

CONSTRUCTION PLANS FOR:  
**MYRTLE STREET/ZION CIRCLE  
PERMEABLE PAVER INSTALLATION**

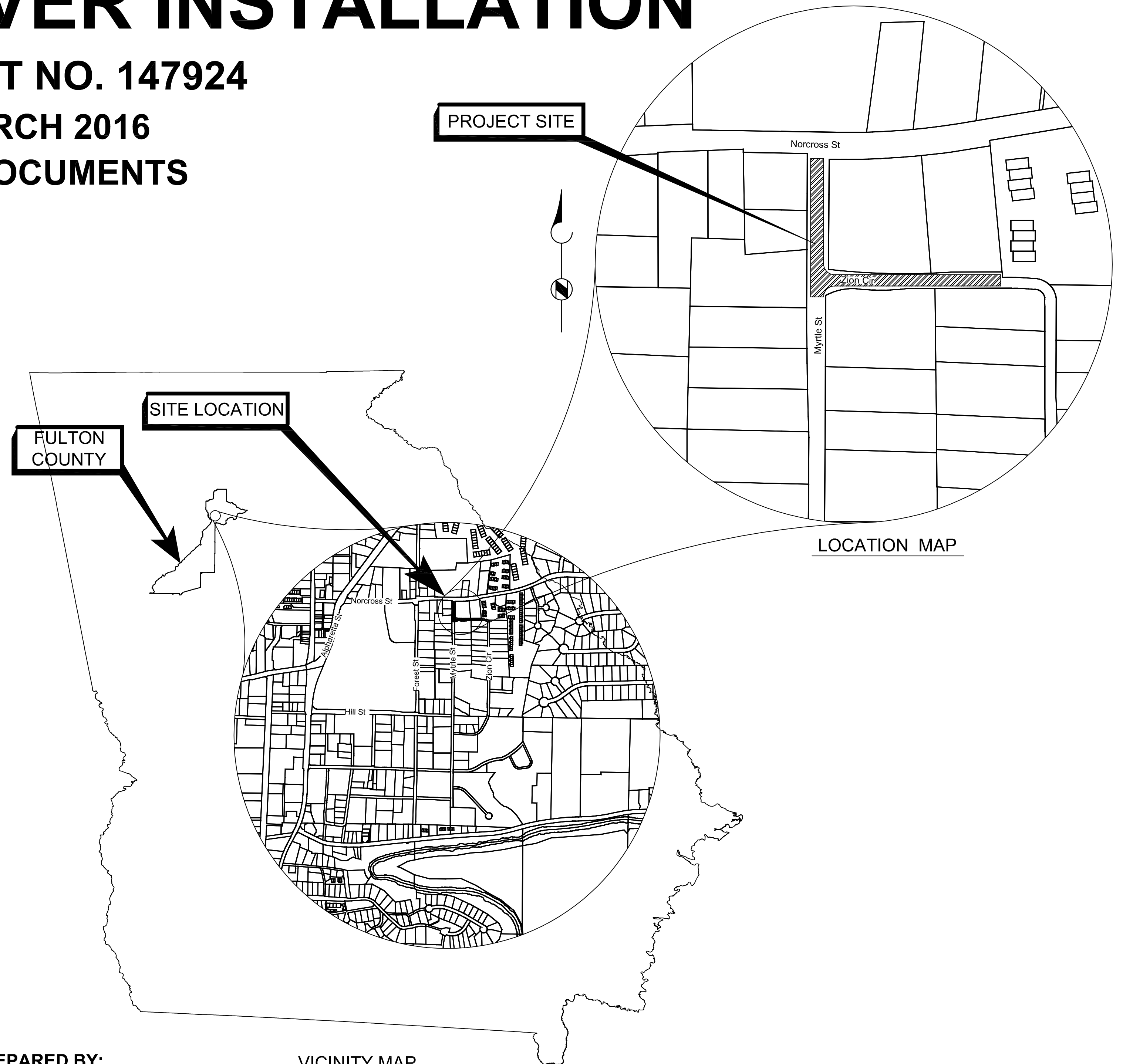
**PROJECT NO. 147924**

# MARCH 2016

# BID DOCUMENTS

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**PREPARED BY:**

VICINITY MAP



**PREPARED FOR:**

**CITY OF ROSWELL  
ENVIRONMENTAL/  
PUBLIC WORKS DEPARTMENT  
770-641-3715**

**Brown AND Caldwell**

**Environmental Engineers and Consultants**  
990 Hammond Drive, Suite 400, Atlanta, GA 30328  
Phone: 770-394-2997 Fax: 770-396-9495



PROJECT DESIGN ENGINEER-OF-RECORD:  
JEFFREY L. HERR, P.E.; GA REGISTRATION NO. 29019  
990 HAMMOND DRIVE, SUITE 400, ATLANTA, GEORGIA  
PHONE: 770-673-3673; EMAIL: [jherr@brwnclad.com](mailto:jherr@brwnclad.com)

BC PROJECT NO. 147924



FILENAME: 147924 G-01.DWG PLOT DATE: 3:28 PM CAD USER: MICHAEL MULLEN

SURVEY SYMBOLS AND ABBREVIATIONS

IPF = IRON PIN FOUND (o)  
IPS = IRON PIN SET (o)  
CMF = CONCRETE MONUMENT FOUND (□)  
CMS = CONCRETE MONUMENT SET (□)  
R/W = RIGHT OF WAY  
STA = STATION NUMBER  
LLL = LAND LOT LINE  
C = CENTER LINE  
PL = PROPERTY LINE  
BM = BENCHMARK  
PT = POINT OF TANGENCY  
PC = POINT OF CURVATURE  
IE = INVERT ELEVATION  
EL = ELEVATION (ELEV.)  
B/L = BUILDING LINE  
R = RADIUS  
FFE = FINISHED FLOOR ELEVATION  
— = FLOW  
o = PROPERTY CORNER  
-X- = FENCE  
C = POLE  
-T- = TELEPHONE LINE  
-TV- = TELEVISION LINE  
-P- = POWER LINE  
-SS- = SANITARY SEWER LINE  
SSE = SANITARY SEWER EASEMENT  
MH = MANHOLE (o) or (o)  
-G- = GAS LINE  
-W- = WATER LINE  
— = PLUGGED STUB  
G = GATE VALVE  
F.H. = EXIST. FIRE HYDRANT (H)  
F.H. = PROP. FIRE HYDRANT (H)  
M = WATER METER (o)  
-ST- = STORM SEWER LINE  
YI = YARD INLET  
DI = DROP INLET  
CB = CATCH BASIN  
HW = HEAD WALL (—)  
JB = JUNCTION BOX  
DE = DRAINAGE EASEMENT  
FM = SEWER FORCE MAIN  
DS = DOWN SPOUT  
CO = CLEAN OUT  
CMP = CORRUGATED METAL PIPE  
RCP = REINFORCED CONCRETE PIPE  
VCP = VITRIFIED CLAY PIPE  
DIP = DUCTILE IRON PIPE  
PVC = POLYVINYL CHLORIDE PIPE  
C & G = CURB AND GUTTER  
FIRM = FEDERAL INSURANCE RATE MAP  
TPOB = TRUE POINT OF BEGINNING  
POB = POINT OF BEGINNING  
GMD = GEORGIA MILITIA DISTRICT  
— = TREE LINE  
— = RIPRAP  
— = BRANCH  
--- = EXISTING CONDITIONS (DASHED)  
-912- = PROPOSED CONTOURS (SOLID)  
TC = TOP OF CURB ELEVATION  
Δ = TRAVERSE POINT  
L.P. = LIGHT POLE (o)  
P = PLANTED TREE  
MT = MARKED TREE  
P.B. = PLAT BOOK  
D.B. = DEED BOOK  
PG = PAGE  
NF = NOW OR FORMALLY  
TB = TOP OF BANK  
BB = BOTTOM OF BANK  
EW = EDGE OF WATER  
DPC = DEEPEST POINT OF CHANNEL  
WA = WETLAND AREA  
CPP = CORRUGATED PLASTIC PIPE

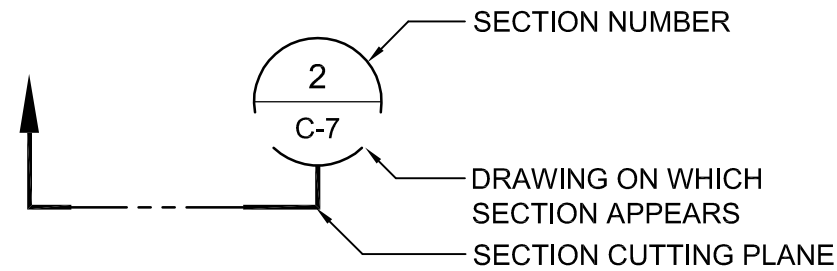
EXISTING WETLAND  
EXISTING TREES  
EXISTING MINOR CONTOURS  
EXISTING MAJOR CONTOURS  
PROPERTY BOUNDARY  
EXISTING SANITARY SEWER LINE  
EXISTING MANHOLE  
DOWN GUY  
DROP INLET  
SINGLE CATCH BASIN  
DOUBLE CATCH BASIN  
EXISTING STORMWATER PIPE

DESIGN SYMBOLS AND ABBREVIATIONS

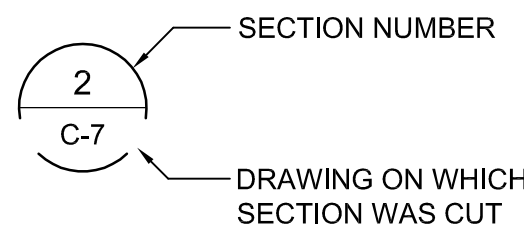
RIGHT-OF-WAY  
LIMITS OF DISTURBANCE  
PROPOSED STREAM STATIONING  
STAKED SILT FENCE  
ORANGE BARRIER FENCE  
PROPOSED LAYOUT POINT  
SPOT ELEVATION  
SOIL SERIES DELINEATION BOUNDARY  
SOIL INFILTRATION TESTING LOCATION (PERC HOLES)  
PERMEABLE PAVER SECTION  
EXISTING GROUND SURFACE SPOT ELEVATION  
EXISTING PAVEMENT REMOVAL  
EXISTING CURB REMOVAL

SECTION AND DETAIL NUMBERING SYSTEM

(1) SECTION CUT ON DRAWING C-7



(2) ON DRAWING C-12 THIS SECTION IDENTIFIED



(3) DETAILS ARE CROSS-REFERENCED IN A SIMILAR MANNER.

GENERAL CONSTRUCTION NOTES

- THE OWNER IS THE CITY OF ROSWELL. ALL PRESENT WORK IS WITHIN THE LIMITS OF CITY OF ROSWELL OWNED PROPERTY. NO ACCESS OR WORK IS PERMITTED OUTSIDE OF THE LIMITS OF DISTURBANCE SHOWN ON THESE PLANS.
- TREES OUTSIDE OF THE CLEARING LINE SHALL BE PROTECTED FROM DAMAGE BY APPROPRIATE MARKINGS. SUPPLEMENTAL VEGETATION SHALL BE ESTABLISHED.
- NO MATERIAL SHALL BE PLACED IN ANY WETLAND AREA OR IN ANY LOCATION OR MANNER SO AS TO IMPAIR SURFACE WATER FLOW UNLESS SHOWN ON THE DRAWINGS.
- ALL TEMPORARY FILLS SHALL BE REMOVED IN THEIR ENTIRETY.
- NO BURY PITS ARE ALLOWED.
- SITE TOPOGRAPHY WAS COMPILED FROM GROUND SURVEYS BY COLUMBIA ENGINEERING ON 12/18/15. VERTICAL DATUM IS NAVD 88 AND HORIZONTAL DATUM IS NAD83. THE HORIZONTAL COORDINATE SYSTEM IS GA WEST STATE PLANE, NAD 83, US SURVEY FEET.
- THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.
- THE EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES SHOWN ARE APPROXIMATE; ACCURACY IN LOCATION, ELEVATION, DIMENSION AND COMPLETENESS IS NOT GUARANTEED. THE UTILITIES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AT THE PREPARATION OF THESE CONTRACT DOCUMENTS. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE A REVIEW OF THE SITE TO DETERMINE EXISTING CONDITIONS. ANYTHING NOT SHOWN ON THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER IMMEDIATELY AND SHALL NOT CONSTITUTE GROUNDS FOR AN EXTRA, UNLESS APPROVED BY THE OWNER.
- ANY AND ALL AREAS NOT SPECIFIED FOR CONSTRUCTION WHICH ARE DISTURBED AND OR DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THE STANDARDS OF THE CONTRACT DOCUMENTS TO THE EXISTING LOCATION, ELEVATION, AND DIMENSION AND TO THE SATISFACTION OF THE OWNER AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY IF ANY CONFLICTS ARE FOUND IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR'S CONSTRUCTION MEANS AND METHODS SHALL COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL CONSTRUCTION AND SAFETY CODES. WHERE APPLICABLE THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LICENSES AND PERMITS AT ITS OWN EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE OWNER.
- THE CONTRACTOR SHALL DIVERT AND CONVEY STORMWATER AROUND THE WORK AREA AND SHALL NOT INCREASE WATER STAGES OR FLOW RATES UPSTREAM OR DOWNSTREAM OF THE PROJECT. THE CONTRACTOR SHALL ALSO STABILIZE THE SITE AT THE END OF EACH DAY WORK, SO ALL WORK AREAS WILL BE STABLE IN THE EVENT OF A 10-YEAR STORM.
- CONTRACTOR SHALL USE PUMPS WHICH MINIMIZE AMBIENT NOISE.
- CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP EXCAVATIONS DRY AND SHALL PROVIDE ALL SHEETING, SHORING, AND BRACING NECESSARY TO PROTECT ADJACENT STRUCTURES, UTILITIES, EXISTING PAVEMENT, OR TO MINIMIZE TRENCH WIDTH.
- ALL MATERIAL SHALL BE NEW, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- CONTRACTOR SHALL MAINTAIN ACCESS TO THE SITE AT ALL TIMES. THE PRIMARY ACCESS TO THE SITE WILL BE FROM ADJOINING NORTHERN PARCEL VIA NORCROSS STREET.
- INFORMATION REGARDING UNDERGROUND UTILITIES ON THESE PLANS IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL REQUEST A FIELD LOCATION THROUGH THE UTILITIES PROTECTION CENTER AND ANY UTILITY OWNERS THOUGHT TO HAVE FACILITIES IN THE AREA. THE CONTRACTOR SHALL PROMPTLY COMPARE THESE FIELD-MARKED LOCATIONS WITH THE PROJECT PLANS AND THEN NOTIFY THE ENGINEER OF ANY ANTICIPATED PROBLEMS OR NEED FOR DESIGN CHANGES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE OR CAUSE THE UTILITY OWNER TO EXCAVATE FOR THE PURPOSE OF DETERMINING EXACT ELEVATIONS OR LOCATIONS AT UTILITY CROSSINGS AND OTHER CRITICAL LOCATIONS WELL IN ADVANCE OF THE WORK UNDER THIS CONTRACT. DAMAGE TO EXISTING UTILITIES RESULTING FROM THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, SIZE, AND MATERIAL OF ANY EXISTING WATER OR SANITARY SEWER FACILITY PROPOSED FOR CONNECTION OR USE BY THIS PROJECT.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF ROSWELL PERMITS AND REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT CONDITIONS.
- FINISHED GRADE SHOWN ON THE DRAWINGS REFERS TO THE FINAL GRADE AFTER THE INSTALLATION OF FINAL EROSION CONTROL MEASURES AND GROUND TREATMENT. GRADING AND GROUND TREATMENT SHALL BE BELOW ANY SIDEWALK, CURB, OR PAVEMENT SO WATER DOES NOT POND AND WILL DRAIN.
- THE CONTRACTOR SHALL PROTECT THE EXISTING SANITARY SEWER SYSTEM AND ALL OTHER UTILITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED MAINTENANCE OF TRAFFIC AS NEEDED FOR PROJECT CONSTRUCTION.
- ALL WORK AREAS SHOWN ON THE DRAWINGS ARE TO BE CLEARLY IDENTIFIED WITH ORANGE BARRIER FENCE PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- NOTIFY CITY OF ROSWELL INSPECTIONS 24 HOURS PRIOR TO BEGINNING EVERY PHASE OF CONSTRUCTION, 770-641-3715.
- THE PLAN PREPARERS HAVE VISITED THE SITE PRIOR TO THE CREATION OF THE PLANS.
- THIS WORK IS BEING PERFORMED IN CLOSE PROXIMITY TO MANY INDIVIDUAL PROPERTY LOTS. THE CONTRACTOR SHALL NOT CROSS ONTO OR PERFORM ANY WORK ON PRIVATE LOTS WITHOUT PRIOR APPROVAL OF THE OWNER.
- OTHER CONTRACTORS MAY BE CONSTRUCTING OTHER IMPROVEMENTS WITHIN THE PROJECT LIMITS DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR WILL COORDINATE WITH ANY OTHER CONTRACTORS WORKING WITHIN THE PROJECT LIMITS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF ANY PROPOSED WORK IS LIKELY TO AFFECT THE SURVIVAL OF EXISTING TREES. THE OWNER MAY REQUEST EXISTING WORK TO BE MODIFIED TO PROTECT EXISTING TREES OR MAY REQUEST REMOVAL OF THREATENED TREES.
- THE PROPOSED PERMEABLE PAVER SECTION MAY NEED TO BE MODIFIED TO ACCOMDATE EXISTING UTILITIES. THE CONTRACTOR SHALL PERFORM MODIFICATIONS AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER. EXAMPLES OF MODIFICATIONS INCLUDE REDUCING THE DEPTH OF THE GRAVEL RESERVOIR AND CHANGING THE DEPTH OF INDIVIDUAL LAYERS OF MATERIAL WITHOUT INCREASING THE TOTAL DEPTH OF THE SYSTEM.

COLOR CODES FOR UTILITY LOCATING

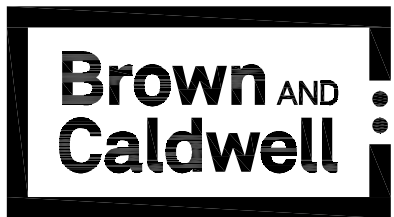
RED	ELECTRIC
YELLOW	GAS-OIL
ORANGE	TELEPHONE-CITY
BLUE	WATER
GREEN	SEWER

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

THREE WORKING DAYS BEFORE YOU DIG GEORGIA CALL

Utilities Protection Center, Inc.

1-800-282-7411 It's The Law.



ATLANTA, GA



MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION

REVISIONS		
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: J HERR  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: L HAWKS  
APPROVED: J HERR

FILENAME  
147924 G-01.DWG  
BC PROJECT NUMBER  
147924  
CLIENT PROJECT NUMBER

SYMBOLS,  
ABBREVIATIONS &  
GENERAL NOTES

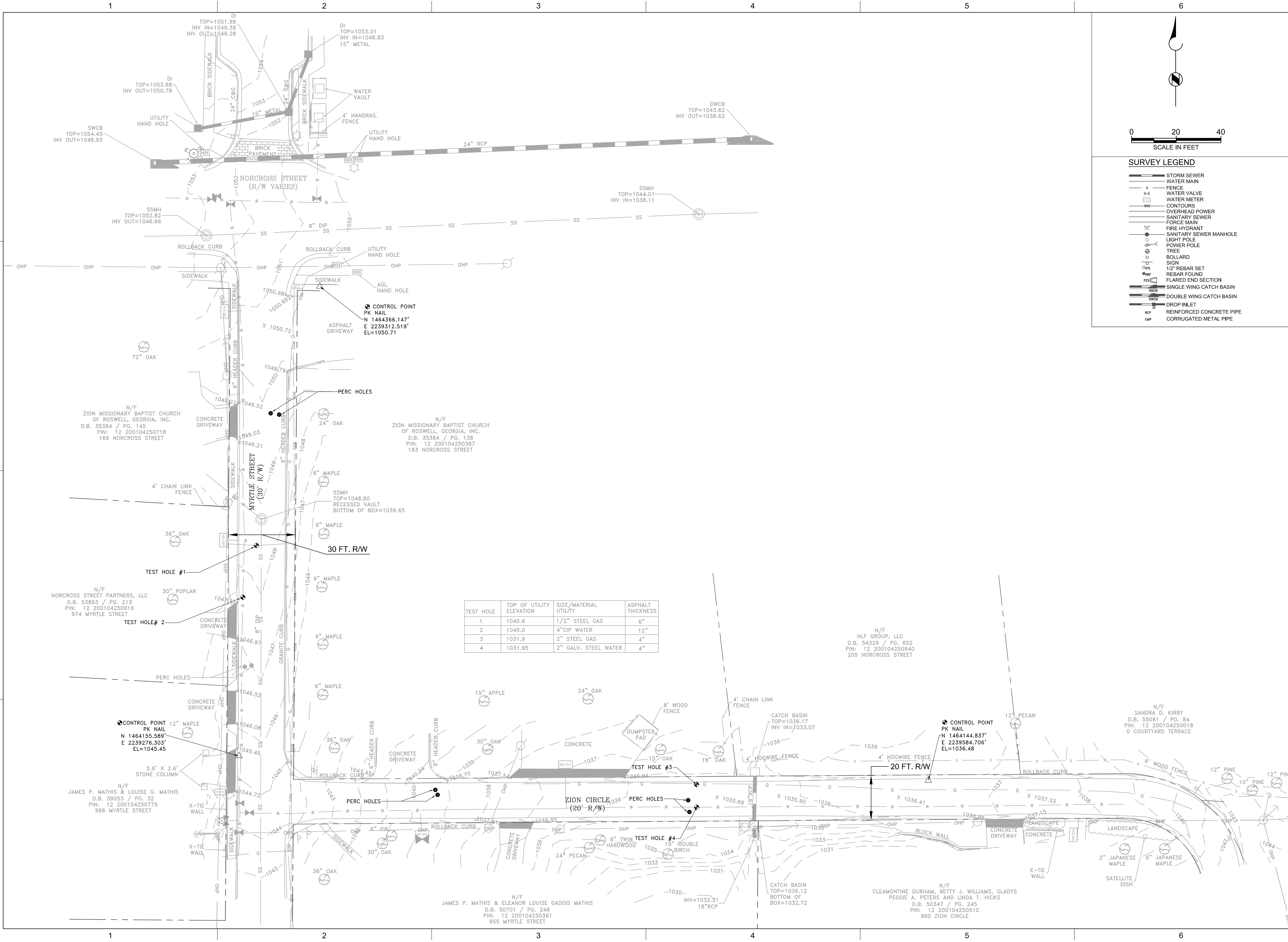
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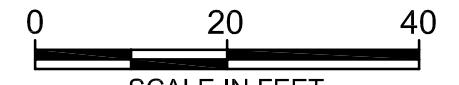
G-1

SHEET NUMBER  
2 OF 11



Path: \\BCATLFP01\PROJECTS\CITY OF ROSWELL\147924 BMP REVOLVING FUND\_CAD\2-SHEETS FILENAME: 147924 C-01.DWG PLOT DATE: 12:24 PM CAD USER: MICHAEL MULLEN



  
  
**SURVEY LEGEND**

- STORM SEWER
- WATER MAIN
- FENCE
- WATER VALVE
- WATER METER
- CONTOURS
- OVERHEAD POWER
- SANITARY SEWER
- FORCE MAIN
- FIRE HYDRANT
- SANITARY SEWER MANHOLE
- LIGHT POLE
- POWER POLE
- TREE
- BOLLARD
- SIGN
- 1/2" REBAR SET
- REBAR FOUND
- FLARED END SECTION
- SINGLE WING CATCH BASIN
- DOUBLE WING CATCH BASIN
- DROP INLET
- REINFORCED CONCRETE PIPE
- CORRUGATED METAL PIPE



ATLANTA, GA



### MYRTLE STREET/ ZION CIRCLE PERMEABLE PAVER INSTALLATION

REVISIONS		
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: J HERR  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: L HAWKS  
APPROVED: J HERR

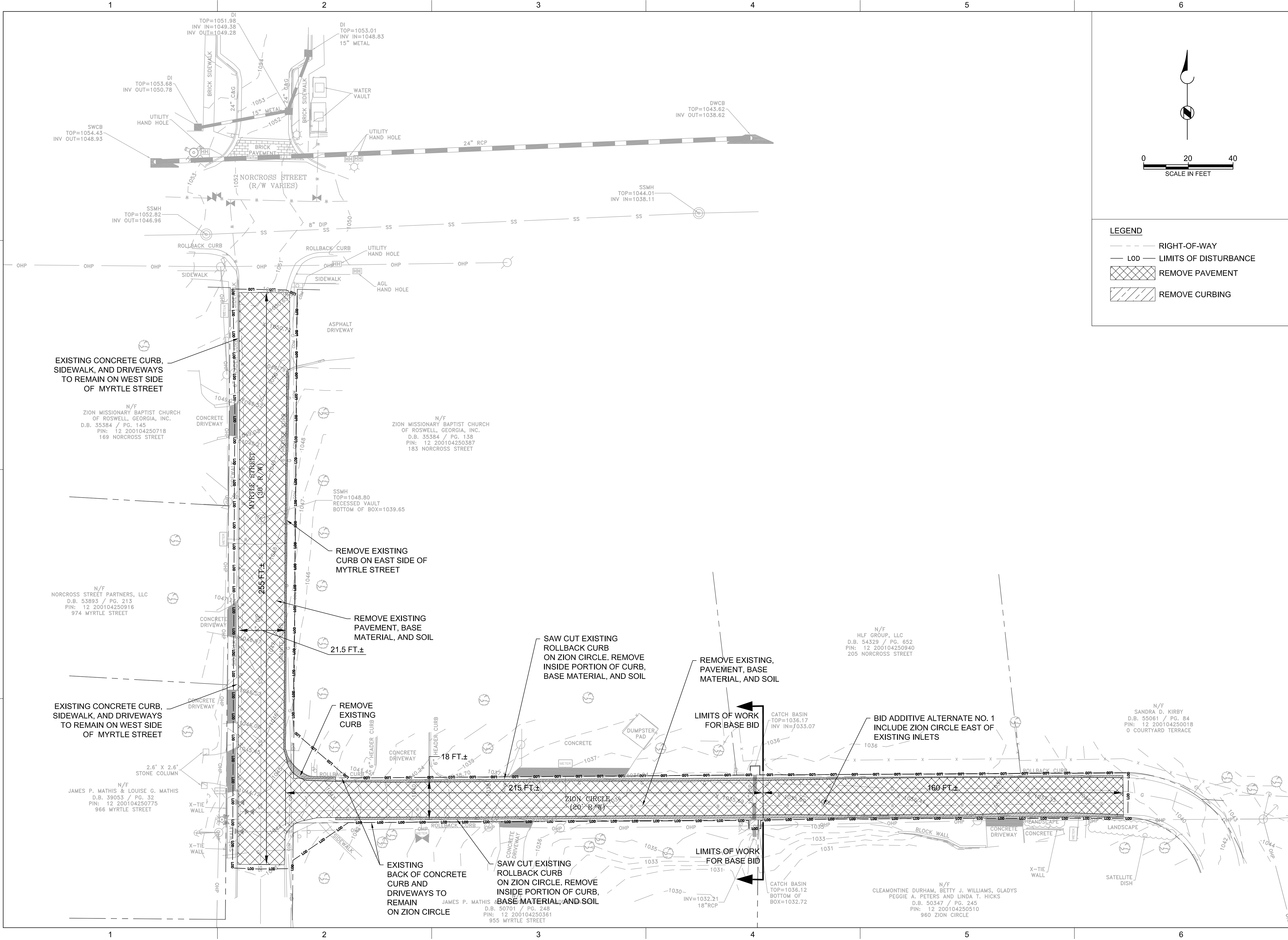
FILENAME  
147924 C-01.DWG  
BC PROJECT NUMBER  
147924  
CLIENT PROJECT NUMBER

### EXISTING SURVEY

DRAWING NUMBER  
**C-1**  
SHEET NUMBER  
3 OF 11

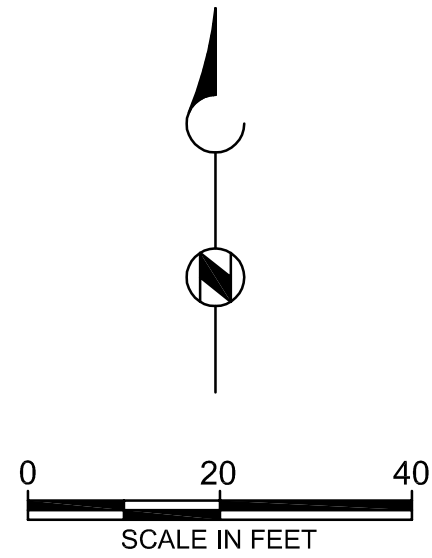


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**LEGEND**

- RIGHT-OF-WAY
- LOD — LIMITS OF DISTURBANCE
- [Cross-hatched box] REMOVE PAVEMENT
- [Diagonal hatched box] REMOVE CURBING



**Brown AND Caldwell**

ATLANTA, GA



**MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION**

REVISIONS		
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: J HERR  
DRAWN: M MULLEN  
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CHECKED: L HAWKS  
APPROVED: J HERR

FILENAME  
147924 C-02.DWG  
BC PROJECT NUMBER  
147924  
CLIENT PROJECT NUMBER

**PROPOSED  
CLEARING AND  
DEMOLITION PLAN**

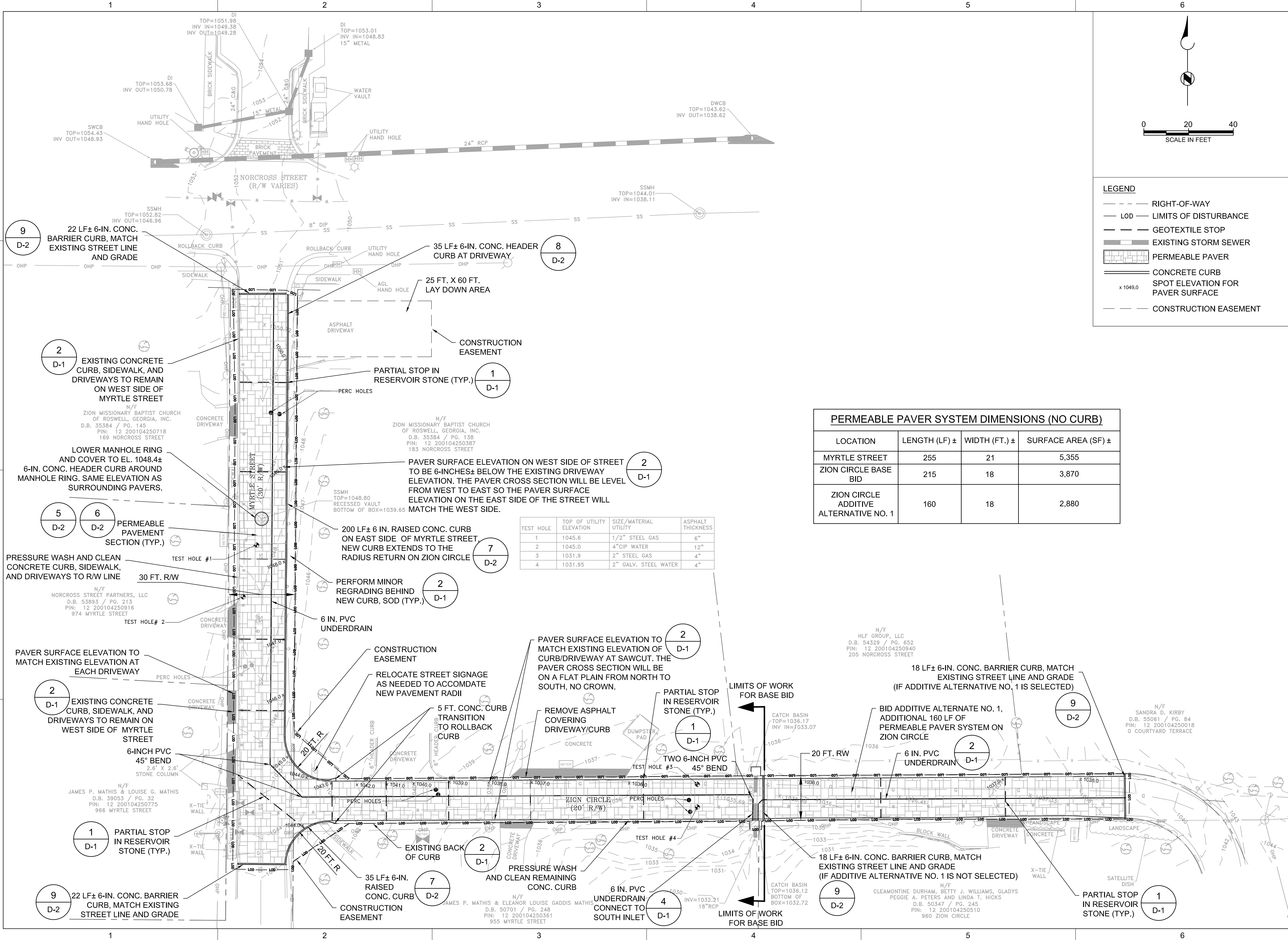
DRAWING NUMBER

**C-2**

SHEET NUMBER  
4 OF 11



Pair: P:\CITY OF ROSWELL\147924-BMP REVOLVING FUND\_CAD\2-SHEETS FILENAME: 147924-C-03.DWG PLOT DATE: 4:12 PM CAD USER: MICHAEL MULLEN



**Brown AND Caldwell**

ATLANTA, GA



MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION

REVISIONS		
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: J HERR  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: L HAWKS  
APPROVED: J HERR

FILENAME  
147924-C-03.DWG  
BC PROJECT NUMBER  
147924  
CLIENT PROJECT NUMBER

PROPOSED PAVING  
AND DRAINAGE  
PLAN

DRAWING NUMBER

C-3

SHEET NUMBER  
5 OF 11



Pair: \\BCCATLFP01\PROJECTS\CITY OF ROSWELL\147924 BMP REVOLVING FUND\_CAD\2-SHEETS FILENAME: 147924 C-04.DWG PLOT DATE: 1:04 PM CAD USER: MICHAEL MULLEN

1

2

3

4

5

6

# GEORGIA UNIFORM CODING SYSTEM FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES

## GEORGIA SOIL AND WATER CONSERVATION COMMISSION

### STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Ch	CHANNEL STABILIZATION			A small temporary barrier or dam constructed across a pipe, drainage ditch or area of concentrated flow.
Co	CONSTRUCTION EXIT			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Cr	CONSTRUCTION ROAD STABILIZATION			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DRAINAGE STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DRAINAGE STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fi	FILTER RIG			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Gr	GRASS			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainage ways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	SILT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a section. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or liner.
Sk	FLOATING SURFACE SOAKER			A buoyant device that releases/draws water from the surface of sediment ponds, traps or basins at a controlled rate of flow.
Spb	SEEP BERM			Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

### STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
Sl	STORMWATER OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Vlt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

### VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)			Planting vegetation on dunes that are deemed artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)			Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)			Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)			Establishing a permanent vegetative cover with long term grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SOAKING)			A permanent vegetative cover using sods on highly erodible or critically eroded lands.
Du	DUST CONTROL AREAS			Controlling surface erosion and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS			Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (WITH PERM SEEDING)			The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION			A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKERS AND BINDERS			Substance used to anchor straw or hay matting by causing the organic material to bind together.

11. ORANGE BARRIER FENCING MUST BE INSTALLED PRIOR TO ANY LAND DISTURBANCE ACTIVITY AND MAINTAINED UNTIL FINAL LANDSCAPE IS INSTALLED.

12. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY CITY OF ROSWELL PRIOR TO ANY OTHER LAND DISTURBANCE ON SITE.

13. CUT AND FILL SLOPES ARE NOT TO EXCEED 2H:1V UNLESS SPECIFICALLY SHOWN. CONCENTRATED FLOW AREAS AND ALL DISTURBED SLOPES STEEPER THAN 3:1 OR WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL MATTING OR BLANKETS SHOWN ON THE DETAIL SHEETS. ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE SLOPE'S TOE.

14. SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE 1/3 FULL VOLUME.

15. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STEAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION OR WITHIN 25-FEET OF THE COASTAL MARSHLAND BUFFER AS MEASURED FROM THE JURISDICTIONAL DETERMINATION LINE WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

### BMPs FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS

#### SPILL CLEANUP AND CONTROL PRACTICES

A. LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND PROCEDURES SHALL BE MADE AVAILABLE TO SITE PERSONNEL.

B. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREAS DURING THE CONSTRUCTION ACTIVITIES. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, OIL CONTAINMENT BOOMS, CAT LITTER, SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.

C. SPILL PREVENTION PRACTICES AND PROCEDURES SHALL BE REVIEWED AFTER ANY SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.

D. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.

- FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.

- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.

- FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS.

- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

E. THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1 320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. IF THIS OCCURS, THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN (SPCC PLAN) PREPARED BY THAT LICENSED PROFESSIONAL.

F. ALL POLLUTANTS FROM WASTE DISPOSAL PRACTICES, SOIL ADDITIVES, REMEDIATION OF SPILLS AND LEAKS OF PETROLEUM PRODUCTS, CONCRETE TRUCK WASHOUT, ETC., SHOULD ANY OF THESE OCCUR, SHALL BE CONTROLLED BY THE IMPLEMENTATION OF APPROPRIATE BEST MANAGEMENT PRACTICES. THE SITE SHALL BE IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

#### PRODUCT-SPECIFIC PRACTICES

A. PETROLEUM BASED PRODUCTS - CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS SHALL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLE AND MACHINERY DAILY INSPECTIONS AND REGULAR PREVENTIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS SHALL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORMWATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAMINATION. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROHIBITED. PROPER DISPOSAL METHODS SHALL INCLUDE IMMEDIATE COLLECTION IN A SUITABLE CONTAINER, THE SPILL REPORTED, AND DISPOSAL AS REQUIRED BY LOCAL, STATE AND FEDERAL REGULATIONS.

B. PAINTS/FINISHES/SOLVENTS - ALL PRODUCTS SHALL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCTS SHALL NOT BE DISCHARGED TO THE STORMWATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS SHALL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

C. CONCRETE TRUCK WASHING - NO CONCRETE TRUCKS SHALL BE ALLOWED TO WASH OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONSITE.

D. FERTILIZER/HERBICIDES - THESE PRODUCTS SHALL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA. ANY STORAGE OF THESE MATERIALS SHALL BE UNDER ROOF IN SEALED CONTAINERS.

E. BUILDING MATERIALS - NO BUILDING OR CONSTRUCTION MATERIALS SHALL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL SHALL BE DISPOSED OF WITH PROPER WASTE DISPOSAL PROCEDURES.

#### HAZARDOUS WASTE

A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER SPECIFIED BY LOCAL, STATE, AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO SHALL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, SHALL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE SHALL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS SHALL BE POSTED IN THE IMMEDIATE AREA WHERE SUCH PRODUCT IS STORED AND/OR USED, AND ANOTHER COPY SHALL BE MAINTAINED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE HAZARDOUS PRODUCTS/SUBSTANCES SHALL BE INSTRUCTED ON THE USE OF MSDS'S AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY REGARDING SPILL CONTROL TECHNIQUES.

B. THE CONTRACTOR SHALL IMPLEMENT A SPILL PREVENTION CONTROL & COUNTERMEASURES (SPCC) PLAN, AND SHALL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIALS OR HAZARDOUS WASTES SHALL BE ALLOWED TO COME INTO CONTACT WITH STORM WATER DISCHARGES. IF SUCH CONTACT OCCURS, THE STORM WATER DISCHARGE SHALL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES ARE TAKEN IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS TO DISPOSE OF SUCH CONTAMINATED STORM WATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC MEASURES.

#### SANITARY WASTE

A. NO RELEASE OF SANITARY WASTE TO THE ENVIRONMENT IS PERMISSIBLE. TEMPORARY SANITARY FACILITIES (PORTA-JOHN'S) SHALL BE PROVIDED THROUGHOUT THE CONSTRUCTION PROJECT. A MINIMUM OF ONE PORTABLE SANITARY UNIT SHALL BE PROVIDED FOR EVERY TEN (10) WORKERS ON THE SITE. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

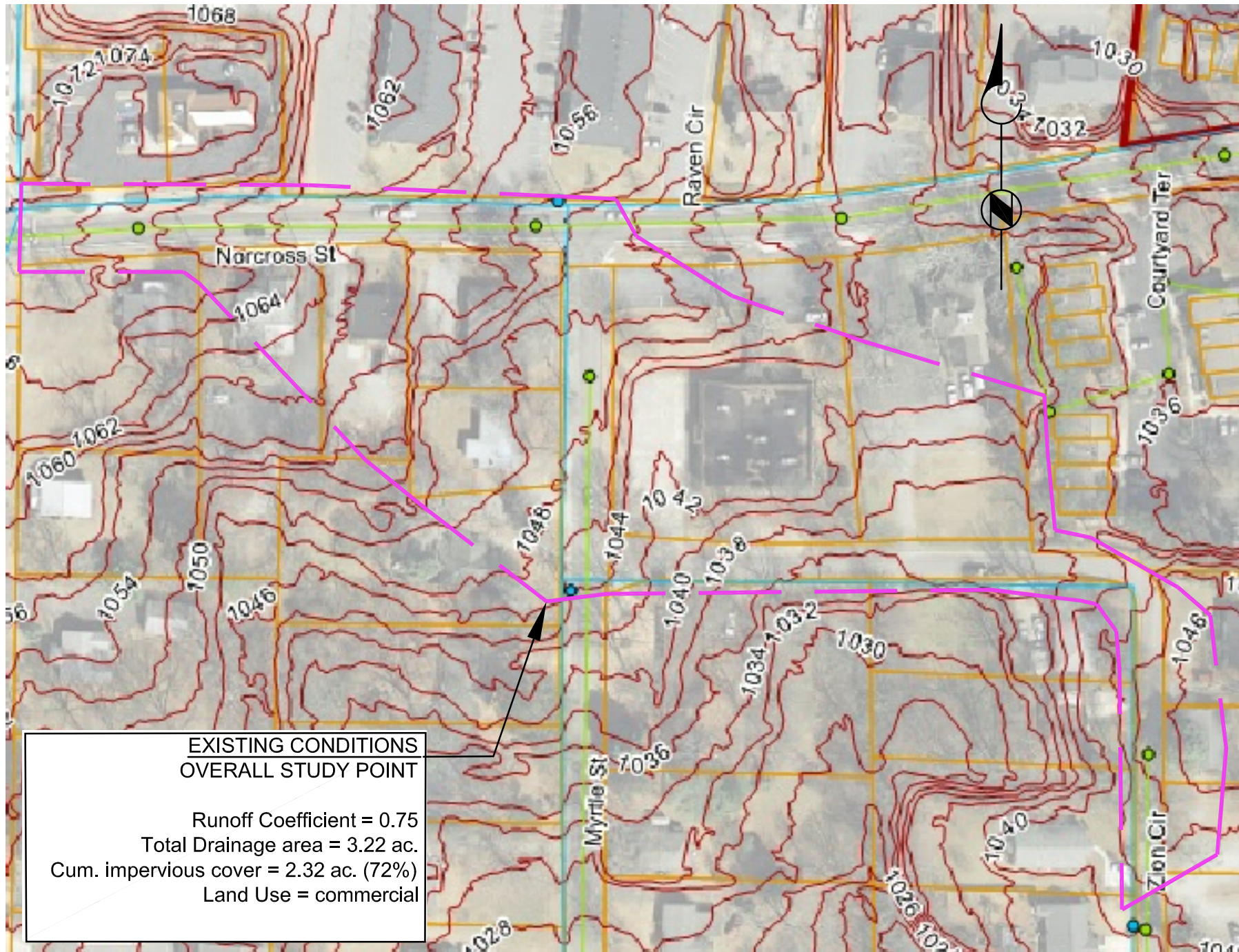
B. ALL SANITARY WASTE UNITS SHALL BE LOCATED IN ONE AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORM WATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMPs MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY-DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE, TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF THE SANITARY WASTE UNITS MUST BE IDENTIFIED ON THE EROSION CONTROL PLAN GRADING PHASE BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED.

#### DESIGN PROFESSIONAL'S CERTIFICATIONS

1. I CERTIFY UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATIONS DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY SUPERVISION.

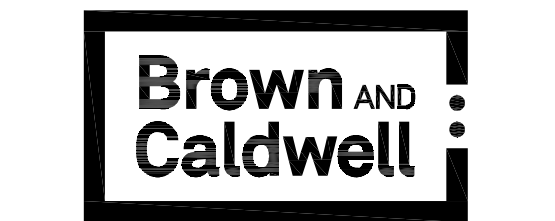
ARVIND NARAYANAN, P.E.  
GWSCC LEVEL II DESIGN PROFESSIONAL

CERTIFICATION # 44909  
EXP. 08/18/2016



Areas Drawing to Project	
To Myrtle Street	
Norcross Street	17,000 SF
Parcel to West	33,000 SF
Myrtle Street	7,500 SF
<b>Total Drainage Area (Myrtle)</b>	<b>57,500 SF</b>
To Zion Circle	
Parcels to north of Zion Circle	63,000 SF
Zion Circle	11,000 SF
Area along east end	9,000 SF
<b>Total Drainage Area (Zion)</b>	<b>83,000 SF</b>
<b>Total Drainage Area</b>	<b>140,500 SF</b>

### DELINEATION AND ACREAGE OF CONTRIBUTING DRAINAGE BASINS



ATLANTA, GA

EROSION CONTROL LEVEL II DESIGN PROFESSIONAL CERTIFICATION  
Arvind Narayanan: GSWCC Cert. # 44909; Exp. 08/18/2016



### MYRTLE STREET/ ZION CIRCLE PERMEABLE PAVER INSTALLATION

REVISIONS		
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

DESIGNED: A NARAYANAN	
DRAWN: M MULLEN	
CHECKED: J HERR	
CHECKED: A NARAYANAN	
APPROVED: J HERR	
FILENAME 147924 C-04.DWG	
BC PROJECT NUMBER 147924	
CLIENT PROJECT NUMBER	

### EROSION, SEDIMENTATION AND POLLUTION CONTROL - LEGEND AND STANDARD NOTES

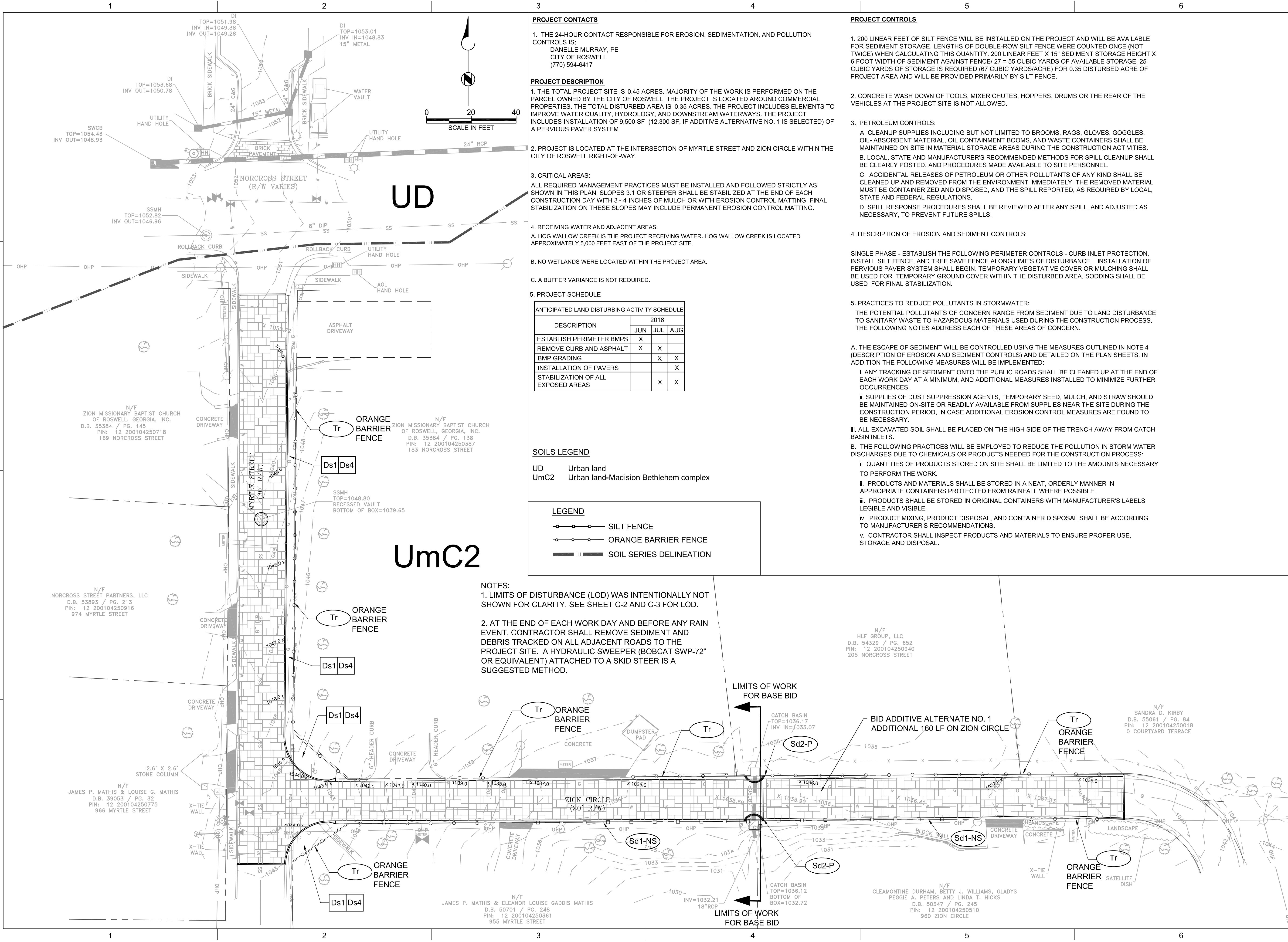
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C-4

SHEET NUMBER  
6 OF 11



Part: \\BCATLFP01\PROJECTS\CITY OF ROSWELL\147924 BMP REVOLVING FUND\_CAD\2-SHEETS FILENAME: 147924 C-05.DWG PLOT DATE: 2:46 PM CAD USER: MICHAEL MULLEN



Brown AND Caldwell

ATLANTA, GA

EROSION CONTROL LEVEL II DESIGN PROFESSIONAL CERTIFICATION  
Arvind Narayanan: GSWCC Cert. # 44906; Exp. 08/18/2018



MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION

REVISIONS

REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: A NARAYANAN  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: A NARAYANAN  
APPROVED: J HERR

FILENAME  
147924 C-05.DWG  
BC PROJECT NUMBER  
147924  
CLIENT PROJECT NUMBER

EROSION,  
SEDIMENTATION  
AND POLLUTION  
CONTROL PLAN

DRAWING NUMBER

C-5

SHEET NUMBER  
7 OF 11



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**REQUIREMENT FOR REGULATORY COMPLIANCE**  
MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF DISTURBANCE AND WITHIN 7 DAYS IF LEFT UNDISTURBED. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS, BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS. IF AN AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED. REFER TO DS2 -DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING), DS3 - DISTURBED AREA STABILIZATION (WITH PERMANENT SEEDING), AND DS4 - DISTURBED AREA STABILIZATION (WITH SODDING).

**SPECIFICATIONS**  
**MULCHING WITHOUT SEEDING**  
THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

**SITE PREPARATION**  
1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH.  
2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT BARRIERS.  
3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

**MULCHING MATERIALS**  
SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:  
1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION.  
2. WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS.  
3. CUTBACK ASPHALT (SLOW CURING) SHALL BE APPLIED AT 1200 GALLONS PER ACRE (OR 1/4 GALLON PER SQ.YD.).  
4. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND REUSED.

**APPLYING MULCH**  
WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA.  
1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT.  
2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.  
3. CUTBACK ASPHALT SHALL BE APPLIED UNIFORMLY. CARE SHOULD BE TAKEN IN AREAS OF PEDESTRIAN TRAFFIC DUE TO PROBLEMS OF 'TRACKING IN' OR DAMAGE TO SHOES, CLOTHING, ETC.  
4. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

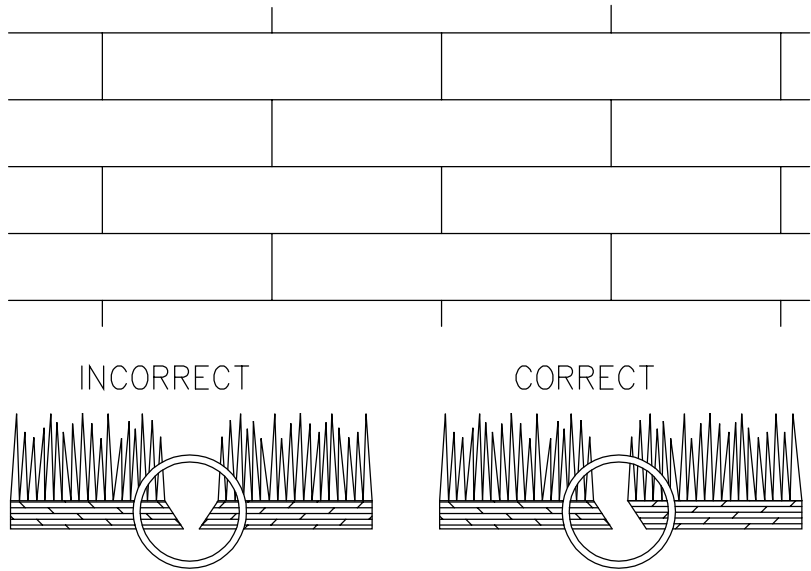
**ANCHORING MULCH**  
1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED WITH EMULSIFIED ASPHALT (GRADE AE-5 OR SS-1). THE ASPHALT EMULSION SHALL BE SPRAYED ONTO THE MULCH AS IT IS EJECTED FROM THE MACHINE. USE 100 GALLONS OF EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH. TACKIFERS AND BINDERS CAN BE SUBSTITUTED FOR EMULSIFIED ASPHALT. PLEASE REFER TO SPECIFICATION TB -TACKIFERS AND BINDERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.  
2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.  
3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

DISTURBED AREA STABILIZATION  
(WITH MULCHING ONLY)

Ds1

SOD MAINTENANCE AND INSTALLATION

SOD LAYOUT AND PREPARATION



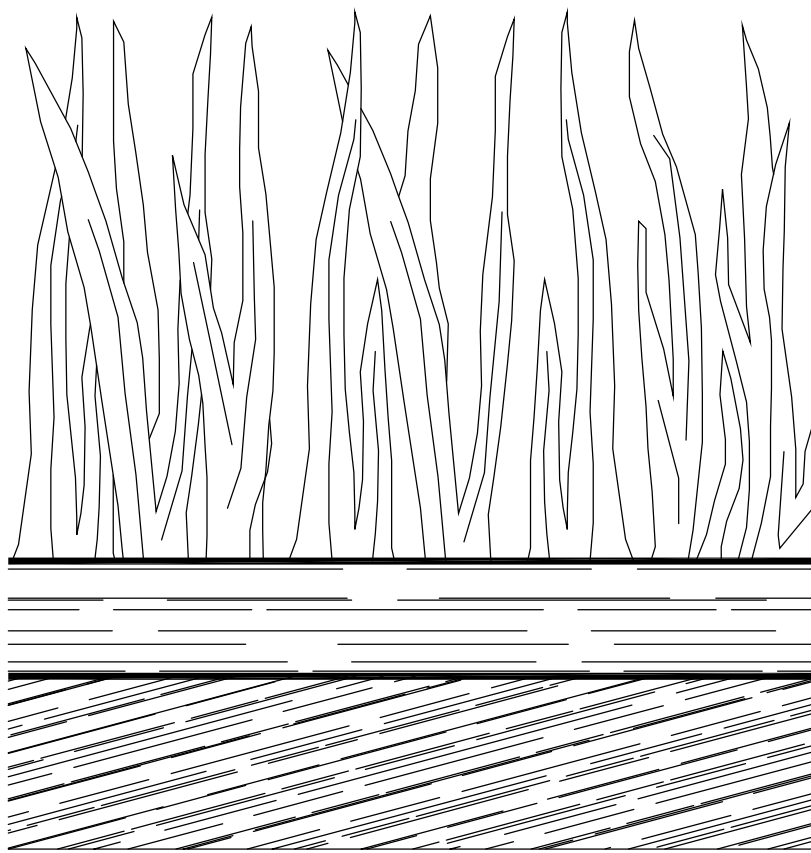
LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING: ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

DIRECTIONS FOR INITIAL MAINTENANCE

- Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL
- Step 2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.
- Step 3. MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

APPEARANCE OF GOOD SOD



SHOOTS OR GRASS BLADES: GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"-3" CUTTING HEIGHT.

THATCH: GRASS CLIPPINGS AND DEAD LEAVES (UP TO 1/2" THICK).

ROOT ZONE: SOIL AND ROOTS. SHOULD BE 1/2"-3/4" THICK WITH DENSE ROOT MAT FOR STRENGTH.

DISTURBED AREA STABILIZATION Ds4  
(SODDING)

Brown AND Caldwell

ATLANTA, GA

EROSION CONTROL LEVEL II DESIGN PROFESSIONAL CERTIFICATION  
Anind Narayanan: GSWCC Cert. # 44909; Exp. 08/18/2016



ROSWELL  
GEORGIA  
SINCE 1854

MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION

REVISIONS		
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: A NARAYANAN  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: A NARAYANAN  
APPROVED: J HERR

FILENAME  
147924 C-06.DWG  
BC PROJECT NUMBER  
147924  
CLIENT PROJECT NUMBER

EROSION,  
SEDIMENTATION  
AND POLLUTION  
CONTROL -  
DETAILS I

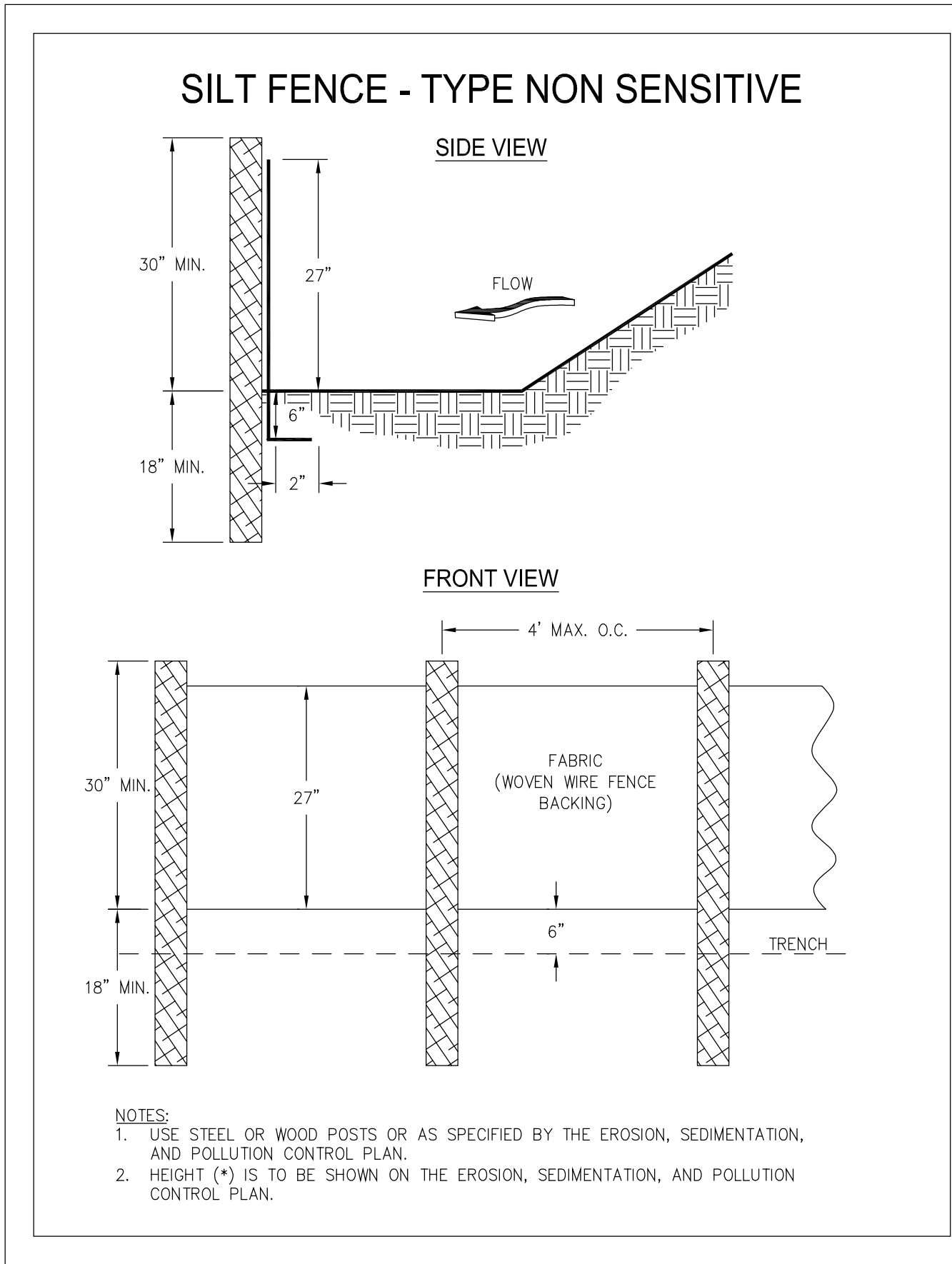
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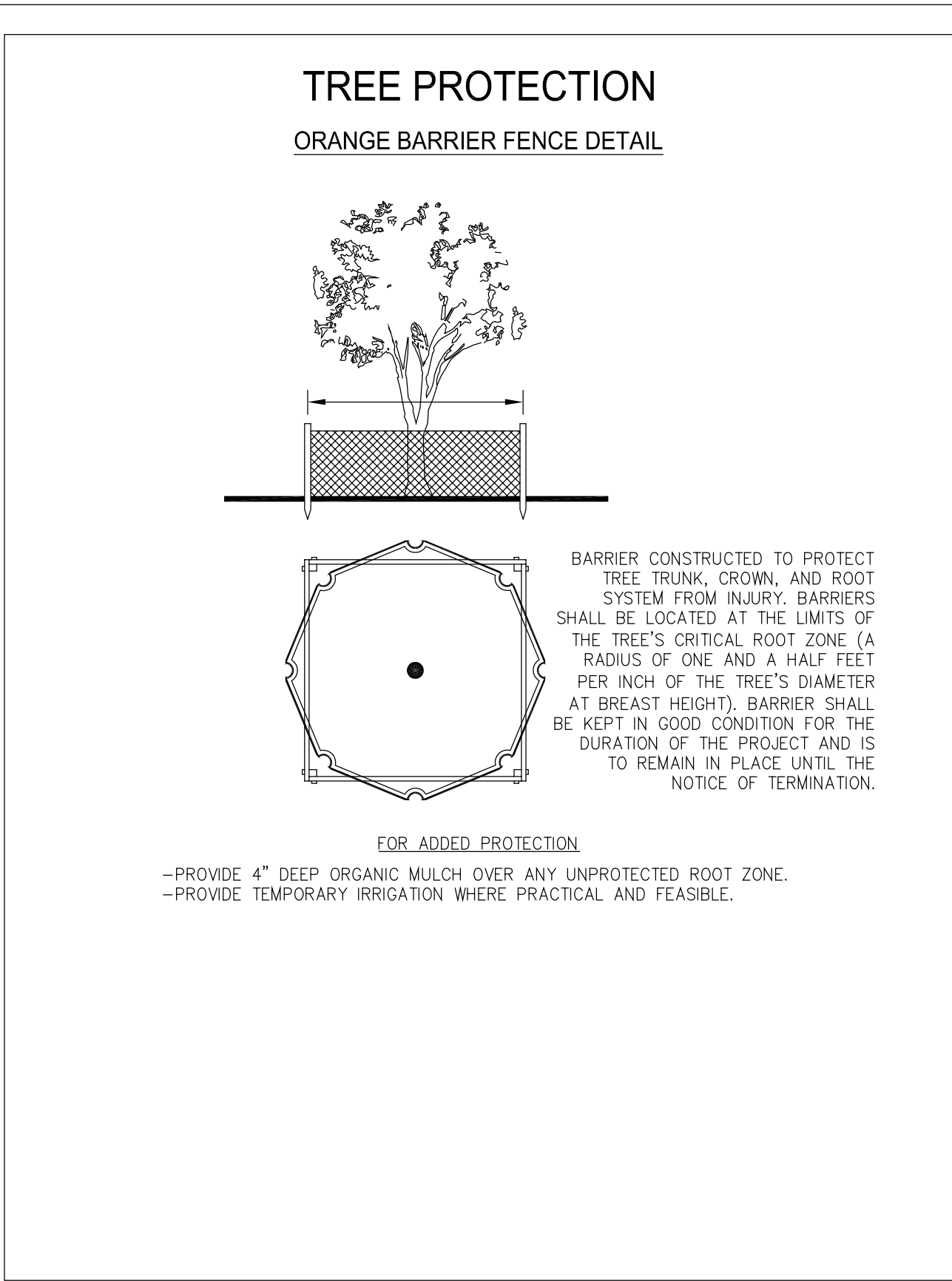
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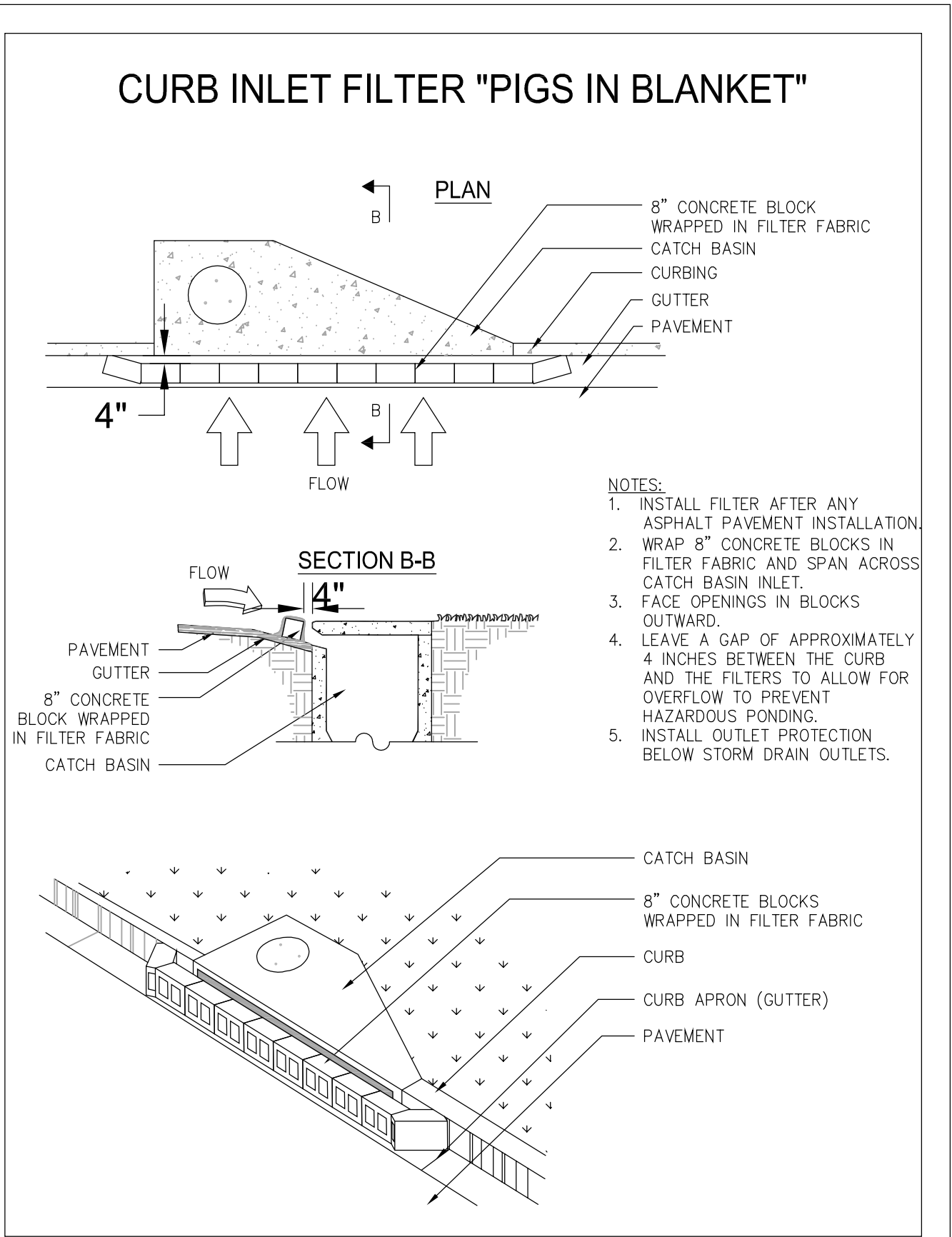
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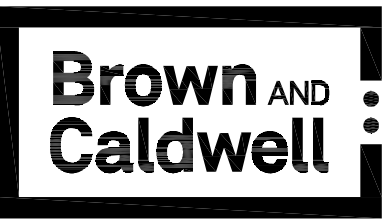
**SILT FENCE - TYPE NON-SENSITIVE** (Sd1-NS)



**TREE PROTECTION** (Tr)  
**ORANGE BARRIER FENCE DETAIL**



**CURB INLET PROTECTION** (Sd2-P)



ATLANTA, GA

EROSION CONTROL LEVEL II DESIGN PROFESSIONAL CERTIFICATION  
Anind Narayanan: GSWCC Cert. # 44909; Exp. 08/18/2016



**MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION**

REVISIONS		
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1	03/2016	ISSUED FOR BID

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AT FULL SIZE

DESIGNED: A NARAYANAN  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: A NARAYANAN  
APPROVED: J HERR

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147924 C-07.DWG  
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**EROSION,  
SEDIMENTATION  
AND POLLUTION  
CONTROL -  
DETAILS II**

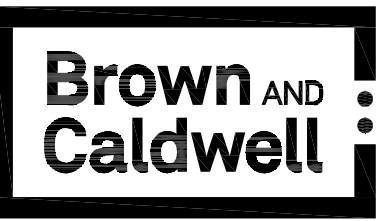
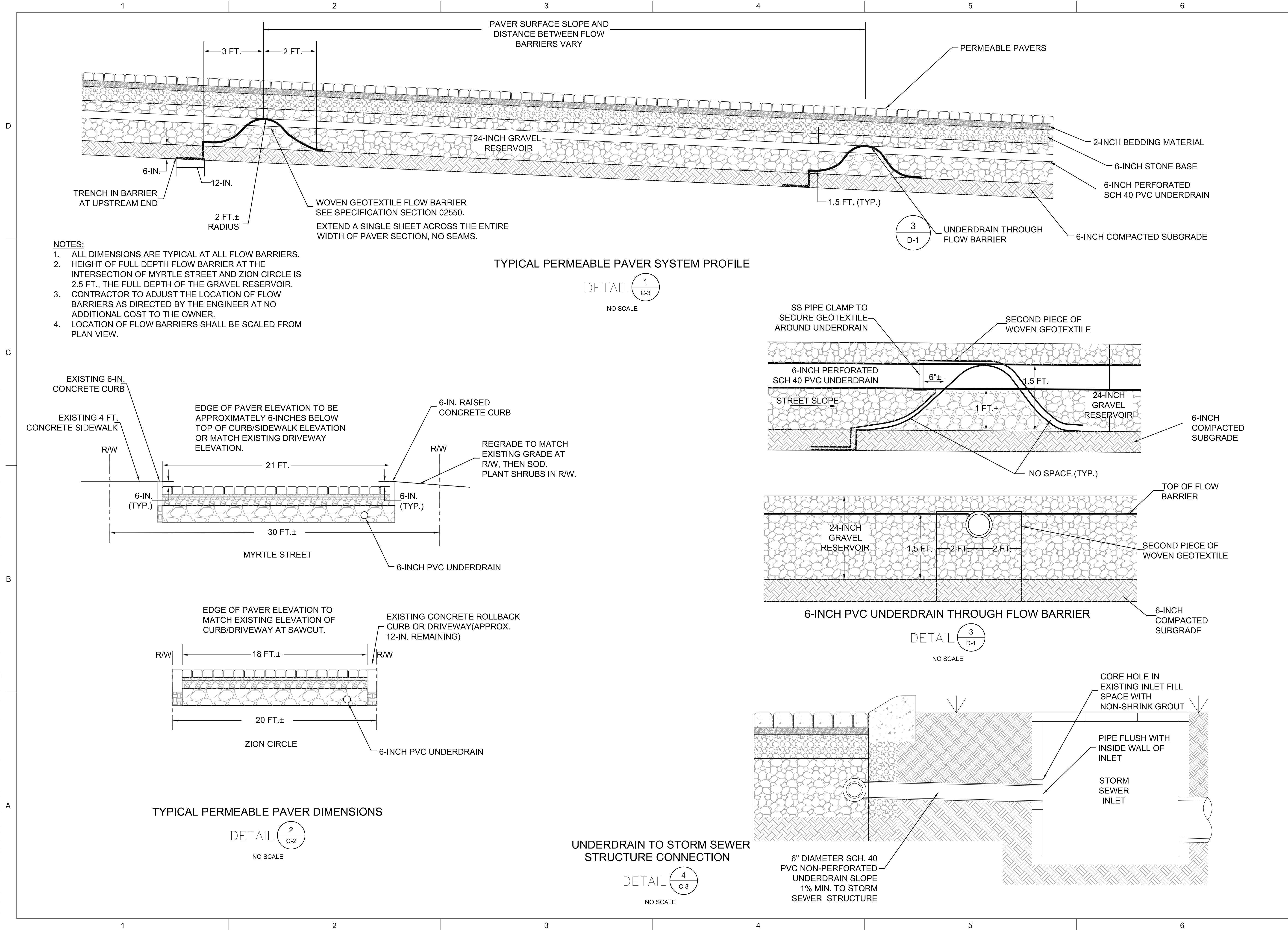
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ATLANTA, GA



# MYRTLE STREET/ ZION CIRCLE PERMEABLE PAVER INSTALLATION

REVISIONS		
REV	DATE	DESCRIPTION
1	03/2016	ISSUED FOR BID

LINE IS 2 INCHES  
AT FULL SIZE

DESIGNED: J HERR  
DRAWN: M MULLEN  
CHECKED: J HERR  
CHECKED: L HAWKS  
APPROVED: J HERR

FILENAME  
147924 D-01.DWG  
BC PROJECT NUMBER  
147924  
CLIENT PROJECT NUMBER

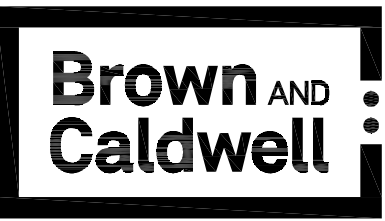
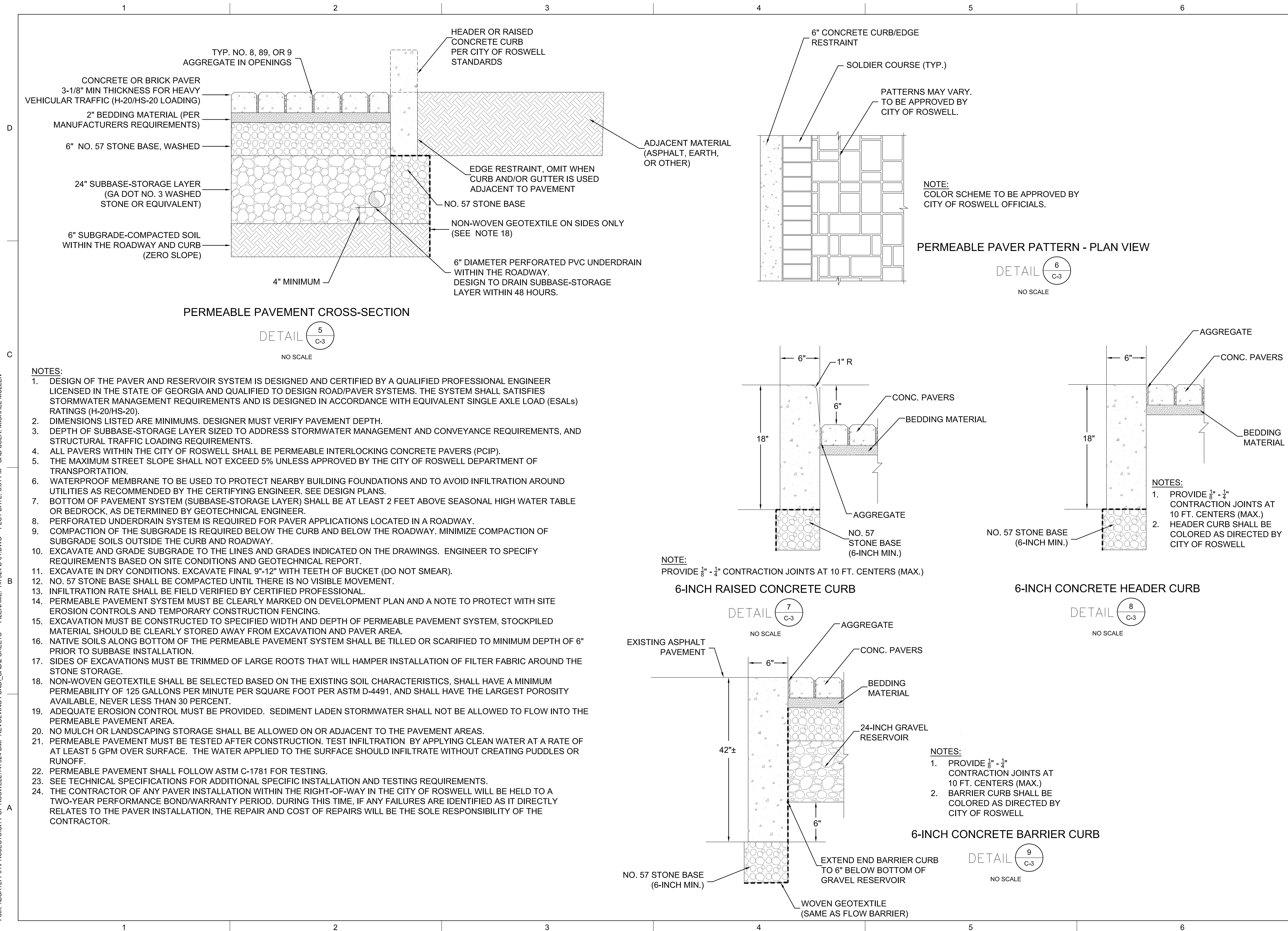
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DRAWING NUMBER

D-1

SHEET NUMBER  
10 OF 11





ATLANTA, GA



MYRTLE STREET/  
ZION CIRCLE  
PERMEABLE PAVER  
INSTALLATION

[illegible]

## TYPICAL SECTIONS AND DETAILS II

DRAWING NUMBER

D-2

SHEET NUMBER  
11 OF 11