

**GRADING & DRAINAGE LEGEND**

- 1. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION
- 2. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED
- 2.1. STORM PIPE 18" OR GREATER SHALL BE RCP
- 2.2. STORM PIPE SMALLER THAN 18" SHALL BE AS NOTED
- 3. EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS
- 4. IF ANY EXISTING STRUCTURE TO REMAIN IS DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER
- 5. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GRADUATED TO ASSURE CONNECTION AT STRUCTURE WATER TIGHT
- 6. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RINGS COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER"
- 7. THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE EPA OR APPLICABLE STATE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES AND THE OWNER'S SPEC. CONDITIONS, SECTION 8, ENVIRONMENTAL COMPLIANCE AND STORM WATER POLLUTION PREVENTION. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- 8. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT
- 9. SLOPED PAVED HEADWALLS SHALL BE PER ALOTT STANDARD SPECIFICATIONS, DRAWING # HW-614.8P

**DRAINAGE NOTES**

1. ALL DEMOLITION, CONSTRUCTION DEBRIS, CLEARING, AND EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LEGAL MANNER OFF-SITE. ON-SITE DISPOSAL SHALL BE APPROVED BY THE OWNER PRIOR TO DISPOSAL.
2. STRIP ALL TOPSOIL WITHIN BUILDING AND PAVEMENT AREAS, AND STOCKPILE FOR LATER USE. DISPOSAL OF ANY EXCESS TOPSOIL OFF-SITE IN A LEGAL MANNER.
3. PROOFROLLING SHALL BE PERFORMED IN THE PRESENCE OF A GEO TECHNICAL ENGINEER WITH A HEAVY RUBBER TIRE VEHICLE, SUCH AS A LOG SKIDDER TRUCK. ANY AREAS JUDGED TO DEFLECT EXCESSIVELY DURING PROOFROLLING SHALL BE UNDERCUT TO A STABLE SOIL HORIZON. SUCH OVER EXCAVATION SHALL BE BACKFILLED WITH LIMITED ACCESS AREAS SHALL BE PLACED AS DESCRIBED BELOW. UPON REACHING SUBGRADE ELEVATION IN CUT AREAS, THE EXPOSED SOIL SUBGRADE SHALL BE ENGINEERED, PROOFROLLED AND PREPARED. ALL ENGINEERED FILL PLACED IN UNDERCUT AREAS SHALL MEET THE REQUIREMENTS OF AND BE PLACED IN ACCORDANCE WITH THESE SPECIFICATIONS.
4. AFTER A STABLE SUBGRADE IS ACHIEVED, THE UNDERCUT AREA CAN BE FILLED WITH ENGINEERED FILL TO MEET PROJECT SPECIFICATIONS.
5. ALL ENGINEERED FILL SHALL MEET THE REQUIREMENTS OF AND BE PLACED IN ACCORDANCE WITH THESE SPECIFICATIONS.
6. ENGINEERED FILL SHALL BE FREE OF ORGANIC MATTER AND DEBRIS. STRUCTURAL FILL MATERIAL SHOULD HAVE THE FOLLOWING CHARACTERISTICS:  
 (1) LIQUID LIMIT < 40  
 (2) PLASTICITY INDEX < 10  
 (3) MAX DRY DENSITY > 118 PCF  
 (4) BUILDING AREAS: MAX ROCK SIZE LESS THAN 8" (LESS THAN 3" IN UPPER 3' OF FILL)  
 (5) NON-BUILDING AREAS: MAX ROCK SIZE LESS THAN 8" (LESS THAN 3" IN UPPER 12' OF FILL)
7. ENGINEERED FILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8" AND COMPACTED TO A MINIMUM OF 95% MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D998)
8. BACKFILLING IN LIMITED ACCESS AREAS SUCH AS UTILITY TRENCHES SHALL HAVE ALL LIFT THICKNESS LIMITED TO 6" LOOSE MEASURES, TRENCH BACKFILL UNDER THE BUILDING SHALL BE PROPERLY COMPACTED ALDOTT #60 STONE
9. ALL ENGINEERED FILL SHALL BE COMPACTED BETWEEN 2% AND 2% OF OPTIMUM MOISTURE CONTENT FOR SELECT FILL
10. AT LEAST ONE FIELD TEST SHALL BE PERFORMED PER 8" TO 12" LIFT OF FILL PLACED PER 2,500 SQUARE FEET OF FILL AREA
11. WHERE FILLING MUST OCCUR OVER EXISTING SLOPED SURFACES, SLOPE CONSTRUCTION SHALL COMMENCE AT THE TOE OF THE PROPOSED SLOPE AND COMMENCE UPWARDS AS ADDITIONAL FILL IS PLACED
12. A GEO TECHNICAL REPORT HAS BEEN CREATED BY BRIMATE GEOTECHNICAL CORPORATION, INC. DATED APRIL 26, 2018, PROJECT # 181831
13. 30' OF COVER SHALL BE MAINTAINED AT ALL TIMES OVER EXISTING WATER/SANITARY STRUCTURES

**SITE PREPARATION NOTES**

1. ALL DEMOLITION, CONSTRUCTION DEBRIS, CLEARING, AND EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LEGAL MANNER OFF-SITE. ON-SITE DISPOSAL SHALL BE APPROVED BY THE OWNER PRIOR TO DISPOSAL.
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**LEGEND**

<ul style="list-style-type: none"> <li>--- EXISTING STORM SEWER</li> <li>--- EXISTING RETAINING WALL</li> <li>- - - PROPOSED BUILDING LINE</li> <li>--- EXISTING EDGE OF PAVEMENT</li> <li>--- EXISTING CURB AND GUTTER</li> <li>--- EXISTING CURB AND GUTTER</li> <li>--- PROPERTY LINE</li> <li>--- CENTERLINE</li> <li>--- EXISTING CONTOURS</li> <li>--- PROPOSED CONTOURS</li> <li>--- PROPOSED SANITARY SEWER</li> <li>--- PROPOSED TELEPHONE</li> <li>--- PROPOSED POWER</li> <li>--- PROPOSED WATER</li> <li>--- PROPOSED GAS LINE</li> <li>--- CONCRETE SIDEWALK</li> <li>--- STANDARD DUTY ASPHALT</li> <li>--- TRASH CONTAINER CONCRETE</li> </ul>	<ul style="list-style-type: none"> <li>--- EXISTING STORM SEWER</li> <li>--- EXISTING RETAINING WALL</li> <li>--- PROPOSED BUILDING LINE</li> <li>--- EXISTING EDGE OF PAVEMENT</li> <li>--- EXISTING CURB AND GUTTER</li> <li>--- EXISTING CURB AND GUTTER</li> <li>--- PROPERTY LINE</li> <li>--- CENTERLINE</li> <li>--- EXISTING CONTOURS</li> <li>--- PROPOSED CONTOURS</li> <li>--- PROPOSED SANITARY SEWER</li> <li>--- PROPOSED TELEPHONE</li> <li>--- PROPOSED POWER</li> <li>--- PROPOSED WATER</li> <li>--- PROPOSED GAS LINE</li> <li>--- CONCRETE SIDEWALK</li> <li>--- STANDARD DUTY ASPHALT</li> <li>--- TRASH CONTAINER CONCRETE</li> </ul>	<ul style="list-style-type: none"> <li>--- EXISTING SANITARY SEWER</li> <li>--- EXISTING TELEPHONE</li> <li>--- EXISTING POWER</li> <li>--- EXISTING WATER</li> <li>--- EXISTING GAS LINE</li> <li>--- RIDGE LINE</li> <li>--- PROPOSED FLOW</li> <li>--- EXISTING SYMBOLS: POWER POLE</li> <li>--- EXISTING SYMBOLS: SAN. SEWER MANHOLE</li> <li>--- EXISTING SYMBOLS: STORM MANHOLE</li> <li>--- EXISTING SYMBOLS: BACKFLOW PREVENTER</li> <li>--- EXISTING SYMBOLS: WATER METER</li> <li>--- EXISTING SYMBOLS: WATER VALVE</li> <li>--- EXISTING SYMBOLS: R.O.W.</li> <li>--- EXISTING SYMBOLS: TYP. SANITARY SEWER CLEANOUT</li> <li>--- EXISTING SYMBOLS: STORM SEWER CLEANOUT</li> <li>--- EXISTING SYMBOLS: S.C.O.</li> </ul>
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**STORM DRAIN**  
 TOP OF GRATE EL. 598.82  
 (NW) INV. IN EL. 592.37  
 (SE) INV. IN EL. 591.47  
 (SW) INV. IN EL. 590.54  
 (E) INV. OUT EL. 590.52

**HOLE**  
 EL. 604.70  
 FL. 598.25  
 598.30  
 598.19



**STORM MANHOLE**  
 TOP OF RIM EL. 599.21  
 INV. IN EL. 599.51  
 INV. OUT EL. 599.67

**STORM MANHOLE**  
 Storm M.H.  
 Top=600.29  
 Flou(54")=590.46  
 Flou(54")=589.93

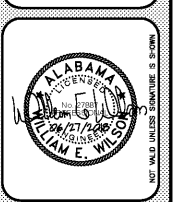
**STORM MANHOLE**  
 TOP OF RIM EL. 594.87  
 INV. IN EL. 587.86  
 INV. OUT EL. 587.86

**STORM MANHOLE**  
 TOP OF RIM EL. 593.59  
 INV. IN EL. 587.64  
 INV. OUT EL. 587.64

NO.	ISSUED FOR APPROVAL	DESCRIPTION	DATE
1	PUBLIC COMMENTS		06/27/2018

**TITLE**  
 SITE GRADING & DRAINAGE PLAN  
**GROCERY STORE & SHOPS AT TATTERSALL PARK**  
 TATTERSALL PARK  
**GREYSTONE WAY, LLC**  
 CDD BY: CUMMINGS, T.L.  
 SCALE: SEE PLANS  
 DATE:  
 DRAWN BY: A. WILSON  
 CHECKED BY: B. WILSON, P.E.

**GONZALEZ - STRENGTH & ASSOCIATES, INC.**  
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DWG. NO.  
**CS - R1**  
 PROJECT  
**17WH02**