

SITE VICINITY MAP NOT TO SCALE

LEGEND

→ HAB-1 HAND AUGER SOIL TEST BORNG LOCATION (TYP.)

GENERAL NOTES - SITE PLAN:

1. SITE TOPOGRAPHIC SURVEY DATA PROVIDED BY A.G. ZOUTEWELLE SURVEYORS 1418 E 5TH ST., CHARLOTTE NORTH CAROLINA 28204, (704) 372-9444.

SURVEYORS LEGEND

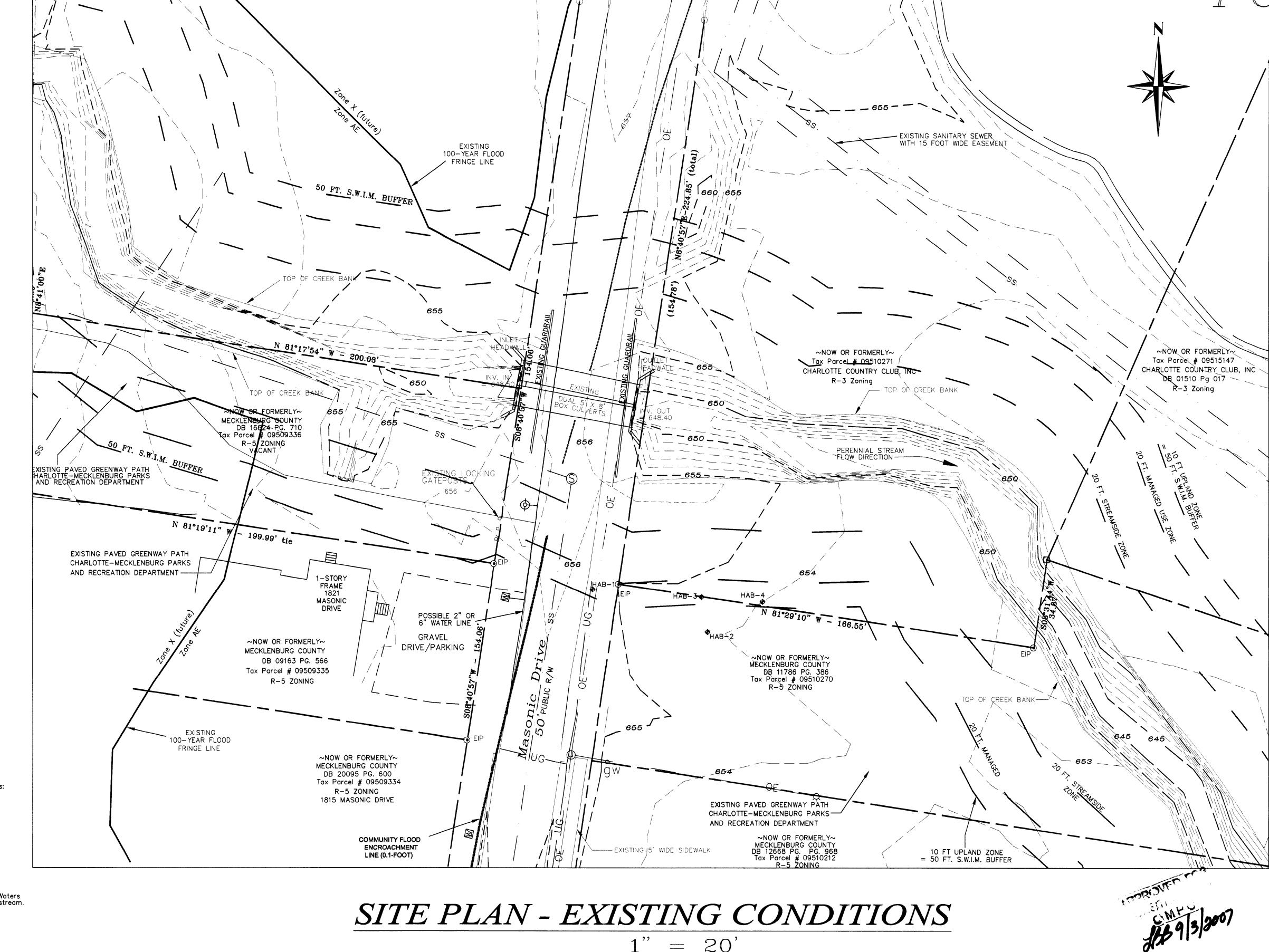
a/c air conditioner chord cleanout concrete fire hydrant gas meter gas valve ğuy wire anchor iron pipe found/set Iron rebar/pin found irrigation control valve # light pole
L,R curve length & radius
MB,DB record map, deed references
PKF/PKS PK Nail found/set
post indicator valve sanitary sewer manhole square feet (by coordinates) storm drain manhole temporary bench mark utility pole water meter water valve —OE— overhead utility wires —UE— underground electric

SURVEYORS NOTES

—UG— underground gasline
—w— water line
x spot elevation

- Source of title of this property is recorded in Deed Book 3070 Page 498.
 Tax I.D. numbers of this property are: 095-093-37, -38, -39, -40, -41, -42, and -43.
 See plats recorded in Map Book 39, Page 300, Map Book 45, Page 99 and Map Book 6, Page 583.

 This survey does not reflect a complete title examination which may reveal restrictions, easements or other matters of title.

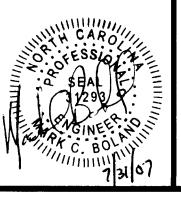


BASED ON INFORMATION PROVIDED BY OTHERS

BASED ON SITE TOPOGRAPHIC SURVEY PRELIMINARY

FINAL DRAFT

REVISIONS REV. DATE COMMENTS 1 7/27/07 **SECOND SUBMISSION**





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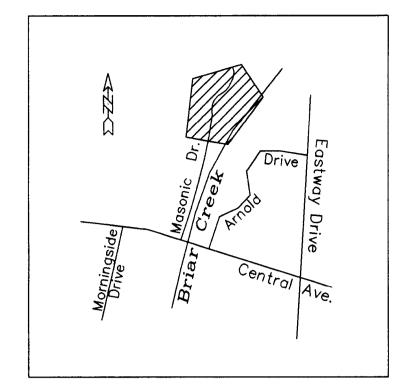
PROJECT#: 1060169-01	
DATE: JULY 27, 2007	
PROJECT MGR: JHPjr	<i></i>
DESIGNED BY: JHPjr	
DRAWN BY: RBS	

1" = 20'

CHARLOTTE COUNTRY CLUB MASONIC DRIVE ROAD CLOSURE AND TRAFFIC TURNAROUND

SITE PLAN EXISTING CONDITIONS

C-1



SITE VICINITY MAP NOT TO SCALE

LEGEND

+ HAB-1 HAND AUGER SOIL TEST BORNG LOCATION (TYP.)

EXISTING GREENWAY AND SIDEWALK

PROPOSED GREENWAY AND TRAFFIC TURNAROUND

TOP OF CREEK BANK PROPERTY BOUNDARY --- × --- SILT FENCE

ORANGE FABRIC FENCING

GENERAL NOTES

Coordinate all curb and street grades in intersection with Inspector.

All road improvements at Masonic Drive are to be coordinated with the City of Charlotte Engineering

3. 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.

4. In order to ensure proper drainage, keep a minimum of 0.5% slope on the curb. 5. Subsurface drainage facilities may be required in the street right-of-way if deemed necessary by the

6. The Developer shall maintain each stream, creek, or backwash channel in an unobstructed state and shall remove from the channel and banks of the stream all debris, logs, timber, junk and other

accumulations. 7. Any construction or use within the areas delineated as Community Encroachment (0.1') Floodway Encroachment Area is subject to the restrictions imposed by the Floodway Regulations of the City of

8. Non-standard items (ie: pavers, irrigation systems, etc.) in the right-of-way require a Right-of-Way Encroachment Agreement with the (Charlotte Department of Transportation/North Carolina Department of

9. An Iron Pin or other acceptable permanent property corner shall be set where the outside boundary of

the buffer intersects the Masonic Drive ROW.

CONSTRUCTION SEQUENCE

1. Obtain Grading/Erosion Control plan approval from the City of Charlotte Engineering Department.
2. Set up an on—site pre—construction conference with Erosion Control Inspector of the City of Charlotte Engineering Department to discuss erosion control measures. Failure to schedule such conference 48 hours prior to any land disturbing activity is a violation of Chapter 17 of the City Code and is subject to

3. Install silt fence, inlet protection, sediment traps, diversion ditches, tree protection, and other measures as shown on plans, clearing only as necessary to install these devices. 4. Call for on-site inspection by Inspector.

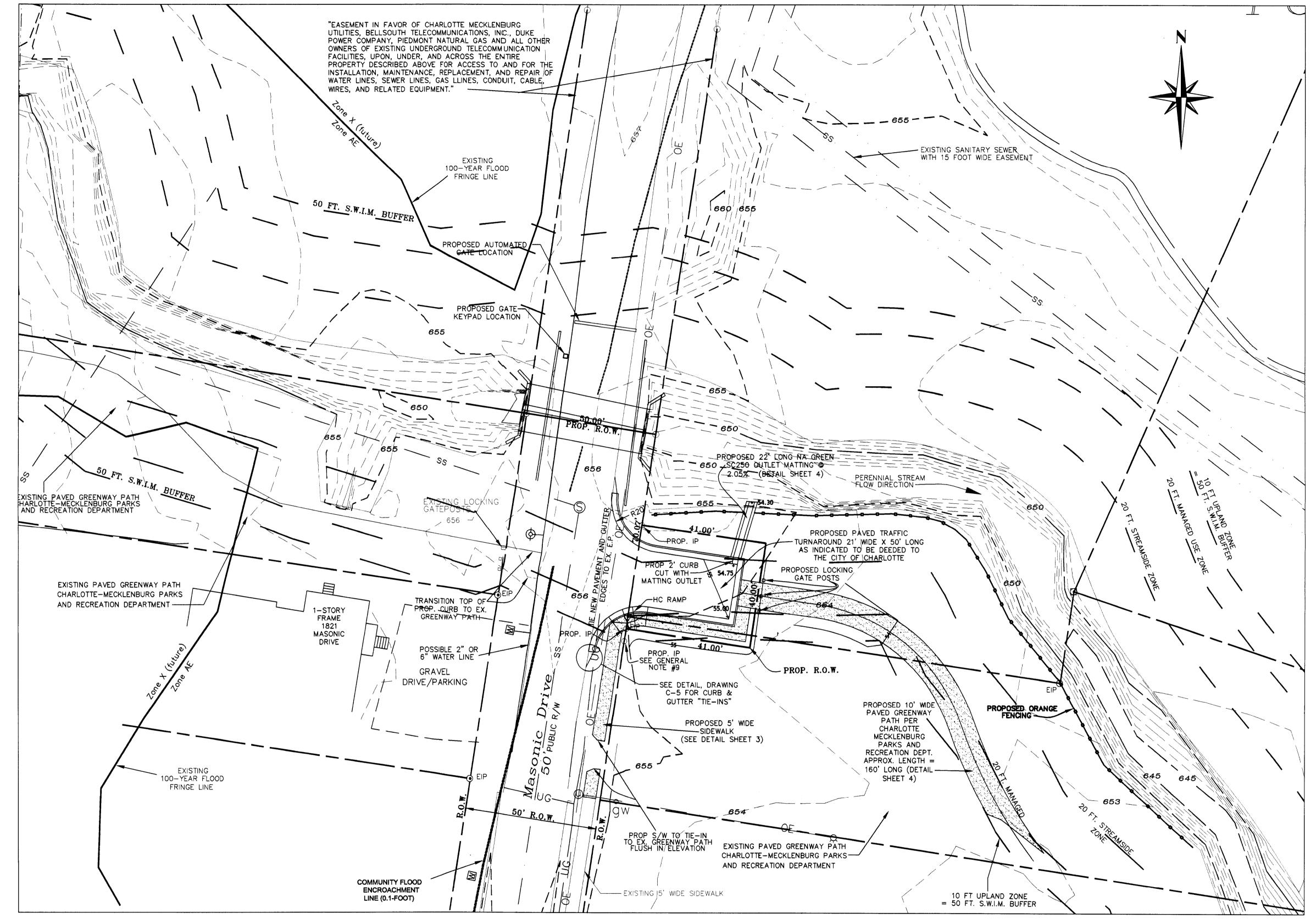
5. The Contractor shall diligently and continuously maintain all erosion control devices and structures throughout construction of this project.

6. For phased erosion control plans, Contractor shall meet with Erosion Control Inspector prior to

commencing with each phase of erosion control measures.

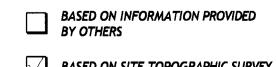
7. Stabilize site as areas are brought to finished grade.
8. Coordinate with Erosion Control Inspector prior to removal of erosion control measures.
9. All erosion control measures shall be constructed in accordance with the N. C. Erosion and Sediment

Control Planning and Design Manual, U. S. Dept. of Agriculture, City of Charlotte Erosion Control Ordinance, and the Charlotte—Mecklenburg Land Development Standards.



GRADING PLAN - PROPOSED CONDITIONS

1'' = 20'



FINAL DRAFT

BASED ON SITE TOPOGRAPHIC SURVEY PRELIMINARY

	REVISIONS						
REV.	REV. DATE COMMENTS						
1	7/27/07	SECOND SUBMISSION					

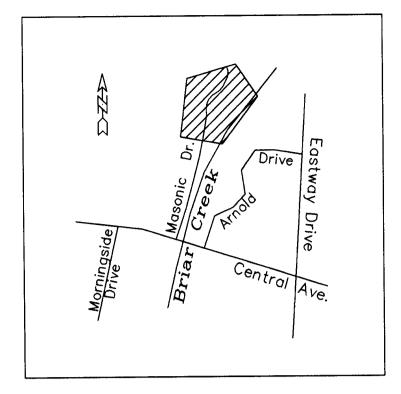




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ROJECT#: 1060169-01	CHADLOTTE COUNTDY CLI			
ATE: JULY 27,2007	CHARLOTTE COUNTRY CLU			
ROJECT MGR: JHPjr	MASONIC DRIVE ROAD CLOSU			
ESIGNED BY: JHPjr	AND TRAFFIC TURNAROUND			
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GRADING PLAN
PROPOSED CONDITIONS



SITE VICINITY MAP NOT TO SCALE

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→ HAB-1 HAND AUGER SOIL TEST BORNG LOCATION (TYP.)

EXISTING GREENWAY AND SIDEWALK

PROPOSED GREENWAY AND TRAFFIC TURNAROUND

TOP OF CREEK BANK PROPERTY BOUNDARY

--- × --- SILT FENCE

LIMITS OF DISTURBANCE - - - ORANGE FABRIC FENCING (See Note #8 Below)

- PROPOSED CLEARING LIMITS

EROSION CONTROL NOTES

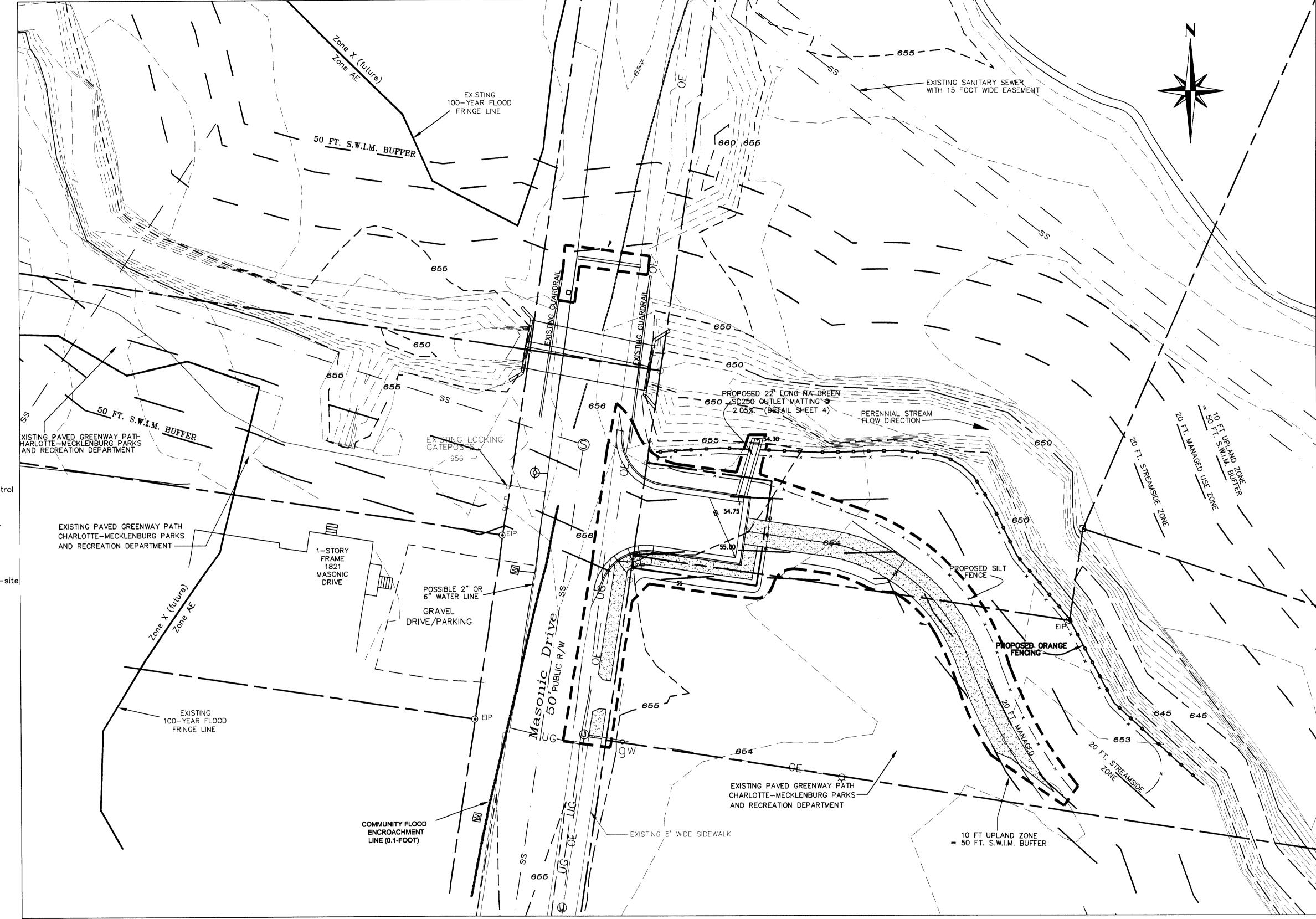
All "Std." numbers refer to the Charlotte Land Development Standards Manual.
 On-site burial pits require an on-site demolition landfill permit from the Zoning Administrator.
 Any grading beyond the denuded limits shown on the plan is a violation of the City/County Erosion control Ordinance and is subject to a fine.

4. Grading more than one acre without an approved Erosion Control Plan is a violation of the City/County Erosion Control Ordinance and is subject to a fine.
5. All areas must be seeded and mulched within 21 calendar days. Refer to Erosion Control Ordinance for

6. Additional measures to control erosion and sediment may be required by a representative of the City Engineering Department.

Slopes shall be graded no steeper than 2:1. Fill slopes greater than 10' require adequate terracing

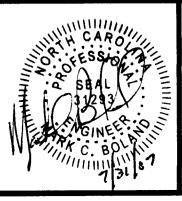
[CMLDS #30.16]
8. High Visibility Orange Safety Fencing shall be used in areas around trees and other natural features on—site that need to be protected.
9. Total Estimated Disturbed Acreage = 0.19 Ac.



EROSION CONTROL PLAN

= 20'

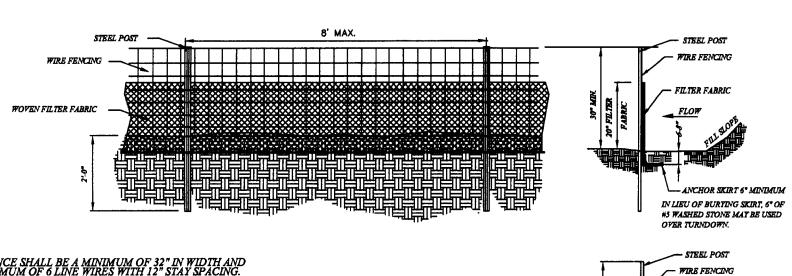
BASED ON INFORMATION PROVIDED BY OTHERS		REVISIONS			
7	REV.	DATE	COMMENTS		
BASED ON SITE TOPOGRAPHIC SURVEY	1	7/27/07	SECOND SUBMISSION		
PRELIMINARY					
7 FINAL DRAFT					





OJECT#: 1060169-01	CHARLOTTE COUNT	TRV CI III
TE: JULY 27, 2007	MASONIC DRIVE ROAD	
OJECT MGR: JHPjr		
SIGNED BY: JHPjr	AND TRAFFIC TURN	AKOUND
AWN BY: RBS	SITE DI AN	

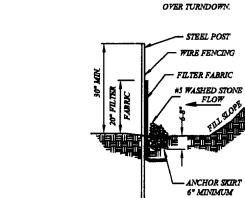
1" = 20' EROSION CONTROL MEASURES C-3



GENERAL NOTES:

- 1. FILTER FABRIC FENCE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.

- 4. WIRE FENCING SHALL BE AT LEAST #10 GAGE WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
- 5. TURN SILT FENCE UP SLOPE AT ENDS.
- 6. WIRE MESH SHALL BE MIN. 13 GAGE WITH MAXIMUM 12" OPENINGS. 7. WIRE AND WASHED STONE WILL BE REQUIRED AND NOTED ON PLANS WHEN:
- A. AT TOE OF SLOPES GREATER THAN 10 FEET VERTICAL (2:1 SLOPE) B. AT DENUDED LIMITS WHERE AN UNDISTURBED BUFFER IS 50 FEET OR LESS AWAY
- 8. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SWIM BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM BUFFER GUIDELINES). THE COLOR ORANGE IS RESEVED FOR
- VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS. 9. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100FT OF FENCE.
- 10. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
- 11. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW.



- 1. 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.

- 2. 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.
- 3. 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 SEEDED.

HIGH HAZARD TEMPORARY SILT FENCE

NOT TO SCALE

FINAL LIFT TO BE APPLIED AFTER 75% DEVELOPMENT OCCUPANCY OR

8" COMPACTED AGGREGATE BASE COURSE, OR 4" BCBC TYPE B25.0B

DESIGN MAY BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.

(OR 4" BCBC TYPE HB, CITY ONLY). SHOULD ENTIRE DEVELOPMENT HAVE

A CBR OF 6 OR GREATER, THEN AN ALTERNATIVE BASE COURSE PAVEMENT

GEOGRID UNDERLAYMENT UNDER BASE COURSE PER SPECIFICATIONS

- 2' ASPHALT TRIAL I-2 (TYP.)

1 YEAR FROM INTERMEDIATE COURSE PLACEMENT (WHICHEVER OCCURS FIRST).

SLOPE 3/8" PER FT.

1" SF9.5A (OR TYPE I-2 BCSC CITY ONLY)

--- COMPACTED SUBGRADE

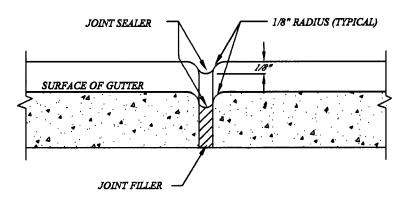
I 1/2" S9.5A, SF9.5A (OR TYPE I-2 BCSC CITY ONLY)

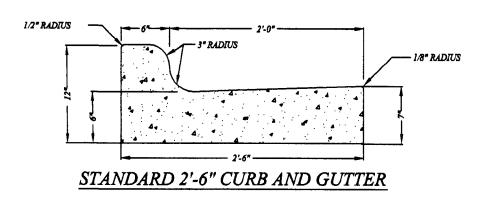
TRAFFIC TURN-AROUND PAVEMENT SECTION

NOT TO SCALE

TYPICAL ASPHALT SECTION

TYPICAL TRAIL SECTION





REF. 10.17A

STEEP SLOPES

TRANSVERSE EXPANSION JOINT

- 1. CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. FOR VALLEY GUTTER, A 10-FOOT SPACING MAY BE USED WHEN A MACHINE IS USED. JOINT SPACING MAY BE ALTERED
- BY THE CITY ENGINEER TO PREVENT UNCONTROLLED CRACKING.
- 2. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS.
- WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.
- 3. ALL EXPANSION JOINTS SHALL BE SPACED AT 90-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
- 4. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 P.S.I. IN 28 DAYS.
- 5. CURB SHALL BE DEPRESSED AT INTERSECTIONS TO PROVIDE FOR FUTURE ACCESSIBLE RAMPS.
- 6. TOP 6" OF SUBGRADE BENEATH THE CURB AND GUTTER SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.

2'-6" STANDARD CURB AND GUTTER

NOT TO SCALE



SEEDING MIXTURE	80 lbs/acre of tall fesue	100 ilbs/acre tall fescue 30 llbs/acre Sericea lespedeza (umscarified after August 15) 10 llbs/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.	FAILL: August 25 - October 15 Latte winter: February 15 - April 15 To textend 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 10-10-10 fertilizer.	Apply lime and fertilizer per soil tests, or 4000 lbs/acre limestone and 1000 lbs/acre 10-10-10 fertilizer.

NOTE 1

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.

SEEDING SCHEDULE

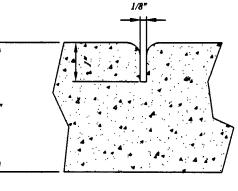
TEMPORARY SEEDING FOR WARM AND COOL SEASON

EARLY SUMMER SEASON

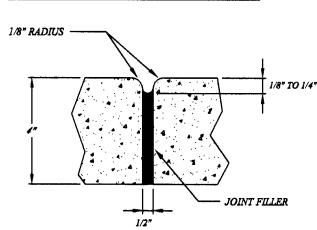
STEEP SLOPES

SEEDING MIXTURE	40 lbs/acre of German millet 80 lbs/acre of tall fesue	120 lbs/acre Rye (grain) 80 lbs/acre tall fesue
	May 1 - August 15	October 25 - December 30
SEEDING DATES	Refertilize if growth is not fully adequate.	Between December 30 - February 15, add 50 lbs/acre of annual Kobe lespedeza.
22	Apply 4000 lbs/acre straw or equivalent hydroseeding.	Apply 4000 lbs/acre straw or equivalent hydroseeding.
SEEDING	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10-10-10	Apply lime and fertilizer per soil tests, or 2000
AMENDMENTS	fertilizer.	lbs/acre limestone and 750 lbs/acre 10-10-10 fertilizer.

SEEDING SCHEDULE (SEASONAL)



GROOVE JOINT IN SIDEWALK

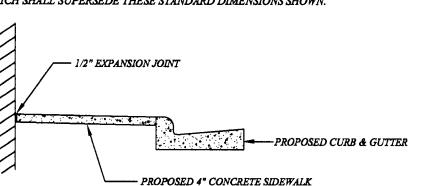


TRANSVERSE EXPANSION

JOINT IN SIDEWALK

GENERAL NOTES.

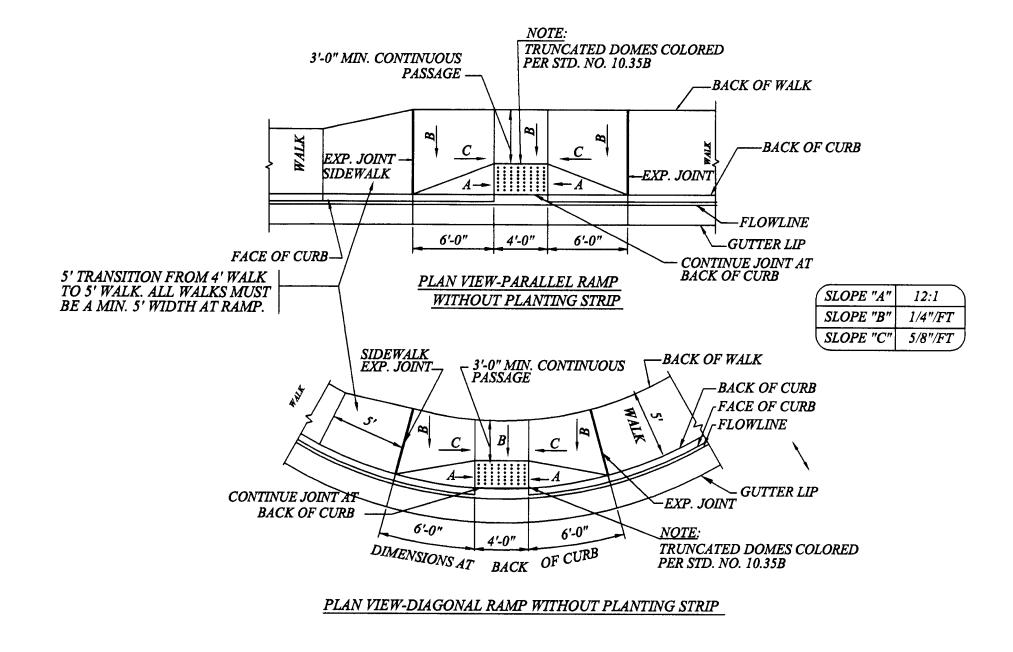
- 1. A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS NOT TO EXCEED 50' AND MATCHING EXPANSION/CONSTRUCTION JOINT IN ADJACENT CURB. A SEALED 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
- 2. SIDEWALK AT DRIVEWAY ENTRANCES TO BE 6" THICK.
- 3. WIDTH OF SIDEWALK ON THOROUGHFARE STREETS SHALL BE A MINIMUM OF 5'. WIDTH OF SIDEWALKS IN THE CENTRAL BUSINESS DISTRICT WILL BE DETERMINED BY THE COOT.
- 4. WIDTH OF SIDEWALKS ON NON-THOROUGHFARE STREETS SHALL BE A MINIMUM OF 4'.
- 5. SIDEWALK TO BE POURED TO END OF RADIUS AT INTERSECTING
- 6. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 PSI. IN 28 DAYS.
- 7. ZONING CONDITIONS MAY REQUIRE ADDITIONAL WIDTH SIDEWALKS WHICH SHALL SUPERSEDE THESE STANDARD DIMENSIONS SHOWN.



DETAILS SHOWING EXPANSION JOINTS

IN CONCRETE SIDEWALK

CONCRETE SIDEWALK **NOT TO SCALE**



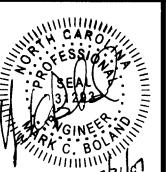
ACCESSIBLE RAMP NOT TO SCALE

BASED ON INFORMATION PROVIDED
BY OTHERS BASED ON SITE TOPOGRAPHIC SURVEY

PRELIMINARY

FINAL DRAFT

REVISIONS REV. DATE COMMENTS 7/27/07 SECOND SUBMISSION





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PROJECT#: 1060169-01	
DATE: JULY 27, 2007	1
PROJECT MGR: JHPjr	1
DESIGNED BY: JHPjr	
DRAWN BY: RBS	

SCALE:

CHARLOTTE COUNTRY CLUB MASONIC DRIVE ROAD CLOSURE AND TRAFFIC TURNAROUND

DETAILS 1" = 20'

C-4

TYPICAL ASPHALT GREENWAY DETAILS NOT TO SCALE NOTE: TYPICAL ASPHALT GREENWAY DETAIL FROM MECKLENBURG COUNTY PARKS AND RECREATION

EDGE OF ASPHALT BEVELED @ 45°

5' SHOULDER -

FINISH GRADE — 3:1 MAX SIDE SLOPES

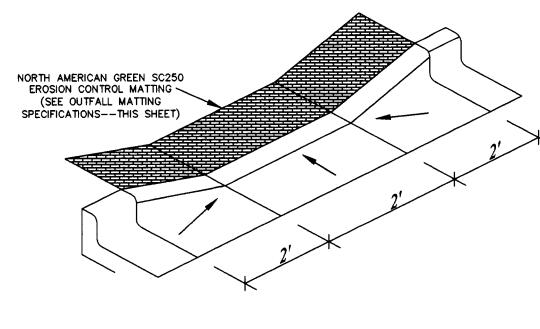
GED-GRID UNDERLAYMENT UNDER BASE COURSE (SEE SPECIFICATIONS)

SHOULDER

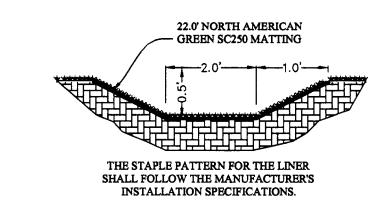
- DRAINAGE DITCH (TYP.)

DEPTH @ LEAST 12"





STANDARD CURB CUT (TYP.)
NOT TO SCALE

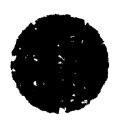


OUTLET CHANNEL
BELOW CURB CUT
NOT TO SCALE



PERFORMANCE SPECIFICATION

SC250



The composite turf-reinforcement mat (C-TRM) shall be a machine-produced mat of 70% straw/30% coconut fiber matrix incorporated into a permanent three-dimensional turf-reinforcement matting.

The matrix shall be evenly distributed across the entire width of the matting and stitch bonded between heavy duty UV stabilized top and bottom nets with 0.50×0.50 inch $(1.27 \times 1.27 \text{ cm})$ openings and an ultra heavy duty UV stabilized, dramatically corrugated (crimped) intermediate netting with 0.50×0.50 inch $(1.27 \times 1.27 \text{ cm})$ openings. The middle corrugated netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 1.50 inch (3.81 cm) centers with UV stabilized polypropylene thread to form a permanent three-dimensional turf reinforcement matting.

Slope Design - Unvegetated Cover Factors				
		Slope Gradie	nt (S)	
ope Length (L)	< 3.1	3-1-2-1	> 2:1	

	Slope Gradient (5)		
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
≤ 20 ft (6 m)	0.0010	0.0209	0.0507
20 - 50 ft	0.0081	0.0266	0.0574
≥ 50 ft (15.2 m)	0.0455	0.0555	0.081

_Channel Design Data

Roughness Coefficients - Unvegetated	
Flow Depth Manning's '	
≤ 0.50 ft (0.15 m)	0.040
0.50 - 2.00 ft	0.040-0.012
≥ 2.00 ft (0.60 m)	0.011

Approximate Permissible Flow Velocity
Unvegetated = 9.5 ft/s (2.9 m/s)
Vegetated = 15 ft/s (4.6 m/s)

Maximum Permissible Shear Stress*					
Short Duration Long Durati					
Phase 1 UNVEGETATED	3.0 lbs/ft² (144 Pa)	2.5 lbs/ft² (120 Pa)			
Phase 2 PARTIALLY VEGETATED	8.0 lbs/ft² (384 Pa)	8.0 lbs/ft² (384 Pa)			
Phase 3 FULLY VEGETATED	10.0 lbs/ft² (480 l'a)	8.0 lbs/ft² (384 Pa)			

Values are approximate, precise values obtained from ECMDS™

*Performance values obtained through third party testing at the Texas Transportation Institute, Colorado State University, and/or Utah State University based on soil loss failure criteria not exceeding 0,50 inches (1,27 cm).

OUTFALL MATTING SPECIFICATIONS

BASED ON INFORMATION PROVIDED BY OTHERS

BASED ON SITE TOPOGRAPHIC SURVEY

FINAL DRAFT

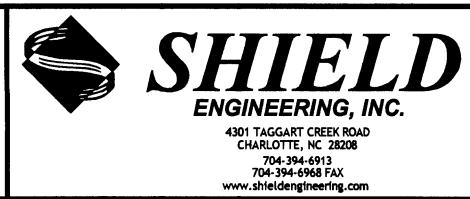
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CHARLOTTE COUNTRY CLUB
MASONIC DRIVE ROAD CLOSURE
AND TRAFFIC TURNAROUND

DETAILS

C-5

6 (1060169 — MASONIC DRIVE (DRAWINGS (DETAILS.DW