

# NEW LIFE FELLOWSHIP SDA CHURCH

## 166 WEAVER DAIRY ROAD, CHAPEL HILL NC



**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA  
**COVER SHEET**

- GENERAL NOTES**
- EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY DATA SUPPLIED BY R. S. JONES AND ASSOCIATES, INC. SITE PLAN DESIGN BY SHAW DESIGN ASSOCIATES.
  - WORK WITHIN PUBLIC RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS, NOTIFICATIONS, STANDARDS AND POLICIES.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL MEASURES FOR ALL WORK W/IN PUBLIC R/W PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE N.C. SUPPLEMENT TO THE MUTCD, AND LOCAL CITY INSPECTORS DIRECTION.
  - ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT PLANS AND/OR SPECIFICATIONS, LOCAL STANDARD DETAILS AND CONSTRUCTION STANDARDS, STATE CONSTRUCTION STANDARDS, AND OTHER APPLICABLE CONTRACT DOCUMENTS.
  - CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING ALL APPROPRIATE PARTIES AND ASSURING THAT UTILITIES ARE LOCATED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CALL NC ONE CALL (PREVIOUSLY 11000) AT 1-800-632-4949 FOR UTILITY LOCATING SERVICES 48 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - UNDERGROUND UTILITIES SHOWN USING BEST AVAILABLE INFORMATION. ALL LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE MORE UNDERGROUND UTILITIES THAN ARE SHOWN HEREON. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO ANY EXCAVATIONS.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO REMAIN DURING ALL DEMOLITION AND CONSTRUCTION ACTIVITIES.
  - ALL CLEARING, GRUBBING AND UNSUITABLE FILL MATERIAL SHALL BE DISPOSED OF LEGALLY.
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- GRADING & STORM DRAINAGE NOTES:**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL CONSTRUCTION STANDARDS, SPECIFICATIONS, AND PROCEDURES AND THE NCDENR'S SEDIMENTATION AND EROSION CONTROL STANDARDS, SPECS., AND PROCEDURES.
  - CONTRACTOR SHALL VERIFY THAT ALL APPLICABLE STATE AND LOCAL PERMITS REQUIRED FOR THE COMMENCEMENT OF GRADING OPERATIONS HAVE BEEN OBTAINED PRIOR TO START OF GRADING.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF DEMOLITION AND/OR CONSTRUCTION.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO REMAIN DURING ALL CONSTRUCTION ACTIVITIES.
  - ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED AND CONSTRUCTED TO MEET ALL STATE AND LOCAL REQUIREMENTS, INCLUDING 2007 STATE STANDARDS FOR WATER QUALITY AND DETENTION FACILITIES.
  - EROSION CONTROL MEASURES SHALL BE PROVIDED AS NEEDED TO PROTECT ADJACENT PROPERTIES.
  - CONTRACTOR SHALL PROVIDE ALL STAKING, FLAGGING AND/OR FENCING NECESSARY TO PROVIDE PROPER PROTECTION OF THE STREAM BUFFER.

**LEGEND**

	NEW	EXISTING
PROPERTY LINE	---	---
EASEMENT	---	---
SETBACK	---	---
RIGHT-OF-WAY	---	---
CENTERLINES	---	---
CURB & GUTTER	---	---
EDGE OF PAVEMENT	---	---
SIDEWALK	---	---
CREEK	---	---
STRUCTURE NO.	①	①
CATCH BASIN	■	□
YARD INLET	⊙	⊙
STORM DRAINAGE JUNCTION BOX	⊙	⊙
CURB INLET	⊙	⊙
SANITARY SEWER MANHOLE	⊙	⊙
SANITARY SEWER CLEANOUT	⊙	⊙
METER BOX	⊙	⊙
VALVE	⊙	⊙
FIRE HYDRANT	⊙	⊙
FIRE DEPARTMENT CONNECTION	⊙	⊙
LIGHT POLE	⊙	⊙
UTILITY POLE AND GUY WIRE	⊙	⊙
CABLE TV LINE	TV	XTV
ELECTRIC	E	XE
FIBER OPTIC CABLE	FO	XFO
GAS LINE	G	XG
OVERHEAD UTILITY LINE	OH	XOH
SANITARY SEWER	SS	XSS
STORM DRAIN PIPE	SD	XSD
TELEPHONE	T	XT
WATER LINE	W	XW
GRADE CONTOUR	400	XW
FINISHED GRADE SPOT ELEVATION	356.44	356.44
CLEARING LIMIT/TREE LINE	---	---
LIMITS OF DISTURBANCE	---	---
DITCH OR SWALE FLOWLINE	---	---
TREE PROTECTION FENCE	---	---
SILT FENCE	---	---
FENCE	X	X
RIP RAP APRON	---	---
CHECK DAM	---	---
SEDIMENT FENCE OUTLET	---	---
INLET PROTECTION	---	---
WHEELCHAIR RAMP	---	---
ELECTRICAL TRANSFORMER	---	---

EIP EXISTING IRON PIPE  
 EIR EXISTING IRON ROD  
 NIR NEW IRON ROD  
 NS PK NAIL SET  
 CP COMPUTED POINT R/W

**PROJECT DATA**

PIN #	9890-32-9028 & 9890-32-7289
TMBL#	7.26..26 & 7.25..12G
TRACT#	770652 & 777310
ADDRESS:	166 WEAVER DAIRY ROAD, CHAPEL HILL
DEED REF:	BOOK: 3660 PAGE: 116
PLAT REF:	#1 BIRCHETT & DAVIS P96/144
RCD:	THIS PARCEL IS NOT LOCATED WITHIN THE RESOURCE CONSERVATION DISTRICT AS DEFINED IN THE CHAPEL HILL DEVELOPMENT / LAND USE MANAGEMENT ORDINANCE
BASIN/WATERSHED:	CAPE FEAR / JORDAN LAKE UNPROTECTED
SOILS:	EnC - ENON & CrB - CREEDMOOR
SLOPES:	ALL SLOPES < 10% / NO STEEP SLOPES ON SITE
EXISTING USE:	SINGLE FAMILY HOME W/ OUT-BUILDINGS
EXISTING SIZE:	3.50 ACRES (152,445.99 SF) 0.18 ACRES (7,916.28 SF)
ZONE / GROUP:	CHAPEL HILL - R-2 / USE GROUP B
PROPOSED USE:	CHURCH & FELLOWSHIP HALL (300 SEATS)
PROPOSED NLA:	3.21 ACRES (139,698.86 SF)
PROPOSED GLA:	3.53 ACRES (153,668.75 SF)
MAX. FAR:	153,669 * 0.093 = 14,291 SF
MAX. HEIGHT:	29' PRIMARY / 50' SECONDARY
MIN. PARKING:	1/4 SEATS = 300/4 = 75 (ASSEMBLY)
MAX. PARKING:	1/2.5 SEATS = 300/2.5 = 120 (ASSEMBLY)
MIN. BIKE PARK:	1/40 SEATS (MIN 8) = 300/40 = 8 (ASSEMBLY)

**OWNER:**  
 CAROLINA CONFERENCE  
 ASSOCIATION OF SEVENTH DAY  
 ADVENTISTS INC.  
 2701 E WT HARRIS BLVD.  
 CHARLOTTE, NC 27213

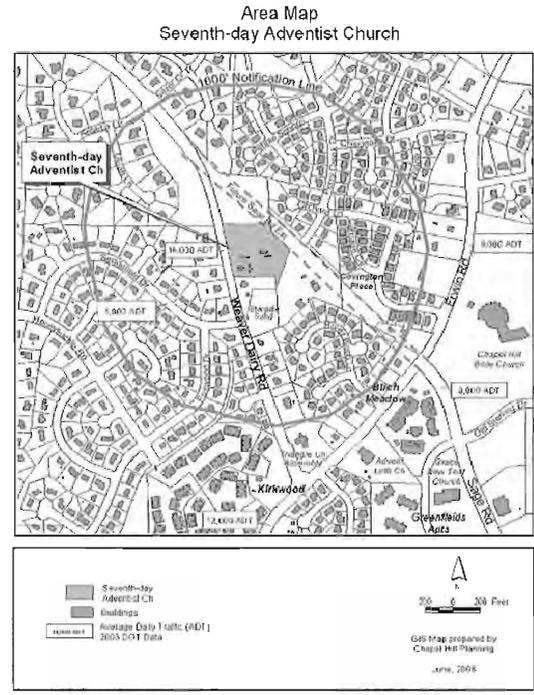
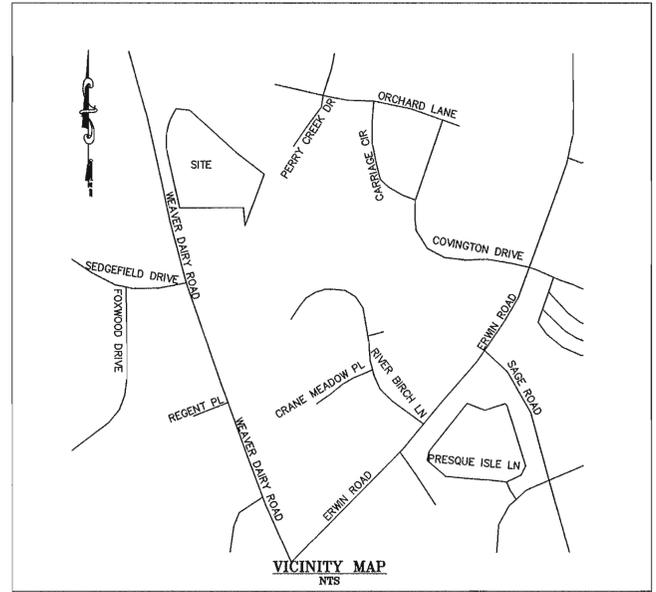
**ENGINEER:**  
 CHARLES P. KOCH P.E.  
 EARTHCENTRIC ENGINEERING, INC.  
 204 WEST CLAY STREET  
 MEBANE, NC 27302  
 PHONE: (919) 563-9041  
 FAX: (919) 304-3234  
 PHIL.KOCH@EARTHCENTRIC.COM

**ARCHITECT / SITE DESIGN:**  
 KEITH SHAW  
 SHAW DESIGN ASSOCIATES, P.A.  
 180 PROVIDENCE ROAD  
 SUITE #8  
 CHAPEL HILL, NC 27514  
 PHONE: (919) 493-0528  
 FAX: (919) 401-1905  
 KEITH@SHAWDESIGN.US

- INDEX OF DRAWINGS:**
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  - C-3 SITE PLAN
  - C-4 GRADING & STORM DRAINAGE
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  - C-6 UTILITY PLAN
  - P-1 SS PLAN & PROFILE
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  - D-2 STORMWATER DETAILS
  - D-3 UTILITY DETAILS
  - D-4 SITE & PAVING DETAILS

**PHASING INFORMATION:**

PHASE 1:	FELLOWSHIP & CLASSROOM BLDG. 7,585 SF
	1,494 SF FELLOWSHIP HALL
	1,494 / 7 = 213 OCCUPANT LOAD
	213/4 (54) = REQ. PARKING SPACES, 70 PROVIDED
PHASE 2:	SANCTUARY & LOBBY, CAPACITY 300
	5,610 TOTAL SF
	87 ADDITIONAL OCCUPANT LOAD
	300/4 = 75 REQ. PARKING SPACES, 97 PROVIDED
TOTAL PROPOSED SQUARE FOOTAGE = 13,195 SF	



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 2 WORKING DAYS PRIOR TO BEGINNING GRADING OR TRENCHING.  
 NORTH CAROLINA GENERAL STATUTE 87-102

**APPROVAL STAMP**

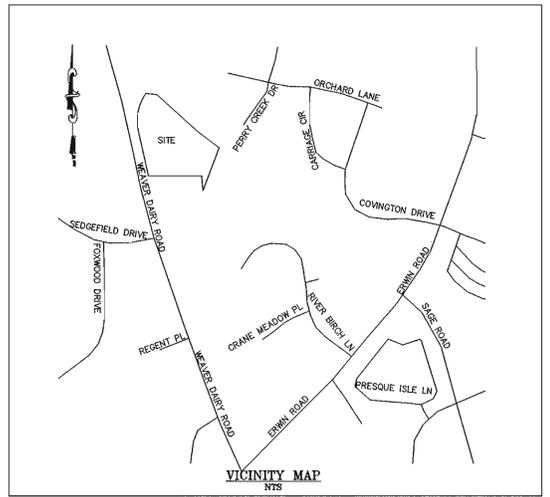
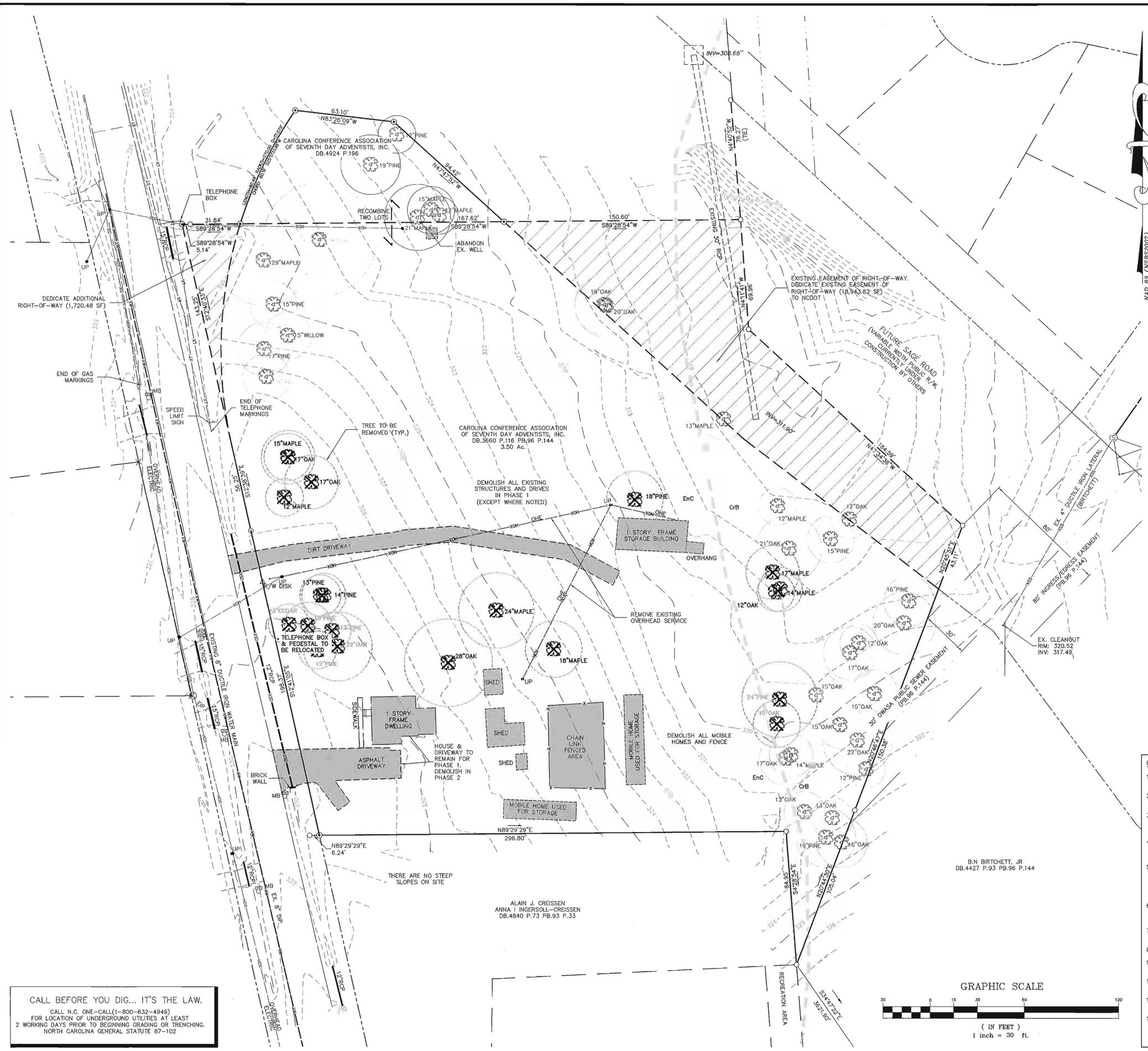
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3	09/20/11	OWASA SUBMITTAL	CPK
4	10/21/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	CPK
7	01/23/13	COVER SHEET CHANGE	SSS

DATE: NOVEMBER 16, 2010  
 HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: N/A  
 PROJECT MANAGER: CPK  
 DRAWN BY: CPK  
 PROJECT NO.: 10-013  
 DRAWING NAME: 10-013 REVIEW

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**SHEET NO.**  
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204 W. Clay Street  
 Mebane, NC 27302  
 Phone: (919) 563-9041  
 Fax: (919) 304-3294  
 E-Mail: Phil.Koch@EarthCentric.com

INCORPORATED

PRINCIPAL ENGINEER  
 PHIL KOCH - NOPE #22834

**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA

**EXISTING CONDITIONS & DEMOLITION PLAN**

REV.	DATE	DESCRIPTION
1	02/19/11	PRE-SUBMITTAL REVISIONS
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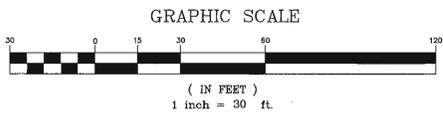
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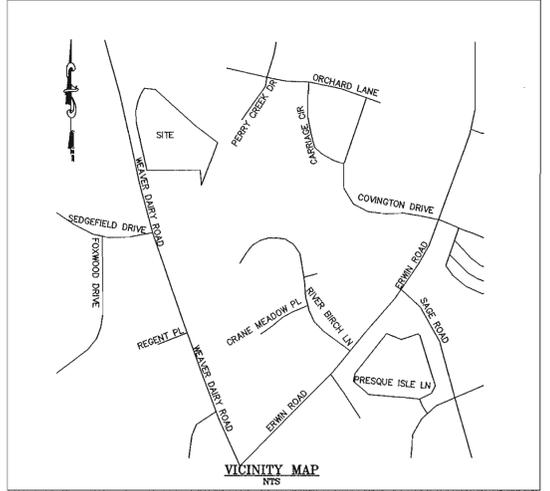
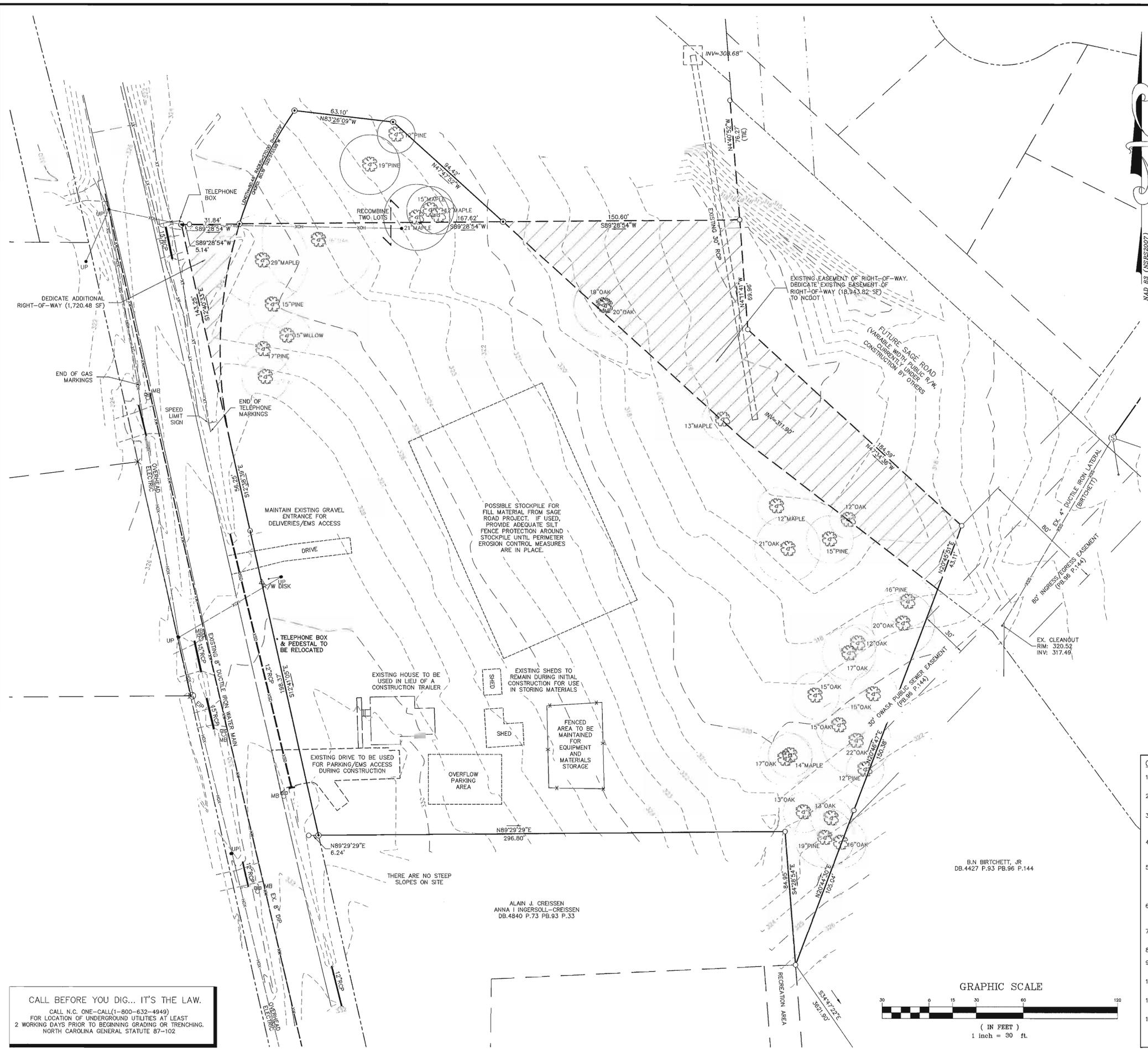
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**SHEET NO.**  
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REVIEW

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PHIL KOCH - NCEP #22834

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CHAPEL HILL, NORTH CAROLINA  
**CONSTRUCTION MANAGEMENT PLAN**

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
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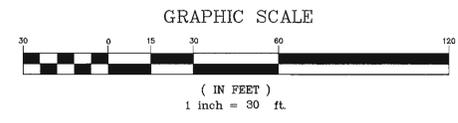
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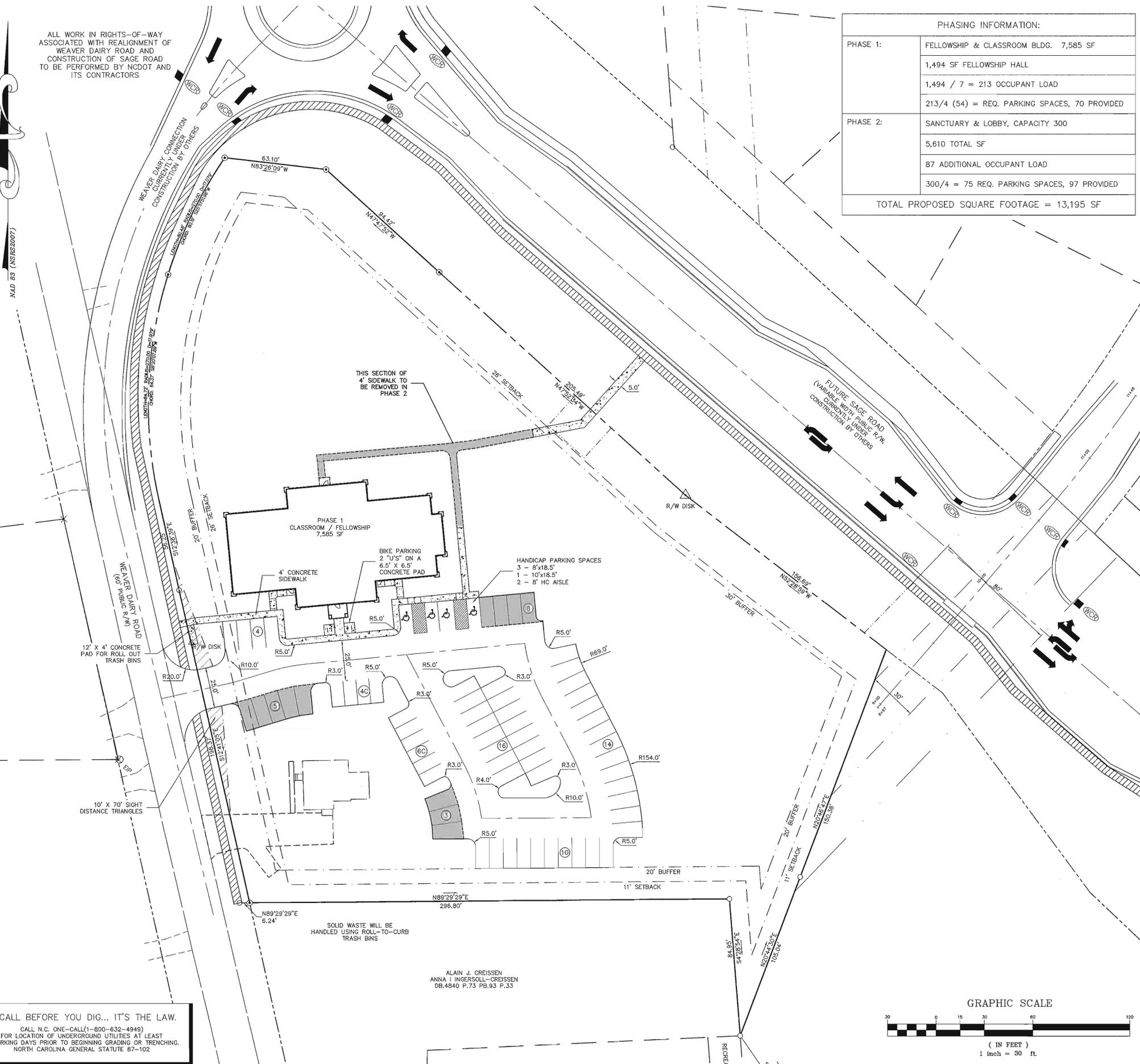


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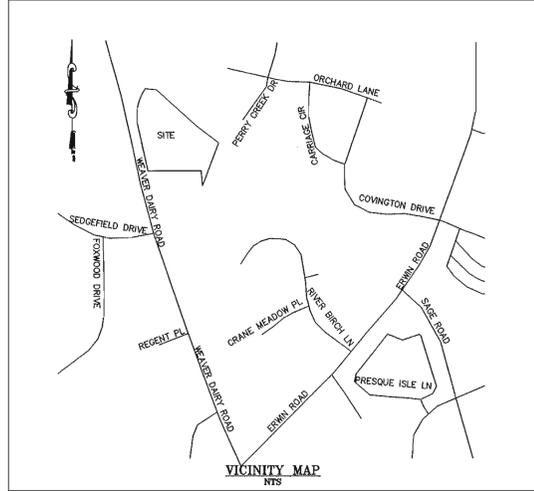
SITE PLAN  
 (PHASE 1)

ALL WORK IN RIGHTS-OF-WAY ASSOCIATED WITH REALIGNMENT OF WEAVER DAIRY ROAD AND CONSTRUCTION OF SAGE ROAD TO BE PERFORMED BY NCDOT AND ITS CONTRACTORS

NAD 83 (NSRS2007)

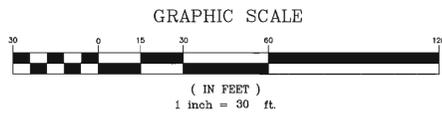


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	1,494 / 7 = 213 OCCUPANT LOAD
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PHASE 2:	SANCTUARY & LOBBY, CAPACITY 300
	5,610 TOTAL SF
	87 ADDITIONAL OCCUPANT LOAD
	300/4 = 75 REQ. PARKING SPACES, 97 PROVIDED
TOTAL PROPOSED SQUARE FOOTAGE = 13,195 SF	



PROJECT DATA	
PIN #	9890-32-9028 & 9890-32-7289
TMBL#	7.26..26 & 7.25..12G
TRACT#	770652 & 777310
ADDRESS:	166 WEAVER DAIRY ROAD, CHAPEL HILL
DEED REF:	BOOK: 3660 PAGE: 116
PLAT REF:	#1 BIRTCHETT & DAVIS P96/144
RCD:	THIS PARCEL IS NOT LOCATED WITHIN THE RESOURCE CONSERVATION DISTRICT AS DEFINED IN THE CHAPEL HILL DEVELOPMENT / LAND USE MANAGEMENT ORDINANCE
BASIN/WATERSHED:	CAPE FEAR / JORDAN LAKE UNPROTECTED
SOILS:	EnC - ENON & CrB - CREEDMOOR
SLOPES:	ALL SLOPES < 10% / NO STEEP SLOPES ON SITE
EXISTING USE:	SINGLE FAMILY HOME W/ OUT-BUILDINGS
EXISTING SIZE:	3.50 ACRES (152,445.99 SF) 0.18 ACRES (7,916.28 SF)
ZONE / GROUP:	CHAPEL HILL - R-2 / USE GROUP B
PROPOSED USE:	CHURCH & FELLOWSHIP HALL (300 SEATS)
PROPOSED NLA:	3.21 ACRES (139,698.86 SF)
PROPOSED GLA:	3.53 ACRES (153,668.75 SF)
MAX. FAR:	153,669 * 0.093 = 14,291 SF
MAX. HEIGHT:	29' PRIMARY / 50' SECONDARY
MIN. PARKING:	1/4 SEATS = 300/4 = 75 (ASSEMBLY)
MAX. PARKING:	1/2.5 SEATS = 300/2.5 = 120 (ASSEMBLY)
MIN. BIKE PARK:	1/40 SEATS (MIN 8) = 300/40 = 8 (ASSEMBLY)

- GENERAL NOTES**
- EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM SURVEY DATA SUPPLIED BY R. S. JONES AND ASSOCIATES, INC. SITE PLAN DESIGN BY SHAW DESIGN ASSOCIATES.
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 NORTH CAROLINA GENERAL STATUTE 87-102

ALAN J. CREISSEN  
 ANNA J. INGERSOLL-CREISSEN  
 DB.4840 P.73 PB.93 P.33

REV.	DATE	DESCRIPTION
1	02/18/11	PRE-SUBMITTAL REVISIONS
2	04/09/11	SEWER EXTENSION
3	09/20/11	OWASA SUBMITTAL
4	10/21/11	FULL SUBMITTAL
5	11/15/11	RESPONSE TO COMMENTS
6	06/14/12	REV. PER SPECIAL USE APP.

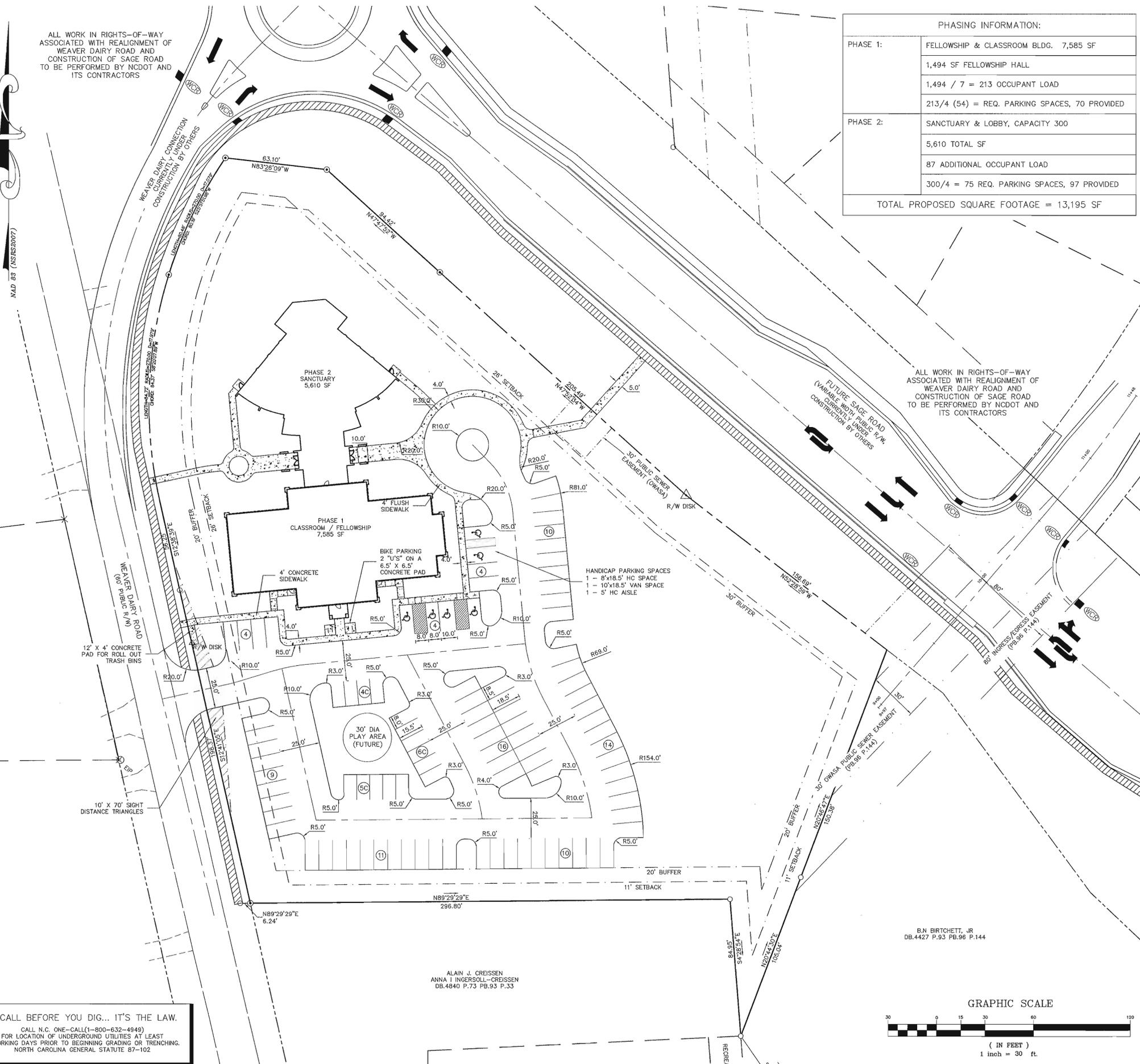
DATE: NOVEMBER 18, 2010  
 HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: N/A  
 PROJECT MANAGER: CPK  
 DRAWN BY: CPK  
 PROJECT NO.: 10-013  
 DRAWING NAME: 10-013 REVIEW

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 SHEET NO.  
**C3.0**  
 REVIEW

ALL WORK IN RIGHTS-OF-WAY ASSOCIATED WITH REALIGNMENT OF WEAVER DAIRY ROAD AND CONSTRUCTION OF SAGE ROAD TO BE PERFORMED BY NCDOT AND ITS CONTRACTORS

NAD 83 (NARS2007)

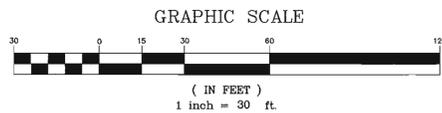


PHASING INFORMATION:	
PHASE 1:	FELLOWSHIP & CLASSROOM BLDG. 7,585 SF
	1,494 SF FELLOWSHIP HALL
	1,494 / 7 = 213 OCCUPANT LOAD
	213/4 (54) = REQ. PARKING SPACES, 70 PROVIDED
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	87 ADDITIONAL OCCUPANT LOAD
	300/4 = 75 REQ. PARKING SPACES, 97 PROVIDED
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NORTH CAROLINA GENERAL STATUTE 87-102

ALAN J. CREISSEN  
ANNA I INGERSOLL-CREISSEN  
DB.4840 P.73 PB.93 P.33

B.N BIRCHETT, JR  
DB.4427 P.93 PB.96 P.144

**EarthCentric Engineering, Inc.**  
204 W. Clay Street  
Mebane, NC 27302  
Phone: (919) 563-9041  
Fax: (919) 304-9234  
E-Mail: Phil.Koch@EarthCentric.com

**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA

**SITE PLAN (PHASE 2)**

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CPK
4	10/21/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	CPK

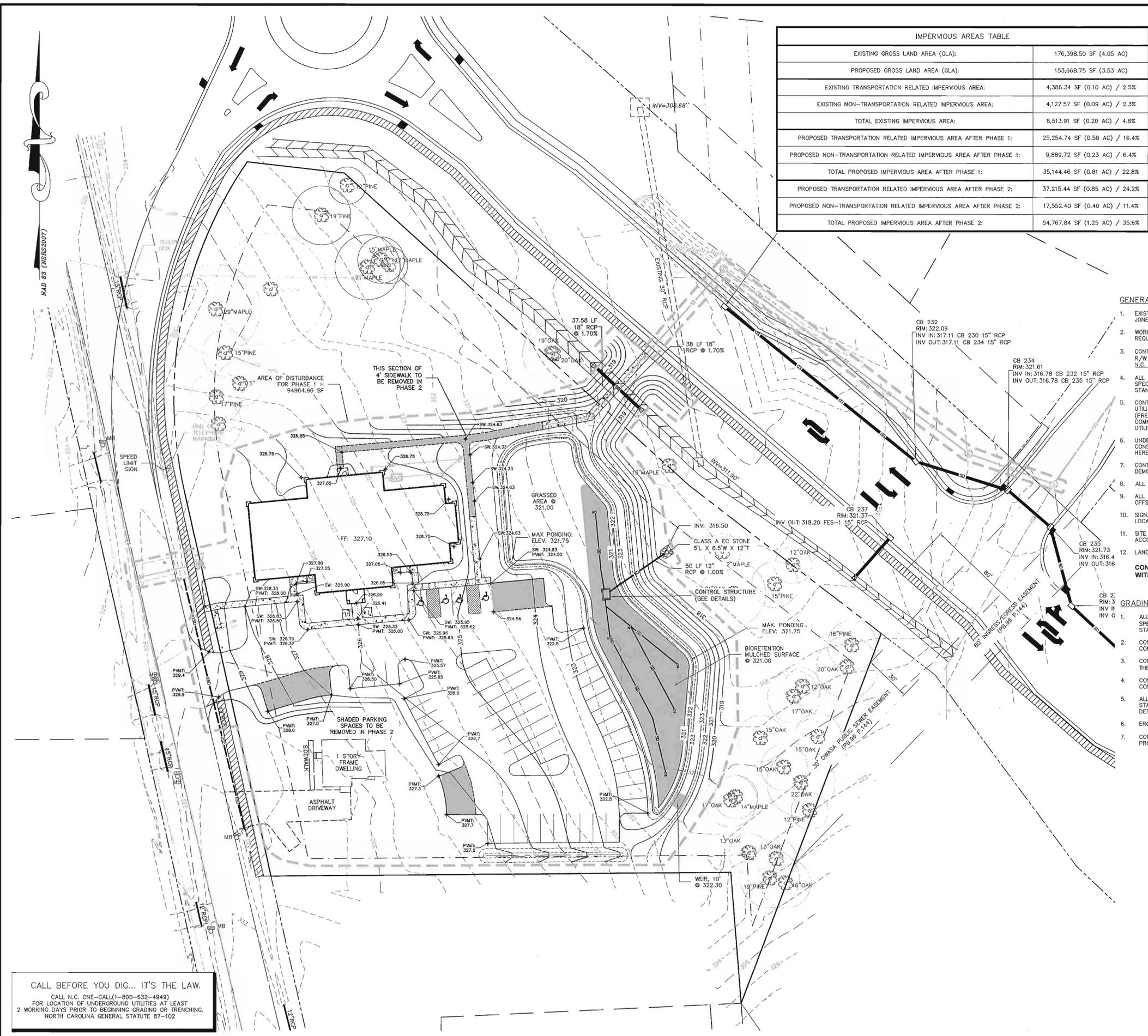
DATE: NOVEMBER 16, 2010  
HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: N/A  
PROJECT MANAGER: CPK  
DRAWN BY: CPK  
PROJECT NO.: 10-013  
DRAWING NAME: 10-013 REVIEW

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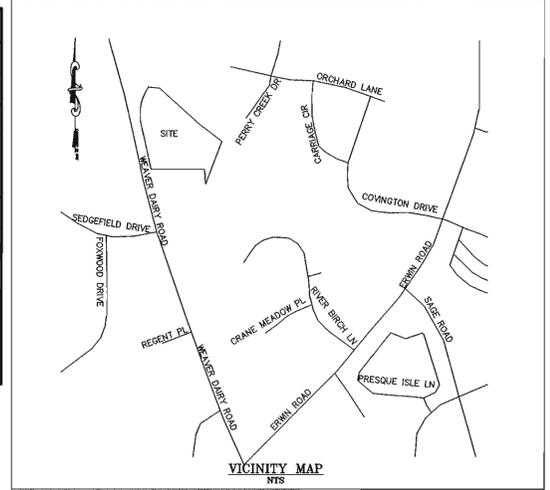
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**SHEET NO.**  
**C3.1**

REVIEW



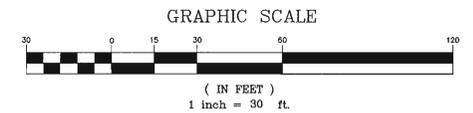
IMPERVIOUS AREAS TABLE	
EXISTING GROSS LAND AREA (GLA):	176,398.50 SF (4.05 AC)
PROPOSED GROSS LAND AREA (GLA):	153,668.75 SF (3.53 AC)
EXISTING TRANSPORTATION RELATED IMPERVIOUS AREA:	4,386.34 SF (0.10 AC) / 2.5%
EXISTING NON-TRANSPORTATION RELATED IMPERVIOUS AREA:	4,127.57 SF (0.09 AC) / 2.3%
TOTAL EXISTING IMPERVIOUS AREA:	8,513.91 SF (0.20 AC) / 4.8%
PROPOSED TRANSPORTATION RELATED IMPERVIOUS AREA AFTER PHASE 1:	25,254.74 SF (0.58 AC) / 16.4%
PROPOSED NON-TRANSPORTATION RELATED IMPERVIOUS AREA AFTER PHASE 1:	9,889.72 SF (0.23 AC) / 6.4%
TOTAL PROPOSED IMPERVIOUS AREA AFTER PHASE 1:	35,144.46 SF (0.81 AC) / 22.8%
PROPOSED TRANSPORTATION RELATED IMPERVIOUS AREA AFTER PHASE 2:	37,215.44 SF (0.85 AC) / 24.2%
PROPOSED NON-TRANSPORTATION RELATED IMPERVIOUS AREA AFTER PHASE 2:	17,552.40 SF (0.40 AC) / 11.4%
TOTAL PROPOSED IMPERVIOUS AREA AFTER PHASE 2:	54,767.84 SF (1.25 AC) / 35.6%



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  - ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED AND CONSTRUCTED TO MEET ALL STATE AND LOCAL REQUIREMENTS, INCLUDING 2007 STATE STANDARDS FOR WATER QUALITY AND DETENTION FACILITIES.
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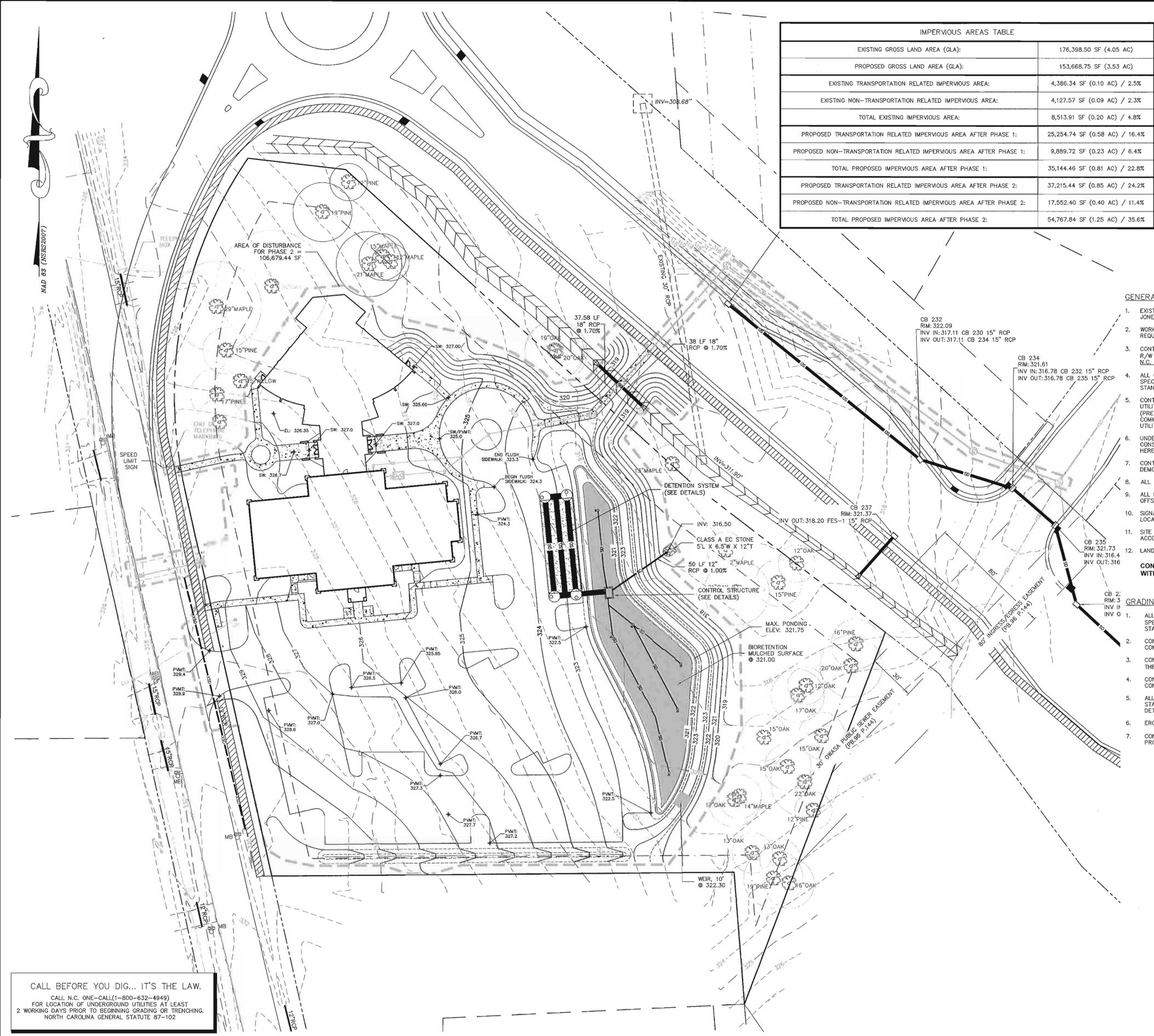
**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA  
**GRADING & STORM DRAINAGE PLAN (PHASE 1)**

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CPK
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5	11/15/11	RESPONSE TO COMMENTS	CPK
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DATE: NOVEMBER 16, 2010  
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 VERTICAL SCALE: N/A  
 PROJECT MANAGER: CPK  
 DRAWN BY: CPK  
 PROJECT NO.: 10-013  
 DRAWING NAME: 10-013 REVIEW

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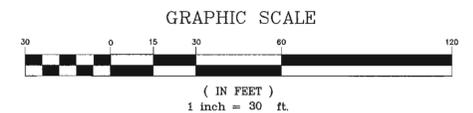
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**INCORPORATED**

PRINCIPAL ENGINEER  
 PHIL KOCH - NCPE #22934

**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA

**GRADING & STORM DRAINAGE PLAN (PHASE 2)**

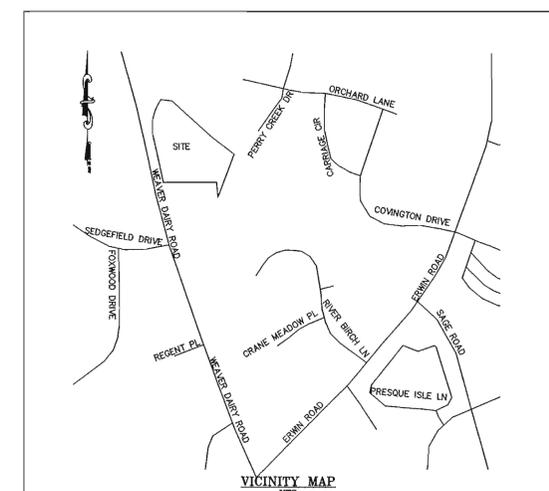
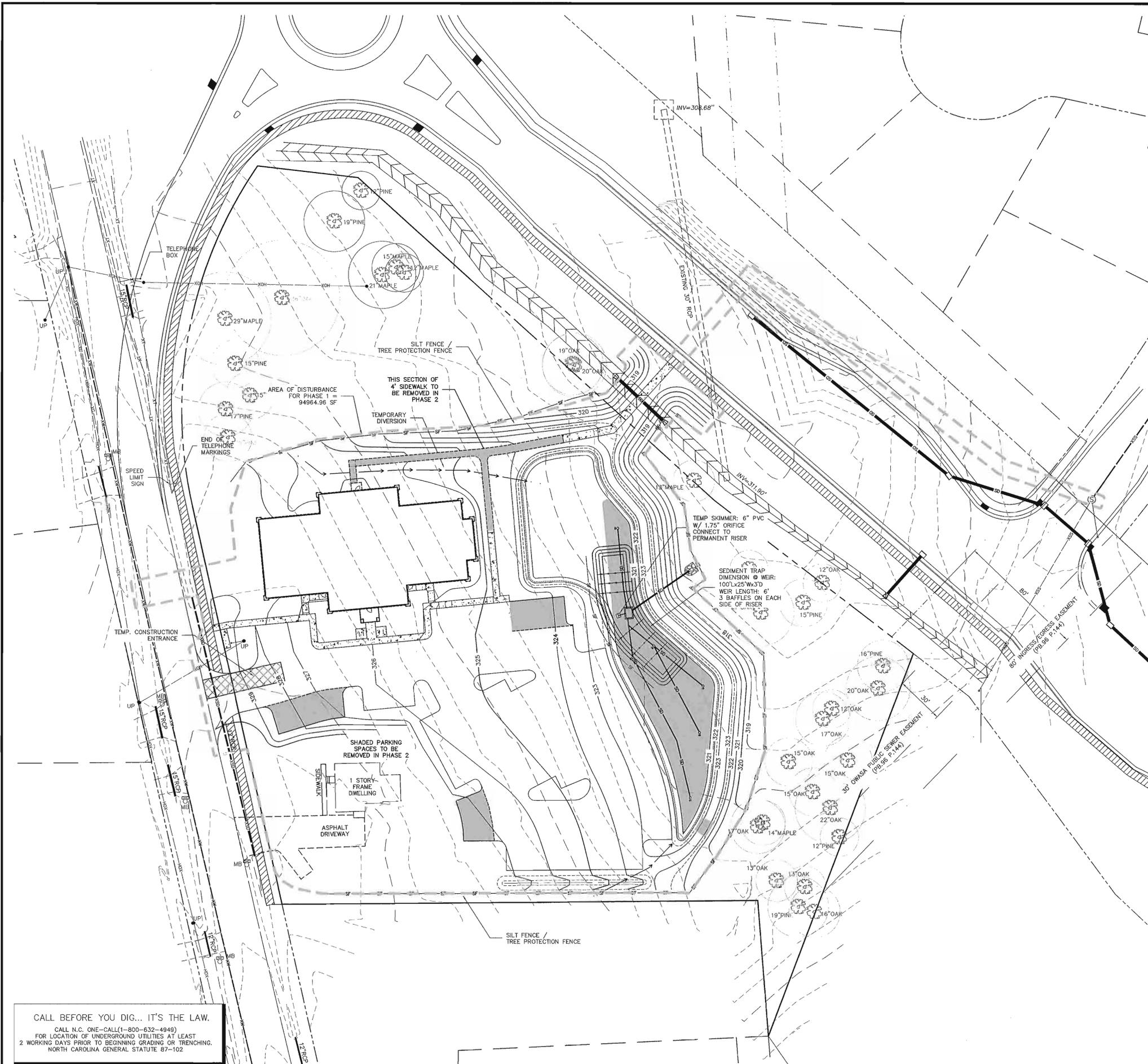
REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CFK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CFK
4	10/21/11	FULL SUBMITTAL	CFK
5	11/15/11	RESPONSE TO COMMENTS	CFK
6	06/14/12	REV. PER SPECIAL USE APP.	CFK

DATE: NOVEMBER 16, 2010  
 HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: N/A  
 PROJECT MANAGER: CFK  
 DRAWN BY: CFK  
 PROJECT NO.: 10-013  
 DRAWING NAME: 10-013 REVIEW

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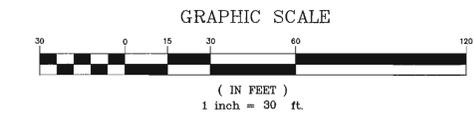
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SHEET NO.  
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 REVIEW



- GENERAL NOTES**
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  - WORK WITHIN PUBLIC RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS, NOTIFICATIONS, STANDARDS AND POLICIES.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL MEASURES FOR ALL WORK W/IN PUBLIC R/W PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE N.C. SUPPLEMENT TO THE MUTCD, AND LOCAL CITY INSPECTOR'S DIRECTION.
  - ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT PLANS AND/OR SPECIFICATIONS, LOCAL STANDARD DETAILS AND CONSTRUCTION STANDARDS, STATE CONSTRUCTION STANDARDS, AND OTHER APPLICABLE CONTRACT DOCUMENTS.
  - CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING ALL APPROPRIATE PARTIES AND ASSURING THAT UTILITIES ARE LOCATED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CALL NC ONE CALL (PREVIOUSLY ULOCO) AT 1-800-632-4949 FOR UTILITY LOCATING SERVICES 48 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - UNDERGROUND UTILITIES SHOWN USING BEST AVAILABLE INFORMATION. ALL LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE MORE UNDERGROUND UTILITIES THAN ARE SHOWN HEREON. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO ANY EXCAVATIONS.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO REMAIN DURING ALL DEMOLITION AND CONSTRUCTION ACTIVITIES.
  - ALL CLEARING, GRUBBING AND UNSUITABLE FILL MATERIAL SHALL BE DISPOSED OF LEGALLY.
  - ALL PAVEMENT, CURB, STORM DRAINAGE PIPE, AND STRUCTURES TO BE REMOVED SHALL BE HAULED OFFSITE AND DISPOSED OF LEGALLY.
  - SIGNAGE SHALL BE LOCATED AS SHOWN. SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL STANDARDS.
  - SITE LIGHTING SHALL AS SHOWN, AND SHALL BE SUFFICIENT TO PROPERLY ILLUMINATE THE SITE IN ACCORDANCE WITH LOCAL STANDARDS.
  - LANDSCAPING SHALL BE INSTALLED IN THE PROVIDED YARDS, IN ACCORDANCE WITH LOCAL STANDARDS.
- CONTRACTOR SHALL NOT MAKE ANY MODIFICATIONS TO THE APPROVED DRAWINGS WITHOUT PRIOR APPROVAL OF BOTH THE DESIGN ENGINEER AND LOCAL INSPECTOR.**

- GRADING & STORM DRAINAGE NOTES:**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL CONSTRUCTION STANDARDS, SPECIFICATIONS, AND PROCEDURES AND THE NCDENR'S SEDIMENTATION AND EROSION CONTROL STANDARDS, SPECS., AND PROCEDURES.
  - CONTRACTOR SHALL VERIFY THAT ALL APPLICABLE STATE AND LOCAL PERMITS REQUIRED FOR THE COMMENCEMENT OF GRADING OPERATIONS HAVE BEEN OBTAINED PRIOR TO START OF GRADING.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF DEMOLITION AND/OR CONSTRUCTION.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO REMAIN DURING ALL CONSTRUCTION ACTIVITIES.
  - ALL STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED AND CONSTRUCTED TO MEET ALL STATE AND LOCAL REQUIREMENTS, INCLUDING 2007 STATE STANDARDS FOR WATER QUALITY AND DETENTION FACILITIES.
  - EROSION CONTROL MEASURES SHALL BE PROVIDED AS NEEDED TO PROTECT ADJACENT PROPERTIES.
  - CONTRACTOR SHALL PROVIDE ALL STAKING, FLAGGING AND/OR FENCING NECESSARY TO PROVIDE PROPER PROTECTION OF THE STREAM BUFFER.



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 NORTH CAROLINA GENERAL STATUTE 87-102

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**INCORPORATED**

PRINCIPAL ENGINEER  
 PHIL KOEH - NCPE #22634

**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA

**EROSION CONTROL PLAN (PHASE 1)**

REV.	DATE	DESCRIPTION	BY
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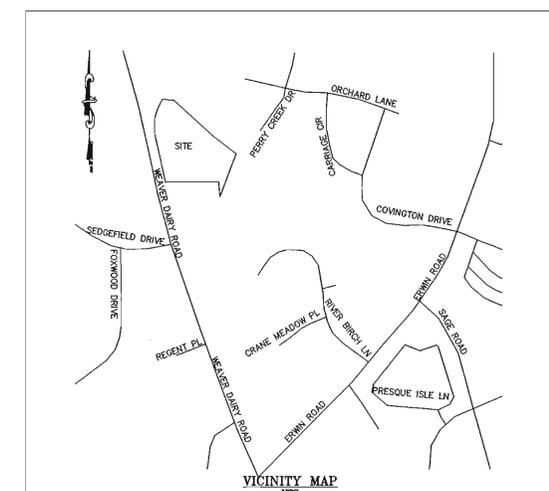
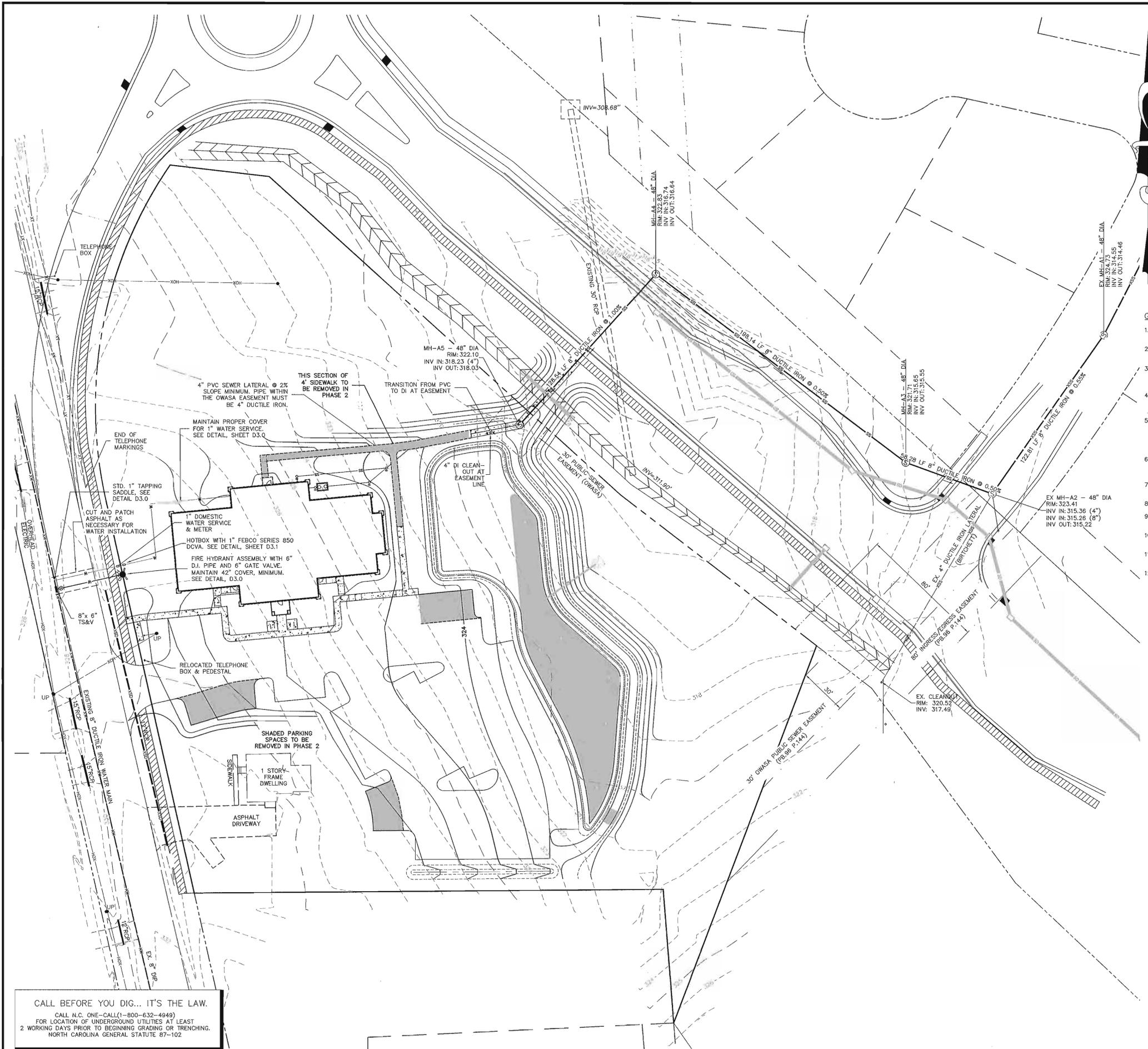
DATE: NOVEMBER 16, 2010  
 HORIZONTAL SCALE: 1" = 30'  
 VERTICAL SCALE: N/A  
 PROJECT MANAGER: GPK  
 DRAWN BY: GPK  
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REVIEW



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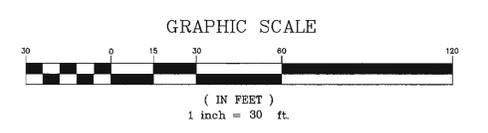


**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA  
**UTILITY PLAN (PHASE 1)**

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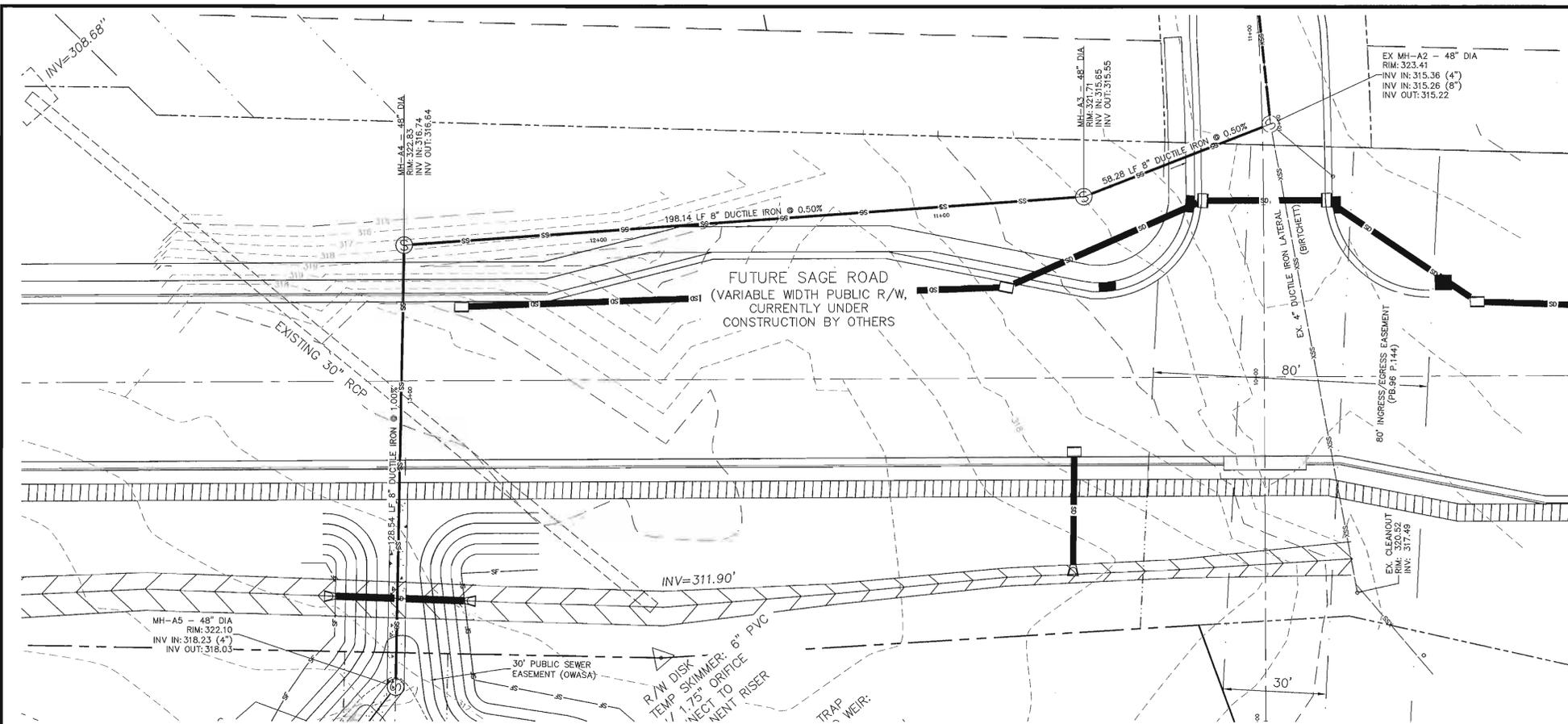
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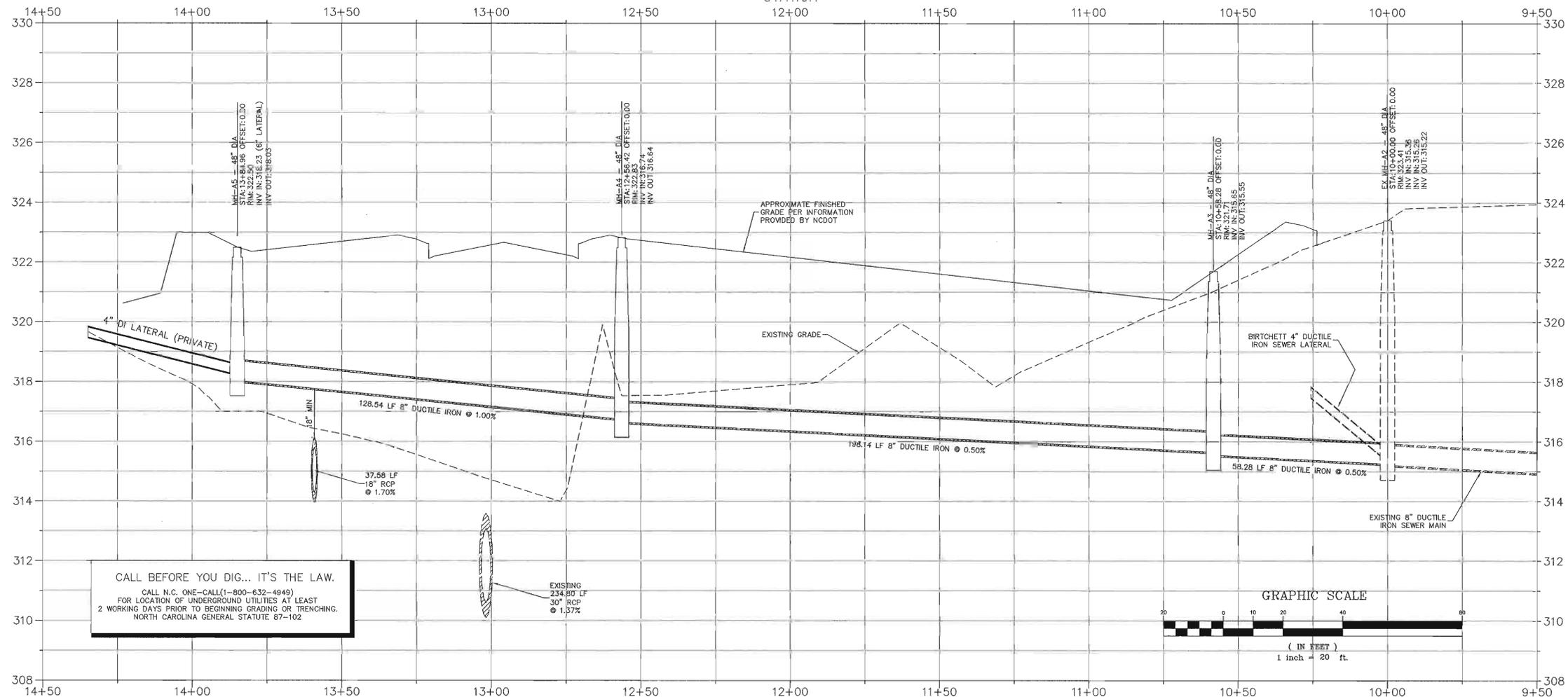
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 NORTH CAROLINA GENERAL STATUTE 87-102

SHEET NO.  
**C6.0**  
 REVIEW



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**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA  
**SANITARY SEWER EXTENSION**  
PLAN & PROFILE

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
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DRAWN BY: TMM  
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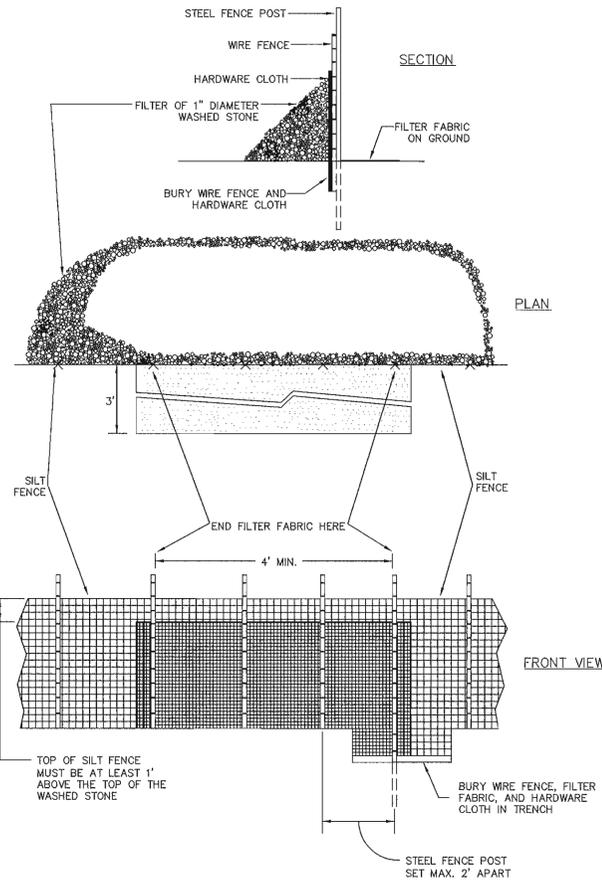
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REVIEW

### INSTRUCTIONS FOR SILT FENCE OUTLET

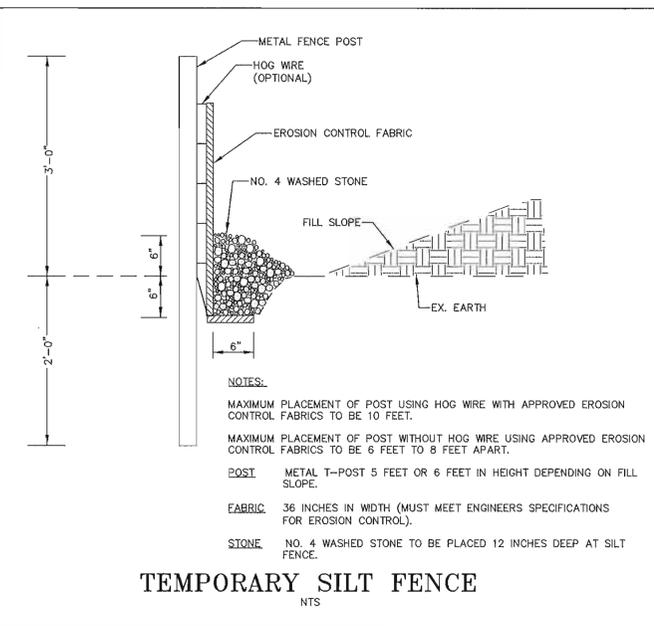
#### INSTALLATION

1. REFER TO THE PLANS FOR LOCATIONS AND SPECIFICATIONS. DURING INSTALLATION OF THE SILT BARRIER OR SILT FENCE, INSPECT THE INSTALLATION TO DETERMINE IF OUTLETS ARE NEEDED ACCORDING TO THE CRITERIA SET FORTH IN THE SPECIFICATIONS FOR THE BARRIER AND FENCE. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OF PROPERLY INSTALLED OUTLETS AS AN AID TO INSTALLATION.

IF THE SILT FENCE OUTLET IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE REBUILT.



SILT FENCE OUTLET



TEMPORARY SILT FENCE

2. DETERMINE THE EXACT LOCATION OF THE OUTLET BEFORE COMPLETING INSTALLATION OF THE SILT BARRIER OR SILT FENCE, TAKING INTO CONSIDERATION:

- INSTALL THE OUTLET AT THE LOWEST POINT(S) IN THE BARRIER OR FENCE WHERE WATER WILL FLOW.
- INSTALL THE OUTLET WHERE IT IS ACCESSIBLE FOR INSTALLATION, MAINTENANCE, AND REMOVAL.
- ALLOW AT LEAST:
  - 15 FEET BETWEEN THE BARRIER OR FENCE AND SINGLE-STORY BUILDINGS.
  - 25 FEET FOR FORK LIFTS BETWEEN THE BARRIER OR FENCE AND MULTIPLE-STORY BUILDINGS.
  - 10 FEET BETWEEN THE BARRIER OR FENCE AND THE TOE OF FILL SLOPES.
- PLACE THE OUTLET SO THAT WATER FLOWING THROUGH IT WILL NOT CREATE AN EROSION HAZARD BELOW. AVOID STEEP SLOPES BELOW THE OUTLET AND AREAS WITHOUT PROTECTIVE VEGETATION. USE SLOPE DRAINS IF NECESSARY.
- DETERMINE THE LOCATION OF THE OUTLET FOR A SILT BARRIER, WHEN THE TRENCH IS DUG TO BURY THE BOTTOM OF THE FABRIC BECAUSE THE BARRIER WILL BE OMITTED AT THE OUTLET; FOR A SILT FENCE, WHEN THE WIRE FENCE IS IN PLACE BECAUSE THE FILTER FABRIC WILL BE OMITTED AT THE OUTLET.

3. REFER TO THE ILLUSTRATIONS OF THE OUTLET IN THE PLAN.

4. CLEAR STUMPS AND ROOTS FROM THE LOCATION OF THE OUTLET. CLEAR ADEQUATE ACCESS FOR THE EQUIPMENT NEEDED FOR INSTALLATION, MAINTENANCE, AND REMOVAL.

5. CONSTRUCT OUTLET.

- JUST BELOW THE GAP IN THE BARRIER, PLACE A LAYER OF FILTER FABRIC ON THE GROUND TO PROTECT THE SOIL FROM EROSION BY OUTFLOW FROM THE OUTLET; PLACE 6 INCHES OF THE UPPER EDGE IN THE TRENCH. STAKE THE REMAINING EDGES OF THE FABRIC TO HOLD IT IN PLACE.
- ALONG THE GAP WHERE THE OUTLET WILL GO, PLACE STEEL FENCE POSTS FOR STRENGTH. THE POSTS MUST BE A MAXIMUM OF 2 FEET APART AND DRIVEN INTO SOLID GROUND AT LEAST 18 INCHES.
- PLACE HARDWARE CLOTH (WELDED GALVANIZED SCREEN WITH SQUARE 1/4 - 1/2 - INCH HOLES) ON THE UPHILL SIDE OF THE POSTS TO HOLD THE WASHED STONE IN PLACE. PUT 6 INCHES OF THE BOTTOM OF THE CLOTH IN THE TRENCH AND FASTEN IT TO THE POSTS WITH LENGTHS OF WIRE.
- BURY THE BOTTOM OF THE HARDWARE CLOTH AND THE UPPER EDGE OF THE FILTER FABRIC BELOW THE OUTLET IN THE TRENCH AND COMPACT THE FILL.
- PLACE A FILTER OF 1-INCH DIAMETER WASHED STONE ON THE UPHILL SIDE OF THE OUTLET. PILE THE STONE UP TO THE TOP OF THE HARDWARE CLOTH AND OVER THE JOINT BETWEEN THE OUTLET AND THE BARRIER.

**MAINTENANCE**

MATERIALS, EQUIPMENT, AND PERSONNEL MUST BE AVAILABLE FOR MAINTENANCE AT ALL TIMES.

1. INSPECT THE SILT FENCE OUTLET:

- DURING CONSTRUCTION: TO DETERMINE IF MACHINERY, FALLING TREES, ETC. HAVE DAMAGED THE BARRIER, FENCE, OR OUTLET; IF DAMAGED, MAKE REPAIRS. TO SEE THAT FILL MATERIAL HAS NOT ACCUMULATED AGAINST THE OUTLET, BLOCKING OUTFLOW; IF IT HAS, REMOVE THE MATERIAL, REPAIR THE DAMAGE, AND MOVE THE FENCE OR FILL SO THAT IT DOES NOT HAPPEN AGAIN.
- AFTER EACH RAINFALL: TO DETERMINE IF RUNOFF FLOWING THROUGH THE OUTLET HAS CAUSED DAMAGE BY UNDERMINING THE FENCE OR OUTLET, OR IF ACCUMULATED WATER HAS COLLAPSED THE OUTLET; IF IT HAS, MAKE REPAIRS OR INSTALL A SEDIMENT TRAP IF NECESSARY TO PREVENT FUTURE FAILURES.

2. CLEAN OUT ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH OF ONE-HALF THE HEIGHT OF THE OUTLET. PLACE THE SEDIMENT IN A DISPOSAL AREA, OR MIX IT WITH DRY SOIL ON THE SITE IF APPROPRIATE.

DO NOT DISPOSE OF SEDIMENT IN A MANNER THAT WILL CREATE AN EROSION HAZARD.

3. WHEN THE STONE FILTER BECOMES CLOGGED, PREVENTING FLOW THROUGH THE FILTER, REMOVE THE CONTAMINATED STONE, DISPOSE OF IT PROPERLY, AND REPLACE IT WITH CLEAN WASHED STONE.

4. REPAIR THE OUTLET IF DAMAGED BY USE OR DURING MAINTENANCE. REBUILD IT TO THE ORIGINAL CONFIGURATION.

**REMOVAL**

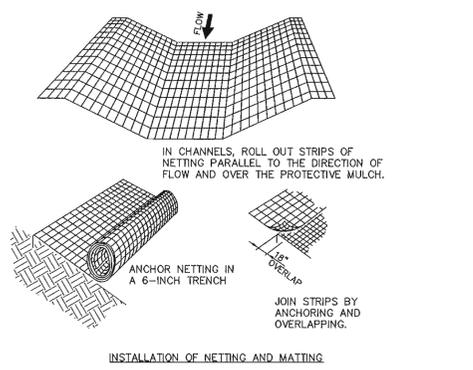
1. WHEN GRADING THE DRAINAGE AREA ABOVE THE OUTLET HAS BEEN COMPLETED AND THE DISTURBED AREA SUFFICIENTLY STABILIZED TO RESTRAIN EROSION, THE OUTLET MUST BE REMOVED.
2. CLEAN OUT ACCUMULATED SEDIMENT AND DISPOSE OF IT PROPERLY.
3. REMOVE POSTS, FENCE, FABRIC, WIRE, AND WASHED STONE; DISPOSE OF THEM PROPERLY.
4. GRADE THE LOCATION AS NECESSARY.
5. STABILIZE THE DISTURBED AREA WHERE THE OUTLET WAS LOCATED.

### NPDES PERMIT REQUIREMENTS

THIS PROJECT IS SUBJECT TO THE REQUIREMENTS OF NPDES PERMIT FOR CONSTRUCTION ACTIVITIES (PERMIT NO. NC0410000). THE ITEMS NOTED ARE SOME OF THE OBLIGATIONS ASSOCIATED WITH THE NPDES PERMIT PROCESS.

#### CONTROLS FOR STORMWATER DISCHARGES

1. THE PERMITTEE SHALL IMPLEMENT THE SOIL AND EROSION CONTROL PLAN, WHICH HAS BEEN APPROVED BY THE APPROVAL AUTHORITY. THE APPROVED PLAN IS CONSIDERED A REQUIREMENT OR CONDITION OF NPDES PERMIT. DEVIATION FROM THE APPROVED PLAN, OR APPROVED AMENDMENT TO THE PLAN, SHALL CONSTITUTE A VIOLATION OF THE TERMS AND CONDITIONS OF THIS GENERAL PERMIT EXCEPT THAT DEVIATION FROM THE APPROVED PLAN WILL BE ALLOWED TO CORRECT AN EMERGENCY SITUATION WHERE SEDIMENTS ARE BEING DISCHARGED OFF THE SITE, EVEN THOUGH THE APPROVED PLAN IS IN EFFECT. SUCH A DEVIATION FROM THE APPROVED PLAN SHALL BE NOTED ON THE APPROVED PLAN MAINTAINED AT THE JOB SITE. A SIGNED COPY OF THE APPROVED PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
  2. EQUIPMENT UTILIZED DURING THE CONSTRUCTION ACTIVITY ON A SITE MUST BE OPERATED AND MAINTAINED IN SUCH A MANNER AS TO PREVENT THE POTENTIAL OR ACTUAL POLLUTION OF THE SURFACE OR GROUND WATERS OF THE STATE, FUELS, LUBRICANTS, COOLANTS, AND HYDRAULIC FLUIDS, OR ANY OTHER PETROLEUM PRODUCTS, SHALL NOT BE DISCHARGED ONTO THE GROUND OR INTO SURFACE WATERS. SPENT FLUIDS SHALL BE DISPOSED OF IN A MANNER SO AS NOT TO ENTER THE WATERS, SURFACE OR GROUND, OF THE STATE AND IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL DISPOSAL REGULATIONS. ANY SPILLED FLUIDS SHALL BE CLEANED UP TO THE EXTENT PRACTICABLE AND DISPOSED OF IN A MANNER SO AS NOT TO ALLOW THEIR ENTRY INTO THE WATERS, SURFACE OR GROUND, OF THE STATE.
  3. HERBICIDE, PESTICIDE, AND FERTILIZER USAGE DURING THE CONSTRUCTION ACTIVITY SHALL BE RESTRICTED TO THOSE MATERIALS APPROVED BY EPA AND SHALL BE IN ACCORDANCE WITH LABEL RESTRICTIONS.
  4. ALL WASTES COMPOSED OF BUILDING MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH NORTH CAROLINA GENERAL STATUTES.
  5. THE PERMITTEE SHALL REPORT TO THE CENTRAL OFFICE OR THE APPROPRIATE REGIONAL OFFICE ANY NONCOMPLIANCE WHICH MAY ENDANGER HEALTH OR THE ENVIRONMENT. ANY INFORMATION SHALL BE PROVIDED ORALLY WITHIN 24 HOURS FROM THE TIME THE PERMITTEE BECAME AWARE OF THE CIRCUMSTANCES. A WRITTEN SUBMISSION SHALL ALSO BE PROVIDED WITHIN 5 DAYS OF THE TIME THE PERMITTEE BECAME AWARE OF THE CIRCUMSTANCES.
- THE WRITTEN SUBMISSION SHALL CONTAIN A DESCRIPTION OF THE VIOLATION, AND ITS CAUSES; THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES, AND IF THE NONCOMPLIANCE HAS NOT BEEN CORRECTED, THE ANTICIPATED TIME IT IS EXPECTED TO CONTINUE; AND STEPS TAKEN OR PLANNED TO REDUCE, ELIMINATE, AND PREVENT REOCCURRENCE OF THE NONCOMPLIANCE (SEE SPECIFIC PERMIT REQUIREMENTS FOR REPORTING INFORMATION).



#### INSTALLATION OF NETTING AND MATTING

PRODUCTS DESIGNED TO CONTROL EROSION SHOULD BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

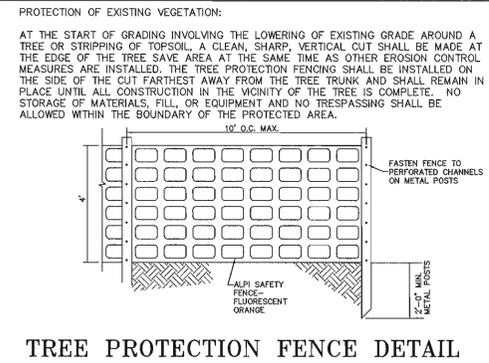
ANY MAT OR BLANKET-TYPE PRODUCT USED AS A PROTECTIVE MULCH SHOULD PROVIDE COVER OF AT LEAST 30% OF THE SURFACE WHERE IT IS APPLIED.

1. APPLY LIME, FERTILIZER AND SEED BEFORE LAYING THE NET OR MAT.
2. START LAYING THE NET FROM THE TOP OF THE CHANNEL OR SLOPE AND UNROLL IT DOWN THE GRADE. ALLOW NETTING TO LAY LOOSELY ON THE SOIL BUT WITHOUT WRINKLES - DO NOT STRETCH.
3. TO SECURE THE NET, BURY THE UPSLOPE END IN A SLOT OR TRENCH NO LESS THAN 6 INCHES DEEP. COVER WITH SOIL AND TAMP FIRMLY. STAPLE THE NET EVERY 12 INCHES ACROSS THE TOP END AND EVERY 3 FEET ALONG THE EDGES AND BOTTOM. WHERE 2 STRIPS OF NET ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHOULD BE OVERLAPPED 3 INCHES AND STAPLED TOGETHER. EACH STRIP OF NETTING SHOULD ALSO BE STAPLED DOWN THE CENTER, EVERY 3 FEET. DO NOT STRETCH THE NET WHEN APPLYING STAPLES.
4. TO JOIN TWO STRIPS, CUT A TRENCH TO ANCHOR THE END OF THE NEW NET. OVERLAP THE END OF THE PREVIOUS ROLL 18 INCHES AND STAPLE EVERY 12 INCHES JUST BELOW THE ANCHOR SLOT.

#### MAINTENANCE

INSPECT ALL MULCHES PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR RILL EROSION, DISLOCATION, OR FAILURE. WHERE EROSION IS OBSERVED, APPLY ADDITIONAL MULCH. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED, AND REINSTALL MULCH. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.

### NETS AND MATS



TREE PROTECTION FENCE DETAIL

### CONSTRUCTION SEQUENCE

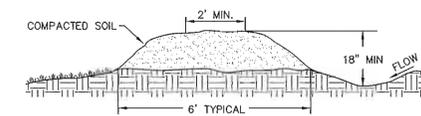
1. EROSION CONTROL MEASURES INCLUDE A GRAVEL CONSTRUCTION EXIT, SEDIMENT TRAPPING MEASURES, STABILIZATION AT PIPE OUTLETS, AND THE STABILIZATION OF DISTURBED AREAS WITHIN 15 WORKING DAYS AFTER COMPLETION OF ANY PHASE OF GRADING. STABILIZATION CONSISTS OF EITHER TEMPORARY MULCHING OR PERMANENT VEGETATION ON AREAS THAT ARE NOT PAVED.
2. OBTAIN ALL THE APPROVALS AND PERMITS NECESSARY TO BEGIN AND COMPLETE THE PROJECT. THESE APPROVALS AND PERMITS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: TRC SITE PLAN APPROVAL, EROSION CONTROL PLAN APPROVAL, AND DRIVEWAY PERMIT APPROVAL.
3. SCHEDULE AND HOLD A PRECONSTRUCTION CONFERENCE BEFORE STARTING ANY ADDITIONAL CLEARING, OR GRADING. ATTENDEES SHALL INCLUDE THE OWNER, THE CONTRACTOR(S) RESPONSIBLE FOR THE DISTURBANCE AND EROSION CONTROL, AND EROSION CONTROL PERSONNEL.
4. INSTALL THE GRAVEL FOR CONSTRUCTION EXIT. CLEAR AREAS AS NECESSARY TO GAIN ACCESS TO SEDIMENT BASIN LOCATIONS. INSTALL BASINS, DIVERSIONS AND FENCING. COMPLETE CLEARING AND GRUBBING.
5. BEGIN ROUGH GRADING.
6. BEGIN STORM DRAINAGE INSTALLATION AS GRADING PROCEEDS, PROTECTING PIPE OPENINGS AND UNCOVERED STRUCTURES USING METHODS DETAILED, AS APPROPRIATE.
7. COMPLETE ALL ROUGH GRADING AND SEED AND MULCH BACKSLOPES AS SOON AS POSSIBLE.
8. INSTALL RIP-RAP OUTLET AND INLET PROTECTION.
9. CONSTRUCT BUILDING FOUNDATIONS.
10. PLACE AND COMPACT STONE AND CONSTRUCT SIDEWALKS.
11. INSTALL UNDERGROUND UTILITIES.
12. PAVE PARKING FACILITY.
13. PROVIDE DISTURBED AREAS WITH GROUND COVER SUFFICIENT TO RESTRAIN EROSION WITHIN 15 WORKING DAYS AFTER COMPLETION OF ANY PHASE OF GRADING, WHETHER CLEARING OR ROUGH OR FINISHED GRADING.
14. INSPECT AND MAINTAIN THE EROSION CONTROL DEVICES SO THEY CONTINUE TO FUNCTION PROPERLY. REFER TO THE EROSION CONTROL PLAN FOR SPECIFIC INSTRUCTIONS FOR EACH DEVICE. THE PERSON RESPONSIBLE FOR EROSION CONTROL IS ALSO RESPONSIBLE FOR TAKING THE INITIATIVE IN INSPECTING AND MAINTAINING THESE DEVICES; DO NOT WAIT FOR THE EROSION CONTROL INSPECTOR TO POINT OUT THE NEED FOR MAINTENANCE AND REPAIRS.
15. KEEP MUD AND DEBRIS OFF THE PUBLIC STREET AT ALL TIMES. IF MUD OR DEBRIS IS TRACKED FROM THE SITE, USE A SHOVEL AND BROOM TO REMOVE IT IMMEDIATELY. IF MUD AND DEBRIS ARE NOT KEPT OFF THE STREET ENFORCEMENT ACTIONS (REVOKING THE GRADING PERMIT AND/OR A STOP WORK ORDER) MAY BE TAKEN!!!
16. IF IT IS DETERMINED DURING THE COURSE OF CONSTRUCTION THAT SIGNIFICANT SEDIMENT IS LEAVING THE SITE DESPITE PROPER IMPLEMENTATION AND MAINTENANCE OF THE APPROVED EROSION CONTROL PLAN, THE PERSON RESPONSIBLE FOR THE LAND-DISTURBING ACTIVITY IS OBLIGATED TO TAKE ADDITIONAL PROTECTIVE ACTION.
17. PERMANENTLY STABILIZE ALL DISTURBED AREAS. REFER TO INSTRUCTIONS IN THE PLAN FOR THE TYPE(S) OF STABILIZATION TO BE USED ON THE SITE.
18. WHEN CONSTRUCTION IS COMPLETED, ALL TEMPORARY EROSION CONTROL DEVICES MUST BE REMOVED AFTER THE DRAINAGE AREA ABOVE HAS BEEN SUFFICIENTLY STABILIZED TO RESTRAIN EROSION. REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SEDIMENT AND THE DEBRIS FROM THE DEVICES, AND STABILIZE THE LOCATIONS.
19. ARRANGE A FINAL INSPECTION WITH THE EROSION CONTROL INSPECTOR TO CONFIRM THAT ALL REQUIREMENTS OF THE APPROVED EROSION CONTROL PLAN HAVE BEEN COMPLETED.
20. WHEN ALL AREAS ARE STABILIZED, COORDINATE WITH ENGINEER, ORANGE COUNTY EROSION CONTROL OFFICER AND TOWN OF CHAPEL HILL STORMWATER TO CONVERT SEDIMENT BASIN TO BIORETENTION FACILITY. FACILITY MUST BE CONSTRUCTED AND AS-BUILTS MUST BE SUBMITTED PRIOR TO OBTAINING CERTIFICATE OF OCCUPANCY.

#### CONSTRUCTION SPECIFICATIONS:

1. REMOVE AND PROPERLY DISPOSE OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERIAL.
2. ENSURE THAT THE MINIMUM CONSTRUCTED CROSS SECTION MEETS ALL DESIGN REQUIREMENTS.
3. ENSURE THAT THE TOP OF THE DIKE IS NOT LOWER AT ANY POINT THAN THE DESIGN ELEVATION PLUS THE SPECIFIED SETTLEMENTS.
4. PROVIDE SUFFICIENT RAMP AROUND DIVERSIONS TO PERMIT MACHINE REGRADING AND CLEANOUT.
5. VEGETATE THE RIDGE IMMEDIATELY AFTER CONSTRUCTION, UNLESS IT WILL REMAIN IN PLACE LESS THAN 30 WORKING DAYS. INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL.

#### MAINTENANCE:

IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND LEVEL AND APPROPRIATELY STABILIZE IT.



TEMPORARY DIVERSION DITCH

UPON COMPLETION AND ACCEPTANCE OF THE IMPROVEMENTS OUTLINED IN THE PHASING PROGRAM, THE ENTIRE AREA DISTURBED BY PROJECT CONSTRUCTION SHALL BE PROVIDED WITH A PERMANENT VEGETATIVE COVER. THE DISTURBED AREAS SHALL BE FINELY TILLED BY HARROWING. WHERE SOIL CONDITIONS ARE UNFAVORABLE FOR SUCCESSFUL ESTABLISHMENT OF COVER, AVAILABLE TOPSOIL SHALL BE SPREAD. DOLOMITIC LIMESTONE SHALL BE APPLIED AT THE RATE OF 4,000 LBS. PER ACRE AND A 10-10-10 COMMERCIAL FERTILIZER MIX SHALL BE APPLIED AT A RATE OF 1000 LBS., PER ACRE TO THE DISTURBED AREA. IT SHALL BE UNIFORMLY APPLIED TO DISTURBED AREAS ACCORDING TO THE FOLLOWING SCHEDULE BY BROADCASTING WITH A CYCLONE SEEDER OR CLOSE DRILL. SEED SHALL BE LIGHTLY COVERED AND SOIL SHALL BE FIRMED. STRAW MULCH SHALL BE TAKEN TO THE SEEDBED AREA AT THE RATE OF 1-1/2 BALES PER 1000 SQ. FT. AND TACKED.

#### DATES RATE #/ACRE

DATE	RATE #/ACRE
JANUARY 1 - MAY 1	
LIMESTONE	2000
FERTILIZER (10-10-10)	750
RYE (GRAIN)	120
MULCH - STRAW & TACK	4000
MAY 1 - AUGUST 15	
LIMESTONE	2000
FERTILIZER (10-10-10)	750
GERMAN MILLET	40
MULCH - STRAW & TACK	4000
AUGUST 15 - JANUARY 1	
LIMESTONE	2000
FERTILIZER (10-10-10)	1000
RYE (GRAIN)	120
MULCH - STRAW & TACK	4000

#### SCHEDULE FOR PROVIDING PERMANENT VEGETATIVE COVER

DATES	RATE #/ACRE
NOVEMBER 1 - JANUARY 31	
TALL FESCUE	100
RYE	50
FEBRUARY 1 - APRIL 30	
TALL FESCUE	80
BLUEGRASS	60
MAY 1 - JULY 31	
TALL FESCUE	70
WEeping LOVEGRASS	20
AUGUST 1 - OCTOBER 31	
TALL FESCUE	100
SUDAN HYBRID	50

PERMANENT & TEMPORARY SEEDING SPECIFICATIONS

**EarthCentric Engineering, Inc.**

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INCORPORATED



**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA

**EROSION CONTROL DETAILS**

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CPK
4	10/21/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS

DATE: NOVEMBER 16, 2010

HORIZONTAL SCALE: N/A

VERTICAL SCALE: N/A

PROJECT MANAGER: N/A

DRAWN BY: SCS

PROJECT NO.: 10-013

DRAWING NAME: 10-013 DETAILS

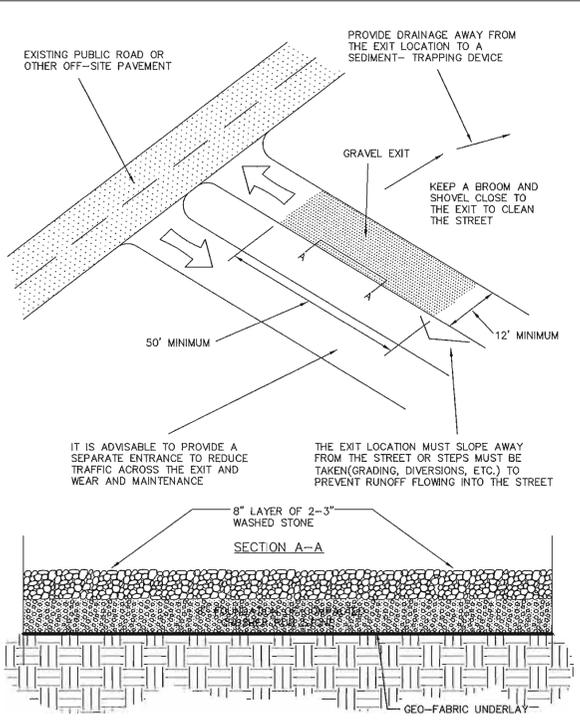
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SHEET NO.

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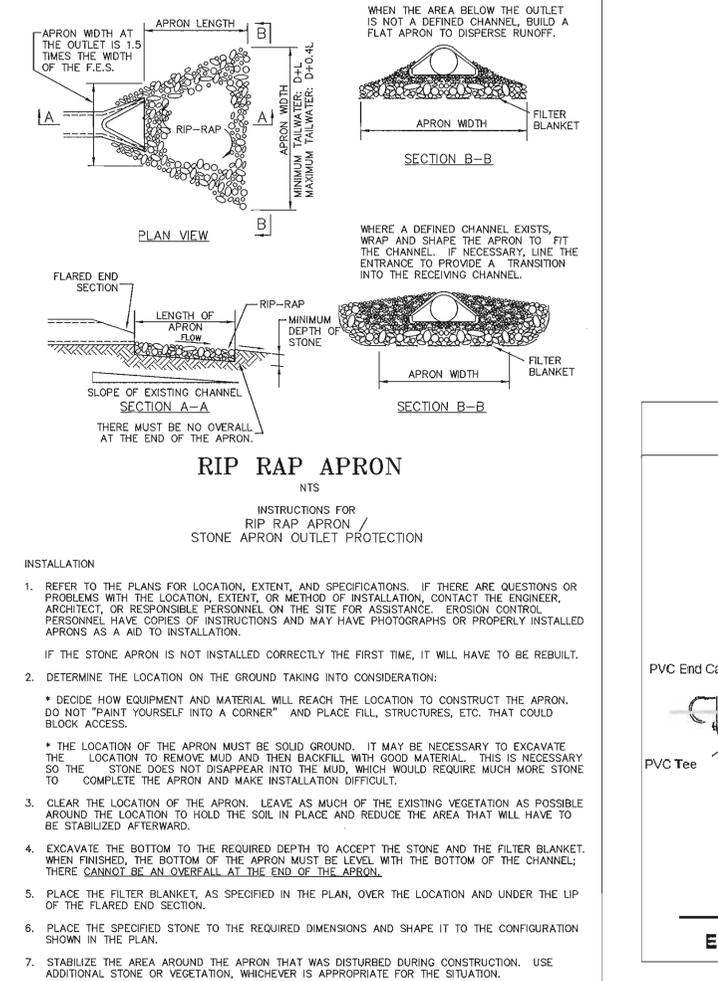
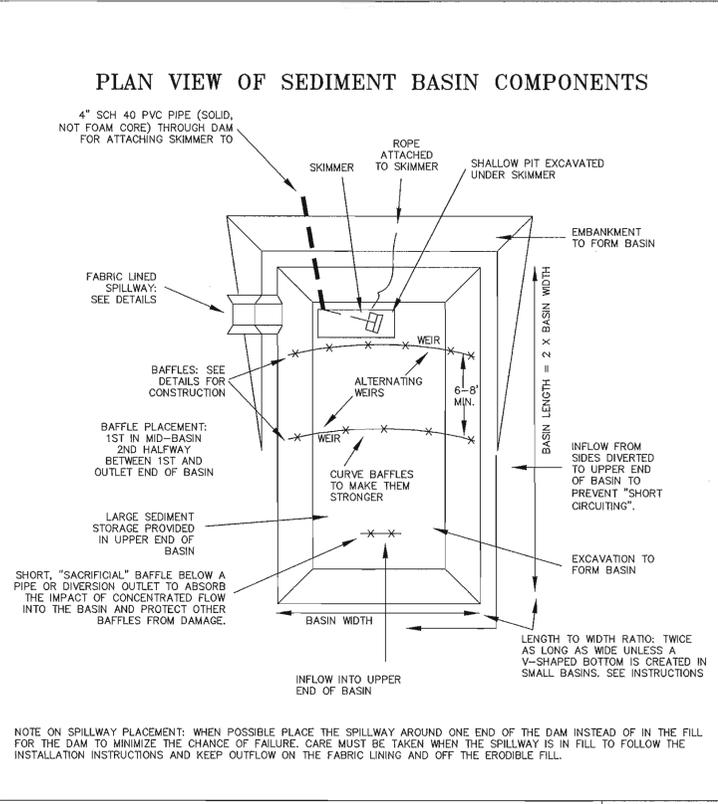
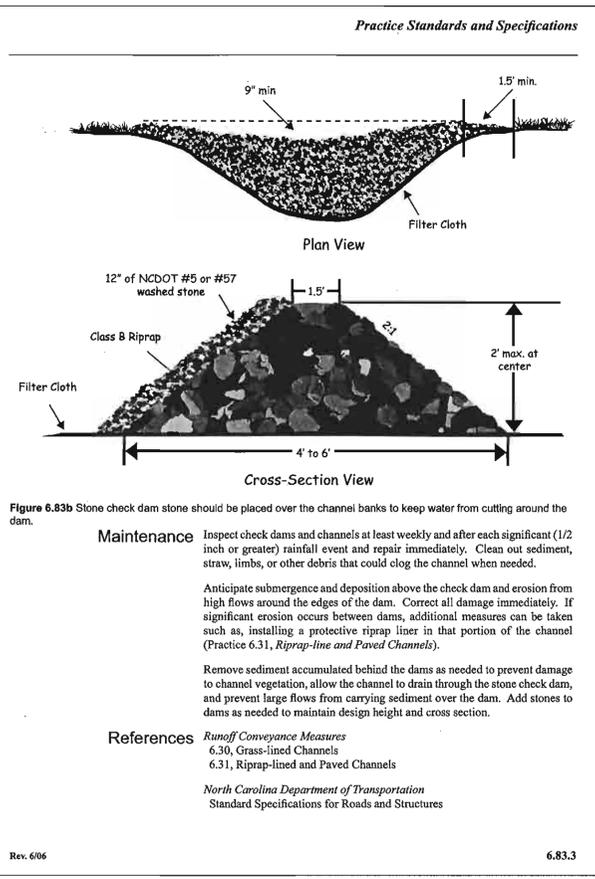
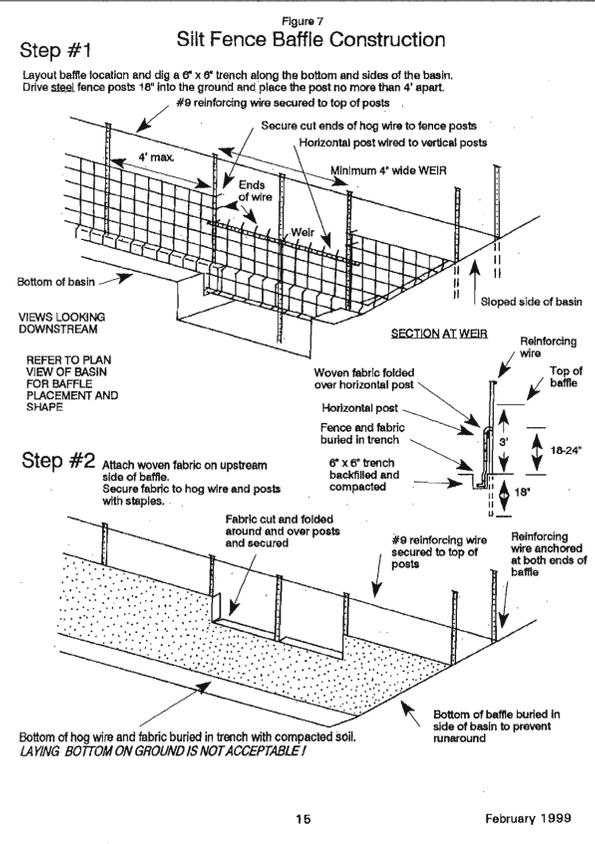
REVIEW



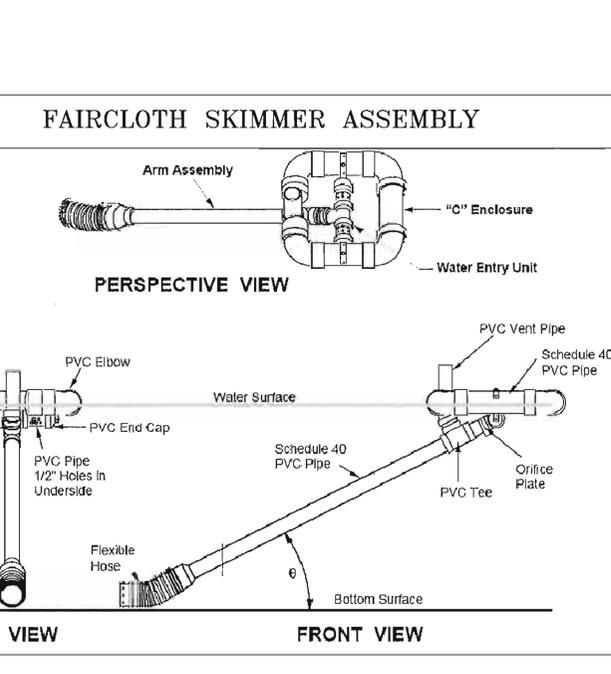
**CONSTRUCTION EXIT**

INSTRUCTIONS FOR GRAVEL CONSTRUCTION EXIT

- INSTALLATION
- REFER TO PLANS FOR LOCATION AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION OR METHODS OF INSTALLATION CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND PHOTOGRAPHS OF PROPERLY INSTALLED EXITS AS AN AID TO INSTALLATION. IF THE CONSTRUCTION EXIT IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE REBUILT.
  - DETERMINE THE LOCATION ON THE GROUND, TAKING INTO CONSIDERATION:
    - IF THE CONSTRUCTION EXIT MUST BE IN PLACE DURING ALL PHASES OF CONSTRUCTION; IF THE LOCATION IS TO BE GRADED, THE EXIT MUST BE INSTALLED FOR THE INITIAL WORK, REMOVED TO ALLOW GRADING OF THE LOCATION, AND REPLACED IMMEDIATELY AFTER GRADING SO THAT IT IS IN PLACE AND FUNCTIONING AT ALL TIMES.
    - IF THE SITE WILL HAVE A LARGE NUMBER OF VEHICLES USING THE EXIT, IT IS ADVISABLE TO HAVE A DIVIDED ENTRANCE THAT DIRECTS ENTERING TRAFFIC THROUGH A SEPARATE TRAVELWAY PARALLEL TO THE GRAVEL CONSTRUCTION EXIT IN ORDER TO REDUCE THE NUMBER OF TRIPS OVER THE STONE, INCREASING THE LIFE TO THE GRAVEL, AND REDUCING MAINTENANCE. REFER TO THE ILLUSTRATION FOR DETAILS.
    - RUNOFF AND SEDIMENT FROM THE SITE MUST BE DIRECTED AWAY FROM THE EXIT SO THAT IT DOES NOT FLOW INTO THE STREET OR OTHER OFFSITE AREA; CHOOSE A LOCATION FOR THE EXIT THAT WILL MAKE IT EASY TO DIVERT THE RUNOFF TO SEDIMENT-TRAPPING DEVICES.
    - IF THE GRAVEL CONSTRUCTION EXIT DOES NOT FUNCTION TO KEEP MUD AND DUST ON-SITE, THEN ANY SOIL OR DEBRIS TRACKED FROM THE SITE MUST BE PHYSICALLY REMOVED FROM THESE AREAS BY FIRST USING A SHOVEL AND BROOM AND THEN WASHING THE PAVEMENT.
    - IF THE PERSON RESPONSIBLE FOR THE DISTURBANCE FAILS TO TAKE INITIATIVE TO KEEP SOIL AND DEBRIS ON THE SITE ENFORCEMENT ACTION MAY BE TAKEN AGAINST THE SITE AND THE GRADING PERMIT REVOKED AND/OR A STOP WORK ORDER ISSUED.
  - CLEAR THE LOCATION OF THE EXIT, REMOVING STUMPS, ROOTS, AND OTHER VEGETATION IN ORDER TO PROVIDE A FIRM FOUNDATION SO THAT THE STONE IS NOT PRESSED INTO SOFT GROUND. CLEAR ENOUGH WIDTH TO ALLOW PASSAGE OF LARGE VEHICLES, BUT CLEAR ONLY WHAT IS NECESSARY FOR THE EXIT. DO NOT CLEAR ADJACENT AREAS UNTIL THE REQUIRED EROSION CONTROL DEVICES ARE IN PLACE. IF THE SOIL AT THE LOCATION IS SOFT IT IS ADVISABLE TO PLACE A 6 TO 8 INCH LAYER OF CRUSHER RUN STONE DOWN FIRST TO PROVIDE A FIRM FOUNDATION AND PREVENT THE WASHED STONE BEING PRESSED INTO THE GROUND.
  - AT THE LOCATION OF THE EXIT, PLACE AN 8-INCH LAYER OF WASHED STONE 2 TO 3 INCHES IN DIAMETER AT LEAST 50 FEET LONG AND AS WIDE AS THE FULL WIDTH OF THE EXIT OR AT LEAST 10 FEET WIDE. FLARE THE END OF THE STONE WHERE IT MEETS THE PAVEMENT SO THAT THE WHEELS OF TURNING VEHICLES REMAIN ON STONE AND DO NOT TRAVEL OVER UNPROTECTED SOIL.
  - A SQUARE-EDGED SHOVEL AND BROOM WITH STIFF BRISTLES MUST BE PROVIDED AT THE EXIT FOR REMOVING ANY MUD THAT MAY BE TRACKED INTO THE STREET.
- USE
- AS VEHICLES LEAVING THE SITE DRIVE ACROSS THE WASHED STONE THE ABRASIVE ACTION OF THE WASHED STONE SHOULD REMOVE SEDIMENT FROM THE TIRES. IT MAY BE NECESSARY TO USE A SHOVEL TO REMOVE MUD TRAPPED BETWEEN DUAL WHEELS.
  - ANY SOIL TRACKED FROM THE SITE MUST BE REMOVED IMMEDIATELY. A SHOVEL AND BROOM MUST BE USED TO REMOVE AS MUCH SOIL AS POSSIBLE BEFORE WASHING THE PAVEMENT.
- MAINTENANCE
- MATERIALS, EQUIPMENT, AND PERSONNEL MUST BE AVAILABLE FOR MAINTENANCE AT ALL TIMES.
- WHEN THE STONE IN THE EXIT BECOMES CONTAMINATED WITH SOIL AND ITS FUNCTION IS REDUCED TO WHERE SEDIMENT IS BEING TRACKED INTO THE STREET, A 4-INCH LAYER OF CLEAN STONE MUST BE ADDED.
  - DIVERSIONS USED TO DIRECT RUNOFF AWAY FROM THE EXIT TO SEDIMENT-TRAPPING DEVICES MUST BE MAINTAINED ACCORDING TO SPECIFICATIONS FOR THOSE DEVICES.
  - CONTINUAL MAINTENANCE AND/OR REFRESHING OF THE STONE WILL BE REQUIRED TO PREVENT SEDIMENT FROM BEING TRACKED OFF SITE. PROBLEMS MUST BE ANTICIPATED AND THE PROPER PREVENTIVE MAINTENANCE MUST BE PERFORMED.
- REMOVAL
- WHEN THE GRAVEL CONSTRUCTION EXIT IS NO LONGER NEEDED, WHEN THE TRAVELWAYS HAVE BEEN STABILIZED AND THE POTENTIAL FOR TRACKING SOIL AND DEBRIS INTO THE STREET HAS BEEN REMOVED, THE GRAVEL CONSTRUCTION EXIT MAY BE REMOVED.
  - THE STONE AND ANY SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF WHERE THEY WILL NOT CREATE AN EROSION HAZARD.



- INSTRUCTIONS FOR SKIMMER SEDIMENT BASIN INSTALLATION
- REFER TO THE PLANS FOR LOCATION, DIMENSIONS, AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, OR METHODS OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OF PROPERLY INSTALLED SEDIMENT BASINS AS AN AID TO INSTALLATION. REFER TO THE LATEST VERSION OF "A MANUAL FOR DESIGNING, INSTALLING, AND MAINTAINING SKIMMER SEDIMENT BASINS" AVAILABLE FROM EROSION CONTROL PERSONNEL IF THERE ARE ANY QUESTIONS OR PROBLEMS. IF THE SEDIMENT BASIN IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE REBUILT.
  - DETERMINE THE LOCATION ON THE GROUND, TAKING INTO CONSIDERATION:
    - ALLOW SUFFICIENT SPACE FOR THE PIT AND BERM TO BE BUILT TO THE SPECIFIED DIMENSIONS.
    - ALLOW ACCESS TO THE BASIN WHEN IT IS FINISHED TO MAINTAIN AND REMOVE IT, TAKING INTO ACCOUNT FINISHED GRADES, FILL SLOPES, BUILDINGS, UTILITIES, ETC.
    - ALLOW AT LEAST:
      - 15 FEET BETWEEN THE SEDIMENT BASIN AND SINGLE-STORY BUILDINGS.
      - 25 FEET FOR FORK LIFTS BETWEEN THE SEDIMENT BASIN AND MULTIPLE-STORY BUILDINGS.
      - 15 FEET BETWEEN THE SEDIMENT BASIN AND THE TOE OF FILL SLOPES.
    - MAKE SURE RUNOFF FROM THE DISTURBED AREAS ABOVE THE BASIN WILL FLOW INTO AND THROUGH THE SEDIMENT BASIN AND NOT BY-PASS IT. PLACE THE BASIN WHERE DIVERSIONS, SILT FENCE, ETC. CAN DIRECT RUNOFF TO THE BASIN LOCATION.
  - CLEAR THE LOCATION OF THE BASIN, REMOVING TOP SOIL, STUMPS, ROOTS, LARGE ROCKS, AND OTHER OBJECTIONABLE MATERIAL.
    - EXCAVATE THE PIT AS NECESSARY TO CREATE THE REQUIRED VOLUME. KEEP IN MIND:
      - POSITIVE DRAINAGE OUT OF THE PIT MUST BE MAINTAINED TO KEEP STANDING WATER TO A MINIMUM AND ALLOW ACCUMULATED SEDIMENT TO DRY OUT.
      - MAXIMUM 2.5:1 SLOPES ON CUT AND FILL SLOPES, EXCEPT THE OUTLET SIDE, WHICH MUST BE 3:1 OR FLATTER.
    - WHERE THE BASIN IS BEING BUILT ON A SLOPE, FILL AND COMPACT THE EARTH BERM USING GOOD SOIL THAT IS FREE OF VEGETATION AND ROOTS.
    - DO NOT USE TOPSOIL, MUD, STUMPS, ETC. FROM THE EXCAVATION IN THE BERM.
    - EXCAVATE A SMALL PIT BENEATH THE SKIMMER LOCATION AND AROUND ANY SKIMMER RISERS TO PERMIT SKIMMER TO DRAIN WATER FLUSH WITH THE BOTTOM OF THE BASIN.
    - PROVIDE A ROPE ATTACHED TO THE SKIMMER AND SECURED ON THE BERM FOR RETRIEVAL OF THE SKIMMER WHEN NECESSARY.
    - INSTALL THE BAFFLES AS SPECIFIED IN THE PLAN. REFER TO THE ILLUSTRATIONS AND INSTRUCTIONS FOR BAFFLES. INSTALL THE 4-INCH STAKE IN THE CENTER OF THE PIT SHOWING THE TOP OF THE SEDIMENT STORAGE VOLUME.
    - SEED AND MULCH THE SEDIMENT BASIN AND DISTURBED AREAS AROUND IT DURING SPRING, SUMMER, AND FALL. IN WINTER, COVER THESE AREAS WITH A HEAVY LAYER OF STRAW MULCH.
  - MAINTENANCE
  - MATERIALS, EQUIPMENT, AND PERSONNEL MUST BE AVAILABLE FOR MAINTENANCE AT ALL TIMES.
- INSPECT THE SEDIMENT BASIN:**
- DURING CONSTRUCTION: TO SEE IF THE BASIN HAS BEEN DAMAGED BY EQUIPMENT, GRADING ETC. OR PARTIALLY FILLED BY GRADING. IF DAMAGED, REPAIR IT. IF THE VOLUME IS REDUCED, REMOVE THE FILL.
  - AFTER EACH RAINFALL: TO SEE HOW MUCH SEDIMENT HAS ACCUMULATED, IF THE SKIMMER HAS BECOME COVERED OR CLOGGED WITH SEDIMENT, IF THE OUTLET IS ERODED, OR IF RUNOFF IS BY-PASSING THE BASIN. IF THE OUTLET IS ERODED OR RUNOFF IS BY-PASSING THE BASIN, MAKE THE NECESSARY REPAIRS AND CHANGES. INSPECT THE BAFFLES AND REPAIR THEM IF DAMAGED.
- CLEAN OUT THE PIT** WHEN SEDIMENT HAS ACCUMULATED TO THE TOP OF THE SEDIMENT STORAGE VOLUME AS INDICATED BY THE TOP OF THE 4-INCH STAKE IN THE MIDDLE OF THE BASIN. REMOVE THE SEDIMENT AND PLACE IT IN A DISPOSAL AREA OR, IF APPROPRIATE, MIX IT WITH DRY SOIL ON THE SITE. DO NOT DISPOSE OF SEDIMENT IN A MANNER THAT WILL CREATE AN EROSION HAZARD.
- MAINTAIN DRAINAGE** TO THE SEDIMENT BASIN SO THAT RUNOFF DOES NOT BY-PASS IT. MAINTAIN ALL DIVERSIONS AND SILT FENCE DIRECTING RUNOFF TO THE BASIN ACCORDING TO REQUIREMENTS FOR THOSE PRACTICES.
- REMOVAL**
- WHEN THE PROJECT IS COMPLETE AND THE DRAINAGE AREA ABOVE THE BASIN IS STABILIZED, THE SEDIMENT BASIN MUST BE REMOVED.
  - REMOVE THE ACCUMULATED SEDIMENT, EARTH BERMS, SKIMMER AND ANY RISERS, THEN GRADE THE AREA. DISPOSE OF THE SEDIMENT AND BASIN COMPONENTS PROPERLY. SALVAGE SKIMMER IF NOT DAMAGED.
  - STABILIZE THE DISTURBED AREA WITH VEGETATION OR STONE, AS SPECIFIED IN THE PLAN.



**EarthCentric Engineering, Inc.**

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**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA

**EROSION CONTROL**

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	TKM
2	04/08/11	SEWER EXTENSION	TKM
3	09/20/11	OWASA SUBMITTAL	CPK
4	10/27/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS

DATE: NOVEMBER 16, 2010

HORIZONTAL SCALE: N/A

VERTICAL SCALE: N/A

PROJECT MANAGER: CPK

DRAWN BY: SCS

PROJECT NO.: 10-013

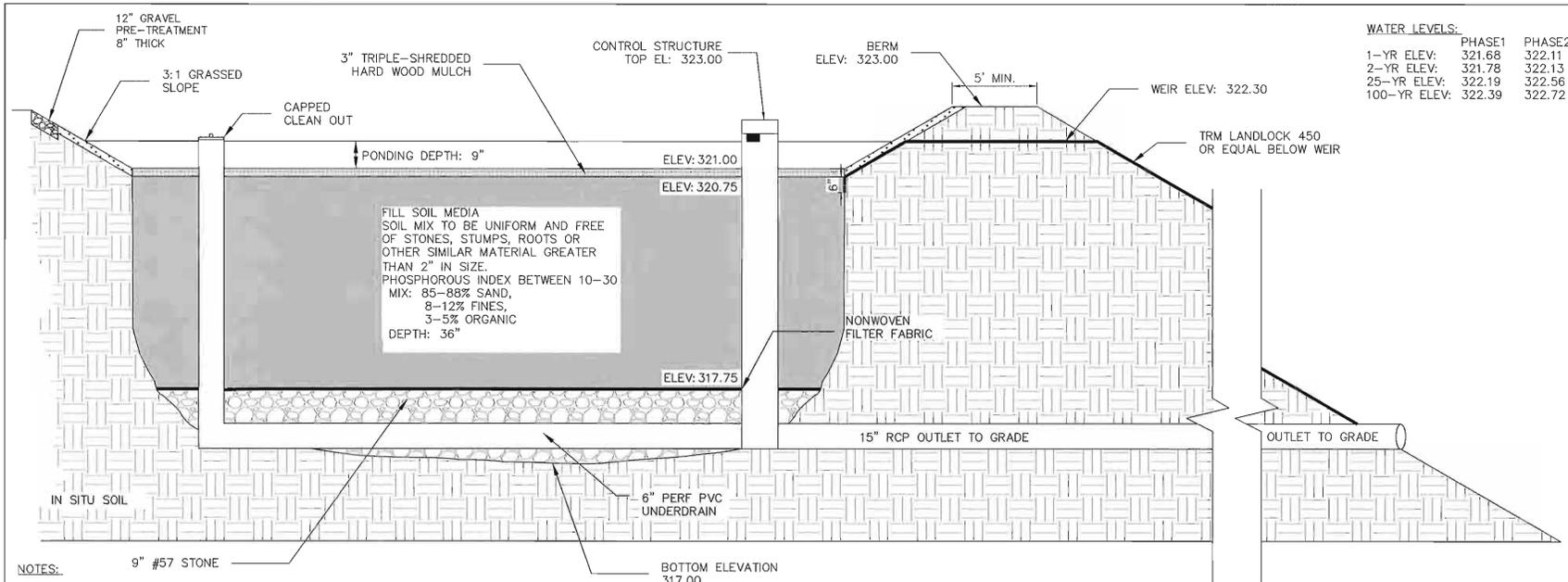
DRAWING NAME: 10-013 DETAILS

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SHEET NO. **D1.1**

REVIEW



**WATER LEVELS:**

	PHASE1	PHASE2
1-YR ELEV:	321.68	322.11
2-YR ELEV:	321.78	322.13
25-YR ELEV:	322.19	322.56
100-YR ELEV:	322.39	322.72

**NOTES:**

RUNOFF ENTERING THE BIORETENTION CELL MUST FLOW IN A DIFFUSE MANNER VIA A LEVEL SPREADER OR OTHER PRE-TREATMENT DEVICE TO CONTROL FLOATABLES AND SCOURING VELOCITY. (SEE GRADING AND STORMDRAINAGE PLAN)

FRED ROYAL, PE, STORMWATER ADMINISTRATOR FOR CHATHAM COUNTY (919-542-8268) MUST BE PROVIDED WITH A USDA SOILS TEXTURAL TEST RESULT AND CHEMICAL ANALYSIS PRIOR TO THE INSTALLATION OF THE SANDY LOAM MATERIAL FOR THE BIORETENTION CELL.

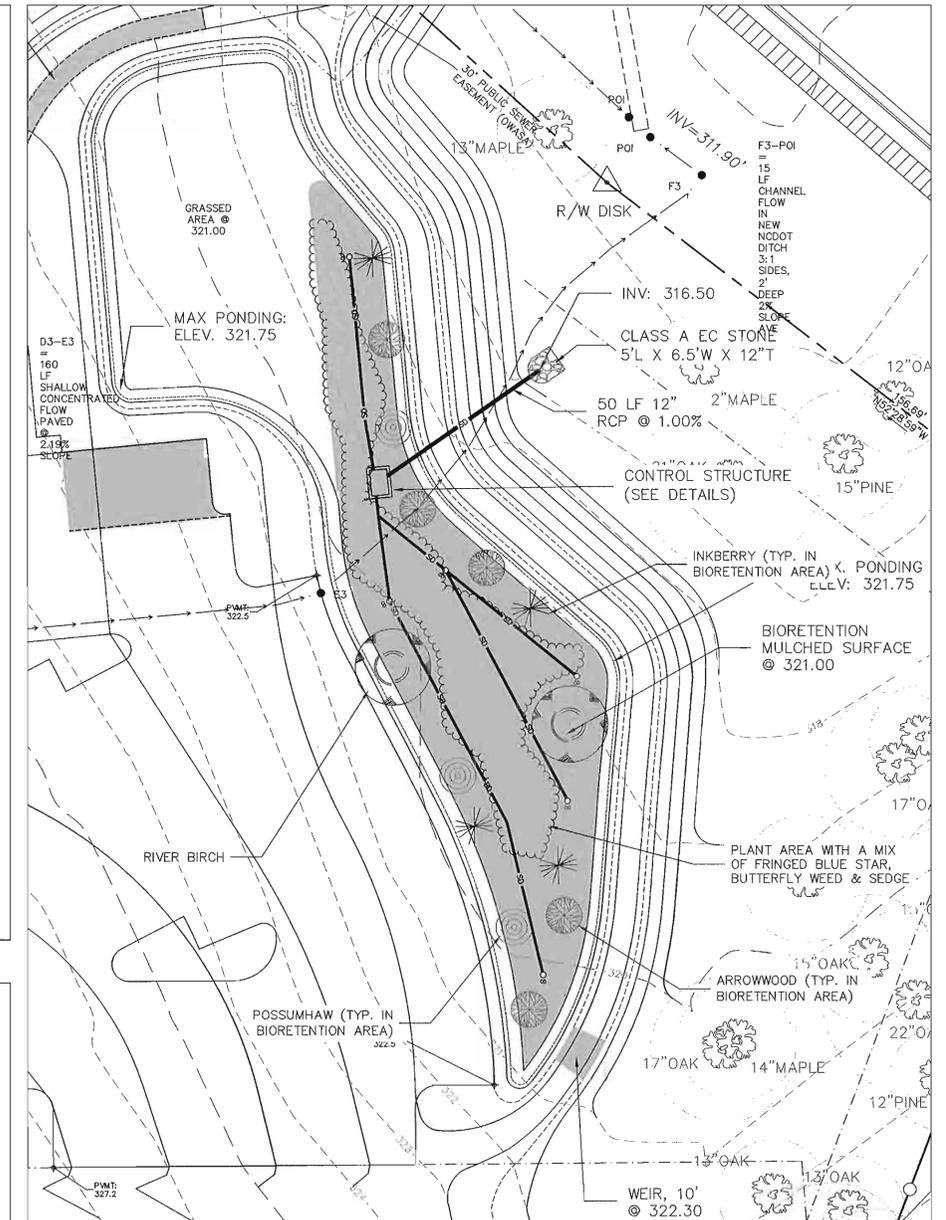
**SOIL MEDIA INSTALLATION NOTES:**

PLACEMENT: INSTALLATION OF SOILS MUST BE DONE IN A MANNER THAT WILL ENSURE ADEQUATE FILTRATION. PLACE SOIL MEDIA IN 12" LIFTS AND DO NOT COMPACT. LIFTS MAY BE LIGHTLY WATERED TO ENCOURAGE NATURAL COMPACTION.

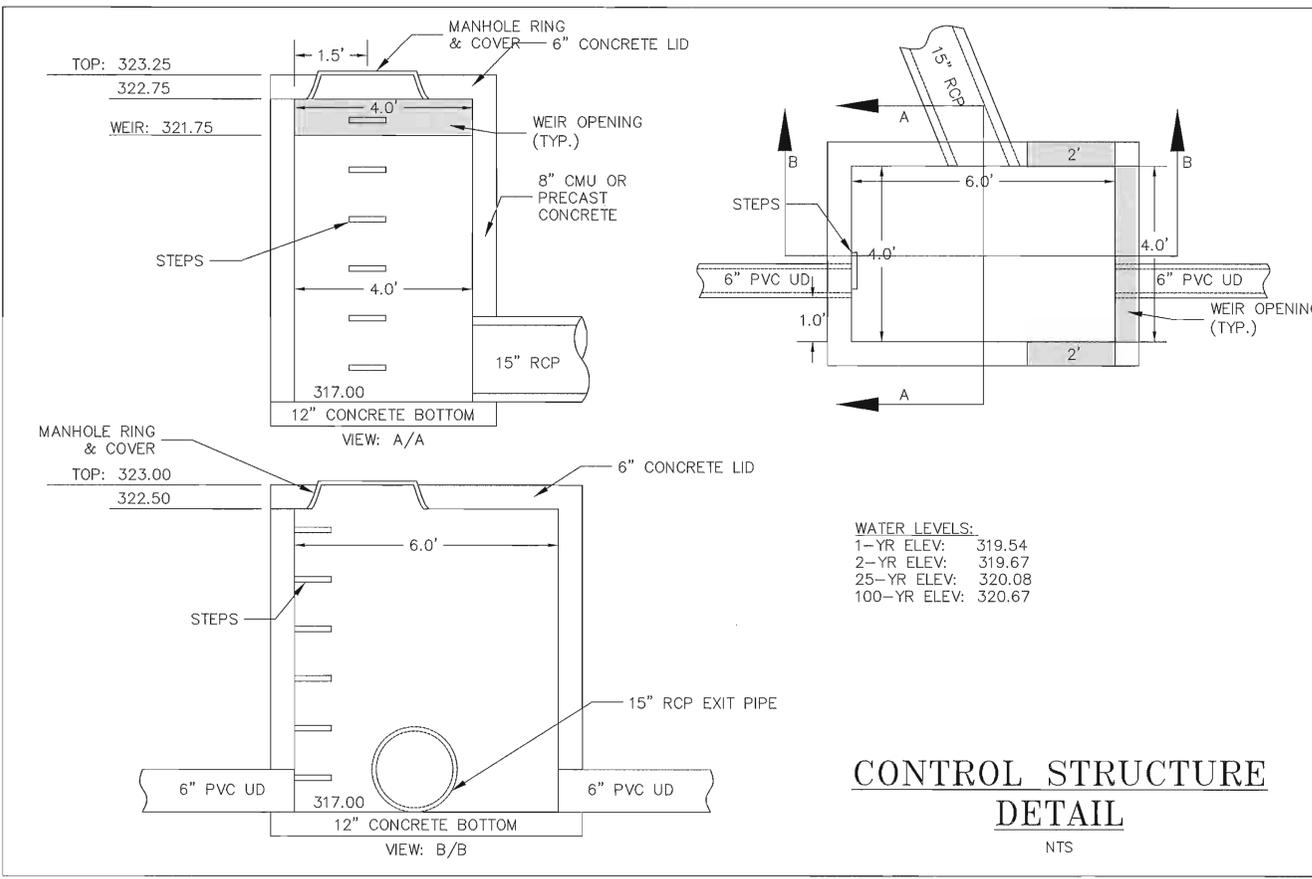
COMPACTION: AVOID OVERCOMPACTION BY ALLOWING TIME FOR NATURAL COMPACTION AND SETTLEMENT. NO ADDITIONAL MANUAL COMPACTION OF SOIL MEDIA IS NECESSARY. RAKE SOIL MATERIAL AS NEEDED TO LEVEL OUT. OVERFILL ABOVE THE PROPOSED SURFACE INVERT TO ACCOMMODATE NATURAL SETTLEMENT TO PROPER GRADE. DEPENDING UPON THE SOIL MATERIAL, UP TO 20% NATURAL COMPACTION MAY OCCUR.

EXCAVATION OF IN SITU MATERIAL: IT IS EXTREMELY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BIORETENTION AREA AND THE BACKFILL. USE ESE EXCAVATION HOES TO REMOVE ORIGINAL SOILS. IF BIORETENTION AREAS ARE TO BE EXCAVATED USING A LOADER, THE CONTRACTOR SHALL USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF-TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCING INFILTRATION RATES AND STORAGE VOLUMES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

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



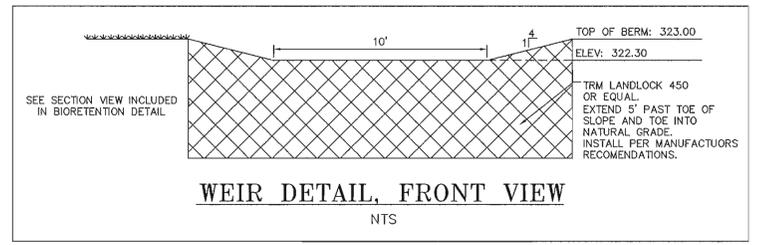
BIORETENTION AREA PHASE 1  
SCALE 1" = 20'



**WATER LEVELS:**

1-YR ELEV:	319.54
2-YR ELEV:	319.67
25-YR ELEV:	320.08
100-YR ELEV:	320.67

**CONTROL STRUCTURE  
DETAIL**  
NTS



**WEIR DETAIL, FRONT VIEW**  
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



**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA

**STORMWATER  
DETAILS (PHASE 1)**

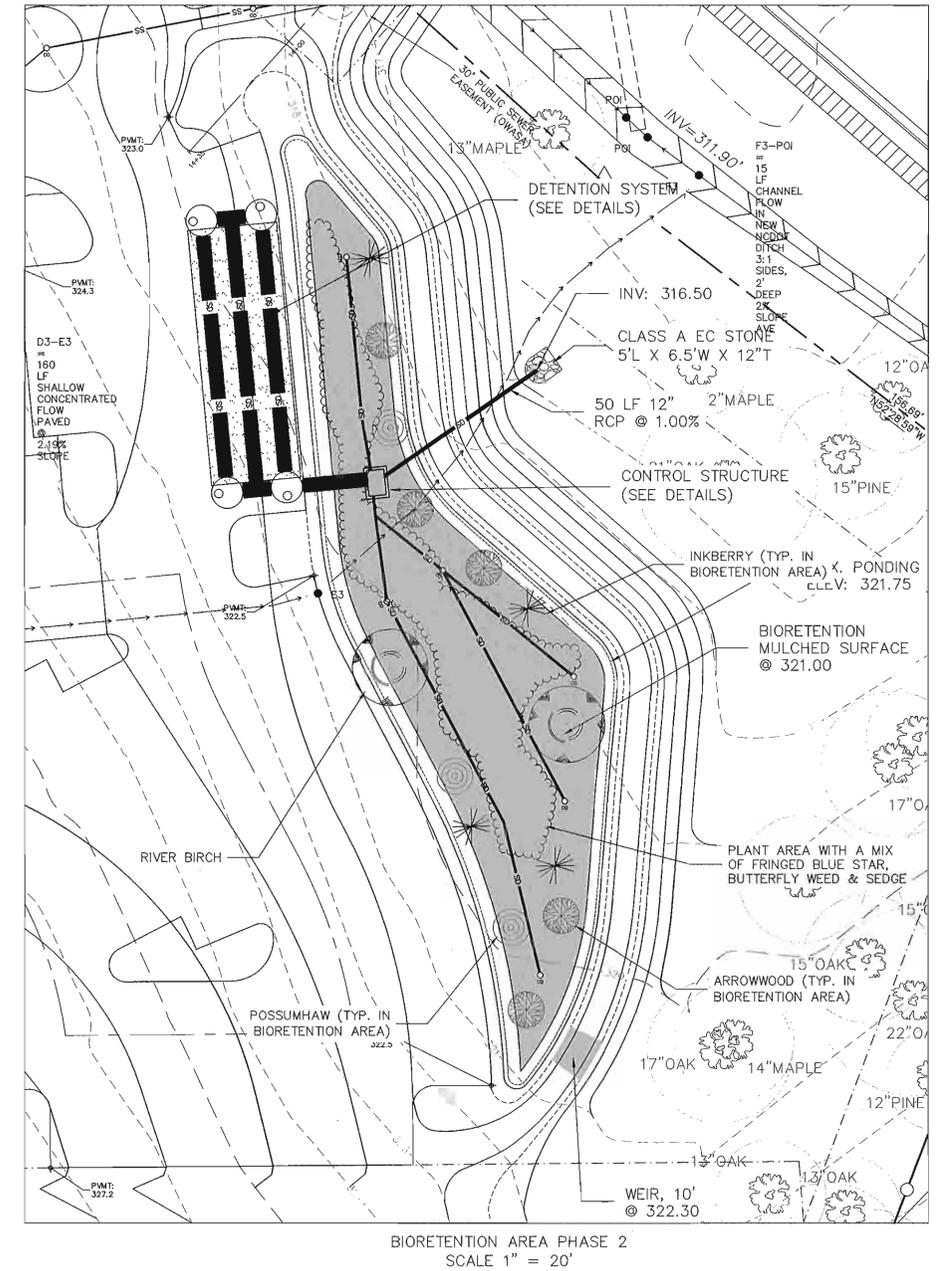
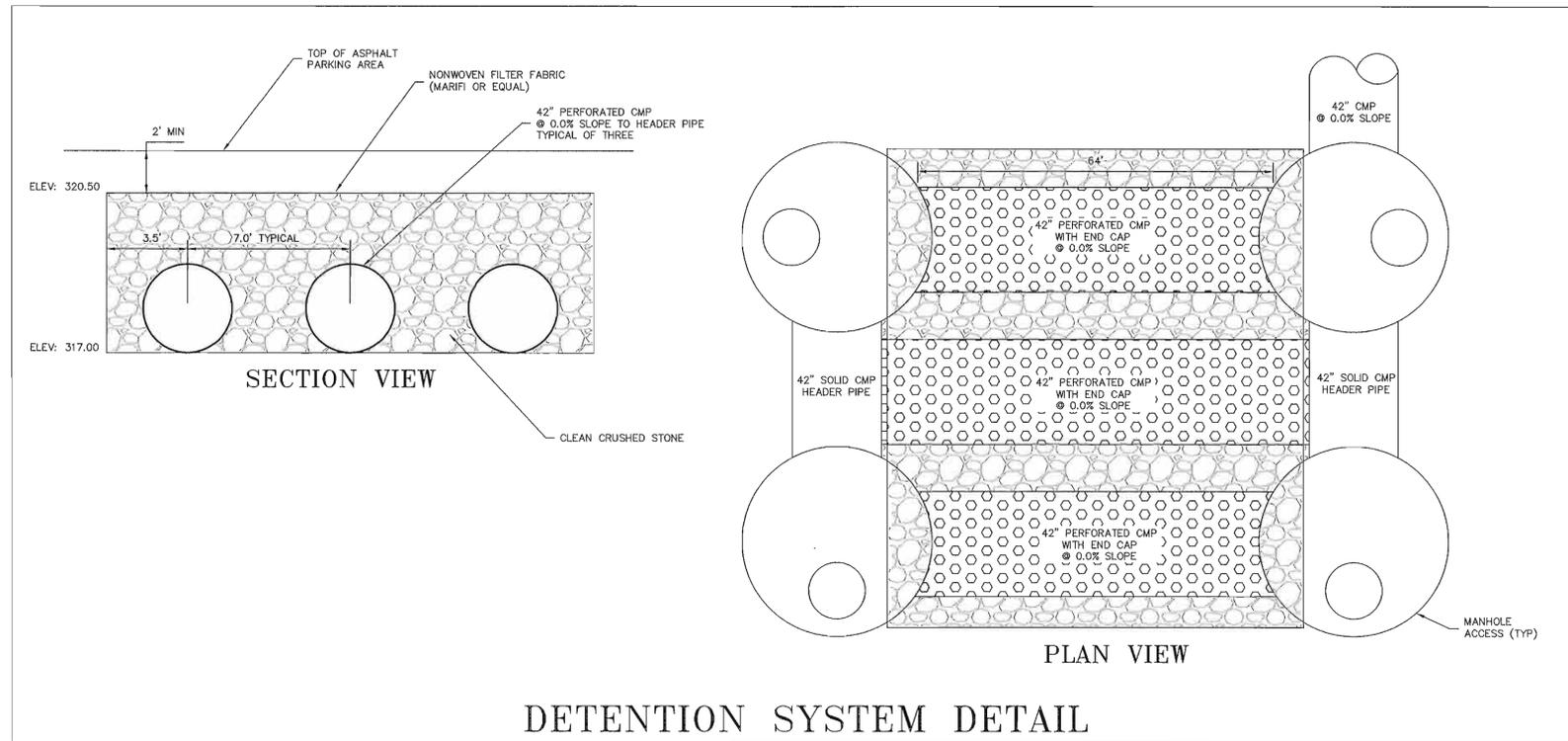
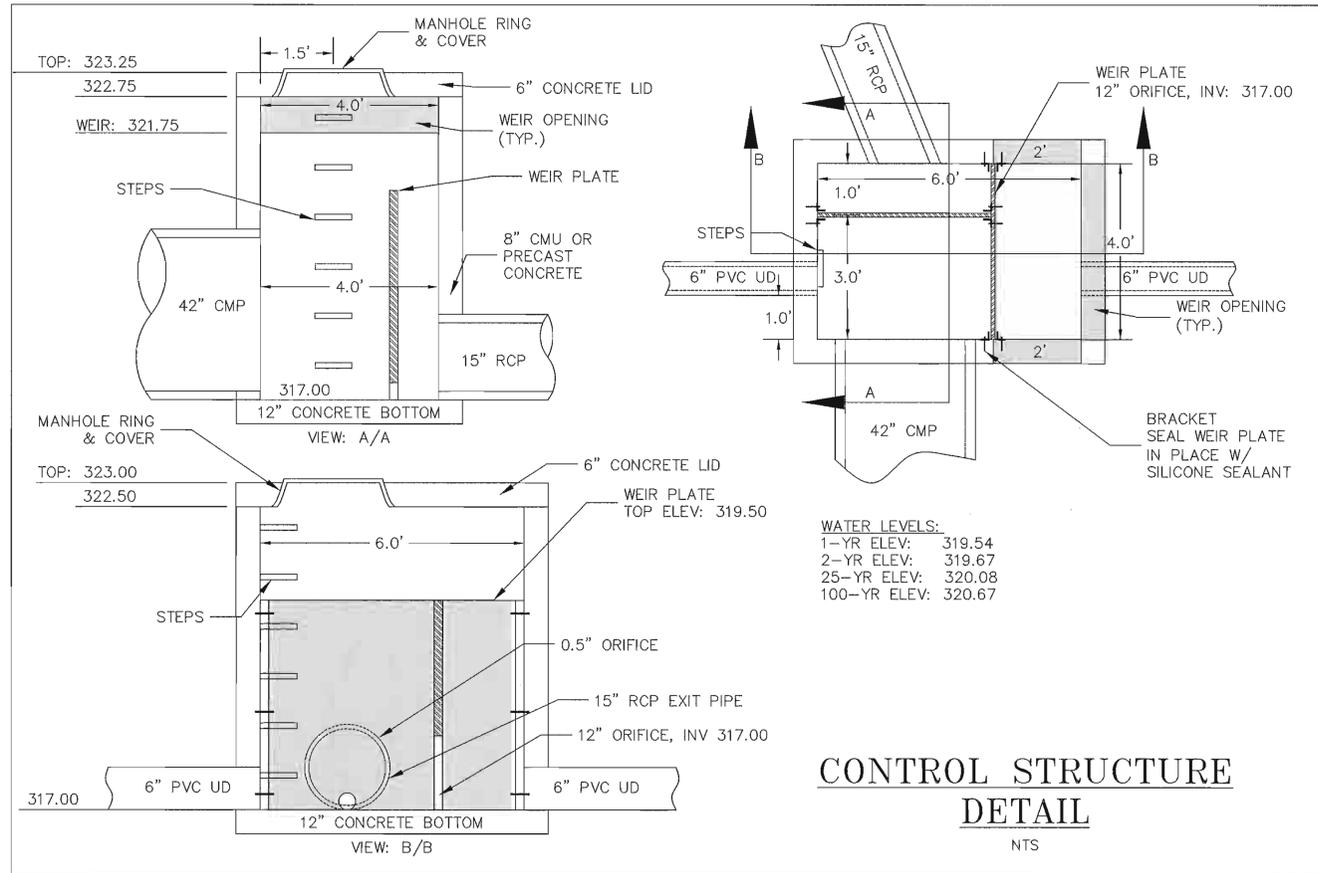
REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CPK
4	10/21/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS

DATE: NOVEMBER 16, 2010  
HORIZONTAL SCALE: N/A  
VERTICAL SCALE: N/A  
PROJECT MANAGER: CPK  
DRAWN BY: SCS  
PROJECT NO.: 10-013  
DRAWING NAME: 10-013 DETAILS

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SHEET NO.  
**D2.0**  
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**EarthCentric Engineering, Inc.**

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 E-Mail: Phil.Koch@EarthCentric.com

INCORPORATED

PRINCIPAL ENGINEER  
 PHIL KOCH - NCPE #22854

**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA

**STORMWATER DETAILS (PHASE 2)**

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CPK
4	10/21/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS

DATE: NOVEMBER 16, 2010

HORIZONTAL SCALE: N/A  
 VERTICAL SCALE: N/A

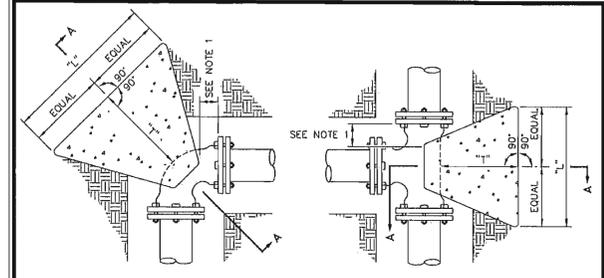
PROJECT MANAGER: CPK  
 DRAWN BY: SCS  
 PROJECT NO.: 10-013  
 DRAWING NAME: 10-013 DETAILS

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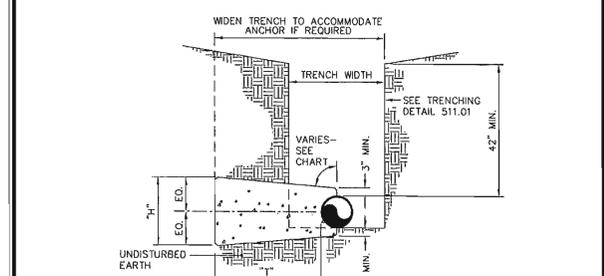
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SHEET NO.  
**D2.1**  
 REVIEW

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FOR ALL BEND FITTINGS FOR TEE FITTING



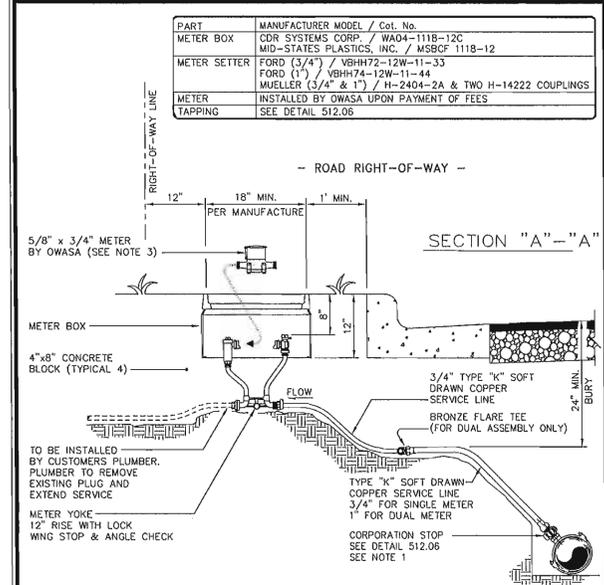
NOTES:  
 1. Concrete blocking is to be formed to ensure accessibility to fittings and poured against undisturbed earth.  
 2. Fittings are to be completely wrapped with plastic, prior to pouring concrete.  
 3. Concrete to be minimum 3,000 psi @ 28 days.

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 (919) 968-4421, (919) 968-4464, www.owasa.org

**BLOCKING DETAIL for HORIZONTAL BENDS AND TEE**

SCALE: Not To Scale, DETAIL # 512.02, REVISION DATE: August 15, 2003, SHEET # 1 of 1

Details Provided by APPIAN Consulting Engineers - WWW.APPIANENGINEERS.COM [X:18X] (K148X)



NOTES:  
 1. Bronze service saddles shall be used on all service connections. Direct taps shall be made only as directed by an OWASA representative. See tapping detail 512.06.  
 2. Omitted.  
 3. If installation is for stub-out meter, meter should be purchased from OWASA. (At applicant's expense)  
 4. Meter must be level across meter connections.  
 5. Substitution requires approval by OWASA's Director of Engineering.

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**3/4" SINGLE & 1" DUAL SERVICE INSTALLATION**

SCALE: Not To Scale, DETAIL # 512.01, REVISION DATE: April 13, 2007, SHEET # 1 of 2

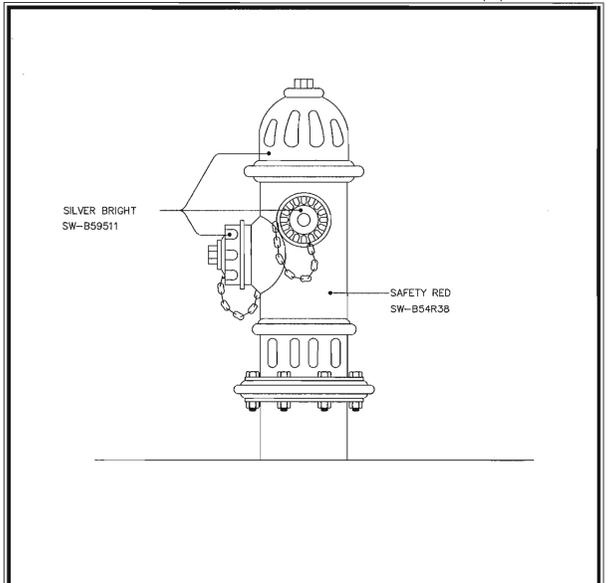
- Orange Water & Sewer Authority**  
 Utility Notes for (New Life Fellowship Church)
- Standards and Specifications - All construction shall be in accordance with OWASA Standards and Specifications dated August, 2003, latest revised version.
  - Please be advised that OWASA approval of this project is for compliance with OWASA Policies, Standards, and Specifications only. All other matters pertaining to this project are the responsibility of the Design Engineer. The issuance of this letter does not preclude the Developer, Project Engineer, Contractor, or other Agents or Parties acting on their behalf from full compliance with OWASA current Standards, Specifications, and Procedures or from complying with any and all statutes, rules, regulations, and ordinances which may be imposed by other government agencies (local, state, and federal) which may have jurisdiction. Violations will result in the OWASA Project approval being rescinded.
  - Preconstruction Conference - A preconstruction conference with the OWASA Construction Inspector is required before beginning any water or sewer utility construction.
  - Contact the National "Call Before You Dig" 811 to have OWASA facilities located before beginning any excavation.
  - Field Changes are not considered approved by OWASA unless revised plans have been submitted to OWASA for review and approval. Contractors that proceed with construction prior to this approval do so at their own risk.
  - Sewer Statement - Sewer lines under construction shall be plugged with a mechanical plug at the first manhole upstream from the point of connection. Plug shall be placed in the outlet connection and secured with steel cables. Plug shall remain in place until acceptance of lines by OWASA. Before any construction is to be begun on the site, Contractor shall protect all existing OWASA Sewer Manholes with iron fence post and orange tree protection fencing. Water, stone, dirt, or any other debris shall not be allowed to enter the OWASA Sanitary Sewer System during flushing operations or at any other time. Construction taking place in the vicinity of any existing OWASA sewer lines or manholes shall not cause any inflow of surface water or debris to enter the OWASA Sanitary Sewer System. Existing OWASA manholes located in construction sites are to be kept clear and accessible to OWASA personnel at all times. The Owner and/or Contractor shall be responsible for any damages incurred to the OWASA Sanitary Sewer System and any fines imposed by the State of North Carolina Division of Water Quality due to sewer spills or overflows.
  - Water Valves - Existing valves shall be operated by OWASA personnel only. Valves that separate purty approved water and unapproved water are to remain closed at all times. Valves may be temporarily opened for loading and flushing by the OWASA Inspector only.
  - Protection of Existing OWASA Facilities - Before any construction is to begin on the site, Contractor shall protect all OWASA Meter Vaults, Fire Hydrants, Valve Boxes, and Manholes with iron fence post and orange tree protection fencing. All existing OWASA facilities are to be kept clear and accessible to OWASA personnel at all times.
  - Sewer Use Ordinance - Discharge from this project must be in compliance with the OWASA Sewer Use Ordinance. A grease interceptor shall be provided when in the opinion of OWASA it is necessary for the proper handling of wastewater containing excessive amounts of grease. All interception units must be of the type and capacity which is certified by the Project Engineer as meeting the requirements of OWASA.
  - Sewer Services - Each building connected to the sewer system shall be served by a separate building sewer of not less than 4" in diameter. Sewer services located within public right-of-ways or OWASA sewer easements must be constructed of ductile iron pipe from the tap up to and including the first clean-out. Except for dead end manholes, all 4" inch sewer services must be tapped into the sewer main. All 6" services must be connected to a manhole.
  - Existing Valves - Contractor responsible for verifying that existing valve at the point of connection to the OWASA system is adequate for performing and passing hydrostatic pressure and leakage test. Contractor, at his expense, may optionally replace valve or install a new valve for the purpose of performing a pressure test for new main installation. If Contractor elects to pressure test against existing valve, Contractor accepts responsibility for ensuring passing pressure test in accordance with OWASA requirements. In any case, no claim whatsoever shall be made against OWASA for failure of pressure test.
  - Dechlorination Requirements - The Contractor shall be responsible for neutralization of chlorinated water at the point of discharge from the main being tested. This shall occur following chlorination to disinfect a main or any other time when elevated levels of chlorine could potentially be discharged into the environment by the Contractor. At the time the disinfection and purty testing procedures are discussed with the OWASA Construction Inspector, the procedure for dechlorination will be covered. Absolutely no flushing, disinfection, or purty sampling is to take place without prior approval of a sampling plan by the OWASA Inspector.
  - Cross-Connection Control Ordinance - Backflow Prevention will be required in accordance with OWASA Cross-Connection Control Ordinance and Manual.
  - Fire Protection Systems - Pressure testing, chlorination, and purty testing shall be completed before the installation of the OGDAR/PDPA unit.
  - Remote Read-out Devices - OGDAR and RPDPA devices located inside buildings must be equipped with an AMR Meter to be purchased from OWASA and installed by the Contractor. Meter purchase will include an OWASA provided box that is to be mounted on the outside of the building (see OWASA Detail 515.03). The box contains an ERT (transmitter) and a remote read-out device.
  - Existing water and/or sewer lines encountered during construction must be supported in a manner acceptable to the OWASA Construction Inspector. The OWASA Construction Inspector under the direction of the OWASA Engineering Manager may require existing pipes to be replaced with new ductile iron pipe.
  - Water outages necessary for the connection of new construction to existing pipelines must be coordinated in advance with the OWASA Construction Inspector and the affected parties in accordance with OWASA Policy. A two week notice is required.

Date Issued: (10/21/2011)  
 Orange Water and Sewer Authority  
 Close-out Documentation Checklist  
 Project: (New Life Fellowship Church)

- In addition to a Final Inspection approved by the OWASA Construction Inspector, the following documents must be received and approved by OWASA before acceptance of the project and the setting of meters. The following shall be submitted as a complete package to the OWASA Engineering Associate for Third Party Review. Partial submittals are considered incomplete. All incomplete submittals will be returned.
- Engineer's Certification for DEH Public Water Supply Section permitted water extension - Submit original document to OWASA for submittal to NCDENR. Receipt of the DEH Public Water Supply Section Final Approval Letter is required before the permitted water system is placed into service. State requirement no exceptions.
  - Engineer's Certification for DWQ permitted sewer extension - Engineer must use the certification form attached to the sewer permit from NCDENR. Record Drawings are required to be submitted to NCDENR along with the Certification of Completion as a part of the supporting documentation. Both documents must be sealed by Engineers from the same Organization. Submit original document to OWASA along with the supporting documentation required by DWQ. The permitted sewer system shall not be placed into service until the Engineer's Certification and Supporting Documentation have been submitted by OWASA to DWQ. State requirement no exceptions.
  - Asset Letter - Submit original document on OWASA standard form.
  - Letter of Dedication - Submit original document on OWASA standard form.
  - Record Drawings - Construction drawings shall be modified to reflect actual field installations. All DEH Public Water Supply Section permitted extensions and DWQ permitted extensions shall be signed and sealed by a Licensed Professional Engineer in the State of North Carolina. Submit three copies of the record drawing for review by the OWASA Engineering Staff.
  - Digital Submissions - Water Feature Database (MS Access), Manhole Datasheet Database (MS Access), and Record Drawing (AutoCAD .dwg format). Contact the OWASA Engineering Technicians for information concerning this submittal.

Date Issued: (10/21/2011)

OWASA 06/27/2010 - 4:33:23 PM



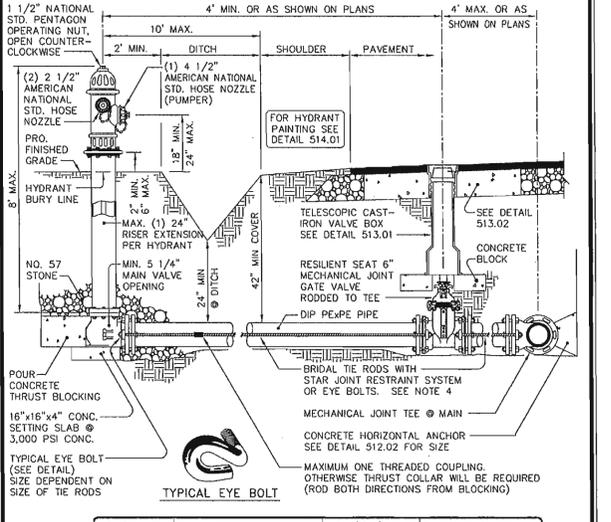
NOTES:  
 1. Use sherwin-williams industrial enamel or equal.  
 2. Paint colors are applicable to the following locations:  
 a. Town of Carboro  
 b. Town of Chapel Hill  
 c. Durham County  
 d. Orange County  
 e. University of North Carolina

**ORANGE WATER AND SEWER AUTHORITY**  
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 (919) 968-4421, (919) 968-4464, www.owasa.org

**FIRE HYDRANT PAINTING SPECIFICATIONS**

SCALE: Not To Scale, DETAIL # 514.01, REVISION DATE: August 27, 2010, SHEET # 1 of 1

Details Provided by APPIAN Consulting Engineers - WWW.APPIANENGINEERS.COM 06/25/2007 - 11:34:48 PM



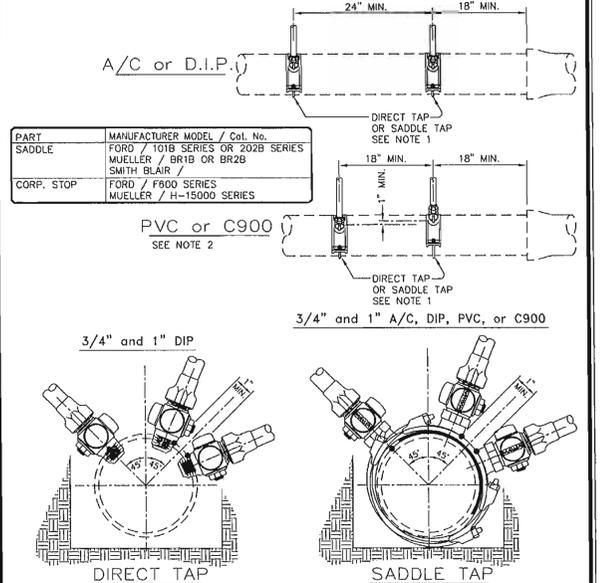
NOTES:  
 1. Wedge action restrainer gland joint restraints are preferred, and may be used with fire rods.  
 2. Hydrants to be placed with pumper nozzle facing the street or as otherwise directed by OWASA.  
 3. When valve box is placed outside of pavement, provide concrete stabilization pad. (detail 513.02)  
 4. Minimum of (2) 3/4" diameter rods w/standard coating.  
 5. Where hydrant is set behind guardrail, centerline of pumper nozzle to be a minimum of 12" and a maximum of 18" above top of guardrail.  
 6. Fire hydrant to be oiled & greased and cap to be sprayed (Non-petroleum - based) after installation.

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**TYPICAL FIRE HYDRANT STREETS with BAR DITCH**

SCALE: Not To Scale, DETAIL # 514.02, REVISION DATE: August 15, 2003, SHEET # 1 of 1

Details Provided by APPIAN Consulting Engineers - WWW.APPIANENGINEERS.COM [X:18X] (R16X)



NOTES:  
 1. All bronze saddle (Single or double strap for 3/4" and 1")  
 2. If 2 taps are made on each side of the main there shall be a minimum of 18" horizontal separation. Multiple taps on the same side shall have a minimum 18" horizontal separation and staggered a minimum of 1" vertically to prevent damage to the main.  
 3. Bronze service saddles shall be used on all service connections. Direct taps shall be made only as directed by an OWASA representative.

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**STANDARD 3/4" and 1" WATER TAPPING DETAIL**

SCALE: Not To Scale, DETAIL # 512.06, REVISION DATE: April 13, 2007, SHEET # 1 of 1



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



**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA

**UTILITY DETAILS WATER**

REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CPK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CPK
4	10/21/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS

DATE:	NOVEMBER 16, 2010
HORIZONTAL SCALE:	N/A
VERTICAL SCALE:	N/A
PROJECT MANAGER:	CPK
DRAWN BY:	SCS
PROJECT NO.:	10-013
DRAWING NAME:	10-013 DETAILS

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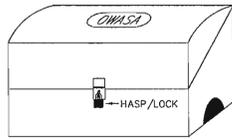
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SHEET NO. **D3.0**

REVIEW

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TYPICAL ENCLOSURE



PART	MANUFACTURER MODEL / Cat. No.
1 BACKFLOW PREVENTION ASSEMBLY, AS APPLICABLE	SEE SPECS. 02510 - PRODUCTS
2 1/4" TURN FULL PORT BRONZE BALL SHUT-OFF VALVE	---
3 90° BRASS ELBOW	---
4 THREADED UNION	---
5 3/4" THRU 2 1/2" STAINLESS STEEL OR BRASS THREADED PIPE	---
6 3/4" THRU 2 1/2" STAINLESS STEEL OR BRASS THREADED PIPE	---
7 INSULATED ENCLOSURE WITH LOCKING ACCESS AND HEATER (120 V, 1 PHASE 60 HZ) VERIFY FITTINGS WILL FIT INSIDE BOX BEFORE ORDERING	HOTBOX / HB.75 - HB.3E (OR APPROVED EQUIVALENT)
8 STAINLESS STEEL ANCHOR BOLTS PER BOX MANUFACTURER RECOMMENDED SIZE AND SPACING	---
9 PROVIDE 120V RECEPTACLE ON GFCI NEAR PIPE RISER, SET MINIMUM 18" ABOVE FLOOR	UL STD. 943-NEMA 3R.

NOTES:

- Provide minimum 1" annular clearance around all risers and electrical conduit.
- Slope floor to drain to ports of both ends. Ensure positive surface grade away from enclosure.

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PO Box 366  
Charlotte, NC 27510-0366  
www.owasa.org

**ORANGE WATER AND SEWER AUTHORITY**  
Voice: (919) 968-4423  
Fax: (919) 968-4464

SCALE: Not To Scale  
REVISION DATE: August 15, 2003  
SHEET # 2 of 3

3/4" to 2" DCV, RPZ ASSEMBLY (ABOVE GROUND)

SPECIFICATION SHEET

MasterSeries® 850 Double Check Valve Assemblies

Size: 2 1/2" - 10" (65mm - 250mm)

The FEBCO MasterSeries® 850 Double Check Valve Assemblies are designed for non health hazard applications. End Connections - Flanged ANSI B16.1 Class 125

Pressure - Temperature

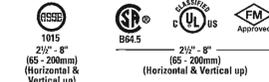
Max. Working Pressure: 175psi (12.1 bar)  
Hydrostatic Test Press: 350psi (24.1 bar)  
Temperature Range: 32°F to 140°F (0°C to 60°C)

Materials

Main Valve Body: Ductile iron Grade 65-45-12  
Coating: Fusion epoxy coated internal and external AWWA C550-90  
Shutoff Valves: NIS resilient wedge gate valves AWWA C509  
Trim: Bronze  
Elastomer Disc: EPDM  
Spring: Stainless steel  
Clamp: AWWA C506

Approvals - Standards

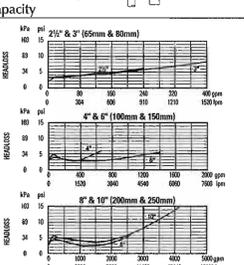
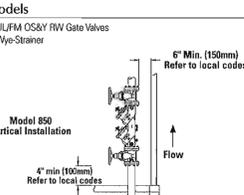
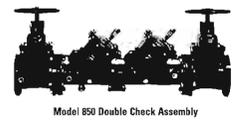
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California - 2 1/2" - 8" (65 - 200mm) (Horizontal & Vertical Up)
- ANSI/AWWA (C510) - 2 1/2" - 8" (Horizontal & Vertical Up), 10" (Horizontal)



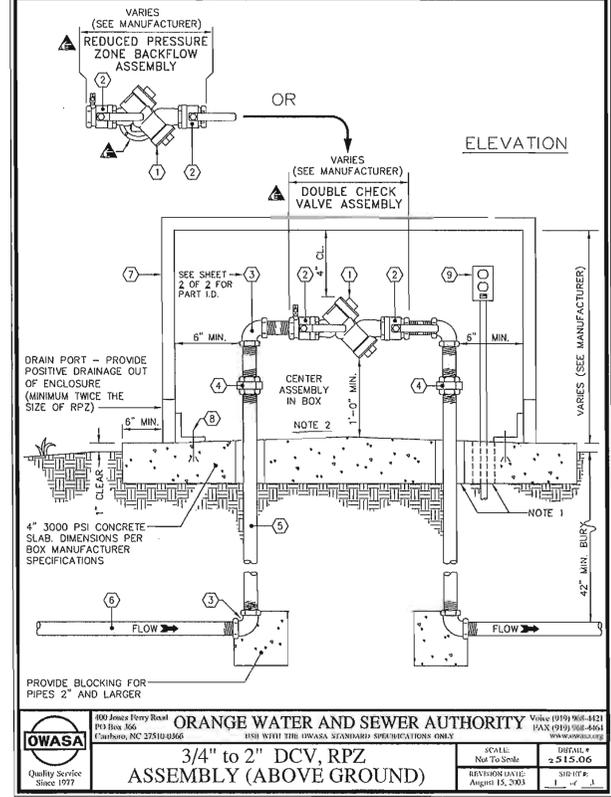
\* Less gates not FM approved. Less gates not UL Classified unless installed with UL listed gate valves.

Job Name \_\_\_\_\_ Contractor \_\_\_\_\_  
Job Location \_\_\_\_\_ Approval \_\_\_\_\_  
Engineer \_\_\_\_\_ Contractor's P.O. No. \_\_\_\_\_  
Approval \_\_\_\_\_ Representative \_\_\_\_\_

FEBCO product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact FEBCO. FEBCO reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on FEBCO products previously or subsequently sold.



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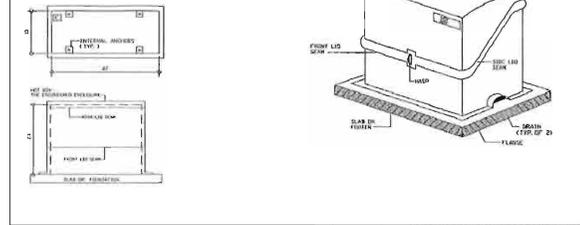
SCALE: Not To Scale  
REVISION DATE: August 15, 2003  
SHEET # 2 of 3

3/4" to 2" DCV, RPZ ASSEMBLY (ABOVE GROUND)

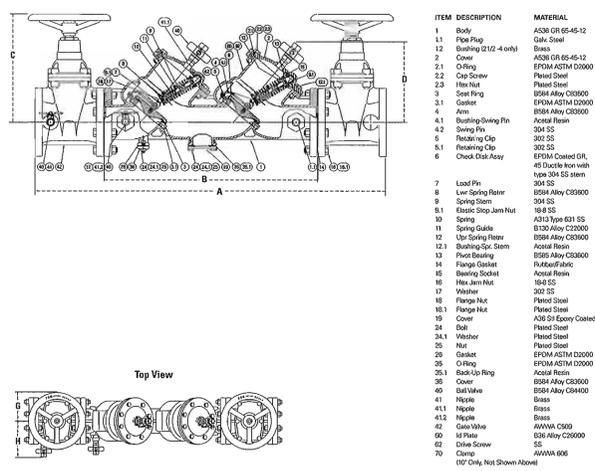
Hot Box® HB1 Enclosures

Specifications

- Recommended slab size is 36" x 22" x 4" minimum thickness.
- Heat is provided by a 50W, 120V, single phase heat trace cable.
- The internal dimensions of this model are 27" x 13" x 23".
- The shipping weight of this unit is 35 lbs.
- This unit is the LB1 model when ordered without heat.



Model 850 / Materials of Construction



Dimensions and Weights

Size: 2 1/2" - 10" (65 - 250mm)

SIZE (DN)	DIMENSIONS												HRS	DSBY		
	A	B	C*	D	E	F	G	H	I	J	K	L				
2 1/2	65	40K	103K	26 1/2	64K	12 1/2	32 1/2	10	25 1/4	4 1/2	11 1/4	7 1/8	18 1/8	90	203	92
3	80	41 1/4	106 1/4	26 1/2	65 1/2	12 1/2	32 1/2	10	25 1/4	4 1/2	11 1/4	7 1/8	18 1/8	90	213	97
4	100	48 1/4	117 1/2	28	71 1/4	14 1/2	35 1/2	10 1/2	27 1/2	5 1/2	12 1/4	8 1/8	20 1/2	103	242	102
6	150	56	142 1/2	34 1/2	83 1/2	17 1/2	37 1/2	12 1/2	32 1/2	6 1/2	13 1/4	9 1/8	23 1/2	124	304	124
8	200	65	166 1/2	41 1/2	100 1/2	20 1/2	40 1/2	15 1/2	37 1/2	7 1/2	14 1/4	10 1/8	26 1/2	142	354	142
10	250	72 1/2	184 1/2	46 1/2	117 1/2	23 1/2	43 1/2	18 1/2	40 1/2	8 1/2	15 1/4	11 1/8	29 1/2	160	404	160

\* With NIS Gate Valves  
Note: Dimensions shown are nominal. Allowances must be made for normal manufacturing tolerances.

USA: Fresno, CA • Tel: (559) 441-5300 • Fax: (559) 441-5301 • www.FEBCO.com  
Canada: Burlington, ON • Tel: (905) 332-4990 • Fax: (905) 332-7068 • www.FEBCO.com

FEBCO MASTERseries ISO 9001-2008 CERTIFIED

ES-F-850L 1119



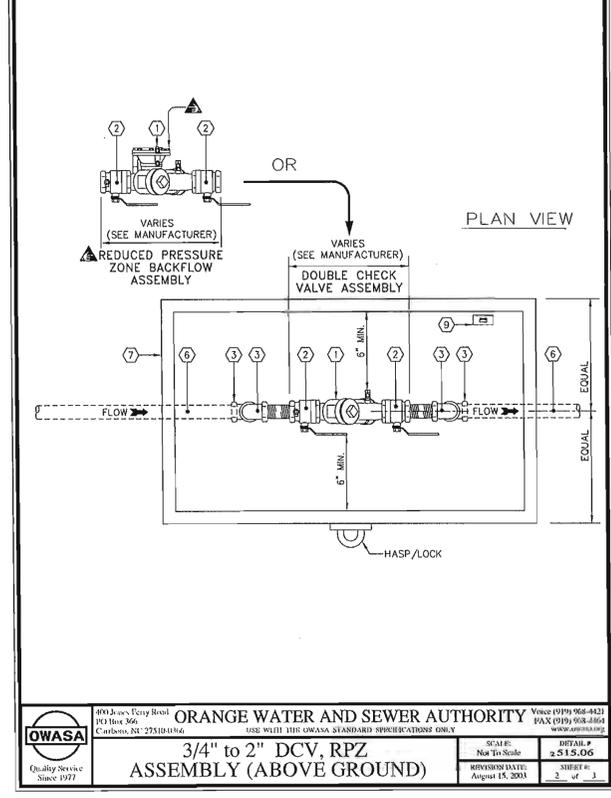
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E-Mail: Phil.Koeh@EarthCentric.com



**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA

**UTILITY DETAILS WATER**

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PO Box 366  
Charlotte, NC 27510-0366  
www.owasa.org

**ORANGE WATER AND SEWER AUTHORITY**  
Voice: (919) 968-4423  
Fax: (919) 968-4464

SCALE: Not To Scale  
REVISION DATE: August 15, 2003  
SHEET # 2 of 3

3/4" to 2" DCV, RPZ ASSEMBLY (ABOVE GROUND)

REV.	DATE	DESCRIPTION	BY	CHK
1	02/18/11	PRE-SUBMITTAL REVISIONS	TKM	TKM
2	04/08/11	SEWER EXTENSION	TKM	TKM
3	09/20/11	OWASA SUBMITTAL	CPK	CPK
4	10/21/11	FULL SUBMITTAL	CPK	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS	SCS

DATE: NOVEMBER 16, 2010  
HORIZONTAL SCALE: N/A  
VERTICAL SCALE: N/A  
PROJECT MANAGER: CPK  
DRAWN BY: SCS  
PROJECT NO.: 10-013  
DRAWING NAME: 10-013 DETAILS

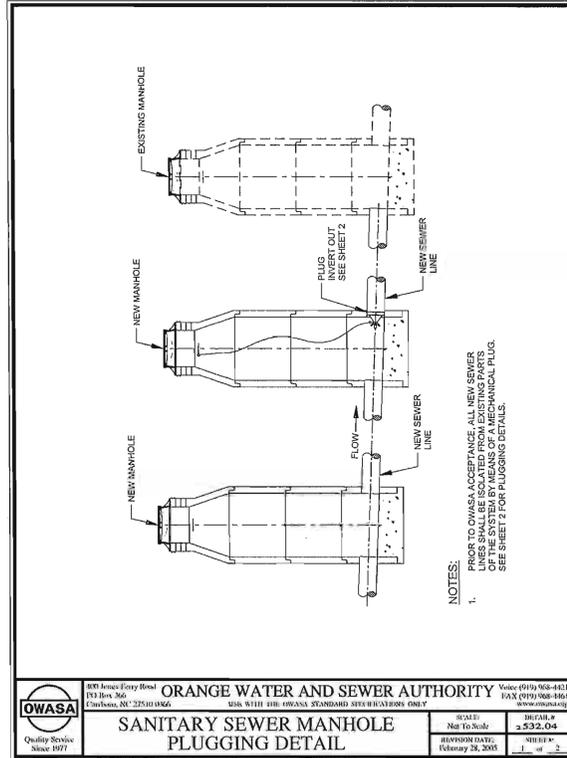
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REVIEW

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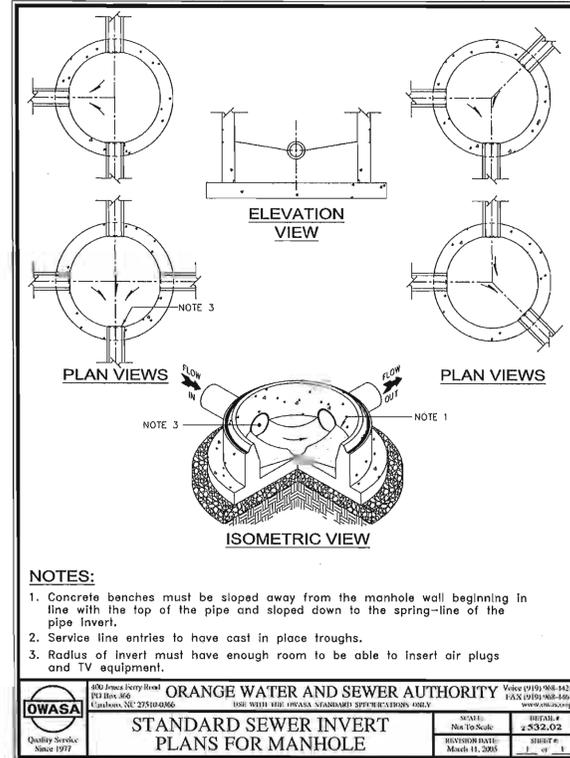


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**SANITARY SEWER MANHOLE PLUGGING DETAIL**

SCALE: Not To Scale SHEET # 2 OF 2  
 REVISION DATE: February 28, 2005 SHEET # 2 OF 2

Details Provided by APPIAN Consulting Engineers - WWW.APPIANENGINEERS.COM 06/25/2007 - 12:19:28 PM

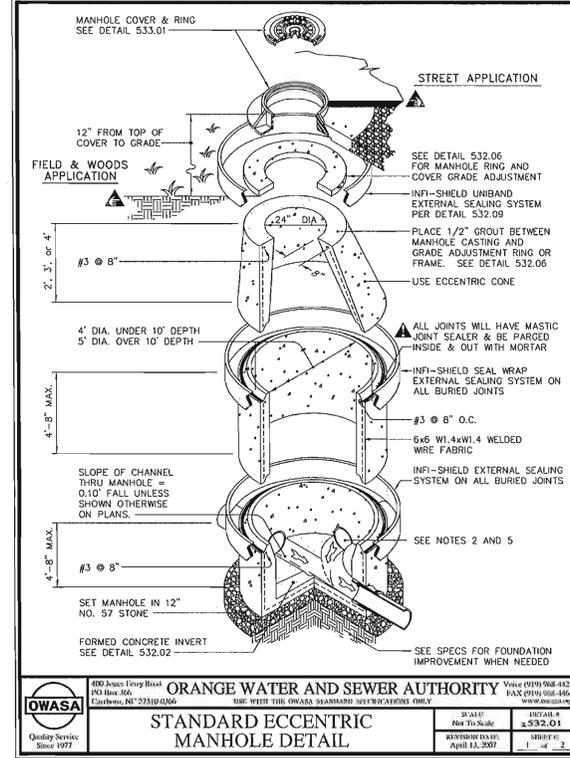


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**STANDARD SEWER INVERT PLANS FOR MANHOLE**

SCALE: Not To Scale SHEET # 2 OF 2  
 REVISION DATE: March 11, 2005 SHEET # 2 OF 2

Details Provided by APPIAN Consulting Engineers - WWW.APPIANENGINEERS.COM [RTEXT] (RTEXT)

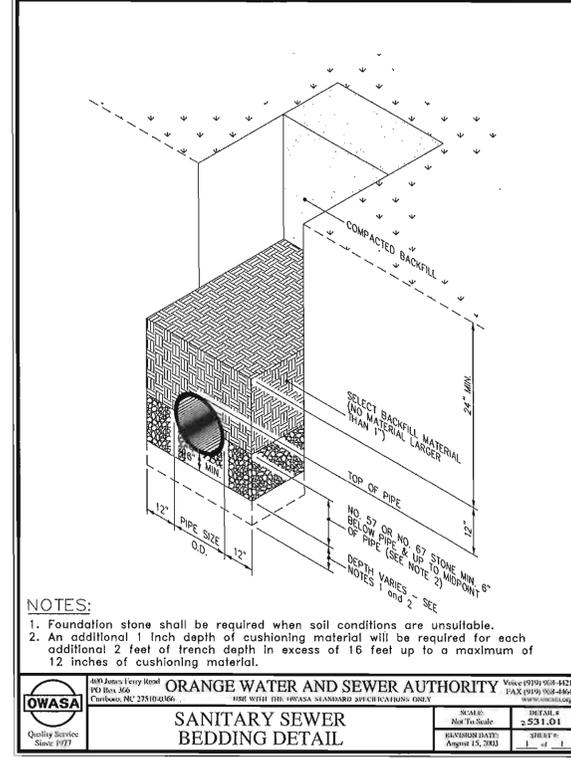


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**STANDARD ECCENTRIC MANHOLE DETAIL**

SCALE: Not To Scale SHEET # 2 OF 2  
 REVISION DATE: April 13, 2007 SHEET # 2 OF 2

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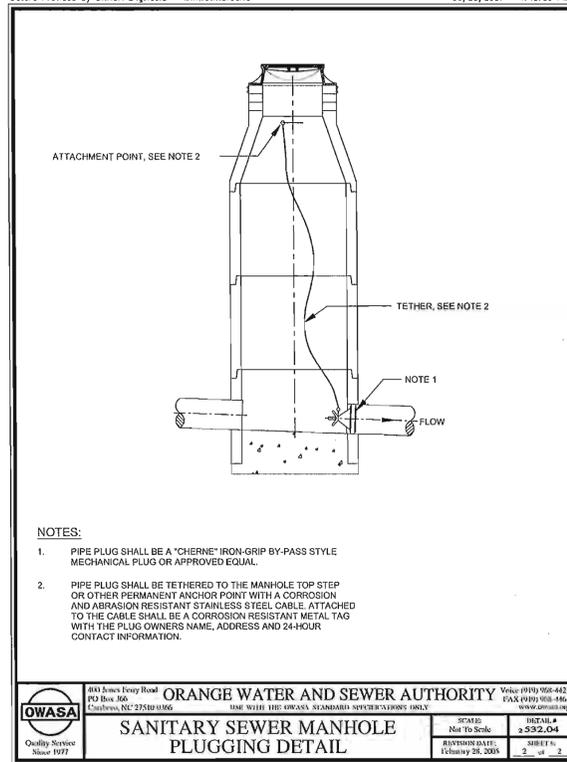


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**SANITARY SEWER BEDDING DETAIL**

SCALE: Not To Scale SHEET # 2 OF 2  
 REVISION DATE: August 15, 2003 SHEET # 2 OF 2

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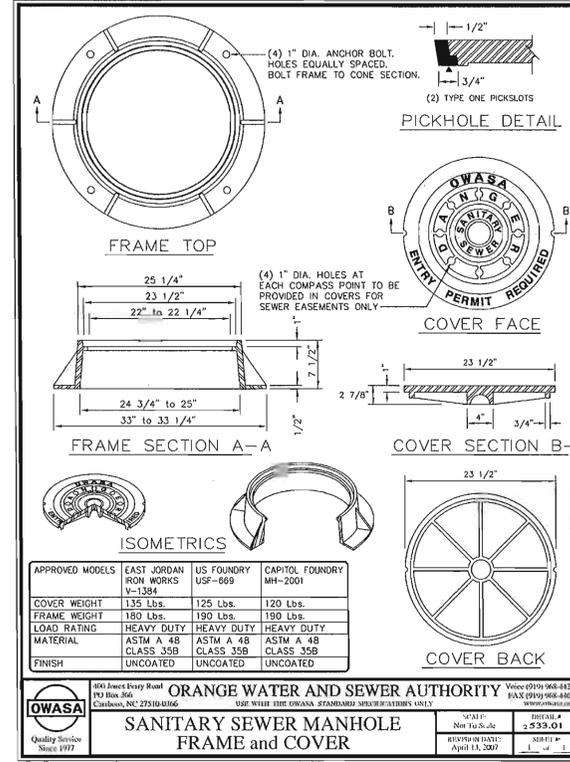


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**SANITARY SEWER MANHOLE PLUGGING DETAIL**

SCALE: Not To Scale SHEET # 2 OF 2  
 REVISION DATE: February 28, 2005 SHEET # 2 OF 2

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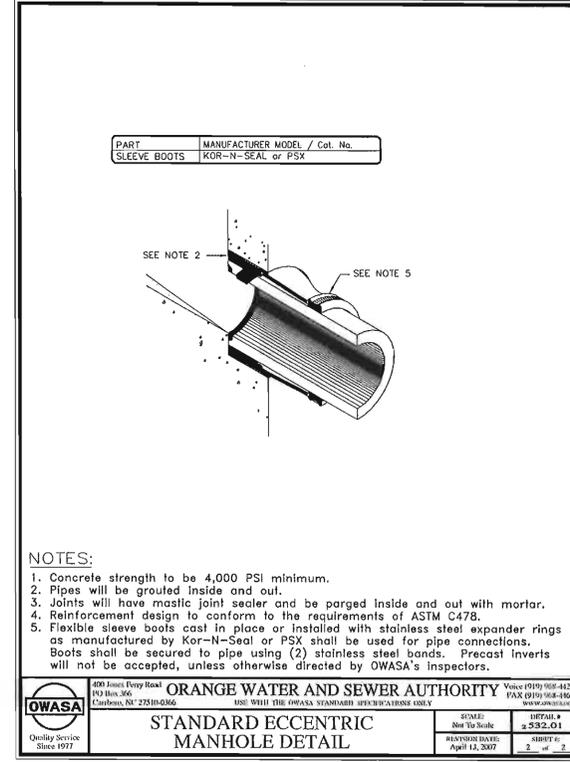


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**SANITARY SEWER MANHOLE FRAME and COVER**

SCALE: Not To Scale SHEET # 2 OF 2  
 REVISION DATE: April 13, 2007 SHEET # 2 OF 2

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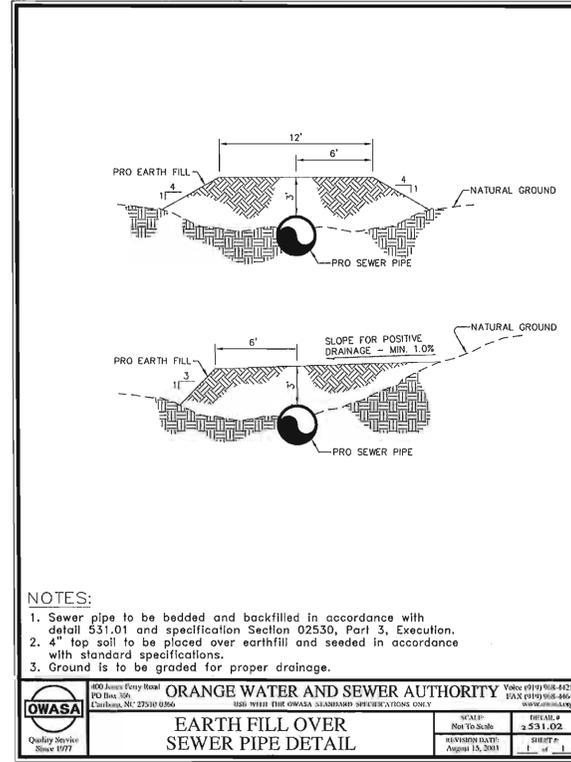


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**STANDARD ECCENTRIC MANHOLE DETAIL**

SCALE: Not To Scale SHEET # 2 OF 2  
 REVISION DATE: April 13, 2007 SHEET # 2 OF 2

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**EARTH FILL OVER SEWER PIPE DETAIL**

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 REVISION DATE: August 15, 2003 SHEET # 2 OF 2

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**PRINCIPAL ENGINEER**  
 PHIL KOCH - NOPE #22634



**NEW LIFE FELLOWSHIP CHURCH**  
 CHAPEL HILL, NORTH CAROLINA

**UTILITY DETAILS**  
**SANITARY SEWER**

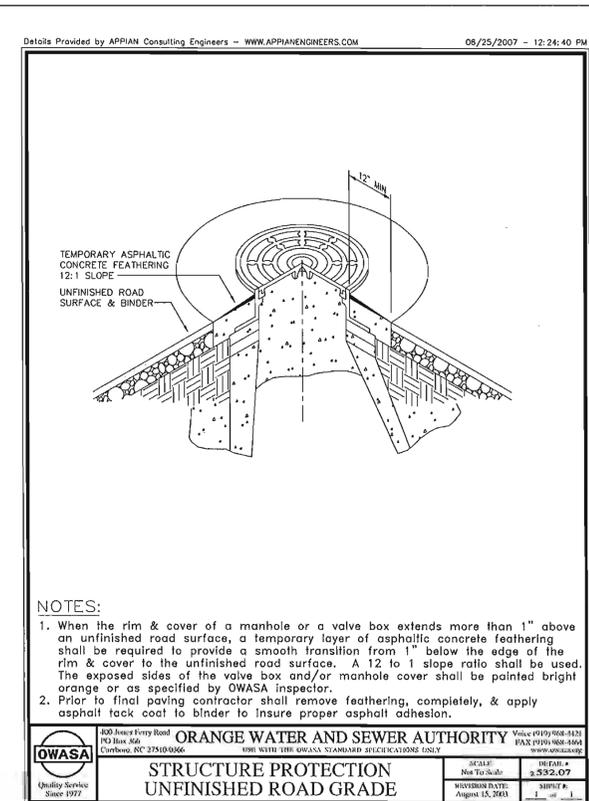
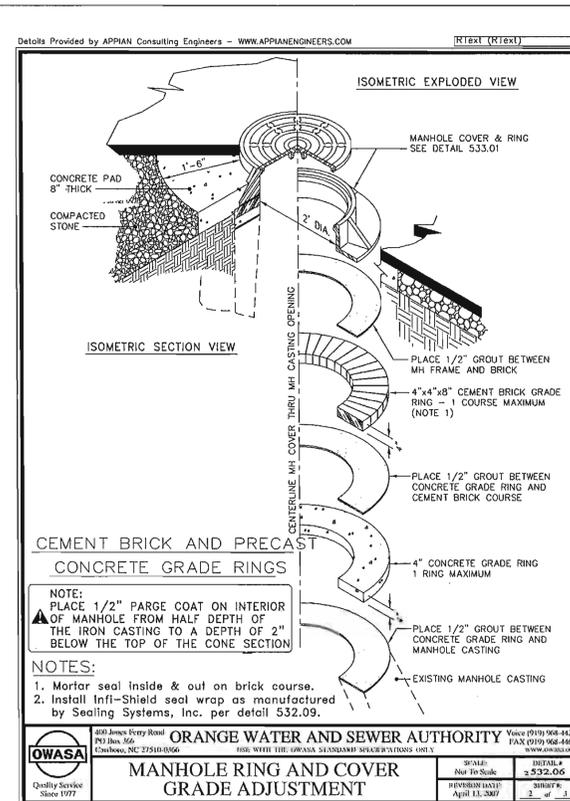
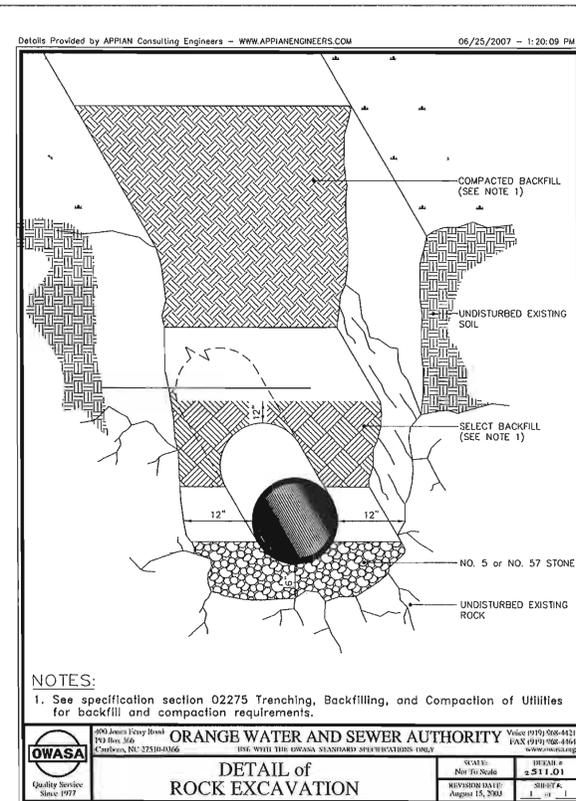
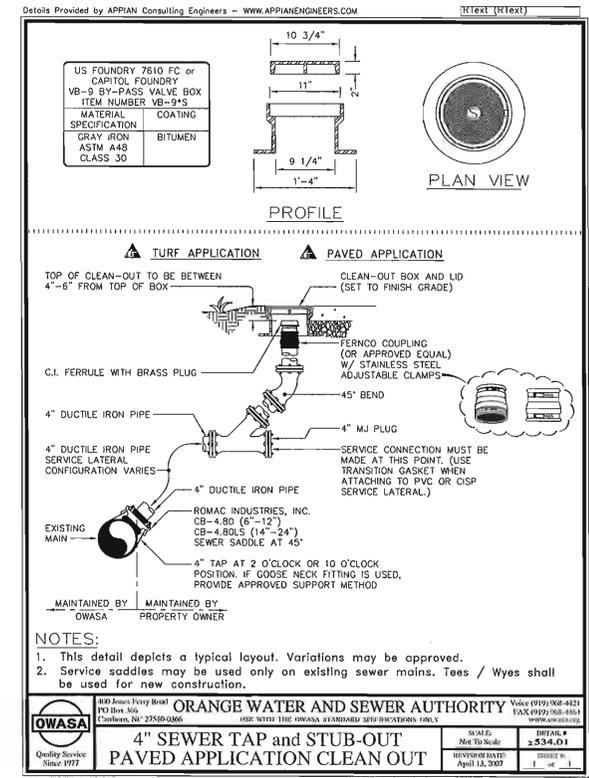
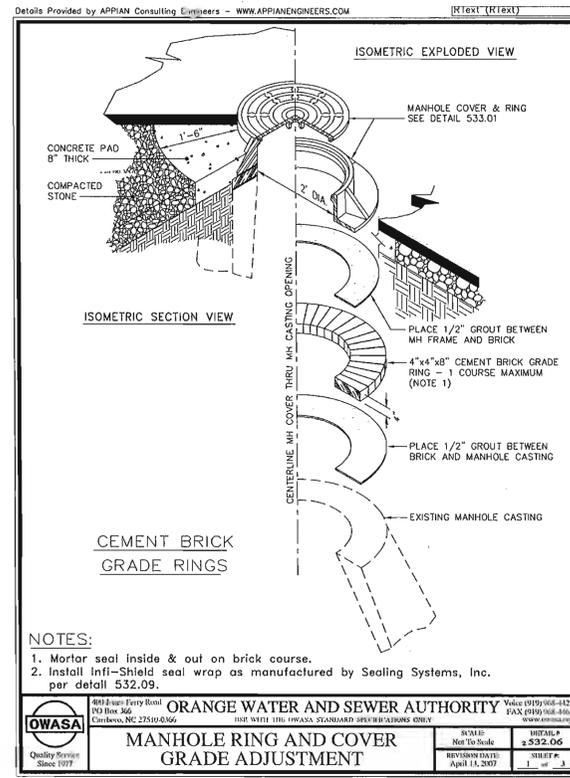
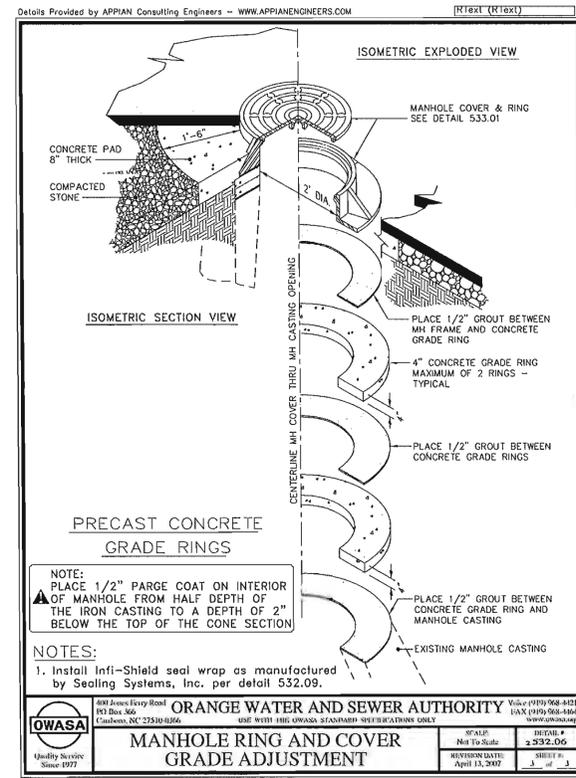
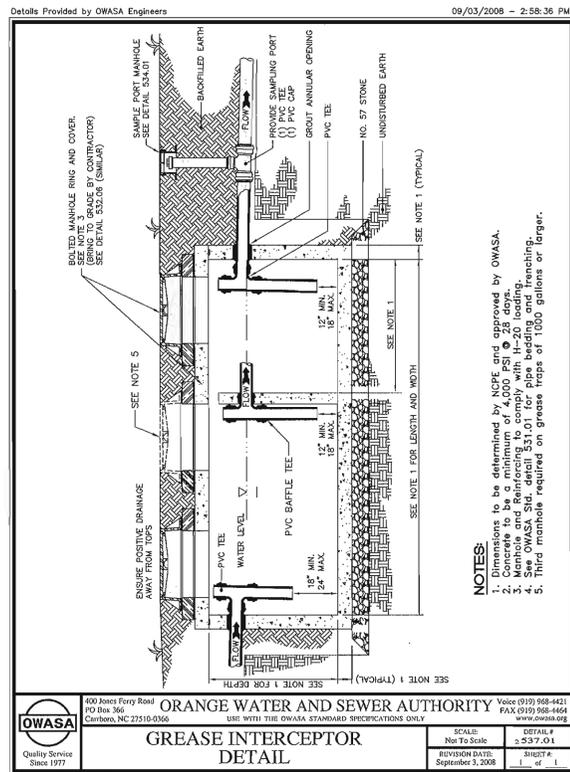
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2	04/08/11	SEWER EXTENSION	CPK	THM
3	09/20/11	OWASA SUBMITTAL	CPK	THM
4	10/21/11	FULL SUBMITTAL	CPK	THM
5	11/15/11	RESPONSE TO COMMENTS	CPK	THM
6	06/14/12	REV. PER SPECIAL USE APP.	SCS	THM

DATE: NOVEMBER 16, 2010  
 HORIZONTAL SCALE: N/A  
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 PROJECT MANAGER: CPK  
 DRAWN BY: SCS  
 PROJECT NO: 10-013  
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**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA

UTILITY DETAILS  
SANITARY SEWER

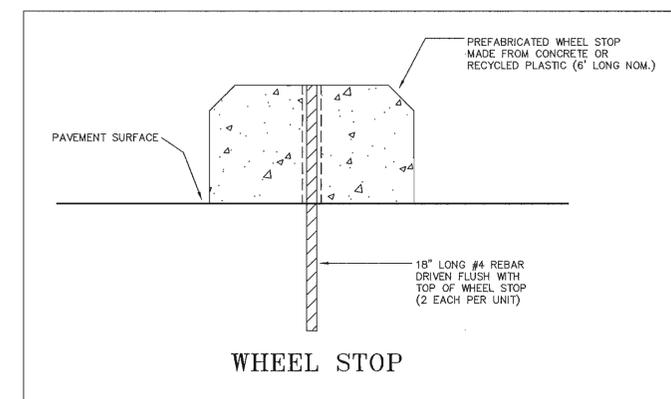
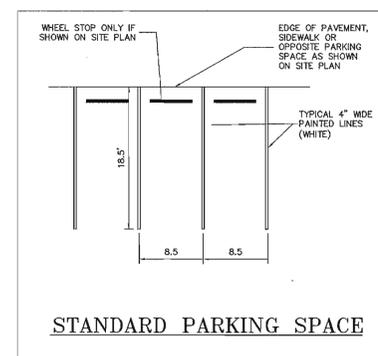
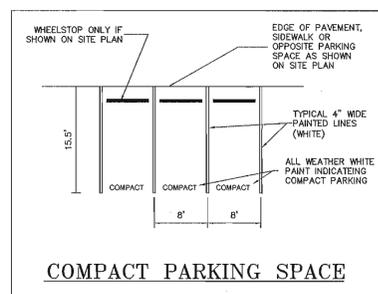
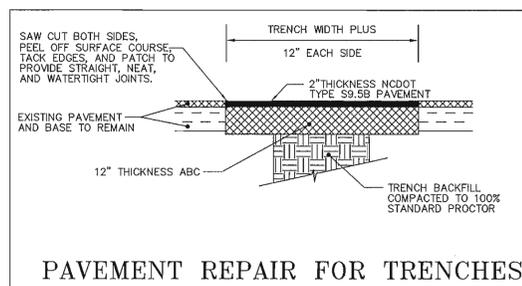
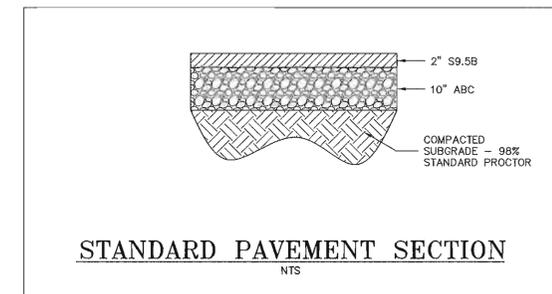
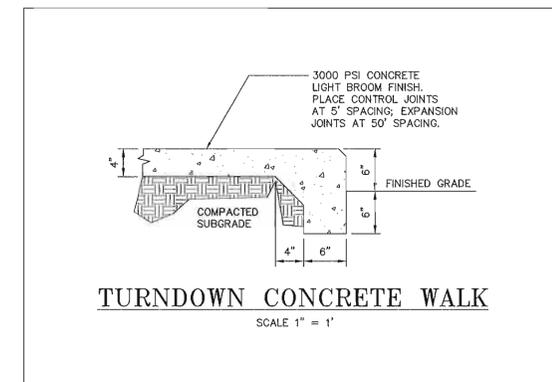
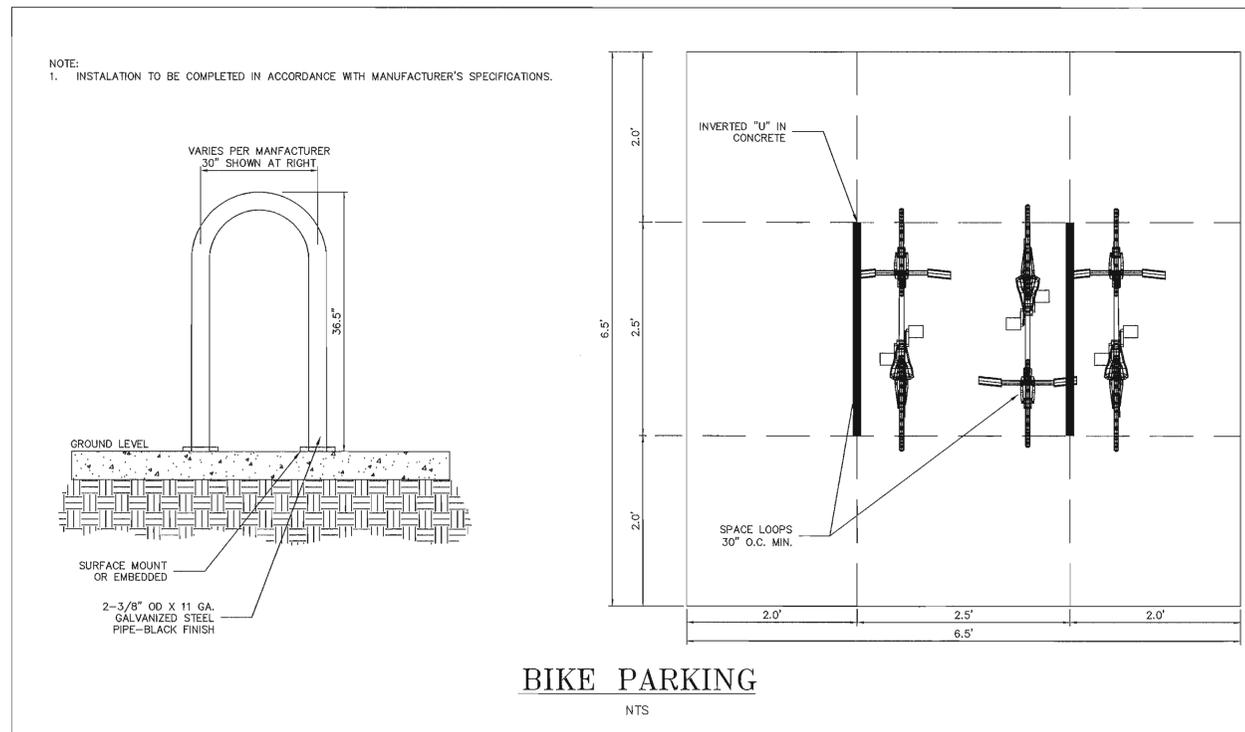
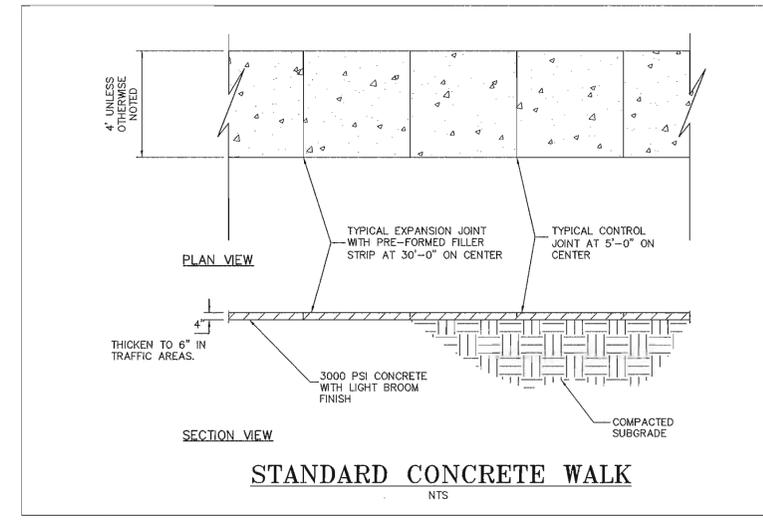
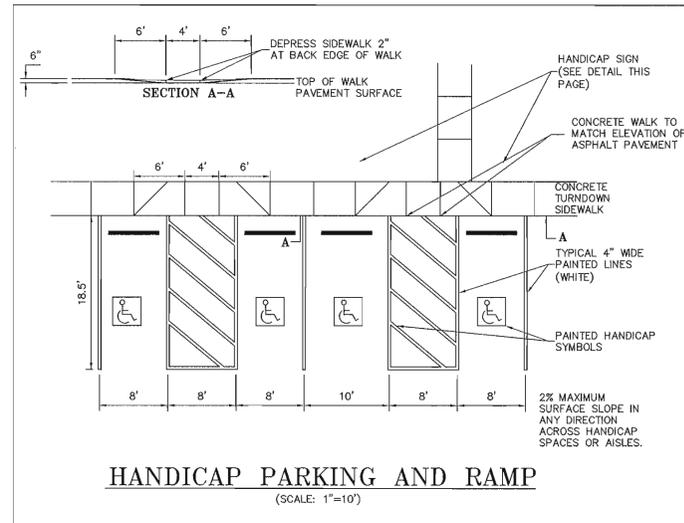
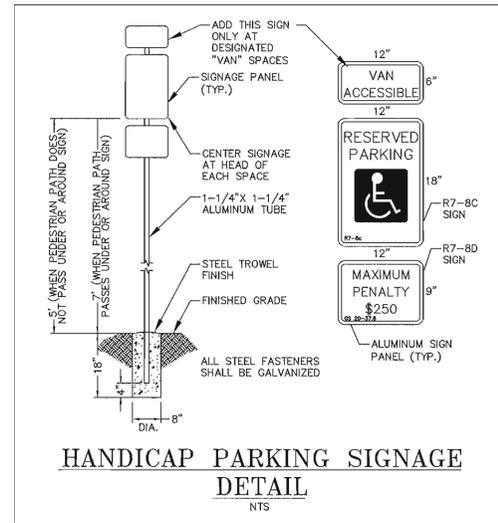
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3	09/20/11	OWASA SUBMITTAL	CPK
4	10/21/11	FULL SUBMITTAL	CPK
5	11/15/11	RESPONSE TO COMMENTS	CPK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS

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PRINCIPAL ENGINEER  
PHIL KOCH - NCPE #22634

**NEW LIFE FELLOWSHIP CHURCH**  
CHAPEL HILL, NORTH CAROLINA

**SITE & PAVING**  
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REV.	DATE	DESCRIPTION	BY
1	02/18/11	PRE-SUBMITTAL REVISIONS	CFK
2	04/08/11	SEWER EXTENSION	TMM
3	09/20/11	OWASA SUBMITTAL	CFK
4	10/21/11	FULL SUBMITTAL	CFK
5	11/15/11	RESPONSE TO COMMENTS	CFK
6	06/14/12	REV. PER SPECIAL USE APP.	SCS

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