

REVISIONS

| NO. | DATE | REVISIONS PER CITY OF WILMINGTON REVIEW COMMENTS |
|----------|------|--|
| 10-28-13 | | |

INTRACOASTAL ENGINEERING, PLLC
 91 Pelican Point Road
 Wilmington, North Carolina 28409
 Phone: 910.409.3567
 Email: charlie@intracoastal-engineering.com
 License Number P-0662

SITE PLAN
 FOR
ATLANTIC MARINE
 WILMINGTON, NORTH CAROLINA

LANDSCAPE CALCULATIONS

| | REQ'D | PROV'D |
|--|----------|----------|
| OLEANDER DRIVE PRIMARY STREETYARD 434 L.F. FRONTAGE - 24 L.F. DRIVEWAY = 410 x 18 (O&I-1 DISTRICT FACTOR) | 7380 SF | 7380 SF |
| WRIGHTSVILLE AVE. SECONDARY STREETYARD 196 L.F. FRONTAGE - 36 L.F. DRIVEWAY = 160 x 9 (1/2 O&I-1 DISTRICT FACTOR) | 1440 SF | 1440 SF |
| PARKING AREA INTERIOR - 21,705 SF x 25% SHADING [OLD METHOD @ 10% MEDIAN AREA] | 5,426 SF | 5,877 SF |
| PARKING AREA PERIMETER - N/A | 2,170 SF | 2,574 SF |
| FOUNDATION PLANTINGS - SOUTH FACING WALL ADJ. TO PARKING - 15 L.F. x 18' FACADE HGT x 12% WEST FACING WALL ADJ. TO PARKING - 176 L.F. x 18' FACADE HGT x 12% | 32 SF | 34 SF |
| | 380 SF | 594 SF |

*NOTE: SEE LANDSCAPE PLAN FOR ACTUAL PLANTINGS.

LEGEND

- PROPERTY LINE
- - - EASEMENT
- PROPOSED WATER
- PROPOSED SEWER
- LIMITS OF DISTURBANCE
- TEMPORARY SILT FENCE
- RUNOFF DIRECTION
- +++ PERVIOUS PARKING AREA
- /// STREET YARD AREA
- PROPOSED SIDEWALK
- LANDSCAPING AREA
- EXISTING SIGNIFICANT TREES TO BE REMOVED AND MITIGATED (9)
- EXISTING REGULATED TREES TO BE SPADED AND RELOCATED WHEN POSSIBLE (19)
- EXISTING REGULATED TREES TO BE REMOVED FOR ESSENTIAL SITE IMPROVEMENTS (17)

SITE DATA

SITE ADDRESS - 6707 OLEANDER DRIVE, WILMINGTON NC
 TAX PARCEL IDENTIFICATION NUMBER R05616-005-004-000
 ZONING O&I-1 (CD)
 WATERSHED RESOURCE PROTECTION
 CAMA LAND USE CLASS GRAY FINE SAND TO YELLOW MED. SAND
 1.37 AC. (59,865 SF)

SOIL TYPE

| TOTAL TRACT AREA | REQUIRED | PROVIDED |
|------------------|------------------------|----------------|
| FRONT | 20' | 30.4' |
| SIDE | 10' (20' RESIDENTIAL)* | 34.9' & 306.9' |
| REAR | 20' (25' RESIDENTIAL)* | 43.0' |

*FOR EVERY FOOT OF INCREASED HEIGHT OF STRUCTURES OVER TWENTY (20) FEET, THE DEVELOPER SHALL PROVIDE ADDITIONAL INTERIOR SIDE AND REAR YARD SETBACKS AT A 1:1 RATIO WHERE ADJUTING A RESIDENTIAL DISTRICT.

PARKING

| | |
|---------------------------------------|----|
| MIN. REQUIRED - 1 PER 300 S.F. (GFA) | 35 |
| MAX. PERMITTED - 1 PER 200 S.F. (GFA) | 53 |
| (PROPOSED BUILDING GFA = 10,611) | |
| PROPOSED PARKING SPACES | 36 |
| BICYCLE PARKING SPACES | 6 |

BUILDING COVERAGE

| | |
|-------------------|------------------|
| BUILDING COVERAGE | 9,308 SF (15.6%) |
| GROSS FLOOR AREA: | |
| GROUND FLOOR | 9,195 SF |
| MEZZANINE | 1,416 SF |
| TOTAL | 10,611 SF |

BUILDING HEIGHT

| | |
|------------------------------|---------------|
| BUILDINGS | 1-STORY / 25' |
| EXISTING IMPERVIOUS AREA | |
| BUILDINGS | 1,776 SF |
| BUILDING TO BE REMOVED | -1,776 SF |
| TOTAL EXIST. IMPERVIOUS AREA | 0 SF |

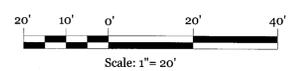
PROPOSED IMPERVIOUS AREA

| | |
|--|------------------------|
| BUILDINGS | 9,195 SF |
| SIDEWALKS (ON-SITE) | 900 SF |
| PERVIOUS PARKING (7.131st * .6 = 4,279 sf) | 4,279 SF |
| PARKING (ON-SITE) | 14,574 SF |
| TOTAL PROP. IMPERVIOUS AREA | 28,848 SF (48.19% IMP) |

Approved Construction Plan

| Name | Date |
|------------------|------|
| Planning | |
| Public Utilities | |
| Traffic | |
| Fire | |

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

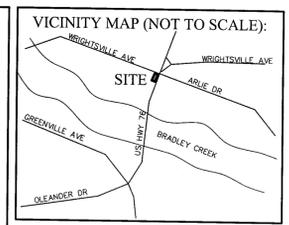
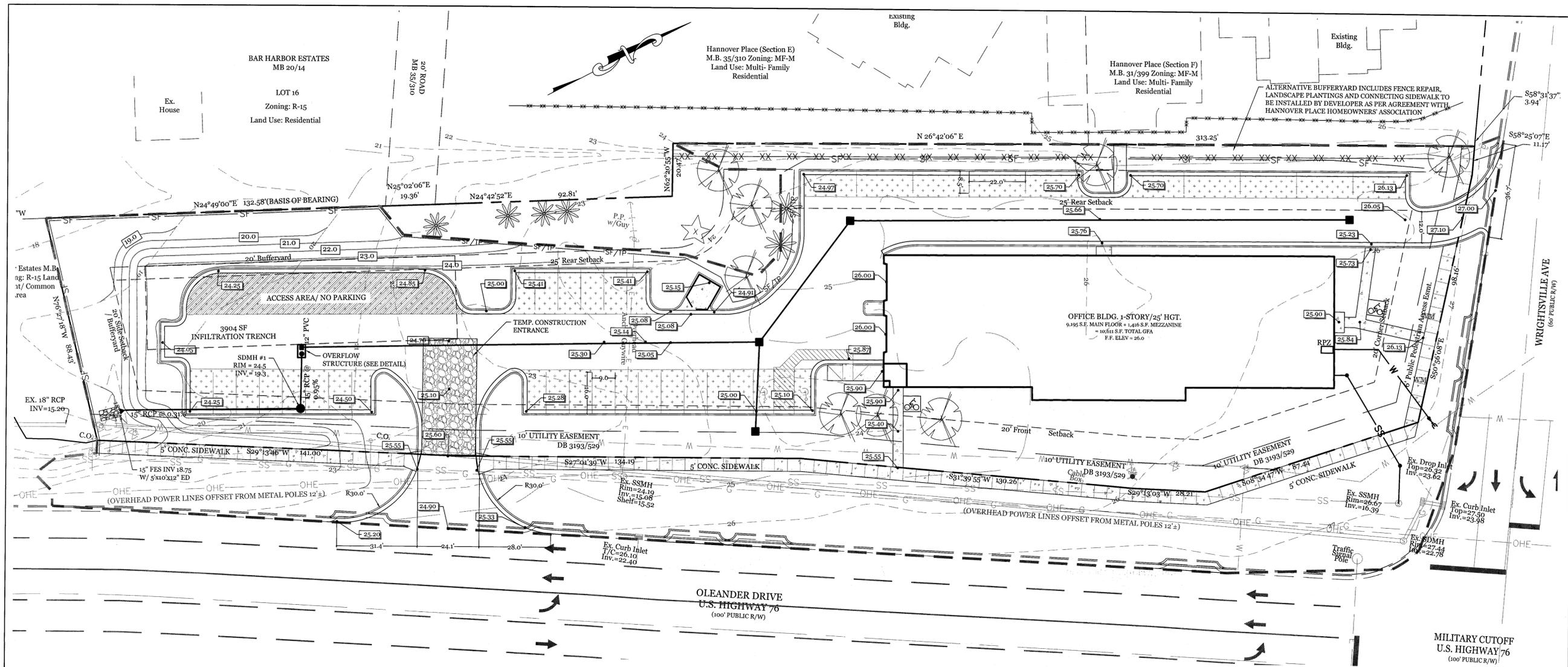


CLIENT INFORMATION:

FLOYD INVESTMENTS, LLC
 P.O. BOX 659
 WRIGHTSVILLE BEACH, NC 28480
 910-256-9911

DRAWN: NME SHEET SIZE: 24 x 36
 CHECKED: CDC DATE: 9/31/13
 APPROVED: CDC SCALE: 1" = 20'
 PROJECT NUMBER: 2013-020

DRAWING NUMBER: **C-1**
 1 OF 4



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 Wilmington, North Carolina 28409
 Phone: 910.409.3567
 Email: charlie@intracoastalengineering.com
 License Number P-0602

GRADING, DRAINAGE & EROSION CONTROL PLAN
 FOR
ATLANTIC MARINE
 WILMINGTON, NORTH CAROLINA

CLIENT INFORMATION:
 FLOYD INVESTMENTS, LLC
 P.O. BOX 659
 WRIGHTSVILLE BEACH, NC 28480
 910-256-9911

| | | | |
|-----------------|----------|-------------|----------|
| DRAWN: | NME | SHEET SIZE: | 24 x 36 |
| CHECKED: | CDC | DATE: | 9/31/15 |
| APPROVED: | CDC | SCALE: | 1" = 20' |
| PROJECT NUMBER: | 2013-020 | | |

DRAWING NUMBER: **C-2**
 2 OF 4

LEGEND

| | |
|-------|-----------------------|
| --- | PROPERTY LINE |
| - - - | EASEMENT |
| W | PROPOSED WATER |
| SS | PROPOSED SEWER |
| --- | LIMITS OF DISTURBANCE |
| SF | TEMPORARY SILT FENCE |
| --- | RUNOFF DIRECTION |
| + | PERVIOUS PARKING AREA |

PERMEABLE PAVEMENT

ACTIVITIES PROHIBITED:
 SANDING
 RE-SEALING
 RE-SURFACING
 POWER WASHING
 STORAGE OF MULCH OR SOIL
 STORAGE OF SNOW PILES
 STORAGE OF HEAVY LOADS
 APPLICATION OF SALT OR DE-ICERS

NOTE: 1. SIGN SIZE SHALL BE 24" X 18".
 2. DWG CAN PROVIDE THIS IMAGE IN A HIGH-RESOLUTION FILE FOR OWNERS WHO WOULD LIKE TO USE IT FOR THEIR SIGNS.

PERMEABLE CONCRETE SIGN
 NTS

PERMEABLE CONCRETE MONITORING WELL
 NTS

Cap flush with pavement
 4 to 6 in. diameter perforated pipe
 Insert 4 to 6 in. into soil subgrade

SITE DATA
 SITE ADDRESS: 6707 OLEANDER DRIVE, WILMINGTON NC
 TAX PARCEL IDENTIFICATION NUMBER: R05616-005-004-000
 ZONING: O&I-1 (CD) WATERSHED RESOURCE PROTECTION
 CAMA LAND USE CLASS: GRAY FINE SAND TO YELLOW MED. SAND
 TOTAL TRACT AREA: 1.37 AC. (59,865 SF)

SOIL TYPE: GRAY FINE SAND TO YELLOW MED. SAND

| SETBACKS | REQUIRED | PROVIDED |
|----------|------------------------|------------------|
| FRONT | 30'-0" | 30'-0" |
| SIDE | 10' (20' RESIDENTIAL)* | 34'-9" & 306'-9" |
| REAR | 20' (25' RESIDENTIAL)* | 43'-0" |

*FOR EVERY FOOT OF INCREASED HEIGHT OF STRUCTURES OVER TWENTY (20) FEET, THE DEVELOPER SHALL PROVIDE ADDITIONAL INTERIOR SIDE AND REAR YARD SETBACKS AT A 1:1 RATIO WHERE ABUTTING A RESIDENTIAL DISTRICT.

| PARKING | MIN. REQUIRED - 1 PER 300 S.F. (GFA) | MAX. PERMITTED - 1 PER 200 S.F. (GFA) |
|-------------------------|--------------------------------------|---------------------------------------|
| PROPOSED PARKING SPACES | 35 | 53 |
| BICYCLE PARKING SPACES | 36 | 6 |

| BUILDING COVERAGE | REQUIRED | PROVIDED |
|-------------------|-----------|-----------|
| BUILDING COVERAGE | 30% | 30% |
| GROSS FLOOR AREA: | | |
| GROUND FLOOR | 9,195 SF | 9,195 SF |
| MEZZANINE | 1,416 SF | 1,416 SF |
| TOTAL | 10,611 SF | 10,611 SF |

| BUILDING HEIGHT | REQUIRED | PROVIDED |
|-----------------|---------------|---------------|
| BUILDINGS | 1-STORY / 25' | 1-STORY / 25' |

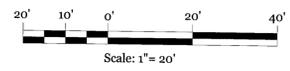
| EXISTING IMPERVIOUS AREA | REQUIRED | PROVIDED |
|------------------------------|-----------|-----------|
| BUILDINGS | 1,776 SF | 1,776 SF |
| BUILDINGS TO BE REMOVED | -1,776 SF | -1,776 SF |
| TOTAL EXIST. IMPERVIOUS AREA | 0 SF | 0 SF |

| PROPOSED IMPERVIOUS AREA | REQUIRED | PROVIDED |
|--|------------------------|-----------|
| BUILDINGS | 9,195 SF | 9,195 SF |
| SIDEWALKS (ON-SITE) | 800 SF | 800 SF |
| PERVIOUS PARKING (7,131sf * .6 = 4,279 sf) | 4,279 SF | 4,279 SF |
| PARKING (ON-SITE) | 14,574 SF | 14,574 SF |
| TOTAL PROP. IMPERVIOUS AREA | 28,848 SF (48.19% IMP) | 28,848 SF |

Approved Construction Plan

| Name | Date |
|------------------|------|
| Planning | |
| Public Utilities | |
| Traffic | |
| Fire | |

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



LATE WINTER & EARLY SPRING TEMPORARY GRASSING DETAIL

SEEDING MIXTURE

SPECIES

Rye (grain)
Annual Isopodeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)
Omit annual Isopodeza when duration of temporary cover is not to extend beyond June.

SEEDING DATES:

Mountains - Above 2500 ft. Feb. 15-May 15
Below 2500 ft. Feb. 1-May 1
Piedmont - Jan. 1-May 1
Coastal Plain - Dec. 1-Apr. 15

SOIL AMENDMENTS

Follow recommendations of soil tests or apply 2,000 lb/acre ground agricultural limestone and 750 lb/acre 10-10-10 fertilizer.

MULCH

APPLY 4,000 LB/ACRE STRAW, ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

Referertilize if growth is not fully adequate. Reseed, referertilize and mulch immediately following erosion or other damage.

TEMPORARY SUMMER GRASSING DETAIL

SEEDING MIXTURE

SPECIES **RATE (lb/acre)**

GERMAN MILLET 40

IN THE PIEDMONT AND MOUNTAINS, A SMALL-STEMMED SUNDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE.

SEEDING NOTES

MOUNTAINS - MAY 15-AUG. 15
PIEDMONT - MAY 1-AUG. 15
COASTAL PLAN - APR. 15-AUG. 15

SOIL AMENDMENTS

FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER.

MULCH

APPLY 4,000 LB/ACRE STRAW, ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

REFERertilize IF GROWTH IS NOT FULLY ADEQUATE. RESEED, REFERertilize AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

TEMPORARY FALL GRASSING DETAIL

SEEDING MIXTURE

SPECIES **RATE (lb/acre)**

Rye (grain) 120

SEEDING NOTES

MOUNTAINS - AUG. 15-DEC. 15
COASTAL PLAN AND PIEDMONT - AUG. 15-DEC. 30

SOIL AMENDMENTS

FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER.

MULCH

APPLY 4,000 LB/ACRE STRAW, ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

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

SPRING-SUMMER PERMANENT GRASSING DETAIL

SEEDING MIXTURE

SPECIES **RATE (lb/acre)**

PENSACOLA BAHAGRASS 50
SERICEA LESPEDEZA 30
COMMON BERUIDAGRASS 10
GERMAN MILLET 10
TALL FESCUE 50

SEEDING NOTES

1. WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA.
2. USE COMMON BERUIDAGRASS ONLY ON ISOLATED SITES WHERE IT CANNOT BE COME A PEST. BERUIDAGRASS MAY BE REPLACED WITH 5 lb/acre CENTPEDEGRASS.

SEEDING DATES

APRIL 1 - JULY 15

SOIL AMENDMENTS

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000 lb/acre GROUND AGRICULTURE LIMESTONE AND 500 lb/acre 10-10-10 FERTILIZER.

MULCH

APPLY 4,000 lb/acre GRAIN STRAW EQUIVALENT COVER OF ANOTHER SUITABLE MULCH, ANCHOR BY TACKING WITH ASPHALT, ROVING, OR NETTING OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

MAINTENANCE

REFERertilize THE FOLLOWING APRIL WITH 50 lb/acre NITROGEN. REPEAT AS GROWTH REQUIRES. MAY BE MOWED ONLY ONCE A YEAR, WHERE A NEAT APPEARANCE IS DESIRED, OMIT SERICEA AND MOW AS OFTEN AS NEEDED.

FALL-WINTER PERMANENT GRASSING DETAIL

SEEDING MIXTURE

SPECIES **RATE (lb/acre)**

TALL FESCUE (BLEND OF TWO OR THREE IMPROVED VARIETIES) 200
RYE (GRAIN) 25

SEEDING DATES

JANUARY - APRIL
AUGUST - DECEMBER

SOIL AMENDMENTS

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 3,000-5,000 lb/acre GROUND AGRICULTURAL LIMESTONE (USE THE LOWER RATE ON SANDY SOILS) AND 1,000 lb/acre 10-10-10 FERTILIZER.

MULCH

APPLY 4,000 lb/acre GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH, ANCHOR STRAW BY TACKING WITH ASPHALT, ROVING, OR NETTING OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

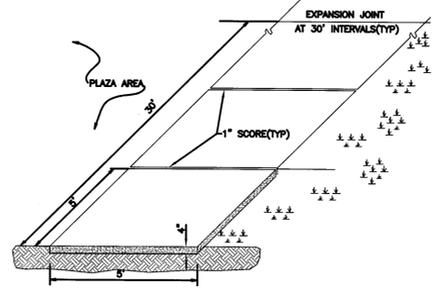
MAINTENANCE

FERTILIZE ACCORDING TO SOIL TESTS OR APPLY 40 lb/acre NITROGEN IN JANUARY OR FEBRUARY, 40 lb/acre IN SEPTEMBER AND 40 lb/acre IN NOVEMBER, FROM 4-2-4-2-4-2-4-2, OR SIMILAR TURF FERTILIZER. AVOID FERTILIZER APPLICATIONS DURING WARM WEATHER, AS THIS INCREASES STAND LOSSES TO DISEASE. RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY. MOW TO A HEIGHT OF 2-3-3-5 INCHES AS NEEDED.

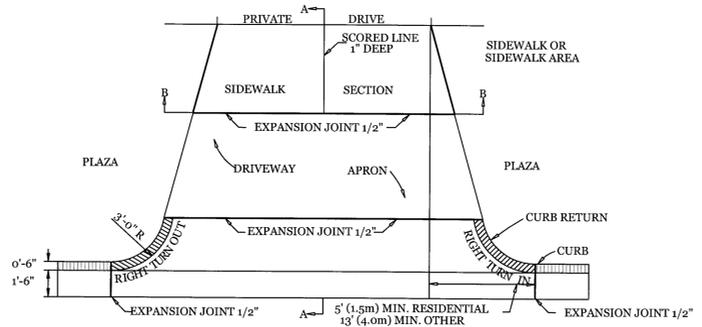
GROUND STABILIZATION CRITERIA

| SITE AREA DESCRIPTION | STABILIZATION TIMEFRAME | STABILIZATION TIMEFRAME EXCEPTIONS |
|--|-------------------------|---|
| * Perimeter dikes, swales, ditches and slopes | 7 Days | None |
| * High Quality Water (HQW) Zones | 7 Days | None |
| * 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 ft. in length |
| * All other areas with slopes flatter than 4:1 | 14 Days | (except for perimeters & HQW Zones) |

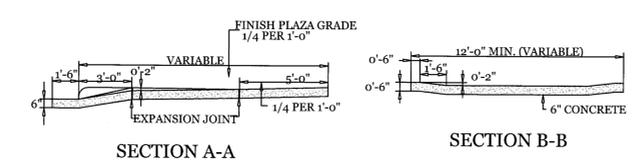
Note: Ground Stabilization chart may be required by NPDES permit.



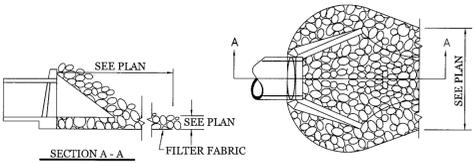
STANDARD SIDEWALK DETAIL SD 8-15
NTS



PAVEMENT PLAN



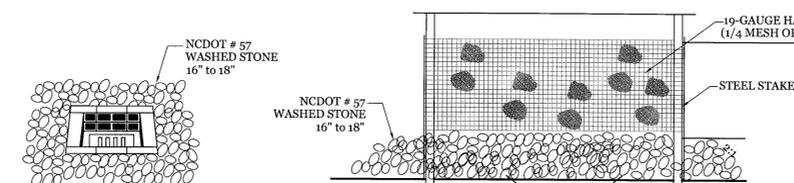
STANDARD DRIVEWAY DETAIL
SD 8-02
NOT TO SCALE



ENERGY DISSIPATOR
NTS



TYPICAL 3:1 GRASS SWALE
NTS



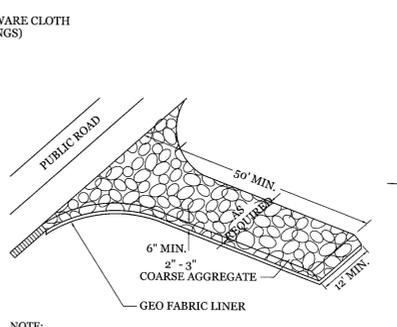
CONSTRUCTION SPECIFICATIONS:

- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
- DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE CLEAN GRAVEL (NCDOT # 40 OR # 57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE AND SMOOTH TO AN EVEN GRADE.
- REMOVE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUND COVER.

MAINTENANCE:

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1 INCH OR GREATER) RAINFALL EVENT. CLEAR THE MESH 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.

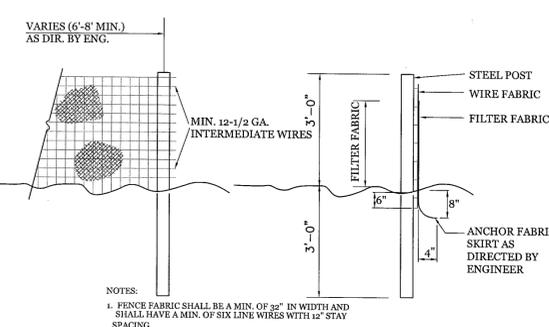
HARDWARE CLOTH AND GRAVEL INLET PROTECTION
NTS



NOTE:

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

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
NTS



NOTES:

- FENCE FABRIC SHALL BE A MIN. OF 24\"/>
- FABRIC SHALL BE FOR EROSION CONTROL AND MIN. OF 36\"/>
- STEEL POST SHALL BE 5\"/>

TEMPORARY SILT FENCE
NTS

- SITE WORK NOTES:**
- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BOTH ON AND ADJACENT TO THE SITE.
 - CLEARING: CONTRACTOR SHALL REMOVE ALL TREES AND VEGETATION WITHIN LIMITS OF CONSTRUCTION UNLESS OTHERWISE DESIGNATED TO REMAIN.
 - 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.
 - MUCKING: CONTRACTOR SHALL COORDINATE WITH OWNER AND THEIR GEOTECHNICAL REPRESENTATIVE TO COORDINATE REMOVAL OF ANY SOFT AREAS.
 - DISPOSAL: CLEARED, GRUBBED, STRIPPED OR OTHER WASTE MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF IN A PROPERLY PERMITTED FACILITY.
 - FILL AND COMPACTION SHOULD COMPLY WITH GEOTECHNICAL RECOMMENDATIONS.
 - 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.
 - THE CONTRACTOR SHALL FURNISH SUITABLE BORROW MATERIAL FROM AN OFF-SITE PROPERLY PERMITTED FACILITY AS REQUIRED.
 - INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND DEPTHS 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.
 - NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NO ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
 - 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.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE DISCONNECTION/ RECONNECTION AND/OR THE RELOCATION OF ALL EXISTING UTILITIES WITH APPROPRIATE PERSONNEL.
 - 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.
 - EXISTING TOPOGRAPHY AND UTILITIES HAVE BEEN PREPARED BY A FIELD SURVEY BY TALBOT SURVEYING. TREE LOCATIONS HAVE BEEN PREPARED BY A FIELD SURVEY BY ATLANTIC COAST SURVEY. THE BOUNDARY IS BASED ON A PLAT BY WITHERS & RAVENEL, INC.
 - 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.
 - THE CONTRACTOR SHALL PROVIDE ANY AND ALL LAYOUT REQUIRED TO CONSTRUCT HIS WORK UNLESS OTHERWISE DIRECTED BY OWNER.
 - ALL SERVICE CONNECTIONS SHALL BE INSTALLED TO MEET ALL LOCAL, STATE, AND CPWA CODES. METERS, TAPS, MATERIALS, WORKMANSHIP AND ALL FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL COMPLY WITH ALL REQUIREMENTS.
 - 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.
 - 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.
 - CONCRETE FOR WALKS, CURBS AND EXITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS - AIR ENTRAINED.
 - 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.
 - ALL SIDEWALKS SHALL BE FREE OF CRACKS, BREAKS, OR ANY OTHER DEFECT PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.

- CONSTRUCTION SEQUENCE:**
- CONSTRUCTION OF SITE TO START WITH INSTALLATION OF CONSTRUCTION ENTRANCE AND SILT FENCE ALONG ALL LOCATIONS PER PLANS. UPON INSTALLATION OF SILT FENCE, TREES SHOULD BE REMOVED IN LOCATIONS AS NECESSARY. DITCH PLUG TO BE INSTALLED PRIOR TO CLEARING, GRADING & DITCH FILLING. ALL SLOPED AREAS SHOULD BE SEEDING IN ACCORDANCE TO SPECIFICATIONS. SLOPE STABILIZATION IS WITHIN 21 CALENDAR DAYS OF ANY PHASE OF CONSTRUCTION. ALL OTHER AREAS MUST BE STABILIZED WITHIN 15 WORKING DAYS. CONTRACTOR TO FOLLOW NPDES STABILIZATION REQUIREMENTS PER TABLE ON THIS SHEET AS WELL. MOST STRINGENT REQUIREMENT TO BE MET.
- GENERAL CLEARING AND GRADING OF THIS SITE WILL NOT BE DONE UNTIL THE TEMPORARY SILT FENCE & CONSTRUCTION ENTRANCE HAS BEEN INSTALLED.
 - NO CUT SLOPE OR FILL SLOPE SHALL EXCEED A RISE OR FALL OF ONE FOOT FOR EVERY RUN OF 3 FEET (1 VERTICAL TO 3 HORIZONTAL).
 - NO SEDIMENT WILL BE ALLOWED TO EXIT THE SITE. ALL EROSION SHALL BE CONTROLLED INCLUDING SIDE SLOPES DURING AND AFTER CONSTRUCTION.
 - INSTALL PRIMARY EROSION CONTROL MEASURES BEFORE BEGINNING CONSTRUCTION INCLUDING BUT NOT LIMITED TO GRAVELLED CONSTRUCTION ENTRANCE, SILT FENCE, TREE PROTECTION FENCE & SEDIMENT BASINS. CONTRACTOR TO BE FAMILIAR WITH USACOE GENERAL PERMIT CONDITIONS FOR 4 ROAD CROSSINGS. SPECIFIC CONSTRUCTION METHODS MAY BE REQUIRED ABOVE AND BEYOND WHAT IS SPECIFIED IN THIS PLAN. INSTALL ALL SECONDARY EROSION CONTROL MEASURES, SUCH AS INLET PROTECTION AS SOON AS POSSIBLE AFTER BEGINNING CONSTRUCTION.
 - ALL EROSION CONTROL MEASURES TO BE INSPECTED AFTER EACH RAIN. SILT FENCE AND INLET PROTECTION TO BE CLEANED WHEN HALF FULL.
 - A 4\"/>
 - MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PROJECT IS COMPLETE.
 - MORE STRINGENT MEASURES MAY BE REQUIRED TO HALT EROSION IF THOSE ON THIS PLAN PROVE TO BE LESS EFFECTIVE.
 - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF CONSTRUCTION. ALL PERMANENT MEASURES SHALL BE WELL ESTABLISHED PRIOR TO PROJECT COMPLETION.

- 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 AND WITHIN 24 HOURS OF EVERY HALF INCH RAINFALL.
 - ALL POINTS OF EGRESS WILL HAVE CONSTRUCTION ENTRANCES THAT WILL BE PERIODICALLY TOP-DRESSED WITH AN ADDITIONAL 2 INCHES OF 2-3 INCH STONE TO MAINTAIN PROPER DEPTH. THEY WILL BE MAINTAINED IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE SITE. IMMEDIATELY REMOVE OBJECTIONABLE MATERIAL SPILLED, WASHED OR TRACKED ONTO THE CONSTRUCTION ENTRANCE OR ROADWAYS.
 - SEDIMENT WILL BE REMOVED FROM HARDWARE CLOTH AND GRAVEL INLET PROTECTION, ROCK DOUGHNUT INLET PROTECTION, SEDIMENT TRAP & Baffles, AND ROCK PIPE INLET PROTECTION WHEN THE DESIGNED STORAGE CAPACITY HAS BEEN HALF FILLED WITH SEDIMENT. ROCK WILL BE CLEANED OR REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS AS DESIGNED. DEBRIS WILL BE REMOVED FROM THE ROCK AND HARDWARE CLOTH TO ALLOW PROPER DRAINAGE. SILT SACKS WILL BE EMPTIED ONCE A WEEK AND AFTER EVERY RAIN EVENT. SEDIMENT WILL BE REMOVED FROM AROUND BEAVER DAMS, DANDY SACKS AND SOCKS ONCE A WEEK AND AFTER EVERY RAIN EVENT.
 - CHECK SEDIMENT BASIN AND Baffles WEEKLY & AFTER EACH RAINFALL EVENT. REMOVE SEDIMENT FROM TRAP & Baffles AND RESTORE TO ORIGINAL VOLUME WHEN SEDIMENT ACCUMULATES TO ABOUT 1/2 THE DESIGN VOLUME. REPAIR / REPLACE Baffles IF TORN, COLLAPSED, OR INEFFECTIVE.
 - DIVERSION DITCHES WILL BE CLEANED OUT IMMEDIATELY TO REMOVE SEDIMENT OR OBSTRUCTIONS FROM THE FLOW AREA. THE DIVERSION RIDGES WILL ALSO BE REPAIRED. SWALES MUST BE TEMPORARILY STABILIZED WITHIN 21 CALENDAR DAYS OF CEASE OF ANY PHASE OF ACTIVITY ASSOCIATED WITH A SWALE.
 - SEDIMENT WILL BE REMOVED FROM BEHIND THE SEDIMENT FENCE WHEN IT BECOMES HALF FILLED. THE SEDIMENT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. STAKES MUST BE STEEL. STAKE SPACING WILL BE 6 FEET MAX. WITH THE USE OF EXTRA STRENGTH FABRIC, WITHOUT WIRE BACKING. STAKE SPACING WILL BE 8 FEET MAX WHEN STANDARD STRENGTH FABRIC AND WIRE BACKING ARE USED. IF ROCK FILTERS ARE DESIGNED AT LOW POINTS IN THE INLET THE SEDIMENT FENCE THE ROCK WILL BE REPAIRED OR REPLACED IF IT BECOMES HALF FULL OF SEDIMENT, NO LONGER DRAINS AS DESIGNED OR IS DAMAGED.

STORMWATER MANAGEMENT PLAN APPROVED

Approved Construction Plan

Name _____ Date _____

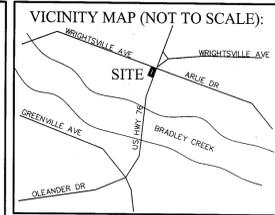
Planning _____

Public Utilities _____

Traffic _____

Fire _____

CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____



REVISIONS

| NO. | DESCRIPTION |
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INTRACOASTAL ENGINEERING, PLLC

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Email: chaudhri@intracoastalengineering.com
License Number P-0662

DETAILS FOR ATLANTIC MARINE WILMINGTON, NORTH CAROLINA

Professional Engineer Seal

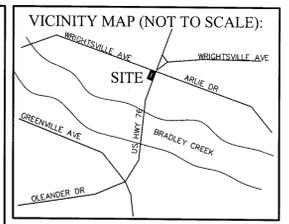
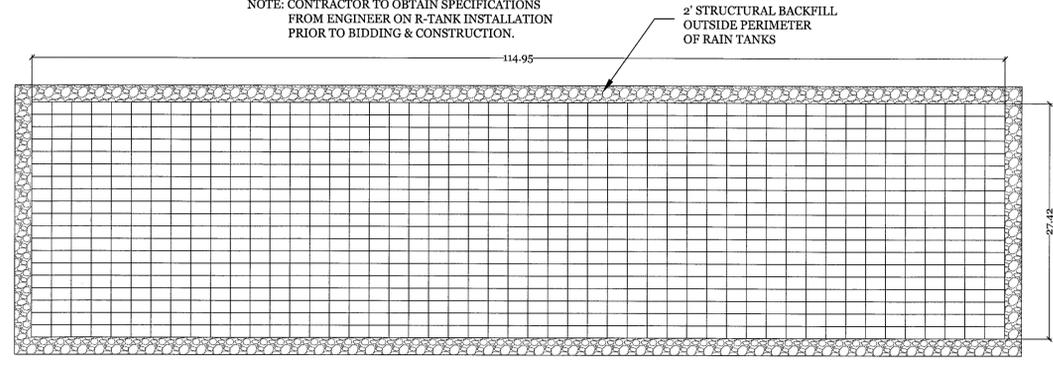
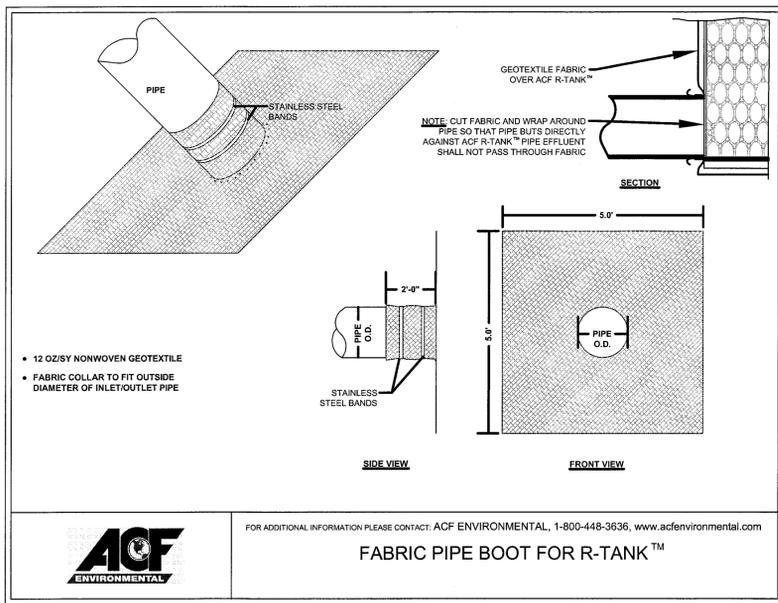
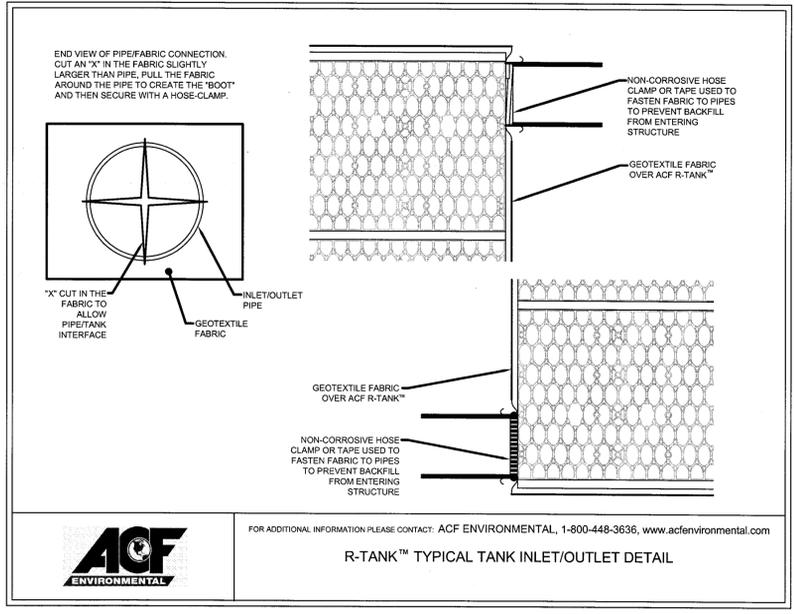
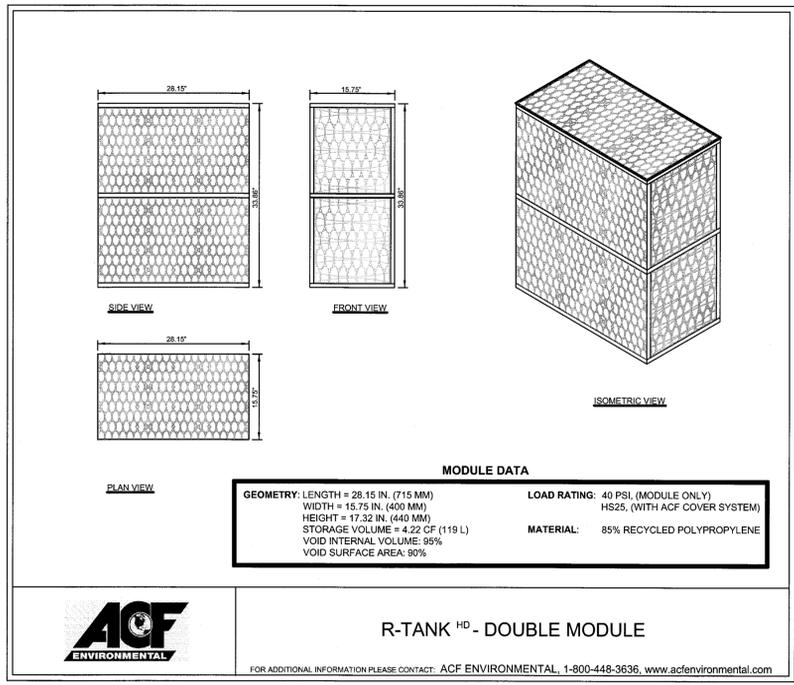
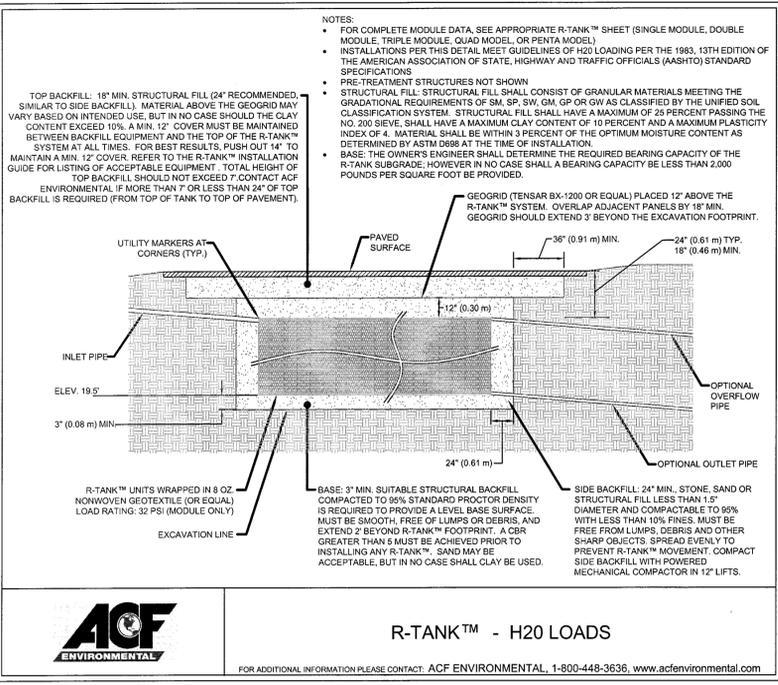
CHARLES D. CALDER
ENGINEER
032555
9-31-13

CLIENT INFORMATION:

FLOYD INVESTMENTS, LLC
P.O. BOX 659
WRIGHTSVILLE BEACH, NC 28480
910-256-9911

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| DRAWN: NME | SHEET SIZE: 24 x 36 |
| CHECKED: CDC | DATE: 9/31/13 |
| APPROVED: CDC | SCALE: 1" = 20' |
| PROJECT NUMBER: 2013-020 | |

DRAWING NUMBER: **C-3**
3 OF 4



REVISIONS

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| 10-28-13 | REVISIONS PER CITY OF WILMINGTON |
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DETAILS FOR ATLANTIC MARINE

WILMINGTON, NORTH CAROLINA

CLIENT INFORMATION:

FLOYD INVESTMENTS, LLC
P.O. BOX 659
WRIGHTSVILLE BEACH, NC 28480
910-256-9911

Approved Construction Plan

Name _____ Date _____

Planning _____

Public Utilities _____

Traffic _____

Fire _____

STORMWATER MANAGEMENT PLAN

APPROVED

CITY OF WILMINGTON
ENGINEERING DEPARTMENT
DATE _____ PERMIT # _____
SIGNED _____

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| DRAWN: | NME | SHEET SIZE: | 24 x 36 |
| CHECKED: | CDC | DATE: | 9/31/13 |
| APPROVED: | CDC | SCALE: | 1" = 20' |
| PROJECT NUMBER: | 2013-020 | | |

DRAWING NUMBER: **C-4**

4 OF 4