

# THE EXTRA GARAGE II SELF-STORAGE CENTER

CHATHAM COUNTY, NC

## SITE PLAN SUBMITTAL

Date: July 6, 2012

### developer/owner:

WALTER LEWIS  
109 TROPEZ LANE  
CARY, NORTH CAROLINA 27511  
919 460-4417

### consultants:

Land Planner/Landscape Architect:  
JERRY TURNER & ASSOCIATES, INC.  
RALEIGH, NORTH CAROLINA

Engineering:  
EARTHCENTRIC ENGINEERING, INC.  
MEBANE, NORTH CAROLINA

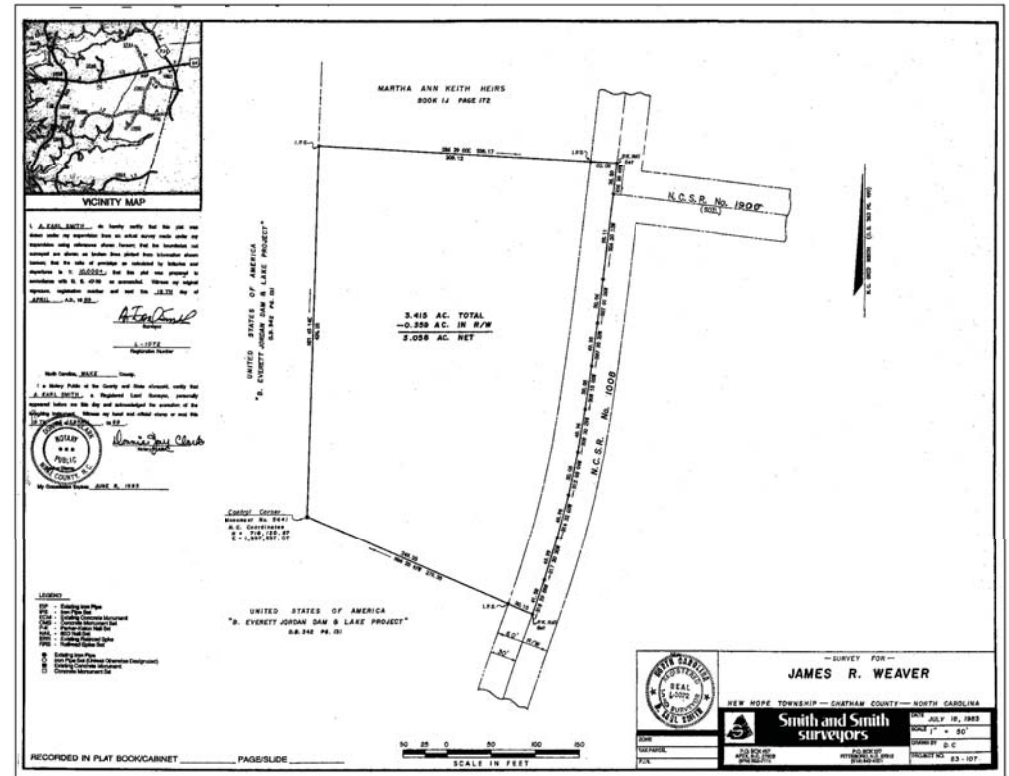
Architect:  
THE REDFOOT STUDIO ARCHITECTURE, PC  
CARRBORO, NORTH CAROLINA

Surveyor:  
SMITH AND SMITH SURVEYORS  
APEX, NORTH CAROLINA

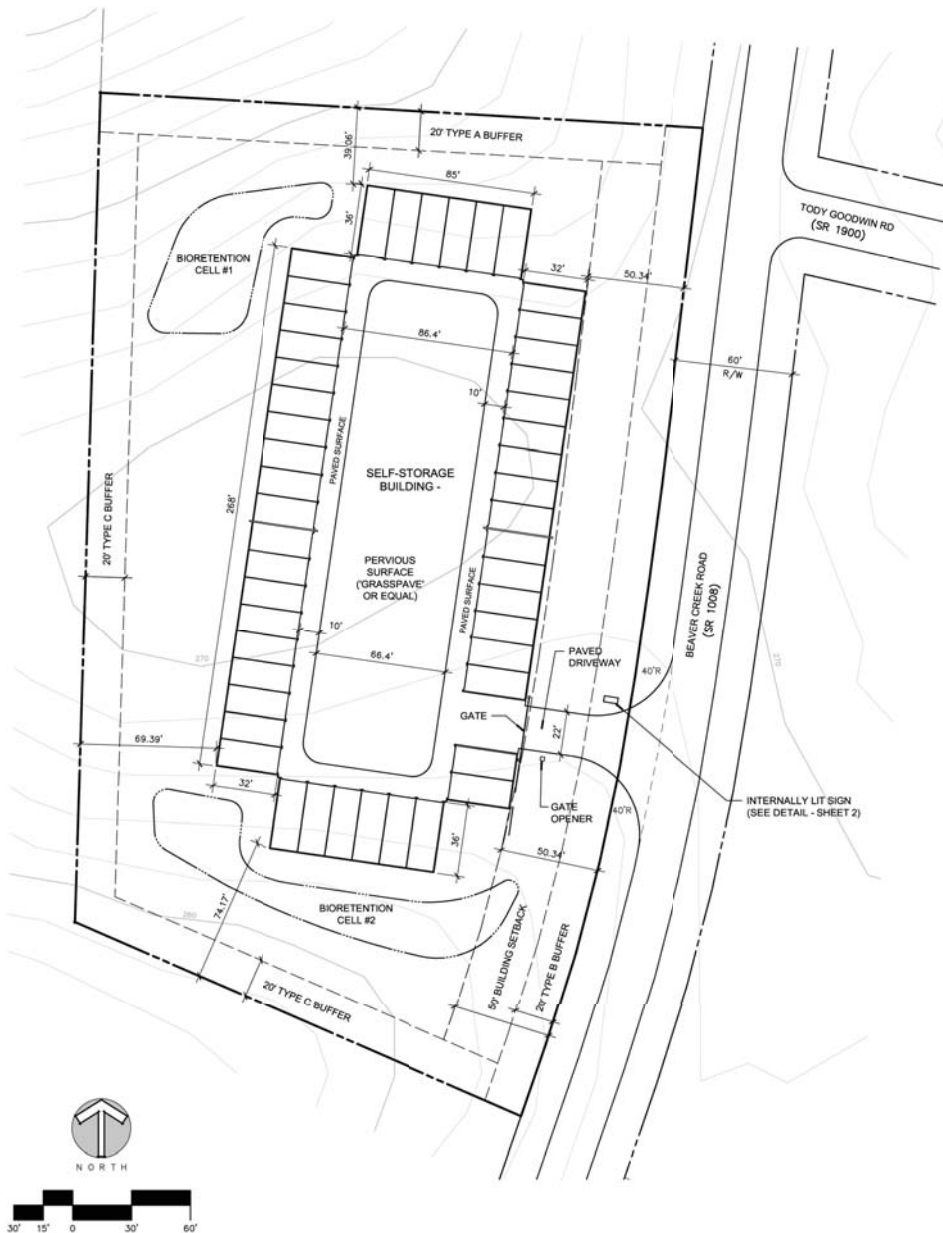
### sheet index

SITE LAYOUT PLAN	1
LANDSCAPE & LIGHTING PLAN	2
GRADING & STORM WATER PLAN	3.0
EROSION CONTROL PLAN	3.1
EROSION CONTROL DETAILS	3.2
EROSION CONTROL & DROP INLET DETAILS	3.3
STORMWATER & GRASSPAVE 2 DETAILS	3.4
BUILDING ELEVATIONS	4

location map



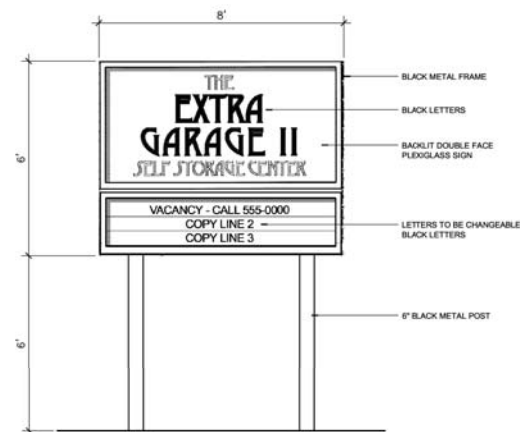
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## SITE DATA

USE: BUILDING WILL BE USED FOR STORAGE OF RECREATIONAL VEHICLES AND BOATS

TOTAL STORAGE UNITS PROPOSED	48 UNITS	
TOTAL SITE AREA	3.415 AC	148,757 SF
AREA IN BEAVER CREEK RD. R/W	0.359 AC	15,638 SF
NET SITE AREA	3.056 AC	133,119 SF
IMPERVIOUS SURFACE PERMITTED	31,948 SF (24%)	
IMPERVIOUS SURFACE PROPOSED		
BUILDING	22,903 SF	
INTERIOR PAVING	7,697 SF	
DRIVEWAY	1,266 SF	
TOTAL	31,866 SF (23.9%)	



SIGN DETAIL  
SCALE: 1/2" = 1'-0"



JERRY TURNER & ASSOCIATES, INC.

Landscape Architecture  
Land Planning  
Environmental Design

905 Jones Franklin Road  
Raleigh, North Carolina 27606  
(919) 851-7150 fax: (919) 851-7547

277 S.E. 5th Avenue  
Delray Beach, Florida 33483  
(561) 276-0453 fax: (561) 272-7553

PROJECT

## THE EXTRA GARAGE II SELF-STORAGE CENTER

CHATHAM COUNTY, NC

OWNER/DEVELOPER:  
WALTER LEWIS

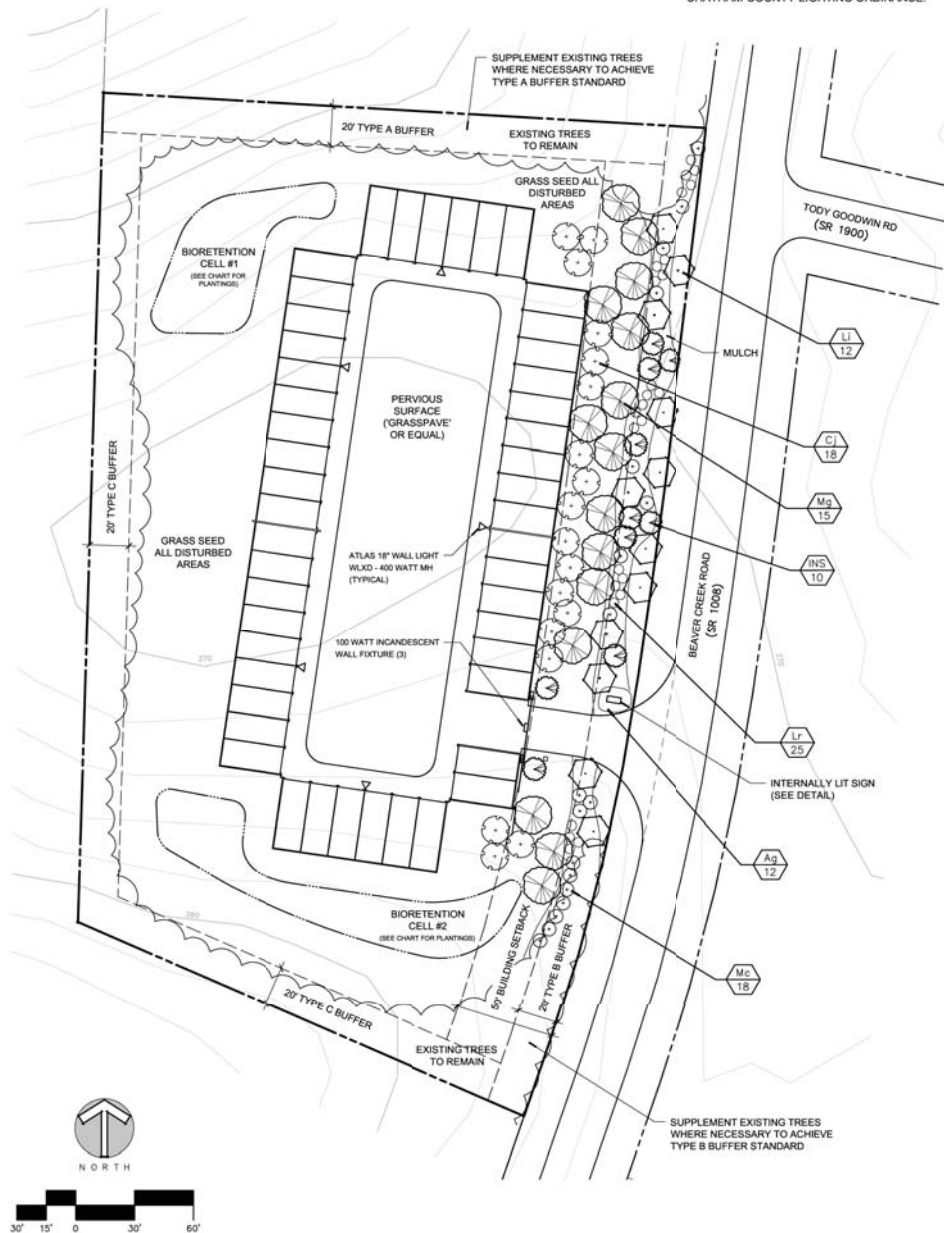
REVISIONS

DRAWN: RT CHECKED: JT  
SCALE: 1"=30' DATE: 7/6/12  
TITLE: SITE LAYOUT PLAN

## SITE LAYOUT PLAN

FILE NO: JOB NO:  
REAL: SHEET NO:

NOTE:  
ALL LIGHTING SHALL CONFORM TO THE  
CHATHAM COUNTY LIGHTING ORDINANCE.



KEY	PLANT LIST		QUANTITY	CALIPER	HEIGHT	SPREAD	ROOT	REMARKS
	BOTANICAL NAME	COMMON NAME						
	Trees							
CJ	Cryptomeria japonica	Japanese Cryptomeria	18		6-8'		BB	
INS	Ilex 'Nellie R. Stevens'	Nellie Stevens Holly	10		6-8'		BB	
LI	Lagerstroemia indica 'Natchez'	Natchez Crape Myrtle	12		6-8'		BB	multi-stem
Mg	Magnolia grandiflora 'Brown Beauty'	Brown Beauty Magnolia	15		6-8'		BB	
	Shrubs							
Ag	Abelia grandiflora 'Kaleidoscope'	Kaleidoscope Abelia	12				cont 3 gal	
Lr	Ligustrum recurvifolium	Recurve Ligustrum	25				cont 5 gal	
Mc	Morella cerifera	Wax Myrtle	18				cont 7 gal	
	Buffer Plants (if necessary to supplement exist. vegetation)							
	Juniperus virginiana	Red Cedar						
	Morella cerifera	Wax Myrtle						
	Pinus taeda	Loblolly Pine						
	Thuja occidentalis	Green Giant Arborvitae						

**BIORETENTION CELL #1 - 0.09 AC**  
0.09 ac x 400 stems/ac = 36 stems

BOTANICAL NAME	COMMON NAME	QUANTITY	CALIPER	ROOT	REMARKS
<b>TREES</b>					
Pinus taeda	Loblolly Pine	5	2.5"	BB	
<b>SHRUBS</b>					
Amelanchier arborea	Serviceberry	8		cont 3 gal	
Juniperus virginiana	Red Cedar	8		cont 3 gal	
Morella cerifera	Wax Myrtle	7		cont 3 gal	
Viburnum dentatum	Viburnum	8		cont 3 gal	

**BIORETENTION CELL #2 - 0.11 AC**  
0.11 ac x 400 stems/ac = 44 stems

BOTANICAL NAME	COMMON NAME	QUANTITY	CALIPER	ROOT	REMARKS
<b>TREES</b>					
Pinus taeda	Loblolly Pine	8	2.5"	BB	
<b>SHRUBS</b>					
Amelanchier arborea	Serviceberry	6		cont 3 gal	
Juniperus virginiana	Red Cedar	9		cont 3 gal	
Morella cerifera	Wax Myrtle	7		cont 3 gal	
Viburnum dentatum	Viburnum	14		cont 3 gal	



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CHATHAM COUNTY, NC

OWNER/DEVELOPER:  
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REVISIONS

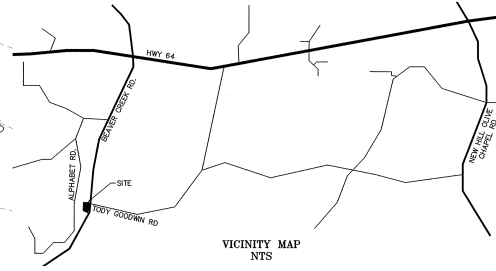
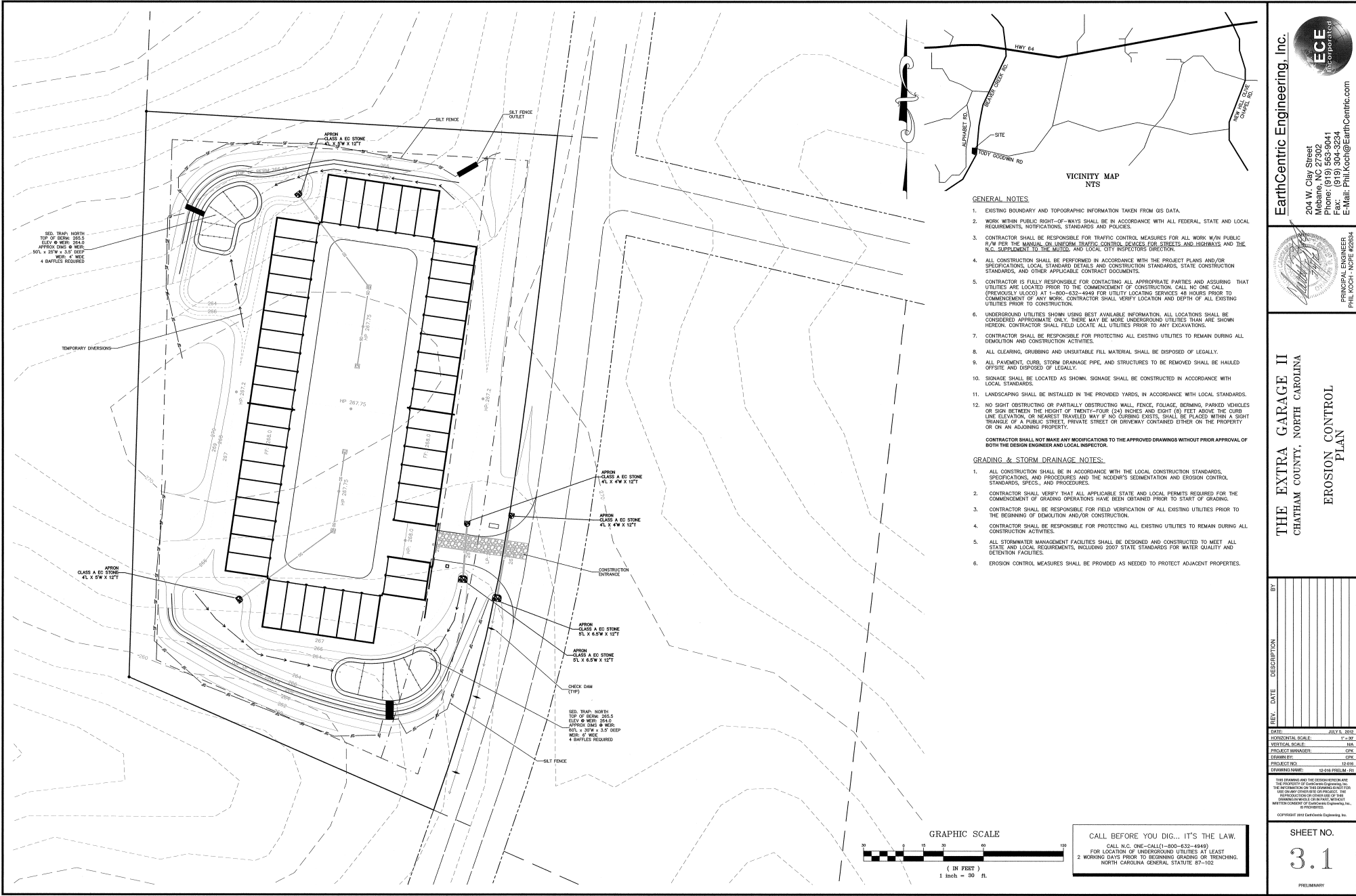
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SCALE: DATE: 7/6/12  
TITLE: 1"=30'

**LANDSCAPE /  
LIGHTING  
PLAN**

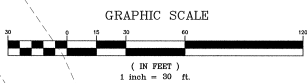
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CALL BEFORE YOU DIG... IT'S THE LAW.  
CALL N.C. ONE-CALL(1-800-632-4949)  
FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST  
2 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.  
NORTH CAROLINA GENERAL STATUTE 87-102

**EarthCentric Engineering, Inc.**

204 W. Clay Street  
Mebane, NC 27302  
Phone: (919) 563-9041  
Fax: (919) 304-3234  
E-Mail: Phil.Koch@EarthCentric.com

**THE EXTRA GARAGE II**  
CHATHAM COUNTY, NORTH CAROLINA

**EROSION CONTROL PLAN**

DATE	JULY 5, 2015
HORIZONTAL SCALE	1" = 30'
VERTICAL SCALE	N/A
PROJECT MANAGER	CPK
DESIGNER	CPK
PROJECT NO.	15-016
DRAWING NAME	15-016 (ITEM 1) - ITS

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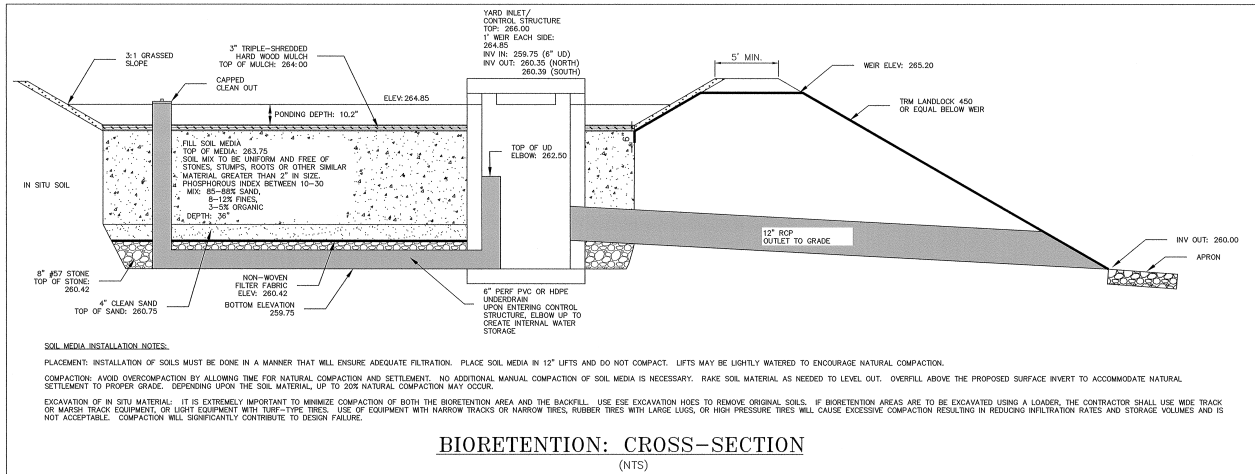
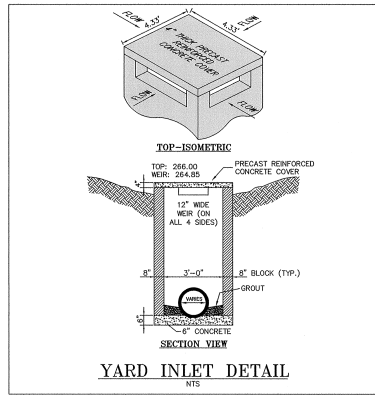
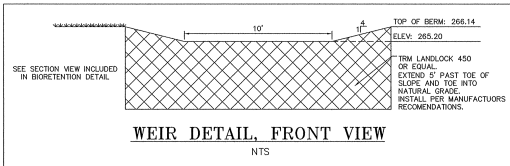
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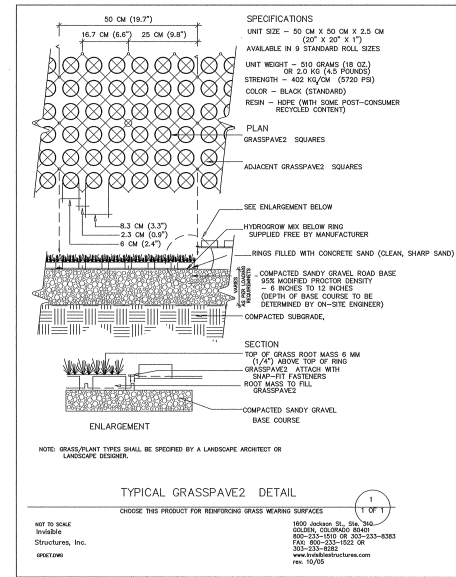
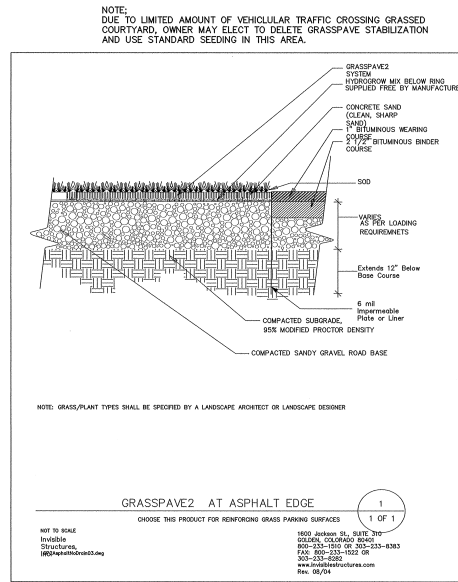
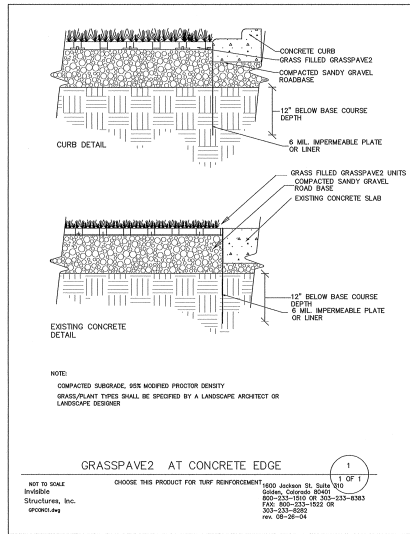
PRELIMINARY

## PRELIMINARY





**BIORETENTION: CROSS-SECTION**  
(NTS)



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**THE EXTRA GARAGE II**  
CHATHAM COUNTY, NORTH CAROLINA  
**STORMWATER & GRASSPAVE 2 DETAILS**

REV.	DATE	DESCRIPTION
1	JULY 6, 2011	ISSUED FOR CONSTRUCTION
2	JULY 6, 2011	ISSUED FOR CONSTRUCTION
3	JULY 6, 2011	ISSUED FOR CONSTRUCTION
4	JULY 6, 2011	ISSUED FOR CONSTRUCTION
5	JULY 6, 2011	ISSUED FOR CONSTRUCTION
6	JULY 6, 2011	ISSUED FOR CONSTRUCTION
7	JULY 6, 2011	ISSUED FOR CONSTRUCTION
8	JULY 6, 2011	ISSUED FOR CONSTRUCTION
9	JULY 6, 2011	ISSUED FOR CONSTRUCTION
10	JULY 6, 2011	ISSUED FOR CONSTRUCTION

**SHEET NO.**  
**3.4**  
PRELIMINARY



MASTERS RIB METAL ROOFING (EVERGREEN),  
TYPICAL AT ALL ROOFS

MASTERS RIB METAL SIDING (EVERGREEN),  
TYPICAL AT EXTERIOR WALLS



1 Front Elevation  
SCALE 1/16" = 1'-0"



2 Rear Elevation  
SCALE 1/16" = 1'-0"



3 South Elevation  
SCALE 1/16" = 1'-0"



4 North Elevation  
SCALE 1/16" = 1'-0"

Architect:  
The Redfoot Studio Architecture PC  
Carrboro, North Carolina



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PROJECT

## THE EXTRA GARAGE II SELF-STORAGE CENTER

CHATHAM COUNTY, NC

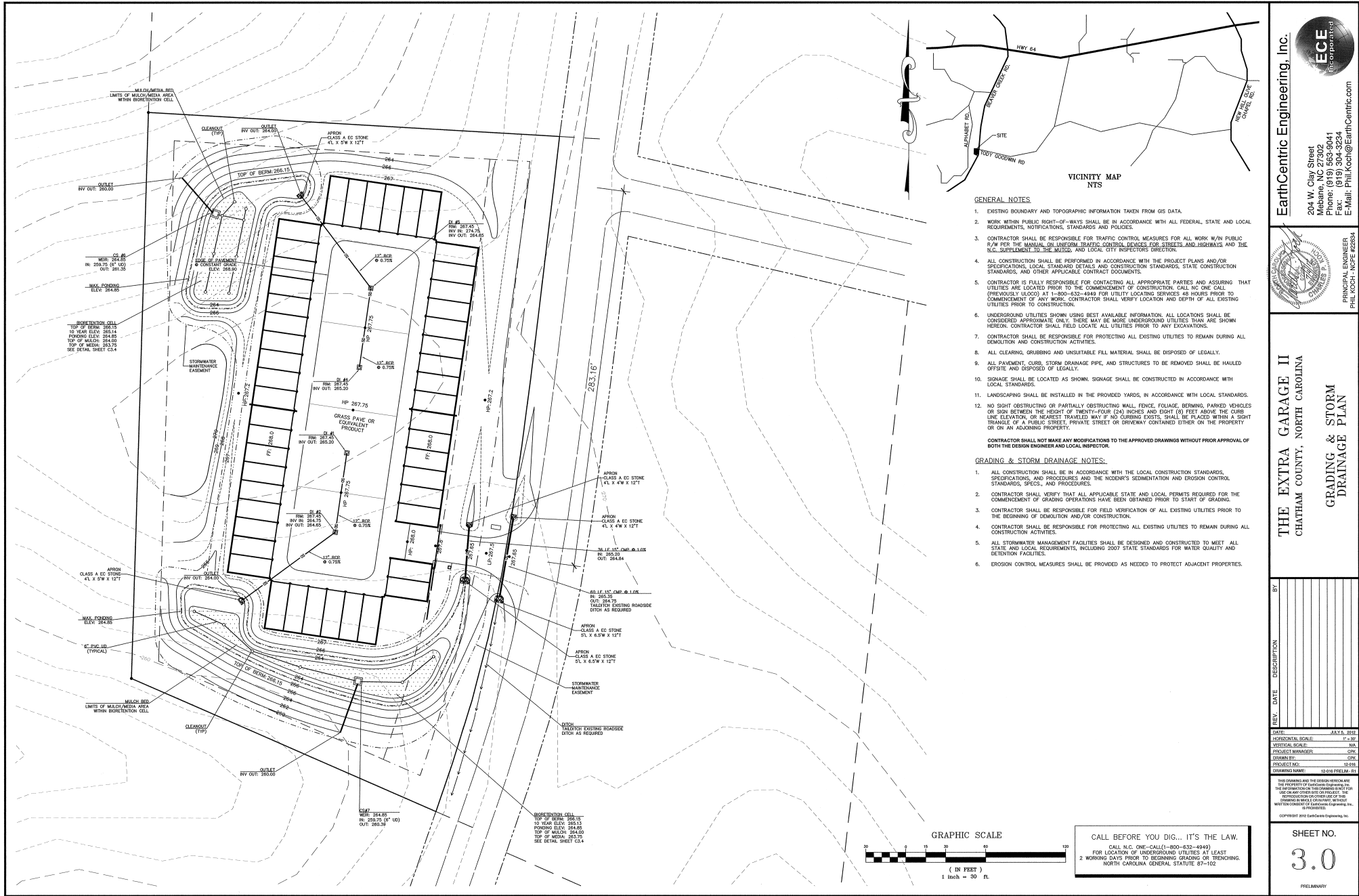
OWNER/DEVELOPER:  
WALTER LEWIS

REVISIONS

DRAWN	CHECKED
RT	JT
SCALE	DATE
as shown	7/6/12
TITLE	

## Architectural Elevations

FILE NO.	JOB NO.
SCALE	SHEET NO.



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E-Mail: Phil.Kodi@EarthCentric.com

PHIL KODI - P.E.  
PRINCIPAL ENGINEER  
N.C. REG. NO. 15000

THE EXTRA GARAGE II  
CHATHAM COUNTY, NORTH CAROLINA  
GRADING & STORM  
DRAINAGE PLAN

REV.	DATE	DESCRIPTION	BY

DATE: 05/16/2012

HORIZONTAL SCALE: 1" = 30'

VERTICAL SCALE: 1" = 10'

PROJECT MANAGER: CPM

DRAWN BY: CPM

PROJECT NO.: 10-010

DRAWING NAME: 10-010 PRELIM. 01

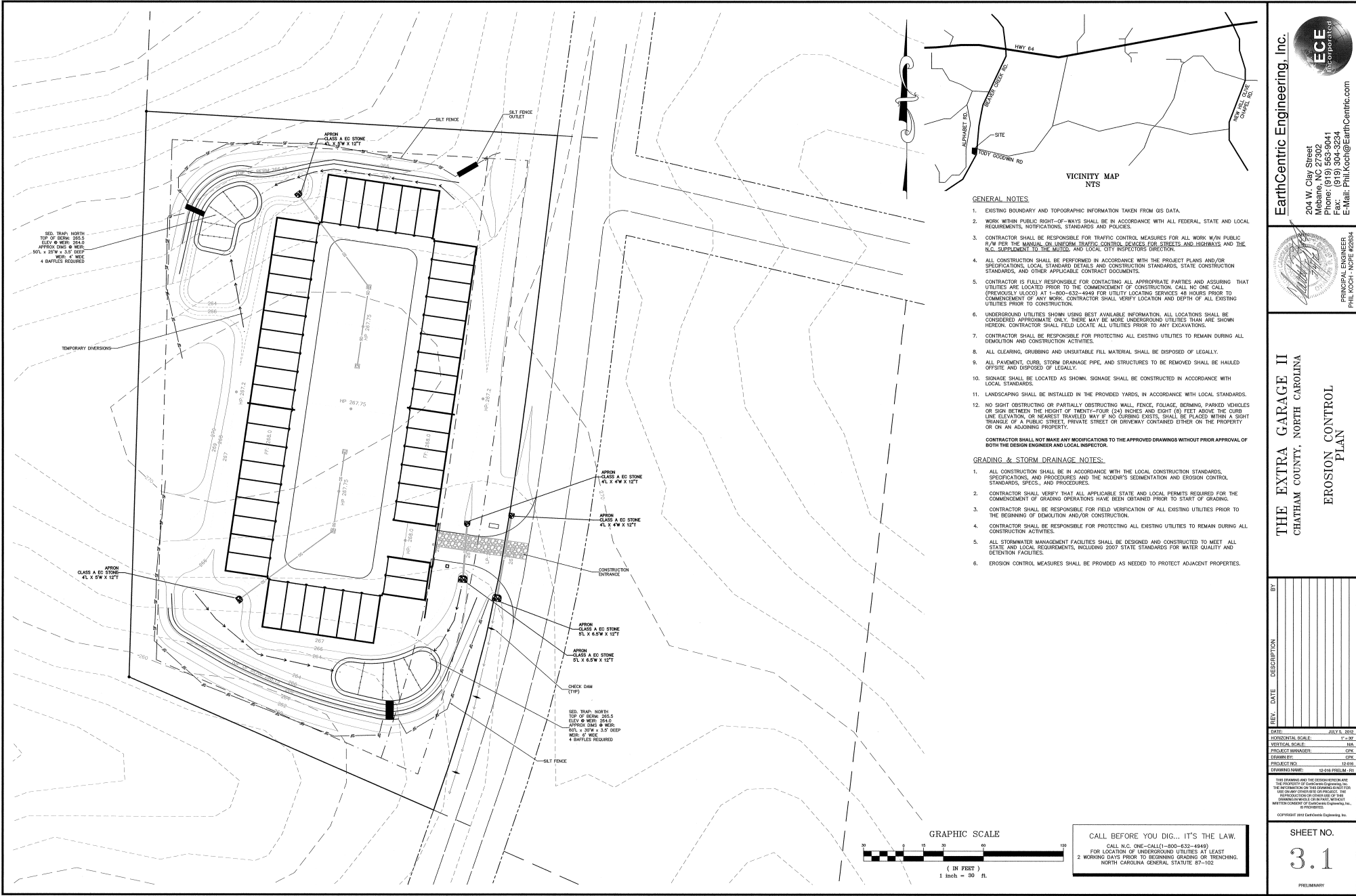
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SHEET NO.

3.0

PRELIMINARY



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E-Mail: Phil.Koch@EarthCentric.com

**THE EXTRA GARAGE II**  
CHATHAM COUNTY, NORTH CAROLINA

**EROSION CONTROL PLAN**

REV.	DATE	DESCRIPTION	BY

DATE	JULY 5, 2025
HORIZONTAL SCALE	1" = 30'
VERTICAL SCALE	N/A
PROJECT MANAGER	CPK
DESIGNER	CPK
PROJECT NO.	18-016
DRAWING NAME	18-016 (ITEM 1) - ITS
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**SHEET NO.**

**3.1**

PRELIMINARY

CALL BEFORE YOU DIG... IT'S THE LAW.

CALL N.C. ONE-CALL(1-800-632-4949)  
FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST  
2 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.  
NORTH CAROLINA GENERAL STATUTE 87-102

## PERMANENT SEEDING SCHEDULE:

SEEDING MIXTURE:	RATE (LB/AC)
SPECIES	
TALL FESCUE	80
SERICEA LESPEDEZA	20
KORE LESPEDEZA	10

**SEEDING NOTES:**  
1. AFTER AUGUST 15, USE UNSCARIFIED SERICEA SEED.  
2. WHERE PERIODIC MOWING IS PLANNED OR A HEAT APPRECIATION IS DESIRED, OAT SERICEA AND INCREASE KORE LESPEDEZA TO 40 LB/ACRE.  
3. TO EXTEND SPRING SEEDING DATES INTO JUNE, ADD 15 LB/ACRE HALLO BERMUDA GRASS. HOWEVER, AFTER MID-APRIL IT IS PREFERABLE TO SEED TEMPORARY COVER.

**NURSE PLANTS:**  
BETWEEN MAY 1 AND AUG. 15, ADD 10 LB/ACRE GERMAN MILLET OF 15 LB/ACRE SUDAN GRASS. PRIOR TO MAY 1 OR AFTER AUG. 15 ADD 40 LB/ACRE RYE (GRASS).

**SEEDING DATES:**  
FALL: BEST FOR TALL FESCUE AND LATE WINTER FOR LESPEDEZAS.  
LATE WINTER: AUG. 28 - BEST, POSSIBLE  
FEB. 15 - MAR. 21, FEB. 20 - OCT. 25  
FEB. 1 - APR. 15

**SOIL AMENDMENTS:**  
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER. LOCUST, APPLY NO FERTILIZER TO AREAS WITH THE NEAR RIVER RIPARIAN BUFFERS.

**MULCH:**  
APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR ROPING OR BY CRIMPING WITH A MULCH ANCHORING TOOL. A DISK WITH BLADES NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

## TEMPORARY SEEDING SCHEDULES

SEEDING MIXTURE:	RATE (LB/AC)
SPECIES	
TALL FESCUE	120
ANNUAL LESPEDEZA (KORE IN THE MOUNTAINS)	50

**SEEDING DATES:**  
MOUNTAINS - ABOVE 2500 FT. FEB. 15 - MAY 15  
MOUNTAINS - BELOW 2500 FT. FEB. 1 - MAY 1  
PREMOUNT - 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:**  
RE-FERTILIZE IF GROWTH IS NOT FULLY ADEQUATE, RESEED, RESEED, RESEED AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**TABLE 6.100 TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER**

SEEDING MIXTURE:	RATE (LB/AC)
SPECIES	
GERMAN MILLET	40

**SEEDING DATES:**  
MOUNTAINS - MAY 15 - AUG. 15  
PREMOUNT - MAY 1 - AUG. 15  
COASTAL PLAIN - 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:**  
RE-FERTILIZE IF GROWTH IS NOT FULLY ADEQUATE, RESEED, RESEED, RESEED AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE.

**TABLE 6.100 TEMPORARY SEEDING RECOMMENDATIONS FOR FALL**

SEEDING MIXTURE:	RATE (LB/AC)
SPECIES	
TALL FESCUE	120

**SEEDING DATES:**  
MOUNTAINS - AUG. 15 - DEC. 15  
PREMOUNT - AUG. 15 - DEC. 30  
COASTAL PLAIN - APR. 15 - AUG. 15

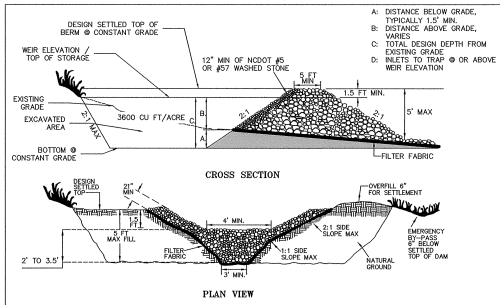
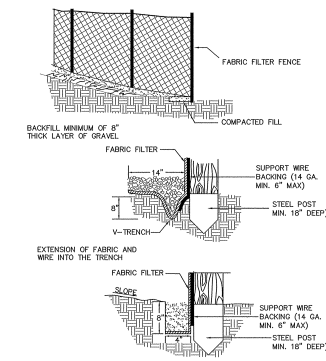
**SOIL AMENDMENTS:**  
FOLLOW SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER.

**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 RESEED DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVER-SEED WITH 50 LB/ACRE KORE (PREMOUNT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

## STABILIZATION TIME TABLE

SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERMITTER DITCHES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HWQ) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES > 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERMITTER DITCHES AND SLOPES



## TEMPORARY SEDIMENT TRAP

**CONSTRUCTION SPECIFICATIONS:**

1. CLEAR GRUBS AND STOP THE AREA UNDER THE EMBANKMENT OF ALL VEGETATION AND OBJECT MAT. REMOVE ALL SURFACE SOIL CONTAINING HIGH AMOUNTS OF ORGANIC MATTER AND STOCKPILE OR DISPOSE OF IT PROPERLY. Haul all obstructive material to the designated disposal area.
2. ENSURE THAT FILL MATERIAL FOR THE EMBANKMENT IS FREE OF ROOTS, WOODY VEGETATION, ORGANIC MATTER, AND OTHER OBSTRUCTIVE MATERIALS. TESTS TO DETERMINE THE FILL IN LOTS NOT TO EXCEED 8 INCHES AND MACHINE COMPACT IT. OVER FILL THE EMBANKMENT 8 INCHES TO ALLOW FOR SETTLEMENT.
3. CONSTRUCT THE CULVERT SECTION IN THE EMBANKMENT, PROTECT THE CONSTRUCTION BETWEEN THE RIPRAP AND THE SOIL FROM PERIMETERS BY USING FILTER FABRIC OR A KEYWAY CUTOFF TRENCH BETWEEN THE RIPRAP STRUCTURE AND THE SOIL.
  - PLACE THE FILTER FABRIC BETWEEN THE RIPRAP AND SOIL. EXTEND THE FABRIC ACROSS THE SPILLWAY FOUNDATION AND SIDES TO THE TOP OF THE DAM OR
  - EXCAVATE A KEYWAY TRENCH ALONG THE CENTRELINE OF THE SPILLWAY FOUNDATION EXTENDING UP THE SIDES TO THE HEIGHT OF THE DAM. THE TRENCH SHOULD BE AT LEAST 3 FT DEEP AND 2 FT WIDE WITH 1:1 SIDE SLOPES.
4. CLEAR THE POND AREA BELOW THE ELEVATION OF THE CREST OF THE SPILLWAY TO FACILITATE SEDIMENT CLEANSING.
5. ALL CULVERT AND FILL SLOPES MUST BE 2:1 OR FLATTER.
6. ENSURE THAT THE STONE (GRANULE) SECTION OF THE EMBANKMENT HAS A MINIMUM BOTTOM WIDTH OF 3 FT AND MAXIMUM SIDE SLOPES OF 1:1 THAT EXTEND TO THE BOTTOM OF THE SPILLWAY SECTION.
7. CONSTRUCT THE MINIMUM FINISHED STONE SPILLWAY BOTTOM WIDTH, AS SHOWN ON THE PLANS, WITH 2:1 SIDE SLOPES EXTENDING TO THE TOP OF THE OVER FILL EMBANKMENT. KEEP THE THICKNESS OF THE SIDES OF THE SPILLWAY OUTLET STRUCTURE AT A MINIMUM OF 21 INCHES. THE WEIR MUST BE LEVEL AND CONSTRUCTED TO GRADE TO ADEQUATE DESIGN CAPACITY.
8. MATERIAL USED IN THE STONE SECTION SHOULD BE A WELL-GRADED MIXTURE OF STONE WITH A D<sub>50</sub> SIZE OF 9 INCHES (CLASS B EROSION CONTROL STONE IS RECOMMENDED) AND A MAXIMUM STONE SIZE OF 14 INCHES. THE STONE MAY BE BACHING PLACED AND THE SMALLER STONES WORKED INTO THE Voids OF THE LARGER STONES. THE STONE SHOULD BE HAND, ANGULAR, AND HIGHLY WEATHER-RESISTANT.
9. DISCHARGE INLET WATER INTO THE BASIN IN A MANNER TO PREVENT EROSION. USE TEMPORARY SLOPE GRASS OR DISCHARGES WITH OUTLET PROTECTION TO INVERT SEDIMENT-LADEN WATER TO THE UPPER END OF THE POND AREA TO IMPROVE BASIN TRAP EFFICIENCY (PREFERENCES: REMOY CONTROL MEASURES AND OUTLET PROTECTION).
10. ENSURE THAT THE STONE SPILLWAY OUTLET SECTION EXTENDS DOWNSTREAM PAST THE TOP OF THE EMBANKMENT UNTIL STABLE CONDITIONS ARE REACHED AND OUTLET VELOCITY IS ACCEPTABLE FOR THE RECEIVING STREAM. KEEP THE EDGES OF THE STONE OUTLET SECTION FLUSH WITH THE SURROUNDING GROUND, AND SHAPE THE CENTER TO COMBINE THE OUTFLOW STREAM (PREFERENCES: OUTLET PROTECTION).
11. DIRECT EROSION BYPASS TO NATURAL STEADY AREAS. LOCATE BYPASS OUTLETS SO THAT FLOW WILL NOT DAMAGE THE EMBANKMENT.
12. STABILIZE THE EMBANKMENT AND ALL DISTURBED AREAS ABOVE THE SEDIMENT POOL AND DOWNSTREAM FROM THE TRAP IMMEDIATELY AFTER CONSTRUCTION (PREFERENCES: SURFACE STABILIZATION).
13. SHOW THE DISTANCE FROM THE TOP OF THE SPILLWAY TO THE SEDIMENT LAUNCH LEVEL (ONE-HALF THE DESIGN BOTTOM) ON THE PLANS AND MARK IT IN THE FIELD.
14. INSTALL POROUS BARRIERS AS SPECIFIED IN PRACTICE 6.65, POROUS BARRIERS.

**MAINTENANCE:**

INSPECT TEMPORARY SEDIMENT TRAPS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 inch OR GREATER) 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 THE DESIGNATED DEPOSITS AND REPLACE THE PART OF THE GRAVEL FACING THAT IS IMPAIRED BY SEDIMENT.

IF THE STRUCTURE FOR DAMAGE FROM EROSION OR PILING. IMMEDIATELY OPEN THE BOTTOM OF THE SPILLWAY TO ENSURE IT IS AT A MINIMUM OF 1.5 FT BELOW THE LOW POINT OF THE EMBANKMENT. IMMEDIATELY FILL ANY SETTLEMENT OF THE EMBANKMENT TO EXPOSE ABOVE DESIGN GRADE. ANY RIPRAP DISPLACED FROM THE SPILLWAY MUST BE REPLACED IMMEDIATELY.

AFTER ALL SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJACENT AREAS AND STABILIZE PROPERLY (PREFERENCES: SURFACE STABILIZATION).

## PROJECT INFORMATION

**PROJECT DESCRIPTION:**  
THE PURPOSE OF THE PROJECT IS TO CONSTRUCT A 48 UNIT RV STORAGE FACILITY ON A 3.06 ACRE LOT. SITE LOCATED IN CHATHAM COUNTY ON BEVER CREEK ROAD (SEE VIGNET MAP).

**SITE DESCRIPTION:**  
THE SITE IS CURRENTLY A 3.06 ACRE, WOODED SITE. THE SITE SLOPES TO THE NORTH & SOUTH FROM A HIGH POINT CENTRALLY LOCATED. SLOPES ARE IN THE 5 - 15% RANGE.

**ADJACENT PROPERTY:**  
LAND USE IN THE VICINITY IS MOSTLY RURAL, UNDEVELOPED TRACTS.

## NARRATIVE

**PLANNED EROSION AND SEDIMENTATION CONTROL PRACTICES**

**CONSTRUCTION ENTRANCE/EXIT:**  
A CONSTRUCTION ENTRANCE/EXIT IS PROVIDED AT THE ACCESS POINT TO THE SITE TO REDUCE SEDIMENTATION DEPOSIT ON THE EXISTING ROADWAY.

**SEDIMENT FENCE:**  
SEDIMENT FENCE WILL BE CONSTRUCTED ALONG THE DOWNSTREAM PERIMETER OF THE PROPOSED RIGHT-OF-WAY. SILT FENCE OUTLETS ARE LOCATED ALONG THE LOW POINTS IN THE SEDIMENT FENCE WHERE NECESSARY AND WHERE SEDIMENT FENCE WRAPS BELOW THE BERMS OF SEDIMENT TRAPS.

**SEDIMENT TRAPS:**  
SEDIMENT TRAPS ARE LOCATED AT THE ENDS OF EACH CUL-DE-SAC AND AT LOW POINTS OF DITCHES TO FILTER SEDIMENT LADEN RUNOFF FROM THE RIGHT-OF-WAY CONSTRUCTION PRIOR TO RELEASE TO NATURAL DRAINAGE WAYS.

**DIVERSION DITCHES/BERMS:**  
DIVERSION DITCHES AND BERMS ARE LOCATED AS NECESSARY TO DIRECT SEDIMENT LADEN RUNOFF TO FILTERING DEVICES OR DIRECT CLEAN RUNOFF AROUND THE AREAS OF DISTURBANCE.

**CHECK DAMS/DITCH LINES:**  
CHECK DAMS ARE PROVIDED ALONG THE PERMANENT DITCH IN ORDER TO REDUCE EROSION VELOCITIES IN THE PROPOSED ROADSIDE DITCHES. UPON FINAL GRADING, CHECK DAMS WILL BE RICHED STRAW REPLACED WITH THE TEMPORARY DITCH LINES NOTED ON THE PLANS.

**TEMPORARY/PERMANENT SEEDING:**  
TEMPORARY AND PERMANENT SEEDING ARE REQUIRED AT ANY POINT IN WHICH CONSTRUCTION ACTIVITIES CEASE FOR MORE THAN 14 DAYS.

**INLET/OUTLET PROTECTION:**  
RIP RAP APRONS ARE SPECIFIED AT ALL CULVERT LOCATIONS TO DISSIPATE FLOODS ENTERING/EXITING THE STORM DRAINAGE SYSTEM.

## CONSTRUCTION SCHEDULE

1. OBTAIN ALL PLAN APPROVALS AND OTHER APPLICABLE PERMITS.
2. HOLD PRECONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
3. INSTALL CONSTRUCTION ENTRANCE.
4. CLEAR SITE AS NECESSARY TO INSTALL PERIMETER MEASURES. INSTALL PERIMETER MEASURES AND SEDIMENT TRAPS. STABILIZE TRAPS AND DIVERSIONS IMMEDIATELY UPON CONSTRUCTION.
5. COMPLETE SITE CLEARING AND STRIPPING.
6. INSTALL ENTRANCE PIPES AND ASSOCIATED APRONS.
7. ROUGH GRADE PARKING FACILITY.
8. INSTALL STORM DISTRIBUTION SYSTEM. INSTALL INLET PROTECTION IMMEDIATELY UPON COMPLETION OF EACH INLET.
9. GRADE SUBGRADE & BUILDING PAD.
10. INSTALL ABC STONE AND COMPACT.
11. POUR CONCRETE PAD FOR BUILDING.
12. PAVE ENTRANCE AND PARKING AREA.
13. INSTALL GRASSPAVE.
14. STABILIZE ALL DISTURBED AREAS AND CONSTRUCT APRONS.
15. ONCE ALL UPSTREAM AREAS HAVE BEEN STABILIZED & A BUILDING IS COMPLETE, REMOVE SEDIMENT BASINS AND CONSTRUCT PERMANENT BIRPS. INSTALL CONTROL STRUCTURE, BARRIERS, AND APRONS AS NOTED AND STABILIZE AREAS IMMEDIATELY.
16. INSPECT ALL EROSION AND SEDIMENT CONTROL PRACTICES WEEKLY AND AFTER RAINFALL EVENTS. MAKE NEEDED REPAIRS IMMEDIATELY.
17. AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.

## MAINTENANCE PLAN

1. CHECK ALL EROSION AND SEDIMENT CONTROL PRACTICES FOR STABILITY AND OPERATION FOLLOWING EVERY RAINFALL PRODUCING RUNOFF BUT IN NO CASE LESS THAN ONCE EVERY WEEK. MAKE ANY NEEDED REPAIRS IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. FOLLOW ALL APPLICABLE REQUIREMENTS OF NPDES PHASE II PERMIT.
2. REMOVE SEDIMENT FROM BEHIND SILT FENCE OUTLETS AND STONE FILTERS WHEN STORAGE CAPACITY HAS BEEN APPROXIMATELY 50% FILLED. CLEAN OR REPLACE GRAVEL ON OUTLETS WHEN THE WATER POOLS ARE AND IS NO LONGER DRAINING PROPERLY.
3. SEED AND STABILIZE ALL DISTURBED AREAS WITHIN 15 DAYS OF THE COMPLETION OF ANY PHASE OF GRADING. FERTILIZE ALL SEEDED AREAS, RESEED AS NECESSARY, AND MULCH ACCORDING TO THE SEEDING SCHEDULE TO MAINTAIN A MOODSUS, DENSE VEGETATIVE COVER.

## NPDES PERMIT REQUIREMENTS

**MINIMUM MONITORING AND REPORTING REQUIREMENTS**

MINIMUM MONITORING AND REPORTING REQUIREMENTS ARE AS FOLLOWS UNLESS OTHERWISE APPROVED IN WRITING BY THE DIRECTOR OF THE DIVISION OF ENVIRONMENTAL MANAGEMENT.

**MINIMUM MONITORING AND REPORTING REQUIREMENTS ARE AS FOLLOWS UNLESS OTHERWISE APPROVED IN WRITING BY THE DIRECTOR OF THE DIVISION OF ENVIRONMENTAL MANAGEMENT.**

1. ALL SEDIMENTATION AND EROSION CONTROL FACILITIES SHALL BE INSPECTED BY OR UNDER THE DIRECTION OF THE PERMITTEE AT LEAST EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF RAIN FOR 24 HOUR PERIOD.

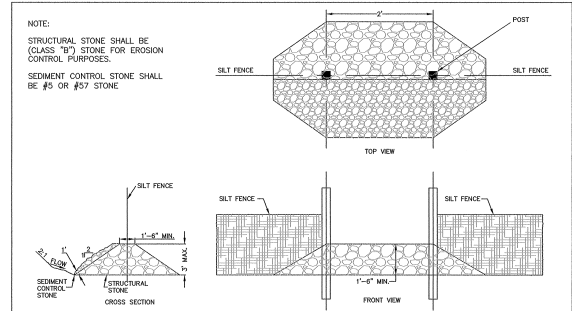
2. STORMWATER RUNOFF DISCHARGES SHALL BE INSPECTED BY OBSERVATION FOR STORMWATER DISCHARGE CHARACTERISTICS AS DEFINED BELOW AT THE ABOVE MONITORING LOCATIONS. THE PERMITTEE SHALL EVALUATE THE EFFECTIVENESS OF THE POLLUTION CONTROL FACILITIES OR PRACTICES IF ANY VISIBLE OFF-SITE SEDIMENTATION IS LEAVING THE SITE. CORRECTIVE ACTION SHALL BE TAKEN TO REDUCE THE DISCHARGE OF SEDIMENTS.

Stormwater Discharge Characteristics	Monitoring Type	Monitoring Location
Color	SDO	SDO
Clarity	SDO	SDO
Floating Solids	SDO	SDO
Suspended Solids	SDO	SDO
Foam	SDO	SDO
Oil/Sheen	SDO	SDO
Other obvious indicators of stormwater pollution	SDO	SDO

**FOOTNOTES:**

1. MONITORING TYPE: THE MONITORING REQUIRES A QUALITATIVE OBSERVATION OF EACH STORMWATER OUTFALL. NO ANALYTICAL TESTING OR SAMPLING IS REQUIRED.
2. A SAMPLE LOCATION: STORMWATER DISCHARGE OUTFALL (SDO)
3. THE OPERATOR SHALL KEEP A RECORD OF INSPECTIONS. VISIBLE SEDIMENTATION FOUND OFF SITE SHALL BE RECORDED WITH A BRIEF EXPLANATION AS TO THE REASONS THEREOF. IF THE MONITORING REVEALS ANY SIGNIFICANT TRENDS TO CLEAN UP THE SEDIMENT THAT HAS LEFT THE SITE, THIS RECORD SHALL BE MADE AVAILABLE TO USE OR AUTHORIZED ACTION UPON REQUEST. RECORDS SHALL BE MAINTAINED ON-SITE AT ALL TIMES.
4. PERMITTEE SHALL AT ALL TIMES PROVIDE THE OPERATION AND MAINTENANCE EFFICIENCY. THE PERMITTED STORMWATER CONTROLS AT OPTIMUM EFFICIENCY.

## SILT FENCE OUTLET



**EarthCentric Engineering, Inc.**

204 W. Clay Street  
Mebane, NC 27302  
Phone: (919) 563-9041  
Fax: (919) 304-3294  
E-Mail: Phil.Koch@EarthCentric.com

**EC**  
Engineering  
Centric

**PRINCIPAL ENGINEER**  
PHIL KOCH - NCPE #22504

**THE EXTRA GARAGE II**  
CHATHAM COUNTY, NORTH CAROLINA

**EROSION CONTROL DETAILS**

**BY DATE DESCRIPTION**

**DATE:** JUL 5, 2011

**HORIZONTAL SCALE:** 1" = 30'

**VERTICAL SCALE:** 1" = 5'

**PROJECT MANAGER:** CMC

**DRAWN BY:** CMC

**CHECKED BY:** CMC

**CROWNING NAME:** 12-016 PRELIM - 3.2

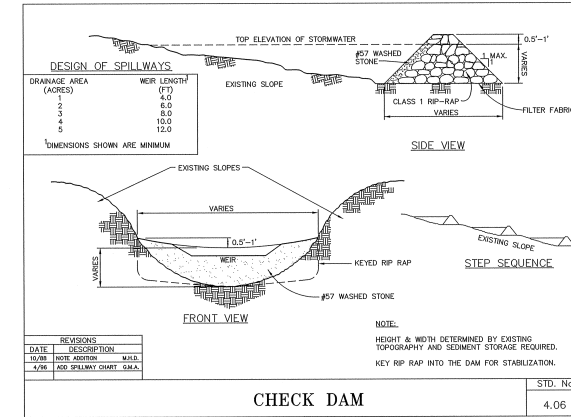
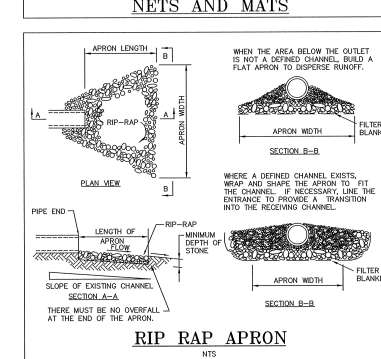
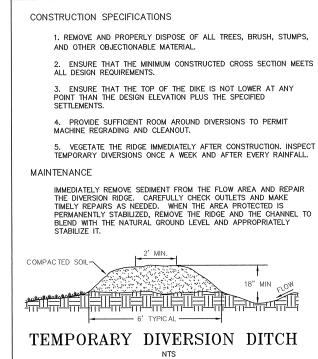
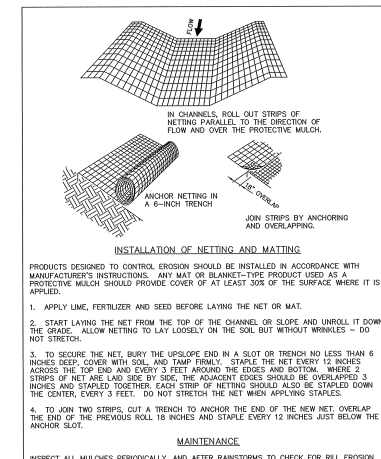
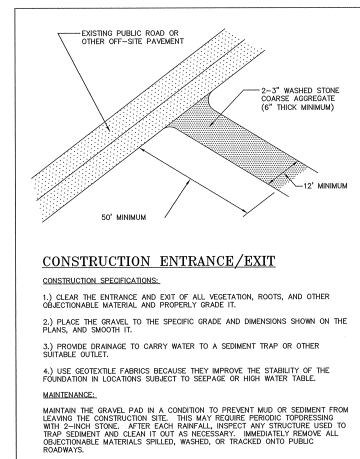
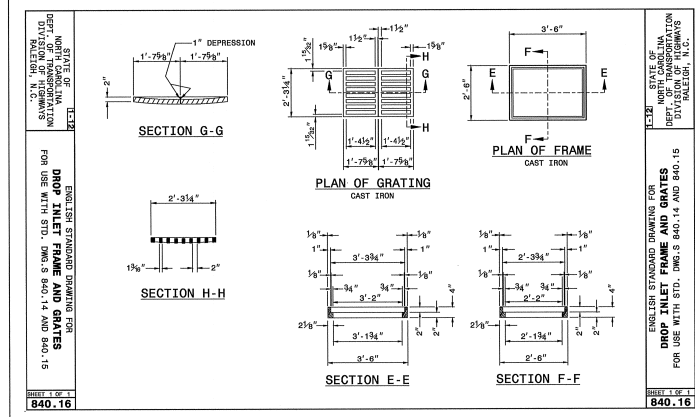
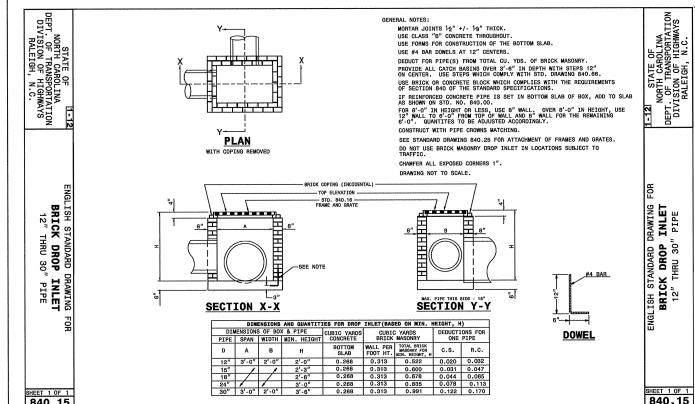
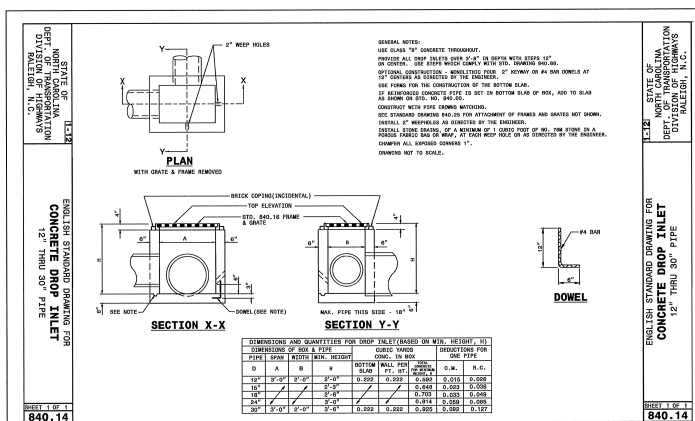
**SHEET NO.**  
**3.2**

**PREPARED BY:** Phil.Koch@EarthCentric.com

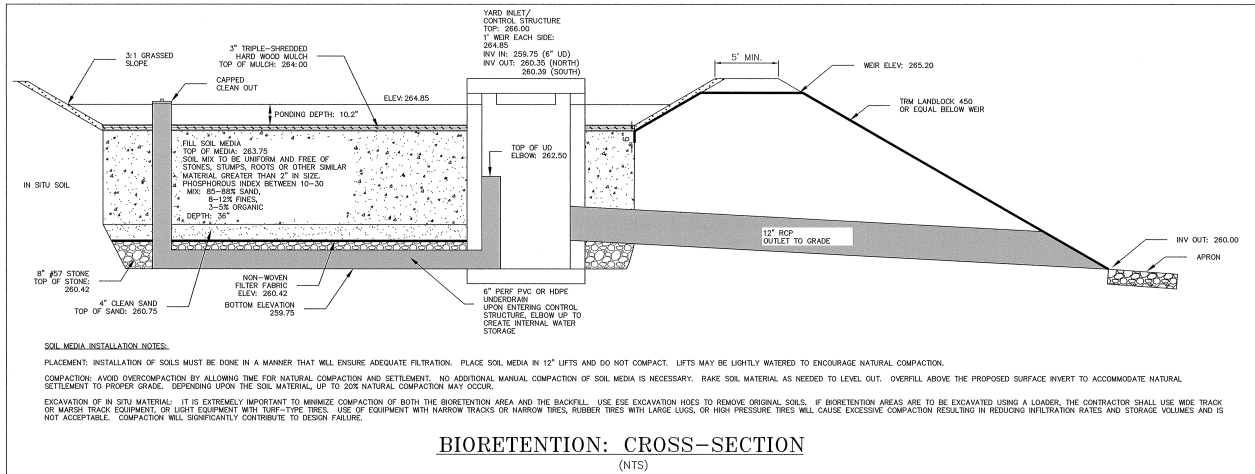
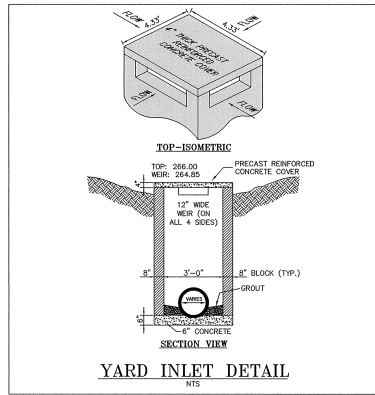
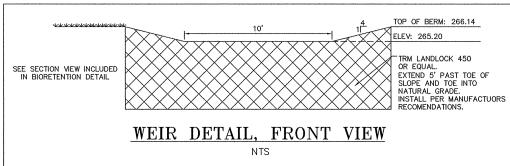
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**WITNESSED AND SIGNED:** Phil.Koch@EarthCentric.com

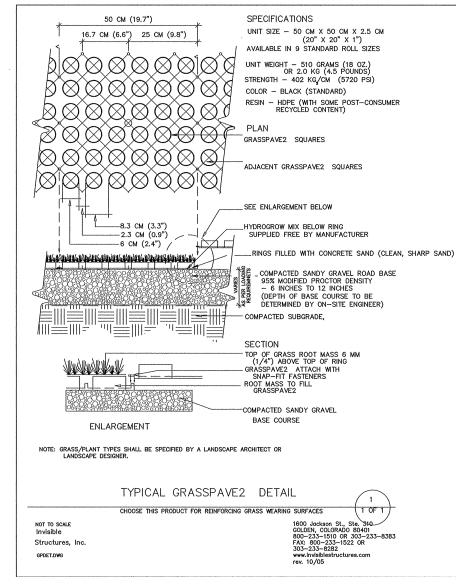
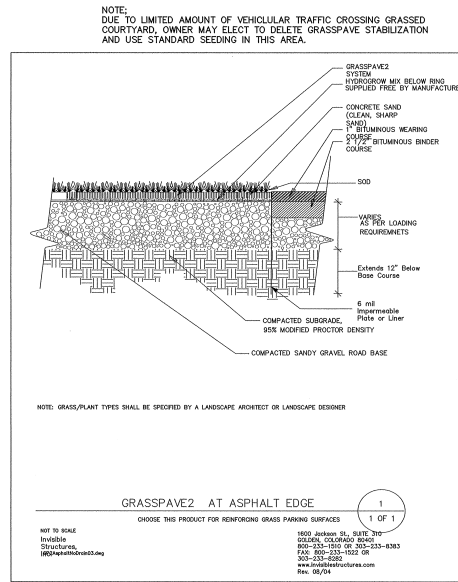
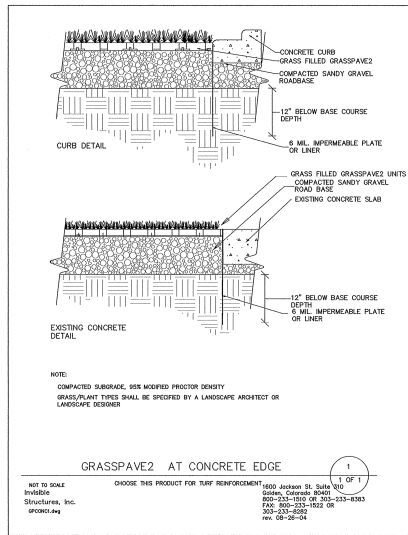
**CONTRACT NO. 12-016 PRELIM - 3.2**







BIORETENTION: CROSS-SECTION  
(NTS)



**EarthCentric Engineering, Inc.**  
204 W. Clay Street  
Mebane, NC 27302  
Phone: (919) 563-9041  
Fax: (919) 304-3234  
E-Mail: Phil.Koch@EarthCentric.com

**THE EXTRA GARAGE II**  
CHATHAM COUNTY, NORTH CAROLINA  
**STORMWATER & GRASSPAVE 2 DETAILS**

REV.	DATE	DESCRIPTION
1	JULY 6, 2011	ISSUED FOR CONSTRUCTION
2	JULY 6, 2011	ISSUED FOR CONSTRUCTION
3	JULY 6, 2011	ISSUED FOR CONSTRUCTION
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5	JULY 6, 2011	ISSUED FOR CONSTRUCTION
6	JULY 6, 2011	ISSUED FOR CONSTRUCTION
7	JULY 6, 2011	ISSUED FOR CONSTRUCTION
8	JULY 6, 2011	ISSUED FOR CONSTRUCTION
9	JULY 6, 2011	ISSUED FOR CONSTRUCTION
10	JULY 6, 2011	ISSUED FOR CONSTRUCTION

**SHEET NO.**  
**3.4**  
PRELIMINARY