

- Maintenance Covenants.** Prior to plan approval and issuance of a storm water management permit, the applicant or owner of the BMP shall establish a formal Maintenance Covenant approved by the Mecklenburg County Land Use and Environmental Services Agency and recorded in the Office of the Register of Deeds in which the owner acknowledges the duty of the owner and all subsequent owners of the property to maintain the BMP in accordance with the terms of the Covenant. A maintenance plan and schedule shall be included as part of the covenant as well as a mechanism for funding maintenance and repairs. This Maintenance Covenant shall also specify the Homeowners Association or other party responsible for maintenance of the BMP. A Homeowners Association or similar legal entity has the power to compel contributions from residents of a development to cover their proportionate shares of the costs associated with BMP maintenance. Examples of a typical Maintenance Covenant, Maintenance Plan and Inspection Checklist are provided in the Administrative Manual for implementation of the Post-Construction Storm Water Ordinance. This Manual is available on the following website: <http://stormwater.charmeck.org> (select "Regulations", select "Post-Construction Programs & Manuals", select "Mecklenburg County, Towns of Cornelius, Davidson, Matthews, Mint Hill, Huntersville & Pineville", select "Post-Construction Administrative Manual - County and Towns").
- Requirements for the Maintenance Covenants.** BMPs shall be inspected at a minimum of annually by a qualified professional as described in the Maintenance Covenant. The purpose of this inspection is to identify maintenance and repair needs to ensure the long-term functionality of the BMP. Any identified maintenance and/or repair needs shall be addressed in a timely manner. The inspection and maintenance requirement may be increased as deemed necessary by the Mecklenburg County Water Quality Program (MCWQP) to ensure proper functioning of the BMP.
- Records of Installation and Maintenance Activities.** Parties responsible for the inspection, operation, and maintenance of a BMP shall maintain records of the installation of all the maintenance and repairs and shall retain the records for the life of the BMP. After inspections and maintenance have been performed, a copy of the inspection checklist shall be forwarded by the owner to MCWQP within two weeks of the inspection. The Administrative Manual for implementation of the Post-Construction Storm Water Ordinance contains an example of a typical inspection checklist. This Manual is available on the following website: <http://stormwater.charmeck.org> (select "Regulations", select "Post-Construction Programs & Manuals", select "Mecklenburg County, Towns of Cornelius, Davidson, Matthews, Mint Hill, Huntersville & Pineville", select "Post-Construction Administrative Manual - County and Towns"). MCWQP staff will file submitted inspection forms and enter the inspection information into a BMP maintenance data base to track inspections and maintenance performed. All inspection checklists are to be mailed to 700 North Tryon Street, Charlotte, NC 28202, Attention: Water Quality Program.

Watering and maintenance responsibilities during different phases of a project shall generally be defined as follows, unless contractual obligations require otherwise:

- Construction Phase: Developer/Builder
- Project Acceptance: Builder
- Property Ownership Transfer: Builder/Property Owner
- Warranty Phase: Property Owner
- Operation Phase: Property Owner/Homeowners Association

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Sand Filter Inspection Sheet

Project Name: _____ Project Address: _____
Owner's Name: _____ Owner's Address: _____
BMP Name and Location: _____ Inspection Date: _____ Inspection Time: _____
Inspector Address/Phone Number: _____
☐ Initial Inspection ☐ Follow-up Inspection

- Inspection type**
 - ☐ Final construction
 - ☐ Maintenance bond
 - ☐ Annual compliance
 - ☐ Routine maintenance
 - ☐ Other
- BMP accessibility**
 - ☐ Accessible
 - ☐ Not accessible
- Soil erosion on banks or drainage areas**
 - ☐ Continue maintenance
 - ☐ Erosion in drainage area
 - ☐ Other
- Storm water collection (runoff)**
 - ☐ Continue maintenance
 - ☐ Bypass due to diversion
 - ☐ Bypass due to structure
 - ☐ Other
- Inlet structure (pipe/swale/box/trench)**
 - ☐ Continue maintenance
 - ☐ Damaged pipe
 - ☐ Sediment in pipe/forebay/trench
 - ☐ Inoperable diverter box
 - ☐ Woody vegetation
 - ☐ Other
- Inlet dissipators**
 - ☐ Continue maintenance
 - ☐ Erosion at dissipator
 - ☐ Clogged level spreader
 - ☐ Woody vegetation
 - ☐ Other
- Forebay/grit chamber**
 - ☐ Continue maintenance
 - ☐ Sediment level > 50%
 - ☐ Trash/debris present
 - ☐ Odor present
 - ☐ Other
- Trash and debris**

Thursday, November 10, 2011

Page 1 of 2

BMP ID Name: SAND FILTER

Sand Filter Maintenance and Schedule	
TASK	SCHEDULE
Inspect banks and surrounding drainage areas for erosion and stabilize if necessary	Monthly
Street sweep parking lot	Quarterly
Trash removal	Monthly
Inspect outlet for obstructions	Monthly
Inspect for clogging	Monthly
Inspect inlet grates	Monthly
Skim sand media	Yearly
Pump oil and grit from sedimentation chamber	Yearly or at 50% full
Replace sand media	As needed (expect 3 years)
Grassed Sand Filter Only	
Mow basin to recommended height in alternating patterns to prevent compaction and prevent weed growth. Bag clippings to prevent thatch build-up.	Weekly to bi-weekly during the growing season, as needed other seasons
Light fertilizing to establish healthy roots	Only during the first 2 years
Aerate and dethatch basin floor	Every 2 Years

Sand Filter Inspection Sheet

☐ Continue maintenance
☐ Trash/debris present
☐ Other

9. Media/cell
☐ Continue maintenance
☐ Sediment in media/cell
☐ Settling of media/cell
☐ Other

10. Standing water
☐ Continue maintenance
☐ Water present > 5 days since rain
☐ Other

11. Outlet structure (drop box/overflow spillway)
☐ Continue maintenance
☐ Clogged structure
☐ Improper elevation
☐ Damaged structure
☐ Other

12. Berm/dam
☐ Continue maintenance
☐ Leaks in dam
☐ Holes in dam
☐ Breached dam
☐ Woody vegetation
☐ Not required
☐ Other

13. Outlet dissipators
☐ Continue maintenance
☐ Erosion at dissipator
☐ Clogged level spreader
☐ Other

14. Notice issued
☐ Yes
☐ No

Additional Notes:

Thursday, November 10, 2011

Page 2 of 2

INSPECTIONS:

INSPECTIONS SHALL BE CONDUCTED AS PRESCRIBED BY THE MAINTENANCE COVENANT. ADDITIONAL INSPECTIONS MAY BE CONDUCTED BY THE MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY ON ANY REASONABLE BASIS, INCLUDING BUT NOT LIMITED TO: ROUTINE INSPECTIONS; RANDOM INSPECTIONS; INSPECTIONS BASED UPON COMPLAINTS OR OTHER NOTICE OF POSSIBLE VIOLATIONS; INSPECTIONS OF DRAINAGE BASINS OR AREAS IDENTIFIED AS HIGHER THAN TYPICAL SOURCES OF SEDIMENT OR OTHER CONTAMINANTS OR POLLUTANTS; INSPECTIONS OF BUSINESSES OR INDUSTRIES OF A TYPE ASSOCIATED WITH HIGHER THAN USUAL DISCHARGERS OF CONTAMINANTS OR POLLUTANTS OR WITH DISCHARGES OF A TYPE WHICH ARE MORE LIKELY THAN THE TYPICAL DISCHARGE TO CAUSE VIOLATIONS OF STATE OR FEDERAL WATER QUALITY STANDARDS OR THE NPDES STORM WATER PERMIT; AND JOINT INSPECTIONS WITH OTHER AGENCIES INSPECTING UNDER ENVIRONMENTAL AND SAFETY LAWS. INSPECTIONS MAY INCLUDE, BUT ARE NOT LIMITED TO: REVIEWING MAINTENANCE AND REPAIR RECORDS; SAMPLING DISCHARGES, SURFACE WATER, GROUNDWATER, AND MATERIAL OR WATER IN BMPs; EVALUATING THE CONDITION OF BMPs AND STORM WATER MANAGEMENT PRACTICES.

RIGHT-OF-ENTRY FOR INSPECTION:

WHEN ANY NEW BMP IS INSTALLED ON PRIVATE PROPERTY, THE PROPERTY OWNER SHALL GRANT TO THE MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY THE RIGHT TO ENTER THE PROPERTY AT REASONABLE TIMES AND IN A REASONABLE MANNER FOR THE PURPOSE OF INSPECTION. THIS INCLUDES THE RIGHT TO ENTER A PROPERTY WHEN THE MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY HAS A REASONABLE BASIS TO BELIEVE THAT A VIOLATION OF THIS REGULATION IS OCCURRING OR HAS OCCURRED, AND TO ENTER WHEN NECESSARY FOR ABATEMENT OF A PUBLIC NUISANCE OR CORRECTION OF A VIOLATION OF THIS REGULATION.

ANNUAL BMP COMPLIANCE CERTIFICATION

Owners of BMPs subject to the Post-Construction Ordinance must submit an annual compliance certification of all BMPs beginning within one (1) year from the date of the approved as-built certification and each year thereafter that includes: 1) Two (2) copies of the BMP Inspection Checklist, 2) BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdrawals for the previous 12 months, 3) Photographic documentation of the inspection, and 4) Certification statement signed and sealed by a North Carolina Professional Engineer or Landscape Architect.

Note that Conditional Certifications require Re-inspection and Certification after completion of Corrective Actions. If this is a Re-inspection, check the box to the right. ☐

Compliance Certification Statement

Based upon my physical and mechanical inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Post-Construction Storm Water Ordinance.

Professional's Signature _____

Date _____

(Professional seal)

Conditional Certification Statement

Based upon my physical and mechanical inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Post-Construction Storm Water Ordinance with the exception of the items listed in the above Inspection Sheet that require corrective action by the Owner/Permittee within the time frame specified by Charlotte-Mecklenburg Storm Water Services.

Professional's Signature _____

Date _____

(Professional seal)

For BMPs located within the City of Charlotte and its ETJ, the inspection form should be submitted to the Storm Water Administrator at:

Charlotte-Mecklenburg Storm Water Services
600 East Fourth Street
Charlotte, NC 28202-2844

For BMPs located within the Towns of Cornelius, Davidson, Huntersville, Matthews, Mint Hill, Pineville, and their ETJs, the inspection form should be submitted to the Storm Water Administrator at:

LUESA - Water Quality Program
700 North Tryon Street
Charlotte, NC 28202

NO. 1 12/3/10
NO. 2
NO. 3
NO. 4

SHEET 9 OF 15

JOB NUMBER
15-1065

SCALE
HORIZ: N.T.S.

WATER QUALITY
MAINTENANCE PLAN
THE GLENS AT BIRKDALE COMMONS PH. 4
TOWN OF HUNTERVILLE
MECKLENBURG COUNTY, NORTH CAROLINA

OWNER:
THE GLENS AT BIRKDALE COMMONS, LLC.
15669 BIRKDALE COMMONS PARKWAY
HUNTERVILLE, N.C. 28078

Computer File:
DOWELL & CO., P.C.
344 Rolling Hill Road, Suite 103 • P.O. Box 3504 • Mooresville, N.C. 28117
(704) 664-9697
FAX: (704) 664-5177
EMAIL: info@dowellco.com

Dry Pond Inspection Sheet

Project Name: _____ Project Address: _____
Owner's Name: _____ Owner's Address: _____
BMP Name and Location: _____ Inspection Date: _____ Inspection Time: _____
Inspector Address/Phone Number: _____
☐ Initial Inspection ☐ Follow-up Inspection

1. Inspection type

- ☐ Final construction
☐ Maintenance bond
☐ Annual compliance
☐ Routine maintenance
☐ Other

2. BMP accessibility

- ☐ Accessible
☐ Not accessible

3. Soil erosion on banks or drainage areas

- ☐ Continue maintenance
☐ Erosion on banks
☐ Erosion in drainage area
☐ Other

4. Storm water collection (runoff)

- ☐ Continue maintenance
☐ Bypass due to diversion
☐ Bypass due to structure
☐ Other

5. Inlet structure (pipe/swale/box)

- ☐ Continue maintenance
☐ Damaged pipe
☐ Sediment in pipe/swale
☐ Woody vegetation
☐ Other

6. Inlet dissipators

- ☐ Continue maintenance
☐ Erosion at dissipator
☐ Clogged level spreader
☐ Other

7. Forebay

- ☐ Continue maintenance
☐ Sediment level > 50%
☐ Trash/debris present
☐ Other
☐ Not required

8. Trash and debris

- ☐ Continue maintenance

Thursday, November 10, 2011

Page 1 of 3

Dry Pond Inspection Sheet

- ☐ Trash/debris present
☐ Other

9. Sedimentation

- ☐ Continue maintenance
☐ Excess sedimentation
☐ Other

10. Grass height (bank and surrounding areas)

- ☐ Continue maintenance
☐ Greater than 6"
☐ Less than 3"
☐ Insufficient grass
☐ Other

11. Nuisance vegetation

- ☐ Continue maintenance
☐ Nuisance vegetation present
☐ Other

12. Standing water

- ☐ Continue maintenance
☐ Excess water present
☐ Other

13. Outlet structure (drop box/overflow spillway)

- ☐ Continue maintenance
☐ Clogged structure
☐ Improper elevation
☐ Damaged structure
☐ Other

14. Drawdown orifice/device

- ☐ Continue maintenance
☐ Clogged orifice/device
☐ Damaged orifice/device
☐ Other

15. Berm/dam

- ☐ Continue maintenance
☐ Leaks in dam
☐ Holes in dam
☐ Breached dam
☐ Woody vegetation
☐ Not required
☐ Other

16. Condition of spillway

- ☐ Continue maintenance
☐ Trees/woody vegetation present
☐ Damaged spillway
☐ Erosion at spillway
☐ Other

17. Outlet dissipators

- ☐ Continue maintenance

Thursday, November 10, 2011

Page 2 of 3

Dry Pond Inspection Sheet

- ☐ Erosion at dissipator
☐ Clogged level spreader
☐ Other

18. Notice issued

- ☐ Yes
☐ No

Additional Notes:

Thursday, November 10, 2011

Page 3 of 3

ANNUAL BMP COMPLIANCE CERTIFICATION

Owners of BMPs subject to the Post-Construction Ordinance must submit an annual compliance certification of all BMPs beginning within one (1) year from the date of the approved as-built certification and each year thereafter that includes: 1) Two (2) copies of the BMP Inspection Checklist, 2) BMP maintenance escrow account activity. This may be provided in the form of a bank statement which includes the current balance, as well as deposits and withdrawals for the previous 12 months, 3) Photographic documentation of the inspection, and 4) Certification statement signed and sealed by a North Carolina Professional Engineer or Landscape Architect.

Note that Conditional Certifications require Re-inspection and Certification after completion of Corrective Actions. If this is a Re-inspection, check the box to the right. ☐

Compliance Certification Statement

Based upon my physical and mechanical inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Post-Construction Storm Water Ordinance.

Professional's Signature

Date

(Professional seal)

Conditional Certification Statement

Based upon my physical and mechanical inspection of the constructed BMP described herein on _____, I certify that at the time of my inspection said BMP was functioning properly and was in compliance with the approved plans and the terms and conditions of the approved maintenance agreement required by the Post-Construction Storm Water Ordinance with the exception of the items listed in the above Inspection Sheet that require corrective action by the Owner/Permittee within the time frame specified by Charlotte-Mecklenburg Storm Water Services.

Professional's Signature

Date

(Professional seal)

For BMPs located within the City of Charlotte and its ETJ, the inspection form should be submitted to the Storm Water Administrator at:

Charlotte-Mecklenburg Storm Water Services
600 East Fourth Street
Charlotte, NC 28202-2844

For BMPs located within the Towns of Cornelius, Davidson, Huntersville, Matthews, Mint Hill, Pineville, and their ETJs, the inspection form should be submitted to the Storm Water Administrator at:

LUESA - Water Quality Program
700 North Tryon Street
Charlotte, NC 28202

BMP ID Name: Sand FilterDry Pond
Maintenance Tasks and Schedule

TASK	SCHEDULE
Forebay inspection and cleanout	Monthly inspection. Remove sediment every 7 years or when sediment volume exceeds 50% of storage volume
Bank mowing and inspection / stabilization of eroded areas	Monthly (maintain 3 - 6 inch grass height)
Outlet / inlet inspection and cleanout	Monthly
Unwanted vegetation and trash removal	Monthly
Inspect for structural damage, leaks, etc.	Yearly
Inspect / exercise all mechanical devices, valves, etc.	Yearly
Evaluate sediment level (remove as needed)	Yearly
Security	As needed

THE FOLLOWING IS A LIST OF POST CONSTRUCTION SUBMITTALS THAT NEED TO BE PROVIDED AFTER CONSTRUCTION PLAN APPROVAL AND PRIOR TO THE ISSUANCE OF A C.O.

BMP Access & Maintenance Easement Plat Submittal

1. Plat Review Fee \$1,100
2. BMP Access & Maintenance Easement Plat

Bond (Construction / Maintenance) Submittal

1. Submit to Casena Michael (Casena.Michael@MecklenburgCountyNC.gov)
 - a. Bond Inspection Request Form
 - b. Bond Estimate Form
 - c. Bond Admin Fee \$370
 - d. Reference Approved Construction Plan EPM #
 - e. Reference Approved Plat EPM #
 - i. ALL BONDS SHALL BE ASSOCIATED WITH A RECORDED PLAT
2. Type of Bond Requesting
 - a. CONSTRUCTION
 - i. Infrastructure/BMP (3yrs)
 - ii. BMP for C.O. (6mo)
 - 1) Recorded BMP Access & Maintenance Easement Plat
 - 2) Bond Application Forms for Guaranteeing the Installation of BMPs (Appendix 9-1)
 - b. MAINTENANCE
 - i. Roadway (1yr)
 - ii. BMP (1yr) OR if Post-Construction then (2yrs)
 - 1) Recorded BMP Access & Maintenance Easement Plat
 - 2) Bond Application Forms for Guaranteeing BMP Maintenance (Appendix 9-2)
3. Type of Bond Financing
 - a. Cash
 - b. Letter of Credit
 - c. Surety

BMP As-Built Submittal Items:

1. As-Built Survey Signed & Sealed
 - a. The As-Built survey shall accurately reflect required buffers, undisturbed open space areas, built-upon areas, and BMP dimensions and elevations. (PCO Admin Manual Section 12.1.6)
2. Copy of Approved Plan with Proposed Info Crossed Out with As-Built Info Added
3. Copy of Approved Calcs with Proposed Info Crossed Out with As-Built Info Added
 - a. Re-Run Calcs with As-Built Info and Provide Results
4. Copy of the Recorded PCO19 Form
5. Copy of the Recorded BMP Access & Maintenance Easement Plat
6. Mecklenburg County BMP Maintenance and Inspection Check Lists (Appendix 7-3)
7. Post-Construction Storm Water Ordinance Compliance Certification (Appendix 12-1)
8. Bond Estimate Form
9. Copy of the Escrow/Savings Account Statement for Continued Maintenance & Replacement (HOA Only)

Storm Sewer As-Built Submittal Items:

1. As-Built Survey Signed & Sealed
2. Copy of Approved Plan with Proposed Info Crossed Out with As-Built Info Added
3. Copy of Approved Calcs with Proposed Info Crossed Out with As-Built Info Added
 - a. Re-Run Calcs with As-Built Info and Provide Results
4. Copy of the Recorded Subdivision Plat showing the Storm Drainage Easements
5. Bond Estimate Form

REVISIONS
NO. 1 11/13/11
NO. 2
NO. 3
NO. 4SHEET
10
OF
15JOB NUMBER
15-1065SCALE
HORIZ: N.T.S.WATER QUALITY
MAINTENANCE PLAN
THE GLENS AT BIRKDALE COMMONS PH. 4
TOWN OF HUNTERVILLE
MECKLENBURG COUNTY, NORTH CAROLINAOWNER:
THE GLENS AT BIRKDALE COMMONS, LLC,
15669 BIRKDALE COMMONS PARKWAY,
HUNTERVILLE, N.C. 28078Computer File:
DOWELL & CO., P.C.
Engineering - Surveying - Planning
344 Rolling Hill Road, Suite 103 • P.O. Box 3584 • Mooresville, N.C. 28117
(704) 666-2379 FAX: (704) 666-2377
EMAIL: info@dowellco.com

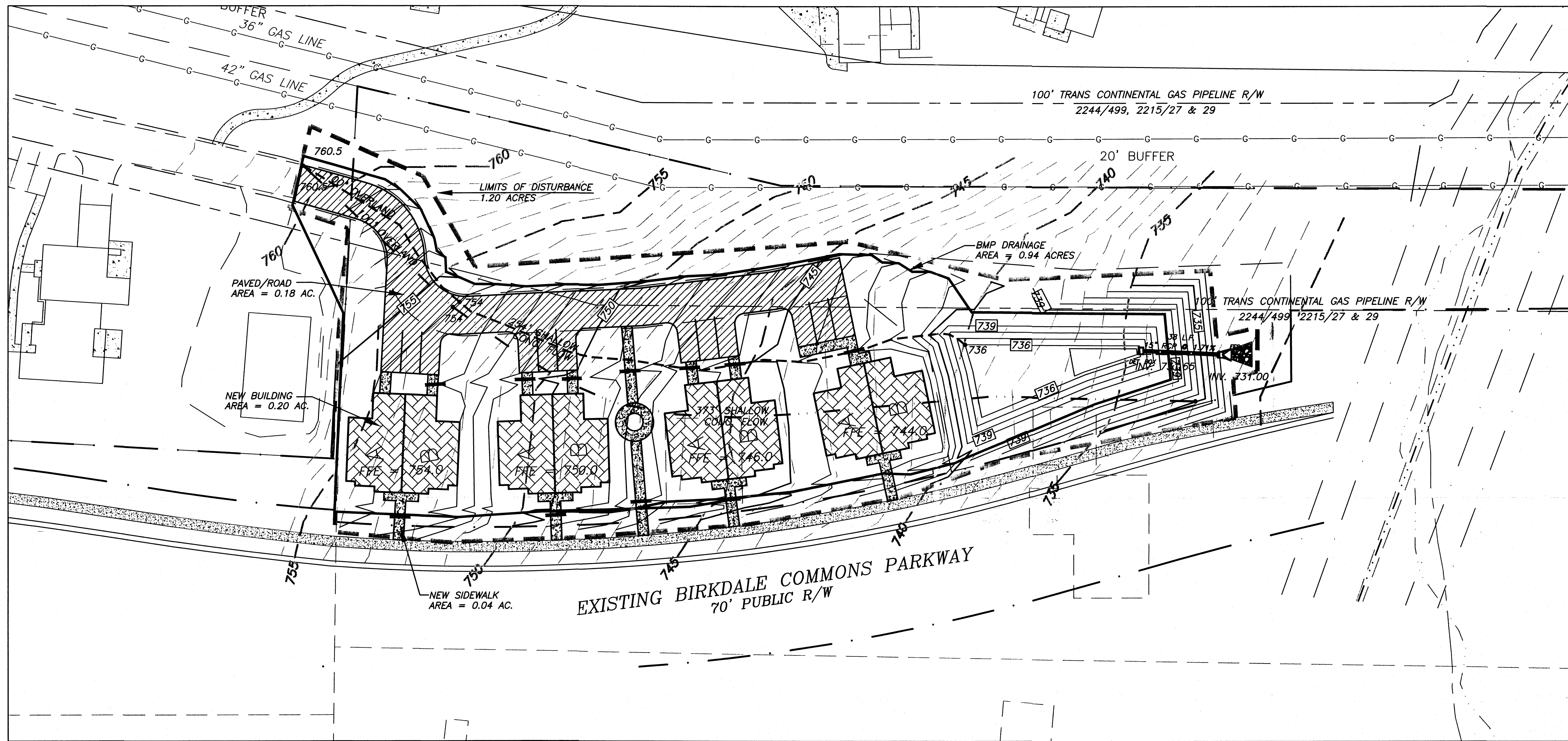
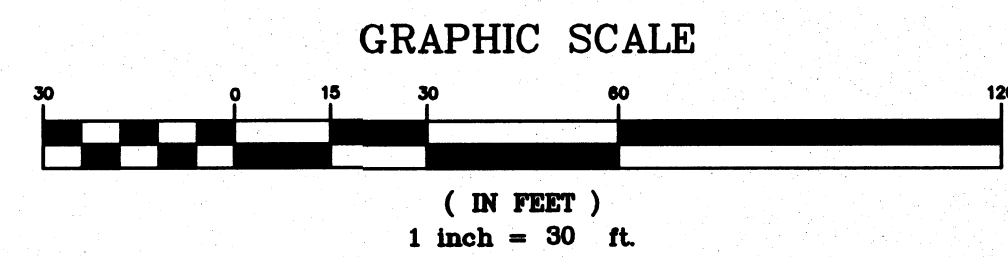
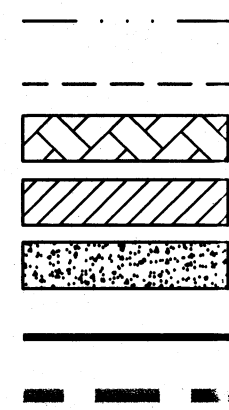


Know what's below.
Call before you dig.

1. CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR PLACING BARRICADES USING FLAGMEN, ETC., AS NECESSARY TO INSURE SAFETY TO THE PUBLIC.
3. ALL PAVEMENT CUTS, CONCRETE OR ASPHALT, ARE TO BE REPLACED ACCORDING TO STANDARDS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
4. SHORING WILL BE ACCORDING TO OSHA TRENCHING STANDARDS PART 1926 SUBPART P, OR AS AMENDED.

LEGEND

TIME OF CONCENTRATION PRE-DEVELOPED
TIME OF CONCENTRATION POST-DEVELOPED
BUILDING DRAINAGE AREA
ROADS/PARKING DRAINAGE AREA
SIDEWALK DRAINAGE AREA
BMP DRAINAGE AREA
LIMITS OF DISTURBANCE



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REVISIONS
NO. 1: 11/17/16
NO. 2: 12/14/16
NO. 3: 1/13/17
NO. 4: 1/13/17

SHEET 11 OF 15

JOB NUMBER
15-1065

SCALE
Horz: 1"=30'

DRAINAGE AREA MAP
THE GLENS AT BIRKDALE COMMONS PH. 4
TOWN OF HUNTERSVILLE
MECKLENBURG COUNTY, NORTH CAROLINA

OWNER:
THE GLENS AT BIRKDALE COMMONS, LLC.
15669 BIRKDALE COMMONS PARKWAY
HUNTERSVILLE, N.C. 28078

DOWELL & CO., P.C.
Engineering - Surveying - Planning
344 Rolling Hill Road, Suite 103 • P.O. Box 3504 • Mooresville, N.C. 28117
(704) 660-9897
DWI: daniel@dowellco.com

SWIM PCO BUFFER NOTES:

1. BUFFER WIDTHS ARE SHOWN AND LABELED ON PLANS AND ARE CORRECT BASED ON POLARIS.
2. PLANS INDICATE THAT ALL ENGINEERED CHANNELS, PIPED OUTFALLS, AND RIP RAP APRONS END OUTSIDE OF THE BUFFER.
3. DRAINAGE OUTFALLS MUST BE DESIGNED TO ALLOW WATER TO SHEET FLOW ACROSS THE BUFFER TO FILTER OUT POLLUTANTS.
4. ENERGY DISSIPATORS, DIVERSION DEVICES OR WETLAND FLOW MUST BE USED TO SPREAD CONCENTRATED FLOWS AND MUST BE LOCATED OUTSIDE THE BUFFER AREA. ADEQUATE VEG/VEGETATIVE COVER MUST BE RETAINED OR RE-ESTABLISHED BELOW ENERGY DISSIPATORS TO PREVENT EROSION.
5. NO OUTLET DRAINS MORE THAN 10 ACRES DRAINAGE AREA TO ANY ONE POINT IN A STREAM BUFFER.
6. WHERE DISTURBANCE TO THE BUFFER IS SHOWN, A LETTER FROM WATER QUALITY IS REQUIRED STATING THAT THE DISTURBANCE SHOWN IS ALLOWABLE OR WHETHER A MITIGATION PLAN HAS BEEN APPROVED.
7. ALL TEMPORARY SEDIMENT BASINS AND ALL OTHER EROSION CONTROL DEVICES ARE LOCATED OUTSIDE OF THE MINIMUM BUFFER WIDTH.
8. BUFFER DELINEATION:
BUFFER AREA IS CLEARLY IDENTIFIED ON PLANS IN BOLD, CLEAR TYPE AS "SWIM/PCO STREAM BUFFER".
THE OUTSIDE BOUNDARY OF EACH BUFFER ZONE IS CLEARLY MARKED AND LABELED ON PLANS (STREAM SIDE, MANAGED USE, UPLAND).
FIELD LOCATED TOP OF BANK FROM WHERE THE BUFFER WIDTH IS MEASURED IS LABELED ON PLANS.
SHOW ORANGE FABRIC FENCING ON GRADING AND EROSION CONTROL PLANS.
STREAMS AND BUFFER BOUNDARIES INCLUDING THE DELINEATION OF EACH ZONE AND A DIMENSION SPECIFIC LOCATION ARE SHOWN ON ALL SURVEYS AND RECORD PLATS, INCLUDING INDIVIDUAL RECORD PLATS FOR ANY LOTS AFFECTED.
WHERE APPLICABLE FOR 100' BUFFERS/50% ADDITIONAL WIDTH: PROVIDE CALCULATIONS FOR 50% ADDITIONAL WIDTH BASED ON THE AREA BETWEEN THE CURRENT 100-YEAR FEMA FRINGE BOUNDARY TO THE 100' SWIM BUFFER OR THE 0.1 FLUM ENCROACHMENT LINE, WHICHEVER IS LESS.
9. THE STREAMSIDE ZONE OF THE BUFFER MUST BE LEFT COMPLETELY UNDISTURBED. IN THE MANAGED USE ZONE, A LIMITED NUMBER OF TREES CAN BE REMOVED PROVIDED THAT THE TREE DENSITY REMAINING IS A MINIMUM OF 8 HEALTHY TREES OF A MINIMUM 6-INCH CALIPER PER 1,000 SQUARE FEET. REMOVAL OF EXISTING VEGETATION MUST BE PERFORMED IN SUCH A MANNER AS TO PREVENT DAMAGE TO THE ROOTS OF REMAINING TREES.
10. PLANS CLEARLY INDICATE THAT NO FILL MATERIAL IS TO BE BROUGHT INTO THE BUFFER AND THAT NO STRUCTURES ARE ALLOWED WITHIN ANY OF THE BUFFER AREAS (EXCEPT NON-COMMERCIAL OUT BUILDINGS NOT EXCEEDING 150 SQUARE FEET).
11. GRADING AND OTHER LAND-DISTURBING ACTIVITIES ARE ALLOWED ONLY IN THE UPLAND ZONE; HOWEVER, THESE ACTIVITIES MUST BE PERFORMED IN SUCH A MANNER AS TO PREVENT DAMAGE TO THE ROOTS OF REMAINING TREES. GRASS OR OTHER SUITABLE GROUND COVER CAN BE APPLIED TO THE UPLAND ZONE.
12. THE OUTSIDE BOUNDARY OF THE BUFFER MUST BE CLEARLY MARKED WITH ORANGE FABRIC FENCING PRIOR TO ANY LAND-DISTURBING ACTIVITIES (GRADING, TREE-CUTTING OR STUMPING, ETC.) AT THE SITE AND THIS FENCING MUST BE CALLED OUT ON THE PLANS.
13. THE OUTSIDE BOUNDARY OF THE STREAM BUFFER MUST BE PERMANENTLY MARED WITH AN IRON PIN OR OTHER ACCEPTABLE PROPERTY CORNER MARKER AT STREET CROSSINGS AND THIS MARKER MUST BE CALLED OUT ON THE PLANS.
14. ANY ACTIVITY IN THE BUFFER MUST ALSO COMPLY WITH THE APPLICABLE ZONING ORDINANCE.
15. STREAM BUFFERS MUST BE SURVEYED AND CLEARLY MARKED IN THE FIELD PRIOR TO THE PRE-CONSTRUCTION MEETING WITH THE WATER QUALITY STAFF.

ENHANCED EROSION CONTROL NOTES:

1. SURFACE WATER DRAW DOWN DEVICES (RISERS OR SKIMMERS) SHALL BE INSTALLED IN ALL SEDIMENT BASINS. FOREBAYS SHALL BE USED IN CONJUNCTION WITH ALL SEDIMENT BASINS. ROCK FOREBAY EMBANKMENTS MAY BE USED IN LIEU OF POROUS BAFFLES.
2. POLYACRYLAMIDES (PAM) SHALL BE USED TO REDUCE TURBIDITY AND SUSPENDED SOLIDS WHENEVER A SEDIMENT TRAP, BASIN, PIT, HOLE, OR BUILDING FOUNDATION IS BEING PUMPED OUT TO REMOVE SEDIMENT LADEN WATER. PAM IS NOT REQUIRED WHEN ANY OF THE ABOVE IS BEING PUMPED TO AN APPROVED SEDIMENT BASIN ON SITE. THIS ACTIVITY MUST BE INSPECTED AND APPROVED BY THE MECKLENBURG COUNTY EROSION CONTROL INSPECTOR.
3. DOUBLE SILT FENCE SHALL BE USED ALONG WETLANDS, STREAMS, LAKES OR OTHER SURFACE WATER BODIES AS WELL AS ADJACENT TO ALL S.W.M. OR OTHER WATER QUALITY BUFFERS. HIGH HAZARD SILT FENCE WITH WIRE BACKING AND WASHED STONE WILL BE INSTALLED AS DETERMINED NECESSARY BY THE COUNTY ENGINEER OR FIELD INSPECTOR.
4. THE AMOUNT OF UNCOVERED AREA AT ANY ONE TIME SHALL BE LIMITED TO NO MORE THAN 20 ACRES, UNLESS APPROVED BY THE COUNTY ENGINEERING.
5. A 10-FOOT UNDISTURBED BUFFER SHALL BE PROVIDED AROUND THE OUTSIDE EDGE OF DRAINAGE FEATURES SUCH AS INTERMITTENT AND PERENNIAL STREAMS, PONDS, AND WETLANDS. INCIDENTAL DRAINAGE IMPROVEMENTS OR REPAIRS WILL BE PERMITTED WITHIN THE BUFFER AS APPROVED BY COUNTY STAFF.
6. INSTALLATION OF TEMPORARY GROUND COVER OR SEEDING MUST BE PERFORMED WITHIN FIVE (5) WORKING DAYS OF SLOPE DRAINS INSTALLED AFTER FILL SLOPES ARE BROUGHT UP TO HEIGHT.
7. PERMANENT TERRACES SHALL BE INSTALLED ON 2:1 OR STEEPER SLOPES OVER 10 FEET IN HEIGHT TO REDUCE RUNOFF VELOCITY COMING DOWN THE SLOPES.

EROSION CONTROL & WATER QUALITY INSPECTOR:
HEATHER DAVIS - HUNTERVILLE (980) 721-3571

LAND DEVELOPMENT INSPECTOR:
TOMMY KEZIAH - HUNTERVILLE (704) 634-6753

ZONING INSPECTOR:
BRIAN SIFFORD - CORNELIUS, DAVIDSON, HUNTERVILLE
(980) 721-0924

EROSION CONTROL CONSTRUCTION SEQUENCE (PHASE 1):

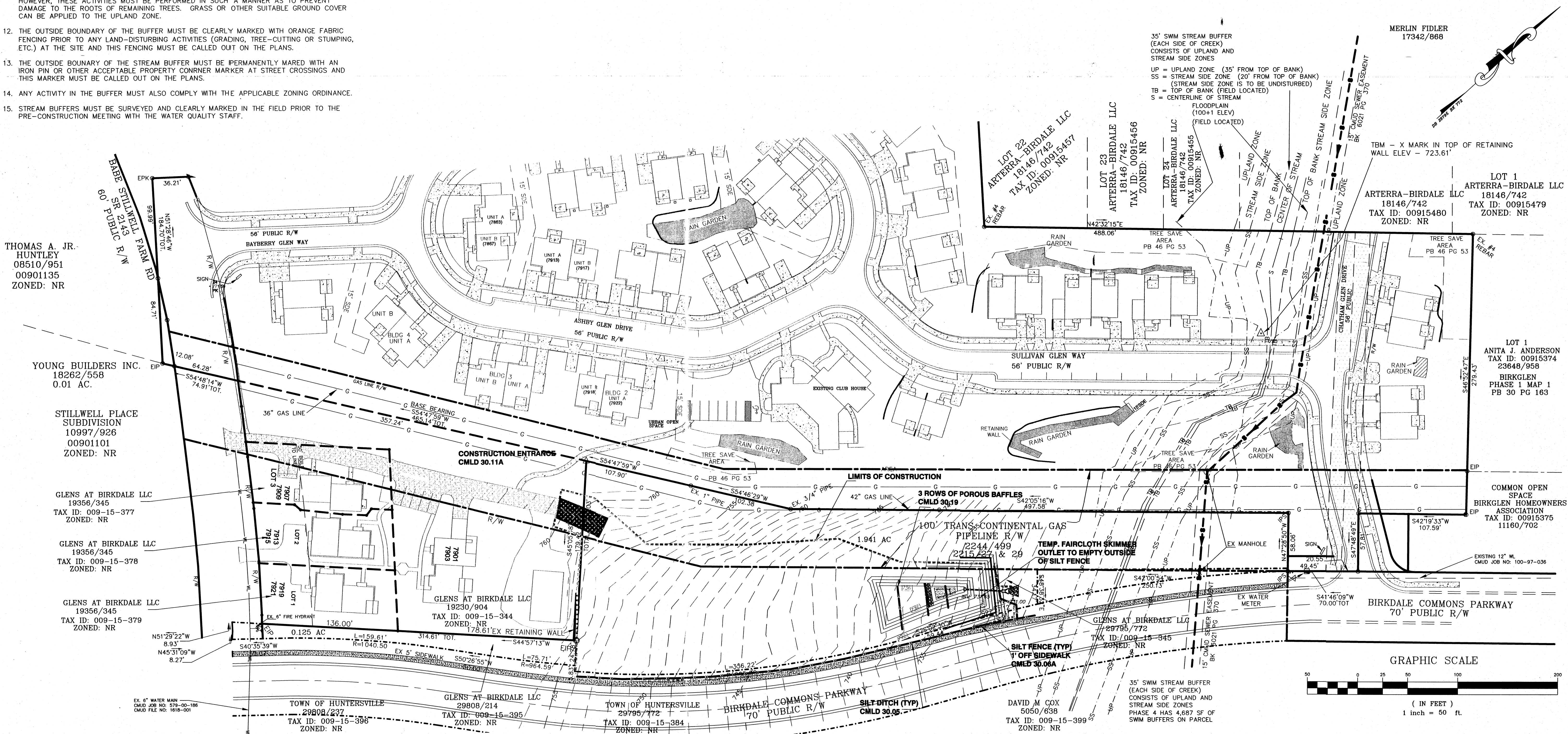
1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM MECKLENBURG COUNTY LUESA.
2. SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH THE FOLLOWING DEPARTMENTS: LUESA EROSION CONTROL INSPECTOR, LAND DEVELOPMENT INSPECTOR AND ZONING INSPECTOR. FAILURE TO SCHEDULE SUCH CONFERENCE 48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY IS SUBJECT TO FINE.
3. INSTALL CONSTRUCTION ENTRANCE, SEDIMENT BASIN, AND SILT FENCE AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
4. CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.

EROSION CONTROL LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- TEMP. COLLECTION DITCH
- CONSTRUCTION ENTRANCE

EROSION CONTROL NOTES:

1. ALL "STD." NUMBERS REFER TO THE CHARLOTTE/MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL. (MCLDS) AND/OR THE TOWN OF HUNTERVILLE'S ENGINEERING STANDARDS AND PROCEDURES MANUAL (ESAPM) AND/OR THE PINEVILLE LAND DEVELOPMENT STANDARDS MANUAL (PLDSM).
2. ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
3. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
4. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
5. ALL PERIMETER AREAS AND SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITHIN 7 DAYS. GROUND STABILIZATION ON ALL OTHER AREAS MUST BE COMPLETED WITHIN 14 DAYS. REFER TO THE EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.
6. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE COUNTY.
7. A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED.
8. TEMPORARY DRIVEWAY PERMIT FOR CONSTRUCTION ENTRANCES IN NCDOT RIGHT OF WAY MUST BE PRESENTED AT PRE-CONSTRUCTION MEETING.
9. ALL EMBANKMENTS MUST BE CONSTRUCTED PER SECTION 4.0.6 EMBANKMENT REQUIREMENTS IN THE BMP DESIGN MANUAL.
10. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. SLOPES GREATER THAN 10 VERTICAL FEET REQUIRE ADEQUATE TERRACING (MCLDSM #30.16). SOILS ENGINEER TO VERIFY STABILITY OF SLOPES GREATER THAN 2:1.
11. SOIL COMPACTION TESTS ARE REQUIRED ON ANY BERM >= 5' IN HEIGHT FROM THE NATURAL GRADE. SOIL COMPACTION MUST BE AT 95% PROCTOR AND CERTIFIED BY A LICENSED SOIL ENGINEER.



SEAL

OLD
DRAWN BY:

11-22-18
DATE PREPARED

REVISIONS

No. 112-30-16
TOWN MECK CO

No. 2

No. 3

No. 4

SHEET
12
OF
15

JOB NUMBER
15-1065

SCALE
Horz: 1" = 50'
Vert:

EROSION CONTROL PLAN PH 1
OF
THE GLENS AT BIRKDALE COMMONS PH 4
TOWN OF HUNTERVILLE, MECKLENBURG CO., NC

OWNER:
THE GLENS AT BIRKDALE COMMONS LLC
15669 BIRKDALE COMMONS PARKWAY
HUNTERVILLE, NC 28078

DOWELL & CO., P.C.
Engineering & Planning
344 Rolling Hill Road, Suite 103 • P.O. Box 3504 • Mooresville, NC 28117
(704) 864-9837 • (704) 864-5777 Fax
CADD: daniel@dowellco.com

SWIM PCO BUFFER NOTES:

1. BUFFER WIDTHS ARE SHOWN AND LABELED ON PLANS AND ARE CORRECT BASED ON POLARIS.
2. PLANS INDICATE THAT ALL ENGINEERED CHANNELS, PIPED OUTFALLS, AND RIP RAP APRONS END OUTSIDE OF THE BUFFER.
3. DRAINAGE OUTFALLS MUST BE DESIGNED TO ALLOW WATER TO SHEET FLOW ACROSS THE BUFFER TO FILTER OUT POLLUTANTS.
4. ENERGY DISSIPATORS, DIVERSION DEVICES OR WETLAND FLOW MUST BE USED TO SPREAD CONCENTRATED FLOWS AND MUST BE LOCATED OUTSIDE THE BUFFER AREA. ADEQUATE VEGETATIVE COVER MUST BE RETAINED OR RE-ESTABLISHED BELOW ENERGY DISSIPATORS TO PREVENT EROSION.
5. NO OUTLET DRAINS MORE THAN 10 ACRES DRAINAGE AREA TO ANY ONE POINT IN A STREAM BUFFER.
6. WHERE DISTURBANCE TO THE BUFFER IS SHOWN, A LETTER FROM WATER QUALITY IS REQUIRED STATING THAT THE DISTURBANCE SHOWN IS ALLOWABLE OR WHETHER A MITIGATION PLAN HAS BEEN APPROVED.
7. ALL TEMPORARY SEDIMENT BASINS AND ALL OTHER EROSION CONTROL DEVICES ARE LOCATED OUTSIDE OF THE MINIMUM BUFFER WIDTH.
8. BUFFER DELINEATION:
BUFFER AREA IS CLEARLY IDENTIFIED ON PLANS IN BOLD, CLEAR TYPE AS "SWIM/PCO STREAM BUFFER".
THE OUTSIDE BOUNDARY OF EACH BUFFER ZONE IS CLEARLY MARKED AND LABELED ON PLANS (STREAM SIDE, MANAGED USE, UPLAND).
FIELD LOCATED TOP OF BANK FROM WHERE THE BUFFER WIDTH IS MEASURED IS LABELED ON PLANS.
SHOW ORANGE FABRIC FENCING ON GRADING AND EROSION CONTROL PLANS.
STREAMS AND BUFFER BOUNDARIES INCLUDING THE DELINEATION OF EACH ZONE AND A DIMENSION SPECIFIC LOCATION ARE SHOWN ON ALL SURVEYS AND RECORD PLATS, INCLUDING INDIVIDUAL RECORD PLATS FOR ANY LOTS AFFECTED.
WHERE APPLICABLE FOR 100' BUFFERS/50% ADDITIONAL WIDTH: PROVIDE CALCULATIONS FOR 50% ADDITIONAL WIDTH BASED ON THE AREA BETWEEN THE CURRENT 100-YEAR FEMA FRINGE BOUNDARY TO THE 100' SWIM BUFFER OR THE 0.1 FLUM ENCROACHMENT LINE, WHICHEVER IS LESS.
9. THE STREAMSIDE ZONE OF THE BUFFER MUST BE LEFT COMPLETELY UNDISTURBED. IN THE MANAGED USE ZONE, A LIMITED NUMBER OF TREES CAN BE REMOVED PROVIDED THAT THE TREE DENSITY REMAINING IS A MINIMUM OF 8 HEALTHY TREES OF A MINIMUM 6-INCH CALIPER PER 1,000 SQUARE FEET. REMOVAL OF EXISTING VEGETATION MUST BE PERFORMED IN SUCH A MANNER AS TO PREVENT DAMAGE TO THE ROOTS OF REMAINING TREES.
10. PLANS CLEARLY INDICATE THAT NO FILL MATERIAL IS TO BE BROUGHT INTO THE BUFFER AND THAT NO STRUCTURES ARE ALLOWED WITHIN ANY OF THE BUFFER AREAS (EXCEPT NON-COMMERCIAL OUT BUILDINGS NOT EXCEEDING 150 SQUARE FEET).
11. GRADING AND OTHER LAND-DISTURBING ACTIVITIES ARE ALLOWED ONLY IN THE UPLAND ZONE; HOWEVER, THESE ACTIVITIES MUST BE PERFORMED IN SUCH A MANNER AS TO PREVENT DAMAGE TO THE ROOTS OF REMAINING TREES. GRASS OR OTHER SUITABLE GROUND COVER CAN BE APPLIED TO THE UPLAND ZONE.
12. THE OUTSIDE BOUNDARY OF THE BUFFER MUST BE CLEARLY MARKED WITH ORANGE FABRIC FENCING PRIOR TO ANY LAND-DISTURBING ACTIVITIES (GRADING, TREE-CUTTING OR STUMPING, ETC.) AT THE SITE AND THIS FENCING MUST BE CALLED OUT ON THE PLANS.
13. THE OUTSIDE BOUNDARY OF THE STREAM BUFFER MUST BE PERMANENTLY MARED WITH AN IRON PIN OR OTHER ACCEPTABLE PROPERTY CORNER MARKER AT STREET CROSSINGS AND THIS MARKER MUST BE CALLED OUT ON THE PLANS.
14. ANY ACTIVITY IN THE BUFFER MUST ALSO COMPLY WITH THE APPLICABLE ZONING ORDINANCE.
15. STREAM BUFFERS MUST BE SURVEYED AND CLEARLY MARKED IN THE FIELD PRIOR TO THE PRE-CONSTRUCTION MEETING WITH THE WATER QUALITY STAFF.

ENHANCED EROSION CONTROL NOTES:

1. SURFACE WATER DRAIN DOWN DEVICES (RISERS OR SKIMMERS) SHALL BE INSTALLED IN ALL SEDIMENT BASINS. FOREBAYS SHALL BE USED IN CONJUNCTION WITH ALL SEDIMENT BASINS. ROCK FOREBAY EMBANKMENTS MAY BE USED IN LIEU OF POROUS BAFFLES.
2. POLYACRYLAMIDES (PAM) SHALL BE USED TO REDUCE TURBIDITY AND SUSPENDED SOLIDS WHENEVER A SEDIMENT TRAP, BASIN, PIT, HOLE, OR BUILDING FOUNDATION IS BEING PUMPED OUT TO REMOVE SEDIMENT LADEN WATER. PAM IS NOT REQUIRED WHEN ANY OF THE ABOVE IS BEING PUMPED TO AN APPROVED SEDIMENT BASIN ON SITE. THIS ACTIVITY MUST BE INSPECTED AND APPROVED BY THE MECKLENBURG COUNTY EROSION CONTROL INSPECTOR.
3. DOUBLE SILT FENCE SHALL BE USED ALONG WETLANDS, STREAMS, LAKES OR OTHER SURFACE WATER BODIES AS WELL AS ADJACENT TO ALL SWIM OR OTHER WATER QUALITY BUFFERS. HIGH HAZARD SILT FENCE WITH WIRE BACKING AND WASHED STONE WILL BE INSTALLED AS DETERMINED NECESSARY BY THE COUNTY ENGINEER OR FIELD INSPECTOR.
4. THE AMOUNT OF UNCOVERED AREA AT ANY ONE TIME SHALL BE LIMITED TO NO MORE THAN 20 ACRES, UNLESS APPROVED BY THE COUNTY ENGINEERING.
5. A 10-FOOT UNDISTURBED BUFFER SHALL BE PROVIDED AROUND THE OUTSIDE EDGE OF DRAINAGE FEATURES SUCH AS INTERMITTENT AND PERENNIAL STREAMS, PONDS, AND WETLANDS. INCIDENTAL DRAINAGE IMPROVEMENTS OR REPAIRS WILL BE PERMITTED WITHIN THE BUFFER AS APPROVED BY COUNTY STAFF.
6. INSTALLATION OF TEMPORARY GROUND COVER OR SEEDING MUST BE PERFORMED WITHIN FIVE (5) WORKING DAYS OF SLOPE DRAINS INSTALLED AFTER FILL SLOPES ARE BROUGHT UP TO HEIGHT.
7. PERMANENT TERRACES SHALL BE INSTALLED ON 2:1 OR STEEPER SLOPES OVER 10 FEET IN HEIGHT TO REDUCE RUNOFF VELOCITY COMING DOWN THE SLOPES.

EROSION CONTROL & WATER QUALITY INSPECTOR:
HEATHER DAVIS - HUNTERVILLE (980) 721-3571

LAND DEVELOPMENT INSPECTOR:
TOMMY KEZIAH - HUNTERVILLE (704) 634-6753

ZONING INSPECTOR:
BRIAN SIFORD - CORNELIUS, DAVIDSON, HUNTERVILLE
(980) 721-0924

EROSION CONTROL CONSTRUCTION SEQUENCE (PHASE 2):

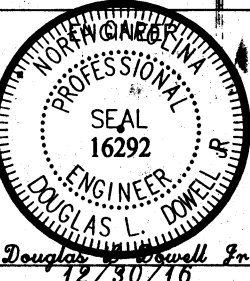
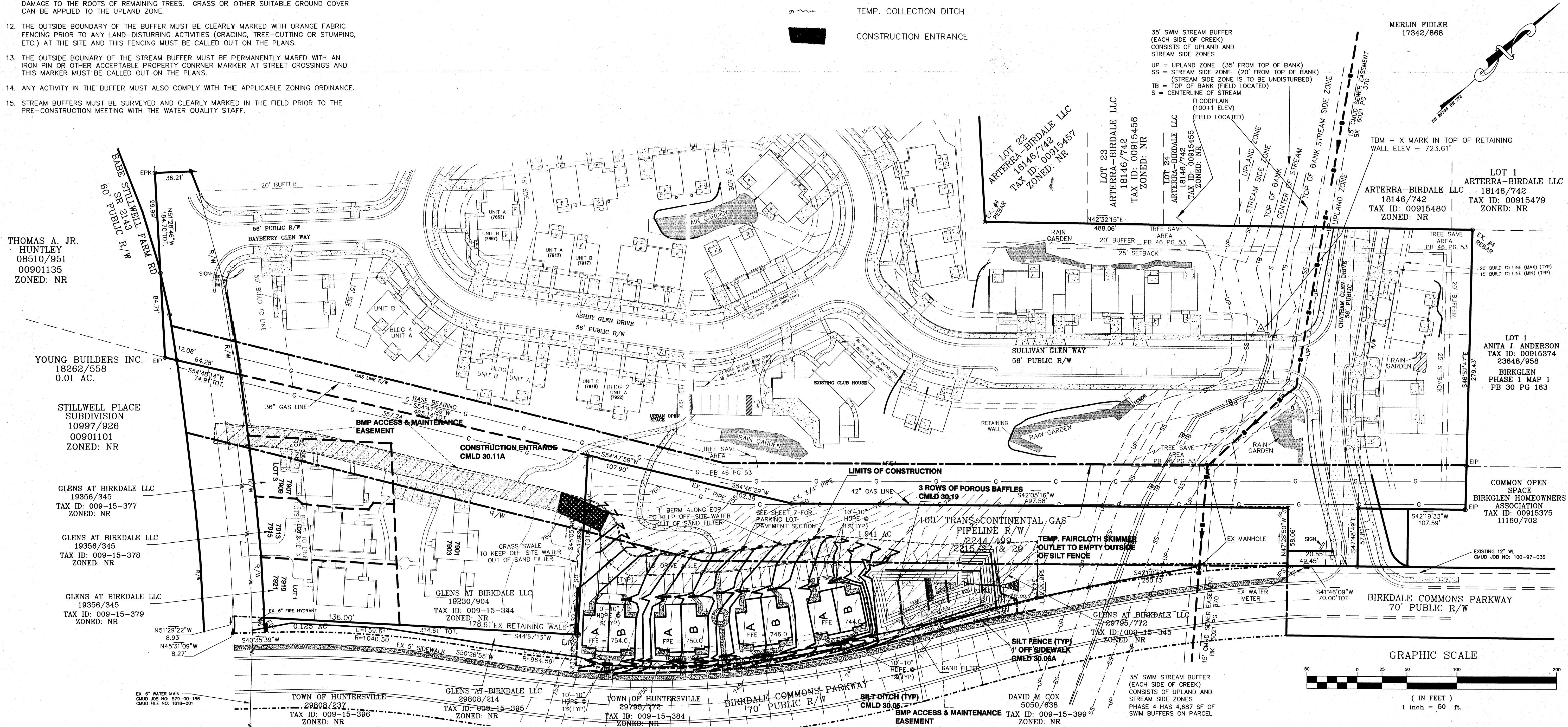
1. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL PHASE 1 EROSION CONTROL DEVICES AND STRUCTURES.
2. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF PHASE 1 EROSION CONTROL DEVICES.
3. FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
4. INSTALL SILT FENCE AND COLLECTION DITCH AND OTHER MEASURES AS SHOWN ON PLANS.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY ON STORM DRAINAGE, SIDEWALKS, DRIVE WAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION.
7. STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE.
8. COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF ANY EROSION CONTROL MEASURES.
9. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, US DEPT. OF AGRICULTURE, MECKLENBURG COUNTY EROSION CONTROL ORDINANCE, AND THE CHARLOTTE MECKLENBURG LAND DEVELOPMENT STANDARDS.
10. CALL THE WATER QUALITY INSPECTOR TO SET UP A BMP PRE-CONSTRUCTION MEETING PRIOR TO STARTING ANY WORK ON BMP'S. THIS MEETING SHOULD TAKE PLACE AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION ON ANY BMP AND SHALL INCLUDE THE DESIGN ENGINEER TO ENSURE ENGINEER INSPECTIONS ARE PERFORMED AT KEY BMP INSTALLATION PHASES.
11. THE DESIGN ENGINEER MUST VERIFY AND CERTIFY THE DRAINAGE AREA IS PROPERLY STABILIZED; MEASURES ARE IN PLACE TO PREVENT SEDIMENTATION INTO THE BMP, THE STORM DRAINS, INLETS AND PAVEMENT HAVE BEEN PROPERLY CLEANED PRIOR TO COMMENCEMENT OF BMP CONSTRUCTION.

EROSION CONTROL NOTES:

1. ALL "STD." NUMBERS REFER TO THE CHARLOTTE/MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL (MCLDS) AND/OR THE TOWN OF HUNTERVILLE'S ENGINEERING STANDARDS AND PROCEDURES MANUAL (ESAPM) AND/OR THE PINEVILLE LAND DEVELOPMENT STANDARDS MANUAL (PLDSM).
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EROSION CONTROL LEGEND

- SILT FENCE
- LIMITS OF CONSTRUCTION
- TEMP. COLLECTION DITCH
- CONSTRUCTION ENTRANCE



DLD
DRAWN BY:
DATE PREPARED
11-22-18

REVISIONS
NO. 112-30-16
TOWN MECK CO
NO. 2
NO. 3
NO. 4

SHEET
13 OF 15

JOB NUMBER
15-1065

SCALE
Horizontal: 1" = 50'
Vertical: 1" = 10'

EROSION CONTROL PLAN PHASE 2
OF
THE GLENS AT BIRKDALE COMMONS PH 4
TOWN OF HUNTERVILLE, MECKLENBURG CO., NC

OWNER:
THE GLENS AT BIRKDALE COMMONS LLC
15669 BIRKDALE COMMONS PARKWAY
HUNTERVILLE, NC 28078

DOWELL & CO., P.C.
Engineering - Surveying - Planning
344 Rolling Hill Road, Suite 103, P.O. Box 354, Mooresville, NC 28117
(704) 965-9997 (704) 965-9998 (704) 965-9999
DWELL@DOWELLANDCO.COM

STD. & SPEC. #	TITLE	SPECIAL REQUIREMENTS & NOTES
6.17	ROLLED EROSION CONTROL PRODUCTS	—
6.51	HARDWARE CLOTH & GRAVEL INLET PROTECTION	—
6.60	TEMPORARY SEDIMENT TRAP	WEIR TOP WIDTH 10' MIN., BOTTOM 7' MIN.
6.61	SEDIMENT BASIN	FLASH BOARD RISER NOT PERMITTED
6.64	SKIMMER SEDIMENT BASIN	1ST BAFFLE: RIP RAP & WASHED STONE BERM 2ND BAFFLE: STANDARD BAFFLE 3RD BAFFLE: HARDWARE CLOTH SURROUNDING THE SKIMMER

THE STANDARDS & SPECIFICATIONS SHOWN ARE FROM THE "NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL" (NCSCDPDM) PREPARED BY NC DEPT. OF ENVIRONMENT AND NATURAL RESOURCES (NCDENR).

Town of **Hantersville**
STANDARD DRAWING
NORTH CAROLINA

SPECIAL EROSION CONTROL
REQUIREMENTS AND NOTES

NOT TO SCALE
REV. DATE
10/14/09
STD. NO.
500.1

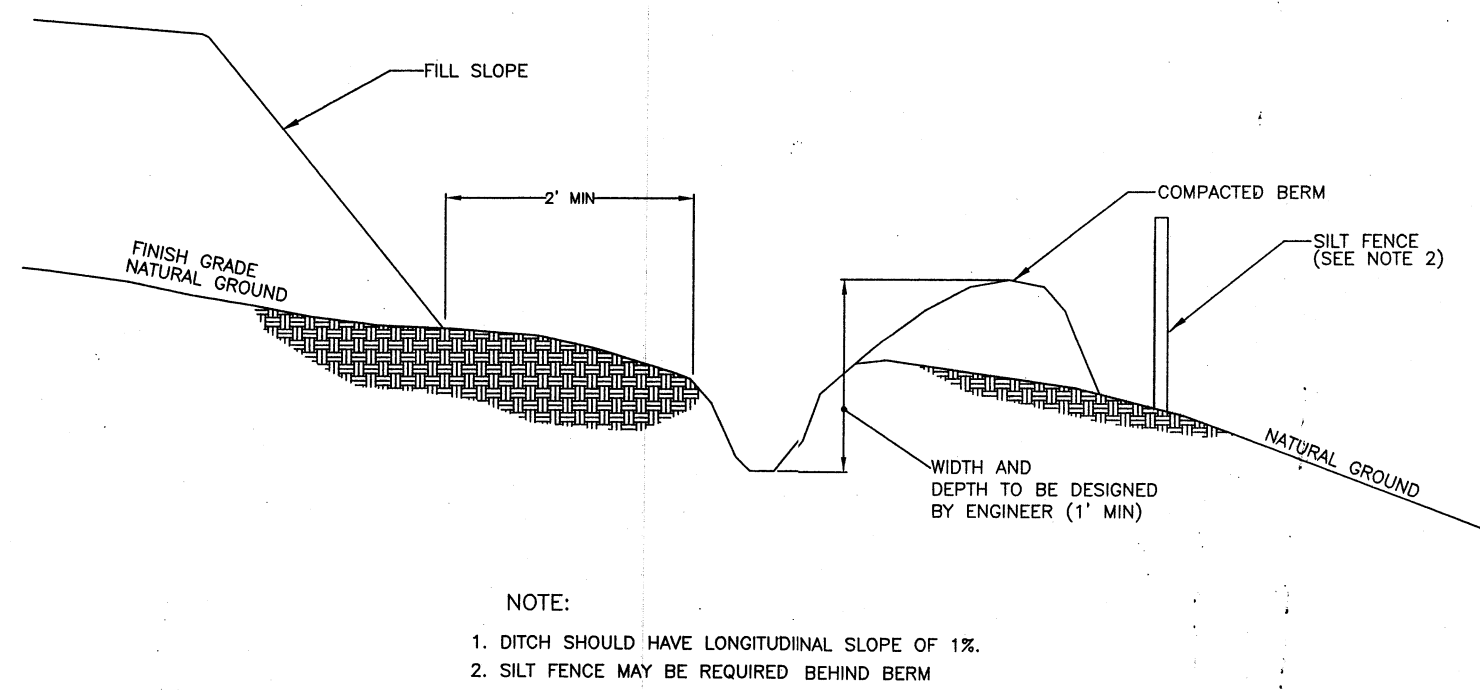
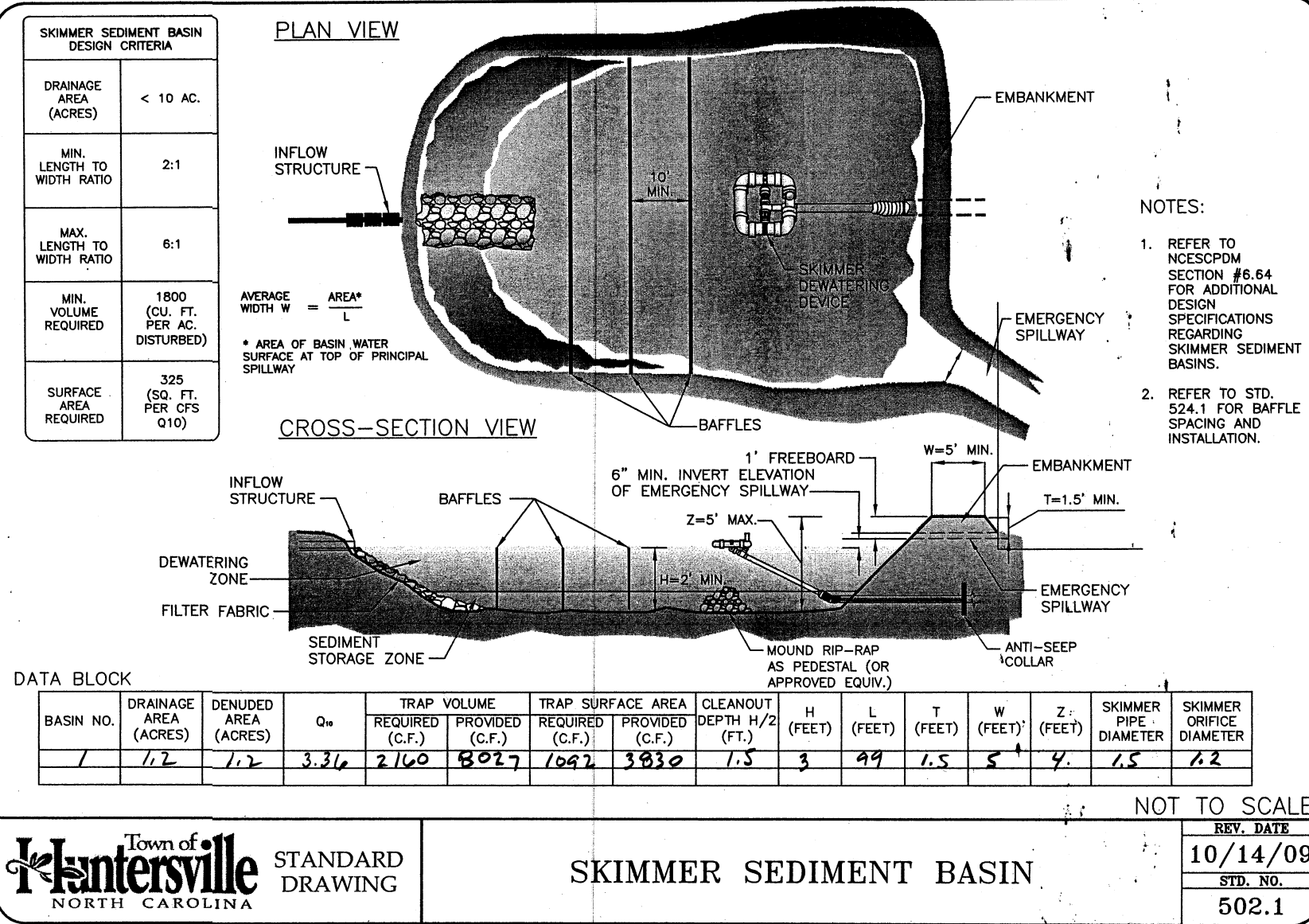
	GENTLE SLOPES	STEEP SLOPES
SEEDING MIXTURE	80 lbs/acre of tall fescue	100 lbs/acre tall fescue 30 lbs/acre Sericea lespedeza (unscarified after August 15) 10 lbs/acre Kobe lespedeza
SEEDING DATES	FALL: August 25 – October Late winter: February 15 – April 15 To extend spring seeding into June, add 15 lbs/acre hulled Bermudagrass Overseeding of Kobe lespedeza over fall-seeded tall fescue is very effective.	FALL: August 25 – October 15 Late winter: February 15 – April 15 To extend spring seeding into June, add 15 lbs/acre hulled Bermudagrass Overseeding of Kobe lespedeza over fall-seeded tall fescue is very effective.
SEEDING AMENDMENTS	Apply lime and fertilizer per soil tests, or 4000 lbs/acre limestone and 1000 lbs/acre fertilizer.	Apply lime and fertilizer per soil tests, or 4000 lbs/acre limestone and 1000 lbs/acre fertilizer.

- NOTE 1
Ground Cover—Protective cover must be established on all disturbed areas within 21 calendar days after land disturbing activity is completed or has temporarily ceased.
- NOTE 2
Graded slopes and fills—Protective cover must be established on all graded slopes and fills within 21 calendar days after a phase of grading is completed or has temporarily ceased.

Town of **Hantersville**
STANDARD DRAWING
NORTH CAROLINA

SEEDING SCHEDULE

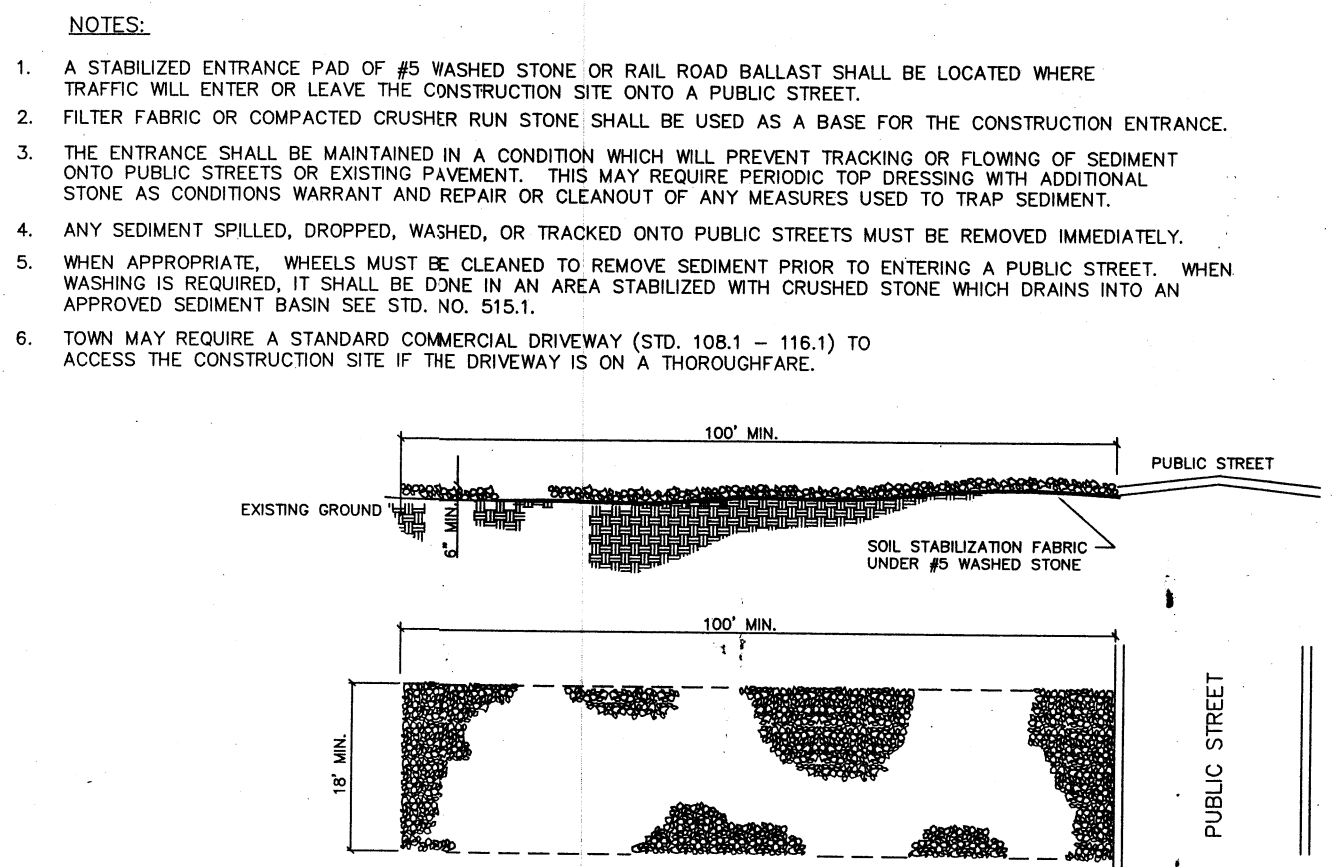
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REV. DATE
10/14/09
STD. NO.
521.1



Town of **Hantersville**
STANDARD DRAWING
NORTH CAROLINA

TEMPORARY SILT DITCH

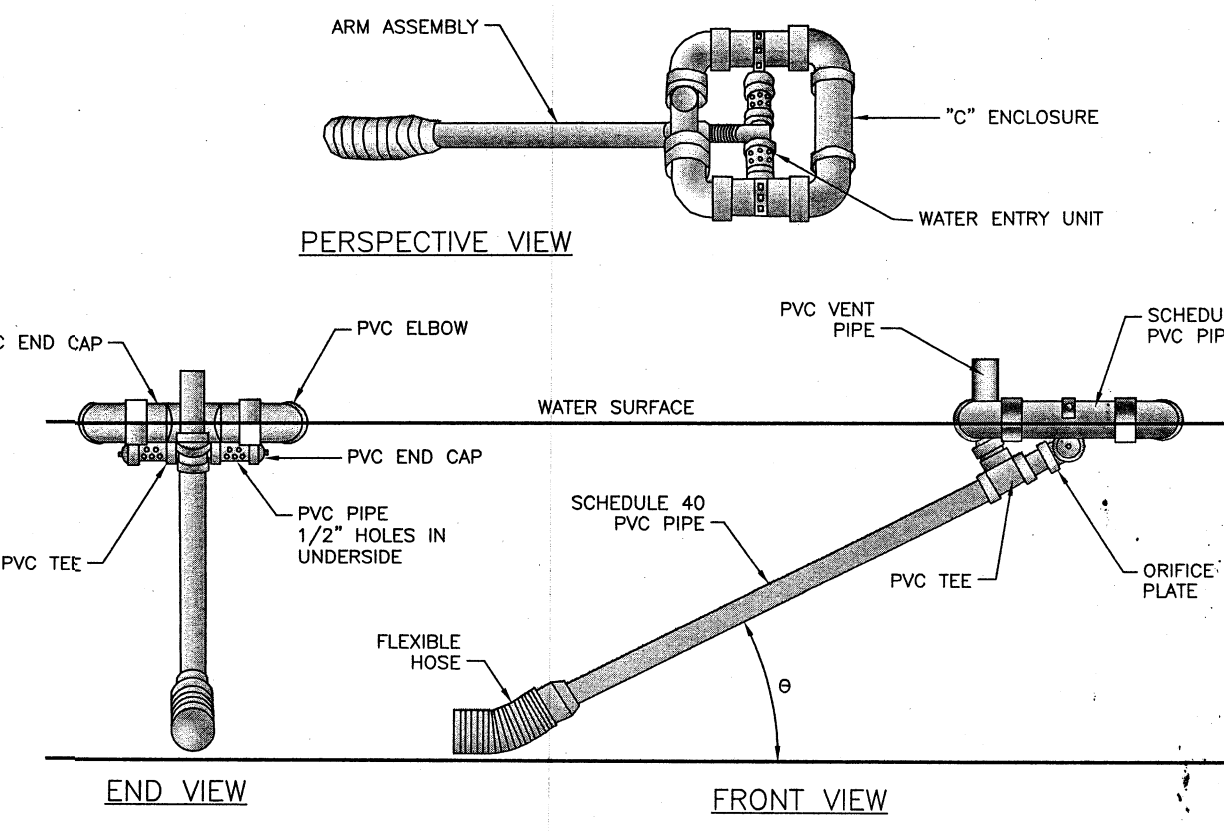
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10/14/09
STD. NO.
506.1



Town of **Hantersville**
STANDARD DRAWING
NORTH CAROLINA

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE
REV. DATE
10/14/09
STD. NO.
514.1

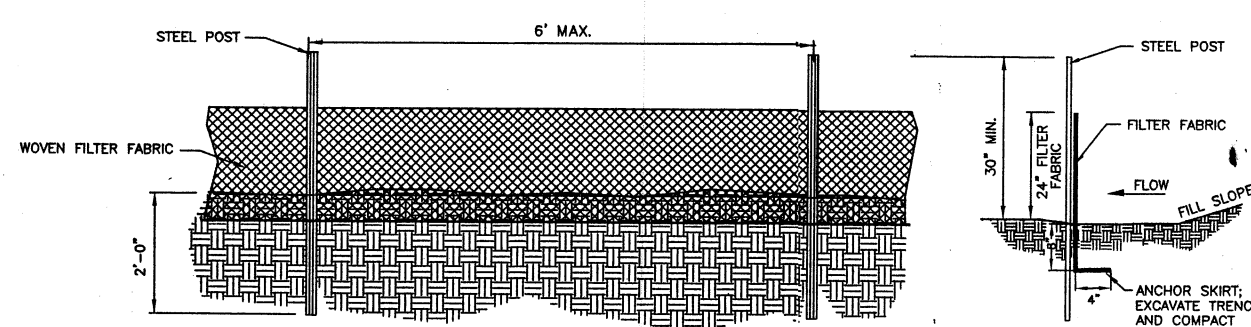


Town of **Hantersville**
STANDARD DRAWING
NORTH CAROLINA

PARACLOTH
SKIMMER

SKIMMER = 1.5" ORIFICE = 1.2"

NOT TO SCALE
REV. DATE
10/14/09
STD. NO.
503.1



GENERAL NOTES:

- FILTER FABRIC FENCE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
- STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
- TURN SILT FENCE UP SLOPE AT ENDS.
- ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SHM BUFFERS, STREAMS OR WETLANDS (REFER TO SHM BUFFER GUIDELINES). THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS.
- DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT. OF FENCE.
- SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
- DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW.

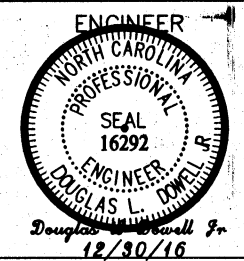
MAINTENANCE NOTES:

- FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
- SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEED.

Town of **Hantersville**
STANDARD DRAWING
NORTH CAROLINA

TEMPORARY SILT FENCE

NOT TO SCALE
REV. DATE
10/14/09
STD. NO.
507.1



SEAL
DLD
DRAWN BY:
11-22-16
DATE PREPARED

REVISIONS
NO. 1
NO. 2
NO. 3
NO. 4

SHEET
14
OF
15

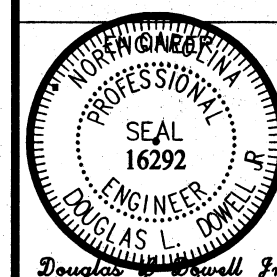
JOB NUMBER
15-1065

SCALE
Horz:
Vert:

EROSION CONTROL DETAILS
OF
THE GLENS AT BIRKDALE COMMONS PH 4
TOWN OF HUNTERSVILLE, MECKLENBURG CO., NC

OWNER:
THE GLENS AT BIRKDALE COMMONS, LLC
15668 BIRKDALE COMMONS BLVD
HUNTERSVILLE, NC 28078
704-363-6759
EMAIL: MWOCC@OCCPROPERTIES.COM

DOWELL & CO., P.C.
Surveying, Planning
Engineering, P.C.
344 Ruffing Mill
Charlotte, NC 28017
(704) 660-9997
(704) 664-5177 Fax
EMAIL: leland7898@aol.com



DLD
DRAWN BY:
11-22-18
DATE PREPARED:
REVISIONS
NO. 1 11-22-18
TOWN MECK CO
NO. 2
NO. 3
NO. 4

SHEET
15
OF
15
JOB NUMBER
15-1065
SCALE
Horz: 1" = 50'
Vert:

UTILITY PLAN
OF
THE GLENS AT BIRKDALE COMMONS PH 4
TOWN OF HUNTERSVILLE, MECKLENBURG CO., NC

OWNER:
THE GLENS AT BIRKDALE COMMONS LLC
15669 BIRKDALE COMMONS PARKWAY
HUNTERSVILLE, NC 28078

DOWELL & CO., P.C.
344 Rolling Hill Road, Suite 103 • P.O. Box 3504 • Huntersville, NC 28117
(704) 860-9897 (704) 864-5177 Fax
EMAIL: dco@dowellco.com

GENERAL NOTES:

- CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CHARLOTTE MECKLENBURG UTILITY DEPARTMENT STANDARDS AND SPECIFICATIONS.
- ALL CONTRACTORS WORKING ON CMUD PROJECTS ARE REQUIRED TO OWN A COPY OF THE DESIGN MANUAL AND SHALL KEEP A COPY ON THE JOB SITE AT ALL TIMES.
- 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.
- IF THE PROPOSED WATER AND/OR SANITARY SEWER MAIN IS INSTALLED WITHIN 12" IN ANY DIRECTION (VERTICALLY OR HORIZONTALLY) FROM GAS MAINS, THE CONTRACTOR SHALL CALL PIEDMONT NATURAL GAS COMPANY AT (704) 525-5585 AND INFORM THEM.
- SANITARY SEWER LATERAL LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO RELOCATION DUE TO FIELD CONDITIONS.
- SANITARY SEWER LATERALS ARE TO BE INSTALLED AT A DEPTH NO GREATER THAN 5(FIVE) FEET WHERE PRACTICAL AT THE PROPERTY LINE UNLESS INDICATED ON THE PLANS TO BE INSTALLED AT "MINIMUM SLOPE". THE CONTRACTOR SHALL COORDINATE WITH THE DEVELOPER TO ENSURE THAT ALL LATERALS ARE AT ADEQUATE DEPTH TO BE FUNCTIONAL FOR THE LOT IN QUESTION (I.E. BASEMENT LOTS, ETC.).
- MINIMUM COVER OF 36" FOR WATER MAINS.
- DUCTILE IRON PIPE (RED BRASS FOR 2" WATER PIPE) REQUIRED FOR BOTH WATER AND SANITARY SEWER LINES IF THE FOLLOWING CLEARANCES ARE NOT MET:
 - 18" VERTICAL FOR WATER LINE INSTALLED ABOVE SEWER LINE.
 - WATER LINE CROSSES UNDER SEWER LINE (FOR ANY CLEARANCE)
 - 10" HORIZONTAL SEPARATION FOR WATER LINE PARALLEL TO SEWER LINE (OR 18" VERTICAL SEPARATION IN SEPARATE DITCHES).
 - FOR WATER LINES 12" CLEARANCE WITH STORM DRAINS, GAS MAINS, TELEPHONE DUCTS, AND UNDERGROUND CABLES.
- EXACT LOCATIONS OF WATER SERVICE CONNECTIONS ARE REQUIRED FOR AS-BUILT RECORDS.
- PRIOR TO PERFORMING WORK IN A CITY MAINTAINED ROAD RIGHT-OF-WAY, THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE FOLLOWING PERSONS AT LEAST 48 HOURS IN ADVANCE:
BOB STALEY, CHARLOTTE DEPARTMENT OF TRANSPORTATION, BY FAX 704-336-4400
THE FAX MUST INCLUDE TIME AND DATE OF CONSTRUCTION, AND REFERENCE THE APPROPRIATE LANE CLOSURE AND "WORK AREA TRAFFIC CONTROL" DIAGRAM FROM THE "WORK AREA TRAFFIC CONTROL"

AFTER RECEIPT OF THE RIGHT OF WAY USER PERMIT CALL: STREET CUT PERMITS TELEPHONE 704-336-4025 TO OPEN CUT STREETS OR SIDEWALK AREAS.

