

WESTGATE ROAD MODULAR SITE

8917 MIDWAY WEST ROAD
RALEIGH, WAKE COUNTY, NORTH CAROLINA

CONSTRUCTION DRAWINGS - BID SET
SCO ID# 12-09486-01A

MARCH 13, 2013
REVISED: JUNE 17, 2013
REVISED: JULY 19, 2013
REVISED: MARCH 21, 2014
REVISED: MAY 28, 2014

DEVELOPMENT TEAM

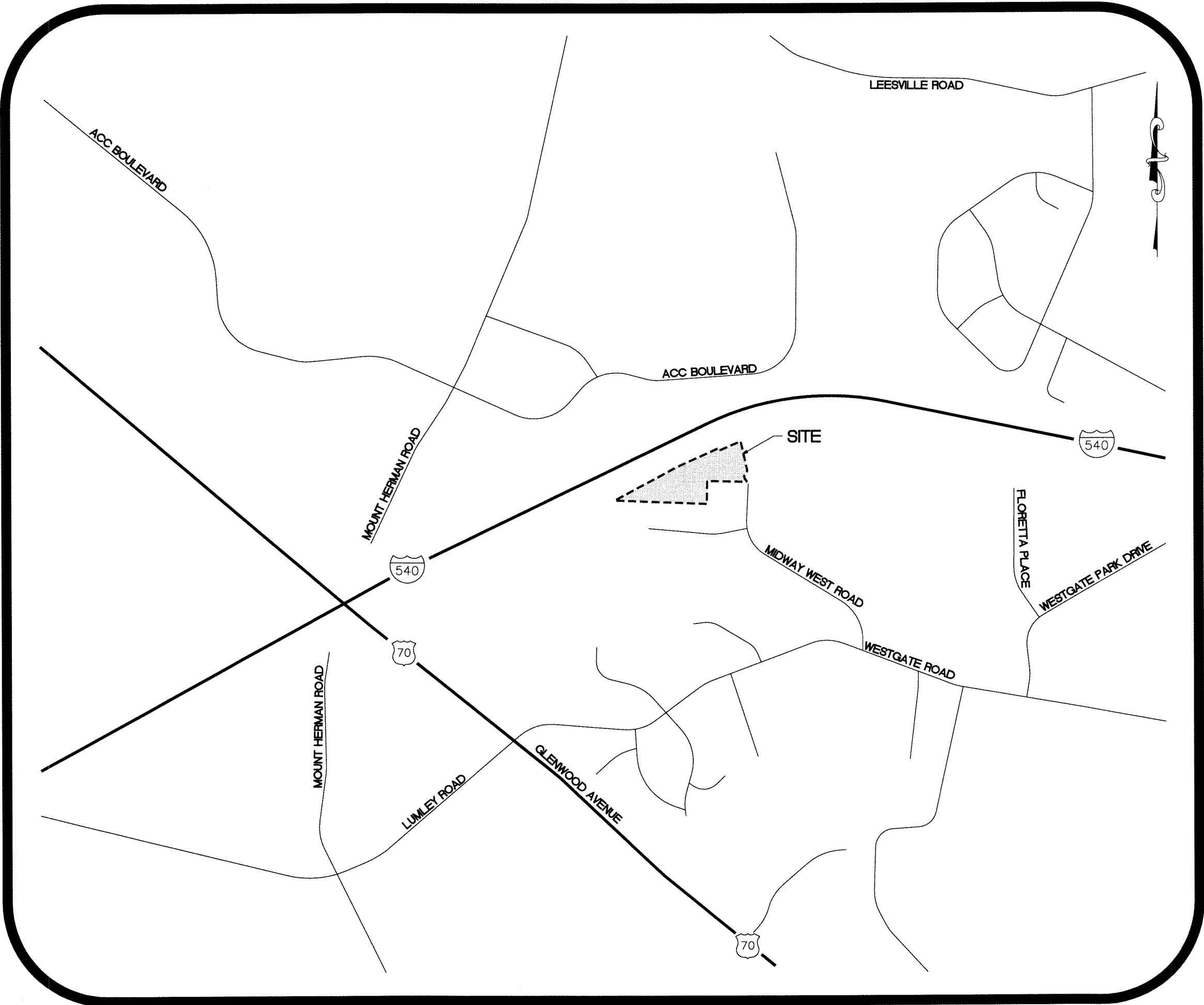
OWNER/DEVELOPER
NORTH CAROLINA DEPT. OF TRANSPORTATION
1 SOUTH WILMINGTON STREET
RALEIGH, NC 27601
PH: (919) 707-4560
CONTACT: TIM JOHNSON

SURVEYOR
SUMMIT CONSULTING
1000 CORPORATE DRIVE, SUITE 101
HILLSBOROUGH, NC 27278-6551
PH: (919) 732-3883
CONTACT: WILLIAM H. MCCARTHY, JR, PLS

SITE DATA

PIN: 0778150711
SITE ADDRESS: 8917 MIDWAY WEST RD
RALEIGH, NC
PROPERTY OWNER: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PROPOSED USE: OFFICE / SALT STORAGE FACILITY
EXISTING USE: SALT STORAGE FACILITY
JURISDICTION: RALEIGH
ZONING OF THE TRACT: TD (THOROUGHFARE DISTRICT)
TOTAL PROPERTY AREA: 8.66 AC
DISTURBED AREA: 1.56 ACRES
TOTAL BUILDING AREA: 3,969 SQ. FT.
EXISTING IMPERVIOUS AREA: 1.16 ACRES
PROPOSED GRAVEL AREA: 0.43 ACRES
PROPOSED IMPERVIOUS AREA: 0.45 ACRES
TOTAL IMPERVIOUS AREA: 2.04 AC. (23.56%)
PARKING REQUIREMENTS:
OFFICE PARKING REQUIRED: 1 SPACE PER 300 SF
3,969 SF/300 SF = 14 SPACES
PARKING PROVIDED: 25 SPACES (2 HANDICAP)

ENGINEER
SEPI ENGINEERING & CONSTRUCTION, INC.
1025 WADE AVE.
RALEIGH, NORTH CAROLINA 27605
PH: (919) 789-9977
CONTACT: MITCH CRAIG, PE



VICINITY MAP - 1" = 1000'

SHEET INDEX

- C-1.0 COVER SHEET
- C-2.0 EXISTING CONDITIONS
- C-3.0 LAYOUT PLAN
- C-4.0 EROSION CONTROL PLAN
- C-5.0 GRADING AND STORM DRAINAGE PLAN
- C-6.0 UTILITY PLAN
- C-7.0 SITE DETAILS
- C-8.0 UTILITY DETAILS
- C-9.0 STORM DRAINAGE AND EROSION CONTROL DETAILS
- E1 ELECTRICAL DETAILS
- E2 ELECTRICAL SERVICE PLAN
- S1 RAMP/STAIRS DETAILS
- S2 RAMP/STAIRS DETAILS
- 13-0011A SITE LIGHTING PLAN

GENERAL NOTES

PATCHING:
CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCEPTABLE CLOSURE AND REPAIR OF ALL AREAS DISTURBED DURING CONSTRUCTION. REPAIR WORK SHALL UTILIZE LIKE MATERIALS WHERE POSSIBLE, OR MATERIALS COMPATIBLE TO EXISTING AND SHALL RESTORE DISTURBED SURFACE TO ORIGINAL CONDITION.

CLEANUP/SITE MAINTENANCE:
CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY CLEANING AND MAINTENANCE OF ALL INVOLVED AREAS FROM CONSTRUCTION DEBRIS AND DUST.


UNOCCUPIED CONSTRUCTION AREAS:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING NEAT AND CLEAN CONDITIONS AT ALL TIMES. UPON OVERALL COMPLETION OF THE PROJECT, CONTRACTOR IS RESPONSIBLE FOR FINAL CLEANING/TREATMENT (INCLUDING WINDOW WASH) AS FOLLOWS: DUST INVOLVED SURFACES WITH A TREATED RAG OR CLOTH. USE METHODS AND CHEMICALS AS RECOMMENDED FOR A SPECIFIC SURFACE BY THE RELATED MANUFACTURERS OF THE SURFACE MATERIAL.


MEANS AND VERIFICATIONS:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES AND MATERIAL SUPPLY FOR CONSTRUCTION AND INSTALLATION, VERIFICATION OF DIMENSIONS AT THE SITE, AND THE VERIFICATION OF QUANTITIES.

SCO ID# 12-09486-01A

ALL CONSTRUCTION TO BE IN ACCORDANCE
WITH ALL NCDOT AND CITY OF RALEIGH
STANDARDS AND SPECIFICATIONS

PRELIMINARY - DO NOT USE FOR CONSTRUCTION






3 WORKING DAYS
BEFORE YOU DIG

FOR THE LOCATION OF
UNDERGROUND FACILITIES

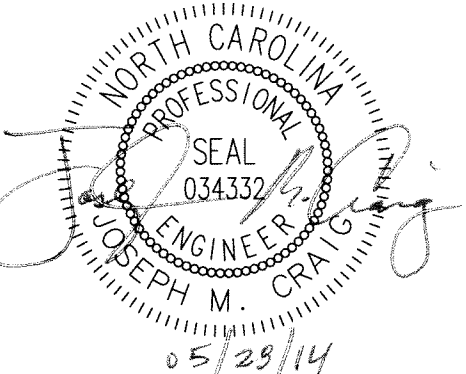
Know what's below.
Call before you dig.

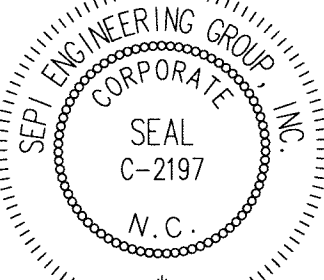
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES OR OF ANY OTHER PERSONS.



1025 WADE AVENUE
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CHARLOTTE, NORTH CAROLINA
704.714.4880
330 SHIPYARD BLVD., SUITE 203
WILMINGTON, NORTH CAROLINA
910.523.5715
www.sepiengineering.com





CAD FILE

DATE

01/21/2013

06/17/2013

07/19/2013

03/21/2014

05/28/2014

REVISIONS

EROSION CONTROL REVISIONS

PER NCDOT COMMENTS

PER SCO COMMENTS

PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS

PER SCO COMMENTS

NCDOT

WESTGATE ROAD MODULAR SITE

COVER SHEET

8917 MIDWAY WEST ROAD
RALEIGH, NC 27617

PROJECT MANAGER
M. CRAIG

CHECKED BY:
B. PIVER

DRAWN BY:
B. MUELLER

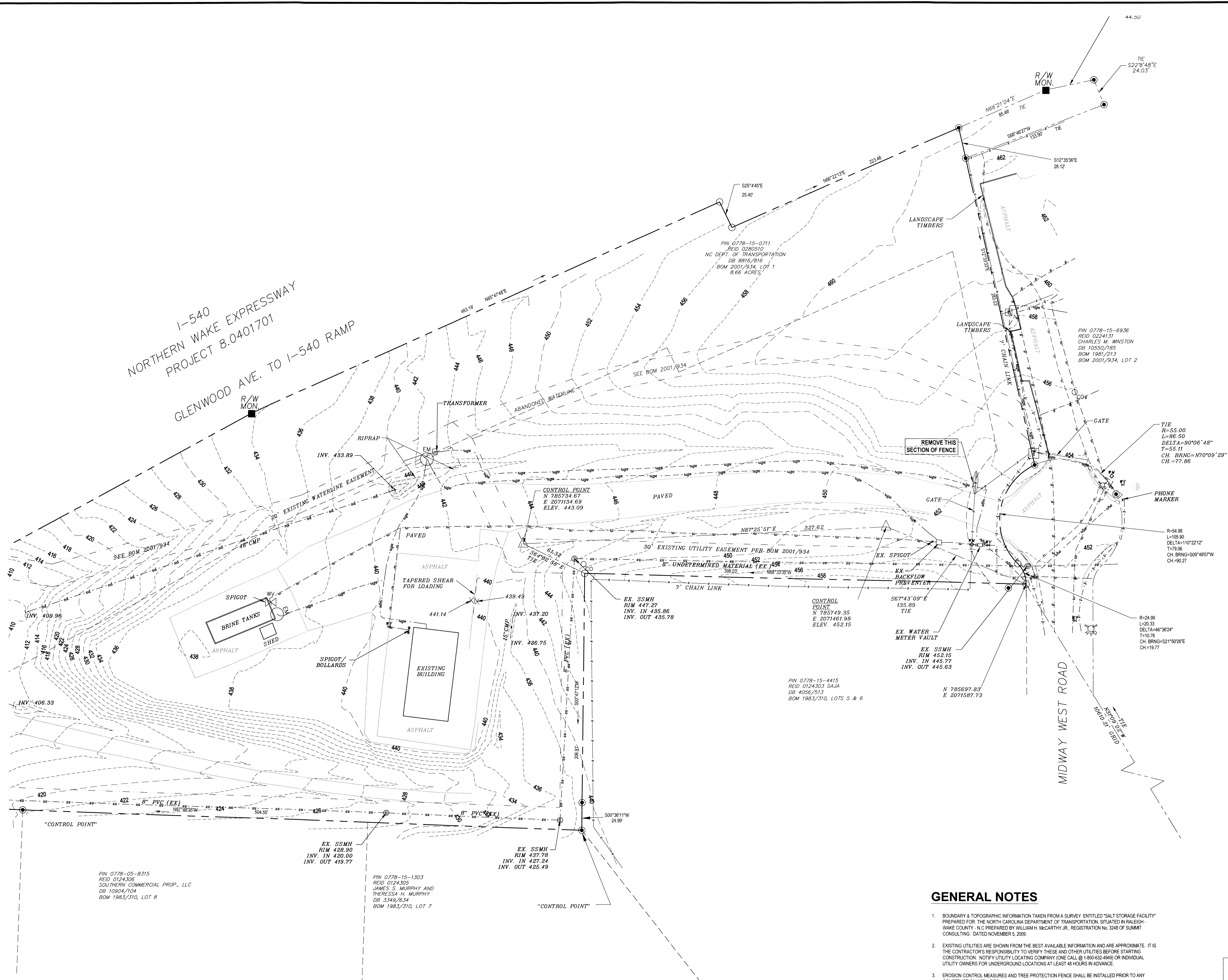
FIELD SURVEY DATE:
11/05/2009

DRAWING DATE:
03/13/2013

JOB #:
SC12.012.00

SHEET

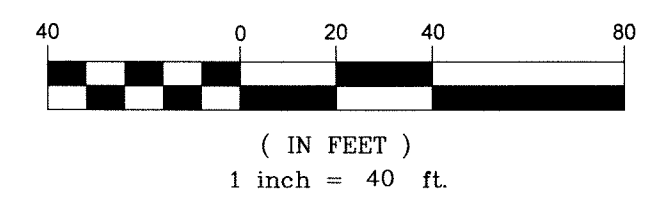
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LEGEND

- PROPERTY LINE (PL)
- RIGHT-OF-WAY LINE
- SETBACK LINE
- UTILITY EASEMENT
- 140
- 139
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING GRAVITY SEWER
- EXISTING WATER LINE
- EXISTING STORM DRAINAGE PIPE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING FIBER OPTIC LINE
- EXISTING FENCE
- EXISTING TREE LINE
- PROPERTY CORNER FOUND
- PROPERTY CORNER SET
- CONC MONUMENT FOUND
- DATUM CONTROL POINT
- SIGN
- UTILITY POLE
- UTILITY POLE WITH DROP
- UTILITY POLE WITH LIGHT
- GLY WIRE / ANCHOR
- SEWER MANHOLE
- SEWER CLEANOUT
- TELEPHONE PEDESTAL
- TELEPHONE HANDHOLE
- FIBEROPTIC MARKER
- CABLE TV HANDHOLE
- FIRE HYDRANT
- WATER METER
- WATER VALVE
- ELECTRIC LIGHT POLE
- ELECTRICAL STRUCTURE
- TELEPHONE STRUCTURE
- UNKNOWN MANHOLE
- EVERGREEN TREE
- DECIDUOUS TREE

GRAPHIC SCALE



SCO ID# 12-09486-01A

GENERAL NOTES

- BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY ENTITLED "SALT STORAGE FACILITY" PREPARED FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, SITUATED IN RALEIGH - WAKE COUNTY - N.C. PREPARED BY WILLIAM H. MCCARTHY JR., REGISTRATION NO. 3248 OF SUMMIT CONSULTING. DATED NOVEMBER 5, 2009.
- EXISTING UTILITIES ARE SHOWN FROM THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE AND OTHER UTILITIES BEFORE STARTING CONSTRUCTION. NOTIFY UTILITY LOCATING COMPANY (ONE CALL @ 1-800-632-4669) OR INDIVIDUAL UTILITY OWNERS FOR UNDERGROUND LOCATIONS AT LEAST 48 HOURS IN ADVANCE.
- EROSION CONTROL MEASURES AND TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- CONTRACTOR TO ENSURE THAT NEW LANDSCAPE AREAS TIE IN SMOOTHLY WITH THE EXISTING UNDISTURBED PORTION.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NCDOT AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

3 WORKING DAYS BEFORE YOU DIG FOR THE LOCATION OF UNDERGROUND FACILITIES

Know what's below. Call before you dig.

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910.523.5715
www.sepiengineering.com

SEPI ENGINEERING & CONSTRUCTION, INC.
CORPORATE SEAL
C-2197
N.C.

DATE	REVISIONS	CADD FILE	REVISIONS				
			DATE	REVISIONS	DATE	REVISIONS	
01/12/2013	EROSION CONTROL REVISIONS		01/12/2013	EROSION CONTROL REVISIONS		01/12/2013	EROSION CONTROL REVISIONS
08/17/2013	PER NCDOT COMMENTS		08/17/2013	PER NCDOT COMMENTS		08/17/2013	PER NCDOT COMMENTS
07/19/2013	PER SCD COMMENTS		07/19/2013	PER SCD COMMENTS		07/19/2013	PER SCD COMMENTS
03/21/2014	PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS		03/21/2014	PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS		03/21/2014	PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS
05/28/2014	PER SCD COMMENTS		05/28/2014	PER SCD COMMENTS		05/28/2014	PER SCD COMMENTS

NCDOT

WESTGATE ROAD MODULAR SITE

EXISTING CONDITIONS AND DEMOLITION PLAN

8917 MIDWAY WEST ROAD
RALEIGH, NC 27617

PROJECT MANAGER M. CRAIG	FIELD SURVEY DATE: 11/05/2009
CHECKED BY: B. PIVER	DRAWING DATE: 03/13/2013
DRAWN BY: B. MUELLER	JOB #: SC12.012.00

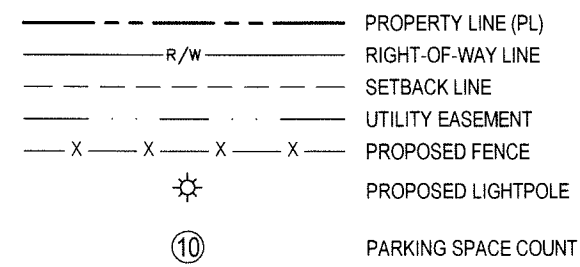
SHEET

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PARKING REQUIREMENTS:
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LEGEND



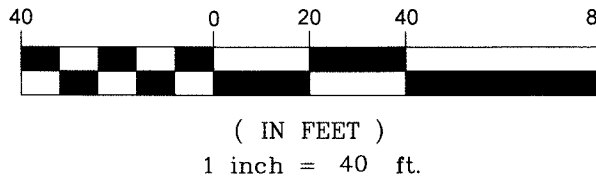
GENERAL SITE NOTES

- BEFORE YOU DIG, STOP. CALL THE NC ONE-CALL CENTER AT 1-800-632-4949. IT'S THE LAW.
EXISTING UTILITIES ARE SHOWN FROM THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE AND OTHER UTILITIES BEFORE STARTING CONSTRUCTION. NOTIFY UTILITY LOCATING COMPANY (ONE CALL @ 1-800-632-4949) OR INDIVIDUAL UTILITY OWNERS FOR UNDERGROUND LOCATIONS AT LEAST 48 HOURS IN ADVANCE.
- CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, RIGHT-OF-WAYS AND UTILITIES, PUBLIC OR PRIVATE, BEFORE WORKING IN THESE AREAS.
- CONTRACTOR SHALL PUT INTO PLACE SUCH TEMPORARY EROSION CONTROL MEASURES AS INDICATED ON THE PLANS. THESE MEASURES SHALL BE INSPECTED AND EVALUATED DURING CONSTRUCTION OPERATION FOR THEIR EFFECTIVENESS IN PREVENTING EROSION MATERIAL AND SEDIMENT FROM DISCHARGING FROM THE WORK AREA. IF REQUIRED, AND AS DIRECTED BY NCDOT OR NC DENR INSPECTOR, ADDITIONAL TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTITUTED AND INSTALLED.
- ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST EDITION OF THE NCDOT ROADWAY STANDARDS DRAWINGS AND THE CITY OF RALEIGH PUBLIC UTILITIES HANDBOOK.
- PROTECT ALL PROPERTY MONUMENTS AND PINS. MONUMENTS AND PINS THAT WILL BE DISTURBED DURING CONSTRUCTION SHALL BE REFERENCED AND REPLACED BY A LICENSED LAND SURVEYOR AT CONTRACTOR'S COST.
- CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SUCH THAT WORKMEN AND THE PUBLIC WILL BE PROTECTED FROM INJURY AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
- CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE PROJECT AND AT LEAST ONCE A WEEK DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING ITEM AND/OR MATERIAL DUE TO CONSTRUCTION OPERATIONS. ALL STREET SURFACES, UTILITY POLES, CULVERTS, DITCHES, CURB AND GUTTER OR OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATIONS AT HIS EXPENSE.
- ALL LOT STRIPING AND DIRECTIONAL ARROWS TO BE PAINTED NCDOT STANDARD REFLECTIVE WHITE.
- ALL PAVING SHALL CONFORM WITH THE PAVING DETAIL ON THIS SHEET.
- IF DEPARTURES FROM THE DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE SUBMITTED IN WRITING TO THE OWNER FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENTS WILL BE ALLOWED WITHOUT APPROVAL BY THE OWNER.
- CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING, APPURTENANCES, AND PIPE INVERT ELEVATIONS PRIOR TO CONCEALMENT AS WELL AS BUILDINGS, PARKING LOT, AND DRIVEWAYS WITH GPS COORDINATES. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT.
- ANY AND ALL QUANTITIES SHOWN OR IMPLIED ON THE PLANS ARE FOR ESTIMATION PURPOSES ONLY.
- PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR WILL NOTIFY THE NCDOT EROSION CONTROL INSPECTOR.
- BUILDING DIMENSIONS SHOWN ARE APPROXIMATE. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS.
- COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH NCDOT.
- APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
- IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 1.0% SLOPE OF THE CURB.

SITE KEYNOTES

- A 24" CURB & GUTTER
- B 5' WIDE CONCRETE SIDEWALK. SIDEWALK TO BE FLUSH WITH ASPHALT.
- C HANDICAP ACCESSIBLE PARKING
- D HANDICAP ACCESSIBLE SIGNAGE, SIGN TO BE "VAN ACCESSIBLE" (SEE DETAIL SHEET C-7.0)
- E 4" WIDE STRIPE, WHITE (TYP.)
- F 4" WIDE STRIPE, WHITE, 45° @ 2'-0" O.C. (TYP.)
- G 6" WIDE HIGH VISIBILITY THERMOPLASTIC CROSSWALK (SEE DETAIL ON SHEET C-7.0)
- H LIGHT-DUTY ASPHALT PAVEMENT (SEE DETAIL THIS SHEET)
- I 8" THICK GRAVEL LOT (SEE DETAIL THIS SHEET)
- J MATCH EXISTING EDGE OF PAVEMENT. SAW CUT EXISTING PAVEMENT AND ENSURE A PROPER VERTICAL FACE.
- K HANDICAP ACCESSIBLE RAMP, LANDING, AND STEPS (SEE SHEET S-1). - SEE GRADING PLAN FOR ELEVATIONS
- L HANDICAP ACCESSIBLE RAMP AND LANDING (SEE SHEET S-1). - SEE GRADING PLAN FOR ELEVATIONS
- M CONCRETE WHEELSTOPS (SEE DETAIL SHEET C-7.0)
- N DUMPSTER ENCLOSURE (SEE SHEET C-7.0)
- O 18" DOUBLE SWING GATE WITH 6' CHAINLINK FENCE ON BOTH SIDES
- P EXTERIOR LIGHTS (SEE SHEET 13-0011A)
- Q EXISTING GATE AND CHAINLINK FENCE (TO REMAIN)
- R PATCH EXISTING ASPHALT IN ACCORDANCE WITH CITY OF RALEIGH STANDARD ASPHALT PAVEMENT PATCH DETAIL (SEE DETAIL ON SHEET C-8.0)
- S ELECTRICAL SERVICE RISER. SEE DETAIL ON ELECTRICAL SITE PLAN (SHEET E2)
- T HEAVY DUTY PAVEMENT (SEE DETAIL THIS SHEET)
- U ELEVATED WALKWAY (SEE SHEET S-1)
- V CONTROL JOINT FOR SIDEWALK
- W 8" CONCRETE DUMPSTER PAD (SEE DETAIL SHEET C-7.0)

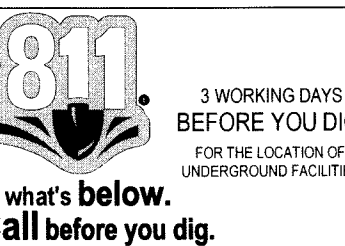
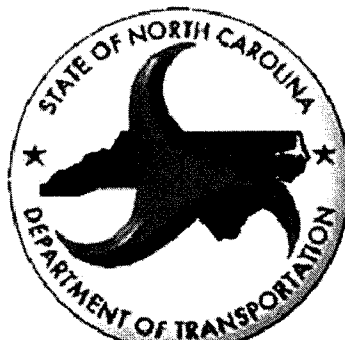
GRAPHIC SCALE



SCO ID# 12-09486-01A

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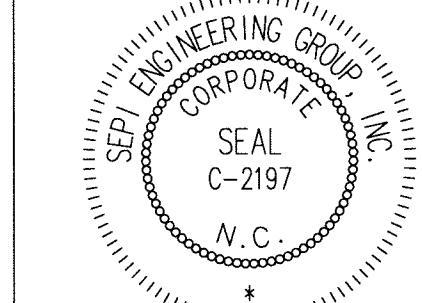
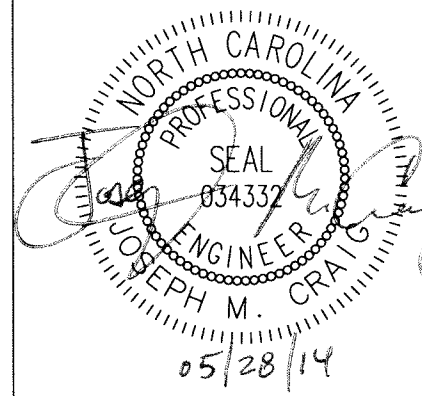
PRELIMINARY - DO NOT USE FOR CONSTRUCTION



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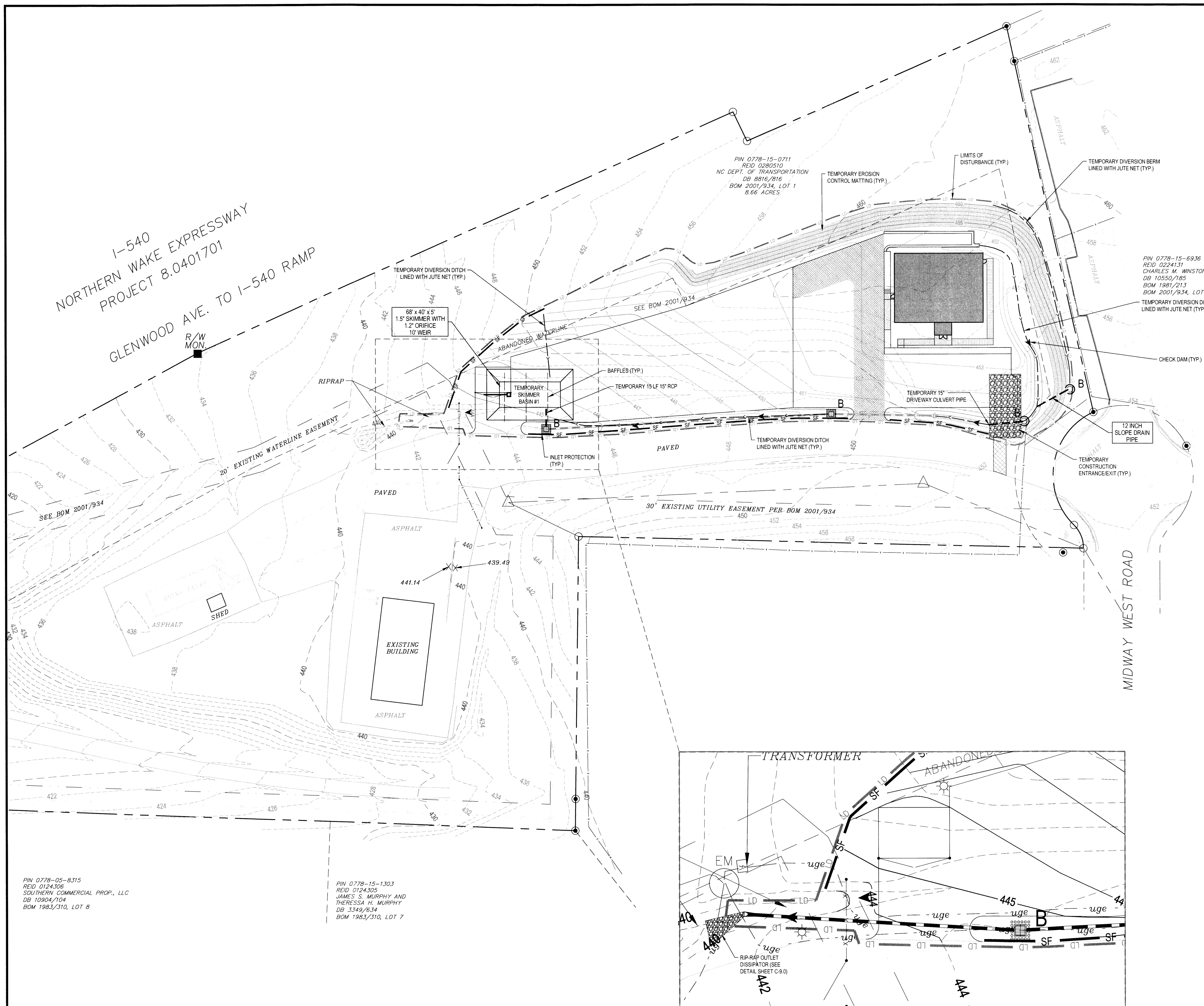
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NCDOT
WESTGATE ROAD MODULAR SITE
LAYOUT PLAN
8917 MIDWAY WEST ROAD
RALEIGH, NC 27617

PROJECT MANAGER M. CRAIG	FIELD SURVEY DATE: 11/05/2009
CHECKED BY: B. PIVER	DRAWING DATE: 03/13/2013
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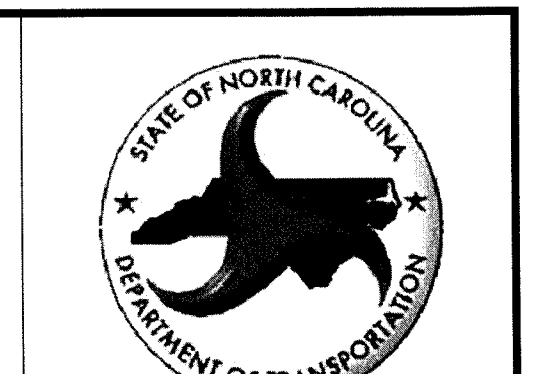
SHEET

C-3.0



LEGEND

- PROPERTY LINE (PL)
- RIGHT-OF-WAY LINE
- SETBACK LINE
- UTILITY EASEMENT
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED SILT FENCE
- PROPOSED TREE PROTECTION FENCE
- PROPOSED LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION DITCH
- PROPOSED BAFFLES
- NCDOT STD 1633.02
- NCDOT STD 1632.02
- INLET PROTECTION FILTER
- NCDOT STD 1635.02
- SILT FENCE OUTLET
- CONSTRUCTION ENTRANCE
- TEMPORARY EROSION CONTROL MATTING

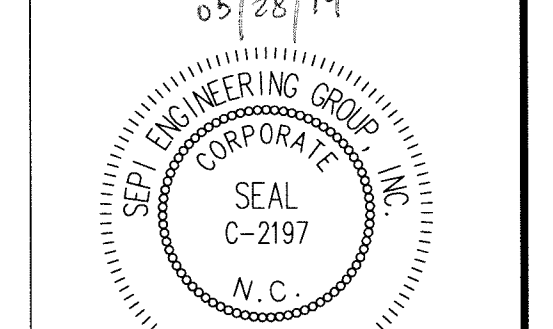


811
3 WORKING DAYS
BEFORE YOU DIG
FOR THE LOCATION OF
UNDERGROUND FACILITIES

Know what's below
Call before you dig.

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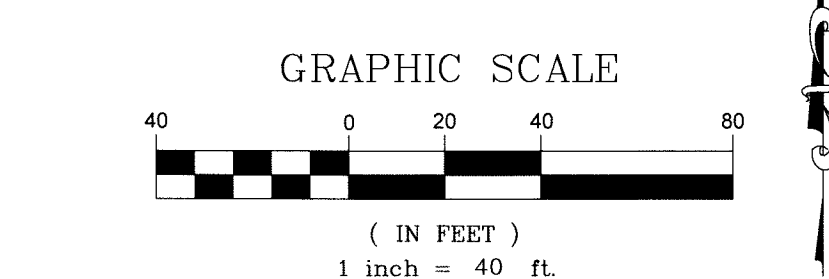
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CAD FILE	REVISIONS	DATE	REVISIONS
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EROSION CONTROL PLAN
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SHEET
C-4.0

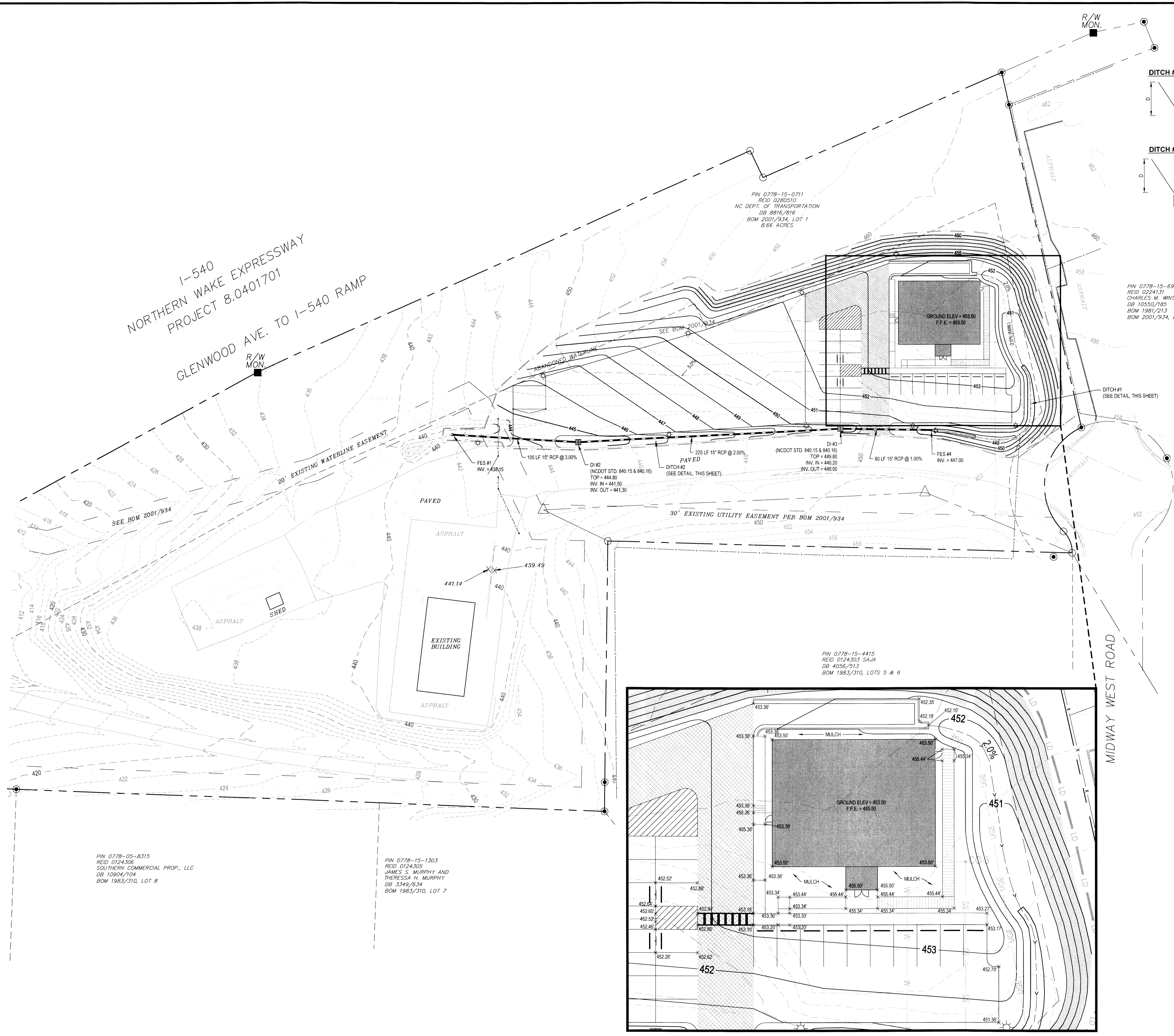


LIMITS OF DISTURBANCE
67,778 SF (1.56 AC)

David Webb, PE
LEVEL III NAME
2244
LEVEL III CERTIFICATION NO.

ALL CONSTRUCTION TO BE IN ACCORDANCE
WITH ALL NCDOT AND CITY OF RALEIGH
STANDARDS AND SPECIFICATIONS

PRELIMINARY - DO NOT USE FOR CONSTRUCTION



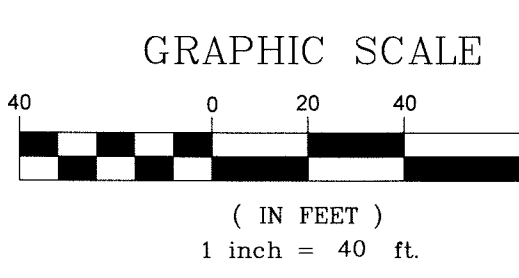
LEGEND

- PROPERTY LINE (PL)
- RIGHT-OF-WAY LINE
- SETBACK LINE
- UTILITY EASEMENT
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED STORM DRAINAGE PIPE
- PROPOSED GRAVITY SEWER
- PROPOSED WATER LINE
- PROPOSED TREE PROTECTION FENCE
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED DITCH
- FLARED END SECTION
- STORM MAN-HOLE
- YARD INLET
- CATCH BASIN
- FLOW ARROW

GENERAL GRADING NOTES

- REFER TO THE SITE PLAN FOR RELATED NOTES.
- BOUNDARY & TOPOGRAPHIC INFORMATION TAKEN FROM A SURVEY, ENTITLED "SALT STORAGE FACILITY" PREPARED FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, SITUATED IN RALEIGH - WAKE COUNTY - NC PREPARED BY WILLIAM H. MCCARTHY JR., REGISTRATION NO. 3248 OF SUMMIT CONSULTING, DATED NOVEMBER 5, 2009.
- FINISHED CURB ELEVATIONS SHALL BE 6" ABOVE FINISH PAVEMENT GRADE UNLESS NOTED DIFFERENTLY IN THE PLANS.
- THE CONTRACTOR SHALL NOTE THAT THE PLANS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EVERY OFFSET, TRANSITION, GRADE CHANGE, ETC. THAT MAY BE REQUIRED FOR A COMPLETE AND WORKING SYSTEM.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
- ALL FILL TO BE COMPACTED TO 95% DRY DENSITY (STANDARD PROCTOR) UNDER PAVEMENT AND BUILDING PAD.
- THE PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS. REFER TO PAVEMENT AND SIDEWALK DETAILS TO ESTABLISH CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL FLOW BY GRAVITY AWAY FROM BUILDING(S) AND ACROSS NEW PAVEMENT AND/OR LANDSCAPE AREAS TO NEW OR EXISTING STORM DRAIN INLETS, SWALES, DITCHES OR OVERLAND SHEET FLOW.
- TO MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF BUFFERS AND STREETSCAPE, THE CONTRACTOR SHALL CUT MINIMUM 2" TRENCHES ALONG THE LIMITS OF DISTURBANCE, SO AS TO CUT, RATHER THAN TEAR, ROOTS.
- THE SILT/TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION HAS DETERMINED SITE FULLY STABILIZED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION FOR THE FINAL INSPECTION.

1) GROUND STABILIZATION *			4) INSPECTIONS
SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS	
• PERIMETER DOKES, SWALES, DITCHES, AND SLOPES	7 DAYS	NONE	• SAME WEEKLY INSPECTION REQUIREMENTS • SAME RAIN GAUGE & INSPECTIONS AFTER 0.5" RAIN EVENT • INSPECTIONS ARE ONLY REQUIRED DURING "NORMAL BUSINESS HOURS" • INSPECTION REPORTS MUST BE AVAILABLE ON SITE DURING BUSINESS HOURS UNLESS A SITE-SPECIFIC EXEMPTION IS APPROVED. • RECORDS MUST BE KEPT FOR 3 YEARS AND AVAILABLE ON REQUEST. • ELECTRONICALLY AVAILABLE RECORDS MAY BE SUBSTITUTED UNDER CERTAIN CONDITIONS.
• HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE	
• SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED	
• SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH	
• ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HOW ZONES)	5) IMPLEMENTATION OF NEW PERMIT CONDITIONS
			• PROJECTS PERMITTED UNDER THE PREVIOUS PERMIT CAN CONTINUE TO FOLLOW THE PREVIOUSLY PERMITTED CONDITIONS.
			• COMPLETE APPLICATIONS RECEIVED PRIOR TO AUGUST 3, 2011 CAN FOLLOW CONDITIONS IF APPROVED APPLICATION.
			• APPLICATIONS RECEIVED AFTER AUGUST 2, 2011 MUST COMPLY WITH NEW PERMIT CONDITIONS.
*EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE (SECTION 1.8.20.03)			6) CONDITIONS IN EROSION & SEDIMENTATION CONTROL PLANS *
2) BUILDING WASTES HANDLING			DESIGNATION ON THE PLANS WHERE THE 7 DAY AND 14 DAY GROUND STABILIZATION REQUIREMENTS OF THE NPDES PERMIT APPLY.
• NO PAINT OR LIQUID WASTES IN STREAM OR STORM DRAINS			DESIGNATION ON THE PLANS WHERE BASINS THAT COMPLY WITH THE SURFACE WITHDRAWAL REQUIREMENTS OF THE NPDES PERMIT ARE LOCATED.
• DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION, AND OTHER WASTES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.			7) BUILDING WASTES HANDLING
• EARTHEN MATERIAL STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.			• NO PAINT OR LIQUID WASTES IN STREAMS OR STORM DRAINS
• CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS			• DEDICATED AREAS FOR DEMOLITION, CONSTRUCTION, AND OTHER WASTES LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES ARE AVAILABLE.
3) DISCHARGES TO FEDERALLY LISTED WATERS			• EARTHEN MATERIAL STOCKPILES MUST BE LOCATED 50' FROM STORM DRAINS AND STREAMS UNLESS NO REASONABLE ALTERNATIVES AVAILABLE.
• REQUIREMENTS ARE THE SAME AS IN PREVIOUS PERMIT			• CONCRETE MATERIALS MUST BE CONTROLLED TO AVOID CONTACT WITH SURFACE WATERS, WETLANDS, OR BUFFERS
• THE PERMIT ALLOWING REDUCTION FROM THE 20 ACRE MINIMUM IF THE DIRECTOR OF DWG DETERMINES THAT OTHER BMP'S PROVIDE EQUIVALENT PROTECTION.			8) SEDIMENT BASINS
			• OUTLET STRUCTURES MUST WITHDRAW FROM BASIN SURFACE UNLESS DRAINAGE AREA IS LESS THAN 1 ACRE
			• USE ONLY DWG-APPROVED FLOCCULANTS



SCO ID# 12-09486-01A

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811
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Call before you dig.

3 WORKING DAYS BEFORE YOU DIG
FOR THE LOCATION OF UNDERGROUND FACILITIES

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NOTICE:
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SEPI
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1025 WADE AVENUE
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330 SHIPYARD BLVD., SUITE 203
WILMINGTON, NORTH CAROLINA 28401
910.523.5715
www.sepiengineering.com

SEPI ENGINEERING GROUP, INC.
CORPORATE SEAL
N.C.
05/28/14

CAO FILE

DATE	01/21/2013	06/17/2013	07/15/2013	03/21/2014	06/26/2014
EROSION CONTROL REVISIONS	Δ	Δ	Δ	Δ	Δ
PER NCDOT COMMENTS	Δ	Δ	Δ	Δ	Δ
PER SCO COMMENTS	Δ	Δ	Δ	Δ	Δ
PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS	Δ	Δ	Δ	Δ	Δ
PER SCO COMMENTS	Δ	Δ	Δ	Δ	Δ

NCDOT
WESTGATE ROAD MODULAR SITE
GRADING AND STORM DRAINAGE PLAN
8917 MIDWAY WEST ROAD
RALEIGH, NC 27617

PROJECT MANAGER
M. CRAIG

CHECKED BY
B. PIVER

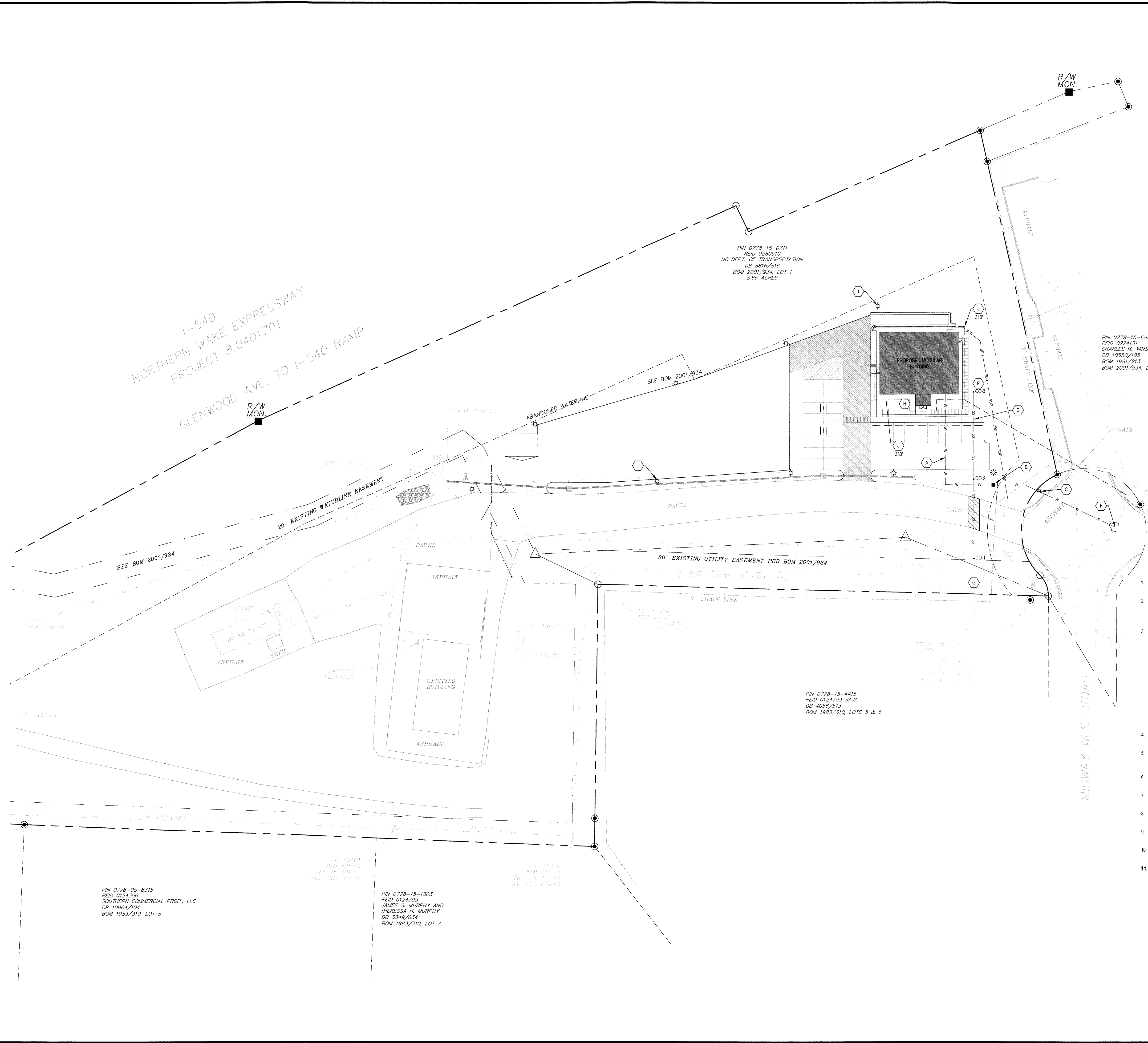
DRAWN BY
B. MUELLER

FIELD SURVEY DATE:
11/05/2009

DRAWING DATE:
03/13/2013

JOB #:
SC12.012.00

SHEET
C-5.0



LEGEND

- PROPERTY LINE (PL)
- RIGHT-OF-WAY LINE
- SETBACK LINE
- UTILITY EASEMENT
- PROPOSED GRAVITY SEWER
- PROPOSED WATER LINE
- PROPOSED STORM DRAINAGE PIPE
- PROPOSED GAS LINE
- PROPOSED OVERHEAD ELECTRIC LINE
- PROPOSED UNDERGROUND ELECTRIC LINE
- PROPOSED FIBER OPTIC LINE
- PROPOSED SS MANHOLE
- PROPOSED SS CLEANOUT
- PROPOSED WATER METER
- PROPOSED BACKFLOW PREVENTER
- PROPOSED GATE VALVE
- PROPOSED FIRE HYDRANT ASSEMBLY

UTILITY KEYNOTES

- 1" TYPE K COPPER WATER SERVICE FROM BUILDING. CONTRACTOR TO CONNECT SERVICE TO BUILDING PLUMBING.
- 1" REDUCED PRESSURE PRINCIPLE ZONE BACKFLOW PREVENTION ASSEMBLY (WATTS MODEL 909M1QT OR APPROVED EQUAL) INSTALLED ABOVE-GROUND WITHIN INSULATED ENCLOSURE PER CITY OF RALEIGH REQUIREMENTS. ENCLOSURE TO INCLUDE DRAIN PORTS FOR DISCHARGE WATER PER CITY OF RALEIGH REQUIREMENTS. (SEE DETAIL SHEET C-8.0)
- 1" WATER METER. INSTALLATION TO BE COORDINATED WITH THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT (SEE DETAIL SHEET C-8.0).
- 4" SCHEDULE 40 PVC SANITARY SEWER SERVICE FROM BUILDING. CONTRACTOR TO CONNECT SERVICE TO BUILDING PLUMBING.
- SANITARY SEWER CLEANOUT
- TAP EXISTING WATER MAIN
- TIE INTO EXISTING SANITARY SEWER SERVICE
- CONTRACTOR TO COORDINATE THE CONNECTION OF ELECTRICAL AND TELEPHONE SERVICE WITH LOCAL UTILITY COMPANIES.
- LIGHT POLE (SEE PROGRESS ENERGY LIGHTING PLAN, SHEET 13-0011A)
- CITY OF RALEIGH REQUIREMENT FOR DISTANCE OF BUILDING FROM FIRE HYDRANT (MAX. = 400')

SANITARY SEWER CHART

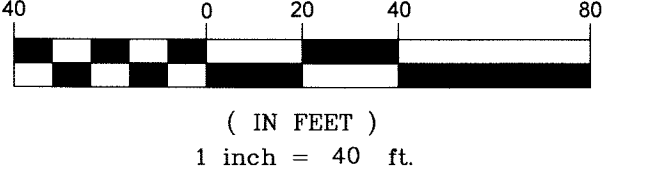
STRUCTURE NUMBER	R/W TOP ELEVATION**	INVERT	DOWNSIDE NODE	PIPE LENGTH	% SLOPE	SIZE & MATERIAL*
EXISTING SS	NA	444.09±	NA	NA	NA	NA
CO-1	453.00±	445.10±	EXISTING SS	16±	6.89%	4" PVC
CO-2	450.00±	446.50±	CO-1	70±	2.00%	4" DIP***
CO-3	453.25±	450.00±	CO-2	75±	4.67%	4" PVC

*4" PVC SEWER PIPE TO BE SCHEDULE 40.
**SET CLEANOUT RIMS AT FINAL GRADE.
***4" DIP TO BE INSTALLED BETWEEN CO-1 & CO-2

GENERAL UTILITY NOTES

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: COR PUD HANDBOOK, CURRENT EDITION)
- BEFORE YOU DIG STOP. CALL THE NC ONE-CALL CENTER AT 1-800-632-4949. IT'S THE LAW. EXISTING UTILITIES ARE SHOWN FROM THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE AND OTHER UTILITIES BEFORE STARTING CONSTRUCTION. NOTIFY UTILITY LOCATING COMPANY (ONE CALL @ 1-800-632-4949) OR INDIVIDUAL UTILITY OWNERS FOR UNDERGROUND LOCATIONS AT LEAST 48 HOURS IN ADVANCE.
- UTILITY SEPARATION REQUIREMENTS:
 - A DISTANCE OF 10' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 2' FROM A PRIVATE WELL OR 30' FROM A PUBLIC WELL.
 - WHEN INSTALLING WATER & RCP SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE ENGINEER. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCLOSURE EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS. MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER COR PUD DETAILS W-41 & S-49).
 - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS
- INSTALL 4" PVC SEWER SERVICES @ 2.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI. BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE
- CONTACT THE UTILITY COMPANY TO RELOCATE ANY EXISTING UTILITY POLES. ALL EXISTING FACILITIES WHICH CONFLICT WITH THE IMPROVEMENTS UNDER THE SCOPE OF THIS PROJECT MUST BE RELOCATED AT THE EXPENSE OF THE APPLICANT.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION
- CONTRACTOR TO OBTAIN STUB PERMITS FROM THE CITY OF RALEIGH PRIOR TO TYING INTO THE CITY'S WATER AND SEWER SYSTEMS.

GRAPHIC SCALE



SCO ID# 12-09486-01A

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NCDOT AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS

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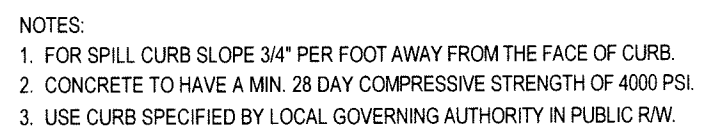
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DATE	REVISIONS
01/21/2013	EROSION CONTROL REVISIONS
06/17/2013	PER NCDOT COMMENTS
07/19/2013	PER NCDOT COMMENTS
03/21/2014	PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS
06/26/2014	PER SCO COMMENTS

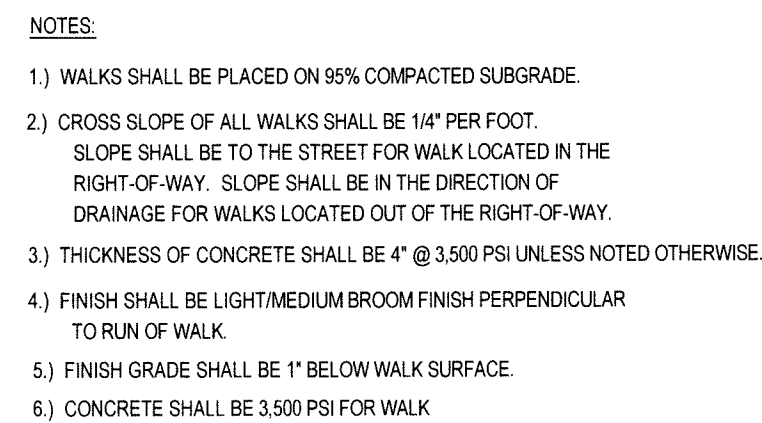
NCDOT
WESTGATE ROAD MODULAR SITE
UTILITY PLAN
8917 MIDWAY WEST ROAD
RALEIGH, NC 27617

PROJECT MANAGER M. CRAIG	FIELD SURVEY DATE: 11/05/2009
CHECKED BY: B. PIVER	DRAWING DATE: 03/13/2013
DRAWN BY: B. MUELLER	JOB #: SC12.012.00

SHEET
C-6.0



24' STANDARD CURB AND GUTTER DETAIL
NOT TO SCALE



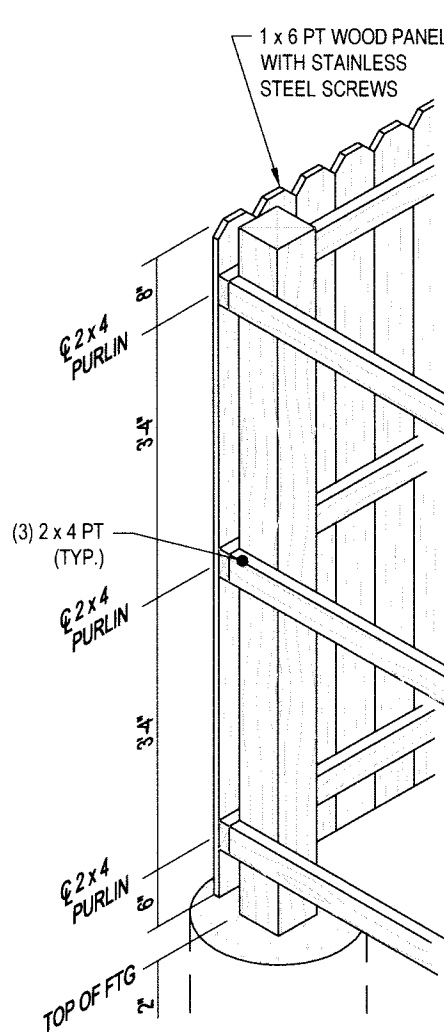
TYPICAL CONCRETE WALK
NOT TO SCALE



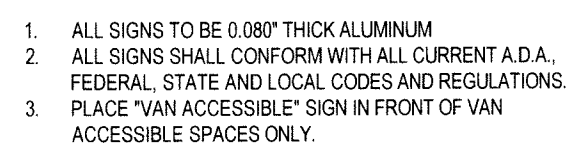
TYPICAL PRECAST WHEELSTOP DETAIL
NOT TO SCALE



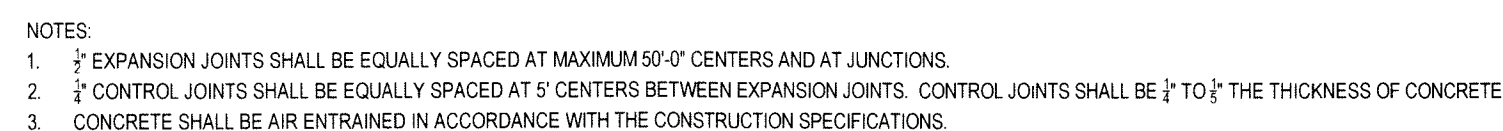
HI-VISIBILITY CROSSWALK
NOT TO SCALE



CORNER POST



ONE AT EACH HANDICAP SPACE.
WHERE HANDICAP SPACES FACE EACH OTHER WITHOUT WALKWAY,
THERE SHALL BE ONE POST WITH SIGNS MOUNTED BOTH SIDES



8" CONCRETE SECTION
NOT TO SCALE

NOTES:

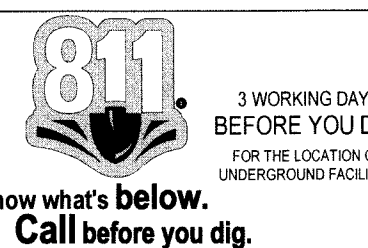
1. PROVIDE 1/2" PREFORMED ASPHALT IMPREGNATED EXPANSION STRIP ALONG PERIMETER OF PAD IF CONCRETE DUMPSTER PAD ABUTS ANY CONCRETE.
2. DUMPSTER TO BE SCREENED. MINIMUM GATE WIDTH TO BE 10'-0".

DUMPSTER ENCLOSURE - DOUBLE
NOT TO SCALE

SCO ID# 12-09486-01A

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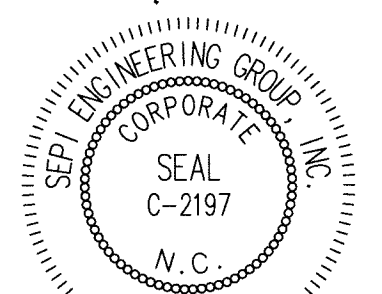
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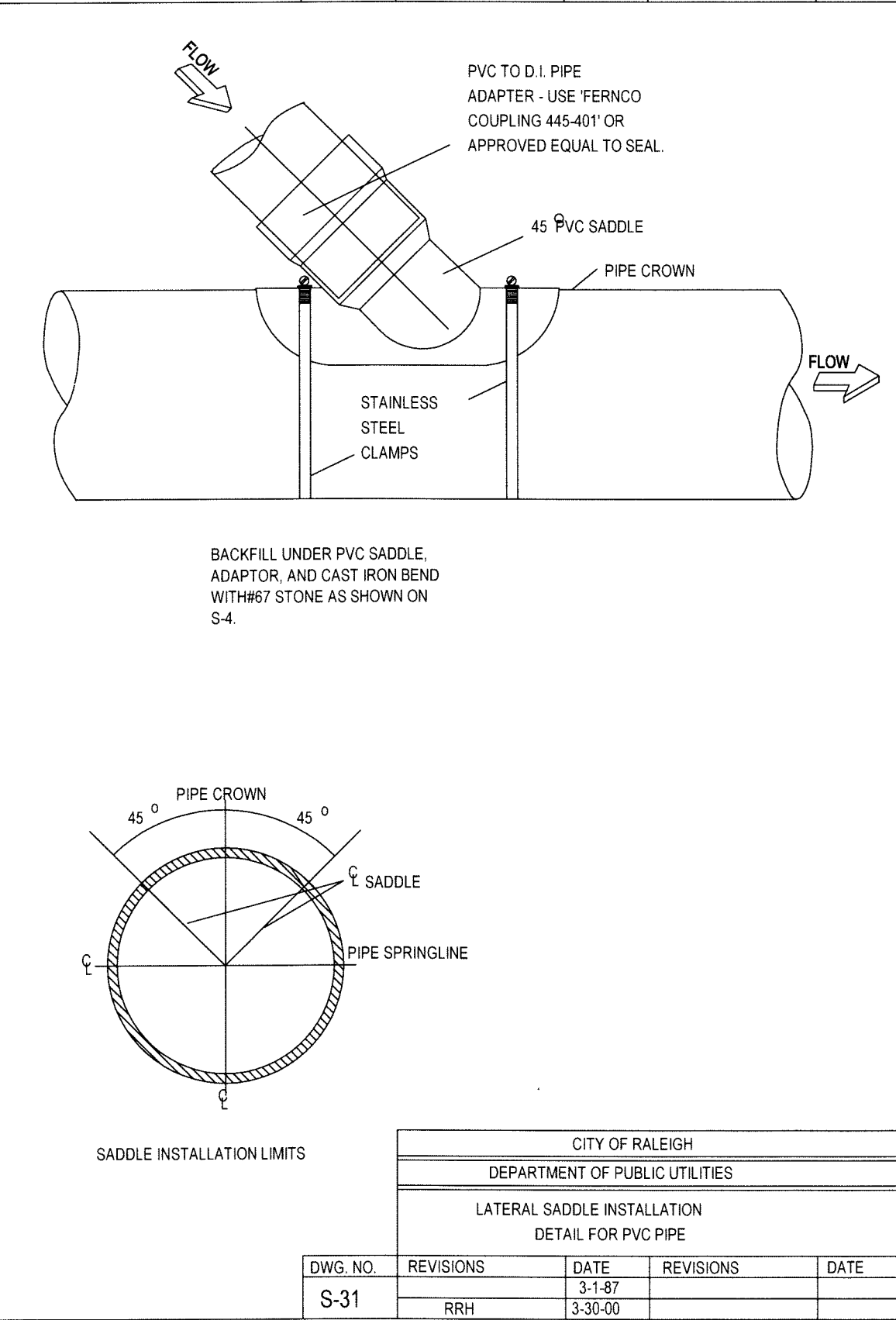
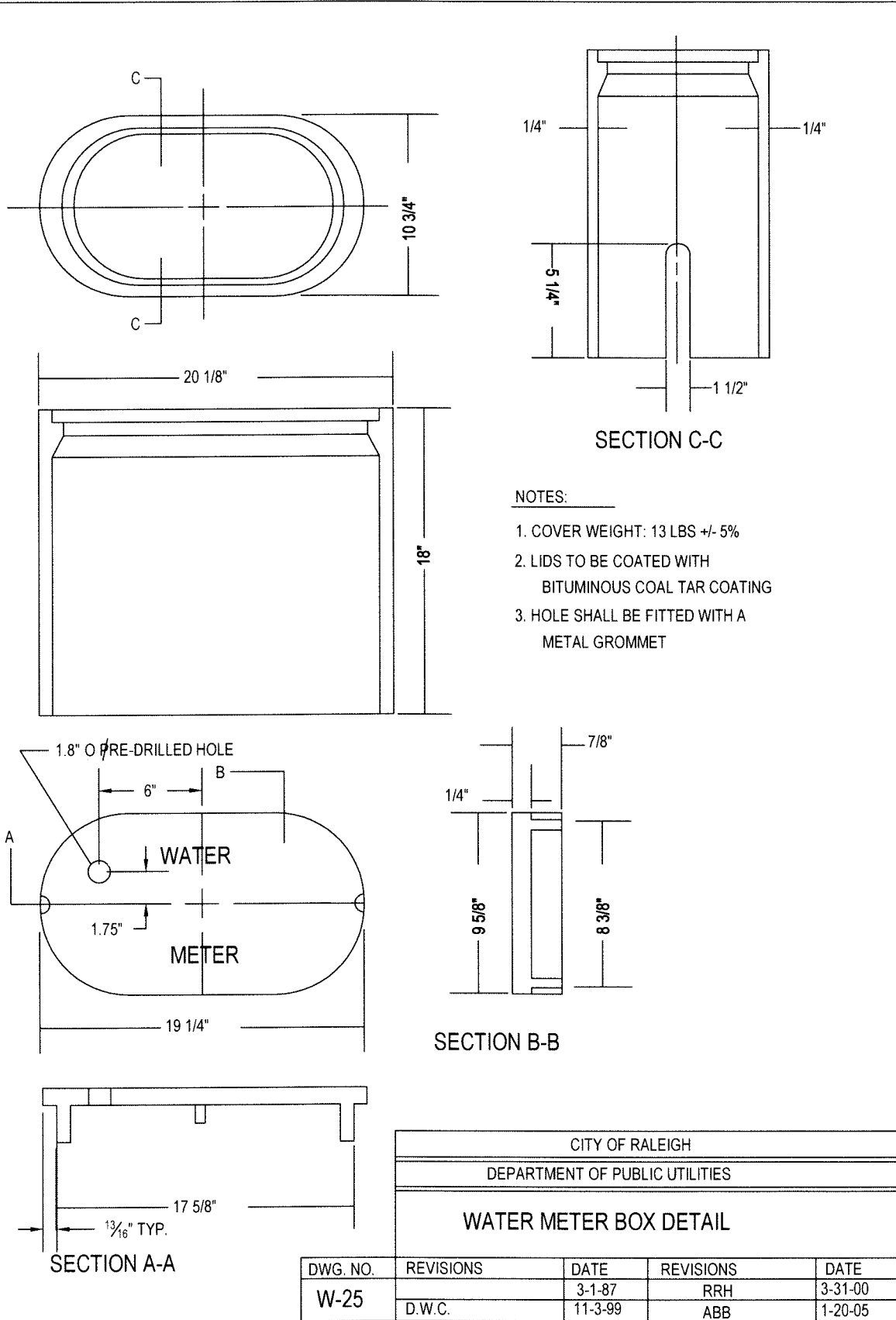
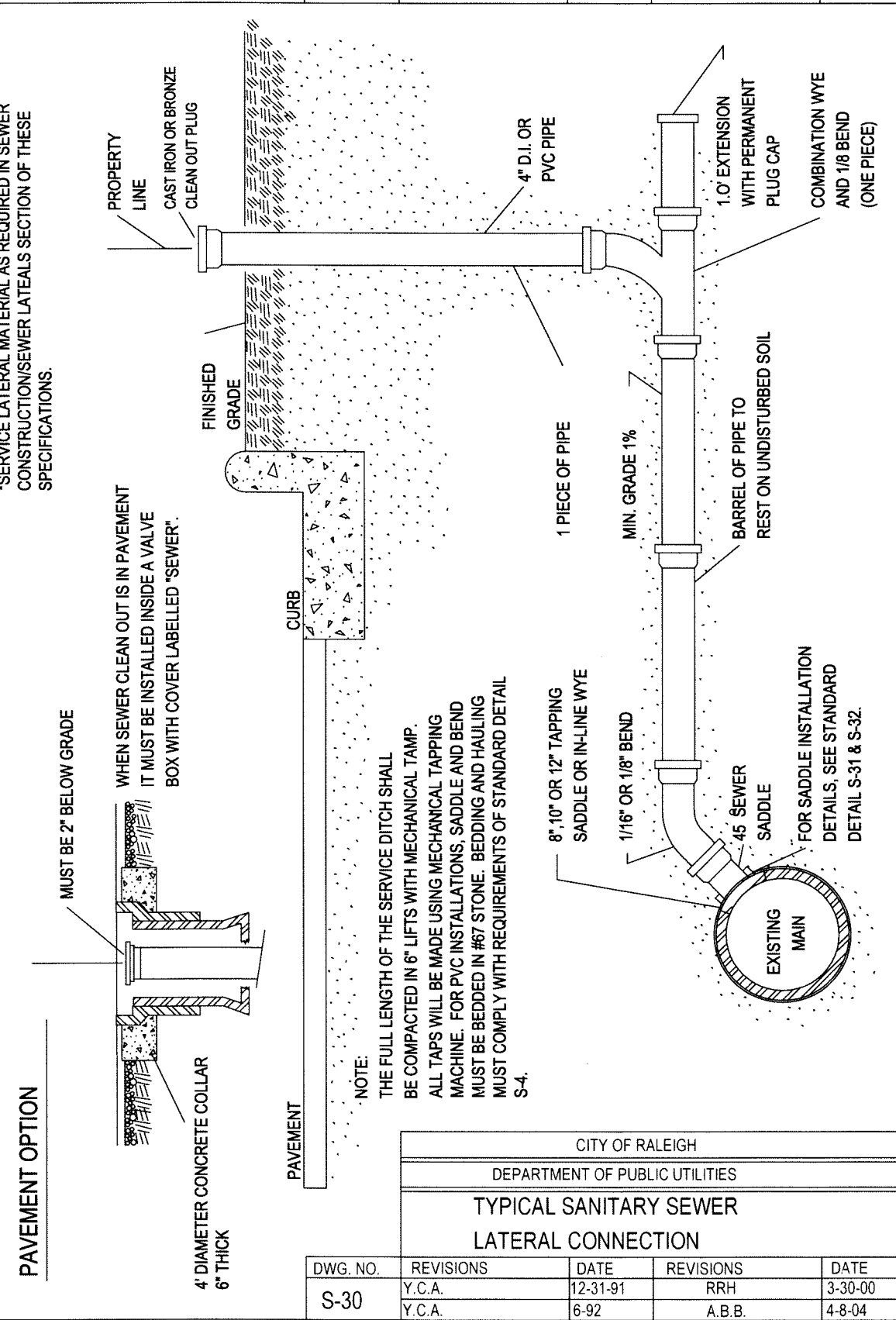
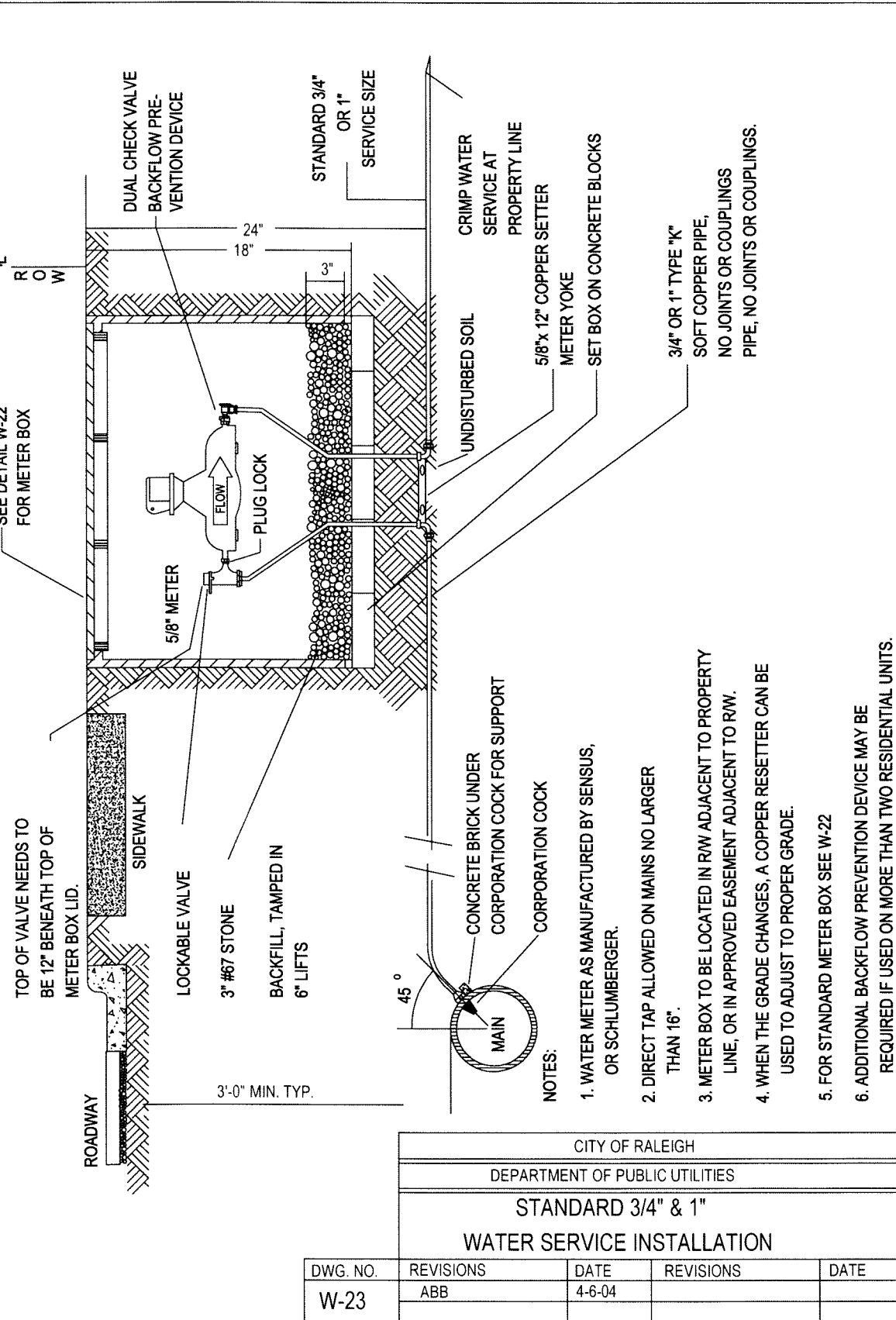
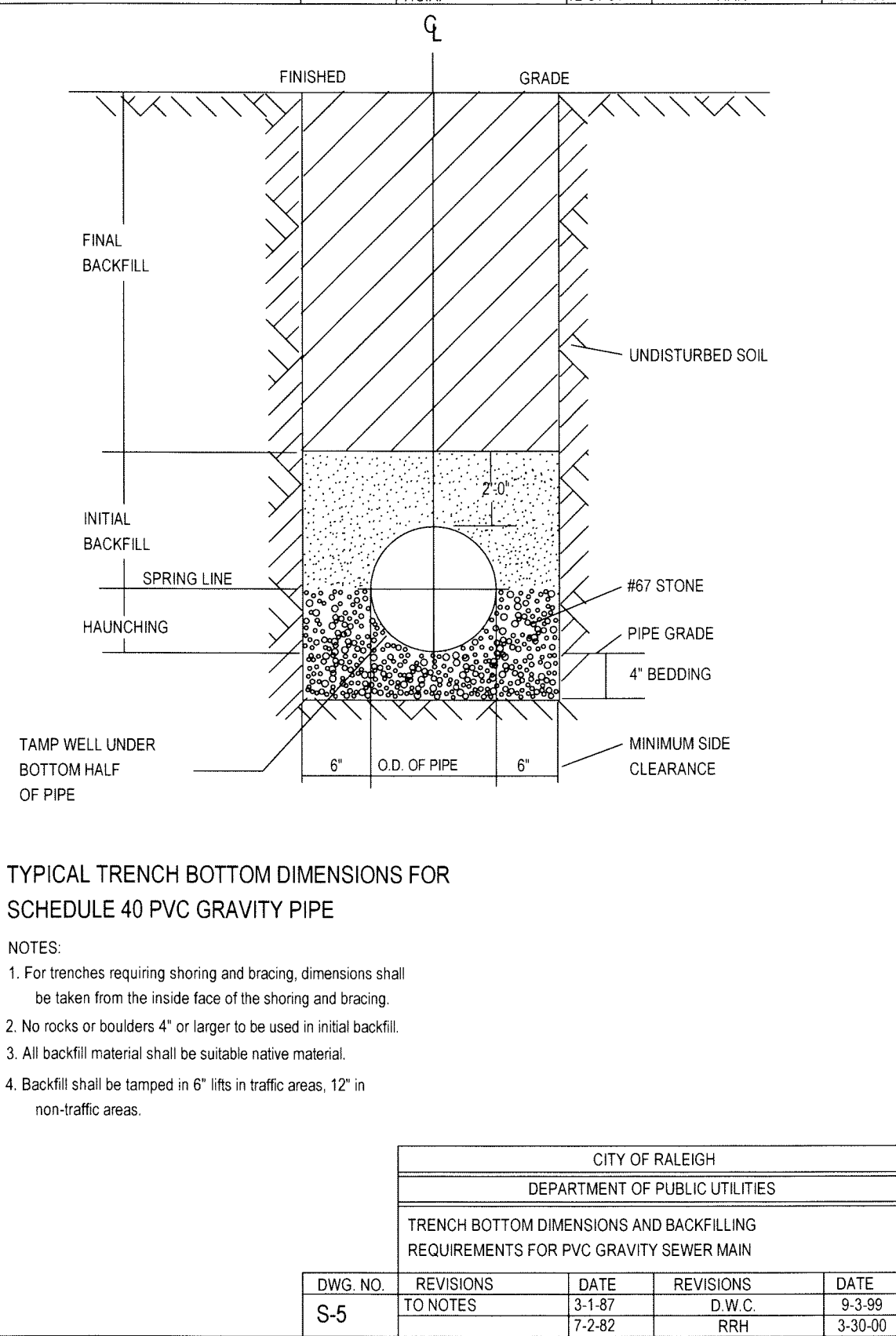
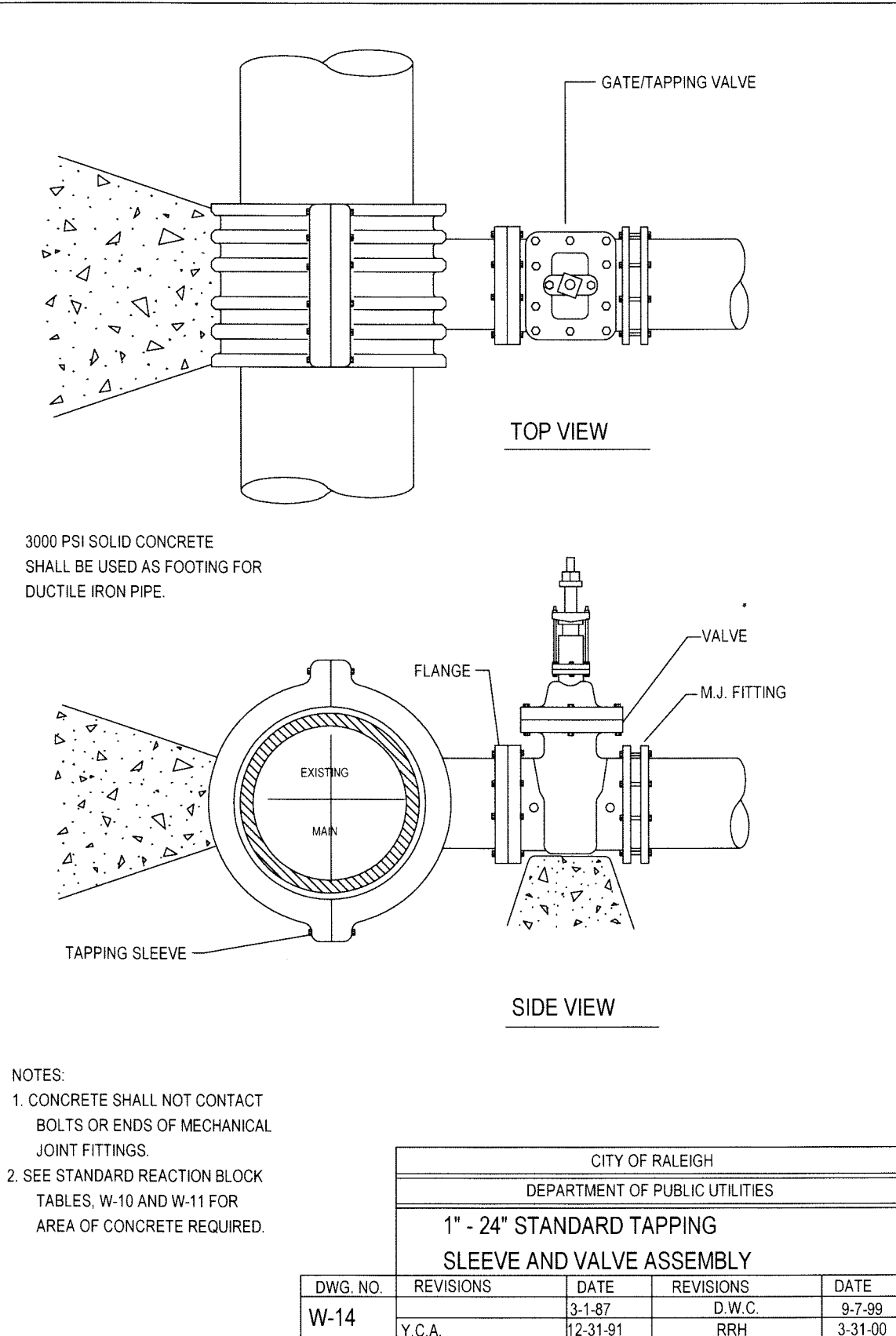
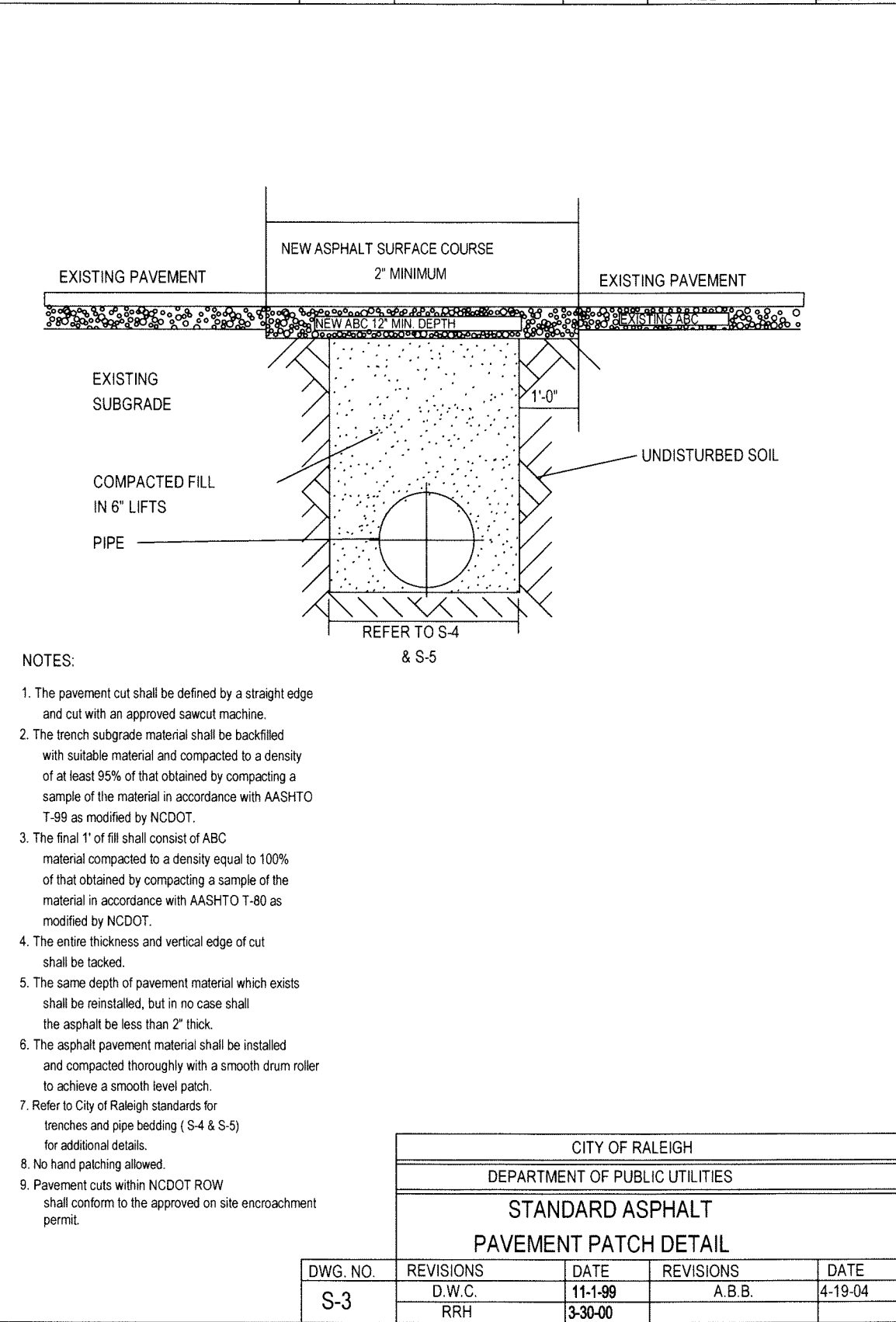
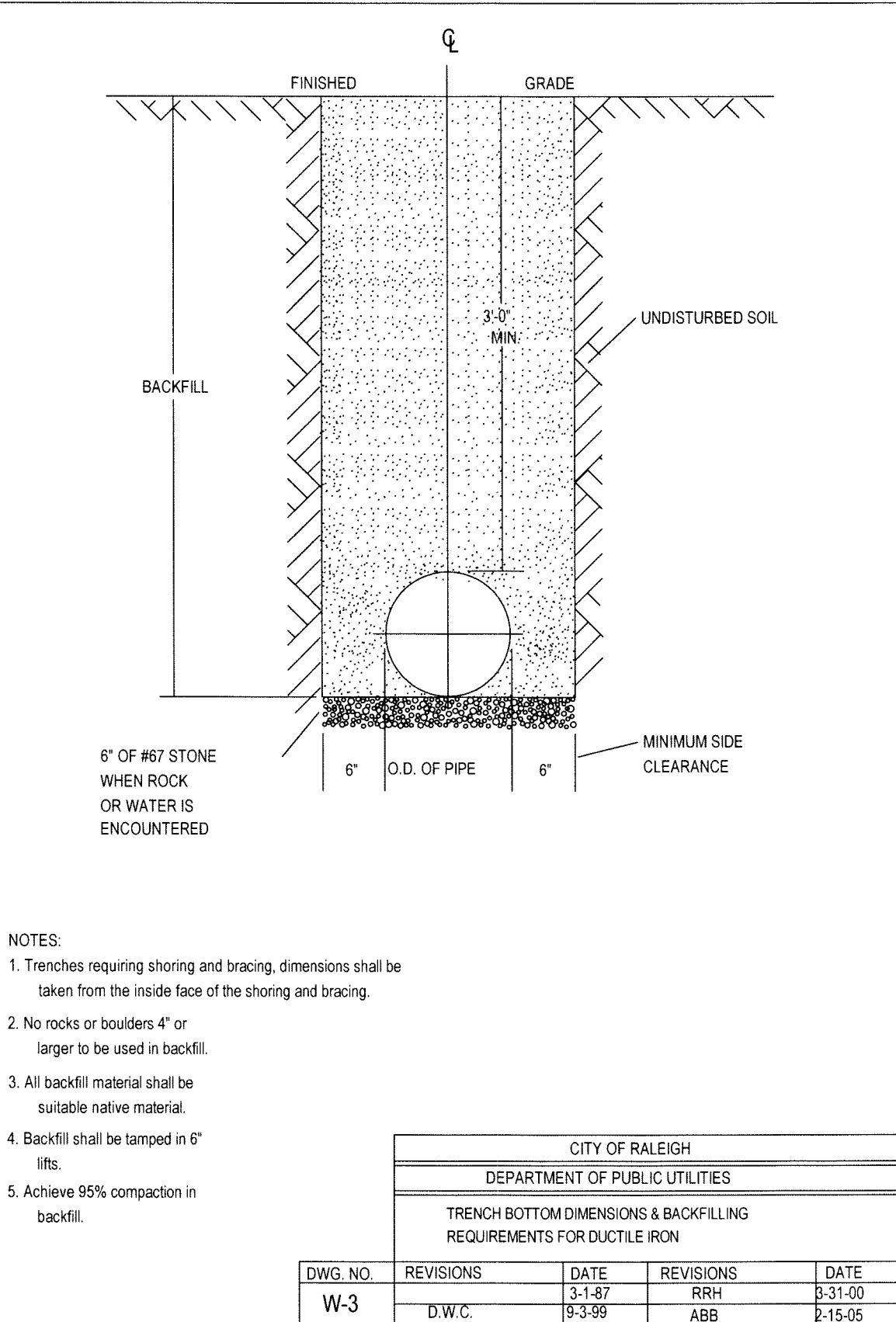
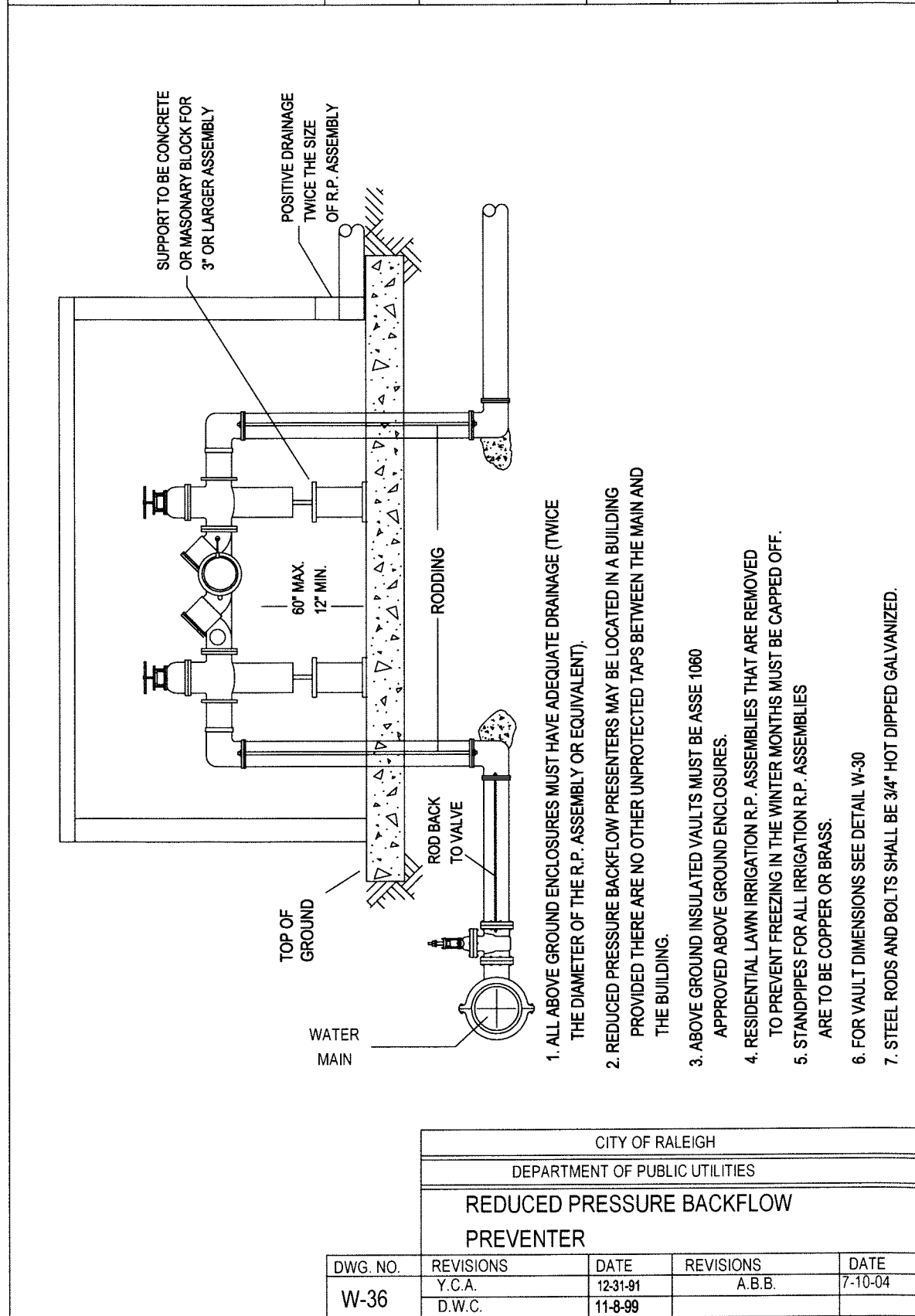
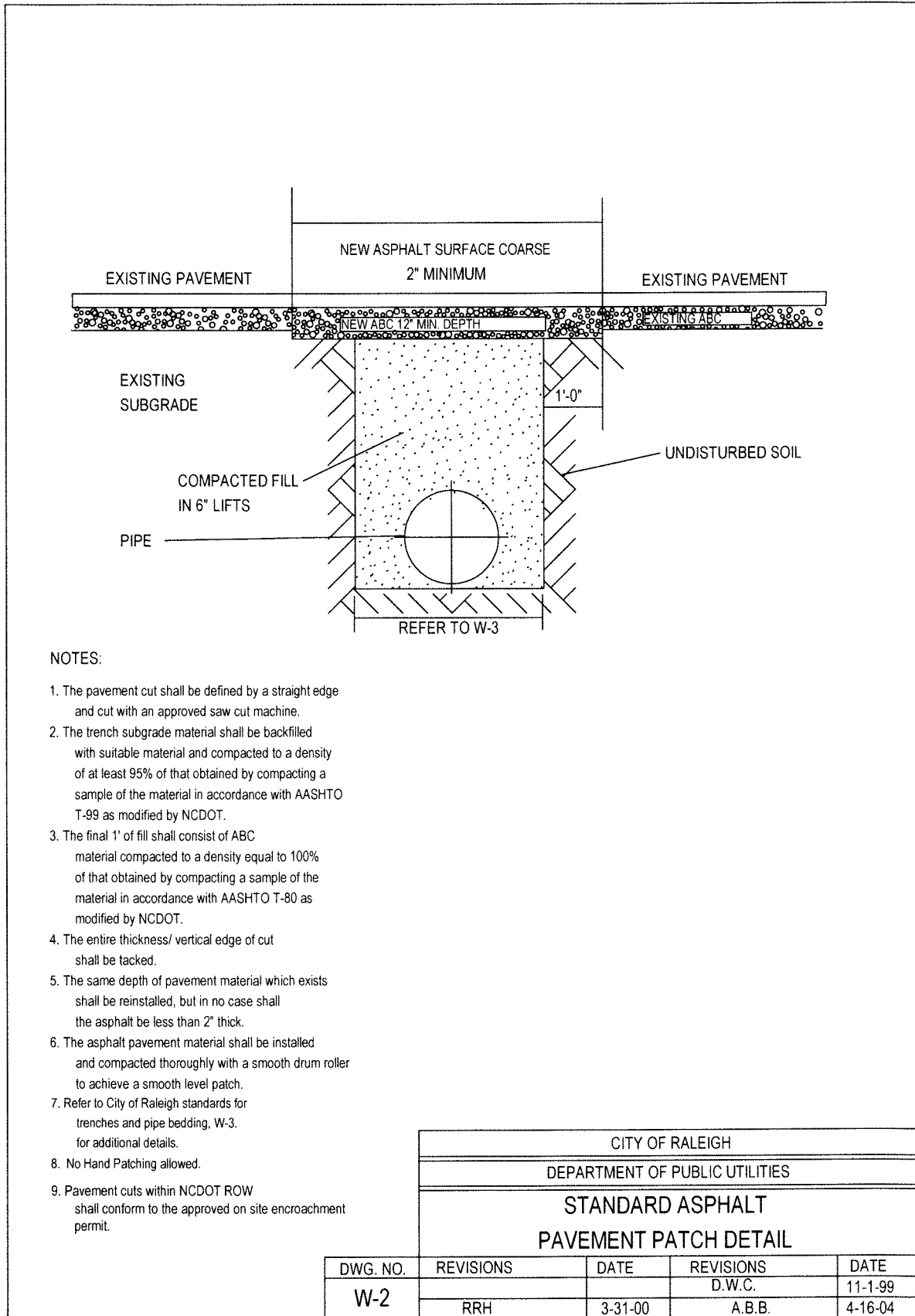
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1	EROSION CONTROL REVISIONS	07/21/2013
2	PER NICKOT COMMENTS	09/17/2013
3	PER SCO COMMENTS	07/19/2013
4	PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS	03/21/2014
5	PER SCO COMMENTS	05/28/2014

NCDOT
WESTGATE ROAD MODULAR SITE
SITE DETAILS
8917 MIDWAY WEST ROAD RALEIGH, NC 27617

PROJECT MANAGER M. CRAIG	FIELD SURVEY DATE 11/05/2009
CHECKED BY: B. PIVER	DRAWING DATE: 03/13/2013
DRAWN BY: B. MUELLER	JOB #: SC12.012.00

SHEET

C-7.0



811 3 WORKING DAYS BEFORE YOU DIG
FOR THE LOCATION OF UNDERGROUND FACILITIES

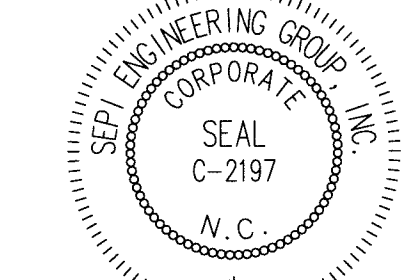
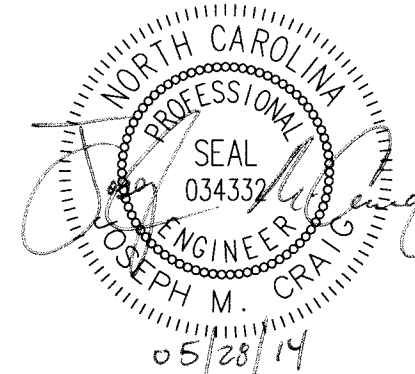
Know what's below.
Call before you dig.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK, OR ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

SEPI
ENGINEERING & CONSTRUCTION

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919.799.9977
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704.714.4880
330 SHIPYARD BLVD., SUITE 203
WILMINGTON, NORTH CAROLINA 28403
910.523.5715
www.sepiengineering.com



PROJECT MANAGER		FIELD SURVEY DATE:	
M. CRAIG		11/05/2009	
CHECKED BY:		DRAWING DATE:	
B. PIVER		03/13/2013	
DRAWN BY:		JOB #	
B. MUELLER		SC12.012.00	

NC DOT

WESTGATE ROAD MODULAR SITE

UTILITY DETAILS

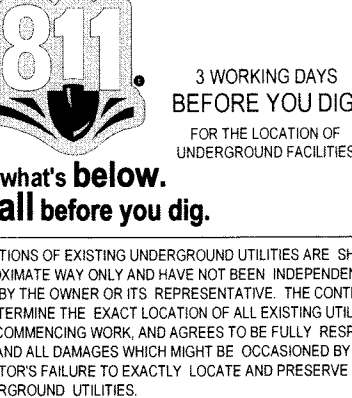
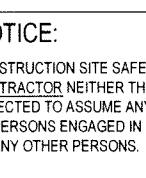

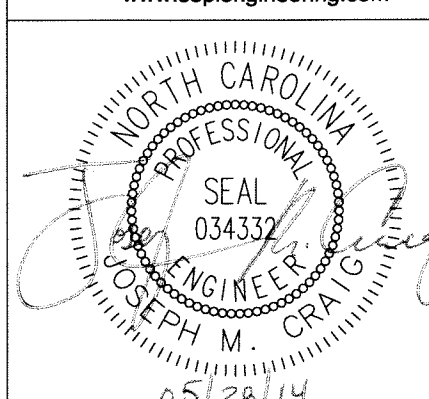
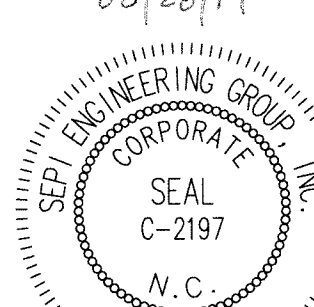
8917 MIDWAY WEST ROAD
RALEIGH, NC 27617

SCO ID# 12-09486-01A

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NCDOT AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

C-8.0

											
 <div>3 WORKING DAYS BEFORE YOU DIG FOR THE LOCATION OF UNDERGROUND UTILITIES</div> <p>Know what's below. Call before you dig.</p> <p>THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND ASSUME TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.</p>											
<p>NOTICE:</p> <p>CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.</p>											
 <p>1025 WADE AVENUE RALEIGH, NORTH CAROLINA 919.789.9977 5960 FAIRVIEW RD., SUITE 102 CHARLOTTE, NORTH CAROLINA 704.714.4880 330 SHIPYARD BLVD, SUITE 203 WILMINGTON, NORTH CAROLINA 910.523.5715 www.sepiengineering.com</p>											
 											
<p>COPYRIGHT © 2011 SEPI ENGINEERING & CONSTRUCTION, INC.</p>											
CAD FILE	DATE	01/21/2013	06/17/2013	07/19/2013	03/21/2014	05/28/2014					
	REVISIONS	△ EROSION CONTROL REVISIONS	△ PER NCDOT COMMENTS	△ PER SCD COMMENTS	△ PER CITY OF RALEIGH PUBLIC UTILITIES COMMENTS	△ PER SCD COMMENTS					
<p>NCDOT</p> <p>WESTGATE ROAD MODULAR SITE</p> <p>STORM DRAINAGE AND</p> <p>EROSION CONTROL DETAILS</p> <p>8917 MIDWAY WEST ROAD</p> <p>RALEIGH, NC 27617</p>		<p>1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.</p> <p>2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECPs BACK OVER SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECPs.</p> <p>3. ROLL THE RECPs (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.</p> <p>4. THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECPs TYPE.</p> <p>5. CONSECUTIVE RECPs SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECPs WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECPs.</p>									
<p>SCO ID# 12-09486-01A</p>		<p>PROJECT MANAGER M. CRAIG</p> <p>CHECKED BY B. PIVER</p> <p>DRAWN BY B. MUELLER</p>					<p>FIELD SURVEY DATE: 11/05/2009</p> <p>DRAWING DATE: 03/18/2013</p> <p>JOB #: SC12.012.00</p>				
<p>ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL NCDOT AND CITY OF RALEIGH STANDARDS AND SPECIFICATIONS</p>		<p>SHEET</p> <p>C-9.0</p>									

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

DIVISION 16 — ELECTRICAL
PART 1 — GENERAL

1.1 DESCRIPTION OF THE WORK

A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:

1. Electrical service and service equipment.
2. Grounding.
3. Other requirements and/or systems where shown.

B. All work shall be complete and items, equipment, etc., shall be electrically connected for proper and correct operation.

C. All work under this contract shall be installed in accordance with the latest edition of the following codes and standards insofar as they apply:

1. The 2011 National Electrical Code.
2. The National Electrical Safety Code.
3. Underwriter's Laboratories, Inc., Standards and approved listings.
4. Electrical Testing Laboratories standards.
5. North Carolina Building Code, Latest Edition and Revisions.
6. All local codes and ordinances.

D. The Electrical Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.

E. Local permits are not required. All work must be inspected by the Office of State Construction and the Engineer of Record. Provide certificate of inspection and approval from the SCO electrical inspector prior to the final inspection.

F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

A. The intent of these specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Electrical Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.

B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

1.4 SHOP DRAWINGS

A. Shop drawings shall be submitted for panels and service equipment. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 — PRODUCTS AND MATERIALS

2.1 GENERAL

A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacturer of the required type of equipment and the manufacturer's latest approved design.

2.2 CONDUCTORS

- A. Conductors shall be color coded, sizes #6 and larger may be color taped on the job. Color coding shall be: Standard Practice.
- B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.
- C. All conductors and busses must be copper and run in conduit.

D. Conductors shall be spliced and taped as follows:

1. Size #10 and #12, use Ideal "Wing Nuts" or T&B "Piggy" connectors. Connectors shall be rated for 150 degrees C for use in recessed lighting fixtures.
2. Size #8 and larger shall be solderless screw and screw-clamping type, smoothly covered and shaped with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall be UL approved.
3. No split-bolt type connectors may be used.

E. All branch wire and connections shall be copper and sized per National Electric Code.

F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in panelboard cabinets, safety switches, etc.

G. All wiring in mechanical spaces shall be plenum rated.

H. Provide GFI protection within 6'-0" of any sink.

I. All multi-wire branch circuits shall comply with 2008 NEC, 210.4(B).

J. All branch circuits and feeders run in conduit shall contain an insulated green grounding conductor.

2.3 PANELBOARDS, SAFETY SWITCHES

A. Panelboards shall comply with NEMA Standard PB 1 — Latest Edition and as manufactured by Square D or ITE-Siemens.

B. Safety switches shall be heavy duty type, size and rating as required for load service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.

2.4 CONDUIT

- A. PVC conduit will be allowed where N.E.C. approved.
- B. All exposed conduit shall be rigid galvanized steel where exposed to the physical damage or outdoors.
- C. All underground conduits shall be encased with a minimum of 3" of concrete

PART 3 — EXECUTION

3.1 IDENTIFICATION NAMEPLATES

- A. Provide engraved, laminated, phenolic name plates for all panelboards, safety switches, wiring troughs, etc., for identification of equipment controlled, services, etc. Nameplates shall be securely and permanently attached to equipment with stainless steel screws.
- B. All empty conduit runs shall be identified and indicated where they terminate.
- C. Provide typewritten directory in each panelboard to clearly identify each circuit, service, etc.

3.2 JUNCTION AND/OR PULL BOXES

A. Boxes shall be installed where necessary to avoid excessive runs and/or too many bends between outlets.

3.3 PULL WIRE

A. Leave pull wire in each empty conduit run.

3.4 GROUNDING

- A. All grounding shall be in accordance with Article 250 of the NEC. In addition, the following requirements shall be met:
1. Grounding conductors shall be installed as to permit the shortest and most direct path from equipment to ground. All connections to grounding conductors shall be accessible.
 5. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.
 6. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.

3.5 CLEAN UP

A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.

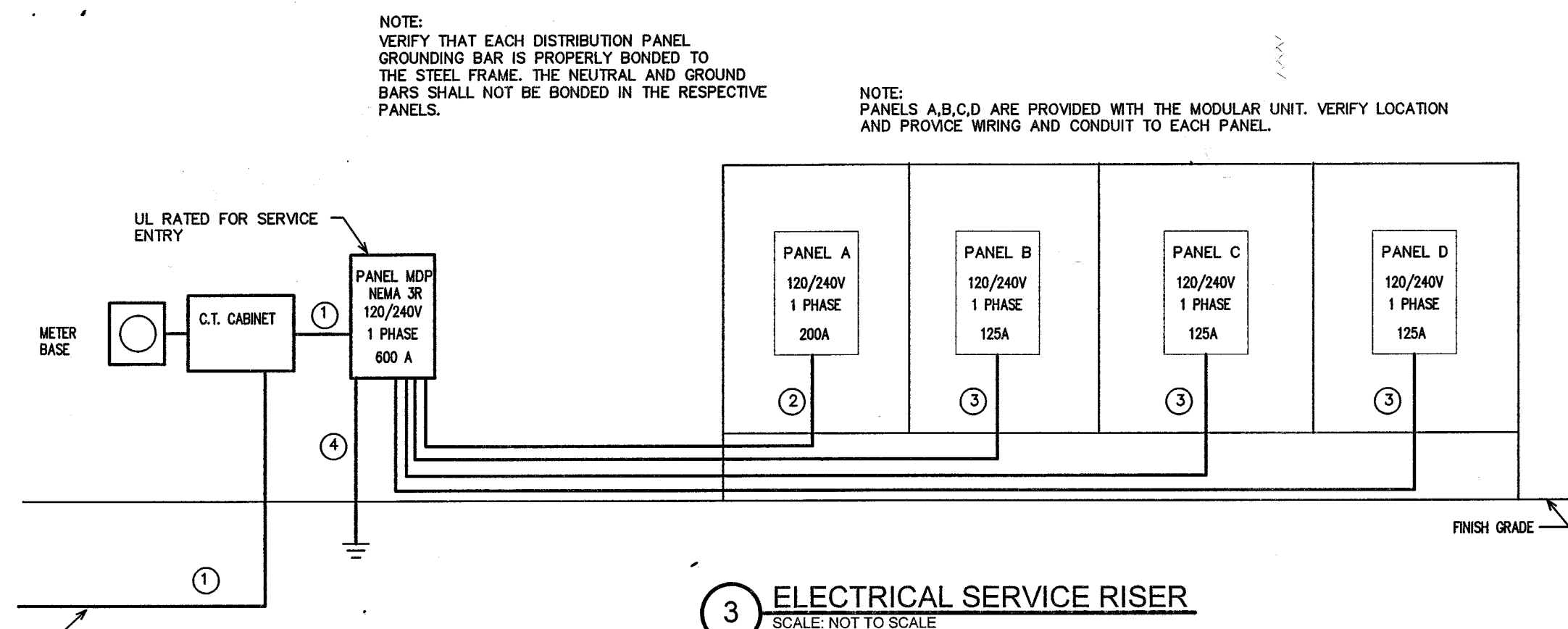
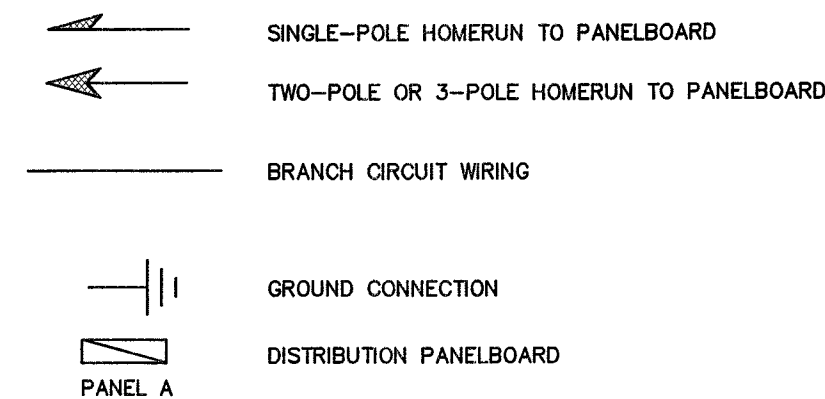
3.6 GUARANTEE

A. Guarantee all materials and labor included in the electrical work for a period of one year from date of final acceptance by the Owner. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the Owner.

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.
2. ALL BRANCH AND SERVICE CIRCUIT CONDUCTORS TO BE COPPER
3. THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS, ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.
5. ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.
6. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.

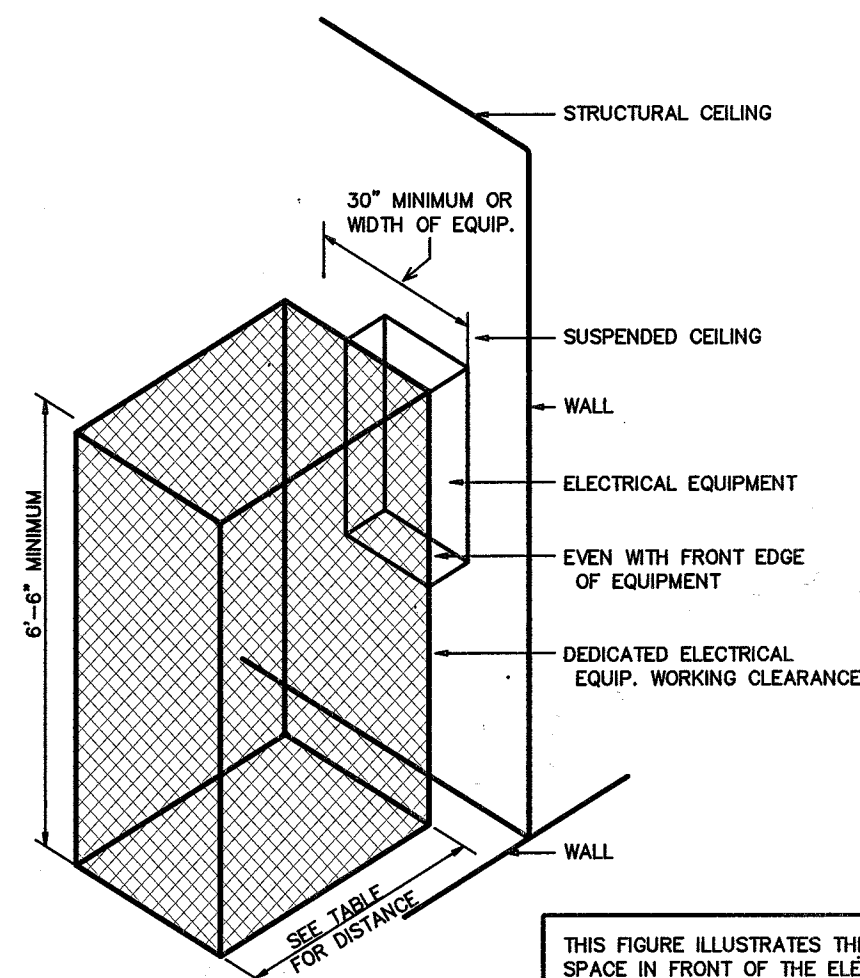
GENERAL LEGEND



WIRING SIZE SCHEDULE

- 1 600A: (2 PAIR) 3-#350 MCM IN (2) 2 1/2" CONDUIT(S)
- 2 200A: 3-#3/4, 1-#6 CU GND IN 2" CONDUIT
- 3 125A: 3-#1, 1-#6 CU GND IN 1 1/2" CONDUIT
- 4 3/0 CU GND TO BUILDING STEEL, FOUNDATION STEEL AND METALLIC WATER MAIN AND #6 CU GND TO 10' X 3/4" DRIVEN, COPPER, GROUND ROD

NOTE: UNLESS OTHERWISE NOTED ALL OTHER CIRCUITS ARE 20A, 120VOLT. PROVIDE 2-#12, 1-#12 CU GND IN 1/2" CONDUIT.

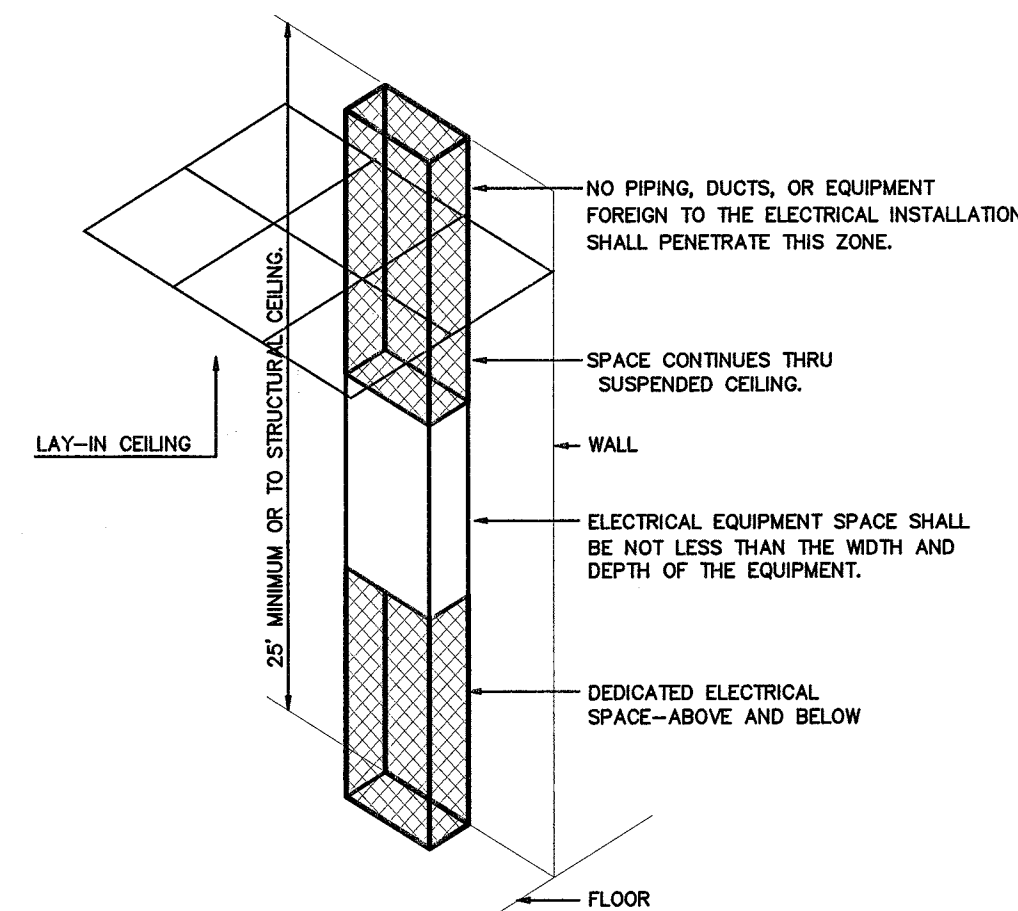


ELECTRICAL EQUIPMENT WORKING CLEARANCE
PER ARTICLE 110.26 OF N.E.C.

WORKING CLEARANCES			
VOLTAGE TO GROUND NOMINAL	MIN. CLEAR DISTANCE IN FEET		
	CONDITION: 1	2	3
0-150	3	3	3
151-600	3	3-1/2	4

1 ELECTRICAL CLEARANCES

SCALE: NOT TO SCALE



ELECTRICAL EQUIPMENT DEDICATED SPACE
PER ARTICLE 110.26.F.1 OF N.E.C.

2 DEDICATED SPACE

SCALE: NOT TO SCALE

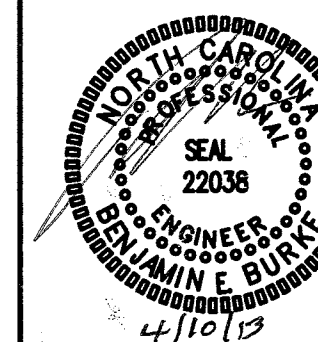
MAKE: CUTLER HAMMER		RATING: 120/240V 1 PHASE 3 WIRE		600A MAIN CIRCUIT BREAKER (FRAME)	
TYPE: PBL3		MOUNTING: SURFACE		EQUIPMENT GROUND BUS	
NEMA 3R		MINIMUM AIC: 22,000 AMPS		SERVICE ENTRY RATED	
LOAD SERVICE	WATTS PER PHASE	FR SIZE	CKT BRKR	CKT NO	WATTS PER PHASE
PANEL 'A'	21850	200A	1	2	12100
PANEL 'B'	14300	125A	3	4	12100
SPACE	---	---	5	6	14800
SPACE	---	---	7	8	14800
SPACE	---	---	9	10	924
SPACE	---	---	11	12	---
SPACE	---	---	13	14	---
SPACE	---	---	15	16	---
SPACE	---	---	17	18	---
SPACE	---	---	19	20	---
SPACE	---	---	21	22	---
SPACE	---	---	23	24	---
SPACE	---	---	25	26	---
SPACE	---	---	27	28	---
SPACE	---	---	29	30	---
NOTES	36150	36150	SUB-TOTALS 'B'		27824
OR APPROVED EQUAL BY SQUARE D OR GE		600A BUS		SUB-TOTALS 'A'	
		600A LUGS		SUB-TOTALS 'B'	
		600A S/N		GRAND TOTAL	
		BOTTOM FEED		AMPS/PHASE	
				533A 525A 533A 525A	
				TOTAL DIVERSIFIED LOAD	
				533A 525A	

* THE LOADS SHOWN ARE DIVERSIFIED LOADS PER NEC DEMAND FACTORS. THE LOADS WERE TAKEN FROM THE MODULAR SHOP DRAWINGS.

NOTE:
SEE MODULAR UNIT DRAWINGS FOR INTERNAL CIRCUITING. THIS DRAWING IS FOR THE SERVICE ENTRY ONLY.

REVISIONS	BY

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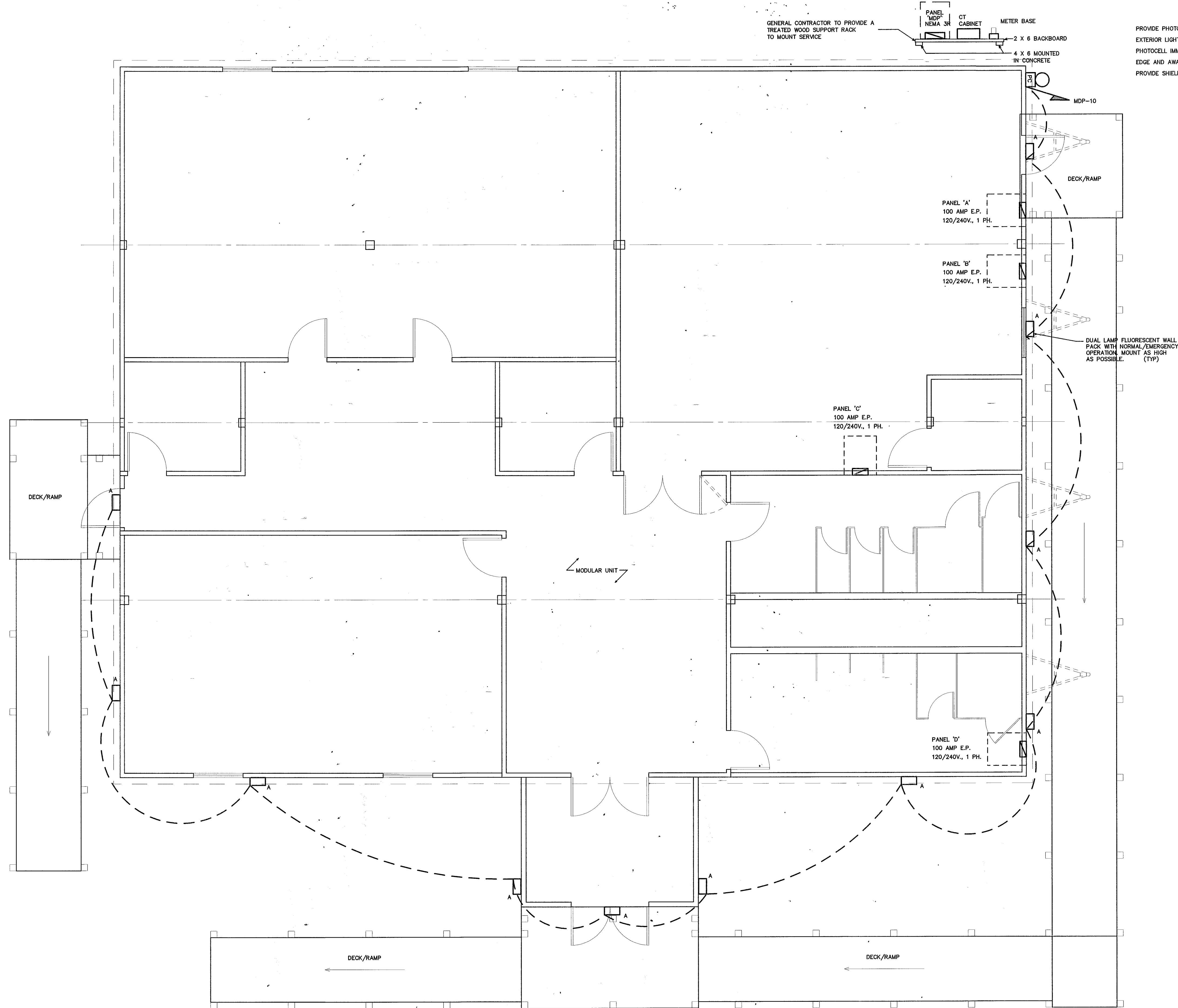


NCDOT WESTGATE ROAD MODULAR
ELECTRICAL SERVICE DESIGN
ID#12-09486-01A
8917 MIDWAY WEST ROAD
RALEIGH, NC

DRAWN BY	BEB
CHECKED BY	BEB
DATE	11-16-12
SCALE	
JOB NO.	
SHEET	

1:1

SCO ID# 12-09486-01A



PROVIDE PHOTOCELL CONTROLS FOR EXTERIOR LIGHTING CIRCUIT. LOCATE PHOTOCELL IMMEDIATELY BELOW ROOF EDGE AND AWAY FROM ARTIFICIAL LIGHT. PROVIDE SHIELDING AS REQUIRED.

LIGHTING SCHEDULE *										
MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS			BALLAST	W/	REMARKS	
				NO.	TYPE	W		TYPE		
A	EMERGENCY LIGHTS CO.	CFO-CF-84-120/277-EM	120	2	CF	42	EB	84	OUTDOOR WALL PACK, EMERGENCY BALLAST	

* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. CATALOG NUMBERS ARE FOR REFERENCE ONLY. ACTUAL NUMBERS MAY VARY. 'EB' DENOTES ELECTRONIC BALLAST.

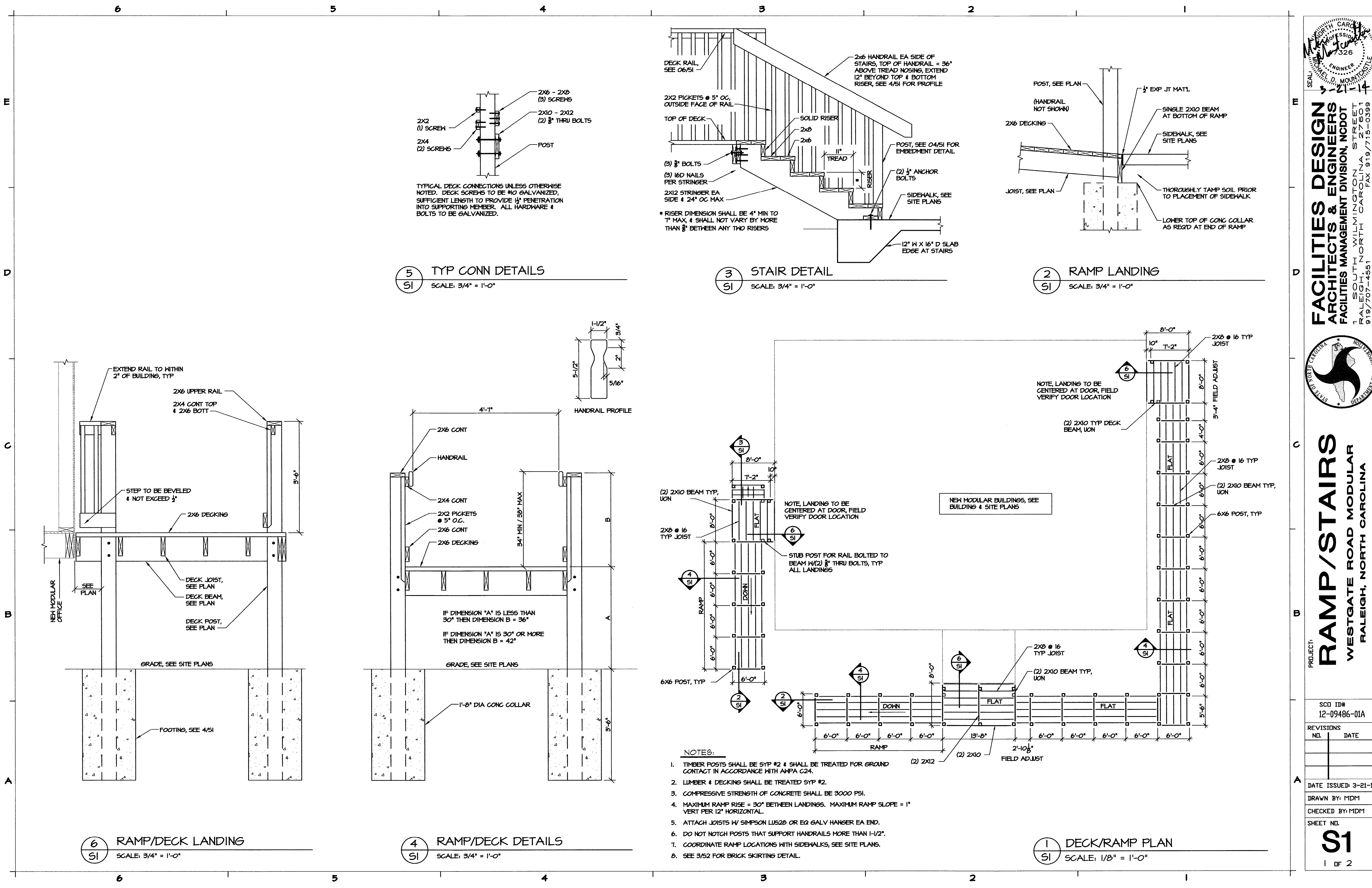
SCO ID# 12-09486-01A

REVISIONS	BY

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NCDOT WESTGATE ROAD MODULAR
ELECTRICAL SERVICE DESIGN
ID#12-09486-01A
8917 MIDWAY WEST ROAD
RALEIGH, NC

DRAWN BY BEB
DESIGNED BY BEB
DATE 04-02-13
SCALE
JOB NO.
SHEET 112



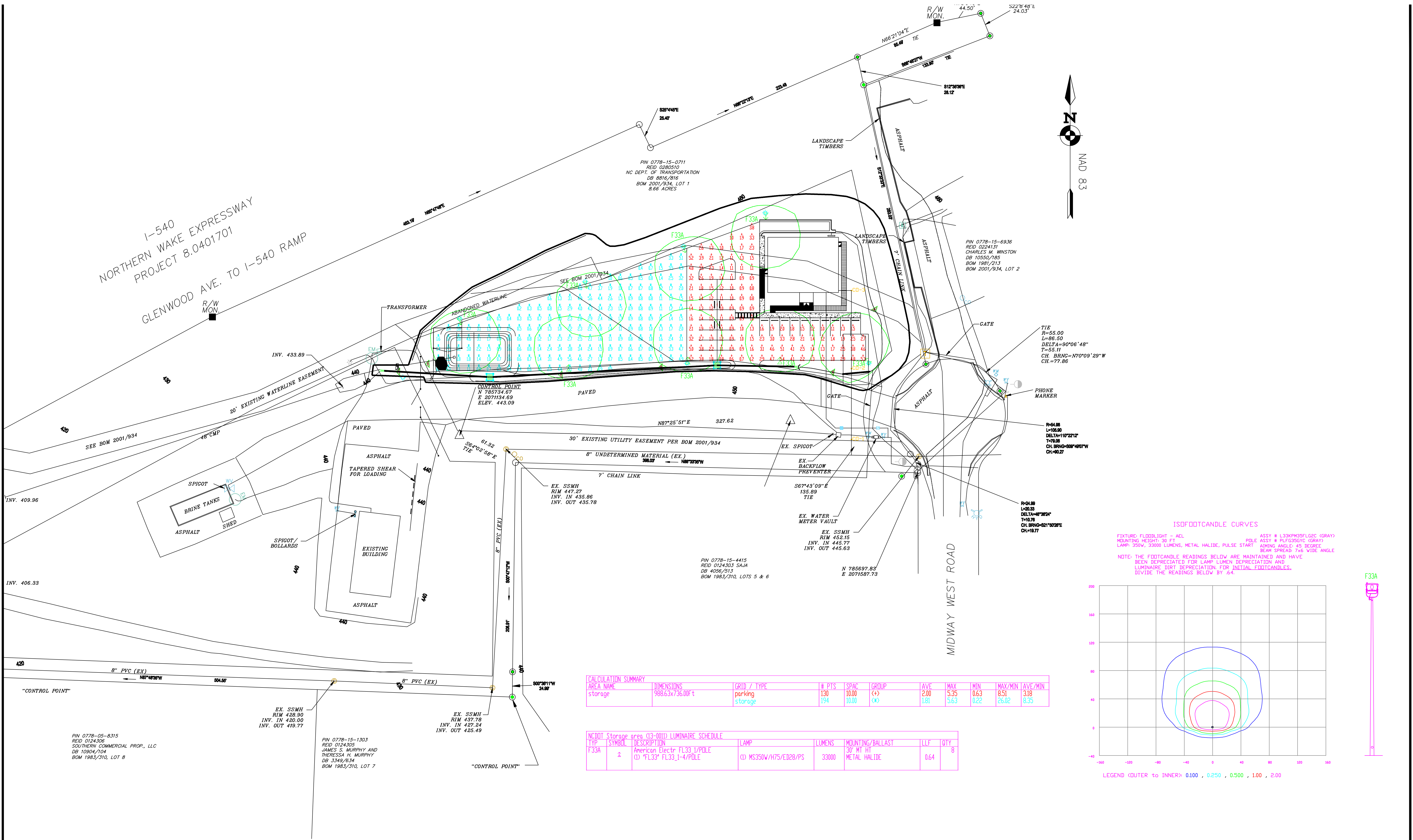
SEAL
NORTH CAROLINA
Professional Engineer
326
3-21-14

FACILITIES DESIGN
ARCHITECTS & ENGINEERS
FACILITIES MANAGEMENT DIVISION, NCDOT
1 SOUTH WILMINGTON STREET
RALEIGH, NORTH CAROLINA 27601
919/707-4551



RAMP/STAIRS
WESTGATE ROAD MODULAR
RALEIGH, NORTH CAROLINA

PROJECT:	
SCO ID# 12-09486-01A	
REVISIONS	DATE
NO.	
DATE ISSUED: 3-21-14	
DRAWN BY: MDM	
CHECKED BY: MDM	
SHEET NO.	
S1	
1 OF 2	



LIGHTING DESIGN TOLERANCE

The calculated footcandle light levels in this lighting design are predicted values and are based on specific information that has been supplied to Progress Energy. Any inaccuracies in the supplied information, differences in luminaire installation, lighted area geometry including elevation differences, reflective properties of surrounding surfaces, obstructions (foliage or otherwise) in the lighted area, or lighting from sources other than listed in this design may produce different results from the predicted values. Normal tolerances of voltage, lamp output, and ballast and luminaire manufacture will also affect results.

Customer approval _____ Date _____



Progress Energy

PROPRIETARY & CONFIDENTIAL

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NCDOT STORAGE FACILITY	
RALEIGH NC - WESTGATE ROAD	
SITE LIGHTING PLAN	
Designed by PGN LIGHTING SOLUTIONS - CAROLINAS	
Reviewed by T. Ferguson	Scale 1" = 40'
Date 02/11/2013	Size "Arch D"
Description: 33K lumen Flood fixtures	