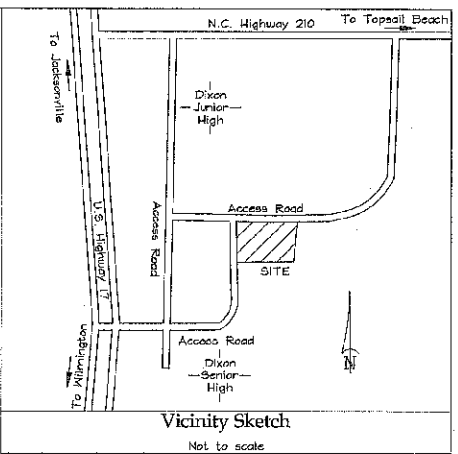


- Legend:**
- pp - Existing Power Pole
 - R/W - Right-of-way
 - cap - Edge of Pavement
 - F.F. Elev. - Finished Floor Elevation
 - D.I. - Ductile Iron
 - ← - Traffic Flow Arrow
 - ⊗ - Sediment Trap
 - ΔSB - Down Spout with Splash Block
 - ΔDS - Down Spout
 - RRR - Rip Rap Apron
 - L.F. - Linear Feet
 - R.D. - Roof Drain
 - - Flow Arrow
 - OSF - Orange Safety Fence
 - SF - Silt Fence
 - MEG - Match Existing Grade
 - - - - - Ditch/Suall

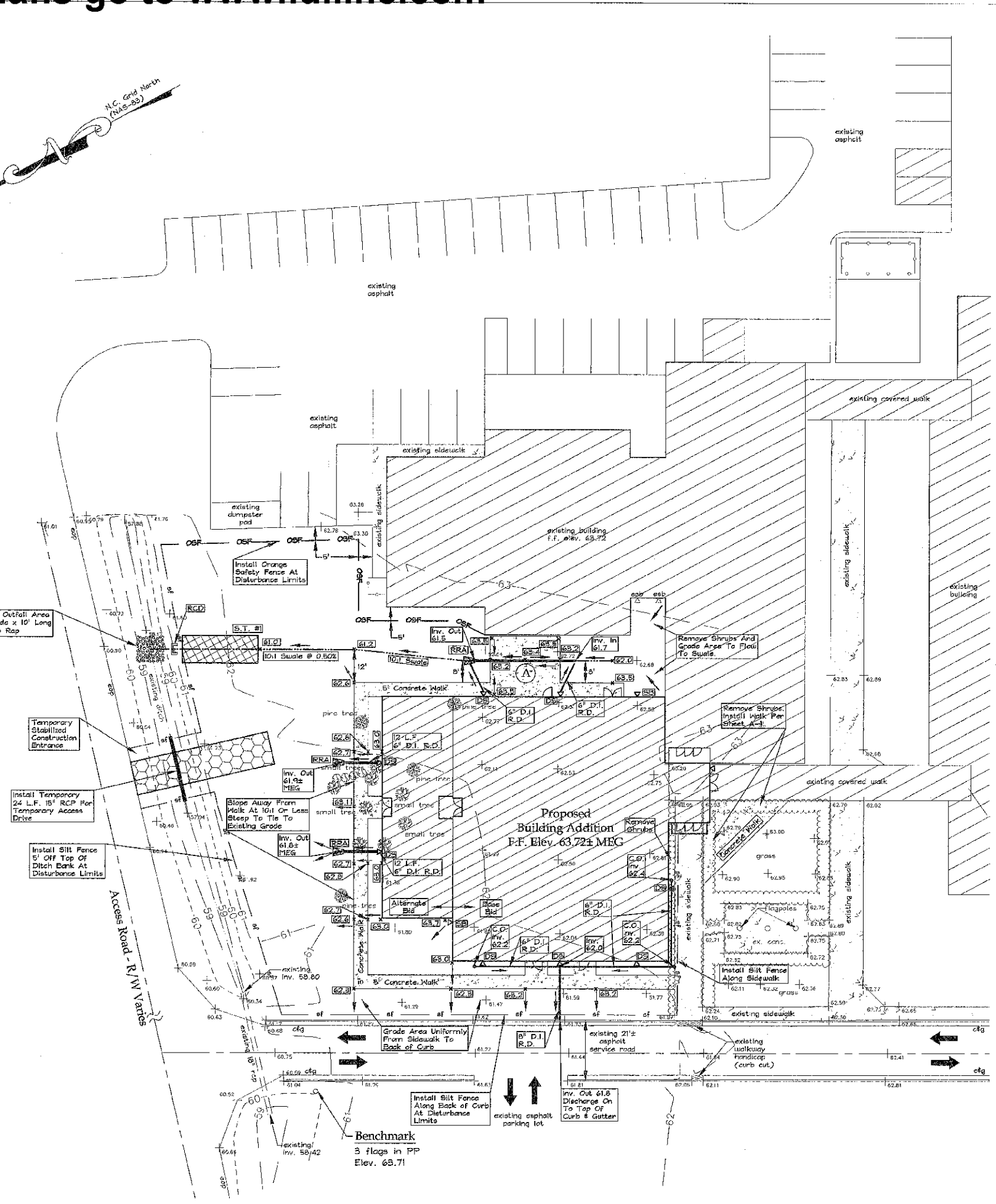


sfi+a
ARCHITECTS

214 Burgess St.
Fayetteville, NC 28301
Phone: 910.484.4989
Fax: 910.484.1466
www.sfi.biz



Parker & Associates, Inc.
Consulting Engineers - Land Surveyors
Land Planners
P.O. Box 976 - 28541-0976
205 New Bridge Street - 28540
Jacksonville, North Carolina
Phone (910) 485-2414
Fax (910) 485-3441



General Notes:

1. Topography shown is taken from actual survey by John L. Pierce and Associates in February 2007.
2. Contractor shall limit grading activities to within grading/disturbance limits identified on plan.
3. "As of January 1, 1986 anyone digging with mechanized equipment in highway right-of-way, private utility easement, or public spaces will be required by North Carolina law to give notice of the proposed excavation to all the existing area utilities at least 2 working days before starting to dig. The utility owner is required to locate its facilities in the area of the proposed excavation. Utility members of NC One Call can be contacted at 1-800-632-4949."
4. Contractor shall verify location of existing water and sewer mains and report any deviations to Architect and Engineer prior to construction.
5. Contractor is responsible for contacting any utility company that is not a member of NC One Call. Contractor shall contact Board of Education Officials for locations of any other utilities on site.
6. Contractor shall verify location and elevation of all underground utilities prior to commencement of work. Relocate utilities as necessary.
7. Contractor is responsible for any damages to any existing utilities.
8. All unsuitable undercut material shall be removed from site. All unsuitable material shall be hauled off site and properly disposed of per NCDENR Regulations.
9. The General Contractor will be responsible for permanent seeding of all lawn areas within grading limits and any other peripheral areas disturbed by his work during construction in accordance with specifications requirements.
10. Contractor is responsible for maintaining all erosion control measures and shall amend measures as required to prevent accelerated erosion from taking place on this site. Contractor shall not remove rock check dams, sediment traps and silt fence until all areas are stabilized and approval is given by the Architect. Review final grade with Architect prior to seeding.
11. All lawn areas outside of building pad and walks shall be shaped for positive drainage away from buildings.
12. See other plans and project specifications for additional information.

Erosion & Sedimentation Control Notes:

- Construction Sequence:**
- A. Notify Architect and Owner prior to beginning construction.
 - B. Install stabilized construction entrance.
 - C. Install silt fence and safety fence where indicated on plan prior to beginning construction.
 - D. Install sediment traps and rock check dams where indicated prior to grading. Within 15 days, temporary seed mixes, if not in final condition, or permanent seed and install swale liner, if in final condition.
 - E. Grading operations shall begin at low points, points of outfall release or at other locations where sediment control measures are shown on the plan. Sediment control devices (sediment traps, silt fences, diversions, stormwater treatment areas, etc.) shall be installed before or simultaneously with the disturbance of any area tributary to the device.
 - F. Remove any shrubs and trees and strip vegetation and unsuitable soils within new building limits and haul off debris.
 - G. Install sewer.
 - H. Install water main.
 - I. Install storm drainage piping. All utilities under drives and walks shall be back filled with compacted select fill.
 - J. Construct building pads.
 - K. Complete fine grading of swales and all disturbed / graded areas. Place 3" topsoil over all disturbed areas to complete final grading.
 - L. Seed, fertilize, lime, and mulch all disturbed areas within 21 days of completing any phase of the grading work. Apply temporary seeding if area is to be disturbed again and permanent seeding if areas have been final graded and accepted by Engineer and Architect. Exposed slopes shall be provided groundcover within 21 calendar days following completion of any phase of grading.
- Seeding Specifications:**
- Apply lime and fertilizer and work into seed bed. Seed mixture shall be distributed uniformly and covered with a clean straw mulch. Mulch shall be crimped and tacked to help hold in place. Minimum material and application rates are as follows:
See specifications for additional requirements.

SEDIMENT TRAP CHART

TRAP #1	DISTURBED AREA (ACRES)	VOLUME (CUBIC YARDS)	SIZE (LENGTH X WIDTH X DEPTH)
	0.25	36	27'6" X 10'6" X 3.5' D

DESIGN STANDARD - 133.3 CY SEDIMENT TRAP VOLUME PER DISTURBED ACRE.

DRAINAGE PIPE CHART

PIPE	AREA (ACRES)	Q10 (CFS)	DIAMETER (INCHES)	GRADE (ft/ft)	LENGTH (LF)	OUTLET VELOCITY (FPS)
A	0.17	0.9	10" D.I.	0.005	36	3.1

Q=CIA
C=varies
I=0-5 min.
I=0-7.17 in/hr.
C=varies

DI = Ductile Iron
CFS = Cubic Feet per Second
LF = Linear Feet
FPS = Feet per Second

SWALE CALCULATION CHART

Section	Area (acres)	Q10 (cfs)	Side-Slope	Channel Slope (ft/ft)	Velocity (ft/s)	Velocity (ft/min)	Depth of Flow (ft)
Q=CIA C=varies I=0-7.17 in/hr.	0.56	1.8	10:1	0.005	1.6	9.6	0.5

Friction Factors
n=0.02 Bare Earth
n=0.05 Grass
v=1.49 R^{2/3} s^{1/2}

NOTE:

1. Use site plan for section locations.
2. Line bottom and sides of all swales with American Excelsior Carlex Blanket Type I after seeding, fertilizer, lime and mulch.

Field Book: N/A
Disk Name: Acad 2012
Filename: Dixon High-gen.cwg KHW
Job No.: S070227-4294

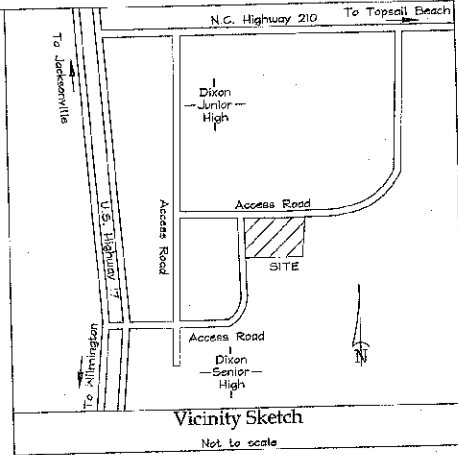
GRAPHIC SCALE: 1"=20'
0 10 20 40 60
FEET

ONSLOW COUNTY SCHOOLS
DIXON HIGH SCHOOL ADDITION
Grading, Drainage, Erosion & Sedimentation Control Plan

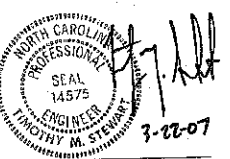
Project #: 00543.000
Drawn By: KHW
Checked By: TMS
Issue Date: 02/28/07
Revisions:

ADA AND FAIR HOUSING ACT: This document is intended to comply with the requirements of the Americans with Disabilities Act (ADA). However, architects and engineers are not licensed to interpret laws or give advice concerning laws. The owner should have this document reviewed by his attorney to determine if it complies with ADA and other laws.

Legend:
 R/W - Right-of-way
 esp - Edge of Pavement
 elm - Existing Water Meter
 ← - Traffic Flow Arrow



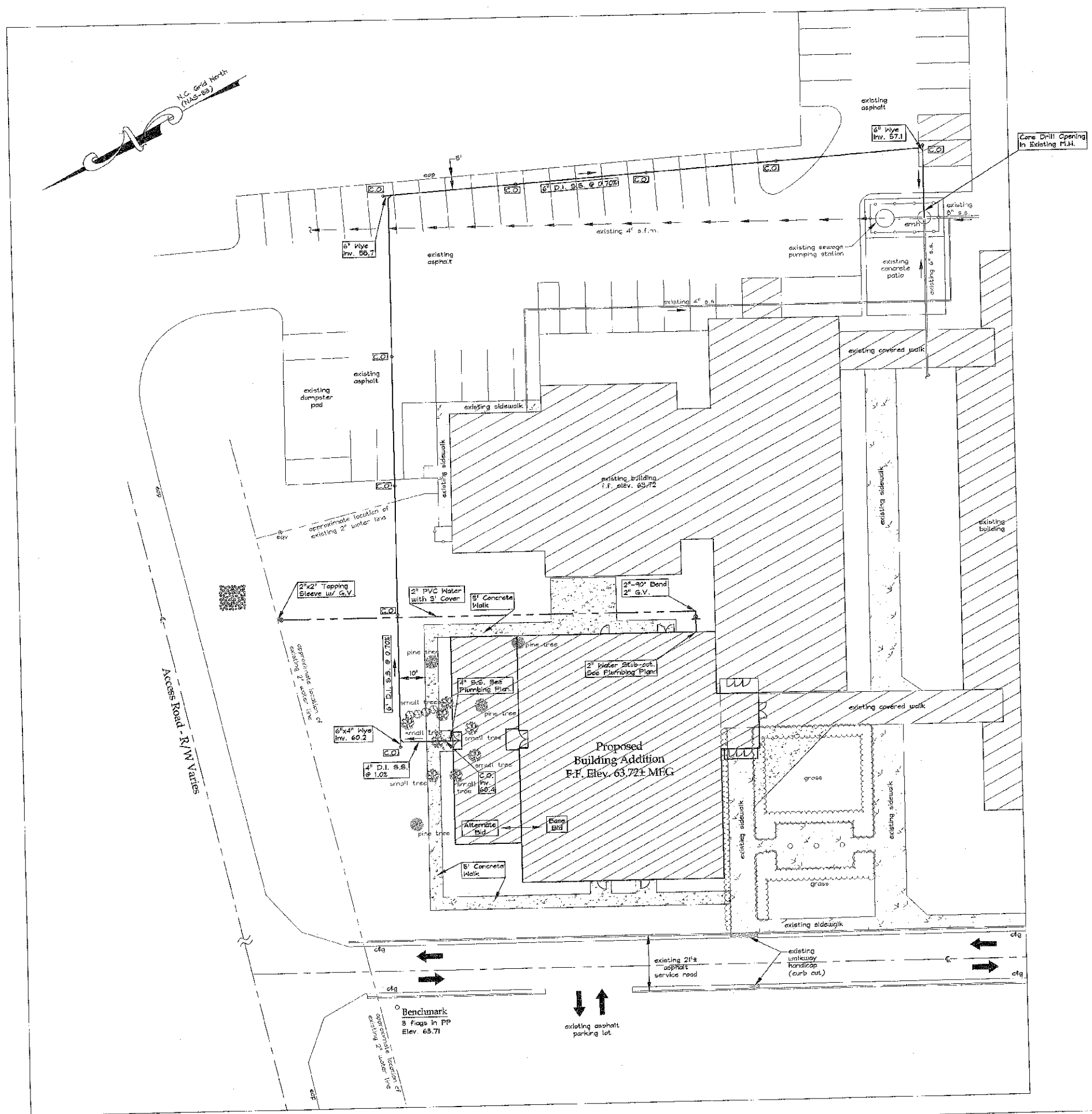
sfl+a
 ARCHITECTS
 214 Burgess St.
 Fayetteville, NC 28301
 Phone: 910.484.4989
 Fax: 910.484.1466
 www.sfla.biz



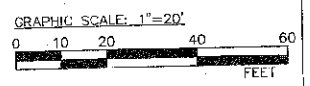
Parker & Associates, Inc.
 Consulting Engineers - Land Surveyors
 Land Planners
 P.O. Box 978 - 28541-0978
 306 New Bridge Street - 28540
 Jacksonville, North Carolina
 Phone (910) 455-2414
 Fax (910) 455-9441

Water and Sewer Notes:

- Potable water supply to be by ONNABA.
- Sanitary treatment to be by North Topsail Utilities, Inc.
- As of January 1, 1986, anyone digging with mechanized equipment in highway right-of-way, private utility assessments, or public spaces will be required by North Carolina law to give notice of the proposed excavation to all existing areas of utilities at least 2 working days before starting to dig. The utility owner is to locate its facilities in the area of the proposed excavation. Utility members of N.C. One Call can be contacted at 1-800-682-4943.
- Contractor is responsible for contacting any utility company prior to commencement of work. Locations of existing utilities is very rough and contractor shall verify locations & elevations and report to Engineer any deviations prior to construction, then make adjustments as necessary without additional compensation.
- Contractor is responsible for any damages to any existing utilities.
- All proposed sewer mains to be 8-inch PVC SDR 35, or ductile iron. Services to be Sch. 40 PVC or ductile iron.
- All water mains shall be ASTM D-2241, PVC 1120, SDR 21, 200 PSI pressure rating.
- Water mains shall be buried with minimum of 36-inches cover, unless otherwise noted.
- Water mains shall be at least 18 inches above or 10 feet horizontally from sewer mains, or be of ferrous material.
- Contractor to lay water mains at extra depth to insure 12-inches separation from storm drain pipes, 30-inches cover under sidewalks and ditches, and to avoid conflicts with any other facilities. If minimum separations can not be achieved, ductile iron water main shall be installed.
- Contractor shall notify the Architect, Engineer and ONNABA Inspection Dept. at least 48 hours prior to commencing any work, inspections, sampling, and pressure tests.
- Chlorination and pressure tests are required in the presence of the Engineer and ONNABA Inspection Dept.
- Contractor shall furnish negative bacterial analysis results and 24 hour chlorine residual results to ONNABA and the certifying Engineer.
- Contractor shall maintain comprehensive (depth and horizontal locations) field "As Built" for all installations and submit them to the Architect and the certifying Engineer prior to acceptance.
- For other detailed construction notes, other plan sheets, and specifications.
- All water and sewer system installation materials and practices shall meet ONNABA specifications.
- Plumbing contractor shall install all potable water service lines inside building to 6" outside building. Site contractor shall install a temporary plug and block to aid in testing at the point of tie-in to the building plumbing and tie to building plumbing after testing mains.
- Plumbing contractor shall install sewer services in buildings and stub-out and plug 6" outside of buildings. Site contractor shall install services from sewer main and tie to stubbed out building services at a minimum of 1.0% grade. Site contractor shall install a cleanout at the point of tie-in to the plumbing. Site contractor will install all manholes and 8-inch mains.
- Locations of the water and sewer lines shown coming from the building are approximate only. The site contractor shall meet with all other contractors and prepare coordination drawings showing the actual proposed locations and elevations of the water and sewer services, roof drains and all other utilities coming out of the buildings and on-site, and determine how site contractor will tie to them to insure there are no conflicts or problems during construction.



Field Book: N/A
 Disk Name: Acad 2012
 Filename: dixon high-gen.dwg
 Job No.: 6070227-4294



Water and Sewer Plan
 SCALE 1"=20'

ONSLOW COUNTY SCHOOLS
DIXON HIGH SCHOOL ADDITION
Water and Sewer Plan

Project #: 00543.000
 Drawn By: KHW
 Checked By: TMS
 Issue Date: 02/28/07
 Revisions:

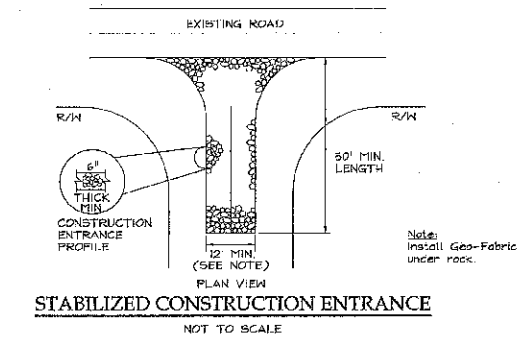
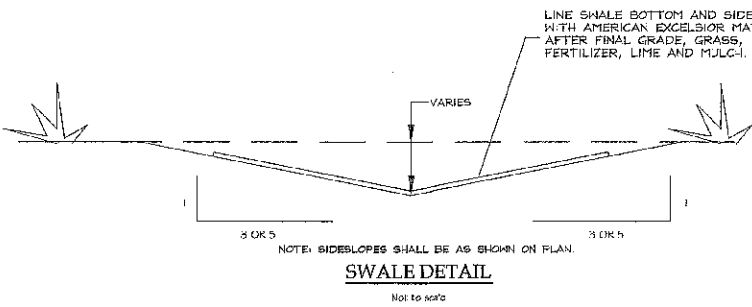
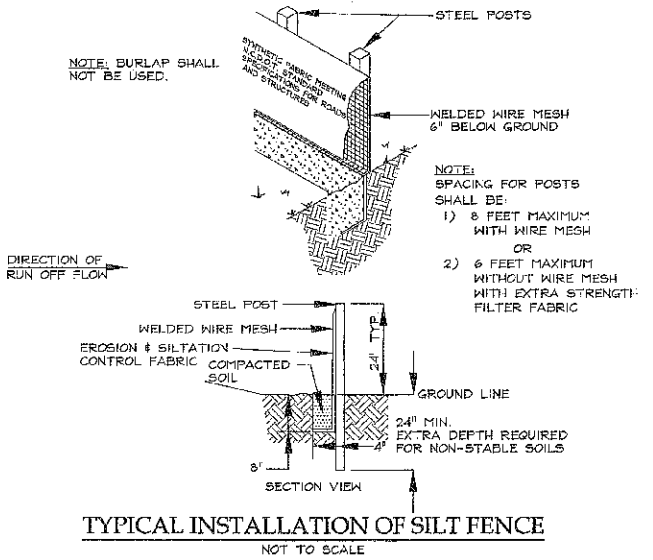
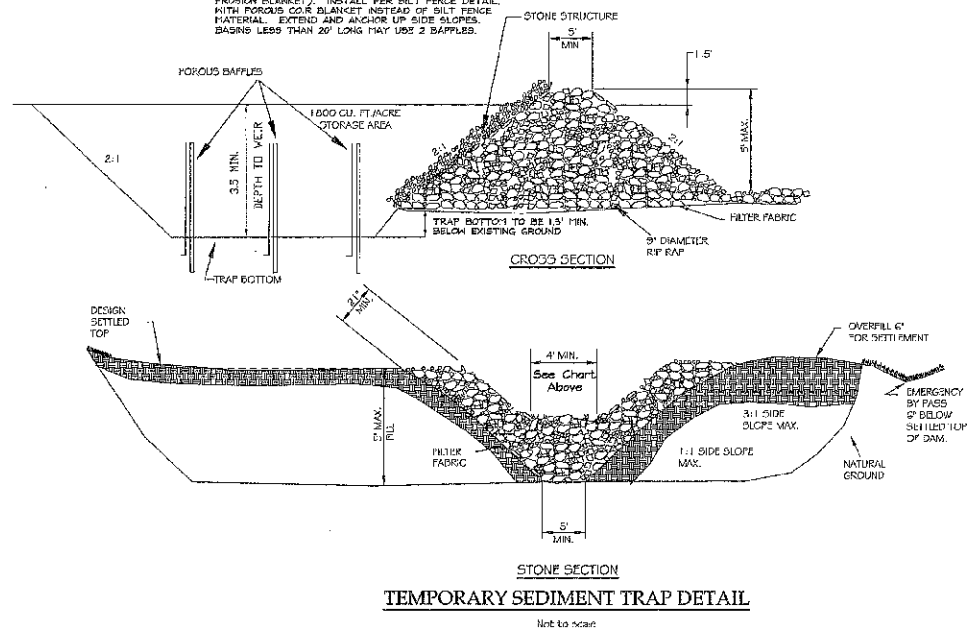
Projects: S:\Dixon High School\Addition\high-gen.dwg, 3/22/2007 3:35:20 PM, .J5

NOTES:

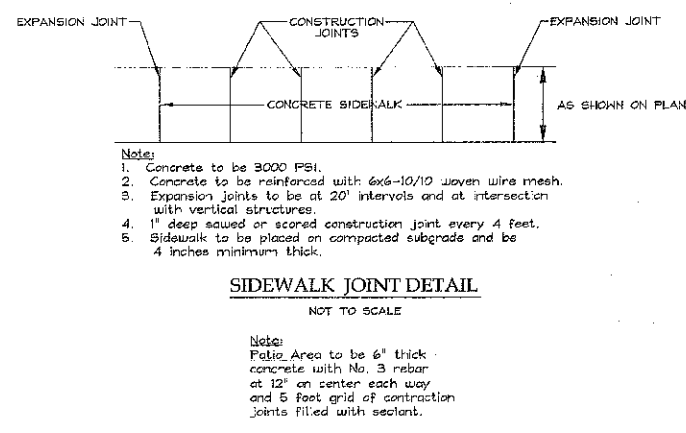
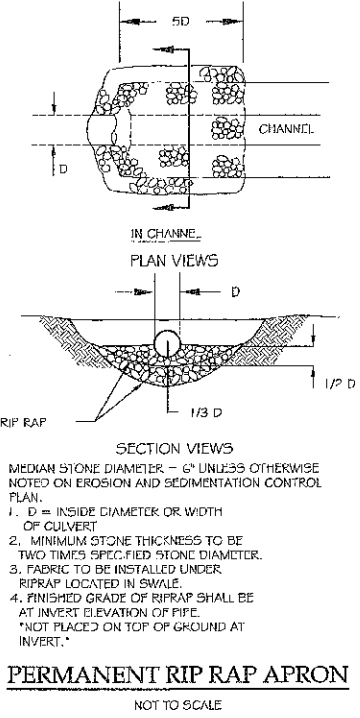
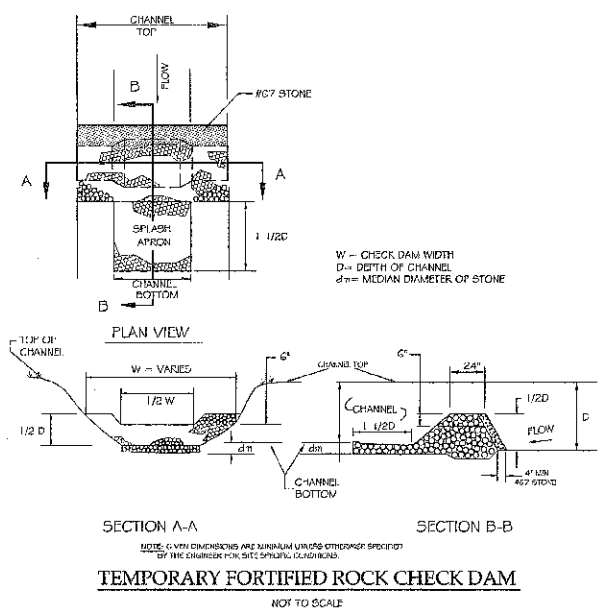
- SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN VOLUME OF THE TRAP. SEDIMENT REMOVED FROM THE BASIN SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE STRUCTURE SHALL BE CHECKED REGULARLY TO INSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY INGRESS OR CONSTRUCTION EQUIPMENT. THE HEIGHT OF THE OUTLET SHALL BE CHECKED TO INSURE THAT ITS CENTER IS AT LEAST 1/2 FEET BELOW THE TOP OF THE EMBANKMENT.
- WEIR LENGTH

DRAINAGE AREA (ACRES)	WEIR LENGTH (FEET)
1	4.0
2	6.0
3	8.0
4	10.0
5	12.0

- SEE SEDIMENT TRAY CHART FOR VOLUMES & SIZES.
- PERMANENT BASES:**
INSTALL 3 ROWS OF POROUS BATTLES (70%/30 COIR FIBER BLANKET). INSTALL PER SILT FENCE DETAIL WITH POROUS COIR BLANKET INSTEAD OF SILT FENCE MATERIAL. EXTEND AND ANCHOR UP SIDE SLOPES. BARRIS LESS THAN 20' LONG MAY USE 2 BATTLES.



- Construction Specifications:**
- Stone size - Use size No. 1 Clean Washed Stone (1-1/2" to 3-1/2").
 - Length - As effective, but not less than 50 feet.
 - Thickness - Not less than six (6) inches.
 - Width - Not less than full width of all points of ingress or egress. Minimum of 12'.
 - Washing - When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through use of sandbags, gravel, boards or other approved methods.
 - Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any measures used to trap sediment. All sediment, spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.



sfl+a ARCHITECTS
214 Burgess St.
Fayetteville, NC 28301
Phone: 910.484.4989
Fax: 910.484.1466
www.sfla.biz

Professional Engineer Seal No. 578
Professional Engineer Seal No. 14575
Professional Engineer Seal No. 3-22-07

Parker & Associates, Inc.
Consulting Engineers - Land Surveyors
Land Planners
P.O. Box 870 - 28541-8878
206 New Bridge Street - 28540
Jacksonville, North Carolina
Phone (910) 485-8414
Fax (910) 485-3441

ONSLOW COUNTY SCHOOLS
DIXON HIGH SCHOOL ADDITION
Detail Sheet

Project #: 00543.000
 Drawn By: KHW
 Checked By: TMS
 Issue Date: 02/28/07
 Revisions: