GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, 2013 EDITION.
2. ADDITIONAL NOTES MAY BE FOUND ON SUBSEQUENT DRAWINGS. SUCH NOTES, WHILE PERTAINING TO THE SPECIFIC DRAWING THEY ARE PLACED ON, ALSO SUPPLEMENT THE GENERAL NOTES LISTED HEREIN.
3. ALL WORK WILL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. THE CONTRACTOR SHALL OBSERVE ALL APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COST INCURRED TO COMPLY WITH THIS REQUIREMENT.
5. HORIZONTAL CONTROL IS BASED UPON THE STATE PLANE COORDINATE SYSTEM. VERTICAL CONTROL IS BASED UPON NAVD88. SEE PLAN SHEETS FOR LOCATIONS AND DESCRIPTIONS OF CONTROL.
6. THE PROJECT WILL BE OVERSEEN BY W&A ENGINEERING. REPRESENTATIVES WILL ASSUME ALL DUTIES, RESPONSIBILITIES, RIGHTS AND AUTHORITY ASSIGNED TO THE "ENGINEER" IN THE CONTRACT DOCUMENTS IN CONNECTION WITH THE COMPLETION OF THE WORK.
7. ALL WORK TO COMPLY WITH AND TO BE PERFORMED IN ACCORDANCE WITH THE GEORGIA DEPARTMENT OF TRANSPORTATION'S CONSTRUCTION STANDARDS AND CONSTRUCTION DETAILS, AS APPLICABLE AT THE DATE ON THE PLANS.
8. BARROW COUNTY OR THEIR APPOINTED REPRESENTATIVES, WILL BE RESPONSIBLE FOR ALL ON-SITE CONSTRUCTION INSPECTION.
9. PROJECT SPECIFIC ALTERNATES REQUIRING APPROVAL BY "THE DEPARTMENT" AS IDENTIFIED IN THE SPECIFICATIONS SHALL BE SUBMITTED TO AND APPROVED BY BARROW COUNTY. BARROW COUNTY RESERVES THE RIGHT TO REFUSE ANY AND ALL ALTERNATES THAT DO NOT MAINTAIN THE INTENT OF THE PROJECT OR SPECIFICATIONS.

SIGNING GENERAL NOTES

1. OVERHEAD SIGNS FOR STREET NAMES MUST INCLUDE DIRECTION AND BLOCK NUMBERS. OVERHEAD SIGNS TO BE DOUBLE SIDED. BLOCK NUMBERS TO BE 4" LETTERING
2. ALL STANDARD HIGHWAY SIGNS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION AND THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
3. SIGN ERECTION LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS WHERE NECESSARY, BUT SHALL BE WITHIN THE LIMITATIONS SET FORTH IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION. NO SIGN LOCATION SHALL BE CHANGED BY THE CONTRACTOR OR BY THE PROJECT ENGINEER WITHOUT PRIOR APPROVAL FROM THE OFFICE OF TRAFFIC OPERATIONS.
4. ALL STANDARD HIGHWAY SIGNS SHALL BE ERECTED AT A HEIGHT OF 7 FEET ABOVE THE NORMAL EDGE OF PAVEMENT TO THE BOTTOM OF THE SIGN OR ASSEMBLY.
5. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS ON ALL OTHER ROADWAYS SHALL BE 6 FEET FROM THE EDGE OF THE PAVED SHOULDER OR 12 FEET FROM THE NORMAL EDGE OF PAVEMENT TO THE NEARER EDGE OF THE SIGN(S). WHICHEVER IS GREATER, THE HORIZONTAL CLEARANCE IN NON-MOUNTABLE CURB SECTIONS SHALL BE AT LEAST 2 FEET FROM THE CURB FACE TO THE NEARER EDGE OF THE SIGN(S).
6. TYPE III (ENCAPSULATED LENS) REFLECTIVE SHEETING SHALL BE USED FOR ALL STANDARD HIGHWAY SIGNS REQUIRING REFLECTORIZED BACKGROUNDS EXCEPT AS SPECIFIED BELOW OR SPECIFIED OTHERWISE IN THE PLANS. EITHER CLASS I OR CLASS II ADHESIVE BACKING IS PERMISSIBLE.
7. TYPE VI (WIDE ANGLE PRISMATIC) REFLECTIVE SHEETING SHALL BE USED FOR ALL RED SERIES SIGNS (RI-1, RI-2, RI-3A, RI-4A, AND R5-1).
13. A 1/2 INCH MINIMUM AIR SPACE SHALL BE REQUIRED BETWEEN ALL SIGN PLATES WITHIN AN ASSEMBLY.
14. WHERE SIGNS WITHIN AN ASSEMBLY EXTEND BELOW THE STANDARD MOUNTING HOLES ON THE POST(S), ADDITIONAL 3/8 INCH DIAMETER HOLE(S), DRILLED OR PUNCHED, SHALL BE REQUIRED TO PROPERLY MOUNT THE ASSEMBLY.
15. FOR DETAILS OF SPECIAL DESIGN HIGHWAY SIGNS, SEE DETAILS OF MISCELLANEOUS SIGNS.
16. CONTRACTOR WILL AS REQUESTED BY THE ENGINEER, BE REQUIRED TO REMOVE ANY EXISTING SIGNS THAT ARE DUPLICATED OR ARE CONTRARY TO THESE SIGN PLANS.

UTILITY NOTES

1. UTILITY DISCLAIMER: EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR / INSTALLER SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION. DAMAGE TO EXISTING UTILITY LINES RESULTING FROM THE CONTRACTOR'S / INSTALLER'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S / INSTALLER'S EXPENSE.
2. CONTRACTOR / INSTALLER SHALL CONTACT UTILITY LOCATOR SERVICE, 811, PRIOR TO CONSTRUCTION.

EROSION CONTROL NOTES:

1. THIS PROJECT WILL REQUIRE A NOTICE OF INTENT (NOI)
2. THE CONTRACTOR SHALL STRICTLY ADHERE TO DUST CONTROL REGULATIONS. ALL AREAS SUBJECTED TO DUST FORMATION MUST BE PERIODICALLY WATERED, SUFFICIENT TO RETARD DUST. ALL COSTS FOR DUST CONTROL SHALL BE INCLUDED IN BID PRICE FOR GRADING.
3. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO OR CONCURRENT WITH LAND DISTURBANCE ACTIVITIES AND SHALL BE MAINTAINED AT ALL TIMES.
4. ALL SILT FENCES MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT FENCE INSTALLATION IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL SILT FENCES AND TO REPAIR OR REPLACE ANY SILT FENCE THAT IS NOT SATISFACTORY. EROSION CONTROL GATES SHALL BE PLACED IMMEDIATELY AFTER DRAINAGE STRUCTURES ARE IN PLACE. ALL EROSION CONTROL DEVICES SHALL BE PLACED ACCORDING TO THE PLANS AND AS DIRECTED BY THE ENGINEER. SEE GEORGIA STANDARD SPECIFICATIONS, CURRENT EDITION REGARDING EROSION CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE TO KEEP STREAMS FREE FROM SILTATION. THE CONTRACTOR SHALL OBTAIN AND ABIDE BY ALL CORPS OF ENGINEERS RULES AND REGULATIONS CONCERNING CONSTRUCTION ADJACENT TO WATERWAYS AND MAINTAIN WATER QUALITY.

STORM DRAINAGE

1. CONCRETE RISERS ARE TO BE USED IN PAVED AREAS UNLESS OTHERWISE SPECIFIED.
2. ALL PIPE LENGTHS ARE MEASURED TO THE CENTER OF THE STRUCTURE.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO RAISE AND LOWER ALL INLETS AND TOPS TO MATCH FINAL GRADES AND TO ENSURE THAT ALL INLETS FUNCTION PROPERLY WITH NO PONDING IN THE DRAINAGE AREA. ANY DRAINAGE AREAS THAT DO NOT FUNCTION PROPERLY SHALL BE REPAIRED AND/OR REPLACED AT THE CONTRACTOR'S EXPENSE.
4. ALL STORMWATER MANHOLES IN PAVED AREAS SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE GRADE AND LIDS SHALL BE LABELED "STORM SEWER".
5. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
6. ALL STORM DRAINAGE CONSTRUCTION METHODS SHALL CONFORM WITH GDOT STANDARD SPECIFICATION SECTION 550 REINFORCED CONCRETE PIPE (CLASS III) – SECTION 843.01
7. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
   TYPE 1: RCP PER ASTM C-78, WITH FLEXIBLE PLASTIC BITUMINOUS GASKETS AT JOINTS.
   – FILLS UP TO 15' OVER TOP OF PIPE, CLASS III OR GREATER MAY BE USED.
   – FILLS 15' OVER TOP OF PIPE, CLASS IV OR GREATER MAY BE USED.
   – FILLS GREATER THAN 20' OVER TOP OF PIPE, CLASS V MUST BE USED.
8. EXISTING DRAINAGE STRUCTURES ARE TO BE INSPECTED AND REPAIRED AS NEEDED. CONTRACTOR IS RESPONSIBLE FOR CLEARING DEBRIS FROM EXISTING PIPES AND SHALL BE INCLUDED IN BASE BID.
9. ALL STORMWATER PIPE ENTERING STORMWATER STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT THE STRUCTURE IS WATERTIGHT AND SHALL HAVE A SMOOTH UNIFORM PAVED MORTAR INVERT FROM INVERT-IN TO INVERT OUT.
10. ALL PRECAST CONCRETE STRUCTURES SHALL CONFORM WITH ASTM C-478 WITH MINIMUM f'c=4000 PSI.
11. ALL CAST-IN-PLACE CONCRETE DRAINAGE STRUCTURES SHALL BE CONSTRUCTED USING GDOT CLASS A CONCRETE – SECTION 500.
12. ALL STORM SEWER TRENCHING SHALL BE BACKFILLED PER THE PROJECT SITE WORK SPECIFICATIONS AND/OR DETAILS.
13. A MINIMUM OF 1.0% SLOPE FOR STORM PIPES IS REQUIRED, UNLESS SPECIFICALLY NOTED.

TRAFFIC CONTROL

1. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PLANS, INCLUDING PEDESTRIAN & VEHICULAR DETOUR PLANS, TO THE AGENCY CONTROLLING THE RIGHT OF WAY FOR APPROVAL PRIOR TO PERFORMING ANY WORK IN A PUBLIC RIGHT OF WAY.
2. APPROVED COPIES OF "TRAFFIC CONTROL PLANS" AND LANE/SIDEWALK CLOSURE PERMITS SHALL BE AVAILABLE FOR INSPECTION AT JOB SITE AT ALL TIMES.
3. ALL TRAFFIC CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST VERSION.
4. THE CONTRACTOR SHALL UNCOVER EXISTING SIGNS AND REPLACE PAVEMENT MARKINGS IN-KIND AS ORIGINALLY CONFIGURED AT THE END OF CONSTRUCTION OPERATIONS AND PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
5. ALL TEMPORARY SIGNS, BARRICADES, WARNING LIGHTS AND OTHER MISCELLANEOUS TRAFFIC CONTROL MEASURES SHALL BE REMOVED AND ORIGINAL TRAFFIC CONTROL MEASURES REPLACED AT THE END OF THE CONTRACTOR'S CONSTRUCTION OPERATIONS.

GDOT NOTES

1. THE WORK AUTHORIZED MUST BEGIN WITHIN THREE MONTHS AND BE COMPLETED WITHIN TWELVE MONTHS ON A SCHEDULE SATISFACTORY TO THE DEPARTMENT FROM THE PERMIT APPROVAL DATE AND ALSO, BE COMPLETED BEFORE THIS FACILITY IS OPEN TO THE PUBLIC.
2. THE FOLLOWING WILL NOT BE ALLOWED ON DOT RIGHT-OF-WAY: (1) DIVERSION OF ADDITIONAL DRAINAGE AREA ONTO THE RIGHT-OF-WAY, OR INCREASE IN THE CFS OF CURRENT VOLUMES OF WATER (2) GRADING EXCEPT AT DRIVEWAY CONSTRUCTION LOCATION. (3) HEADWALLS, (4) SIGNS, DISPLAY DEVICES, AND OTHER STRUCTURES WHICH ARE DESIGNED, INTENDED, OR USED TO ADVERTISE OR INFORM. (5) LANDSCAPING WITHOUT PRIOR APPROVAL OF THE LANDSCAPE PLAN.
3. ALL EXISTING UTILITIES WHICH WOULD BE UNDER NEW PAVEMENT OR IN ACCELERATION/DECELERATION LANES SHALL BE RELOCATED BEFORE FINAL GRADING OR PAVING AND AT NO COST TO THE DOT, OR AN APPROVED RETENTION LETTER FROM THE UTILITY OWNER.
4. CONSTRUCTION OF EROSION CONTROL BARRIERS PER GEORGIA DEPARTMENT OF NATURAL RESOURCES RULE 391-3-7 AND SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
5. APPLICANT SHALL RESTORE ALL EXISTING SIGNS AND REGRASS TO DOT SPECIFICATIONS ALL RIGHT OF WAY THAT IS DISTURBED DURING WORK AUTHORIZED HEREIN.
6. THE PERMIT APPLICANT IS RESPONSIBLE FOR REPLACEMENT OF ALL EXISTING PAVEMENT MARKINGS DAMAGED BY THE PERMIT CONSTRUCTION AND THE ADDITION OF NEW PAVEMENT MARKINGS AND OR SIGNS AS SHOWN ON THE APPROVED PLAN, OR CURRENT M.U.T.C.D. GUIDELINES.
7. ALL CURBED ISLANDS SHALL BE FILLED TO THE TOP OF CURB WITH TOP SOIL AND GRASSED. NOTE: THIS APPROVAL DOES NOT ALLOW ANY WORK ON STATE RIGHT-OF-WAY IN CONNECTION WITH UTILITY LINES (SANITARY SEWER, WATER, TELEPHONE, GAS, ETC.)
8. REQUIRED PAVEMENT SPECIFICATIONS NOTICE

   PAVING SECTION "A":

   1 ¼"---------12.5 mm SUPERPAVE
   2" ----------19 mm SUPERPAVE
   8"-----------25 mm SUPERPAVE
   12"----------GRADED AGGREGATE BASE COURSE
9. THIS PERMIT IS APPROVED SUBJECT TO THE REVISIONS AND COMMENTS SHOWN IN RED ON THE ATTACHED PLAN COPY AND SHALL REMAIN DEPENDENT UPON COMPLIANCE WITH THESE.
10. NO WORK WILL BE ACCOMPLISHED UNDER THIS PERMIT WITHIN THE CONSTRUCTION LIMITS OF ANY DOT PROJECT WITHOUT WRITTEN APPROVAL OF THE PRIME CONTRACTOR.
11. THE MAINTENANCE OF THE DRIVEWAY FROM THE NORMAL EDGE OF PAVEMENT IS THE RESPONSIBILITY OF THE PERMITEE.
12. OVERLAY SHALL BE AS DIRECTED BY GDOT PERMIT INSPECTOR.
13. ALL SIDEWALKS, CROSSWALKS AND RAMPS SHALL MEET ADA STANDARDS GDOT DETAILS.
14. THE APPLICANT IS RESPONSIBLE TO OBTAIN ALL NECESSARY ENVIRONMENTAL APPROVALS PRIOR TO ANY WORK ON STATE R/W.

SIGNAL NOTES

1. ALL SIGNAL HEADS TO BE LED WITH LOUVERED BACKPLATES
2. ALL BACKPLATES TO HAVE 2" RETROREFLECTIVE YELLOW TAPE BORDERS
3. LIGHTS SHALL BE NON-PIXILATED – INCANDESCENT LOOK

TRAFFIC SIGNAL GENERAL NOTES

1. THE COMPLETE SIGNAL INSTALLATION SHALL CONFORM TO ALL PARTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION, INCLUDING SUBSEQUENT PUBLISHED RULINGS.
2. SIGNAL HEADS SHALL BE ERECTED TO PROVIDE AT LEAST 17 FEET BUT NO MORE THAN 19 FEET CLEARANCE FROM THE BOTTOM OF THE SIGNAL HEADS TO TOP OF THE ROAD SURFACE AND A MINIMUM OF 8 FEET MEASURED HORIZONTALLY BETWEEN CENTERS OF SIGNAL HEADS.
3. SHIELDED CABLE WILL BE USED FOR DETECTOR RUNS AS SHOWN ON THE DETAIL SHEET. DETECTORS SHALL HAVE SEPARATE LEAD-INS TO THE CONTROL CABINET.
4. THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES IN THE VICINITY OF NEW TRAFFIC SIGNAL POLES BEFORE INSTALLATION. MINOR SHIFTS (UP TO A MAXIMUM OF 5 FEET) IN LOCATION OF NEW SIGNAL POLES, AT THE DISCRETION OF THE ENGINEER, ARE ACCEPTABLE TO AVOID UNDERGROUND UTILITIES. MINIMUM CLEARANCES FROM EDGE OF PAVEMENT SHALL BE MAINTAINED. PLACEMENT OF THE SIGNAL HEADS SHALL BE RETAINED AS SHOWN ON THE PLANS.
5. INSTALLATION IS TO BE CHECKED AND ACCEPTED BY BARROW TRAFFIC ENGINEER PRIOR TO FINAL ACCEPTANCE.
6. FOR POLE FOUNDATION SIZE AND REINFORCEMENT, SEE POLE POLE FOUNDATION SHEET.
7. MATERIAL CERTIFICATION IS REQUIRED PRIOR TO BEGINNING ANY SIGNAL INSTALLATION WORK. THE CONTRACTOR SHALL FOLLOW PROCEDURES OUTLINED IN THE SPECIFICATION.
8. THE CONTRACTOR SHALL SUBMIT POLE AND FOUNDATION CALCULATIONS AND SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. FUTURE LOADING CONDITIONS SHOULD BE CONSIDERED IN THE DESIGN OF POLES, SPAN WIRES, AND FOUNDATIONS. LOADING CONDITIONS SHOULD BE CONSIDERED ON AN INDIVIDUAL BASIS AND SHOULD INCLUDE FUTURE SIGNAL HEADS, SIGNS AND THE LIKE.
9. THE CONTRACTOR SHALL REPLACE IN KIND AND SIZE, AT NO SEPARATE EXPENSE TO THE DEPARTMENT, ANY BARRIER WALL, FENCE, DITCH, PAVING, CURBING, SIDEWALK, GUTTER, SLOPE PAVEMENT, SIGNS, GUARDRAIL, LANDSCAPING, GRASSING, UTILITY SERVICE, STORM DRAIN PIPES, MASONRY WALLS AND PAVING THAT IS REMOVED, DAMAGED OR DESTROYED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PERTINENT EROSION CONTROL. THESE MEASURES SHALL BE IMPLEMENTED AND MAINTAINED FOR THE DURATION OF THE WORK. THE CONTRACTOR SHALL CONSIDER THIS WORK INCIDENTAL TO THE OVERALL WORK BEING PERFORMED AND SHALL INCLUDE HIS COST FOR COMPLETING THIS WORK IN THE OVERALL BID SUBMITTED.
11. ANY TRAFFIC MARKING, SYMBOLS OR STRIPING TO BE REMOVED SHALL BE PAID FOR IN THE TRAFFIC CONTROL LUMP SUM ITEM.
12. SEE SHEET SI-1 FOR 332A CABINET INPUT ASSIGNMENTS. CONTRACTOR TO PROVIDE NEW MODEM FOR FIBER OPTIC INTERCONNECTION. BARROW COUNTY WILL PERFORM FINAL SPLICING/TERMINATION AT EACH TERMINUS.
13. NEW STRAIN POLES SHALL BE INSTALLED BY THE CONTRACTOR IN COMPLIANCE WITH GDOT STANDARD SPECIFICATIONS 647, 639, AND 852.
14. PEDESTRIAN SIGNAL HEADS TO INCLUDE COUNTDOWN FEATURE IN COMPLIANCE WITH SECTION 4E.07 OF THE MUTCD.
15. ALL STRIPING AND PAVEMENT MARKINGS TO BE COMPLETED AS A PART OF THIS CONTRACT UNLESS NOTED OTHERWISE.
16. CONTRACTOR SHALL PROVIDE REFLECTIVE MARKERS IN ACCORDANCE WITH GDOT DETAIL TS-15C. LOCATION OF MARKERS TO BE PLACED IN ACCORDANCE WITH GDOT DETAIL TS-15A AND/OR AT THE DIRECTION OF THE BARROW COUNTY INSPECTORS.

CIVIL ABBREVIATIONS

ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
AC	ASPHALTIC CONCRETE
ACCMP	
ADA	AMERICANS WITH DISABILITIES ACT
AGGR	AGGREGATE
ALLOW	ALLOWANCE
ALNMT	ALIGNMENT
ALT	ALTERNATE OR ALTITUDE
ALUM	ALUMINUM
APPROX	APPROXIMATE
APPX	APPENDIX
ASB	ASBESTOS
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
ASPH	ASPHALT
ASSY	ASSEMBLY
AVE	AVENUE
AWWA	AMERICAN WATER WORKS ASSOCIATION
B&F	BELL AND FLANGE
B&S	BELL AND SPIGOT
BAL	BALANCE
BOC	BACK OF CURB
BCV	BUTTERFLY CHECK VALVE
BDRY	BOUNDARY
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BITUM	BITUMINOUS
BLDG	BUILDING
BLR	BOILER
BLT	BUILT
BLVD	BOULEVARD
BM	BEAM OR BENCHMARK
BN	BULLNOSE
BRG	BEARING
BSTR	BOOSTER
BV	BALL VALVE
BW	BOTH WAYS
BWG	BIRMINGHAM WIRE GAUGE
C TO C	CENTER TO CENTER
CALC	CALCULATE
CAP	CAPACITY
CB	CATCH BASIN OR CEMENT BASE
CCTV	CLOSED CIRCUIT TELEVISION
CD	CONSTRUCTION DOCUMENTS
CEM	CEMENT OR CEMETERY
CF	CONTRACTOR FURNISHED
CFS	CUBIC FEET PER SECOND
CG	CENTER OF GRAVITY
CHK	CHECK
CHKV	CHECK VALVE
CI	CAST IRON OR CURB INLET
CIP	CAST-IN-PLACE OR CAST IRON PIPE
CIR	CIRCLE
CJ	CONSTRUCTION JOINT OR CONTROL JOINT
CL	CENTER LINE, CLASS, OR CLOSE
CLASS	CLASSIFICATION
CLL	CONTRACT LIMIT LINE
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNR	CORNER
CO	CERTIFICATE OF OCCUPANCY OR CLEANOUT
COL	COLUMN
CONC	CONCRETE
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
CSP	CONCRETE SEWER PIPE
CSTL	CAST STEEL
CTR	CENTER, CONTOUR
CTRL	CONTROL
CTV	CABLE TELEVISION
CU	COPPER OR CUBIC
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CV	CONTROL VALVE
CW	CLOCKWISE OR COLD WATER PIPING
DA	DRAINAGE AREA
DAT	DATUM
DBA	UNIT OF SOUND LEVEL
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DESCR	DESCRIPTION
DET	DETAIL
DI	DROP INLET
DIA	DIAMETER
DIFF	DIFFERENCE OR DIFFERENTIAL
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
E	EAST
EA	EACH
EOC	EDGE OF CURB
EL	ELEVATION
ENTR	ENTRANCE
EOS	EDGE OF SLAB
EOP	EDGE OF PAVEMENT (PAVING)
EPA	ENVIRONMENTAL PROTECTION AGENCY
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EOS	EDGE OF SHOULDER
ESMT	EASEMENT
EST	ESTIMATE
EW	EACH WAY
EX	EXISTING
EXP	EXPANSION
EX GR	EXISTING GRADE
EXT	EXTERIOR
EXT GR	EXTERIOR GRADE
F/F	FACE TO FACE
FACIL	FACILITY
FD	FLOOR DRAIN
FFE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
FIG	FIGURE
FL	FLOW LINE
FLR	FLOOR
FN	FENCE
FOC	FACE OF CURB
FP	FIRE PROTECTION OR FLAGPOLE
FPS	FEET PER SECOND
FPW	FIRE PROTECTION WATER SUPPLY
FSP	FIRE STANDPIPE
FT	FEET OR FOOT
FTG	FOOTING
GAL	GALLON
GC	GENERAL CONTRACTOR
GDR	GUARD RAIL
GPD	GALLONS PER DAY
GR BM	GRADE BEAM
GT	GREASE TRAP
GV	GATE VALVE
GUT	GUTTER
HB	HOSE BIBB
H/C	HANDICAP
HDPE	HIGH DENSITY POLYETHYLENE
HDWL	HEADWALL
HORIZ	HORIZONTAL
HT	HEIGHT
HWY	HIGHWAY
HYD	HYDRANT
ID	INSIDE DIAMETER OR INSIDE DIMENSION
INFO	INFORMATION
INV	INVERT
INV EL	INVERT ELEVATION
IP	IRON PIPE, IRON PIN
IPF	IRON PIN FOUND
IPS	IRON PIN SET
IW	IRRIGATION WATER
KWY	KEYWAY
L	ANGLE
LAT	LATITUDE
LF	LINEAR FEET (FOOT)
LIN	LINEAR
LNG	LONGITUDE
LOC	LIMITS OF CLEARING
LONG	LONGITUDINAL
LP	LOW POINT
LS	LUMP SUM
LT	LIGHT
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MB	MAIL BOX
MEG	MATCH EXISTING GRADE
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MULT	MULTIPLE
MUNIC	MUNICIPAL
N	NORTH
NA	NOT APPLICABLE
NAT	NATURAL
NBC	NATIONAL BUILDING CODE
NIC	NOT IN CONTRACT
NO	NUMBER
NOI	NOTICE OF INTENT
NOM	NOMINAL
NORM	NORMAL
NTS	NOT TO SCALE
OC	ON CENTER
OZ	OUNCE
PC	POINT OF CURVE
PCA	PORTLAND CEMENT ASSOCIATION
PCC	PRECAST CONCRETE
PED	PEDESTAL
PERF	PERFORATED
PERM	PERMANENT
PG	PROFILE GRADE
PH	PHASE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PK LOT	PARKING LOT
PL	PROPERTY LINE
POLY	POLYETHYLENE (PLASTIC)
PR	PROPOSED
PRCST	PRECAST
PRKG	PARKING
PROJ	PROJECT
PROP	PROPERTY
PSI	POUNDS PER SQUARE INCH
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE (PLASTIC)
QTY	QUANTITY
R	RADIUS OR RANGE
RAD	RADIAN
RC	REINFORCED CONCRETE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RD	ROAD OR ROOF DRAIN
RDC	REDUCER
REBAR	REINFORCING STEEL BARS
REQD	REQUIRED
RESIL	RESILIENT
RFI	REQUEST FOR INFORMATION
RFP	REQUEST FOR PROPOSAL
ROW	RIGHT OF WAY
RST	REINFORCING STEEL
RT	RIGHT
RV	RELIEF VALVE
RW	ROADWAY
RWL	RAIN WATER LEADER
RWR	RECESSED WASTE RECEPTACLE
SAMP	SAMPLE
SAN	SANITARY
SB	SPLASH BLOCK
SCHED	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SECT	SECTION
SEG	SEGMENT
SF	SQUARE FOOT (FEET)
SP	STANDPIPE OR SUMP PIT
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SS	SANITARY SEWER
ST	STREET
STA	STATION
STD	STANDARD
STM	STORM
SW	SIDEWALK
SYM	SYMBOL
TBM	TEMPORARY BENCHMARK
TBR	TO BE REMOVED
TB-XX	TEST BORING-XX (E.G., TB-01)
TEL	TELEPHONE
TEMP	TEMPORARY
THK	THICKNESS
TO	TOP OF ___
TO FDN	TOP OF FOUNDATION
TOB	TOP OF BERM
TOC	TOP OF CONCRETE OR TOP OF CURB
TOC FTG	TOP OF CONCRETE FOOTING
TOC WALL	TOP OF CONCRETE WALL
TOF	TOP OF FOOTING
TOP	TOP OF PAVEMENT
TOPO	TOPOGRAPHY
TP	TELEPHONE POLE
TR	TOP OF RIM
TYP	TYPICAL
UFC	UNIFORM FIRE CODE
UGD	UNDERGROUND
UP	UTILITY POLE
UTL	UTILITY
VAR	VARIES
VB	VALVE BOX
VC	VERTICAL CURVE
VERT	VERTICAL
VIC	VICINITY
VIF	VERIFY IN FIELD
VOL	VOLUME
W	WASTE, WEST, OR WIDE
W/	WITH
W/O	WITHOUT
WL	WATER LINE
WM	WATER METER
WTR	WATER
WW	WASTE WATER
XFMR	TRANSFORMER

LEGEND

SITE CONDITIONS
- PROJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT
- STREAM/LAKE
- FLOODPLAIN

EXISTING CONDITIONS
- GUARD RAIL
- FENCE
- TREELINE
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- GAS LINE
- OVERHEAD UTILITY LINE
- OVERHEAD POWER LINE
- UNDERGROUND POWER LINE
- SEWER LINE
- SEWER SERVICE LINE
- FIBER-OPTIC LINE
- OVERHEAD TELECOM LINE
- UNDERGROUND TELECOM LINE
- TRAFFIC SIGNAL
- WATER LINE

PROPOSED CONDITIONS
- BUILDING
- WIRE FENCE
- CHAIN LINK
- WOODEN FENCE
- DECORATIVE FENCE
- COMPOSITE PRIVACY FENCE
- MAJOR CONTOUR
- MINOR CONTOUR
- STORMWATER FACILITY
- LIMITS OF DISTURBANCE
- GAS LINE
- OVERHEAD POWER LINE
- UNDERGROUND POWER LINE
- SEWER LINE
- FORCE MAIN
- SANITARY SERVICE LINE
- OVERHEAD TELECOM LINE
- UNDERGROUND TELECOM LINE
- WATER LINE

SYMBOLS
- IPS
- IPF
- SURVEY MONUMENT
- SURVEY CONTROL
- BENCHMARK
- UTILITY POLE
- GUY WIRE
- TRANSMISSION POLE
- FIBER OPTIC MARKER
- TELEPHONE PEDESTAL
- UTILITY MANHOLE
- GAS VALVE
- GAS METER
- GAS MARKER
- A/C CONDENSER
- LIGHT POLE
- COBRA HEAD LIGHT
- STORM LINE
- JUNCTION BOX
- GRATE INLET
- COMBINATION INLET
- DOUBLE WING INLET
- SINGLE WING INLET
- HEADWALL
- WEIR INLET
- SEWER MANHOLE
- WATER VALVE
- HYDRANT
- WATER ELBOW
- WATER TEE
- WATER CROSS
- WATER CAP
- WATER REDUCER
- WATER PLUG
- REMOTE FDC
- FDC
- POST INDICATOR VALVE
- WATER METER
- UTILITY VAULT
- DOUBLE CHECK VALVE
- DOUBLE DETECTOR CHECK VALVE
- REDUCE PRESSURE ZONE ASSEMBLY
- CONROLER CABINATE
- STRAIN POLE
- 3 SECTION HEAD W/ BACK PLATE
- 4 SECTION HEAD W/ BACK PLATE
- PEDESTAL POLE
- PED SIGNAL HEAD
- PULLBOX, TP 1
- PULLBOX, TP 2
- PULLBOX, TP 3
- PULLBOX, TP 4
- PULLBOX, TP 7

332A CABINET INPUT ASSIGNMENT

			1	2	3	4	5	6	7	8	9	10	11	12	13	14
UPPER INPUT FILE (I)		SLOT	1	2	3	4	5	6	7	[illegible]	[illegible]	10	11	12	13	14
		TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET			DC	DC	DC
	CHANNEL 1	C1 PIN	56	39	63	47	58	41	65	[illegible]	60		80	67	68	81
		FUNCTION	Ph1	Ph2	Ph2	Ph2 CALL	Ph3	Ph4	Ph4	[illegible]	Ph1		INT ADV	Ph2 PED	Ph6 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		NC	TB8 4,6	TB8 7,9	NC
	CHANNEL 2	C1 PIN	56	43	76	47	[illegible]	[illegible]	[illegible]	49	62		53	69	70	82
		FUNCTION	Ph1	Ph2	Ph2	Ph2 CALL	Ph3	Ph4	Ph4	Ph4 CALL	Ph3		MCE	Ph4 PED	Ph8 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		NC	TB8 5,6	TB8 8,9	NC
UPPER INPUT FILE (J)		SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
		TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET			TBA	TBA	DC
	CHANNEL 1	C1 PIN	55	[illegible]	64	[illegible]	57	42	66	50	59		54	71	72	51
		FUNCTION	Ph5	Ph6	Ph6	Ph6 CALL	Ph7	Ph8	Ph8	Ph8 CALL	Ph5			EV A	EV B	R/R
		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
	CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
		FUNCTION	Ph5	Ph6	Ph6	Ph6 CALL	Ph7	Ph8	Ph8	Ph8 CALL	Ph7			EV C	EV D	
		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

QUANTITIES PROVIDED ARE ENGINEER'S ESTIMATE ONLY AND PROVIDED SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR. AT THE TIME OF A FORMAL BID, THE CONTRACTOR IS RESPONSIBLE FOR THE QUANTITY TAKE OFF FOR ALL PROPOSED IMPROVEMENTS DETAILED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE OWNER A QUANTITY FOR EACH ITEM, AND A UNIT PRICE FOR EACH ITEM TO BE INCLUDED IN THE CONTRACT. THE QUANTITY AND UNIT PRICE WILL BE FOR THE CONVENIENCE OF THE OWNER IN EVALUATING THE BIDS AND DETERMINING ADJUSTMENTS TO THE CONTRACT PRICE, IF NECESSARY. ANY ITEMS THE CONTRACTOR IDENTIFIES DURING THE BID PROCESS WHICH ARE NOT INCLUDED IN THE PROVIDED LISTING SHOULD BE ADDED BY THE CONTRACTOR WITH A SPECIFIED QUANTITY, WORK DESCRIPTION, AND UNIT PRICE.

GDOT ITEM NO.	QUANITY		ITEM DESCRIPTION AND UNIT PRICE	UNIT PRICE		TOTAL PRICE	NOTES
	1.0		CONTROL CABINET ASSEMBLIES		EA		
	1.0		A. CONTROL UNIT, MODEL 2070LW/ AUX FILE FOR FYA		EA		
	0.0		B. CABINET ASSEMBLY, MODEL 337 (FOUR PHASE) ATLANTA ONLY		EA		
	0.0		C. CABINET ASSEMBLY MODEL 336S (EIGHT PHASE)		EA		
	1.0		D. CABINET ASSEMBLY, MODEL 332A		EA		
	12.0		E. SWITCH PACK		EA		
	4.0		F. DC ISOLATOR		EA		
	1.0		J. CONFLICT MONITOR W/ EXTENDED FEATURES		EA		
	1.0		PC 642-200 (OR EQUIVALENT), SURGE PROTECTOR		EA		
	3.0		SIGNAL CABLE (14 AWG) B. 7 CONDUCTOR PER 1000 FT.		REEL		
	11.0		ONE WAY, 3 SECTION, 12" LED SIGNAL HEAD, PLASTIC		EA		
	1.0		ONE WAY, 4 SECTION, 12" LED SIGNAL HEAD, PLASTIC		EA		
	8.0		18" PEDESTRIAN LED SIGNAL HEAD, SIDE BY SIDE		EA		
	8.0		PEDESTRIAN PUSH BUTTON AND SIGN		EA		
	11.0		BACK PLATE FOR ONE-WAY, 3-SECTION, 12" SIGNAL HEAD		EA		
	1.0		BACK PLATE FOR ONE-WAY, 4-SECTION, 12" SIGNAL HEAD		EA		
	4.0		HARDWARE FOR SPANWIRE ERECTION		EA		
	4.0		HARDWARE FOR PEDESTAL ERECTION FOR 18" PEDESTRIAN SIGNAL HEADS, TWO-WAY MOUNTING		EA		
	4.0		R10-5a, LEFT TURN YIELD ON FLASHING YELLOW ARROW SIGN		EA		
	2.0		SPAN WIRE MOUNTED LED STREET NAME SIGN WITH BLOCK NUMBERS		EA		
	1.0		SOLAR LIGHTS - CARMANAH #EG 145		EA		
	0.0		SMARTGRID BELL CAMERA		EA		
	0.0		SMARTGRID ACCESSORIES & MOUNT		EA		
	0.0		REMOVE EXISTING CABINET		EA		
	2.0		INSTALL NEW CONCRETE PAVERS		LS		
	0.0		REMOVE EXISTING TRAFFIC POLE & SIGNALS		LS		
647-2120	10.0		PULL BOX, PB-2		EA		
647-2130	1.0		PULL BOX, PB-3		EA		
647-2170	1.0		PULL BOX, PB-7		EA		
647-6057	4.0		PEDESTAL POLE		EA		
647-1000	1.0		TRAFFIC SIGNAL INSTALLATION NO -		LS		
639-2001	430.0		STEEL WIRE STRAND CABLE, 1/4 IN		LF		
639-4004	4.0		STRAIN POLE, TP IV		EA		
653-0120	2.0		THERMOPLASTIC PVMT MARKING, ARROW, TP 2		EA		
653-1501	0.0		THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE		LF		
653-1502	35.0		THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW		LF		
653-1504	0.0		THERMOPLASTIC SOLID TRAF STRIPE, 12 IN, WHITE		LF		
653-1804	0.0		THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE		LF		
653-6004	155.0		THERMOPLASTIC TRAF STRIPING, WHITE		LF		24" Stop Bars
656-0050	385.0		REMOVE EXIST SOLID TRAF STRIPE, 5 IN, THERMOPLASTIC		LF		
656-1050	0.0		REMOVE EXIST SKIP TRAF STRIPE, 5 IN, THERMOPLASTIC		GL		
656-3600	75.0		REMOVE EXIST TRAF STRIPE, ALL KINDS & TYPES		SY		
656-5000	2.0		REMOVE EXIST TRAF MARKINGS -		EA		Type 2 Turn Arrows
682-6110	80.0		CONDUIT, RIGID, 1 IN		LF		
682-6222	20.0		CONDUIT, NONMETL, TP 2, 2 IN		LF		
682-6233	900.0		CONDUIT, NONMETL, TP 3, 2 IN		LF		
935-0345	1.0		FIBER OPTIC MODEM/TRANSCEIVER		EA		
935-1124	80.0		OUTSIDE PLANT FIBER CABLE, LOOSE TUBE, SINGLE MODE, 24 FIBER		LF		
935-1511	1.0		OUTSIDE PLANT FIBER OPTIC CABLE, DROP, SINGLE MODE,		LF		
935-3101	1.0		FIBER OPTIC CLOSURE, AERIAL (SEALED), 6 FIBER		EA		
935-4010	1.0		FIBER OPTIC SPLICE, FUSION		EA		GDOT to provide splicing
935-6562	1.0		EXTERNAL TRANSCEIVER, DROP AND REPEAT, 1310 SM (SINGLE JOBS)		EA		
935-8000	1.0		TESTING		LS		Testing provided by GDOT

GEORGIA REGISTERED No. 031717 PROFESSIONAL ENGINEER MICHAEL STUART GREENLEE

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NOTES & LEGEND

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