

CHATHAM COUNTY PURCHASING & CONTRACTING DEPARTMENT

ADDENDUM NO. 1 TO 19-0034-4

FOR: JOHNNY MERCER BOULEVARD CORRIDOR IMPROVEMENTS

PLEASE SEE THE FOLLOWING FOR ADDITIONS, CLARIFICATIONS AND/OR CHANGES:

1. See attached Responses to Questions received. (2 pages)
- 2.. Replace current Bid Sheets with the attached **REVISED** Bid Sheets (2 pages)
3. Replace current *Special Conditions* with the attached **REVISED** *Special Conditions* (6 pages)
4. See attached REVISED Plan Sheets and replace the current plan sheets accordingly (29 sheets)

BID OPENING REMAINS:

2:00 PM, WEDNESDAY, APRIL 25, 2019

THE PROPOSER IS RESPONSIBLE FOR MAKING THE NECESSARY CHANGES AND MUST ACKNOWLEDGE RECEIPT OF ADDENDUM.

4/18/19
DATE



ROBERT E. MARSHALL
SENIOR PROCUREMENT SPECIALIST
CHATHAM COUNTY

JMB CORRIDOR IMPROVEMENTS
ADDENDUM I QUESTIONS

1. *Are we to figure removal & replacement of the existing curb & gutter for new sidewalk locations? Did not see this shown on the plans and it did not appeared to be figured in bid quantities.*
 - Removal work is demolition, which should be included in the grading complete line item. There is a line item for installing curb and gutter.
2. *Are we to figure cleaning out any existing pipes?*
 - Please see note 5 of the Construction Plan General Notes.
3. *Where does the tree protection fence money need to be allocated?*
 - Tree protection fence was added to the bid sheet.
4. *Where does testing money need to be allocated?*
 - Cost for testing should be included in the respective line items.
5. *Can testing be done in house for asphalt per DOT specifications?*
 - Testing shall be done per GDOT Specifications and as modified in the Special Conditions.
6. *It appears for line item # 500-9999 Class B Concrete base pavement widening you are figuring doing the whole base in concrete instead of just the areas that are 5'0" or less wide. You also have the stone covered for the base as well in line item # 3110-1101. Please clarify.*
 - The Class B quantity is for widening 5 feet or less. The bid sheet was revised.
7. *On milling quantity on the bid form, have a rather large discrepancy between the bid form quantities. I am coming up with more in line with the engineer's quantities on sheet 6-01. Which is correct and please clarify. Since milling quantities seem to be off it is throwing, 12.5MM, OGI and tack quantities off.*
 - Milling and asphalt quantities were adjusted per the Special Conditions. The bid sheet reflects the adjusted paving limits.
8. *What is the lead time on turn around for submittals on traffic signals?*
 - Per the Special Conditions, signal submittals shall be submitted within 10 days of the Notice to Proceed.

9. *I looked on Chatham County website and could not find where they specify night time road work hours. Can you please clarify what the night time hours will be allowed to work?*

- Night time hours are defined as the hours between 10:00 PM and 7:00 AM per County Code, Section 24: Environmental Regulation, Article III – Noise Control, Subsection 24-308-Construction. Night work will require a Variance Permit.

10. *Would any consideration be made to leave OGI exposed for at least 24 hours and if any unraveling happens we will replace at our expense?*

- The Special Conditions have been revised to require coverage within 24 hours.

BID SHEET
Johnny Mercer Boulevard Corridor Improvements

ITEM NO.	DESCRIPTION	U/M	QTY	UNIT PRICE	EXTENSION
150-1000	TRAFFIC CONTROL -	LS	1		
210-0100	GRADING COMPLETE -	LS	1		
310-1101	GR AGGR BASE CRS, INCL MATL	TN	439		
402-3121	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	169		
402-3130	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	TN	3606		
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	113		
413-0750	TACK COAT	GL	4035		
415-5000	ASPHALTIC CONCRETE OPEN GRADED CRACK RELIEF INTERLAYER, GP 2 ONLY, INCL BITUM MATL & H LIME	TN	1491		
432-0212	MILL ASPH CONC PVMT, VARIABLE DEPTH	SY	32465		
441-0104	CONC SIDEWALK, 4 IN	SY	88		
441-0108	CONC SIDEWALK, 8 IN	SY	177		
441-0204	PLAIN CONC DITCH PAVING, 4 IN	SY	91		
441-0300	CONC SPILLWAY, SPCL DES	EA	1		
441-0748	CONCRETE MEDIAN, 6 IN	SY	36		
441-4030	CONC VALLEY GUTTER, 8 IN	SY	60		
441-5002	CONCRETE HEADER CURB, 6 IN, TP 2	LF	4		
441-5010	CONCRETE HEADER CURB, 6 IN, TP 9	LF	43		
441-6022	CONC CURB & GUTTER, 6 IN X 30 IN, TP 2	LF	244		
444-1000	SAWED JOINTS IN EXIST PAVEMENTS - PCC	LF	30		
446-1100	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	LF	1011		
500-9999	CLASS B CONC, BASE OR PVMT WIDENING	CY	10		
611-8050	ADJUST MANHOLE TO GRADE	EA	3		
634-1200	RIGHT OF WAY MARKERS	EA	21		
643-8200	BARRIER FENCE (ORANGE), 4 FT	LF	144		
	PERMANENT EROSION CONTROL				
700-6910	PERMANENT GRASSING	AC	1		
700-7000	AGRICULTURAL LIME	TN	3		
700-8000	FERTILIZER MIXED GRADE	TN	2		
700-8100	FERTILIZER NITROGEN CONTENT	LB	50		
	TEMPORARY EROSION CONTROL				
163-0232	TEMPORARY GRASSING	AC	1		
163-0240	MULCH	TN	11		
163-0501	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 1	EA	2		
163-0550	CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	EA	9		
165-0085	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	LF	2000		
165-0085	MAINTENANCE OF SILT CONTROL GATE, TP 1	EA	2		
165-0105	MAINTENANCE OF INLET SEDIMENT TRAP	EA	9		
171-0010	TEMPORARY SILT FENCE, TYPE A	LF	2000		
	SIGNING AND MARKING				
611-5551	RESET SIGN	EA	3		
636-1036	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 11	SF	18.25		
636-2070	GALV STEEL POSTS, TP 7	LF	41		
653-0110	THERMOPLASTIC PVMT MARKING, ARROW, TP 1	EA	2		
653-0120	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	EA	54		
653-0130	THERMOPLASTIC PVMT MARKING, ARROW, TP 3	EA	5		
653-0210	THERMOPLASTIC PVMT MARKING, WORD, TP 1	EA	3		
653-2501	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	LM	2		
653-2502	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	LM	2.5		
653-1704	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	LF	440		
653-1804	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	LF	3821		

ITEM NO.	DESCRIPTION	U/M	QTY	UNIT PRICE	EXTENSION
653-4501	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	GLM	1.5		
653-4502	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW	GLM	1.5		
653-6004	THERMOPLASTIC TRAF STRIPING, WHITE	SY	322		
653-6006	THERMOPLASTIC TRAF STRIPING, YELLOW	SY	672		
654-1001	RAISED PVMT MARKERS TP 1	EA	327		
654-1003	RAISED PVMT MARKERS TP 3	EA	256		
	SIGNALS				
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	32		
639-3004	STEEL STRAIN POLE, TP IV W/ DUAL 40'/45' MAST ARMS	EA	1		
639-3004	STEEL STRAIN POLE, TP IV W/ DUAL 60'/60' MAST ARMS	EA	1		
647-1000	TRAFFIC SIGNAL INSTALLATION NO - NO. 1	LS	1		
682-6120	CONDUIT, RIGID, 2 IN	LF	30		
682-6233	CONDUIT, NONMETL, TP 3, 2 IN	LF	1155		
682-9950	DIRECTIONAL BORE - 3"	LF	385		
682-9950	DIRECTIONAL BORE - 5"	LF	155		
682-9950	DIRECTIONAL BORE - 7"	LF	95		
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	68		
639-3004	STEEL STRAIN POLE, TP IV W/ DUAL 40'/60' MAST ARMS, INCL LUMINAIRE ARM	EA	1		
639-3004	STEEL STRAIN POLE, TP IV W/ DUAL 50'/50' MAST ARMS, INCL LUMINAIRE ARM	EA	1		
647-1000	TRAFFIC SIGNAL INSTALLATION NO - NO. 2	LS	1		
682-6120	CONDUIT, RIGID, 2 IN	LF	30		
682-6233	CONDUIT, NONMETL, TP 3, 2 IN	LF	1125		
682-9950	DIRECTIONAL BORE - 3"	LF	255		
682-9950	DIRECTIONAL BORE - 5"	LF	160		
682-9950	DIRECTIONAL BORE - 7"	LF	65		
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	62		
639-3004	STEEL STRAIN POLE, TP IV W/ DUAL 40'/60' MAST ARMS, INCL LUMINAIRE ARM	EA	1		
639-3004	STEEL STRAIN POLE, TP IV W/ DUAL 50'/50' MAST ARMS, INCL LUMINAIRE ARM	EA	1		
647-1000	TRAFFIC SIGNAL INSTALLATION NO - NO. 3	LS	1		
647-2150	PULLBOX, TP 5	EA	1		
682-6120	CONDUIT, RIGID, 2 IN	LF	30		
682-6233	CONDUIT, NONMETL, TP 3, 2 IN	LF	1215		
682-9950	DIRECTIONAL BORE - 5"	LF	210		
682-9950	DIRECTIONAL BORE - 7"	LF	95		
937-6000	MICROWAVE RADAR DETECTION ASSEMBLY	EA	1		
937-8020	TESTING - MICROWAVE DETECTION SYSTEM	LS	1		
999-9999	FIELD CONDITION ALLOWANCE	LS	1	\$ 25,000.00	\$ 25,000.00
				TOTAL:	

NAME / TITLE

COMPANY

ADDRESS

PHONE/FAX

E-MAIL

SPECIAL CONDITIONS
JOHNNY MERCER BOULEVARD CORRIDOR IMPROVEMENTS

1. **DESCRIPTION OF WORK:** The work will consist of furnishing all materials, labor and equipment for:

The installation of new traffic signals at the intersections of Johnny Mercer Boulevard at CVS/Walgreens, Wilmington Village Way and Penn Waller Road, along with construction of sidewalks, milling, resurfacing, grading (complete) signing and marking.

A location map, construction plans, technical specifications and special provisions for the project are provided elsewhere in these contract documents.

All work under this contract shall be done in accordance with the 2013 edition of the Georgia Department of Transportation (GDOT) Standard Specifications and subsequent supplemental specifications; the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD); and the following Shelf Special Provisions which are available online at the GDOT website at

<http://www.dot.ga.gov/PartnerSmart/Business/Source/Pages/SpecialProvisions.aspx>
Section 150-Traffic Control, 415 Asphaltic Concrete Open, Graded Interlayer, Section 647- Traffic Signal Installation, Section 828- Hot Mix Asphalt Concrete Mixtures, Section 802 Aggregates for Asphaltic Concrete and Section 925- Traffic Signal Equipment, except for certain items deleted or modified in these documents.

Contract administration and inspection will be performed by Chatham County.

All materials used in the process of completion of the work included in the contract shall be furnished from Georgia Department of Transportation certified suppliers only as per the GDOT Qualified Products List available on the website
www.dot.ga.gov/doingbusiness/Materials/qpl/Pages/default.aspx.

The Prime Contractor must be pre-qualified by GDOT at the time of the bid opening. All subcontractors must be qualified or registered by GDOT prior to beginning work on the project. All subcontractors shall be listed in the bid package or approved by the County in writing prior to performing work on the project.

It is the responsibility of the bidder to carefully examine and fully understand the construction contract, construction plans, technical specifications and other documents hereto attached and make a personal examination of the site of the proposed work, and satisfy him or herself as to the actual conditions and requirements of the work.

The bidder further agrees that the cost of any work performed, materials furnished, services provided, or expenses incurred, which are not specifically delineated in the contract documents but which are incidental to the scope, intent, and completion of the contract, shall be deemed to have been included in the prices bid for the various items scheduled.

2. **CONSTRUCTION LIMITS:** Milling, paving and striping limits shown on the plans shall be extended to the Turner's Creek Bridge.
3. **COMMENCEMENT AND COMPLETION:** The Contractor shall agree to commence work under this contract within ten (10) working days after the Notice to Proceed is issued, and complete all work within 180 calendar days after the 10-day period. The Contractor shall work continuously on the project after the Notice to Proceed is issued.

The Contractor shall notify the County when the work is substantially complete by submitting in writing a request, for a Certificate of Substantial Completion (Substantial Completion shall mean the date when the work has progressed to the point where it can be utilized for the purpose for which it is intended). The Certificate shall be a mutually agreed upon document listing the date of substantial completion, items of the work remaining to be completed or corrected and shall fix the time with which the Contractor shall complete items listed therein (no more than 30 days). The Certificate shall be signed by the Contractors Construction Manager and the County Project Manager. Time charges shall recommence if all work, including corrective work but excluding permanent grassing, is not complete with the time specified in the Certificate.

Intermediate Deadlines

1. Milled surfaces shall be resurfaced as follows:
 - a. Asphalt shall be covered within 7 calendar days.
 - b. Soil cement shall be covered within 48 hours.
2. Crack relief interlayer shall be covered as follows:
 - a. OGI shall be covered within 24 hours.
3. Submit all traffic signal submittals within 10 days from the Notice to Proceed
4. **MAINTENANCE:** Once the Notice to Proceed has been issued, the Contractor is held responsible for all maintenance included within the limits of the project throughout the duration of the contract without exception.

5. **LIQUIDATED DAMAGES:** Failure to complete the work within the durations given in Item No. 3 plus any extension authorized in writing by the County Engineer shall entitle the County to deduct as "Liquidated Damages" from the monies due the Contractor in the amount of **\$250 for each calendar day** in excess of the authorized construction time. The Georgia Department of Transportation schedule for liquidated damages **will not** be used.
6. **PRE-CONSTRUCTION CONFERENCE:** The Contractor shall attend a pre-construction conference prior to commencing any work.
7. **CONSTRUCTION SCHEDULE:** The Contractor shall prepare a detailed schedule showing progress dates and completion dates of all phases of each project. The schedule must be submitted and approved prior to commencement of work.
8. **PAYMENT:** Quantities are approximate and payment shall be for measured, in-place work. Any quantity of material exceeding the contract amount shall be approved, in writing, by the County Engineer prior to completion of the work. Payment will not be made for additional quantities **without prior, written approval of the County Project Manager.**
9. **TRAFFIC CONTROL:** Traffic safety is paramount. All roads must be open to traffic at all times. The Contractor will be responsible for all traffic signage, in accordance with the Manual on Uniform Traffic Control Devices, GDOT standards and details and all other safety measures that will enhance the safety of the construction site. All costs associated with this work shall be included in the bid price for traffic control. The contractor must submit a phased traffic control plan to the County Engineer for approval prior to commencing work. Any changes to the approved traffic control plan must be submitted to and approved in writing by the County Engineer.
10. **EXISTING SIGNAL EQUIPMENT:** Coordinate the removal of existing salvageable signal materials with the City of Savannah Traffic Engineering Department. Upon approval, salvageable material shall become the property of the Contractor. **Existing modems, antennas and cameras shall remain on the project and be transferred to the installed traffic signals.**
11. **GRADED AGGREGATE BASE:** The graded aggregate base will be granite only. Lime rock and recycled or crushed concrete are not approved base materials for this project.
12. **BITUMINOUS TACK:** Only Asphalt Cement, performance grade PG 58-22, PG 64-22 or PG 67-22 will be allowed. Emulsified asphalt shall not be used with the exception of the prime coat required for graded aggregate base.

13. **INCIDENTAL ITEMS OF CONSTRUCTION:** The cost associated with any incidental items of construction in which no specific pay items are set up for shall be included in the overall cost of the project.
14. **FORCE ACCOUNT:** When no agreement is reached for additional work to be done at Lump Sum or Unit Prices, then such additional work shall be done based on the following Cost-Plus-Percentage basis of payment:
- a. For work performed by the prime contractor/general contractor, the contractor shall be reimbursed for actual cost incurred in doing the work, and an additional payment of 15% to cover overhead and profit.
 - b. For work performed by a sub-contractor, the sub-contractor shall be reimbursed for actual cost incurred in doing the work, and an additional payment of 10% to cover overhead and profit. The contractor shall be allowed an overhead and profit mark-up not to exceed 7% on the subcontractor's price. The County shall not recognize subcontractors of subcontractors.
 - c. The term "Actual Cost" shall include the cost of material and labor as follows:
 - i. Material cost - Direct cost of material, sales tax, freight and equipment rental.
 - ii. Labor cost - Man hour cost listed separately by trade, payroll costs including workman's compensation, social security, pension and retirement.
 - d. The term "Overhead and Profit" shall include bonds (Payment & Performance, Roof & Wall), insurance (Liability, Builders Risk), permits, supervision costs (cost of subcontractor to supervise own work, cost of contractor to supervise work of sub-contractor), proposal preparation and all administrative costs.
15. **PRE-CONSTRUCTION INSPECTION:** A preconstruction video, DVD or CD of photographs is required and must be submitted to Chatham County Department of Engineering for approval prior to the start of work. Special emphasis shall be given to record the existing condition of roadway pavement, signs, driveways, utilities and any other improvements within 25 feet of the project limits.
16. **WORK HOURS:** Night and weekend work must be approved in writing. Night work between the hours of 10:00 PM and 7:00 AM will require a Noise Disturbance Permit per the County Code, Section 24: Environmental Regulations, Article III, Subsection 24-308.
17. **UTILITIES:** The Contractor will be responsible for all utility coordination, including required relocation, and protection of utility facilities.

18. **ENCROACHMENT PERMIT:** Contractor shall obtain a Right of Way Encroachment Permit through the Chatham County prior to any work.

19. **PRIME CONTRACTOR SUPERINTENDENT:** A qualified Superintendent of the prime contractor shall be on-site at all times during construction activities, including those of subcontractors. A sub-contractor will not be an approved representative of the prime contractor. If the Superintendent is not present to control the work, work may be suspended by County personnel until such time as the Superintendent is on-site and has adequately addressed any problems or concerns.

20. **TREE PROTECTION, REMOVAL & TRIMMING:** Individual trees greater than eight inches in diameter at breast height (DBH) located outside of the construction limits (cut and fill lines) shall not be removed unless specifically called out for removal. All such trees, as well as those specifically labeled for protection, shall be protected with bright orange polyethylene barrier fence, or an approved alternate, around the tree protection zone. The barrier fence shall be installed before grading operations begin and shall be maintained until the area has been brought to final grade and permanently stabilized.

If the contractor feels a tree should be removed that is not shown as such, he shall notify the Engineer immediately so that a determination can be made. Further, during construction, the engineer may identify additional trees within the project limits that must be removed or trimmed in the interest of safety, maintenance and/or to allow for paving operations. In either case, the contractor shall remove or trim such trees at the direction of the engineer at no additional cost to the County.

21. **SAMPLING AND TESTING OF MATERIALS:** All sampling and testing services shall be performed by an independent testing agency which operates in accordance to ASTM D3470 and E329, latest edition, and accepted by the County Engineer, at the contractor's expense. All sampling and testing will be in accordance with the Georgia Department of Transportation Standard Specifications and Sampling, Testing and Inspection Guidelines. It should be understood that these are minimum requirements and that additional testing may be requested by the Engineer as needed. A minimum of 24 hours' notice shall be given to the County Project Manager. A copy of all test reports shall be sent to the County Project Manager. The cost associated with testing will be included in the bid price for that item.

a. **Section 209 Subgrade** - One in-place density test shall be taken per every 1,000 linear feet, maximum 24 foot width, for each section set up at one time. Compaction shall be a minimum of 100% of maximum dry density and optimum moisture content as determined by the testing agency. Any areas that fail a compaction test must pass a retest prior to placement of base course. The subgrade shall be proof rolled with a loaded dump truck and approved by the

Engineer prior to placement of any base course. Testing as per GDT 7, 20, 24a, 24b, 59, 67.

b. Section 310 Graded Aggregate Construction - One thickness measurement and one in-place density test per 1,000 linear feet, maximum 24 foot width, for each section set up at one time. A proof roll with a loaded dump truck may be required by the Engineer prior to placement of any asphalt or bituminous prime coat. Testing as per GDT 21,59.

c. Section 400 & 402 Hot Mix Asphalt Construction - The contractor shall be responsible for comparison testing and quality assurance according to GDOT Standard Specification 400.3.06.A. 3.4. and compaction testing according to GDOT Standard Specification 400.3.06.B.

The maximum pavement mean air voids for all Superpave mixes must not exceed 7.0% for the 100% pay factor.

Gradation and asphalt cement test reports will be required from the asphalt plant quality control program as well as comparison test results and compaction test results from the independent lab prior to payment for asphalt placed. Cores may be required to verify compaction if gauge readings indicate compaction below the maximum mean air void tolerance for 100% pay factor or at the discretion of the Engineer.

d. Section 441 Miscellaneous Concrete - One set of test cylinders per each 100 cumulative cubic yards or one set per week if placement is less than 100 cumulative cubic yards per week. Air and slump test are required when cylinders are made and as necessary to insure adequate control. Cylinders shall be tested at 28 days in accordance with ASTM C39.

22. **FIELD CONDITION ALLOWANCE:** The field condition allowance shown on the bid sheet shall belong to Chatham County. The purpose of this Allowance is to allow the County to designate actions associated with completion of the project which are not indicated on the plans, but which are dictated by field conditions. Bidders shall not use this Allowance to assume any Contractor costs known or unknown at the bidding. Chatham County must approve use of the Allowance. All bidders shall include this Field Condition Allowance within their base bid. Any unused allowance shall revert to Chatham County.

INDEX		
SHEET NO.	DRAWING No.	DESCRIPTION
1	1-01	COVER SHEET
2	3-01	REVISIONS SUMMARY
3	4-01	GENERAL NOTES
4 - 5	5-01 TO 5-02	TYPICAL SECTIONS
6	6-01	SUMMARY OF QUANTITIES
7	7-01	QUANTITIES (AMENDMENT)
8 - 13	13-01 TO 13-06	MAINLINE PLANS
14 - 15	18-05 TO 18-06	SPECIAL GRADING PLAN
16 - 21	26-01 TO 26-06	SIGNING & MARKING PLANS
22 - 29	27-0001 TO 27-0008	SIGNAL PLANS
30 - 55	A-3, T-1, T-3A, T-11A, T-12A, T-12B, T-13A, T-15A, 1011A, 1401, 9032B, D-10, D-20, D-55A, D-55B SPECIAL DESIGN SPILLWAY UNDER SIDEWALK TS-01, TS-02, TS-03, TS-03A, TS-04, TS-05, TS-06, TS-07, TS-08, TS-09	GA DOT STANDARDS & CONSTRUCTION DETAILS
56	51-01	ESPCP GENERAL NOTES
57 - 63	52-0001 TO 52-0007	EROSION CONTROL LEGEND
64 - 69	54-01 TO 54-06	BMP LOCATION DETAILS
70 - 74	R-001 TO R-005	RIGHT OF WAY PLANS
75 - 76	R-006 TO R-007	RIGHT OF WAY TABLES

CHATHAM COUNTY

DEPT. OF ENGINEERING

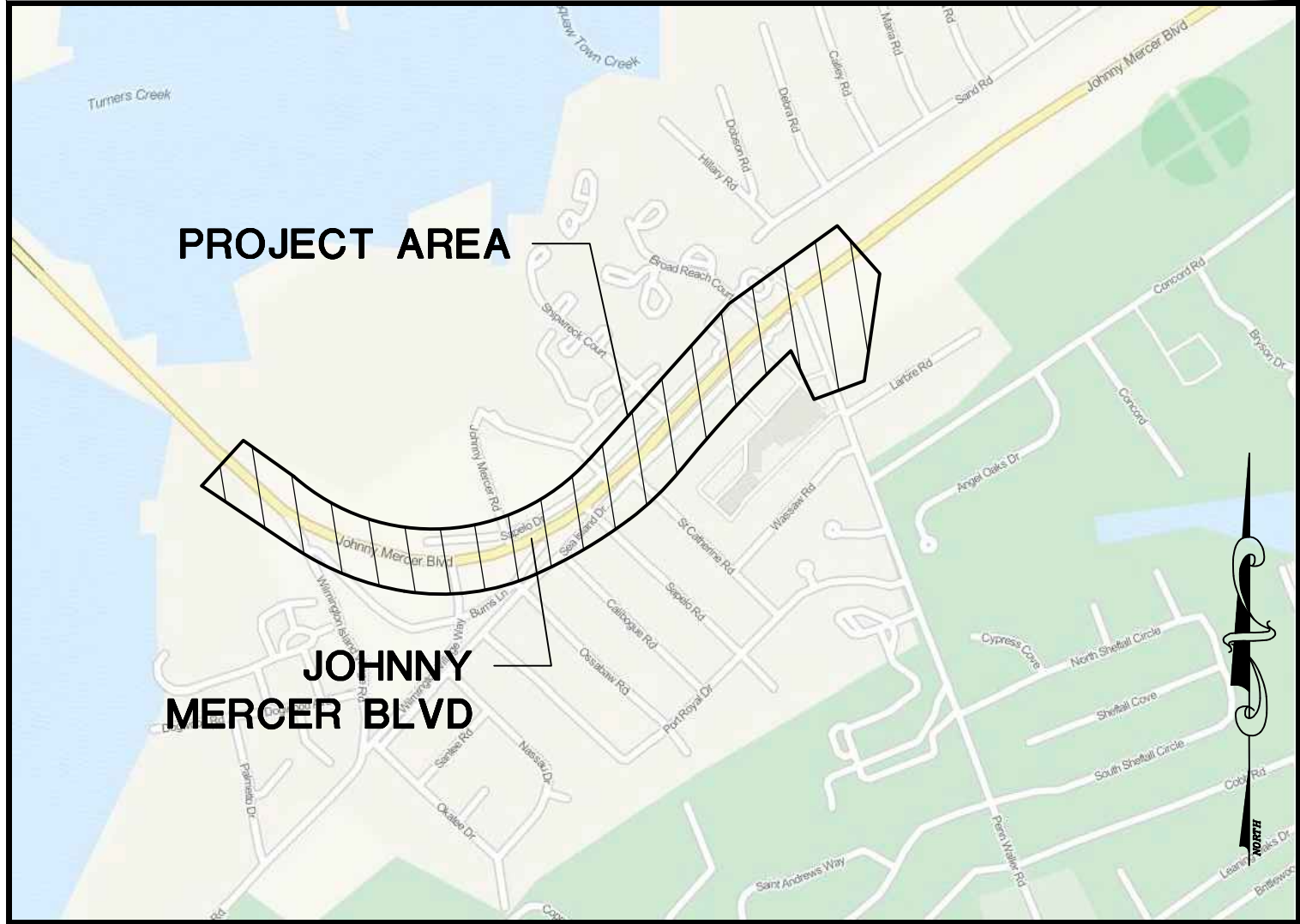
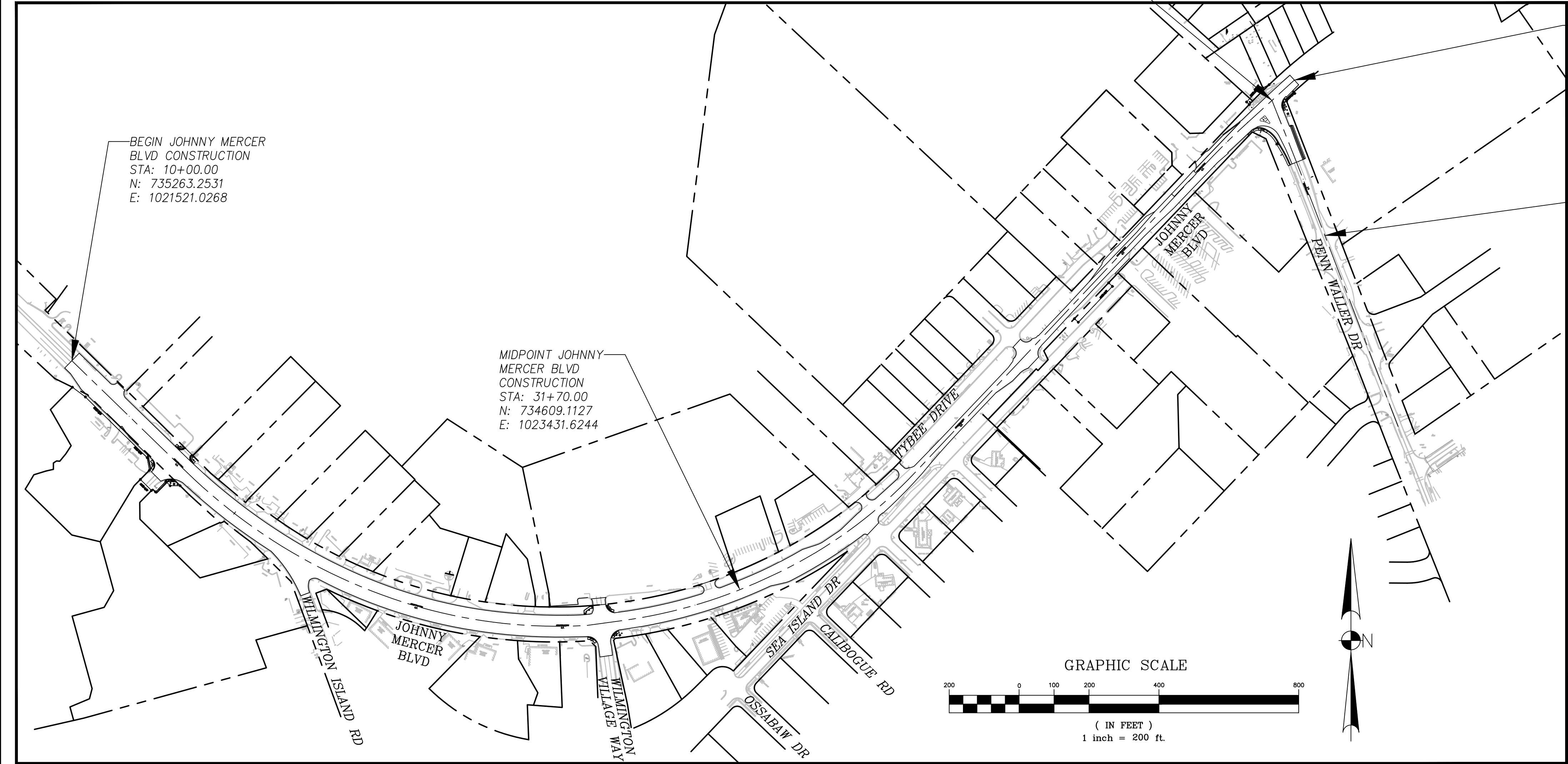
PROPOSED IMPROVEMENTS

JOHNNY MERCER BLVD.

COUNTY	PROJECT	SHEET NO.	TOTAL SHEETS
CHATHAM		1	69

PROJECT LOCATION 100% IN CHATHAM COUNTY
CONGRESSIONAL DISTRICT 1
COUNTY CODE 051
LAND LOTS 98

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL
GEORGIA COORDINATE SYSTEM OF 1983 (NAD 1983) EAST ZONE,
AND THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.



LOCATION MAP
NOT TO SCALE



WOLVERTON

Engineering Solutions You Can Trust

6745 Sugarloaf Parkway • Suite 100 • Duluth, Georgia 30097
Phone: 770 • 447 • 8999
www.wolvertoninc.com

PLANS COMPLETED: 03/13/2019
APPROVED: _____
DATE _____

FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL
DESIGN SPEED = 35 M.P.H. - JOHNNY MERCER BLVD

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING ON THE PROJECT SITE THE GEORGIA D.O.T. STANDARD DRAWINGS AND THE CONSTRUCTION DETAIL DRAWINGS LISTED ON THE INDEX SHEET. FULL SIZE SHEETS MAY BE PURCHASED BY THE CONTRACTOR AT HIS EXPENSE FROM THE GEORGIA D.O.T.

LENGTH OF PROJECT		
DESCRIPTION	FEET	MILES
NET LENGTH OF ROADWAY	4340	0.822
NET LENGTH OF BRIDGES	0.000	0.000
NET LENGTH OF PROJECT	4340	0.822
NET LENGTH OF EXCEPTIONS	0.000	0.000
GROSS LENGTH OF PROJECT	4340	0.822

THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS, OR IN ANY OTHER WAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT IN ANY WAY. THE ATTENTION OF THE BIDDER IS SPECIFICALLY DIRECTED TO ARTICLES 102.04, 102.05 AND 104.03 OF THE STANDARD SPECIFICATIONS OF THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, FOR THE CONSTRUCTION OF ROADS AND BRIDGES, CURRENT ENGLISH EDITION, AND ANY MODIFICATIONS THEREOF, WHICH ARE A PART OF THIS CONTRACT.

REVISIONS		
DATE	BY	DESCRIPTION
8/1/18	DNB	UPDATED CONC SPILLWAY QUANTITY, ROW OWNERSHIP
9/5/18	DNB	PROPERTY OWNER NAME CHANGES FOR PARCELS 3 AND 10
1/14/19	DNB	EASEMENT REVISIONS FOR PARCEL 4 AND 6
2/21/19	DMN	REMOVED REQUIRED R/W TRACT 2 FOR PARCEL 3
4/5/19	JEB	ADDRESS CHATHAM COUNTY COMMENTS

COUNTY						PROJECT	SHEET NO.	TOTAL SHEETS
CHATHAM							3	69
GENERAL NOTES SHEET								
1. THE FOLLOWING UTILITY OWNERS HAVE FACILITIES ON THIS PROJECT: CITY OF SAVANNAH WATER AND SEWER DEPT. ABE GHAI CITY LOT, 702 STILES AVE. SAVANNAH, GA 31401 (912) 651-6573 AT&T IRVIN RILEY 6602 ABERCORN ST., STE 2120 SAVANNAH, GA 31405 PH: (912) 964-7346 ATLANTA GAS LIGHT JOEY WHITE 1668 CHATHAM PARKWAY SAVANNAH, GA 31405 PH: (912) 239-6508 GEORGIA POWER COMPANY CHRIS TATUSKO (AREA COORDINATOR) 3100 KILOWATT DRIVE SAVANNAH, GA 31405 PH: (912) 306-2124 CELL: (912) 659-9439 COMCAST CABLE MICHAEL RICHARDSON 145 PARK OF COMMERCE DRIVE SAVANNAH, GA 31405 PH: (912) 658-4788 GEORGIA POWER COMPANY RICK LONG (GDOT COORDINATOR) 3100 KILOWATT DRIVE SAVANNAH, GA 31405 PH: (912) 547-0660 10. DAMAGE TO ANY EXISTING CONDITIONS TO REMAIN SHALL BE REPLACED/REPAIRED AT THE CONTRACTOR'S EXPENSE. 11. ADDITIONAL CONTACT INFORMATION DENNIS GOLDBAUGH CHATHAM COUNTY ARBORIST CHATHAM COUNTY ENGINEERING DEPT 124 BULL ST., ROOM 430 SAVANNAH, GA 31401 PH: 912-652-7800 NATHANIEL PANTHER JEREMY MITCHLER CHATHAM COUNTY ENGINEERING CHATHAM COUNTY ENGINEERING DEPT 124 BULL ST., ROOM 430 SAVANNAH, GA 31401 PH: 912-652-7800 12. ALL WORK ON THE PROJECT SHALL CONFORM TO GDOT STANDARDS, SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS, CURRENT EDITION, EXCEPT AS MODIFIED BY THESE PLANS. 13. ALL MATERIAL SHALL BE OBTAINED FROM GDOT APPROVED SUPPLIERS. 14. ALL TRAFFIC CONTROL SHALL BE ACCORDING TO THE MUTCD, CURRENT EDITION AND GDOT STANDARDS. A TRAFFIC CONTROL PLAN MUST BE APPROVED BY THE COUNTY ENGINEER PRIOR TO BEGINNING ANY WORK. 15. ANY REFERENCE TO "THE DEPARTMENT" SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN CHATHAM COUNTY DEPARTMENT OF ENGINEERING, AND REFERENCES TO "THE DEPARTMENT'S SPECIFICATIONS" SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE GEORGIA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS, CURRENT EDITION. 16. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL STREET NAME SIGNS WITHIN THE PROJECT LIMITS. IF A STREET NAME SIGN MUST BE MOVED TO COMPLETE WORK, IT SHALL BE RESET AT THE END OF EACH WORKDAY. 17. HORIZONTAL AND VERTICAL CONTROL SHOWN IN THESE PLANS ARE TO BE USED FOR ALL LAYOUT AND RECORD DATA FOR THIS PROJECT. IF DISCREPANCIES ARE FOUND, CONTACT THE COUNTY ENGINEER BEFORE PROCEEDING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH SUPPLEMENTAL CONTROL WITHIN THE PROJECT AS NEEDED. 18. MAILBOXES SHALL BE RELOCATED AS REQUIRED FOR CONSTRUCTION. THIS WORK WILL BE INCLUDED IN THE BID PRICE FOR GRADING COMPLETE AND WILL NOT BE MEASURED SEPARATELY FOR PAYMENT. 19. PERFORMANCE OF THE WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF NPDES, THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA AND CHATHAM COUNTY'S EROSION AND SEDIMENTATION CONTROL ORDINANCE. 20. ANY DISTURBED AREA WHICH WILL BE LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASS OR MULCH. 21. ALL TREES WITHIN THE CONSTRUCTION CUT/FILL LIMITS SHALL BE REMOVED UNLESS SPECIFICALLY CALLED OUT FOR PROTECTION. INDIVIDUALLY TREES GREATER THAN 8" DIAMETER THAT ARE OUTSIDE OF THE CONSTRUCTION CUT/FILL LIMITS SHALL NOT BE REMOVED UNLESS SPECIFICALLY CALLED OUT FOR REMOVAL. ALL SUCH TREES, AS WELL AS THOSE SPECIFICALLY LABELED FOR PROTECTION, SHALL BE PROTECTED ACCORDING TO COUNTY TREE PROTECTION STANDARDS. IF THE CONTRACTOR FEELS A TREE NEEDS TO BE REMOVED TO FACILITATE THE WORK, HE SHOULD NOTIFY THE ENGINEER IMMEDIATELY SO A DETERMINATION CAN BE MADE. FURTHER, DURING CONSTRUCTION THE ENGINEER MAY IDENTIFY ADDITIONAL TREES WITHIN THE PROJECT LIMITS THAT MUST BE REMOVED IN THE INTEREST OF SAFETY OR MAINTENANCE. IN EITHER CASE, THE CONTRACTOR SHALL REMOVE SUCH TREES AT THE DIRECTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE COUNTY. 22. ALL WATER USED FOR CONSTRUCTION SHALL BE METERED THROUGH AN APPROVED BACKFLOW PREVENTION DEVICE AND FIRE HYDRANT METER. 23. ADJUSTMENT OF WATER METERS AND METER BOXES SHALL BE INCLUDED IN THE BID PRICE FOR GRADING COMPLETE AND WILL NOT BE MEASURED SEPARATELY FOR PAYMENT. 24. TREE PROTECTION BARRIERS SHALL BE OF ORANGE SAFETY FENCE WITH METAL POSTS OR APPROVED ALTERNATE. THE BARRIER FENCE SHALL BE INSTALLED BEFORE CLEARING AND GRADING OPERATIONS BEGIN AND SHALL BE MAINTAINED UNTIL THE AREA HAS BEEN BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED. CAUTION SHALL BE TAKEN DURING THE CLEARING OPERATION TO AVOID FELLING TREES INTO THE PROTECTION ZONES. NO MATERIAL STORAGE, EARTH STORAGE, GAS FUELING, CONCRETE WASHOUT, DUMPING OR CONSTRUCTION TRAFFIC IS ALLOWED WITHIN THE TREE PROTECTION ZONES. 25. A QUALIFIED REPRESENTATIVE OF THE PRIME CONTRACTOR SHALL BE ON SITE WHILE ANY SUBCONTRACTOR IS WORKING ON THE PROJECT. IF ADEQUATE MANAGEMENT IS NOT PRESENT TO CONTROL THE WORK WILL BE SUSPENDED BY COUNTY PERSONNEL UNTIL SUCH TIME AS THE CONTRACTOR'S SUPERINTENDENT IS ON SITE AND HAS ADEQUATELY ADDRESSED ANY PROBLEMS OR CONCERNS. COMMERCIAL CONCRETE – CONCRETE VALLEY GUTTER – 8 IN. DRIVEWAY CONCRETE – 8 IN. GRADED AGGREGATE BASE – 8 IN. ASPHALT – RECYCLED ASPH. CONC. 12 mm SUPERPAVE – 165 LB/SY GP 2 ONLY, INCLD. BITUM MATL. & H LIME RECYCLED ASPH. CONC. 19 mm SUPERPAVE – 220 LB/SY GP 2 ONLY, INCLD. BITUM MATL. & H LIME GRADED AGGREGATE BASE – 6 IN. 3. CONTRACTOR TO MAINTAIN ACCESS TO ALL PARCELS DURING CONSTRUCTION. ACCESS TO DRIVES WILL BE PROVIDED AT ALL TIMES. 4. ALL BORROW SITES AND WASTE SITES FOR THIS PROJECT SHALL BE ENVIRONMENTALLY APPROVED BEFORE USE. ALL TOPSOIL SHALL BECOME PROPERTY OF THE CONTRACTOR. 5. ALL EXISTING PIPES AND DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AND MAINTAINED FOR THE DURATION OF THE PROJECT. CONTRACTOR IS TO CLEAN OR FLUSH OUT ALL RETAINED DRAINAGE PIPE AND STRUCTURES AT THE COMPLETION OF CONSTRUCTION TO REMOVE SILT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROJECT. 6. CONTRACTOR TO ENSURE THAT APPROPRIATE EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO CLEARING AND GRUBBING OF TEMPORARY AND PERMANENT EASEMENTS FOR THE UTILITY RELOCATIONS. 7. A N.O.I. IS NOT REQUIRED FOR THIS PROJECT. 8. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND OR ELEVATION OF ALL EXISTING UTILITIES (ABOVE OR BELOW GROUND) AS SHOWN ON THESE PLANS ARE APPROXIMATE AND WERE LOCATED BASED ON EITHER VISUAL OBSERVATIONS AT THE SITE, EXISTING SURVEYS AND/OR FROM THE OWNERS. WOLVERTON & ASSOCIATES, INC. DOES NOT GUARANTEE THAT EXISTING UTILITY LOCATIONS SHOWN ARE EXACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES (ABOVE OR BELOW GROUND) BEFORE BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND THE UTILITIES PROTECTION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY OWNER AND/OR ENGINEER OF ANY UTILITY CONFLICTS WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. 9. THE CONTRACTOR SHALL ONLY WORK WITHIN THE LIMITS OF RIGHT OF WAY OR EASEMENT AND SHALL AT NO TIME ENCROACH ONTO PRIVATE PROPERTY. TREE PROTECTION ORANGE BARRIER FENCE BARRIER CONSTRUCTED TO PROTECT TREE TRUNK, CROWN, AND ROOT SYSTEM FROM INJURY. BARRIERS SHALL BE LOCATED AT THE LIMITS OF THE TREE'S CRITICAL ROOT ZONE (A RADIUS OF ONE AND A HALF FEET PER INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT). BARRIER SHALL BE KEPT IN GOOD CONDITION FOR THE DURATION OF THE PROJECT AND IS TO REMAIN IN PLACE UNTIL THE NOTICE OF TERMINATION. GEORGIA811 Utilities Protection Center, Inc Know what's below. Call before you dig. REVISION DATES 4/5/19 CHATHAM COUNTY DEPARTMENT OF ENGINEERING OFFICE: GENERAL NOTES JOHNNY MERCER BOULEVARD IMPROVEMENTS DRAWING No. 4-01								

COUNTY
CHATHAM

PROJECT

SHEET NO.
6

TOTAL SHEETS
69

TRAFFIC CONTROL

TOTALLUMP SUM

GRADING COMPLETE

TOTALLUMP SUM

INSTALL AND REMOVE SILT FENCE

ITEMQUANTITY

TYPE-A2000

MAINTAIN SILT FENCE

ITEMQUANTITY

TYPE-A1000

SAW CUT PAVEMENT

STATIONQUANTITY (LF)

JOHNNY MERCER

14+20, 46' LT30

ORANGE BARRIER FENCE

TOTAL144 LF

DRIVEWAY

ITEMUNITQUANTITY

CONCRETE VALLEY GUTTER, 8"SY60

GRASSING AND MULCH

ITEMUNITQUANTITY

PERMANENT GRASSINGAC1

TEMPORARY GRASSINGAC1

AGRICULTURAL LIMETN3

FERTILIZER MIXED GRADE – PERMTN1

FERTILIZER MIXED GRADE – TEMPTN1

FERTILIZER NITROGEN CONTENTLB50

MULCH – PERM GRASSINGTN3

MULCH – TEMP GRASSINGTN3

MULCH – DISTURBED AREASTN5

CONSTRUCT AND REMOVE SILT CONTROL GATE

ITEMQUANTITY

SG-12

MAINTAIN SILT CONTROL GATE

ITEMQUANTITY

SG-12

REMOVE AND RESET SIGNS

STATION REMOVALSTATION RESETQUANTITY

JOHNNY MERCER

14+32.1514+32.151

PENN WALLER

10+91.9710+86.181

11+51.7211+55.261

SUMMARY OF QUANTITIES–STANDARD SIGNS

STA.ROADINSTL. NO.CODESIGNS (TYPE I)POST

TYPE XI REFLECTIVE SHEETING

SIZEQUANTITYSQ. FEETLENGTH (FEET)QUANTITYTOTAL LENGTH

51+37JOHNNY MERCER BLVDR560-518"x24"1313

10+72PENN WALLER RDR1-236"x36"1914

12+45PENN WALLER RDR3-830"x30"16.2514

TOTAL318.2541341

SURFACING QUANTITIES

ITEMSITEMSMANLINETOTALS

RECYCLED ASPH. CONC. 12.5mm SUPERPAVE, GP 2 ONLY, INCLD BITUM MATL & H LIME TN2958.02958.0

RECYCLED ASPH. CONC. 19mm SUPERPAVE, GP 1 OR 2, INCLD BITUM MATL & H LIME TN113.0113.0

8" GR AGGR BASE CRS INLCL MATL.TN439.0439.0

RECYCLED ASPH. CONC. 25mm SUPERPAVE, GP 1 OR 2, INCLD BITUM MATL & H LIME TN169.0169.0

TACK COATGL3220.03220.0

ASPH. CONC. OPEN GRADED CRACK RELIEF INTERLAYER, GP 2 ONLY, INCL BITUM MATL & H LIME TN1152.01152.0

MILLING VARIABLE DEPTH SY25601.025601.0

PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH LF1011.01011.0

CLASS B CONCRETE, BASE OR PVMT WIDENING CY10.010.0

RIGHT OF WAY MARKERS

ITEMQUANTITY

RIGHT OF WAY MARKERS21

4" CONCRETE DITCH PAVING

TOTAL91 SY

*SEE SHEET 13-06 & DETAILS FOR ADDITIONAL INFORMATION

CONSTRUCT AND REMOVE INLET SEDIMENT TRAP

ITEMQUANTITY

Sd2-P7

Sd2-F2

MAINTAIN INLET SEDIMENT TRAP

ITEMQUANTITY

Sd2-P7

Sd2-F2

CURB & GUTTER

ITEMUNITQUANTITY

CONC CURB & GUTTER, 6 IN X 30 IN, TP 2 LF244

CONCRETE HEADER CURB, 6 IN, TP 2 LF4

CONCRETE HEADER CURB, 6 IN, TP 9 LF43

SIDEWALK

ITEMUNITQUANTITY

CONCRETE SIDEWALK, 4 IN SY88

CONCRETE SIDEWALK, 8 IN SY177

STORM QUANTITIES

ITEMUNITQUANTITY

CONC SPILLWAY, SPCL DES EA1

ADJUST MH TO GRADE FROM GRADING DETAILS EA3

STN DUMPED RIP RAP, TP 3, 18 IN SY3

SIGNING & MARKING

DESCRIPTIONUNITQUANTITY

THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE LM2

THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW LM2

THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE LF440

THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE LF3776

THERMOPLASTIC PVMT MARKING, ARROW, TP 1 EA2

THERMOPLASTIC PVMT MARKING, ARROW, TP 2 EA51

THERMOPLASTIC PVMT MARKING, ARROW, TP 3 EA5

THERMOPLASTIC PVMT MARKING, WORD, TP 1 EA3

THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE GLM1

THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW GLM1

THERMOPLASTIC TRAF STRIPING, WHITE SY206

THERMOPLASTIC TRAF STRIPING, YELLOW SY283

RAISED PVMT MARKERS TP 1 EA215

RAISED PVMT MARKERS TP 3 EA200

CONCRETE MEDIAN

ITEMUNITQUANTITY

CONCRETE MEDIAN, 6-IN. SY36

REVISION DATES

4/5/19

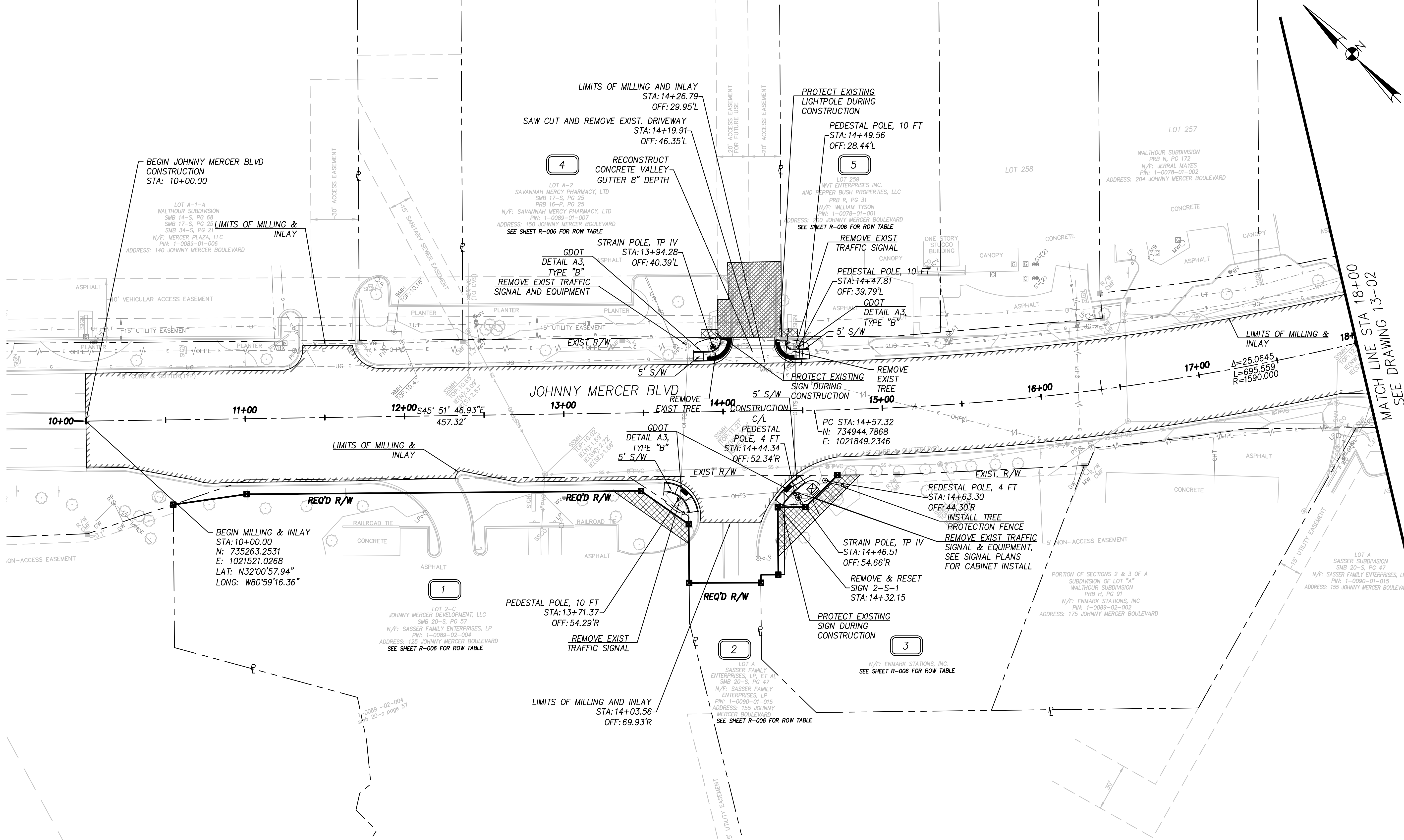
CHATHAM COUNTY
DEPARTMENT OF ENGINEERING

OFFICE:

SUMMARY OF QUANTITIES
JOHNNY MERCER BOULEVARD IMPROVEMENTS

DRAWING No.
6-01

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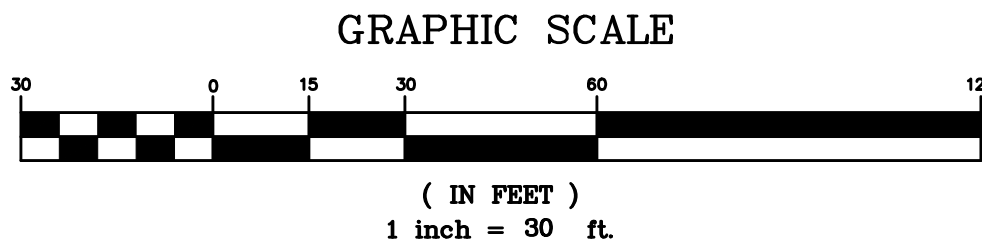
MATCH LINE STA 18+00
SEE DRAWING 13-02

DRAWING No.
13-01

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
EASEMENT FOR CONSTR OF SIGNALS

EASEMENT FOR CONSTR OF
SLOPE
EASEMENT FOR CONSTR & MAINT
OF TRAFFIC SIGNALS
TREE PROTECTION FENCE

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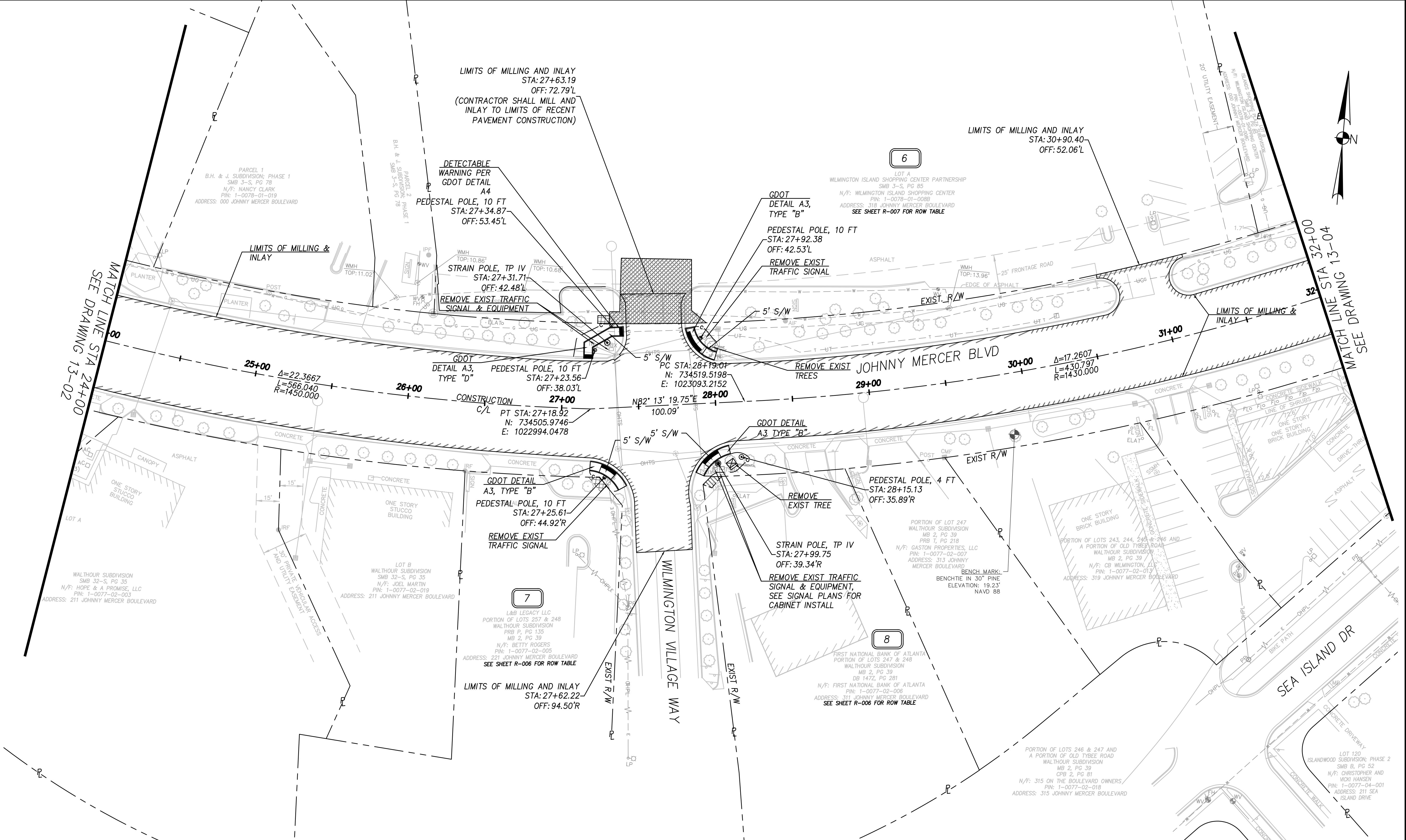
REVISION DATES

4/5/19			

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING

OFFICE:

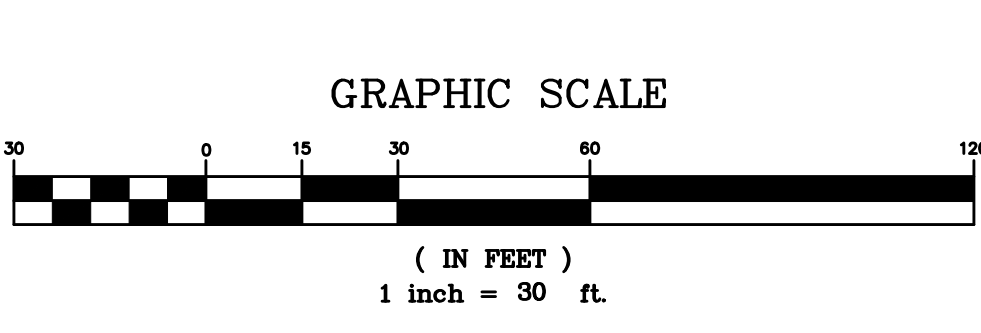
MAINLINE PLAN
JOHNNY MERCER BOULEVARD
IMPROVEMENTS



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
EASEMENT FOR CONSTR OF SIGNALS

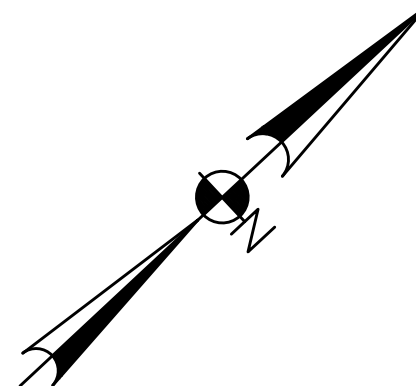
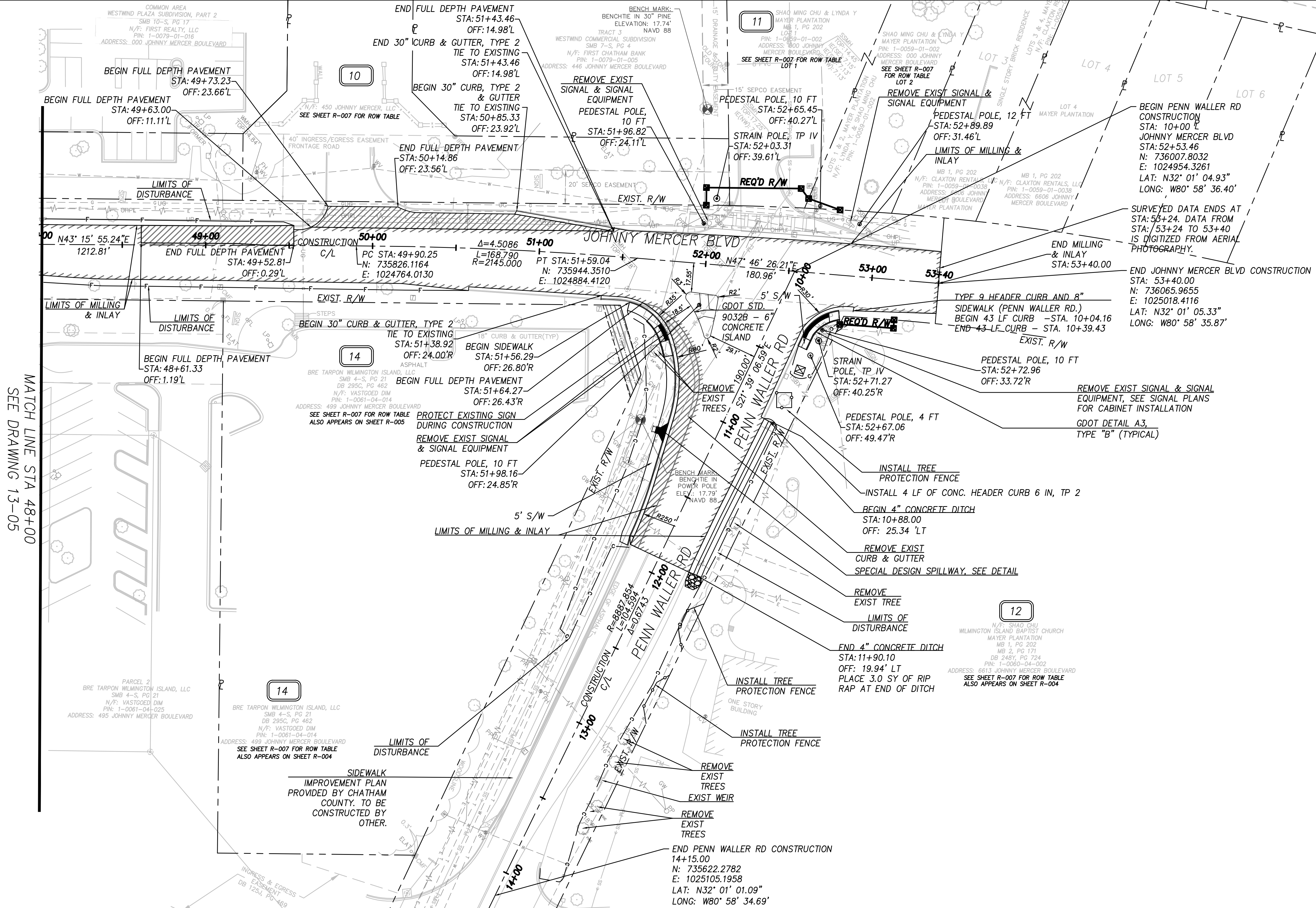
EASEMENT FOR CONSTR OF SLOPE
EASEMENT FOR CONSTR & MAINT OF TRAFFIC SIGNALS
TREE PROTECTION FENCE

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REVISION DATES		
4/5/19		

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING
OFFICE:
MAINLINE PLAN
JOHNNY MERCER BOULEVARD
IMPROVEMENTS
DRAWING No.
13-03

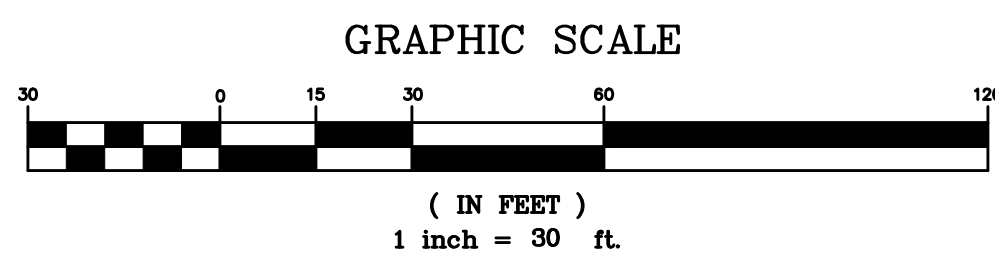


PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
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REVISION DATES			
4/5/19			

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING
OFFICE:

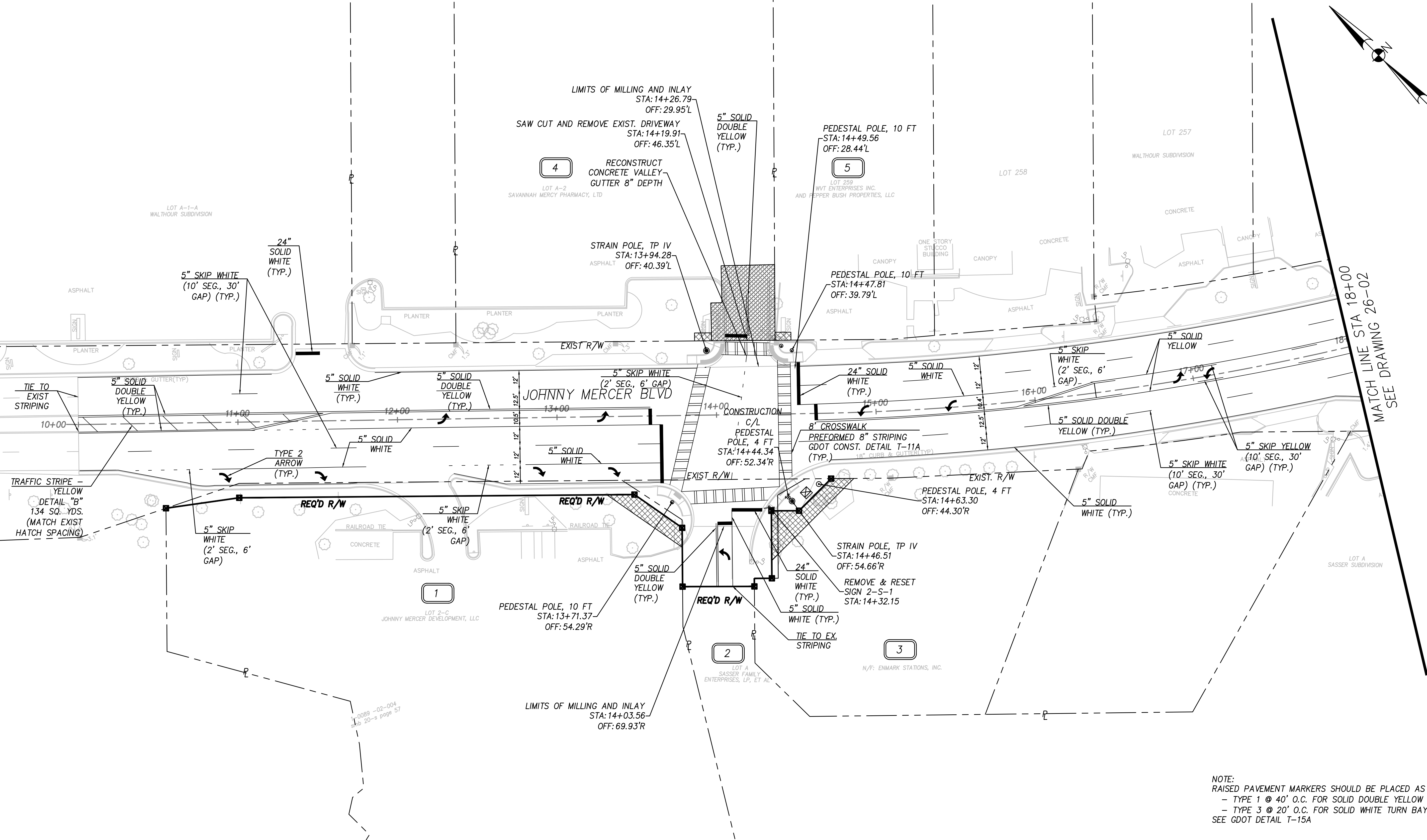
MAINLINE PLAN
JOHNNY MERCER BOULEVARD
IMPROVEMENTS

DRAWING No.
13-06



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NOTE:
RAISED PAVEMENT MARKERS SHOULD BE PLACED AS FOLLOWS:
- TYPE 1 @ 40' O.C. FOR SOLID DOUBLE YELLOW
- TYPE 3 @ 20' O.C. FOR SOLID WHITE TURN BAYS
SEE GDOT DETAIL T-15A

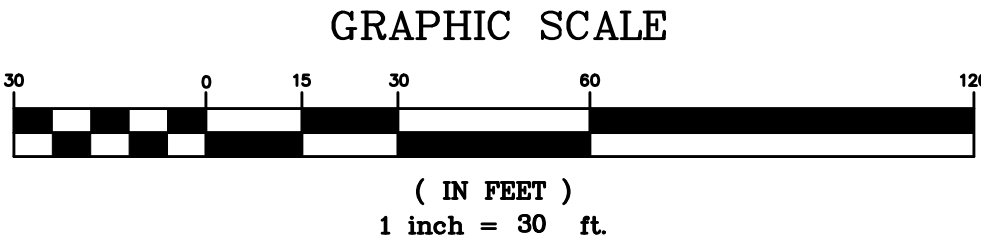
PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
EASEMENT FOR CONSTR OF SIGNALS

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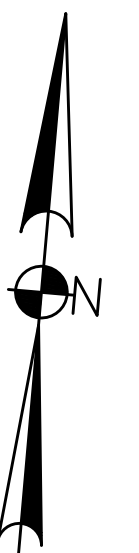
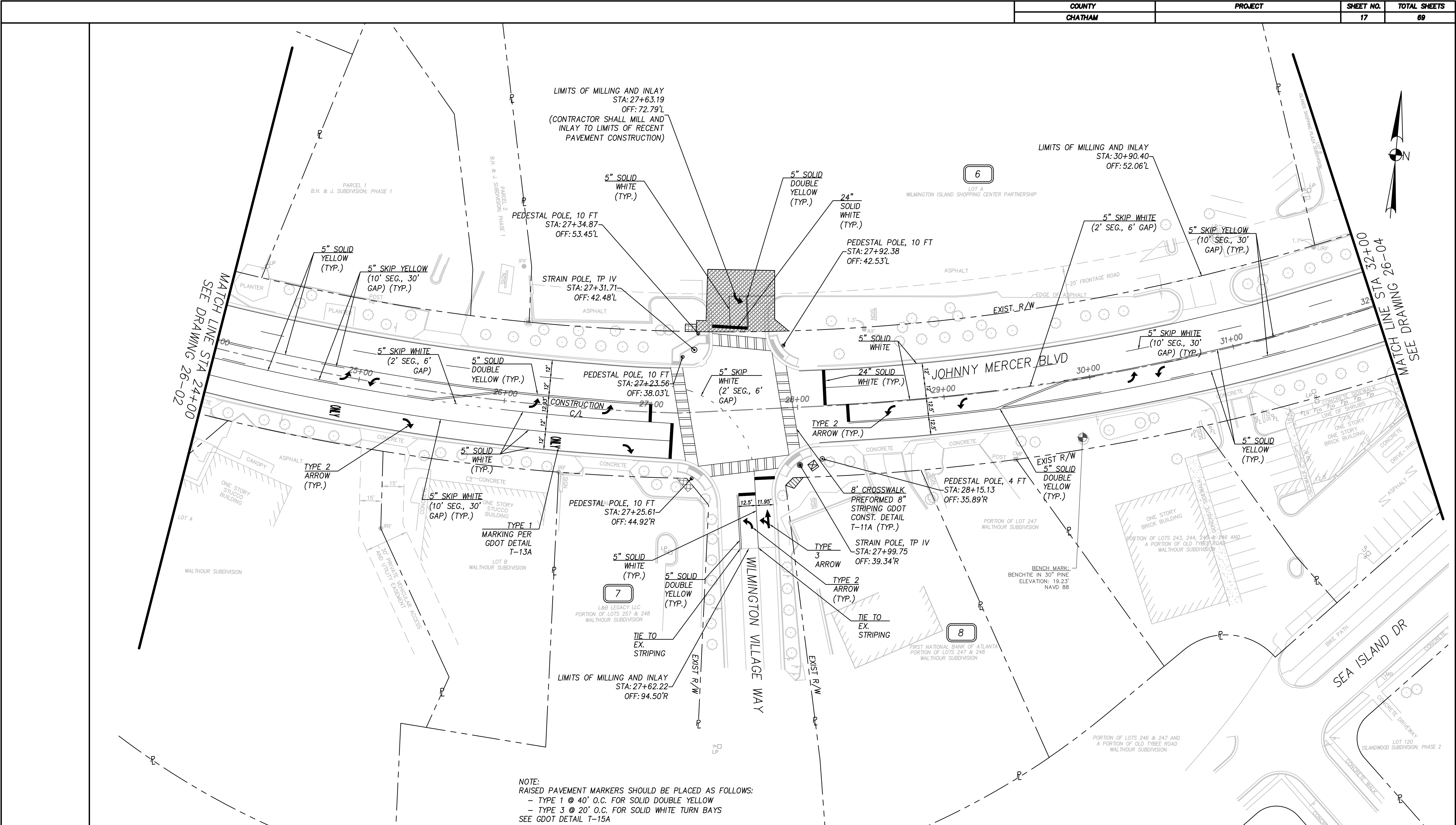


REVISION DATES

4/5/19		

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING
OFFICE:
SIGNING & MARKING PLAN
JOHNNY MERCER BOULEVARD
IMPROVEMENTS

DRAWING No.
26-01



MATCH LINE STA 32+00
SEE DRAWING 26-04

MATCH LINE STA 24+00
SEE DRAWING 26-02

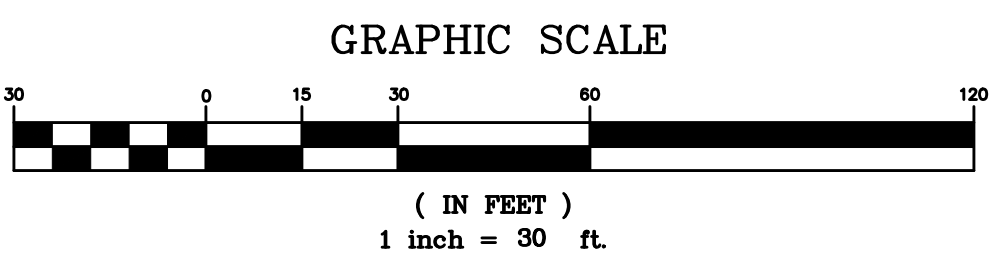
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SEE GDOT DETAIL T-15A

PROPERTY AND EXISTING R/W LINE
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REVISION DATES		
4/5/19		

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING
OFFICE:
SIGNING & MARKING PLAN
JOHNNY MERCER BOULEVARD
IMPROVEMENTS

DRAWING No.
26-03

PROPERTY AND EXISTING R/W LINE
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GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

REVISION DATES
4/5/19

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING
OFFICE:
SIGNING & MARKING PLAN
JOHNNY MERCER BOULEVARD
IMPROVEMENTS
DRAWING No.
26-05

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COUNTY
CHATHAM

PROJECT NUMBER
TASK ORDER #7

SHEET NO.
22

TOTAL SHEETS
69

EXISTING SIGNAL

CONTROLLER CABINET

STRAIN POLE

TIMBER POLE

DOWN GUY

MAST ARM

STREET LIGHT

3 SECTION HEAD

4 SECTION HEAD W/ BACKPLATE

4/5 SECTION (CLUSTER/T-SHAPE) HEAD

OVERHEAD SIGN

PEDESTAL POLE

PED SIGNAL HEAD

CURB CUT RAMP

PULLBOX,(TYPE TO BE CALLED OUT)

6x6 PULSE LOOP

6x18 CALL LOOP

6x40 PRESENCE LOOP (DIPOLE)

6x40 PRESENCE LOOP (QUADRUPOLE)

CONDUIT

RAILROAD CONTROLLER

SIGN POST

PROPOSED SIGNAL

CONTROLLER CABINET

STRAIN POLE

TIMBER POLE

DOWN GUY

MAST ARM

STREET LIGHT

3 SECTION HEAD

3 SECTION HEAD W/ BACKPLATE

4 SECTION HEAD

4 SECTION HEAD W/ BACKPLATE

4/5 SECTION (CLUSTER/T-SHAPE) HEAD

4/5 SECTION (CLUSTER/T-SHAPE) HEAD W/ BACKPLATE

OVERHEAD SIGN

PEDESTAL POLE

PED SIGNAL HEAD

CURB CUT RAMP -(SEE ADA DETAIL)

PULLBOX (TYPE TO BE CALLED OUT)

6x6 PULSE LOOP

6x18 CALL LOOP

6x40 PRESENCE LOOP (DIPOLE)

6x40 PRESENCE LOOP (QUADRUPOLE)

CONDUIT,(TYPE TO BE CALLED OUT)

RAILROAD CONTROLLER

SIGN POST

RADAR DETECTION DEVICE

MAGNETOMETER DETECTION DEVICE

VIDEO DETECTION DEVICE

VIRTUAL DETECTION ZONE (RADAR,VIDEO,ETC)

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
EASEMENT FOR CONSTR OF SIGNALS

EASEMENT FOR CONSTR OF
SLOPE
TREE PROTECTION FENCE

EASEMENT FOR CONSTR & MAINT
OF TRAFFIC SIGNALS

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REVISION DATES

04/05/19		

CHATHAM COUNTY

SIGNAL PLANS

DRAWING No.
27-0002

			COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			CHATHAM	TASK ORDER #7	24	69

LIST OF MATERIALS

MATERIALS	UNIT	QUANTITY
CONTROLLER CABINET ASSEMBLIES		
F. SWITCH PACK	EA	12
G. DC ISOLATOR	EA	3
H. LOOP DETECTOR, 2-CHANNEL	EA	6
I. AUXILIARY LOAD BAY	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT) 3 PAIR, 18 AWG	REEL	5
SIGNAL CABLE (14 AWG) 7 CONDUCTOR, PER 1000 FT.	REEL	1
SIGNAL CABLE (14 AWG) 10 CONDUCTOR, PER 1000 FT.	REEL	2
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	3
ONE-WAY, 3-SECTION, 12" LED NON-PIXELATED (5MM) SIGNAL HEAD	EA	8
ONE-WAY, 4-SECTION, 12" LED NON-PIXELATED (5MM) SIGNAL HEAD	EA	2
1-SECTION, 18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/MAN OVERLAP 9" HIGH, NUMBERS & 12" SYMBOLS	EA	8
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATION ASSEMBLY 9" x 15", W/SINGLE PUSH BUTTON ADAPTER FOR 4" DIA PEDESTRIAN POLE, ADJUSTABLE	EA	2
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATION ASSEMBLY 9" x 15", W/DOUBLE PUSH BUTTON ADAPTER FOR 4" DIA PEDESTRIAN POLE, ADJUSTABLE	EA	2
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATIONS, W/BUTTONS AND SIGNS: 9" x 15", R10-36, (LEFT OR RIGHT, COUNTDOWN	EA	8
BACK PLATE FOR ONE-WAY, 3-SECTION, 12" SIGNAL HEAD	EA	8
BACK PLATE FOR ONE-WAY, 4-SECTION, 12" SIGNAL HEAD	EA	2
HARDWARE FOR MAST ARM MOUNTING	EA	10
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, ONE-WAY BRACKET ASSEMBLY	EA	2
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	1
HARDWARE FOR SIDE-OF-POLE MOUNTING, TWO-WAY BRACKET ASSEMBLY; STEEL POLE	EA	2
PEDESTAL POLE, 10 FT, & SQUARE BASE	EA	3
PEDESTAL POLE, 4 FT, & SQUARE BASE	EA	2
PULLBOX, PB-2	EA	5
PULLBOX, PB-3	EA	4
LOOP SAW CUT	LF	925
CONDUIT, 1"	LF	115
CONDUIT, 2"	LF	200
R10-5A SIGN AND HANGER	EA	2
POWER DISCONNECT	EA	1
MISCELLANEOUS MATERIALS NEEDED TO COMPLETE INSTALLATION	LUMP	LUMP

LIST OF MATERIALS IS "FOR INFORMATION ONLY"
AND SHOULD BE VERIFIED BY THE CONTRACTOR.

PAY ITEMS

ITEM NO.	MATERIALS	UNIT	QUANTITY
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	32
639-3004	STRAIN POLE, TP IV W/ DUAL 40'/45' MAST ARMS	EA	1
639-3004	STRAIN POLE, TP IV W/ DUAL 60'/60' MAST ARMS	EA	1
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 1	LUMP	LUMP
682-6120	CONDUIT, RIGID, 2"	LF	30
682-6233	CONDUIT, NONMETAL, TP 3, 2"	LF	1155
682-9950A	DIRECTIONAL BORE - 3"	LF	385
682-9950B	DIRECTIONAL BORE - 5"	LF	155
682-9950C	DIRECTIONAL BORE - 7"	LF	95

DETAILS OF OVERHEAD STREET NAME SIGNS

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED.

Johnny Mercer Blvd

3/2" Radius, No border, White on Green;
Johnny Mercer Blvd © 2015, updating

D3-1 (*1)

332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
	CARD	2-CH	2-CH				2-CH					DC 150	DC 150	DC 150
CHANNEL 1	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68
	FUNCTION	L1	L2A				L4					ADVANCE	Ø 2 PED	Ø 6 PED
	FIELD TERM	TB2 1, 2	TB2 5, 6	TB2 9, 10	TB4 1, 2	TB4 5, 6	TB4 9, 10	TB6 1, 2	TB6 5, 6	TB6 9, 10			TB8 4, 6	TB8 7, 9
	DETECTOR	1	3	5	7	9	11	13	15	17			PED 2	PED 6
	ASSIGNED	1	2	2	2	3	4	4	4	1			Ø2	Ø6

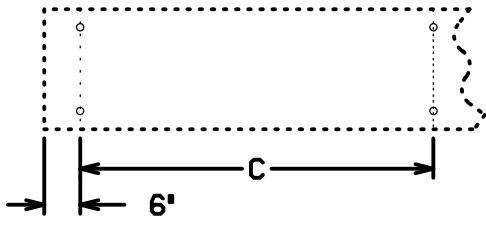
CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70
	FUNCTION		L2B									ENABLE	Ø 4 PED	Ø 8 PED
	FIELD TERM	TB2 3, 4	TB2 7, 8	TB2 11, 12	TB4 3, 4	TB4 7, 8	TB4 11, 12	TB6 3, 4	TB6 7, 8	TB6 11, 12			TB8 5, 6	TB8 8, 9
	DETECTOR	1	4	6	7	9	12	14	15	18			PED 4	PED 8
	ASSIGNED	1	2	2	2	3	4	4	4	3			Ø4	Ø8

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
	CARD	2-CH	2-CH				2-CH							
CHANNEL 1	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72
	FUNCTION	L5	L6A				L8A						EVA	EVB
	FIELD TERM	TB3 1, 2	TB3 5, 6	TB3 9, 10	TB5 1, 2	TB5 5, 6	TB5 9, 10	TB7 1, 2	TB7 5, 6	TB7 9, 10			TB9 4, 6	TB9 7, 9
	DETECTOR	19	21	23	25	29	31	33	35	37			SPARE 2	PRE 3
	ASSIGNED	5	6	6	6	7	8	8	8	5				PRE 4

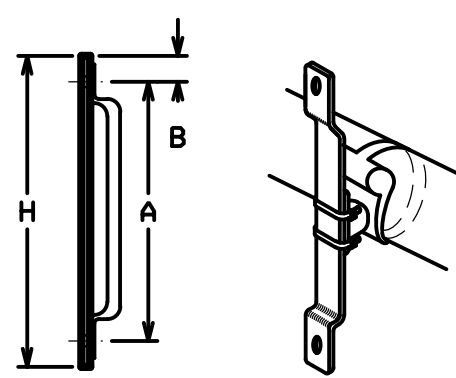
CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74
	FUNCTION		L6B				L8B					SPARE 3	EVC	EVD
	FIELD TERM	TB3 3, 4	TB3 7, 8	TB3 11, 12	TB5 3, 4	TB5 7, 8	TB5 11, 12	TB7 3, 4	TB7 7, 8	TB7 11, 12			TB9 5, 6	TB9 8, 9
	DETECTOR	19	22	24	25	29	32	34	35	38			PRE 5	PRE 6
	ASSIGNED	5	6	6	6	7	8	8	8	7				PRE 2

MOUNTING DIMENSIONS			
H	A	B	C
12"	9"	1½"	36"
18"	15"	1½"	24"
24"	18"	1½"	18"
30"	24"	3"	12"



FOR MOUNTING TO
MAST ARMS STRUCTURES.
(NOT TO SCALE)

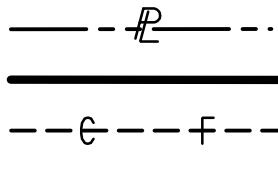
NOTE: USE ASTRO MINI SIGN BRAC
AND CLAMP OR EQUIVALENT



GENERAL NOTES FOR OVERHEAD STREET NAME SIGNS
MOUNTED ON MAST ARMS

- 1) ALL LETTERS TO BE 12" U.C. & 9" L.C. SERIES "B". ALL ARROWS TO BE 7" TALL & 1/2" LONG.
- 2) RADIUS SHALL BE 1½".
- 3) SIGN PANELS SHALL BE FABRICATED OF ONE CONTINUOUS PIECE OF ALUMINUM. SPLICING OF ALUMINUM SHALL NOT BE PERMITTED.
- 4) ALL SIGNS SHALL BE WHITE TYPE XI (VERY HIGH INTENSITY) REFLECTORIZED. LEGEND AND BORDER ON STANDARD INTERSTATE GREEN TYPE IX (HIGH INTENSITY) REFLECTORIZED BACKGROUND.
- 5) SIGNS SHALL NOT BLOCK VIEW OF SIGNAL HEADS FROM APPROACHING TRAFFIC.

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS



EASEMENT FOR CONSTR OF SIDEWALK



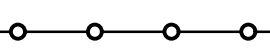
EASEMENT FOR CONSTR OF SIGNALS



EASEMENT FOR CONSTR OF
SLOPE



TREE PROTECTION FENCE



EASEMENT FOR CONSTR & MAINT
OF TRAFFIC SIGNALS



REVISION DATES

04/05/19		

CHATHAM COUNTY

SIGNAL PLANS

JOHNNY MERCER BLVD @
PUBLIX Dwy

DRAWING NO.
27-0004

			COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
			CHATHAM	TASK ORDER #7	26	69

LIST OF MATERIALS

MATERIALS	UNIT	QUANTITY
CONTROLLER CABINET ASSEMBLIES		
A. CONTROLLER UNIT, MODEL 2070L	EA	1
D. CABINET ASSEMBLY, MODEL 332A	EA	1
F. SWITCH PACK	EA	12
G. DC ISOLATOR	EA	3
H. LOOP DETECTOR, 2-CHANNEL	EA	6
K. 2010 CONFLICT MONITOR, EXTENDED FEATURES	EA	1
L. AUXILIARY LOAD BAY	EA	1
M. BATTERY BACKUP SYSTEM	EA	1
-EXTERNAL MOUNTED, CABINET (PER GDOT SPECIFICATIONS)		
332 PREFABRICATED CONTROLLER CABINET BASE W/BBS EXTENSION	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)	REEL	3
3 PAIR, 18 AWG		
SIGNAL CABLE (14 AWG)	REEL	1
7 CONDUCTOR, PER 1000 FT.		
SIGNAL CABLE (14 AWG)	REEL	2
10 CONDUCTOR, PER 1000 FT.		
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	3
ONE-WAY, 3-SECTION, 12" LED NON-PIXELATED (5MM) SIGNAL HEAD	EA	7
ONE-WAY, 4-SECTION, 12" LED NON-PIXELATED (5MM) SIGNAL HEAD	EA	4
1-SECTION, 18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/MAN OVERLAP	EA	8
9" HIGH, NUMBERS & 12" SYMBOLS		
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATION ASSEMBLY	EA	2
9" x 15", W/SINGLE PUSH BUTTON ADAPTER FOR 4" DIA PEDESTRIAN POLE, ADJUSTABLE		
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATION ASSEMBLY	EA	2
9" x 15", W/DOUBLE PUSH BUTTON ADAPTER FOR 4" DIA PEDESTRIAN POLE, ADJUSTABLE		
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATIONS, W/BUTTONS AND SIGNS:	EA	8
9" x 15", RIO-3e, (L)LEFT OR (R)RIGHT, COUNTDOWN		
BACK PLATE FOR ONE-WAY, 3-SECTION, 12" SIGNAL HEAD	EA	7
BACK PLATE FOR ONE-WAY, 4-SECTION, 12" SIGNAL HEAD	EA	4
HARDWARE FOR MAST ARM MOUNTING	EA	11
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, ONE-WAY BRACKET ASSEMBLY	EA	2
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	2
HARDWARE FOR SIDE-OF-POLE MOUNTING, TWO-WAY BRACKET ASSEMBLY; STEEL POLE	EA	1
PEDESTAL POLE, 10 FT., & SQUARE BASE	EA	4
PEDESTAL POLE, 4 FT., & SQUARE BASE	EA	1
PULLBOX, PB-2	EA	8
PULLBOX, PB-3	EA	4
LOOP SAW CUT	LF	1100
CONDUIT, 1"	LF	115
CONDUIT, 2"	LF	220
RIO-5A SIGN AND HANGER	EA	2
POWER DISCONNECT	EA	1
MISCELLANEOUS MATERIALS NEEDED TO COMPLETE INSTALLATION	LUMP	LUMP

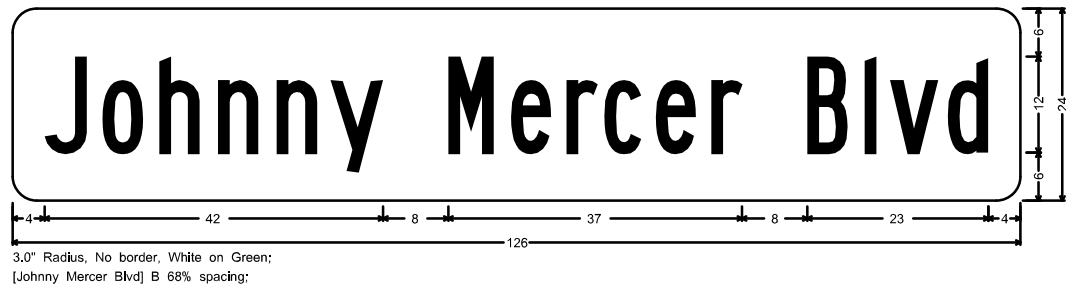
LIST OF MATERIALS IS "FOR INFORMATION ONLY"
AND SHOULD BE VERIFIED BY THE CONTRACTOR.

PAY ITEMS

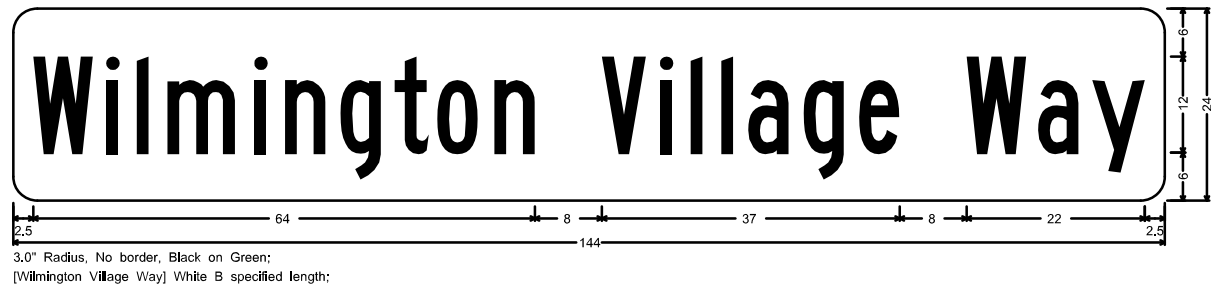
ITEM NO.	MATERIALS	UNIT	QUANTITY
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	68
639-3014	STRAIN POLE, TP IV W/ DUAL 40'/60' MAST ARMS, INCL LUMINAIRE ARM	EA	1
639-3014	STRAIN POLE, TP IV W/ DUAL 50'/50' MAST ARMS, INCL LUMINAIRE ARM	EA	1
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 2	LUMP	LUMP
682-6120	CONDUIT, RIGID, 2"	LF	30
682-6233	CONDUIT, NONMETAL, TP 3, 2"	LF	1125
682-9950A	DIRECTIONAL BORE - 3"	LF	255
682-9950B	DIRECTIONAL BORE - 5"	LF	160
682-9950C	DIRECTIONAL BORE - 7"	LF	65

DETAILS OF OVERHEAD STREET NAME SIGNS

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED.



D3-1 (*1)



D3-1 (*2)

332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

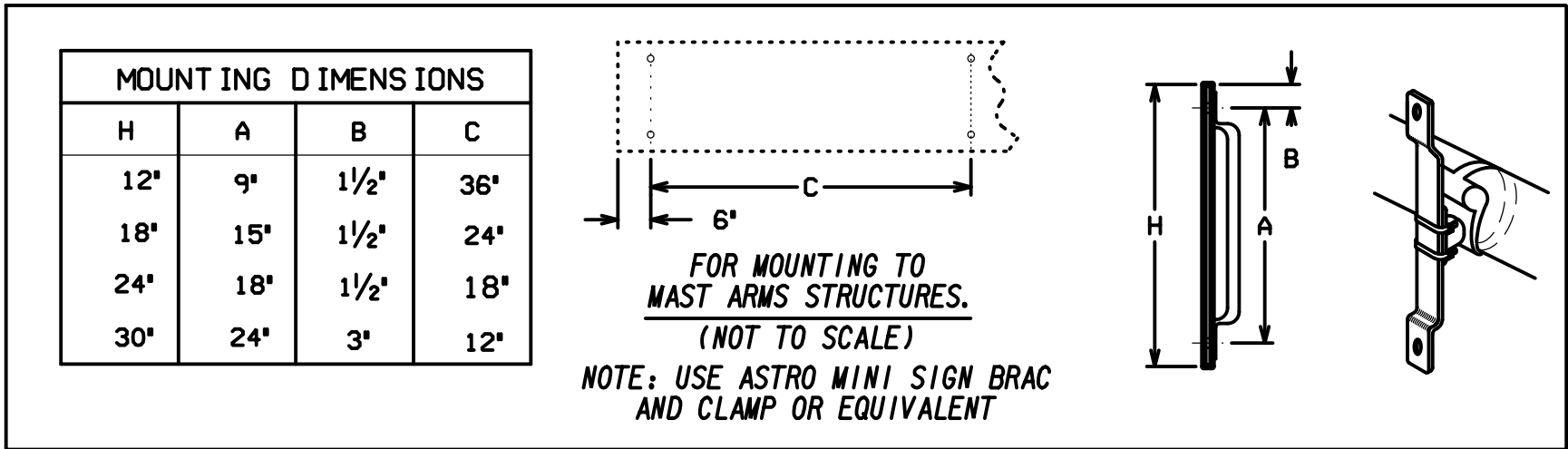
TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CARD	2-CH	2-CH			2-CH	2-CH						DC 150	DC 150	DC 150
C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
FUNCTION	L1	L2A			L3A	L4A					ADVANCE	Ø 2 PED	Ø 6 PED	FLASH
FIELD TERM	TB2 1, 2	TB2 5, 6	TB2 9, 10	TB4 1, 2	TB4 5, 6	TB4 9, 10	TB6 1, 2	TB6 5, 6	TB6 9, 10			TB8 4, 6	TB8 7, 9	N/C
DETECTOR	1	3	5	7	9	11	13	15	17			PED 2	PED 6	
ASSIGNED	1	2	2	2	3	4	4	4	1			Ø2	Ø6	

C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
FUNCTION		L2B			L3B	L4B					ENABLE	Ø 4 PED	Ø 3 PED	STOP TIME
FIELD TERM	TB2 3, 4	TB2 7, 8	TB2 11, 12	TB4 3, 4	TB4 7, 8	TB4 11, 12	TB6 3, 4	TB6 7, 8	TB6 11, 12			TB8 5, 6	TB8 8, 9	N/C
DETECTOR	1	4	6	7	9	12	14	15	18			PED 4	PED 8	
ASSIGNED	1	2	2	2	3	4	4	4	3			Ø4	Ø8	

LOWER INPUT FILE

TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CARD	2-CH	2-CH												
C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
FUNCTION	L5	L6										EVA	EVB	RR 1
FIELD TERM	TB3 1, 2	TB3 5, 6	TB3 9, 10	TB5 1, 2	TB5 5, 6	TB5 9, 10	TB7 1, 2	TB7 5, 6	TB7 9, 10			TB9 4, 6	TB9 7, 9	TB9 10, 12
DETECTOR	19	21	23	25	29	31	33	35	37		SPARE 2	PRE 3	PRE 4	PRE 1
ASSIGNED	5	6	6	6	7	8	8	8	5					

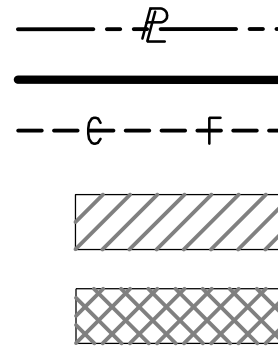
C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
FUNCTION											SPARE 3	EVC	EVD	RR 2
FIELD TERM	TB3 3, 4	TB3 7, 8	TB3 11, 12	TB5 3, 4	TB5 7, 8	TB5 11, 12	TB7 3, 4	TB7 7, 8	TB7 11, 12			TB9 5, 6	TB9 8, 9	TB9 11, 12
DETECTOR	19	22	24	25	29	32	34	35	38			PRE 5	PRE 6	PRE 2
ASSIGNED	5	6	6	6	7	8	8	8	7					



GENERAL NOTES FOR OVERHEAD STREET NAME SIGNS
MOUNTED ON MAST ARMS

- ALL LETTERS TO BE 12" U.C. & 9" L.C. SERIES "B". ALL ARROWS TO BE 7" TALL & 12" LONG.
- RADIUS SHALL BE 1¼".
- SIGN PANELS SHALL BE FABRICATED OF ONE CONTINUOUS PIECE OF ALUMINUM. SPLICING OF ALUMINUM SHALL NOT BE PERMITTED.
- ALL SIGNS SHALL BE WHITE TYPE X1 (VERY HIGH INTENSITY) REFLECTORIZED LEGEND AND BORDER ON STANDARD INTERSTATE GREEN TYPE 1X (HIGH INTENSITY) REFLECTORIZED BACKGROUND.
- SIGNS SHALL NOT BLOCK VIEW OF SIGNAL HEADS FROM APPROACHING TRAFFIC.

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
EASEMENT FOR CONSTR OF SIGNALS



EASEMENT FOR CONSTR OF SLOPE
TREE PROTECTION FENCE

EASEMENT FOR CONSTR & MAINT
OF TRAFFIC SIGNALS



REVISION DATES

04/05/19		

CHATHAM COUNTY

SIGNAL PLANS

JOHNNY MERCER BLVD @
WILMINGTON VILLAGE WAY

DRAWING No.
27-0006

		COUNTY	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
		CHATHAM	TASK ORDER #7	28	66

LIST OF MATERIALS

MATERIALS	UNIT	QUANTITY
CONTROLLER CABINET ASSEMBLIES		
A. CONTROLLER UNIT, MODEL 2070L	EA	1
D. CABINET ASSEMBLY, MODEL 332A	EA	1
F. SWITCH PACK	EA	10
G. DC ISOLATOR	EA	3
H. LOOP DETECTOR, 2-CHANNEL	EA	4
I. RADAR DETECTOR, 4-CHANNEL	EA	1
K. 2010 CONFLICT MONITOR, EXTENDED FEATURES	EA	1
L. AUXILIARY LOAD BAY	EA	1
M. BATTERY BACKUP SYSTEM		
-EXTERNAL MOUNTED, CABINET (PER GDOT SPECIFICATIONS)	EA	1
332A PREFABRICATED CONTROLLER CABINET BASE W/BBS EXTENSION	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)	REEL	2
3 PAIR 18 AWG		
SIGNAL CABLE (14 AWG)	REEL	1
7 CONDUCTOR, PER 1000 FT.		
SIGNAL CABLE (14 AWG)	REEL	1
10 CONDUCTOR, PER 1000 FT.		
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	2
ONE-WAY, 3-SECTION, 12" LED NON-PIXELATED (5MM) SIGNAL HEAD	EA	9
ONE-WAY, 4-SECTION, 12" LED NON-PIXELATED (5MM) SIGNAL HEAD	EA	1
1-SECTION, 18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/WAN OVERLAP	EA	8
9" HIGH, NUMBERS & 12" SYMBOLS		
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATION ASSEMBLY	EA	2
9" x 15", W/SINGLE PUSH BUTTON ADAPTER FOR 4" DIA PEDESTRIAN POLE, ADJUSTABLE		
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATION ASSEMBLY	EA	3
9" x 15", W/DOUBLE PUSH BUTTON ADAPTER FOR 4" DIA PEDESTRIAN POLE, ADJUSTABLE		
POLARA NAVIGATOR AUDIBLE PEDESTRIAN PUSH BUTTON STATIONS, W/BUTTONS AND SIGNS:	EA	8
9" x 15", R10-3ø, (LEFT OR RIGHT), COUNTDOWN		
BACK PLATE FOR ONE-WAY, 3-SECTION, 12" SIGNAL HEAD	EA	9
BACK PLATE FOR ONE-WAY, 4-SECTION, 12" SIGNAL HEAD	EA	1
HARDWARE FOR MAST ARM MOUNTING	EA	9
HARDWARE FOR TOP POST MOUNTING VEHICULAR SIGNAL	EA	1
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, ONE-WAY BRACKET ASSEMBLY	EA	2
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	3
PEDESTAL POLE, 12 FT. & SQUARE BASE	EA	1
PEDESTAL POLE, 10 FT. & SQUARE BASE	EA	4
PEDESTAL POLE, 4 FT. & SQUARE BASE	EA	1
PULLBOX, PB-2	EA	8
PULLBOX, PB-3	EA	3
LOOP SAW CUT	LF	535
CONDUIT, 1"	LF	130
CONDUIT, 2"	LF	245
R10-5A SIGN AND HANGER	EA	1
POWER DISCONNECT	EA	1
MISCELLANEOUS MATERIALS NEEDED TO COMPLETE INSTALLATION	LUMP	LUMP

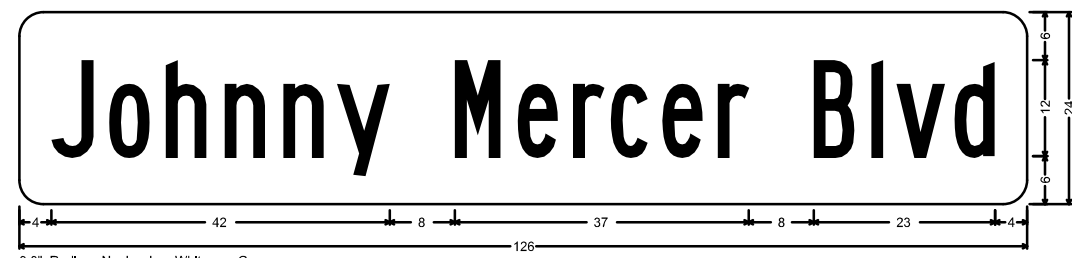
LIST OF MATERIALS IS "FOR INFORMATION ONLY"
AND SHOULD BE VERIFIED BY THE CONTRACTOR.

PAY ITEMS

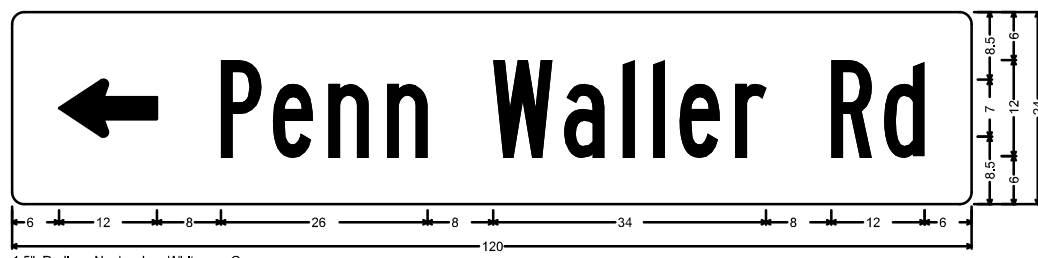
ITEM NO.	MATERIALS	UNIT	QUANTITY
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	62
639-3004	STRAIN POLE, TP IV W/ DUAL 40"/50" MAST ARMS	EA	1
639-3004	STRAIN POLE, TP IV W/ DUAL 40"/60" MAST ARMS	EA	1
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 3	LUMP	LUMP
647-2150	PULLBOX, TP 5	EA	1
682-6120	CONDUIT, RIGID, 2"	LF	30
682-6233	CONDUIT, NONMETAL, TP 3, 2"	LF	1215
682-9950B	DIRECTIONAL BORE - 5'	LF	210
682-9950C	DIRECTIONAL BORE - 7'	LF	95
937-6000	MICROWAVE RADAR DETECTION ASSEMBLY	EA	1
937-8020	TESTING - MICROWAVE DETECTION SYSTEM	LUMP	LUMP

DETAILS OF OVERHEAD STREET NAME SIGNS

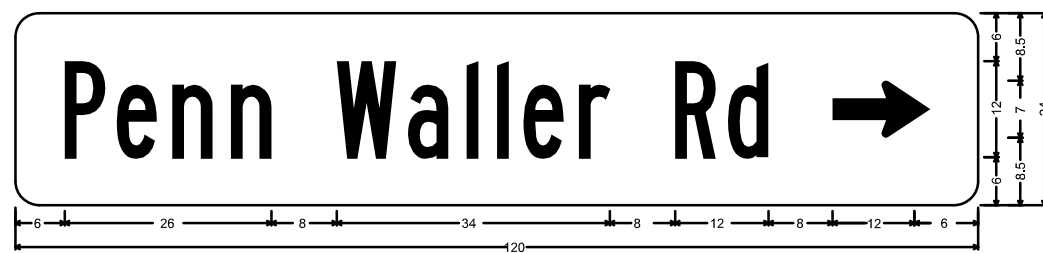
ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED.



D3-1 (*1)



D3-1 (*3)



D3-1 (*4)

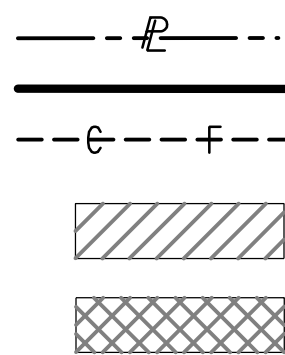
PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR OF SIDEWALK

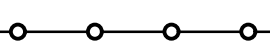
EASEMENT FOR CONSTR OF SIGNALS



EASEMENT FOR CONSTR OF SLOPE



TREE PROTECTION FENCE



EASEMENT FOR CONSTR & MAINT OF TRAFFIC SIGNALS



332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET		DET	DET	TBA	TBA	DC	DC	DC
	CARD		2-CH				4-CH						DC 150	DC 150	DC 150
CHANNEL 1	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION		L2				ZONE 4					ADVANCE	Ø 2 PED	Ø 6 PED	FLASH
	FIELD TERM	TB2 1, 2	TB2 5, 6	TB2 9, 10	TB4 1, 2	TB4 5, 6	TB4 9, 10	TB6 1, 2	TB6 5, 6	TB6 9, 10			TB8 4, 6	TB8 7, 9	N/C
	DETECTOR	1	3	5	7	9	11	13	15	17			PED 2	PED 6	
	ASSIGNED	1	2	2	2	3	4	4	4	1			Ø2	Ø6	

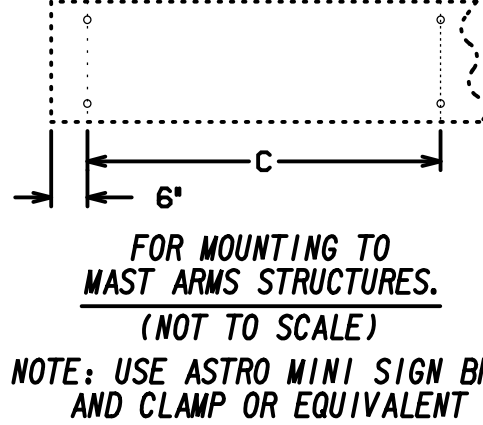
CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
	FUNCTION											ENABLE	Ø 4 PED	Ø 8 PED	STOP TIME
	FIELD TERM	TB2 3, 4	TB2 7, 8	TB2 11, 12	TB4 3, 4	TB4 7, 8	TB4 11, 12	TB6 3, 4	TB6 7, 8	TB6 11, 12			TB8 5, 6	TB8 8, 9	N/C
	DETECTOR	1	4	6	7	9	12	14	15	18			PED 4	PED 8	
	ASSIGNED	1	2	2	2	3	4	4	4	3			Ø4	Ø8	

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
	CARD	2-CH	2-CH				2-CH								
CHANNEL 1	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L5	L6				L8A						EVA	EVB	RR 1
	FIELD TERM	TB3 1, 2	TB3 5, 6	TB3 9, 10	TB5 1, 2	TB5 5, 6	TB5 9, 10	TB7 1, 2	TB7 5, 6	TB7 9, 10			TB9 4, 6	TB9 7, 9	TB9 10, 12
	DETECTOR	19	21	23	25	29	31	33	35	37		SPARE 2	PRE 3	PRE 4	PRE 1
	ASSIGNED	5	6	6	6	7	8	8	8	5					

CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
	FUNCTION						L8B					SPARE 3	EVC	EVD	RR 2
	FIELD TERM	TB3 3, 4	TB3 7, 8	TB3 11, 12	TB5 3, 4	TB5 7, 8	TB5 11, 12	TB7 3, 4	TB7 7, 8	TB7 11, 12			TB9 5, 6	TB9 8, 9	TB9 11, 12
	DETECTOR	19	22	24	25	29	32	34	35	38			PRE 5	PRE 6	PRE 2
	ASSIGNED	5	6	6	6	7	8	8	8	7					

MOUNTING DIMENSIONS			
H	A	B	C
12"	9"	1 1/2"	36"
18"	15"	1 1/2"	24"
24"	18"	1 1/2"	18"
30"	24"	3"	12"



GENERAL NOTES FOR OVERHEAD STREET NAME SIGNS
MOUNTED ON MAST ARMS

- 1) ALL LETTERS TO BE 8" U.C. & L.C. SERIES 'D'. ALL ARROWS TO BE 7" TALL & 12" LONG.
- 2) BORDER SHALL BE 1/4". RADIUS SHALL BE 1 1/4".
- 3) SIGN PANELS SHALL BE FABRICATED OF ONE CONTINUOUS PIECE OF ALUMINUM. SPLICING OF ALUMINUM SHALL NOT BE PERMITTED.
- 4) ALL SIGNS SHALL BE WHITE TYPE XI (VERY HIGH INTENSITY) REFLECTORIZED. LEGEND AND BORDER ON STANDARD INTERSTATE GREEN TYPE IX (HIGH INTENSITY) REFLECTORIZED BACKGROUND.
- 5) SIGNS SHALL NOT BLOCK VIEW OF SIGNAL HEADS FROM APPROACHING TRAFFIC.

CHATHAM COUNTY

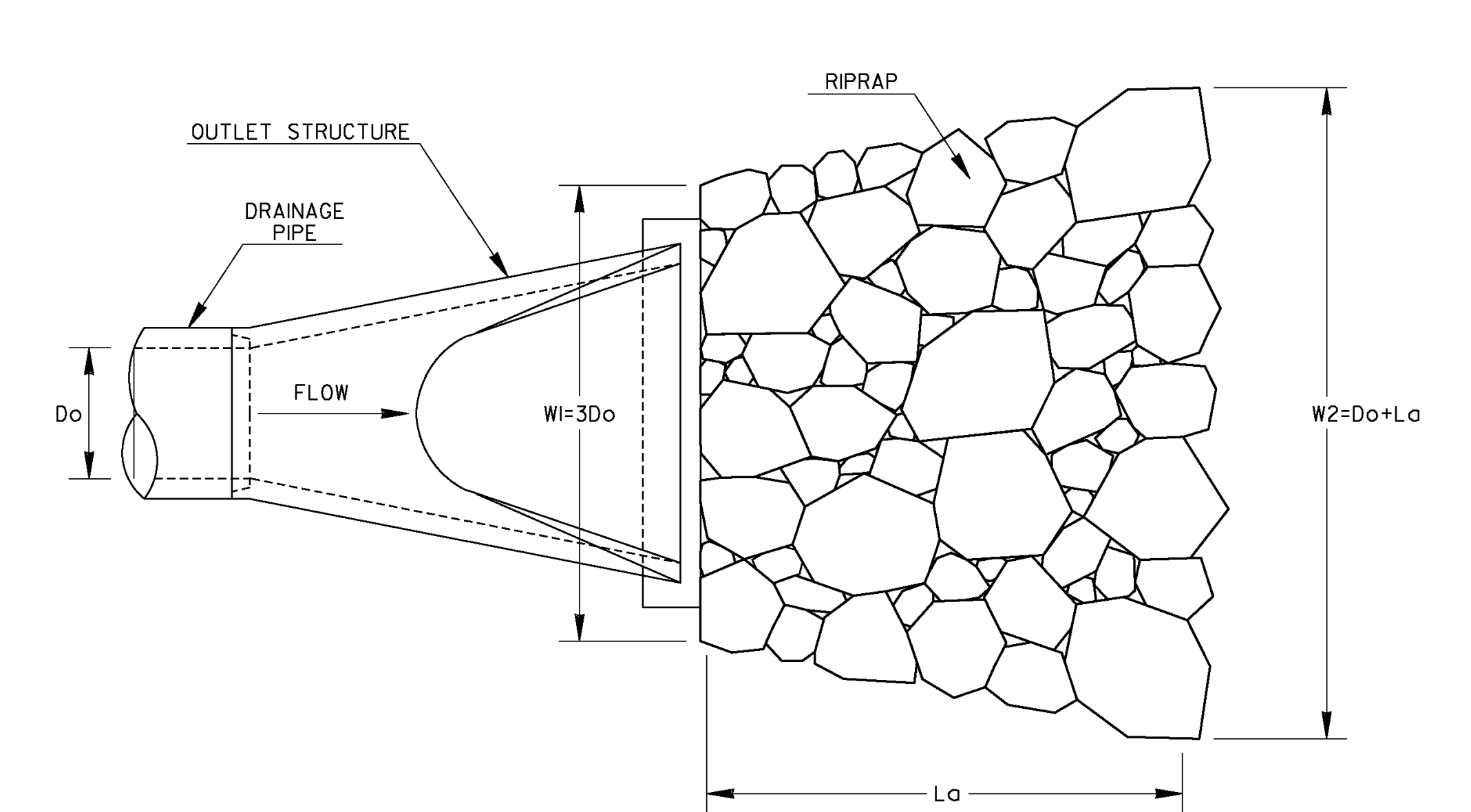
SIGNAL PLANS

JOHNNY MERCER BLVD @
PENN WALLER RD

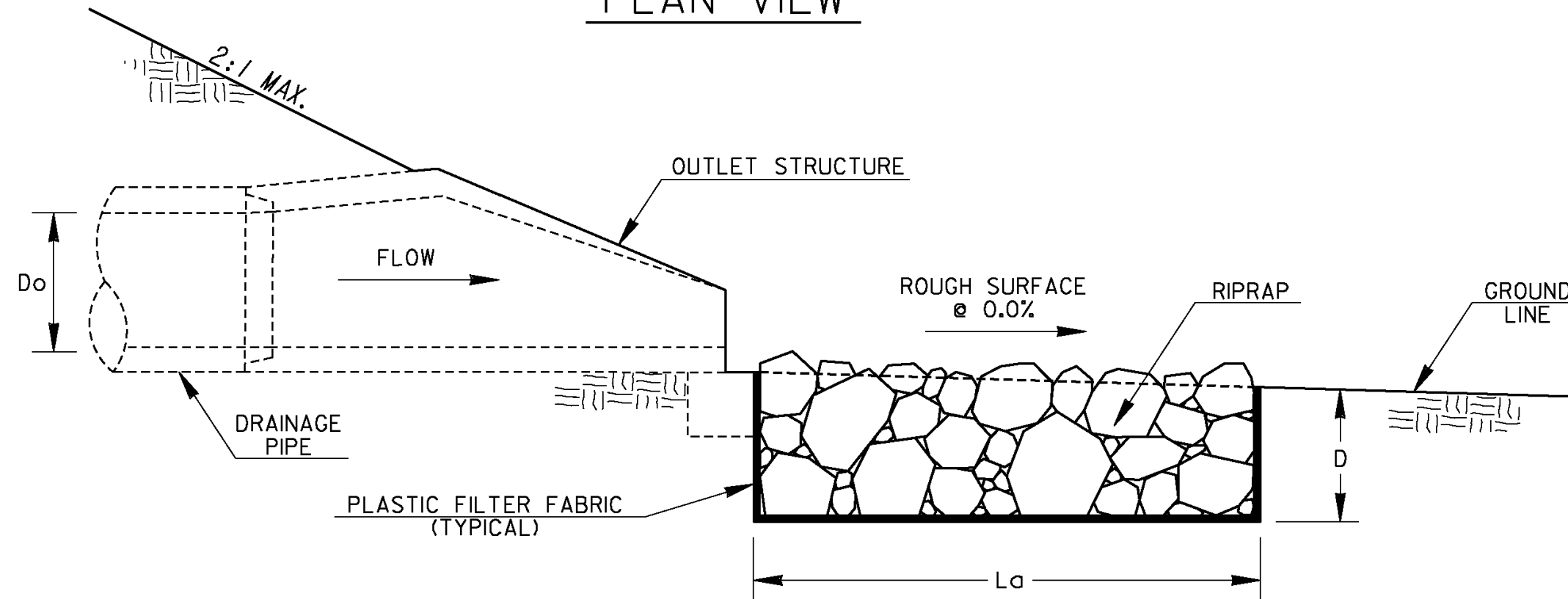
DRAWING NO.
27-0008

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

OUTLET TO FLAT AREA

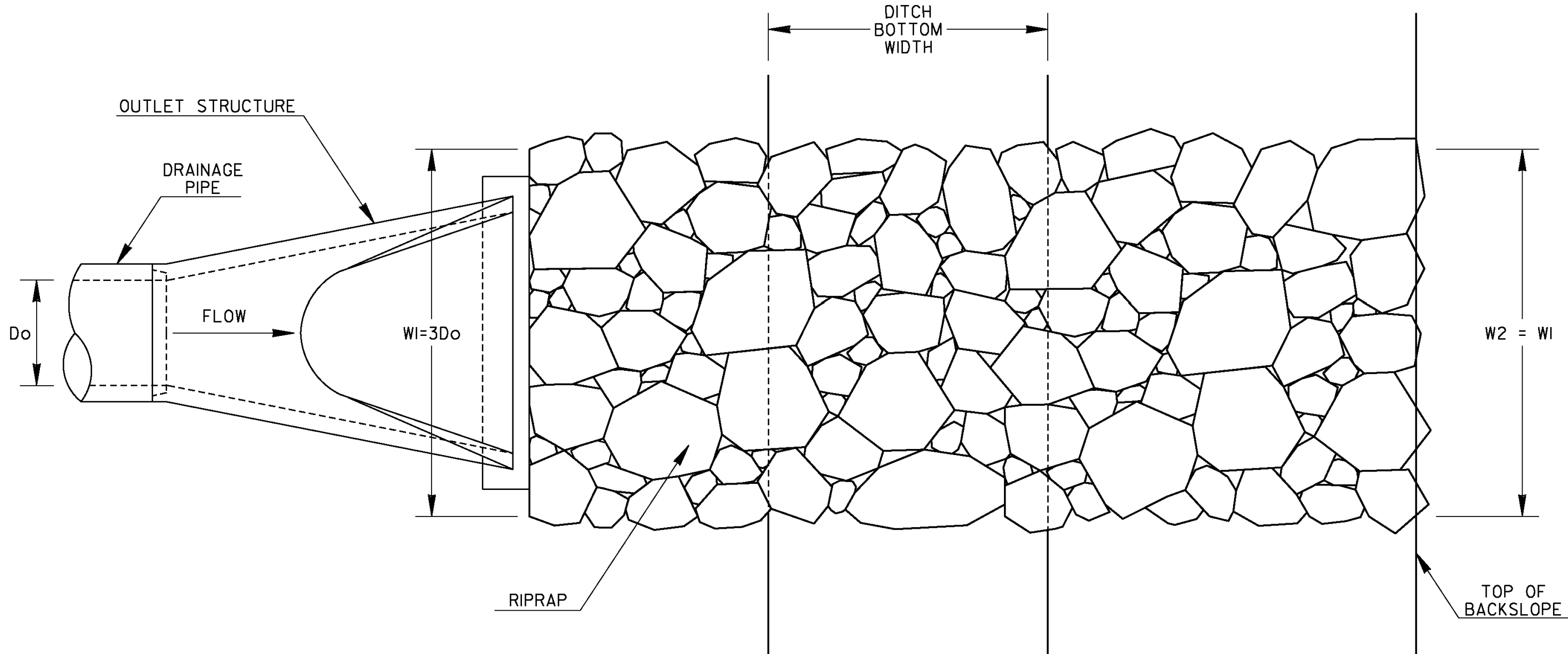


PLAN VIEW

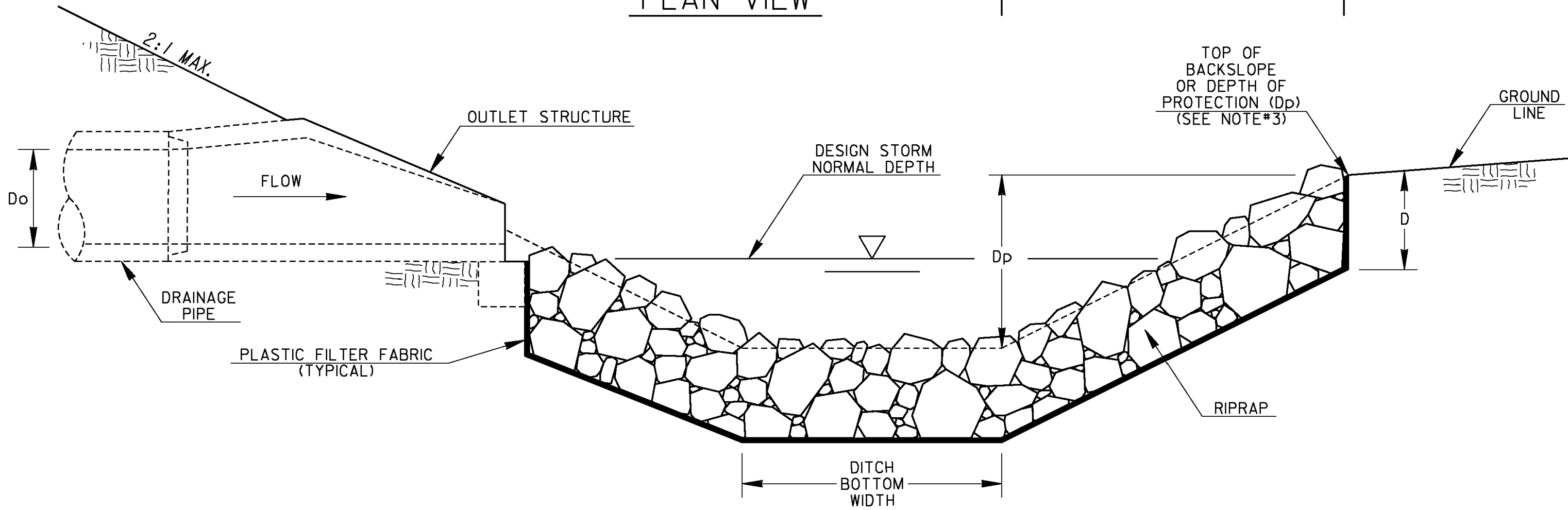


PROFILE VIEW

OUTLET PERPENDICULAR TO WELL-DEFINED CHANNEL



PLAN VIEW



PROFILE VIEW

GENERAL NOTES:

- RIPRAP OUTLET PROTECTION SHOULD BE USED TO REDUCE A DRAINAGE STRUCTURE'S DISCHARGE VELOCITY. RIPRAP OUTLET PROTECTION IS SHOWN FOR GEORGIA STANDARD 1120, BUT IS INSTALLED SIMILARLY FOR OTHER DRAINAGE OUTLET STRUCTURES.
- RIPRAP OUTLET PROTECTION SHALL BE DESIGNED IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". THE DESIGNER SHALL PROVIDE THE FOLLOWING IN THE PLANS: PIPE DIAMETER (Do), FLOW RATE OF DESIGN STORM (Q), VELOCITY (V), TAILWATER CONDITION (Tw), APRON LENGTH (La), APRON WIDTH AT DRAINAGE STRUCTURE (Wi), APRON WIDTH DOWNSTREAM (W2), AVERAGE STONE DIAMETER (d50), INSTALLATION DEPTH (D), AND TYPE OF RIPRAP WITH QUANTITY.

THE MINIMUM DESIGN FOR RIPRAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM EVENT, BUT LARGER STORMS ARE RECOMMENDED.
- THE APRON WIDTHS SHALL BE THE SAME WHEN THE DRAINAGE STRUCTURE DISCHARGES PERPENDICULAR INTO A WELL-DEFINED CHANNEL. THE LENGTH SHALL EXTEND ACROSS THE CHANNEL AND UP TO THE TOP OF THE CHANNEL BACKSLOPE OR 1-FOOT ABOVE THE NORMAL DEPTH OF THE CHANNEL'S DESIGN STORM (WHICHEVER IS LESS). THE DESIGNER SHALL PROVIDE THE DEPTH OF PROTECTION (Dp) IF THE APRON DOES NOT EXTEND TO THE TOP OF THE BACKSLOPE.
- IF THE OUTLET HYDRAULICS REQUIRE A d50<0.70 FEET, TYPE-3 RIPRAP MAY BE USED.
IF THE OUTLET HYDRAULICS REQUIRE A d50<1.20 FEET, TYPE-1 RIPRAP SHOULD BE USED.
IF THE OUTLET HYDRAULICS REQUIRE A d50>1.20 FEET, THE DESIGNER SHALL DESIGN AND PROVIDE A SPECIAL DETAIL FOR APPROPRIATE OUTLET PROTECTION.
- PLASTIC FILTER FABRIC IS REQUIRED UNDERNEATH RIPRAP APRON.
- PAYMENT FOR RIPRAP SHALL BE MEASURED IN SQUARE YARDS FOR SPECIFIED INSTALLATION DEPTH. PAYMENT FOR PLASTIC FILTER FABRIC SHALL BE MEASURED IN SQUARE YARDS CONSISTENT WITH RIPRAP QUANTITY AND PAID FOR SEPARATELY.

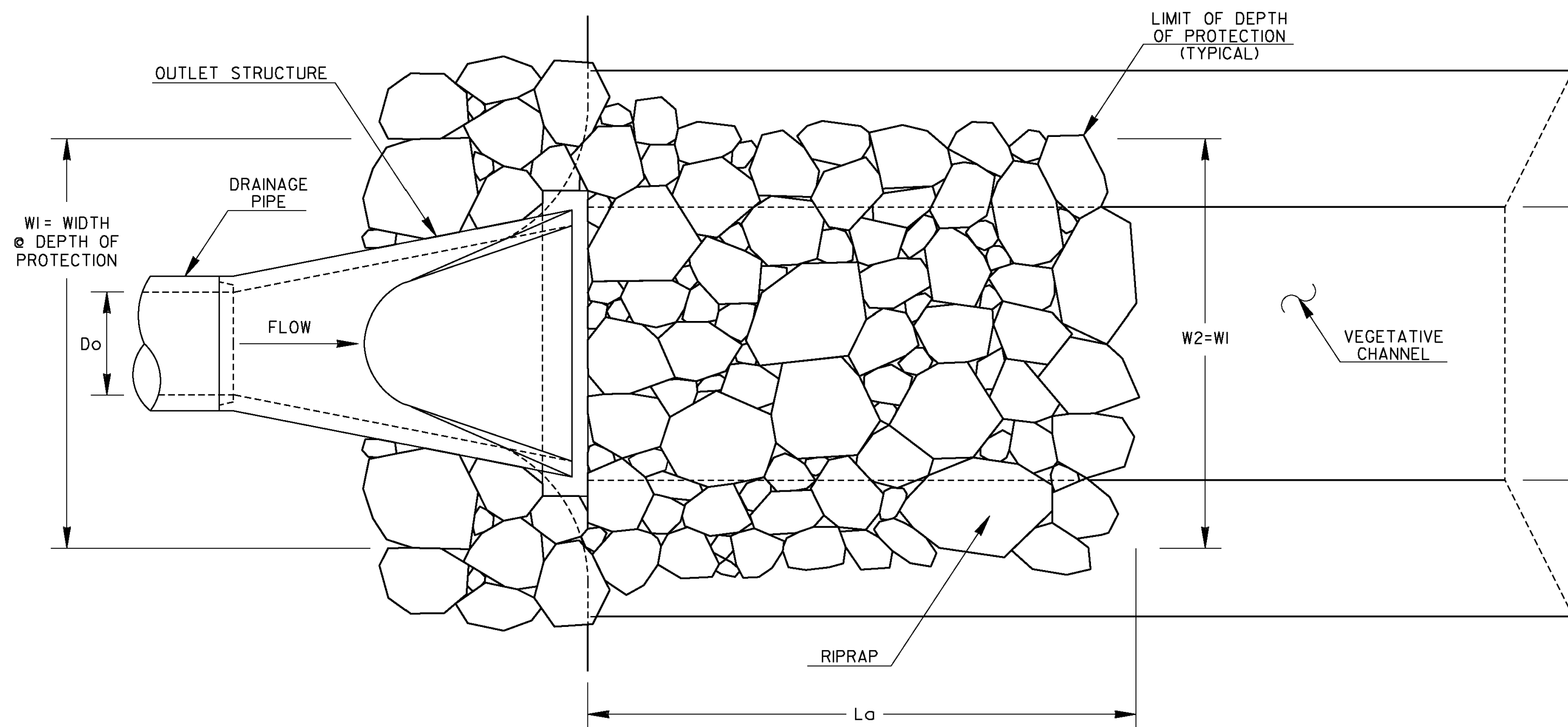
Do = PIPE DIAMETER
Q = DESIGN STORM FLOW RATE
V = DESIGN STORM VELOCITY
Tw = TAILWATER CONDITION/DESIGN STORM NORMAL DEPTH
La = APRON LENGTH
Wi = APRON WIDTH UPSTREAM
W2 = APRON WIDTH DOWNSTREAM
d50 = AVERAGE STONE DIAMETER
D = INSTALLATION DEPTH
Dp = DEPTH OF PROTECTION

RIPRAP TYPE	REQUIRED d50 (FT)	MIN. DEPTH "D" (IN)
1	≤1.20	36
3	≤0.67	18

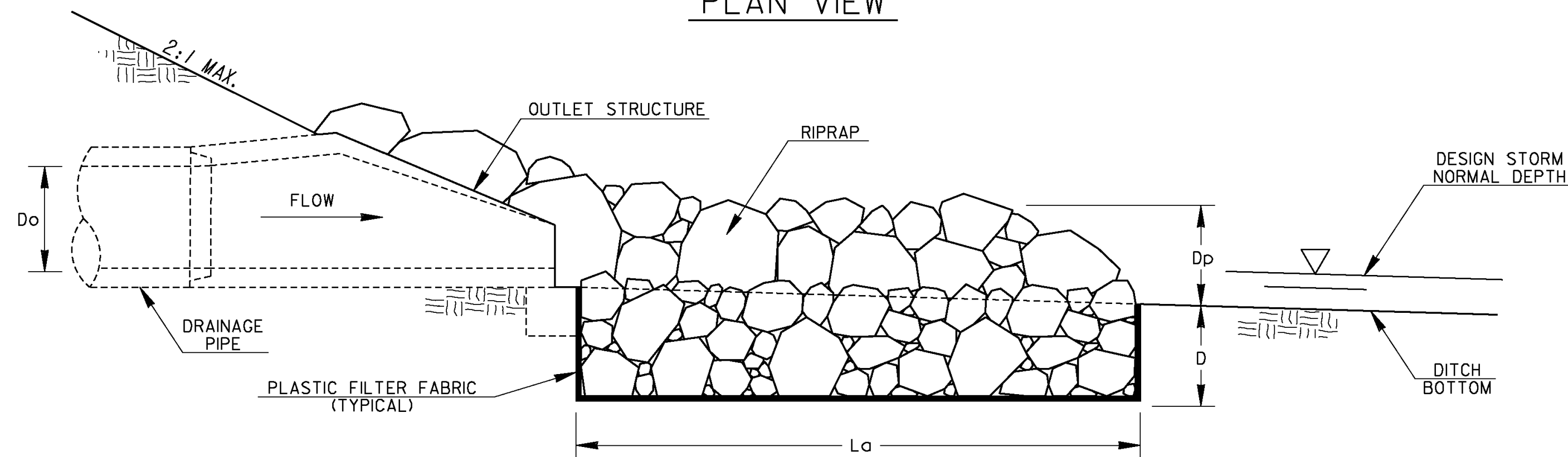
		DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
		REVISION	CONSTRUCTION DETAILS RIPRAP OUTLET PROTECTION (SHEET 1 OF 2)
			NO SCALE 4-22-2016
		BY	DESIGNED <u>DLE</u> DRAWN <u>DLE</u> TRACED <u>---</u> CHECKED <u>---</u>
			NUMBER D-55A

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

OUTLET PARALLEL TO WELL-DEFINED CHANNEL



PLAN VIEW



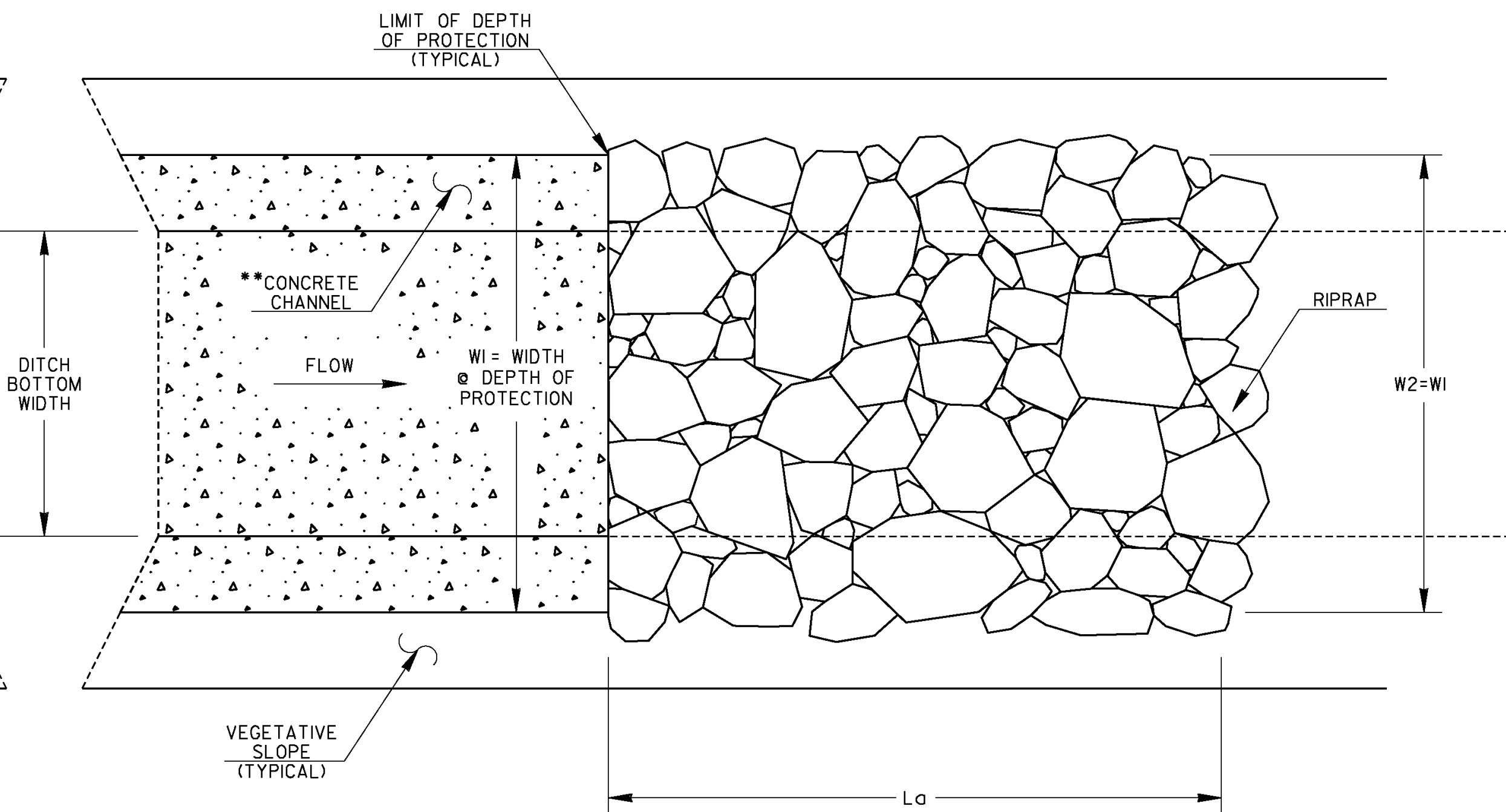
PROFILE VIEW

GENERAL NOTES:

- RIPRAP OUTLET PROTECTION SHOULD BE USED TO REDUCE A DRAINAGE STRUCTURE'S DISCHARGE VELOCITY. RIPRAP OUTLET PROTECTION IS SHOWN FOR GEORGIA STANDARD I20, BUT IS INSTALLED SIMILARLY FOR OTHER DRAINAGE OUTLET STRUCTURES. RIPRAP OUTLET PROTECTION IS SHOWN FOR A CONCRETE DITCH, BUT IS INSTALLED SIMILARLY TO TRANSITION FROM OTHER CHANNEL LININGS.
- RIPRAP OUTLET PROTECTION SHALL BE DESIGNED IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". THE DESIGNER SHALL PROVIDE THE FOLLOWING IN THE PLANS: PIPE DIAMETER (Do), FLOW RATE OF DESIGN STORM (Q), VELOCITY (V), TAILWATER CONDITION (Tw), APRON LENGTH (La), APRON WIDTH AT DRAINAGE STRUCTURE (W1), APRON WIDTH DOWNSTREAM (W2), AVERAGE STONE DIAMETER (d50), INSTALLATION DEPTH (D), AND TYPE OF RIPRAP WITH QUANTITY.

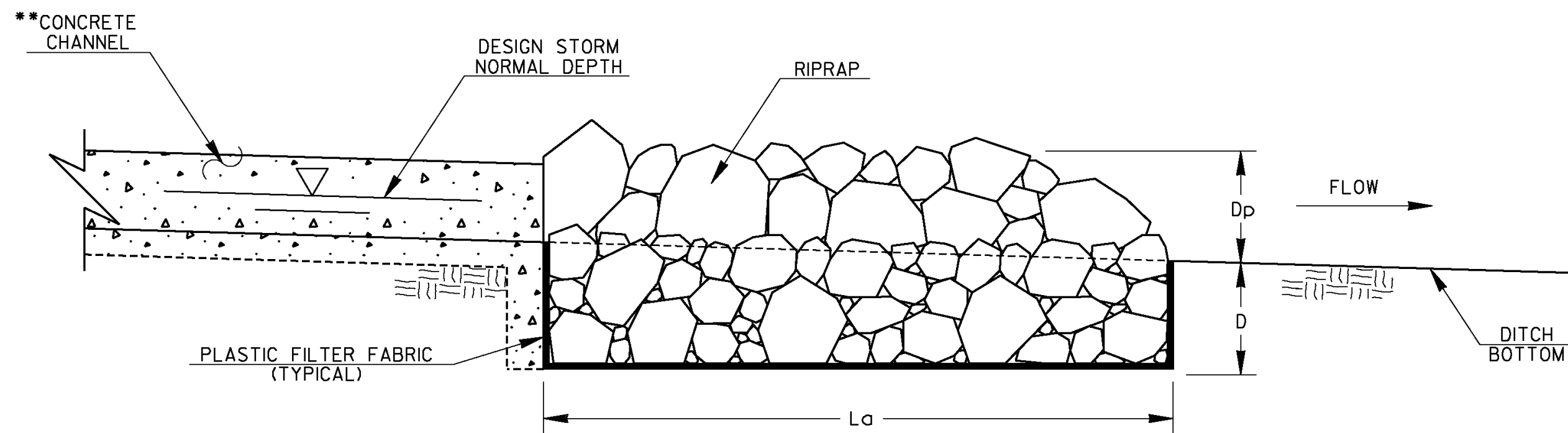
THE MINIMUM DESIGN FOR RIPRAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM EVENT, BUT LARGER STORMS ARE RECOMMENDED.
- THE APRON WIDTHS SHALL BE THE SAME WHEN THE DRAINAGE STRUCTURE DISCHARGES PARALLEL INTO A WELL-DEFINED CHANNEL. THE APRON WIDTHS IN THIS CASE SHALL REPRESENT THE WIDTH AT THE DEPTH OF PROTECTION. THE RIPRAP SHALL BE INSTALLED TO THE TOP OF CHANNEL OR 1-FOOT ABOVE THE NORMAL DEPTH OF THE CHANNEL'S DESIGN STORM (WHICHEVER IS LESS). THE DESIGNER SHALL PROVIDE THE DEPTH OF PROTECTION (Dp) IF THE RIPRAP SHOULD NOT BE INSTALLED TO THE TOP OF THE CHANNEL. RIPRAP SHOULD ALSO BE INSTALLED TO ARMOR CHANNEL CORNER AT THE OUTLET STRUCTURE.
- IF THE OUTLET HYDRAULICS REQUIRE A d50<=0.70 FEET, TYPE-3 RIPRAP MAY BE USED.
IF THE OUTLET HYDRAULICS REQUIRE A d50<=1.20 FEET, TYPE-1 RIPRAP SHOULD BE USED.
IF THE OUTLET HYDRAULICS REQUIRE A d50>1.20 FEET, THE DESIGNER SHALL DESIGN AND PROVIDE A SPECIAL DETAIL FOR APPROPRIATE OUTLET PROTECTION.
- PLASTIC FILTER FABRIC IS REQUIRED UNDERNEATH RIPRAP APRON.
- PAYMENT FOR RIPRAP SHALL BE MEASURED IN SQUARE YARDS FOR SPECIFIED INSTALLATION DEPTH. PAYMENT FOR PLASTIC FILTER FABRIC SHALL BE MEASURED IN SQUARE YARDS CONSISTENT WITH RIPRAP QUANTITY AND PAID FOR SEPARATELY.

CONCRETE CHANNEL TO RIPRAP TRANSITION



PLAN VIEW

**REFER TO CONSTRUCTION DETAIL D-10 FOR CONCRETE DITCH PAVING INFORMATION

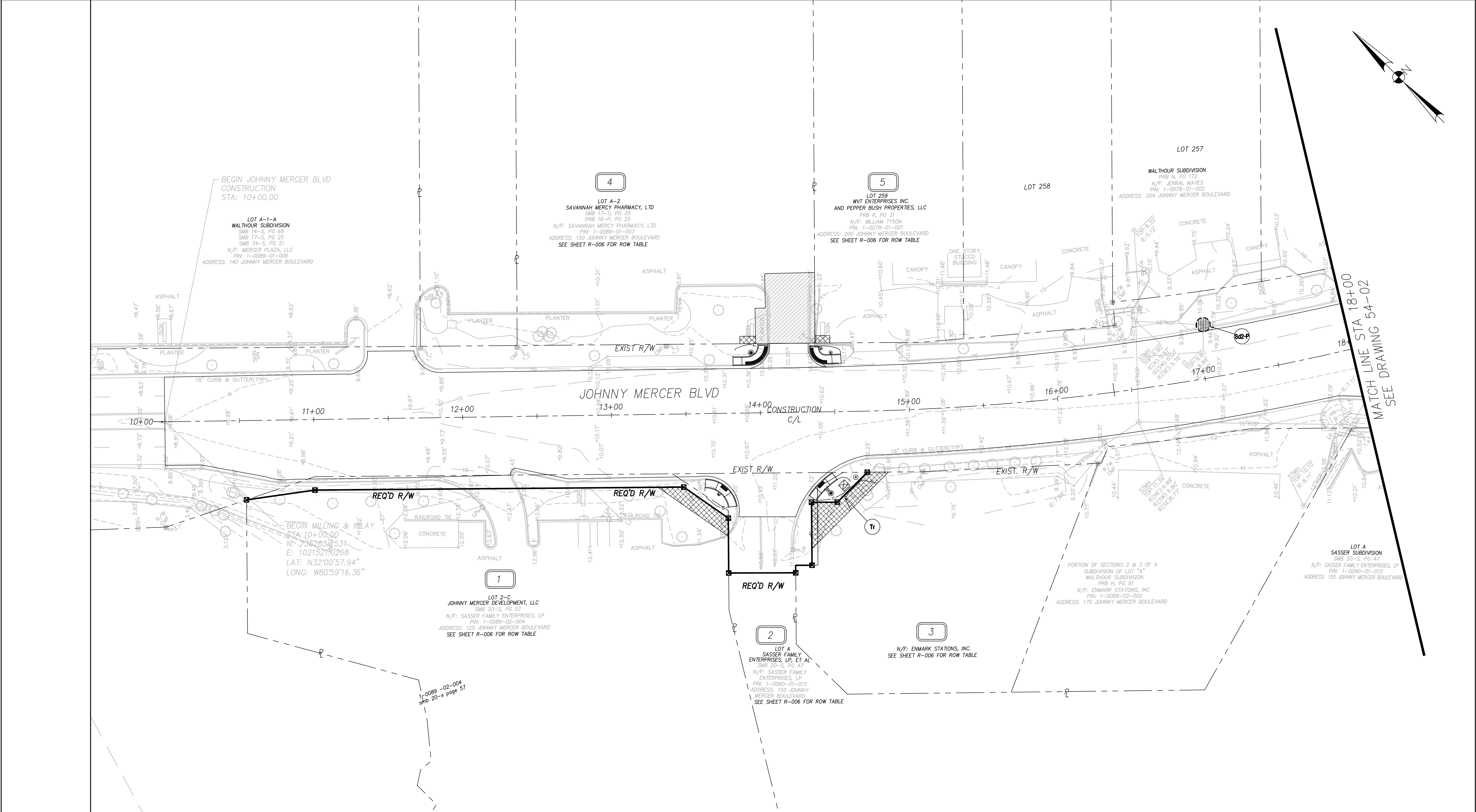


PROFILE VIEW

Do = PIPE DIAMETER
Q = DESIGN STORM FLOW RATE
V = DESIGN STORM VELOCITY
Tw = TAILWATER CONDITION/DESIGN STORM NORMAL DEPTH
La = APRON LENGTH
W1 = APRON WIDTH UPSTREAM AT DEPTH OF PROTECTION
W2 = APRON WIDTH DOWNSTREAM AT DEPTH OF PROTECTION
d50 = AVERAGE STONE DIAMETER
D = INSTALLATION DEPTH
Dp = DEPTH OF PROTECTION

RIPRAP TYPE	REQUIRED d50 (FT)	MIN. DEPTH "D" (IN)
1	≤1.20	36
3	≤0.67	18

		DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA
		REVISION	CONSTRUCTION DETAILS
			RIPRAP OUTLET PROTECTION (SHEET 2 OF 2)
			NO SCALE 4-22-2016
		BY	DESIGNED <u>DLE</u> DRAWN <u>DLE</u> TRACED <u> </u> CHECKED <u> </u>
			NUMBER D-55B



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
EASEMENT FOR CONSTR OF SIGNALS

EASEMENT FOR CONSTR OF SLOPE
EASEMENT FOR CONSTR & MAINT OF TRAFFIC SIGNALS
TREE PROTECTION FENCE

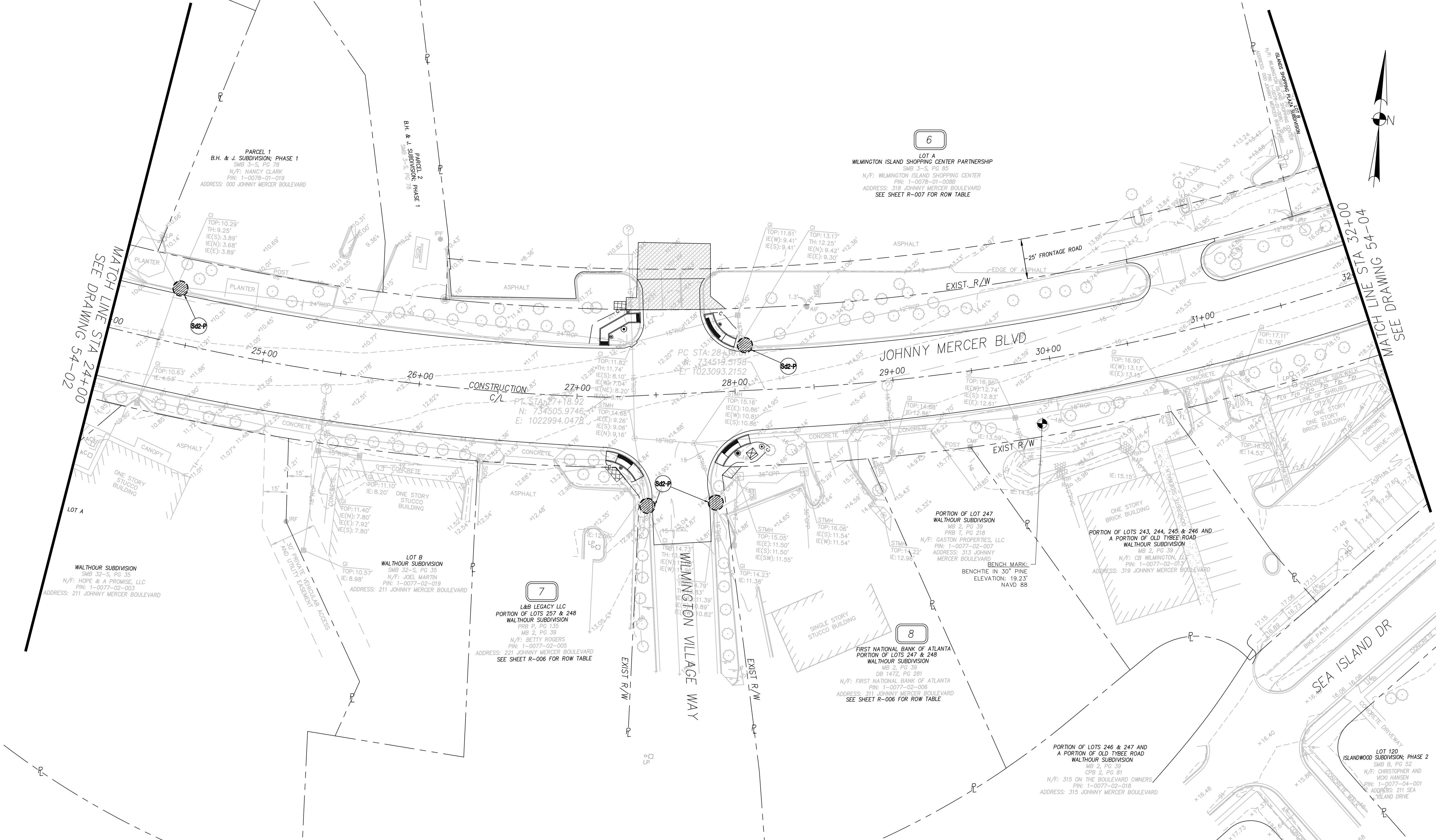
WOLVERTON
Engineering Solutions You Can Trust
6745 Sugarloaf Parkway • Suite 100 • Duluth, Georgia 30097
Phone: 770 • 444 • 8999
www.wolvertoninc.com

GRAPHIC SCALE
0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

REVISION DATES

4/5/19		

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING
OFFICE:
BMP LOCATION DETAILS
JOHNNY MERCER BOULEVARD
IMPROVEMENTS
DRAWING No.
54-01



PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR OF SIDEWALK

EASEMENT FOR CONSTR OF SIGNALS

EASEMENT FOR CONSTR OF SLOPE

EASEMENT FOR CONSTR & MAINT OF TRAFFIC SIGNALS

TREE PROTECTION FENCE

WOLVERTON
Engineering Solutions You Can Trust
6745 Sugarloaf Parkway • Suite 100 • Duluth, Georgia 30097
Phone: 770 • 444 • 8999
www.wolvertoninc.com

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

REVISION DATES

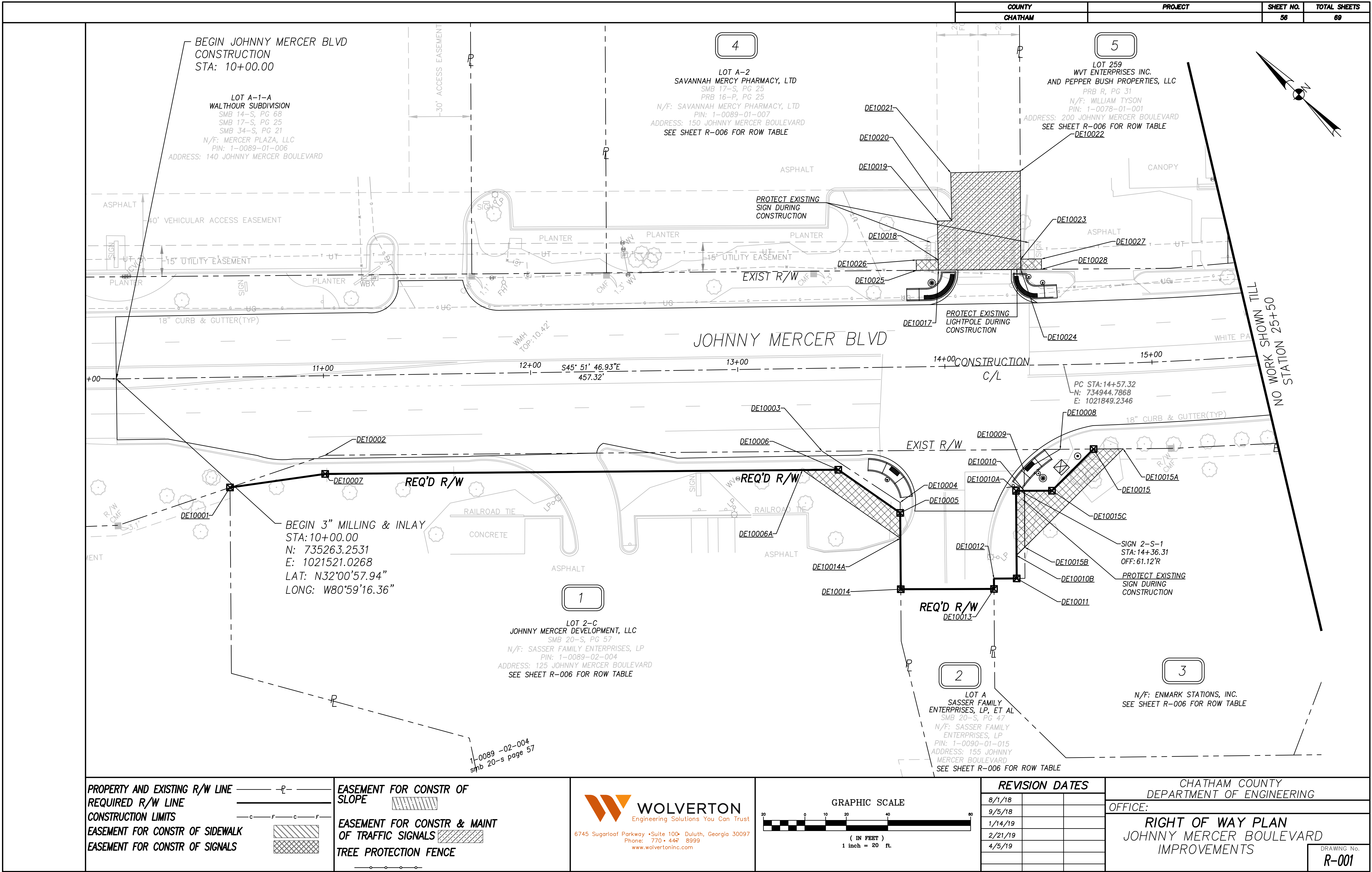
4/5/19

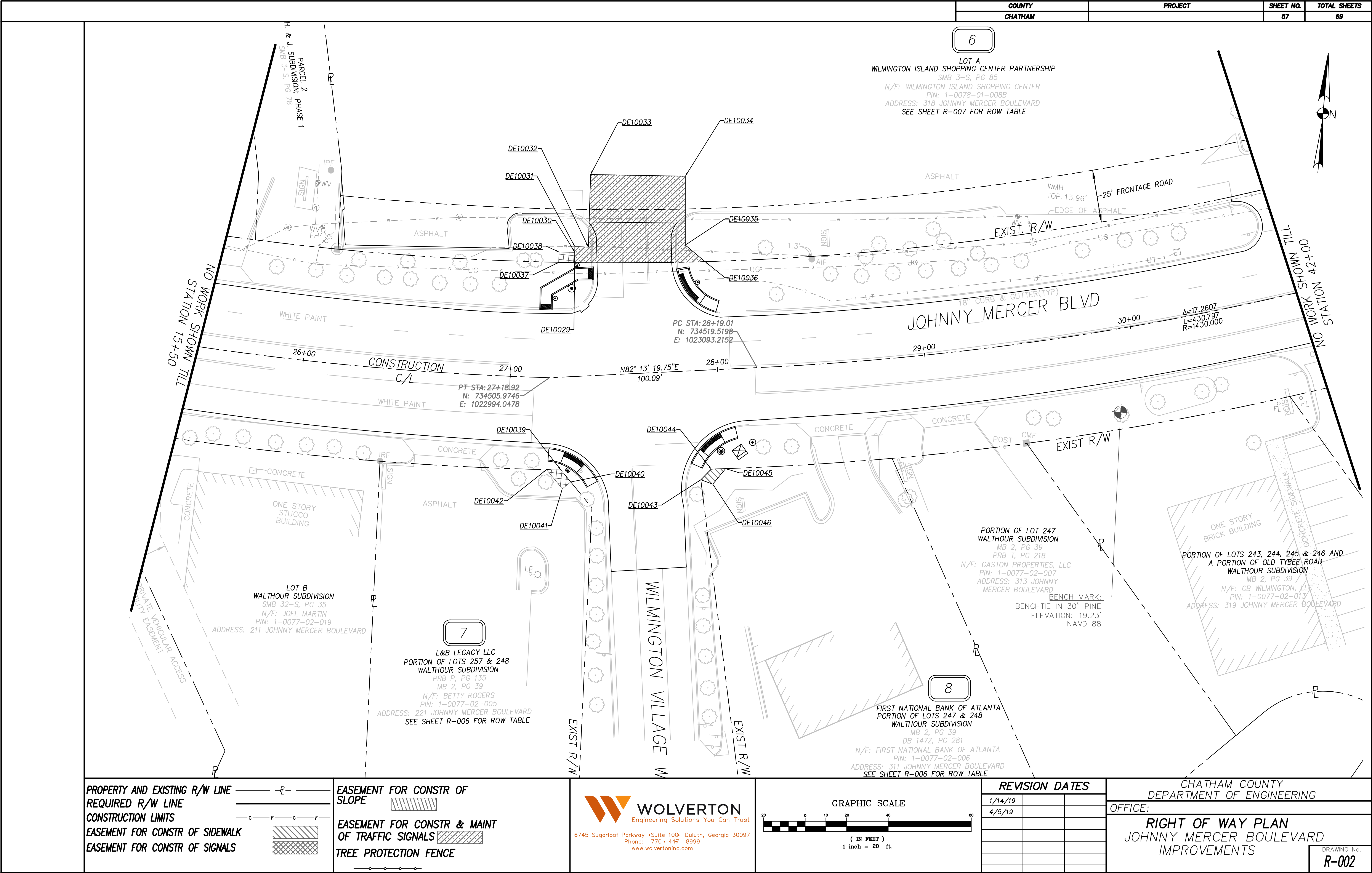
CHATHAM COUNTY
DEPARTMENT OF ENGINEERING

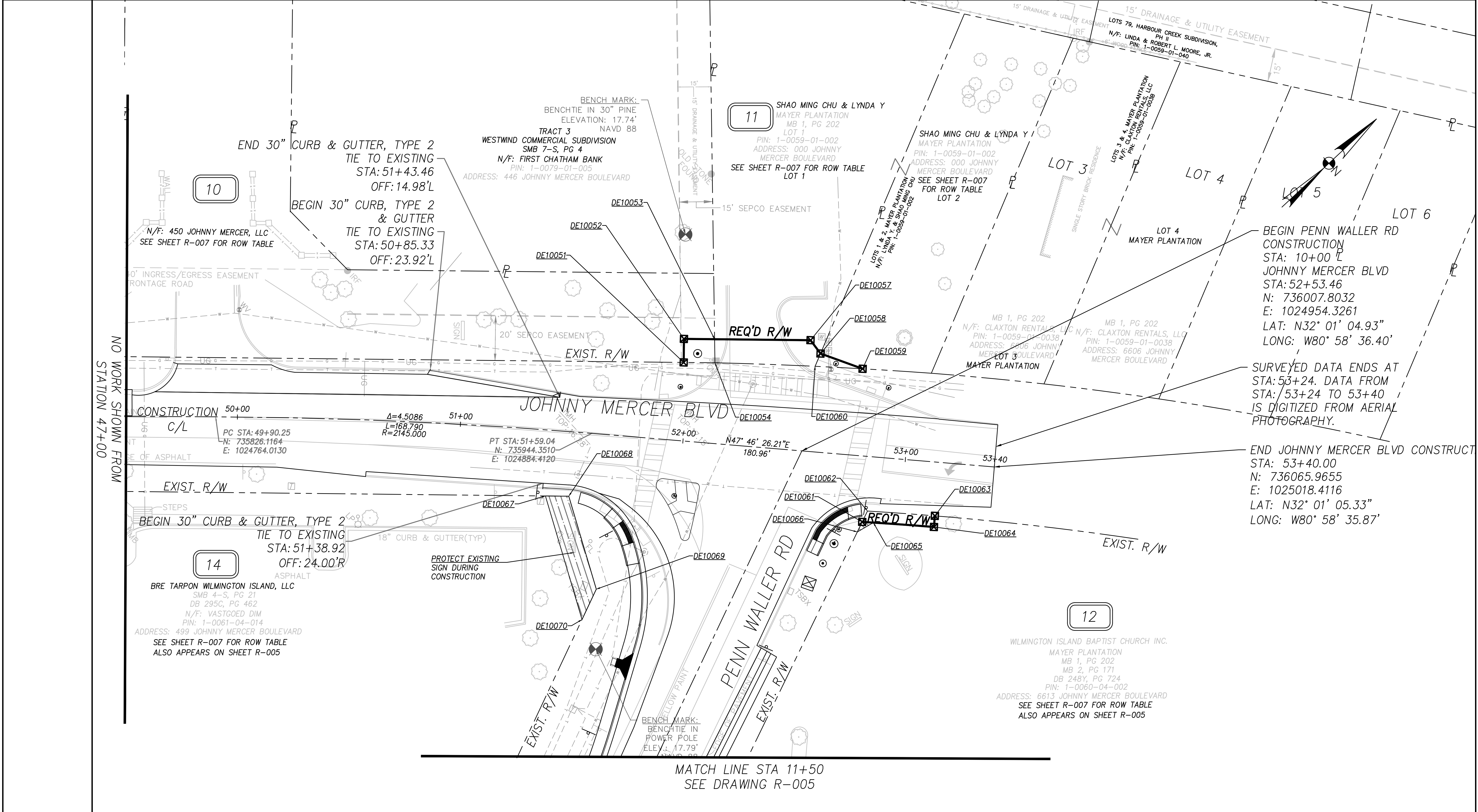
OFFICE:

BMP LOCATION DETAILS
JOHNNY MERCER BOULEVARD
IMPROVEMENTS

DRAWING No.
54-03







PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SIDEWALK
EASEMENT FOR CONSTR OF SIGNALS

EASEMENT FOR CONSTR OF SLOPE

EASEMENT FOR CONSTR & MAINT OF TRAFFIC SIGNALS

TREE PROTECTION FENCE

WOLVERTON
Engineering Solutions You Can Trust
6745 Sugarloaf Parkway • Suite 100 • Duluth, Georgia 30097
Phone: 770 • 441 • 8999
www.wolvertoninc.com

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

REVISION DATES

8/1/18		
9/5/18		
4/5/19		

CHATHAM COUNTY
DEPARTMENT OF ENGINEERING
OFFICE:
RIGHT OF WAY PLAN
JOHNNY MERCER BOULEVARD
IMPROVEMENTS

DRAWING No.
R-004