centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2399

SITE DEVELOPMENT PLANS FOR:
WILEY BRIDGE ROAD

PROPERTY IS LOCATED
IN LAND LOT 1262 & 1263
OF THE 15TH DISTRICT, 2ND SECTION
CHEROKEE COUNTY, GEORGIA

984 WILEY BRIDGE ROAD, WOODSTOCK, GEORGIA, 30188

WILEY BRIDGE ROAD

CAUTION
THE UTILITIES SHOWN ARE SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE PREPARER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

GEORGIA 811
UTILITIES PROTECTION CENTER, INC.
Know what's below.
Call before you dig.

GENERAL NOTES:

1. PROJECT TO BE SERVED BY CHEROKEE COUNTY WATER AND SEWER SYSTEM.
2. ALL PROPOSED UTILITIES TO BE LOCATED UNDERGROUND
3. ALL INTERSECTIONS TO HAVE STREET SIGNS AS REQUIRED BY CHEROKEE CO. D.O.T. WITH STREET NAMES, STOP SIGNS, AND NO OUTLET SIGN (IF APPLICABLE).
4. PROPOSED STREET NUMBERS TO BE PROVIDED ON THE FINAL PLAT.
5. TOPOGRAPHY IS 2 FOOT CONTOUR INTERVALS AND BASED ON A FIELD RUN SURVEY BY CENTERLINE SURVEYING SYSTEMS, INC. ELEVATIONS ARE BASED ON MEAN SEA LEVEL DATUM (NAVD 88). ALL IMPROVEMENTS HAVE BEEN FIELD VERIFIED BY CENTERLINE SURVEYING. BENCHMARK IS A NAIL SET IN THE EDGE OF PAVEMENT AT THE INTERSECTION OF LAKE ARROWHEAD DR. AND WILEY BRIDGE ROAD.
6. A COPY OF THE APPROVED CONSTRUCTIONS PLANS MUST BE ON THE JOB SITE AT ALL TIMES THAT CONSTRUCTION IS UNDER WAY.
7. DETENTION PONDS TO BE FENCED ACCORDING TO CHEROKEE CO. STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
8. ALL DRAINAGE STRUCTURES AND ASSOCIATED CONSTRUCTION METHODS SHALL COMPLY WITH THE GEORGIA D.O.T. STANDARDS AND SPECIFICATIONS.
9. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CURRENT CHEROKEE COUNTY AND GEORGIA D.O.T STANDARDS AND SPECIFICATIONS.
10. ALL GROUND WATER ENCOUNTERED DURING CONSTRUCTION SHALL HAVE UNDERDRAIN WITH ASBUILT LOCATIONS OF THE UNDER DRAIN SHOWN ON THE FINAL PLAT.
11. THERE MAY BE ADDITIONAL EXISTING UTILITIES NOT SHOWN ON THESE PLANS THE DESIGNER ASSUMES NO RESPONSIBILITY FOR LOCATIONS SHOWN OR NOT SHOWN, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND TO NOTIFY THE DESIGNER IN CASE OF DISCREPANCIES.
12. THE CONTRACTOR AND DEVELOPER ARE RESPONSIBLE FOR NOTIFICATION OF AND LIAISON WITH UTILITY COMPANIES IN THE PROCESS OF LOCATION AND RELOCATION OF AND TIE-IN TO PUBLIC UTILITIES.
13. DEVIATION FROM THESE PLANS WITHOUT PRIOR WRITTEN CONSENT OF THE DESIGNER MAY CAUSE THE WORK TO BE UNACCEPTABLE.
14. NOTIFY CHEROKEE COUNTY INSPECTOR 24 HOURS PRIOR TO THE START OF ALL PHASES OF CONSTRUCTION DURING THIS PROJECT.
15. ALL BURN PITS SHALL BE COMPLETELY EXCAVATED AND INSPECTED PRIOR TO FILLING.
16. STATE BUFFERS REQUIRED ARE A 25' UNDISTURBED BUFFER FOR THE STATE AN A 50 UNDISTURBED BUFFER FOR CHEROKEE COUNTY AS MEASURED FROM THE TOP OF BANK.
17. ALL TRIBUTARIES, LAKES, PONDS, STATE WATERS WITHIN 200' OF THE SITE HAVE BEEN FIELD LOCATED.
18. NO CEMETERIES ARE KNOWN TO BE LOCATED ON THIS PROPERTY.
19. ALL PLANNED ROADS WILL BE NAMED AND APPROVED PRIOR TO ACCEPTANCE OF FINAL PLAT.
20. TWO ROWS OF GA DOT TYPE S SILT FENCE SHALL BE INSTALLED ADJACENT TO STATE WATERS AND WILL PROTECT STATE WATERS FROM ANY LAND DISTURBING ACTIVITY.
21. EASEMENTS FOR THE DRAINAGE SYSTEM OR DRAINAGE EASEMENTS OFF OF THE COUNTY RIGHT-OF-WAY SHALL BE CLEARLY DEFINED ON THE CONSTRUCTION PLANS. THE PROPERTY OWNER WILL BE REQUIRED TO KEEP THE EASEMENT FREE FROM OBSTRUCTION IN SUCH A WAY AS TO ENSURE THE MAXIMUM DESIGNED FLOW AT ALL TIMES. THE PROPERTY OWNER SHALL NOT ALTER ANY DRAINAGE IMPROVEMENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE CHEROKEE COUNTY ENGINEERING DEPARTMENT. NO STRUCTURE EXCEPT DRIVEWAYS SHALL BE CONSTRUCTED OR ERECTED IN AN EASEMENT WITHOUT PRIOR WRITTEN APPROVAL OF THE CHEROKEE COUNTY ENGINEERING DEPARTMENT.
22. UNDISTURBED BUFFERS SHALL BE PLANTED TO BUFFER STANDARDS WHERE SPARSELY VEGETATED IN ACCORDANCE WITH ARTICLE 10 OF CHEROKEE COUNTY ZONING ORDINANCE.
23. ANY FILL MATERIAL SUPPORTING STRUCTURAL LOADS SHALL BE ENGINEERED WITH PROPER DOCUMENTATION, INCLUDING GEORGIA REGISTERED P.E. STAMP. SUBMIT DOCUMENTATION TO THE CHEROKEE COUNTY BUILDING DEPARTMENT PRIOR TO FOUNDATION INSPECTION.
24. CONSTRUCTION EXIT LOCATION: LAT: 36°03'47"
LONG:-86°55'10"

UTILITIES

ATLANTA GAS LIGHT COMPANY
P.O. BOX 359
WOODSTOCK, GA 30188
770-994-1946

BELLSOUTH
85 ANNEX
ATLANTA, GA 30114
770-994-1946

COMCAST
2178 MARIETTA HIGHWAY
CANTON, GA 30114
770-266-2278

CHEROKEE COUNTY WATER AND SEWER AUTHORITY
110 RAILROAD STREET
CANTON, GA 30114
770-266-2278

CURRENT OWNER

MOUNT ISLE MANAGEMENT COMPANY
10572 BIG CANOE
BIG CANOE, GEORGIA 30143
D.B. 11973, PG. 197

SITE NOTES

PROPOSED USE: TOWNHOMES
CURRENT ZONING - R-40
TOTAL AREA - 4.25 ACRES
TOTAL LOTS - 25
OVERALL DENSITY - 5.88 LOTS PER ACRE

BUILDING SETBACK REQUIREMENTS:

FRONT - 35' (LOCAL), 50' (ARTERIAL/COLLECTOR)
SIDE - 15'
REAR - 30'

SITE DESCRIPTION:

THIS SITE IS A 4.25 ACRE TRACT THAT IS CURRENTLY WOODED AND HAS NO EXISTING STRUCTURES. THE SITE IS TO BE DEVELOPED INTO 25 TOWNHOMES.

FLOOD INFORMATION:

THIS PROPERTY IS NOT LOCATED WITHIN A 100 YEAR FLOOD ZONE ACCORDING TO CHEROKEE COUNTY F.I.R.M. PANEL # 13057C0358D, DATED SEPT. 29, 2006.

PARCEL INFORMATION

PIN: 15-1263-0027

TOTAL AREA

4.25 ACRES

DISTURBED AREA

4.10 ACRES

IMPERVIOUS AREA

2.10 ACRES

WETLANDS NOTE:

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND THAT IS DISTURBED.
ALL WETLANDS OR STATE WATERS ON OR WITHIN 200 FEET OF THIS PROJECT HAVE BEEN DELINEATED.

ENDANGERED SPECIES NOTE:

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY ENDANGERED SPECIES. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY DISTURBANCE WHICH MAY HAVE THIS EFFECT.

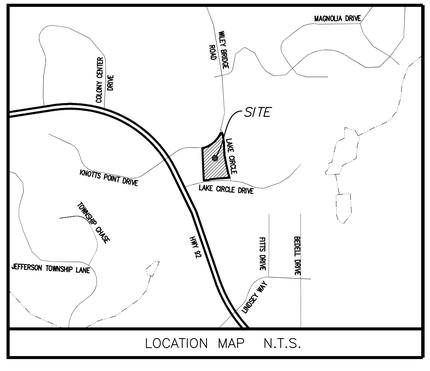
APPLICANT/DEVELOPER
LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE #202
MARIETTA, GA 30066

24 HOUR CONTACT:
JOHN LOYD
770-868-7591

REGISTERED LAND SURVEYOR:
MATT FREY
CENTERLINE SURVEYING
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028

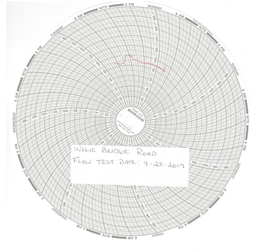
SHEET INDEX

1.0	COVER SHEET
2.0	EXISTING CONDITIONS
3.0	SITE PLAN
3.1	SIGHT DISTANCE PLAN & PROFILE
3.2	ROAD PLAN & PROFILE
3.3	STANDARD SITE DETAILS
4.0	EROSION CONTROL STAGE 1:
4.1	EROSION CONTROL STAGE 2:
4.2	EROSION CONTROL STAGE 3:
4.3-4.4	EROSION CONTROL & NPDES NOTES
4.5-4.6	SEDIMENT/EROSION CONTROL STANDARD DETAILS
5.0-5.1	OFF-SITE SANITARY SEWER PLAN & PROFILES
5.2	ON-SITE SANITARY SEWER PLAN & PROFILES
5.3-5.4	CCWSA STANDARD SEWER DETAILS
6.0	GRADING & DRAINAGE PLAN
6.1	STORM SEWER PROFILES
6.2	PIPE CHARTS & INLET CALCULATIONS
6.3	STORMWATER POND DETAILS
6.4-6.5	STANDARD DRAINAGE DETAILS
7.0	WATER PLAN
7.1	CCWSA STANDARD WATER DETAILS
7.2	CCWSA STANDARD WATER DETAILS & FLOW TEST
L1.0	LANDSCAPE PLAN
L2.0	TREE PROTECTION AND REPLACEMENT PLAN



LOCATION MAP N.T.S.

FIRE FLOW TEST



Georgia Environmental Protection Division
Drinking Water Permitting & Engineering Program
205 Butler Street, SE
Flood Towers East, Suite 1362
Atlanta, Georgia 30334

Gentlemen:

The following data is submitted for your review and approval for addition to the Cherokee County Water and Sewerage Authority's water supply system.

Project Name: Wylie Bridge Road
LL: 1262, 1263 District: 15 Section:
Tax Map: 15N09 130 Parcel: 15-1263-0027
Type Development: Residential
Number of Units: 26

FLOW TEST INFORMATION

Static Pressure: 88 psi at 1085 +/- Ft. elevation
Recorded Flow: 1307 GPM with Residual Pressure of: 65 psi
Maximum Elevation in Development: 1100 +/-
FLOW AVAILABLE AT MAXIMUM ELEVATION: 2099 GPM WITH 20 PSE RESIDUAL
Size of water main at point of connection to project: 12" DI or 6" DI

Date of Flow Test: 9-25-2017

Water mains constructed for this project are adequate to meet minimum pressure requirements of 20 psi at peak demand. Results are based on the current valving configurations and current levels of water supply.
All materials, appurtenances, construction and disinfecting will be according to County approved specifications. The water system will be owned, operated and maintained by the Cherokee County Water and Sewerage Authority. Plans are in the Owner's file.

This flow test information is valid for one year from the date the test was taken.

Sincerely,
Marty Redgold CWSA Inspector

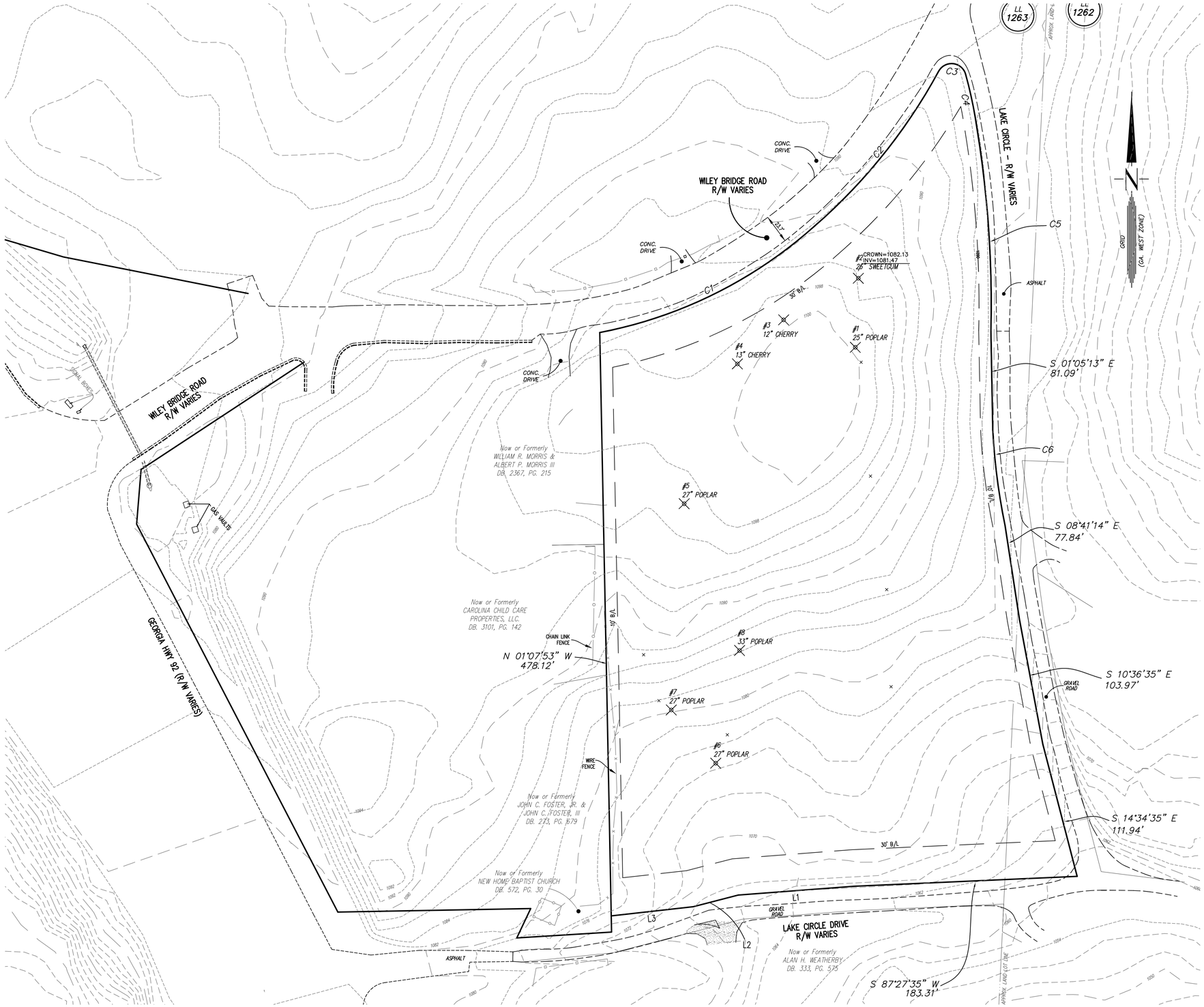


CERTIFIED PROFESSIONAL
EPESC
Douglas B. Patten
No. 4315
EROSION AND SEDIMENT CONTROL

GEORGIA REGISTERED LAND SURVEYOR
No. 3298
MATTHEW S. FREY

NO.	DATE	REVISION DESCRIPTION	BY
1.			
2.			
3.			
4.			

NO.	DATE	PRINT RECORD	BY
1.	12-4-17	SUBMITTAL TO CHEROKEE CO.	DB
2.			
3.			
4.			



GRAPHIC SCALE

−40 0 20 40 80

(IN FEET)
1 inch = 40' ft.

APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

24 HOUR CONTACT:

JOHN LOYD
770-868-7591

SITE NOTES

REPRESENTED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING -R40
TOTAL AREA - 4.251 ACRES
TOTAL LOTS - 25
LOT DENSITY - 5.88 LOTS PER ACRE

REGISTERED LAND SURVEYOR:

MATTHEW FREY
CENTERLINE SURVEYING, INC.
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028

BUILDING SETBACK REQUIREMENTS:

FRONT - 20'
REAR -30'
SIDE - 10'

GEORGIA REGISTERED No. 3268 LAND SURVEYOR MATTHEW P. FREY

centerline
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PHONE: (770) 424-0028 FAX: (770) 424-2389

EXISTING CONDITIONS FOR:

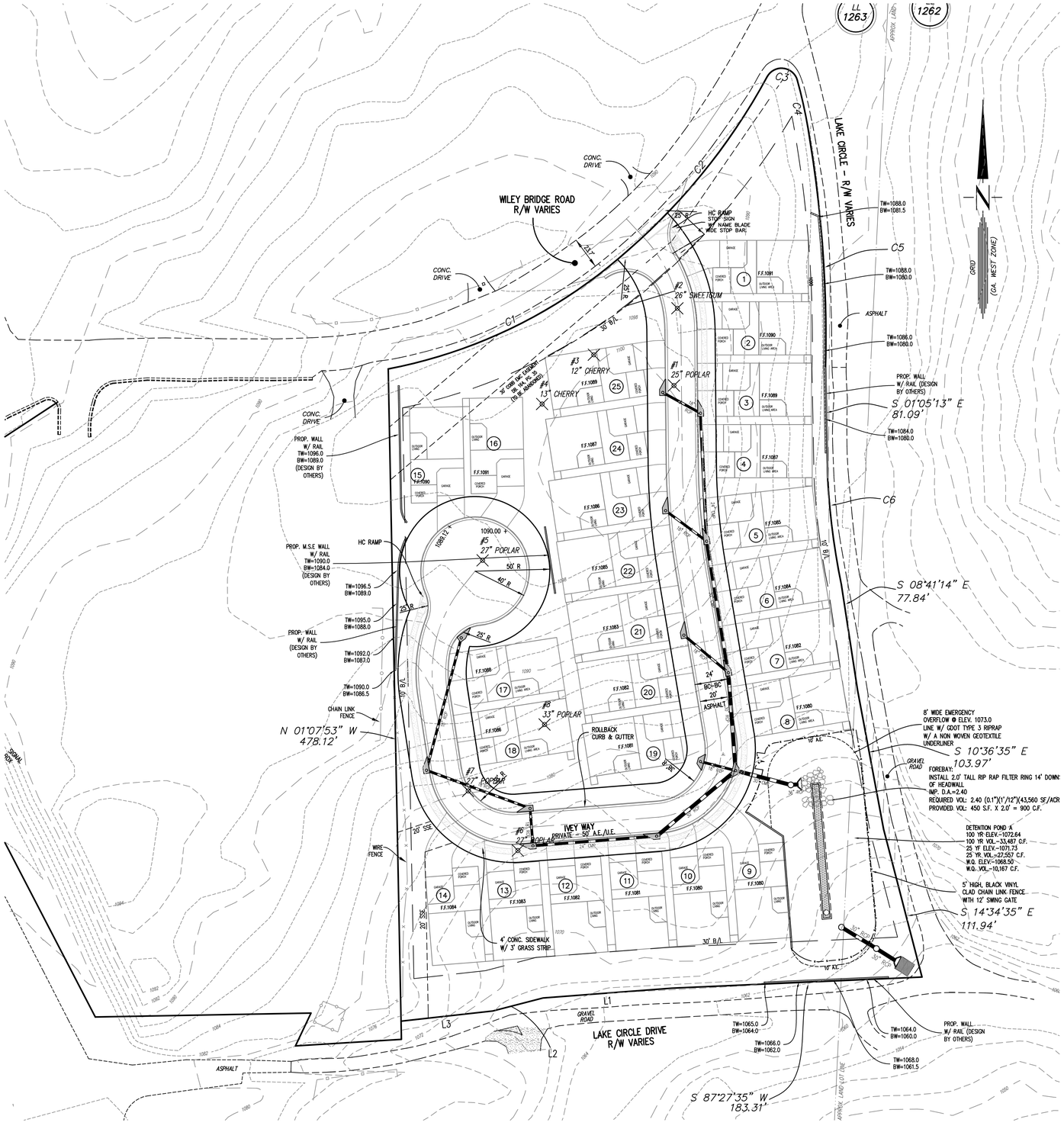
WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 2.0



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(IN FEET)
1 inch = 40' ft.

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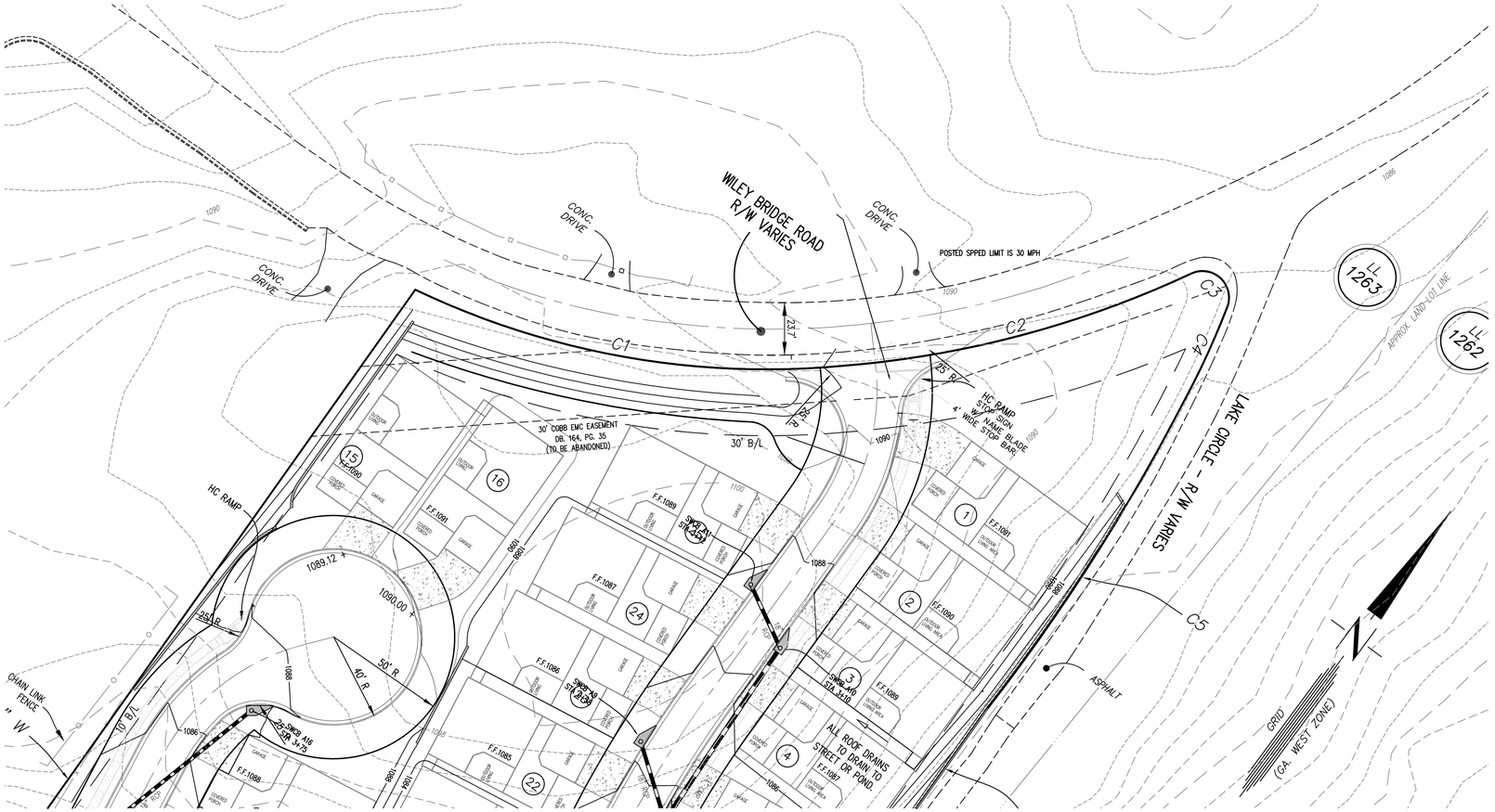
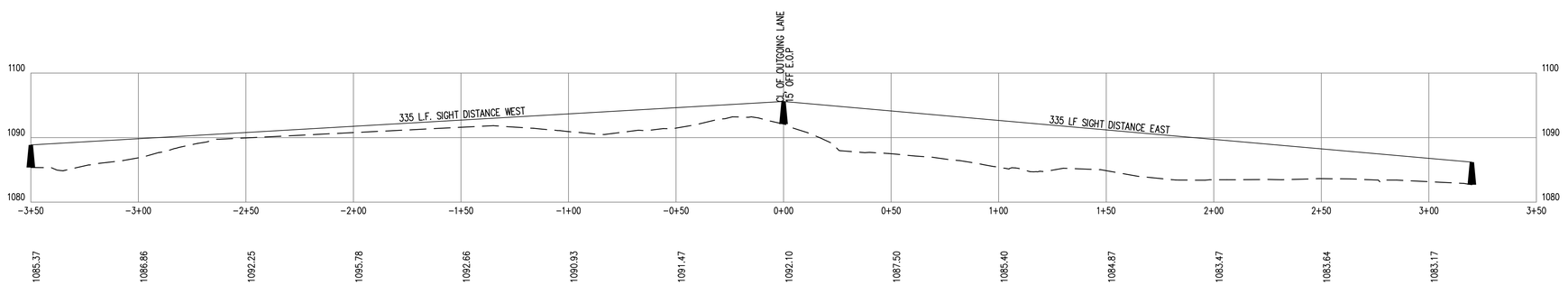
SITE PLAN FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 3.0





GRAPHIC SCALE

-40 0 20 40 80

(IN FEET)
1 inch = 40' ft.

APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
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POSTED SPPED LIMIT IS 30 MPH

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SIGHT DISTANCE PROFILE FOR:

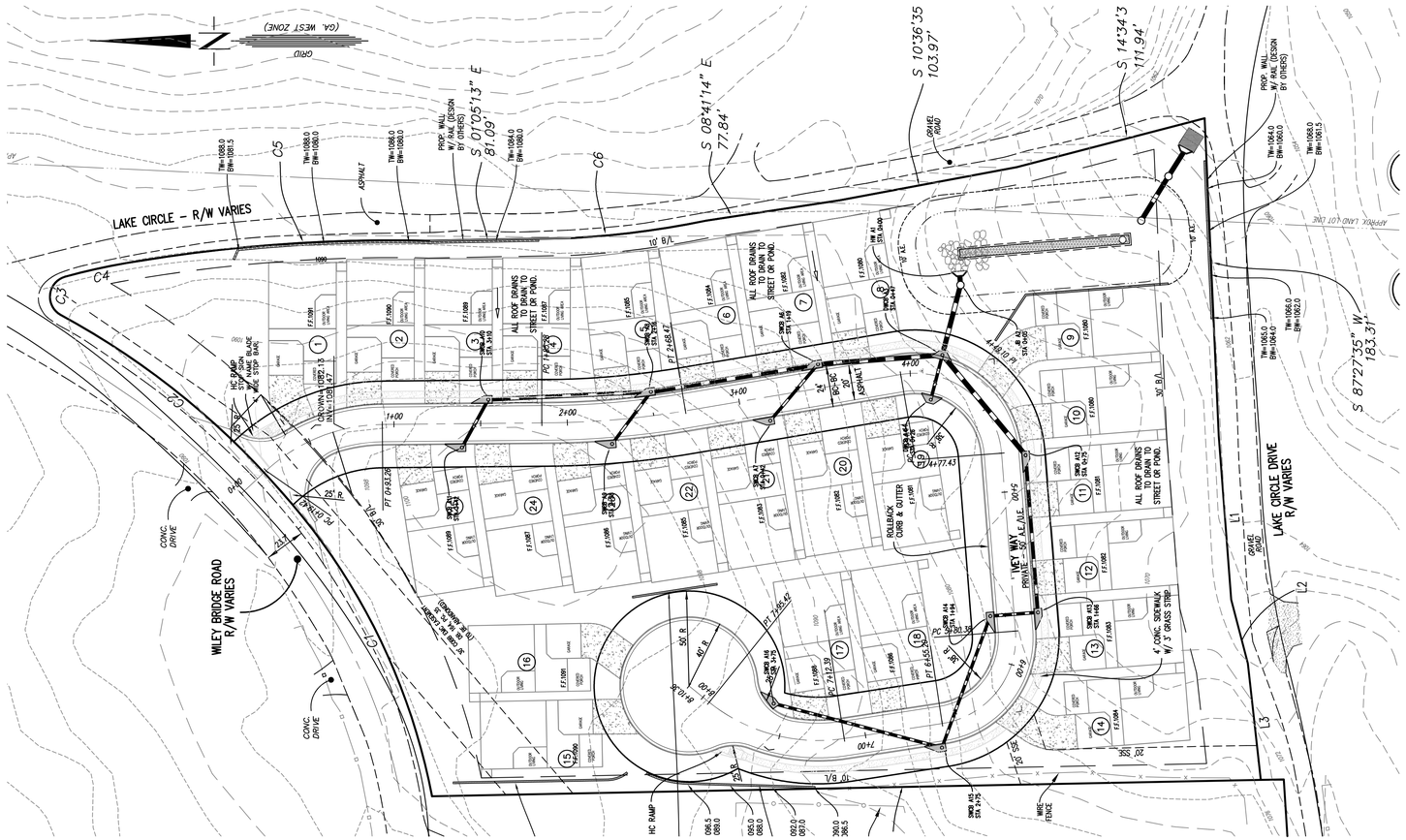
WILEY BRIDGE ROAD

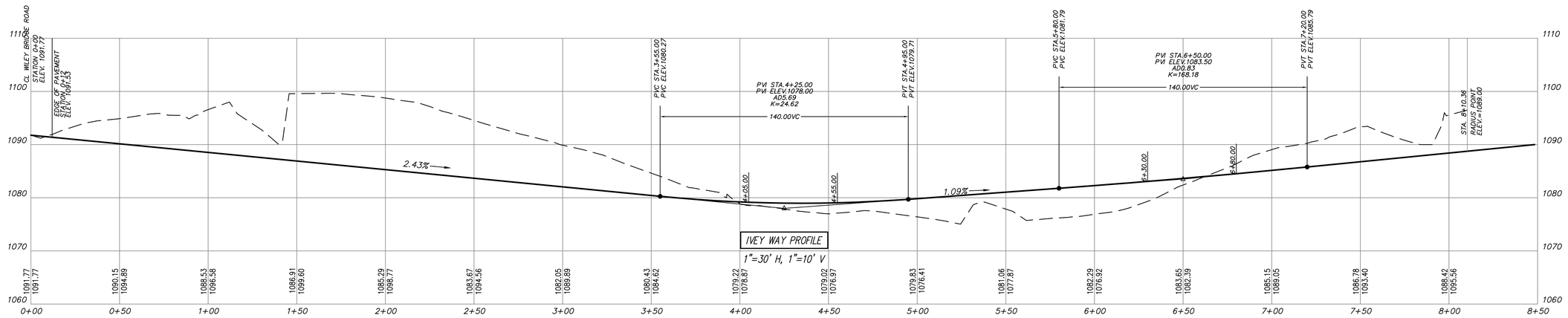
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 3.1





GRAPHIC SCALE

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(IN FEET)
1 inch = 40' ft.

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LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

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PHONE: (770) 424-0028 FAX: (770) 424-2389

STREET PLAN & PROFILE

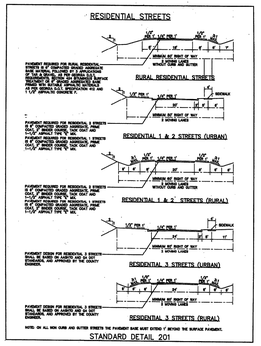
WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

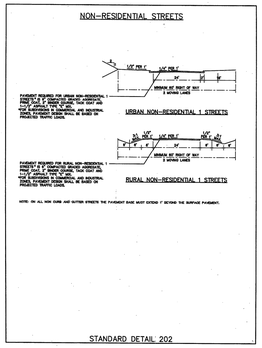
NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 3.2



STANDARD DETAIL 201



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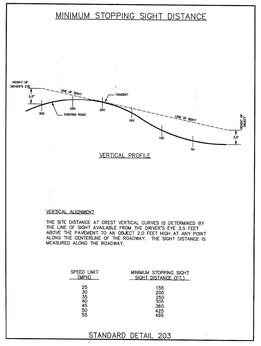

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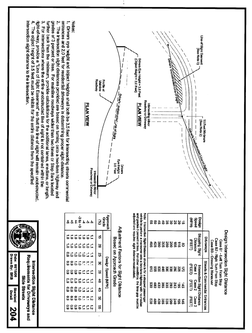
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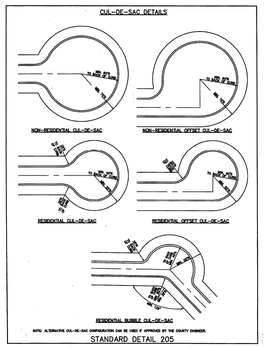

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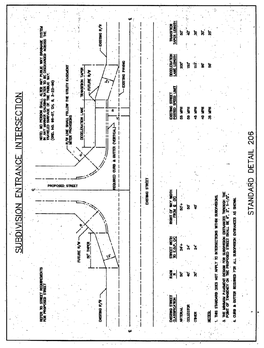

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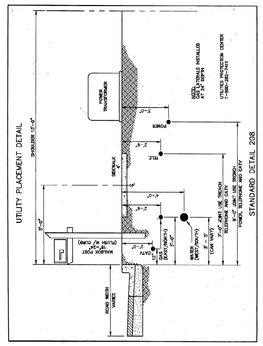

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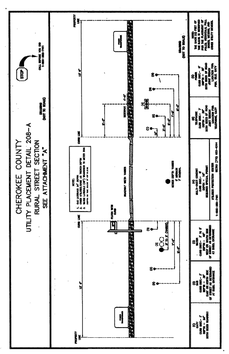
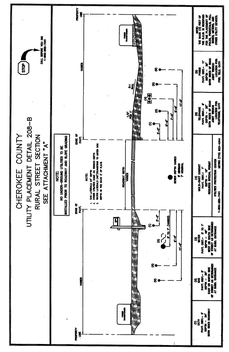
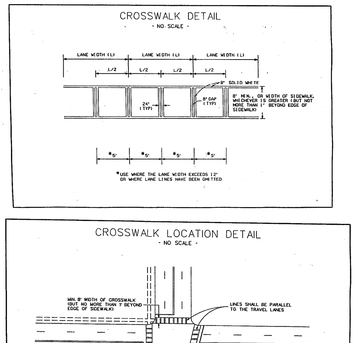
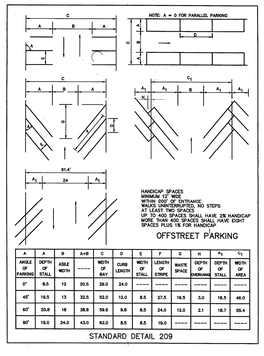


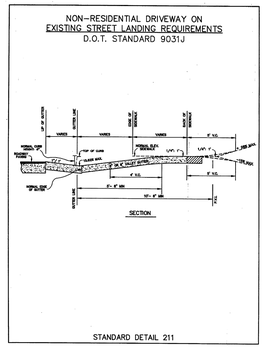






A	A	B	A+B	C	D	E	F	G	H	A_1	C_1
ANGLE OF PARKING	DEPTH OF STALL	AISLE WIDTH	------	WIDTH OF BAY	CURB LENGTH	WIDTH OF STALL	LENGTH OF STRIPE	WASTE SPACE	DEPTH OF DARKENING	DEPTH OF STALL	WIDTH AREA
0°	8.5	12	20.5	28.0	24.0	------	------	------	------	------	------
45°	18.5	13	33.5	52.0	12.0	8.5	27.5	16.5	3.0	16.5	46.0
60°	20.0	18	38.0	59.0	9.8	8.5	24.0	13.0	2.1	18.7	55.4
90°	18.0	24.0	42.0	63.0	8.5	8.5	18.0	------	------	------	------

STANDARD DETAIL 209



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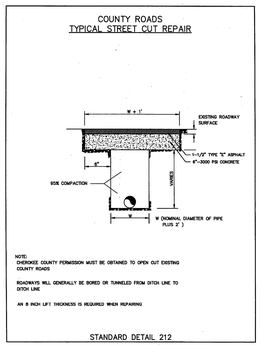

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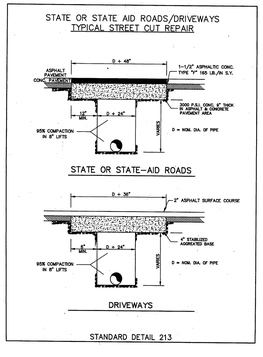

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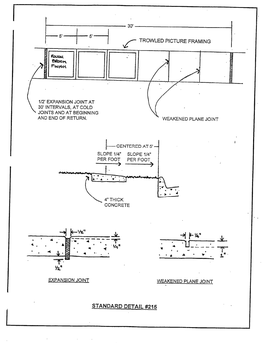

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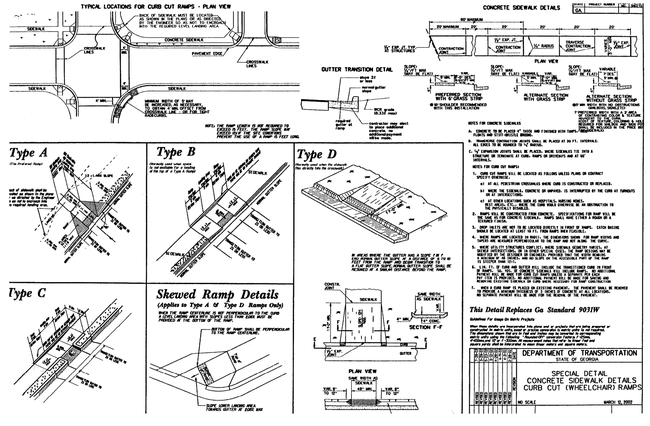


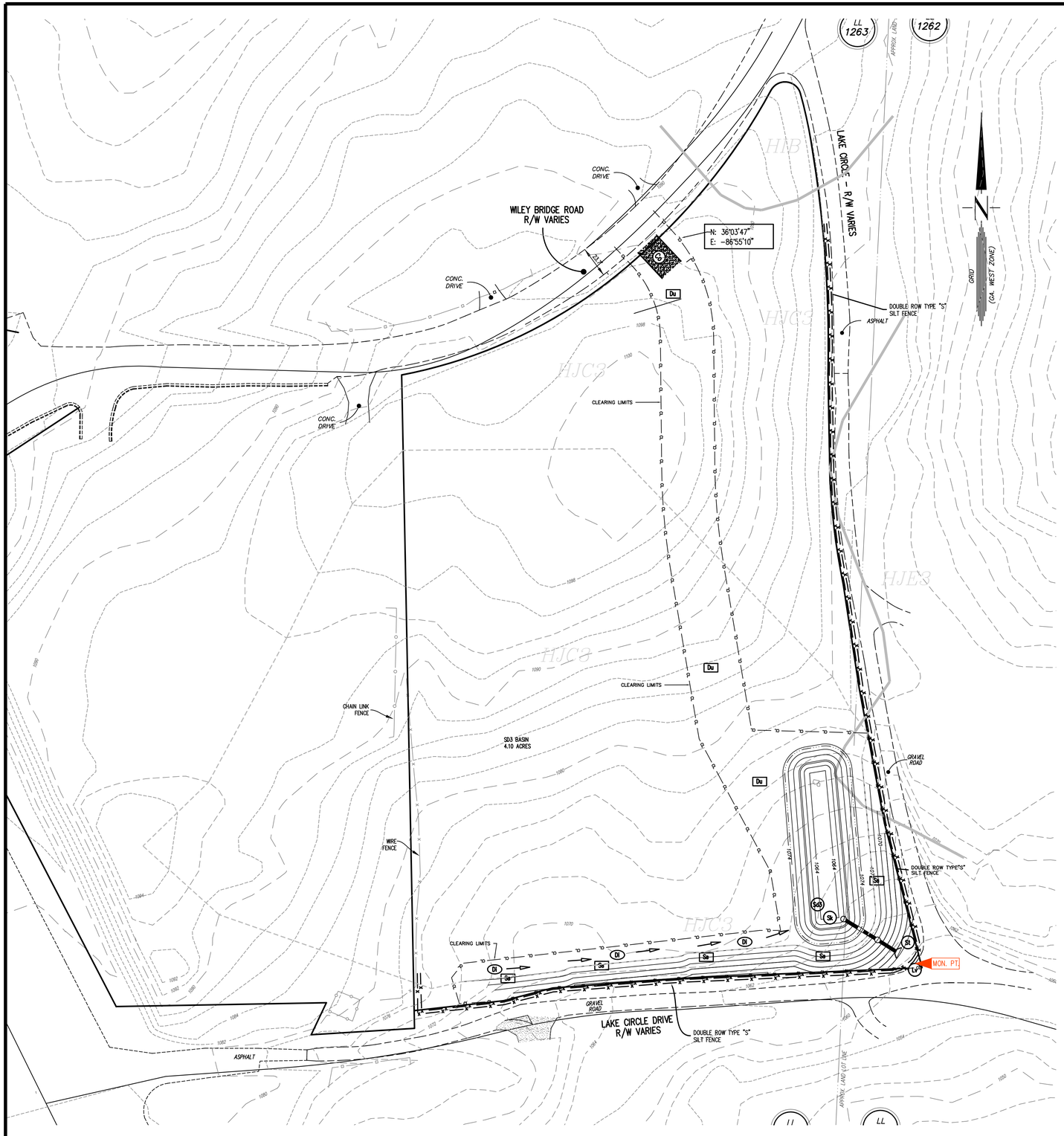
centerline
Surveying and Land Planning, Inc.
180 CIRCLE 75 PARKWAY, SUITE 210, ATLANTA, GA 30144
PHONE: (770) 424-0028 FAX: (770) 424-3399

GEORGIA REGISTERED LAND SURVEYOR NO. 3268 MATTHEW S. FOX

STANDARD SITE DETAILS FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034



GSWCC Georgia Soil and Water Conservation Commission

Douglas B Patten
Level II Certified Design Professional

Certification Number: 000003435
Issued: 12/18/2014 Expires: 12/18/2017

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL
PESC
Douglas B. Patten
No. 4315

EROSION CONTROL NOTES:

THIS STAGE OF THE EROSION CONTROL PLANS IS FOR THE INSTALLATION OF EROSION CONTROL MEASURES ONLY. THE ONLY AREAS THAT ARE TO BE CLEARED INITIALLY ARE THE AREAS NEEDED TO INSTALL SILT FENCE AND THE SDF-C. ALL PERIMETER EROSION CONTROLS, SDF-C AND THE CONSTRUCTION EXIT SHALL BE INSTALLED PRIOR TO ANY CLEARING OF THE REMAINDER OF THE SITE.

CLEARING LIMITS ARE NOT TO EXCEED 17 ACRES AT ONE TIME.

GRASSING TO BE REQUIRED EVERY 7 DAYS.

NO ACTIVITIES SHALL BE CONDUCTED WITHIN THE 25 OR 50 FOOT STREAM BUFFER ALONG THE BANKS OF ALL STATE WATERS.

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND THAT IS DISTURBED.

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SEE SHEET 4.3 & 4.4 FOR ADDITIONAL NOTES.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

ANY DISTURBED AREAS LEFT EXPOSED FOR GREATER THAN 7 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE, SUITE 202
MARIETTA, GEORGIA 30066

SITE NOTES

PROPOSED USE: SINGLE FAMILY HOMES
CURRENT ZONING – R40
TOTAL AREA – 4.251 ACRES (185,173.56 S.F.)
TOTAL LOTS – 25
OVERALL DENSITY – 5.88 LOTS PER ACRE

FLOOD INFORMATION:

THIS PROPERTY IS NOT LOCATED WITHIN A FEMA 100 YEAR FLOOD ZONE ACCORDING TO FEMA MAP 13157C0129D, DATED: SEPTEMBER 29, 2006

TOTAL SITE AREA
4.25 ACRES
DISTURBED AREA
HOME CONSTRUCTION: 4.10 ACRES

SOILS INFORMATION

HJC3 – HAYESVILLE SANDY CLAY LOAM, 2–10% SLOPES, SEVERELY ERODED
HJE3 – HAYESVILLE SANDY CLAY LOAM, 10–25% SLOPES, SEVERELY ERODED
HIB – HAYESVILLE FINE SANDY LOAM, 2–6% SLOPES

SEDIMENT/EROSION CONTROL LEGEND

FLOCCULANT/COAGULANT
TEMPORARY SILT TRAP (Sd2)
RETROFIT
DIVERSION DAM
CONSTRUCTION OUTLET (Co)
SILT FENCE – TYPE SENSITIVE (USE STEEL POSTS @ 10' MAX FABRIC HEIGHT)
SILT FENCE – NON SENSITIVE (USE STEEL POSTS @ 10' MAX FABRIC HEIGHT)
STORM DRAIN OUTLET PROTECTION (St) (SEE SHEET 42 FOR St DIMENSIONS)
TEMPORARY SEDIMENT POND
DIRECTION OF WATER FLOW
GRASSING (SEE DETAILS)
NPDES MONITORING POINT
TREE SAVE FENCE
SKIMMER
FILTER RING
DUST CONTROL
SLOPE STABILIZATION
DOWNDRAIN
LEVEL SPREADER
CHECK DAM
SPECIMEN TREE TO REMAIN (DBZ SHOWN)
SPECIMEN TREE TO BE REMOVED

SEDIMENT STORAGE CALCULATIONS:

REQUIRED:
4.10 ACS. DRAINED X 67 C.Y. = 275 C.Y.

PROVIDED:
SD3 POND – 275 CY @ ELEV. 1067.20

30" DIA PIPE
St DIMENSIONS:
UPSTREAM WIDTH: 7.5'
DOWNSTREAM WIDTH: 23.5'
LENGTH: 16.0'
tw>0.5 Do

AVG. STONE DIA (d50): 1.1'
APRON THICKNESS: 0.45'

36" DIA PIPE
St DIMENSIONS:
UPSTREAM WIDTH: 9.0'
DOWNSTREAM WIDTH: 29.0'
LENGTH: 20.0'
APRON THICKNESS: 1.4'

ALL METAL PIPE SHALL BE FULLY COATED GALVANIZED.

GRAPHIC SCALE
-40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FINCH

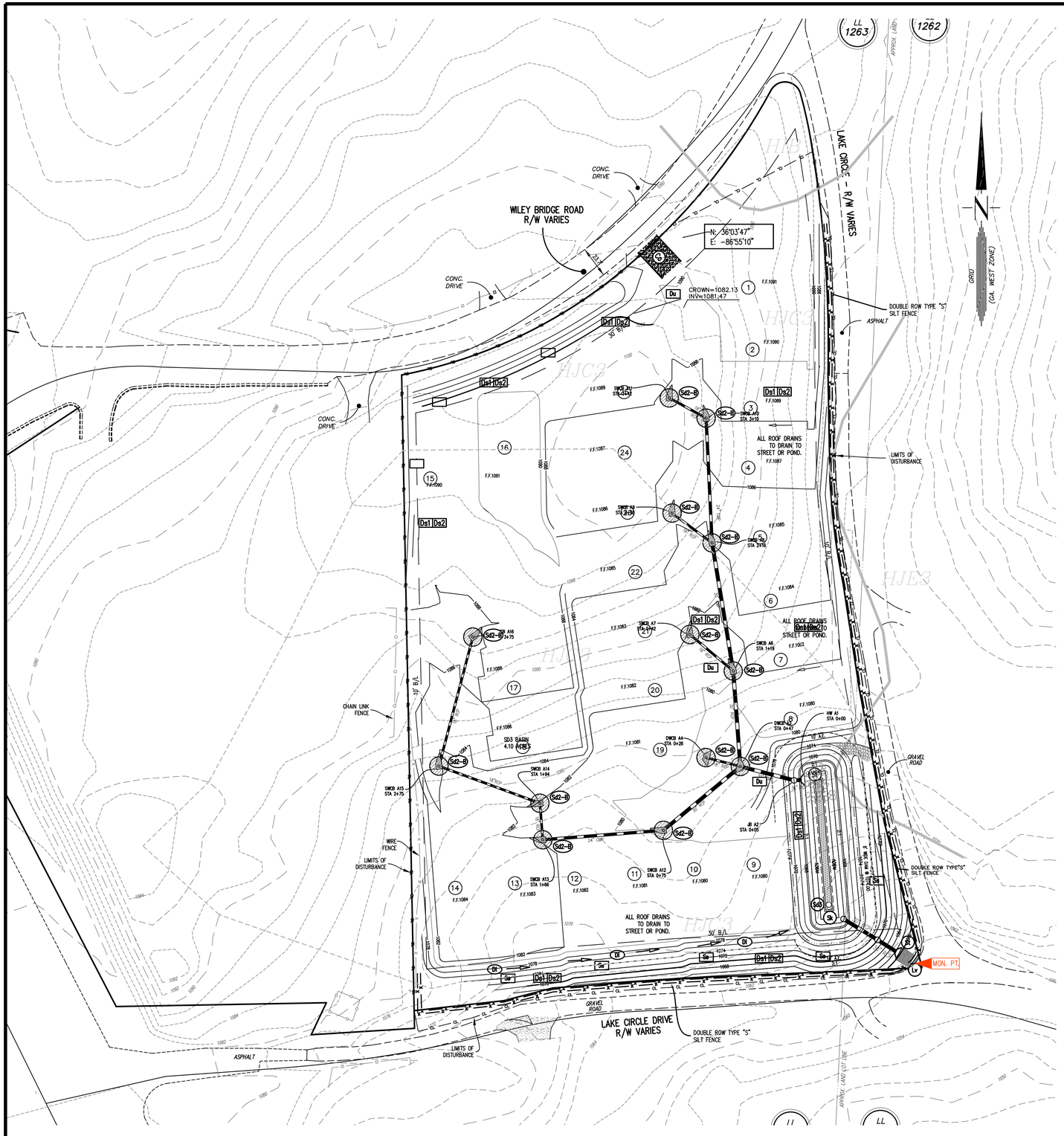
centerline
Surveying and Land Planning, Inc.
130 E. STILSON ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-4088 FAX: (770) 424-4289

PHASE ONE EROSION & SEDIMENT CONTROL PLAN FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 4.0



GSWCC Georgia Soil and Water Conservation Commission

Douglas B Patten
Level II Certified Design Professional
Certification Number: 0000003435
Issued: 12/18/2014 Expires: 12/18/2017

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL
CPESC
Douglas B. Patten
No. 4315

EROSION CONTROL NOTES:

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SEE SHEET 4.3 & 4.4 FOR ADDITIONAL NOTES.

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HJE3 – HAYESVILLE SANDY CLAY LOAM, 10–25% SLOPES, SEVERELY ERODED
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SEDIMENT/EROSION CONTROL LEGEND

- FLOCCULANT/COAGULANT
- TEMPORARY SILT TRAP (Sd2)
- RETROFIT
- DIVERSION DAM
- CONSTRUCTION OUTLET (Co)
- SILT FENCE – TYPE SENSITIVE (USE STEEL POSTS & 32" MIN FABRIC HEIGHT)
- SILT FENCE – NON SENSITIVE (USE STEEL POSTS & 30" MIN FABRIC HEIGHT)
- STORM DRAIN OUTLET PROTECTION (St) (SEE SHEET 42 FOR St DIMENSIONS)
- TEMPORARY SEDIMENT POND
- DIRECTION OF WATER FLOW
- GRASSING (SEE DETAILS)
- NPDES MONITORING POINT (MON. PT)
- TREE SAVE FENCE
- SKIMMER
- FILTER RING
- DUST CONTROL
- SLOPE STABILIZATION
- DOWNDRAIN
- LEVEL SPREADER
- CHECK DAM
- SPECIMEN TREE TO REMAIN (DBZ SHOWN) 37" PINE
- SPECIMEN TREE TO BE REMOVED 15" HW

SEDIMENT STORAGE CALCULATIONS:

REQUIRED:
4.10 ACS. DRAINED X 67 C.Y. = 275 C.Y.

PROVIDED:
SD3 POND =275 C.Y. @ ELEV.1067.20

30" DIA PIPE St DIMENSIONS:

UPSTREAM WIDTH: 7.5'
DOWNSTREAM WIDTH: 23.5'
AVG. STONE DIA (d50): 1.1'
LENGTH: 16.0'
APRON THICKNESS: 0.45'
tw>0.5 Do

36" DIA PIPE St DIMENSIONS:

UPSTREAM WIDTH: 9.0'
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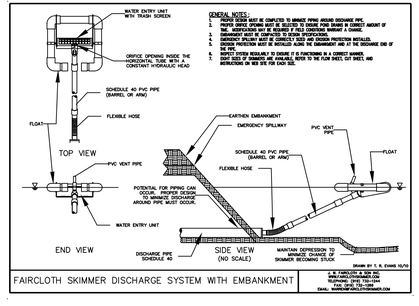

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE, SUITE 202
MARIETTA, GEORGIA 30066

SITE NOTES

PROPOSED USE: SINGLE FAMILY HOMES
CURRENT ZONING – R40
TOTAL AREA – 4.251 ACRES (185,173.56 S.F.)
TOTAL LOTS – 25
OVERALL DENSITY – 5.88 LOTS PER ACRE

FLOOD INFORMATION:

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TOTAL SITE AREA
4.25 ACRES
DISTURBED AREA
HOME CONSTRUCTION: 4.10 ACRES

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FINCH

centerline
Surveying and Land Planning, Inc.
130 P. STILSON ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-4888 FAX: (770) 424-4889

STAGE TWO EROSION & SEDIMENT CONTROL PLAN FOR:

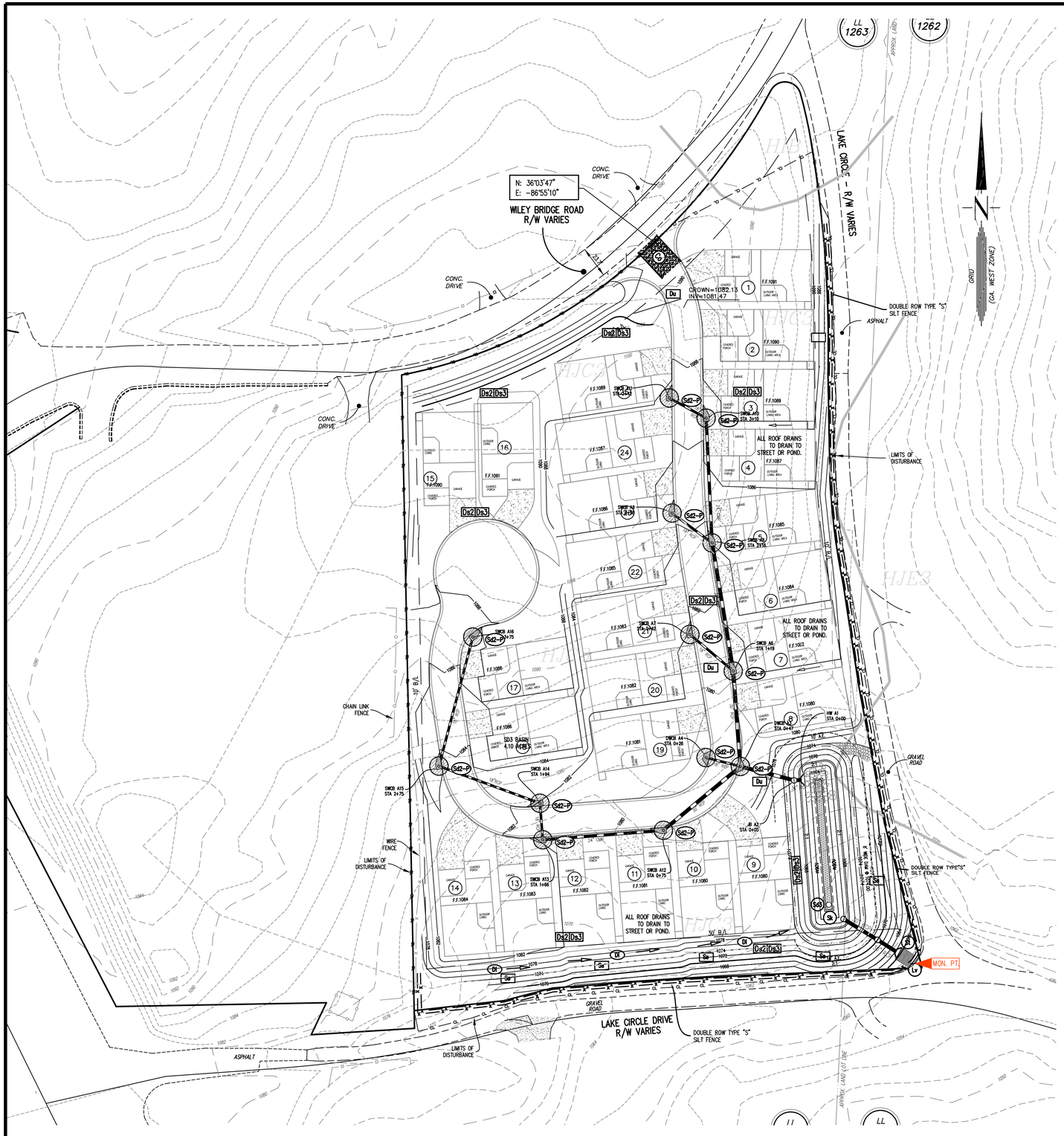
WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 4.1



GSWCC Georgia Soil and Water Conservation Commission

Douglas B Patten
Level II Certified Design Professional

Certification Number: 0000003435
Issued: 12/18/2014 Expires: 12/18/2017

CERTIFIED PROFESSIONAL
CPESC
Douglas B. Patten
No. 4315
EROSION AND SEDIMENT CONTROL

EROSION CONTROL NOTES:

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HIB – HAYESVILLE FINE SANDY LOAM, 2–6% SLOPES

SEDIMENT/EROSION CONTROL LEGEND

- FLOCCULANT/COAGULANT
- TEMPORARY SILT TRAP (Sd2)
- RETROFIT
- DIVERSION DAM
- CONSTRUCTION OUTLET (Co)
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- STORM DRAIN OUTLET PROTECTION (St) (SEE SHEET 42 FOR St DIMENSIONS)
- TEMPORARY SEDIMENT POND
- DIRECTION OF WATER FLOW
- GRASSING (SEE DETAILS)
- NPDES MONITORING POINT
- TREE SAVE FENCE
- SKIMMER
- FILTER RING
- DUST CONTROL
- SLOPE STABILIZATION
- DOWNDRAIN
- LEVEL SPREADER
- CHECK DAM
- SPECIMEN TREE TO REMAIN (DBZ SHOWN)
- SPECIMEN TREE TO BE REMOVED

SEDIMENT STORAGE CALCULATIONS:

REQUIRED:
4.10 ACS. DRAINED X 67 C.Y. = 275 C.Y.

PROVIDED:
SD3 POND -275 C.Y. @ ELEV.1067.20

GRAPHIC SCALE
-40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE, SUITE 202
MARIETTA, GEORGIA 30066

SITE NOTES

PROPOSED USE: SINGLE FAMILY HOMES
CURRENT ZONING – R40
TOTAL AREA – 4.251 ACRES (185,173.56 S.F.)
TOTAL LOTS – 25
OVERALL DENSITY – 5.88 LOTS PER ACRE

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TOTAL SITE AREA
4.25 ACRES
DISTURBED AREA
HOME CONSTRUCTION: 4.10 ACRES

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FINCH

centerline
Surveying and Land Planning, Inc.
1301 SCHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0248 FAX: (770) 424-7563

PHASE THREE EROSION & SEDIMENT CONTROL PLAN FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 4.2

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
COMMON DEVELOPMENT CONSTRUCTION PROJECTS
EFFECTIVE JAN. 2017

1. The S.W.C.D. Checklist shall be submitted with the plans.
2. See each Erosion Control sheet for the Level II certification number issued by the Commission and the signature and seal of the certified Design Professional.
3. The limit of disturbance shall be no greater than 50 acres for each individual permittee (i.e. Primary, Secondary or Tertiary) at any one time and no more than 50 contiguous acres at one time without prior written authorization from the EPD District Office.
4. 24 hr contact information:
   JOHN LOYD
   770-868-7591
5. Primary Permittee information:
   LOYD DEVELOPMENT SERVICES
   1785 WHITE CIRCLE
   SUITE #202
   MARIETTA, GA 30066
6. See the erosion control plan sheet for site area and disturbed area
7. See the erosion control plan for Lat and Long of the construction exit.
8. See the title block of each sheet for the initial date of plans and revision dates.
9. Description of the nature of construction activity:
   THE SITE IS A 4.25 ACRE TRACT THAT IS CURRENTLY WOODED AND HAS NO EXISTING STRUCTURES. IT IS TO BE DEVELOPED INTO 25 TOWNHOMES.
10. See cover sheet for vicinity map.
11. Project Receiving Waters:
    THIS SITE DISCHARGES INTO AN UNNAMED TRIBUTARY OF ROCKY CREEK WHICH DRAINS TO LITTLE RIVER. LITTLE RIVER, FROM HWY 140 TO LAKE ALLATOONA, IS LISTED AS NOT SUPPORTING IT'S DESIGNATED USE UNDER GEORGIA'S 305(b)/303(d) 2016 LIST DOCUMENT. HOWEVER, OUR SITE IS OVER ONE MILE UPSTREAM FROM LITTLE RIVER.
    Description of all Adjacent areas which may be affected:
    THE SITE IS SURROUNDED BY RESIDENTIAL PROPERTY ON THE NORTH, SOUTH, AND EAST, GENERAL COMMERCIAL TO THE WEST, AND A CHURCH CEMETERY TO THE SOUTH WEST.
12. "I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my direct supervision."

Douglas B. Patten — 11-30-17
signed — dated

13. *"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the State Soil and Water Conservation Commission as of January 1 of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the storm water outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the general NPDES Permit No. GAR 100003."*

Douglas B. Patten — 11-30-17
signed — dated

14. *The permittee must retain the design professional who prepared the Plan, except when the permittee has requested in writing and EPD has agreed to an alternative design professional, to inspect the installation of the initial sediment storage requirements and perimeter control BMPs with the design professional designed within seven (7) days after installation. The design professional shall determine if these BMPs have been installed and are being maintained as designed. The design professional shall report the results of the inspection to the permittee within seven (7) days and the permittee must correct all deficiencies within two (2) business days of receipt of the inspection report from the design professional unless weather related site conditions are such that additional time is required.*
15. In addition to the undisturbed buffers listed above there is an additional 25 foot impervious buffer required. Non-exempt activities shall not be conducted within the State required 25 or the additional City required 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits.
16. There are no buffer encroachments proposed as part of this plan. No buffer variances are required.
17. *Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component (i.e., those BMPs where the design is based upon rainfall intensity, duration and return frequency of storms) must be certified by the design professional.*
18. *Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit. All waste materials shall be disposed of in accordance with local, state and federal requirements.*
19. **"The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."**
20. **"Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."**
21. **"Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."**
22. *The applicable portion of the primary permittee's ES&PC Plan is to be provided to each secondary permittee prior to the secondary conducting any construction activity and that each secondary shall sign the Plan or portion of the Plan applicable to their site. (see block for signatures – this sheet)*
23. *Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as any portion of a Biota Impaired Stream Segment must comply with Part III.C. of the GAR 100003 Permit. Listed below are the BMPs from Appendix 1 in Part III.C.2. (a)–(f) of NPDES permit GAR 100003 that will be used on this site.*
24. TMDL Implementation Plan Requirements:
    Meet requirements of General Storm Water Permit.
25. A BMP for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles shall be installed within Unit III as shown on the plan. Washout of the drum at the construction site is prohibited.
26. BMPs for the remediation of petroleum spills:
    (a) Local, State and manufacturer's recommended methods for spill cleanup will be clearly posted and procedures will be made available to site personnel.
    (b) Material and equipment necessary for spill clean up will be kept in the material storage areas. Typical materials and equipment includes, but is no limited to, brooms, dustpans, mops, rags, gloves, goggles, cat litter, sand, sawdust, and properly labeled plastic and metal waste containers.
    (c) Spill prevention practices and procedures will be reviewed after a spill and adjusted as necessary to prevent future spills.
    (d) All spills shall be cleaned up immediately upon discovery. All spills shall be reported as required by local, State and Federal regulations.
    (e) For spills that impact surface water (leave a sheen on surface water), the national response center (NRC) will be contacted within 24 hours at 1–800–426–2675.
    (f) For spills of an unknown amount, the National Center (NRC) shall be contacted within 24 hours at 1–800–425–2675.
    (g) For spills greater than 25 gallons and no surface water impacts, the Georgia EPD shall be contacted within 24 hours.
    (h) For spills less than 25 gallons and no surface water impacts, the spill shall be cleaned up and local agencies are to be contacted as required.
    (i) The contractor shall notify the licensed professional who prepared this plan if more than 1,320 gallons of petroleum is stored on–site (this includes capacities of equipment) or if any one piece of equipment has a capacity greater than 660 gallons. The contractor will need a Spill Prevention Containment and Countermeasures Plan prepared by a licensed professional.
27. Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed:
    The majority of the site will drain to a detention pond to be installed on the southeastern side of the property. The detention pond will be fitted with a water quality device and appropriately sized orifice to release the water quality volume over a 24 hour period.
28. *Strict adherence to the erosion control plan and the proposed sequence of events as outlined on this sheet will reduce the pollutants in storm water discharges. In addition, the following measures shall be implemented at the site:*
    (1) All non–storm water discharges shall be routed through on–site BMPs and the stormwater management system where possible. These discharges include flushing of water and line lines, irrigation water, dewatering of pits or depressions and rinse off water of non–toxic materials.
    (2) All waste materials shall be collected and stored in securely lidded metal dumpsters. The dumpster shall meet all solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied as necessary and trash shall be hauled as required by local regulations.
    (3) Practices such as good housekeeping, proper handling of hazardous products and proper spill control practices shall be followed to reduce the risk of spills and prevent spills from discharging into stormwater runoff.
    Good Housekeeping:
    (a) Quantities of products stored on–site shall be limited to the amount needed for the job.
    (b) Products and materials shall be stored in a neat, orderly manner in appropriate containers and protected from rainfall.
    (c) Products shall be kept in their original containers with manufacturer labels legible and visible.
    (d) Product mixing and disposal or product containers shall be according to the manufacturer's recommendations.
    (f) Contractor shall inspect such materials to ensure proper use, storage and disposal.
    (4) All hazardous materials will be disposed of in a manner specified by local, state and/or federal regulations and by the manufacturer's recommendations of such products. The job site superintendent shall be responsible for seeing that these practices are followed and shall instruct site personnel in these practices.
    (5) The contractor shall implement a spill prevention and control plan and shall train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials shall come in contact with stormwater discharges. If such contact occurs, the stormwater discharges shall be contained on–site until appropriate measures, in compliance with state and federal regulations, are taken to dispose of such contaminated stormwater.
    (6) A minimum of one portable sanitary sewer unit shall be provided for every ten workers on the site. All sanitary sewage generated from the portable unit(s) as necessary by a licensed portable facility provider in compliance with local and state regulations.
    (7) All sanitary waste units shall be located in an area where the likelihood of the unit contributing to storm water discharge is negligible. Additional containment BMPs shall be implemented, such as gravel bags or specifically designed plastic skid containers around the base, to prevent waste from contributing to storm water discharges.
    (8) Containers for products such as fuels, lubricants and tars shall be inspected daily for leaks and spills. This includes on–site vehicle and machinery daily inspections and regular preventative maintenance of such equipment. Equipment maintenance and staging areas shall be located away from state waters, natural drains and stormwater drainage inlets. Temporary fueling tanks shall have a secondary containment liner to prevent/minimize site contamination. Discharges of oils, fuels and lubricants is prohibited. Proper disposal methods include collection in a suitable container and disposal as required by local and state regulations.
    (9) All paints, finishes and solvents shall be stored in tightly sealed original containers when not it use. Excess product shall not be discharged to the stormwater collection system. Excess product, materials used with these products and product containers will be disposed of according to manufacturer's specifications and recommendations.
    (10) Concrete trucks shall not be allowed to wash out or discharge surplus or drum wash water on–site.
    (11) Fertilizers and herbicides shall be applied at rates that do not exceed the manufacturer's specifications or above guidelines set forth in the crop establishment of in the GSWCC Manual for Erosion and Sediment Control in Georgia. Any storage of these materials shall be under roof in sealed containers.
    (12) No building or construction materials shall be buried or disposed of on–site. All such materials shall be disposed of in accordance with local and state requlations.
29. *Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site:*

WEEKLY CONSTRUCTION ACTIVITY SCHEDULE

ACTIVITY	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38–50
1 SEDIMENT CONTROLS																			
2 DETENTION POND																			
3 CLEARING																			
4 GRADING																			
5 STORM SEWER INSTALLATION																			
6 CURB & GUTTER INSTALLATION																			
7 WATER INSTALLATION																			
8 PAVING																			
9 FINAL LANDSCAPING																			
10 HOME CONSTRUCTION																			
11 NPDES INSPECTIONS																			
12 EROSION CONTROL MAINTENANCE																			

PLAN APPROVAL DATE WILL BE CONSIDERED THE START OF THIS WEEKLY CONSTRUCTION ACTIVITY SCHEDULE. (ESTIMATED SEPT 2017)

30. *Requirements of inspections and record keeping:*

Inspections.
a. Primary Permittee.

(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas used by the secondary permittee where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment; and (b) all locations at the primary permittee's site where that permittee's vehicles enter or exit the site for evidence of off–site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.

(2) Measure rainfall one every 24 hours except any non–working Saturday, non–working Sunday and non–working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the primary permittee) shall inspect at least the following once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non–working Saturday, non–working Sunday or any non–working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the primary permittee's construction site; (b) areas used by the secondary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the secondary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.b.(4). These inspections must be conducted until a Notice of Termination is submitted. This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees.

(4). Certified personnel (provided by the secondary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is received by EPD) the areas of their sites that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. The
Ise areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees.

(5). Based on the results of each inspection, the secondary permittee must notify the primary permittee within 24–hours of any suspected BMP design deficiencies. The primary permittee must evaluate whether these deficiencies exist within 48–hours of such notice, and if these deficiencies are found to exist must amend the Plan in accordance with Part IV.C. of this permit to address those deficient BMPs within seven (7) days of being notified by the secondary permittee. When the Plan is amended, the primary permittee must notify and provide a copy of the amendment to all affected secondary permittee(s) within this seven (7) day period. The secondary permittees must implement any new Plan requirements affecting their site(s) within 48–hours of notification by the primary permittee.

(6). A report of each inspection that includes the name(s) of personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.b.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site has undergone final stabilization and a Notice of Termination is submitted to EPD. Such report shall be readily available by the end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plans. Where the report does not identify any incidents of non–compliance, the report shall contain a certification that the construction site is in compliance with the Erosion, Sedimentation and Pollution Control Plan and this permit. The report shall be signed in accordance with Part V.G.2. of this permit. This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees performing only service line installations or when conducting repairs on existing line installations.

b. Secondary Permittee.

(1). Each day when any type of construction activity has taken place at a secondary permittee's site, certified personnel provided by the secondary permittee shall inspect: (a) all areas used by the secondary permittee where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment; and (b) all locations at the primary permittee's site where that permittee's vehicles enter or exit the site for evidence of off–site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted. This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees.

(2). Certified personnel (provided by the utility companies and utility contractors if they are secondary permittees) shall inspect the following each day any type of construction activity has taken place at the construction site: (a) areas of the construction site disturbed by the utility companies and utility contractors that have not undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region; (b) areas used by the utility companies and utility contractors for storage of materials that are exposed to precipitation that have not undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the utility companies and utility contractors' construction activities shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). This paragraph is not applicable to utility companies and utility contractors when they are secondary permittees performing service line installations or when conducting repairs on existing line installations.

(3). Certified personnel (provided by the secondary permittee) shall inspect the following at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non–working Saturday, non–working Sunday or any non–working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the secondary permittee's construction site; (b) areas used by the secondary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the secondary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted. This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees performing only service line installations or when conducting repairs on existing line installations.

(4). Certified personnel (provided by the tertiary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is received by EPD) the areas of their sites that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). This paragraph is not applicable to utility companies and utility contractors performing only service line installations or when conducting repairs on existing line installations.

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following the inspection.

(6). A report of each inspection that includes the name(s) of personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.b.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site has undergone final stabilization and a Notice of Termination is submitted to EPD. Such report shall be readily available by the end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plans. Where the report does not identify any incidents of non–compliance, the report shall contain a certification that the construction site is in compliance with the Erosion, Sedimentation and Pollution Control Plan and this permit. The report shall be signed in accordance with Part V.G.2. of this permit. This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees performing only service line installations or when conducting repairs on existing line installations.

c. Tertiary Permittee.

(1). Each day when any type of construction activity has taken place at a tertiary permittee's site, certified personnel provided by the tertiary permittee shall inspect: (a) all areas used by the tertiary permittee where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment; and (b) all locations at the tertiary permittee site where that permittee's vehicles enter or exit the site for evidence of off–site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted. This paragraph is not applicable to utility companies and utility contractors performing only service line installations or when conducting repairs on existing line installations.

(2) Measure rainfall one every 24 hours except any non–working Saturday, non–working Sunday and non–working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the tertiary permittee) shall inspect at least the following once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non–working Saturday, non–working Sunday or any non–working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the tertiary permittee's construction site; (b) areas used by the tertiary permittee for storage of materials that are exposed to precipitation; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the tertiary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted. This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees performing only service line installations or when conducting repairs on existing line installations.

(4). Certified personnel (provided by the tertiary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is received by EPD) the areas of their sites that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). This paragraph is not applicable to utility companies and utility contractors performing only service line installations or when conducting repairs on existing line installations.

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following the inspection.

(6). A report of each inspection that includes the name(s) of personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.b.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site has undergone final stabilization and a Notice of Termination is submitted to EPD. Such report shall be readily available by the end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plans. Where the report does not identify any incidents of non–compliance, the report shall contain a certification that the construction site is in compliance with the Erosion, Sedimentation and Pollution Control Plan and this permit. The report shall be signed in accordance with Part V.G.2. of this permit. This paragraph is not applicable to utility companies and utility contractors if they are secondary permittees performing only service line installations or when conducting repairs on existing line installations.

EACH SECONDARY PERMITTEE SHALL BE PROVIDED WITH A COPY OF THE EROSION CONTROL PLANS OR PORTIONS OF THE PLAN APPLICABLE TO THEIR SITE AND EACH SECONDARY PERMITTEE SHALL SIGN THE PLAN OR PORTION OF THE PLAN APPLICABLE TO THEIR SITE.
SECONDARY PERMITTEES SIGN WHEN RECEIVING PLANS. ALL SECONDARY PERMITTEES MUST SUBMIT SECONDARY NOI AT LEAST 14 DAYS PRIOR TO BEGINNING CONSTRUCTION ACTIVITY.

NAME / PHONE:
COMPANY / FAX:
ADDRESS
ADDRESS
GSWCC LEVEL 1A CERTIFICATION NO. _____ SIGNATURE

NAME / PHONE:
COMPANY / FAX:
ADDRESS
ADDRESS
GSWCC LEVEL 1A CERTIFICATION NO. _____ SIGNATURE

NAME / PHONE:
COMPANY / FAX:
ADDRESS
ADDRESS
GSWCC LEVEL 1A CERTIFICATION NO. _____ SIGNATURE

NAME / PHONE:
COMPANY / FAX:
ADDRESS
ADDRESS
GSWCC LEVEL 1A CERTIFICATION NO. _____ SIGNATURE

31. Requirements of sampling frequency and reporting of sampling results:

6. Sampling Requirements. This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. This section is applicable to primary permittees with a total planned disturbance equal to or greater than one (1) acre and tertiary permittees with a total planned disturbance equal to or greater than five (5) acres. This section is not applicable to secondary permittees. The following procedures constitute EPD's guidelines for sampling turbidity.

a. Sampling Requirements shall include the following:

(1). A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1:24000 map showing the location of the site or the common development; (a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which the storm water is discharged and (b) the receiving water and/or outfall sampling locations. When the permittee has chosen to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand–drawn on the USGS topographic map from where the storm water(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic map;

(2). The analytical method used to collect and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling location;

(3). When the permittee has determined that some or all outfalls will be monitored, a rationale must be included for the NTU limit(s) selected from Appendix B. This rationale must include the size of the construction site, the calculation of the size of the surface water drainage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries); and

(4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee of the information necessary and the time line for submittal.

b. Sample Type. All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833–B–92–001" and guidance documents that may be prepared by the EPD.
   (1). Sample containers should be labeled prior to collecting the samples.
   (2). Samples should be well mixed before transferring to a secondary container.
   (3). Large mouth, clean and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.
   (4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. Dilution of samples is not required. Samples may be analyzed using a direct reading, properly calibrated turbidimeter. Samples are not required to be cooled.
   (5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E.

c. Sampling Points.

(1). For construction activities the primary permittee must sample all receiving water(s), or all outfall(s), or a combination of receiving water(s) and outfall(s). Samples taken for the purpose of compliance with this permit shall be representative of the monitored activity and representative of the water quality of the receiving water(s) and/or the storm water outfalls using the following minimum guidelines:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that allows for sampling during normal business hours as defined in this permit after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the sampling location;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPS in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area for the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours until the selected turbidity standard is attained, or until post–storm event inspections determine that BMPs are properly designed, installed and maintained; and

(d) Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the primary permittee, in accordance with Part IV.D.4.a.(6), or the tertiary permittee, in accordance with Part IV.D.4.c.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above; and

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

**Note that the Permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for monitoring at any time of the day or week.*

Reporting.
1. The applicable permittees are required to submit a summary of the monitoring results to the EPD at the address shown in Part II.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any storm water discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V.G.2. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

2. All sampling reports shall include the following information:
   a. The rainfall amount, date, exact place and time of sampling or measurements;
   b. The name(s) of the certified personnel who performed the sampling and measurements;
   c. The date(s) analyses were performed;
   d. The time(s) analyses were initiated;
   e. The name(s) of the certified personnel who performed the analyses;
   f. References and written procedures, when available, for the analytical techniques or methods used;
   g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results; and
   h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU." and
   i. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The applicable permittees shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI. If and electronic submittal is provided by EPD then the written correspondence may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service.

32. Details for retention of records as per Part IV.F. of the GAR 100003 permit:

Retention of Records.
1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:
   a. A copy of all Notices of Intent submitted to EPD;
   b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
   c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
   d. A copy of all sampling information, results, and reports required by this permit;
   e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit; and
   f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit; and
   g. Daily rainfall information collected in accordance with Part IV.D.4.a.(1)(c) of this permit.

2. Each secondary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:
   a. A copy of all Notices of Intent submitted to EPD;
   b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit or the applicable portion of the Erosion, Sedimentation and Pollution Control Plan for their activities at the construction site required by this permit;
   c. A copy of all inspection reports generated in accordance with Part IV.D.4.b. of this permit; and
   d. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit.

3. Each tertiary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:
   a. A copy of all Notices of Intent submitted to EPD; and
   b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
   c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
   d. A copy of all sampling information, results, and reports required by this permit;
   e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit; and
   f. A copy of all violation summaries and violation summary reports generated in accordance with Part III.D.2. of this permit;
   g. Daily rainfall information collected in accordance with Part IV.D.4.a.(1)(c) of this permit.

4. Copies of all Notices of Intent, Notices of Termination, reports, plans, monitoring reports, monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI of this permit. These records must be maintained at the permittee's primary place of business once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the permittee.

GSWCC — Georgia Soil and Water Conservation Commission
Douglas B Patten
Level II Certified Design Professional
Certification Number: 0000093489
Issued: 12/18/2014 — Renews: 12/18/2017

REGISTERED PROFESSIONAL ENGINEER — Douglas B. Patten, PE — No. 031B — PESC — CERTIFIED EROSION, SEDIMENT AND STORMWATER CONTROL

GRAPHIC SCALE
−40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0029 FAX: (770) 424-2282

EROSION CONTROL AND NPDES COMPLIANCE NOTES FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

(1) All samples shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR part 136 (unless other test procedures have been approved) and the guidance document titled "NPDES Stormwater Sampling Guidance Document, EPA 833-B-92-001".

(2) Sample containers shall be labeled prior to collecting the samples.

(3) large mouth, clean and rinsed glass or plastic jars with a minimum sample size of 200 milliliters should be used for collecting samples.

(4) Samples should be well mixed before transferring to a secondary container.

(5) Dilution of samples is not required.

(6) Samples may be analyzed using a direct reading, properly calibrated turbidimeter.

(7) Samples are not required to be cooled.

(8) Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in the permit must be reported to EPD as specified in part IV, E. of the permit.

(9) Tubidity results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU".

34. Appendix B rationale for outfall sampling points where applicable:
NPDES monitoring samples are to be taken from the locations indicated on the erosion control plans. Allowed increase in NTU is 15.

35. Delineate all sampling locations if applicable, perennial and intermittent streams and other bodies of into which storm water is discharged.
See the erosion control plans for the sampling locations and streams.

36. Description of the appropriate controls and measures that will be implemented at the site:

CLEARING PHASE
EROSION CONTROL NOTES:

PRIOR TO THE LAND DISTURBING CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.

THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO INSURE THAT LAND STRIPPED OF IT'S NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.

THE OWNER IS TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.

NO STAGING AREAS, MATERIAL STORAGE, CONCRETE WASH OUT AREAS, OR DEBRIS BURN AND BURIAL HOLES SHALL BE LOCATED WITHIN 100 FEET OF DESIGNATED TREE PROTECTION AREAS.

A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE AND ALL STREAM BUFFERS SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION
OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.

PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE OR ONTO ANY PUBLIC ROADWAY.

THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY:

1. THE CONSTRUCTION EXIT, CONSISTING OF A MINIMUM PAD SIZE OF 20 FEET BY 50 FEET WITH A MINIMUM OF 6" THICK STONE. SHALL BE PLACED AS SHOWN ON THE PLAN. THE STONE SIZE SHOULD CONSIST OF COURSE AGGREGATE BETWEEN 1-1/2" & 3-1/2" IN DIAMETER AND OVERLAID ON A GEOTEXTILE UNDERLINER. THE GEOTEXTILE UNDERLINER SHALL MEET THE REQUIREMENTS OF AASHTO M288-96, SECTION 7.3 SEPARATION REQUIREMENTS.

2. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCE/EXITS, ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE CLEARING PHASE EROSION CONTROL PLAN.

3. TYPE "C" SILT FENCE SHOULD BE INSTALLED AT THE PERIMETER OF THE DISTURBED AREA AS SHOWN ON THE PLAN. THE SILT FENCE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA, TABLE 6-20.2. THE SILT FENCE SHOULD BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE SITE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SILT SHOULD BE REMOVED WHEN ACCUMULATION
REACHES 1/2 HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHOULD BE INSPECTED DAILY FOR ANY FAILURES.
ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.

4. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL EXISTING STORM STRUCTURES AS SHOWN ON
THE PLAN. SEE SEPARATE STORM STRUCTURES AS SHOWN ON THE PLAN. SEE SEPARATE DETAILS FOR SPECIFICS ON
TYPE OF INLET PROTECTION SPECIFIED.

5. STONE CHECK DAMS SHALL BE INSTALLED IN AREA OF CONCENTRATED FLOWS AS SHOWN ON THE PLAN.

6. TREE PROTECTION FENCING SHOULD BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE ACTIVITY AND
MAINTAINED UNTIL FINAL LANDSCAPE IS INSTALLED. THE TREE PROTECTION FENCING SHOULD BE INSPECTED DAILY. ANY
FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.

FOR COMMON DEVELOPMENTS THAT BEGIN CONSTRUCTION ACTIVITY AFTER THE EFFECTIVE DATE OF THIS PERMIT, THE PRIMARY PERMITTEE AND TERTIARY PERMITTEE(S) MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION AND POLLUTION PREVENTION PLAN, EXCEPT WHEN THE PERMITTEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATIVE DESIGN PROFESSIONAL, TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER INSTALLATION. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMPS HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE MUST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED.

AFTER APPROVAL OF THE INITIAL EROSION CONTROL INSTALLATION BY THE DESIGN PROFESSIONAL, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES. AS CLEARING PERMITS THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT PONDS AND DIVERSION DIKES AS SHOWN ON THE CLEARING PHASE PLAN TO CONTROL EROSION AND STORM WATER RUN OFF.

THE CONTRACTOR CAN UTILIZE CLEARED TREES AS BARRIER BRUSH SEDIMENT CONTROL IN AREAS SHOWN ON PLAN WHERE
INITIAL GRADING ACTIVITIES WILL NOT OCCUR.

NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT WRITTEN PERMISSION BY THE OWNER
AND/OR THE ENGINEER OF RECORD.

ADDITIONAL SILT BARRIERS MUST BE PLACED AS SHOWN ON THE PLAN AS ACCESS IS OBTAINED DURING CLEARING. NO
GRADING SHALL TAKE PLACE UNTIL SILT BARRIER INSTALLATION AND SEDIMENT PONDS ARE CONSTRUCTED AS SHOWN ON
THE CLEARING PHASE EROSION CONTROL PLAN.

ALL SILT FENCE MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATIONS, 1983 EDITION.

ALL ITEMS IN THIS SECTION OF THE SPECIFICATIONS SHALL MEET THE REQUIREMENTS AS SET FORTH IN SECTION 161, 162,
163 AND 164 OF THE GEORGIA D.O.T. STANDARD SPECIFICATIONS, FOR ROADS AND BRIDGES.

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE.

ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.

SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE
MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL
DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM THE VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.

CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES
NOT PROVIDED FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE
IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AS CORRECTED BACK TO THE APPROVED EROSION CONTROL
PLANS.

FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING
STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING
OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.

GRADING PHASE
EROSION CONTROL NOTES:

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE PRELIMINARY GRADING PHASE OF CONSTRUCTION.

DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES AND THEREFORE LIMITED DURATION, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED. NOTE SUB PHASES SHOWN ON PLANS.

EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.

SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.

EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES WHILE ROADWAY FRONTAGE IMPROVEMENTS ARE BEING MADE.

TYPE "A" SILT FENCE SHOULD BE INSTALLED AT THE TOE OF ALL FILL SLOPES 10 FEET OR GREATER IN HEIGHT. THE SILT FENCE SHOULD BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA, TABLE 6-20.2. THE SILT FENCE SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED ON THE SLOPES. SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 1/2 HEIGHT OF THE BARRIER. ADDITIONALY, DIVERSION DIKES SHALL BE CONSTRUCTED ALONG THE TOP OF ALL SAID FILL SLOPES WITH THE USE OF TEMPORARY DOWN DRAINS TO CONTROL STORM WATER RUN OFF AS SHOWN ON THE PLANS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING BARRIERS AT THE TOE OF SLOPES UNDER CONSTRUCTION.
THESE BARRIERS SHALL BE AS SHOWN IN THE PLANS. THESE BARRIERS MAY BE RELOCATED AND REUSED AFTER PERMANENT SLOPE STABILIZATION BECOMES FULLY ESTABLISHED. AS THEY ARE RELOCATED, ANY DEFECTIVE MATERIALS IN THE BARRIER SHALL BE REPLACED. IN ADDITION, ALL DEBRIS AND SILT ST THE PREVIOUS LOCATION SHALL BE REMOVED.

CUT AND FILL SLOPES ARE NOT TO EXCEED "2H:1."

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE PRELIMINARY GRADING PHASE OF CONSTRUCTION.

TYPE "A" SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCK PILE AREAS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.

INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL STORM STRUCTURES AS THEY ARE CONSTRUCTED.
SEE PLAN VIEW FOR SPECIFIC TYPE AND SEPARATE DETAILS FOR ADDITIONAL INFORMATION ON TYPE OF INLET PROTECTION SPECIFIED.

STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS CONSTRUCTED SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.

STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS SHOWN ON THE PLAN. SEE SEPARATE DETAIL FOR ADDITIONAL INFORMATION.

ALL DRAINAGE SWALES SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.

ALL GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE

AFTER PRELIMINARY GRADING ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT BASINS AND DIVERSION DIKES AS SHOWN ON PLAN. THE CONTRACTOR SHALL MAINTAIN SEDIMENT POND UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SEDIMENT SHALL BE CLEANED OUT OF THE PONDS WHEN IT REACHES THE 1/3 DEPTH OF BASIN. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM THE VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.

CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDED FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE AS CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.

UPON COMPLETION OF THE PROJECT AND RECEIPT OF CERTIFICATE OF OCCUPANCY, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED ON PLANS.

37. Plan addresses BMPs for all phases of common development including building lots and out-parcels, etc regardless of who owns or operates the individual sites. See erosion control plan for location of all proposed BMPs. See the erosion control detail sheet for typical individual lot BMPs.
38. See each sheet for graphic scale and north arrow.

39. See the erosion control sheets for existing and proposed contours. Contours are at two (2) foot intervals and based on mean sea level datum.

40. No alternative BMPs have been designated for use on this site.

41. No alternative BMPs have been designated for use on this site.

42. Any state water located on the site shall have a twenty-five (25) undisturbed buffer as measured from the top of the bank. The local issuing authority may have an additional undisturbed beyond the twenty-five foot state buffer. See erosion control sheets for buffers (if any) and any proposed areas of impact.

43. State waters exist do not exist within the site or within 200 ft of this site as shown on the plans.

44. See the erosion control sheets for a delineation of contributing drainage areas on the project site.

45. See hydrology study for pre and post development maps.

46. Estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
STUDY PNT A (100 YR EVENT): PRE-DEVELOPED = 2.04 CFS, POST DEVELOPED = 0.37 CFS
STUDY PNT B (100 YR EVENT): PRE-DEVELOPED = 22.27 CFS, POST DEVELOPED = 20.39 CFS

47. The dimensions of the storm outlet protection (St) aprons for each pipe size are shown on the erosion control details. The pipe diameter, velocity, flow and tailwater conditions are shown on the pipe charts.

48. Soil series for the project site and their delineation are shown on the erosion control plan.

49. See the erosion control plan for the limits of disturbance for each phase.

50. See the erosion control plan for the location of all sediment storage BMPs and sediment storage calculations. See the erosion control detail sheets for details and calculations for these BMPs.
51. See the erosion control plan for Location of Best Management Practices (BMPs).

52. See the Erosion Control Detail sheet for details of each BMP.

53. See the Erosion Control Plan for proposed location of temporary and permanent vegetative practices. See the Erosion Control Detail Sheet for details of vegetative practices to be used.

BMP Maintenance:

The following best management practices are taken from the "Manual for Erosion and Sediment Control in Georgia", fifth edition.

Construction exits shall be maintained in a condition that will prevent tracking or flow of mud onto public rights of way. This may require periodic top dressing with 1.5-3.5 inch stone, as conditions demand, and repair and/or clean out of any structures to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately.

Retrofit structures shall be kept clear of trash and debris. This will require continuous monitoring and maintenance, which includes sediment removal when one-third of the sediment storage capacity has been lost.

Sediment shall be removed form silt fences once it has accumulated to one-half the original height of the barrier. Filter fabric shall be replaced whenever it has deteriorated to such an extent that the effectiveness of the fabric is reduced (approx. 6 months).

Sediment shall be removed from sediment traps when the sediment has accumulated to one-half the height of the trap. Sediment shall be removed from curb inlet protection immediately. For excavated sediment traps, sediment shall be removed when one-half of the sediment storage capacity has been lost to sediment accumulation.

Sediment shall not be washed into storm inlets. It shall be removed from sediment traps and disposed of and stabilized so that it will not enter storm inlets.

When the contributing drainage area has been permanently stabilized, all materials and any sediment shall be removed and either salvaged or disposed of properly.

Repair all damage to temporary sediment basins by soil erosion or construction equipment at or before the end of each working day. Sediment shall be removed from the basin when it reaches the depth specified on the plan. Sediment shall not enter adjacent streams or drainage ways during sediment removal or disposal. The sediment shall not be deposited downstream from the embankment.

Inspect rip rap outlet structures after heavy rains to see if any erosion around or below the rip rap has taken place or if stones have been dislodged. Make necessary repairs as soon as possible.

Roughened areas shall be seeded and mulched as soon as possible to obtain optimum seed germination and seeding growth.

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored and have a continuous 90% cover or greater of the soil surface. Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months. If an area will remain undisturbed for greater than six months, permanent vegetation shall be applied.

Permanent vegetation shall be applied immediately to rough grade areas that will be undisturbed for longer than six months. This practice, or sodding, shall be applied immediately to all areas at final grade. Final stabilization means that all soil disturbing activities at the site have been completed and that for unpaved areas and areas not covered by permanent structures, at least 70% of the soil surface is uniformly covered in permanent vegetation or equivalent permanent stabilization measures (such as the use of rip rap, gabions, permanent mulch or geotextiles) have been employed.

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
COMMON DEVELOPMENT CONSTRUCTION PROJECTS (Primary and Tertiary Permittees)

SWCD: LIMESTONE VALLEY

Project Name: WILEY BRIDGE Address: 984 WILEY BRIDGE ROAD
City/County: CHEROKEE COUNTY Date on Plans: 11-30-17

Plan Page #	Included Y/N	TO BE SHOWN ON ES&PC PLAN
4.4	Y	1 The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. (The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
4.0-4.4	Y	2 Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and Level II number must be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed)
4.0-4.2	Y	3 Limit of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the EPD District Office. If EPD approves the request to disturb 50 acres or more at any one time, the plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist.* (A copy of the written approval by EPD must be attached to the Plan for the Plan to be reviewed.)
4.3	Y	4 The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
4.3	Y	5 Provide the name, address and phone number of the primary permittee or tertiary permittee.
4.0-4.2	Y	6 Note total and disturbed acreage of the project or phase under construction.
4.0-4.2	Y	7 Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
4.0-4.1	Y	8 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
4.3	Y	9 Description of the nature of construction activity.
0.0	Y	10 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
4.3	Y	11 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected.
4.3	Y	12 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on page 18 of the permit.
4.3	Y	13 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on page 17 &18 of the permit.
4.3	Y	14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation."*
4.3	Y	15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."
4.3	Y	16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
4.3	Y	17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional.
4.3	Y	18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit."
4.3	Y	19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land-disturbing activities."
4.3	Y	20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
4.3	Y	21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
4.3	Y	22 Indication that the applicable portion of the primary permittees ES&PC Plan is to be provided to each secondary permittee prior to the secondary conducting any construction activity and that each secondary shall sign the Plan or portion of the Plan applicable to their site. List the names and addresses of all secondary permittees."
4.3	Y	23 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as any portion of an Biota Impaired stream Segment, must comply with Part III. C. of thePermit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.*
4.3	Y	24 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 23 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan."
4.3	Y	25 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.
4.3	Y	26 Provide BMPs for the remediation of all petroleum spills and leaks.
4.3	Y	27 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.
4.3	Y	28 Description of the practices that will be used to reduce the pollutants in storm water discharges.
4.3	Y	29 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
4.3	Y	30 Provide complete requirements of inspections and record keeping by the primary permittee or tertiary permittee.
4.3	Y	31 Provide complete requirements of sampling frequency and reporting of sampling results.*
4.3	Y	32 Provide complete details for retention of records as per Part IV.F. of the permit.
4.4	Y	33 Description of analytical methods to be used to collect and analyze the samples from each location.*
4.4	Y	34 Appendix B rationale for NTU values at all outfall sampling points where applicable.*
4.2	Y	35 Delineate all sampling locations if applicable, perennial and intermittent streams and other water bodies into which storm water is discharged.*
4.4	Y	36 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the plan may combine all of the BMPs into a single phase.
4.0-4.2	Y	37 Plan addresses BMPs for all phases of common development including individual building lots and out-parcels, etc. regardless of who owns or operates the individual sites. Include a typical and any situational lots applicable.
4.0-4.2	Y	38 Graphic scale and North arrow.
4.0-4.2	Y	39 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:

Map Scale	Ground Slope	Contour Intervals, ft
1 inch = 100ft or larger scale	Flat 0 - 2%	0.5 or 1
	Rolling 2 - 8%	1 or 2
	Steep 8% +	2.0 or 10

N/A	Y	40 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.
N/A	Y	41 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.
4.0-4.2	Y	42 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
4.0-4.2	Y	43 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site.
4.0	Y	44 Delineation and acreage of contributing drainage basins on the project site.
HYDRO	Y	45 Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions.*
4.4	Y	46 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed. *
6.2	Y	47 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
4.0	Y	48 Soil series for the project site and their delineation.
4.0-4.2	Y	49 The limits of disturbance for each phase of construction.
4.0-4.2	Y	50 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the plan.
4.0-4.2	Y	51 Location of Best Management Practices that are consistent with, and no less stringent than, the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
4.5-4.6	Y	52 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
4.5	Y	53 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia.

"This requirement of the Common Development permit is not applicable to Tertiary Permittees with a Plan(s) for a typical individual lot(s), if the total land disturbance within the construction site is less than five (5) acres and the total land disturbance within each individual lot is less than one (1) acre. If applicable, the * checklist item would be N/A.

Effective January 1, 2017

CERTIFIED PROFESSIONAL ESPSC Douglas B. Patton No. 4310 ENGINEER SECURITY CERTIFIED

GSWCC Georgia Soil and Water Conservation Commission
Douglas B Patton
Level II Certified Design Professional
Certification Number: 0000032408
Issued: 10/19/2012 Expires: 10/19/2017

GRAPHIC SCALE
-40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

GEORGIA REGISTERED LAND SURVEYOR MATTHEW S. FINCH

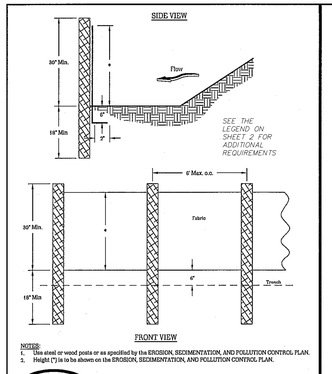
centerline
Surveying and Land Planning, Inc.
130 S. Tomlinson Road, Suite 1210, Kennesaw, GA. 30144
Phone: (770) 424-2838 FAX: (770) 424-2839

EROSION CONTROL AND NPDES COMPLIANCE NOTES FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

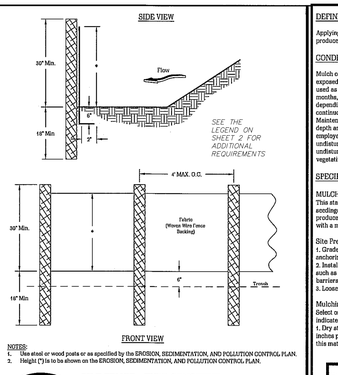
4.4



NOTES:
1. Use steel or wood posts or as specified by the EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. Height (*)is to be shown on the EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

Sd1-NS SILT FENCE - TYPE NON-SENSITIVE
N.T.S.

Figure 6-20.4



NOTES:
1. Use steel or wood posts or as specified by the EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. Height (*)is to be shown on the EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

Sd1-S SILT FENCE - TYPE SENSITIVE
N.T.S.

Figure 6-20.6

DEFINITION

Applying plant residues or other suitable materials, produced on the site if possible, to the soil surface.

CONDITIONS

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored, and have a continuous 50% cover or greater of the soil surface. Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months. If an area will remain undisturbed for greater than six months, permanent vegetative techniques shall be employed.

SPECIFICATIONS

MULCHING WITHOUT SEEDING
This standard applies to grades or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation
1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials
Select one of the following materials and apply at the depth indicated;
1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. Cutback asphalt (slow curing) shall be applied at 1500 gallons per acre (or 1/4 gallon per sq.yd.).
4. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused.

Applying Mulch
When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.
1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by mechanicalequipment.
2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
3. Cutback asphalt shall be applied uniformly. Care should be taken in areas of pedestrian traffic due to problems of 'tracking in' or damage to shoes, clothing, etc.
4. Apply polyethylene film on exposed areas.

Anchoring Mulch
1. Straw or hay mulch can be pressed into the soil with a disk harrow with the disk set straight or with a special "packer disk." Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately after application. Straw or hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-S or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use 100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Tackifers and binders can be substituted for emulsified asphalt. Please refer to specification Th -Tackifers and Binders. Plastic mesh or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.
2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the average size of the wood waste chips.
3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

DEFINITION

The establishment of temporary vegetative cover with fast growing seedings for seasonal protection on disturbed or denuded areas.

CONDITIONS

Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established. eeded.

SEEDING RATES FOR TEMPORARY SEEDING

SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
Rye	3.9 pounds	3 bu.	9/1-3/1
Ryegrass	0.5 pound	40 lbs.	8/15-4/1
Annual Lespedeza	0.9 pound	40 lbs.	1/15-3/15
Weeping Lovegrass	0.1 pound	4 lbs.	2/15-6/15
Sudangrass	1.4 pounds	60 lbs.	3/1-8/1
Browntop Millet	0.9 pound	40 lbs.	4/1-7/15
Wheat	4.1 pounds	3 bu.	9/15-2/1

* Unusual site conditions may require heavier seeding rates
** Seeding dates may need to be altered to fit temperature variations and conditions.

Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

DEFINITION

A permanent vegetation using sods on highly erodible or critically eroded lands.

CONDITIONS

This application is appropriate for areas which require immediate vegetative covers, drop inlets, grass swales, and waterways with intermittent flow .

CONSTRUCTION SPECIFICATIONS INSTALLATION

Soil Preparation

- Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 4". Apply sod to soil surfaces only and not frozen surfaces, or gravel type soils.
- Topsoil properly applied will help guarantee stand. Don't use topsoil recently treated with herbicides or soil sterilants.
- Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.1. For fall planting of warm season species, half the fertilizer should be applied at planting and the other half in the spring.

Table 6-6.1. Fertilizer Requirements for Soil Surface Application

Fertilizer Type (lbs./acre)	Fertilizer Rate (lbs./acre)	Fertilizer Rate	Season
10-10-10	1000	.025	Fall

- Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

Installation

- Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod.
- On slopes steeper than 3:1, sod should be anchored with wooden or biodegradable pins or other approved methods.
- Installed sod should be rolled or tamped to provide good contact between sod and soil.
- Irrigate sod and soil to a depth of 4" immediately after installation.
- Sod should not be cut or spread in extremely wet or dry weather.
- Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

Ds4 DISTURBED AREA STABILIZATION (WITH SODDING)

MATERIALS

- Sod selected should be certified. Sod grown in the general area of the project is desirable.
- Sod should be machine cut and contain 3/4" ±1/4" of soil, not including shoots or thatch.
- Sod should be cut to the desired size within ±5%. Torn or uneven pads should be rejected.
- Sod should be cut and installed within 36 hours of digging.
- Avoid planting when subject to frost heave or hot weather if irrigation is not available.
- The sod type should be shown on the plans or installed according to Table 6-6.2. See Figure 6-4.1 for your Resource Area.

Table 6-6.2. Sod Planting Requirements

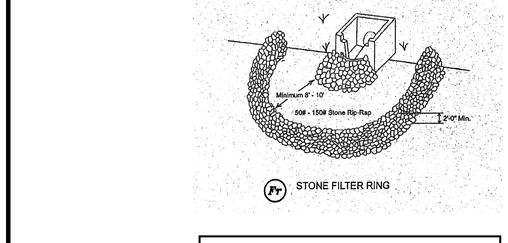
Grass	Varieties	Resource Area	Growing Season
Bermudagrass	Common Tifway Tifgreen Tifdwarf	M-L,P,G P,C P,C P,C	Warm Weather
Bahiagrass	Pensacola	P,C	Warm Weather
Centipede	-	P,C	Warm Weather
St. Augustine	Common Bitterblue Raleigh	C	Warm Weather
Zoysia	Emerald Myer	P,C	Warm Weather
Tall Fescue	Kentucky	M-L,P	Cool Weather

MAINTENANCE

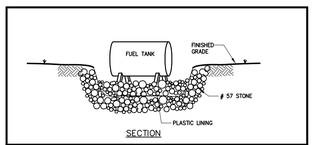
- Re-sod areas where an adequate stand of sod is not obtained.
- New sod should be mowed sparingly. Grass height should not be cut less than 2"-3" or as specified.
- Apply one ton of agricultural lime as indicated by soil test or every 4-6 years.
- Fertilize grasses in accordance with soil tests or Table 6-6.3.

Table 6-6.3. Fertilizer Requirements for Sod

Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (lbs./acre)
Cool Season Grasses	First	6-12-12	1500	50-100
	Second Maintenance	6-12-12	1000	-
		10-10-10	400	30
Warm Season Grasses	First	6-12-12	1500	50-100
	Second Maintenance	6-12-12	800	50-100
		10-10-10	400	30



Fr STONE FILTER RING

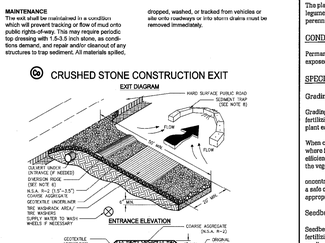


SECTION

ON-SITE FUEL STORAGE

MAINTENANCE
The exit shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with 1.5-3.5 inch stone, as conditions demand, and repair and/or cleanout of any structures to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles or site onto roadways or into storm drains must be removed immediately.

Ex CRUSHED STONE CONSTRUCTION EXIT



NOTES:
1. FOOD LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND SMOOTH TO PROVIDE GOOD CONTACT.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION #1-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL TO FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. PAD LENGTH SHALL BE AS REQUIRED, BUT NOT LESS THAN 50' UNLESS STONED PARCEL AREA IS SMALLER THAN 2/3.
7. WHERE WATER IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (SHORT ALL SURFACE RUNOFF AND ALL WATER FROM WASH RACKS, ETC. THAT ENTERS THE PAD).
8. MAINTENANCE AND/OR THE MINIMUM MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT WILL NOT CAUSE TRACKING.
9. WASHING AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

Figure 6-14.1

GSWCC (Amended - 2013) 6-142

DEFINITION

The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization. Permanent perennial vegetation shall be used to achieve final stabilization..

CONDITIONS

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

SPECIFICATIONS

Grading and Shaping

Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment.

When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation.

cconstructions of water that will cause excessive soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall conform with the appropriate standards and specifications.

Seedbed Preparation

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used. When conventional seeding is to be used, seedbed preparation will be done as follow:

Broadcast plantings

1. Tillage at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches, alleviate compaction, incorporate lime and fertilizer, smooth and firm the soil, allow for the proper placement of seed, sprigs, or plants, and allow for the anchoring of straw or hay mulch if a disk is to be used.
2. Tillage may be done with any suitable equipment.
3. Tillage should be done on the contour where feasible.
4. On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two pits or to 6 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

Individual Plants

1. Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
2. For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
3. Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Planting

Hydraulic Seeding

Mix the seed (inoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a cultipacker seeder, drill, rotary seeder, other mechanized seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultipacker or other suitable equipment.

No-Till Seeding

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Individual Plants

Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots. Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface. Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

Mulching

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% evi cover. Select the mulching material from the following and apply as indicated:

1. Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
2. Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Cryptwe or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
3. Use thousand pounds of wood cellulose or wood pulp fiber, which includes a binder, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.
4. Serices lespedeza hay containing mature seed shall be applied at a rate of tizes tons per acre.
5. Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas.
6. When using temporary erosion control blankets or block sod, mulch is not required.
7. Bituminous treated roving may be applied on planted areas on slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.

Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

Applying Mulch

Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting. The mulch may be spread by blower-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following methods:

1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch immediately following mulch application when straw or hay is spread by methods other than special blower equipment.

The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture shall consist of 100 gallons of grade SS-1h or CSS-1h emulsified asphalt and 100 gallons of water per ton of mulch.
Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt discoloration.
2. Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk" or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil. tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.
3. Synthetic tackifiers or binders approved by (DOT) shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to Th - Tackifiers and Binders.
4. Nye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one ball bushel per acre.
5. Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. Three materials shall be installed and anchored according to manufacturer's specifications.

Irrigation

Irrigation shall be applied at a rate that will not cause runoff.

SEEDING RATES FOR PERMANENT SEEDING

SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
BAHIA	1.4 POUNDS	60 LBS.	1/1-12/31
BERMUDA	0.3 POUND	10 LBS.	2/15-7/1
CENTIPEDE	BLOCK SOD ONLY	BLOCK SOD ONLY	4/1-7/1
LESPEDEZA	1.9 POUNDS	75 LBS.	1/1-12/31
WEEPING LOVE GRASS	0.1 POUND	4 LBS.	2/1-6/15
SWITCH GRASS	0.9 POUND	40 LBS.	3/15-6/1

* Unusual site conditions may require heavier seeding rates
** Seeding dates may need to be altered to fit temperature variations and conditions.

Du DUST CONTROL ON DISTURBED AREAS

DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

CONDITIONS

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS

A. TEMPORARY METHODS

Mulches. See standard Dst - Disturbed Area Stabilization (With Mulching Only). Synthetic resins may be used instead of asphalt to bind mulch material. Refer to standard Th-Tackifiers and Binders. Resins such as Curasol or Terratack should be used according to manufacturer's recommendations.

Vegetative Cover. See standard Dst - Disturbed Area Stabilization (With Temporary Seeding).

Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to standard Th-Tackifiers and Binders.

Tillage. This practice is designed to roughen and bring clods to the surface. It is an emergency measure which should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

Irrigation. This is generally done as an emergency treatment. Site is sprinkled with water until the surface is wet. Repeat as needed.

Barriers. Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

Calcium Chloride. Apply at rate that will keep surface moist. May need retreatment.

B. PERMANENT METHODS

Permanent Vegetation. See standard Dst3 -Disturbed Area Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford valuable protection if left in place.

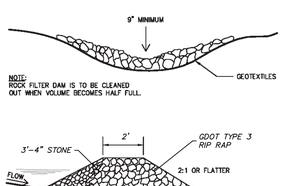
Topsoiling. This entails covering the surface with less erosive soil material. See standard Tp - Topsoiling.

Stone. Cover surface with crushed stone or coarse gravel. See standard Cr-Construction Road Stabilization.

Du DUST CONTROL ON DISTURBED AREAS

Rd

ROCK FILTER DAM



NOTE:
ROCK FILTER DAM IS TO BE CLEANED OUT WHEN VOLUME BECOMES HALF FULL.

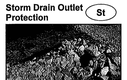
NOTE:
ROCK SIZE DETERMINED ACCORDING TO SPECIFICATIONS SET FORTH IN APPENDIX C.

Figure 6-24.1

GSWCC (Amended - 2013) 6-177

Storm Drain Outlet Protection

St



DEFINITION
Paved and/or riprapped channel sections, placed below storm drain outlets.

PURPOSE
To reduce velocity of flow before entering receiving channels below storm drain outlets.

CONDITIONS
This standard applies to all storm drain outlets, road culverts, paved channel outlets, etc., discharging into natural or constructed channels. Analysis and/or treatment will extend from the end of the conduit, channel or structure to the point of entry into an existing stream or publicly maintained drainage system.

DESIGN CRITERIA
Structurally lined aprons at the outlets of pipes and paved channel sections shall be designed according to the following criteria:

Capacity
Peak stormflow from the 25-year, 24-hour frequency storm or the storm specified in Title 12-7-1 of the Official Code of Georgia Annotated or the design discharge of the water conveyance structure, whichever is greater.

Tailwater Depth
The depth of tailwater immediately below the pipe outlet must be determined for the design capacity of the pipe. Manning's Equation may be used to determine tailwater depth. If the tailwater depth is less than half the diameter of the outlet pipe, it shall be classified as a Minimum Tailwater Condition. If the tailwater depth is greater than half the pipe diameter, it shall be classified as a Maximum Tailwater Condition. Pipes which outlet onto flat areas with no defined channel may be assumed to have a Minimum Tailwater Condition.

Apron Length and Thickness
The apron length and d_{50} stone median size, shall be determined from the curves according to tailwater conditions:

Minimum Tailwater- Use Figure 6-34.1

Maximum Tailwater- Use Figure 6-34.2

Maximum Stone Size = 1.5 x d_{50}

Apron Thickness = 1.5 x dmax

Apron Width
If the pipe discharges directly into a well-defined channel, the apron shall extend across the channel bottom and up the channel banks to an elevation one foot above the maximum tailwater depth or to the top of the bank (whichever is less). If the pipe discharges onto a flat area with no defined channel, the width of the apron shall be determined as follows:

a. The upstream end of the apron, adjacent to the pipe, shall have a width three times the diameter of the outlet pipe.
b. For a Minimum Tailwater Condition, the downstream end of the apron shall have a width equal to the pipe diameter plus the length of the apron. Refer to Figure 6-34.1.
c. For a Maximum Tailwater Condition, the down stream end shall have a width equal to the pipe diameter plus 0.4 times the length of the apron. Refer to Figure 6-34.2.

Bottom Grade
The apron shall be constructed with no slope along its length (0.0% grade). The invert elevation of the downstream end of the apron shall be equal to the elevation of the invert of the receiving channel. There shall be no overfall at the end of the apron.

Side Slope
If the pipe discharges into a well-defined channel, the side slopes of the channel shall not be steeper than 2:1.

GSWCC (Amended - 2013) 6-209

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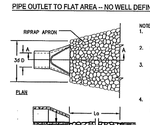
RIPRAP OUTLET PROTECTION

PIPE OUTLET TO FLAT AREA – NO WELL DEFINED CHANNEL



NOTES:
1. La IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESSthan 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE BOTTOM OF THE CHANNEL BANKS TO AN ELEVATION ONE FOOT ABOVE THE MAXIMUM TAILWATER OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.

PIPE OUTLET TO WELL DEFINED CHANNEL

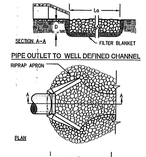
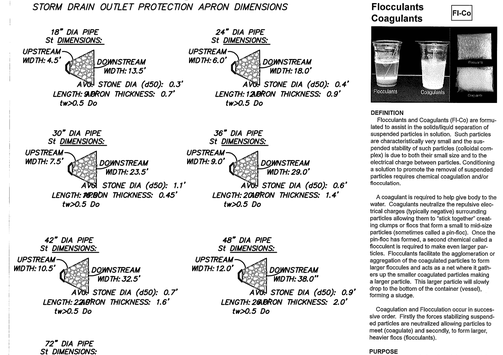


Figure 6-34.3 - Riprap Outlet Protection (Modified From Va BWCC)

GSWCC (Amended - 2013) 6-214

St

STORM DRAIN OUTLET PROTECTION APRON DIMENSIONS



Flocculants Coagulants

Fl-Co

DEFINITION
Flocculants and Coagulants (Fl-Co) are formulated to assist in the solidsliquid separation of suspended particles in solution. Such particles are characteristically very small and the suspended stability of such particles (colloidal complex) is due to both their small size and to the electrical charge between particles. Conditioning a solution to promote the removal of suspended particles requires chemical coagulation and/or flocculation.

A coagulant is required to help give body to the water. Coagulants neutralize the repulsive electrical charges (typically negative) surrounding particles allowing them to "stick together" creating clumps or floss that form a small to mid-size particles (sometimes called a pin-floc). Once the pin-floc has formed, a second chemical called a flocculent is required to make even larger particles. Flocculants facilitate the agglomeration or aggregation of the coagulated particles to form larger floccules and acts as a net where it gathers up the smaller coagulated particles making a larger particle. This larger particle will slowly drop to the bottom of the container (vessel), forming a sludge.

Coagulation and Flocculation occur in successive order. Firstly the forces stabilizing suspended particles are neutralized allowing particles to meet (coagulate) and secondly, to form larger, heavier floc (flocculants).

PURPOSE
To settle suspended sediment, heavy metals and hydrocarbons (TSS) in runoff water from construction sites for water clarification.

CONDITIONS
Water clarification and the removal of turbidity will usually require the addition of flocculants, polymers, polyacrylamides (PAM), chitosan and other chemicals that cause soil particles to bind together, become heavy and settle to the bottom of a sediment trap, sediment basin or become entrapped in other BMP.
This practice is not intended for application to surface waters of the state. It is intended for application within construction storm water ditches and storm drainages which feed into pre-constructed ponds or basins or other BMPs.

Federal and Local Laws
Fl-Co applications shall comply with all federal, local laws, rules or regulations governing Fl-Co. The operator is responsible for securing applicable required permits, if needed. This standard does not contain the text of the federal or local laws governing Flocculants/Coagulants.

Planning Considerations
Since settling of flocculated soil particles requires very slow moving (still) water, chemical additives should never be introduced into an outfall BMP where water leaves the property or enters state waters. In all cases where chemical additives are used to reduce turbidity, it is essential to include a sediment basin or sediment trap unless using a "pump and treat" treatment system.

CRITERIA
Application rates shall conform to manufacturer's guidelines for application. Only anionic forms of Fl-Co shall be used.

Following are examples of Fl-Co applications within construction storm water ditches or drainageways which feed into sediment basins or other BMPs:

- Fl-Co Bags or Socs that are installed directly in a ditch, pipe or culvert.
- Fl-Co treated ditch checks (i.e. fiber rolls, wattles, or compost logs inoculated or used in conjunction with Fl-Co).
- Granulated Fl-Co treated rock ditch checks.

6-109

- Abrasion or granular Fl-Co precisy into a ditch.
- Erosion control blankets and turf reinforcement mats that have been inoculated with a Fl-Co .
- "Pump and Treat" systems that use mechanical mixing with a chemical treatment of a Fl-Co.

Operation and Maintenance
Application rates shall conform to manufacturer's guidelines for application. Maintenance shall consist of reapplying Fl-Co via one of means above when turbidity levels are no longer met or the Fl-Co is used up. Bricks, blocks, socks,logs and bags shall be maintained when sediment sediment accumulates on the products.

GEORGIA REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT No. 3268 MATTHEW S. FOSTER

IPESC Douglas B. Patten No. 4215 EROSION AND SEDIMENT CONTROL

GSWCC Georgia Soil and Water Conservation Commission

Douglas B Patten
Level II Certified Design Professional
Certification Number 0000003425
Issued: 12/18/2014 Expires: 12/18/2017

centerline
Surveying and Land Planning, Inc.
100 Village Green Circle, Suite 210, Marietta, GA 30144
PHONE: (770) 424-0028 FAX: (770) 424-2399

EROSION AND SEDIMENT CONTROL DETAILS FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

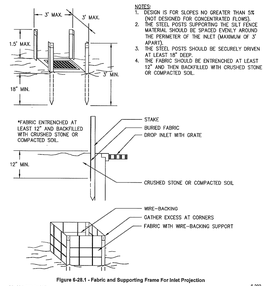
NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

Sd1-f

FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

STEEL FRAME AND SILT FENCE INSTALLATION

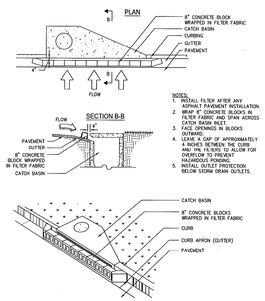


NOTES:
1. EROSION IS FOR SLOPES NO GREATER THAN 5/8 (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN INTO THE GROUND.
4. SILT FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

Figure 6-28.1 - Fabric and Supporting Frame For Inlet Projection

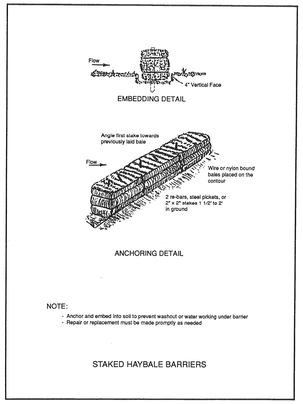
Sd2-f

CURB INLET FILTER "PIGS IN BLANKET"



NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. PLACE A CAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. MAINTAIN FILTER PROTECTION BELOW STORM DRAIN OUTLETS.

Figure 6-28.6 Curb Inlet Filter "Pigs in Blanket"



NOTE:
- Anchor and embed into soil to prevent washout or water working under barrier
- Repair or replacement must be made promptly as needed

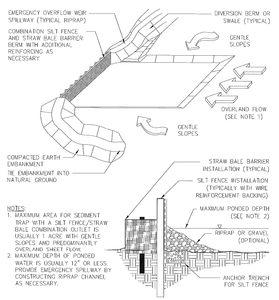
STAKED HAYBALE BARRIERS

Sd4

TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT

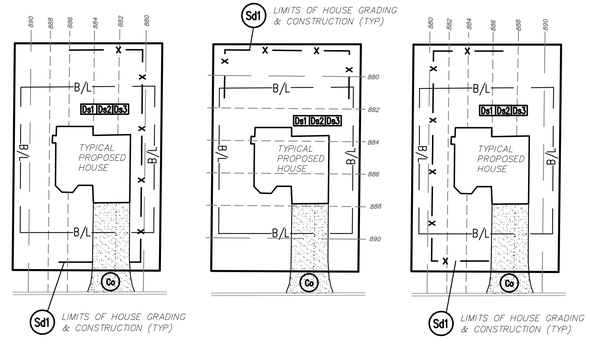
COMBINATION OUTLET



NOTES:
1. MAXIMUM AREA FOR SEDIMENT TRAP WITH A SILT FENCE/STRAW BALE COMBINATION OUTLET IS USUALLY 1 ACRE WITH GENTLE SLOPES AND PREDOMINANTLY OVERLAND SHEET FLOW.
2. MAXIMUM DEPTH OF PONDED WATER IS USUALLY 12" OR LESS. PROVIDE EMERGENCY SPILLWAY BY CONSTRUCTING RIPRAP CHANNEL AS NECESSARY.

Figure 6-30.2

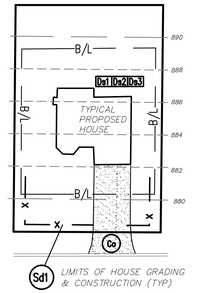
TYPICAL INDIVIDUAL LOT EROSION CONTROL MEASURES



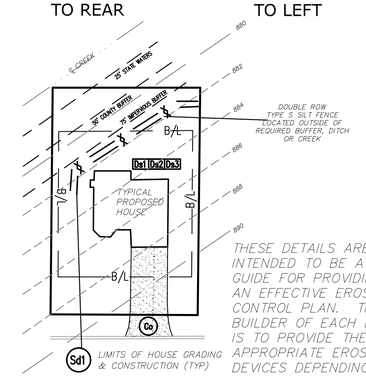
SLOPE FROM LEFT TO RIGHT

SLOPE FROM FRONT TO REAR

SLOPE FROM RIGHT TO LEFT



SLOPE FROM REAR TO FRONT



THESE DETAILS ARE INTENDED TO BE A GUIDE FOR PROVIDING AN EFFECTIVE EROSION CONTROL PLAN. THE BUILDER OF EACH LOT IS TO PROVIDE THE APPROPRIATE EROSION DEVICES DEPENDING ON THE SITE CONDITIONS OF FULL IMPLEMENTATION

MAINTENANCE STATEMENT:

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION & SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

ALL INDIVIDUALS, UTILITY COMPANIES AND GENERAL SUBCONTRACTORS WHO PLAN ANY LAND DISTURBANCE ON THIS SITE ARE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF HIS EROSION CONTROL DEVICES. ALL APPLICABLE PARTIES MUST PROVIDE EFFECTIVE EROSION CONTROL.
SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO ANY CLEARING OR GRADING.
ALL SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE MAINTAINED THROUGHOUT CONSTRUCTION UNTIL PERMANENT VEGETATION IS ESTABLISHED. ADDITIONAL EROSION CONTROL DEVICES SHALL BE INSTALLED AS REQUIRED BY THE PROJECT ENGINEER, COUNTY REPRESENTATIVE, ACCEPTED QUALIFIED PERSONNEL OR AS SITE CONDITIONS MAY DICTATE.

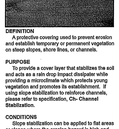
EACH BUILDER IS INDIVIDUALLY RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF HIS EROSION CONTROL DEVICES. THE BUILDER MUST PREVENT SEDIMENT FROM MOVING BEYOND THE BOUNDARIES OF THE PROPERTY ON WHICH SUCH PROJECT IS LOCATED. NONCOMPLIANCE WITH THIS REQUIREMENT WILL STOP ALL BUILDING INSPECTIONS.

INTSTAL SEDIMENT BARRIERS AT THE TOE OF ALL CUT AND FILL SLOPES, AROUND ALL INLETS, AND BELOW ALL DISTURBANCE WHERE EROSION RUNOFF MIGHT LEAVE THE SITE.

REMOVE ALL SILT FENCE AND TEMPORARY SILT CONTROL MEASURES WHEN PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED.

ALL WORK SHALL CONFORM TO MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. LATEST EDITION.

Slope Stabilization **Ss**



DEFINITION
A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.

PURPOSE
To provide a cover layer that stabilizes the soil surface, thereby preventing soil detachment and providing a microclimate which protects young vegetation and promotes its establishment. If using slope stabilization to reinforce channels, please refer to specification, Ch- Channel Stabilization.

CONDITIONS
Slope stabilization can be applied to flat areas or slopes where the erosion hazard is high and slope protection is needed during the establishment of vegetation.

PERFORMANCE EVALUATION
For a product or practice to be approved as slope stabilization, that product or practice must have a documented C- factor of 0.050, as specified by GSWCC. For complete test procedure and performance evaluation list please visit www.sedcd.georgia.gov.

PLANNING CONSIDERATIONS
Care must be taken to choose the type of slope stabilization product which is most appropriate for the specific needs of a project. Two general types of slope stabilization products are discussed within this specification.

Rolled Erosion Control Products (RECP)
A natural fiber blanket with single or double photodegradable or biodegradable nets.

Hydraulic Erosion Control Products (HECP)
HECP shall utilize straw, cotton, wood or other natural based fibers held together by a soil binding agent which works to stabilize soil particles. Paper mulch should not be used for erosion control.

CRITERIA
Rolled Erosion Control Products (RECPs) and Hydraulic Erosion Control Products (HECPs):

•Installation and staging of RECPs and application rates for the HECPs shall conform to manufacturer's guidelines for application

•Products shall have a maximum C-factor (ASTM D6460) for the following slope grade:

Slope (H:V)	C-Factor (max.)
3:1 or greater	0.050

Materials – HECP
Hydraulic erosion control products shall be prepackaged from the manufacturer. Field mixing of fibers, mance enhancing additives will not be allowed. Fiber components should be all natural or biodegradable.

Products shall be determined to be non-toxic in accordance with EPA-821-R-02-012.

Materials – RECP
Materials shall be nontoxic to vegetation, seed, and wildlife. Products shall be determined to be non-toxic in accordance with EPA-821-R-02-012. At minimum, the plastic or biodegradable netting shall be stitched to the fibrous matrix to maximize strength and provide for ease of handling.

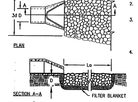
RECPs are categorized as follows:

a. Short-Term
(functional longevity 12 mo.)

I. Photodegradable
Straw blankets with a top and bottom side photo degradable net. The maximum size of the mesh shall be openings of 0.5" X 0.5". The blanket

RIPRAP OUTLET PROTECTION

PIPE OUTLET TO FLAT AREA – NO WELL DEFINED CHANNEL



NOTES:
1. La IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESSthan 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE the MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.

PIPE OUTLET TO WELL DEFINED CHANNEL

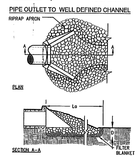
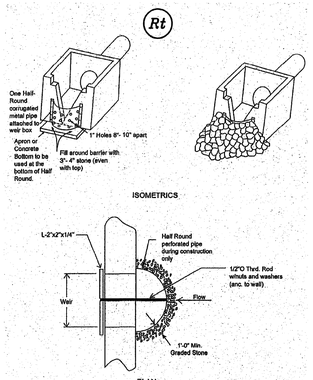


Figure 6-6.3 - Riprap Outlet Protection (Modified From Va SWCC)



Sd4

TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT

ROCK OUTLET

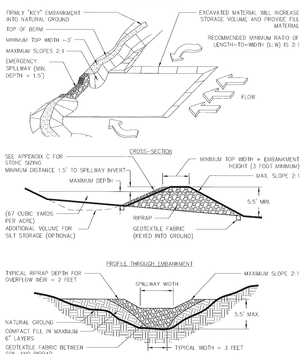
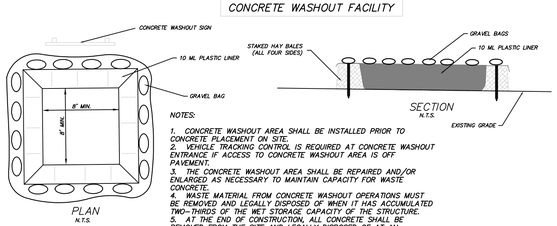


Figure 6-30.3

CONCRETE WASHOUT FACILITY

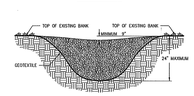


NOTES:
1. CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
2. VEHICLE TRACKING CONTROL IS REQUIRED AT CONCRETE WASHOUT ENTRANCE IF ACCESS TO CONCRETE WASHOUT AREA IS OFF PAVEMENT.
3. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND/OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTE CONCRETE.
4. WASTE MATERIAL FROM CONCRETE WASHOUT OPERATIONS MUST BE REMOVED AND LEGALLY DISPOSED OF WHEN IT HAS ACCUMULATED TWO-THIRDS OF THE WET STORAGE CAPACITY OF THE STRUCTURE.
5. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF AT AN APPROVED WASTE SITE.
6. WASHOUT OF THE DRUM OF THE CONCRETE TRUCK IS NOT PERMITTED AT THE SITE.

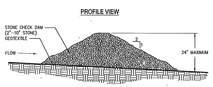
Ck

STONE CHECK DAM

CROSS SECTION



PROFILE VIEW



NOTES:
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO DAM EDGE.
5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
6. FILTER CLOTH SHALL BE PLACED UNDER THE CHECK DAM TO PREVENT SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).

Figure 6-13.2

GSWCC Georgia Soil and Water Conservation Commission

Douglas B Patten
Level II Certified Design Professional

Certification Number 0000003425
Issued: 12/18/2014 Expires: 12/18/2017

CPESC Douglas B. Patten No. 4315

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. HICE

centerline
Surveying and Land Planning, Inc.
130 STILLOW POINT, SUITE 210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2392

EROSION AND SEDIMENT CONTROL DETAILS FOR:

WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

24 HOUR CONTACT:

JOHN LOYD
770-868-7591

BUILDING SETBACK REQUIREMENTS:

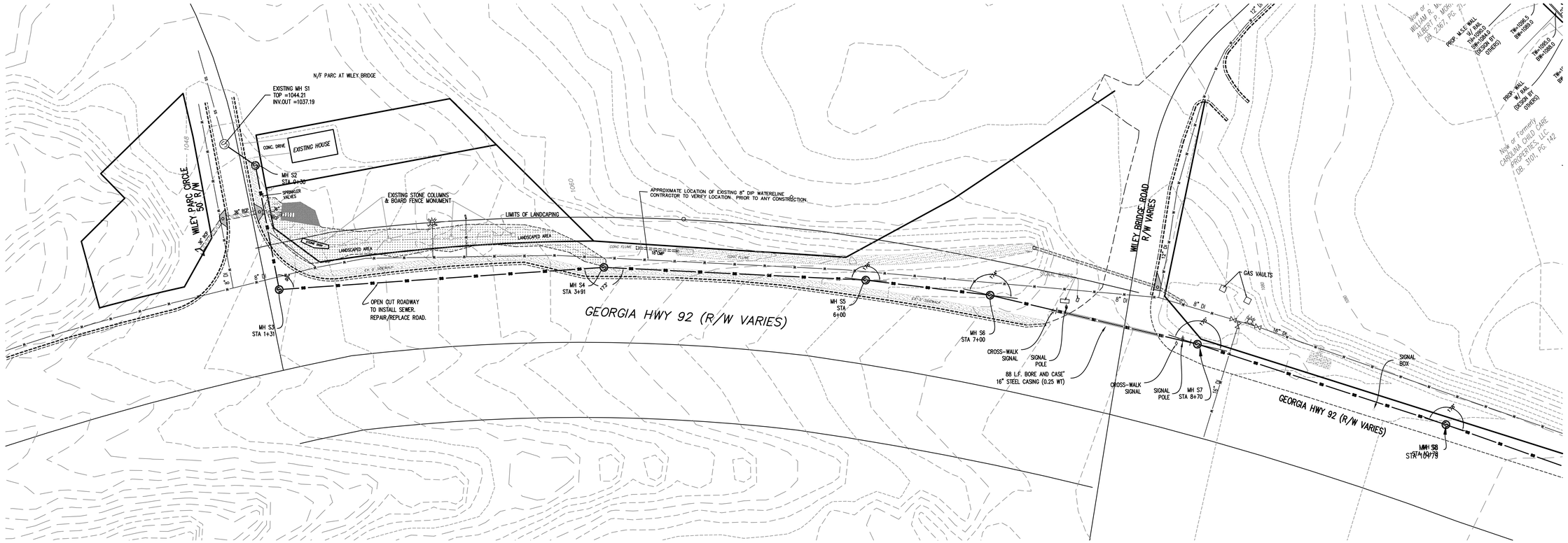
FRONT - 20'
REAR -30'
SIDE - 10'

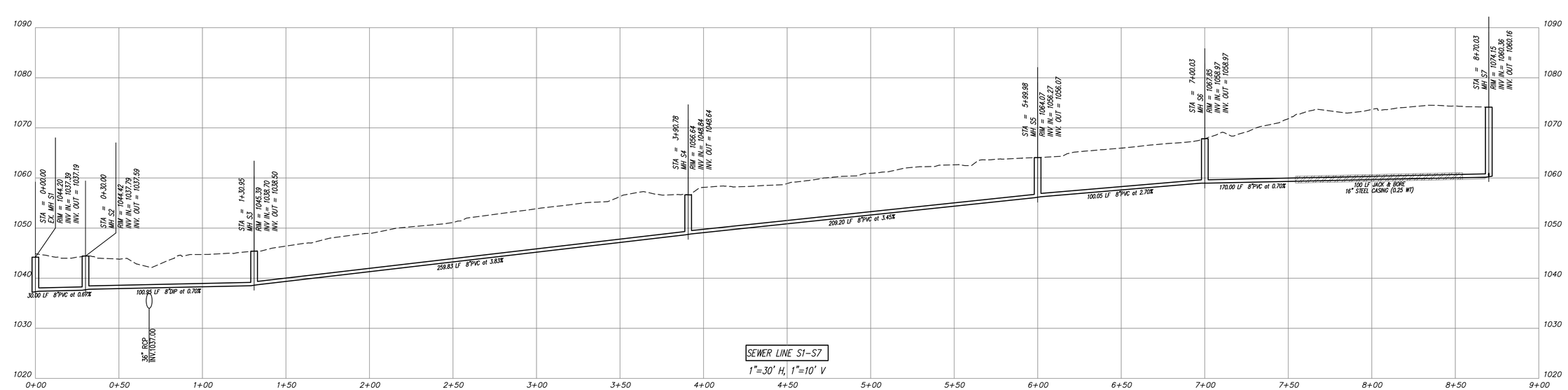
SITE NOTES

REPRESENTED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING -R40
TOTAL AREA - 4.251 ACRES
TOTAL LOTS - 25
LOT DENSITY - 5.88 LOTS PER ACRE

REGISTERED LAND SURVEYOR:

MATTHEW FREY
CENTERLINE SURVEYING, INC.
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028





GRAPHIC SCALE

-40 0 20 40 80

(IN FEET)
1 inch = 40' ft.

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FREY

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2539

OFF-SITE SEWER PLAN & PROFILE FOR:

WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 5.0

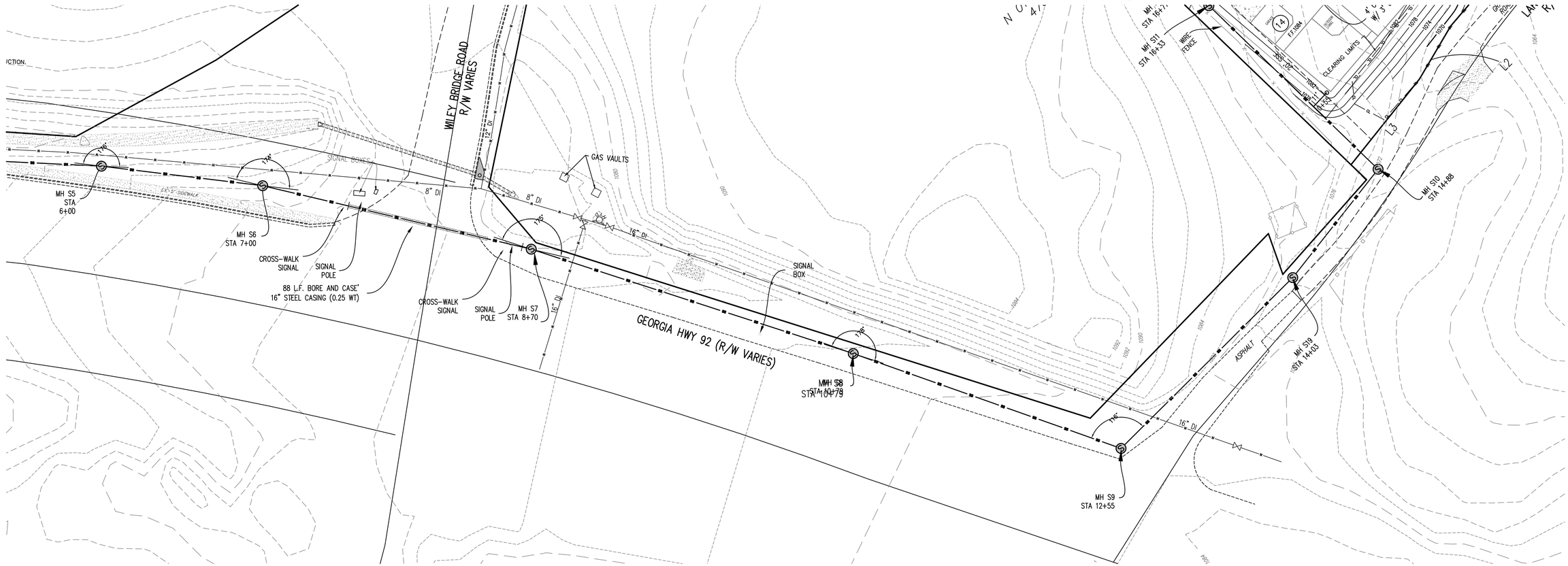
APPLICANT/DEVELOPER
LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

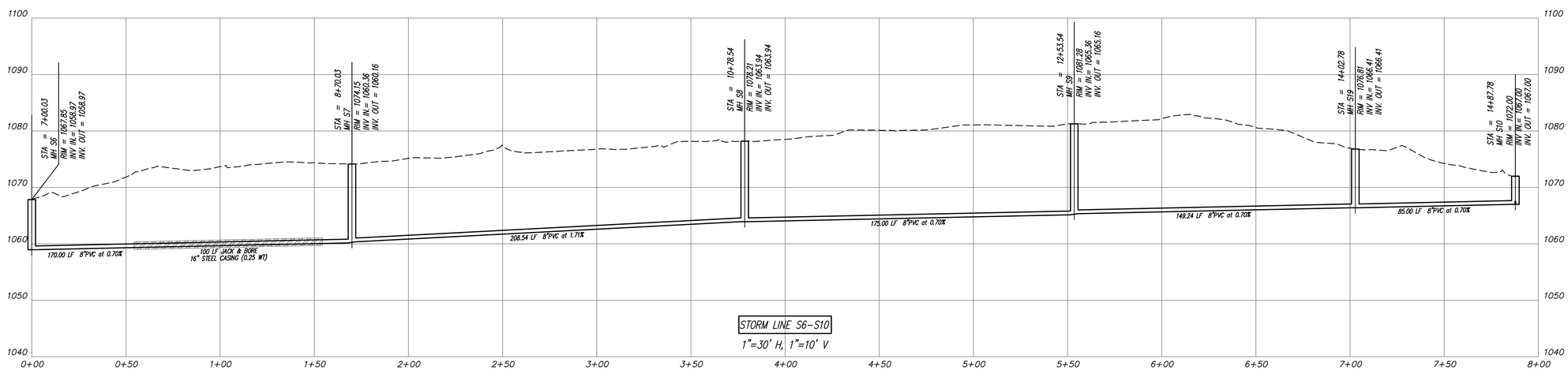
24 HOUR CONTACT:
JOHN LOYD
770-868-7591

BUILDING SETBACK REQUIREMENTS:
FRONT - 20'
REAR -30'
SIDE - 10'

SITE NOTES
REPRESENTED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING -R40
TOTAL AREA - 4.251 ACRES
TOTAL LOTS - 25
LOT DENSITY - 5.88 LOTS PER ACRE

REGISTERED LAND SURVEYOR:
MATTHEW FREY
CENTERLINE SURVEYING, INC.
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028





STORM LINE S6-S10
1"=30' H, 1"=10' V

GRAPHIC SCALE
-40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2289

OFF-SITE SEWER PLAN & PROFILE FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 5.1

APPLICANT/DEVELOPER
LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

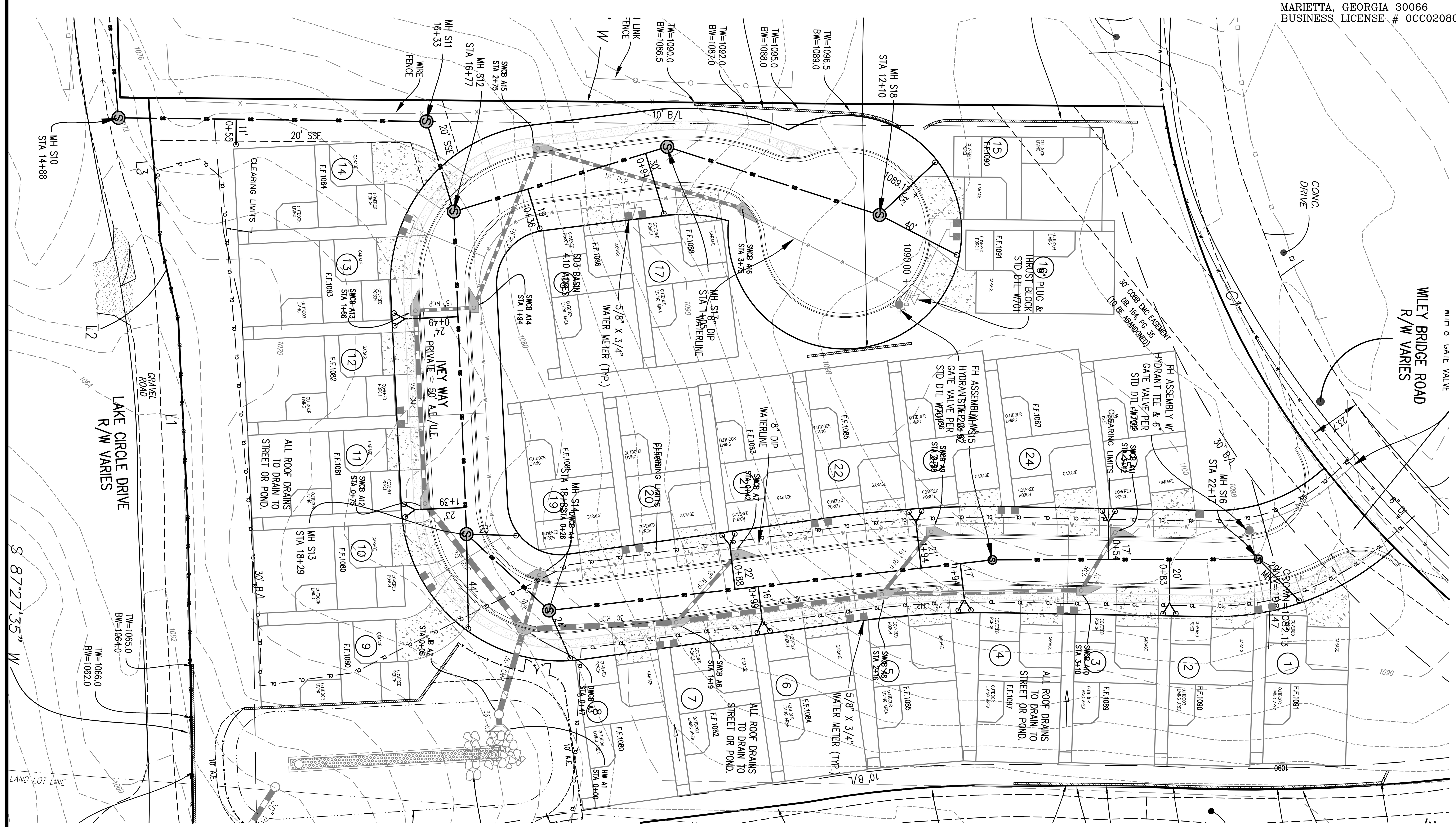
24 HOUR CONTACT:
JOHN LOYD
770-868-7591

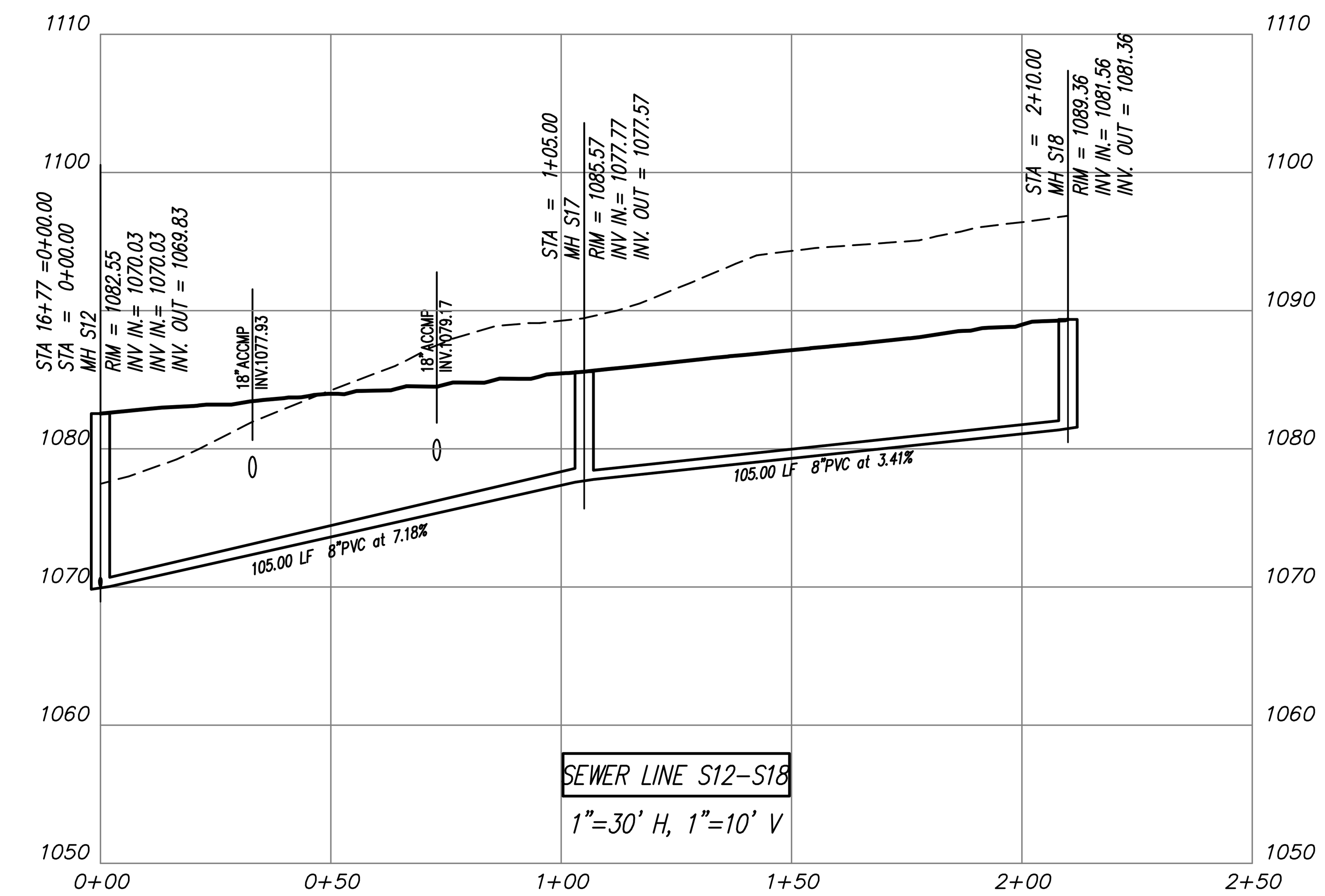
BUILDING SETBACK REQUIREMENTS:
FRONT - 20'
REAR -30'
SIDE - 10'

SITE NOTES
REPRESENTED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING -R40
TOTAL AREA - 4.251 ACRES
TOTAL LOTS - 25
LOT DENSITY - 5.88 LOTS PER ACRE

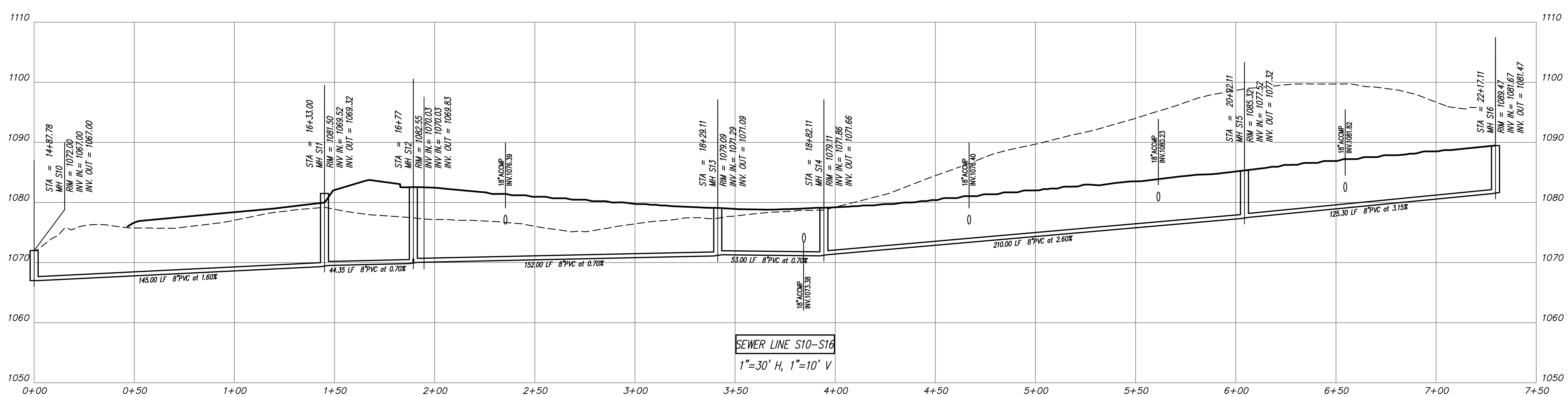
REGISTERED LAND SURVEYOR:
MATTHEW FREY
CENTERLINE SURVEYING, INC.
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028

GEORGIA REGISTERED No. 3268 LAND SURVEYOR MATTHEW S. FREY





SEE SHEET 5.4 FOR SEWER NOTES



GRAPHIC SCALE
-40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

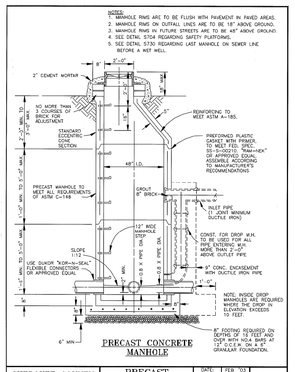
centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2399

ON-SITE SANITARY SEWER PLAN & PROFILE FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

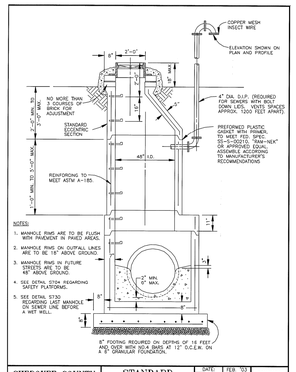
DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 5.2



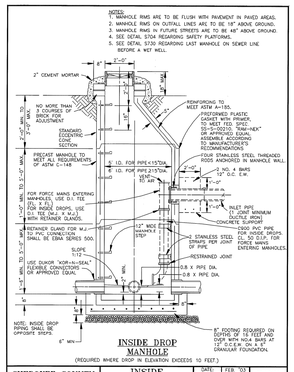
PRECAST CONCRETE MANHOLE

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	PRECAST CONCRETE MANHOLE CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S701
		APPROVED:		



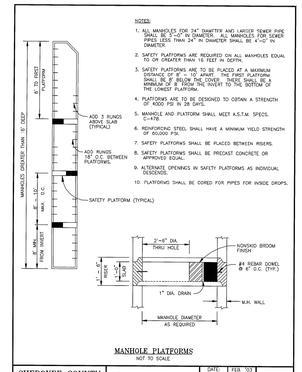
VENTED MANHOLE

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	STANDARD VENTED MANHOLE (FOR PIPE LARGER THAN 18") CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S702
		APPROVED:		



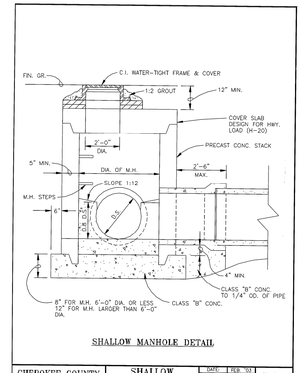
INSIDE DROP MANHOLE
(REQUIRED WHERE DROP IN ELEVATION EXCEEDS 10 FEET)

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	INSIDE DROP MANHOLE CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S703
		APPROVED:		



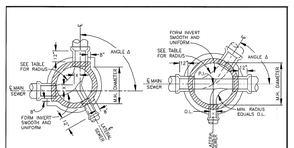
MANHOLE PLATFORMS
NOT TO SCALE

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SAFETY PLATFORMS CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S704
		APPROVED:		



SHALLOW MANHOLE DETAIL

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SHALLOW MANHOLE DETAIL CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S705
		APPROVED:		

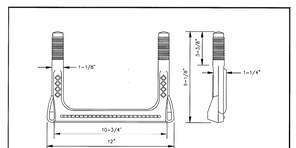


TYPICAL PLANS
STANDARD MANHOLE

STANDARD MANHOLE
SCHEDULE OF GOVERNING DIMENSIONS

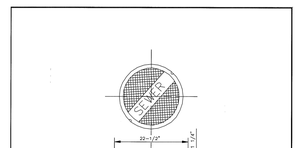
PIPE SIZE	ANGLE Δ	MANHOLE DIAMETER	"R"	"K"
8" TO 18"	0° TO 60°	4'-0"	2'-0"	0"
21" & 24"	0° TO 60°	4'-0"	2'-0"	8"
21" & 24"	60° TO 70°	5'-0"	2'-0"	6"
21" & 24"	70° TO 80°	5'-0"	2'-0"	7-1/2"
21" & 24"	80° TO 90°	5'-0"	2'-0"	10-1/2"
30" & 36"	0° TO 60°	5'-0"	2'-0"	8"
30" & 36"	70° TO 80°	6'-0"	3'-0"	10"
30" & 36"	80° TO 90°	6'-0"	3'-0"	13"
42"	0° TO 35°	6'-0"	3'-0"	18"
42"	35° TO 50°	6'-0"	3'-0"	3"
42"	50° TO 60°	7'-0"	6'-0"	6"
42"	60° TO 70°	7'-0"	6'-0"	0"
48" & 54"	0° TO 35°	8'-0" & 7'-0"	6'-0"	0"
48" & 54"	35° TO 60°	8'-0"	6'-0"	0"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	STANDARD MANHOLE PLANS CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S706
		APPROVED:		



MANHOLE STEP DETAIL

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	MANHOLE STEP CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S707
		APPROVED:		

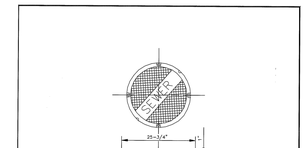


MANHOLE FRAME AND COVER

TOTAL WEIGHT: 315 LB.

NOTE: PICK HOLES SHALL NOT PENETRATE THE COVER.

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	STANDARD MANHOLE FRAME & COVER CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S708
		APPROVED:		

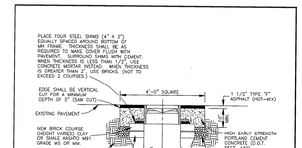


WATER-TIGHT MANHOLE FRAME AND COVER

TOTAL WEIGHT: 375 LB. WATER-TIGHT

NOTE: PICK HOLES SHALL NOT PENETRATE THE COVER.

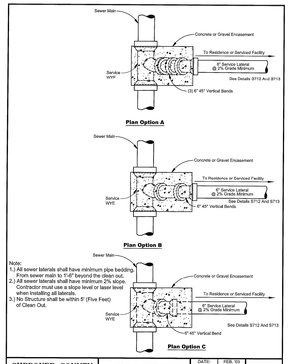
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	STANDARD MANHOLE FRAME & COVER CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S709
		APPROVED:		



MANHOLE FRAME-GRADE ADJUSTMENT

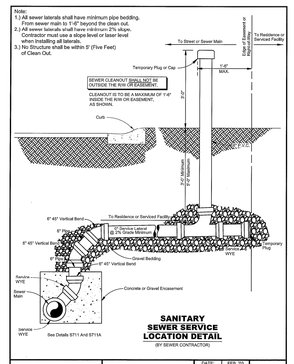
NOTES:
1. PORTLAND CONCRETE FOR COLLAR SHALL BE A MIN. OF 10" THICK AND SHALL EXTEND FROM THE LAST FULL COURSE OF BRICK TO 1 1/2" BELOW THE EXISTING PAVEMENT.
2. THE CONTRACTOR HAS THE OPTION OF USING PORTLAND CONCRETE FOR THE FULL DEPTH OF NOW THE ASPHALT TO UNDISTURBED EARTH) OR AS SHOWN ABOVE.
3. THE CONCRETE SHALL BE LEFT WITH A RAKED FINISH TO PROVIDE A ROUGH SURFACE FOR THE ASPHALT TO BOND TO. BITUMINOUS TACK AND ASPHALT SHALL BE PLACED PER CURRENT D.O.T. SPECIFICATIONS.
4. STEEL PLATES MAY BE REQUIRED BY THE AUTHORITY TO HIGH TRAFFIC AREAS TO PROTECT THE FRESH CONCRETE FOR A MINIMUM OF 40 HOURS. IN THESE HIGH TRAFFIC AREAS BARRICADES, CONES, ETC. WILL NOT BE ALLOWED.
5. BEFORE WORKING IN AN AREA, THE CONTRACTOR SHALL NOTIFY THE AUTHORITY.

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	MANHOLE FRAME-GRADE ADJUSTMENT CONSTRUCTION STANDARD	DATE:	FEB '03	STANDARD NO. S710
		APPROVED:		

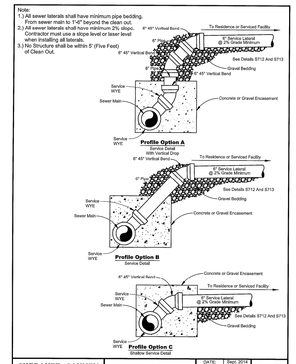


SEWER SERVICE LOCATION DETAIL

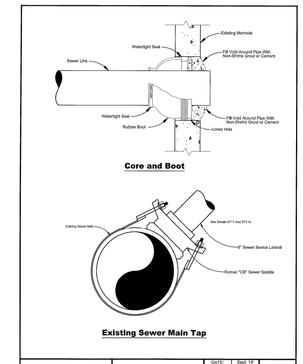
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER SERVICE LOCATION DETAIL CONSTRUCTION STANDARD	DATE: Revised: Revised: Revised:	FEB. '03 7/07/14 9/07/14	STANDARD NO. S711
		APPROVED:		



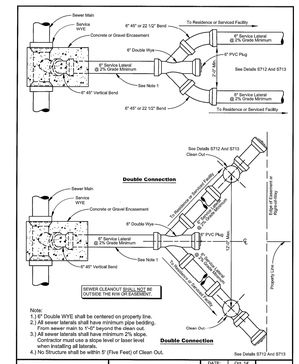
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER SERVICE LOCATION DETAIL CONSTRUCTION STANDARD	DATE: Revised: Revised:	FEB. '03 7/07/14 Oct. 2014	STANDARD NO. S712
		APPROVED:		



CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER SERVICE LOCATION DETAIL CONSTRUCTION STANDARD	DATE:	Sept. 2014	STANDARD NO. S711A
		APPROVED:		



CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	Sewer Service Lateral Connections CONSTRUCTION STANDARD	DATE:	Sept. '14	STANDARD NO. S711B
		APPROVED:		



CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER SERVICE LOCATION DETAIL CONSTRUCTION STANDARD	DATE:	Oct. '14	STANDARD NO. S711C
		APPROVED:		

GRAPHIC SCALE

-40 0 20 40 80

(IN FEET)
1 inch = 40' ft.

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2399

GEORGIA REGISTERED No. 3268 LAND SURVEYOR MATTHEW S. FREE

CCWSA STANDARD SEWER DETAILS FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

CLEANOUT DETAIL
(BY BUILDER)

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER SERVICE LOCATION DETAIL CONSTRUCTION STANDARD	DATE: FEB '03 Revised: 7/15/14 Revised: 10/2 2015 APPROVED:	STANDARD NO. S713

CONCRETE ENCASEMENT

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	CONCRETE ENCASEMENT CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S714

PIPE ADAPTER
JOINING DIFFERENT TYPES OF PIPE

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL PIPE ADAPTER CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S715

SEWER PIPE ANCHOR

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER PIPE ANCHOR (SLOPES 20% OR MORE) CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S716

CONCRETE ARCH

CONCRETE CRADLE

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	PIPE CLASS 'A' BEDDING CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S717

COMPACTED GRANULAR BEDDING
LOAD FACTOR 1.9

PIPE CLASS 'B' BEDDING

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	PIPE CLASS 'B' BEDDING CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S718

GRANULAR BEDDING
LOAD FACTOR 1.5

PIPE CLASS 'C' BEDDING

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	PIPE CLASS 'C' BEDDING CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S719

MINIMUM P.V.C. PIPE
BEDDING DETAIL
NOT TO SCALE

NOTE: IF PVC SANITARY SEWER LINE IS CONSTRUCTED IN 100 YEAR FLOOD PLAIN OR BELOW GROUNDWATER TABLE, COMPACTED CLASS 1 MATERIAL IS REQUIRED TO THE TOP OF THE PIPE.

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	MINIMUM P.V.C. PIPE BEDDING DETAIL CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S720

SEWER AIR & VACUUM VALVE ASSEMBLY

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER AIR & VACUUM VALVE ASSEMBLY CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S721

CASING SPACER DETAIL

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	SEWER CASING SPACER DETAIL CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S723

STATE OR STATE-AID ROADS

NOTES:
1. PERMISSION MUST BE OBTAINED FROM CHEROKEE COUNTY TO OPEN CUT EXISTING ROADS.
2. ROADWAYS WILL GENERALLY BE BORED OR TUNNELED FROM DITCH LINE TO DITCH LINE.
3. 6" CONCRETE PAVEMENT, REPLACE WITH ORIGINAL THICKNESS (MINIMUM 8"), FLUSH WITH EXISTING PAVEMENT.

COUNTY ROADS

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL STREET CUT REPAIR CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S724

CONCRETE DRIVEWAY

ASPHALT DRIVEWAY

NOTES:
1. BACKFILL TO BE COMPACTED AS DIRECTED IN SPECIFICATIONS.
2. D = NOMINAL PIPE DIAMETER

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL DRIVEWAY CUT REPAIR CONSTRUCTION STANDARD	DATE: FEB '03 APPROVED:	STANDARD NO. S725

COLOR CODES FOR UTILITY LOCATING

RED	ELECTRIC
YELLOW	GAS-OIL
ORANGE	TELEPHONE/CATV
BLUE	WATER
GREEN	SEWER

IF YOU DIG GEORGIA CALL US FIRST !
1-800-282-7411
It's The Law !
Utilities Protection Center, Inc.

THREE WORKING DAYS BEFORE YOU DIG GEORGIA CALL
Utilities Protection Center, Inc.
1-800-282-7411
It's The Law !

DETAIL S739 – PAGE 1 of 4

CHEROKEE COUNTY WATER AND SEWERAGE AUTHORITY
SANITARY SEWER SYSTEM CONSTRUCTION
GENERAL NOTES

1. All sanitary sewer system construction must follow the current Cherokee County Water and Sewerage Authority Sanitary Sewer System Standards.
2. For D.I.P. sewer lines, the minimum wall thickness shall be Class 50 and the interior lining shall be Protecto 401 ceramino epoxy. Wall thicknesses greater than the minimum called for above may be required due to greater depths or varying bedding requirements. Class C bedding is the minimum allowed.
3. All Polyvinyl Chloride (PVC) sewers 8" to 15" in diameter shall meet the requirements for minimum wall thickness as specified under SDR 35 in ASTM D3034, latest revision. PVC sewers that are 18" and larger in diameter shall have a minimum wall thickness as specified under T-1 in ASTM F679, latest revision. PVC sewers with more than 12' of cover may require wall thicknesses greater than SDR 35 or T-1. PVC is not allowed for sewers greater than 24" in diameter or more than 16' of cover.
4. Ductile Iron Pipe is required for sanitary sewer lines:
   a. Crossing storm sewers or other utilities with less than 2' of clearance
   b. Crossing water mains
   c. Crossing all streams and vegetative buffers
   d. For all cross country locations with less than 3' of cover
   e. For all locations in roadways with less than 5' of cover
   f. For all locations with 16' or more of cover
   g. With 20% or greater slope
   h. Inside all casings
   i. Installed in subdivision easements between lots
   j. Adjacent to all drop manholes (1 joint minimum at connection to drop manhole)
   k. For all installations in fill material
   l. At all other locations designated by the CCWSA
5. Information regarding underground utilities on these plans is not guaranteed as to accuracy or completeness. Prior to beginning work, the Contractor shall request a field location through the utilities protection center and any utility owners thought to have facilities in the area. The Contractor shall promptly compare these field-marked locations with the project plans and then notify the designer of any anticipated problems or need for design changes. It is the Contractor's responsibility to excavate or cause the utility owner to excavate for the purpose of determining exact elevations or locations at utility crossings and other critical locations well in advance of the work under this contract. Damage to existing utilities resulting from the Contractor's negligence shall be repaired at the Contractor's expense. The Developer and/or the Developer's Contractor is responsible for verifying the exact location, size, and material of any existing water or sanitary sewer facility proposed for connection or use by this project.
6. All sewer service laterals shall have a minimum diameter of 6" and a minimum grade of 1%.
7. The Developer shall obtain a land disturbance permit from Cherokee County governing all items related to erosion control.

DETAIL S739 – PAGE 2 of 4

8. This project is located in Land Lots _____, in the _____ District of Cherokee County, Georgia.
9. Clearing will be kept to an absolute minimum. Vegetation and mulch will be applied to applicable areas immediately after grading is complete. Land disturbing will be scheduled to limit exposure of bare soils to erosive elements.
10. Construction activities will be performed in compliance with all applicable laws and regulations.
11. All marketable timber will be salvaged. Top soil will be salvaged, stock piled and spread on areas to be vegetated. Trees outside of the clearing line will be protected from damage by appropriate markings.
12. Contractor is responsible for staking the alignment of the proposed pipeline prior to pipe installation. If a conflict should arise, the contractor shall notify the designer at that time.
13. All excavated dirt shall be placed on the high side of the trench away from any creeks.
14. Any fill dirt over the pipe shall be graded to prevent ponding.
15. The right-of-way or construction easement represents the limits of clearing for the complete job. The contractor shall not clear beyond this limit.
16. A copy of the approved construction plans must be kept on the job site at all times that construction is underway.
17. No bury pits are allowed.
18. Topographic ground elevations along all sewer lines, gravity and force mains, are from field run surveys, not aerial photographs.
19. All easements must be acquired prior to the preconstruction meeting with the Chief Inspector.
20. The Developer/Contractor shall meet with the Chief Inspector at least 24 hours before beginning construction. The Contractor shall notify the Chief Inspector or his designated representative by 8:30 a.m. of each workday when work is scheduled unless authorized otherwise.
21. Sanitary sewer force mains shall be installed so that the top of the pipe is a minimum of four feet below final grade, four feet below the edge of the pavement, or four feet below the ditch paralleling the road, whichever is deepest.
22. Type 4 bedding is required at all restrained pipe installations.
23. Contractor must show proof of insurance in the amount specified by the CCWSA.
24. A horizontal separation of at least 10 feet is required between existing or proposed water mains and existing or proposed sanitary sewer lines.
25. A vertical separation of at least 18 inches is required where a sewer line crosses an existing or proposed water main. A full joint of sanitary sewer pipe is required to be centered at the water main crossing.

DETAIL S739 – PAGE 3 of 4

26. No portion of this project is being constructed on or near an existing landfill, abandoned landfill, or any other site used for waste disposal.
27. Potable water and sanitary sewer structures are not allowed within a dam. Utility pipelines and structures must be a minimum of 50 feet outside the toe of slope of the dam.
28. Existing County roads shall not be open cut unless permission is granted by the Cherokee County Department of Public Transportation.
29. Plan approval is valid for 12 months without beginning construction. Plans shall be subject to beginning the process of review and approval if 12 months expire prior to the start of construction.
30. Record drawings of water and sanitary sewer facilities are required to be submitted to the CCWSA upon completion of the project.
31. If construction plans are stamped for a full project, and then the Developer revises the plans to build the development in phases, no construction or field inspection will be allowed to begin until the revised, phased plans are re-approved and stamped for the phased construction.
32. All streams and protective buffers shall be crossed in accordance with current County and State regulations.
33. Inside of steel casings, pipe joints shall be restrained using Fast-Grip gaskets or approved equal.
34. Safety platforms are required for all manholes that are 16' in depth or more.
35. Concrete footings are required for all manholes that are 16' in depth or more and for all manholes installed in fill material.
36. Sanitary sewers in roadways shall be installed with a minimum of 7' of cover where laterals are located in order to obtain a minimum cover of 5' over the lateral at the ROW limit, or DIP laterals are required.
37. The CCWSA shall not be responsible for any building built too low to be served by the sanitary sewer system.
38. The CCWSA shall not be responsible for any sanitary sewer services covered or buried by construction.
39. Soil adjacent to all manholes located in roadways will be tested for 95% compaction. The CCWSA must receive a copy of the results of the testing before the final plat will be signed.
40. When transitioning from DIP to PVC, the Contractor must utilize solid sleeves or "Harco" fittings.
41. All angles between "in" lines and "out" lines for manholes shall be labeled. Acute angles (angles<90 degrees) are not allowed for sewer mains or sewer services.
42. Sewer lines that have slopes greater than 20% shall be DIP and shall be provided with concrete anchors (Detail S716).
43. Manholes located in future streets must be installed to be 48" or higher above grade.

DETAIL S739 – PAGE 4 of 4

43.) Manholes located in future streets must be installed to be 48" or higher above grade.

44.) Manholes that are located outside of roadways shall be installed to be at least 18" above grade and shall be provided with self-sealing, bolt-down covers.

45.) For any new project connecting to an existing manhole, the Contractor shall core and boot the existing manhole at an elevation that is 2 feet or less from the existing invert out.

46.) Inside drop manholes shall be 5 feet in diameter and shall be built in accordance with Detail S733.

47.) All force mains paralleling water mains shall be encased in green polyethylene tubing so as to identify the force main as sanitary sewer.

48.) Inside of developments with curb and gutter, the Contractor shall cut an "S" into the top of the curb above all sanitary sewer service laterals.

49.) Locator wire must be installed above all sewer lateral lines.

50.) Sanitary sewer cleanouts shall be installed for all service laterals at the edge of the sewer easement or right-of-way. See details S711C, S712 & S713. CCWSA shall maintain the sewer mains and sewer laterals to the County, City or State Right-Of-Way or to the edge of an easement dedicated to CCWSA. If sewer main is located within a private ingress-egress or a blanket utility easement, CCWSA shall maintain sewer mains and laterals from back of curb to back of curb. In the event of zero building setback adjacent to a Right-Of-Way, CCWSA will maintain sewer mains and laterals from back of curb to back of curb.

51.) Horizontal locations will be referenced to Georgia State Plane Coordinate System NAD 83 West Zone Feet.

52.) Vertical locations will be referenced to North American Vertical Datum (NAVD 88).

53.) Orthometric locations will be referenced to GEOID 99/03

54.) No landscaping or structures will be allowed inside CCWSA easements.

Street Light Ordinance

Pole Specifications:
- 30 Foot Poles Only
- Wood or Fiberglass Only
- Arms must be 2 ½' to 6' long
- Roadway Fixtures

Street light plans are submitted by the Power Companies to Ricky Dobbs. All power pole Contributions must be paid by the Developer before the release of water meter sales.

The above does not apply to subdivisions that are located inside city limits.

Any further questions please call:
Ricky Dubbs at (770) 479-1813 ext. 249 or email at rdobbs@ccwsa.com

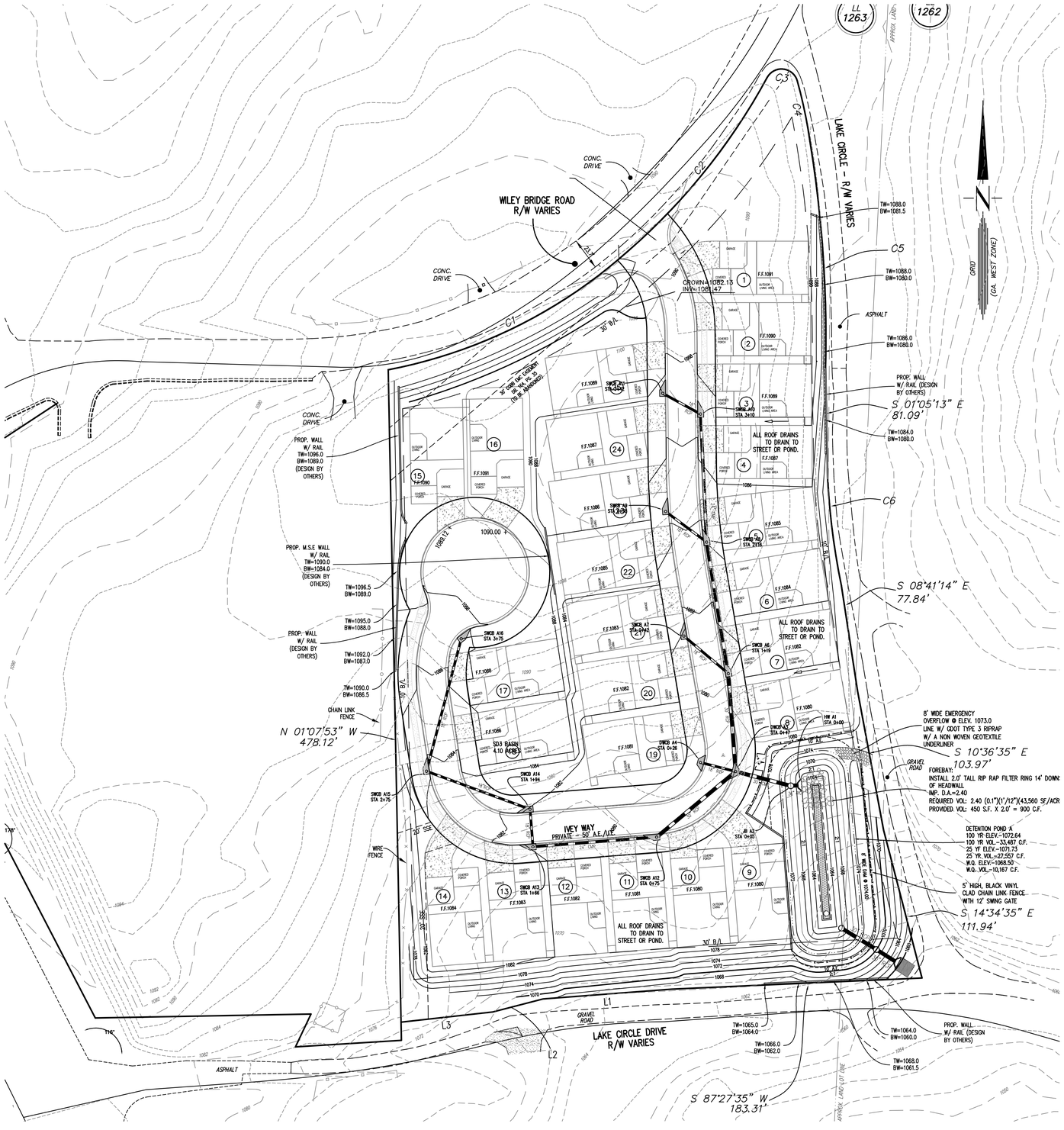
GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. PIRKLE

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0029 FAX: (770) 424-2399

CCWSA STANDARD SEWER DETAILS FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034



APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

24 HOUR CONTACT:

JOHN LOYD
770-868-7591

REGISTERED LAND SURVEYOR:

MATTHEW FREY
CENTERLINE SURVEYING, INC.
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028

BUILDING SETBACK REQUIREMENTS:

FRONT - 20'
REAR -30'
SIDE - 10'

SITE NOTES

REPRESENTED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING -R40
TOTAL AREA - 4.251 ACRES
TOTAL LOTS - 25
LOT DENSITY - 5.88 LOTS PER ACRE

STORMWATER MAINTENANCE NOTE:

A STORMWATER MAINTENANCE AGREEMENT IS REQUIRED FOR THIS PROJECT PRIOR TO FINAL PLAT APPROVAL. CONTACT THE ENGINEERING DEPARTMENT AT 678-493-6074 OR bmorgan@cherokeega.com FOR ADDITIONAL INFORMATION.

ASBUILT NOTE:

THE ENTIRE STORMWATER MANAGEMENT SYSTEM, INCLUDING ALL CONVEYANCE, STORAGE, TREATMENT, FLOWRATES, ETC. WILL NEED TO BE ANALYZED BY A GEORGIA REGISTERED ENGINEER, USING "AS-BUILT" DATA PROVIDED BY A GEORGIA REGISTERED LAND SURVEYOR PRIOR TO APPROVAL OF THE FINAL PLAT. CONTACT THE ENGINEERING DEPARTMENT AT 678-493-6074 OR bmorgan@cherokeega.com FOR ADDITIONAL INFORMATION.

WETLANDS/STATE WATERS NOTE:

THERE ARE NO WETLANDS WITHIN THE PROPOSED LIMITS OF DISTURBANCE. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES THAT MAY IMPACT ANY FEDERALLY-LISTED THREATENED OR ENDANGERED SPECIES PROTECTED BY THE ENDANGERED SPECIES ACT. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE US FISH AND WILDLIFE SERVICE FOR APPROVAL OF THESE PLANS PRIOR TO UNDERTAKING ANY LAND DISTURBANCE.

GRADING & DRAINAGE NOTES:

☆ THE MINIMUM FLOOR ELEVATION SHALL BE AT LEAST 3.0 FEET ABOVE THE LOCAL 100 YR HEADWATER POOL ELEVATION(S), UNLESS POOLING RUNOFF WILL BYPASS THE BUILDING WITH 1.0 FOOT OF FREEBOARD PROTECTION. BUILDER SHALL PROVIDE AN ADEQUATE SWALE BETWEEN/BEHIND THE HOUSES TO ACCOMMODATE ANY OVERFLOWS FROM THE INLET. INDIVIDUAL SITE PLANS MUST BE PREPARED FOR THESE LOTS TO DEMONSTRATE HOW OVERFLOWS FROM INLETS AT THESE LOTS WILL BYPASS THE BUILDINGS.

DRAINAGE EASEMENT OFF OF THE COUNTY RIGHT-OF-WAY SHALL BE CLEARLY DEFINED ON THE CONSTRUCTION PLANS. THE PROPERTY OWNER WILL BE REQUIRED TO KEEP THE EASEMENT FREE FROM OBSTRUCTION IN SUCH A WAY AS TO ENSURE THE MAXIMUM DESIGNED FLOW AT ALL TIMES. THE PROPERTY OWNER SHALL NOT ALTER ANY DRAINAGE IMPROVEMENTS WITHOUT PRIOR APPROVAL FROM THE CHEROKEE COUNTY ENGINEERING DEPARTMENT. NO STRUCTURE EXCEPT DRIVEWAYS SHALL BE CONSTRUCTED OR ERECTED IN AN EASEMENT WITHOUT PRIOR WRITTEN APPROVAL OF THE CHEROKEE COUNTY ENGINEERING DEPARTMENT.

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES THAT MAY IMPACT ANY FEDERALLY-LISTED OR ENDANGERED SPECIES PROTECTED BY THE ENDANGERED SPECIES ACT. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE US FISH AND WILDLIFE SERVICE FOR APPROVAL OF THESE PLANS PRIOR TO UNDERTAKING ANY LAND DISTURBANCE.

ALL PIPE WITH 10' OF FILL FROM FINISHED GRADE TO CROWN MUST BE RCP.

PRIOR TO ACCEPTANCE OF FINAL PLAT, TWO COPIES OF AS-BUILT PLANS PREPARED PER CHEROKEE COUNTY DEVELOPMENT REGULATIONS SECTION 3.03 SHALL BE SUBMITTED.

ANY FILL MATERIAL SUPPORTING STRUCTURAL LOADS SHALL BE ENGINEERED WITH PROPER DOCUMENTATION, INCLUDING GEORGIA REGISTERED P.E. STAMP. SUBMIT DOCUMENTATION TO THE CHEROKEE COUNTY BUILDING DEPARTMENT PRIOR TO FOUNDATION INSPECTION.

ALL AREAS TO RECEIVE STRUCTURAL FILL SHALL BE CLEARED, STRIPPED AND FREE OF TOPSOIL, ROOTS, STUMPS AND ALL OTHER DELETERIOUS MATERIAL. STRUCTURAL FILL SHALL BE CLEAN FROM ORGANICS AND ALL OTHER DELETERIOUS MATERIAL. FILL SHALL BE PLACED IN MAXIMUM 8" LIFTS AND COMPACTED TO AT LEAST 95 PROCTOR MAXIMUM DENSITY AND TO WITHIN +/- 3% OF THE OPTIMUM MOISTURE CONTENT, UNLESS OTHERWISE SPECIFIED IN THE PROJECT GEOTECHNICAL REPORT OR BY THE PROJECT GEOTECHNICAL ENGINEER. ALL FILL SOILS ARE TO BE PLACED UNDER THE OBSERVATION OF THE PROJECT GEOTECHNICAL ENGINEER. DOCUMENTATION OF COMPACTION TESTING SHALL BE PROVIDED TO THE LAND DISTURBANCE ACTIVITY INSPECTOR FOR ALL ROADWAY CONSTRUCTION IN THE RIGHT-OF-WAY (INCLUDING DECELERATION LANE). CONTACT LAND DISTURBANCE ACTIVITY INSPECTOR PRIOR TO CONSTRUCTION FOR FURTHER TESTING REQUIREMENTS.

MAXIMUM CUT OR FILL SLOPES ARE 2 (HORIZONTAL) AND 1(VERTICAL).

THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA STANDARD "PIPE CULVERTS" NUMBER 1030D, LATEST EDITION SHALL BE USED IN DETERMINING THE CLASS OF REINFORCED CONCRETE PIPE OR GAGE OF CORRUGATED PIPE.

ALL CATCH BASINS, DROP INLETS, OR OTHER DRAINAGE STRUCTURES SHALL COMPLY WITH THE LATEST STANDARDS APPROVED AND PROMULGATED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION IN "STANDARDS SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES", LATEST EDITION.

GRAPHIC SCALE

-40 0 20 40 80

(IN FEET)
1 inch = 40' ft.

GEORGIA REGISTERED No. 3268 LAND SURVEYOR MATTHEW S. FREY

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2389

GRADING & DRAINAGE PLAN FOR:

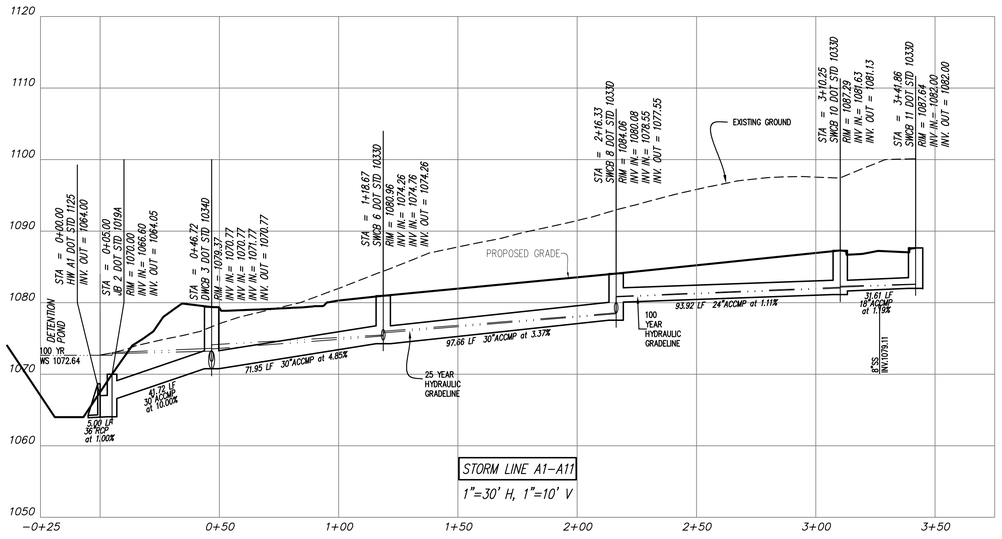
WILEY BRIDGE ROAD

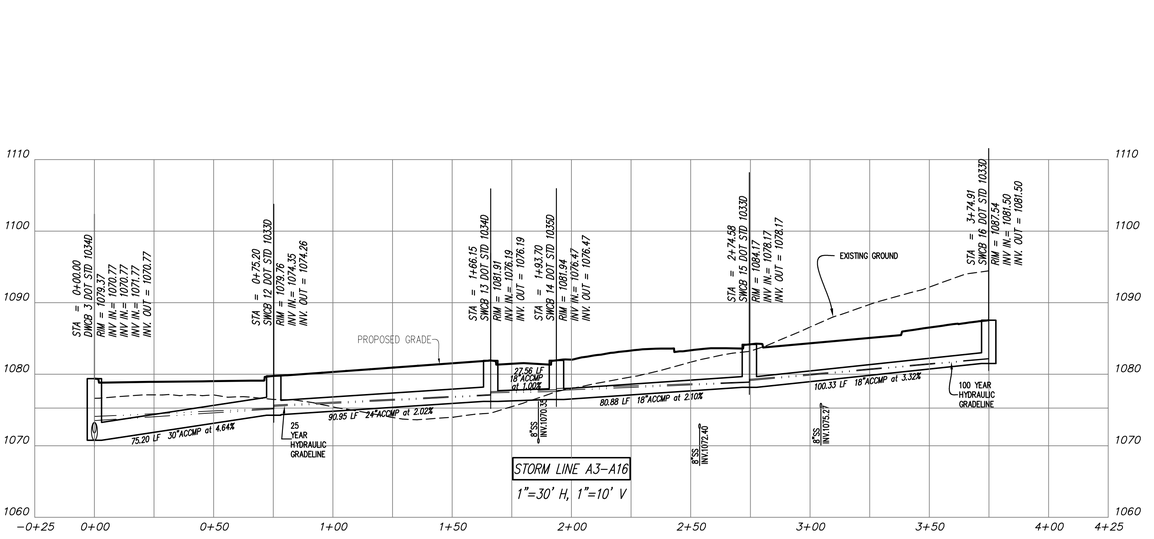
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

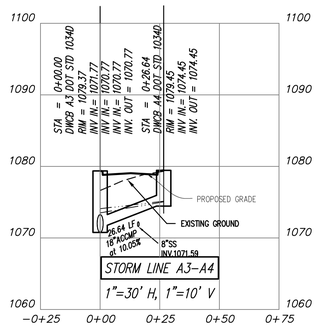
NO.	DATE	REVISION DESCRIPTION	BY

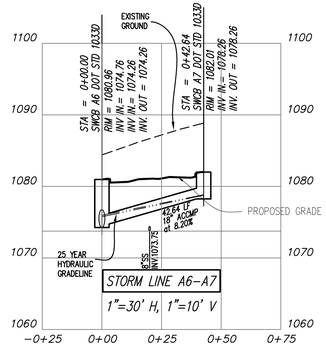
DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

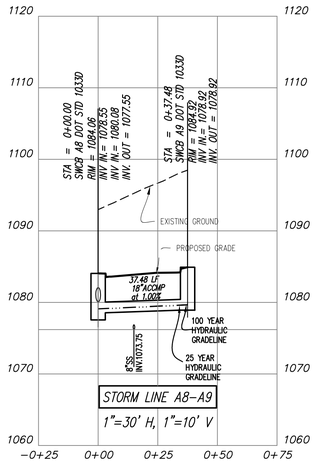
SHEET No. 6.0

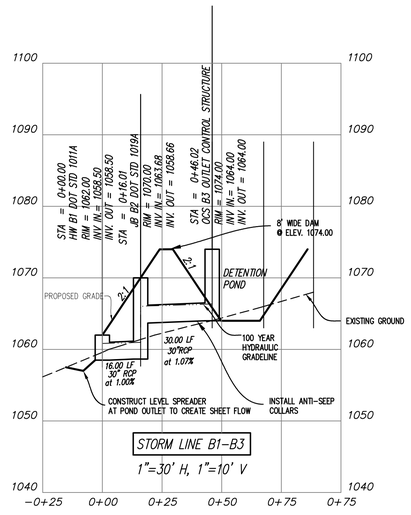












GRAPHIC SCALE

−40 0 20 40 80

(IN FEET)
1 inch = 40' ft.

REGISTERED GEORGIA LAND SURVEYOR No. 3268 MATTHEW S. FORE

centerline
Surveying and Land Planning, Inc.
1360 PEACHTREE STREET, SUITE 1210, ATLANTA, GEORGIA 30309-3144
PHONE: (770) 424-0028 FAX: (770) 424-2399

STORM SEWER PROFILES FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 6.1

PIPE CHART

Rainfall Event	Downstream Node	Upstream Node	Diameter (in)	Manning's n	Length (ft)	Downstream Invert (ft)	Upstream Invert (ft)	Slope (%)	Downstream RimElev(ft)	Upstream Rim Elev	Full Flow (cfs)	Maximum Flow (cfs)	Total Flow (cfs)	Full Flow Velocity (fps)	Downstream HGL (ft)	Upstream HGL (ft)	Downstream Velocity (fps)	Upstream Velocity (fps)
25 YEAR	HW 1 DOT STD 1125	JB 2 DOT STD 1019A	36.00	0.013	5.00	1064.00	1064.05	1.00	1067.50	1070.00	66.88	71.94	19.66	9.46	1072.64	1072.64	2.78	2.78
	JB 2 DOT STD 1019A	DWCB 3 DOT STD 1034D	30.00	0.025	41.72	1066.60	1070.77	10.00	1070.00	1079.37	67.63	72.75	19.81	13.78	1072.88	1073.21	4.04	4.06
	DWCB 3 DOT STD 1034D	SWCB 12 DOT STD 1033D	30.00	0.025	75.20	1070.77	1074.26	4.64	1079.37	1079.76	46.09	49.58	7.01	9.39	1073.51	1075.14	1.43	4.55
	SWCB 12 DOT STD 1033D	SWCB 13 DOT STD 1034D	24.00	0.025	90.95	1074.35	1076.19	2.02	1079.76	1081.91	16.78	18.05	5.85	5.34	1075.51	1077.05	3.11	4.56
	SWCB 13 DOT STD 1034D	SWCB 14 DOT STD 1035D	18.00	0.025	27.56	1076.19	1076.47	1.00	1081.91	1081.94	5.48	5.89	4.47	3.10	1077.39	1077.58	2.96	3.19
	SWCB 14 DOT STD 1035D	SWCB 15 DOT STD 1033D	18.00	0.025	80.88	1076.47	1078.17	2.10	1081.94	1084.17	7.95	8.55	3.10	4.50	1077.73	1078.84	1.95	4.06
	SWCB 15 DOT STD 1033D	SWCB 16 DOT STD 1033D	18.00	0.025	100.33	1077.45	1081.50	4.04	1084.17	1087.54	11.01	11.84	2.74	6.23	1079.11	1082.13	1.55	3.90
	DWCB 3 DOT STD 1034D	SWCB 6 DOT STD 1033D	30.00	0.025	71.95	1070.77	1074.26	4.85	1079.37	1080.96	47.09	50.65	10.42	9.59	1073.52	1075.34	2.12	5.13
	SWCB 6 DOT STD 1033D	SWCB 8 DOT STD 1033D	30.00	0.025	97.66	1074.26	1077.55	3.37	1080.96	1084.06	39.25	42.22	7.41	8.00	1075.78	1078.45	2.36	4.63
	SWCB 8 DOT STD 1033D	SWCB 10 DOT STD 1033D	24.00	0.025	93.92	1080.08	1081.13	1.12	1084.06	1087.29	12.46	13.41	4.22	3.97	1080.80	1082.03	4.13	3.04
	SWCB 10 DOT STD 1033D	SWCB 11 DOT STD 1033D	18.00	0.025	31.61	1081.63	1082.00	1.19	1087.29	1087.64	5.97	6.42	1.68	3.38	1082.17	1082.55	2.93	2.88
	SWCB 8 DOT STD 1033D	SWCB 9 DOT STD 1033D	18.00	0.025	37.48	1078.55	1078.92	1.00	1084.06	1084.92	5.48	5.89	1.86	3.10	1079.06	1079.62	3.48	2.32
	SWCB 6 DOT STD 1033D	SWCB 7 DOT STD 1033D	18.00	0.013	42.64	1074.76	1078.26	8.20	1080.96	1082.01	30.16	32.45	1.85	17.07	1075.76	1078.77	1.47	3.47
	DWCB 3 DOT STD 1034D	DWCB 4 DOT STD 1034D	18.00	0.025	26.64	1071.77	1074.45	10.05	1079.37	1079.45	17.37	18.68	2.53	9.83	1073.51	1075.05	1.43	3.81
100YEAR	HW 1 DOT STD 1125	JB 2 DOT STD 1019A	36.00	0.013	5.00	1064.00	1064.05	1.00	1067.50	1070.00	66.88	71.94	25.19	9.46	1072.64	1072.65	3.56	3.56
	JB 2 DOT STD 1019A	DWCB 3 DOT STD 1034D	30.00	0.025	41.72	1066.60	1070.77	10.00	1070.00	1079.37	67.63	72.75	25.34	13.78	1073.03	1073.62	5.16	5.16
	DWCB 3 DOT STD 1034D	SWCB 12 DOT STD 1033D	30.00	0.025	75.20	1070.77	1074.26	4.64	1079.37	1079.76	46.09	49.58	8.95	9.39	1074.09	1075.26	1.82	4.90
	SWCB 12 DOT STD 1033D	SWCB 13 DOT STD 1034D	24.00	0.025	90.95	1074.35	1076.19	2.02	1079.76	1081.91	16.78	18.05	7.45	5.34	1075.69	1077.16	3.35	4.93
	SWCB 13 DOT STD 1034D	SWCB 14 DOT STD 1035D	18.00	0.025	27.56	1076.19	1076.47	1.00	1081.91	1081.94	5.48	5.89	5.69	3.10	1077.57	1077.83	3.35	3.39
	SWCB 14 DOT STD 1035D	SWCB 15 DOT STD 1033D	18.00	0.025	80.88	1076.47	1078.17	2.10	1081.94	1084.17	7.95	8.55	3.94	4.50	1078.00	1078.93	2.23	4.39
	SWCB 15 DOT STD 1033D	SWCB 16 DOT STD 1033D	18.00	0.025	100.33	1077.45	1081.50	4.04	1084.17	1087.54	11.01	11.84	3.37	6.23	1079.27	1082.20	1.91	4.17
	DWCB 3 DOT STD 1034D	SWCB 6 DOT STD 1033D	30.00	0.025	71.95	1070.77	1074.26	4.85	1079.37	1080.96	47.09	50.65	13.26	9.59	1074.12	1075.48	2.70	5.55
	SWCB 6 DOT STD 1033D	SWCB 8 DOT STD 1033D	30.00	0.025	97.66	1074.26	1077.55	3.37	1080.96	1084.06	39.25	42.22	9.41	8.00	1076.00	1078.57	2.58	4.97
	SWCB 8 DOT STD 1033D	SWCB 10 DOT STD 1033D	24.00	0.025	93.92	1080.08	1081.13	1.12	1084.06	1087.29	12.46	13.41	5.28	3.97	1080.89	1082.16	4.42	3.23
	SWCB 10 DOT STD 1033D	SWCB 11 DOT STD 1033D	18.00	0.025	31.61	1081.63	1082.00	1.19	1087.29	1087.64	5.97	6.42	2.13	3.38	1082.30	1082.60	2.78	3.20
	SWCB 8 DOT STD 1033D	SWCB 9 DOT STD 1033D	18.00	0.025	37.48	1078.55	1078.92	1.00	1084.06	1084.92	5.48	5.89	2.36	3.10	1079.13	1079.71	3.73	2.52
	SWCB 6 DOT STD 1033D	SWCB 7 DOT STD 1033D	18.00	0.013	42.64	1074.76	1078.26	8.20	1080.96	1082.01	30.16	32.45	2.34	17.07	1075.98	1078.84	1.53	3.72
	DWCB 3 DOT STD 1034D	DWCB 4 DOT STD 1034D	18.00	0.025	26.64	1071.77	1074.45	10.05	1079.37	1079.45	17.37	18.68	3.21	9.83	1074.09	1075.13	1.82	4.10

INLET CALCULATIONS

Rainfall Event	Structure Name	Inlet ID	Inlet Length	Drainage Area (ac)	Runoff Coeff.,C	CA	Intensity I (in/hr)	Discharge Q (cfs)	Carryover Qb (cfs)	Total Discharge Qt (cfs)	Longitudinal Slope, S (ft/ft)	Cross Slope, Sx (ft/ft)	Gutter Spread T (ft)	Gutter Width W (ft)	W/T	Gutter Cross Slope Sw (ft/ft)	Sw/Sx Sw/Sx	Inlet Length L (ft)	L/Lt L/Lt	Intercepted Flow, Qi (cfs)	Bypass Flow Qb (cfs)	Ponding Depth d (ft)	Curb Inlet Opening, h (ft)	Gutter Spread @ Sag, T (ft)
10 YEAR	JB 2 DOT STD 1019A	Curb-Sag	12.00	0.00	0.50	0.00	7.51	0.00	0.00	0.00	0.01	0.02	0.00	2.00	0.00	0.08	4.17	12.00	1.00	0.00	0.00	0.00	0.50	0.00
10 YEAR	DWCB 3 DOT STD 1034D	Curb-Sag	12.00	0.33	0.90	0.30	6.31	1.87	0.00	1.87	0.01	0.02	0.66	2.00	3.04	0.08	4.17	12.00	1.00	1.87	0.00	0.14	0.50	0.66
10 YEAR	SWCB 12 DOT STD 1033D	Curb-Grade	12.00	0.19	0.94	0.18	7.51	1.34	0.00	1.34	0.01	0.02	6.56	1.50	0.23	0.08	4.17	12.00	1.54	1.34	0.00	0.23	–	–
10 YEAR	SWCB 13 DOT STD 1034D	Curb-Grade	12.00	0.21	0.93	0.20	7.51	1.47	0.00	1.47	0.02	0.02	5.77	1.50	0.26	0.08	4.17	12.00	1.27	1.47	0.00	0.21	–	–
10 YEAR	SWCB 14 DOT STD 1035D	Curb-Grade	12.00	0.27	0.73	0.20	7.51	1.48	0.00	1.48	0.01	0.02	6.88	1.50	0.22	0.08	4.17	12.00	1.45	1.48	0.00	0.23	–	–
10 YEAR	SWCB 15 DOT STD 1033D	Curb-Grade	12.00	0.08	0.74	0.06	7.51	0.44	0.00	0.44	0.01	0.02	3.46	1.50	0.43	0.08	4.17	12.00	2.95	0.44	0.00	0.16	–	–
10 YEAR	SWCB 16 DOT STD 1033D	Curb-Grade	12.00	0.43	0.83	0.36	6.31	2.25	0.00	2.25	0.01	0.02	8.33	1.50	0.18	0.08	4.17	12.00	1.12	2.25	0.00	0.26	–	–
10 YEAR	SWCB 6 DOT STD 1033D	Curb-Grade	12.00	0.21	0.91	0.19	7.51	1.44	0.00	1.44	0.01	0.02	6.78	1.50	0.22	0.08	4.17	12.00	1.48	1.44	0.00	0.23	–	–
10 YEAR	SWCB 8 DOT STD 1033D	Curb-Grade	12.00	0.21	0.91	0.19	7.51	1.44	0.00	1.44	0.01	0.02	6.78	1.50	0.22	0.08	4.17	12.00	1.48	1.44	0.00	0.23	–	–
10 YEAR	SWCB 10 DOT STD 1033D	Curb-Grade	12.00	0.35	0.88	0.31	7.05	2.17	0.00	2.17	0.01	0.02	8.20	1.50	0.18	0.08	4.17	12.00	1.15	2.17	0.00	0.26	–	–
10 YEAR	SWCB 11 DOT STD 1033D	Curb-Grade	12.00	0.23	0.80	0.18	7.51	1.38	0.00	1.38	0.01	0.02	6.66	1.50	0.23	0.08	4.17	12.00	1.52	1.38	0.00	0.23	–	–
10 YEAR	SWCB 9 DOT STD 1033D	Curb-Grade	12.00	0.24	0.85	0.20	7.51	1.53	0.00	1.53	0.01	0.02	6.99	1.50	0.21	0.08	4.17	12.00	1.42	1.53	0.00	0.23	–	–
10 YEAR	SWCB 7 DOT STD 1033D	Curb-Grade	12.00	0.23	0.88	0.20	7.51	1.52	0.00	1.52	0.01	0.02	6.96	1.50	0.22	0.08	4.17	12.00	1.43	1.52	0.00	0.23	–	–
10 YEAR	DWCB 4 DOT STD 1034D	Curb-Sag	12.00	0.33	0.84	0.28	7.51	2.08	0.00	2.08	0.01	0.02	1.17	2.00	1.72	0.08	4.17	12.00	1.00	2.08	0.00	0.15	0.50	1.17
100 YEAR	JB 2 DOT STD 1019A	Curb-Sag	12.00	0.00	0.50	0.00	11.58	0.00	0.00	0.00	0.01	0.02	0.00	2.00	0.00	0.08	4.17	12.00	1.00	0.00	0.00	0.00	0.50	0.00
100 YEAR	DWCB 3 DOT STD 1034D	Curb-Sag	12.00	0.33	0.90	0.30	9.73	2.89	0.00	2.89	0.01	0.02	0.66	2.00	3.04	0.08	4.17	12.00	1.00	2.89	0.00	0.14	0.50	0.66
100 YEAR	SWCB 12 DOT STD 1033D	Curb-Grade	12.00	0.19	0.94	0.18	11.58	2.07	0.00	2.07	0.01	0.02	6.56	1.50	0.23	0.08	4.17	12.00	1.18	2.07	0.00	0.23	–	–
100 YEAR	SWCB 13 DOT STD 1034D	Curb-Grade	12.00	0.21	0.93	0.20	11.58	2.26	0.00	2.26	0.02	0.02	5.77	1.50	0.26	0.08	4.17	12.00	0.97	2.26	0.00	0.21	–	–
100 YEAR	SWCB 14 DOT STD 1035D	Curb-Grade	12.00	0.27	0.73	0.20	11.58	2.28	0.00	2.28	0.01	0.02	6.88	1.50	0.22	0.08	4.17	12.00	1.12	2.28	0.00	0.23	–	–
100 YEAR	SWCB 15 DOT STD 1033D	Curb-Grade	12.00	0.08	0.74	0.06	11.58	0.69	0.10	0.78	0.01	0.02	3.46	1.50	0.43	0.08	4.17	12.00	2.13	0.78	0.00	0.16	–	–
100 YEAR	SWCB 16 DOT STD 1033D	Curb-Grade	12.00	0.43	0.83	0.36	9.73	3.47	0.00	3.47	0.01	0.02	8.33	1.50	0.18	0.08	4.17	12.00	0.86	3.37	0.10	0.26	–	–
100 YEAR	SWCB 6 DOT STD 1033D	Curb-Grade	12.00	0.21	0.91	0.19	11.58	2.21	0.00	2.21	0.01	0.02	6.78	1.50	0.22	0.08	4.17	12.00	1.14	2.21	0.00	0.23	–	–
100 YEAR	SWCB 8 DOT STD 1033D	Curb-Grade	12.00	0.21	0.91	0.19	11.58	2.21	0.00	2.21	0.01	0.02	6.78	1.50	0.22	0.08	4.17	12.00	1.11	2.29	0.00	0.23	–	–
100 YEAR	SWCB 10 DOT STD 1033D	Curb-Grade	12.00	0.35	0.88	0.31	10.87	3.35	0.00	3.35	0.01	0.02	8.20	1.50	0.18	0.08	4.17	12.00	0.88	3.28	0.07	0.26	–	–
100 YEAR	SWCB 11 DOT STD 1033D	Curb-Grade	12.00	0.23	0.80	0.18	11.58	2.13	0.00	2.13	0.01	0.02	6.66	1.50	0.23	0.08	4.17	12.00	1.16	2.13	0.00	0.23	–	–
100 YEAR	SWCB 9 DOT STD 1033D	Curb-Grade	12.00	0.24	0.85	0.20	11.58	2.36	0.00	2.36	0.01	0.02	6.99	1.50	0.21	0.08	4.17	12.00	1.09	2.36	0.00	0.23	–	–
100 YEAR	SWCB 7 DOT STD 1033D	Curb-Grade	12.00	0.23	0.88	0.20	11.58	2.34	0.00	2.34	0.01	0.02	6.96	1.50	0.22	0.08	4.17	12.00	1.10	2.34	0.00	0.23	–	–
100 YEAR	DWCB 4 DOT STD 1034D	Curb-Sag	12.00	0.33	0.84	0.28	11.58	3.21	0.00	3.21	0.01	0.02	1.17	2.00	1.72	0.08	4.17	12.00	1.00	3.21	0.00	0.15	0.50	1.17

centerline
Surveying and Land Planning, Inc.
1807 STERLING ROAD, SUITE 210, KENNESAW, GA 30144
PHONE: (770) 424-0028 FAX: (770) 424-2899

GEORGIA REGISTERED No. 3268 LAND SURVEYOR MATTHEW S. FOX

PIPE CHART & INLET CALCS FOR:

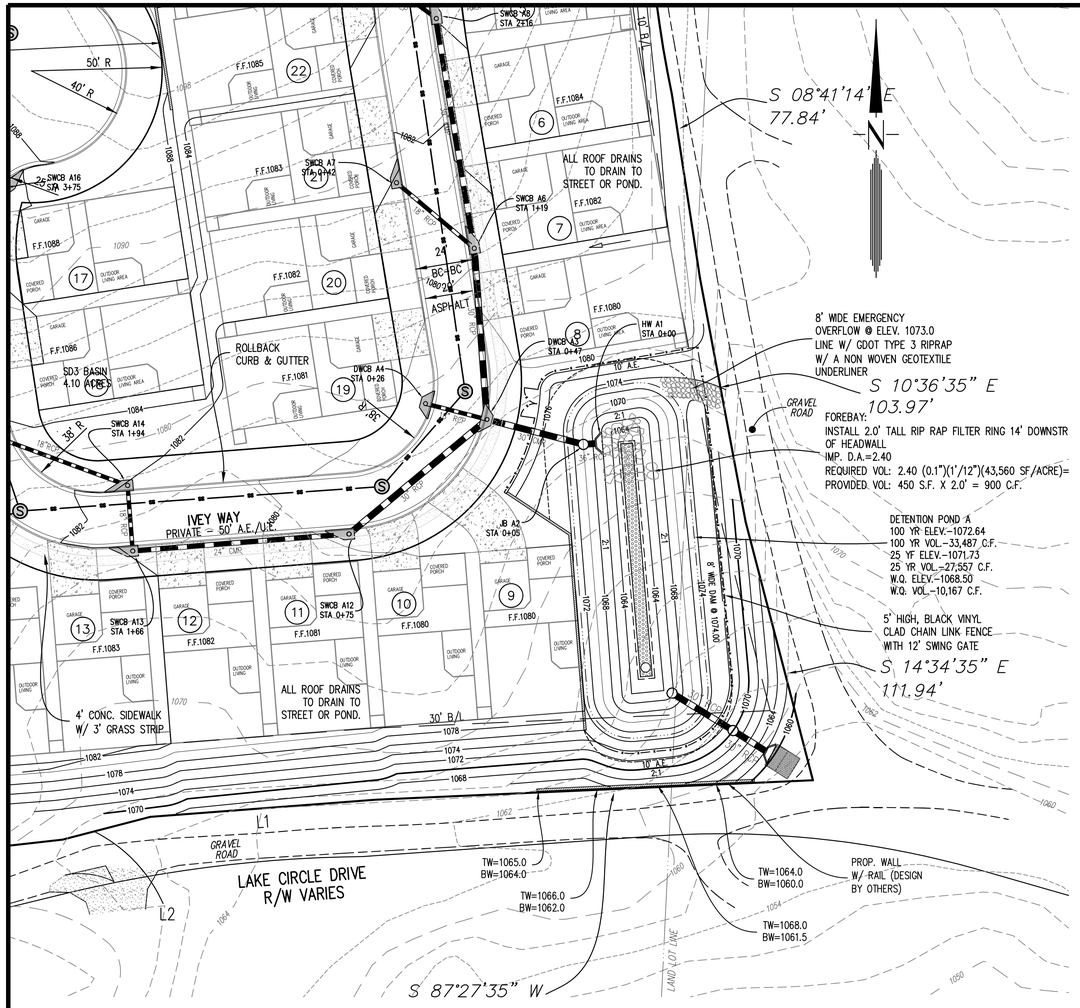
WILEY BRIDGE ROAD

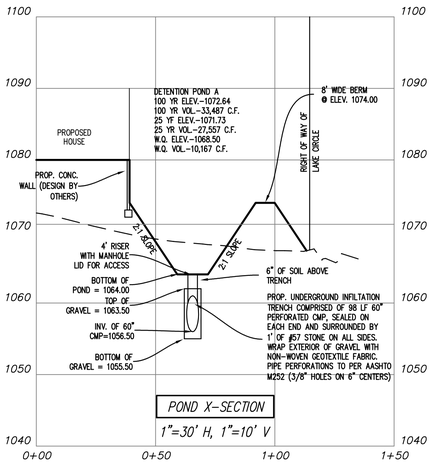
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 6.2





STEP 1 - DETERMINE IF THE DEVELOPEMENT SITE AND CONDITIONS ARE APPROPRIATE FOR THE USE OF AN INFILTRAION PRACTICE.

SITE CONTRAINTS PROVIDE LIMITED SPACE FOR EMPLOYEMENT OF RUNOFF REDUCTION BMPS, THEREFORE AN INFILTRATION TRENCH HAS BEEN PLACED IN THE BOTTOM OF THE POND. A SOIL STUDY TO DETERMINE INFILTRATION RATE IS PENDING.

STEP 2 - DETERMINE GOALS AND PRIMARY FUNCTION OF THE BMP.

PROVIDE PARTIAL RUNOFF REDUCTION VOLUME.

PROVIDE 80% TSS REMOVAL

STEP 3 - CALCULATE VOLUMES

3A: CALCULATE THE STORMWATER RUNOFF REDUCTION TARGET VOLUME:

RRv VOL = 8,427 C.F. (SEE STORMWATER QUALITY SITE DEVELOPMENT REVIEW TOOL)

3B: DETERMINE STORAGE VOLUME OF THE BMP AND THE PRETREATMENT VOLUME::

PRETREATMENT VOLUME:

PRETREATMENT VOLUME = 0.1" PER IMPERVIOUS ACRE

IMPERVIOUS AREA = 2.40 ACRES

PRETREATMENT VOLUME = 2.40 (0.1")(1'/12")(43,560 SF/ACRE)=871 C.F.

A SEDIMENT FOREBAY HAS BEEN PROVIDED ON THE UPSTREAM END OF THE POND. ADDITIONALLY, THE INFILTRATION TRENCH WILL BE SUBSURFACE WITH 6" OF SOIL ABOVE THE TRENCH AND GEOTEXTILE FABRIC SURROUNDING THE TRENCH. RUNOFF WILL ENTER THE TRENCH VIA PERCOLATION THROUGH THE 6" SOIL LAYER.

INFILTRATION TRENCH STORAGE VOLUME:

VOL IN PIPE = 19.63 C.F. PER LF OF PIPE X 98 LF = 1,923 C.F.
VOL IN STONE = 49 C.F. - 19.63 C.F. = 29.37 C.F. X 0.40 = 11.748 C.F. X 98 LF = 1,151 C.F.

TOTAL VOL = 3,075 C.F.

3C: DETERMINE WHETHER THE MIN. STORAGE VOLUME WAS MET.

REQUIRED VOLUME = 8,427 C.F.
PROVIDED VOLUME = 3,075 C.F.

NOTE: THIS BMP HAS BEEN DESIGNED TO PROVIDE PARTIAL RUNOFF REDUCTION AND MEET THE TARGET 80% TSS REMOVAL. BECAUSE FULL RUNOFF REDUCTION HAS NOT BEEN ACHIEVED, THE FULL WQ VOLUME HAS BEEN PROVIDED IN THE POND.

STEP 4 - CALCULATE THE TARGET WATER QUALITY VOLUME

EFFECTIVE TSS REMOVAL = 100% (SEE STORMWATER QUALITY SITE DEVELOPMENT REVIEW TOOL)

STEP 5 - IF APPLICABLE, CALCULATE THE ADJUSTED CURVE NUMBER

FOR CN= 025 0100
SEE HYDROLOGY STUDY FOR CURVE NUMBERS

STEP 6 - SIZE FLOW DIVERSION STRUCTURE, IF NEEDED.

FLOW DIVERSION STRUCTURE NOT REQUIRED.

STEP 7 - SIZE UNDERDRAIN SYSTEM

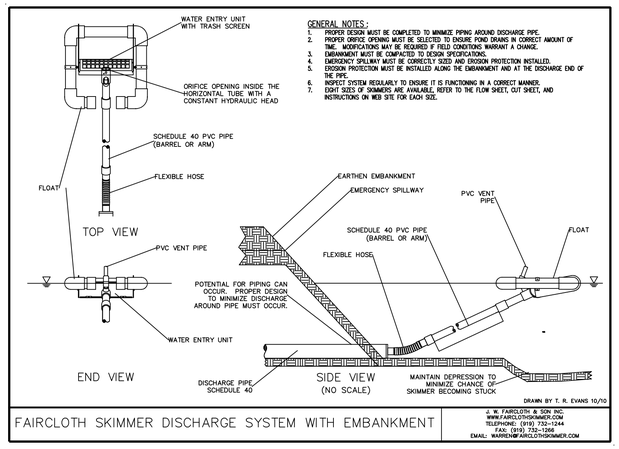
IN ORDER TO PROVIDE 100% RUNOFF REDUCTION, THE TRENCH HAS BEEN DESIGNED WITHOUT AN UNDERDRAIN. SOIL STUDY TO DETERMINE INFILTRATION RATES AND DRAWDOWN TIME IS PENDING.

STEP 8 - DESIGN EMERGENCY OVERFLOW

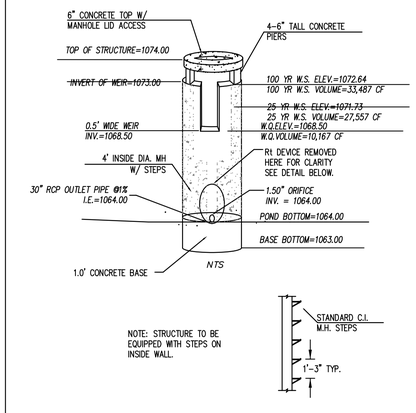
THE OUTLET CONTROL STRUCTURE SERVES AS THE OVERFLOW.

STEP 9 - PREPARE VEGETATION AND LANDSCAPING PLAN

POND WILL BE SEEDED AND STRAWED WITH PERMANENT VEGATATION. HOWEVER, NO ADDITIONAL PLANTINGS ARE PLANNED FOR THE POND.



FAIRCLOTH SKIMMER DISCHARGE SYSTEM WITH EMBANKMENT



PROPOSED OUTLET CONTROL STRUCTURE POND 1 DETAIL (NTS)

BUOYANCY CALCULATION – OUTLET STRUCTURE

STRUCTURE (WATER DISPLACED)

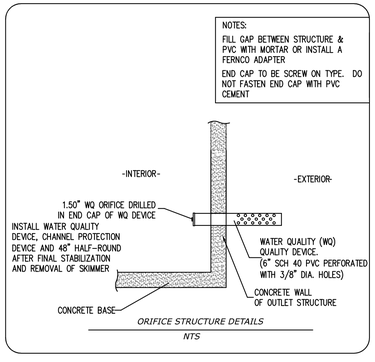
H = 1073.00–1064.00 = to weir = 9.00 ft
W1 = 3.14 x 2.0^2 = 12.56 sf
VOLUME DISPLACED = 12.56 ft X 9.00 sf = 113.10 cf
UPLIFT FORCE = 113.10 cf x 62.4 lb/cf
= 7,057 TOTAL UPLIFT

STRUCTURE WEIGHT

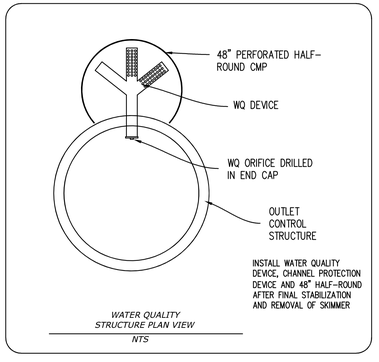
W1 = 3.14 x 2.0^2 = 12.56 sf
W2 = 3.14 X 2.5^2 = 19.63 sf
19.63 sf – 12.56 sf = 7.07 sf
H = 1073.00–1064.00 = to weir = 9.00 ft
VOLUME (CONCRETE) = 7.07 sf x 9.00 ft x 150 lb/cf
= 9,545 lb
TOP = 19.63 sf x 0.5' = 9.82 cf x 150 lb/cf = 1,473 lb
BASE & BALLAST = 19.63 sf x 1.0' = 19.63 cf x 150 lb/cf
= 2,945 lb

DOWNWARD FORCE = 9,545 lb + 1,473 lb + 2,945 lb
= 13,963 lb

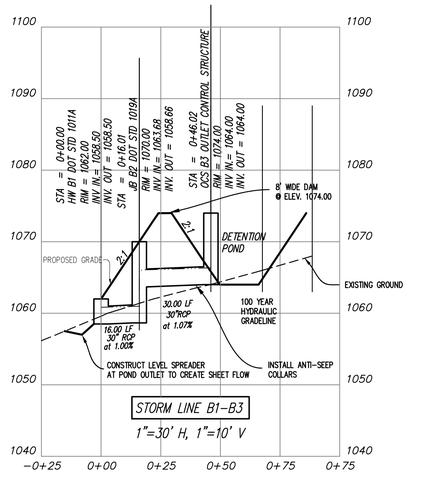
F.S. = 1.97



ORIFICE STRUCTURE DETAILS
NTS



WATER QUALITY STRUCTURE PLAN VIEW
NTS



DETENTION POND NOTES:

1. ALL ORGANICS AND TOP SOIL SHALL BE REMOVED FROM THE ENTIRE FOOTPRINT OF THE DAM.
2. EARTHEN FILL SHALL BE CL OR ML MATERIAL APPROVED FOR USE BY GEOTECHNICAL ENGINEER (PE) AND PLACED IN 6" LIFTS AND COMPACTED TO NOT LESS THAN 95% STANDARD PROCTOR UNDER SAID ENGINEER'S DIRECTION.
3. 6" PVC OUTLET CONTROL DEVICE TO BE INSTALLED ONLY AFTER SITE IS COMPLETELY STABILIZED AND TEMPORARY SEDIMENT FILTER AND ACCUMULATED SEDIMENT IS REMOVED.
4. MINIMUM FINISHED FLOOR ELEVATION(S) SHOULD BE SET AT LEAST 3 FEET ABOVE 100-YEAR HEADWATER POOL ELEVATION(S).
5. AFTER FINAL CONSTRCUTION OF THE POND, THE GATE VALVE WILL ONLY BE OPENED UPON NOTIFICATION TO AND APPROVAL FROM CHEROKEE COUNTY.

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FREY

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Surveying and Land Planning, Inc.
1361 JOHNSTON ROAD, SUITE 210, CANTON, GA 30114
PHONE: (770) 424-0028 FAX: (770) 424-2399

STORMWATER POND DETAILS FOR:

WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

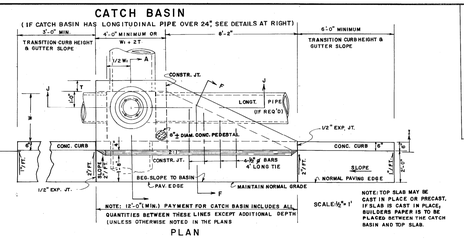
NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. 6.3

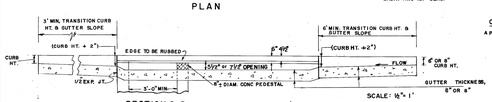
CATCH BASIN

(IF CATCH BASIN HAS LONGITUDINAL PIPE OVER 24", SEE DETAILS AT RIGHT)

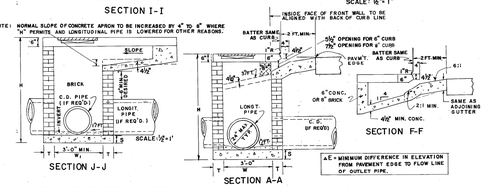


NOTE: 18'-0"(MIN.) PAYMENT FOR CATCH BASIN INCLUDES ALL QUANTITIES BETWEEN THESE LINES EXCEPT ADDITIONAL DEPTH UNLESS OTHERWISE NOTED IN THE PLANS

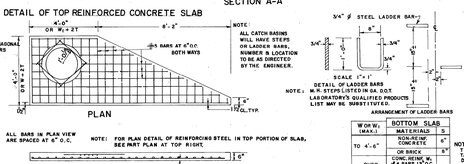
PLAN



SECTION I-I



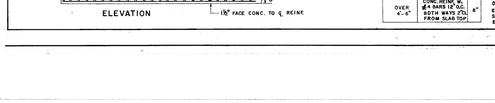
SECTION J-J



SECTION A-A

AE = MINIMUM DIFFERENCE IN ELEVATION FROM PAVEMENT EDGE TO FLOW LINE OF OUTLET PIPE.

DETAIL OF TOP REINFORCED CONCRETE SLAB

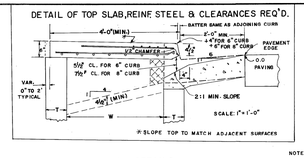


NOTE: ALL BARS IN PLAN VIEW ARE SPACED AT 6" O.C.

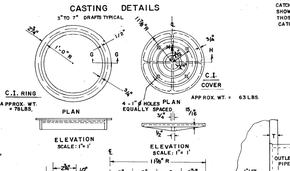
NOTE: FOR PLAN DETAIL OF REINFORCING STEEL IN TOP PORTION OF SLAB, SEE PART PLAN AT TOP RIGHT.

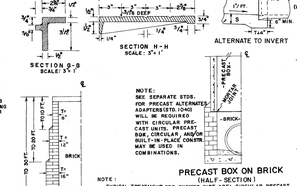
NOTE: ALL CATCH BASINS WILL HAVE STEPS OR LADDER BARS, NUMBER & LOCATION TO BE AS DIRECTED BY THE ENGINEER.

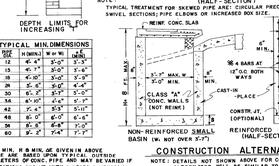
DETAIL OF TOP SLAB, REINF. STEEL & CLEARANCES REQ'D.



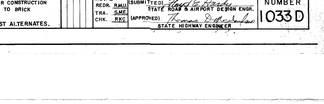
CASTING DETAILS







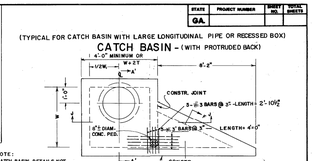
DETAIL OF TOP REINFORCED CONCRETE SLAB



NOTE: PIPE SIZES, NUMBER, ALIGNMENT, AND INVERT SHOWN ARE ILLUSTRATIVE. SEE PLANS FOR SPECIFICS. INVERTS TO BE FORMED WITH GROUT OR CONC. AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

(TYPICAL FOR CATCH BASIN WITH LARGE LONGITUDINAL PIPE OR RECESSED BOX)

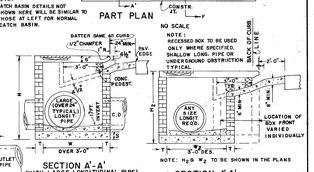
CATCH BASIN - (WITH PROTRUDED BACK)



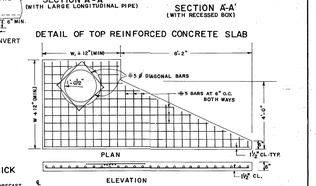
NOTE: CATCH BASIN DETAILS NOT SHOWN HERE WILL BE SIMILAR TO THOSE AT LEFT FOR NORMAL CATCH BASIN.

NO SCALE

NOTE: RECESSED BOX TO BE USED ONLY WHERE SPECIFIED. SHALLOW LONG. PIPE OR UNDERGROUND OBSTRUCTION TYPICAL



DETAIL OF TOP REINFORCED CONCRETE SLAB



NOTE: TYPICAL TREATMENT FOR SKEWED PIPES ARE: CIRCULAR PRECAST UNITS; PRECAST ENVIRO. SECTIONS; PIPE ELBOWS OR UNCREASED BOX SIZES TO ACCOMODATE THE SKEWS.

SEE SEPARATE STANDARDS FOR PRECAST ALTERNATES.

ALTERNATE TO INVERT

PRECAST BOX ON BRICK (HALF-SECTION)

NOTE: SEE SEPARATE STDS. FOR PRECAST ALTERNATES. ADAPTERS(STD.1060) WILL BE REQUIRED WITH CIRCULAR PRECAST BOX. CIRCULAR, AND/OR BUILT-IN-PLACE CONSTR. MAY BE USED IN COMBINATIONS.

TYPICAL MIN. DIMENSIONS

PIPE DIA. (MIN)	W or W_1 (MIN)	W or W_1 (MAX)
12	4'-4"	5'-0"
15	4'-7"	5'-0"
18	4'-10"	5'-0"
24	5'-4"	5'-0"
30	5'-10"	5'-3"
36	6'-4"	5'-3"
42	7'-0"	5'-3"
48	7'-6"	6'-0"
54	8'-0"	6'-0"
60	8'-6"	7'-0"

PRECAST BOX ON BRICK (HALF-SECTION)

CONSTRUCTION ALTERNATES

NOTE: DETAILS NOT SHOWN ABOVE FOR CONSTRUCTION ALTERNATES WILL BE SIMILAR TO BRICK CATCH BASIN DETAILS.

SEE SEPARATE STANDARDS FOR PRECAST ALTERNATES.



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

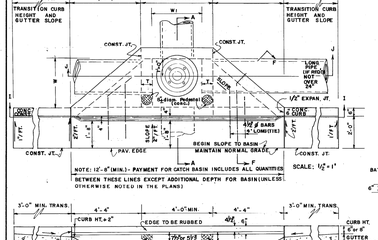
STANDARD
CATCH BASINS
FOR USE WITH CURB (6" OR 8" HT.) & GUTTER

SCALE AS SHOWN — REV. & REC'D. AUGUST, 1982

REV'S	SUBMITTED:	STATE ROAD & AIRPORT DESIGN ENGR.	NUMBER
RECM.	RMJ		
TRA	GMC	APPROVED:	1033D
CHK.	RKC	STATE HIGHWAY ENGINEER	

CATCH BASIN

(FOR CATCH BASIN WITH LONGIT. PIPE OVER 24", SEE DETAILS AT RIGHT.)

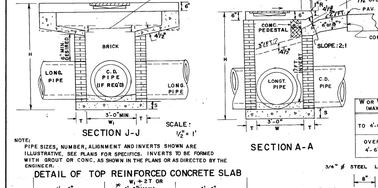


NOTE: 18'-0"(MIN.)- PAYMENT FOR CATCH BASIN INCLUDES ALL QUANTITIES BETWEEN THESE LINES EXCEPT ADDITIONAL DEPTH FOR BASIN(UNLESS OTHERWISE NOTED IN THE PLANS)

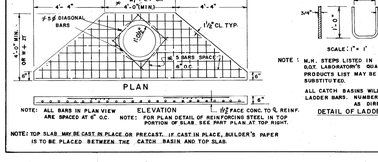
PLAN



SECTION I-I



SECTION J-J



SECTION A-A

AE = MINIMUM DIFFERENCE IN ELEVATION FROM PAVEMENT EDGE TO FLOW LINE OF OUTLET PIPE.

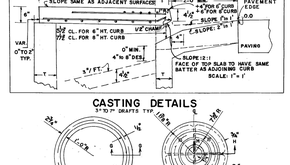
DETAIL OF TOP REINFORCED CONCRETE SLAB

NOTE: ALL BARS IN PLAN VIEW ARE SPACED AT 6" O.C.

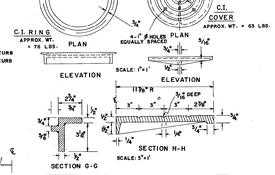
NOTE: FOR PLAN DETAIL OF REINFORCING STEEL IN TOP PORTION OF SLAB, SEE PART PLAN AT TOP RIGHT.

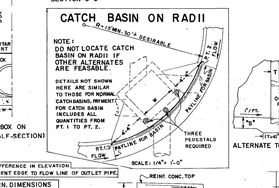
NOTE: TOP SLAB MAY BE CAST IN PLACE OR PRECAST. IF CAST IN PLACE, BUILDER'S PAPER IS TO BE PLACED BETWEEN THE CATCH BASIN AND TOP SLAB.

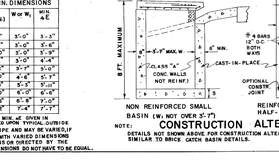
DETAIL OF TOP SLAB REINF. STEEL & CLEARANCES REQ'D.



CASTING DETAILS

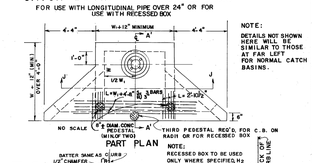




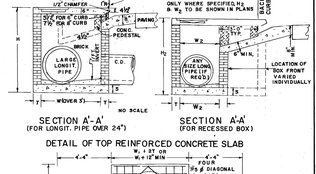


CATCH BASIN (WITH PROTUDED BACK)

FOR USE WITH LONGITUDINAL PIPE OVER 24" OR FOR USE WITH RECESSED BOX



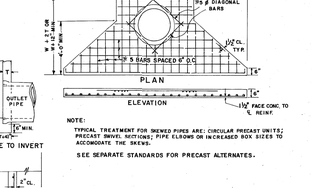
NOTE: DETAILS NOT SHOWN HERE WILL BE SIMILAR TO THOSE AT FAR LEFT FOR NORMAL CATCH BASINS.



NOTE: RECESSED BOX TO BE USED ONLY WHERE SPECIFIED. H_2 & W_2 TO BE SHOWN IN PLANS

NO SCALE

DETAIL OF TOP REINFORCED CONCRETE SLAB



NOTE: TYPICAL TREATMENT FOR SKEWED PIPES ARE: CIRCULAR PRECAST UNITS; PRECAST ENVIRO. SECTIONS; PIPE ELBOWS OR UNCREASED BOX SIZES TO ACCOMODATE THE SKEWS.

SEE SEPARATE STANDARDS FOR PRECAST ALTERNATES.

ALTERNATE TO INVERT

CATCH BASIN ON RADII

NOTE: DO NOT LOCATE CATCH BASINS ON RADII IF OTHER ALTERNATES ARE FEASIBLE.

DETAILS NOT SHOWN HERE ARE SIMILAR TO THOSE FOR NORMAL CATCH BASINS. PAVEMENT FOR CATCH BASIN INCLUDES ALL QUANTITIES FROM PT. 1 TO PT. 2.

PRECAST BOX ON BRICK(HALF-SECTION)

W OR W_1 (MAX.)	BOTTOM SLAB MATERIALS	
TO 4'-6"	NON-REINF. CONCRETE	6"
	OR BRICK	8"
OVER 4'-6"	CONC. REINF. W. 4 BARS (2 EA. BOTH WAYS 2"CL. FROM SLAB TOP)	6"

TYPICAL MIN. DIMENSIONS

PIPE DIA. (MIN)	W or W_1 MIN.	W or W_1 MAX.
12	4'-4"	5'-0"
15	4'-7"	5'-0"
18	4'-10"	5'-0"
24	5'-4"	5'-0"
30	5'-10"	5'-3"
36	6'-4"	5'-3"
42	7'-0"	5'-3"
48	7'-6"	6'-0"
54	8'-0"	6'-0"
60	8'-6"	7'-0"

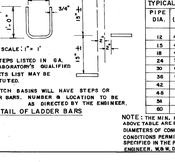
NOTE: THE MIN. H & W MIN. OF GIVEN IN ABOVE TABLE ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONC. PIPE AND MAY BE VARIED IF CONDITIONS PERMIT WITH VARIED DIMENSIONS SPECIFIED IN THE PLANS OR DIRECTED BY THE ENGINEER. W & W1 DIMENSIONS DO NOT HAVE TO BE EQUAL.

NON REINFORCED SMALL BASIN (W. NOT OVER 5'-7")

CONSTRUCTION ALTERNATES

NOTE: DETAILS NOT SHOWN ABOVE FOR CONSTRUCTION ALTERNATES WILL BE SIMILAR TO BRICK CATCH BASIN DETAILS.

DETAIL OF LADDER BARS



NOTE: M.H. STEPS LISTED IN GA. DOT LABORATORY'S QUALIFIED PRODUCTS LIST MAY BE SUBSTITUTED.

ALL CATCH BASINS WILL HAVE STEPS OR LADDER BARS. NUMBER & LOCATION TO BE AS DIRECTED BY THE ENGINEER.

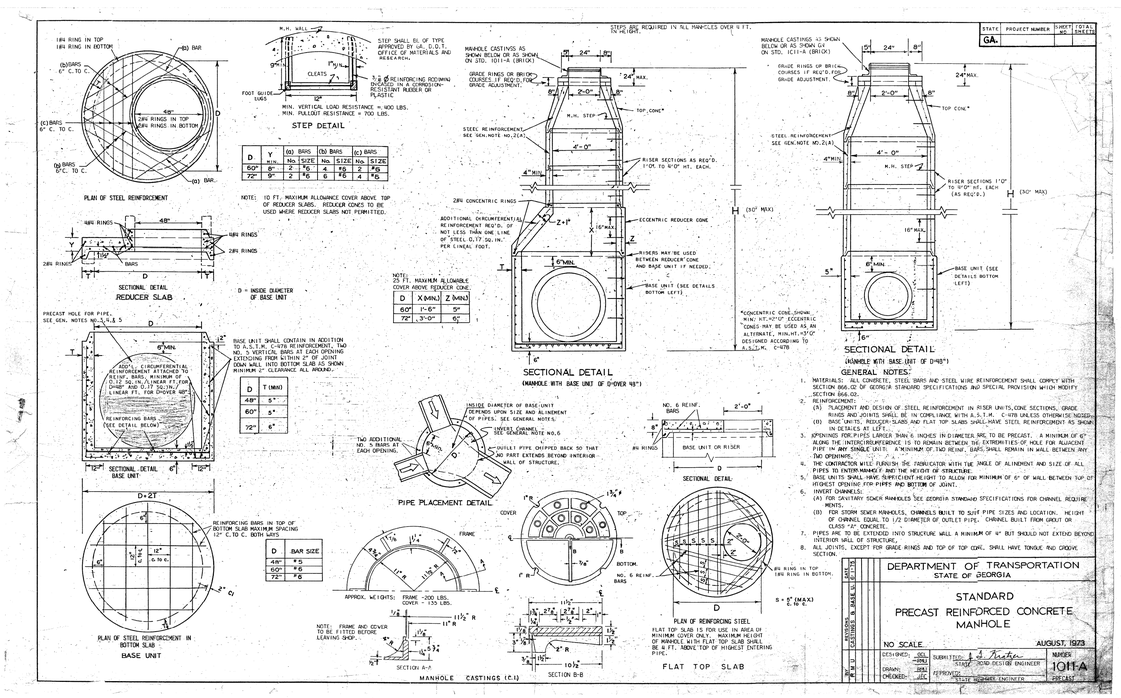
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
CATCH BASINS
(IN SAGS OR LOW POINTS)

SCALE AS SHOWN — REV. & REC'D. AUGUST 1982

REV'S	SUBMITTED:	STATE ROAD & AIRPORT DESIGN ENGR.	NUMBER
RECM.	RMJ		
TRA	GMC	APPROVED:	1034D
CHK.	RKC	STATE HIGHWAY ENGINEER	



NOTE: 10 FT. MAXIMUM ALLOWANCE COVER ABOVE TOP OF REDUCER SLABS. REDUCER CONES TO BE USED WHERE REDUCER SLABS NOT PERMITTED.

D	Y MIN.	(a) BARS No.	SIZE	(b) BARS No.	SIZE	(c) BARS No.	SIZE
60"	8"	2	#5	6	#5	2	#5
72"	9"	2	#6	6	#6	4	#5

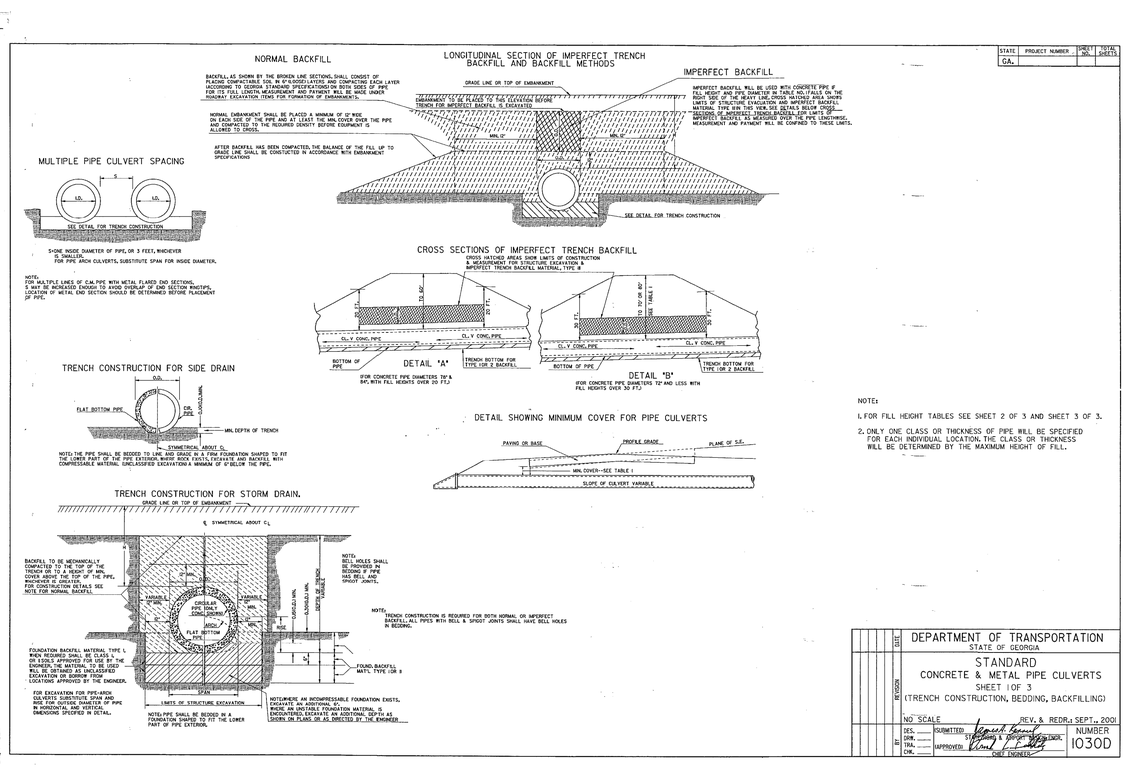
SECTIONAL DETAIL
REDUCER SLAB

D = INSIDE DIAMETER OF BASE UNIT

NOTE: 25 FT. MAXIMUM ALLOWABLE COVER ABOVE REDUCER CONE

D	X MIN.	Z MIN.
60"	1'-6"	3"
72"	3'-0"	6"

D	T (MIN)
48"	5"
60"	5"
72"	6"



GENERAL NOTES:

1. MATERIALS: ALL CONCRETE, STEEL BARS AND STEEL WIRE REINFORCEMENT SHALL COMPLY WITH SECTION 866.02 OF GEORGIA STANDARD SPECIFICATIONS AND SPECIAL PROVISION WHICH MODIFY SECTION 866.02.
2. REINFORCEMENT:
   (A) PLACEMENT AND DESIGN OF STEEL REINFORCEMENT IN RISER UNITS, CONE SECTIONS, GRADE RINGS AND JOINTS SHALL BE IN CONFORMANCE WITH A.S.T.M. C-478 UNLESS OTHERWISE NOTED ON DETAILS AT LEFT.
   (B) BASE UNITS, REDUCER SLABS AND FLAT TOP SLABS SHALL HAVE STEEL REINFORCEMENT AS SHOWN ON DETAILS AT LEFT.
3. OPENINGS FOR PIPES LARGER THAN 6 INCHES IN DIAMETER ARE TO BE PRECAST. A MINIMUM OF 6" ALONG THE INTERIOR PERIPHERY IS TO REMAIN BETWEEN THE EXTREMITIES OF HOLE FOR ALIGNMENT PURPOSES IN SINGLE UNITS. A MINIMUM OF TWO RINGS, BARS SHALL REMAIN IN WALL BETWEEN ANY TWO OPENINGS.
4. THE CONTRACTOR WILL FURNISH THE FABRICATOR WITH THE ANGLE OF ALIGNMENT AND SIZE OF ALL PIPES TO ENTER MANHOLE AND THE HEIGHT OF STRUCTURE.
5. BASE UNITS SHALL HAVE SUFFICIENT HEIGHT TO ALLOW FOR A MINIMUM OF 6" OF WALL BETWEEN TOP OF HIGHEST OPENING FOR PIPES AND BOTTOM OF JOINT.
6. INVERT CHANNELS:
   (A) FOR GRAVITY SEWER MANHOLES SEE GEORGIA STANDARD SPECIFICATIONS FOR CHANNEL REQUIREMENTS.
   (B) FOR STORM SEWER MANHOLES, CHANNELS BUILT TO SUIT PIPE SIZES AND LOCATION. HEIGHT OF CHANNEL EQUAL TO 1/2 DIAMETER OF OUTLET PIPE. CHANNEL BUILT FROM GROUT OR CLASS "A" CONCRETE.
7. PIPE LINES TO BE EXTENDED INTO STRUCTURE WELL A MINIMUM OF 4" BUT SHOULD NOT EXTEND BEYOND INTERIOR WALL OF STRUCTURE.
8. ALL JOINTS, EXCEPT FOR GRADE RINGS AND TOP OF TOP CONE, SHALL HAVE TONGUE AND GROOVE SECTION.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

STANDARD
PRECAST REINFORCED CONCRETE MANHOLE

NO SCALE — AUGUST, 1973

REVISIONS BY	DATE	NO.	DESCRIPTION

DES. ___ SUBMITTED: ___ STATE ROAD DESIGN ENGINEER — NUMBER 1011-A
DRAWN: SDL
CHECKED: JJC
APPROVED: ___ STATE HIGHWAY ENGINEER — PRECAST

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. MSF

centerline
Surveying and Land Planning, Inc.
1301 CANTON STREET, SUITE 210, ROSWELL, GA. 30075-4144
PHONE: (770) 424-0028 FAX: (770) 424-3899

GDOT STANDARD DRAINAGE DETAILS FOR:

WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

NORMAL BACKFILL

BACKFILL AS SHOWN BY THE BROKEN LINE SECTIONS, SHALL CONSIST OF PLACING AND COMPACTING SOIL IN 6" LAYERS (COMPACTED) OR TO STABLE SOIL IN WHICH SPECIFICATIONS AND COMPACTING EACH LAYER AS DIRECTED BY THE ENGINEER. BACKFILL SHALL BE PLACED AS SOON AS POSSIBLE FOR ITS FULL LENGTH. MEASUREMENT AND PAYMENT WILL BE MADE UNDER ROADWAY EXCAVATION ITEMS FOR FORMATION OF EMBANKMENTS.

NORMAL EMBANKMENT SHALL BE PLACED A MINIMUM OF 10' WIDE ON EACH SIDE OF THE PIPE AND AT LEAST THE MINIMUM OVER THE PIPE AND COMPACTED TO THE REQUIRED DENSITY BEFORE EQUIPMENT IS ALLOWED TO CROSS.

AFTER BACKFILL HAS BEEN COMPACTED, THE BALANCE OF THE FILL UP TO GRADE LINE SHALL BE CONSTRUCTED IN ACCORDANCE WITH EMBANKMENT SPECIFICATIONS

MULTIPLE PIPE CULVERT SPACING

S-ONE INSIDE DIAMETER OF PIPE, OR 3 FEET, WHICHEVER IS SMALLER.
FOR PIPE ARCH CULVERTS, SUBSTITUTE SPAN FOR INSIDE DIAMETER.

NOTE:
FOR MULTIPLE LINES OF C.M.P.P. WITH METAL FLARED END SECTIONS, S MAY BE INCREASED ENOUGH TO AVOID OVERLAP OF END SECTION WINGTIPS. LOCATION OF METAL END SECTION SHOULD BE DETERMINED BEFORE PLACEMENT OF PIPE.

LONGITUDINAL SECTION OF IMPERFECT TRENCH BACKFILL AND BACKFILL METHODS

CROSS SECTIONS OF IMPERFECT TRENCH BACKFILL

TRENCH CONSTRUCTION FOR SIDE DRAIN

O.D.
FLAT BOTTOM PIPE

TABLE NO.1 ROUND PIPE - CONCRETE - CORRUGATED STEEL - CORRUGATED ALUMINUM
MINIMUM CLASS OF CONCRETE OR MINIMUM THICKNESS OF STEEL AND ALUMINUM

PIPE DIAMETER (INCHES)	TYPE	MINIMUM COVER (INCHES)	HEIGHT OF FILL IN FEET ABOVE TOP OF PIPE 1 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	PIPE DIAMETER (INCHES)
12	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	12
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.075	.075	.075	.075	
15	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	15
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.075	.075	.075	.105	
18	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	18
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	
	ALUM 1	12	.060	.060	.060	.060	.075	.075	.075	.075	.075	.075	.075	.105	
24	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	24
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	
	ALUM 1	12	.060	.060	.060	.075	.075	.075	.075	.105	.105	.105	.105	.105	
30	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	30
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	
	ALUM 1	12	.075	.075	.075	.075	.075	.105	.105	.105	.135	.135	.135	V	
36	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	36
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.079	.109	.109	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.079	.109	
	ALUM 1	12	.075	.105	.105	.105	.105	.105	.135	.135	.135	.135	.135	.135	
	ALUM 2	12	.060	.060	.060	.060	.075	.075	.075	.105	.105	.105	.105	.135	
42	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	42
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.138	
	ALUM 1	12	.105	.105	.135	.135	.164	.164	.164	.164	.164	.164	.164	V	
	ALUM 2	12	.060	.060	.060	.075	.075	.075	.105	.105	.105	.135	.135	.135	
48	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	48
	STEEL 1	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.138	
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.064	.079	.079	.109	.109	.138	
	ALUM 1	12	.105	.105	.135	.164	.164	.164	.164	.164	.164	.164	.164	V	
	ALUM 2	12	.060	.060	.060	.075	.075	.105	.105	.105	.135	.135	.164	.164	
54	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	54
	STEEL 1	12	.079	.079	.079	.079	.079	.079	.079	.109	.109	.138	.168		
	STEEL 2	12	.064	.064	.064	.064	.064	.064	.079	.109	.109	.138	.138		
	ALUM 1	15	.105	.105	.135	.164	.164	.164							
	ALUM 2	15	.060	.060	.060	.075	.075	.105	.135	.135	.164	.164	V		
60	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V	V	60
	STEEL 1	12	.079	.079	.079	.079	.079	.079	.079	.109	.109	.138	.168		
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.079	.109	.138	.138	.168		
	ALUM 1	15	.135	.135	.164	.164	.164	.164							
	ALUM 2	15	.060	.060	.075	.105	.105	.135	.164	.164	.164	V			
66	CONCRETE	12	III	II	IV	V	V	V	V	V	V	V	V		66
	STEEL 1	12	.138	.138	.138	.138	.138	.138	.138	.168	.168	.168			
	STEEL 2	12	.064	.064	.064	.064	.064	.079	.109	.109	.138	.168			
	ALUM 1	18	.164	.164	.164	.164	.164								
	ALUM 2	18	.075	.075	.105	.105	.135	.135	.164	.164					
72	CONCRETE	12	II	II	IV	V	V	V	V	V	V				72
	STEEL 1	12	.138	.138	.138	.138	.138	.138	.138	.138	.168				
	STEEL 2	12	.064	.064	.064	.064	.079	.109	.109	.138	.138	.168			
	ALUM 1	18	.164	.164	.164	.164	.164	.164	.164	.164					
	ALUM 2	18	.075	.075	.075	.105	.105	.135	.164	.164	.164				
78	CONCRETE	12	II	II	III	IV	V	V	V	V	V				78
	STEEL 1	15	.168	.168	.168	.168	.168	.168	.168	.168					
	STEEL 2	15	.064	.064	.064	.064	.079	.079	.109	.109	.138	.168			
	ALUM 2	21	.075	.075	.105	.105	.135	.164	.164	.164					
84	CONCRETE	12	II	II	III	IV	V	V	V	V	V				84
	STEEL 1	15	.168	.168	.168	.168	.168	.168	.168	.168					
	STEEL 2	15	.064	.064	.064	.079	.079	.109	.109	.138	.168				
	ALUM 2	21	.105	.105	.105	.135	.135	.164	.164	.164					
90	CONCRETE	12	II	II	III	IV	V	V	V	V					90
	STEEL 2	18	.064	.064	.064	.079	.109	.109	.138	.138	.168				
	ALUM 2	24	.105	.105	.135	.135	.164								
96	CONCRETE	12	II	II	III	IV	V	V	V	V					96
	STEEL 2	18	.079	.079	.079	.079	.109	.109	.138	.168					
	ALUM 2	24	.105	.105	.135	.135	.164								
102	CONCRETE	12	II	II	III	IV	V	V	V	V					102
	STEEL 2	24	.079	.079	.079	.109	.109	.138	.138	.168					
	ALUM 2	24	.135	.164	.164										
108	CONCRETE	12	II	II	III	IV	V	V	V	V					108
	STEEL 2	24	.109	.109	.109	.109	.109	.138	.138	.168					
	ALUM 2	24	.135	.164											
114	CONCRETE	12	II	II	III	IV	V	V	V	V					114
	STEEL 2	24	.109	.109	.109	.109	.109	.138	.138	.168					
	ALUM 2	24	.164	.164											
120	CONCRETE	12	II	II	III	IV	V	V	V	V					120
	STEEL 2	24	.109	.109	.109	.109	.138	.138	.168						
	ALUM 2	24	.164	.164											

IMPERFECT BACKFILL IS NOT REQUIRED FOR CONDITIONS SHOWN ON THE LEFT SIDE OF THE HEAVY LINE. USE NORMAL BACKFILL.

FOR CONDITIONS TO THE RIGHT OF THE HEAVY LINE, CLASS V CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO DETAIL "A" OR "B" ON SHEET 1 OF 3.

STEEL 1 OR ALUM 1 DENOTES CORRUGATION PROFILE 2 2/3" X 1/2"

STEEL 2 OR ALUM 2 DENOTES CORRUGATION PROFILE 3" X 1" (OR 5"X 1" FOR STEEL PIPE ONLY)

ALL STEEL AND ALUMINUM PIPE SHALL BE LOCK-SEAM OR WELDED-SEAM (HELICAL) CONSTRUCTION.

MINIMUM COVER VALUES APPLY TO HS-20 LIVE LOAD. MINIMUM COVER NEEDED FOR CONSTRUCTION VEHICLES MAY BE GREATER AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

TRENCH CONSTRUCTION IS REQUIRED FOR CONDITIONS ON BOTH SIDES OF HEAVY LINE. SEE SHEET 1 OF 3.

FOR CONDITIONS TO RIGHT OF HEAVY LINE, CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO SPECIFICATIONS AND THIS STANDARD.

TABLE VALUES FOR ALUMINUM CORRUGATED PIPE (OR ALUMINUM SPIRAL RIB PIPE) ARE COMPUTED BASED UPON ALCLAD ALLOY 3004-H34 HAVING MINIMUM YIELD STRENGTH, fy=24,000 PSI. IF ALUMINUM PIPE IS OTHERWISE FURNISHED AS 3004-H32 (fy=20,000 PSI), THE TABLE NO. 1 ALLOWABLE FILL HEIGHTS SHALL BE ADJUSTED AS FOLLOWS:

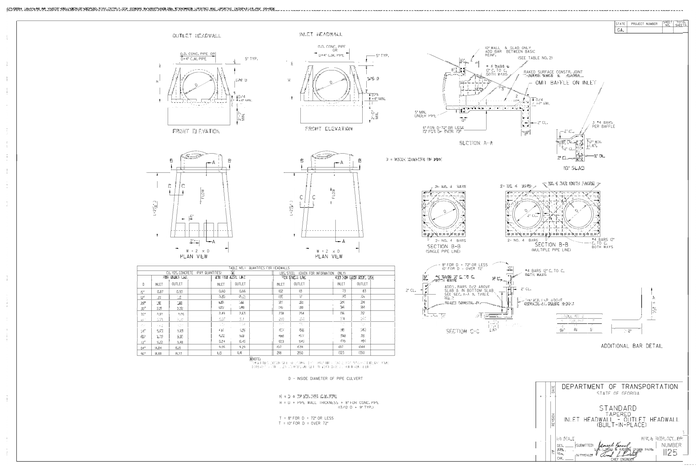
A. ALL MINIMUM COVER VALUES SHALL BE INCREASED BY 15 PERCENT. (EXAMPLE: 12 INCHES BECOMES 13.8 INCHES)

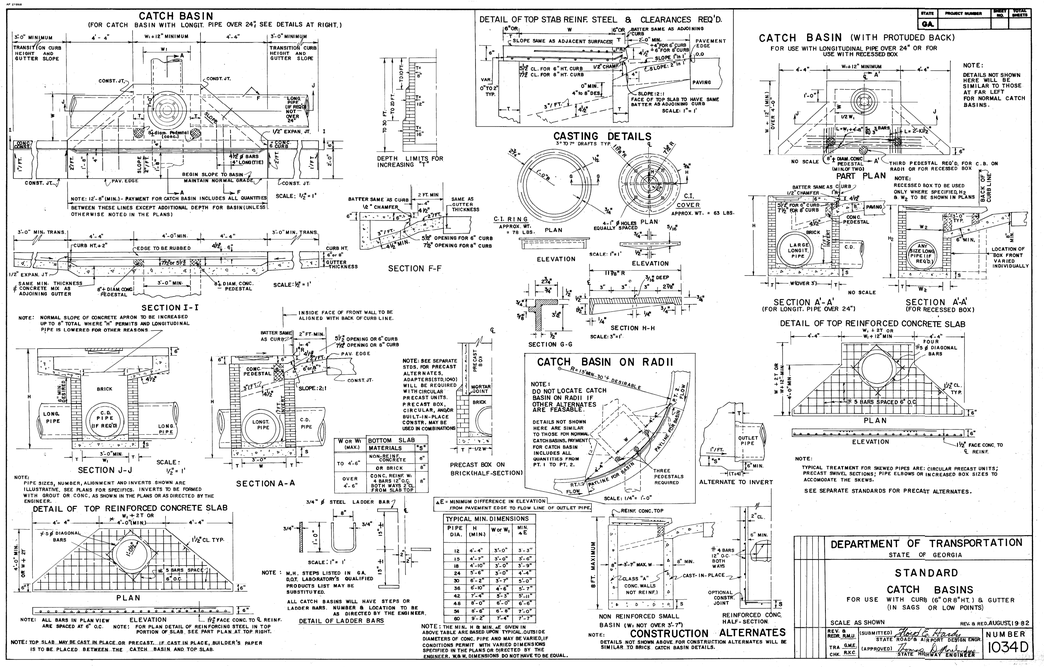
B. ALL HEIGHT OF FILL VALUES SHALL BE DECREASED BY 15 PERCENT. (EXAMPLE: 35-40 FEET BECOMES 29.7-34.0 FEET)

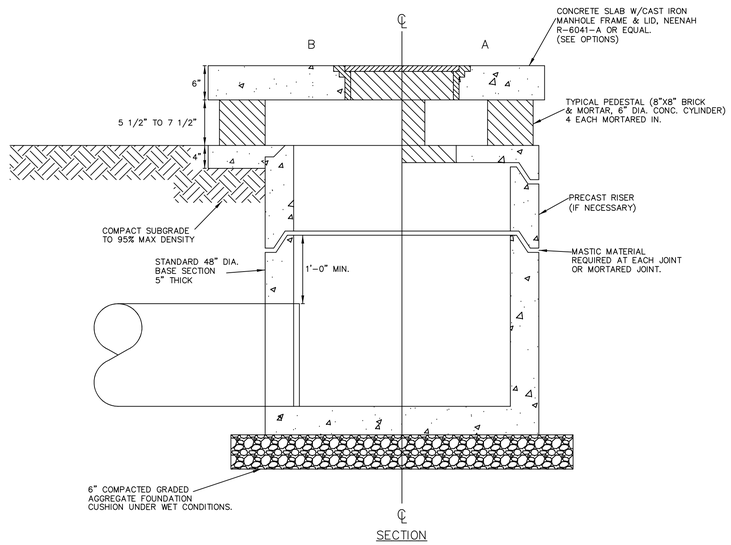
STEEL REINFORCEMENT (MIN. DIA.)		
GAGE METAL THICKNESS TENTATIVELY	GAGE	
.064	16	
.079	14	
.109	12	
.138	10	
.168	8	
0.109	12	
0.138	10	
0.168	8	
0.05	16	
0.06	15	
0.075	14	
0.105	12	
0.135	10	
0.164	8	

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	STANDARD CONCRETE, STEEL AND ALUMINUM PIPE CULVERTS (FOR CORRUGATED STEEL & ALUMINUM SEE SHEET 2 OF 3)	DESIGNED BY: [illegible] DRAWN BY: [illegible] CHECKED BY: [illegible]	SCALE: NONE	DATE: 1-1-80	NO. 1036D

NO.	REVISION	DATE
5	ADDED SLOPE CONST. NOTE	2-8-90
4	REVISION	9-28-90







NOTES:

1. SUBGRADE TO BE COMPACTED TO 95% MAX. DRY DENSITY PER STANDARD PROCTOR.
2. REINFORCEMENT STEEL SHALL BE PLACED TO ALLOW A MIN. OF 1 1/2" COVER, EXCEPT WHERE NOTED.
3. REINFORCEMENT STEEL SHALL BE OF INTERMEDIATE GRADE AND SHALL CONSIST OF NO. 4 @ 6" O.C. E.W.
4. ALL CONCRETE SHALL BE CLASS AA1 4500 PSI.
5. WHEN 60" & 72" BASE SECTIONS ARE REQUIRED, AN ADAPTER SECTION SHALL BE USED IN CONJUNCTION WITH THE STANDARD CONE.
6. CONCRETE TOP COVER THICKNESS: 8" – VEHICULAR TRAFFIC AREAS.

Standard Round Pedestal Inlet

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0328 FAX: (770) 424-2399

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FAY

GDOT STANDARD DRAINAGE DETAILS FOR:

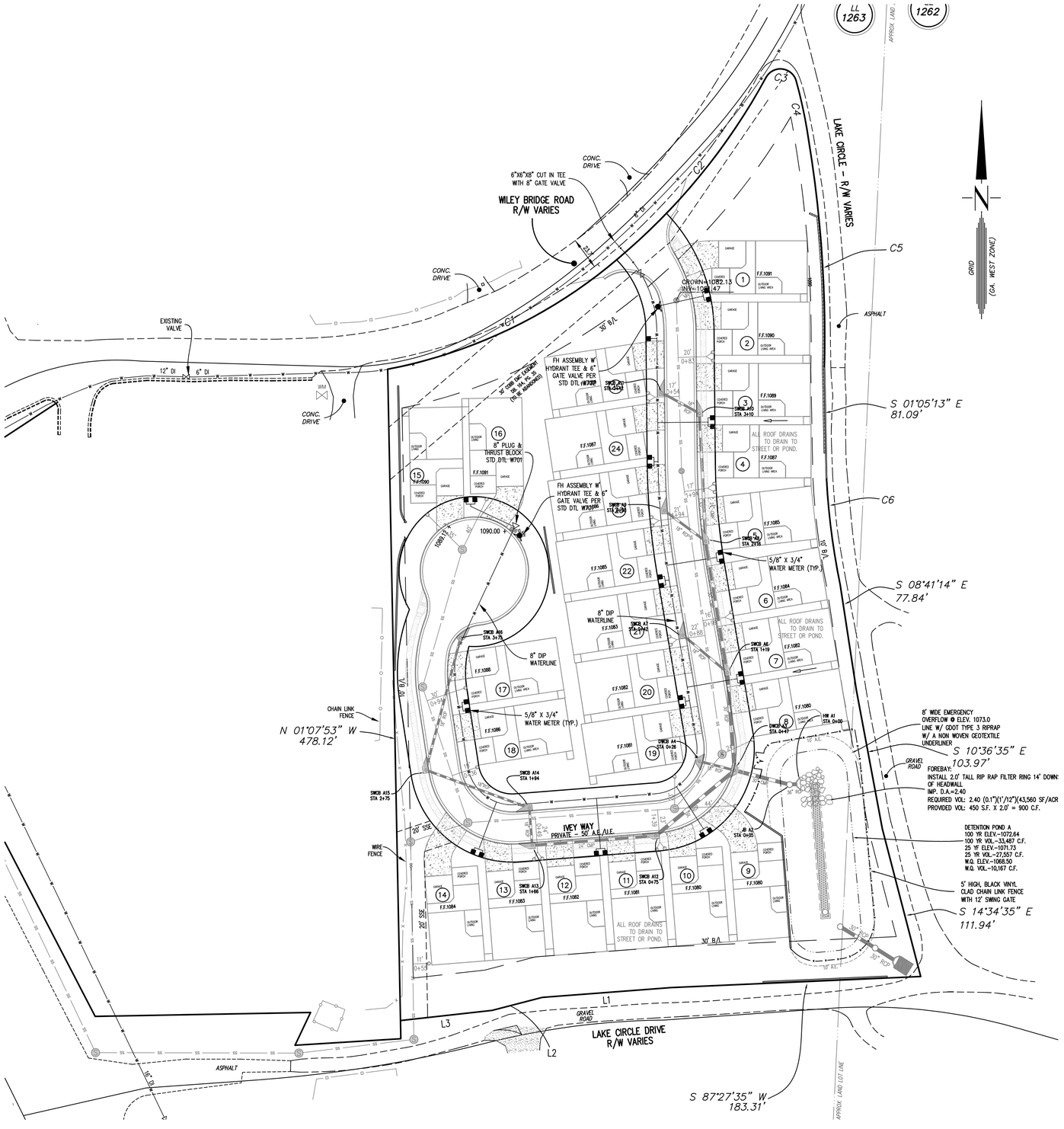
WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	REVISION DESCRIPTION	DATE	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

6.5



APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

24 HOUR CONTACT:

JOHN LOYD
770-868-7591

SITE NOTES

REPRESENTED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING -R40
TOTAL AREA - 4.251 ACRES
TOTAL LOTS - 25
LOT DENSITY - 5.88 LOTS PER ACRE

REGISTERED LAND SURVEYOR:

MATTHEW FREY
CENTERLINE SURVEYING, INC.
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028

BUILDING SETBACK REQUIREMENTS:

FRONT - 20'
REAR -30'
SIDE - 10'

SEE SHEET 7.1 FOR WATER NOTES.

GRAPHIC SCALE
-40 0 20 40 80
(IN FEET)
1 inch = 40' ft.

GEORGIA REGISTERED No. 3268 LAND SURVEYOR MATTHEW S. FREY

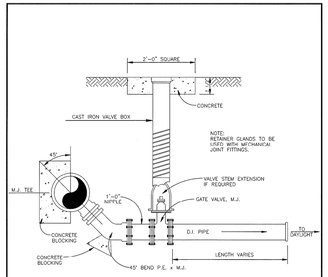
centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2389

WATER PLAN FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

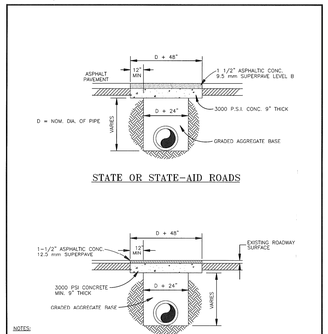
SHEET No. 7.0



BLOW-OFF ASSEMBLY

NOT TO SCALE

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	BLOW-OFF ASSEMBLY CONSTRUCTION STANDARD	DATE: FEB '03 / APPROVED:	STANDARD NO. W717

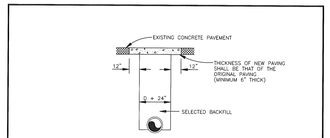


STATE OR STATE-AID ROADS

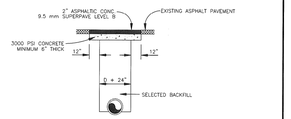
COUNTY ROADS

NOTES:
1. PERMISSION MUST BE OBTAINED FROM CHEROKEE COUNTY TO OPEN CUT EXISTING ROADS.
2. ROADWAYS WILL GENERALLY BE BORED OR TUNNELED FROM DITCH LINE TO DITCH LINE.
3. 9" CONCRETE PAVEMENT, REPLACE WITH SAME THICKNESS OF CONCRETE, #7's, FLUSH WITH EXISTING PAVEMENT.
4. COMPACTION REQUIREMENTS: 95% STD. PROCTOR FROM PIPE BEDDING TO 1' BELOW GRADE. 100% STD. PROCTOR FOR TOP 1' OF TRENCH.

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL STREET CUT REPAIR CONSTRUCTION STANDARD	DATE: MAR. '04 / APPROVED:	STANDARD NO. W718



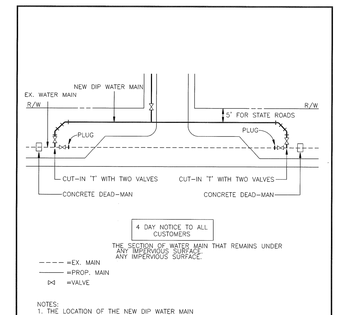
CONCRETE DRIVEWAY



ASPHALT DRIVEWAY

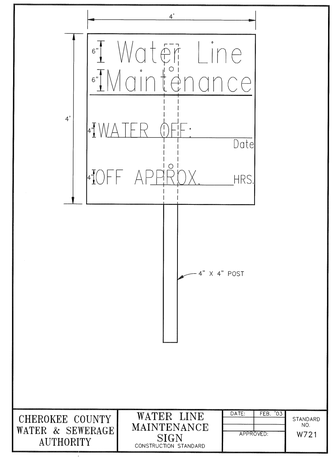
NOTES:
1. BACKFILL TO BE COMPACTED AS DIRECTED IN SPECIFICATIONS.
2. D = NOMINAL PIPE DIAMETER
3. COMPACTION REQUIREMENTS: 95% STD. PROCTOR FROM PIPE BEDDING TO 1' BELOW GRADE. 100% STD. PROCTOR FOR TOP 1' OF TRENCH.

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL DRIVEWAY CUT REPAIR CONSTRUCTION STANDARD	DATE: MAR. '04 / APPROVED:	STANDARD NO. W719

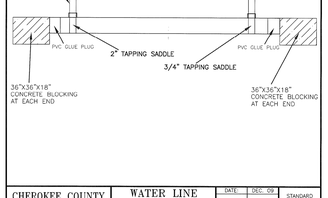


NOTES:
1. THE LOCATION OF THE NEW DIP WATER MAIN IS DEPENDENT ON WHETHER THE ROAD IS A STATE ROUTE OR A COUNTY ROAD.
2. SOME VALVES MAY BE ELIMINATED DEPENDING UPON FLOWS.
2. DEVELOPER HAS THE OPTION TO REMOVE OR GROUT THE SECTION OF WATERMAIN THAT REMAINS UNDER ANY IMPERVIOUS SURFACE. (SEE DETAIL W-723 FOR APPROVED GROUT METHOD)

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TURN LANE RELOCATION DETAIL CONSTRUCTION STANDARD	DATE: MAR. '04 / APPROVED:	STANDARD NO. W720



CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	WATER LINE MAINTENANCE SIGN CONSTRUCTION STANDARD	DATE: FEB '03 / APPROVED:	STANDARD NO. W721



CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	WATER LINE GROUT DETAIL CONSTRUCTION STANDARD	DATE: DEC '09 / APPROVED:	STANDARD NO. W723

DETAIL W725

COLOR CODES FOR UTILITY LOCATING

RED	ELECTRIC
YELLOW	GAS-OIL
ORANGE	TELEPHONE/CATV
BLUE	WATER
GREEN	SEWER

IF YOU DIG GEORGIA CALL US FIRST ! 1-800-282-7411 *It's The Law !*

Utilities Protection Center, Inc.

THREE WORKING DAYS BEFORE YOU DIG GEORGIA CALL

Utilities Protection Center, Inc.

1-800-282-7411

It's The Law !

The General Notes for Water System Construction shown on the following pages shall be included in each set of plans.

DETAIL W730
PAGE 1 of 3

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
POTABLE WATER SYSTEM CONSTRUCTION
GENERAL NOTES

1. All potable water system construction must follow the current Cherokee County Water & Sewerage Authority Water Main Standards.
2. All water mains shall be ductile iron pipe, except where the Construction Manager approves otherwise. Ductile iron pipe shall be thickness Class 50, designed in accordance with AWWA C150 and manufactured in accordance with AWWA C151. All ductile iron pipe shall have an outside bituminous coating per AWWA C151 and an inside standard cement lining with bituminous seal coat per AWWA C104. All references to AWWA standards shall mean latest revisions published.
3. All line valves shall be marked by concrete valve markers and by a "V" cut into the curbing, with the point of the "V" aimed at the valve.
4. A concrete valve marker is to be placed directly above the plug on all dead-end water mains.
5. Information regarding underground utilities on these plans is not guaranteed as to accuracy or completeness. Prior to beginning work, the Contractor shall request a field location through the utilities protection center and any utility owners thought to have facilities in the area. The Contractor shall promptly compare these field-marked locations with the project plans and then notify the Designer of any anticipated problems or need for contract changes. It is the Contractor's responsibility to excavate or cause the utility owner to excavate for the purpose of determining exact elevations or locations at utility crossings and other critical locations well in advance of the work under this contract. Damage to existing utilities resulting from the Contractor's negligence shall be repaired at the Contractor's expense.
6. All service lines under pavement shall be encased in Schedule 40 PVC casing with a minimum diameter of 2", extending a minimum of 3 feet beyond the pavement and/or sidewalk on each side of the road. 2" services shall be encased in 4" PVC casings. All water service laterals 2" and smaller shall be Type K copper tubing with compression fittings as specified in the Water Standards.
7. Concrete thrust blocking shall be placed at all bends, tees, valves, reducers and all other fittings. Prior to blocking, fittings shall be wrapped with polyethylene film.
8. The Developer/Contractor shall meet with the Chief Inspector at least 24 hours before beginning construction. The Contractor shall notify the Chief Inspector or his designated representative by 8:30 a.m. of each workday when work is scheduled unless authorized otherwise.
9. Water mains shall be installed so that the top of the pipe is a minimum of four feet below final grade, four feet below the edge of the pavement, or four feet below the ditch paralleling the road, whichever is deepest.
10. Contractor shall place a vertical piece of 2" PVC pipe on top of the water main at all tees, bends, fittings, elevation transitions, and every fifty feet along the length of the main for the purpose of collecting elevation data for record drawings. The top of the 2" PVC shall be capped or taped to prevent dirt and other debris from clogging the 2" pipe before the depth can be measured.

DETAIL W730
PAGE 2 of 3

11. All fittings and valves are to be mechanical joint with retainer glands unless otherwise approved. Retainer glands shall be EBAA Mega-Lug or approved equal.
12. Type 4 bedding is required at all restrained pipe installations.
13. Contractor must show proof of insurance in the amount specified by the CCWSA.
14. All backflow preventer devices are to be tested by a CCWSA approved tester. A list of testers is available from the CCWSA. Any tester not on the list is subject to approval by the CCWSA. Contact Mr. Greg Long with the CCWSA for more information.
15. All meters, backflow preventers and double detector check valve assemblies are to be purchased from the CCWSA.
16. A horizontal separation of at least 10 feet is required between existing or proposed water mains and existing or proposed sanitary sewer lines.
17. A vertical separation of at least 18 inches is required where a water main crosses an existing or proposed sanitary sewer line. A full joint of water main is required to be centered at the sanitary sewer line crossing.
18. No portion of this project is being constructed on or near an existing landfill, abandoned landfill, or any other site used for waste disposal.
19. Potable water and sanitary sewer structures are not allowed within a dam. Utility pipelines and structures must be a minimum of 30 feet outside the toe of slope of the dam.
20. Hydrant flow tests are valid for one year and only apply to a single phase of this project.
21. Existing County roads shall not be open cut unless permission is granted by the Cherokee County Department of Public Transportation.
22. Plan approval is valid for 12 months without beginning construction. Plans shall be subject to beginning the process of review and approval if 12 months expire prior to the start of construction.
23. Record drawings of water and sanitary sewer facilities are required to be submitted to the CCWSA upon completion of the project.
24. If construction plans are stamped for a full project, and then the Developer revises the plans to build the development in phases, no construction or field inspection will be allowed to begin until the revised, phased plans are re-approved and stamped for the phased construction.
25. If an existing water main is to be paved over by a new entrance or accel/decel lanes, the water main is to be abandoned and replaced with a new DIP water main located five feet or more behind the new back of curb.
26. New water mains installed along County or State roads, within 80 feet of steel gas main crossings, or in any wetland areas must be encased in polyethylene tubing (Polywrap 8 mil).
27. All streams and protective buffers shall be crossed in accordance with current County and State regulations.

DETAIL W730
PAGE 3 of 3

28. Fire hydrants shall be designed to be placed within 200 feet of new entrances, in all cul-de-sacs, and at every proposed intersection.
29. New fire hydrants shall be Mueller Super Centurion 250, M&H AWWA C502 Style 129 Traffic Model, or US Pipe Metropolitan 250 Model 94. All hydrants shall be rated for 250 psi working pressure and shall be equipped with a 5½" valve opening, two 2½" hose nozzles and one 4½" pumper nozzle.
30. Inside of steel casings, pipe joints shall be restrained using Fast-Grip gaskets or approved equal.
31. All new water mains must pass leakage testing and disinfection testing witnessed by a CCWSA representative before a project is released and accepted.
32. All water meter vaults and DDCV assembly vaults are to be located off of the road right-of-way in a permanent easement dedicated to the CCWSA. The easement shall be dimensioned to be 10 feet off each corner of the vault. Smaller domestic use meters adjacent to a DDCV assembly can be located within the 10 foot spacing between the vault and the edge of the easement.
33. Inside of developments with curb and gutter, the Contractor shall cut a "V" into the top of the curb for all water valves (line valves and hydrant valves) with the point of the "V" aimed at the valve. The Contractor shall also cut a "W" in the top of the curb above all water service laterals.
34. The report stating the results of the hydrant flow test and the 24 hour pressure recording chart shall be shown within the plans for this project.
35. Horizontal locations will be referenced to Georgia State Plane Coordinate System (NAD 83 West Zone Feet.
36. Vertical locations will be referenced to North American Vertical Datum (NAVD 88).
37. Orthometric locations will be referenced to GEOID 99/03
38. No landscaping or structures will be allowed inside CCWSA easements.
39. Contractor shall provide meter stubs.

Street Light Ordinance

Pole Specifications:
- 30 Foot Poles Only
- Wood or Fiberglass Only
- Arms must be 2 ½' to 8' long
- Roadway Fixtures

Street light plans are submitted by the Power Companies to Ricky Dobbs. All power pole Contributions must be paid by the Developer ***before*** the release of water meter sales.

The above does not apply to subdivisions that are located inside city limits.

Any further questions please call:
Ricky Dobbs at (770) 479-1813 ext. 249 or email at rdobbs@ccwsa.com

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FINCH

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0029 FAX: (770) 424-2399

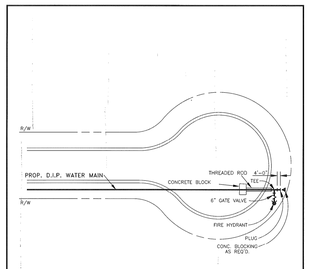
CCWSA STANDARD WATER DETAILS FOR:

WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

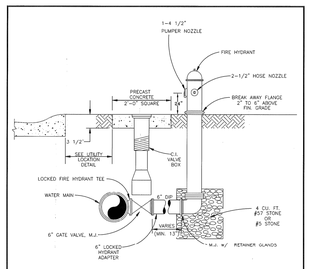
NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034



TYPICAL WATER MAIN
AT CUL-DE-SAC

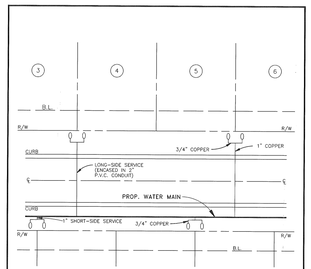
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL WATER MAIN AT CUL-DE-SAC CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W701



NOTES:
1. 4 1/2" PUMPER NOZZLE TO FACE STREET
2. HYDRANT NOT TO BE SET ON STREET SIDE OF WATER MAIN
3. VALVE BOX TO BE ADJUSTED TO GRADE
4. CONCRETE COLLAR AROUND VALVE BOX IF NOT IN PAVED AREA
5. GRAVEL TO BE PLACED AROUND HYDRANT DRAIN, MINIMUM DIMENSIONS 20" x 20" x 20"

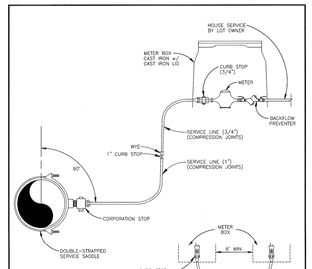
TYPICAL FIRE HYDRANT INSTALLATION

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL FIRE HYDRANT INSTALLATION CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W702



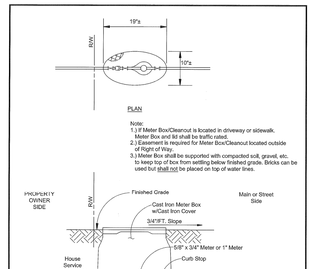
3/4" WATER METER LOCATION
(FOR SUBDIVISION)
NOTE:WATER METER BOXES MUST BE AT LEAST 6' APART

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	3/4" WATER METER LOCATION (FOR SUBDIVISIONS) CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W703

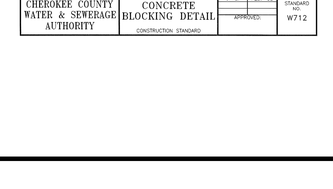


PLAN FOR WYE

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	RESIDENTIAL WATER METER INSTALLATION CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W704



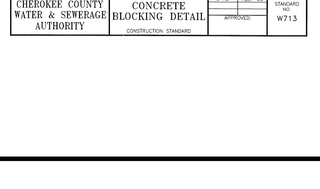
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	METER BOX FOR 5/8" OR 1" METER CONSTRUCTION STANDARD	DATE: FEB '03 Revised: June '13 APPROVED:	STANDARD NO. W705



NOTES:
1. SERVICE LINE SHALL BE 3/4" FROM MAIN WHEN ONLY ONE 3/4" SERVICE IS REQUIRED.
2. USE ALL COMPRESSION JOINTS.
3. INSTALLATION SHALL ALLOW ADEQUATE ROOM TO REMOVE AND/OR REPAIR METER.

HOUSE SERVICE INSTALLATION

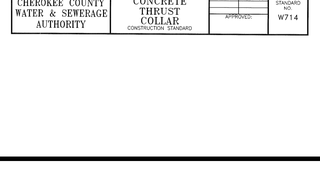
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	HOUSE SERVICE INSTALLATION CONSTRUCTION STANDARD	DATE: FEB. '03 Revised: June '13 Revised: July '14 APPROVED:	STANDARD NO. W707



NOTES: 1. VALVE MARKER REQUIRED.

TYPICAL WATER AIR & VACUUM RELEASE VALVE ASSEMBLY

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	WATER A&V RELEASE VALVE ASSEMBLY CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W708



NOTES:
1. CASING PIPE SHALL EXTEND A MINIMUM OF 3' BEYOND TOE OF FILL, SLOPES OR DITCH LINES AND 4' BEYOND EDGE OF PVMT. AND BACK OF CURB.

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL ROAD CROSSING WATER MAIN CONSTRUCTION STANDARD	DATE: MAR '04 APPROVED:	STANDARD NO. W709

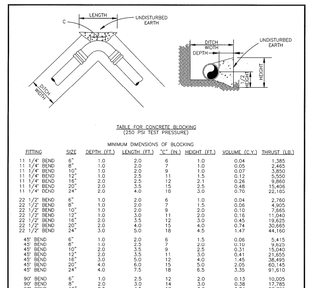


TABLE FOR CONCRETE BLOCKING
(250 PSI TEST PRESSURE)
MINIMUM DIMENSIONS OF BLOCKING

FITTING	SIZE	DEPTH (FT.)	LENGTH (FT.)	"C" (IN.)	HEIGHT (FT.)	VOLUME (C.Y.)	THRUST (LB.)
11 1/4° BEND	6"	1.0	2.0	6	1.0	0.04	1,385
11 1/4° BEND	8"	1.0	2.0	7	1.0	0.05	2,465
11 1/4° BEND	10"	1.0	2.0	9	1.0	0.07	3,850
11 1/4° BEND	12"	1.0	2.5	11	1.5	0.12	5,550
11 1/4° BEND	15"	2.0	2.5	12	2.0	0.19	9,860
11 1/4° BEND	20"	2.0	3.5	15	2.5	0.48	15,405
11 1/4° BEND	24"	2.0	4.0	18	3.0	0.70	22,185
22 1/2° BEND	6"	1.0	2.0	6	1.0	0.04	2,760
22 1/2° BEND	8"	1.0	2.0	7	1.5	0.06	4,905
22 1/2° BEND	10"	1.0	2.0	9	1.5	0.08	7,665
22 1/2° BEND	12"	1.0	3.0	11	2.0	0.16	11,040
22 1/2° BEND	15"	2.0	3.5	12	3.0	0.45	19,625
22 1/2° BEND	20"	2.0	5.0	15	4.0	0.93	30,660
22 1/2° BEND	24"	2.0	5.0	18	4.5	1.47	44,160
45° BEND	6"	1.0	2.0	6	1.5	0.06	5,415
45° BEND	8"	1.0	2.0	7	2.0	0.10	9,625
45° BEND	10"	2.0	3.5	9	2.5	0.31	15,040
45° BEND	12"	2.0	4.0	11	3.0	0.45	21,655
45° BEND	15"	2.0	5.0	12	4.0	0.93	38,465
45° BEND	20"	4.0	6.0	15	5.0	2.05	60,145
45° BEND	24"	4.0	7.5	18	6.5	3.35	91,610
90° BEND	6"	1.0	2.5	12	2.0	0.13	10,005
90° BEND	8"	2.0	3.0	14	3.0	0.28	17,785
90° BEND	10"	2.5	4.5	18	3.0	0.74	27,780
90° BEND	12"	3.0	5.0	20	4.0	1.24	40,000
90° BEND	15"	4.0	6.5	26	5.5	2.91	71,120
90° BEND	20"	4.0	8.0	32	7.0	4.68	111,135
90° BEND	24"	5.0	10.0	40	8.0	8.50	160,035

NOTES:
1. SOIL BEARING STRENGTH OF 2000 PSI IS ASSUMED IN THE CALCULATIONS ABOVE. ENGINEER SHALL VERIFY.
2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
3. ALLOW CONCRETE TO SET UP A MINIMUM OF 8 HOURS BEFORE PLACING BACKFILL.
4. CONCRETE SHALL BE 3000 PSI, CLASS A.
5. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.
6. VERTICAL BENDS WITH AN UPWARD THRUST SHALL BE RESTRAINED AS SHOWN IN STANDARD W715.
7. VERTICAL BENDS WITH A DOWNWARD THRUST SHALL BE RESTRAINED AS SHOWN IN STANDARD W716.

CONCRETE BLOCKING FOR BENDS

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	CONCRETE BLOCKING DETAIL CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W710

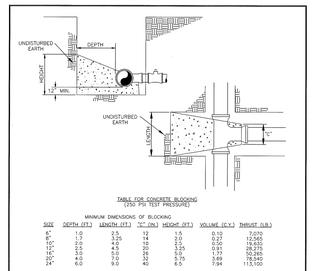


TABLE FOR CONCRETE BLOCKING
(250 PSI TEST PRESSURE)
MINIMUM DIMENSIONS OF BLOCKING

SIZE	DEPTH (FT.)	LENGTH (FT.)	"C" (IN.)	HEIGHT (FT.)	VOLUME (C.Y.)	THRUST (LB.)
6"	1.0	2.5	12	1.5	0.10	7,070
8"	1.0	3.0	14	2.0	0.17	12,560
10"	2.0	4.0	18	2.5	0.50	19,630
12"	2.5	4.5	20	3.25	0.91	28,275
15"	3.0	5.0	26	4.0	1.67	50,240
20"	4.0	7.0	32	5.75	3.69	78,540
24"	6.0	9.0	40	6.5	7.94	113,100

NOTES:
1. SOIL BEARING STRENGTH OF 2000 PSI IS ASSUMED IN THE CALCULATIONS ABOVE. ENGINEER SHALL VERIFY.
2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
3. ALLOW CONCRETE TO SET UP A MINIMUM OF 8 HOURS BEFORE PLACING BACKFILL.
4. CONCRETE SHALL BE 3000 PSI, CLASS A.
5. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.

CONCRETE BLOCKING FOR TEES AND PLUGS

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	CONCRETE BLOCKING DETAIL CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W711

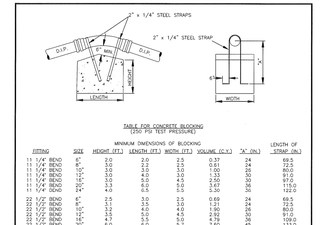


TABLE FOR CONCRETE BLOCKING
(250 PSI TEST PRESSURE)
MINIMUM DIMENSIONS OF BLOCKING

FITTING	SIZE	HEIGHT (FT.)	LENGTH (FT.)	WIDTH (FT.)	VOLUME (C.Y.)	"A" (IN.)	LENGTH OF STRAP (IN.)
11 1/4° BEND	6"	2.5	3.0	2.5	0.69	24	89.5
11 1/4° BEND	8"	3.0	3.5	3.0	1.17	24	92.5
11 1/4° BEND	10"	3.2	4.0	4.0	1.90	24	95.0
11 1/4° BEND	12"	3.5	5.0	4.5	2.92	30	91.0
11 1/4° BEND	15"	4.7	5.5	5.0	4.79	36	109.0
11 1/4° BEND	20"	5.0	6.5	5.5	6.94	48	122.0
11 1/4° BEND	24"	8.0	5.7	8.5	10.88	60	170.0

NOTES:
1. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
2. ALLOW CONCRETE TO SET UP A MINIMUM OF 8 HOURS BEFORE PLACING BACKFILL.
3. CONCRETE SHALL BE 3000 PSI, CLASS A.
4. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.

CONCRETE BLOCKING-VERTICAL BENDS-UPWARD THRUST

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	CONCRETE BLOCKING DETAIL CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W712

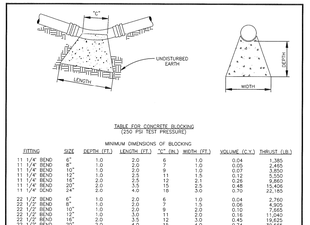


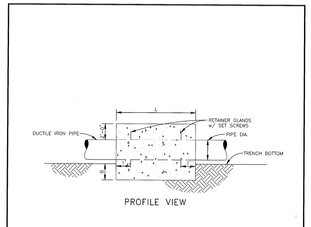
TABLE FOR CONCRETE BLOCKING
(250 PSI TEST PRESSURE)
MINIMUM DIMENSIONS OF BLOCKING

FITTING	SIZE	DEPTH (FT.)	LENGTH (FT.)	"C" (IN.)	WIDTH (FT.)	VOLUME (C.Y.)	THRUST (LB.)
11 1/4° BEND	6"	1.0	2.0	6	1.0	0.04	1,385
11 1/4° BEND	8"	1.0	2.0	7	1.0	0.05	2,465
11 1/4° BEND	10"	1.0	2.0	9	1.0	0.07	3,850
11 1/4° BEND	12"	1.0	2.5	11	1.5	0.12	5,550
11 1/4° BEND	15"	2.0	2.5	12	2.5	0.28	9,860
11 1/4° BEND	20"	2.0	3.5	15	2.5	0.48	15,405
11 1/4° BEND	24"	2.0	4.0	18	3.0	0.70	22,185
22 1/2° BEND	6"	1.0	2.0	6	1.0	0.04	2,760
22 1/2° BEND	8"	1.0	2.0	7	1.5	0.06	4,905
22 1/2° BEND	10"	1.0	2.0	9	2.0	0.08	7,665
22 1/2° BEND	12"	1.0	3.0	11	2.0	0.16	11,040
22 1/2° BEND	15"	2.0	3.5	12	3.0	0.45	19,625
22 1/2° BEND	20"	2.0	5.0	15	4.0	0.93	30,660
22 1/2° BEND	24"	2.0	5.0	18	4.5	1.47	44,160
45° BEND	6"	1.0	2.0	6	1.5	0.06	5,415
45° BEND	8"	1.0	2.0	7	2.0	0.10	9,625
45° BEND	10"	2.0	3.5	9	2.5	0.31	15,040
45° BEND	12"	2.0	4.0	11	3.0	0.45	21,655
45° BEND	15"	2.0	5.0	12	4.0	0.93	38,465
45° BEND	20"	4.0	6.0	15	5.0	2.05	60,145
45° BEND	24"	4.0	7.5	18	6.5	3.35	91,610
90° BEND	6"	1.0	2.5	12	2.0	0.13	10,005
90° BEND	8"	2.0	3.0	14	3.0	0.28	17,785
90° BEND	10"	2.5	4.5	18	3.0	0.74	27,780
90° BEND	12"	3.0	5.0	20	4.0	1.24	40,000
90° BEND	15"	4.0	6.5	26	5.5	2.91	71,120
90° BEND	20"	4.0	8.0	32	7.0	4.68	111,135
90° BEND	24"	5.0	10.0	40	8.0	8.50	160,035

NOTES:
1. SOIL BEARING STRENGTH OF 2000 PSI IS ASSUMED IN THE CALCULATIONS ABOVE. ENGINEER SHALL VERIFY.
2. COVER GLANDS AND BOLTS WITH POLYETHYLENE BEFORE PLACING CONCRETE.
3. ALLOW CONCRETE TO SET UP A MINIMUM OF 8 HOURS BEFORE PLACING BACKFILL.
4. CONCRETE SHALL BE 3000 PSI, CLASS A.
5. ALL IRON FITTINGS SHALL BE BLOCKED AND SUPPORTED AS SHOWN ABOVE.

CONCRETE BLOCKING-VERTICAL BENDS-DOWNWARD THRUST

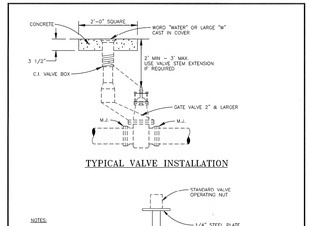
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	CONCRETE BLOCKING DETAIL CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W713



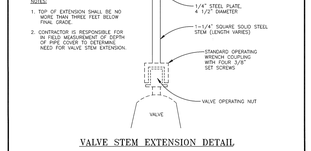
NOTE:
CONCRETE COLLAR WIDTH EQUALS THE WIDTH OF THE TRENCH PLUS FOUR FEET (TWO FEET ON EACH SIDE OF THE TRENCH).

CONCRETE THRUST COLLAR

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	CONCRETE THRUST COLLAR CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W714



TYPICAL VALVE INSTALLATION



NOTES:
1. TOP OF EXTENSION SHALL BE NO MORE THAN THREE FEET BELOW FINAL GRADE.
2. CONTRACTOR IS RESPONSIBLE FOR IN FIELD MEASUREMENT OF DEPTH OF PIPE COVER TO DETERMINE NEED FOR VALVE STEM EXTENSION.

VALVE STEM EXTENSION DETAIL

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	TYPICAL VALVE INSTALLATION CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W715



NOTES:
1. ALUMINUM PLATE CAST IN SIDE OF MARKER POST.
2. DISTANCE (NEAREST FOOT) FROM ℄ OF POST TO ℄ OF VALVE BOX MEASURED IN DIRECTION ARROW TO BE STAMPED INTO PLATE WITH STEEL DIE AFTER MARKER IS SET.

DETAIL OF CONCRETE VALVE MARKER

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY	CONCRETE VALVE MARKER CONSTRUCTION STANDARD	DATE: FEB. '03 APPROVED:	STANDARD NO. W716

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. DEAL

centerline
Surveying and Land Planning, Inc.
1507 Highway 53 East, Suite 212, Dawsonville, GA 30534
PHONE: (770) 424-0028 FAX: (770) 424-2899

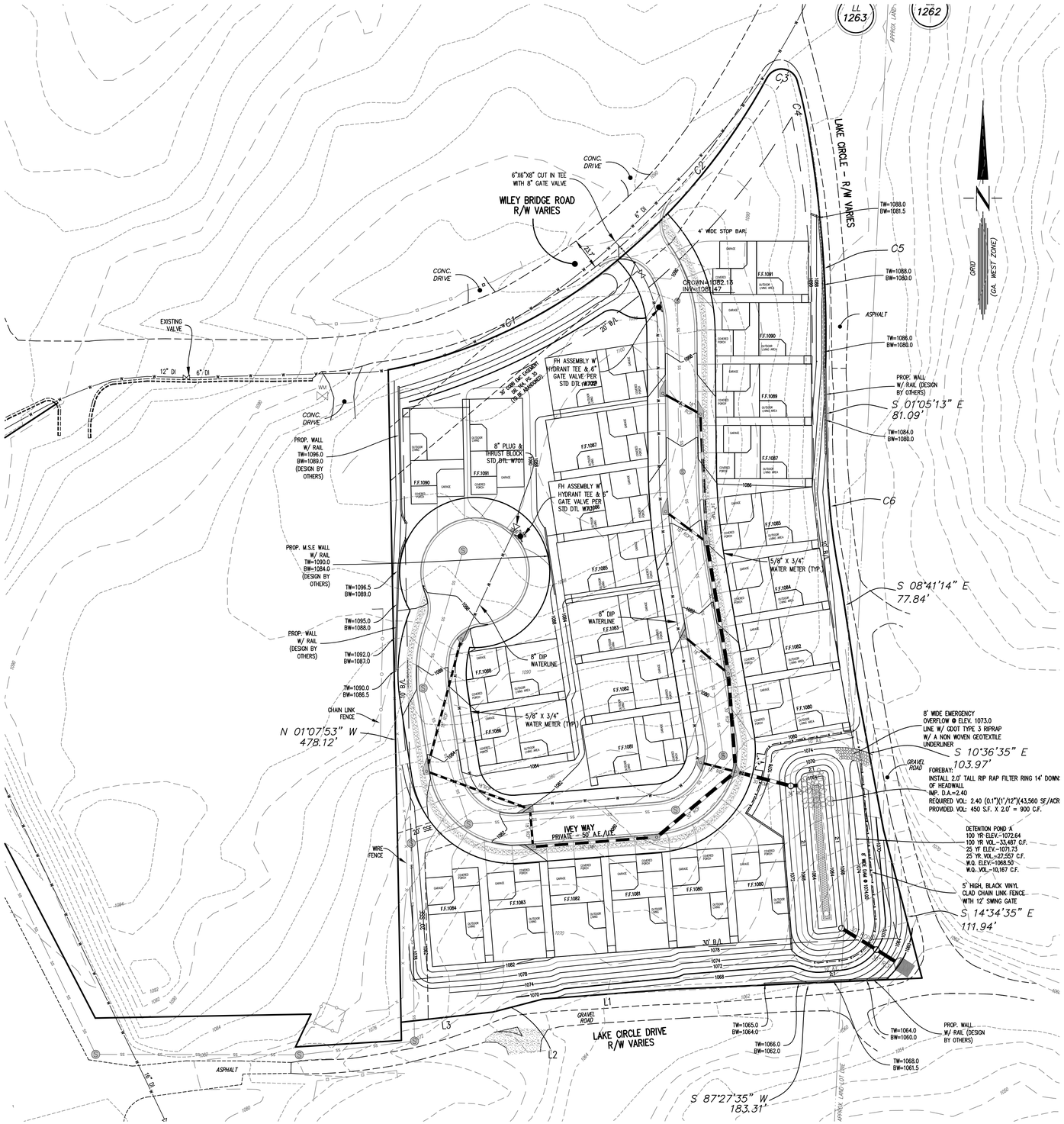
CCWSA STANDARD WATER DETAILS FOR:

WILEY BRIDGE ROAD

LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034



APPLICANT/DEVELOPER

LOYD DEVELOPMENT SERVICES
1785 WHITE CIRCLE
SUITE # 202
MARIETTA, GEORGIA 30066
BUSINESS LICENSE # 0CC020803

24 HOUR CONTACT:

JOHN LOYD
770-868-7591

SITE NOTES

REPRESENTED USE: SINGLE FAMILY RESIDENTIAL
CURRENT ZONING -R40
TOTAL AREA - 4.251 ACRES
TOTAL LOTS - 25
LOT DENSITY - 5.88 LOTS PER ACRE

REGISTERED LAND SURVEYOR:

MATTHEW FREY
CENTERLINE SURVEYING, INC.
1301 SHILOH ROAD, SUITE 1210
KENNESAW, GA 30144
(770) 424-0028

BUILDING SETBACK REQUIREMENTS:

FRONT - 20'
REAR -30'
SIDE - 10'

TREE PROTECTION/PLANTING NOTES:

NO LAND DISTURBANCE PERMIT WILL BE ISSUED WITHOUT THE SUBMITTAL OF A NOTICE OF INTENT (NOI).

ANY CLEARING OF THIS PROPERTY THAT RESULTS IN THE SALE OF TIMBER SHALL CONFORM TO STATE LAW REGARDING PAYMENT OF TAXES ON SUCH TIMBER. A GEORGIA DEPARTMENT OF REVENUE FORM PT-283T

RESPONSIBILITY FOR THE PAYMENT OF THESE TAXES RESTS WITH THE LANDOWNER. THAT THE LAND OWNER IS AWARE OF THIS OBLIGATION, AND TO PROVIDE DOCUMENTATION FOR THE BOARD OF TAX ASSESSORS, AN AFFIDAVIT MUST BE COMPLETED AND SIGNED BY THE LAND OWNER PRIOR TO THE ISSUANCE OF THE LAND DISTURBANCE

THE INSTALLATION OF THE IRRIGATION SYSTEM OR HOSE BIBS (IF SPECIFIED ON THIS PLAN), WILL BE VERIFIED BY THE CITY ARBORIST PRIOR TO THE RELEASE OF THIS PROJECT FOR A CERTIFICATE OF OCCUPANCY.

TREE PROTECTION DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY CLEARING, GRUBBING OR GRADING. FOR PROJECTS OVER TWO (2) ACRES, A PROFESSIONAL DESIGNER MUST VERIFY THAT THE TREE PROTECTION FENCES WERE INSTALLED AS SHOWN ON THE APPROVED PLANS OR IN LOCATIONS THAT PROVIDED BETTER TREE PRESERVATION POTENTIAL. SUBMIT THIS VERIFICATION PRIOR TO THE APPROVAL OF THE FINAL PLAT FOR RESIDENTIAL SUBDIVISIONS OR PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT FOR COMMERCIAL PROJECTS.

TREE PROTECTION AND REPLACEMENT SHALL BE ENFORCED ACCORDING TO CITY OF WOODSTOCK STANDARDS. ANY FIELD ADJUSTMENTS TO TREE PROTECTION DEVICE TYPES OR LOCATIONS OR SUBSTITUTIONS OF PLANT MATERIALS SHOWN ON THE APPROVED PLANS ARE SUBJECT TO THE REVIEW AND APPROVAL OF CITY ARBORIST.

THE SITE CONTRACTOR SHALL COORDINATE SERVICE ROUTING OF ALL GAS, TELEPHONE, AND ELECTRICAL LINES WITH THE APPROPRIATE UTILITY COMPANY. ALL CONSTRUCTION MUST COMPLY WITH EACH UTILITY'S STANDARDS AND SPECIFICATIONS AND NOT INTERFERE WITH TREE PLANTING SITES OR EXISTING TREES TO BE PRESERVED.

BUFFERS MUST BE PLANTED TO CITY OF WOODSTOCK STANDARDS WHERE SPARSELY VEGETATED OR WHERE DISTURBED FOR APPROVED UTILITY OR ACCESS

THE DENSITY REQUIREMENTS SHOWN ON THE TREE PRESERVATION AND/OR REPLACEMENT PLAN(S) MUST BE VERIFIED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY OR ACCEPTANCE OF THE FINAL PLAT. A PERFORMANCE BOND, LETTER-OF-CREDIT OR ESCROW ACCOUNT WILL BE ACCEPTED IF PLANT MATERIALS MUST BE INSTALLED AT A LATER DATE.

FISCAL SURETY FOR MAINTENANCE OF PLANTED TREES MUST BE IN PLACE PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. A MAINTENANCE INSPECTION WILL BE PERFORMED PRIOR TO THE SCHEDULED RELEASE DATE OF THE POSTED FISCAL SURETY TO DETERMINE THE HEALTH OF THE TREES PLANTED TO MEET THE REQUIREMENTS OF THIS ORDINANCE AS WELL AS ANY BUFFER PLANTINGS.

TREE PROTECTION FENCES FOR SUBDIVISIONS SHALL BE INSTALLED BY THE DEVELOPER AT THE SAME TIME AS EROSION CONTROL DEVICES. THE DEVELOPER IS RESPONSIBLE FOR MAINTENANCE OF TREE PROTECTION FENCES UNTIL BUILDING COMMENCES ON A LOT. AT THAT TIME, THE BUILDING CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE FENCE ON THE LOT.

THE DEVELOPER MUST INSTALL ANY TREES SHOWN ON THESE PLANS TO BE PLANTED IN COMMON AREAS OF THE SUBDIVISION. THIS PLANTING MUST BE DONE OR FISCAL SURETY MUST BE POSTED BEFORE THE FINAL PLAT CAN BE APPROVED.

THE INSTALLATION OF EROSION CONTROL DEVICES CAUSES HARM TO TREES. ON INDIVIDUAL LOTS, USE SILT FENCE ONLY AS NEEDED AND LOCATE IT AS FAR FROM TREE PROTECTION ZONES AS POSSIBLE.

WHEN DIGGING NEAR TREES, THE CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS ONE (1) INCH IN DIAMETER AND LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.

PRUNING OF TREE LIMBS TO PROVIDE CLEARANCE FOR EQUIPMENT AND MATERIALS SHALL BE DONE ACCORDING TO STANDARD ARBOR CULTURAL PRACTICE (SEE ANSI A300-1995).

PROTECT THE TRUNKS OF ANY TREES BEING PRESERVED WITHIN THE TEMPORARY OR PERMANENT UTILITY EASEMENTS WITH STRAPPED-ON PLANKING OR SIMILAR PROTECTIVE DEVICE.

ALL EXISTING STRUCTURES ARE TO BE REMOVED

PROVIDE 20' MINIMUM SPACING BETWEEN THE TRUNKS OF ALL DECIDUOUS SHADE TREES. PROVIDE GREATER SPACING WHERE POSSIBLE.

PROVIDE 20' MINIMUM SPACING BETWEEN THE TRUNKS OF ALL DECIDUOUS SHADE TREES AND ANY EXISTING OR PROPOSED LIGHT POLES. PROVIDE GREATER SPACING WHERE POSSIBLE.

PROVIDE 15' MINIMUM SPACING BETWEEN THE TRUNKS OF ALL DECIDUOUS SHADE TREES AND ANY EXISTING OR PROPOSED BUILDING. PROVIDE GREATER SPACING WHERE POSSIBLE.

DO NOT INSTALL OVER-STORY TREES IN LOCATION WHERE FUTURE CONFLICTS WITH EXISTING OVERHEAD UTILITY LINES WILL BE INEVITABLE. CONTACT THE COBB COUNTY ARBORIST OR LANDSCAPE ARCHITECT IF ANY POTENTIAL CONFLICTS ARE IDENTIFIED DURING THE INSTALLATION PROCESS.

SPECIMEN TREES TO BE REMOVED

#	CALIPER	SPECIES	SPECIMEN	UNIT VALUE
1	25"	POPLAR	YES	3.8
2	26"	SWEETGUM	YES	3.8
3	12"	CHERRY	YES	0.6
4	13"	CHERRY	YES	1.2
5	27"	POPLAR	YES	3.8
6	27"	POPLAR	YES	3.8
7	27"	POPLAR	YES	3.8
8	33"	POPLAR	YES	6.5
TOTAL SPECIMEN UNITS REMOVED = 27.3 27.3 X 2 = 54.6				

NOTE: SEE EXISTING CONDITIONS PLAN FOR SPECIMEN LOCATIONS

TREE SAVE CALCULATIONS

4.25 ACRES X 20 UNITS PER ACRE = 85 UNITS REQUIRED (SDF)

EXISTING TREES TO REMAIN = 0.0 INCHES SAVED (EDF)

.85 DENSITY UNITS REQ'D PLANTING (RDF)

54.6 SPECIMEN UNITS REQ'D PLANTING

.85 + 54.6 = 139.6 INCHES

75% TO BE PLANTED 25% TO BE PAID TO TREE BANK

139.6 UNITS x 25% = 34.9 UNITS TO TREE BANK (50-4" TREES)

139.6 UNITS x 75% = 104.7 UNITS TO BE PLANTED

105 UNITS TO BE PLANTED

TREE PLANTING LIST

SYMBOL	TOTAL	BOTANICAL NAME	COMMON NAME	SIZE	UNITS	TOTAL UNITS	% TOTAL
	32	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	4.0" CAL	0.7	22.4	16%
	36	CRYPTOMERIA JAPONICA	JAPANESE CRYPTOMERIA	12' HT.	0.7	25.2	18%
	28	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	12' HT.	0.7	19.6	15%
	28	QUERCUS PHELLOS	WILLOW OAK	4.0" CAL	0.7	19.6	16%
	26	ULMUS PARVIFOLIA	LACEBARK ELM	4.0" CAL	0.7	18.2	19%
TOTAL # 4" TREES TO BE PLANTED=137					TOTAL UNITS TO BE PLANTED= 105		

GRAPHIC SCALE

-40 0 20 40 80

(IN FEET)
1 inch = 40' ft.

centerline
Surveying and Land Planning, Inc.
1301 SHILOH ROAD, SUITE 1210, KENNESAW, GA. 30144
PHONE: (770) 424-0028 FAX: (770) 424-2289

GEORGIA LANDSCAPE ARCHITECT 1431 CHRISTIAN WILES

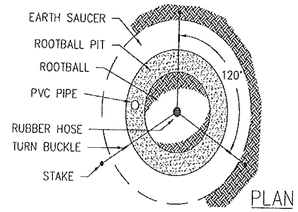
TREE PROTECTION PLAN FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

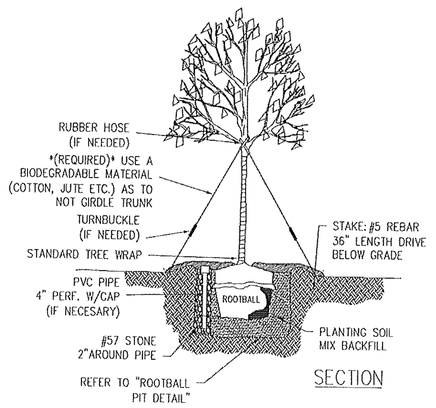
NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

SHEET No. L1.0

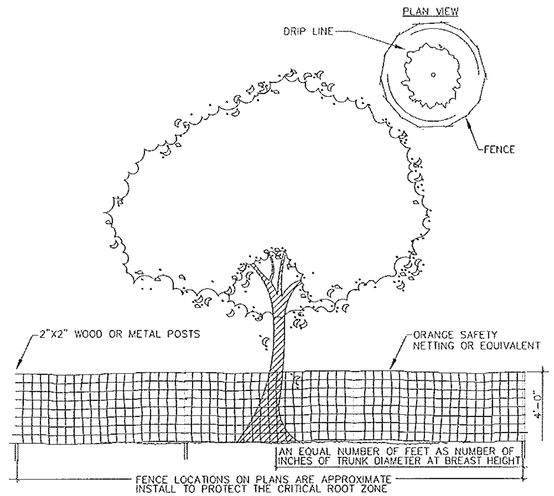
APPENDIX E
STANDARD DETAILS



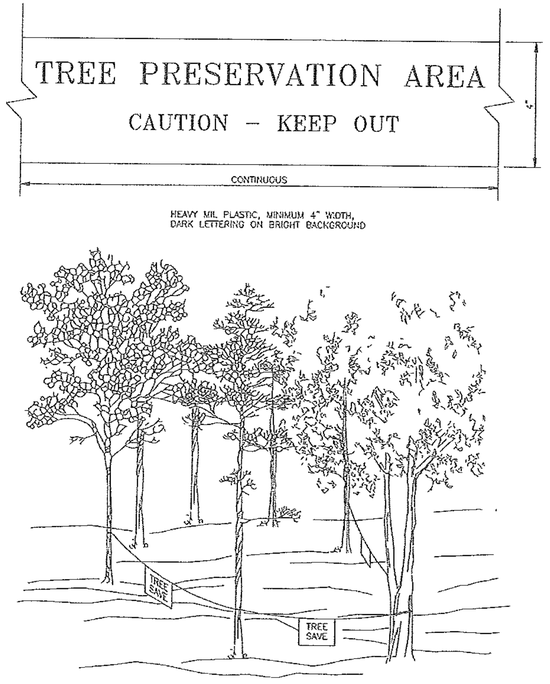


TREE PLANTING/STAKING
N.T.S

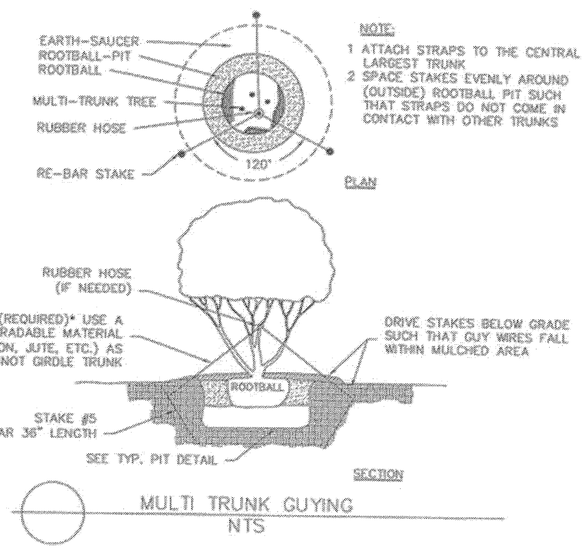
Note: Smaller Trees (Below 2' cal) may be staked with one diagonal 2"X2" P.T. wood stake.



ACTIVE TREE PROTECTION FENCE
N.T.S.

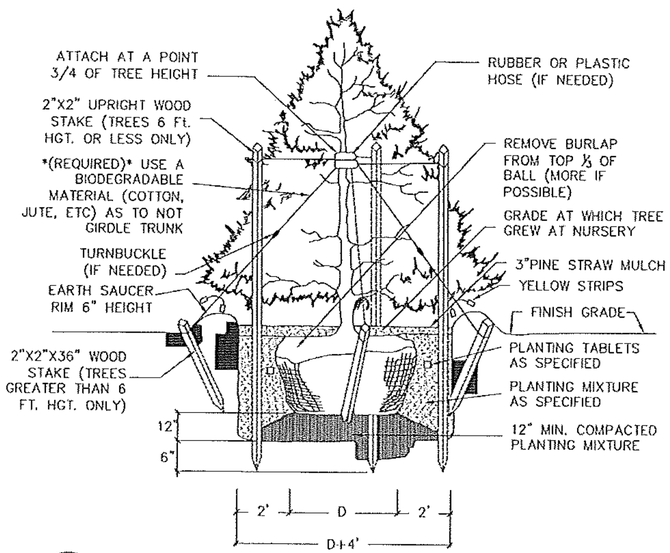


PASSIVE TREE PROTECTION FLAGGING
N.T.S.



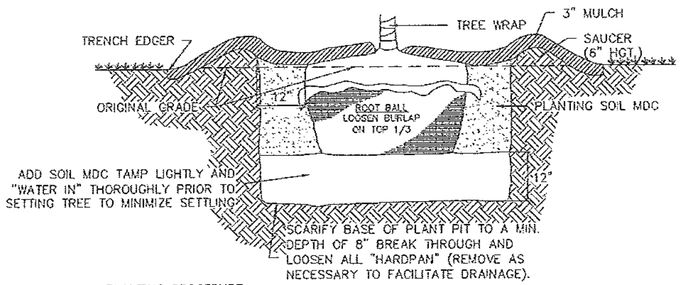
NOTE:
1 ATTACH STRAPS TO THE CENTRAL LARGEST TRUNK
2 SPACE STAKES EVENLY AROUND (OUTSIDE) ROOTBALL PIT SUCH THAT STRAPS DO NOT COME IN CONTACT WITH OTHER TRUNKS

MULTI TRUNK GUYING
NTS



EVERGREEN TREE PLANTING DETAIL
N.T.S.

GENERAL NOTES:
1 DO NOT ALLOW AIR-POCKETS TO FORM WHEN BACKFILLING.
2 IMMEDIATELY SOAK WITH WATER.
3 DO NOT BREAK ROOTBALL.



PLANTING PROCEDURE:
1 EXCAVATE ROOTBALL PIT.
2 SCARIFY PIT. ADD SOILMIX AND TAMP.
3 SET TREE LEVEL WITH IT'S ORIGINAL GRADE IN NURSERY.
4 BACKFILL W/SOIL-MIX AND CONSTRUCT SAUCER.
5 COMPLETE BACKFILLING, ADD MULCH AND APPLY TREE WRAP.
6 STAKE AND GUY SECURELY.

TYPICAL TREE PIT

GEORGIA REGISTERED LAND SURVEYOR No. 3268 MATTHEW S. FINCH

centerline
Surveying and Land Planning, Inc.
1801 STILLSON ROAD, SUITE 210, RENNESAW, GA. 30144
PHONE: (770) 424-4008 FAX: (770) 424-4009

TREE PROTECTION AND REPLACEMENT DETAILS FOR:
WILEY BRIDGE ROAD
LAND LOT 1262 & 1263, 15TH DISTRICT, 2nd SECTION
CHEROKEE COUNTY, GEORGIA

NO.	DATE	REVISION DESCRIPTION	BY

DRAWN BY: DB
CHECKED BY: MSF
DATE: 12-04-17
SCALE: 1" = 30'
PROJECT No.: 717034

L2.0