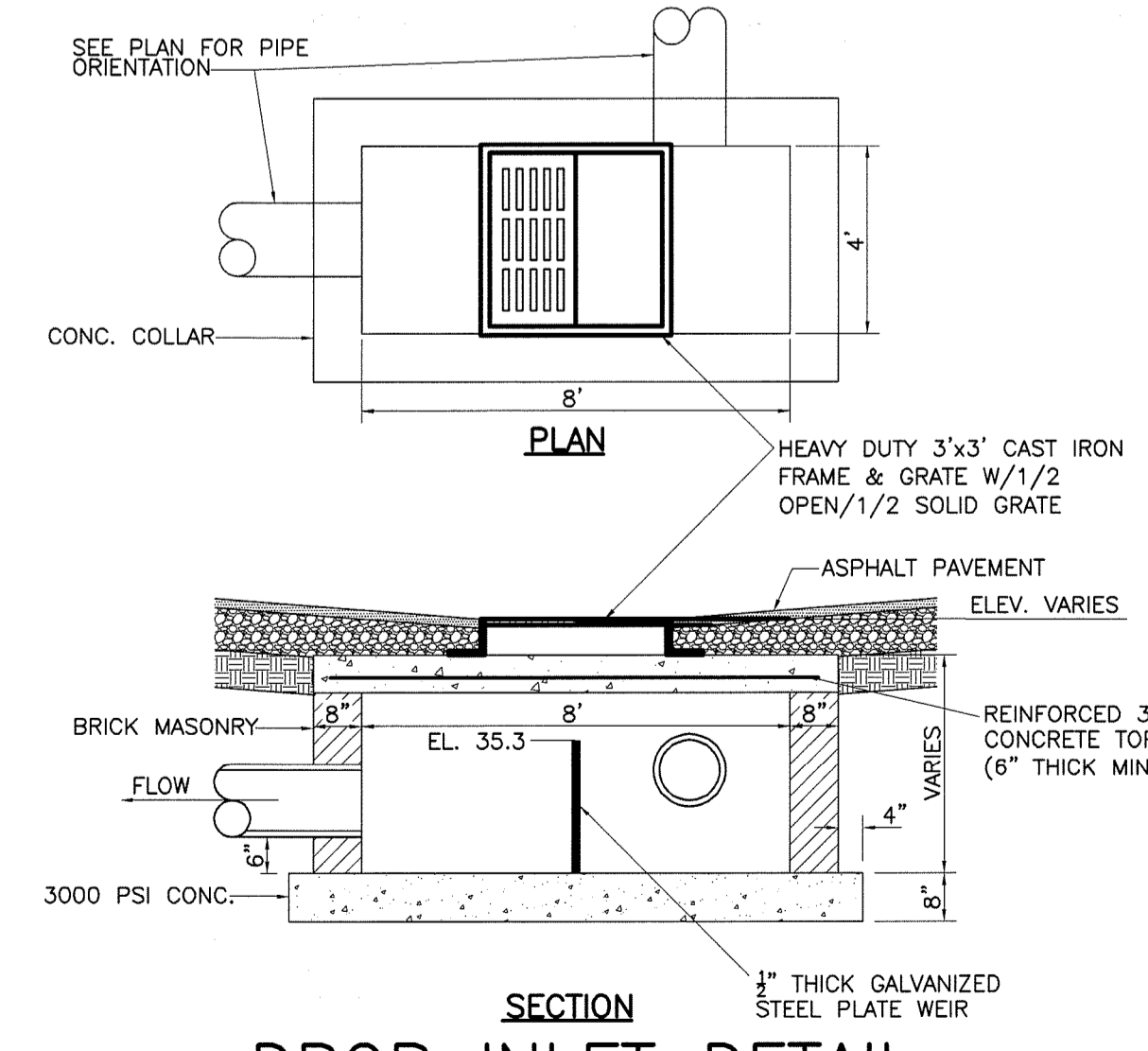
- NOTES**
- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
 - CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



SC-160LP 6" INSPECTION PORT DETAIL
NTS



LEVEL SPREADER DETAIL
NTS

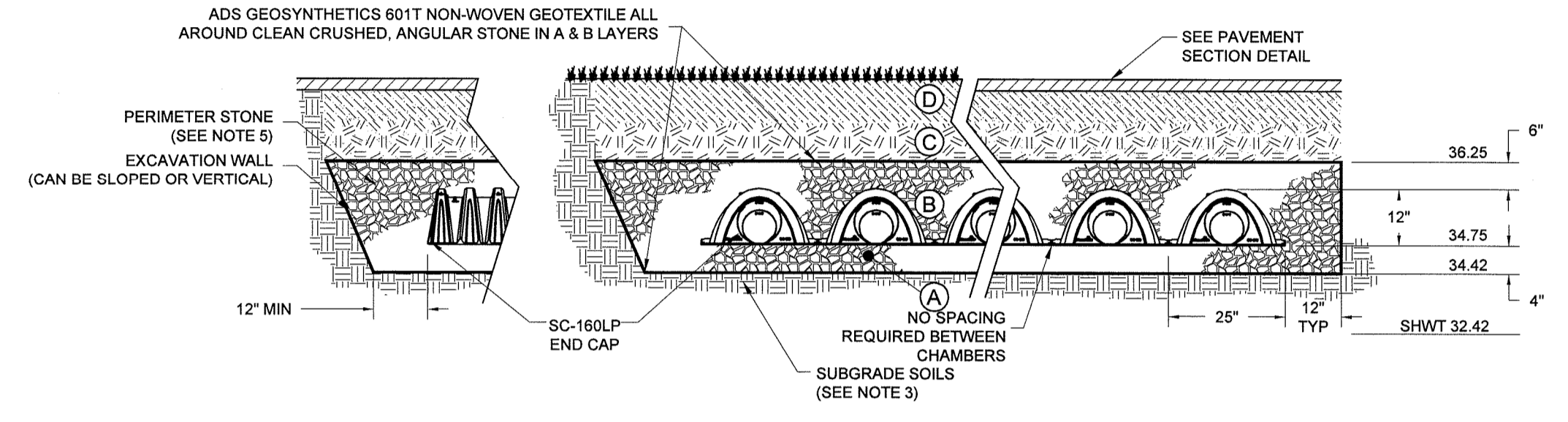


DROP INLET DETAIL
NTS

ACCEPTABLE FILL MATERIALS: STORMTECH SC-160LP CHAMBER SYSTEMS

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. AASHTO M145' A-1, A-2-4, A-3 OR AASHTO M43' 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 98% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE AASHTO M43' 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE AASHTO M43' 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. **

- PLEASE NOTE:**
- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR, FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
 - STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
 - WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



- NOTES:**
- SC-160LP CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
 - THE GEOTECHNICAL ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
 - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

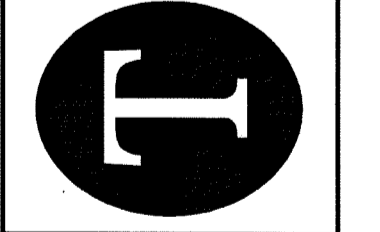
TYPICAL UNDERGROUND INFILTRATION TRENCH CROSS SECTION
NTS

REVISIONS

No. / Date	Description	By

DETAILS AND NOTES
MATTHEWS MOTOTS
 WILMINGTON, NORTH CAROLINA

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 419 Chestnut Street
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Approved Construction Plan

Name _____ Date _____

Planning _____

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Fire _____

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