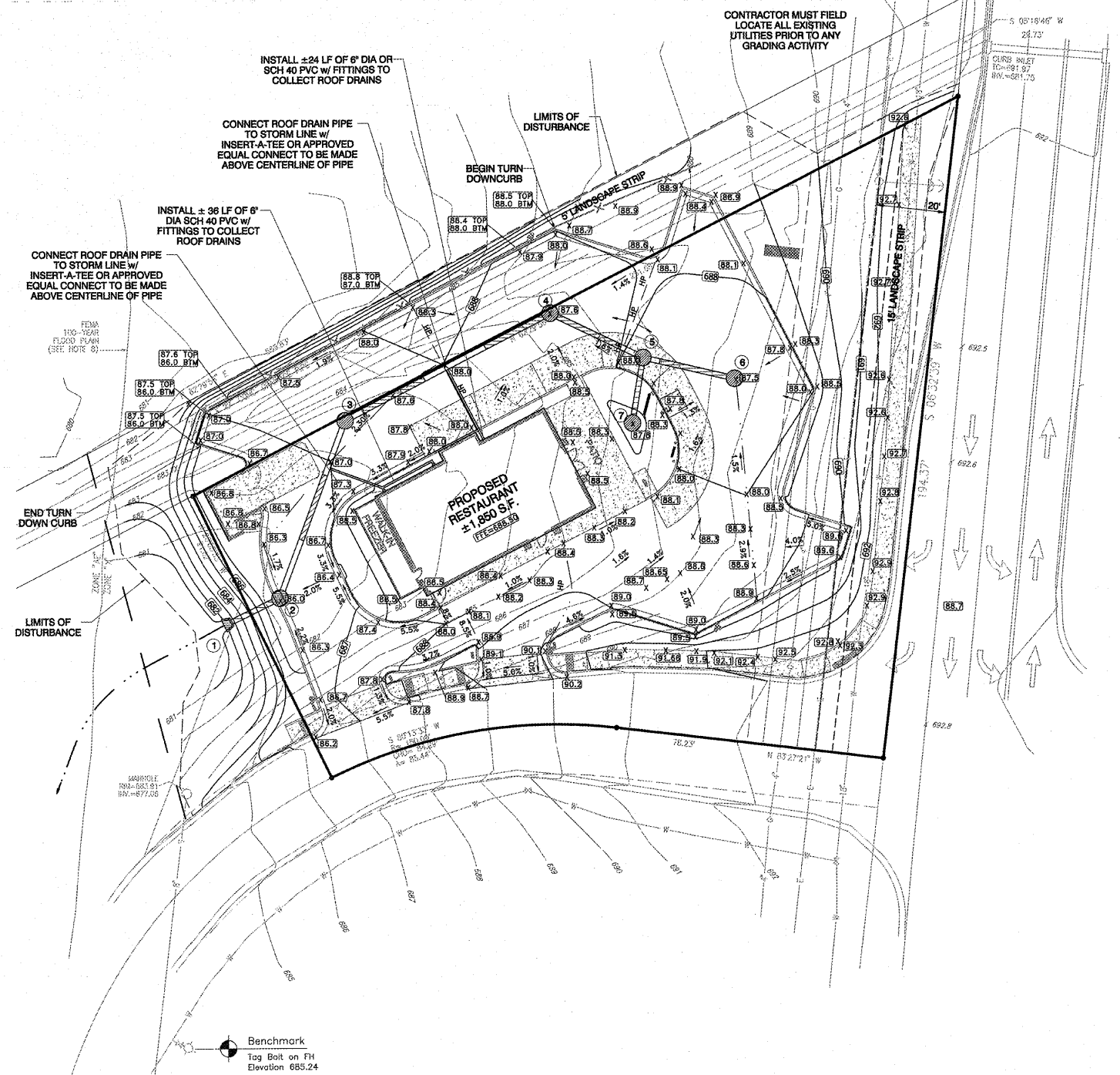


SITE INFORMATION	
DEVELOPER: SHULER DEVELOPMENT, LLC. 8400 POWERS FERRY RD, SUITE 350 ATLANTA, GA 30359 770-303-8200	
OWNER: SCD SPRING HILL, LLC. 8400 POWERS FERRY RD, SUITE 350 ATLANTA, GA 30359 770-303-8200	
ENGINEER: LAND ENGINEERING AND DEVELOPMENT 374 GACETRACK RD, SUITE B MCDONOUGH, GA 30252 P:678-432-5720 F:678-432-5463	
LANDSCAPE ARCHITECT: BECKY MORRIS 7980 HWY 54 SHARPSBURG, GA 30277 P:770-251-1033 F:770-254-9380	
SITE ADDRESS:	4885 FORT ROYAL ROAD, SPRING HILL, TN
TAX PARCEL ID:	A: MAP 027, 30.06; B: MAP 027, 01.02
SITE AREA:	A: 0.581; B: 0.328 ACRES
SITE ZONING:	B-4 (CBD)
SETBACKS:	FRONT = 10' SIDE = 0' REAR = 25'
LANDSCAPE STRIP:	FRONT = 10' SIDE = 0' REAR = 25'
IMPERVIOUS AREA:	EXISTING: 0.079 ACRES (8.6%) NEW: 0.510 ACRES (55.5%) TOTAL: 0.589 ACRES (64.1%)

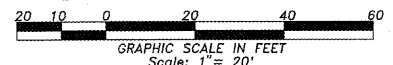
GRADING NOTES

- CONTRACTOR SHALL REMOVE ANY ROCK AND/OR UNSUITABLE MATERIAL TO A DEPTH OF TWO FEET BELOW THE FINISHED GRADE OR AS DIRECTED BY THE SOILS ENGINEER OR BY THE DEVELOPER.
- EARTHWORK IN PERMANENT STRUCTURE AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM-998) OR AS DIRECTED BY THE SOILS ENGINEER.
- ALL FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 6". ALL FILL AREAS SHALL BE PROOF ROLLED.
- ALL STORM SEWER BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) OR AS DIRECTED BY THE SOILS ENGINEER.
- CONTRACTOR SHALL PROVIDE DOCUMENTATION FROM AN INDEPENDENT TESTING AGENCY THAT EARTHWORK MEETS REQUIREMENTS OF ITEMS 1 - 4 LISTED ABOVE.
- MAXIMUM FILL SLOPE IS 2.5:1 AND CUT SLOPE IS 2:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MASS GRADING THE SITE & MAKING MINOR FIELD ADJUSTMENTS PRIOR TO FINAL GRADING TO ACHIEVE A BALANCED SITE.
- ALL ENTRANCES ON ANY BUILDING WHICH IS CONSIDERED TO BE AN ACCESSIBLE ENTRANCE IS TO PROVIDE A MINIMUM OF 60" x 60" LANDING FOR A SINGLE DOOR AND A 72" x 60" LANDING FOR A DOUBLE DOOR, IF A PROPOSED ACCESS EXCEEDS A 72" WIDTH THE LANDING IS TO ACCOMMODATE SAID ACCESS WIDTH. SAID LANDING IS NOT TO EXCEED A 1% GRADE (1/8" FOOT FALL) IN ANY DIRECTION. CONTRACTOR IS TO COORDINATE WITH DESIGNING ARCHITECT FOR ALL LOCATIONS, LAYOUTS, ELEVATIONS AND TREATMENTS TO ANY PROPOSED BUILDING ACCESS.
- ALL GRADING AND DRAINAGE WORK AS SHOWN ON THIS PLAN SHALL BE DONE IN STRICT ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL ENGINEERING DEPARTMENT.
- THE NECESSARY PERMITS FOR THE WORK SHOWN ON THESE SITE DEVELOPMENT PLANS WILL BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORK ON THIS PROJECT. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL FEES INVOLVED IN SECURING SAID PERMITS. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL LOCAL AND STATE BUILDING CODES, ORDINANCES AND REGULATIONS RELATING TO THE CONSTRUCTION OF THE ITEMS SHOWN ON THESE PLANS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO AVOID DAMAGE TO ALL EXISTING UTILITIES TO REMAIN DURING CONSTRUCTION. IF DAMAGE DOES OCCUR TO ANY SUCH EXISTING INSTALLATIONS, FULL REPAIR SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED AS PER THE CURRENT SPECIFICATIONS FOR SUCH WORK FOR THE RESPONSIBLE AGENCY.
- THE LOCATION OF EXISTING PIPING AND UNDERGROUND UTILITIES (I.E. WATER AND GAS LINES, ELECTRICAL AND TELEPHONE CONDUITS, ETC.) AS SHOWN ON THIS PORTION OF THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION FROM ACTUAL SURVEYS, OR TAKEN FROM THE RECORDS AND DRAWINGS OF THE EXISTING UTILITIES. HOWEVER, THE CIVIL ENGINEER DOES NOT ASSUME RESPONSIBILITY THAT, DURING CONSTRUCTION, THE POSSIBILITY OF UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED OR THAT THE ACTUAL LOCATIONS OF UTILITIES SHOWN MAY VARY SOMEWHAT FROM THE LOCATIONS DESIGNATED ON THIS PORTION OF THE PLANS. IN AREAS WHERE IT IS NECESSARY THAT THE EXACT LOCATIONS OF UNDERGROUND UTILITIES BE KNOWN, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, FURNISH ALL LABOR AND TOOLS TO EITHER VERIFY AND SUBstantiate OR DEFINITELY ESTABLISH THE LOCATION OF THE UTILITIES.
- ALL DELETERIOUS MATERIAL SHALL BE REMOVED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR AS PER THE INSPECTION AND FINAL APPROVAL OF THE ENGINEER AND OWNER. ALL FILL MATERIAL TO BE USED FOR SITE GRADING SHALL BE AN INORGANIC SOIL, FREE OF DEBRIS AND APPROVED BY THE ENGINEER AND OWNER.
- THE PLACING AND SPREADING OF ANY FILL MATERIAL IS TO BE STARTED AT THE LOWEST POINT AND BROUGHT UP IN HORIZONTAL LAYERS OF 8-INCH THICKNESS. SAID FILL MATERIAL IS TO BE SOIL AND ROCK ONLY, FREE OF SOIL, ROOTS, FROZEN SOILS, OR ANY OTHER DECOMPOSABLE MATERIAL. THE RELATIVE COMPACTION OF EACH LAYER SHALL NOT BE LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698) IN ALL AREAS OF FILL, AND COMPACTION OF 95% OF SAME SPECIFICATION FOR MATERIALS USED IN THE UPPER 12 INCHES BENEATH PAVEMENT AND GRADE SLABS.
- THE CONTRACTOR IS TO CHECK AND VERIFY ALL MEASUREMENTS, LEVELS, ETC., BEFORE ORDERING MATERIALS AND PROCEEDING WITH WORK, AND IS RESPONSIBLE FOR THE SAME.
- CONTRACTOR IS RESPONSIBLE FOR SECURING WRITTEN APPROVAL FROM ADJOINING PROPERTY OWNER FOR OFF-SITE GRADING WORK THAT RESULTS FROM CONSTRUCTION ACTIVITIES.

LEGEND	
POB	POINT OF BEGINNING
IPS	IRON PIN SET
IPF	IRON PIN FOUND
CMF	CONCRETE MONUMENT FOUND
UP	UTILITY POLE
LP	LIGHT POLE
FP	FLAG POLE
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
DI	DROP INLET
INV	INVERT
FH	FIRE HYDRANT
EP	EDGE OF PAVEMENT
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL
OU	OVERHEAD UTILITY
UE	UNDERGROUND UTILITY
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
PVC	POLYVINYL CHLORIDE PIPE
GW	GUY WIRE ANCHOR
TR	TRANSFORMER
JB	JUNCTION BOX
SWCB	SINGLE WING CATCH BASIN
DWCB	DOUBLE WING CATCH BASIN
CLF	CHAIN LINK FENCE
WV	WATER VALVE
WM	WATER METER
CO	SEWER CLEAN-OUT
GV	GAS VALVE



Grading and Drainage Plan



STORMWATER NOTES

- WARNING! UTILITY LINES:
- THE CONTRACTOR WILL EXERCISE EXTREME CAUTION IN THE USE OF EQUIPMENT IN AND AROUND OVERHEAD AND UNDERGROUND UTILITY WIRES AND SERVICES. IF AT ANY TIME IN THE PURSUIT OF THIS WORK THE CONTRACTOR MUST WORK IN CLOSE PROXIMITY TO OVERHEAD OR UNDERGROUND SERVICES, THE UTILITY COMPANY SHALL BE CONTACTED PRIOR TO SUCH WORK AND THE PROPER SAFETY MEASURES TAKEN. A THOROUGH EXAMINATION OF THE OVERHEAD WIRES IN THE PROJECT AREA SHOULD BE MADE BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION. THE UNDERGROUND UTILITY LINES HAVE BEEN SHOWN AS BEST AS CAN BE DETERMINED AT THIS TIME FROM THE INFORMATION OBTAINED FROM THE SURVEY. THE CONTRACTOR SHALL CONTACT EACH OF THESE COMPANIES PRIOR TO BEGINNING CONSTRUCTION AND HAVE THEM DETERMINE THE EXACT LOCATION AND TYPE OF THEIR SERVICES.
- SITE BENCHMARK NOTE:
- CONTRACTOR SHALL ESTABLISH A BENCHMARK PRIOR TO CONSTRUCTION. EXISTING BENCHMARK MUST BE RE-VERIFIED AND APPROVED BY THE ENGINEER/SURVEYOR PRIOR TO USE.
- STORMWATER NOTES:
- ALL BORROW AREAS SHALL BE GRADED TO PROVIDE PROPER DRAINAGE & LEFT IN SLOTTED CONDITION. ALL EXPOSED SURFACE OF EMBANKMENT, SPILLWAY, SPOIL BORROW AREAS AND BERMS SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING AND MULCHING IN ACCORDANCE WITH LOCAL NATURAL RESOURCES CONSERVATION SERVICE STANDARDS AND SPECIFICATION.
 - PIPES DEEPER THAN 10' REQUIRE TRENCH BOX PER OSHA CODE. BACKFILL ON PIPES WITH #57 STONE.
 - INVERTS ON ALL STRUCTURES TO BE PAVED SMOOTH.
 - ALL METAL PIPES USED MUST BE BCCMP WITH RE-ROLLED ENDS AND HUGGER/CORRUGATED BANDS USED FOR CONNECTION.
 - ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2221, STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS, LATEST ADDITION.
 - ALL CMP TO BE ASPHALT COATED WITH PAVED INVERTS OR ALUMINUM TYPE II.
 - NO WOODY VEGETATION IS ALLOWED WITHIN 15' OF THE DOWNSTREAM TOE OF EARTHEN EMBANKMENT.
 - FIELD VERIFY SUITABILITY OF TIE-INS TO EXISTING STORM STRUCTURES.
 - NOTE THAT ALL INVERTS ARE INSIDE OF STRUCTURE PIPE INVERTS.
 - REINFORCED CONCRETE PIPE SHALL CONFORM TO THE MINIMUM STANDARDS FOR CLASS III REINFORCED PIPE AND SHALL BE UTILIZED UNDER ROADWAYS AND ALL PAVED AREAS WHETHER PUBLIC OR PRIVATE DEVELOPMENTS. ALL RCP STORM WATER PIPES AND STRUCTURE JOINTS AND CONNECTIONS SHALL BE GROUTED, WITH NON-SHRINK GROUT, AND/OR OTHERWISE SEALED BOTH INSIDE AND OUT. BUTYLENE GASKET MATERIALS SHALL ALSO BE UTILIZED WITHIN PRE-CAST MANHOLES AND STRUCTURES TO FURTHER SEAL THE JOINTS AND CONNECTIONS. CONCRETE AND HOPE STORM PIPING CONNECTIONS SHALL BE SEALED WITH PROPER COLLAR RINGS WHEN APPLICABLE AND DIRECTED BY THE CITY OF SPRING HILL.
 - DUAL WALL POLYPROPYLENE (PP) STORM DRAINAGE PIPE (18" - 60") SHALL ALSO BE ALLOWED FOR USE WITHIN PAVED AREAS (PUBLIC AND PRIVATE) ONLY IF THE INSTALLATION REQUIREMENTS AND BACKFILL MATERIALS ARE UTILIZED AS RECOMMENDED BY THE MANUFACTURER. DUAL WALL SMOOTH INTERIOR PP PIPE SHALL BE IN ACCORDANCE WITH AASHTO M8 SECTION 30, T-341, R-16 AND MP-21-11 ALONG WITH ASTM C989, C1103, D2221, D2212, E477, F1417, F2487, F2736, AND F2881. DETECTABLE WARNING TAPE SHALL BE UTILIZED IN THE TRENCH OF THE PP PIPE WHEN INSTALLED. A MINIMUM COVER OF 2'-FEET IS REQUIRED ON ALL PP PIPE. SIX INCHES OF PIPE BEDDING OF TDOT #57 STONE SHALL BE REQUIRED FOR ALL PP PIPE. A MINIMUM COVER OF TWO FEET IS REQUIRED FOR ALL STORM DRAINAGE PIPE INSTALLATION WHETHER RCP OR PP PIPE. APPROVED BACKFILL SOIL MATERIAL, FREE OF ANY ROCK MATERIAL GREATER THAN 2-IN OR TOTAL DEPTH BACKFILL WITH TDOT NO. 67 STONE SHALL BE ALLOWED. APPROVED SOIL BACKFILL SHALL BE AT MAXIMUM LIFTS OF 8" COMPACTED TO 98% DENSITY. WHERE IN PUBLIC OR PRIVATE ROADWAYS, IF SOIL BACKFILL IS UTILIZED, AN ADDITIONAL 2-YEAR MAINTENANCE BOND IS REQUIRED ABOVE THE STANDARD ONE YEAR MAINTENANCE BOND TO ASSURE NO SETTLEMENT OR PIPE FAILURES OCCUR. STANDARD HOPE PIPING MAY BE UTILIZED OUTSIDE OF PAVED AREAS AS LONG AS ITS INSTALLATION IS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SUITABLE BEDDING AND SOIL, FREE OF ROCKS, BACKFILL WILL BE REQUIRED. MINIMUM COVER ABOVE HOPE PIPING SHALL BE 2'-FEET.

SHULER DEVELOPMENT, LLC.

8400 POWERS FERRY RD
SUITE 350
ATLANTA, GA 30359
770-303-8200

Grading and Drainage Plan
Prepared For:

DUNKIN' DONUTS

DATE	RELEASE DESCRIPTION
06-18-17	REVISED PER STAFF COMMENTS (06-18-17)
07-02-17	REVISED PER WORK SESSION COMMENTS (06-28-17)
07-07-17	REVISED PER CITY COMMENT
07-11-17	REVISED PER PLANNING COMMISSION COMMENTS

DATE: JUNE 11, 2017

THIRD CIVIL DISTRICT

A: Map 027, 30.06

B: Map 027, 01.02

CITY: SPRING HILL

COUNTY: MAURY

STATE: TENNESSEE

JOB NUMBER:
2016.095

6

6 OF 14 SHEETS

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24-HR CONTACT
ALLEN CURTIS
770-303-8200

