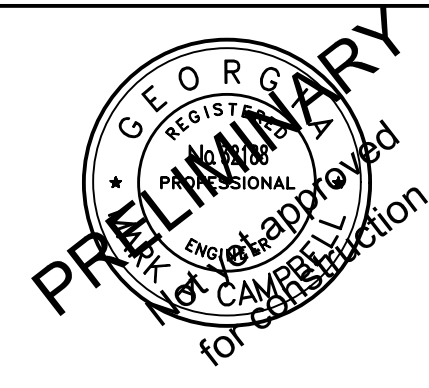


Carter Engineering Consultants, Inc.  
 3651 Mars Hill Road  
 Suite 2000  
 Watkinsville, GA 30677  
 P: 770.725.1200  
 F: 706.559.7435  
 www.carterengineering.net



# ROUNABOUT PLANS

FOR

## OCONEE COUNTY GOVERNMENT

23 NORTH MAIN STREET, WATKINSVILLE, GA 30677



PROJECT LOCATION

### STAFF/BUS ENTRANCE AT MALCOM BRIDGE ROAD (ROUNABOUT #2) BOGART, GEORGIA 30622

**PROJECT NOTES:**

OWNER / DEVELOPER:  
 Oconee County Government  
 23 N. Main Street  
 Watkinsville, Ga. 30677  
 Contact: Jody Woodall, PE  
 Tel.: (706) 769-2939  
 e-mail: jwoodall@oconee.ga.us

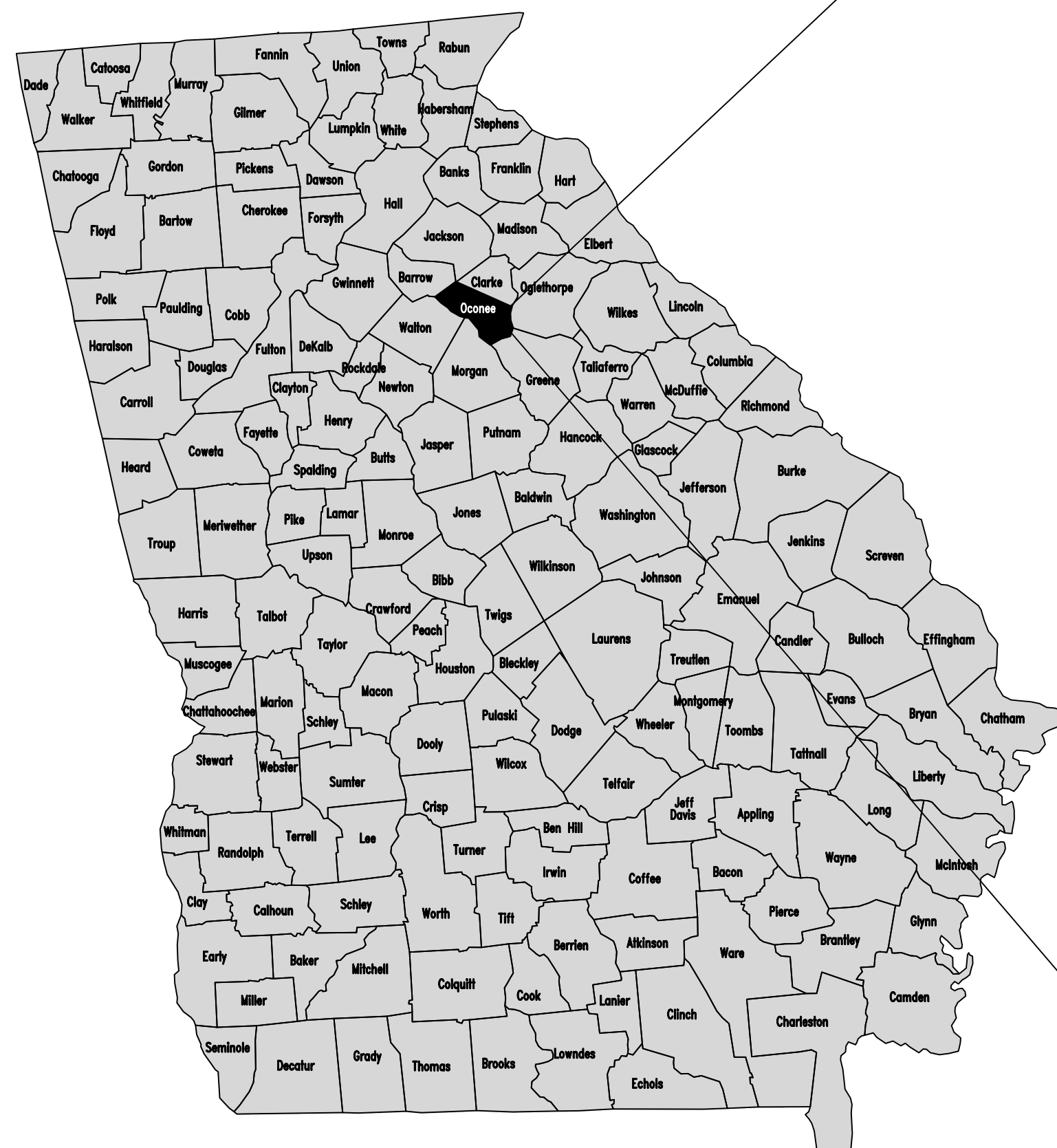
ENGINEER:  
 Carter Engineering Consultants, Inc.  
 3651 Mars Hill Road  
 Suite 2000  
 Watkinsville, Georgia 30677  
 Contact: Mark Campbell, P.E.  
 Tel.: (770) 725-1200  
 e-mail: mark@carterengineering.net



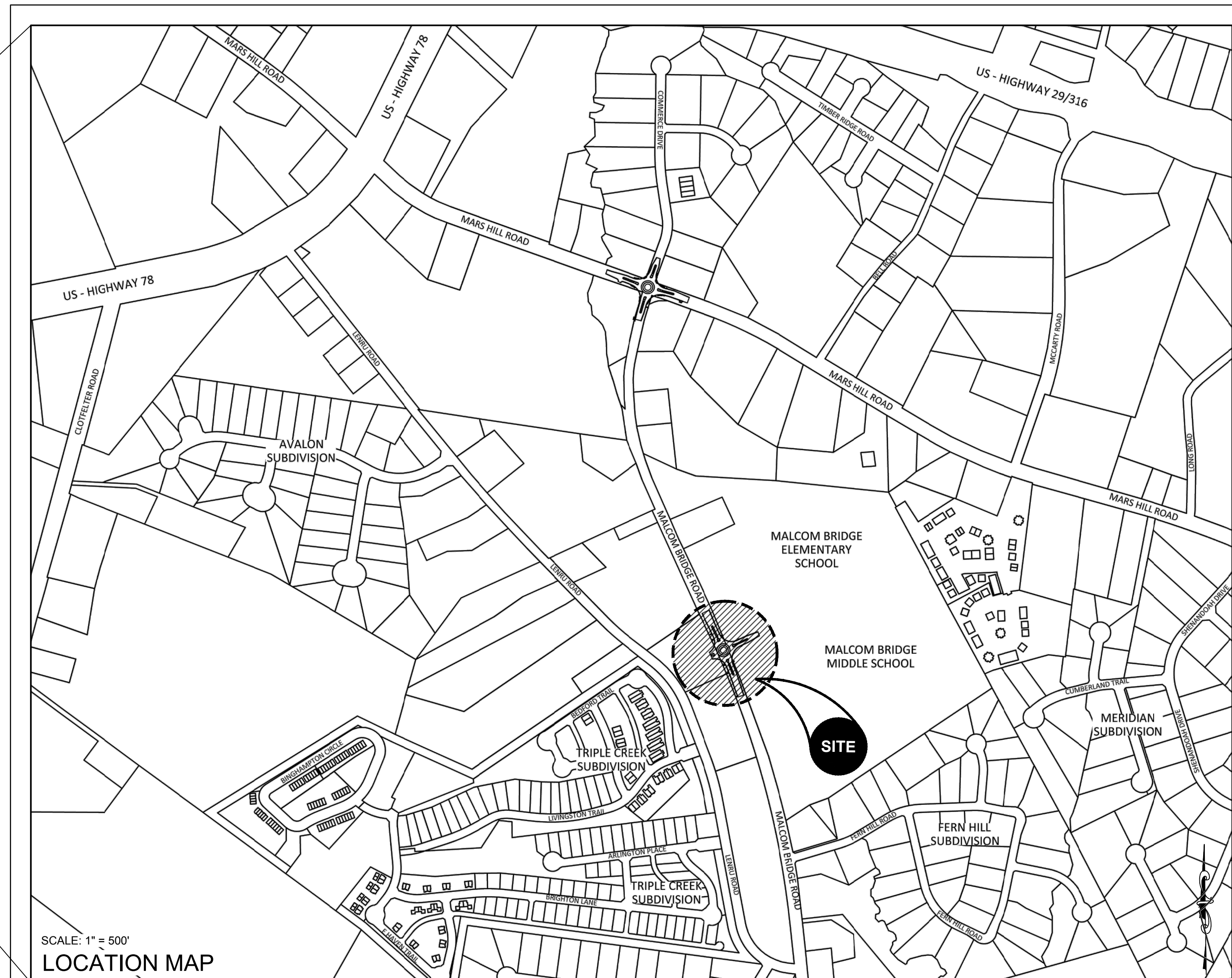
### REVISION BLOCK:

REV. #	DATE	REVISION
A	08/02/2019	INITIAL SUBMITTAL
B	09/19/2019	REVISED PER COUNTY COMMENTS
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-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

SHEET INDEX	
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D-1.4	STANDARD DETAILS
D-1.5	STANDARD DETAILS
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E-2.0	PHASE I ES&PC PLAN
E-2.1	PHASE I ES&PC PLAN
E-3.0	PHASE II ES&PC PLAN
E-3.1	PHASE II ES&PC PLAN
E-4.0	PHASE III ES&PC PLAN
E-4.1	PHASE III ES&PC PLAN
E-5.0	ES&PC STANDARD DETAILS



VICINITY MAP



SCALE: 1" = 500'  
 LOCATION MAP

24-HOUR CONTACT: Jody Woodall, PE (706) 769-2939

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	1180.06'	5769.58'	S 18°36'02" E	1178.00'
C2	537.72'	5580.26'	N 19°39'11" W	537.51'
C3	195.33'	5580.26'	N 23°24'59" W	195.32'

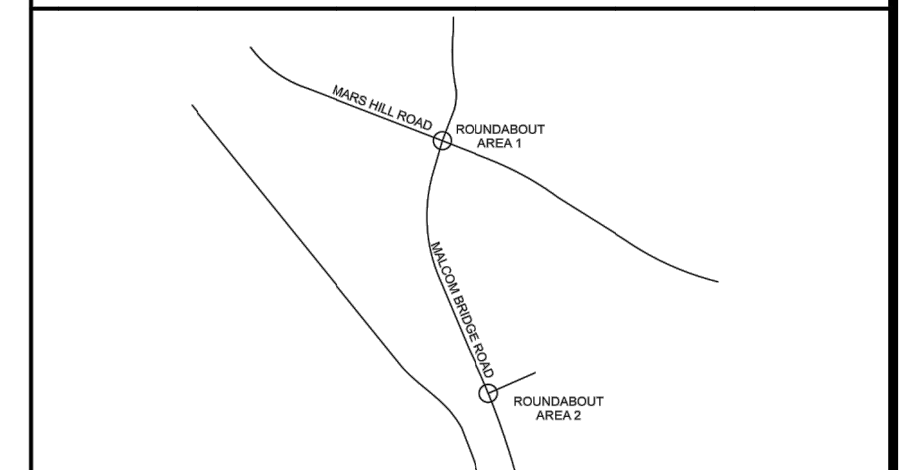
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**TOPOGRAPHIC AND EXISTING  
 RIGHT-OF-WAY SURVEY OF  
 ROUNDABOUT 2 AREA FOR:**

**OCONEE COUNTY GOVERNMENT**

**P/O MALCOM BRIDGE ROAD  
 OCONEE COUNTY, GA  
 G.M.D. 240**

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**LOCATION MAP - NTS**

**LEGEND OF SURVEY ABBREVIATIONS/SYMBOLS**

A	ARC LENGTH	⬇	BACKFLOW PREVENTER
AC	AIR CONDITIONER	⬇	BENCHMARK/CONTROL
BSL	BUILDING SETBACK LINE	⊗	BOLLARD
CL	CENTERLINE	⊗	BURIED CABLE POST
CM	CONCRETE MONUMENT	⊗	CABLE TV FEDESTAL
CMP	CORRUGATED METAL PIPE	⊗	CATCH BASIN (SINGLE WING)
CONC	CONCRETE	⊗	CATCH BASIN (DOUBLE WING)
COV	COVERED	⊗	CHAIN LINK FENCE
DB	DEED BOOK	⊗	ELECTRIC BOX
DE	DRAINAGE EASEMENT	⊗	ELECTRIC MANHOLE
DWCB	DOUBLE WING CATCH BASIN	⊗	ELECTRIC METER
ENCR	ENCROACHMENT	⊗	ELECTRIC PEDESTAL
EP	EDGE OF PAVEMENT	⊗	FIRE HYDRANT
ESMT	EASEMENT	⊗	GAS BOX
ET	ELECTRIC TRANSFORMER	⊗	GAS LINE (BURIED)
FES	FLARED END SECTION	⊗	GAS METER
FD	FOUND	⊗	GAS POST
FF	FINISHED FLOOR	⊗	GAS VALVE
INVERT	INVERT	⊗	GAS VENT STACK
IP	IRON PIPE	⊗	GATE/WATER VALVE
IPC	IRON PIPE WITH CAP	⊗	GREASE TRAP MH
IR	IRON REBAR	⊗	GUYANCHOR
IRC	IRON REBAR WITH CAP	⊗	IRRIGATION CONTROL VALVE
M	MEASURED	⊗	METAL LIGHT POLE
MH	MANHOLE	⊗	METAL LIGHT POLE
NF	NOW OR FORMERLY	⊗	OVERHEAD UTILITIES
NTS	NOT TO SCALE	⊗	PHONE LINE (BURIED)
O/S	OFFSET	⊗	POWER (BURIED)
P	PLAT	⊗	SANITARY SEWER CLEAN-OUT
PB	PLAT BOOK	⊗	SS LINE (BURIED)
PDI	PEDESTAL DROP INLET	⊗	SANITARY SEWER MANHOLE
PG	PAGE	⊗	SIGN
POB	POINT OF BEGINNING	⊗	STORM SEWER MANHOLE
POC	POINT OF COMMENCEMENT	⊗	STORM SEWER LINE (BURIED)
R	RADIAL/RADIUS	⊗	STREET/PARKING LIGHT
RCP	REINFORCED CONCRETE PIPE	⊗	STUB (UNKNOWN)
ROW	RIGHT-OF-WAY	⊗	TELEPHONE PEDESTAL
SWB	STATE WATERS BUFFER	⊗	TRAFFIC SIGNAL BOX
SWCB	SINGLE WING CATCH BASIN	⊗	WATER METER
SS	SANITARY SEWER	⊗	WELL
SSMH	SANITARY SEWER MANHOLE	⊗	WOOD FENCE
TYP	TYPICAL	⊗	WOOD LIGHT POLE
UE	UTILITY EASEMENT	⊗	WOOD POLE
●	FOUND 1/2" IR	⊗	MAGNOLIA TREE
⊗	FD 5"x5" CONC MONUMENT	⊗	OAK TREE
⊗	SET 1/2" IRC LSF 1135		
⊗	POINT ONLY		

This plat is a retracement of an existing parcel or parcels of land and does not subdivide or create a new parcel or make any changes to any real property boundaries. The recording information of the documents, maps, plats or other instruments which created the parcel or parcels are stated herein. RECORDATION OF THIS PLAT DOES NOT IMPLY APPROVAL OF ANY LOCAL JURISDICTION, AVAILABILITY OF PERMITS, COMPLIANCE WITH LOCAL REGULATIONS OR REQUIREMENTS, OR SUITABILITY FOR ANY USE OR PURPOSE OF THE LAND. Furthermore, the undersigned land surveyor certifies that this plat complies with the minimum technical standards for property surveys in Georgia as set forth in the rules and regulations of the Georgia Board of Registration for Professional Engineers and Land Surveyors and as set forth in O.C.G.A. Section 15-6-67.

REGISTERED LAND SURVEYOR: CRAIG M. RICHT  
 GEORGIA L.S. #3136

	DATE PREPARED:	1-28-19
	PROJECT #:	180010CG
	DATE:	3-21-19

REVISIONS:	DATE:
ADDED MORE TOPOGRAPHY AND SELECTED TREES	3-21-19

GRID NORTH (GA WEST)	DATE:
----------------------	-------

GRAPHIC SCALE  
 0' 15' 30' 60' 90'  
 SCALE: 1" = 30'

SHEET #  
 2  
 2

N/F  
 ANGELA HAAGEN -and-  
 CHARLIE'S DARK CORNER, LLC  
 TAX PARCEL # B 02 090  
 D.B. 1387, P. 404 -and- D.B. 990, P. 801  
 P.B. 37, P. 242  
 ZONING: A-1

BM - FD 1/2" IR  
 N - 1424013.694  
 E - 2496345.457  
 ELEV - 820.327'

N/F  
 OCONEE COUNTY, GEORGIA  
 TAX PARCEL # B 02 093BA  
 D.B. 720, P. 60  
 ZONING: R-2-MPD

N/F  
 OCONEE COUNTY SCHOOL DISTRICT  
 TAX PARCEL # B 02 094  
 D.B. 293, P. 193 -and- P.B. 24, P. 78  
 ZONING: A-1

N/F  
 OCONEE COUNTY SCHOOL DISTRICT  
 TAX PARCEL # B 02 094  
 D.B. 293, P. 193 -and- P.B. 24, P. 78  
 ZONING: A-1

N/F  
 LENRU DEVELOPMENT, LLC  
 TAX PARCEL # B 02 093B  
 D.B. 1141, P. 730 -and- P.B. 17, P. 250  
 ZONING: R-2-MPD

**SURVEYOR'S NOTES:**

- THIS MAP OF SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE ABSTRACT.
- THE PROPERTY SHOWN HEREON MAY BE SUBJECT TO EASEMENTS, RESTRICTIONS, RESERVATIONS, RIGHTS-OF-WAY, STATE WATER BUFFERS AND OTHER ENCUMBRANCES. SAID EASEMENTS, RESTRICTIONS, RESERVATIONS, RIGHTS-OF-WAY, STATE WATER BUFFERS AND OTHER ENCUMBRANCES MAY NOT BE SHOWN HEREON.
- IT IS OUTSIDE MY AREA OF EXPERTISE TO DELINEATE WETLANDS OR DETERMINE IF THE CORRECT SITE CONDITIONS EXIST FOR WETLAND AREAS, THEREFORE WETLANDS, IF EXISTING ON SUBJECT PROPERTY, ARE NOT SHOWN.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON THE FIELD LOCATES PROVIDED BY "UTILITY MARKING" AND GA 811. CARTER ENGINEERING CONSULTANTS, INC. AND CRAIG M. RICHT DO NOT GUARANTEE THE ACCURACY OF THE WORK PROVIDED BY "UTILITY MARKING" AND GA 811.
- THIS MAP OF SURVEY IS NOT VALID UNLESS IT BEARS THE REGISTRANT'S ORIGINAL SIGNATURE, IN BLUE INK, PLACED ACROSS THE REGISTRANT'S SEAL.
- BEARINGS ARE BASED ON GRID NORTH (GA WEST ZONE) WHICH WAS ESTABLISHED USING RTK GPS ON THE egps NETWORK.
- ELEVATIONS ARE BASED NAVD 1988 AND WERE ESTABLISHED USING RTK GPS ON THE egps NETWORK.
- CONTOURS SHOWN ARE AT A 1 FT. CONTOUR INTERVAL.
- ZONING AND SETBACK INFORMATION, IF SHOWN, SHOULD BE VERIFIED BY THE APPROPRIATE PLANNING/ZONING AGENCY PRIOR TO DESIGN OR CONSTRUCTION ACTIVITIES.

**General Notes:**

- The General Notes are to be supplemented by any and all other notes contained within the Construction Plans.
- The Contractor shall ensure that a complete set of construction plans is kept on the job site at all times.
- All work to be done in accordance with the Georgia Department of Transportation "Standard Specifications for Roads and Bridge Construction," 2016 Edition with Supplements and Revisions.
- The Contractor shall assign and have on site at all times a competent superintendent knowledgeable of the construction techniques required to perform the various types of work being performed. IE Concrete, asphalt, storm drain etc... The Superintendent shall have full authority over all work forces and shall assure all work is performed per specified guidelines, specifications and remains on schedule.
- The Contractor shall maintain the safety and convenience of the general public and the residents along all affected roadways. The Contractor shall protect their persons and property as specified in Sections 104.05, 107.07, 107.09, and 150.00 of the Georgia Department of Transportation "Specifications for Roads and Bridge Construction," 2016 Edition, with Supplements and Revisions.
- All persons including subcontractors employed by the contractor shall wear personal protective gear including reflective safety vests while working within the project limits.
- The Contractor shall install and maintain construction safety fencing in areas of excavation as required and directed by the Project Manager.
- A staged construction plan for maintaining traffic throughout the project shall be submitted for approval by Owner within 10 days of Notice of Award. The contractor shall provide a detailed traffic control striping and signage plan for each stage of construction.
- The Contractor shall furnish, install, and maintain all required barricades, signs, and other traffic control devices in compliance with the "Manual on Uniform Traffic Control Devices," 2009 Edition.
- Storage or Materials and equipment shall be at locations approved by the Project Manager.
- Aggregate Surface Course will be considered for payment only when used in temporary driveway construction. Other uses of aggregate surface course or gravel aggregate base shall be considered as Traffic Control.
- The Contractor shall be responsible for the repair and/or replacement of all damaged property, including but not limited to structures, foundations, driveways, sidewalks, fences and landscape amenities. The Contractor shall protect all landscape amenities and shall be responsible for their relocation and/or replacement during the construction period as required by the Project Manager.
- The contractor shall use temporary asphalt and or asphalt milling to maintain a safe and smooth riding surface as required by the Project Manager with all costs to be considered as incidental to Traffic Control.
- The Contractor shall provide and maintain acceptable access to all businesses and residences to include driveways, sidewalks and stair entrances during the construction period as determined by the Project Manager.
- The Contractor shall be responsible for uninterrupted mail service during the construction period. When necessary, mailboxes shall be temporarily relocated to a location convenient to mail carrier and patron.
- The Contractor shall be responsible for maintaining uninterrupted utility services to all affected businesses and residences during the construction period. Any and all service interruptions shall be reported to the Project Manager and shall be promptly repaired at the expense of the Contractor.
- The Contractor shall be required to use the one-call center telephone number, 1-800-282-7411, for the purpose of coordinating the marking of underground utilities.
- The following utilities may have facilities in the project area.

Charter Communication 495 Hawthorne Avenue Athens, GA 30606 Office: (706) 227-7310 Cell: (706) 215-8075 Contact: Ray Cortez <a href="mailto:rcortez@charter.com">rcortez@charter.com</a>	Southern Company Gas 10 Peachtree Place NE Atlanta, GA 30309 Office: 404-584-3176 Cell: 470-316-6836 Contact: Ginny Mauldin-Kinney <a href="mailto:vmauldin@southernco.com">vmauldin@southernco.com</a>
--	---

AT&T 125 Reese Street Athens, GA 30601 Phone: 706-353-4304 Cell: 770-540-4189 Fax: 706-548-1621 Contact: Chris Martin <a href="mailto:cm1028@att.com">cm1028@att.com</a>	Georgia Power Distribution 205 Dairy Pak Road Athens, GA 30607 Office: 404-989-5876 Fax: 706-357-6670 Contact: Galen Davis <a href="mailto:gdavis@southernco.com">gdavis@southernco.com</a>
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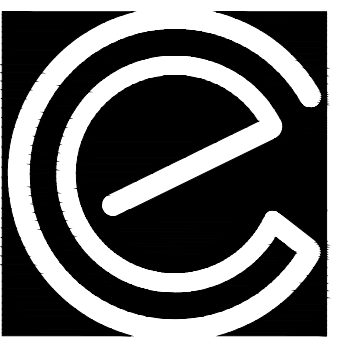
Walton EMC 842 US 78 Monroe, GA 30655 Office: 770-267-2505 Fax: 770-601-2795 Contact: Terry Allgood <a href="mailto:tallgood@waltonemc.com">tallgood@waltonemc.com</a>	Parker Fiber Systems 10005 Commerce Street Summerville, GA 30747 Phone: 706-857-4646 Cell: 678-332-6518 Contact: Preston Watson <a href="mailto:preston@parkersystems.net">preston@parkersystems.net</a>
--	--

Oconee County Public Works 1291 Greensboro Highway Watkinsville, GA 30677 Phone: 706-769-2937 Contact: Jody Woodall <a href="mailto:jwoodall@oconee.ga.us">jwoodall@oconee.ga.us</a>	Oconee County Water Resources 1291 Greensboro Highway Watkinsville, GA 30677 Phone: 706-769-3960 Contact: Adam Layfield <a href="mailto:alayfield@oconee.ga.us">alayfield@oconee.ga.us</a>
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- The Contractor shall notify all affected utility companies no later than 72 hours prior to any demolition or construction where water meter/service line adjustments, gas line adjustments and/or manhole adjustment/relocation is required.
- Contractors performing Water and Sewer type construction shall be on Oconee County Water Resources Department, Approved Contractors list.
- Utility locations shown are approximate and shall be field verified prior to construction. The Contractor shall be responsible for verifying site conditions and the locations of all piping and utility installations, including but not limited to, manholes, boxes and services with respect to each utility. The Contractor shall ensure the protection and maintenance of all utilities and shall be responsible for their repair and replacement if damaged. No additional payment or time shall be considered due to any required work associated with repairs or replacement.
- The Contractor shall be responsible for determining and resolving conflicts between the work and utilities, both underground and aerial (including poles). Such determinations shall be made in a timely manner to permit adjustments to be made before construction progress is obstructed.
- Contractor shall submit sketches/shop drawings for resolving utility conflicts to the Project manager for approval and shall coordinate necessary adjustments or relocations with all utility companies involved. No additional payment or time shall be considered due to any required work associated with resolving conflicts with utilities.
- The Contractor shall notify Oconee County Public Works 72 hours before assistance is needed with traffic related items.
- The Contractor shall strictly adhere to dust control guidelines as set forth in Section 161-Control of Soil and Sedimentation, Sub-section 161.01 Description, of the Georgia Department of Transportation "Standard Specifications for Roads and Bridge Construction," 2016 Edition. No additional compensation will be made for dust control.
- The contractor shall install and maintain all soil and erosion control measures as shown on the plans and as required by the Project Manager. The Contractor shall be responsible for maintaining all erosion and sediment control devices at all times and shall at all times be in compliance with the Georgia Department of Transportation "Standard Specifications for Roads and Bridge Construction," 2016 Edition with Supplements and Revisions. Additional erosion and sediment control measures will be installed if deemed necessary by the Project Manager.
- Erosion Control Check Dams may be Rip-Rap or Baled Straw as determined applicable by the Project Manager. As a minimum the contractor shall apply temporary Mulch to all cut and fill slopes within 5 days of grading and shall perform temporary grassing within two weeks of grading.
- All disturbed areas outside the limits of construction are to be restored and grassed in kind by the contractor at his expense, with grass or sod, I.E. Fescue for Fescue, Bermuda Sod for Bermuda Sod, Zoysia for Zoysia, etc.
- It shall be the Contractor's responsibility to legally dispose of any unsuitable or waste material.
- Vertical and horizontal checks shall be performed to verify accuracy of all survey control points and referenced coordinates. Any discrepancy shall be resolved prior to commencing with the project layout.
- Additional survey control points will be established and protected outside the construction limits every 500 LF. prior to beginning construction.
- All property line monuments outside the construction limits disturbed in the prosecution of the work shall be reset by a professional land surveyor licensed by the State of Georgia, at the Contractor's expense.
- The grades of all ditches and culverts shall not be less than 1% unless otherwise shown on the Plans.
- All Storm drains and side drains shall be graded to drain
- All Storm and Sidedrain pipe shall be Type III, Reinforced Concrete Pipe.
- All manhole, catch basin, and drop inlet bottoms shall meet GDOT Standards and Details with the exception that brick bottoms shall not be allowed.
- Covers for all 1033 and 1034 type Catch Basins shall be GADOT Standard.
- Hoods for all 1019 type Drop Inlets shall be GADOT Standard.
- Covers for all 1011A Storm Sewer Manholes shall be GADOT Standard.
- All new storm drains to have a minimum of 18" of clearance over water mains, unless otherwise shown in the plans. Alternatively the storm drain shall be placed under the water main or supported by concrete pipe supports. Concrete pipe supports shall be considered incidental to the associated pay item.
- All new storm drains to have a minimum of 18" of clearance over sanitary sewer lines, unless otherwise shown in the plans. Sanitary Sewer line crossings with less than 18" of clearance will be replaced with ductile iron pipe and will be paid for under the associated pay item. Concrete pipe supports shall be considered incidental to the associated pay item.
- Any and all Concrete Collars shall be considered incidental to the associated pay item.
- All abandoned pipes are to be capped or plugged using brick and mortar or 8" thick concrete. This work is part of and considered incidental to the work of the associated pay item.
- Concrete used for Concrete Trench Cap and Concrete Base or Pavement Widening shall be of the following Types and required curing times prior to normal traffic loading.
  - Class B cured a minimum 14 days
  - Class AA I with Type III cement cured minimum 72 hours.
  - GADOT Accelerated Strength Concrete cured minimum 12 hours
  - Concrete found receiving traffic loading prior to the above cure times will be rejected. No added compensation shall be added for Class AA I or GADOT Accelerated Strength Concrete when it is used to allow earlier traffic loading to expedite the work.
- All Storm Sewer Trench cap shall be 8-inch-thick concrete overlaid with 1.5 or 2 inches of Temporary Asphalt until final paving phase of project at which time the Temporary Asphalt will be milled and replaced with permanent asphalt, thickness and type specified on plans.
- Corrugated metal pipe remaining under the pavement shall be filled with flowable fill.
- All existing Sanitary and Storm Sewer Manholes and water valve boxes shall be referenced, lowered and protected prior to roadway excavation and/or milling operations. Tops of all new storm sewer manholes shall be left below roadway grade and protected until final surface course has been installed. This work shall be considered part of an incidental to the associated pay item.
- Final adjustment of manholes and water valve boxes shall be performed after the final surface course has been installed. The contractor shall reference, and lower water valves and manholes below proposed grade prior to pavement removal.
- Rock encountered in trench line excavation that requires blasting to excavate, shall be paid for as Rock Excavation. Contractor shall excavate rock utilizing up to a 75,000 LB excavator equipped with

- rock buckets, hammer/breakers, rippers or other attachments before resorting to the use of blasting. Rock requiring the use of an excavator larger than 75,000 lb. equipped with aforementioned attachments will be paid for as Rock Excavation
- Where wet conditions and unstable foundation materials are encountered in trench lines, Foundation Backfill Material will be used at a depth directed by the Project Manager and shall be paid for as Foundation Backfill Material Type II.
- When unsatisfactory non-compactable backfill material is encountered in trench lines as determined by the Project Manager, Type I Back Fill Material will be used and paid for as Section 206, Borrow Excavation.
- Layout of curb and gutter, sidewalk, driveways and checking of vertical and horizontal alignment of associated forms shall be performed by the contractor and inspected by the Project Manager. Such inspections shall be requested in a timely manner to permit adjustments if necessary, prior to installation of concrete.
- Existing pavement will be saw cut by the Contractor, as shown on the plans and as directed by the Project Manager, to provide a smooth and even tie-in for the placement for the new pavement surface. The saw cutting is incidental to the cost of associated pay item.
- The contractor shall be responsible for any damage to trees that are scheduled to remain throughout the Work, inside and bordering the temporary and permanent easements. Special care shall be taken so as not to break limbs, scar the bark, or cut/damage tree roots during construction. The Project Manager shall meet with the contractor prior to beginning of clearing and designate and mark trees which will remain throughout the Project.
- Tree Protection fencing shall be placed outside the critical root zone of all trees where possible. Instructions from the Project Manager will be obtained if this is not possible.
- No equipment shall be parked or operated on any root zone of trees along the construction area. Roots encountered during excavation shall be neatly cut.
- Any tree damage shall be reported immediately to the Project Manager.
- Adjustments to water meter box and traffic pull boxes shall be considered part of an incidental to the associated pay item. Water Meter Boxes remaining in the sidewalk will be centered over the shut off valves.
- Removal and resetting of signs and/or necessary temporary signage required, will be considered incidental to work. No additional compensation shall be made for these items. Locations of relocated signs shall be directed by the Engineer.
- All curb & gutter and header curb requires the installation of compacted Graded Aggregate Base prior to forming and the placing of concrete.
- All curb and gutter that is to be removed and replaced shall be removed and replaced to the nearest full joint. Transition proposed curb and gutter as to assure a smooth tie-in. No separate payment.
- Clearing, excavation and haul of any unsuitable material from trench lines, embankments or other gradients will be considered incidental to the work of the associated pay item.
- Contractor to align all water proposed inlets with weir perpendicular to swale/ditch sections.
- Normal work hours of the Project are between the hours of 7:00 A.M. to 7:00 P.M. Eastern Time Monday through Friday. Lane Closures are permitted between the hours of 9:00 A.M. and 4:00 P.M. Eastern Time and 6:00 P.M. to 6:00 A.M. Eastern Time Monday through Friday. There will be no Lane Closures permitted between the hours of 6:00 A.M. to 9:00 A.M. Eastern Time and 4:00 P.M. to 6:00 P.M. Eastern Time Monday through Friday. These conditions shall apply to all work performed during the course of the project except milling and paving operations.
- Milling and Paving Lane Closures are permitted beginning at 8:00 A.M. Eastern Time. All travel lanes shall be reopened by 9:00 P.M. Eastern Time.
- The contractor shall notify Oconee County Public Works Department and the Project Manager 10 business days before any lane shifts or reconfigurations.
- Before the commencement of the work, the contractor shall establish existing pavement elevations throughout the project limit by collecting pavement elevation shots between the existing edge of pavement at 20 feet interval. Pavement shots shall be taken at each edge of pavement as well as every break in pavement slopes between the pavement edges.
- Electronic Message Boards shall be installed 5 business days prior to start of construction to advise and inform the public and shall remain on the site through the duration of the project. Four message boards are required, and the cost are incidental to Traffic Control.

REVISION BLOCK	REV #	DATE	REVISION
A	08/02/2019	INITIAL SUBMITTAL	
B	09/19/2019	REVISED PER COUNTY COMMENTS	



**CARTER ENGINEERING CONSULTANTS**

Carter Engineering Consultants, Inc.  
3651 Mars Hill Road, Suite 2000  
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**ROUNDABOUT PLANS**  
 for  
**OCONEE COUNTY GOVERNMENT**  
 MALCOM BRIDGE RD. & STAFFIBUS ENTRANCE AND MALCOM BRIDGE RD.

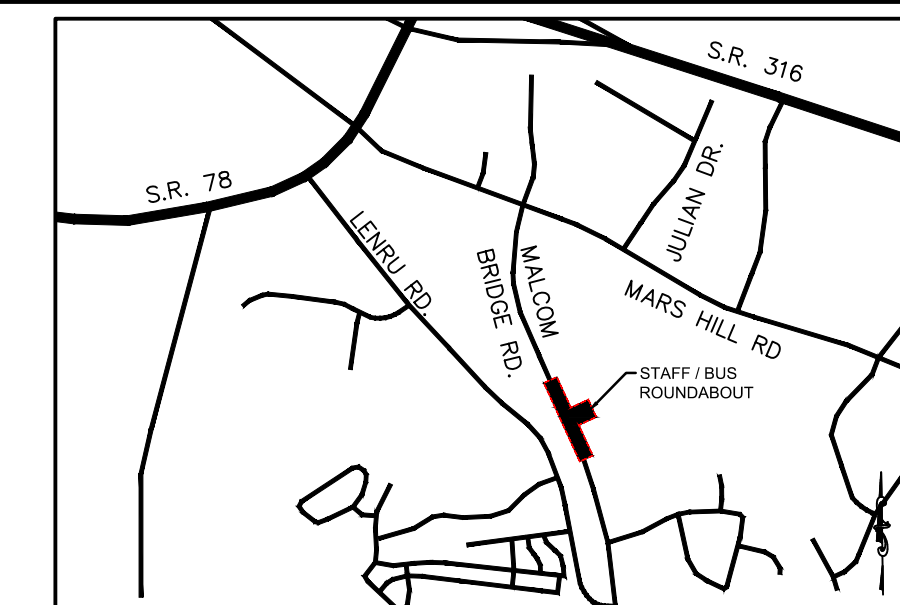
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**GENERAL NOTES**

SHEET NUMBER:  
**C-2.0**

PROJECT NUMBER:  
**18001OCG**

DATE:  
**09/19/19**



LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**

OWNER / DEVELOPER:  
Oconee County Government  
23 N. Main Street  
Watkinsville, Ga. 30677  
Contact: Jody Woodall, PE  
Tel.: (706) 769-2939

ENGINEER:  
Carter Engineering Consultants, Inc.  
3651 Mars Hill Road, Suite 2000  
Watkinsville, Georgia 30677  
Contact: Mark Campbell, PE  
Tel. (770) 725-1200  
Mark@carterengineering.net

Project located at Staff And Bus Entrance And Malcom Bridge Rd.

Boundary and topographical information obtained from field run survey by Carter Engineering Consultants, Inc. dated: March 21, 2019 Phone: (770) 725-1200

Contour interval is 1 foot (NAVD 88)

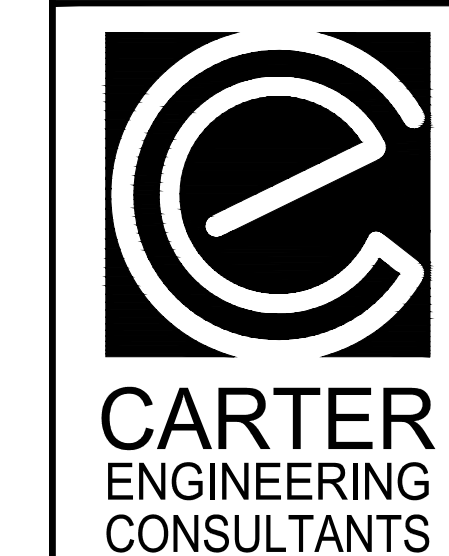
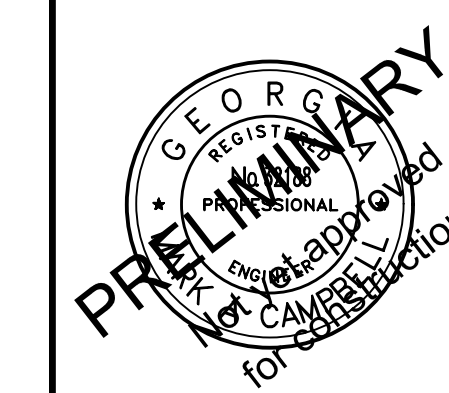
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**SIGN AND MARKING NOTE:**

- PLEASE SEE ALL SIGN AND PAVEMENT MARKING INFORMATION ON SHEETS ##### THRU #####.



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ROUNDABOUT PLANS  
for  
OCONEE COUNTY GOVERNMENT  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

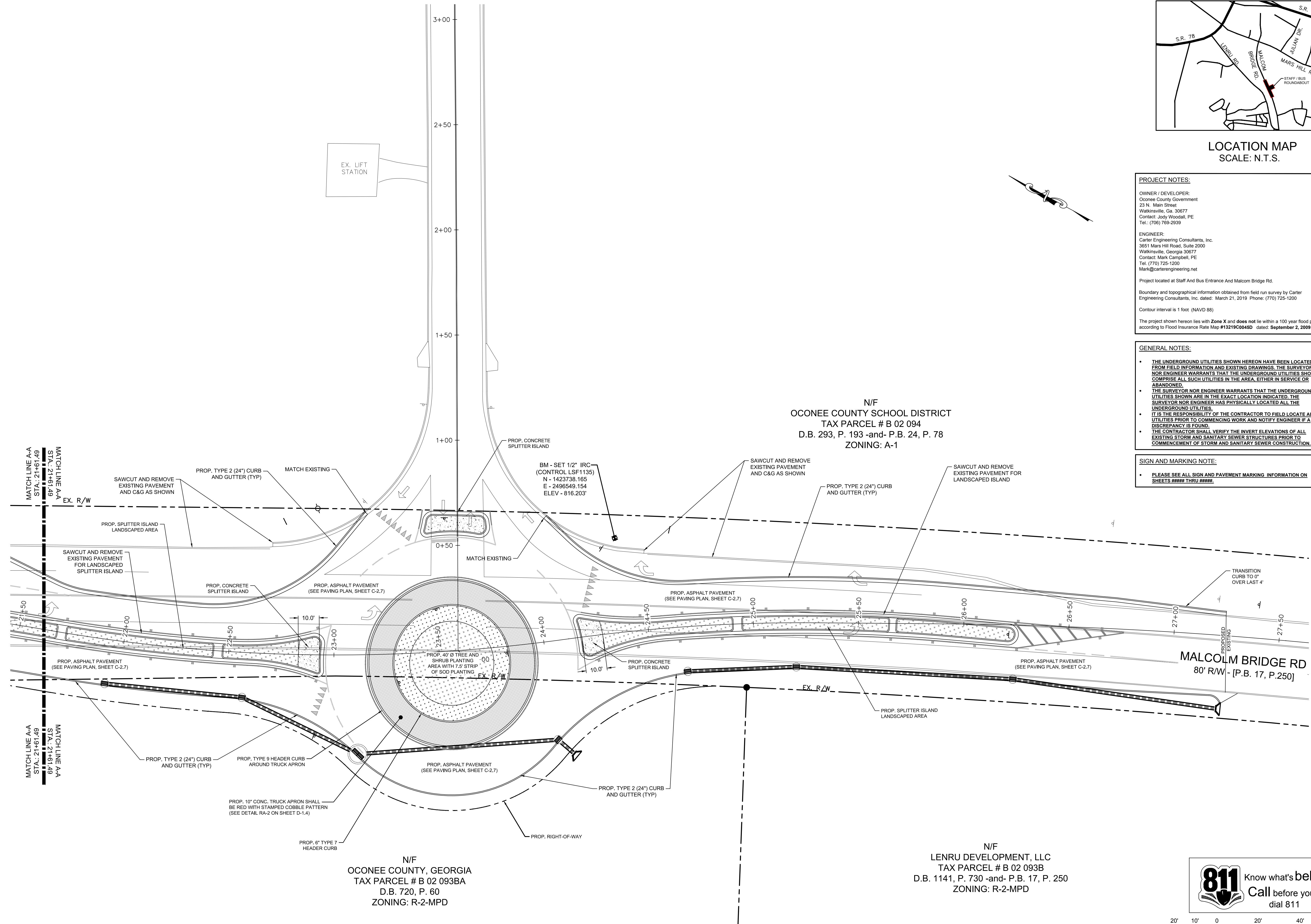
PROJECT NAME:  
ROUNDABOUT PLANS

SHEET TITLE:  
SITE PLAN

SHEET NUMBER:  
C-2.1

PROJECT NUMBER:  
180010CG

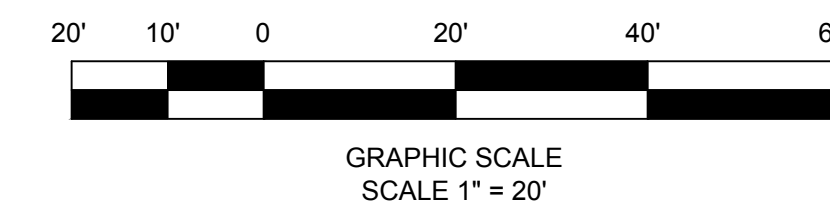
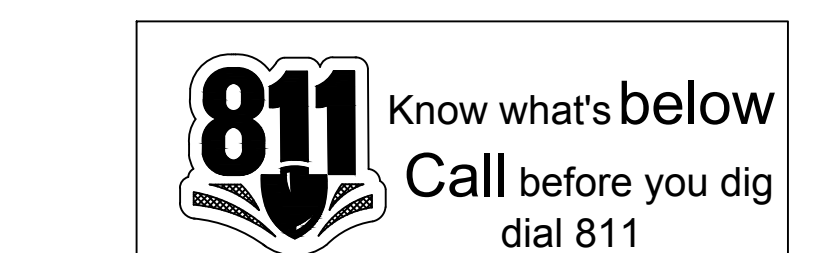
DATE:  
09/19/19

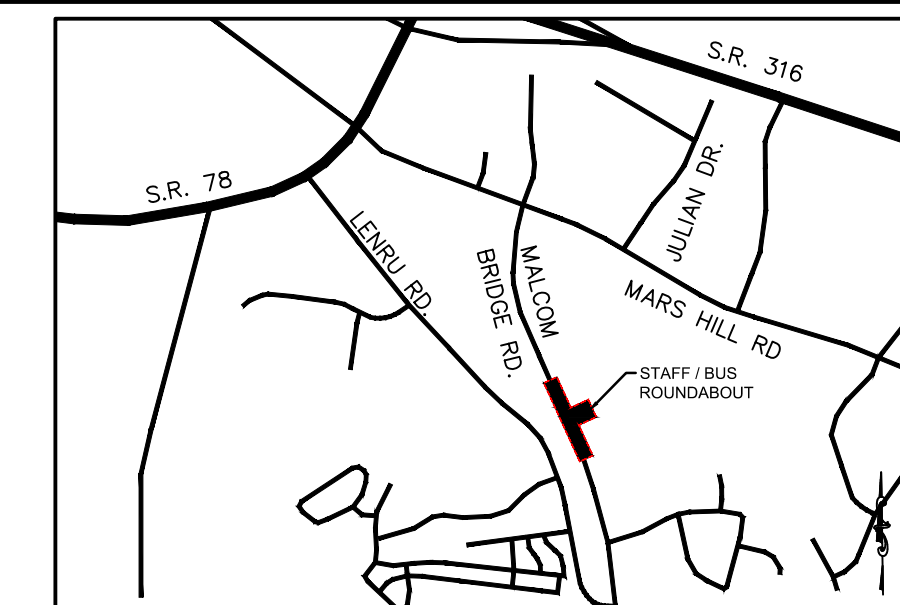


N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1

N/F  
LENRU DEVELOPMENT, LLC  
TAX PARCEL # B 02 093B  
D.B. 1141, P. 730 -and- P.B. 17, P. 250  
ZONING: R-2-MPD

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD





LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**

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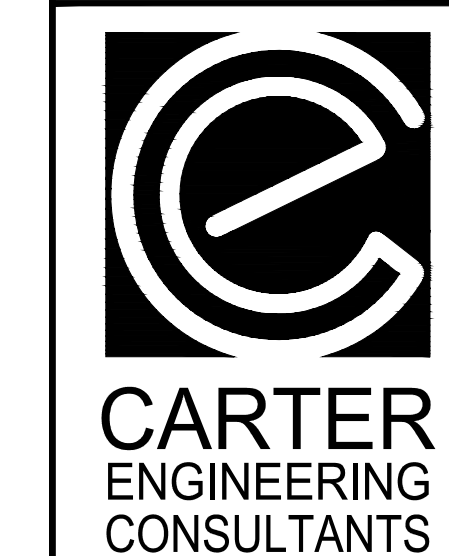
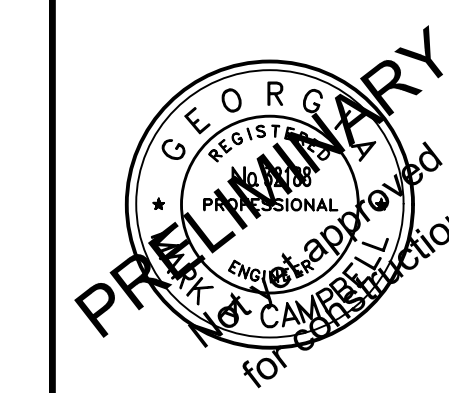
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**SIGN AND MARKING NOTE:**

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ROUNDABOUT PLANS  
for  
OCONEE COUNTY GOVERNMENT  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

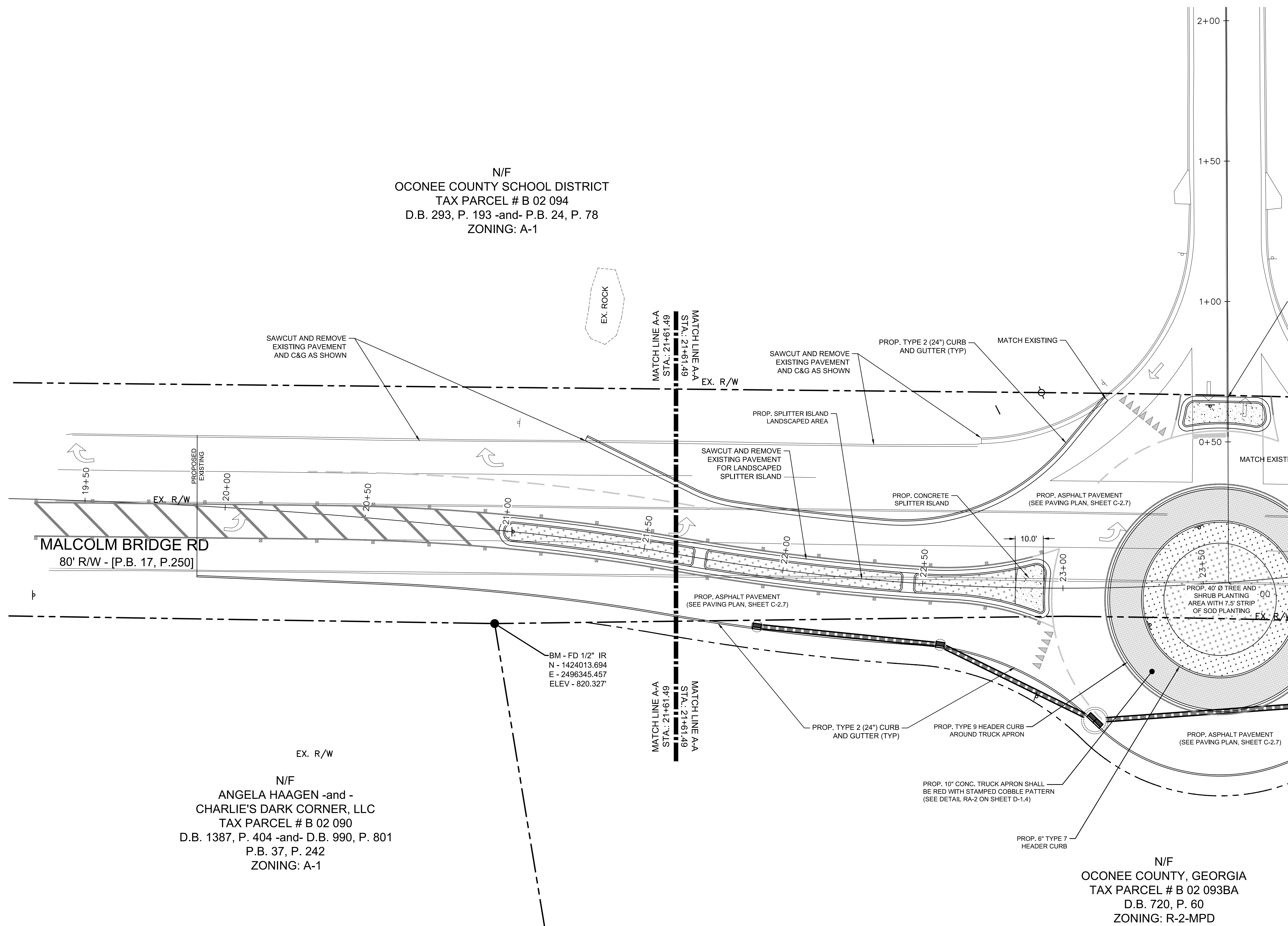
PROJECT NAME:  
ROUNDABOUT PLANS

SHEET TITLE:  
SITE PLAN

SHEET NUMBER:  
C-2.2

PROJECT NUMBER:  
180010CG

DATE:  
09/19/19



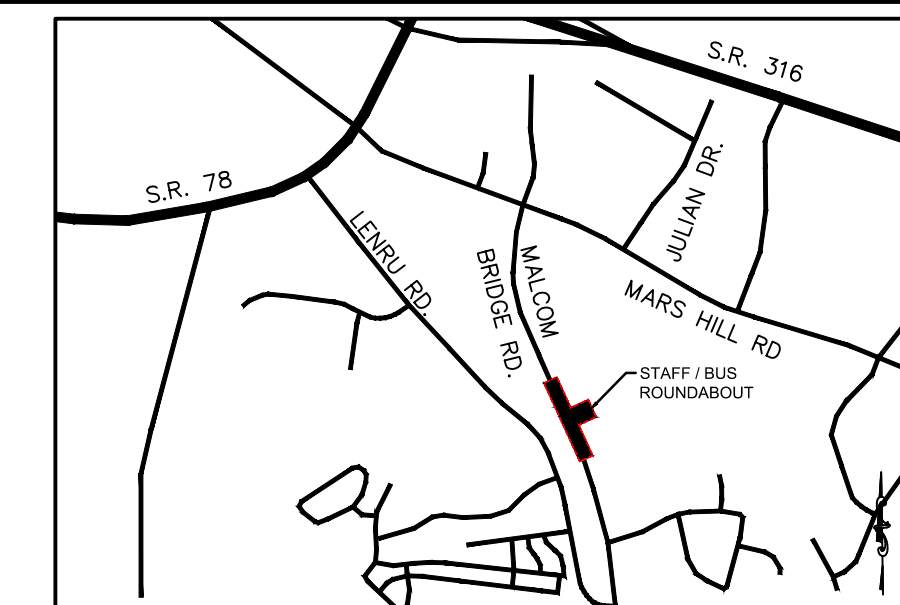
N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1

N/F  
ANGELA HAAGEN -and -  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

811 Know what's below  
Call before you dig  
dial 811

GRAPHIC SCALE  
SCALE 1" = 20'



LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**  
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 Watkinsville, Ga. 30677  
 Contact: Jody Woodall, PE  
 Tel.: (706) 769-2939

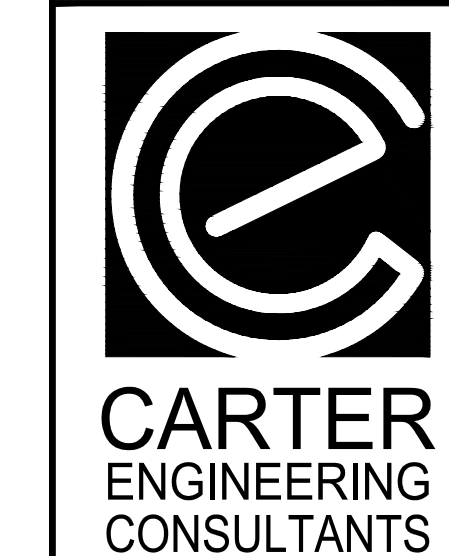
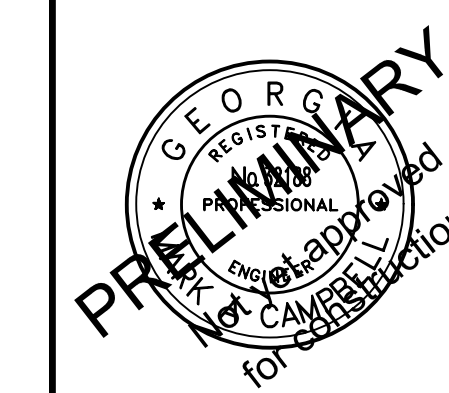
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 Watkinsville, Georgia 30677  
 Contact: Mark Campbell, PE  
 Tel. (770) 725-1200  
 Mark@carterengineering.net

Project located at Staff And Bus Entrance And Malcom Bridge Rd.  
 Boundary and topographical information obtained from field run survey by Carter Engineering Consultants, Inc. dated: March 21, 2019 Phone: (770) 725-1200  
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ROUNDABOUT PLANS  
 for  
 OCONEE COUNTY GOVERNMENT  
 MALCOLM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

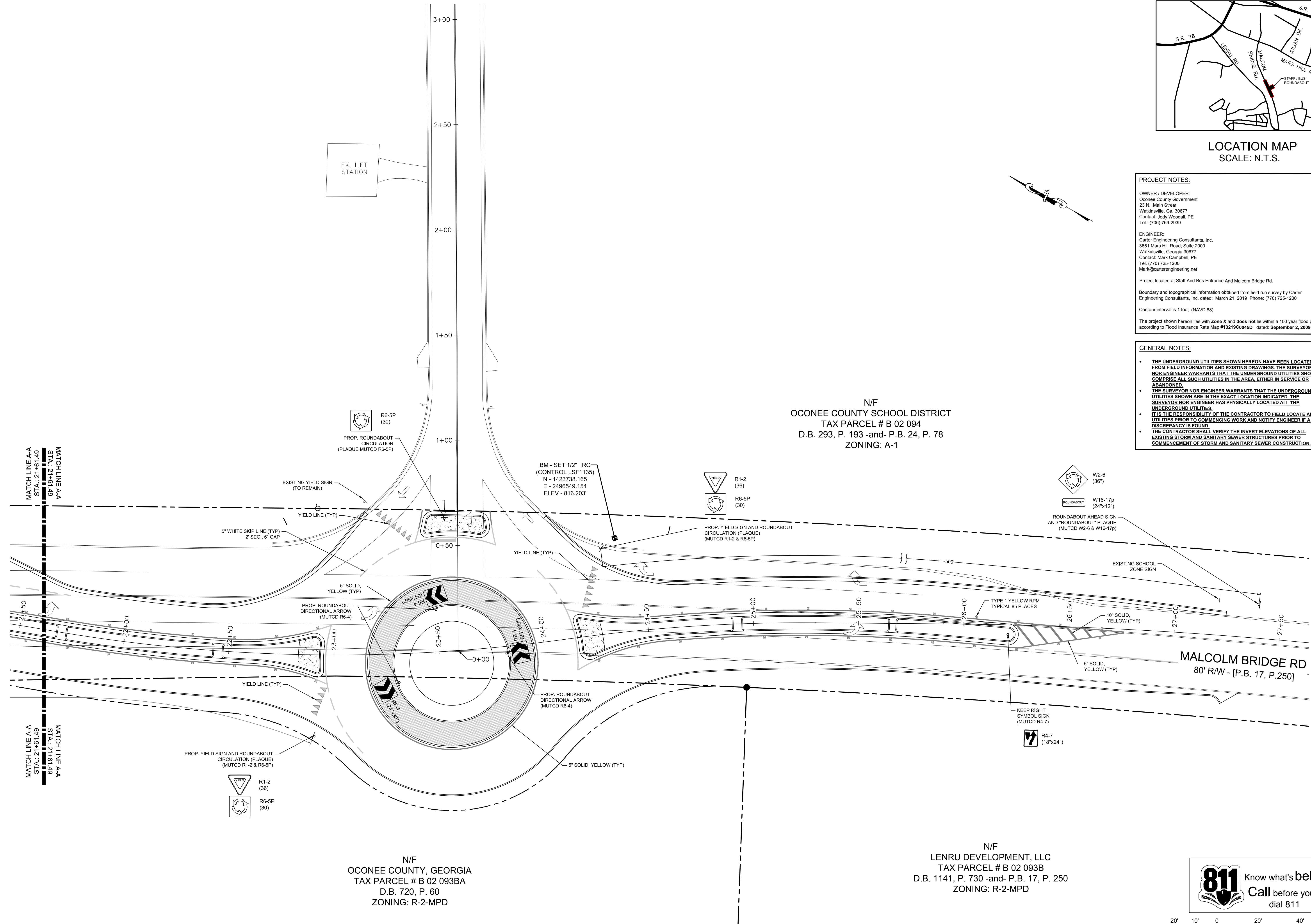
PROJECT NAME:  
 ROUNDABOUT PLANS

SHEET TITLE:  
 SIGN AND MARKING PLAN

SHEET NUMBER:  
 C-2.3

PROJECT NUMBER:  
 180010CG

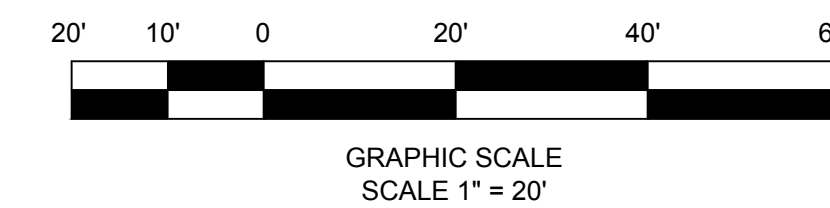
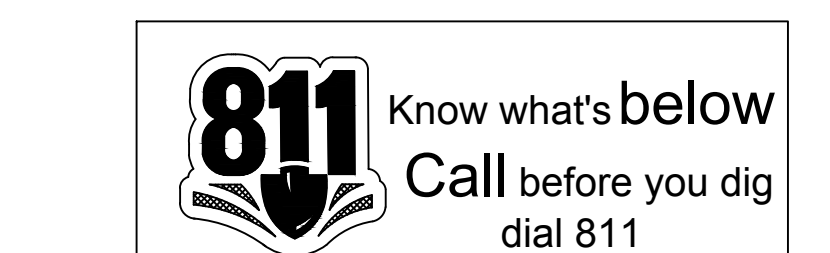
DATE:  
 09/19/19

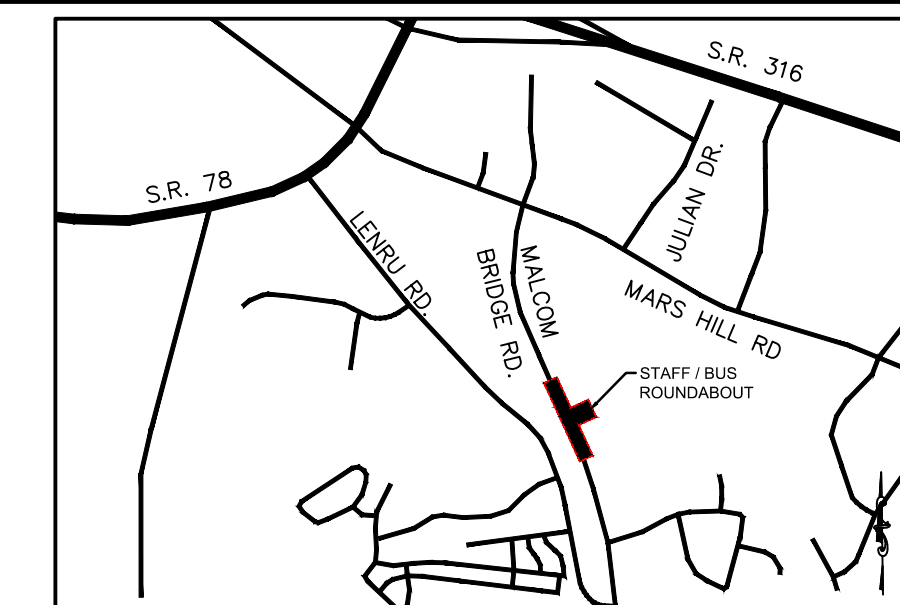


N/F  
 OCONEE COUNTY SCHOOL DISTRICT  
 TAX PARCEL # B 02 094  
 D.B. 293, P. 193 -and- P.B. 24, P. 78  
 ZONING: A-1

N/F  
 OCONEE COUNTY, GEORGIA  
 TAX PARCEL # B 02 093BA  
 D.B. 720, P. 60  
 ZONING: R-2-MPD

N/F  
 LENRU DEVELOPMENT, LLC  
 TAX PARCEL # B 02 093B  
 D.B. 1141, P. 730 -and- P.B. 17, P. 250  
 ZONING: R-2-MPD





LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**

OWNER / DEVELOPER:  
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Watkinsville, Ga. 30677  
Contact: Jody Woodall, PE  
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Project located at Staff And Bus Entrance And Malcom Bridge Rd.

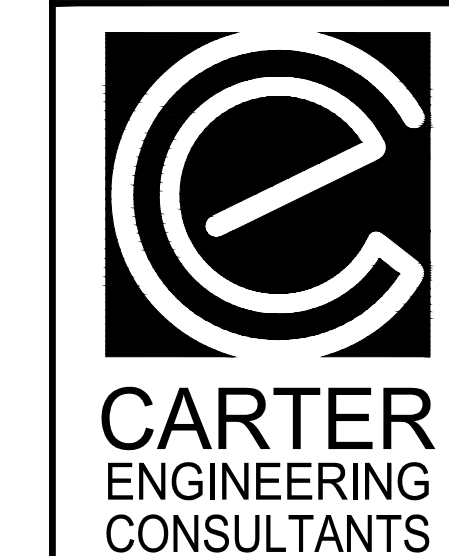
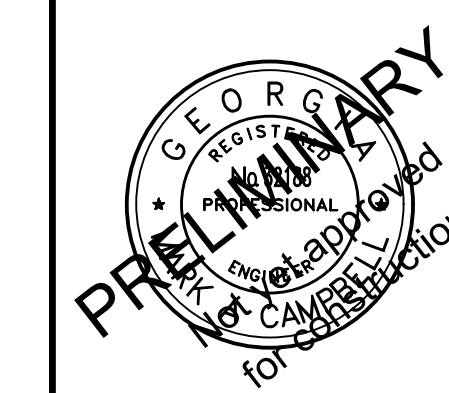
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ROUNDABOUT PLANS  
for  
OCONEE COUNTY GOVERNMENT  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME:  
ROUNDABOUT PLANS

SHEET TITLE:  
SIGN AND MARKING PLAN

SHEET NUMBER:  
C-2.4

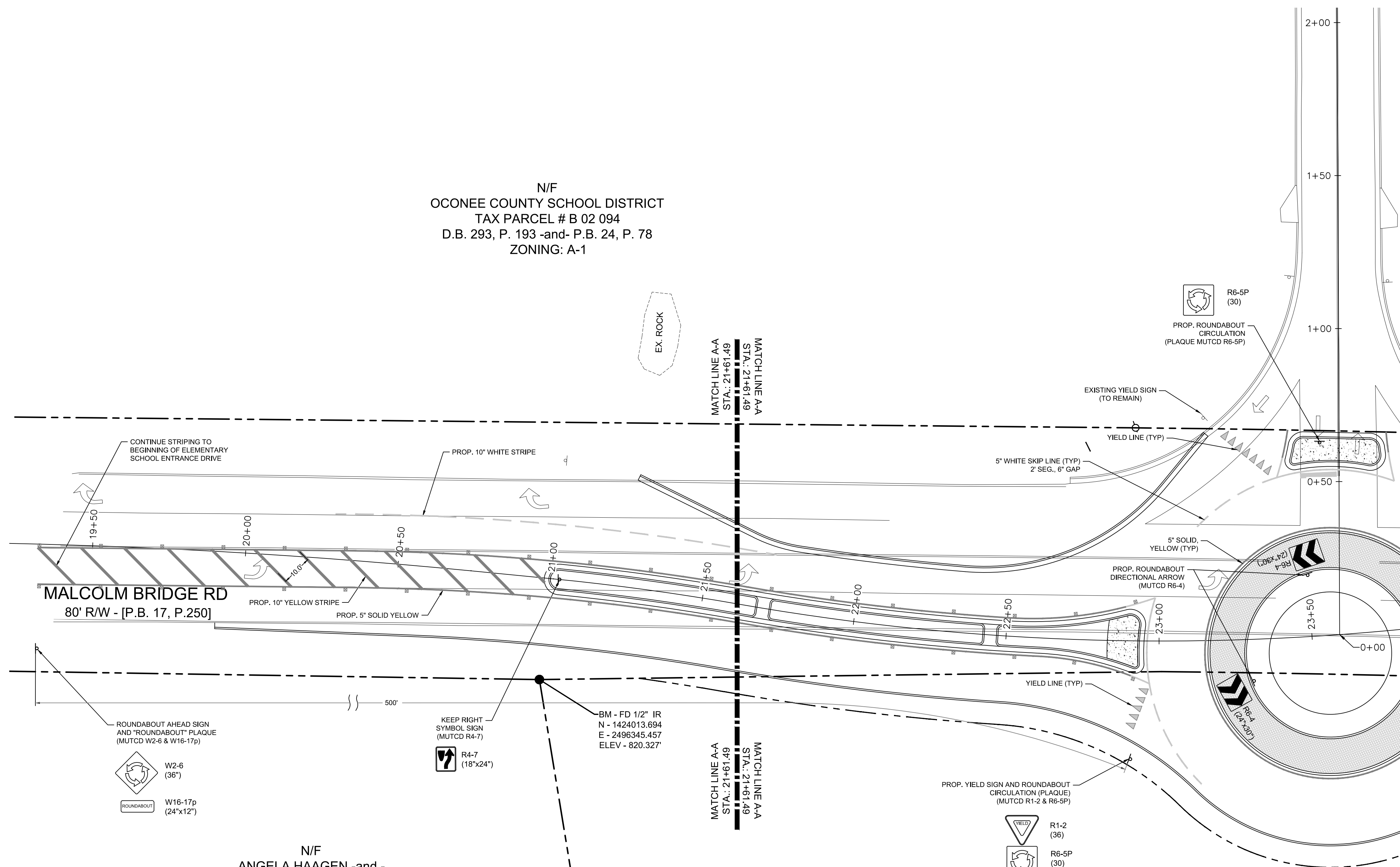
PROJECT NUMBER:  
180010CG

DATE:  
09/19/19

N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1

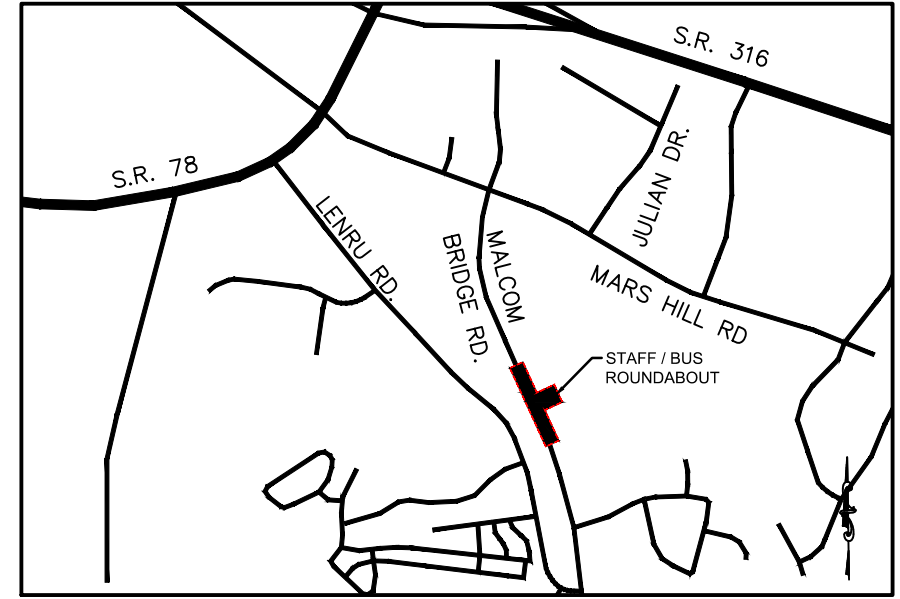
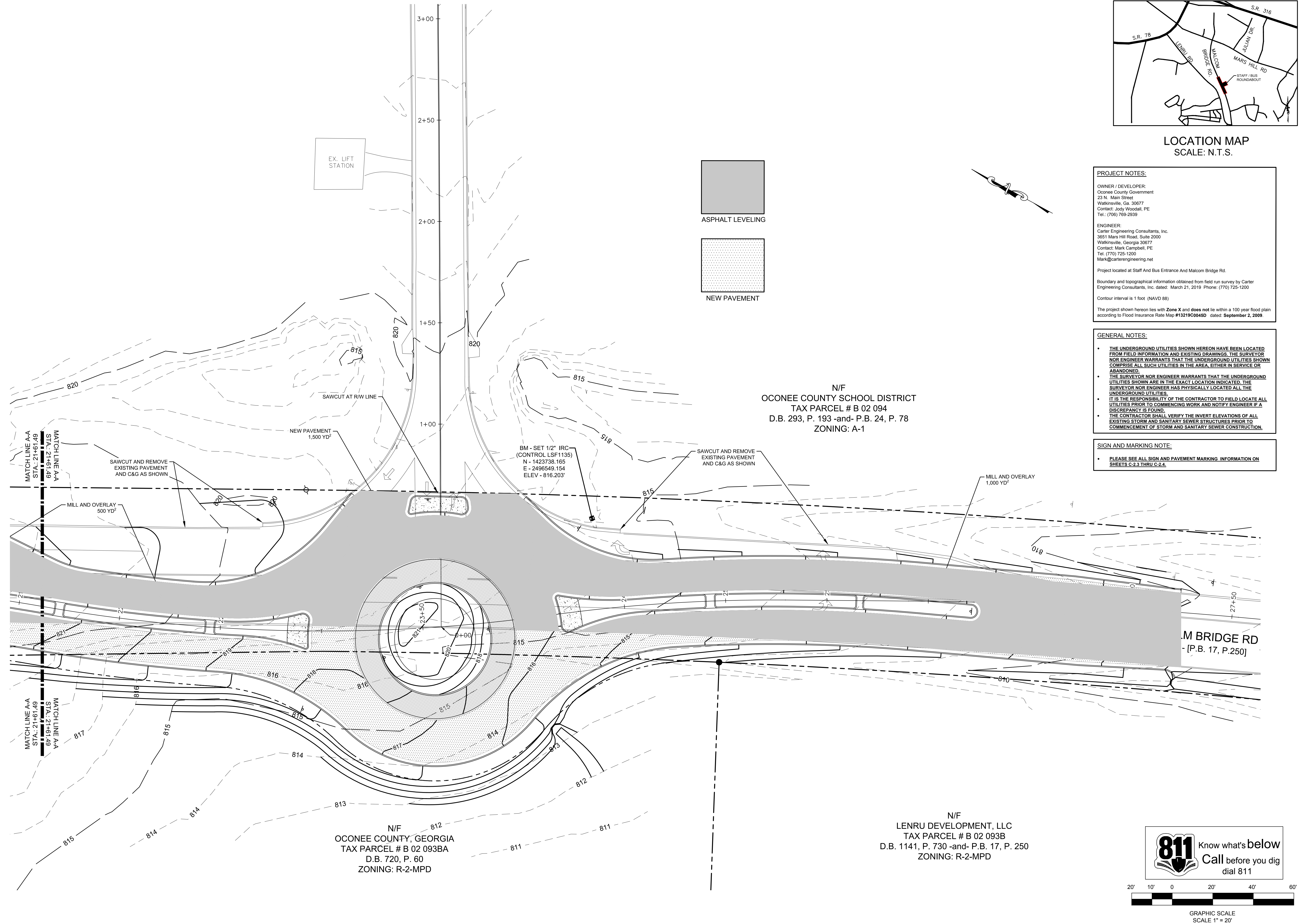
N/F  
ANGELA HAAGEN -and -  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD



811 Know what's below  
Call before you dig  
dial 811

GRAPHIC SCALE  
SCALE 1" = 20'



**PROJECT NOTES:**

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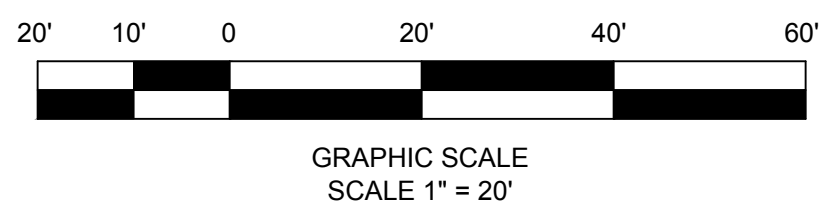
**SIGN AND MARKING NOTE:**

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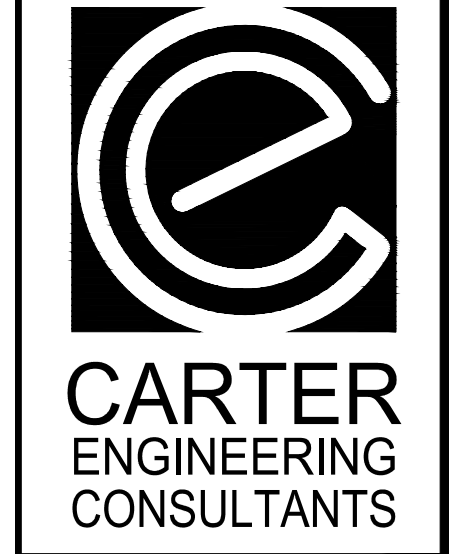
N/F  
 OCONEE COUNTY SCHOOL DISTRICT  
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 D.B. 293, P. 193 -and- P.B. 24, P. 78  
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 ZONING: R-2-MPD



REVISION BLOCK	DATE	REVISION
REV. #	08/02/2019	INITIAL SUBMITTAL
A	09/19/2019	REVISED PER COUNTY COMMENTS
B		



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**ROUNDABOUT PLANS**  
 for  
**OCONEE COUNTY GOVERNMENT**  
 MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME:  
**ROUNDABOUT PLANS**

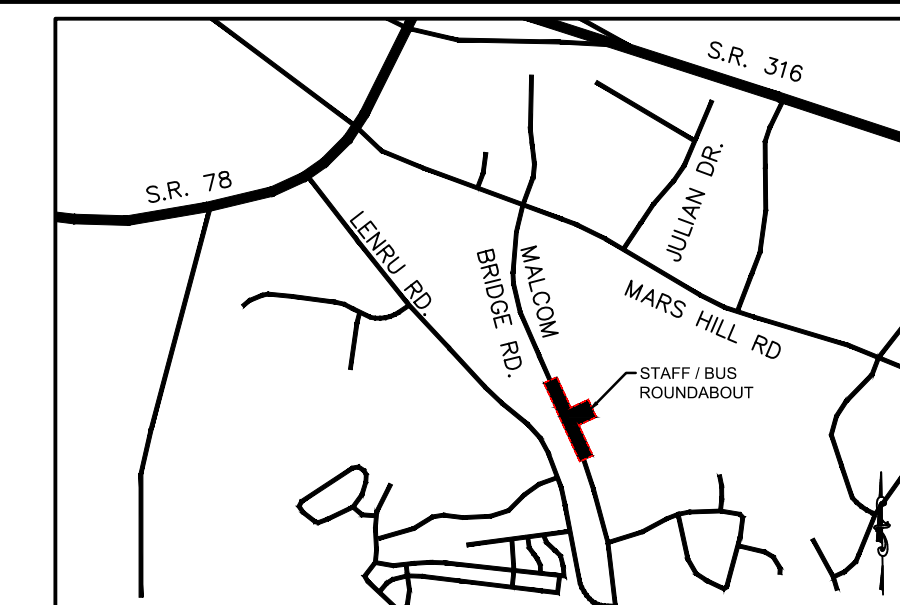
SHEET TITLE:  
**PAVING PLAN**

SHEET NUMBER:  
**C-2.5**

PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**





LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**

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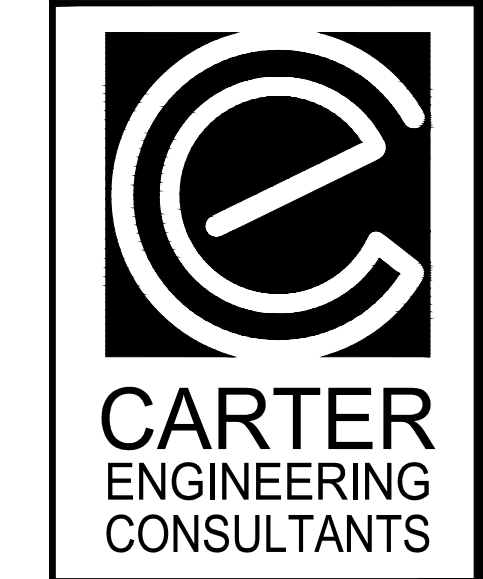
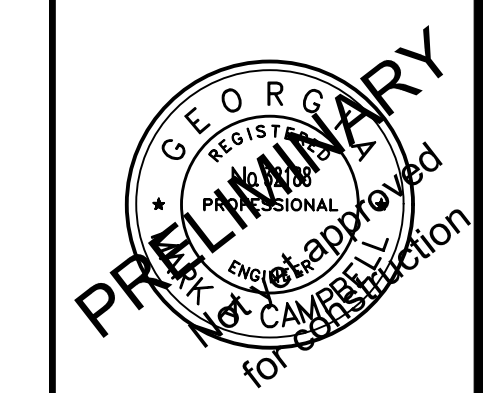
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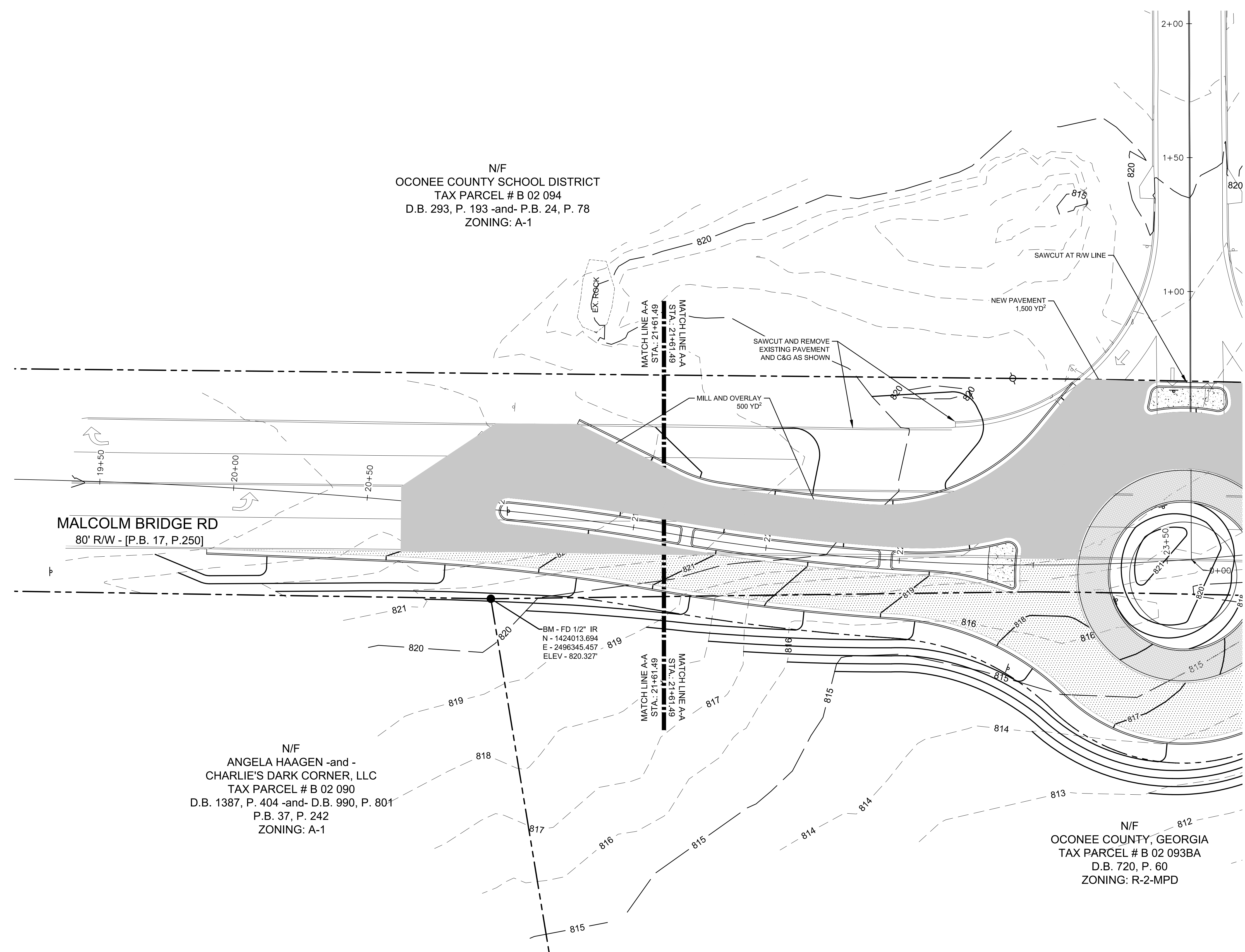
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**PAVING PLAN**

SHEET NUMBER:  
**C-2.6**

PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**

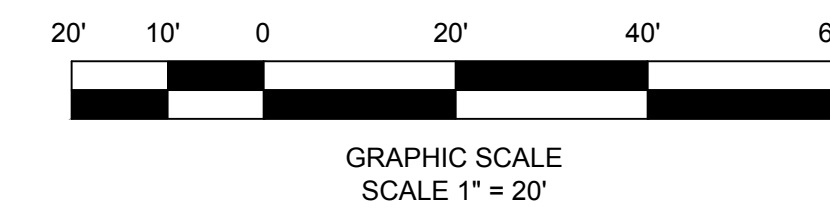
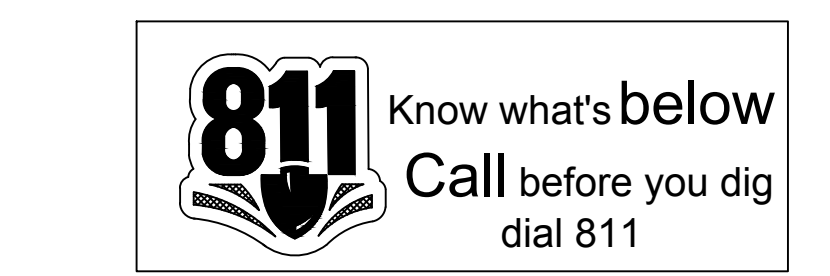
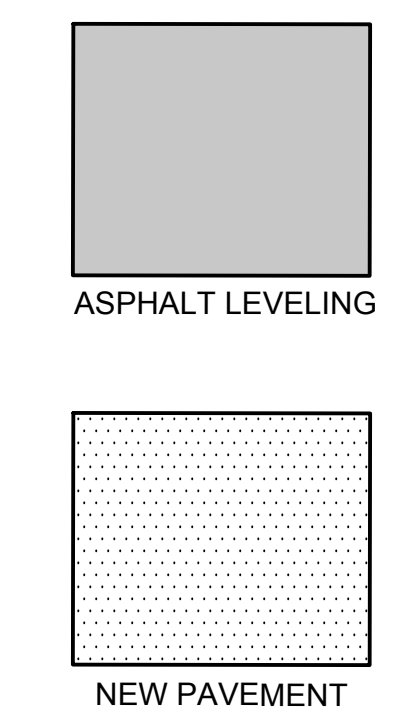
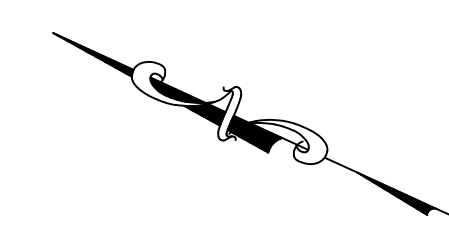


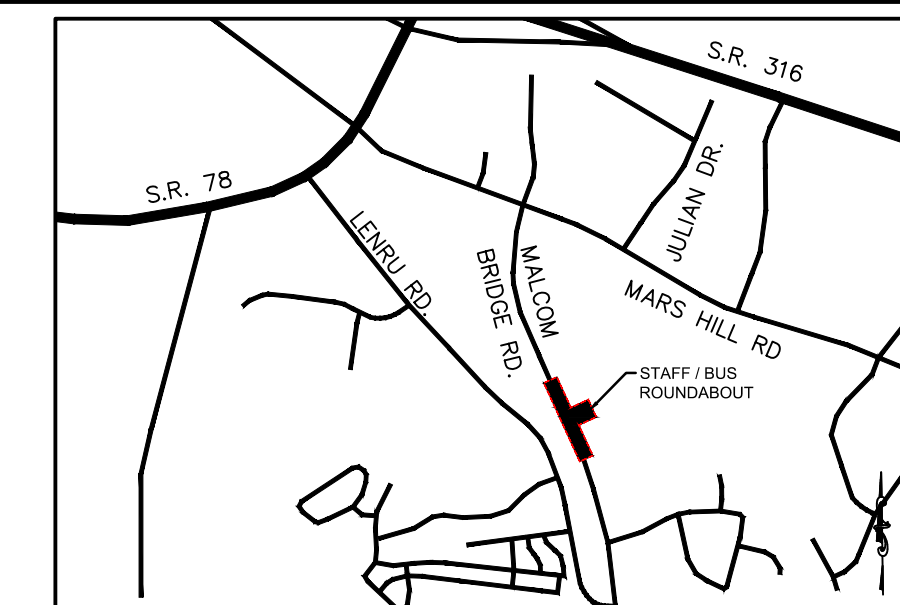
N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1

N/F  
ANGELA HAAGEN -and -  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

BM - FD 1/2" IR  
N - 1424013.694  
E - 2496345.457  
ELEV - 820.327'





LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**

OWNER / DEVELOPER:  
Oconee County Government  
23 N. Main Street  
Watkinsville, Ga. 30677  
Contact: Jody Woodall, PE  
Tel.: (706) 769-2939

ENGINEER:  
Carter Engineering Consultants, Inc.  
3651 Mars Hill Road, Suite 2000  
Watkinsville, Georgia 30677  
Contact: Mark Campbell, PE  
Tel. (770) 725-1200  
Mark@carterengineering.net

Project located at Staff And Bus Entrance And Malcom Bridge Rd.

Boundary and topographical information obtained from field run survey by Carter Engineering Consultants, Inc. dated: March 21, 2019. Phone: (770) 725-1200

Contour interval is 1 foot (NAVD 88)

The project shown herein lies with Zone X and does not lie within a 100 year flood plain according to Flood Insurance Rate Map #13219C0045D dated: September 2, 2009.

**GENERAL NOTES:**

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**SIGN AND MARKING NOTE:**

- PLEASE SEE ALL SIGN AND PAVEMENT MARKING INFORMATION ON SHEETS C-2.3 THRU C-2.4.

REVISION BLOCK	DATE	REVISION
REV. #	08/02/2019	INITIAL SUBMITTAL
A	09/19/2019	REVISED PER COUNTY COMMENTS
B		



Carter Engineering Consultants, Inc.  
3651 Mars Hill Road, Suite 2000  
Watkinsville, GA 30677  
P: 770.725.1200  
F: 770.725.1204  
www.carterengineering.net

**ROUNDABOUT PLANS**  
for  
**OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

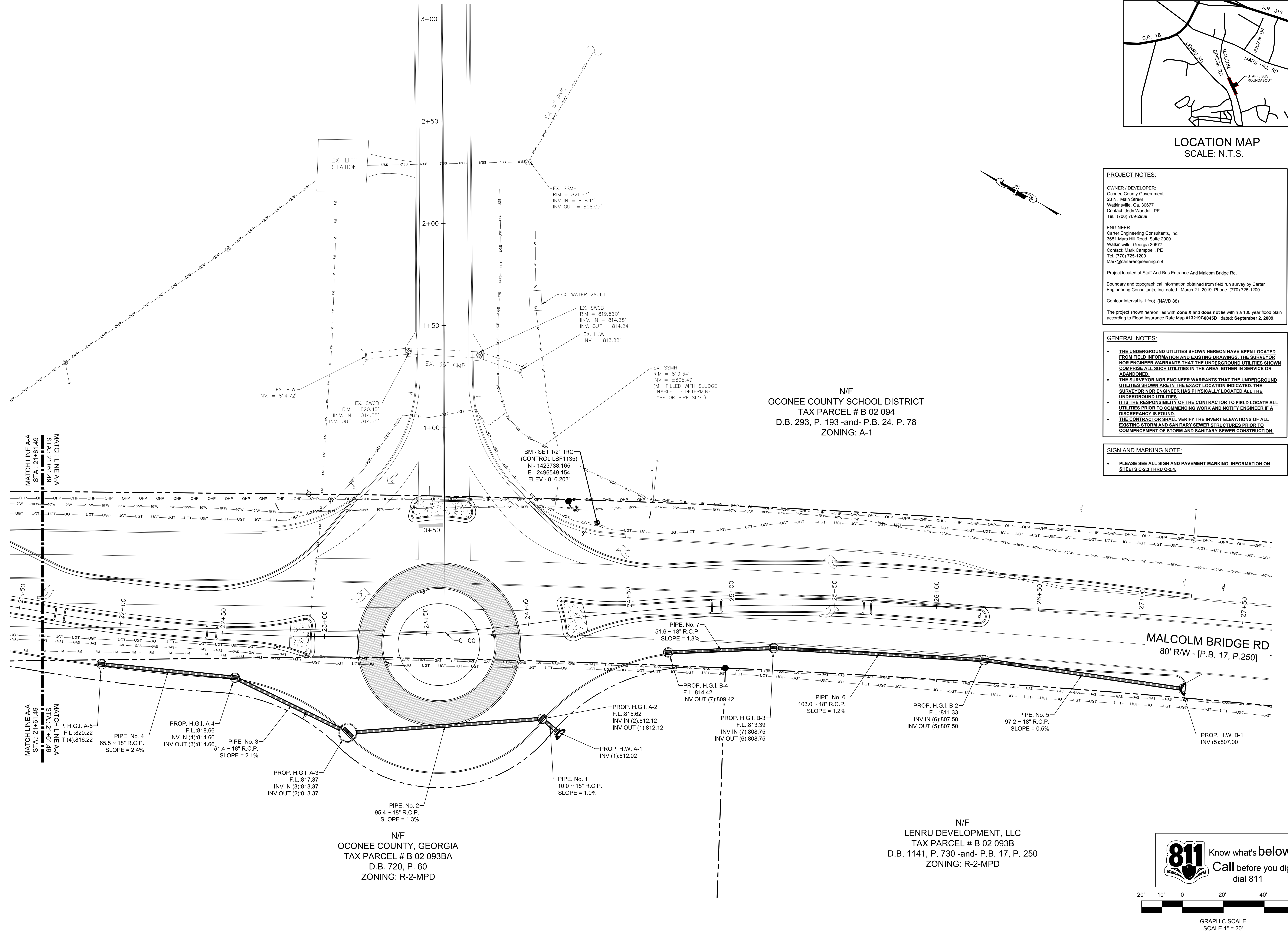
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**UTILITY PLAN**

SHEET NUMBER:  
**C-3.0**

PROJECT NUMBER:  
**180010CG**

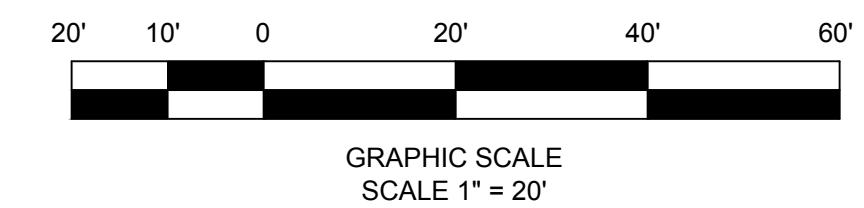
DATE:  
**09/19/19**

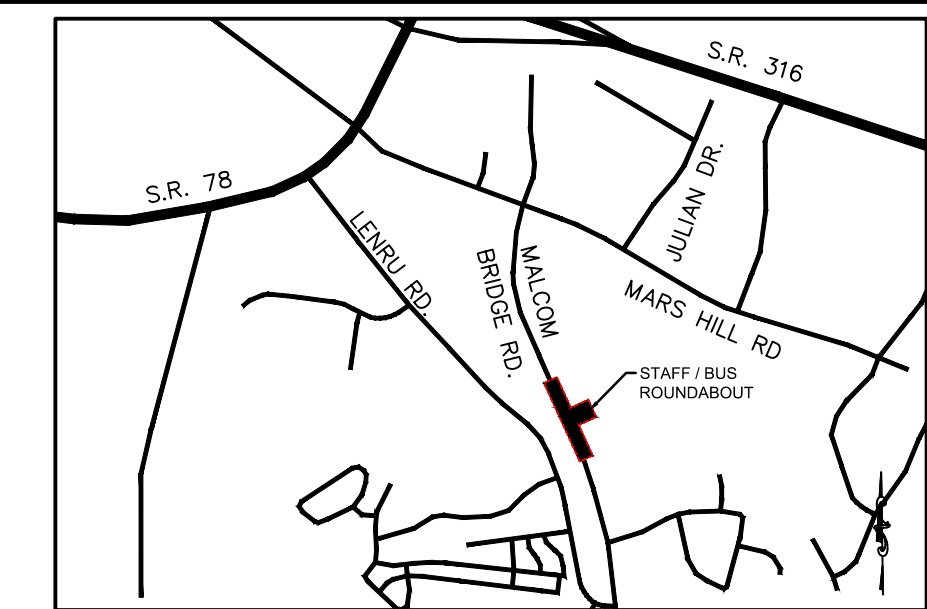


N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

N/F  
LENRU DEVELOPMENT, LLC  
TAX PARCEL # B 02 093B  
D.B. 1141, P. 730 -and- P.B. 17, P. 250  
ZONING: R-2-MPD





LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**

OWNER / DEVELOPER:  
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Watkinsville, Ga. 30677  
Contact: Jody Woodall, PE  
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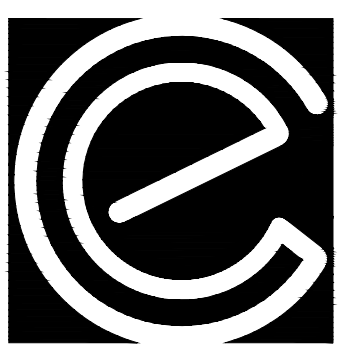
The project shown hereon lies with Zone X and does not lie within a 100 year flood plain according to Flood Insurance Rate Map #13219C0045D dated: September 2, 2009.

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**CARTER  
ENGINEERING  
CONSULTANTS**

Carter Engineering Consultants, Inc.  
3651 Mars Hill Road, Suite 2000  
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P: 770.725.1200  
F: 770.725.1204  
www.carterengineering.net

**ROUNDABOUT PLANS  
for  
OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

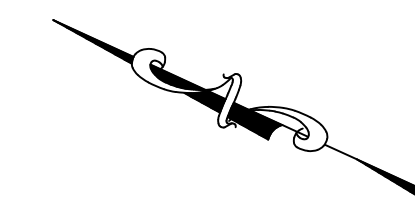
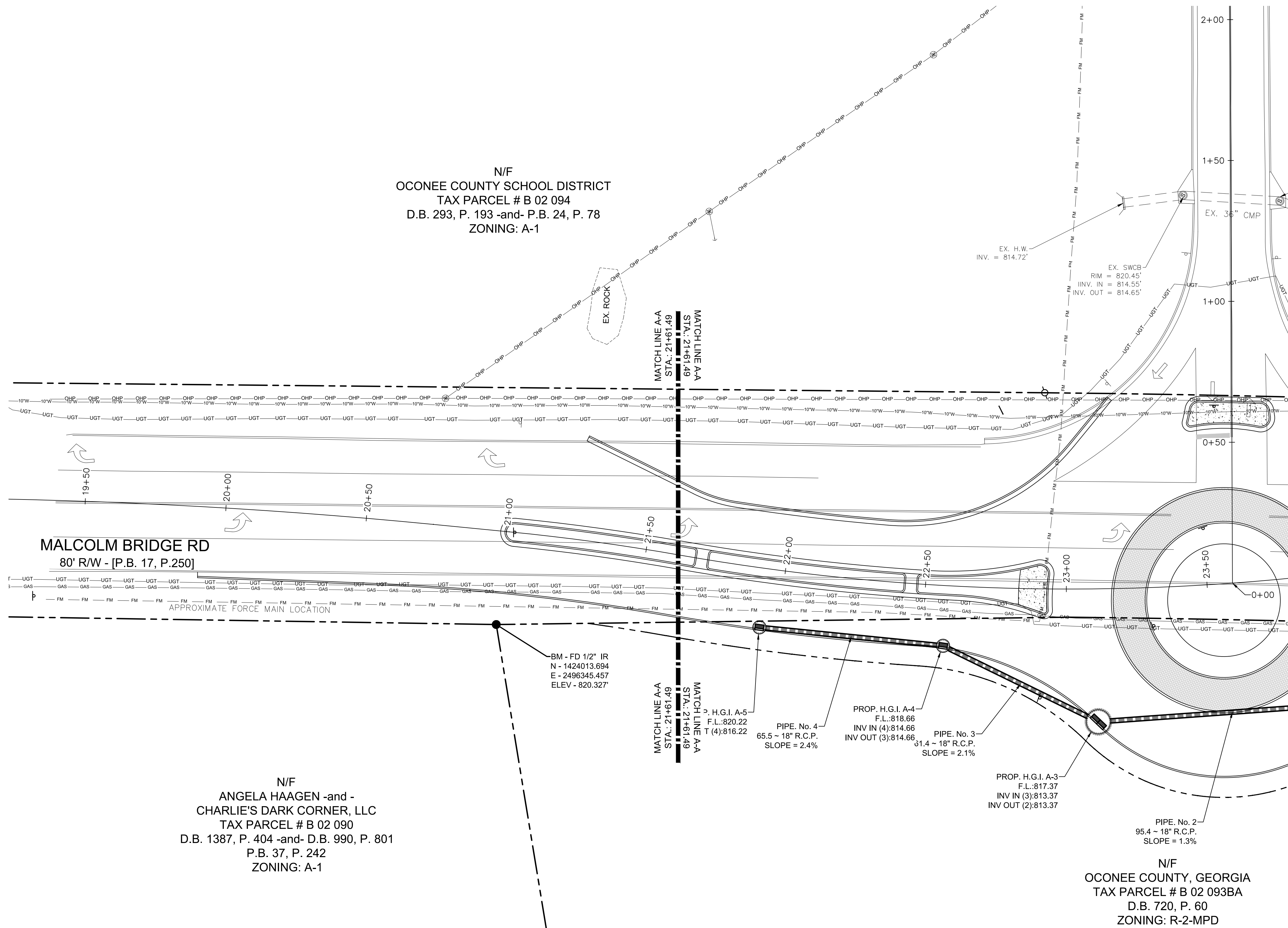
PROJECT NAME:  
**ROUNDABOUT  
PLANS**

SHEET TITLE:  
**UTILITY PLAN**

SHEET NUMBER:  
**C-3.1**

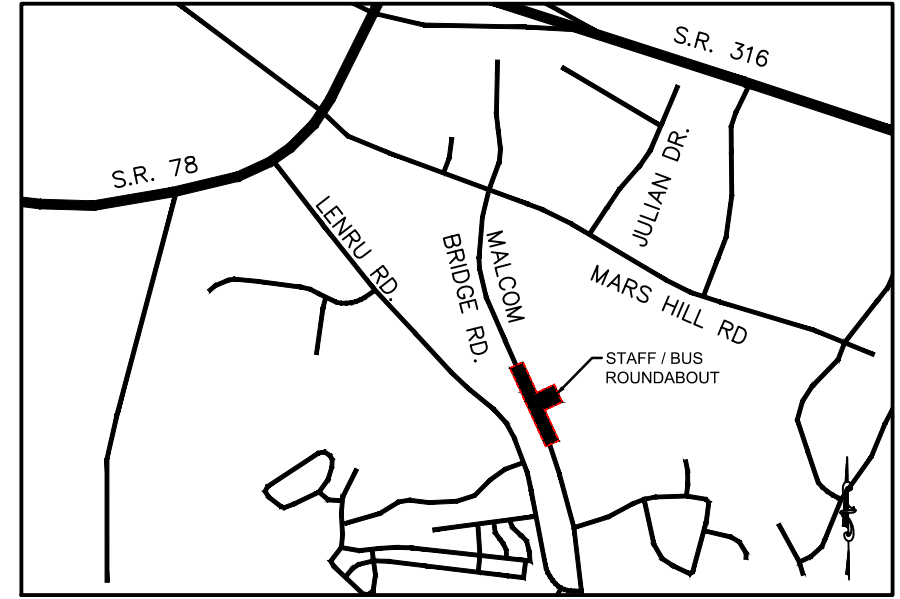
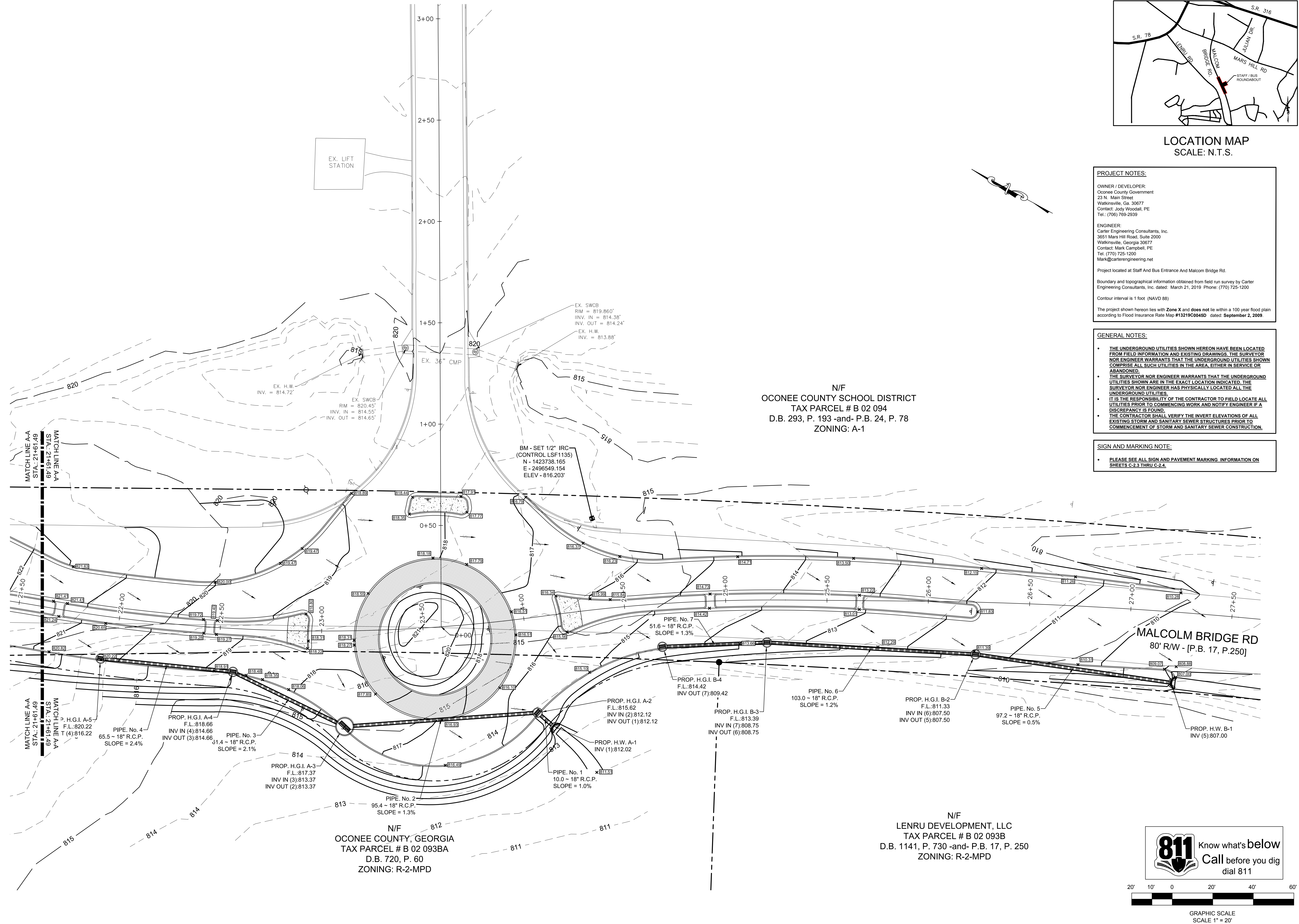
PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**



811 Know what's below  
Call before you dig  
dial 811

GRAPHIC SCALE  
SCALE 1" = 20'



**PROJECT NOTES:**

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Watkinsville, Ga. 30677  
Contact: Jody Woodall, PE  
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Project located at Staff And Bus Entrance And Malcom Bridge Rd.

Boundary and topographical information obtained from field run survey by Carter Engineering Consultants, Inc. dated: March 21, 2019 Phone: (770) 725-1200

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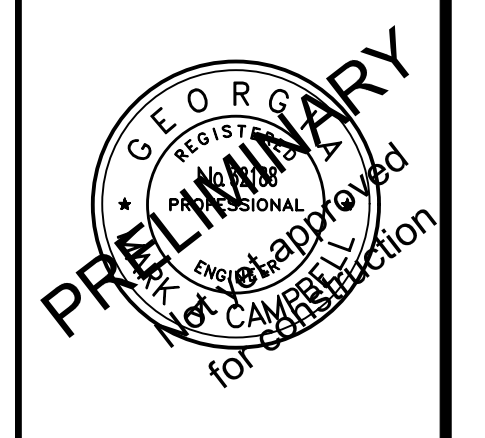
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REVISION BLOCK	DATE	REVISION
A	08/02/2019	INITIAL SUBMITTAL
B	09/19/2019	REVISED PER COUNTY COMMENTS



**CARTER ENGINEERING CONSULTANTS**

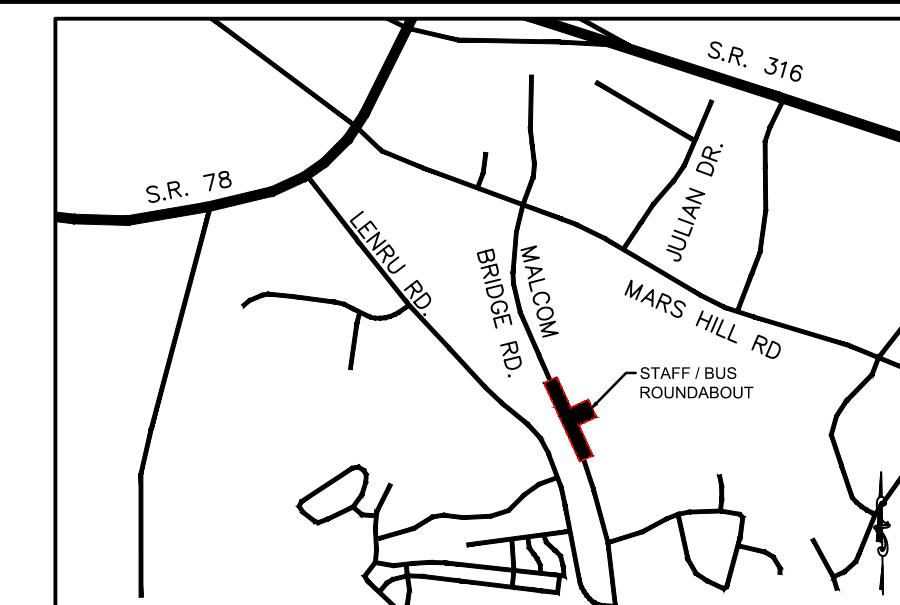
Carter Engineering Consultants, Inc.  
3651 Mars Hill Road, Suite 2000  
Watkinsville, GA 30677  
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F: 770.725.1204  
www.carterengineering.net

**ROUNDABOUT PLANS**  
for  
**OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME: <b>ROUNDABOUT PLANS</b>
SHEET TITLE: <b>GRADING &amp; DRAINAGE PLAN</b>
SHEET NUMBER: <b>C-4.0</b>
PROJECT NUMBER: <b>180010CG</b>
DATE: <b>09/19/19</b>

811 Know what's below  
Call before you dig  
dial 811

GRAPHIC SCALE  
SCALE 1" = 20'



LOCATION MAP  
SCALE: N.T.S.

**PROJECT NOTES:**

OWNER / DEVELOPER:  
Oconee County Government  
23 N. Main Street  
Watkinsville, Ga. 30677  
Contact: Jody Woodall, PE  
Tel.: (706) 769-2939

ENGINEER:  
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Mark@carterengineering.net

Project located at Staff And Bus Entrance And Malcom Bridge Rd.

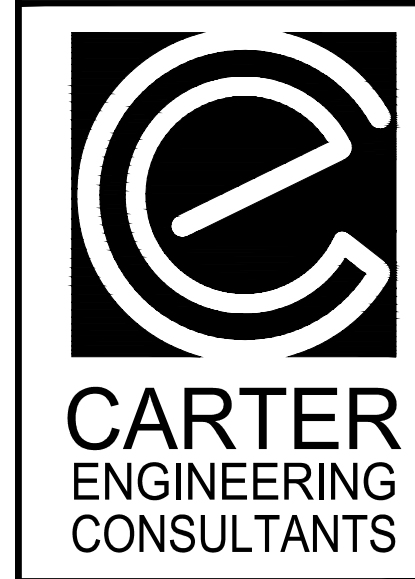
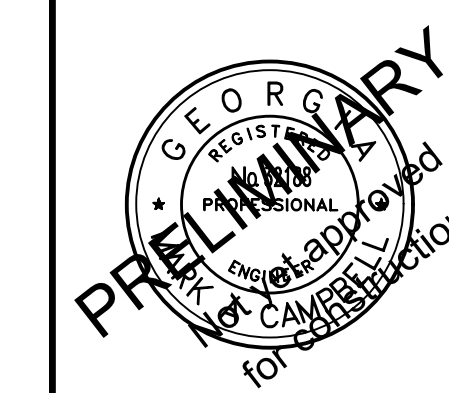
Boundary and topographical information obtained from field run survey by Carter Engineering Consultants, Inc. dated: March 21, 2019. Phone: (770) 725-1200

Contour interval is 1 foot (NAVD 88)

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F: 770.725.1204  
www.carterengineering.net

ROUNDABOUT PLANS  
for  
OCONEE COUNTY GOVERNMENT  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

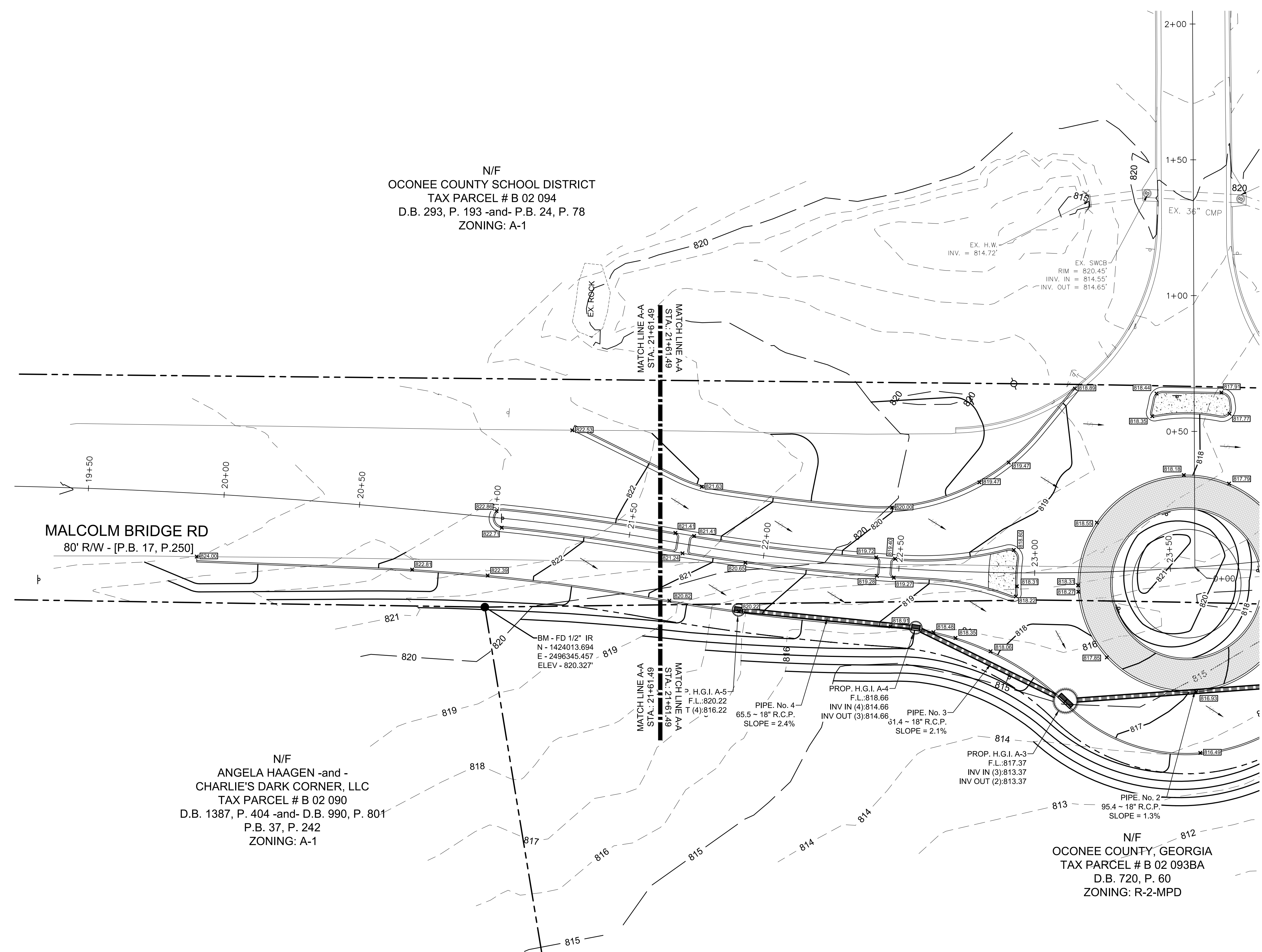
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**GRADING AND DRAINAGE PLAN**

SHEET NUMBER:  
**C-4.2**

PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**



N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1

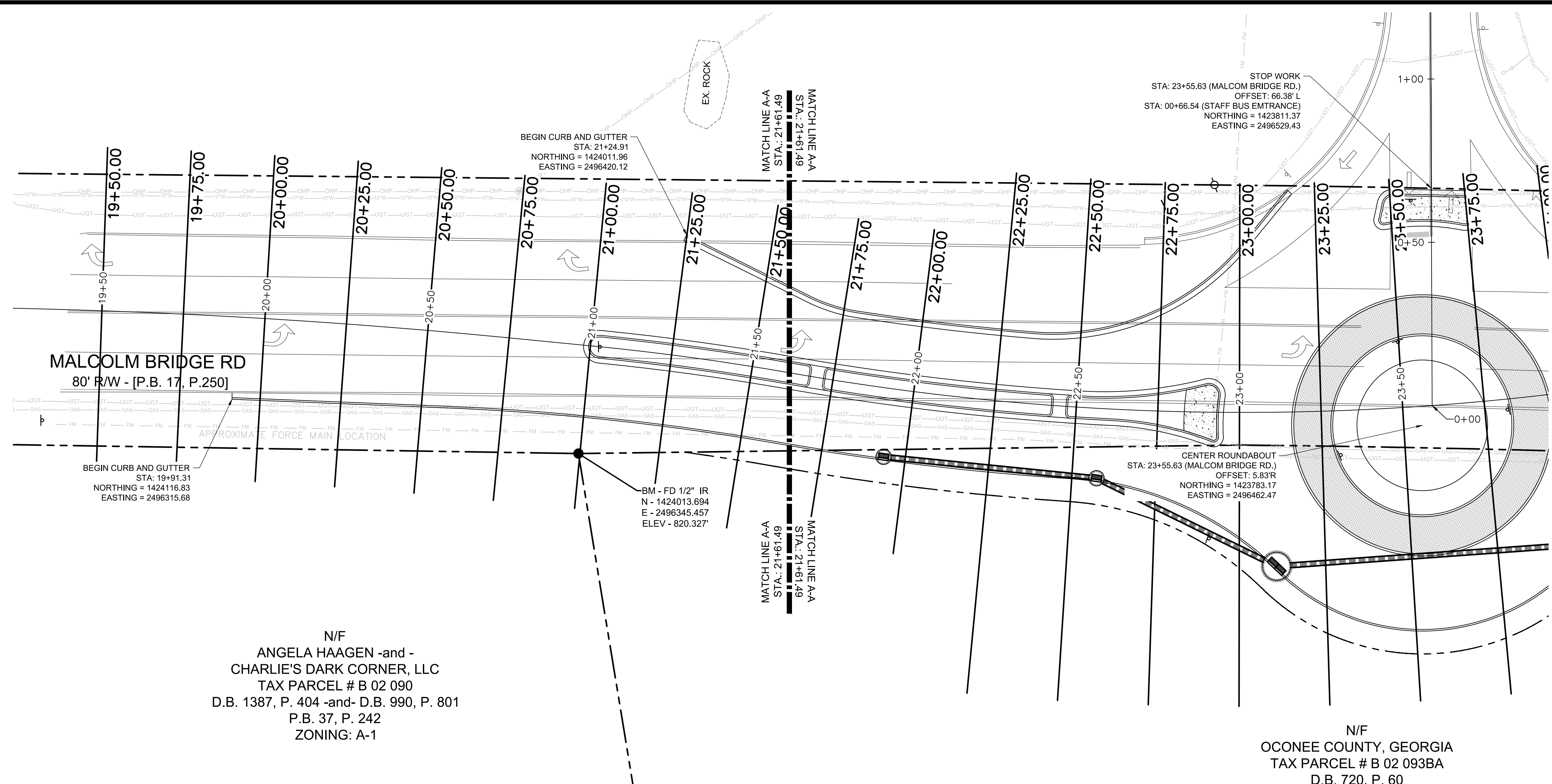
MALCOLM BRIDGE RD  
80' R/W - [P.B. 17, P.250]

N/F  
ANGELA HAAGEN -and -  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

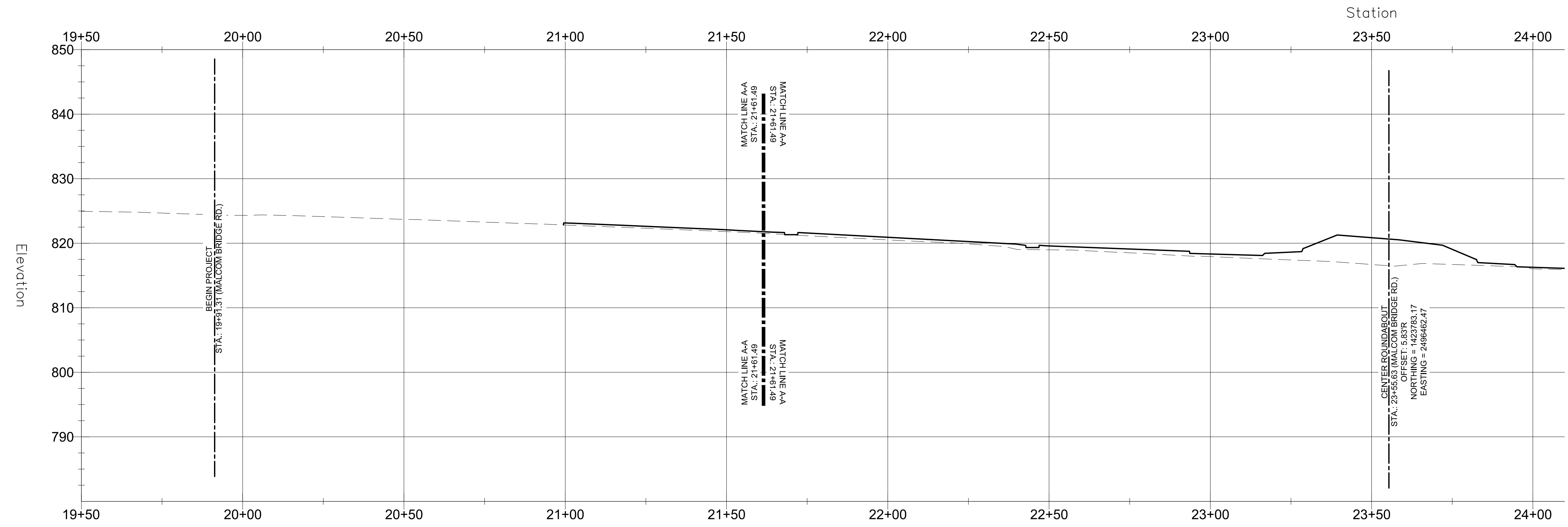
811 Know what's below  
Call before you dig  
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GRAPHIC SCALE  
SCALE 1" = 20'



N/F  
ANGELA HAAGEN -and -  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60

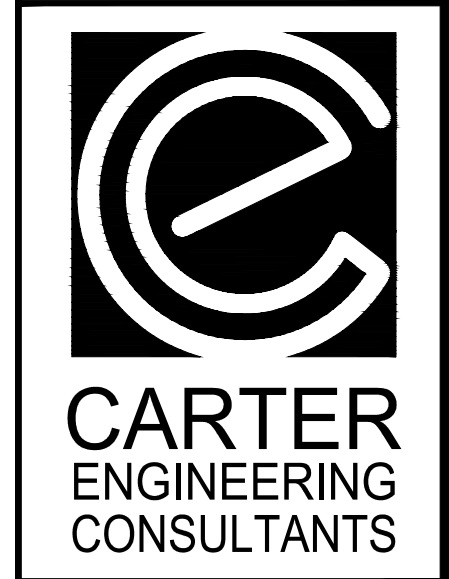
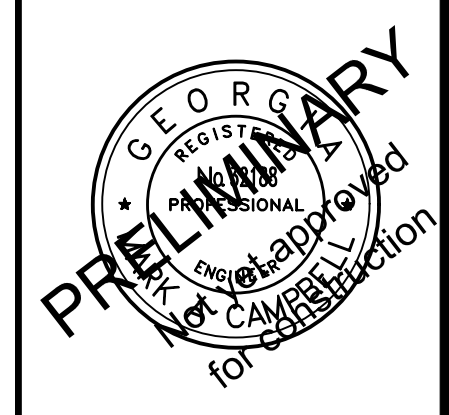


MALCOM BRIDGE RD. CENTERLINE PROFILE  
HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 10'

**811** Know what's below  
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dial 811

GRAPHIC SCALE  
SCALE 1" = 20'

REVISION BLOCK	REV. #	DATE	REVISION
A	1	08/02/2019	INITIAL SUBMITTAL
B	1	09/19/2019	REVISED PER COUNTY COMMENTS



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**ROUNDABOUT PLANS**  
for  
**OCONEE COUNTY GOVERNMENT**  
MALCOLM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOLM BRIDGE RD.

PROJECT NAME:  
**ROUNDABOUT PLANS**

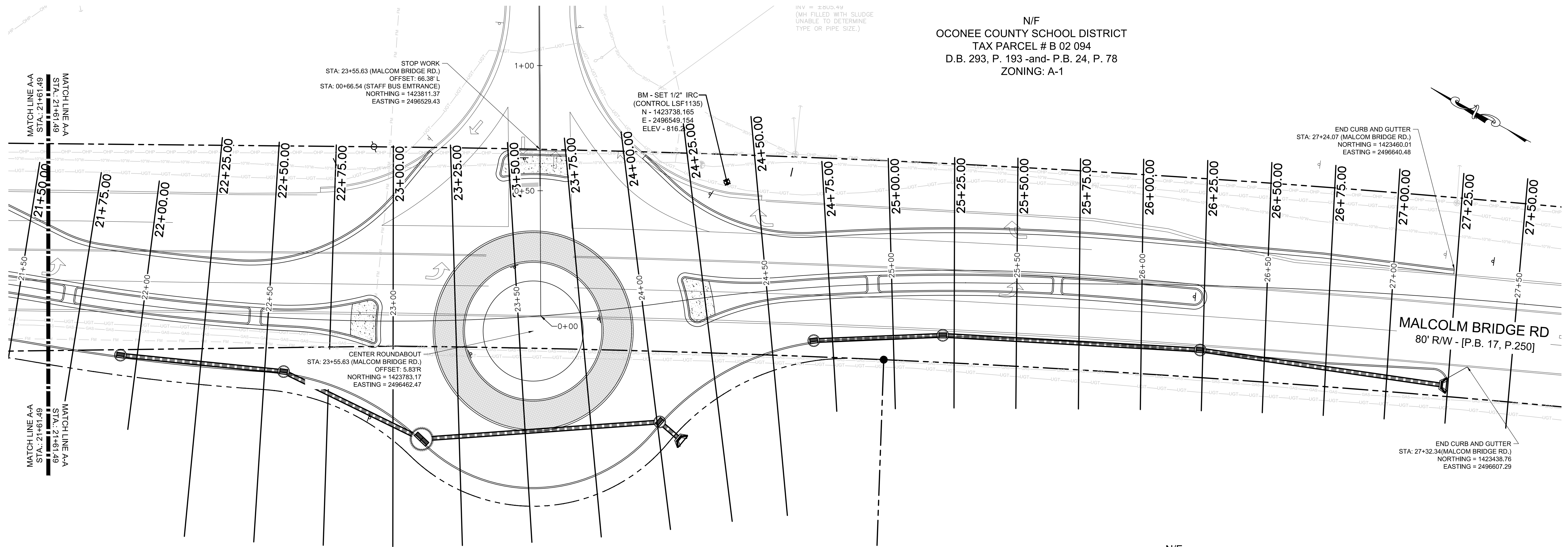
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**ROADWAY PROFILE I**

SHEET NUMBER:  
**C-5.0**

PROJECT NUMBER:  
**180010CG**

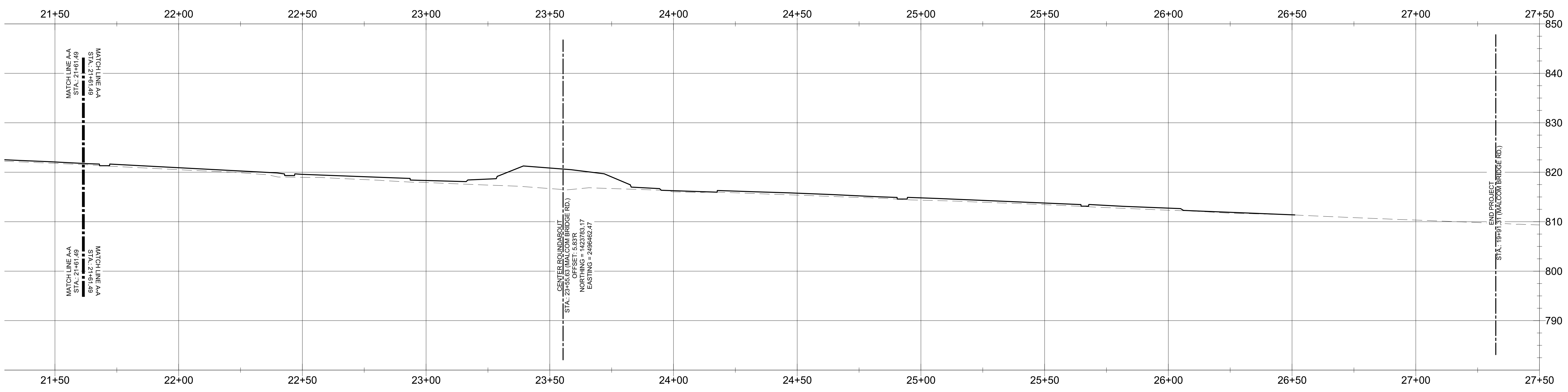
DATE:  
**09/19/19**

N/F  
 OCONEE COUNTY SCHOOL DISTRICT  
 TAX PARCEL # B 02 094  
 D.B. 293, P. 193 -and- P.B. 24, P. 78  
 ZONING: A-1

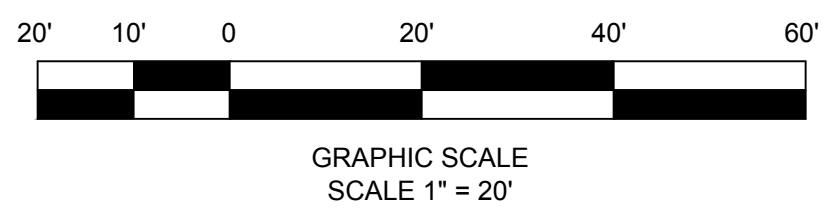
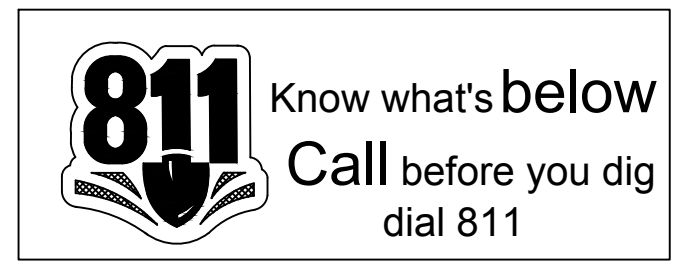


N/F  
 OCONEE COUNTY, GEORGIA  
 TAX PARCEL # B 02 093BA  
 D.B. 720, P. 60  
 ZONING: R-2-MPD

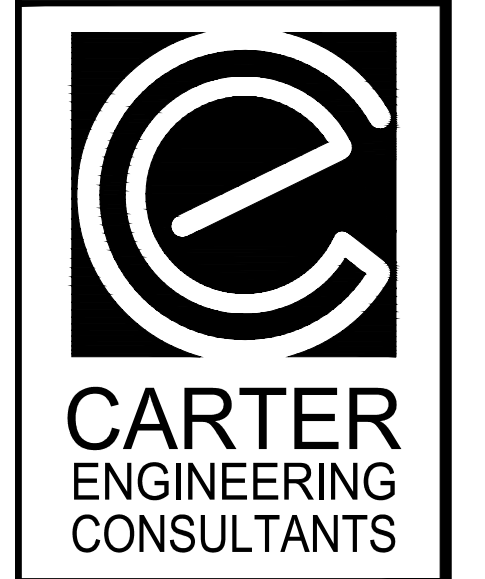
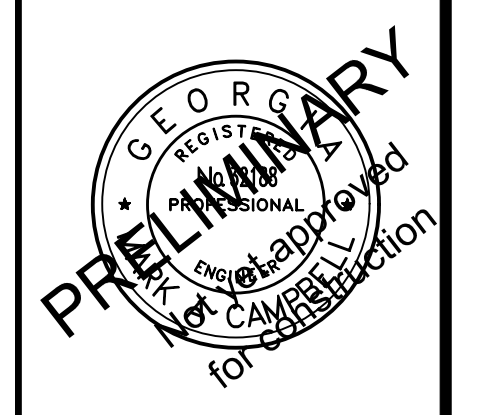
N/F  
 LENRU DEVELOPMENT, LLC  
 TAX PARCEL # B 02 093B  
 D.B. 1141, P. 730 -and- P.B. 17, P. 250  
 ZONING: R-2-MPD



MALCOM BRIDGE RD. CENTERLINE PROFILE  
 HORIZONTAL SCALE: 1" = 20'  
 VERTICAL SCALE: 1" = 10'



REVISION	DATE	REVISION
A	08/02/2019	INITIAL SUBMITTAL
B	09/19/2019	REVISED PER COUNTY COMMENTS



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 3651 Mars Hill Road, Suite 2000  
 Watkinsville, GA 30677  
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 F: 770.725.1204  
 www.carterengineering.net

**ROUNDABOUT PLANS**  
 for  
**OCONEE COUNTY GOVERNMENT**  
 MALCOLM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOLM BRIDGE RD.

PROJECT NAME:  
**ROUNDABOUT PLANS**

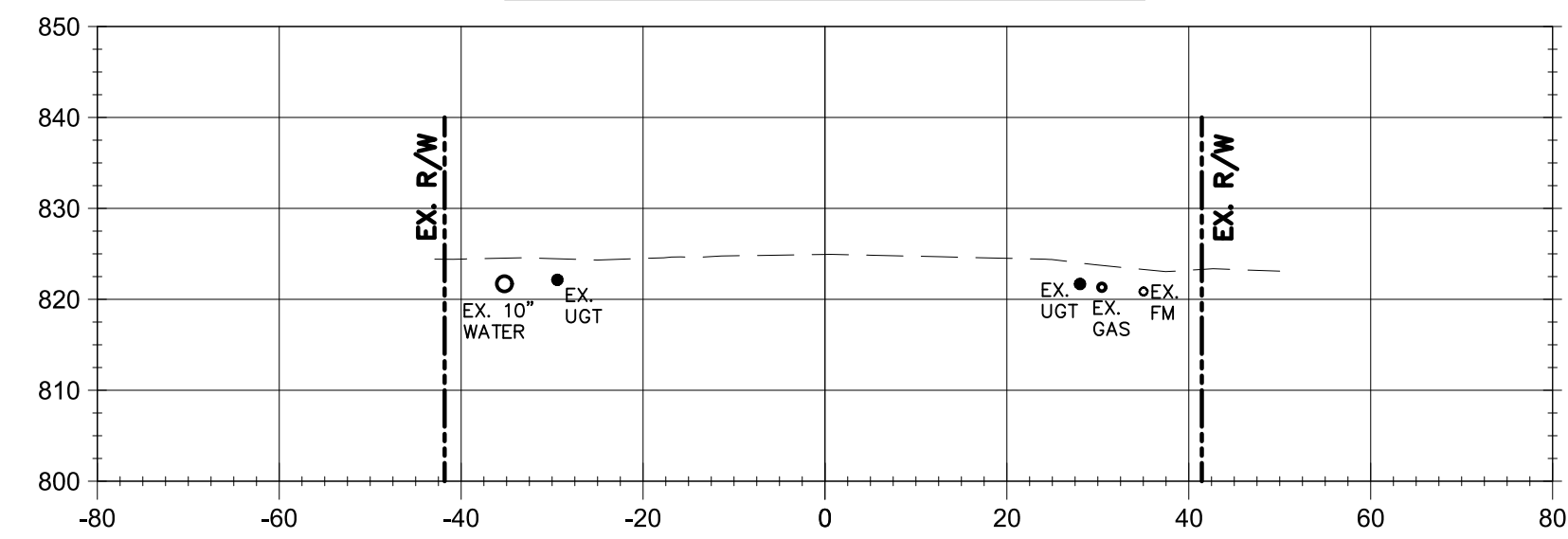
SHEET TITLE:  
**ROADWAY PROFILE II**

SHEET NUMBER:  
**C-5.1**

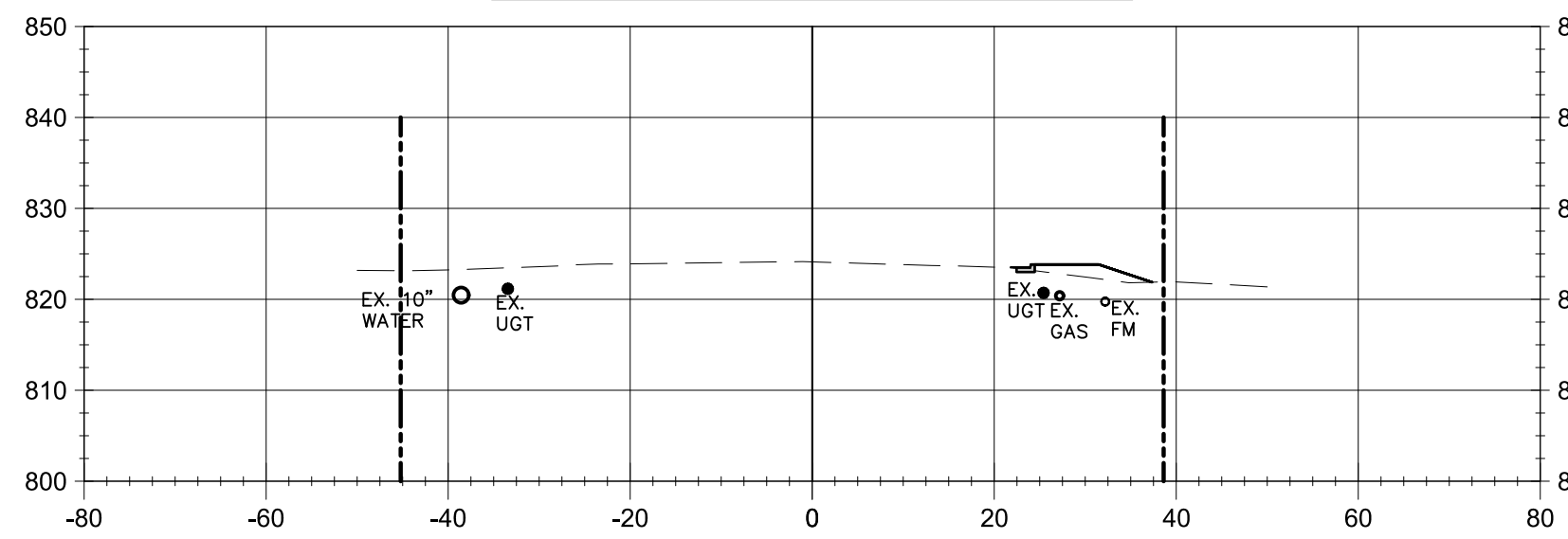
PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**

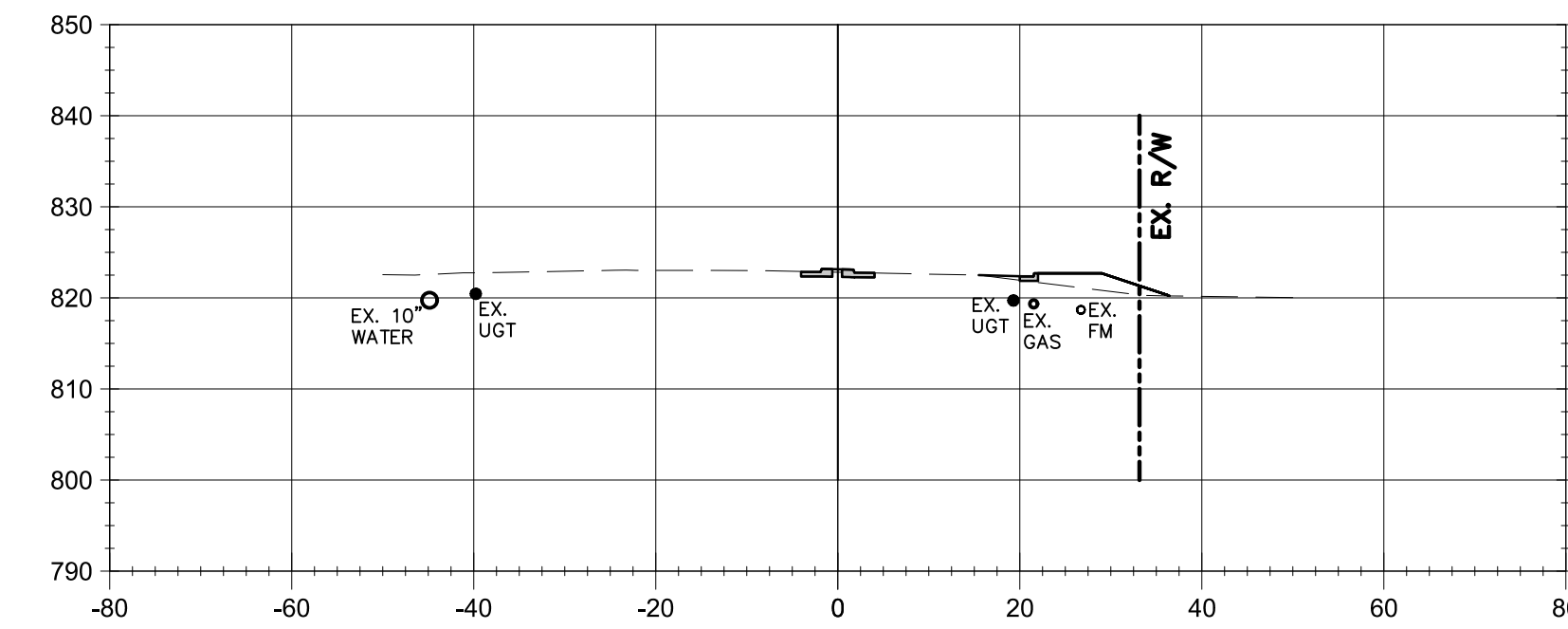
MALCOM BRIDGE RD.  
19+50



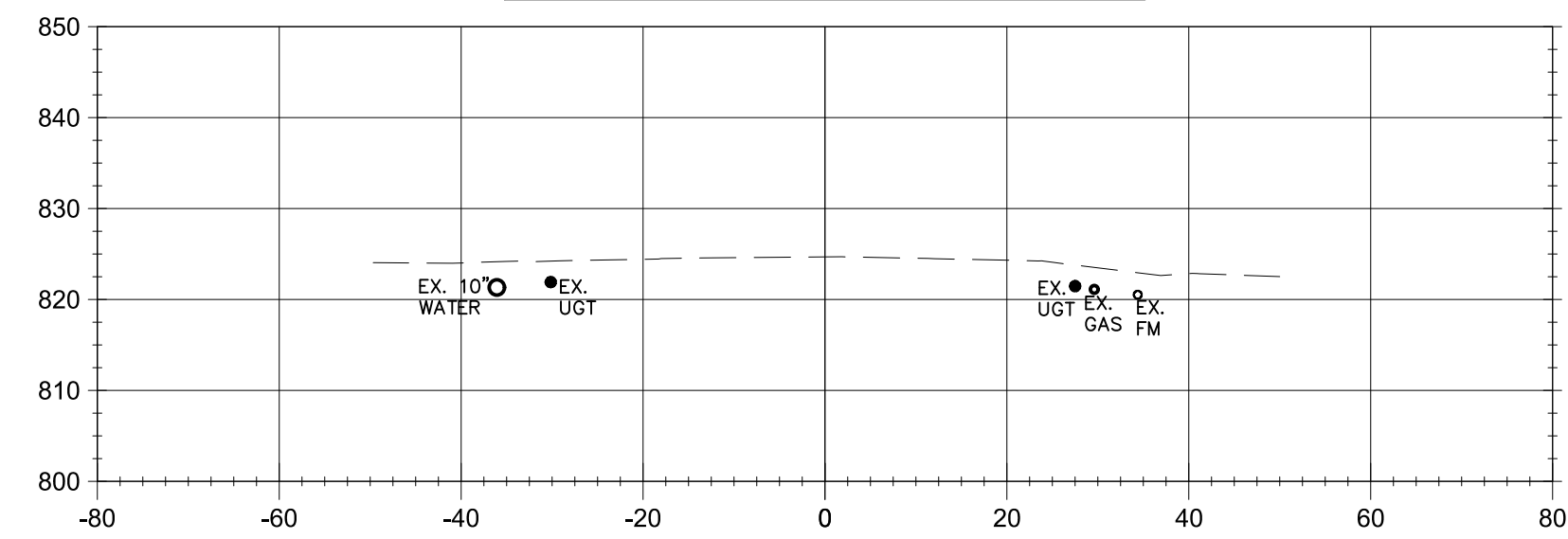
MALCOM BRIDGE RD.  
20+25



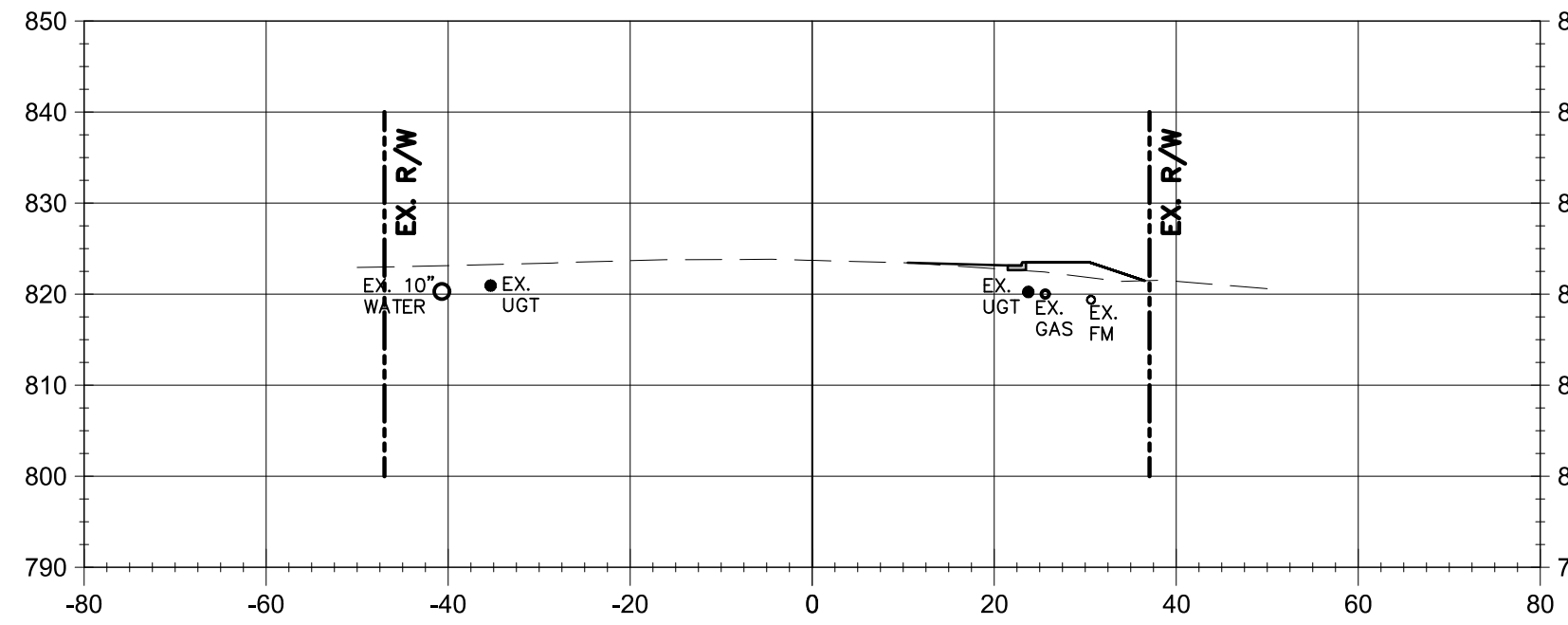
MALCOM BRIDGE RD.  
21+00



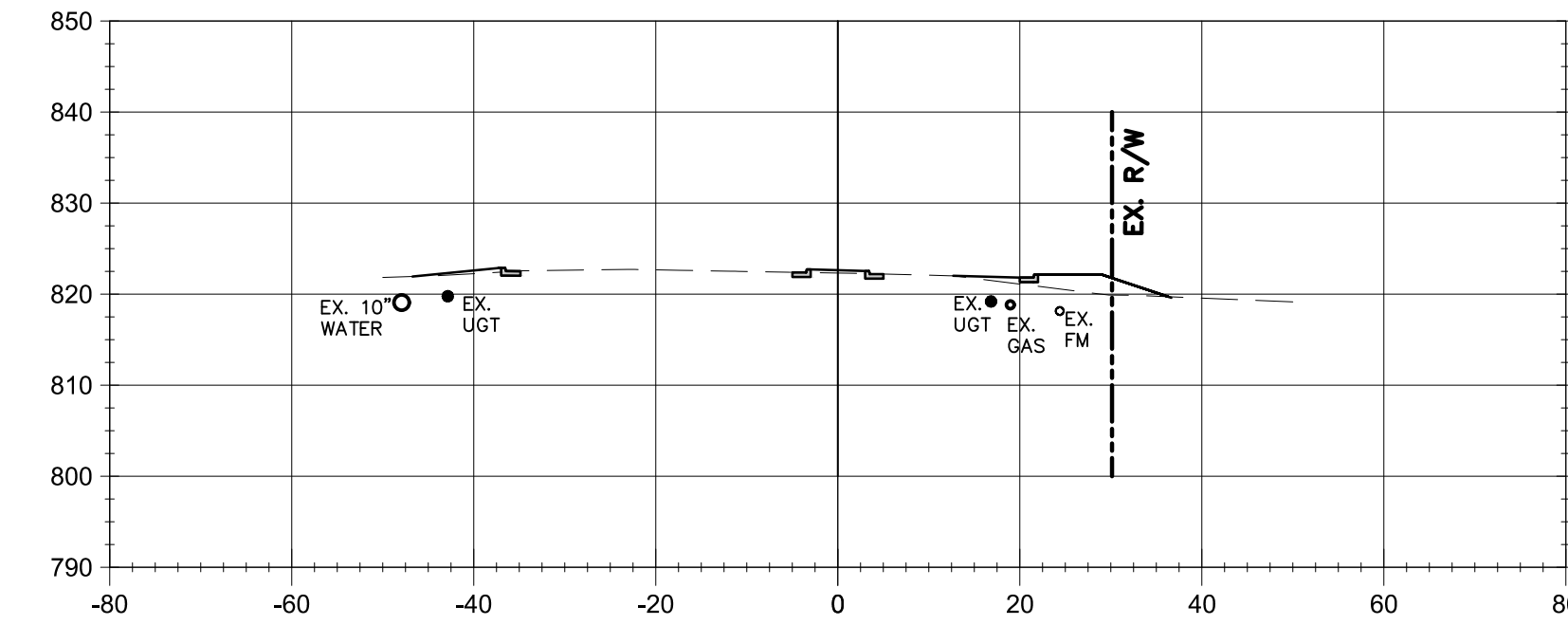
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19+75



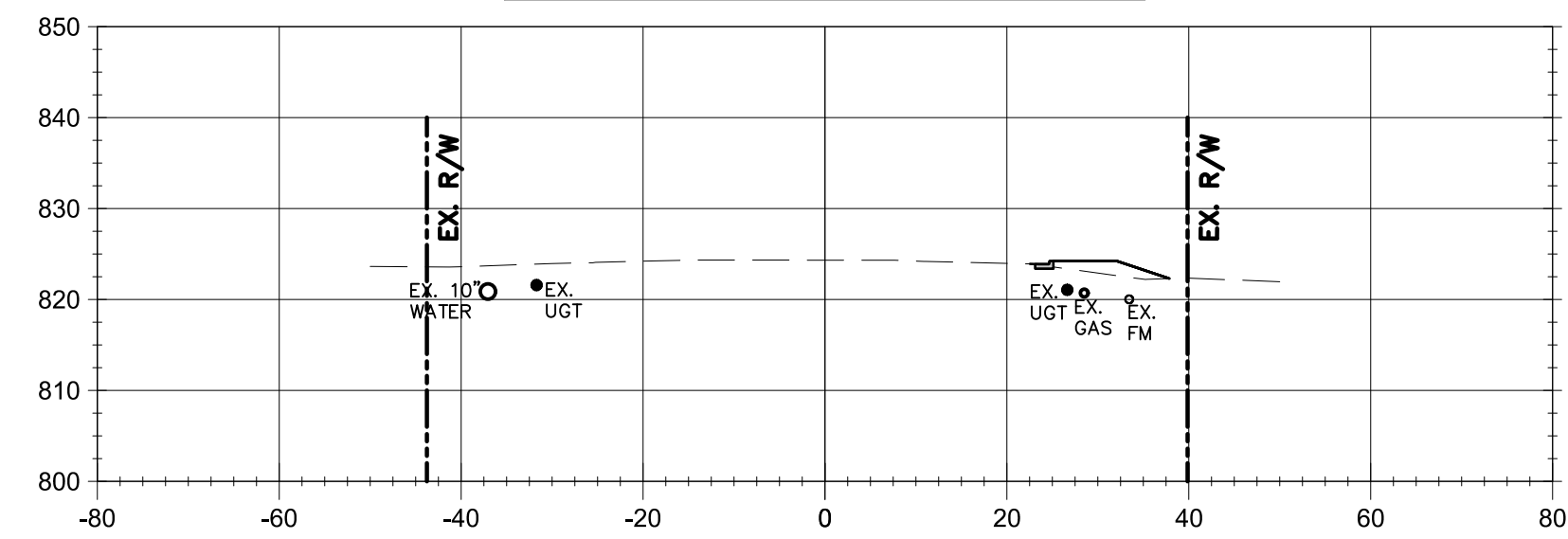
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20+50



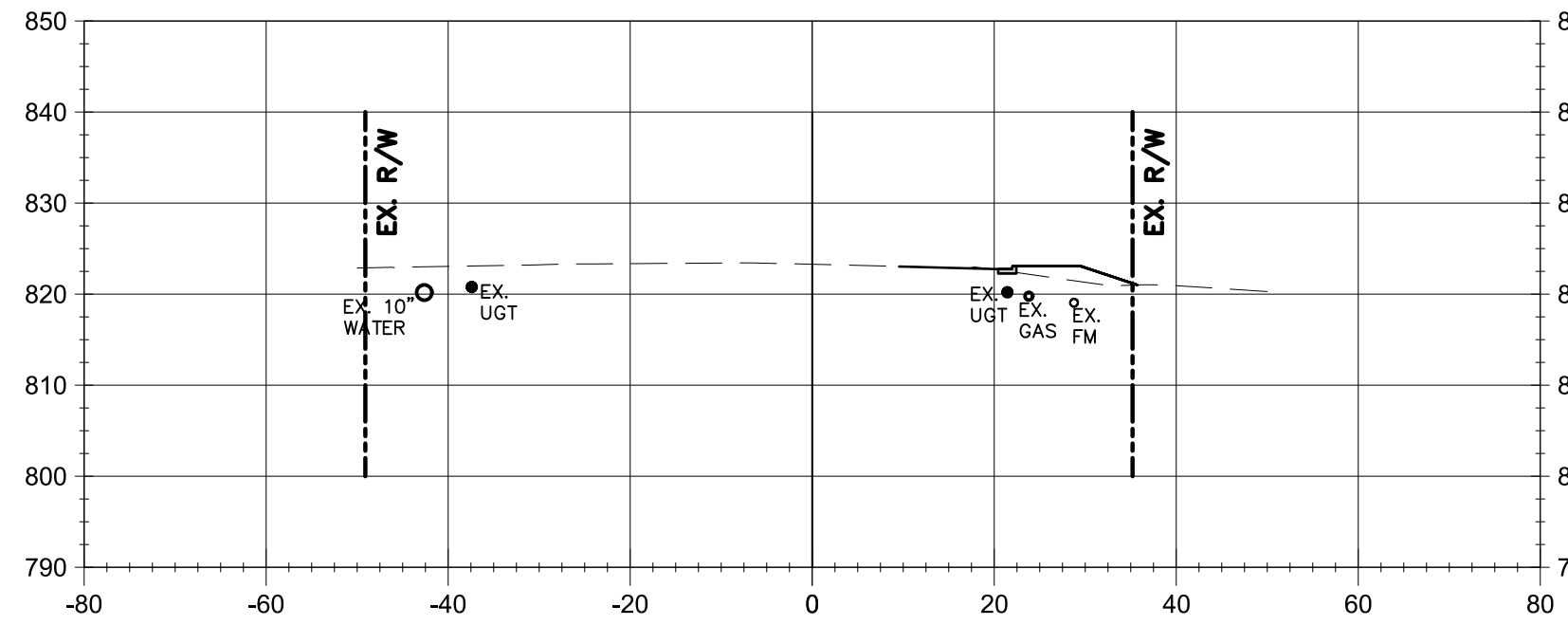
MALCOM BRIDGE RD.  
21+25



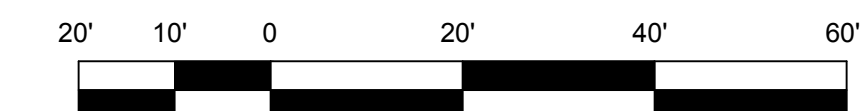
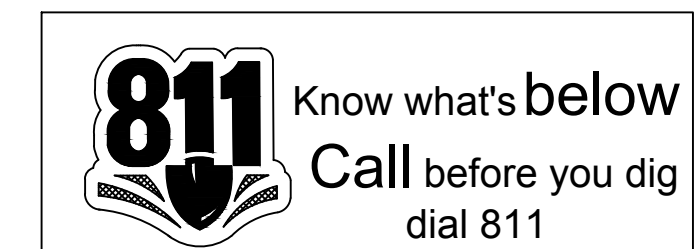
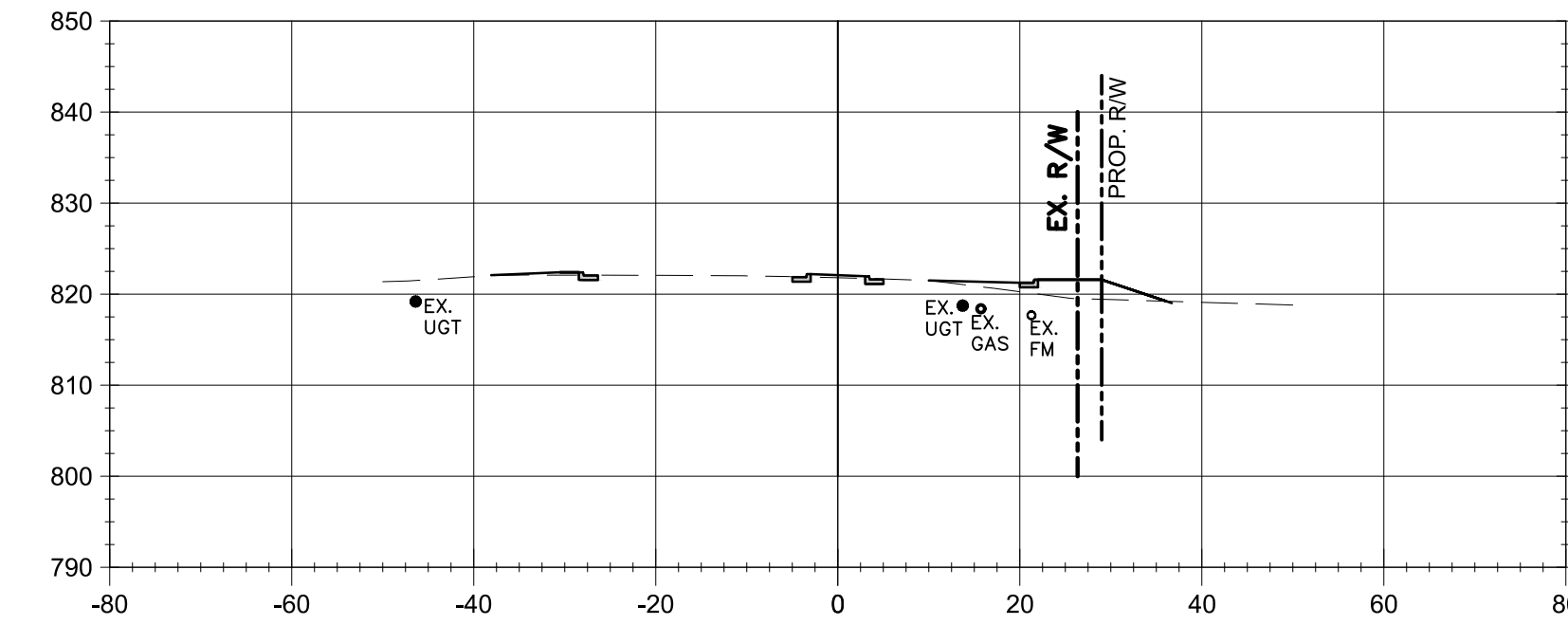
MALCOM BRIDGE RD.  
20+00



MALCOM BRIDGE RD.  
20+75

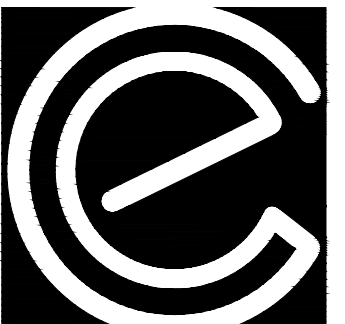


MALCOM BRIDGE RD.  
21+50



GRAPHIC SCALE  
SCALE 1" = 20'

REVISION	DATE	REVISION
INITIAL SUBMITTAL	08/02/2019	
REVISED PER COUNTY COMMENTS	09/19/2019	



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**ROUNDABOUT PLANS**  
for  
**OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**MALCOM BRIDGE RD. C.S.**

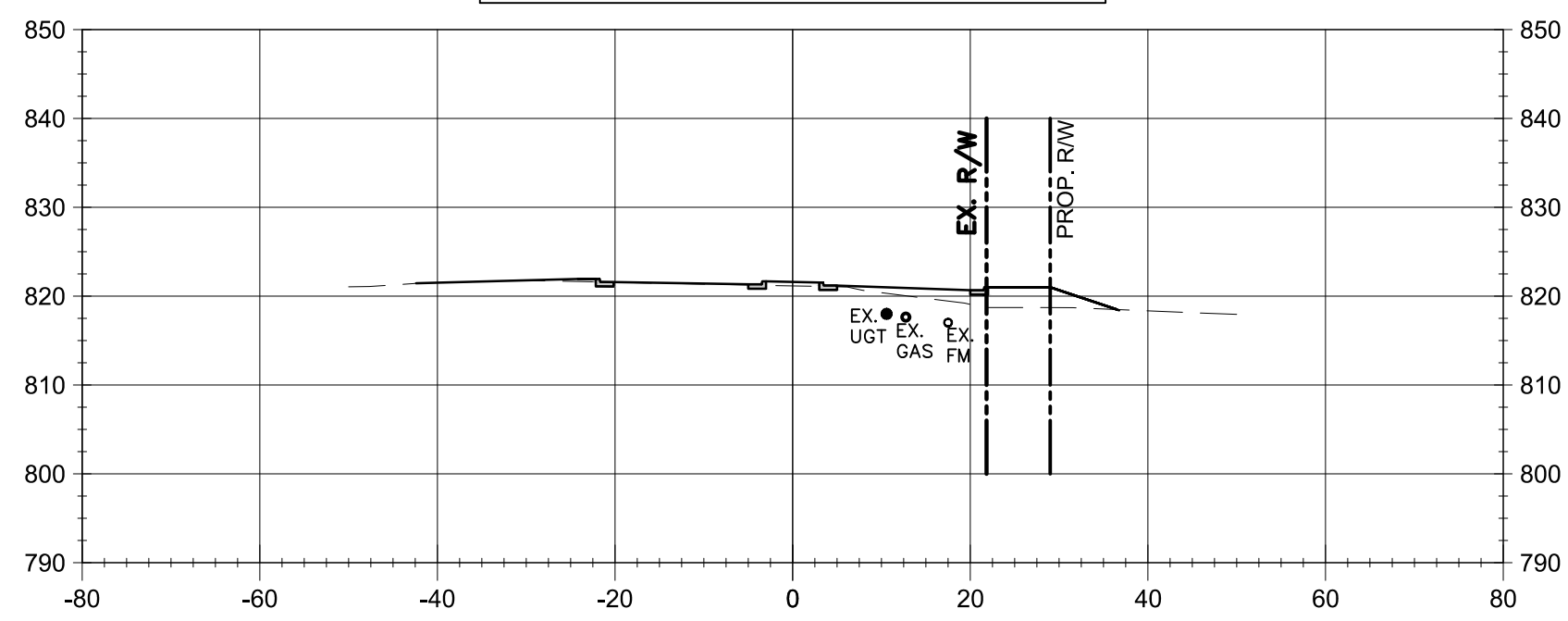
SHEET NUMBER:  
**C-5.2**

PROJECT NUMBER:  
**18010CG**

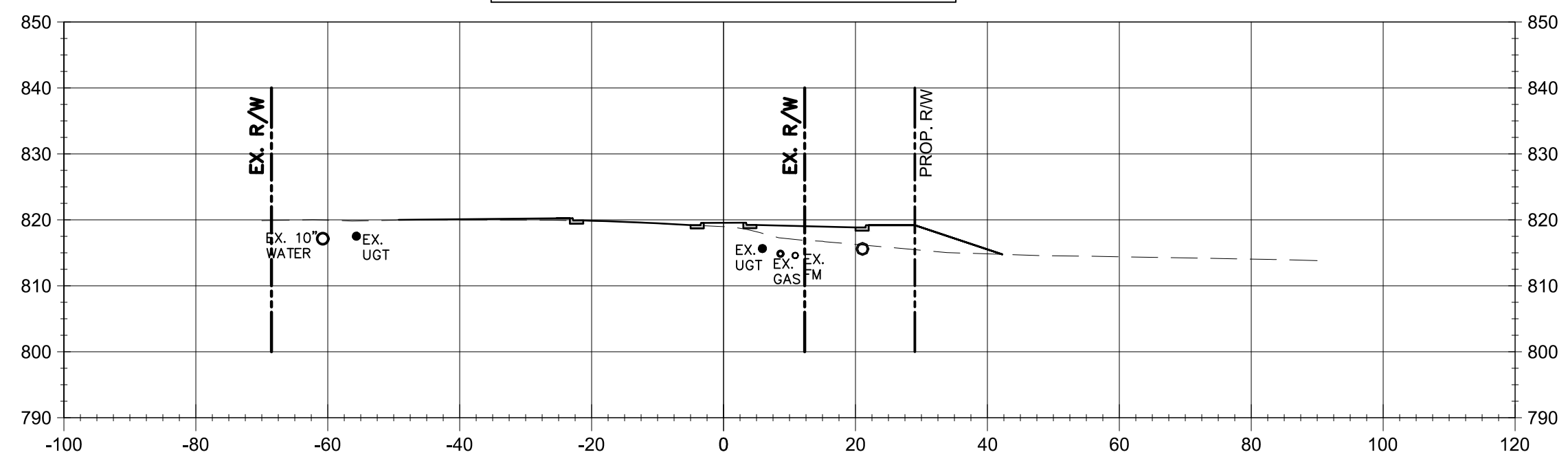
DATE:  
**09/19/19**



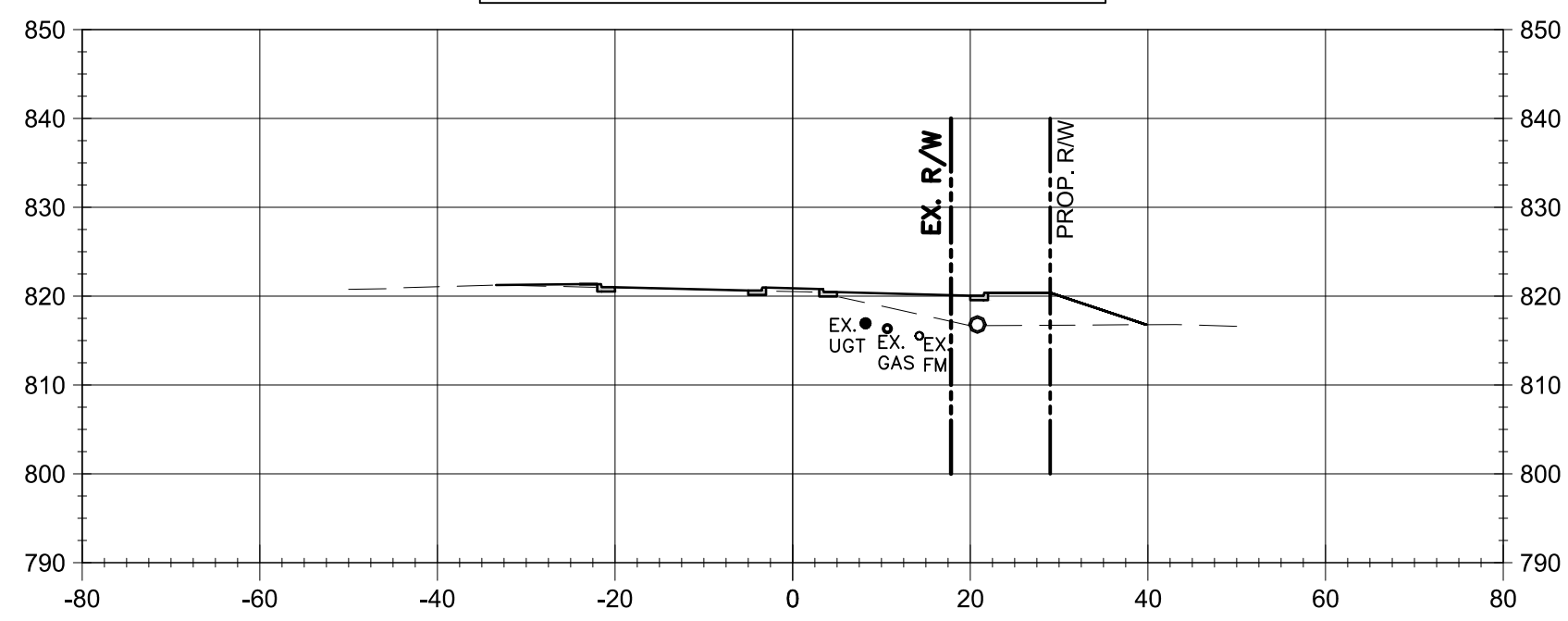
MALCOM BRIDGE RD.  
21+75



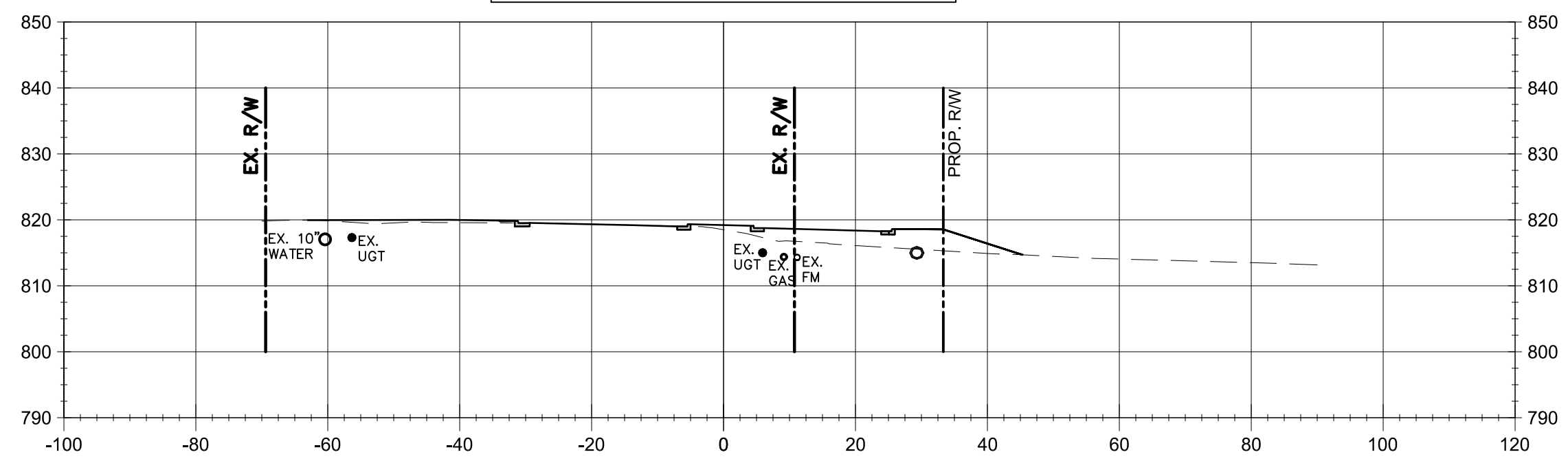
MALCOM BRIDGE RD.  
22+50



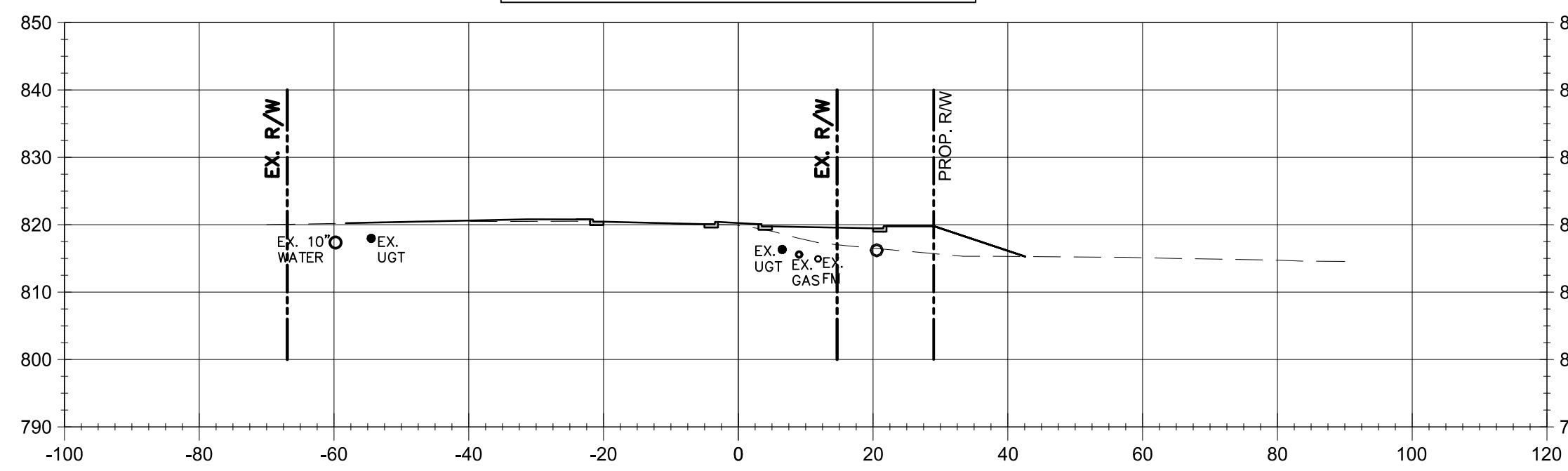
MALCOM BRIDGE RD.  
22+00



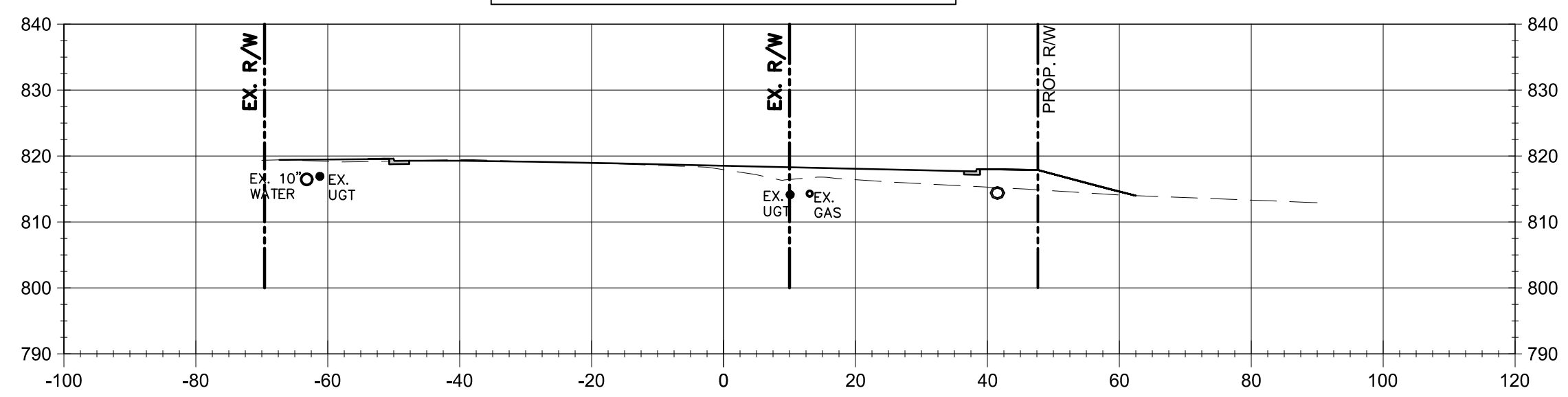
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22+75



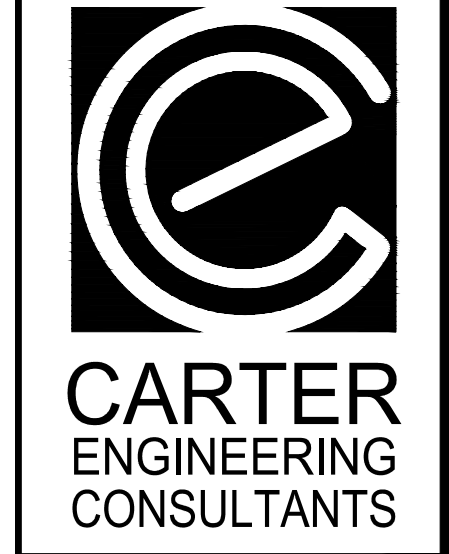
MALCOM BRIDGE RD.  
22+25



MALCOM BRIDGE RD.  
23+00



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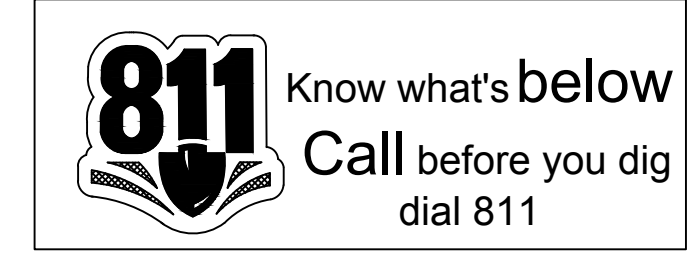
PROJECT NAME:  
**ROUNDABOUT  
PLANS**

SHEET TITLE:  
**MALCOM  
BRIDGE RD. C.S.**

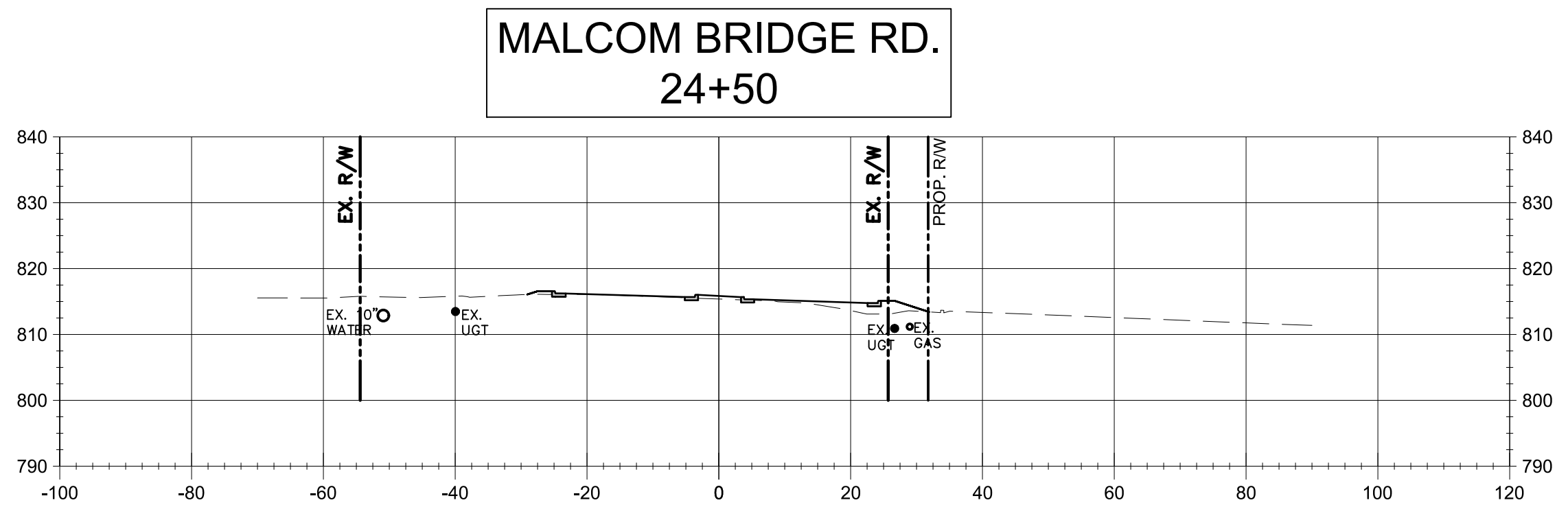
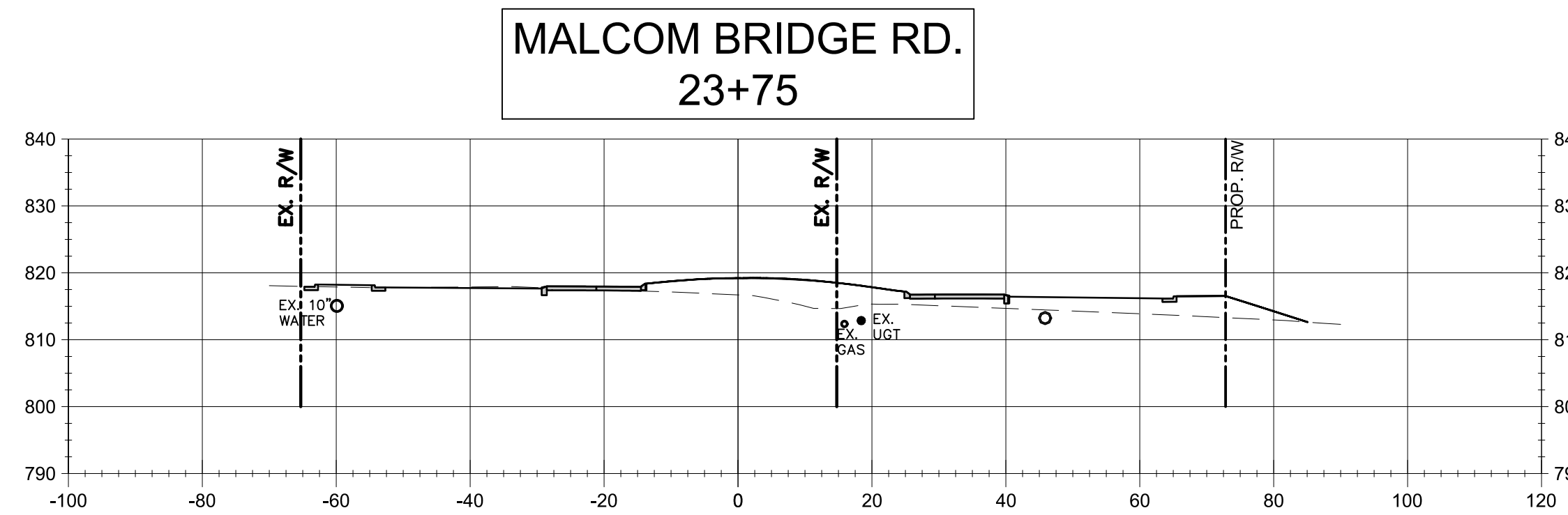
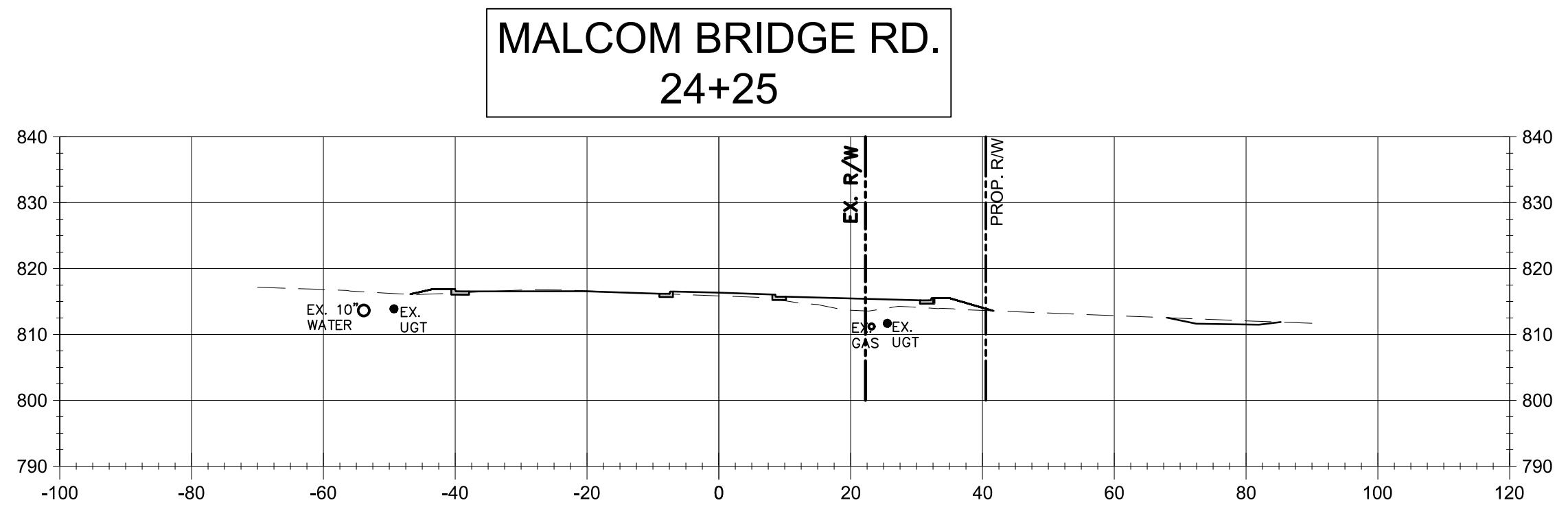
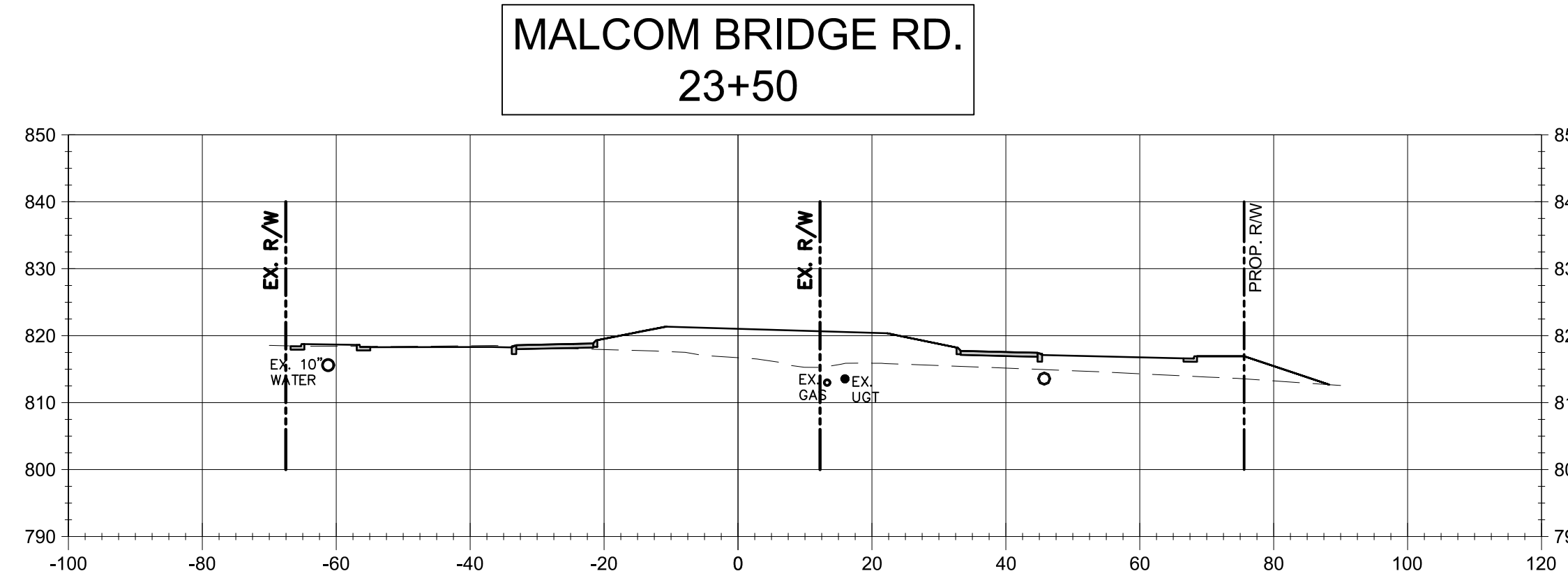
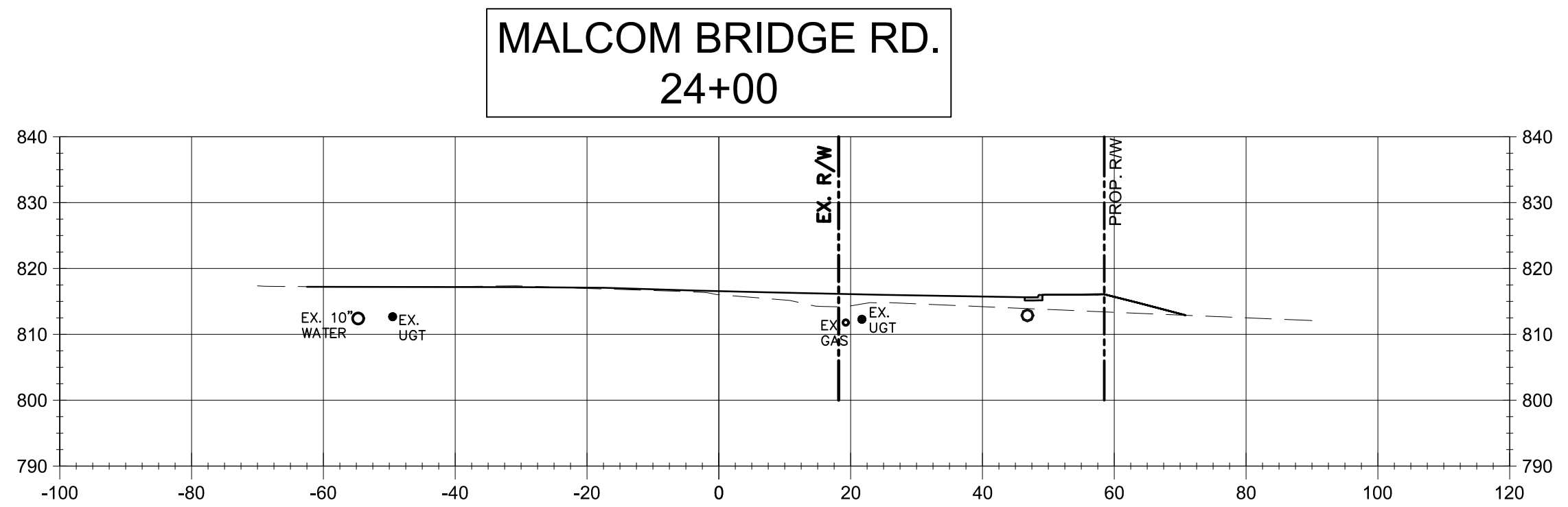
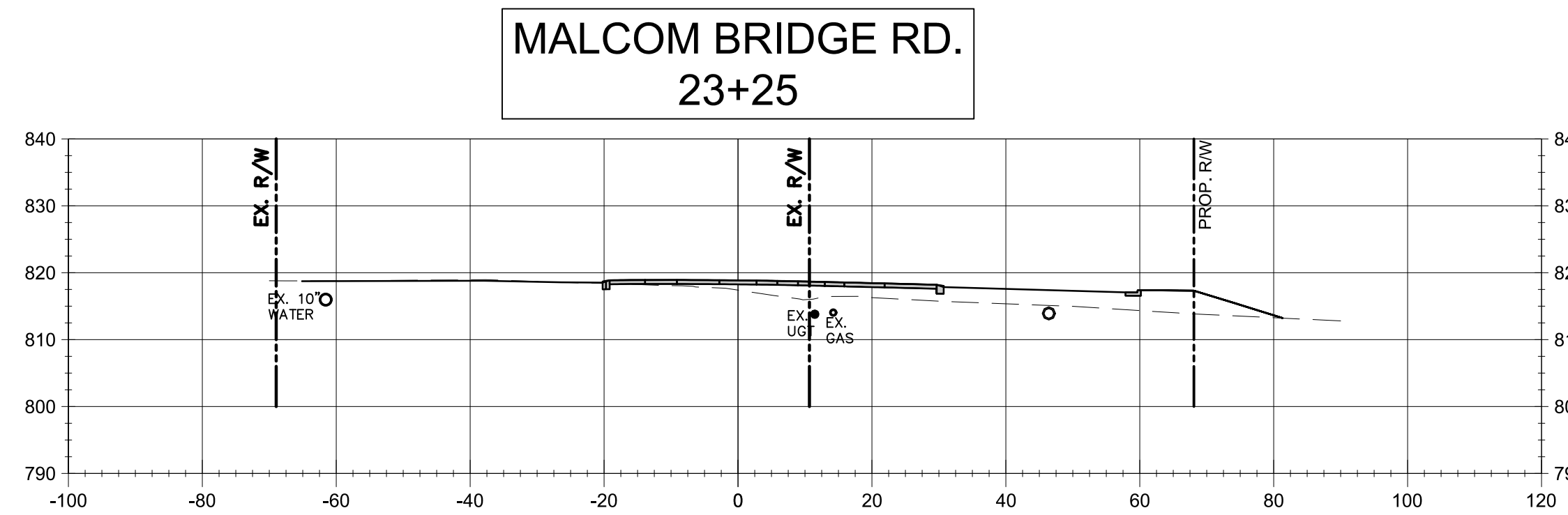
SHEET NUMBER:  
**C-5.3**

PROJECT NUMBER:  
**18010CG**

DATE:  
**09/19/19**

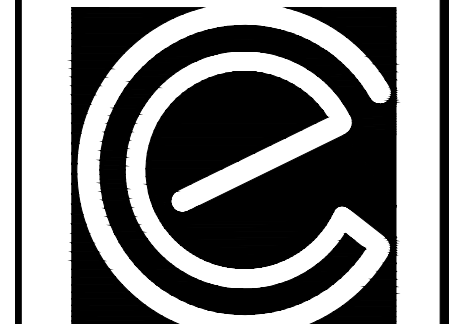
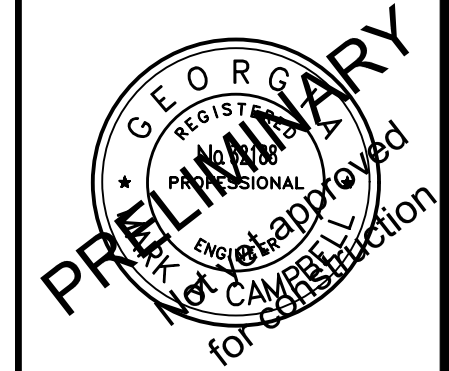


GRAPHIC SCALE  
SCALE 1" = 20'



GRAPHIC SCALE  
SCALE 1" = 20'

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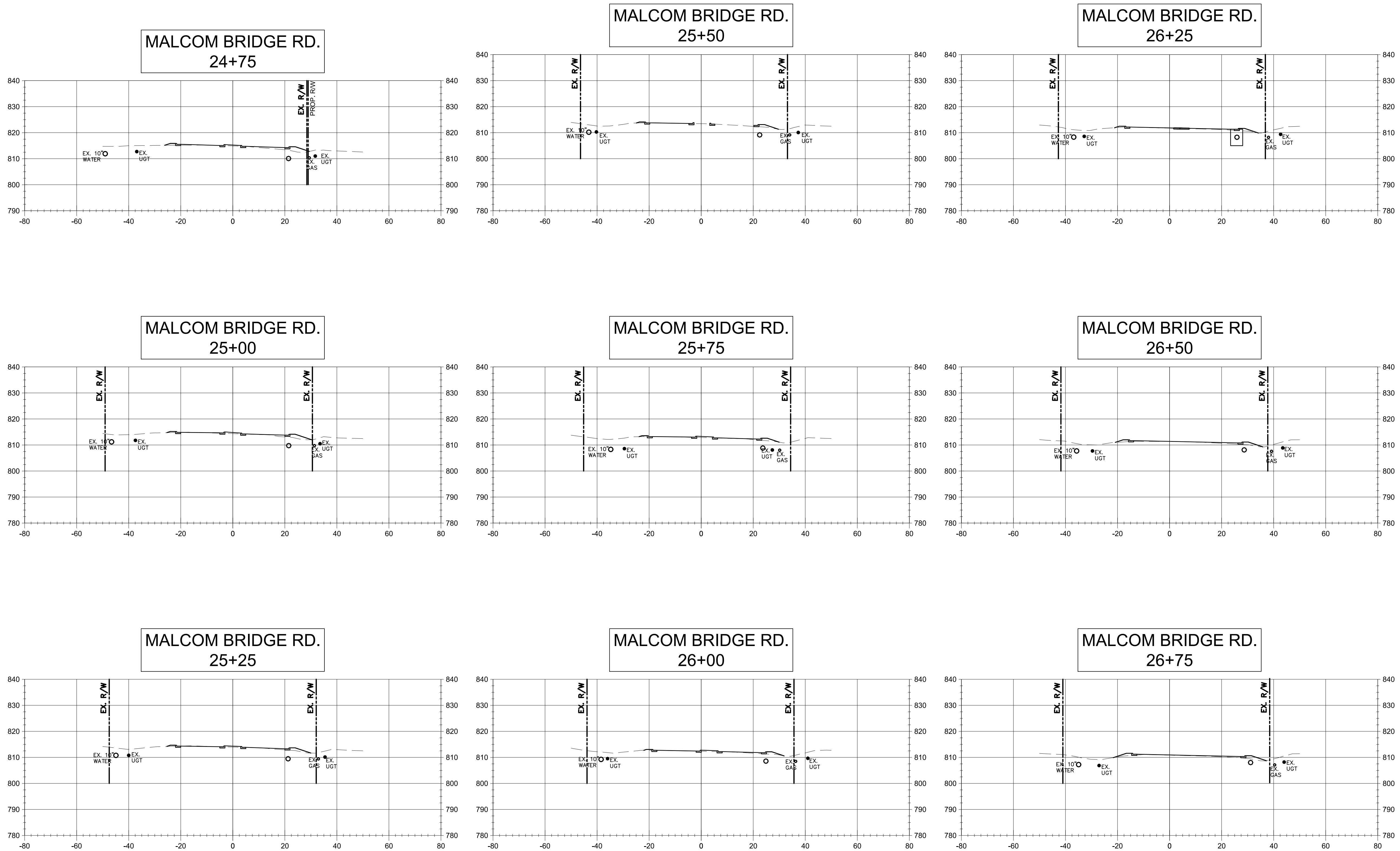
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**MALCOM BRIDGE RD. C.S.**

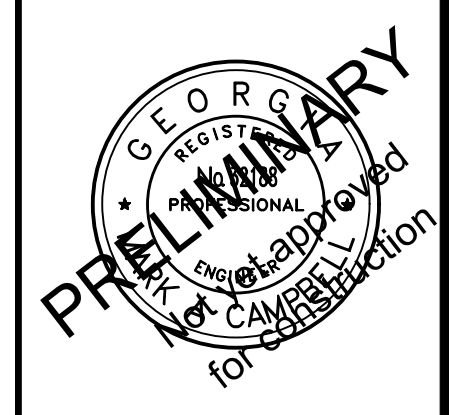
SHEET NUMBER:  
**C-5.4**

PROJECT NUMBER:  
**18001OCG**

DATE:  
**09/19/19**



REVISION BLOCK	REVISION	DATE	INITIALS
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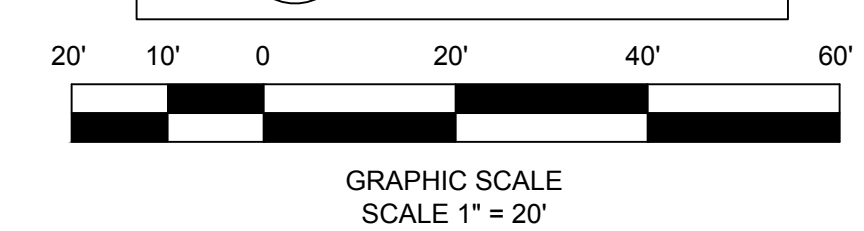
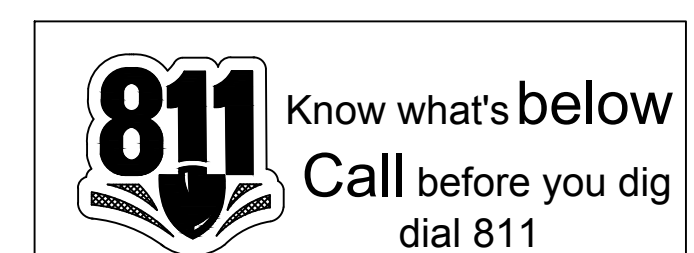
PROJECT NAME:  
**ROUNDABOUT PLANS**

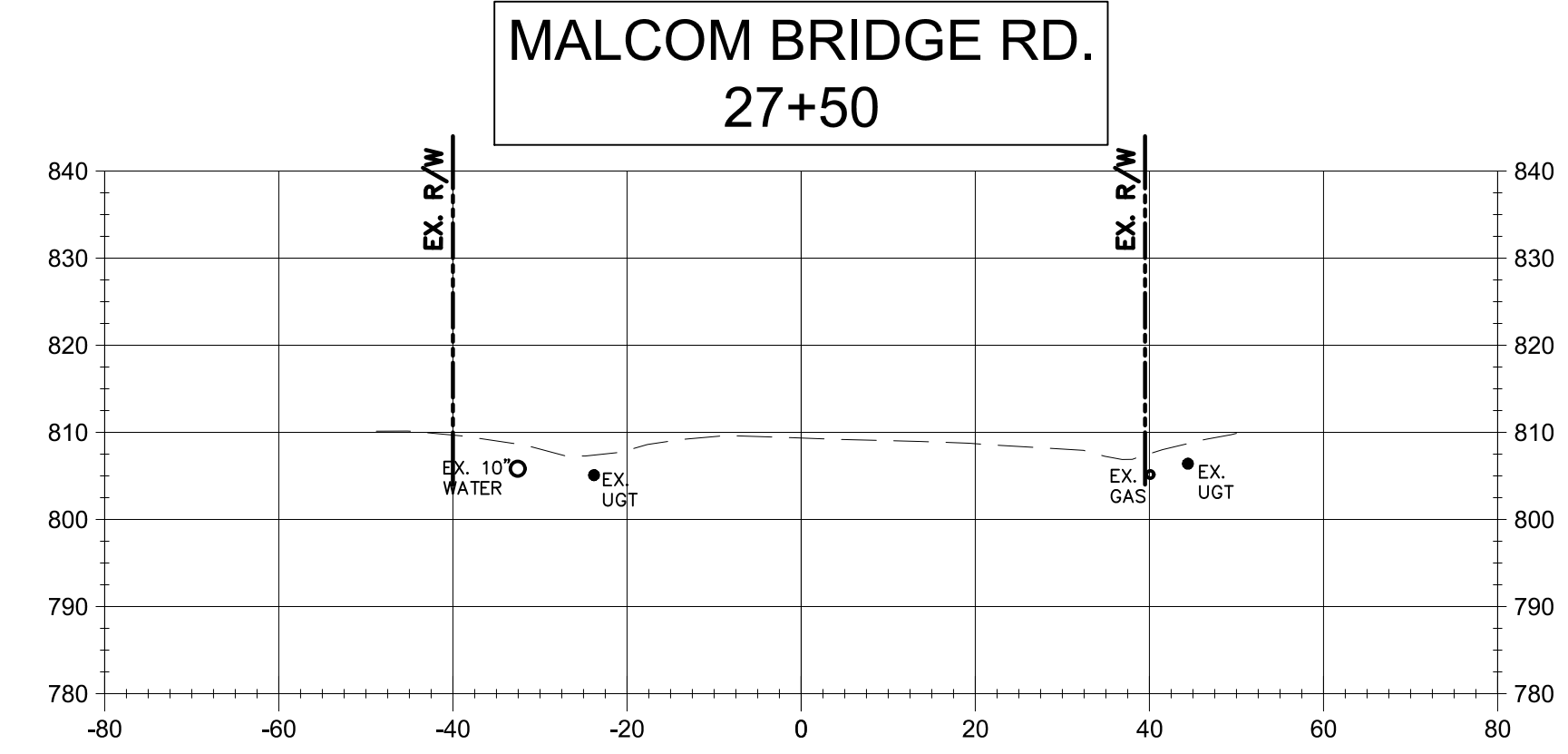
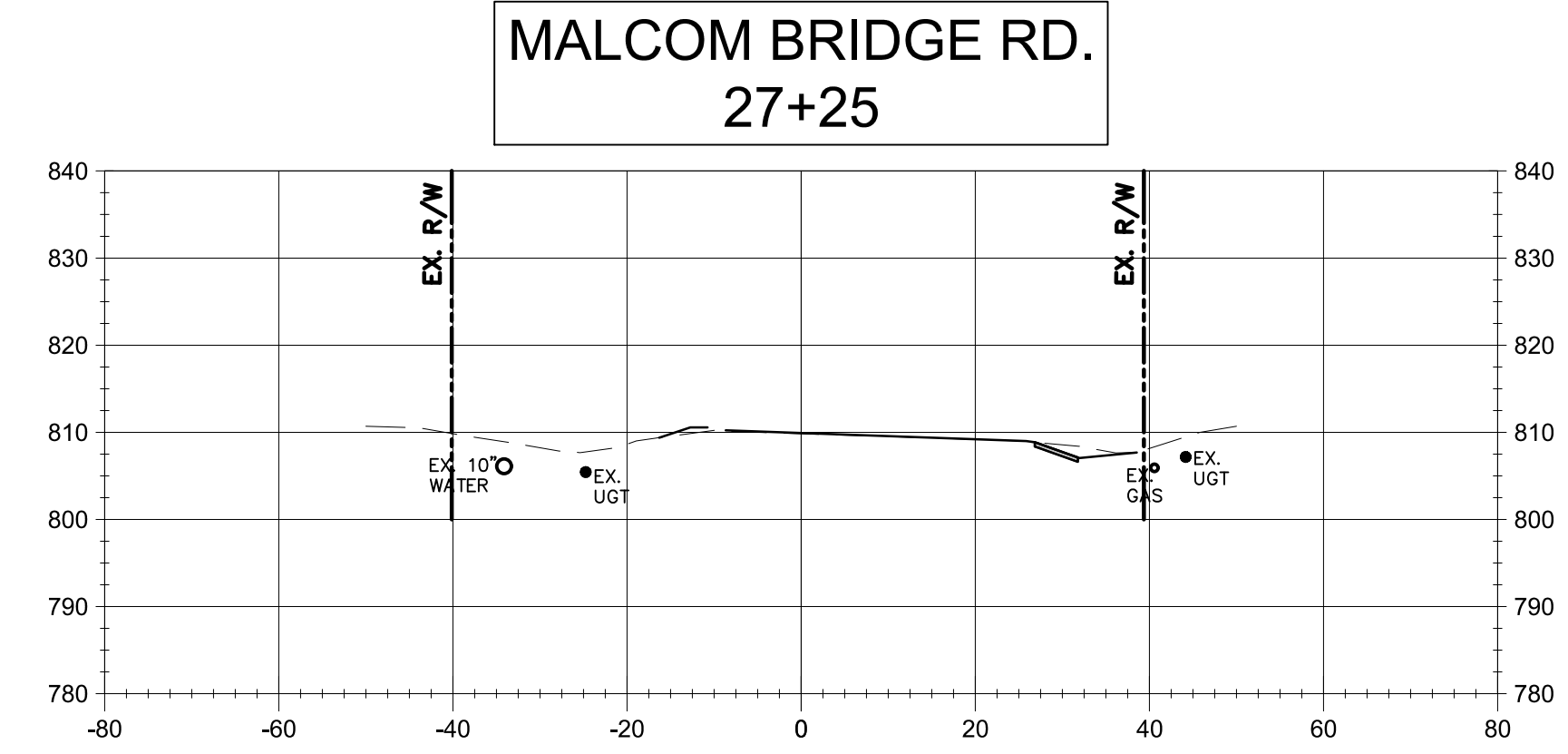
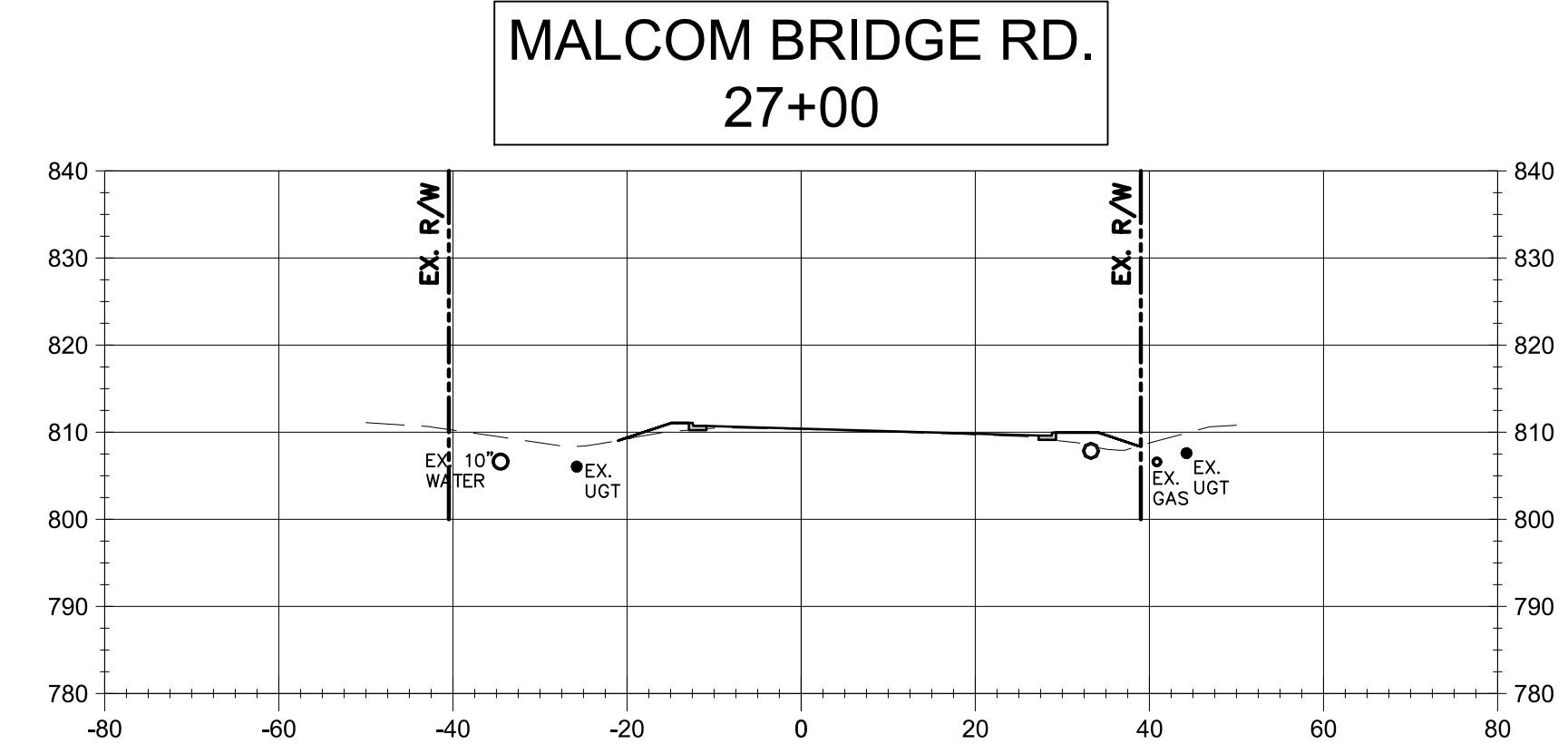
SHEET TITLE:  
**MALCOM BRIDGE RD. C.S.**

SHEET NUMBER:  
**C-5.5**

PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**



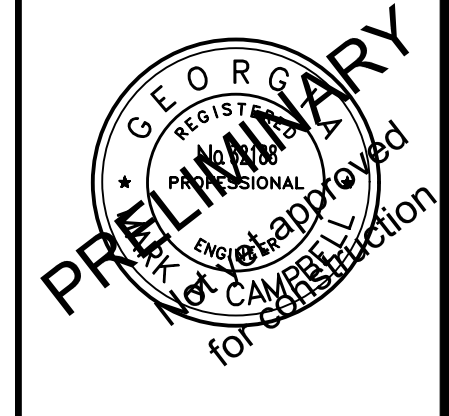


811 Know what's below  
Call before you dig  
dial 811

20' 10' 0 20' 40' 60'

GRAPHIC SCALE  
SCALE 1" = 20'

REVISION BLOCK	REV. #	DATE	REVISION
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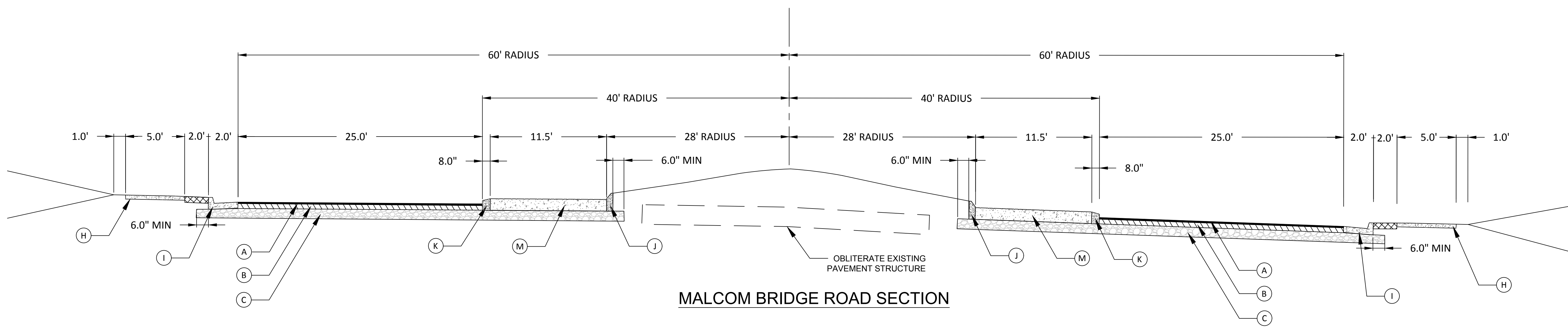
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**MALCOM BRIDGE RD. C.S.**

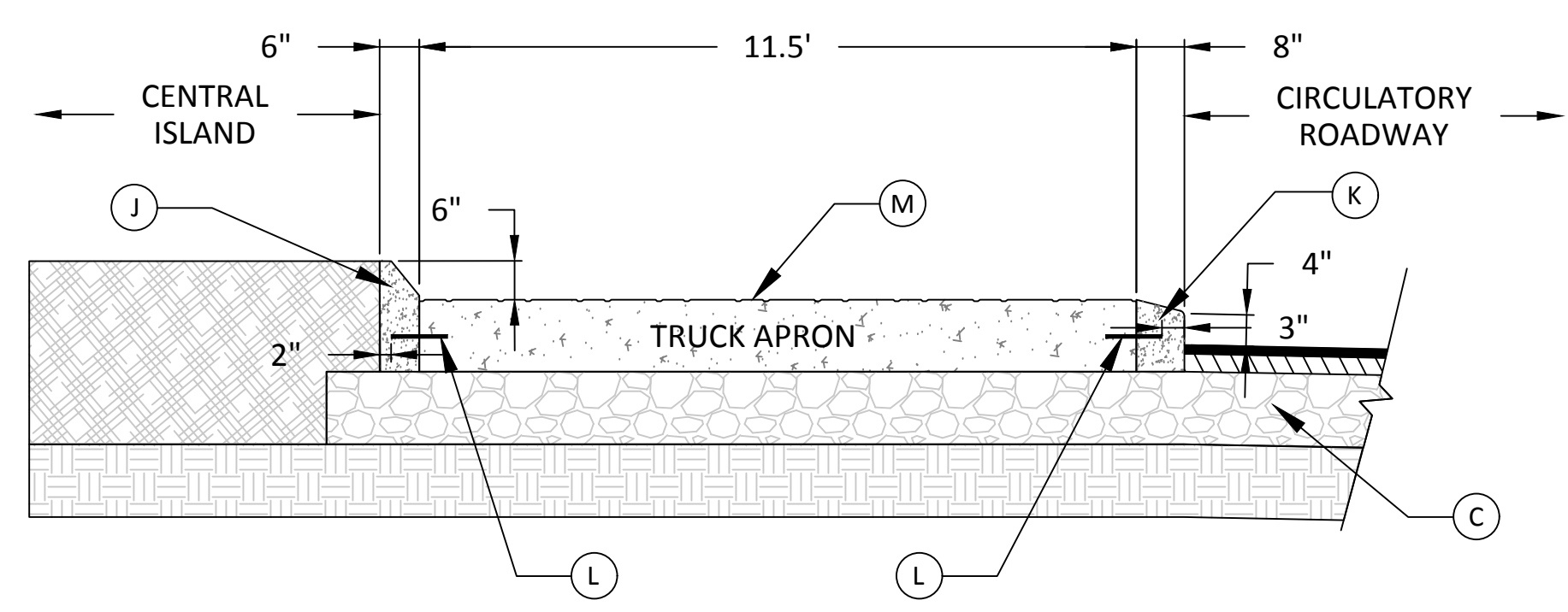
SHEET NUMBER:  
**C-5.6**

PROJECT NUMBER:  
**18001OCG**

DATE:  
**09/19/19**



MALCOM BRIDGE ROAD SECTION

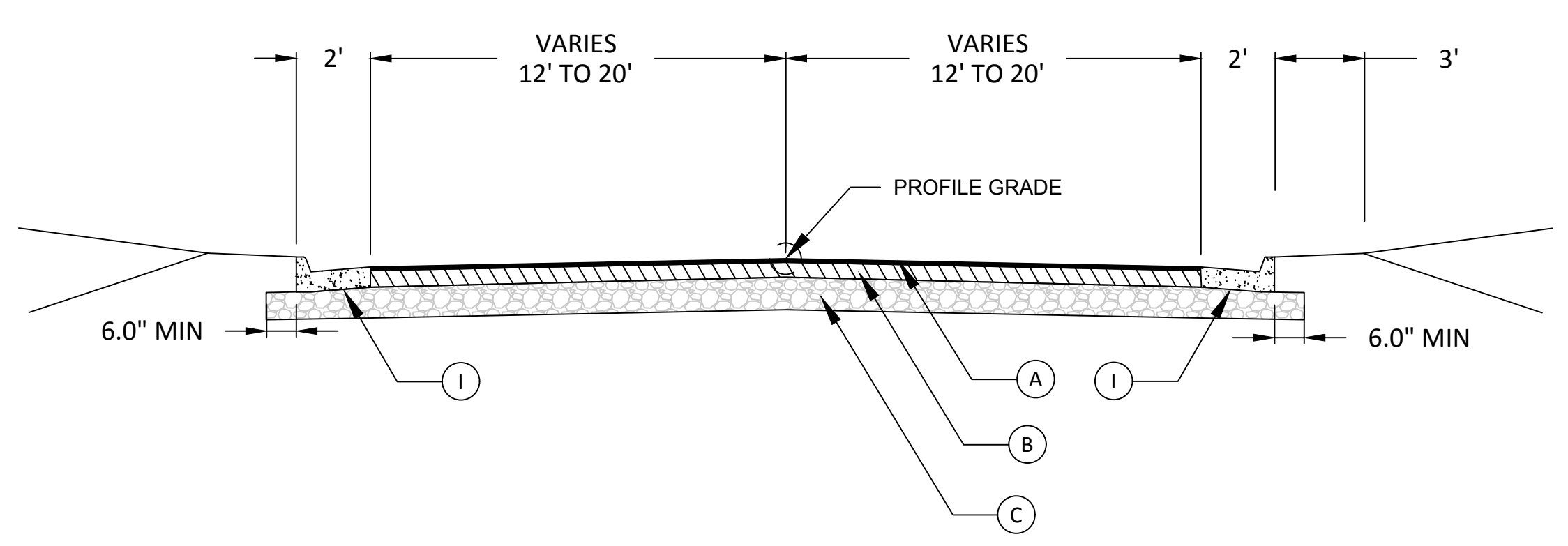


TRUCK APRON PAVING DETAIL

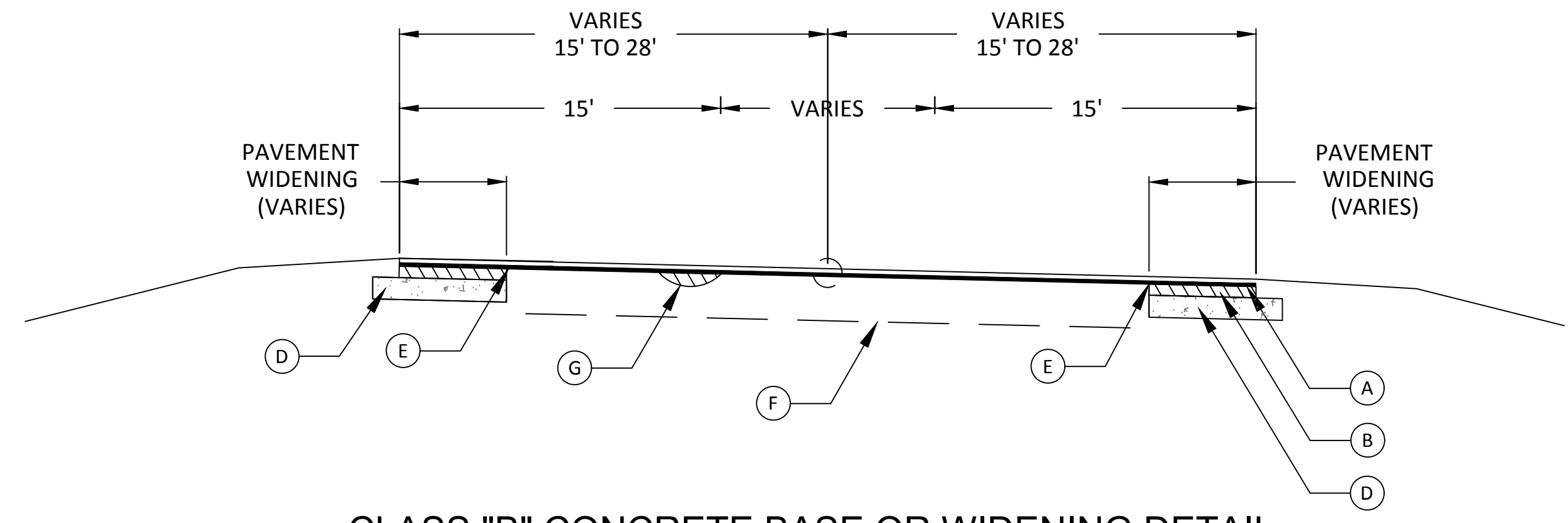
REQUIRED PAVEMENT LEGEND

- (A) SURFACE - 1 1/2" RECYCLED ASPHALTIC CONCRETE, 12.5 mm SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME (165 LBS/YD)
- (B) ASPHALT BINDER COURSE - 4" RECYCLED ASPHALTIC CONCRETE, 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/YD), 2" MAXIMUM LIFT THICKNESS
- (C) 8" GRADED AGGREGATE BASE
- (D) 6" THICK PORTLAND CEMENT CONCRETE
- (E) PAVEMENT REINFORCEMENT FABRIC
- (F) EXISTING ROAD STRUCTURE
- (G) ASPHALT LEVELING, AS REQUIRED
- (H) CONCRETE SIDEWALK, 4" THICK
- (I) 6" X 24", CONG CURB AND GUTTER, TYPE 2
- (J) CONCRETE HEADER CURB, 6" TYPE 7
- (K) CONCRETE HEADER CURB, 8" TYPE 9
- (L) 18" X 8" DEFORMED TIE BARS, 18" ON CENTER
- (M) STAMPED AND COLORED 10" PC CONCRETE PAVEMENT, RED WITH COBBLE PATTERN

ALL AREAS OF SHOULDER WIDENING WILL REQUIRE 24 INCHES OF REMOVAL BELOW THE PROJECTED SUBGRADE ELEVATION. ONCE UNDERCUT, THESE AREAS SHALL BE SCARIFIED, COMPACTED AND PROOFROLLED WITH FULLY LOADED TANDEM AXLE DUMP TRUCK. BACKFILL AND COMPACTED TO A MINIMUM OF 95% DRY DENSITY STANDARD PROCTOR WITH GRANULAR FILL PLACED WITH SIX (6) TO EIGHT (8) INCH LOOSE LIFTS. THE FINAL TWELVE (12) INCHES (SUBGRADE) SHALL BE COMPACTED TO 100% DRY DENSITY. PROOFROLL AREA AGAIN ONCE SUBGRADE HAS PASSED COMPACTION. HOT MIX ASPHALT, FULL DEPTH SECTION, SHALL THEN BE CONSTRUCTED.

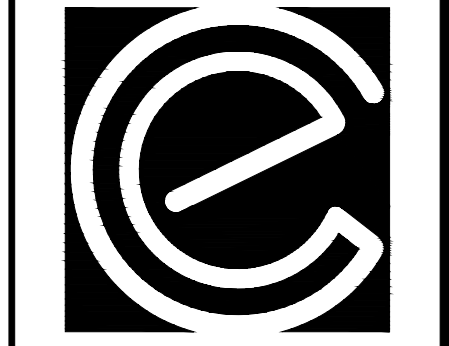


TYPICAL ROAD SECTION



CLASS "B" CONCRETE BASE OR WIDENING DETAIL

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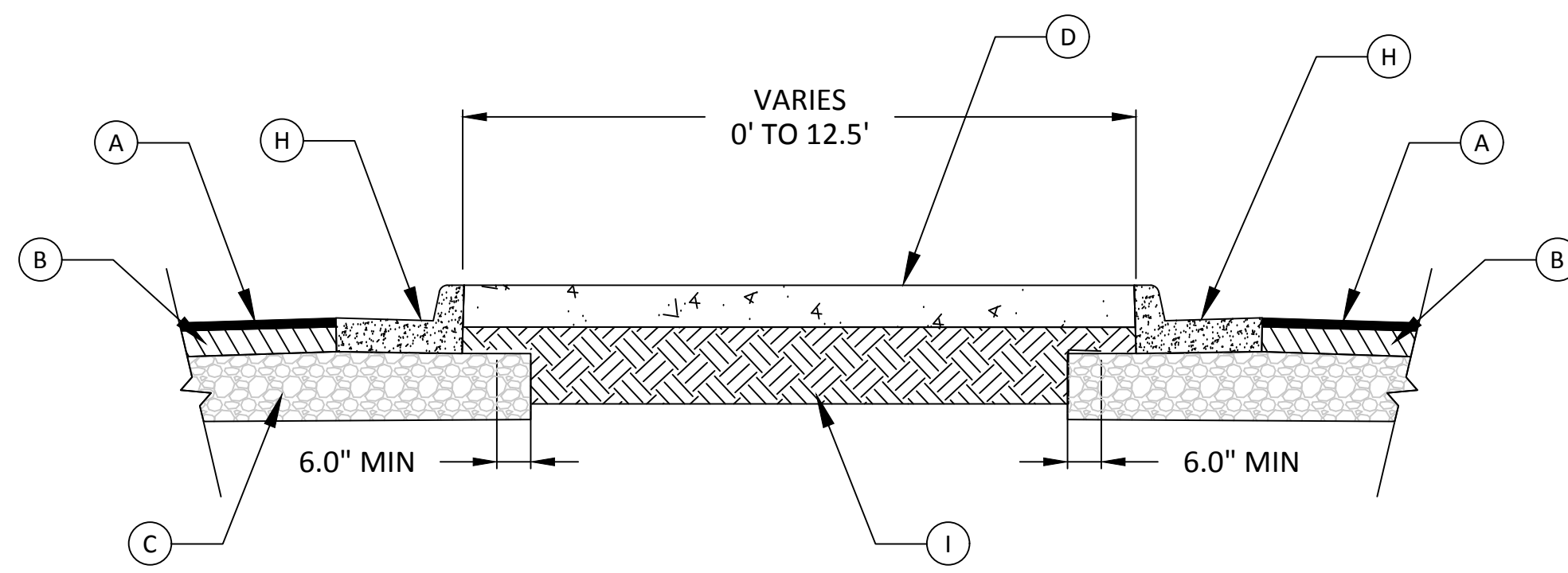
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**TYPICAL SECTION**

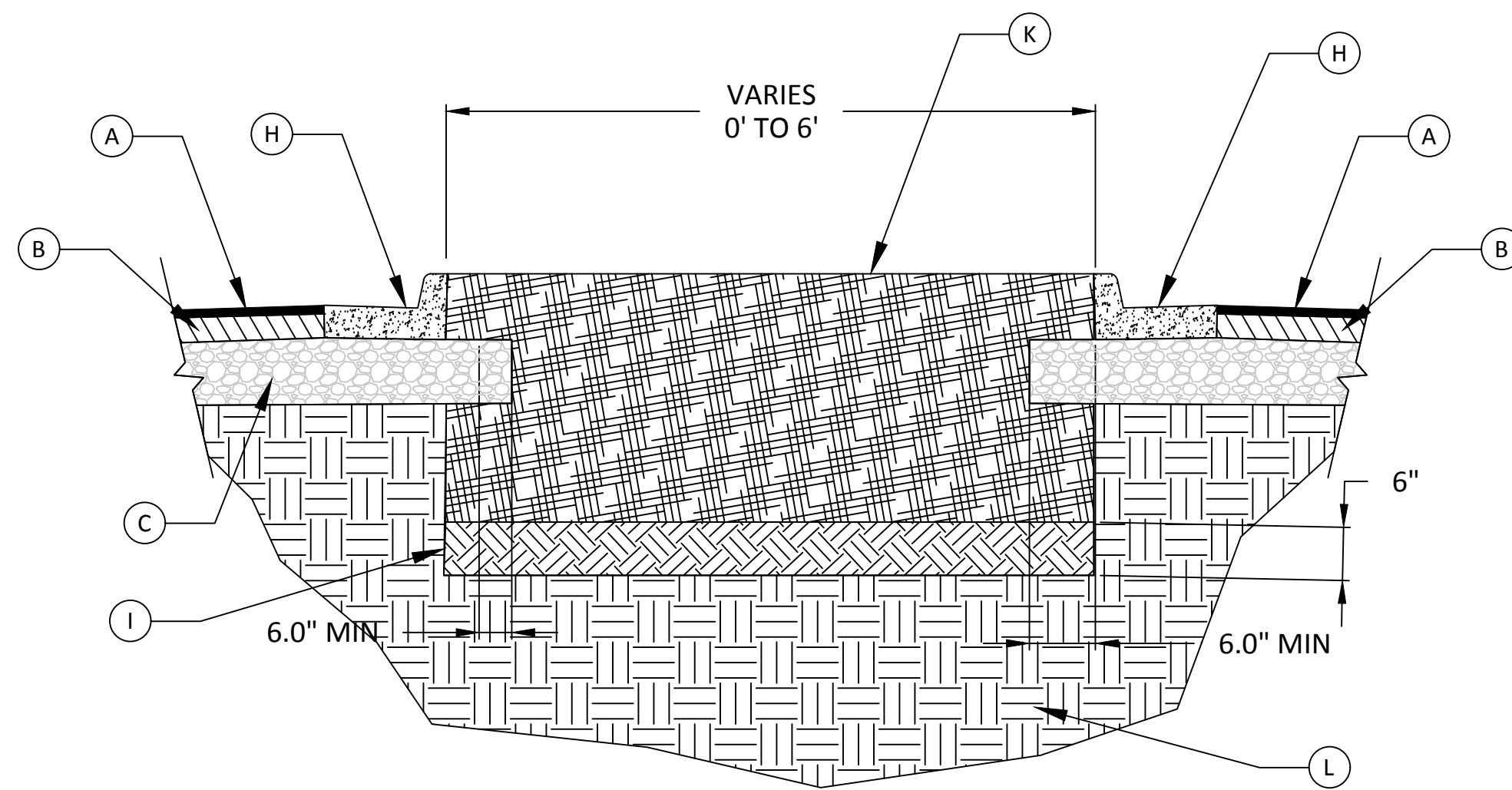
SHEET NUMBER:  
**C-5.7**

PROJECT NUMBER:  
**18001OCG**

DATE:  
**09/19/19**



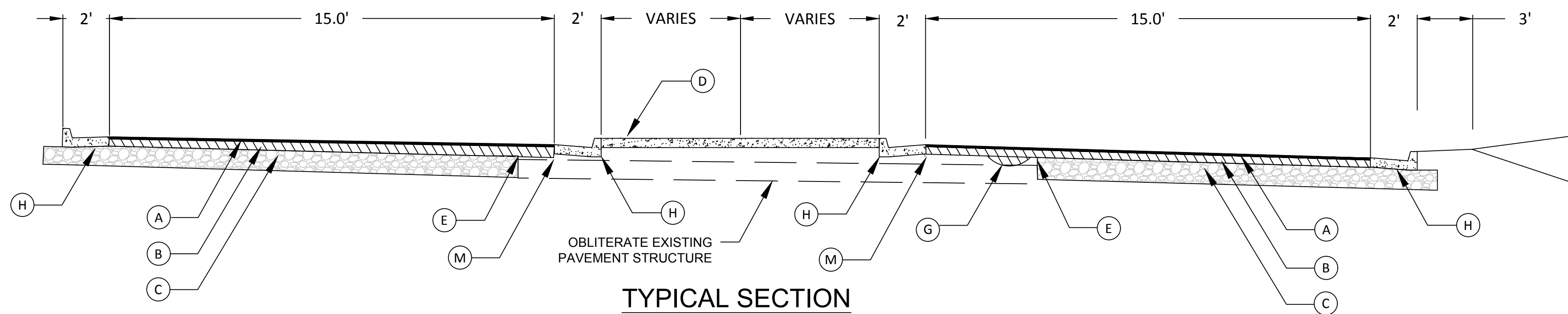
**CONCRETE DIVERTER ISLAND DETAIL**



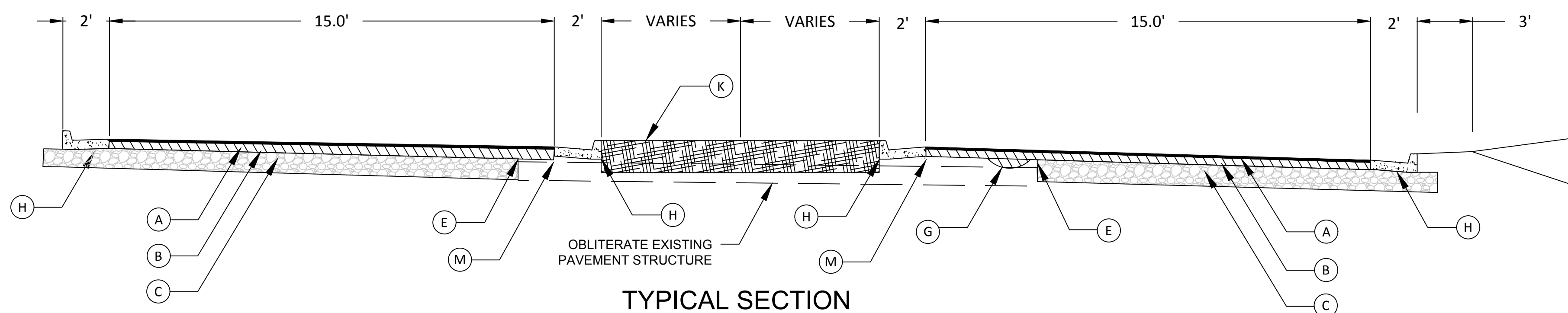
**LANDSCAPED DIVERTER ISLAND DETAIL**

**REQUIRED PAVEMENT LEGEND**

- (A) SURFACE - 1 1/2" RECYCLED ASPHALTIC CONCRETE, 12.5 mm SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME (165 LBS/YD)
- (B) ASPHALT BINDER COURSE - 4" RECYCLED ASPHALTIC CONCRETE, 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LBS/YD), 2" MAXIMUM LIFT THICKNESS
- (C) 8" GRADED AGGREGATE BASE
- (D) 4" THICK PORTLAND CEMENT CONCRETE
- (E) PAVEMENT REINFORCEMENT FABRIC
- (F) EXISTING ROAD STRUCTURE
- (G) ASPHALT LEVELING, AS REQUIRED
- (H) 6" X 24", CONC CURB AND GUTTER, TYPE 2
- (I) COMPACTED EARTH FILL
- (K) ADMIXTURE BACKFILL
- (L) NATIVE SOIL, REMOVE IMPERVIOUS DEBRIS
- (M) SAW CUT EXISTING ASPHALT

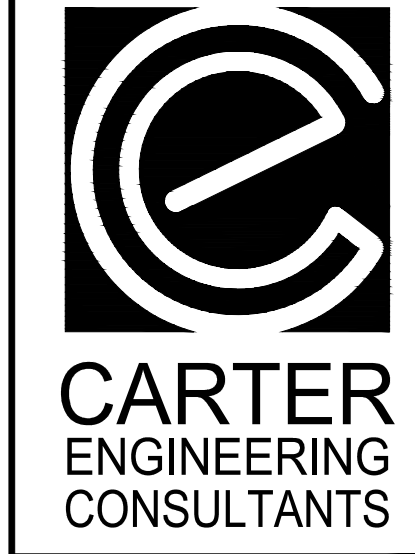
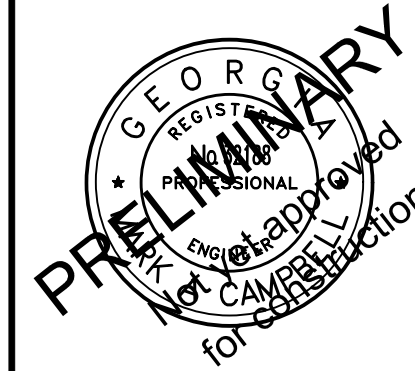


**TYPICAL SECTION**



**TYPICAL SECTION**

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PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**TYPICAL SECTION**

SHEET NUMBER:  
**C-5.8**

PROJECT NUMBER:  
**18001OCG**

DATE:  
**09/19/19**

STATION	SIDE	MALCOM BRIDGE HIGHWAY SIGNS							MALCOM BRIDGE SQUARE TUBE POST										
		SIGN CODE	TYPE 1 MATERIAL REFLECTED SHEETING TYPE 3			TYPE 1 MATERIAL REFLECTED SHEETING TYPE 9			TOTAL AREA (FT <sup>2</sup> )	CENTROID HEIGHT	TYPE 7			TYPE 8			TYPE 9		
			SIZE	QUANTITY	SQUARE FEET	SIZE	QUANTITY	SQUARE FEET			LENGTH (FT)	QUANTITY	TOTAL LENGTH	LENGTH (FT)	QUANTITY	TOTAL LENGTH	LENGTH (FT)	QUANTITY	TOTAL LENGTH
<b>MALCOM BRIDGE ROAD</b>																			
STA 18+00.00	RIGHT	W2-6				36" X 36"	1	9.00	9.00	10.4			0.00	17.00	1	17.00			0.00
		W16-17P				24" X 12"	1	2.00	2.00				0.00			0.00			0.00
STA 21+030.00	CENTER	R4-7				18" x 24"	1	3.00	3.00	8.5	13.00	1	13.00			0.00			0.00
STA 22+91.00	RIGHT	R1-2	36"	1	9.00				9.00	10.5			0.00			0.00	16.00	1	16.00
		R6-5P	30" X 30"	1	6.25				6.25				0.00			0.00			0.00
STA 23+30.00	RIGHT	R6-4				24" X 30"	1	5.00	5.00	8.5	12.00	1	12.00			0.00			0.00
STA 23+50.00	LEFT	R6-4				24" X 30"	1	5.00	5.00	8.5	12.00	1	12.00			0.00			0.00
STA 23+51.00	LEFT	R6-5P	30" X 30"	1	6.25				6.25				0.00			0.00			0.00
STA 23+82.00	CENTER	R6-4				24" X 30"	1	5.00	5.00	8.5	12.00	1	12.00			0.00			0.00
STA 24+27.00	LEFT	R1-2	36"	1	9.00				9.00	10.5			0.00			0.00	16.00	1	16.00
		R6-5P	30" X 30"	1	6.25				6.25				0.00			0.00			0.00
STA 26+21.00	CENTER	R4-7				18" x 24"	1	3.00	3.00	8.5	13.00	1	13.00			0.00			0.00
STA 29+27.00	LEFT	W2-6				36" X 36"	1	9.00	9.00	10.4			0.00	17.00	1	17.00			0.00
		W16-17P				24" X 12"	1	2.00	2.00				0.00			0.00			0.00

MALCOM BRIDGE EROSION AND SEDIMENT CONTROL SUMMARY							
	STONE DUMPED RIP RAP TYPE B, 12 INCH	TEMPORARY SILT FENCE TYPE "C"	MAINTENANCE OF TEMPORARY SILT FENCE TYPE "C"	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP S42-F	MAINTENANCE OF INLET SEDIMENT TRAP S42-F	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP S42-P "PIGS IN BLANKET"	MAINTENANCE OF INLET SEDIMENT TRAP S42-P "PIGS IN BLANKET"
	YARDS <sup>2</sup>	LINEAR FT	LINEAR FT	EACH	EACH	EACH	EACH
PHASE I		2,200	2,200				
PHASE II	30			7	7	7	7
PHASE III							
AS DIRECTED BY ENGINEER							
<b>TOTAL</b>	<b>30</b>	<b>2,200</b>	<b>2,200</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>

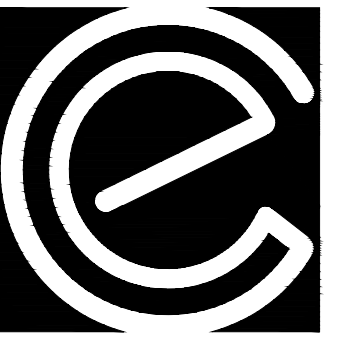
MALCOM BRIDGE SUMMARY OF ADJUSTMENTS	
REMOVE "STOP" SIGN	
SHEET C-3.0	EACH 1
AS DIRECTED BY ENGINEER	---
<b>TOTAL</b>	<b>1</b>

MALCOM BRIDGE PAVEMENT MARKING AND STRIPING		
DESCRIPTION	UNIT	QUANTITY
YIELD LINES FOR ROUNDABOUTS	LINEAR FT.	54.0
RAISED PAVEMENT MARKERS, YELLOW, TYPE 1	EACH	64.0
5" SOLID WHITE, THERMOPLASTIC	LINEAR FT.	147.0
5" SOLID YELLOW, THERMOPLASTIC	LINEAR FT.	1,470.0
5" SKIP WHITE, THERMOPLASTIC	LINEAR FT.	222.5
THERMOPLASTIC TRAFFIC STRIPE - YELLOW	YARDS <sup>2</sup>	87.5

- NOTES:
1. ALL SYMBOLS SHALL BE WHITE UNLESS OTHERWISE SPECIFIED. SEE PLANS FOR LOCATION.
  2. ALL ARROWS SHALL BE WHITE UNLESS OTHERWISE SPECIFIED. SEE PLANS FOR LOCATION.
  3. ALL THERMOPLASTIC EDGE LINES SHALL BE 0.060 INCHES IN THICKNESS.  
ALL OTHER THERMOPLASTIC MARKINGS SHALL BE 0.090 INCHES IN THICKNESS.

MALCOM BRIDGE PAVING QUANTITIES											
AS DIRECTED BY ENGINEER	ASPHALTIC CONCRETE LEVELING, VARIABLE DEPTH	GRADED AGGREGATE BASE COURSE INCLUDING MATERIAL	SURFACE RECYCLED ASPHALTIC CONCRETE 12 MM SUPERPAVE GP 1 OR GP 2 INCL. BIT. MATL. AND HYDRATED LIME	SURFACE RECYCLED ASPHALTIC CONCRETE 12 MM SUPERPAVE GP 1 OR GP 2 INCL. BIT. MATL. AND HYDRATED LIME	ASPHALT BINDER COURSE RECYCLED ASPHALTIC CONCRETE 19 MM SUPERPAVE GP 1 OR GP 2 INCL. BIT. MATL. AND HYDRATED LIME	ASPHALT BINDER COURSE RECYCLED ASPHALTIC CONCRETE 19 MM SUPERPAVE GP 1 OR GP 2 INCL. BIT. MATL. AND HYDRATED LIME	CLASS 3 PC CONCRETE PAVEMENT 10 INCH THICK, COLORED RED STAMPED COBBLE PATTERN	PAVEMENT REINFORCEMENT FABRIC STRIPS, TYPE 2 18 INCH WIDTHS	CONCRETE CURB AND GUTTER 6 INCH X 24 INCH TYPE 2	CONCRETE HEADER CURB 6 INCH TYPE 7	CONCRETE HEADER CURB 4 INCH TYPE 9
20,560	465	35	71	93	188	275	290	2,250	175	250	
<b>TOTAL</b>	<b>20,560</b>	<b>465</b>	<b>35</b>	<b>71</b>	<b>93</b>	<b>188</b>	<b>275</b>	<b>290</b>	<b>2,250</b>	<b>175</b>	<b>250</b>

MALCOM BRIDGE STORM DRAIN QUANTITIES								
PIPE NO.	STRUCTURE NO.	ALIGNMENT	STATION	SIDE	LINEAR FT.	STORM DRAIN PIPE 18" RCP	HEADWALL-STD 1001B CLASS "A" CONCRETE INCLUDING REBAR	HOODED GRATE INLET GDOT STD 1019AP
1	---	MALCOMB BRIDGE RD.	STA 1+10.31	RIGHT	10.00			
2	---	MALCOMB BRIDGE RD.	STA 1+10.31	RIGHT	95.40			
3	---	MALCOMB BRIDGE RD.	STA 1+08.48	RIGHT	61.40			
4	---	MALCOMB BRIDGE RD.	STA 26+54.62	RIGHT	65.50			
5	---	MALCOMB BRIDGE RD.	STA 26+54.62	RIGHT	97.20			
6	---	MALCOMB BRIDGE RD.	STA 26+54.62	RIGHT	103.00			
7	---	MALCOMB BRIDGE RD.	STA 26+54.62	RIGHT	51.60			
---	A-1	MALCOMB BRIDGE RD.	STA 1+01.68	RIGHT			1	
---	A-2	MALCOMB BRIDGE RD.	STA 1+10.31	RIGHT				1
---	A-3	MALCOMB BRIDGE RD.	STA 1+10.31	RIGHT				2
---	A-4	MALCOMB BRIDGE RD.	STA 1+08.48	RIGHT				1
---	A-5	MALCOMB BRIDGE RD.	STA 26+90.47	RIGHT				1
---	B-1	MALCOMB BRIDGE RD.	STA 26+54.62	RIGHT			1	
---	B-2	MALCOMB BRIDGE RD.	STA 26+54.62	RIGHT				1
---	B-3	MALCOMB BRIDGE RD.	STA 26+54.62	RIGHT				1
---	B-4	MALCOMB BRIDGE RD.	STA 24+96.36	RIGHT				1
<b>TOTAL</b>						<b>484.10</b>	<b>2</b>	<b>8</b>



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**ROUNDABOUT PLANS**  
for  
**OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**MALCOM BRIDGE QUANTITIES**

SHEET NUMBER:  
**C-6.0**

PROJECT NUMBER:  
**18001OCG**

DATE:  
**09/19/19**

REVISION BLOCK:			
REV #	DATE	REVISION	INITIALS
A	08/02/2019	INITIAL SUBMITTAL	
B	09/19/2019	REVISED PER COUNTY COMMENTS	





**TABLE NO. 1R ROUND PIPE - SPIRAL RIB STEEL - SPIRAL RIB ALUMINUM**

MINIMUM THICKNESS

PIPE DIAMETER	TYPE	MINIMUM THICKNESS	1+0	10-15	15-20	20-25	25-30	30-35	35-40	40-50	50-60	60-70	70-80	80-90
12	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
15	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
18	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
24	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
30	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
36	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
42	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
48	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
54	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
60	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
66	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
72	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
78	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
84	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
90	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
96	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
102	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
108	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
114	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
120	STEEL	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

**DEPARTMENT OF TRANSPORTATION**  
STATE OF GEORGIA

**STANDARD CONCRETE & METAL PIPE CULVERTS**  
SHEET 3 OF 3  
(FILL HEIGHTS FOR SPIRAL RIB METAL PIPE & FOR PIPE ARCH)

NO SCALE

DESIGNED BY: [Signature]  
CHECKED BY: [Signature]  
DATE: SEPT., 2001

NUMBER 1030D

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

**DETAIL OF TOP SLAB, REINFORCEMENT & CLEARANCES REQ'D.**

**CASTING DETAILS**

**CONSTRUCTION ALTERNATES**

**DEPARTMENT OF TRANSPORTATION**  
STATE OF GEORGIA

**STANDARD CATCH BASINS**  
FOR USE WITH CURB 12" HT. OR 4" HT. IN GUTTER

SCALE AS SHOWN

DESIGNED BY: [Signature]  
CHECKED BY: [Signature]  
DATE: SEPT., 1992

NUMBER 1033D

**METAL FLARED END SECTION**  
(USE ONLY WITH CORR. METAL PIPE)

**CONCRETE FLARED END SECTION**

**FLARED END SECTION DIMENSIONS**

PIPE DIA.	THICKNESS	A	B	H	MIN. RADIUS	MIN. RADIUS	MIN. RADIUS
12	1/8"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
15	1/8"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"
18	1/8"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"
24	1/8"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"
30	1/8"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"
36	1/8"	5 1/4"	5 1/4"	5 1/4"	5 1/4"	5 1/4"	5 1/4"
42	1/8"	6 1/4"	6 1/4"	6 1/4"	6 1/4"	6 1/4"	6 1/4"
48	1/8"	7 1/4"	7 1/4"	7 1/4"	7 1/4"	7 1/4"	7 1/4"
54	1/8"	8 1/4"	8 1/4"	8 1/4"	8 1/4"	8 1/4"	8 1/4"
60	1/8"	9 1/4"	9 1/4"	9 1/4"	9 1/4"	9 1/4"	9 1/4"
66	1/8"	10 1/4"	10 1/4"	10 1/4"	10 1/4"	10 1/4"	10 1/4"
72	1/8"	11 1/4"	11 1/4"	11 1/4"	11 1/4"	11 1/4"	11 1/4"
78	1/8"	12 1/4"	12 1/4"	12 1/4"	12 1/4"	12 1/4"	12 1/4"
84	1/8"	13 1/4"	13 1/4"	13 1/4"	13 1/4"	13 1/4"	13 1/4"
90	1/8"	14 1/4"	14 1/4"	14 1/4"	14 1/4"	14 1/4"	14 1/4"
96	1/8"	15 1/4"	15 1/4"	15 1/4"	15 1/4"	15 1/4"	15 1/4"
102	1/8"	16 1/4"	16 1/4"	16 1/4"	16 1/4"	16 1/4"	16 1/4"
108	1/8"	17 1/4"	17 1/4"	17 1/4"	17 1/4"	17 1/4"	17 1/4"
114	1/8"	18 1/4"	18 1/4"	18 1/4"	18 1/4"	18 1/4"	18 1/4"
120	1/8"	19 1/4"	19 1/4"	19 1/4"	19 1/4"	19 1/4"	19 1/4"

**DEPARTMENT OF TRANSPORTATION**  
STATE OF GEORGIA

**STANDARD FLARED END SECTIONS FOR PIPES**

NO SCALE

DESIGNED BY: [Signature]  
CHECKED BY: [Signature]  
DATE: SEPT., 1999

NUMBER 1120

**ALTERNATE I**

**GENERAL NOTES**

**SIZES, DIMENSIONS, AND THICKNESSES**

PIPE DIA. (IN.)	MIN. THICK. (IN.)	MIN. GAGE (IN.)	MIN. RADIUS (IN.)	MIN. RADIUS (IN.)	MIN. RADIUS (IN.)	MIN. RADIUS (IN.)	MIN. RADIUS (IN.)
12	1/8"	1/8"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
15	1/8"	1/8"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"
18	1/8"	1/8"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"
24	1/8"	1/8"	3 1/4"	3 1/4"	3 1/4"	3 1/4"	3 1/4"
30	1/8"	1/8"	4 1/4"	4 1/4"	4 1/4"	4 1/4"	4 1/4"
36	1/8"	1/8"	5 1/4"	5 1/4"	5 1/4"	5 1/4"	5 1/4"
42	1/8"	1/8"	6 1/4"	6 1/4"	6 1/4"	6 1/4"	6 1/4"
48	1/8"	1/8"	7 1/4"	7 1/4"	7 1/4"	7 1/4"	7 1/4"

**DEPARTMENT OF TRANSPORTATION**  
STATE OF GEORGIA

**STANDARD SAFETY END SECTION (METAL)**  
FOR SIDE DRAIN PIPE OR FOR STORM DRAIN PIPE PARALLEL TO MARLINE

NO SCALE

DESIGNED BY: [Signature]  
CHECKED BY: [Signature]  
DATE: SEPT., 1993

NUMBER 1122

SHEET 1 OF 3

**PRELIMINARY**  
No Change Approved for Construction

**CARTER ENGINEERING CONSULTANTS**

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F: 770.725.1204  
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**ROUNDABOUT PLANS**  
for  
**OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

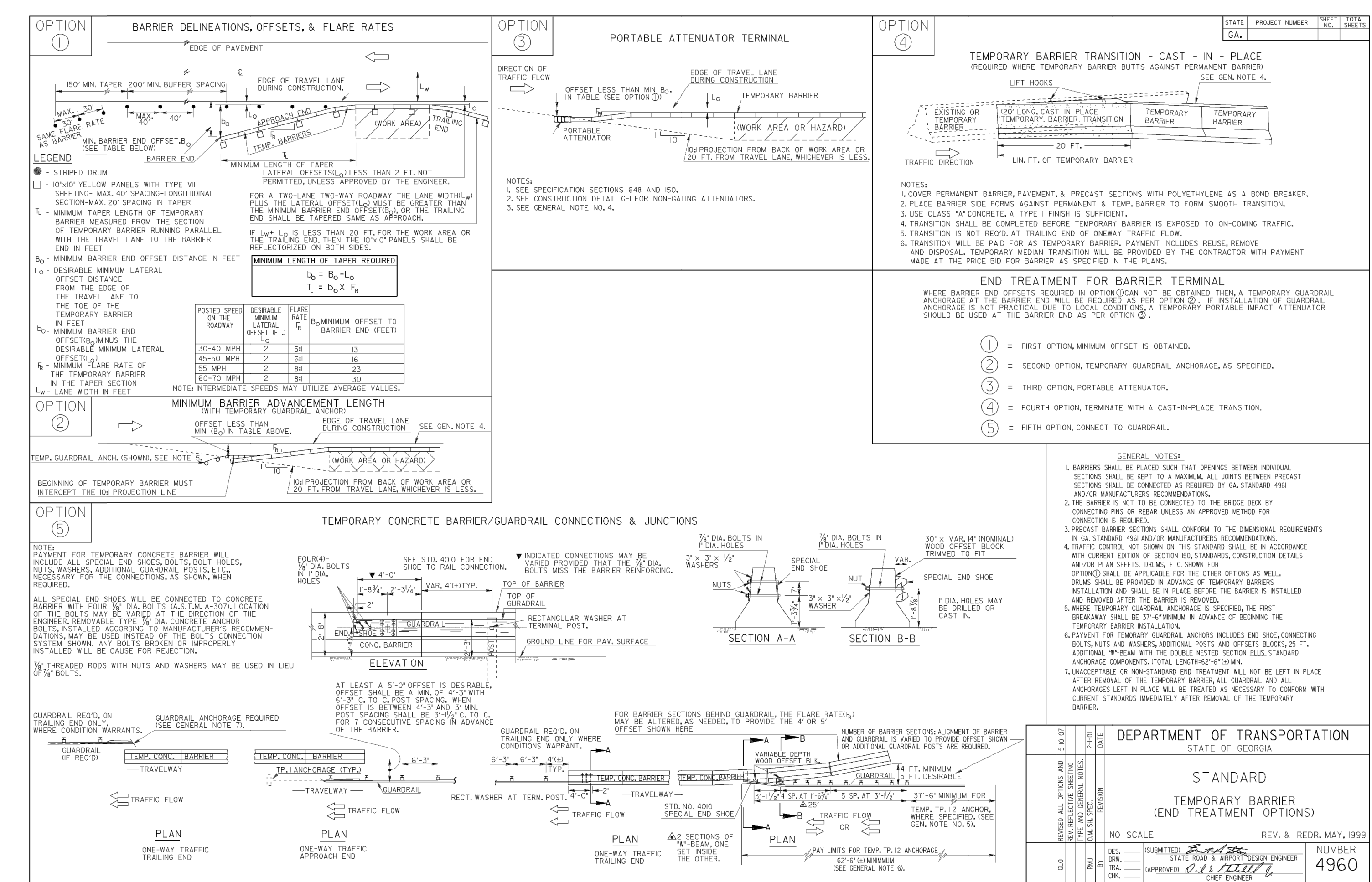
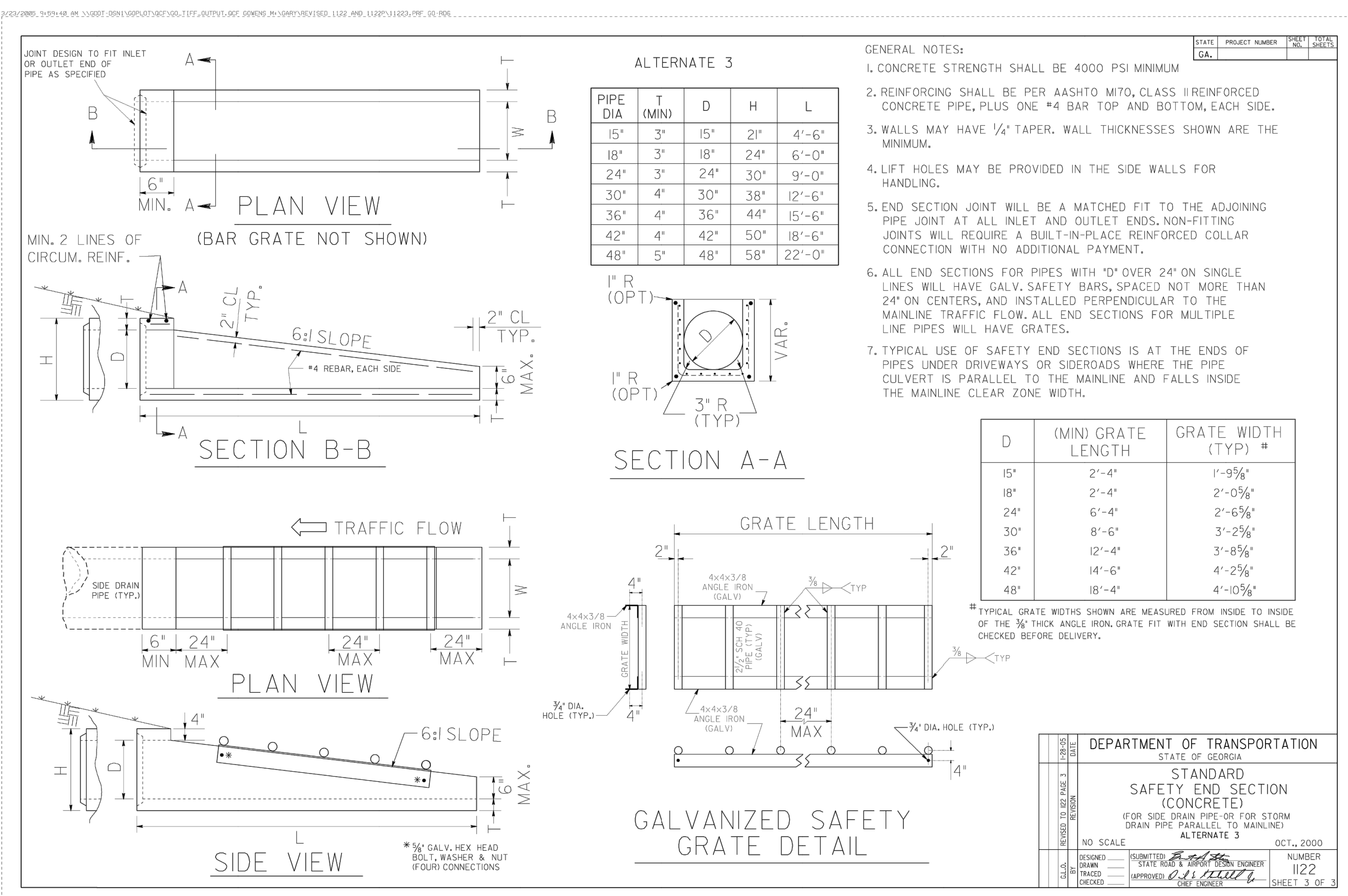
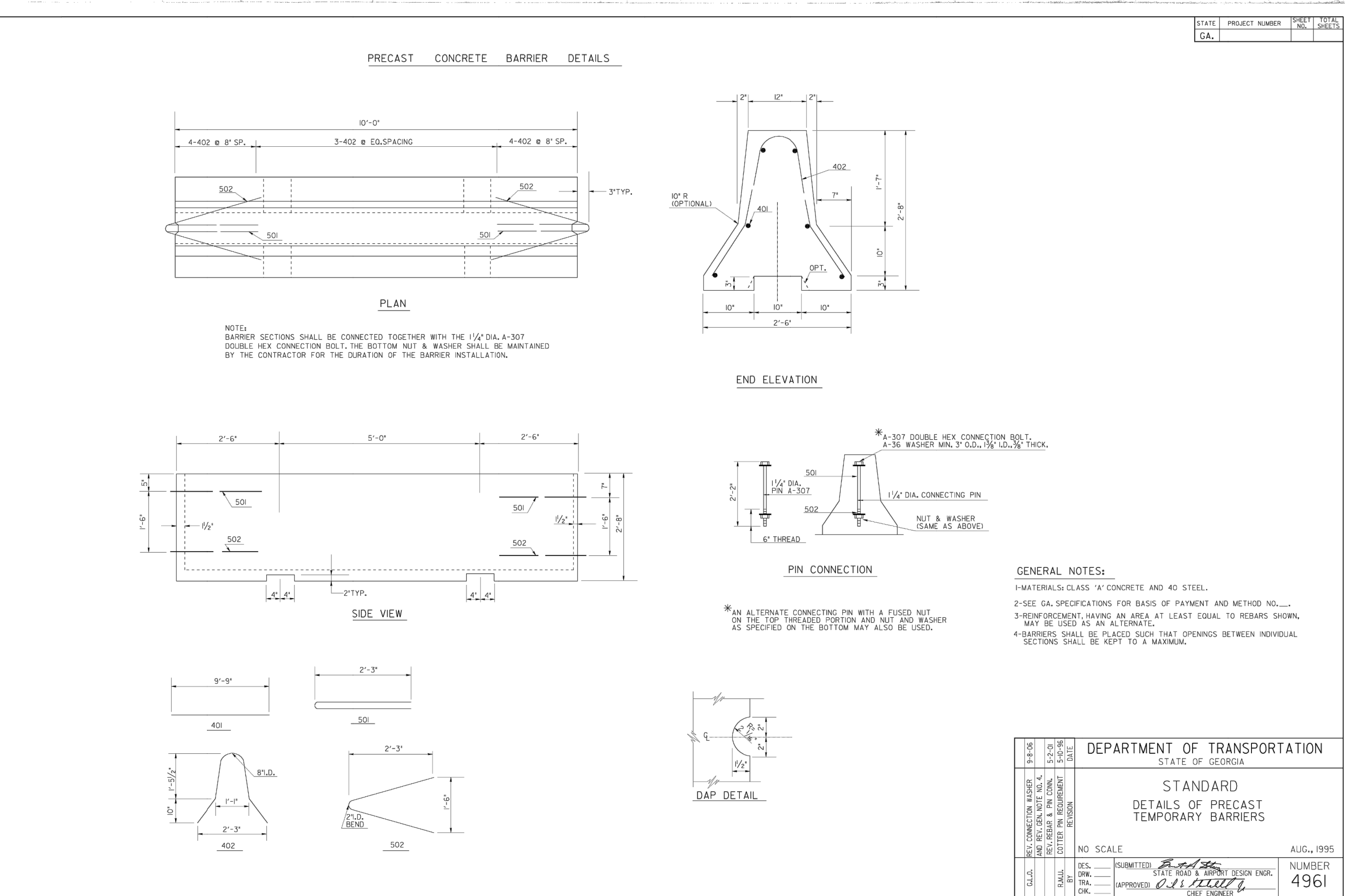
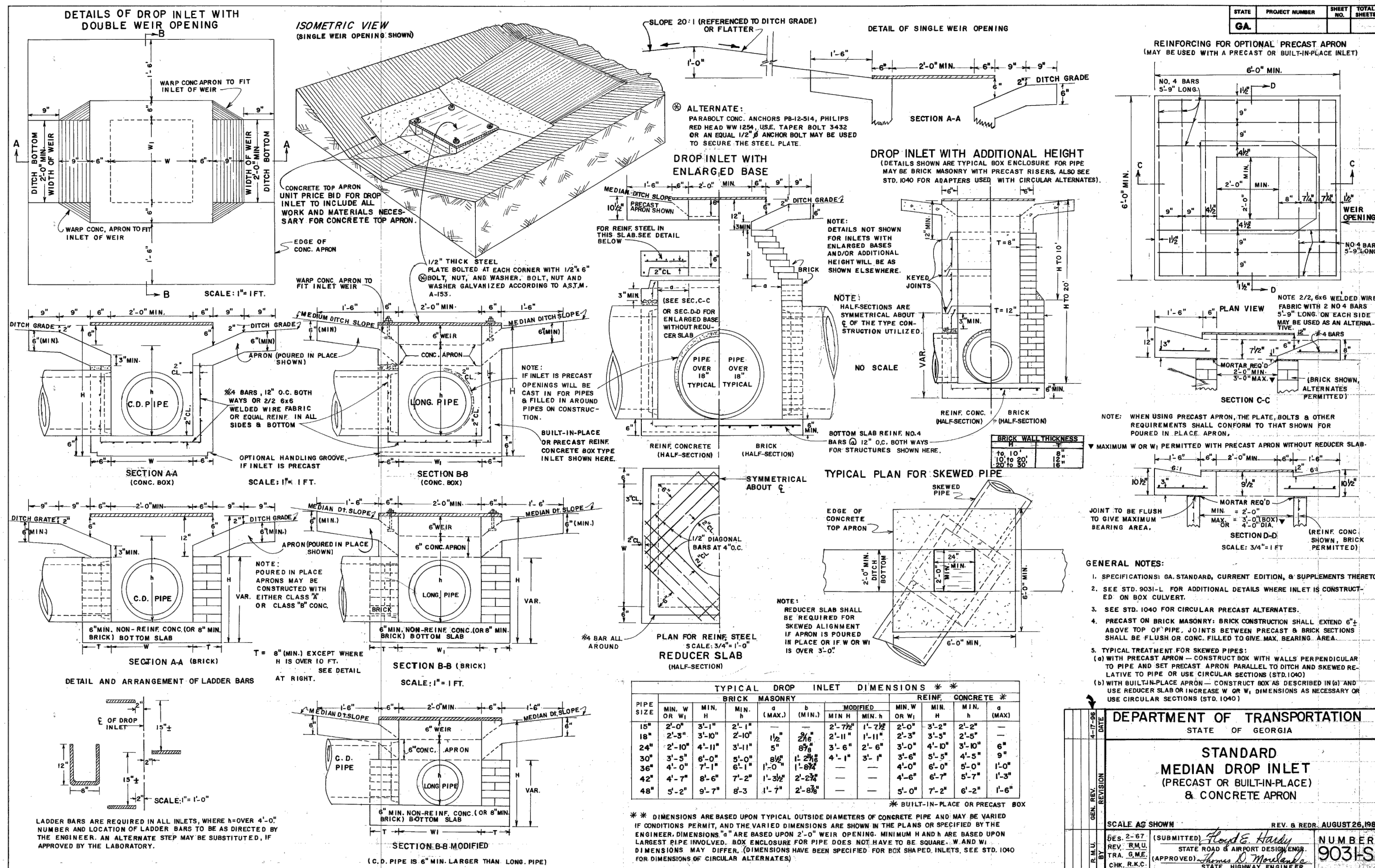
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**STANDARD DETAILS**

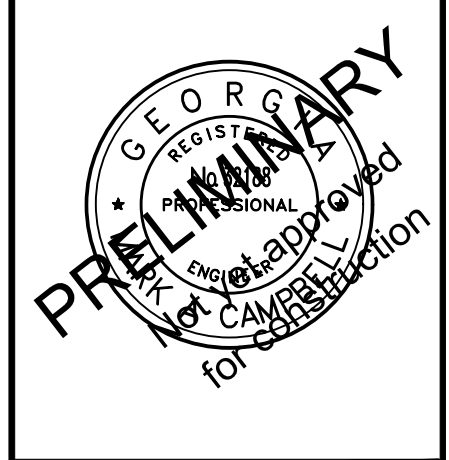
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**D-1.1**

PROJECT NUMBER:  
**18010CG**

DATE:  
**09/19/19**



REVISION	DATE	BY	CHKD.	REASON
1	08/02/2019	A		INITIAL SUBMITTAL
2	09/19/2019	B		REVISED PER COUNTY COMMENTS



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**ROUNDABOUT PLANS** for **OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFIBUS ENTRANCE AND MALCOM BRIDGE RD.

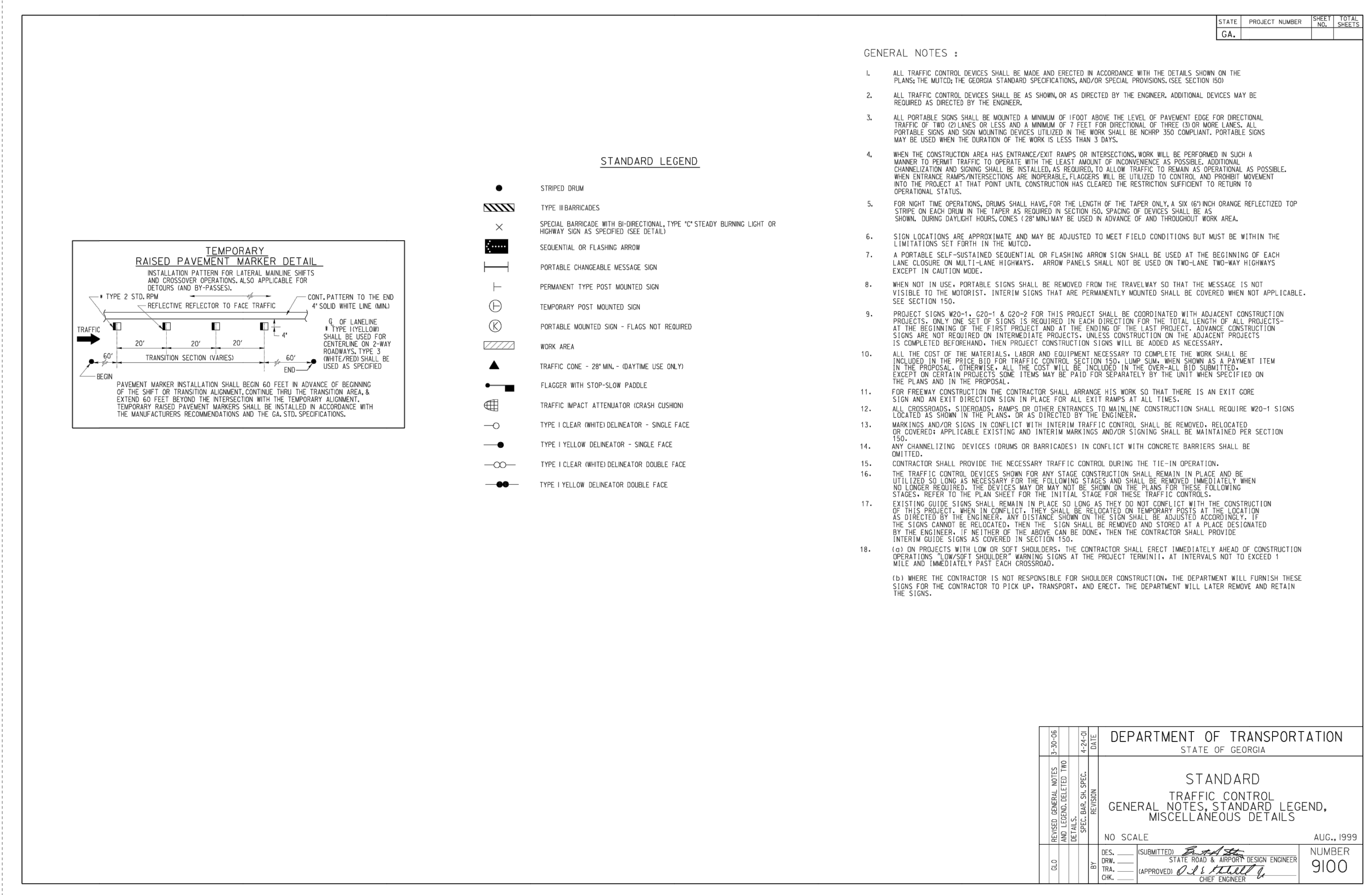
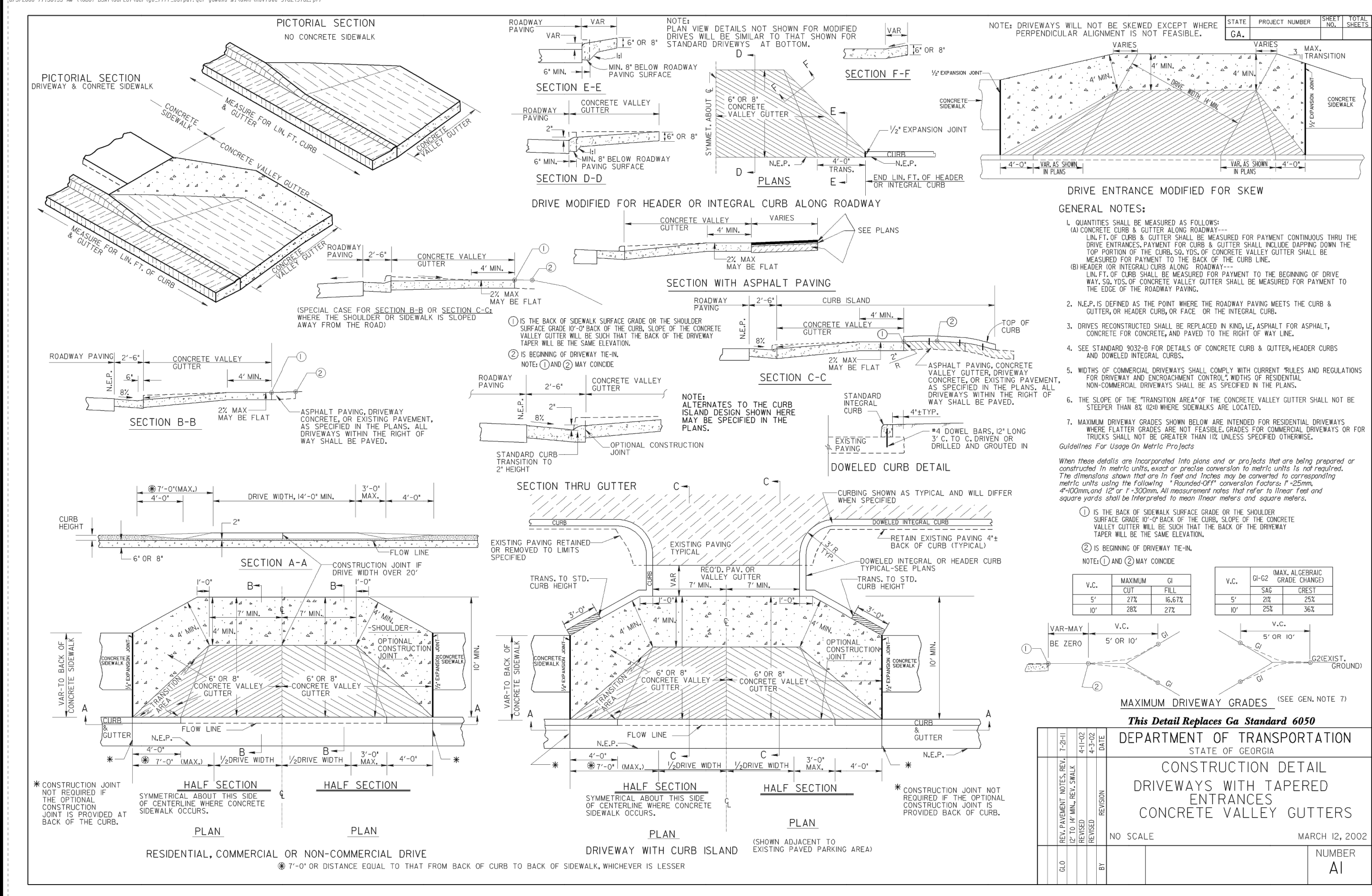
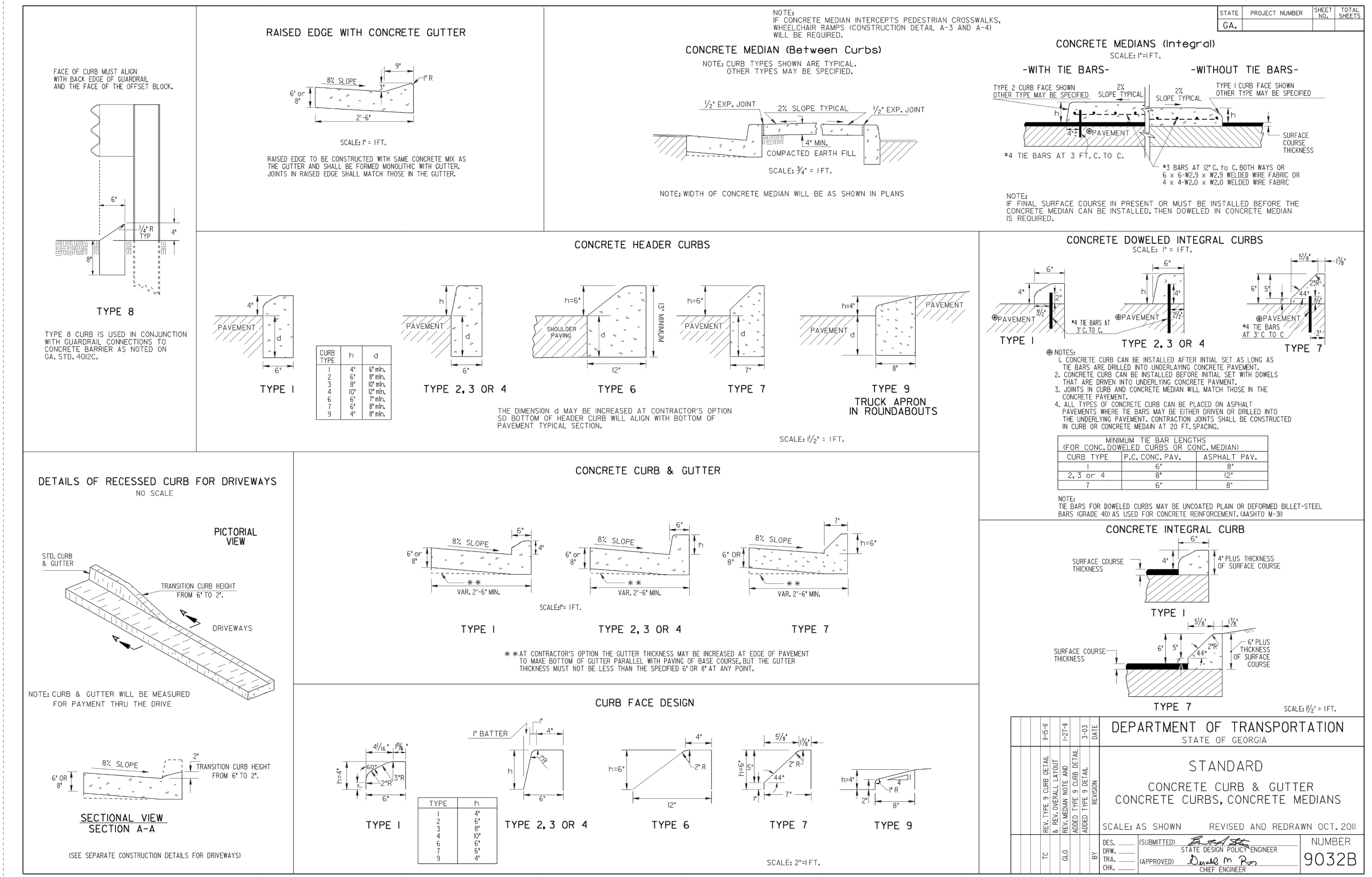
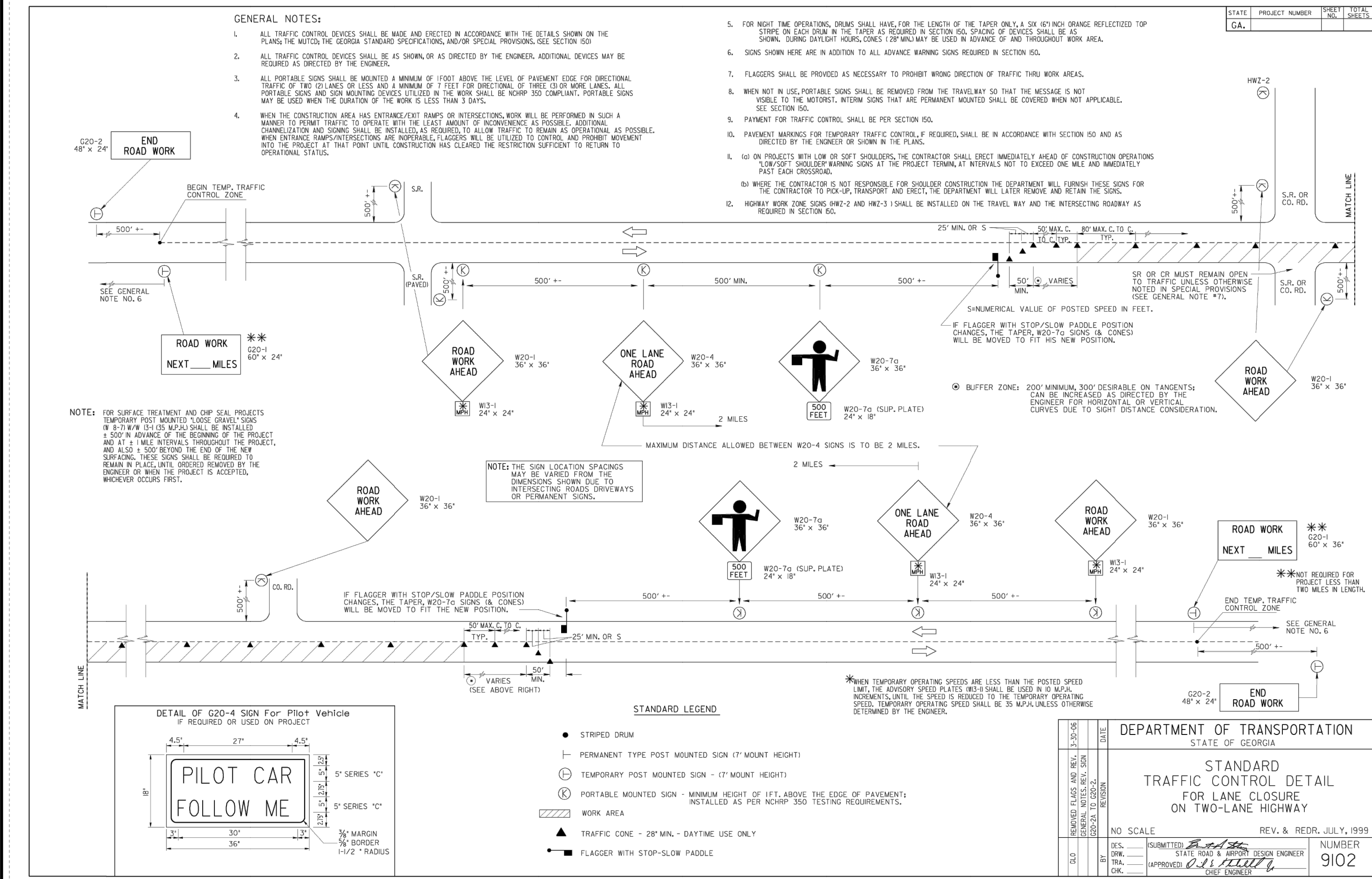
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**SHEET TITLE:** STANDARD DETAILS

**SHEET NUMBER:** D-1.2

**PROJECT NUMBER:** 18010CG

**DATE:** 09/19/19



REVISION BLOCK

REV #	DATE	REVISION	INITIALS	SUBMITTAL	REVISED PER COUNTY COMMENTS
A	08/23/2019				
B	09/19/2019				

**PRELIMINARY**  
 NOT FOR CONSTRUCTION

**CARTER ENGINEERING CONSULTANTS**  
 Carter Engineering Consultants, Inc.  
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 Watkinsville, GA 30677  
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**ROUNDABOUT PLANS**  
 for  
**OCONEE COUNTY GOVERNMENT**  
 MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

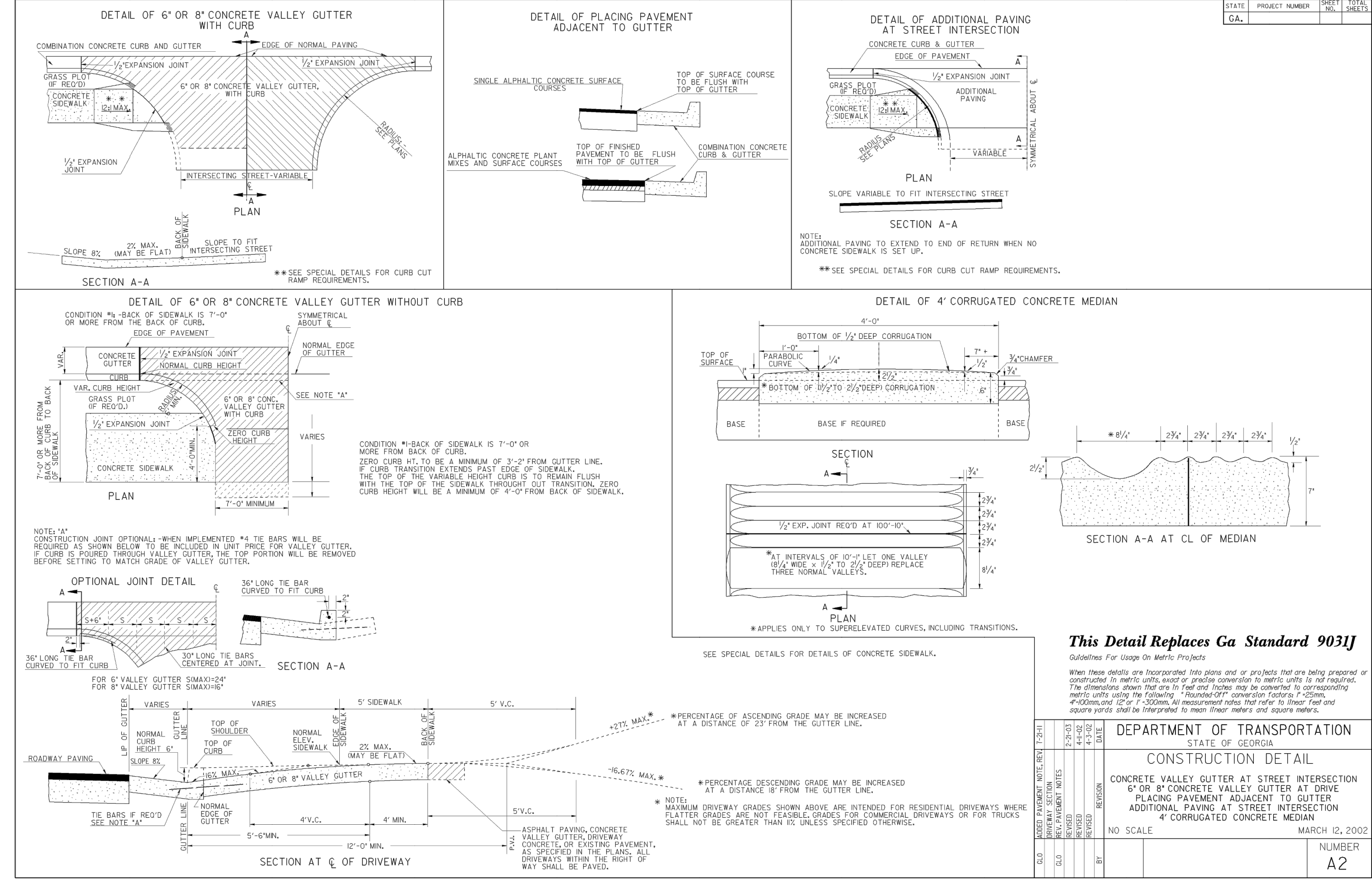
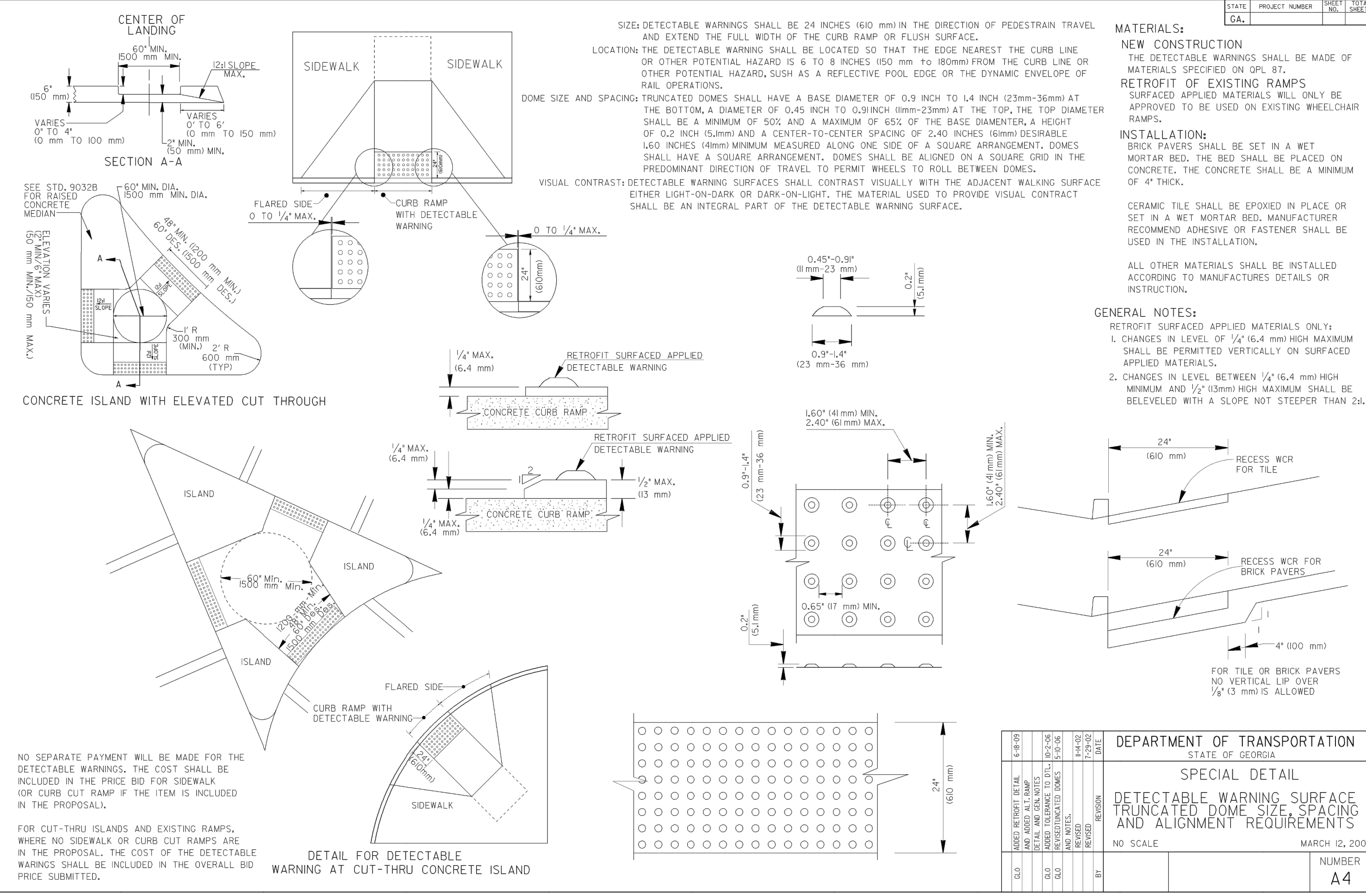
PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**STANDARD DETAILS**

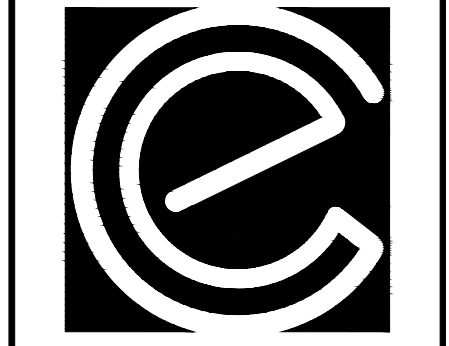
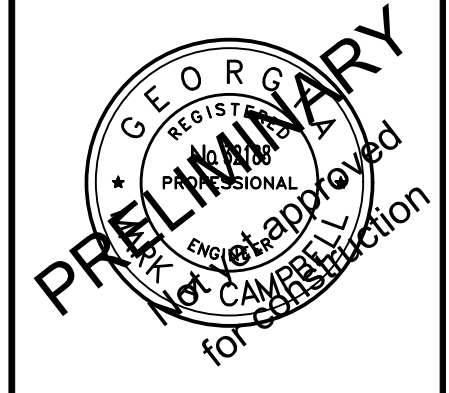
SHEET NUMBER:  
**D-1.3**

PROJECT NUMBER:  
**180110CG**

DATE:  
**09/19/19**

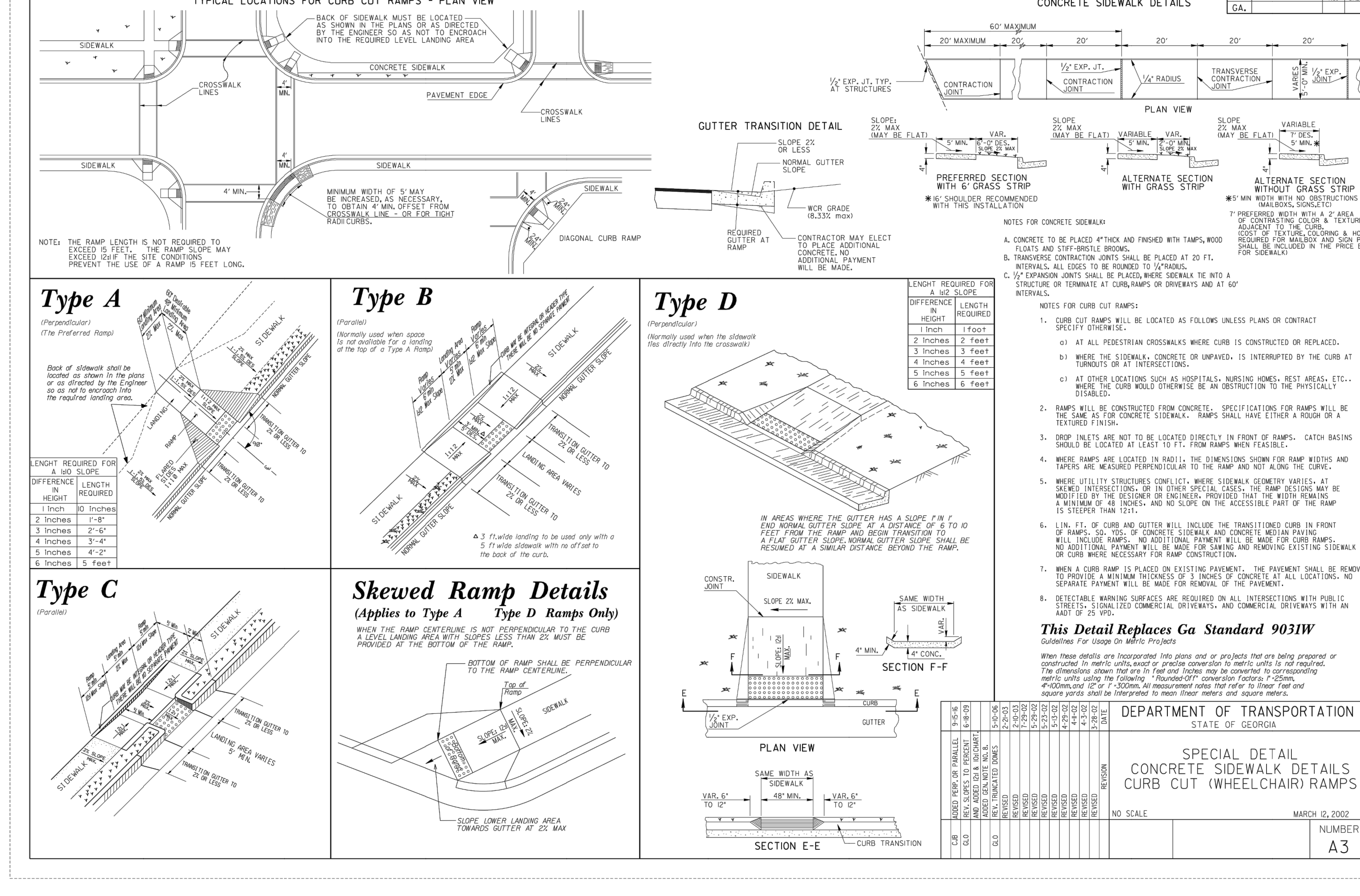
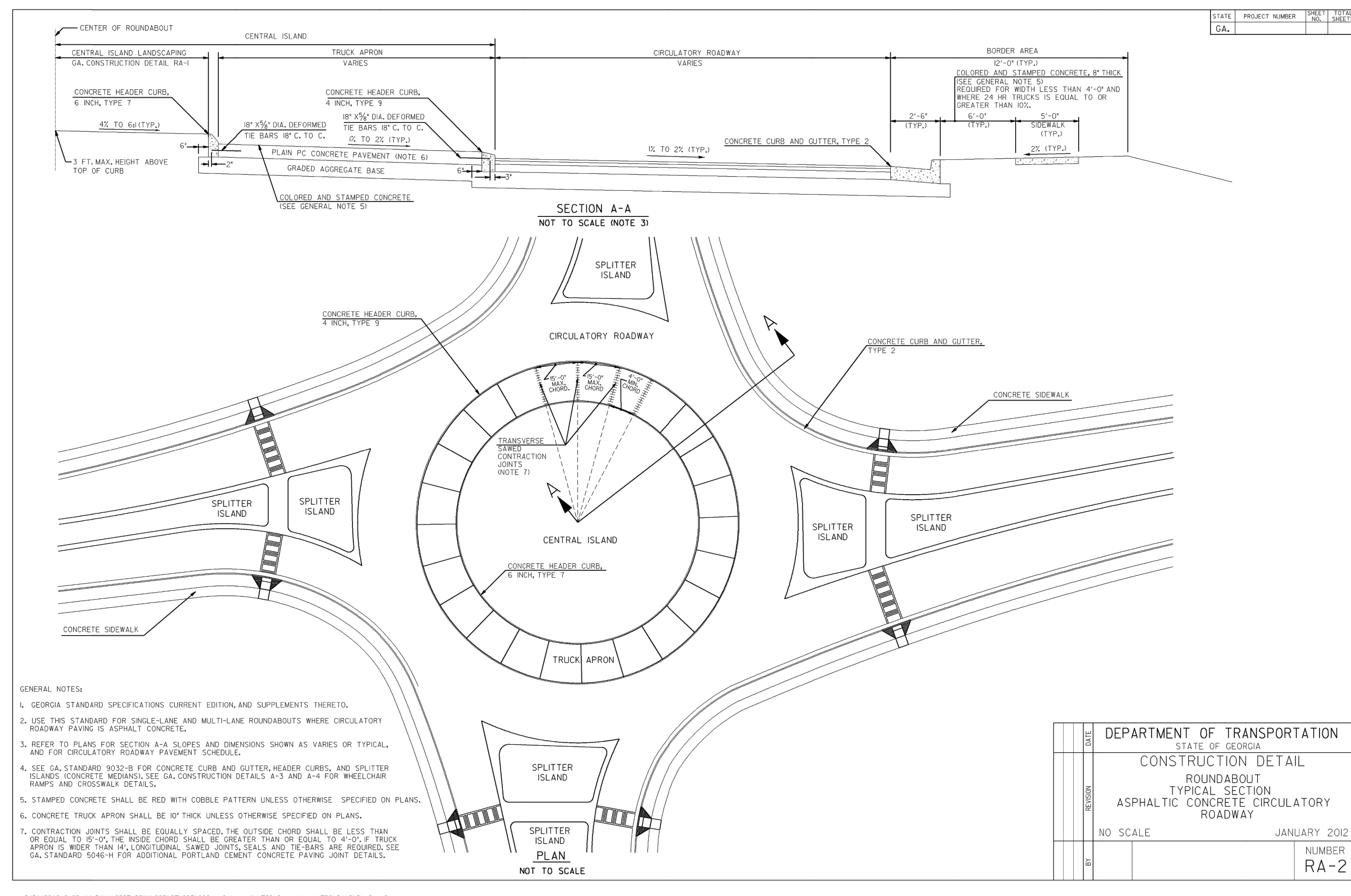


NO.	REVISION	DATE	REVISION
1			
2			



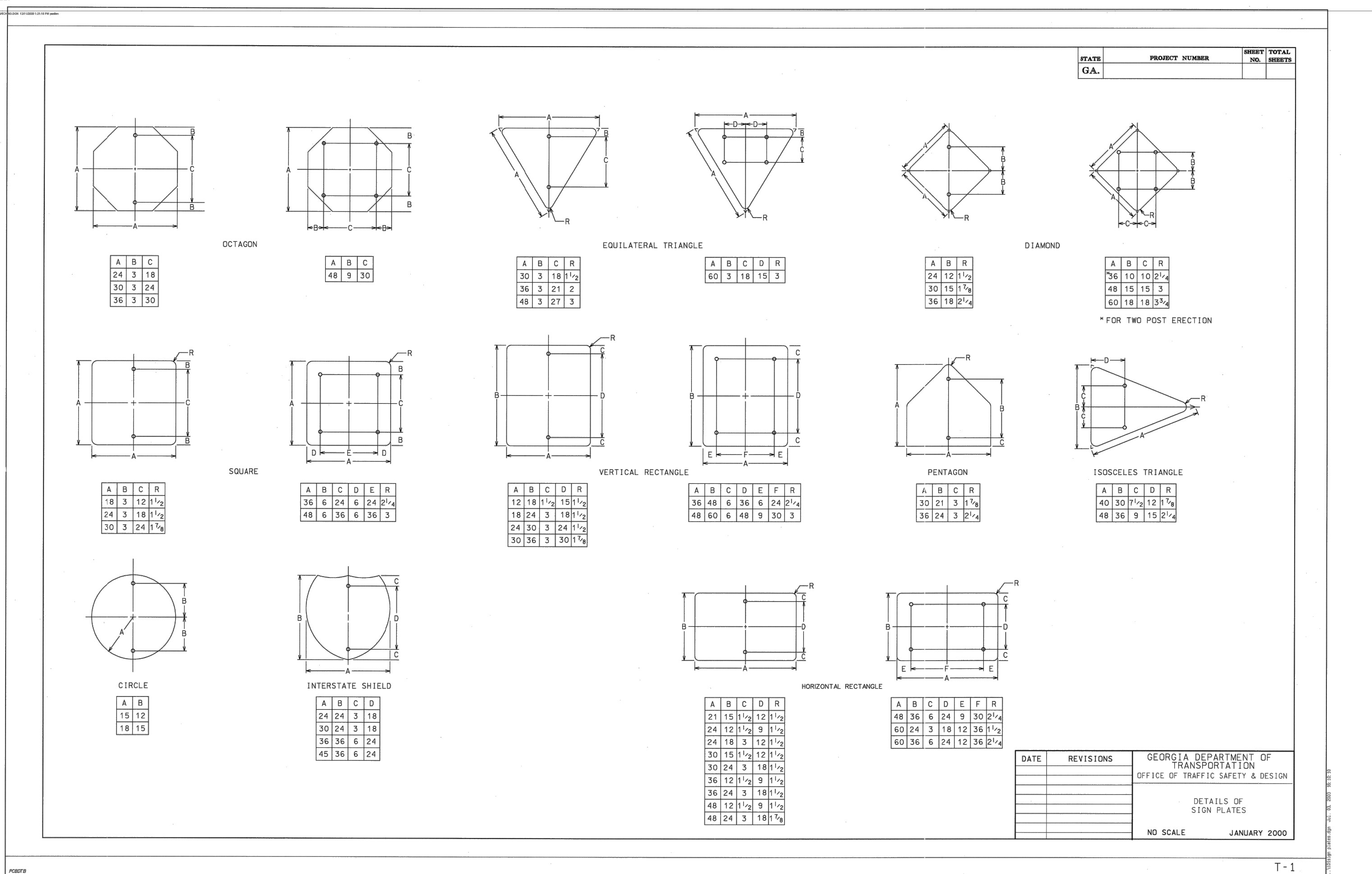
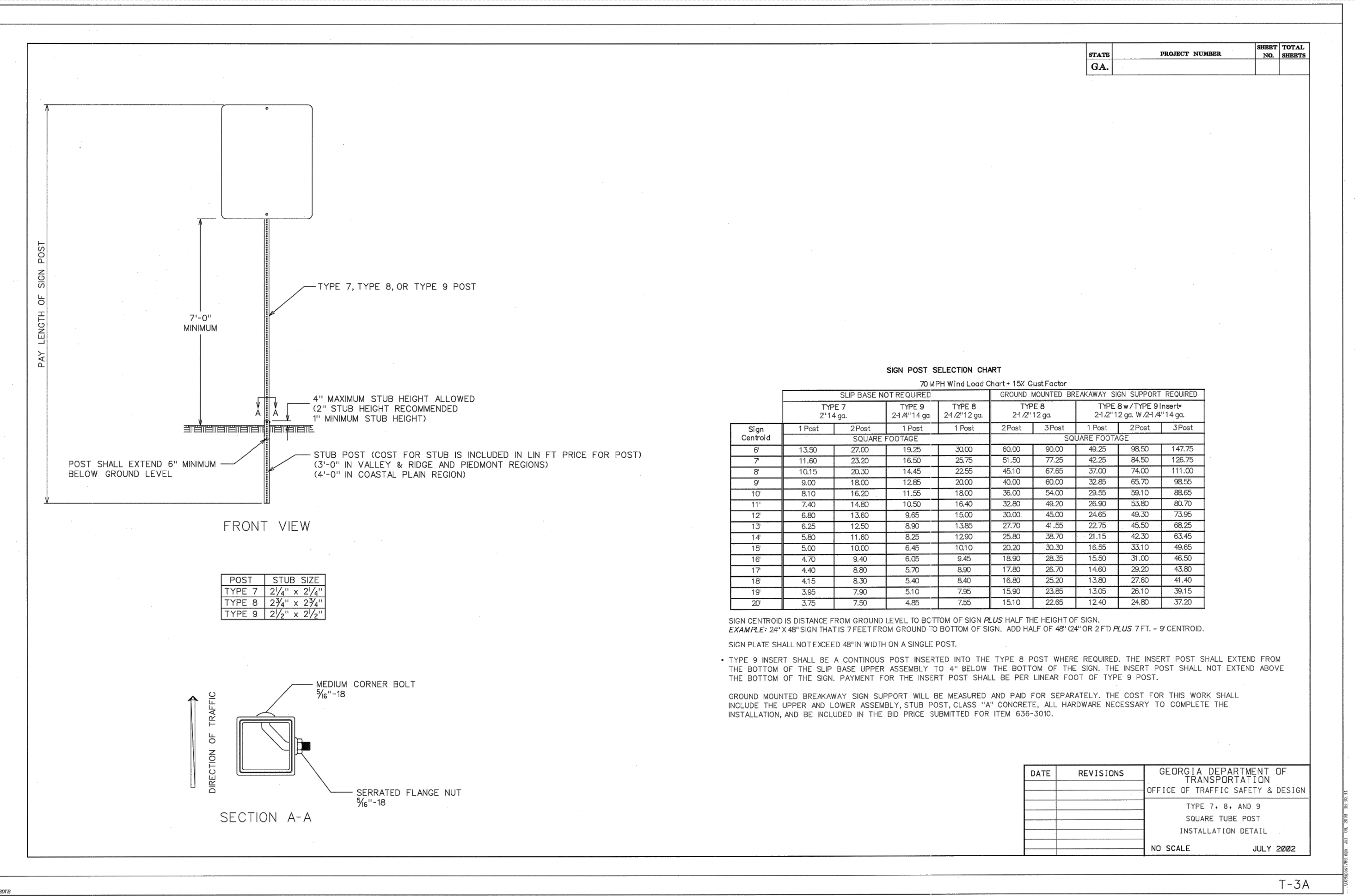
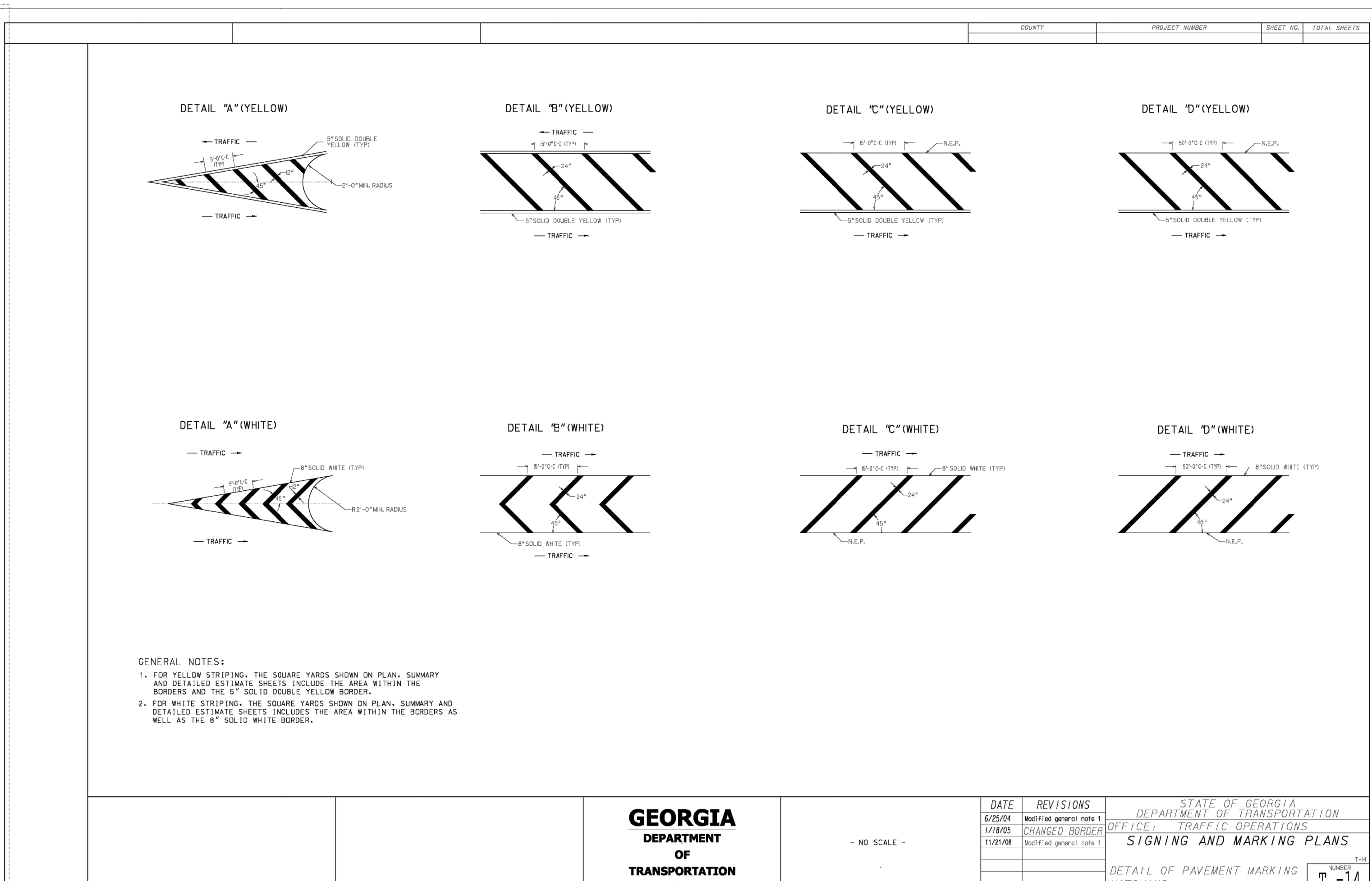
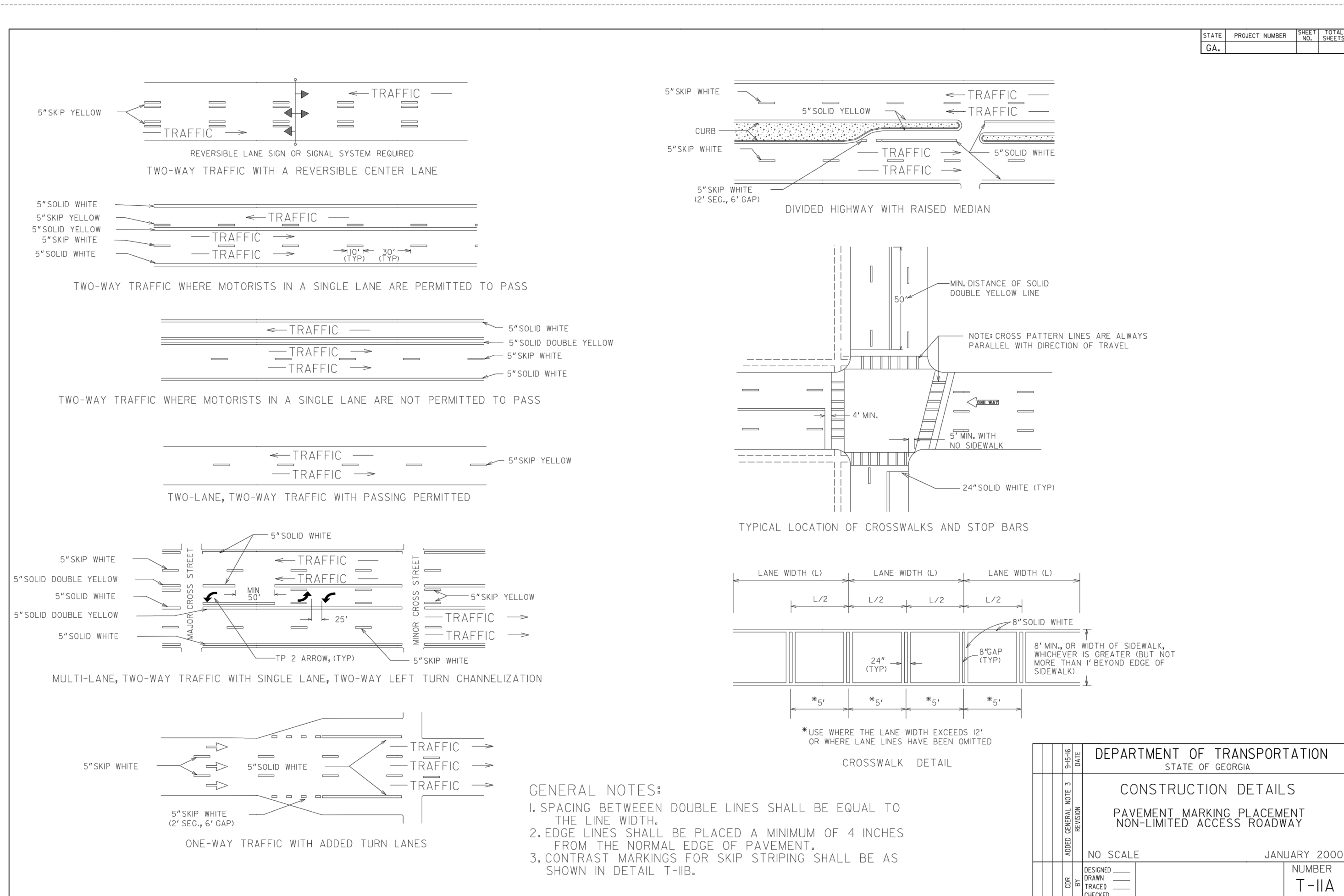
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**ROUNDABOUT PLANS**  
for  
**OCONEE COUNTY GOVERNMENT**  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME:  
**ROUNDABOUT PLANS**  
SHEET TITLE:  
**STANDARD DETAILS**  
SHEET NUMBER:  
**D-1.4**  
PROJECT NUMBER:  
**18010CG**  
DATE:  
**09/19/19**



REVISION BLOCK:

REV. #	DATE	REVISION
A	08/02/2019	INITIAL SUBMITTAL
B	09/19/2019	REVISED PER COUNTY COMMENTS

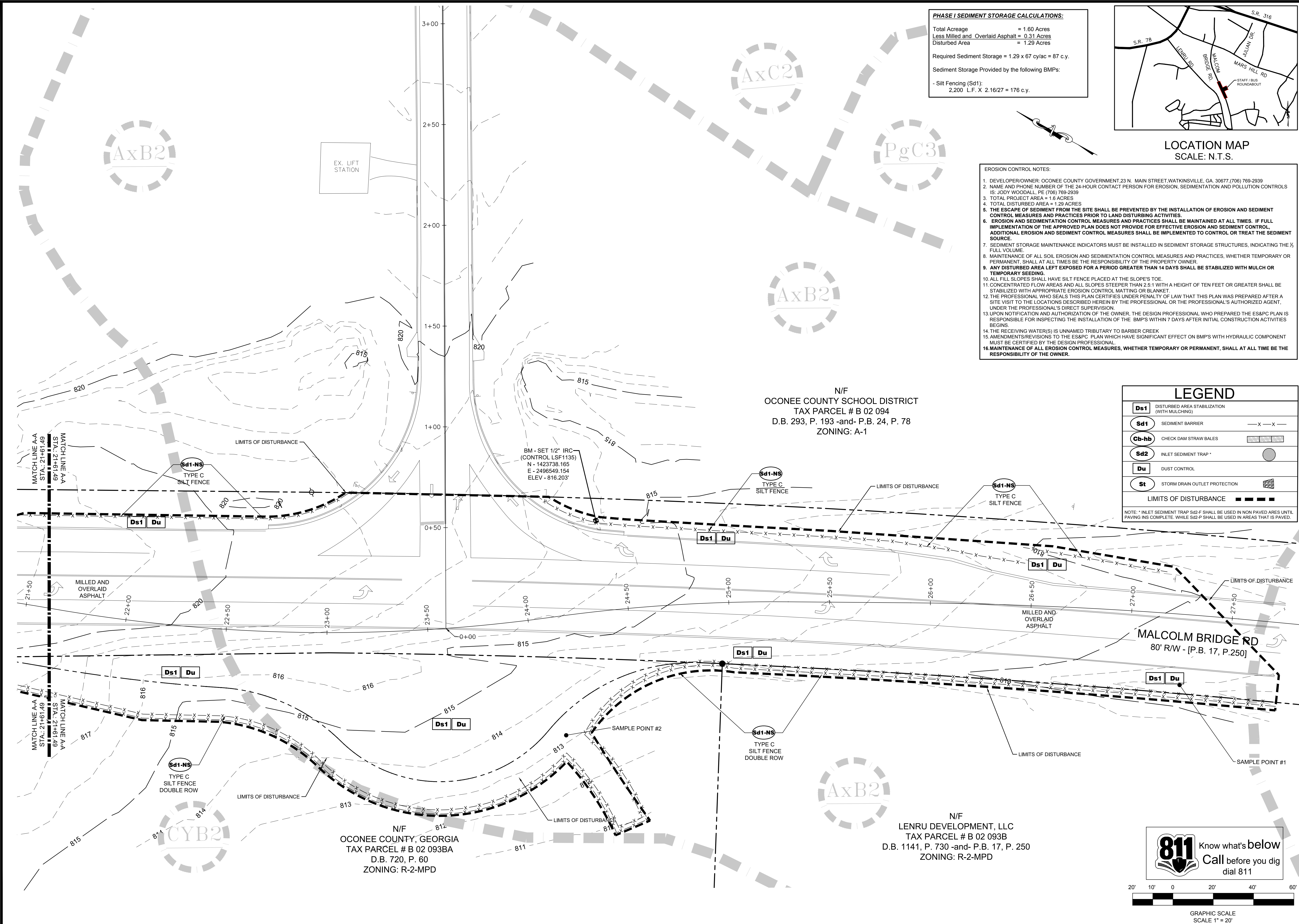
PRELIMINARY  
NOT TO BE USED FOR CONSTRUCTION

CARTER ENGINEERING CONSULTANTS

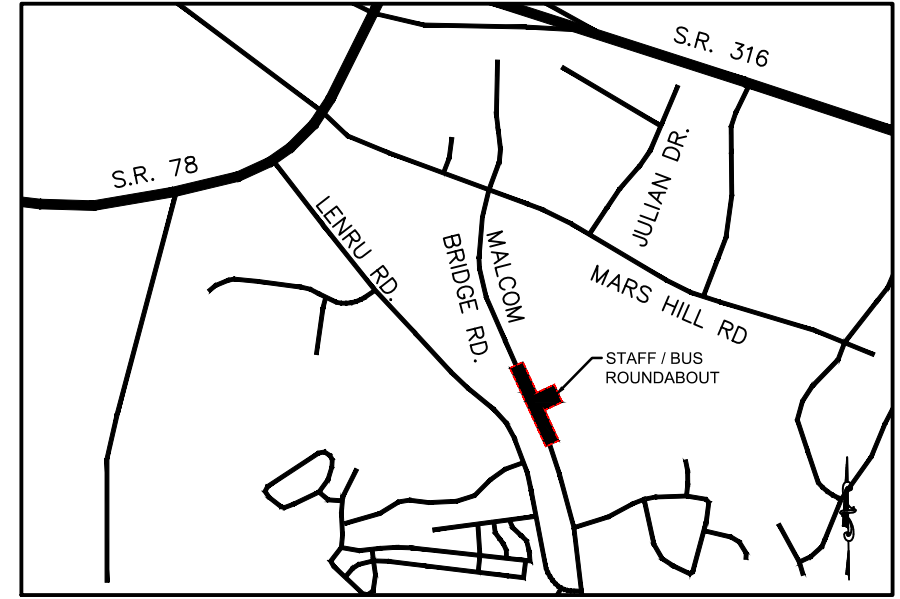
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SHEET TITLE: STANDARD DETAILS  
SHEET NUMBER: D-1.5  
PROJECT NUMBER: 18001OCG  
DATE: 09/19/19

OCONEE COUNTY GOVERNMENT  
MALCOM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOM BRIDGE RD.





**PHASE I SEDIMENT STORAGE CALCULATIONS:**  
 Total Acreage = 1.60 Acres  
 Less Milled and Overlaid Asphalt = 0.31 Acres  
 Disturbed Area = 1.29 Acres  
 Required Sediment Storage = 1.29 x 67 cy/ac = 87 c.y.  
 Sediment Storage Provided by the following BMPs:  
 - Silt Fencing (Sd1):  
 2,200 L.F. X 2.16/27 = 176 c.y.



**LOCATION MAP**  
 SCALE: N.T.S.

- EROSION CONTROL NOTES:**
- DEVELOPER/OWNER: OCONEE COUNTY GOVERNMENT, 23 N. MAIN STREET, WATKINSVILLE, GA. 30677 (706) 769-2939
  - NAME AND PHONE NUMBER OF THE 24-HOUR CONTACT PERSON FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS IS: JODY WOODALL, PE, (706) 769-2939
  - TOTAL PROJECT AREA = 1.6 ACRES
  - TOTAL DISTURBED AREA = 1.29 ACRES
  - 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.
  - EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
  - SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/2 FULL VOLUME.
  - MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL AT ALL TIMES BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
  - ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
  - ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE.
  - CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
  - THE PROFESSIONAL WHO SEALS THIS PLAN CERTIFIES UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY THE PROFESSIONAL OR THE PROFESSIONAL'S AUTHORIZED AGENT, UNDER THE PROFESSIONAL'S DIRECT SUPERVISION.
  - UPON NOTIFICATION AND AUTHORIZATION OF THE OWNER, THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS RESPONSIBLE FOR INSPECTING THE INSTALLATION OF THE BMP'S WITHIN 7 DAYS AFTER INITIAL CONSTRUCTION ACTIVITIES BEGINS.
  - THE RECEIVING WATER(S) IS UNNAMED TRIBUTARY TO BARBER CREEK
  - AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE SIGNIFICANT EFFECT ON BMP'S WITH HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
  - MAINTENANCE OF ALL EROSION CONTROL MEASURES, WHETHER TEMPORARY OR PERMANENT, SHALL AT ALL TIME BE THE RESPONSIBILITY OF THE OWNER.

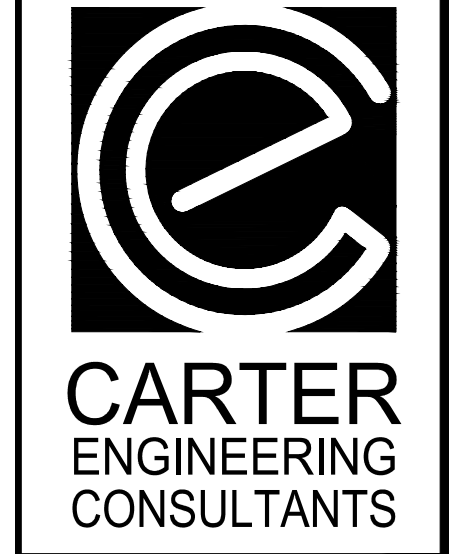
N/F  
 OCONEE COUNTY SCHOOL DISTRICT  
 TAX PARCEL # B 02 094  
 D.B. 293, P. 193 -and- P.B. 24, P. 78  
 ZONING: A-1

**LEGEND**

<b>Ds1</b>	DISTURBED AREA STABILIZATION (WITH MULCHING)	
<b>Sd1</b>	SEDIMENT BARRIER	- X - X -
<b>Cb-hb</b>	CHECK DAM STRAW BALES	[Symbol]
<b>Sd2</b>	INLET SEDIMENT TRAP	[Symbol]
<b>Du</b>	DUST CONTROL	[Symbol]
<b>St</b>	STORM DRAIN OUTLET PROTECTION	[Symbol]
	LIMITS OF DISTURBANCE	- - - - -

NOTE: \* INLET SEDIMENT TRAP Sd2-F SHALL BE USED IN NON PAVED AREAS UNTIL PAVING IS COMPLETE. WHILE Sd2-P SHALL BE USED IN AREAS THAT IS PAVED.

REVISION BLOCK	DATE	REVISION
A	08/02/2019	INITIAL SUBMITTAL
B	09/19/2019	REVISED PER COUNTY COMMENTS



Carter Engineering Consultants, Inc.  
 3651 Mars Hill Road, Suite 2000  
 Watkinsville, GA 30677  
 P: 770.725.1200  
 F: 770.725.1204  
 www.carterengineering.net

**ROUNDABOUT PLANS**  
 for  
**OCONEE COUNTY GOVERNMENT**  
 MALCOLM BRIDGE RD. & STAFFIBUS ENTRANCE AND MALCOLM BRIDGE RD.

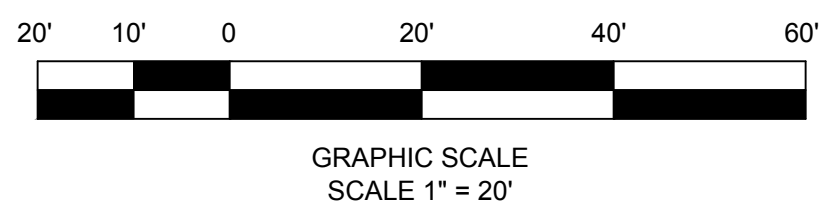
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**ROUNDABOUT PLANS**

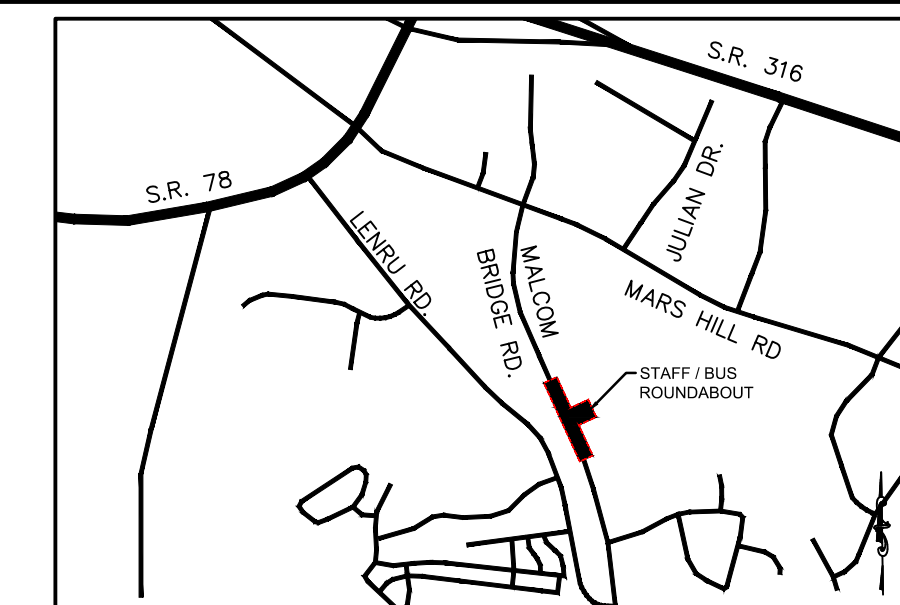
SHEET TITLE:  
**PHASE I ES&PC PLAN**

SHEET NUMBER:  
**E-2.0**

PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**



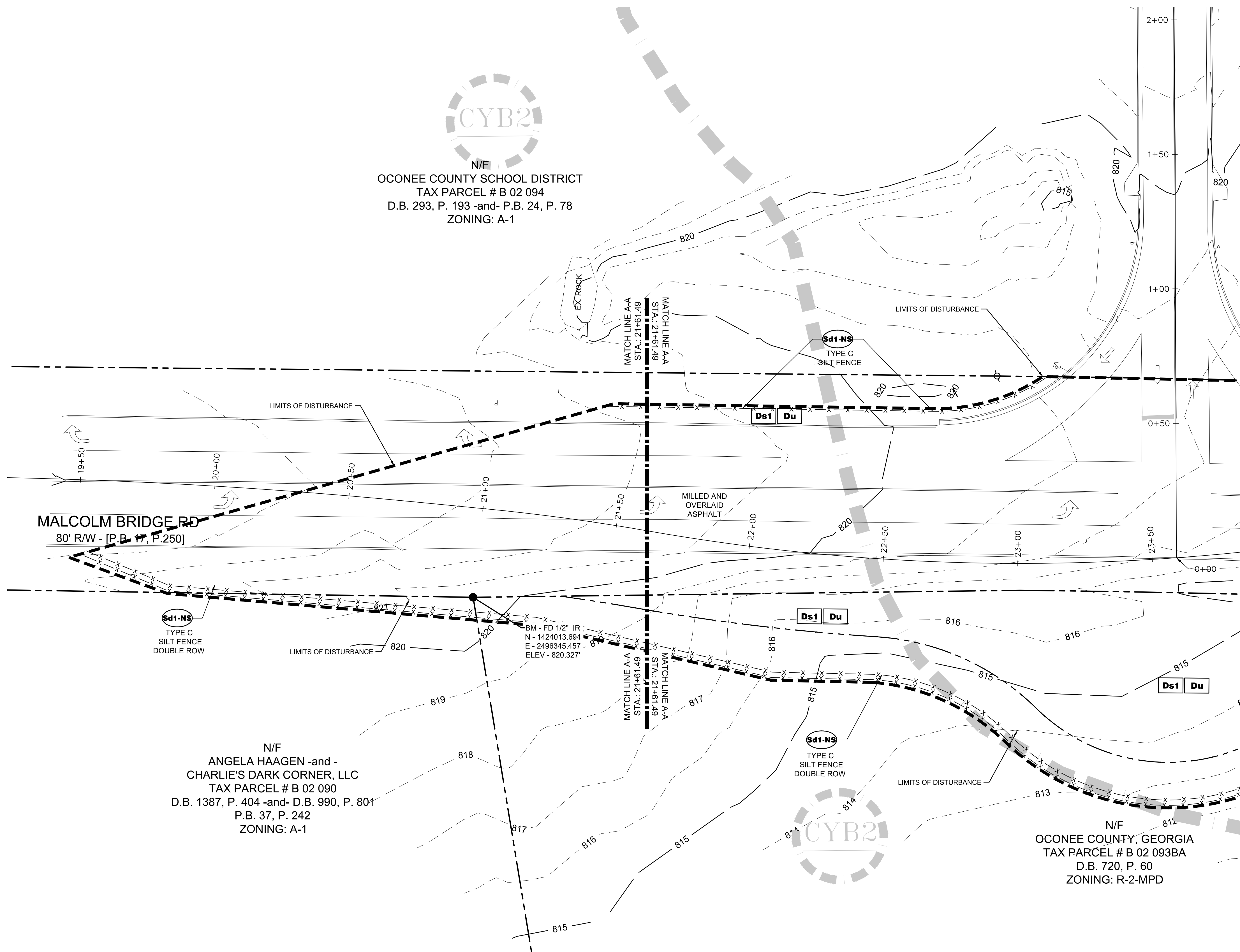


LOCATION MAP  
SCALE: N.T.S.

EROSION CONTROL NOTES:

1. DEVELOPER/OWNER: OCONEE COUNTY GOVERNMENT, 23 N. MAIN STREET, WATKINSVILLE, GA. 30677.(706) 769-2939
2. NAME AND PHONE NUMBER OF THE 24-HOUR CONTACT PERSON FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS IS: JOEY WOODALL, PE (706) 769-2939
3. TOTAL PROJECT AREA = 1.6 ACRES
4. TOTAL DISTURBED AREA = 1.29 ACRES
5. 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.
6. EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
7. SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/2 FULL VOLUME.
8. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL AT ALL TIMES BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
9. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
10. ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE.
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N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1



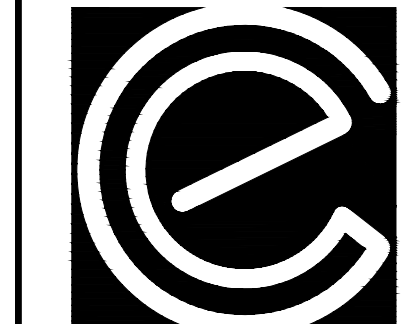
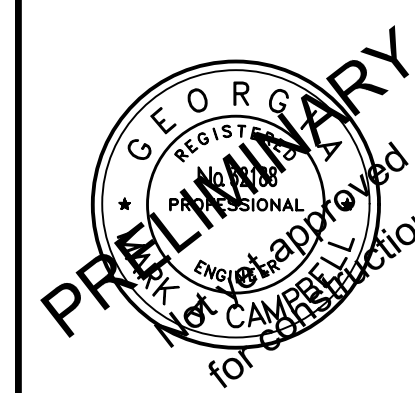
N/F  
ANGELA HAAGEN -and -  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

LEGEND	
<b>Ds1</b>	DISTURBED AREA STABILIZATION (WITH MULCHING)
<b>Sd1</b>	SEDIMENT BARRIER
<b>Cb-hb</b>	CHECK DAM STRAW BALES
<b>Sd2</b>	INLET SEDIMENT TRAP *
<b>Du</b>	DUST CONTROL
<b>St</b>	STORM DRAIN OUTLET PROTECTION
LIMITS OF DISTURBANCE	

NOTE: \* INLET SEDIMENT TRAP Sd2-F SHALL BE USED IN NON PAVED AREAS UNTIL PAVING IS COMPLETE. WHILE Sd2-P SHALL BE USED IN AREAS THAT IS PAVED.

PHASE I SEDIMENT STORAGE CALCULATIONS:	
Total Acreage	= 1.60 Acres
Less Milled and Overlaid Asphalt	= 0.31 Acres
Disturbed Area	= 1.29 Acres
Required Sediment Storage	= 1.29 x 67 cy/ac = 87 c.y.
Sediment Storage Provided by the following BMPs:	
- Silt Fencing (Sd1):	2,200 L.F. X 2.16/27 = 176 c.y.



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ROUNDABOUT PLANS  
for  
OCONEE COUNTY GOVERNMENT  
MALCOLM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOLM BRIDGE RD.

PROJECT NAME:  
ROUNDABOUT PLANS

SHEET TITLE:  
PHASE I ES&PC PLAN

SHEET NUMBER:  
E-2.1

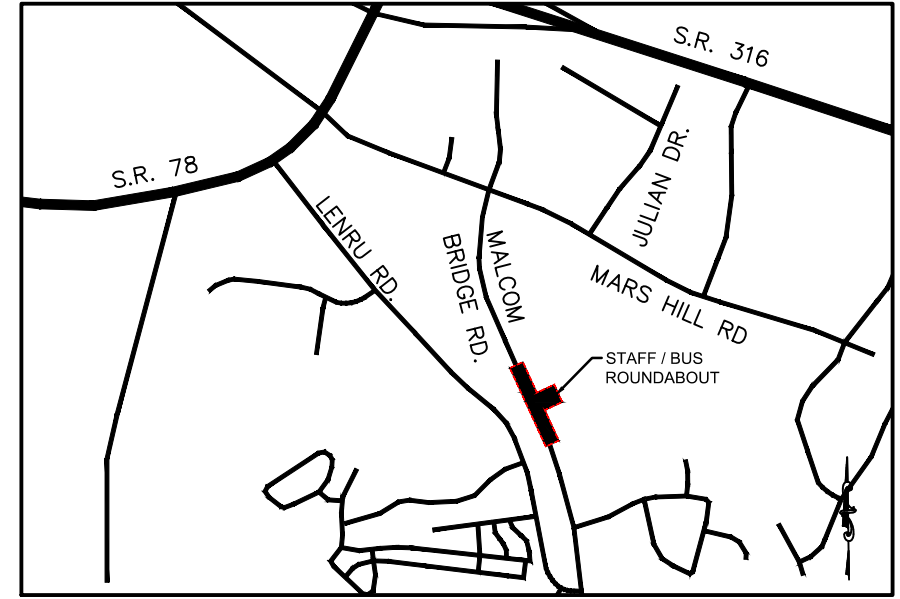
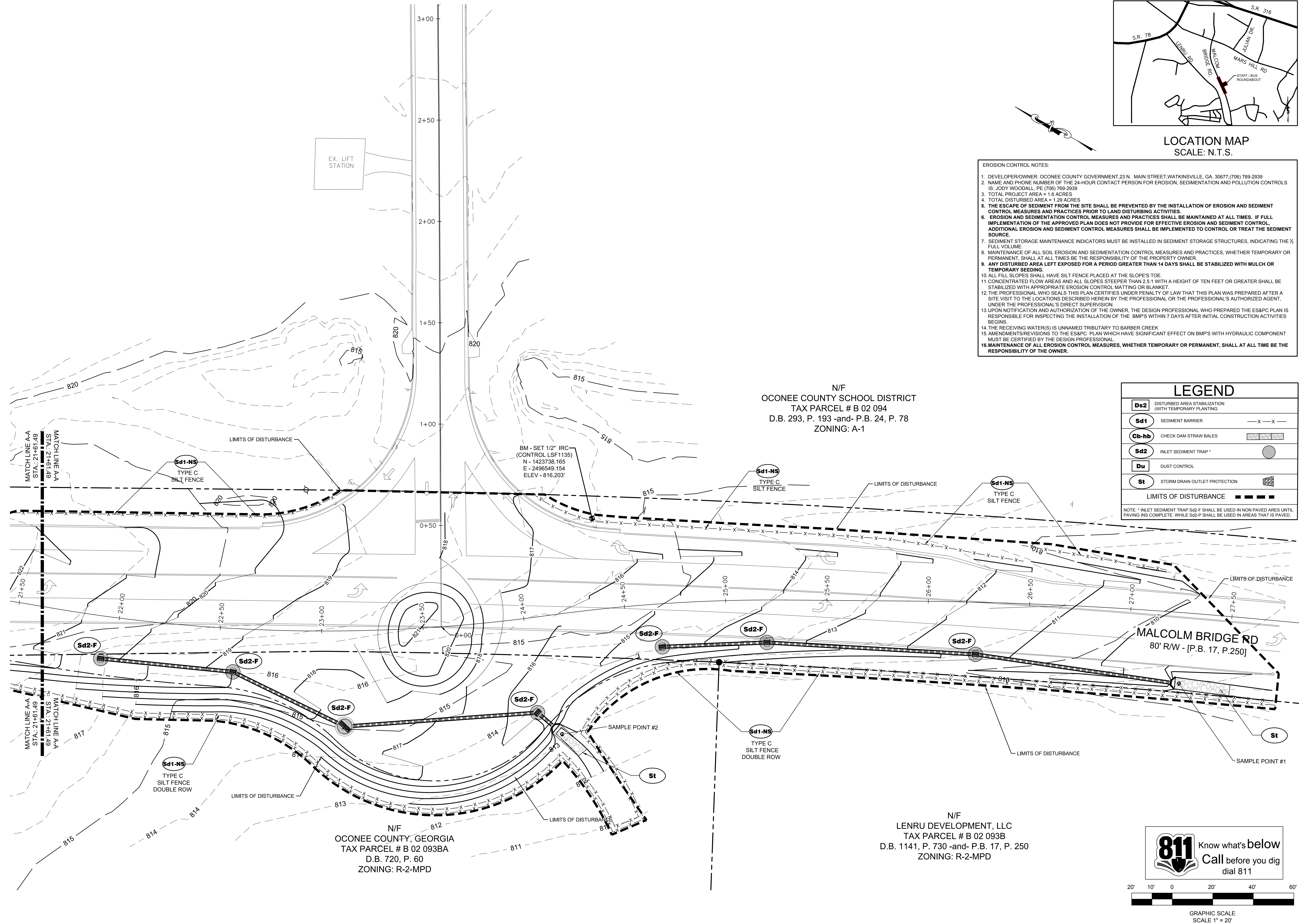
PROJECT NUMBER:  
180010CG

DATE:  
09/19/19

**811** Know what's below  
Call before you dig  
dial 811

GRAPHIC SCALE  
SCALE 1" = 20'





LOCATION MAP  
SCALE: N.T.S.

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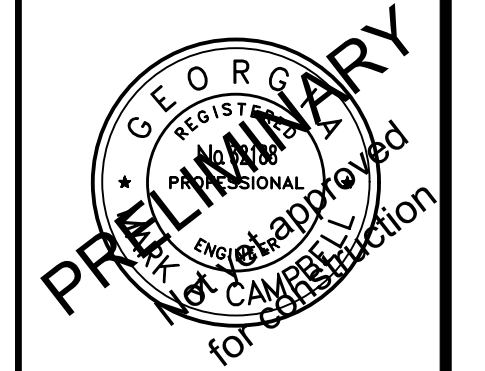
N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1

**LEGEND**

<b>Ds2</b>	DISTURBED AREA STABILIZATION (WITH TEMPORARY PLANTING)	
<b>Sd1</b>	SEDIMENT BARRIER	— X — X —
<b>Cb-hb</b>	CHECK DAM STRAW BALES	▬▬▬▬▬▬
<b>Sd2</b>	INLET SEDIMENT TRAP	○
<b>Du</b>	DUST CONTROL	▬▬▬▬▬▬
<b>St</b>	STORM DRAIN OUTLET PROTECTION	▬▬▬▬▬▬
	LIMITS OF DISTURBANCE	▬▬▬▬▬▬

NOTE: \* INLET SEDIMENT TRAP Sd2-F SHALL BE USED IN NON PAVED AREAS UNTIL PAVING INS COMPLETE. WHILE Sd2-P SHALL BE USED IN AREAS THAT IS PAVED.

REVISION BLOCK	DATE	REVISION
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ROUNDABOUT PLANS  
for  
OCONEE COUNTY GOVERNMENT  
MALCOLM BRIDGE RD. & STAFFIBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME:  
ROUNDABOUT PLANS

SHEET TITLE:  
PHASE II ES&PC PLAN

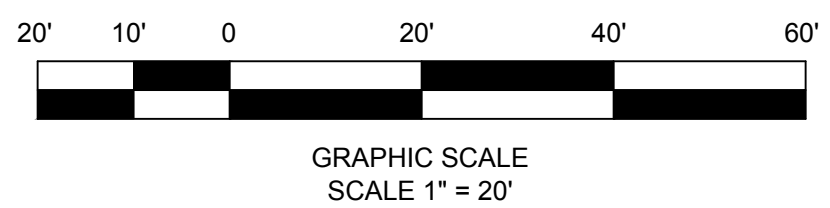
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**E-3.0**

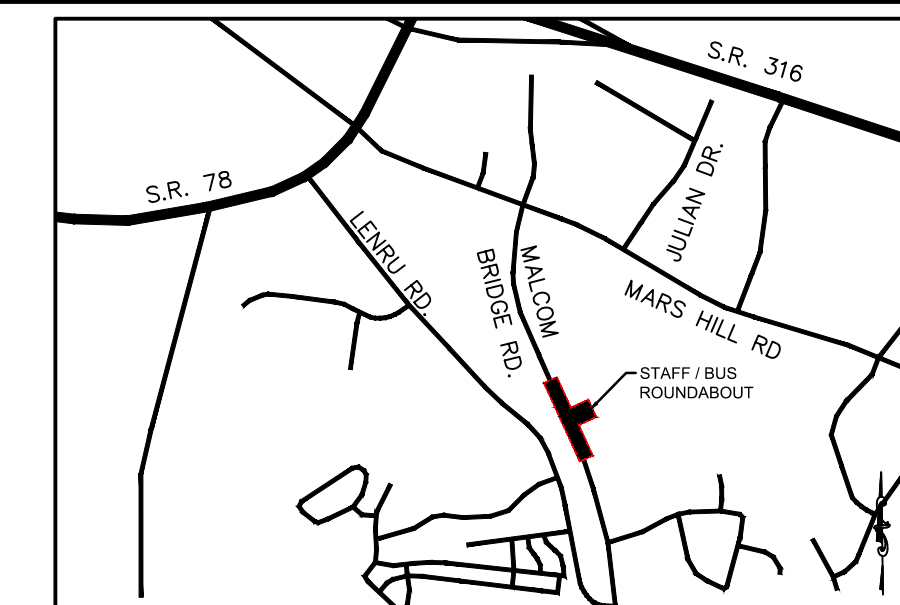
PROJECT NUMBER:  
180010CG

DATE:  
09/19/19

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

N/F  
LENRU DEVELOPMENT, LLC  
TAX PARCEL # B 02 093B  
D.B. 1141, P. 730 -and- P.B. 17, P. 250  
ZONING: R-2-MPD



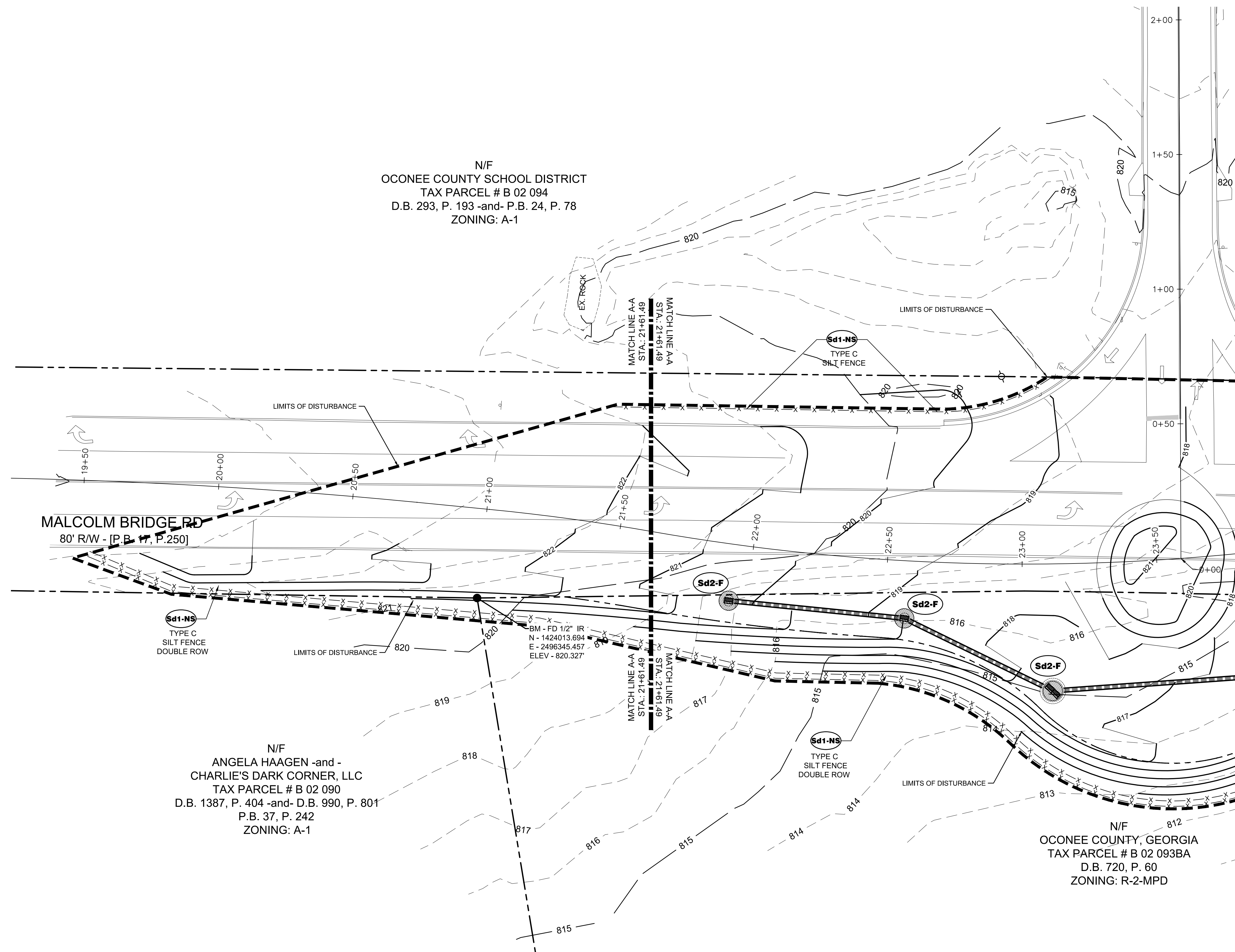


LOCATION MAP  
SCALE: N.T.S.

EROSION CONTROL NOTES:

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N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1



MALCOLM BRIDGE RD  
80' R/W - [P.B. 17, P.250]

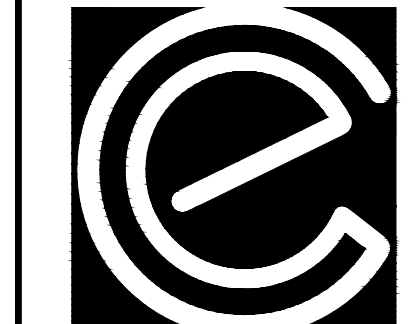
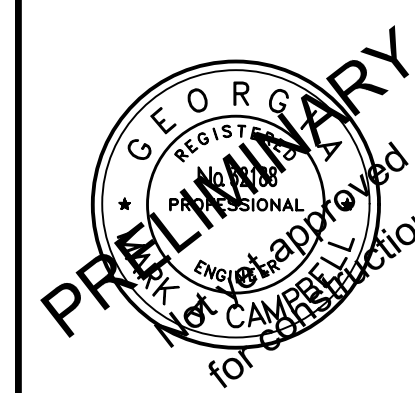
N/F  
ANGELA HAAGEN -and-  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

**LEGEND**

<b>Ds2</b>	DISTURBED AREA STABILIZATION (WITH TEMPORARY PLANTING)	
<b>Sd1</b>	SEDIMENT BARRIER	-x-x-
<b>Cb-hb</b>	CHECK DAM STRAW BALES	[Symbol]
<b>Sd2</b>	INLET SEDIMENT TRAP *	[Symbol]
<b>Du</b>	DUST CONTROL	[Symbol]
<b>St</b>	STORM DRAIN OUTLET PROTECTION	[Symbol]
LIMITS OF DISTURBANCE		- - - - -

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MALCOLM BRIDGE RD. & STAFFBUS ENTRANCE AND MALCOLM BRIDGE RD.

PROJECT NAME:  
ROUNDABOUT PLANS

SHEET TITLE:  
PHASE II ES&PC PLAN

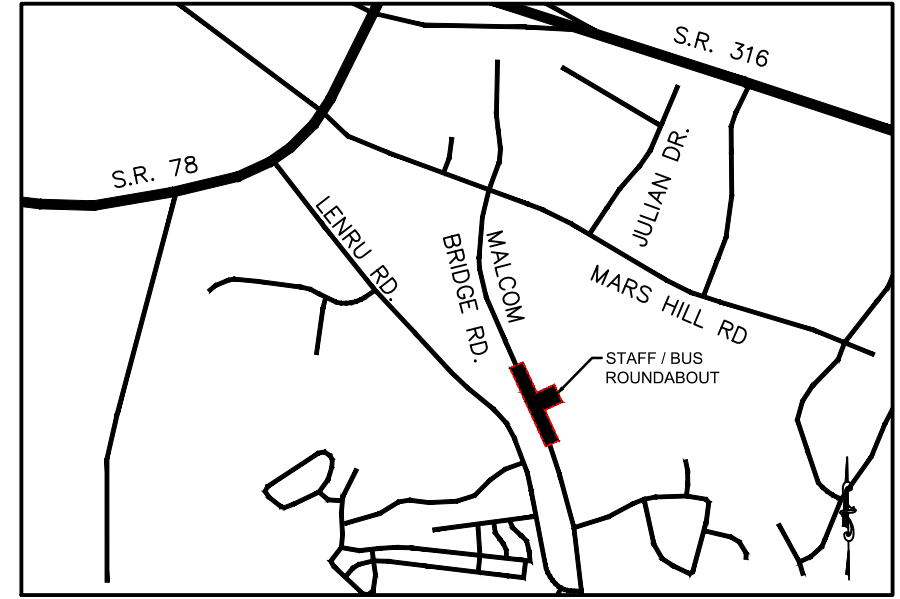
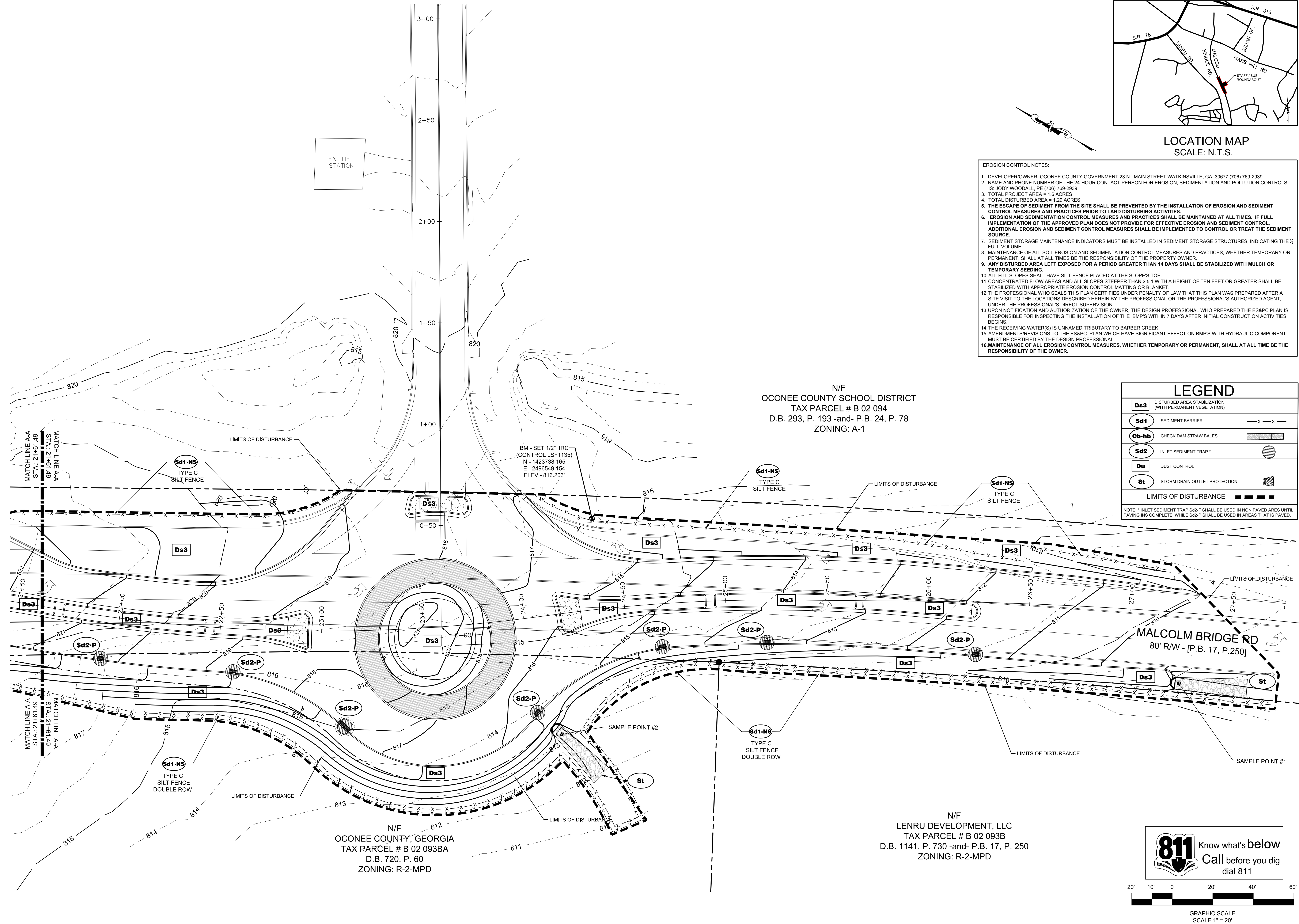
SHEET NUMBER:  
**E-3.1**

PROJECT NUMBER:  
180010CG

DATE:  
09/19/19

811 Know what's below  
Call before you dig  
dial 811

GRAPHIC SCALE  
SCALE 1" = 20'



- EROSION CONTROL NOTES:**
1. DEVELOPER/OWNER: OCONEE COUNTY GOVERNMENT, 23 N. MAIN STREET, WATKINSVILLE, GA. 30677, (706) 769-2939
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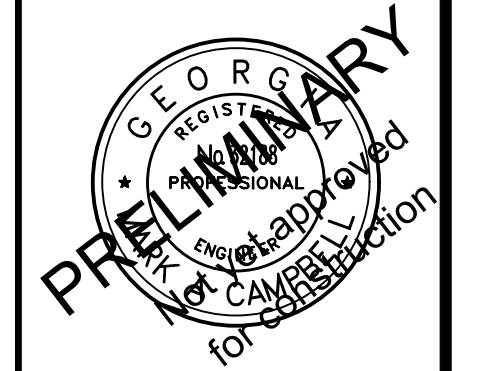
N/F  
 OCONEE COUNTY SCHOOL DISTRICT  
 TAX PARCEL # B 02 094  
 D.B. 293, P. 193 -and- P.B. 24, P. 78  
 ZONING: A-1

**LEGEND**

<b>Ds3</b>	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)	
<b>Sd1</b>	SEDIMENT BARRIER	— X — X —
<b>Cb-hb</b>	CHECK DAM STRAW BALES	▬▬▬▬▬▬
<b>Sd2</b>	INLET SEDIMENT TRAP	○
<b>Du</b>	DUST CONTROL	▬▬▬▬▬▬
<b>St</b>	STORM DRAIN OUTLET PROTECTION	▬▬▬▬▬▬
LIMITS OF DISTURBANCE		▬▬▬▬▬▬

NOTE: \* INLET SEDIMENT TRAP Sd2-P SHALL BE USED IN NON PAVED AREAS UNTIL PAVING IS COMPLETE. WHILE Sd2-P SHALL BE USED IN AREAS THAT IS PAVED.

REVISION BLOCK	DATE	REVISION
A	08/02/2019	INITIAL SUBMITTAL
B	09/19/2019	REVISED PER COUNTY COMMENTS



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**ROUNDABOUT PLANS**  
 for  
**OCONEE COUNTY GOVERNMENT**  
 MALCOLM BRIDGE RD. & STAFFIBUS ENTRANCE AND MALCOLM BRIDGE RD.

PROJECT NAME:  
**ROUNDABOUT PLANS**

SHEET TITLE:  
**PHASE III ES&PC PLAN**

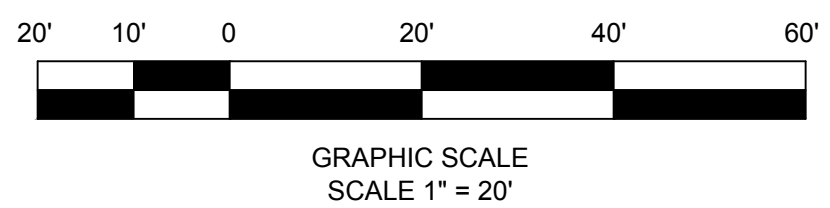
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**E-4.0**

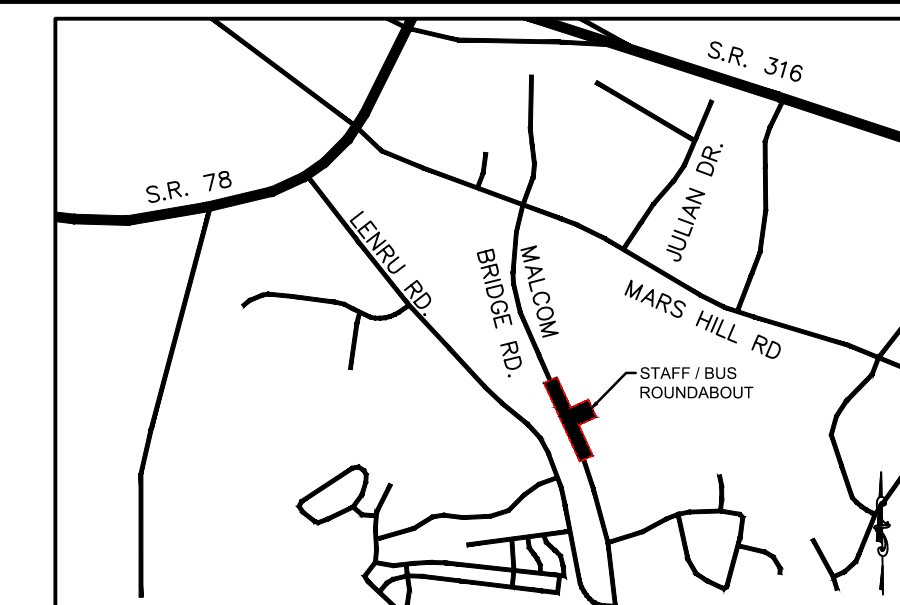
PROJECT NUMBER:  
**180010CG**

DATE:  
**09/19/19**

N/F  
 OCONEE COUNTY, GEORGIA  
 TAX PARCEL # B 02 093BA  
 D.B. 720, P. 60  
 ZONING: R-2-MPD

N/F  
 LENRU DEVELOPMENT, LLC  
 TAX PARCEL # B 02 093B  
 D.B. 1141, P. 730 -and- P.B. 17, P. 250  
 ZONING: R-2-MPD



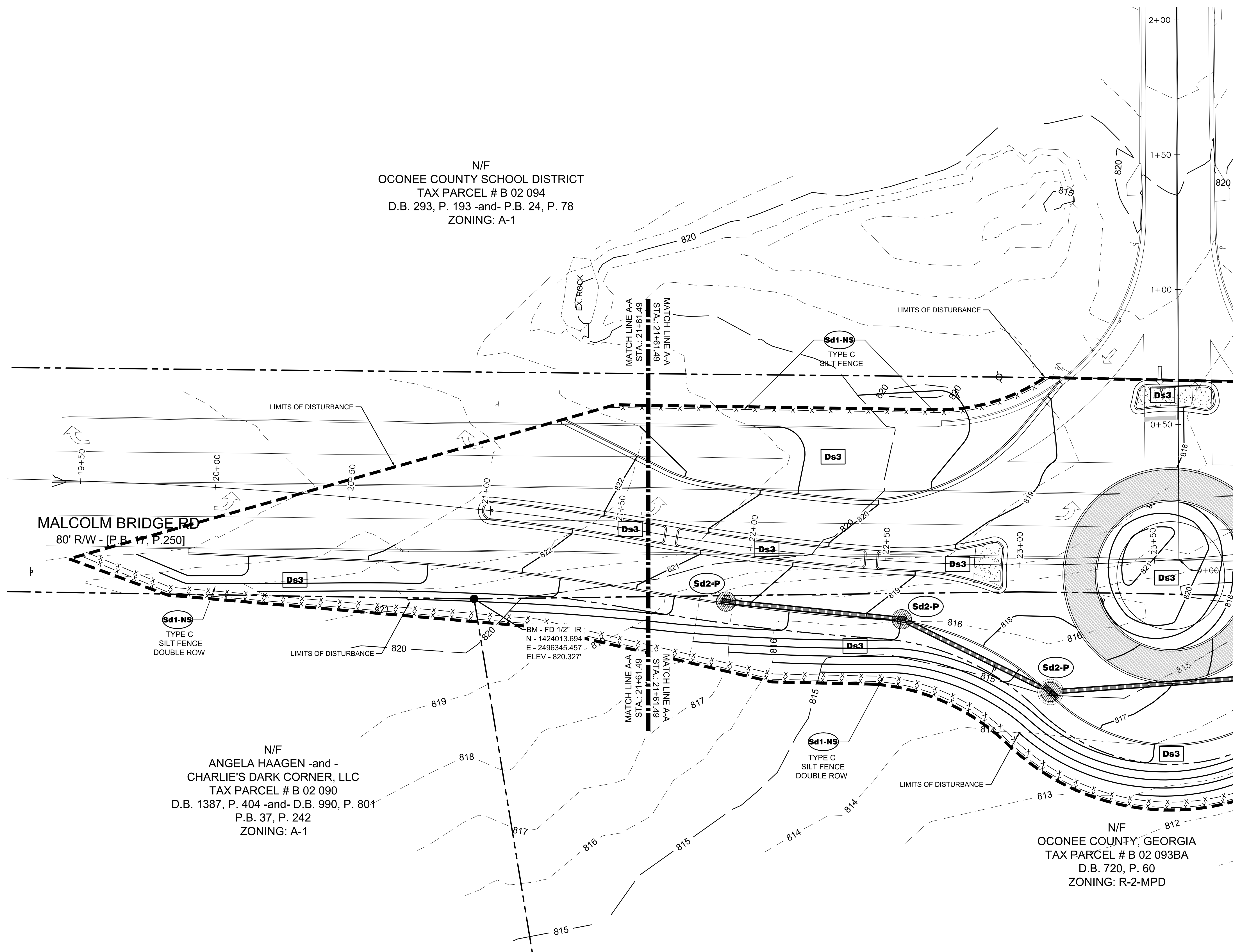


LOCATION MAP  
SCALE: N.T.S.

EROSION CONTROL NOTES:

1. DEVELOPER/OWNER: OCONEE COUNTY GOVERNMENT, 23 N. MAIN STREET, WATKINSVILLE, GA. 30677, (706) 769-2939
2. NAME AND PHONE NUMBER OF THE 24-HOUR CONTACT PERSON FOR EROSION, SEDIMENTATION AND POLLUTION CONTROLS IS: JOEY WOODALL, PE (706) 769-2939
3. TOTAL PROJECT AREA = 1.6 ACRES
4. TOTAL DISTURBED AREA = 1.29 ACRES
5. 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.
6. EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
7. SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/2 FULL VOLUME.
8. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL AT ALL TIMES BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
9. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
10. ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE.
11. CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING OR BLANKET.
12. THE PROFESSIONAL WHO SEALS THIS PLAN CERTIFIES UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY THE PROFESSIONAL OR THE PROFESSIONAL'S AUTHORIZED AGENT, UNDER THE PROFESSIONAL'S DIRECT SUPERVISION.
13. UPON NOTIFICATION AND AUTHORIZATION OF THE OWNER, THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS RESPONSIBLE FOR INSPECTING THE INSTALLATION OF THE BMP'S WITHIN 7 DAYS AFTER INITIAL CONSTRUCTION ACTIVITIES BEGINS.
14. THE RECEIVING WATER(S) IS UNNAMED TRIBUTARY TO BARBER CREEK
15. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE SIGNIFICANT EFFECT ON BMP'S WITH HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.
16. MAINTENANCE OF ALL EROSION CONTROL MEASURES, WHETHER TEMPORARY OR PERMANENT, SHALL AT ALL TIME BE THE RESPONSIBILITY OF THE OWNER.

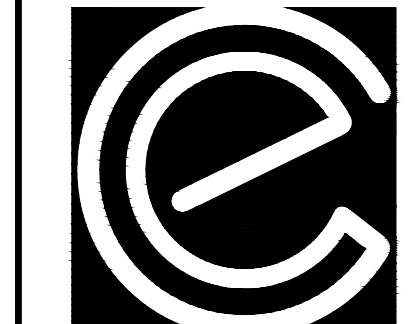
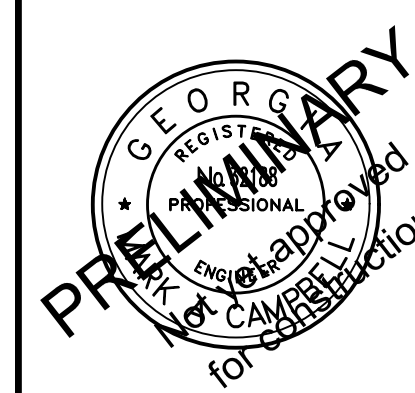
N/F  
OCONEE COUNTY SCHOOL DISTRICT  
TAX PARCEL # B 02 094  
D.B. 293, P. 193 -and- P.B. 24, P. 78  
ZONING: A-1



N/F  
ANGELA HAAGEN -and-  
CHARLIE'S DARK CORNER, LLC  
TAX PARCEL # B 02 090  
D.B. 1387, P. 404 -and- D.B. 990, P. 801  
P.B. 37, P. 242  
ZONING: A-1

N/F  
OCONEE COUNTY, GEORGIA  
TAX PARCEL # B 02 093BA  
D.B. 720, P. 60  
ZONING: R-2-MPD

LEGEND	
<b>Ds3</b>	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)
<b>Sd1</b>	SEDIMENT BARRIER
<b>Cb-hb</b>	CHECK DAM STRAW BALES
<b>Sd2</b>	INLET SEDIMENT TRAP *
<b>Du</b>	DUST CONTROL
<b>St</b>	STORM DRAIN OUTLET PROTECTION
LIMITS OF DISTURBANCE	
NOTE: * INLET SEDIMENT TRAP Sd2-F SHALL BE USED IN NON PAVED AREAS UNTIL PAVING IS COMPLETE. WHILE Sd2-P SHALL BE USED IN AREAS THAT IS PAVED.	



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ROUNDABOUT PLANS  
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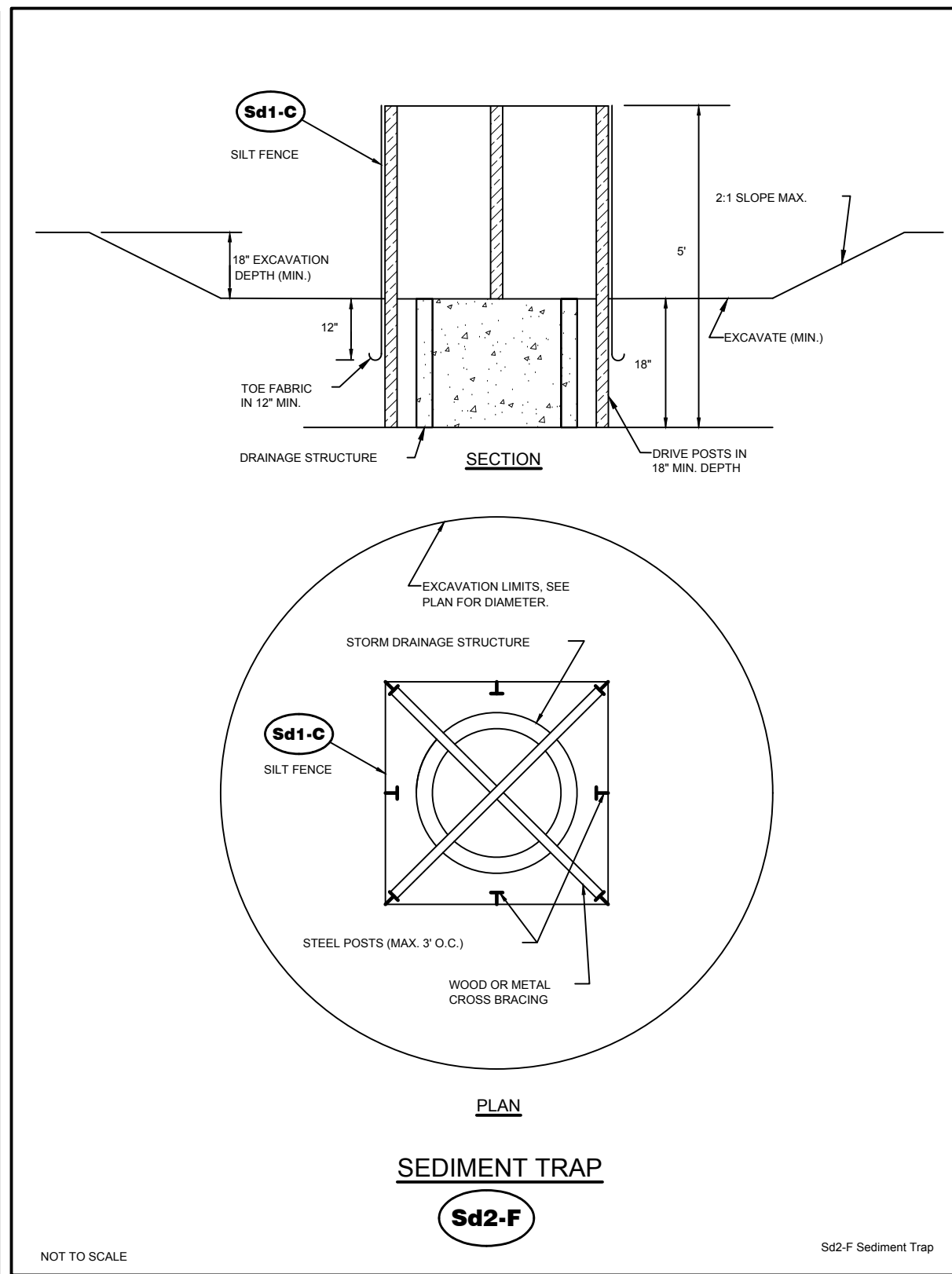
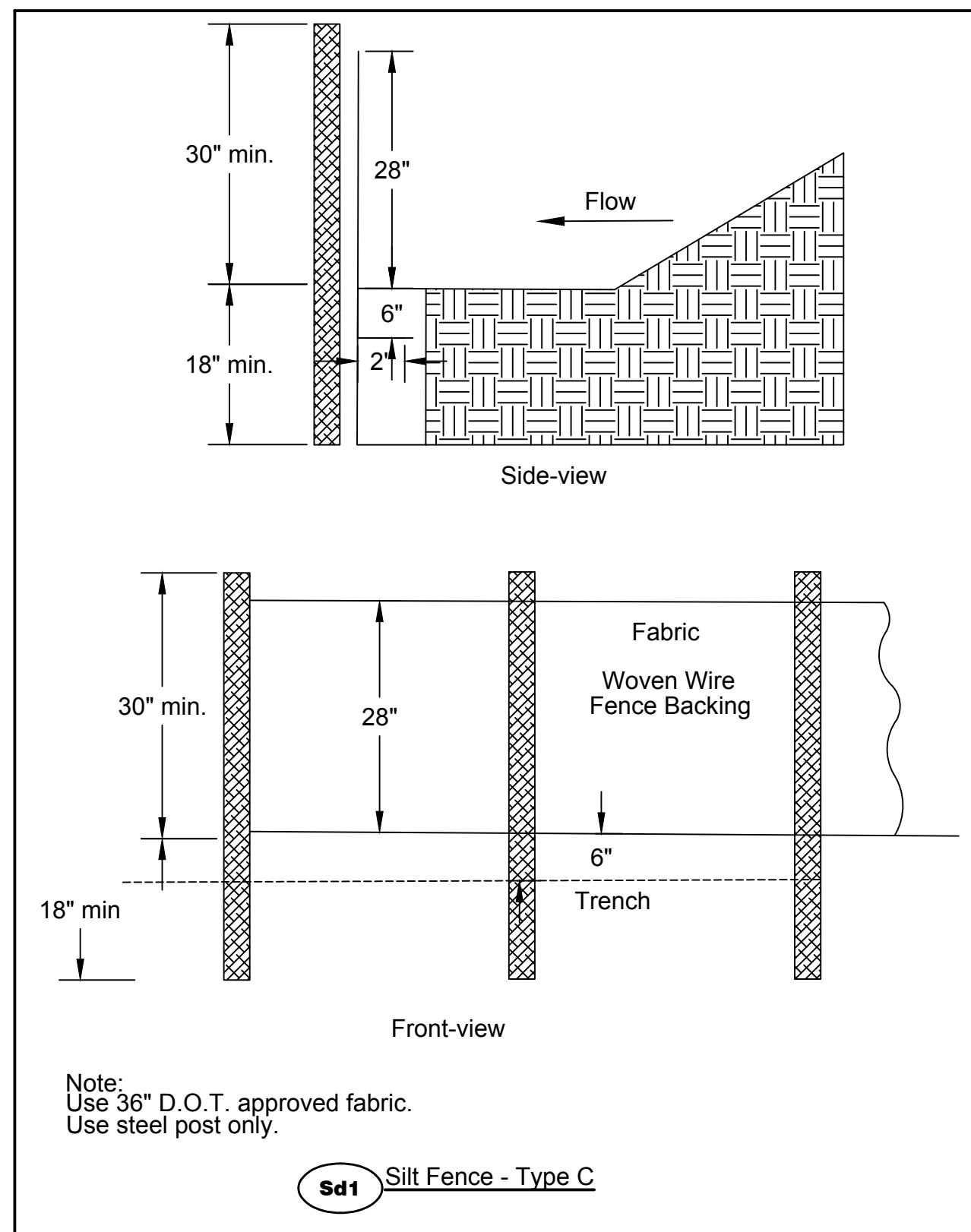
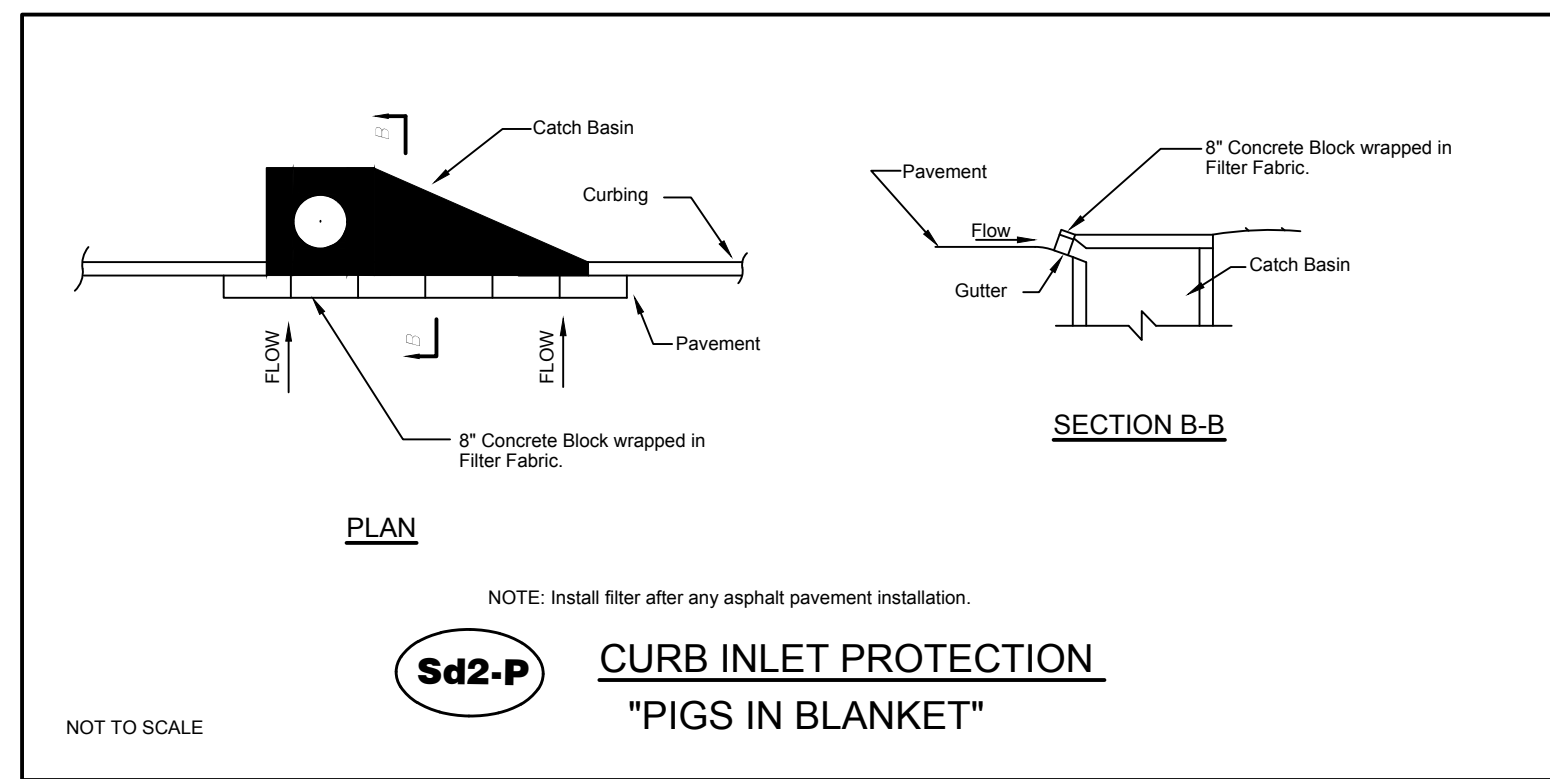
PROJECT NAME:  
ROUNDABOUT PLANS

SHEET TITLE:  
PHASE III ES&PC PLAN

SHEET NUMBER:  
**E-4.1**

PROJECT NUMBER:  
180010CG

DATE:  
09/19/19



**MULCHING RATES** **Ds1**

USE DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS. DRY STRAW OR HAY SHALL BE APPLIED AT THE RATE OF 2.5 TONS PER ACRE. MULCHING SHALL BE USED MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING. MULCH SHALL BE USED DURING MONTHS THAT GRASSING SHOULD NOT BE APPLIED BASED ON THE SCHEDULE BELOW.

TEMPORARY AND PERMANENT VEGETATION SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 8 OF "THE MANUAL FOR EROSION AND SEDIMENTATION CONTROL"

**TEMPORARY GRASSING** **Ds2**

TEMPORARY GRASSES SHALL CONSIST OF SOWING A QUICK GRASS SUCH AS RYE, BROWN TOP MILLET, OR GRASS SUITABLE TO THE AREA AND SEASON. LIME AND FERTILIZER WILL BE OMITTED. MULCH IS NOT REQUIRED BUT SHOULD BE USED AS DICTATED BY SITE CONDITIONS. TEMPORARY GRASSING IS REQUIRED WHEN DISTURBED AREA IS LEFT EXPOSED MORE THAN 14 DAYS.

SPECIES	RATE	PLANTING DATES
RYE GRASS	40#/ACRE	JAN-APR/AUG-DEC
BROWN MILLET	10-40#/ACRE	APRIL - JUNE
WEeping LOVEGRASS	1/2-3 bu./ACRE	AUGUST-DECEMBER
ANNUAL LESPEDEZA	2-4#/ACRE	FEBRUARY-JUNE
SUDAN GRASS	10-40#/ACRE	FEBRUARY-APRIL
	60#/ACRE	APRIL-AUGUST
	1/2-3bu./ACRE	SEPTEMBER-DECEMBER

**PERMANENT GRASSING** **Ds3**

PERMANENT GRASSING SHALL CONSIST OF GROUND PREPARATION, LIMING, FERTILIZATION, MULCHING AND SEEDING. THE GROUND SHALL BE PREPARED BY PLOWING AND DISKING TO A DEPTH NOT LESS THAN 4". FERTILIZER AND LIME SHALL BE UNIFORMLY MIXED INTO THE GROUND, WITH FERTILIZER AT THE RATE OF 150#/ACRE AND LIME AT THE RATE OF 200#/ACRE. THE GROUND SHALL BE FINISHED OFF SMOOTH AND UNIFORM AND BE FREE OF ROCKS, CLODS, ROOTS AND WEEDS. FERTILIZER SHALL BE APPLIED PER THE TABLE BELOW. WEATHER PERMITTING, SEEDING SHALL BE DONE WITHIN 24 HOURS OF FERTILIZER APPLICATION. SEED SHALL BE UNIFORMLY SPREAD AT THE RATES SHOWN BELOW. MULCHING IS REQUIRED AND SHALL BE DONE IMMEDIATELY AFTER SEEDING. MULCH SHALL BE UNIFORMLY APPLIED OVER THE AREA LEAVING APPROXIMATELY 20% OF THE GROUND SURFACE EXPOSED. THE RATE OF APPLICATION SHALL BE DOUBLED ON SLOPES STEEPER THAN 4:1.

SPECIES	RATE	PLANTING DATES
TALL FESCUE	30-50#/ACRE	MARCH-APRIL/AUGUST-OCTOBER
SERICEA LESPEDEZA (b)	60#/ACRE	MARCH-JUNE
WEeping LOVE GRASS	2-4#/ACRE	MARCH-JUNE
UNHILLED BERMU DA	6-10#/ACRE	JAN-FEB/OCT-DEC
HILLED BERMU DA	8-10#/ACRE	MARCH-JUNE
BAHIA	30-50#/ACRE	APRIL-MARCH

(a) USE A MINIMUM OF 40% SCARIFIED SEED. REMAINDER MAY BE UNSCARIFIED, CLEAN HILLED SEED.

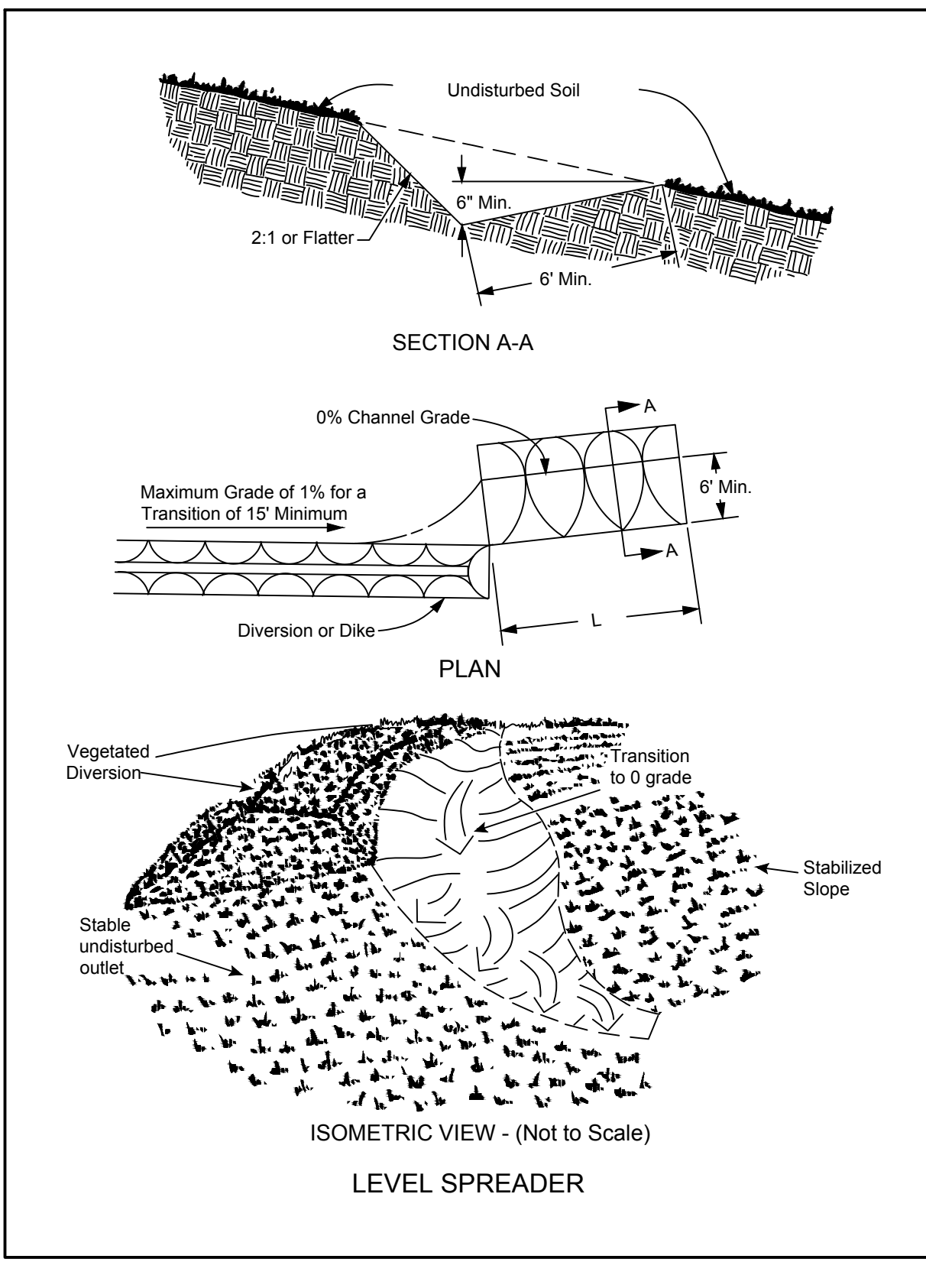
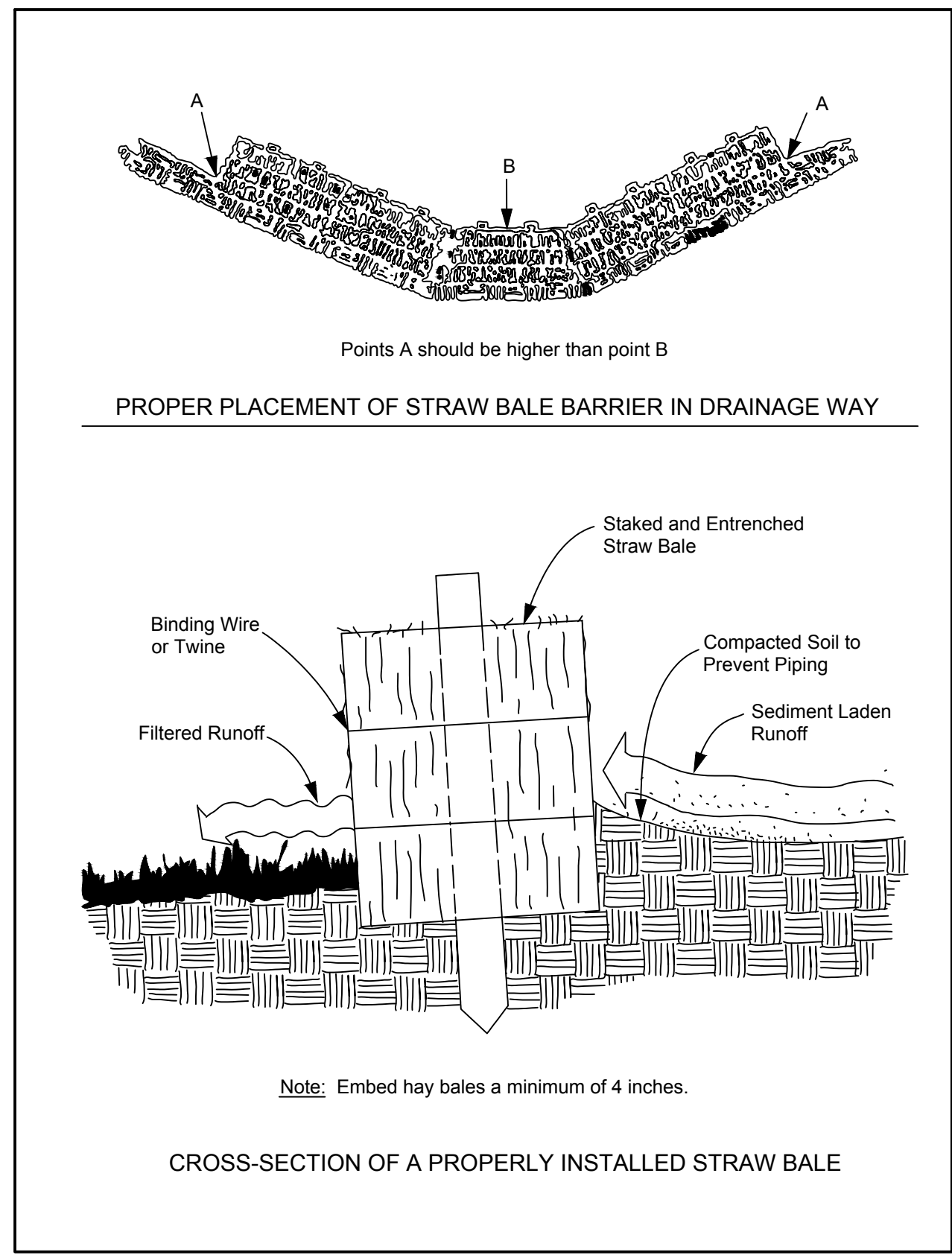
(b) USE EITHER COMMON SERIAL, OR INTERSTATE SERICEA LESPEDEZA.

**LIMING RATES**

Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate otherwise. Graded areas require lime application. If lime is applied within six months of planting permanent perennial vegetation, additional lime is not required. Agricultural lime shall be within the specifications of the Georgia Department of Agriculture.

**FERTILIZER REQUIREMENTS**

TYPES OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. Cool season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 1/2/
	Second Maintenance	6-12-12 10-10-10	1000 lbs./ac. 400 lbs./ac.	30
2. Cool season grasses and legumes	First	6-12-12	1500 lbs./ac.	0-50 lbs./ac. 1/
	Second Maintenance	0-10-10 400 lbs./ac.	1000 lbs./ac. 400 lbs./ac.	-
3. Ground Covers	First	10-10-10	1300 lbs./ac. 3/	-
	Second Maintenance	10-10-10 1100 lbs./ac.	1300 lbs./ac. 3/ 1100 lbs./ac.	-
4. Shrub Lespedeza	First	0-10-10	700 lbs./ac.	-
	Maintenance	0-10-10	700 lbs./ac. 4/	-
5. Warm season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 2/ 6/
	Second Maintenance	6-12-12 10-10-10	800 lbs./ac. 400 lbs./ac.	50-100 lbs./ac. 2/ 30 lbs./ac.
6. Warm season grasses and legumes	First	6-12-12	1500 lbs./ac.	50 lbs./ac. 6/
	Second Maintenance	0-10-10 400 lbs./ac.	1000 lbs./ac. 400 lbs./ac.	-



**PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL**

NOTES:

- Lo IS THE LENGTH OF THE RIPRAP APRON.
- D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 4".
- IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TALK WATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
- A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.

**PIPE OUTLET TO WELL DEFINED CHANNEL**

PIPE No.	PIPE Ø (D)	L <sub>a</sub>	W <sub>1</sub>	W <sub>2</sub>	d <sub>50</sub>	D	Q <sub>25</sub> (cfs)	V (fps)
-	24"	10.0	4.5	11.5	6"	14"	4.8	4.30

**FORMULAS:**

$W_1 = 3 \cdot D_0$

$W_2 = D_0 + L_{a0}$

$d_{max} = 1.5 \cdot d_{50}$

$D = 1.5 \cdot d_{max}$

**ST**

NOT TO SCALE

REVISION BLOCK:

REV #	DATE	REVISION	INITIALS	SUBMITTAL	REVISED PER COMMENTS
A	08/02/2019				
B	09/19/2019				

**PRELIMINARY**

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**ROUNDABOUT PLANS** for **OCONEE COUNTY GOVERNMENT**

MALCOM BRIDGE RD. & STAFFIBUS ENTRANCE AND MALCOM BRIDGE RD.

PROJECT NAME: **ROUNDABOUT PLANS**

SHEET TITLE: **ES&PC STANDARD DETAILS**

SHEET NUMBER: **E-5.0**

PROJECT NUMBER: **180010CG**

DATE: **09/19/19**