

**SITE PLANS FOR:**

# FAMILY DOLLAR

## STORE #615

**SWC OF 32nd AVENUE N &  
26th STREET N (US HWY 31)  
CITY OF BIRMINGHAM, AL 35207  
JEFFERSON COUNTY**

**PREPARED FOR:**

**3D DEVELOPMENT PARTNERS, LLC.  
3540 WHEELER ROAD, STE 114  
AUGUSTA, GA 30909  
(706) 860-9983  
FAX: (706) 860-3786**

**PREPARED BY:**

### CAMPBELL

ENGINEERING & ASSOCIATES, INC.  
Civil Engineering and Land Planning

31 Boland Court  
Greenville, SC 29615  
(864) 335-4090  
Fax: (864) 335-4095



**LOCATION MAP**

N.T.S.

### SHEET INDEX

- C-1.0 COVER SHEET
- C-2.0 ALTA/ACSM LAND TITLE SURVEY (1 OF 2)
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- C-4.0 SITE AND DIMENSIONING PLAN
- C-4.1 SITE DETAILS
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- C-6.2 DETENTION POND DETAILS
- C-7.0 EROSION CONTROL PLAN - PHASE 1
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- C-8.0 LANDSCAPE PLAN
- C-9.0 SITEWORK SPECIFICATIONS
- C-9.1 SITEWORK SPECIFICATIONS

**CONSULTANTS:**

**DEVELOPER:**

3D DEVELOPMENT PARTNERS, LLC.  
3540 WHEELER ROAD, STE 114  
AUGUSTA, GA 30909  
(706) 860-9983  
FAX: (706) 860-3786  
CONTACT: CHARLES DUNSTAN

**ARCHITECT:**

ESD ARCHITECTURE  
1900 SOUTH MAIN STREET  
SUITE 300  
CHARLOTTE, NC 28203  
(704) 373-1900  
FAX: (704) 373-0902

**GEOTECHNICAL ENGINEER:**

TERRACON CONSULTANTS, INC.  
110 12TH STREET NORTH  
BIRMINGHAM, AL 35203  
PHONE: (205) 942-1289  
FAX: (205) 443-5302

**GOVERNMENT/UTILITY OFFICIALS:**

**PLANNING, ENGINEERING, PERMITS:**

BIRMINGHAM TRAFFIC ENGINEERING  
710 NORTH 20TH STREET  
ROOM 210  
BIRMINGHAM, AL 35203  
CONTACT: CAROLYN CLIFTON  
(205) 254-2344

**ROAD ENCROACHMENT:**

BIRMINGHAM TRAFFIC ENGINEERING  
710 NORTH 20TH STREET  
7TH FLOOR  
BIRMINGHAM, AL 35203  
CONTACT: ZEKE WILLIS  
(205) 254-2739

**NPDES COVERAGE:**

ADEM  
1400 COLISEUM BLVD.  
MONTGOMERY, AL 36110  
CONTACT: HEATHER GRIFFIN  
(334) 394-4321

**STORMWATER:**

BIRMINGHAM STORMWATER ADMINISTRATOR  
710 NORTH 20TH STREET  
BIRMINGHAM, AL 35203  
CONTACT: THOMAS MILLER  
(205) 714-8644

**BUILDING DEPARTMENT:**

BIRMINGHAM BUILDING DEPT.  
710 NORTH 20TH STREET  
ROOM 210  
BIRMINGHAM, AL 35203  
CONTACT: RICHARD BROOME  
(205) 254-2211

**ZONING DEPT.:**

BIRMINGHAM PLANNING & ZONING  
710 NORTH 20TH STREET  
ROOM 210  
BIRMINGHAM, AL 35203  
CONTACT: PAMELA PERRY  
(205) 254-2336

**WATER DEPT.:**

BIRMINGHAM WATERWORKS  
3600 1ST AVENUE N.  
BIRMINGHAM, AL 35283  
CONTACT: JANICE ACOFF  
(205) 244-4265

**SEWER DEPT.:**

JEFFERSON COUNTY SEWER  
716 RICHARD ARRINGTON JR. BLVD  
ROOM 800  
BIRMINGHAM, AL 35203  
CONTACT: ANDY ALLEN  
(205) 325-5231  
FAX: (205) 325-5981

**TELEPHONE:**

AT&T  
2101 6TH AVENUE  
BIRMINGHAM, AL 35203  
CONTACT: ANDREW BUJIE  
(205) 968-5518

**POWER:**

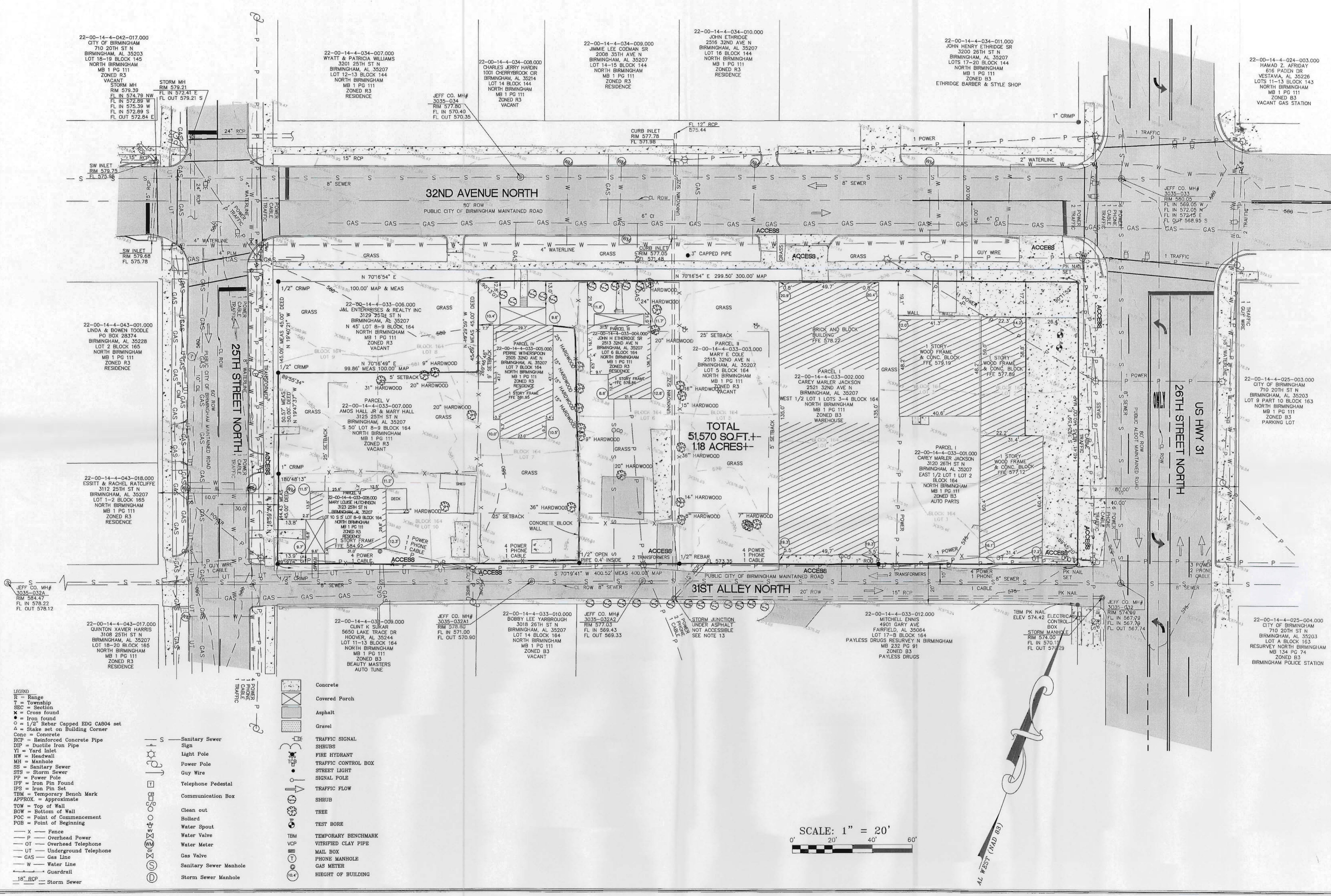
ALABAMA POWER  
1212 6TH AVE N  
BIRMINGHAM, AL 35203  
CONTACT: JODY CLAY  
(205) 226-1709  
FAX: (205) 226-1199

**LAND USE CHART**

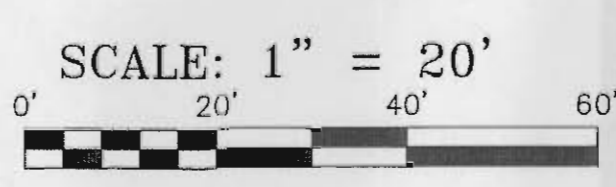
ZONING: B-3  
PROPERTY SIZE: #12 AC.  
PARCEL(S) #22-00-14-4-033-00100, -002.00, -003.00, -004.00, -005.00, -007.00 & -008.00  
CURRENT STREET ADDRESS(S):  
3125 E 3123 25TH STREET N  
2505, 2513, 2515, 2521 32ND STREET N  
3120 26TH STREET N  
JURISDICTION: CITY OF BIRMINGHAM  
SETBACKS:  
FRONT = NONE  
SIDE = NONE  
REAR = NONE  
PARKING REQUIREMENTS:  
SPACES REQUIRED = HALF THE REQUIREMENTS OF ARTICLE 5 WHICH EQUALS 1 SPACE PER 250 SF WHICH YIELDS A REQUIREMENT OF SPACES 37  
SPACES / 2 = 19 SPACES REQUIRED  
SPACES PROVIDED = 26  
HANDICAP SPACES REQUIRED = 2  
HANDICAP SPACES PROVIDED = 2  
VAN ACCESSIBLE SPACES REQUIRED = 1  
VAN ACCESSIBLE SPACES PROVIDED = 1  
TOTAL FD BUILDING PROTO: #9,800 SF

**REVISIONS:**

NO.	DATE	DESCRIPTION
9		
8		
7		
6		
5		
4		
3		
2		
1		
0	04/16/14	ISSUED FOR REVIEW



- LEGEND**
- R = Range
  - T = Township
  - SEC = Section
  - X = Cross found
  - = Iron found
  - = 1/2" Rebar Capped EDG CABO4 set
  - ▲ = Stake set on Building Corner
  - Conc = Concrete
  - RCP = Reinforced Concrete Pipe
  - DIP = Ductile Iron Pipe
  - YI = Yard Inlet
  - HW = Headwall
  - MH = Manhole
  - SS = Sanitary Sewer
  - STS = Storm Sewer
  - PP = Power Pole
  - IPP = Iron Pin Found
  - IPS = Iron Pin Set
  - TBM = Temporary Bench Mark
  - APPROX. = Approximate
  - TOW = Top of Wall
  - BOW = Bottom of Wall
  - POC = Point of Commencement
  - POB = Point of Beginning
  - X — Fence
  - P — Overhead Power
  - OT — Overhead Telephone
  - UT — Underground Telephone
  - GAS — Gas Line
  - W — Water Line
  - — Guardrail
  - — Storm Sewer
- Sanitary Sewer**
- Sign
  - Light Pole
  - Power Pole
  - Guy Wire
  - Telephone Pedestal
  - Communication Box
  - Clean out
  - Boiler
  - Water Spout
  - Water Valve
  - Water Meter
  - Gas Valve
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  - Storm Sewer Manhole
- Concrete**
- Covered Porch**
- Asphalt**
- Gravel**
- TRAFFIC SIGNAL**
- SHRUBS**
- FIRE HYDRANT**
- TRAFFIC CONTROL BOX**
- STREET LIGHT**
- SIGNAL POLE**
- TRAFFIC FLOW**
- SHRUB**
- TREE**
- TEST BORE**
- TEMPORARY BENCHMARK**
- VITRIFIED CLAY PIPE**
- MAIL BOX**
- PHONE MANHOLE**
- GAS METER**
- HEIGHT OF BUILDING**



**REVISIONS**

1	01-13-2014	REVISE STORM SEWER
2	04-15-2014	REVISE STORM SEWER

DRAWN BY: RES  
 CHECKED BY: JS  
 PROJECT NO.: JDD00005  
 JDD00005 FD 26TH 32ND.dwg  
 CAD FILE:  
 SCALE: 1" = 20'

PROJECT: BLOCK 164 NORTH BIRMINGHAM SECTION 14, TOWNSHIP 17 SOUTH RANGE 3 WEST, CITY OF BIRMINGHAM, JEFFERSON COUNTY, ALABAMA  
 TITLE: ALTA/ACSM LAND TITLE SURVEY AND TOPOGRAPHIC SURVEY FOR FAMILY DOLLAR STORES, INC.

120 BISHOP CIRCLE, SUITE 300  
 PELHAM, AL 35124  
 TEL - (205) 403-9158  
 FAX - (205) 403-9175

**EDG**  
 ENGINEERING DESIGN GROUP, LLC  
 CIVIL ENGINEERING • LAND SURVEYING  
 (205) 403-9158

SHEET NO. 1 OF 2

SCHEDULE A

PARCEL I:  
Lots 1, 2, 3 and 4, Block 164, according to the Survey of North Birmingham, as recorded in Map Book 1, Page 111, in the Office of the Probate Judge of Jefferson County, Alabama.

PARCEL II:  
Lot 5, Block 164, according to the Survey of North Birmingham, as recorded in Map Book 1, Page 111, in the Office of the Probate Judge of Jefferson County, Alabama.

PARCEL III:  
Lot 6, Block 154, according to the Survey of North Birmingham, as recorded in Map Book 1, Page 111, in the Office of the Probate Judge of Jefferson County, Alabama.

PARCEL IV:  
Lot 7, Block 164, according to the Survey of North Birmingham, as recorded in Map Book 1, Page 111, in the Office of the Probate Judge of Jefferson County, Alabama.

PARCEL V:  
A part of Lots 8 and 9, Block 164, according to the Survey of North Birmingham, as recorded in Map Book 1, Page 111, in the Office of the Probate Judge of Jefferson County, Alabama, more particularly described as follows: Begin at a point 45 feet southeastward from the southeast intersection of 32nd Avenue and 25th Street North, run thence in a southeasterly direction along the east line of 25th Street 50 feet; thence in an easterly direction and parallel to 32nd Avenue 100 feet; run thence in a northerly direction and parallel to 25th Street 50 feet; run thence in a westerly direction and parallel to 32nd Avenue 100 feet to the point of beginning.

PARCEL VI:  
Lot 10, and the South 5 feet of Lots 8 and 9, Block 164, according to the Survey of North Birmingham, as recorded in Map Book 1, Page 111, in the Office of the Probate Judge of Jefferson County, Alabama.

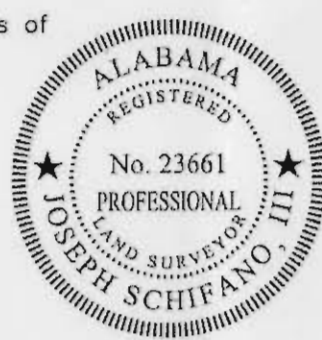
NOTE: The property described and shown hereon is the same property as described in the First American Title Insurance Company commitment number S13-3458 dated October 29, 2013.

To 3D Development Partners LLC, Family Dollar Stores Inc., Family Dollar Stores of Alabama Inc., Estate of Robert C. Gafford, Mary E. Cole, John H. Etheridge, Sr., Ernest Witherspoon, Amos Hall, Jr. and Mary Hall, City of Birmingham, Mary Louise Hutchinson, and First American Title Insurance Company;

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2011 Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 1-5, 6(b), 8, 9, 11(b), 13, 14, 16-19, 20(a) and 20(b) of Table A thereof. The field work was completed on December 3, 2013.

I hereby certify that all parts of this survey and drawing have been completed in accordance with the current requirements of the Standards of Practice for Surveying in the State of Alabama to the best of my knowledge, information, and belief.

Surveyor's Signature: *Joseph Schifano*  
Alabama License Number: 23661, Date: April 15, 2014



NOTES:

- Bearings are based on State Plane Grid (NAD 83 ALABAMA WEST).
- All Elevations shown on this map are based on USGS datum (NAVD 88) (USGS AL30).
- Utilities shown on this map are from visible evidence on the surface of the ground, markings by line locaters, and available utility maps.
- The surveyor is not responsible for underground utilities that have no ground surface visibility.
- Error of Closure: 1 : 19,000+.
- Survey not valid without original signature.
- Date of Field Survey December 03, 2013.
- Subject property is not located in a 100 year floodplain, as shown on Flood Insurance Rate Map No. 01073C0387G, effective date September 29, 2006.
- Surveyor: Joe Schifano email address is schifano@edgalabama.com
- No observed evidence of (i) earthmoving work, building construction or building additions; (ii) site use as a solid waste dump, sump or sanitary landfill; (iii) recent street or sidewalk construction or repairs
- There are no known right of way or roadway changes.
- No evidence of potential wetlands were observed on the subject property at the time the survey was conducted, nor have we received any documentation of any wetlands being located on the subject property. A Land Surveyor is not qualified to directly certify as to the existence or non-existence of wetlands.
- The location of the noted storm structure is approximated from estimations based on field observations and from information obtained from the City of Birmingham. This structure is not visible and was not recovered in the course of the survey.

Encroachments Statement:

Overhead power lines encroach onto the property across the Southwest corner, the Northeast corner and the Southeast corner of the subject property.

Storm sewer encroaches across the middle of the subject parcel between lots 5 & 6.

SURVEYED OVERALL DESCRIPTION

A parcel of land situated in the SE 1/4 of Section 14, Township 17 South, Range 3 West, Jefferson County, Alabama, and located on Block 164 of the Survey of North Birmingham as recorded in Map Book 1 Page 111 in the Office of the Judge of Probate in Jefferson County, Alabama, being more particularly described as follows:

BEGIN at a PK nail at the NE corner of Lot 2 Block 164 of the Survey of North Birmingham as recorded in Map Book 1 Page 111 in the Office of the Judge of Probate in Jefferson County, Alabama; thence S 19°34'59" E along the eastern line of Lot 2, Lot 1, and the western right-of-way of 26th Street North (U.S. Hwy. 31), a distance of 140.11 feet to a PK nail at the SE corner of Lot 1 and the northern right-of-way of 31st Alley North; thence S 70°19'41" W along the northern right-of-way of 31st Alley North and the southern line of Lots 1, 4, 5, 6, 7, 10, leaving 26th Street North right-of-way, a distance of 400.52 feet to a 1/2" crimp at the SW corner of Lot 10, and the eastern right-of-way of 25th Street North; thence N 18°59'24" W along the western line of Lot 10 and along the eastern right-of-way of 25th Street North, leaving the northern right-of-way of 31st Alley North, a distance of 44.43 feet to a 1" crimp at the SW corner of Lot 9; thence N 19°47'37" W along the western line of Lot 9 and along said right-of-way a distance of 50.57 feet to a 1/2" crimp; thence N 70°16'49" E, leaving said right-of-way, a distance of 99.85 feet to a rebar capped EDG at the NW corner of Lot 7, said point lying on the southern right-of-way of 32nd Avenue North; thence N 70°16'54" E along the northern line of Lots 7, 6, 5, 4, 3 and 2 and along said right-of-way a distance of 299.50 feet to the POINT OF BEGINNING. Said parcel contains 51,570 sq.ft. or 1.18 acres, more or less.

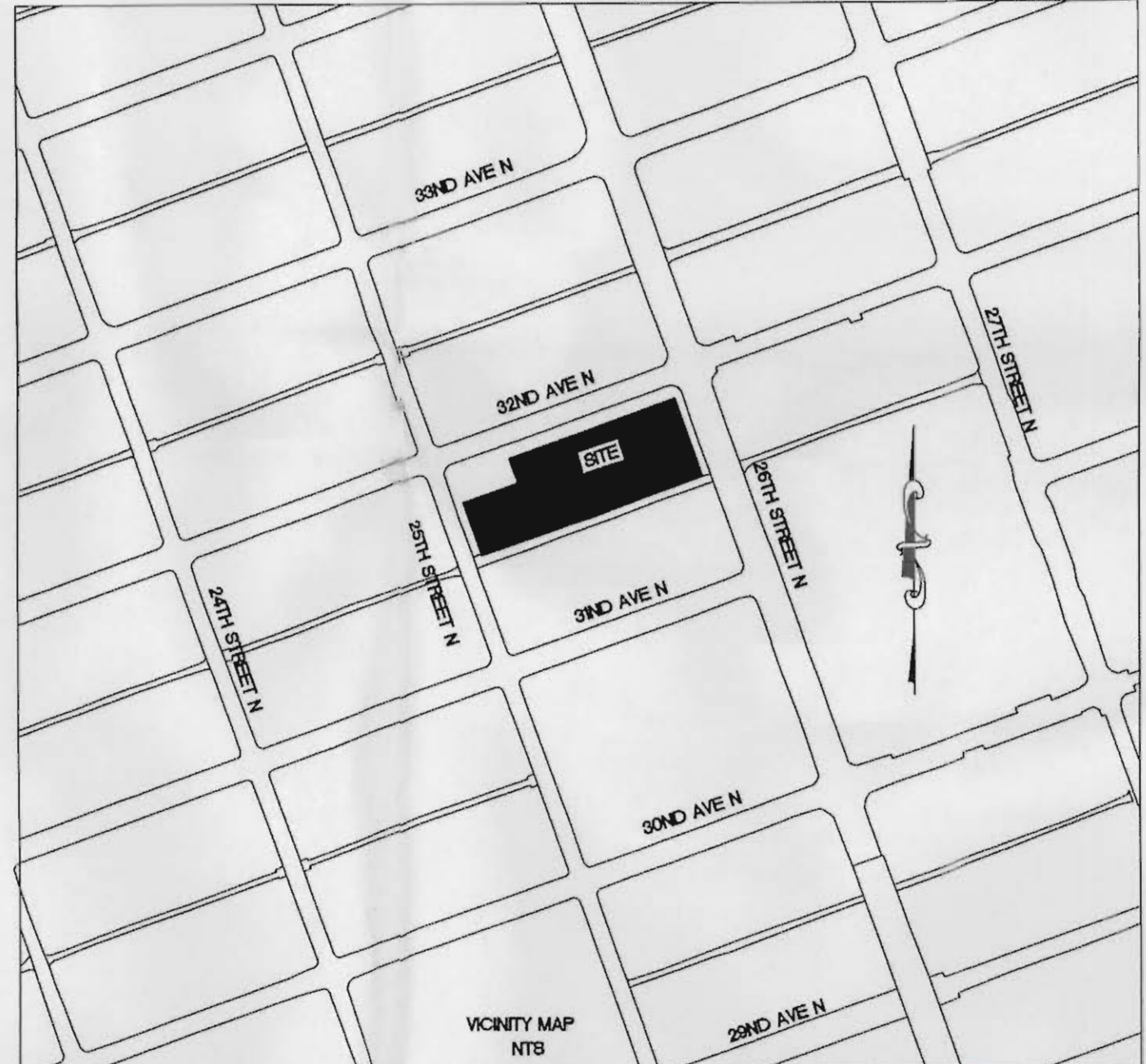
SURVEYORS COMMENTS ON EXCEPTIONS TO TITLE AS LISTED IN SCHEDULE B SECTION II OF FIRST AMERICAN TITLE INSURANCE COMPANY AGENT'S FILE NO: S13-3458 DATED OCTOBER 29, 2013.

- N/A
- N/A
- N/A
- Any encroachment, encumbrance, violation, variation, or adverse circumstances affecting the Title that would be disclosed by an accurate and complete survey of the Land. *Survey Shows.*
- N/A
- N/A
- Easements and building lines as shown on recorded map(s), including but not limited to any notes, conditions, and restrictions. *Shown on survey.*

B3 (COMMUNITY BUSINESS DISTRICT) GENERAL MERCHANDISE IN EXCESS OF 3500 SF IS PERMITTED BASED ON APPROVED COMMERCIAL USE R3 (SINGLE FAMILY DISTRICT) GENERAL MERCHANDISE IS NOT PERMITTED. REQUIRE REZONING.

ZONING INFORMATION	
PARCEL	PARCEL I PARCELS II, III, IV, V, & VI
ZONE B3	ZONE R3
PERMITTED USE	RESIDENTIAL
MINIMUM LOT AREA	6,000 SQ.FT.
MINIMUM FRONTAGE	50'
MINIMUM LOT WIDTH	50'
MINIMUM OPEN SPACE	NONE
MINIMUM SETBACK:	
FRONT	25'
SIDE	ONE SIDE 5 BOTH 14
REAR	25'
MAXIMUM BUILDING HEIGHT:	NONE**
PARKING: REGULAR	24 (Reg.)**
HANDICAP	2 (Reg.)**
TOTAL	26 (Reg.)**

\* Data taken from Preliminary Site Plan Dated 7-25-13 by Campbell Engineering & Associates.  
\*\* None, except where Federal Aviation Administration (FAA) Restrictions apply, in which case a waiver must be granted by the FAA to exceed FAA limitations.



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  - SHRUB
  - TREE
  - TEST BORE
  - VITRIFIED CLAY PIPE
  - MAIL BOX
  - PHONE MANHOLE
  - GAS METER
  - HEIGHT OF BUILDING

UTILITY CONTACTS

SEWER: JEFFERSON COUNTY ENVIRONMENTAL SERVICES  
716 RICHARD ARRINGTON, JR. BLVD. N., SUITE A-300  
BIRMINGHAM, AL 35203  
TELEPHONE: (205) 325-1445  
FAX: (205) 325-5981  
CONTACT: WOODY ASKEW

WATER: BIRMINGHAM WATER WORKS BOARD  
P.O. BOX 830110  
3600 FIRST AVENUE NORTH  
BIRMINGHAM, AL 35203  
TELEPHONE: (205) 244-4000  
CONTACT: STACY JOHNSON

TELEPHONE: AT&T  
2101 6TH AVENUE  
BIRMINGHAM, AL 35203  
TELEPHONE: (205) 868-5682  
CONTACT: MICHAEL ROSS

POWER: ALABAMA POWER COMPANY  
1200 6TH AVE N  
BIRMINGHAM, ALABAMA 35203  
TELEPHONE: (205) 226-1181  
CONTACT: EMILY BREASCALE

ALDOT CONTACT  
3RD DIVISION DISTRICT 1  
JAMERIA MOORE  
205-681-5704  
1020 BANKHEAD HIGHWAY  
BIRMINGHAM AL 35202

REVISIONS

1	01-13-2014	REVISE STORM SEWER
2	04-15-2014	REVISE STORM SEWER

DRAWN BY: RES  
CHECKED BY: JS  
PROJECT NO.: 3DDGG0005  
CADD FILE: 3DDGG0005 FD 26TH 32ND.dwg  
SCALE: 1" = 20'

PROJECT: BLOCK 164 NORTH BIRMINGHAM, SECTION 14, TOWNSHIP 17 SOUTH, RANGE 3 WEST, CITY OF BIRMINGHAM, JEFFERSON COUNTY, ALABAMA

TITLE: ALTA/ACSM LAND TITLE SURVEY AND TOPOGRAPHIC SURVEY FOR FAMILY DOLLAR STORES, INC.

120 BISHOP CIRCLE, SUITE 300  
PELHAM, AL 35124  
TEL - (205) 403-9158  
FAX - (205) 403-9175

EDG  
ENGINEERING DESIGN GROUP, LLC  
CIVIL ENGINEERING • LAND SURVEYING  
(205) 403-9158

SHEET NO. 2 OF 2



**SITE NOTES:**

- PROPERTY BOUNDARY INFORMATION SHOWN HEREON IS TAKEN FROM A BOUNDARY SURVEY PREPARED FOR FAMILY DOLLAR BY ENGINEERING DESIGN GROUP, LLC. LAST REVISED APRIL 5, 2014. PROJECT #30D00005. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS.
- CONTRACTOR SHALL MATCH PROPOSED CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.
- CONTRACTOR SHALL REMOVE PAVEMENT & CONCRETE IN ACCORDANCE WITH SPECIFICATIONS OF ALL GOVERNING AGENCIES.
- GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTIONS, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES AS DESIGNATED ON PLANS.
- CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO, OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL EXISTING DAMAGE AND NOTIFY CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.
- CONTRACTOR TO REMOVE OR RELOCATE, WHEN APPLICABLE, ALL EXISTING DRAIN PIPES, SANITARY SEWER PIPES, POWER POLES, AND GUY WIRES, WATER METERS AND WATER LINES, WELL, SIDEWALKS, SIGN POLES, UNDERGROUND GAS, AND ASPHALT, SHOWN AND NOT SHOWN WITHIN CONSTRUCTION LIMITS AND WHERE NEEDED, TO ALLOW FOR NEW CONSTRUCTION AS SHOWN.
- CONTRACTOR SHALL FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF DEMOLISHED MATERIALS REMOVED FROM THIS SITE.
- DIMENSIONS SHOWN ARE TO FACE OF CURB, FACE OF BUILDING, OR CENTERLINE OF PARKING BAY UNLESS NOTED OTHERWISE.
- SEE SITE DETAILS SHEET FOR PAVEMENT SPECS.
- BUILDING AND CANOPY EXCAVATION AND FOUNDATIONS, BUILDING ENTRANCE PLATFORMS, PORCHES, PADS, BUILDING DIMENSIONS, UTILITY ENTRY/EXIT POINTS, SIDEWALKS, ADJACENT TO THE BUILDING, AND LOADING DOCK RAMP/CURBS/RETAINING WALLS ARE DETAILED AND SPECIFIED ON THE ARCHITECTURAL DRAWINGS.
- PROVIDE EXPANSION JOINTS AT ALL RADIUS POINTS IN CONCRETE CURB AND GUTTER AND AS SHOWN ON THE DETAILS, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR IS TO PROVIDE RECEPTACLES FOR USE OF SUBCONTRACTORS AND THEIR EMPLOYEES. ALL DUMPSTERS SHOULD BE LOCATED OFF STREETS AND RIGHT OF WAYS. BLOCKING PERMITS ARE REQUIRED FOR ANY USE OF THE STREET RIGHT OF WAYS.
- PROVIDE CONTAINERS FOR GARBAGE AND MINOR TRASH IN EATING AREAS, IN PARKING LOTS, AND ALONG WALKWAYS.
- SERVICE CONTAINERS ADEQUATELY.
- KEEP STREETS AND AREAS ADJACENT TO THE JOB SITE CLEAN AND FREE OF TRASH AND MUD ORIGINATING FROM THE SITE.
- REQUIRE ALL WASTE HALLERS TO COVER TRUCKS BEFORE LEAVING THE SITE.
- CONTRACTOR IS RESPONSIBLE TO ANY DAMAGE TO STREETS, SIDEWALKS, CURBS, GUTTERS OR ANY OTHER PUBLIC PROPERTY. DAMAGE MUST BE REPAIRED OR REPLACED PRIOR TO FINAL INSPECTIONS.

**GENERAL NOTES:**

- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD CONDITIONS WHEN POSSIBLE, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSING WELL IN ADVANCE OF TRENCHING. IF THE CLEARANCES ARE LESS THAN SPECIFIED ON THE PLANS OR 12" WHOEVER IS LESS, CONTACT CAMPBELL ENGINEERING & ASSOCIATES, INC. AT 864-335-4090.
- THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE THE REMOVAL AND DISPOSAL OF ANY EXCESS TOPSOIL THAT IS NOT REQUIRED TO PERFORM THE FINAL GRADING AND LANDSCAPING OPERATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL REQUIRED/NECESSARY SHEETING, SHORING, AND SPECIAL EXCAVATION MEASURED REQUIRED ON THE PROJECT TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THE DRAWINGS. FAMILY DOLLAR STORES AND CAMPBELL ENGINEERING & ASSOCIATES, INC. ACCEPT NO RESPONSIBILITY FOR THE DESIGN TO INSTALL SAID ITEMS.
- CALL BEFORE YOU DIG ALABAMA ONE-CALL 811
- ALL WORK SHALL CONFORM TO FEDERAL, STATE, PARISH, AND/OR LOCAL STANDARDS, WHOEVER IS MORE RESTRICTIVE.
- ALL CURB/HANDICAP RAMP DESIGNS SHALL CONFORM TO ADA STANDARDS OR CITY OF BIRMINGHAM CITY STANDARDS, WHOEVER IS MORE RESTRICTIVE.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF THE UTILITY ENTRANCE POINTS, TRANSFORMER, SLOPED PAVING, TRUCK DOCKS, RAMPS, SITE LIGHTING PANELS, EXIT PORCHES, VESTIBULE, PRECISE BUILDING DIMENSIONS, ETC.
- THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE DAILY RECORD KEEPING OF THE AS-BUILT CONDITIONS OF ALL OF THE UNDERGROUND UTILITIES, STORM DRAIN AND CONSTRUCTION STAKEOUTS ASSOCIATED WITH THE PROJECT. THE CONTRACTOR SHALL HAVE A LICENSED SURVEYOR PREPARE THE REQUIRED AS-BUILT INFORMATION FOR SUBMITTAL TO GOVERNING AGENCIES AND ALL OTHER INFORMATION REQUIRED IN CONNECTION WITH RELEASE OF BONDS.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE LOCAL POST OFFICE TO DETERMINE IF A FREE STANDING MAILBOX IS REQUIRED. IF SO REQUIRED, THE CONTRACTOR SHALL INCLUDE IN HIS CONTRACT PRICE THE INSTALLATION OF A 4" X 4" PRESSURE TREATED POST SET IN CONCRETE WITH A METAL MAILBOX AT A LOCATION ACCEPTABLE TO THE POST OFFICE AND THE OWNER.
- THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ALL MATERIAL AND LABOR ASSOCIATED WITH THE TESTING OF THE WATER AND SEWER LINES AS REQUIRED.
- THE CONTRACTOR SHALL INCLUDE IN THE CONTRACT PRICE ANY DE-WATERING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL INCLUDE IN THE PRICE ANY AND ALL COSTS ASSOCIATED WITH PROVIDING A PROFESSIONAL ENGINEER ON SITE IF REQUIRED, DURING THE CONSTRUCTION OF THE STORM WATER MANAGEMENT FACILITIES, UNDERGROUND UTILITIES, ETC. AS REQUIRED FOR AS-BUILT CERTIFICATION.

**PERMITS, BONDS, AND INSPECTIONS:**

THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO THE ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES. THIS SHALL INCLUDE THE HIRING OF A PROFESSIONAL ENGINEER TO CONDUCT INSPECTIONS AND PROVIDE CERTIFICATIONS, AS MAY BE REQUIRED.

**AUTHORITY AND RESPONSIBILITY:**

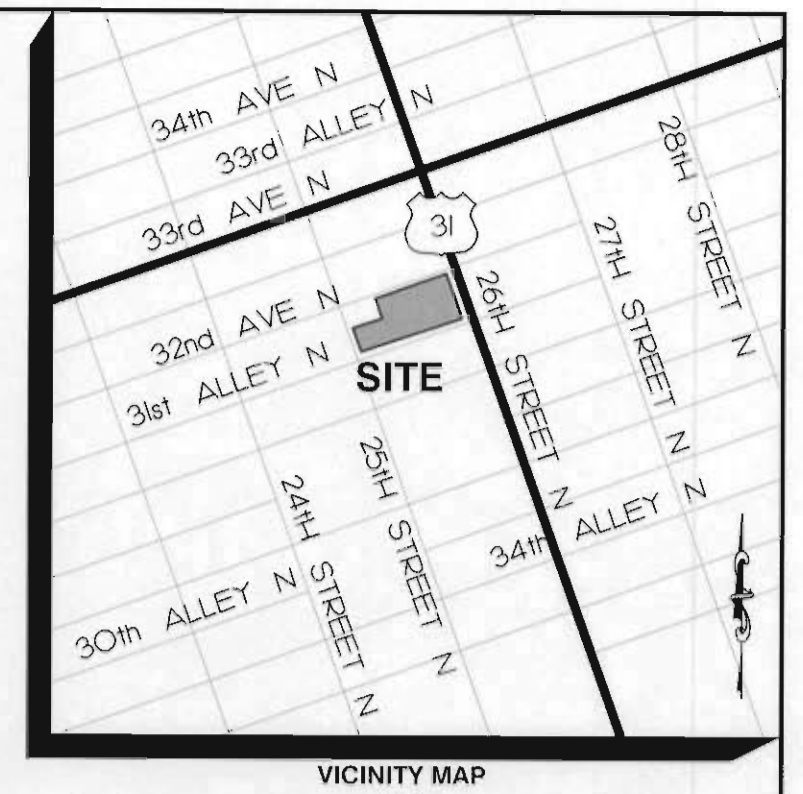
THE ENGINEER, AS REPRESENTATIVE OF THE OWNER, SHALL NOT GUARANTEE THE WORK OF ANY CONTRACTOR OR SUBCONTRACTOR, SHALL HAVE NO AUTHORITY TO STOP WORK, SHALL HAVE NO SUPERVISION OR CONTROL AS TO THE WORK OR PERSONS DOING THE WORK, SHALL NOT BE CHARGE OF THE WORK, SHALL NOT BE RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE JOB SITE OR HAVE ANY CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENT, SCAFFOLDING, SUPPORTS, FORMS, OR OTHER WORK AIDS, AND SHALL HAVE NO DUTIES OR RESPONSIBILITIES IMPOSED BY THE STRUCTURAL WORK ACT.

**SITE DEVELOPMENT DATA**

ZONING: B-3  
 PROPERTY SIZE: ±1.2 AC.  
 PARCEL(S) #22-00-14-4-033-00100, -00200, -00300, -00400, -00500, -00700 & -00800  
 JURISDICTION: CITY OF BIRMINGHAM  
 SETBACKS:  
 FRONT = NONE  
 SIDE = NONE  
 REAR = NONE  
 PARKING REQUIREMENTS:  
 SPACES REQUIRED = HALF THE REQUIREMENTS OF ARTICLE 5 WHICH EQUALS 1 SPACE PER 250 SF WHICH YIELDS A REQUIREMENT OF SPACES 37 SPACES / 2 = 19 SPACES REQUIRED  
 SPACED PROVIDED = 26  
 HANDICAP SPACES REQUIRED = 2  
 HANDICAP SPACES PROVIDED = 2  
 VAN ACCESSIBLE SPACES REQUIRED = 1  
 VAN ACCESSIBLE SPACES PROVIDED = 1  
 TOTAL FD BUILDING PRGTO: ±9,180 SF

**LEGEND**

PROPOSED	DESCRIPTION
(5)	NUMBER OF SPACES
+	SIGN
♿	HANDICAP SYMBOL
—	PAINTED STOP BAR
■	CONCRETE
■	HEAVY DUTY ASPHALT PAVEMENT (SEE SITE DETAILS)
■	LIGHT DUTY ASPHALT PAVEMENT (SEE SITE DETAILS)
→	DIRECTIONAL ARROW
■	SITE LIGHTING (BY OTHERS)
—	18" CURB AND GUTTER



NOTE: SEE ARCH PLANS FOR EXACT BUILDING DIMENSIONS, UTILITY ENTRY POINTS, DOOR LOCATIONS, ETC.

PLANS PREPARED BY:  
**CAMPBELL**  
 ENGINEERING & ASSOCIATES, INC.  
 Civil Engineering and Land Planning  
 31 Boland Court  
 Greenville, SC 29615  
 (864) 335-1090  
 Fax: (864) 335-1095

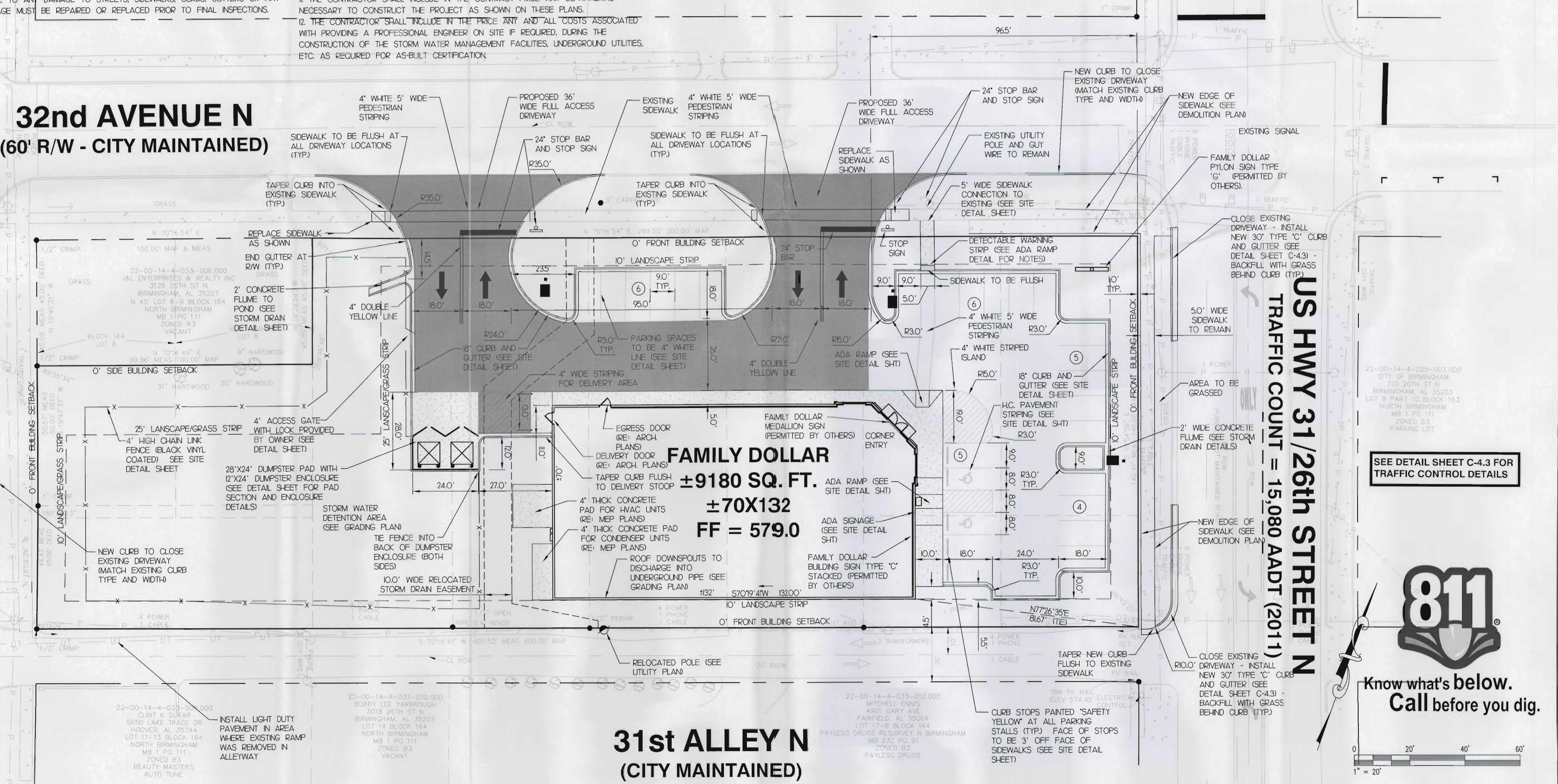
SEAL:  

 PROFESSIONAL ENGINEER  
 STATE OF ALABAMA  
 NO. 31359

**CONTRACTOR TO FOLLOW ALL TRAFFIC CONTROL REQUIREMENTS CONTAINED IN THE 2009 EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WHILE WORKING WITH THE PUBLIC RIGHT OF WAY**

**32nd AVENUE N**  
 (60' R/W - CITY MAINTAINED)

**US HWY 31/26th STREET N**  
 TRAFFIC COUNT = 15,080 AADT (2011)



**FAMILY DOLLAR**  
 STORE #615  
 SWC OF 32ND AVE N & US HWY 31  
 CITY OF BIRMINGHAM, AL  
 JEFFERSON COUNTY

**DEVELOPER:**  
 3D DEVELOPMENT PARTNERS, LLC.  
 3540 WHEELER ROAD, STE 114  
 AUGUSTA, GA 30909  
 (706) 860-9983  
 FAX: (706) 860-3786

**CONTACT: CHARLES DUNSTAN**

REVISIONS:

NO.	DESCRIPTION

CHECKED BY: TWC  
 DRAWING BY: FSE  
 DATE: 04/16/14  
 JOB NUMBER:  
 TITLE: **SITE AND DIMENSIONING PLAN**  
 SHEET NUMBER: **C-4.0**  
 COMMENTS:

**811**  
 Know what's below.  
 Call before you dig.











**GRADING NOTES:**

1. BMPs MUST BE IN PLACE PRIOR TO CLEARING AND GRADING OPERATIONS, REGARDLESS OF PLAN REQUIREMENT OR LOT SIZE. NO GRADING MAY BE DONE UNTIL BMP INSTALLATION AND INSPECTION ARE COMPLETE (SEE EROSION CONTROL PLANS).
2. CATCH BASINS, MANHOLES, FRAMES AND GRATES SHALL MEET THE REQUIREMENTS OF THE LATEST EDITIONS OF THE CITY OF BIRMINGHAM OR ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR CONSTRUCTION.
3. PRECAST DRAINAGE STRUCTURES MAY HAVE BEEN SPECIFIED ON THE PLANS. THE OWNER AND THE ENGINEER, HOWEVER, ASSUME NO RESPONSIBILITY FOR THESE STRUCTURES, AS FIELD CONDITIONS OFTEN DICTATE MINOR ELEVATIONS ADJUSTMENTS. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY AND EXPENSE FOR MODIFYING THE PRECAST STRUCTURES TO ACCOMMODATE FIELD REVISIONS.
4. UNLESS OTHERWISE NOTED, STORM DRAIN PIPES SHALL BE CLASS III, WALL '18" RCP IN ACCORDANCE WITH ASTM C-76. JOINT MATERIAL FOR RCP SHALL BE RUBBER GASKET CONFORMING TO THE REQUIREMENTS OF ASTM C443 OR 'TONGUE AND GROOVE' TYPE FILLED WITH CEMENT MORTAR. IF DESIGNATED, HIGH DENSITY POLYETHYLENE PIPE (HDPE) TO BE EQUIVALENT TO ADS-N2 HAVING A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS AND SHALL MEET REQUIREMENTS OF AASHTO M252, TYPE S. PROVIDE A MINIMUM OF 2 FEET COVER OVER PIPE.
5. ALL DIMENSIONS AND LENGTHS FOR STORM SEWERS ARE TO THE CENTER OF THE STRUCTURE FOR MANHOLES, JUNCTION BOXES, AND INLETS, OR TO THE END OF PIPE FOR HEADWALLS AND FLARED-END-SECTIONS.
6. CONTRACTOR TO REVIEW REPORT FOR GEOTECHNICAL ENGINEERING REPORT BY TERRACON CONSULTANTS INC. DATED DECEMBER 24, 2013 FOR ALL REQUIREMENTS ASSOCIATED WITH GROUND DISTURBING ACTIVITIES (IE. SITE AND SUBGRADE PREPARATION, PAVEMENT DESIGN, ETC).
7. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE THROUGHOUT THE SITE AT ALL TIMES DURING CONSTRUCTION. ANY AREAS WHICH BECOME UNSTABLE AS A RESULT OF POOR DRAINAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING, AND SPECIAL EXCAVATION MEASURE REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF ALL WORK INDICATED ON THESE DRAWINGS. THE OWNER AND THE DESIGN ENGINEER ACCEPT NO RESPONSIBILITY FOR THE DESIGNS TO INSTALL SAID ITEMS.

9. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF GRADED AND PROOF ROLLED AREAS. THE CONTRACTOR IS REQUIRED TO INCLUDE IN HIS PRICE ANY COST ASSOCIATED WITH 'RE-GRADING' OR RECOMPACTING ANY AREA DISTURBED BY CONSTRUCTION TRAFFIC ONCE GRADE HAS BEEN ESTABLISHED. THIS SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO AREAS THAT GET WET, DRIVEN ACROSS, RUTTED OR NEED RE-GRADING TO REESTABLISH SUBGRADE. THE CONTRACTOR SHALL NOT RECEIVE ANY ADDITIONAL COMPENSATION FOR THIS WORK.
10. THE TOPSOIL STOCKPILE SHALL BE GRADED TO DRAIN, AND SEEDED WITH THE TEMPORARY SEED MIX. TOPSOIL STOCKPILE NOT SHOWN, DETERMINE IN FIELD BY CONTRACTOR AND COORDINATE WITH INSPECTOR. SILT REMOVED FROM THE INLET PROTECTION AND FROM BEHIND THE SILT FENCES SHALL BE PLACED ON THE TOPSOIL STOCKPILE.
11. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEARED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY CONSTRUCTION. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION.
12. ALL CONSTRUCTION IN THE R/W TO CONFORM TO LOCAL JURISDICTIONS AND DOT STANDARDS AND SPECIFICATIONS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ENGINEER AN AS-BUILT SURVEY OF ALL STORM DRAIN PIPES/STRUCTURES IMMEDIATELY AFTER INSTALLATION OF STORM DRAIN SYSTEM. AS-BUILT SHALL BE USED FOR SUBMITTAL TO LOCAL JURISDICTIONS AND REVIEW BY ENGINEER.

ALL SLOPES 3:1 OR STEEPER SHALL RECEIVE NORTH AMERICAN GREEN P300 ALONG FACE OF SLOPE. MAXIMUM SLOPE SHALL BE 2:1



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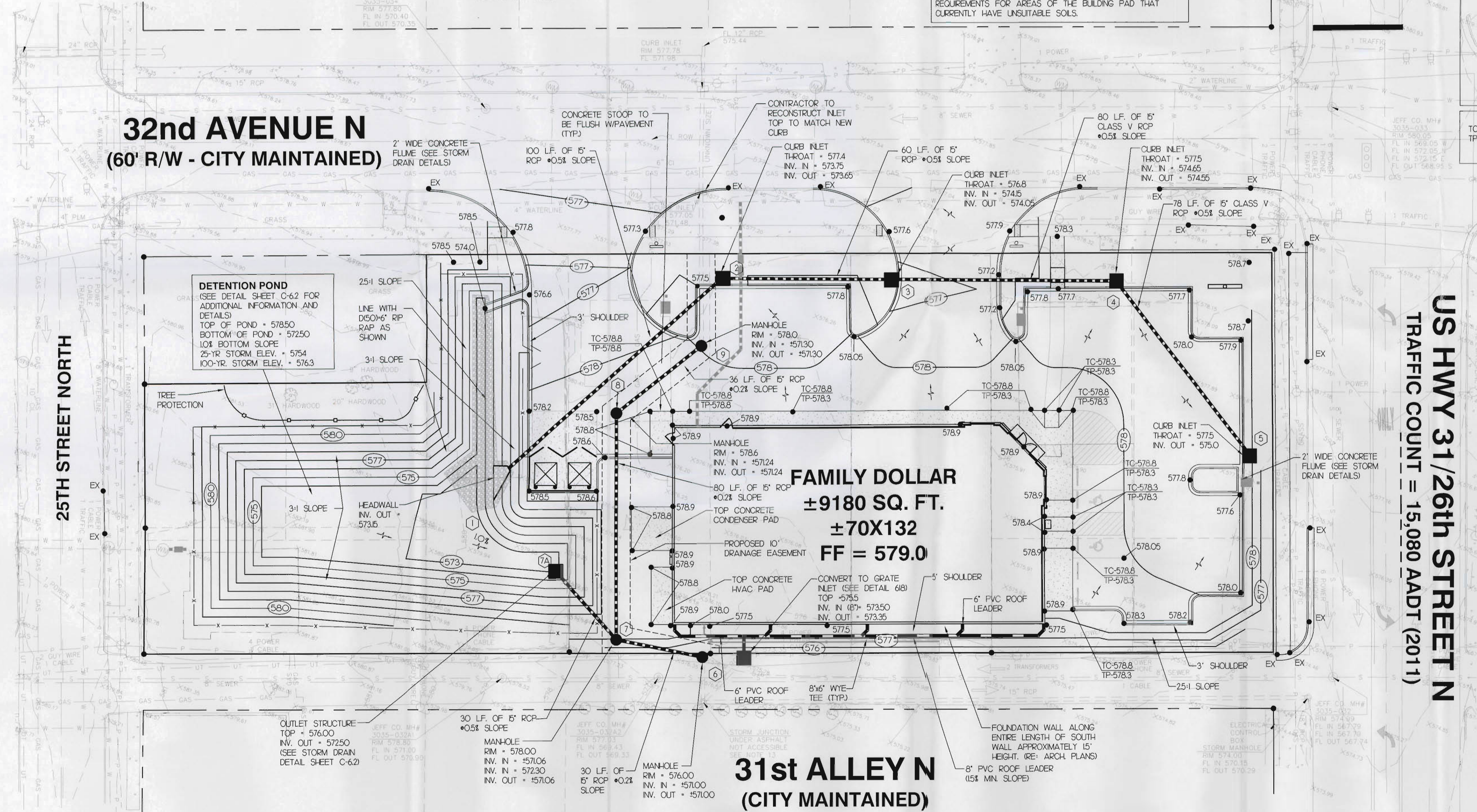
SEAL:  
  
 TIMOTHY W. CAMPBELL  
 PROFESSIONAL ENGINEER  
 NO. 31358  
 STATE OF ALABAMA

**LEGEND**

EXISTING	PROPOSED	DESCRIPTION
---	(578)	CONTOUR LINE
+	577.3	SPOT ELEVATION
---	---	STORM DRAIN PIPE
□	■	CATCH BASIN
○	●	MANHOLE
---	---	RIP RAP
□	□	STORM DRAIN STRUCTURE #
---	---	FLOW ARROW
---	---	C/L DITCH/SWALE

TC = TOP OF CURB ELEVATION  
 TP = TOP OF PAVEMENT ELEVATION

**SPECIAL GEOTECHNICAL REQUIREMENTS:**  
 CONTRACTOR TO REVIEW GEOTECHNICAL ENGINEERING REPORT BY TERRACON CONSULTANTS, INC. DATED DECEMBER 24, 2013 FOR ENGINEERING FILL PLACEMENT AND BUILDING FOUNDATION REQUIREMENTS FOR AREAS OF THE BUILDING PAD THAT CURRENTLY HAVE UNSUITABLE SOILS.



**US HWY 31/26th STREET N**  
 TRAFFIC COUNT = 15,080 AADT (2011)

**FAMILY DOLLAR**  
 STORE #615  
 SWC OF 32ND AVE N & US HWY 31  
 CITY OF BIRMINGHAM, AL  
 JEFFERSON COUNTY

**DEVELOPER:**  
 3D DEVELOPMENT PARTNERS, LLC.  
 3540 WHEELER ROAD, STE 114  
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 FAX: (706) 860-3786

**CONTACT:** CHARLES DUNSTAN

REVISIONS:


CHECKED BY: TWC  
 DRAWING BY: FSE  
 DATE: 04/16/14  
 JOB NUMBER:  

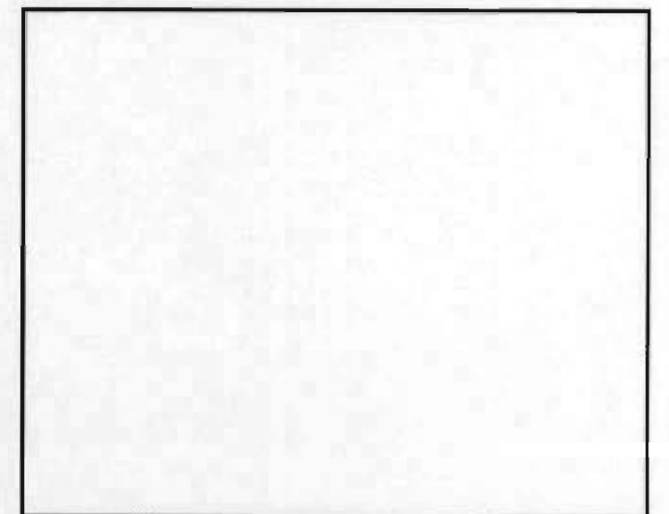
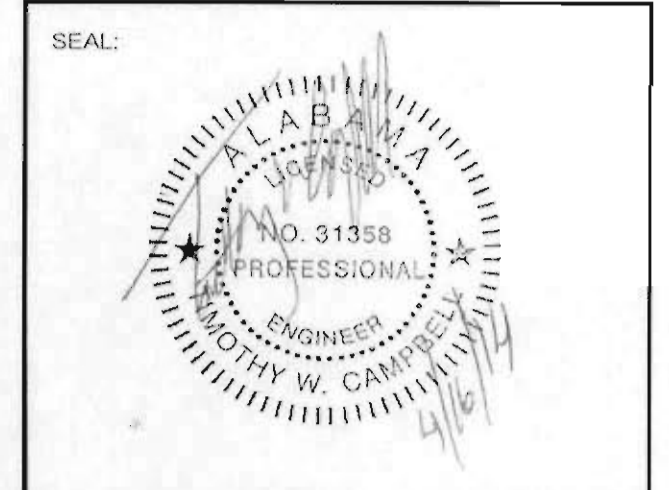
TITLE:  
**GRADING AND DRAINAGE PLAN**

SHEET NUMBER:  
**C-6.0**

COMMENTS:

**811**  
 Know what's below.  
 Call before you dig.

CONTRACTOR TO VERIFY SIZE AND INVERTS OF EXISTING STORM DRAIN PIPE THAT CROSSES PROPERTY PRIOR TO INSTALLING ANY NEW STORM DRAIN STRUCTURES. CONTACT ENGINEER IMMEDIATELY IF CONFLICT EXISTS.



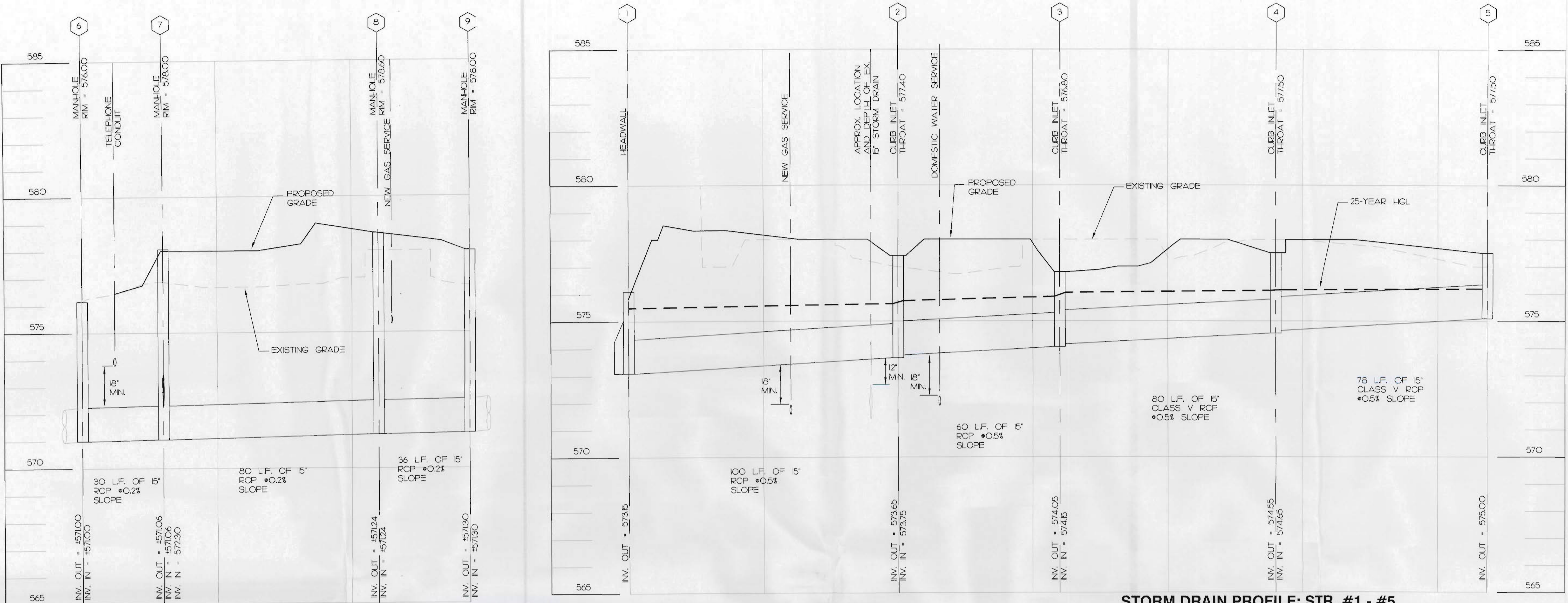
**FAMILY DOLLAR**  
**STORE #615**  
**SWC OF 32ND AVE N & US HWY 31**  
**CITY OF BIRMINGHAM, AL**  
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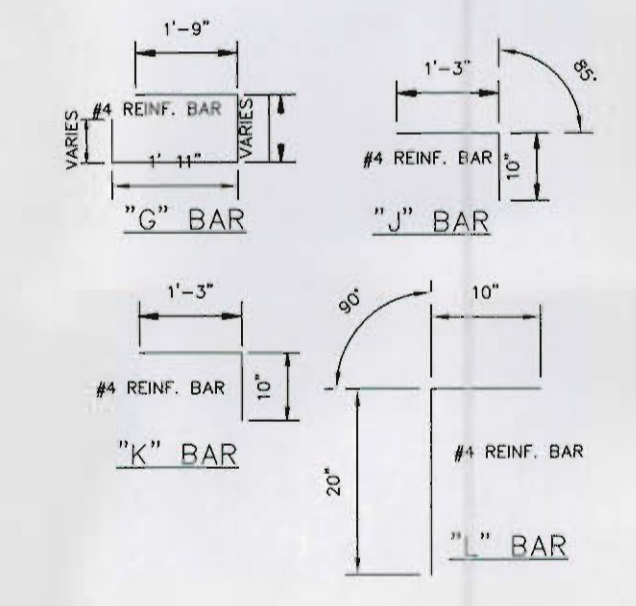
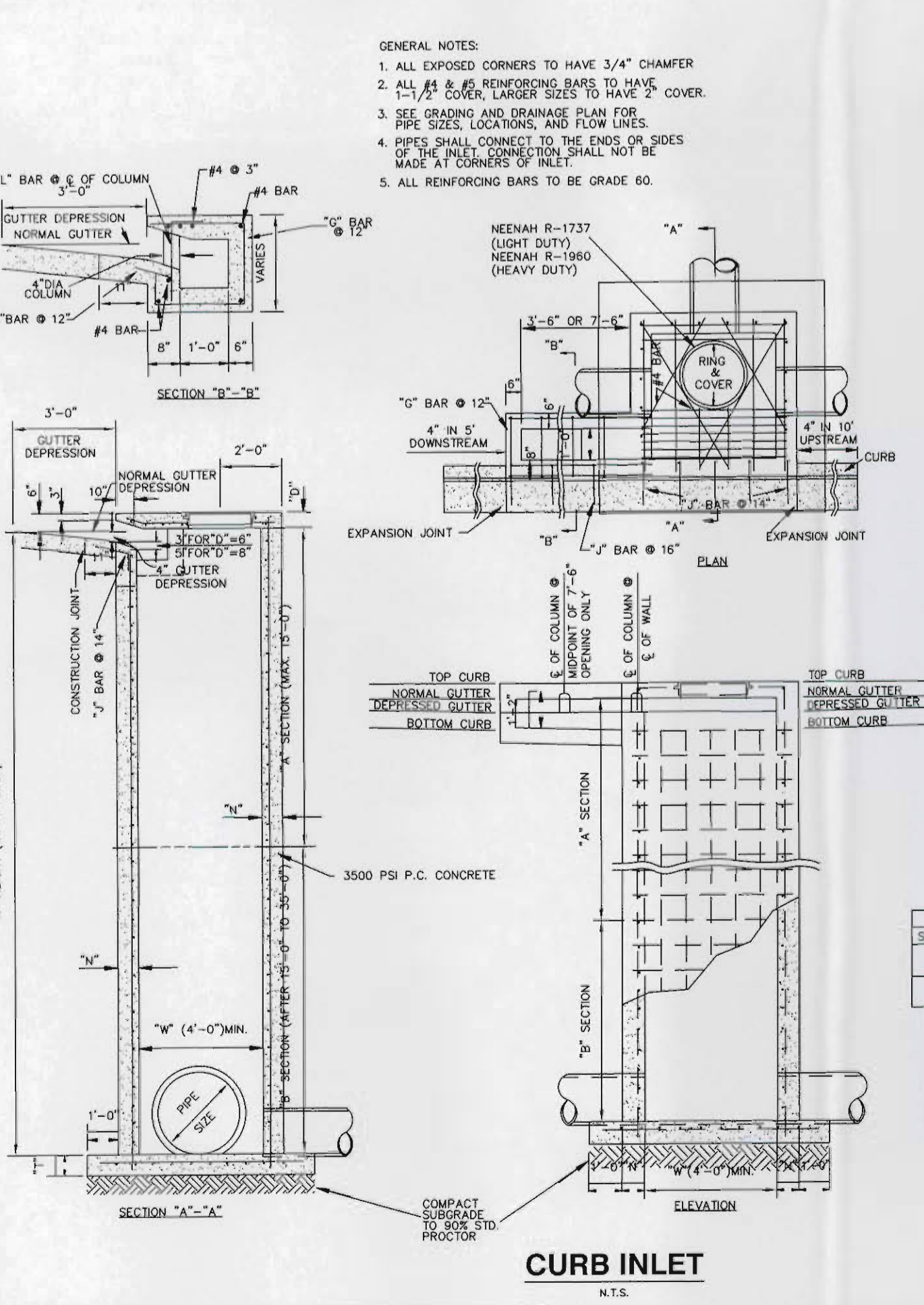
**CONTACT: CHARLES DUNSTAN**

REVISIONS:

CHECKED BY: TWC  
 DRAWING BY: FSE  
 DATE: 04/16/14  
 JOB NUMBER:  
 TITLE:  
**STORM DRAIN DETAILS AND PROFILE**  
 SHEET NUMBER:  
**C-6.1**  
 COMMENTS:



**STORM DRAIN PROFILE; STR. #6 - #9**  
 SCALE: HORIZONTAL 1" = 20'  
 VERTICAL 1" = 2'



GENERAL NOTES:  
 1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.  
 2. ALL #4 & #6 REINFORCING BARS TO HAVE 1-1/4" COVER, LARGER SIZES TO HAVE 2" COVER.  
 3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.  
 4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET. CONNECTION SHALL NOT BE MADE AT CORNERS OF INLET.  
 5. ALL REINFORCING BARS TO BE GRADE 60.

REINFORCEMENT SCHEDULE, BASE SECTION

SECTION	WIDTH ("W")	HOR.	VERT.
"A"	BETWEEN 4' & 7'	#4 @ 8" E-W	#4 @ 8" E-W
"B"	GREATER THAN 7'	#5 @ 8" E-W	#5 @ 8" E-W

TABLE OF "W" DIMENSIONS

PIPE SIZE	SKIEW OF CROSS DRAIN	10"	12"	15"	18"	24"
24"	4'-0"	4'-0"	4'-10"	4'-10"	5'-8"	5'-8"
30"	4'-0"	4'-7"	5'-8"	5'-8"	6'-5"	6'-5"
42"	5'-3"	5'-3"	6'-5"	6'-5"	7'-3"	7'-3"
48"	5'-10"	6'-7"	8'-0"	8'-0"	8'-10"	8'-10"
60"	7'-0"	7'-10"	9'-8"	9'-8"	10'-8"	10'-8"

DOUBLE FOR "A" SECTION ONLY

SECTION	WIDTH ("W")	HOR.	VERT.
"A"	BETWEEN 4' & 7'	#4 @ 8" E-W	#4 @ 8" E-W
"B"	GREATER THAN 7'	#5 @ 8" E-W	#5 @ 8" E-W

REINFORCEMENT SCHEDULE, WALLS

SECTION	WIDTH ("W")	HOR.	VERT.
"A"	BETWEEN 4' & 7'	#4 @ 8" E-W	#4 @ 8" E-W
"B"	GREATER THAN 7'	#5 @ 8" E-W	#5 @ 8" E-W

TABLE OF "T" & "H" DIMENSIONS

SECTION	WIDTH ("W")	HOR.	VERT.
"A"	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8" + PIPE THICKNESS
"B"	GREATER THAN 7'	8" + PIPE THICKNESS	8" + PIPE THICKNESS

REINFORCEMENT SCHEDULE, TOP

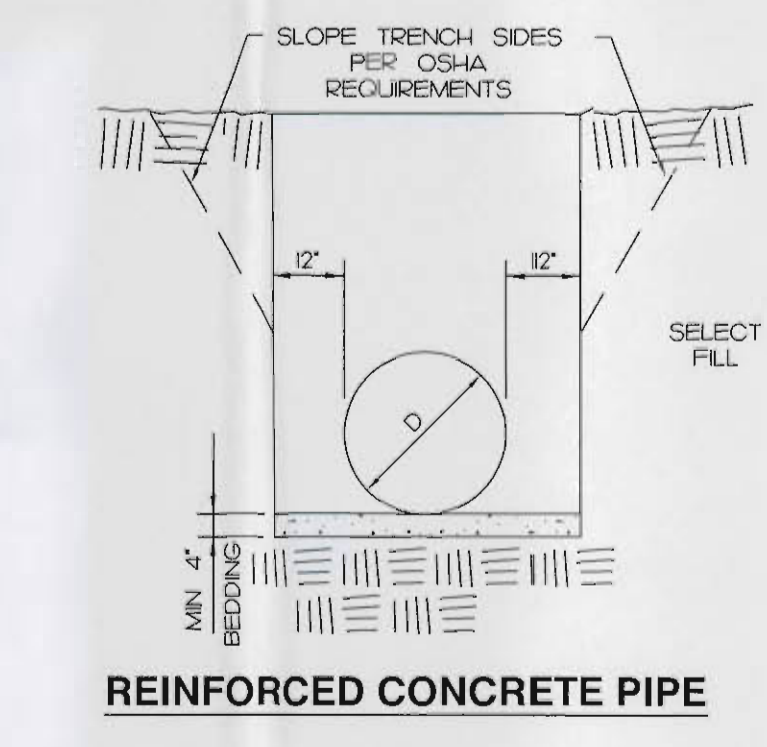
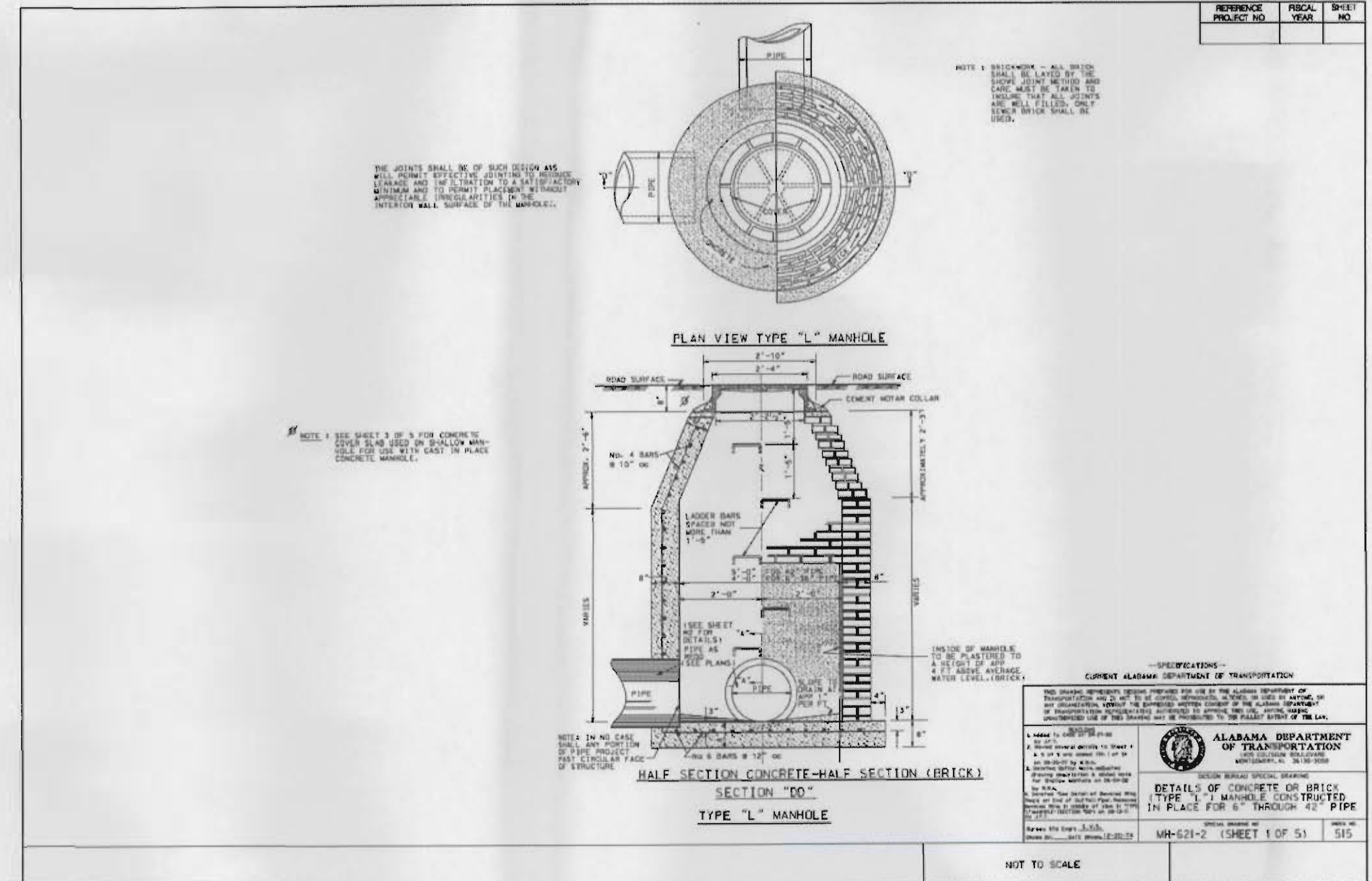
DIMENSIONS	STEEL	SPECIAL PATTERN
W1 = 7' OR LESS	#4 @ 8" E-W	DIAGONAL @ COVER
W2 = 7' OR LESS	#4 @ 8" E-W	DIAGONAL @ COVER
W3 = 7' OR LESS	#4 @ 8" E-W	DIAGONAL @ COVER
W4 = 7' OR GREATER	#4 @ 8" E-W	DIAGONAL @ COVER
W5 = 7' OR GREATER	#4 @ 8" E-W	DIAGONAL @ COVER
W6 = 7' OR GREATER	#4 @ 8" E-W	DIAGONAL @ COVER

UNLESS OTHERWISE NOTED, STORM DRAIN PIPE SHALL BE CLASS III WALL 15" RCP IN ACCORDANCE WITH ASTM C-76. JOINT MATERIAL FOR RCP SHALL BE RUBBER GASKET CONFORMING TO THE REQUIREMENTS OF ASTM C443 OR "TONGUE AND GROOVE" TYPE FILLED WITH CEMENT MORTAR.

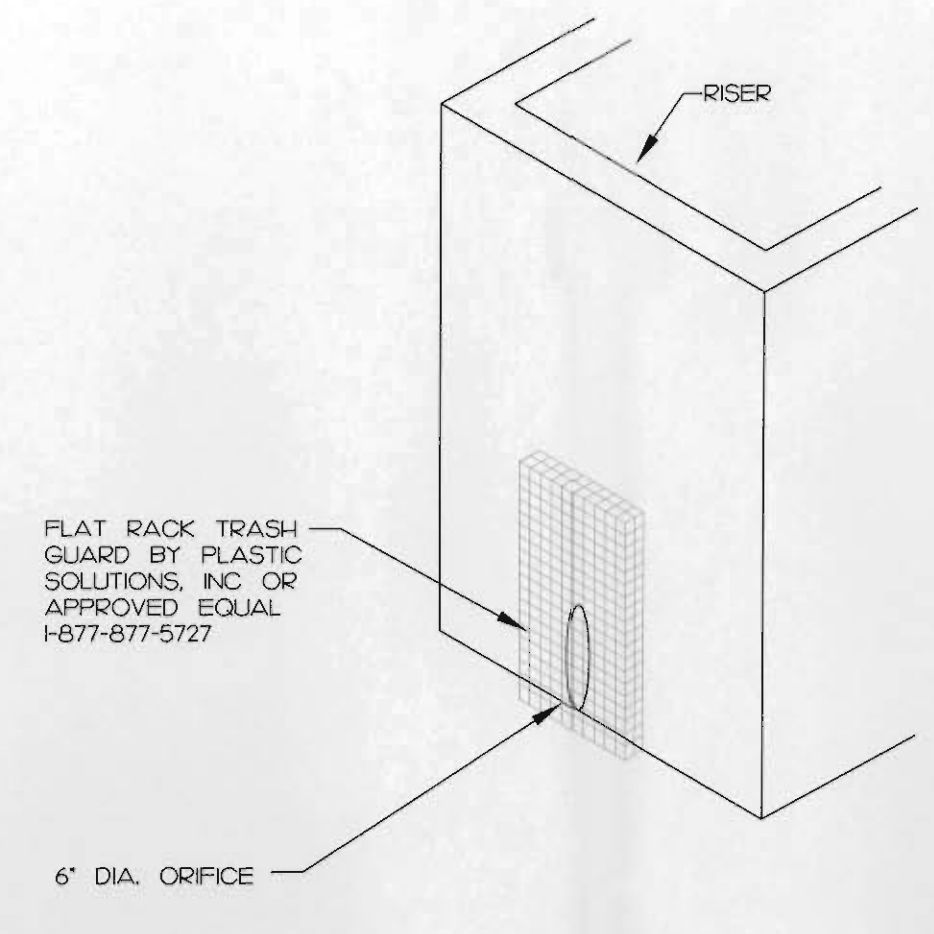
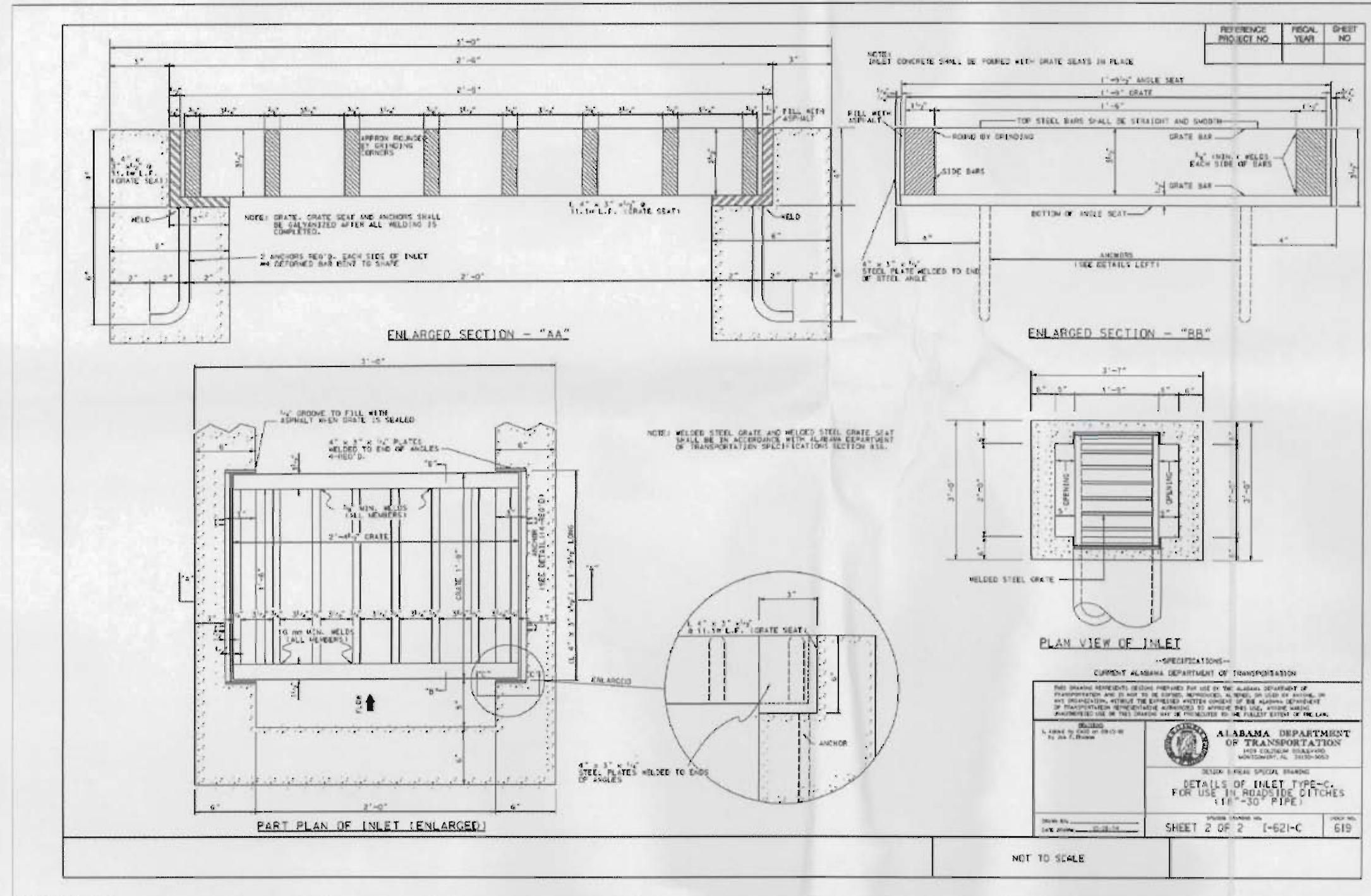
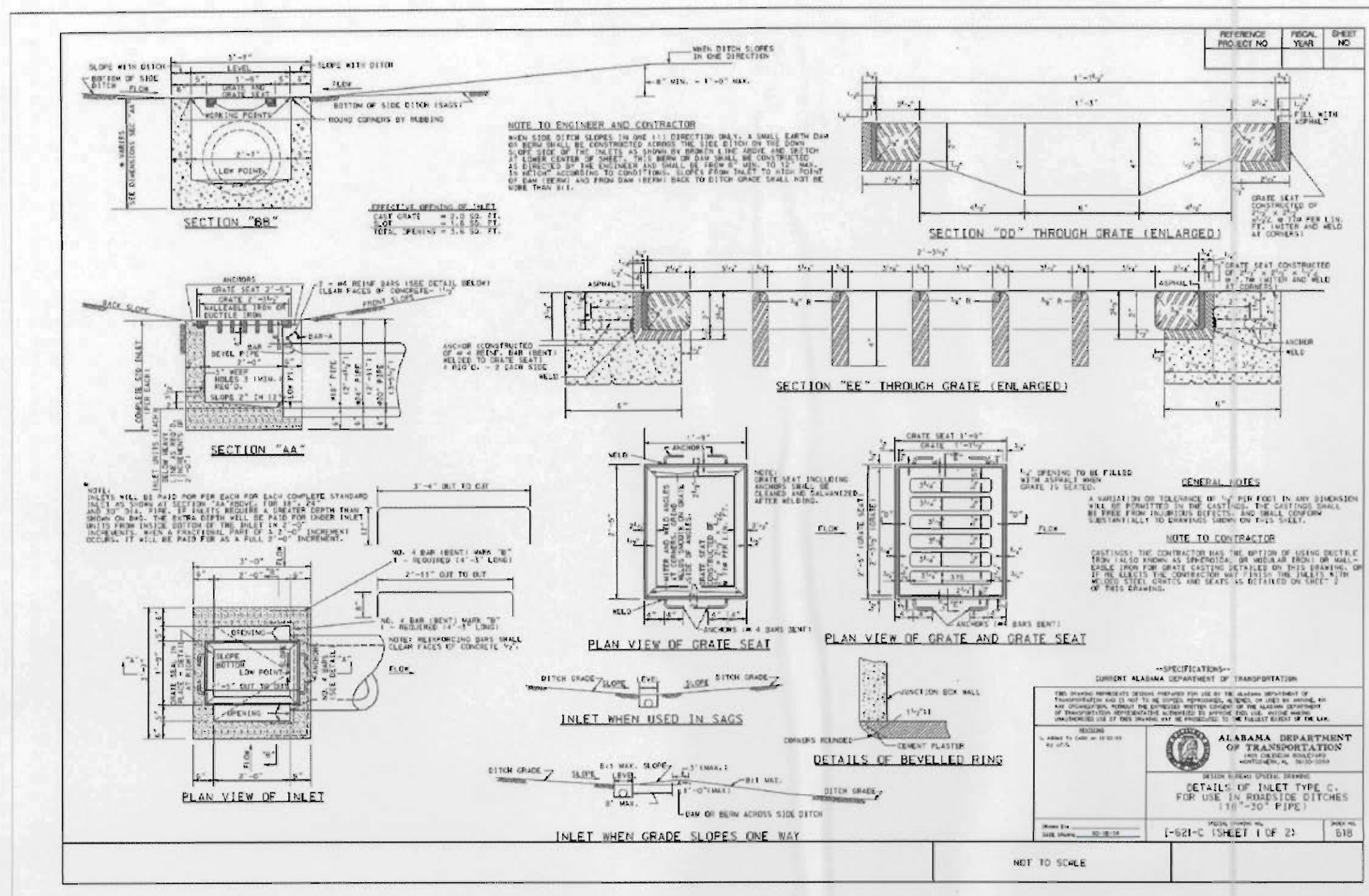
NOTE: MAINTAIN 18" VERTICAL SEPARATION BETWEEN STORM DRAIN AND ALL OTHER PROPOSED/EXISTING UTILITIES.

**Storm Sewer Tabulation**  
 (25-YR. STORM EVENT)

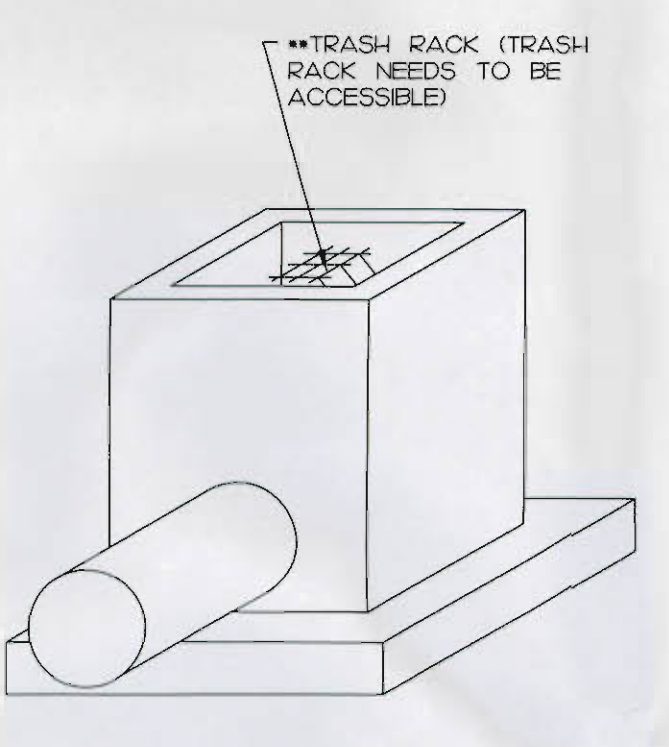
Line	Station	Len (ft)	Drng Area (ac)	Roff Total (ac)	Roff coeff (C)	Area x C		Tc (min)	Tc (min)	Rain (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line
						Incr	Total							Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	100.000	0.10	0.44	0.80	0.09	0.40	5.0	6.2	9.2	3.64	4.57	2.97	15	0.50	573.15	573.65	575.40	575.72	0.00	577.40	1-2
2	1	60.000	0.10	0.34	0.90	0.09	0.31	5.0	5.9	9.3	2.85	4.57	2.33	15	0.50	573.75	574.05	575.86	575.98	577.40	578.80	2-3
3	2	80.000	0.10	0.24	0.90	0.09	0.22	5.0	5.4	9.5	2.05	4.57	1.67	15	0.50	574.15	574.55	576.02	576.10	576.80	577.50	3-4
4	3	78.000	0.14	0.14	0.90	0.13	0.13	5.0	5.0	9.7	1.22	4.57	1.02	15	0.50	574.65	575.04	576.16	576.18	577.50	577.50	4-5
5	End	30.000	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	1.10	4.57	0.90	15	0.50	572.30	572.45	574.00	574.01	0.00	576.00	7-7A



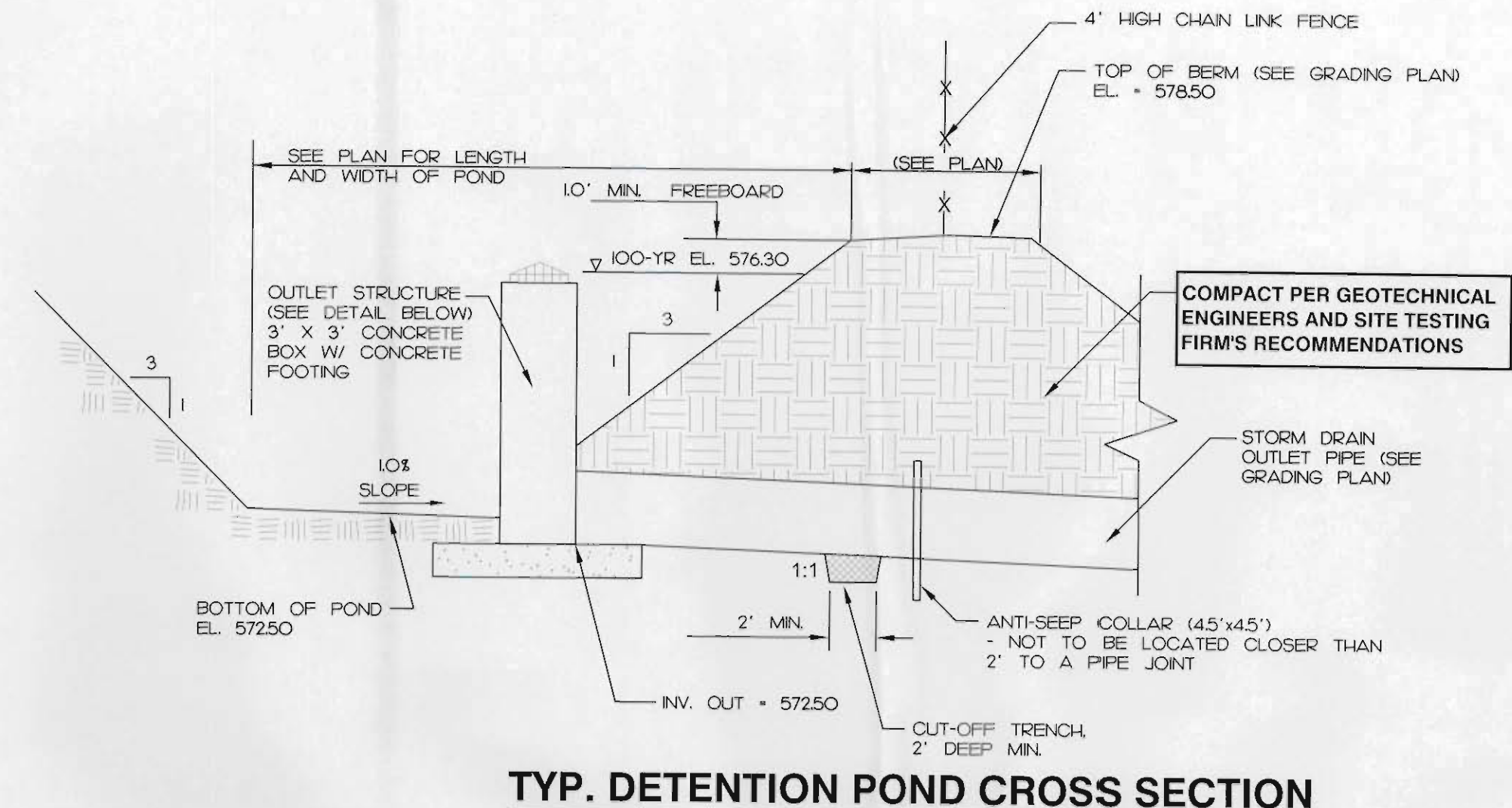
1. BEDDING SHALL BE COMPACTED CRUSHED STONE AND SHALL BE SHAPED TO THE BOTTOM OF THE PIPE.  
 2. SELECT FILL SHALL BE SELECT MATERIAL FREE OF LARGE ROCKS (3") AND SHALL BE PLACED IN 6" MAX. LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.



**ORIFICE TRASH GUARD DETAIL**  
N.T.S.

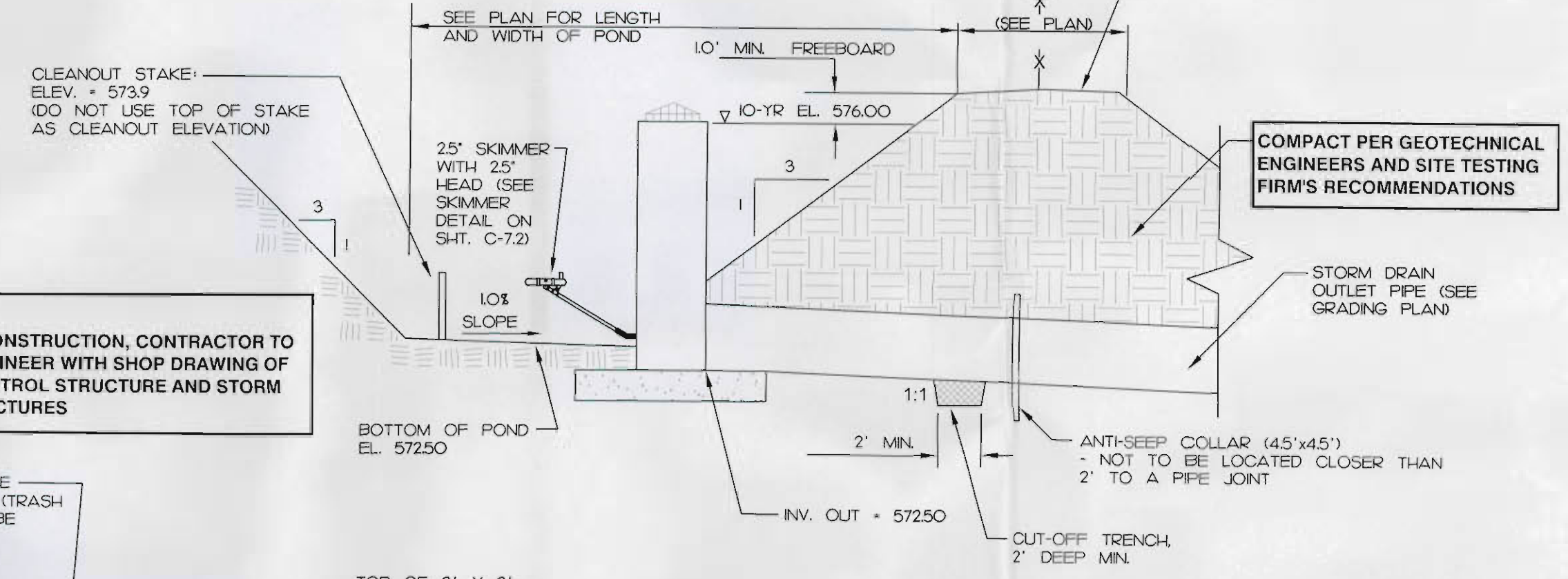


**OUTLET STRUCTURE TRASH RACK**  
N.T.S.

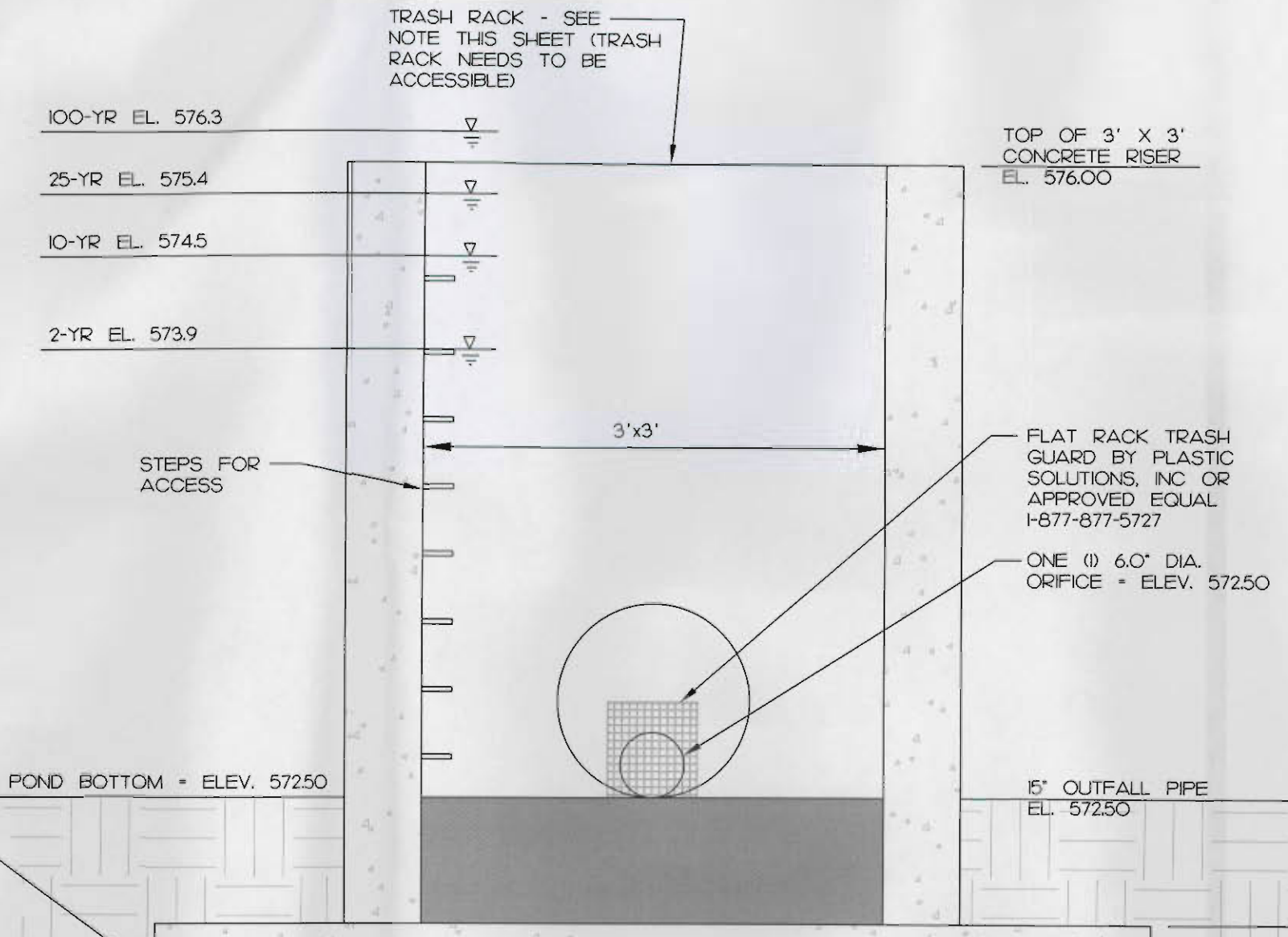


**TYP. DETENTION POND CROSS SECTION**  
N.T.S.

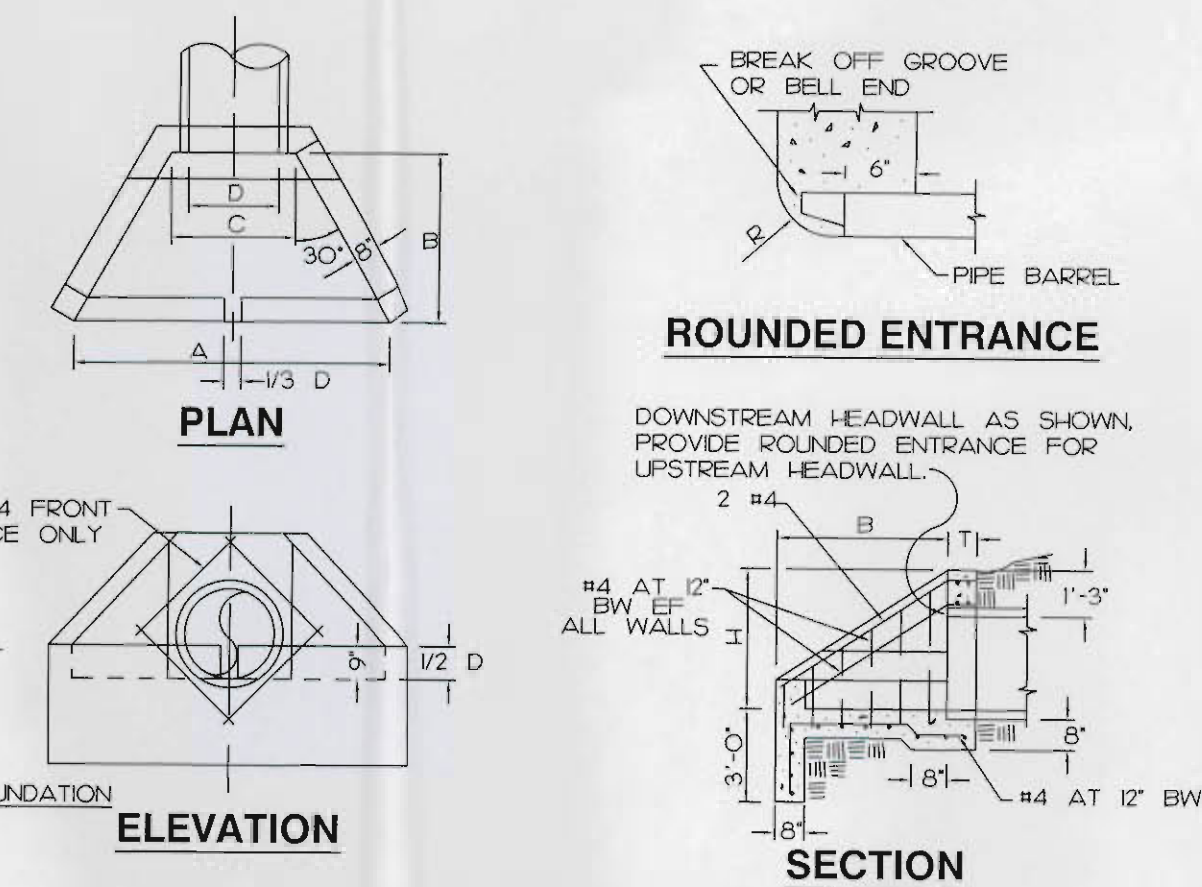
DURING CONSTRUCTION, CONTRACTOR TO BLOCK FINAL ORIFICE WITH TEMPORARY PLATE. PRIOR TO FINAL POND CONFIGURATION, CONTRACTOR SHALL CLEAN OUT SEDIMENT IN BASIN, THEN GRADE TO FINAL ELEVATIONS AS SHOWN ON THE GRADING PLAN. CONTRACTOR TO REMOVE SKIMMER DEVICE AND PATCH HOLE AND REMOVE TEMPORARY PLATE FROM FINAL 6' DIAMETER ORIFICE.



**POND DURING EROSION CONTROL PHASE**  
N.T.S.



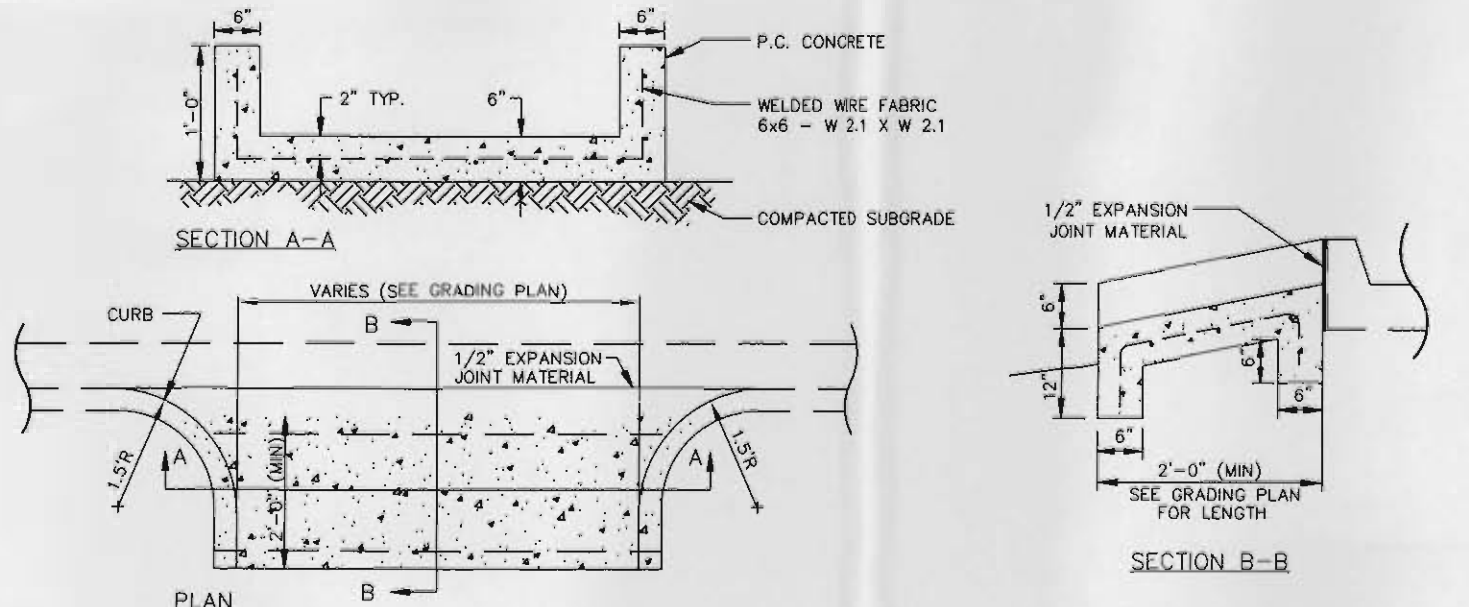
**DETENTION POND OUTLET STRUCTURE**  
N.T.S.



**REINFORCED CONCRETE HEADWALL**

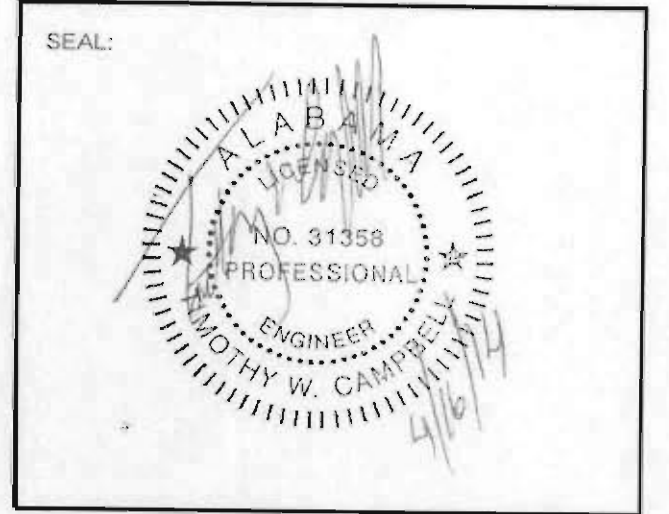
D	ALL SLOPES				SLOPE 1 1/2:1		SLOPE 2:1		SLOPE 3:1	
	H	R	C	A	B	A	B	A	B	
12'-24"	3'-3"	3	5/8"	2'-7"	6'-11"	3'-9"	8'-4"	5'-0"	11'-3"	7'-6"
27'	3'-6"	4	7/8"	7'-9"	4'-2"	9'-3"	5'-6"	12'-6"	8'-3"	
30'	3'-9"	4	1/2"	3'-3"	8'-6"	4'-6"	10'-2"	6'-0"	13'-8"	9'-0"
36'	4'-3"	5	1/2"	3'-11"	10'-11"	5'-3"	12'-0"	7'-0"	16'-1"	10'-6"
42'	4'-9"	6	3/8"	4'-7"	11'-6"	6'-0"	13'-0"	8'-0"	18'-6"	12'-0"
48'	5'-3"	6	1/2"	5'-11"	12'-11"	6'-9"	15'-6"	9'-0"	20'-8"	13'-5"
54'	5'-9"	6	3/4"	5'-8"	14'-4"	7'-6"	17'-3"	10'-0"	23'-0"	15'-0"
60'	6'-3"	7	6/8"	6'-2"	15'-9"	8'-3"	18'-11"	11'-0"	25'-3"	16'-6"

T = 8' FOR DOWNSTREAM HEADWALLS, T = (R+6) FOR UPSTREAM HEADWALL



**CONCRETE FLUME**  
N.T.S.

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**FAMILY DOLLAR**  
STORE #615  
SVC OF 32ND AVE N & US HWY 31  
CITY OF BIRMINGHAM, AL  
JEFFERSON COUNTY

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REVISIONS:  
CHECKED BY: TWC  
DRAWING BY: FSE  
DATE: 04/16/14

JOB NUMBER:  
TITLE:  
**STORM DRAIN & POND DETAILS**

SHEET NUMBER:  
**C-6.2**

COMMENTS:

**GENERAL LANDSCAPE NOTES & SPECIFICATIONS:**

**LAWN INSTALLATION:**  
LAWN AREAS SHALL BE FINE GRADED TO A SMOOTH POSITIVELY DRAINING SLOPE. REMOVING ALL STONES OVER 3/4". AGRICULTURAL LIMESTONE SHALL BE INCORPORATED INTO THE SOIL AT A RATE OF 50 POUNDS PER 1000 SQUARE FEET. APPLY SPECIFIED SEED AT RECOMMENDED RATE. STRAW MULCH OR HYDROMULCH SHALL BE USED AS DEEMED NECESSARY BY THE LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE TO ESTABLISH A FULL STAND OF GRASS AND WILL REPAIR ANY BARE SPOTS 1'-0" SQUARE DUE TO UNEVEN SEED DISTRIBUTION, DROUGHT OR EROSION.

**SOD INSTALLATION:**  
SODDED LAWN AREAS SHALL BE FINE GRADED TO A SMOOTH POSITIVELY DRAINING SLOPE. REMOVING ALL STONES OVER 3/4". SOD SHALL BE HEALTHY, THICK SOD PLACED SO THAT JOINTS ARE BUTT TIGHT. STAPLE AS NECESSARY. THICK SOD SHOULD BE TRIMMED TO MATCH BED LINES SHOWN ON PLAN. STARTUP FERTILIZER SHALL BE INCORPORATED INTO THE SOIL AT THE MANUFACTURER'S RECOMMENDED RATE. ANY AREA OF SOD THAT FAILS TO ROOT, SETTLES OR DIES WILL BE REPLACED BY THE LANDSCAPE CONTRACTOR.

**UTILITY LOCATION:**  
THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE UTILITY LOCATOR SERVICE AND IS RESPONSIBLE FOR ANY DAMAGE DONE TO UTILITIES.

**QUANTITIES:** PLANT QUANTITIES ARE SHOWN FOR THE CONTRACTOR'S CONVENIENCE ONLY. PLANTS SHALL BE INSTALLED AS SHOWN. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL QUANTITIES PRIOR TO BIDDING AND INSTALLATION.

**PREPARATION OF GROUND COVER AND SEASONAL COLOR BEDS:**  
THE EXISTING SOIL IN GROUND COVER AND SEASONAL COLOR BEDS SHALL BE THOROUGHLY CULTIVATED 6 INCHES DEEP, TO A FINE TEXTURE (NO CLODS OVER 1/2") WITH A MECHANICAL TILLER. A PLANT MIX OF 60% SCREENED SHREDDED TOPSOIL, 20% SAND, AND 20% WELL ROTTED SAWDUST OR PEAT SHALL THEN BE THOROUGHLY INCORPORATED INTO THE EXISTING SOIL WITH THE TILLER SO THAT THE SOIL MIX (6" DEEP) IS 1/2 ORIGINAL SOIL AND 1/2 PLANT MIX. ALL GROUND COVER AND SEASONAL COLOR BEDS SHALL RECEIVE A 2" LAYER OF FINE TEXTURED, SCREENED, PINE BARK MULCH, OR EQUAL. PLANTINGS NOT DONE IN THIS MANNER SHALL BE REMOVED AND PROPERLY REPLANTED.

**FERTILIZING:**  
UPON COMPLETION OF PLANTINGS, ALL SHRUBS SHALL RECEIVE 1/4 CUP OF 16-4-8 FERTILIZER (50% OF NITROGEN SLOW RELEASE) EVENLY BROADCAST AT THE BASE OF THE PLANTS. TREES SHALL RECEIVE 1/4 CUP OF 16-4-8 FERTILIZER (50% OF NITROGEN SLOW RELEASE) PER INCH OF CALIPER. GROUND COVER BEDS SHALL BE FERTILIZED AT THE RATE OF 20 POUNDS OF 16-4-8 (50% OF NITROGEN SLOW RELEASE) PER 1000 SQUARE FEET.

**STAKING OF TREES:**  
DECIDUOUS TREES, 1 1/2" IN CALIPER AND OVER, AND EVERGREEN TREES, 8' AND TALLER SHALL BE STAKED. RUBBERHOSE TO BE USED TO COVER THE WIRE AT THE POINT OF ITS CONTACT WITH THE TREE. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL WIND DAMAGE TO TREES, (PROVIDED WINDS ARE LESS THAN 60MPH) DURING THE GUARANTEE PERIOD, AND MAY STAKE OTHER TREES (FOR HIS OWN PROTECTION) AT HIS OPTION.

**TRANSPLANTS:**  
ALL PLANT MATERIAL TO BE TRANSPLANTED SHALL BE TRANSPORTED ACCORDING TO GUIDELINES SET BY AAN STANDARDS. TRANSPORTED MATERIAL WILL NOT BE GUARANTEED BY THE LANDSCAPE CONTRACTOR.

**MULCHING:**  
AS SPECIFIED ON PLANTING LIST, HARDWOOD MULCH: ALL BEDS TO RECEIVE A 3" LAYER OF AGED HARDWOOD BARK MULCH (FREE OF WOOD CHIPS OR LARGE CHUNKS OF BARK). FRESH HARDWOOD BARK MULCH IS NOT RECOMMENDED TO BE USED, AS WATER RUN-OFF MAY CAUSE STAINING ON ADJACENT CONCRETE SURFACES. ALL DAMAGES INCURRED BY THE USE OF FRESH HARDWOOD MULCH SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. PINESTRAW: ALL BEDS TO RECEIVE A 4" LAYER (PRIOR TO COMPACTION) OF PINESTRAW. AFTER NATURAL COMPACTION, PINESTRAW SHOULD HAVE A DEPTH OF 2". ALL TREES LOCATED IN LAWN AREAS SHALL RECEIVE A 3" DIAMETER RING OF MULCH. MULCH IN THESE AREAS IS TO FOLLOW THE ABOVE LISTED GUIDELINES.

**GRADING:**  
ALL FINAL GRADING SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. THE RESPONSIBILITY FOR ANY ADDITIONAL GRADING (IF NEEDED) SHALL BE DETERMINED PRIOR TO BIDDING.

**BACKFILL:**  
LANDSCAPE CONTRACTOR TO VERIFY ANY ADDITIONAL BACKFILL/TOPSOIL NEEDED PRIOR TO BEGINNING WORK. A UNIT PRICE FOR TOPSOIL SHALL BE INCLUDED IN ALL BID DOCUMENTS TO ALLOW FOR CIRCUMSTANCES THAT MIGHT ARISE DURING INSTALLATION.

**CLEAN UP:**  
FINAL CLEAN UP OF ANY DISTURBANCES OCCURRING AS A RESULT OF LANDSCAPE OPERATIONS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.

**INSPECTION:**  
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR INSPECTION OF THE PLANT MATERIAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. ALL PLANT MATERIAL WILL BE INSPECTED. PLANTS NOT CONFORMING PRECISELY TO THE PLANT LIST WILL NOT BE ACCEPTED AND SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.

**LICENSES:**  
THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL LICENSES NECESSARY TO COMPLETE THE WORK.

**INSURANCE:**  
WITH THE SUBMITTAL OF BID DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL ALSO SUBMIT A CERTIFICATE OF INSURANCE FOR WORKMAN'S COMPENSATION AND A CONTRACTOR'S GENERAL LIABILITY. CONTRACTORS NOT PROVIDING EVIDENCE OF SUCH INSURANCE WILL BE INELIGIBLE TO RECEIVE THE CONTRACT FOR THE JOB.

**GUARANTEE:**  
ALL PLANT MATERIAL AND WORKMANSHIP TO BE GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. PLANT REPLACEMENT TO OCCUR ONLY ONCE. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DEFECTS RESULTING FROM NEGLIGENCE BY THE OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS BEYOND THE LANDSCAPE CONTRACTOR'S CONTROL WHICH RESULT FROM NATURAL CAUSES SUCH AS FLOODS, LIGHTNING, STORMS, FREEZING RAINS, OR WINDS OVER 60 MILES PER HOUR, FIRE, VANDALISM OR THEFT.

**GENERAL IRRIGATION NOTES:**

- IRRIGATION CONTRACTOR TO PROVIDE GENERAL CONTRACTOR FINAL IRRIGATION DESIGN. IRRIGATION CONTRACTOR TO VERIFY HEAD LOCATION, PATTERN AND IS TO SIZE ALL PIPING TO PROVIDE MAXIMUM COVERAGE FOR THE LANDSCAPE WHILE UTILIZING THE SIZE IRRIGATION METER AS SHOWN.
- IRRIGATION CONTRACTOR TO PROVIDE INCH METER AND DOUBLE CHECK VALVE (VERIFY PRESSURE)
- VERIFY LOCATION OF METER / DOUBLE CHECK VALVE PRIOR TO BEGINNING WORK.
- IRRIGATION CONTRACTOR TO PROVIDE IRRIGATION CLOCK / CONTROLLER.
- GENERAL CONTRACTOR TO PROVIDE AND INSTALL SLEEVE(S) TO CLOCK LOCATION.
- GENERAL CONTRACTOR TO PROVIDE POWER SOURCE FOR CLOCK.
- IRRIGATION CONTRACTOR TO PROVIDE AND INSTALL ALL IRRIGATION SLEEVES
- WHERE APPLICABLE IRRIGATION CONTRACTOR MAY UTILIZE DRIP IRRIGATION FOR MOST OR SPRAYED-TYPE IRRIGATION HEADS. DRIP IRRIGATION SHALL NOT BE USED IN ANNUAL COLOR BEDS OR TURF AREAS. DRIP IRRIGATION SYSTEM SHALL CONFORM TO SPECIFICATIONS AS OUTLINED IN DRIP IRRIGATION INFORMATION BELOW.
- IRRIGATION HEADS LOCATED IN AREAS OF POTENTIAL VEHICULAR "ROLL-OVER" ARE TO SET A MINIMUM OF ONE (1) FOOT FROM BACK OF CURB TO PREVENT DAMAGE DUE TO TURNING VEHICLES.
- UNLESS DIRECTED BY OWNER, IRRIGATION COVERAGE WILL NOT BROADCAST OR THROW ONTO THE RIGHT-OF-WAY. ALL IRRIGATION WILL BE CONTAINED WITHIN THE PROPERTY LINES. ALL LIVE PLANTINGS PROPOSED SHALL BE IRRIGATED.



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ENGINEER  
GEOFFREY W. CAMPBELL  
4/16/11

**LANDSCAPING CALCULATIONS (APPENDIX A1-10):**

**PARKING LOT LANDSCAPING:**

- SQUARE FOOTAGE OF PAVED PARKING AND MANEUVERING AREAS IS 18,400 SF (GREATER THAN 4,000 SF)
- IF GREATER THAN 4,000 SF, CALCULATE GROSS SQUARE FOOTAGE OF LOT, 'A' = 51,600 SF
- CALCULATE TOTAL SQUARE FOOTAGE OF STRUCTURE FOOTPRINTS, 'B' = 9,180 SF
- FOR PARKING AREAS, A MINIMUM OF 5% (A-B X 5%) = 51,600 SF - 9,180 SF X 5% = 2,227 SF
- SINCE PARKING AREA IS GREATER THAN 10,000 SF, HALF OF THE 2,227 SF MUST BE LOCATED WITHIN INTERIOR LANDSCAPED ISLANDS. 1,113 SF MUST BE INTERIOR ISLANDS.
- 1,113 SF INTERIOR LANDSCAPING PROVIDED IN ADDITION TO 10,030 SHOWN FOR PARKING AREAS
- TOTAL = 2,227 SF PROVIDED + 2,227 SF REQUIRED.

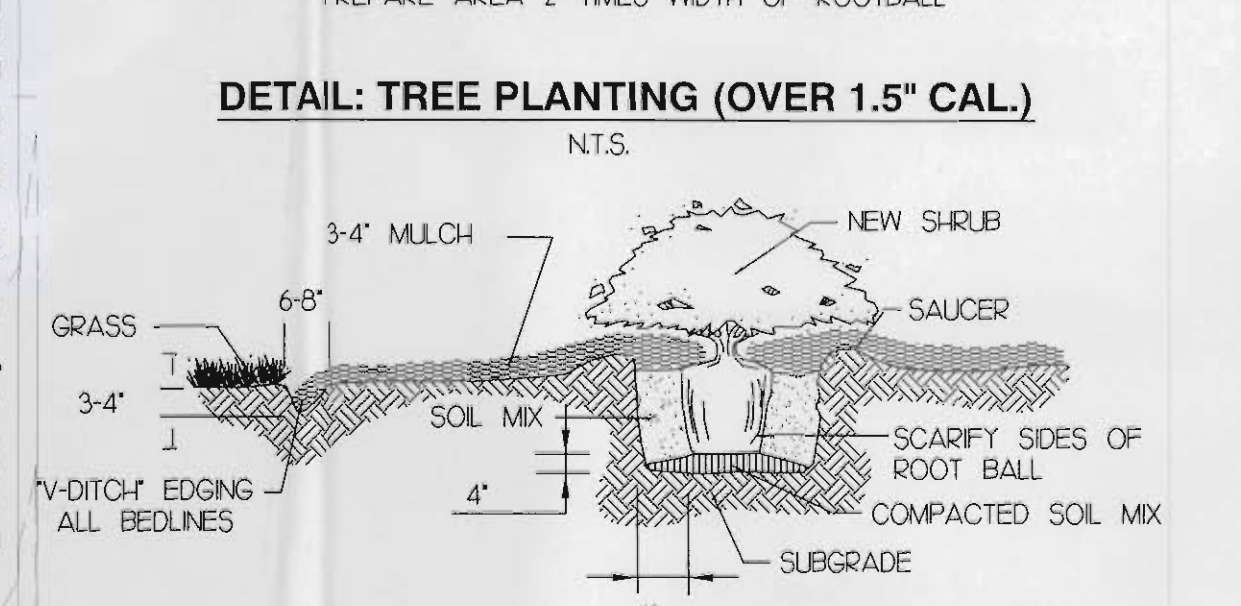
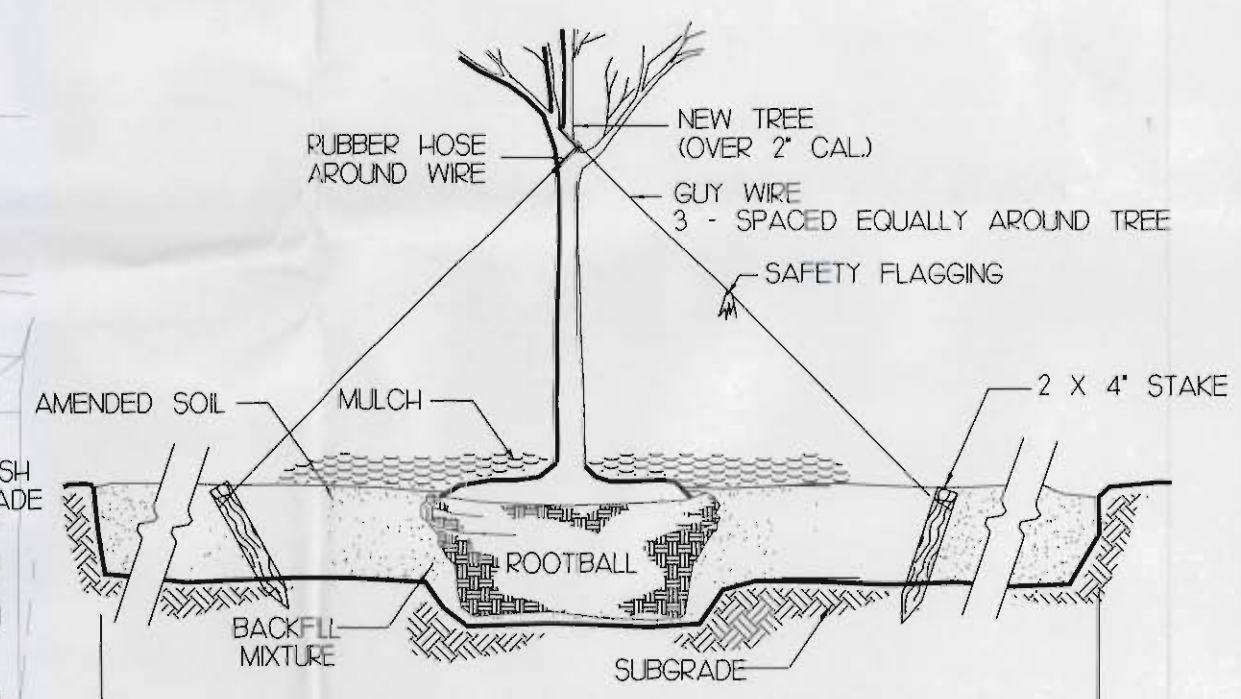
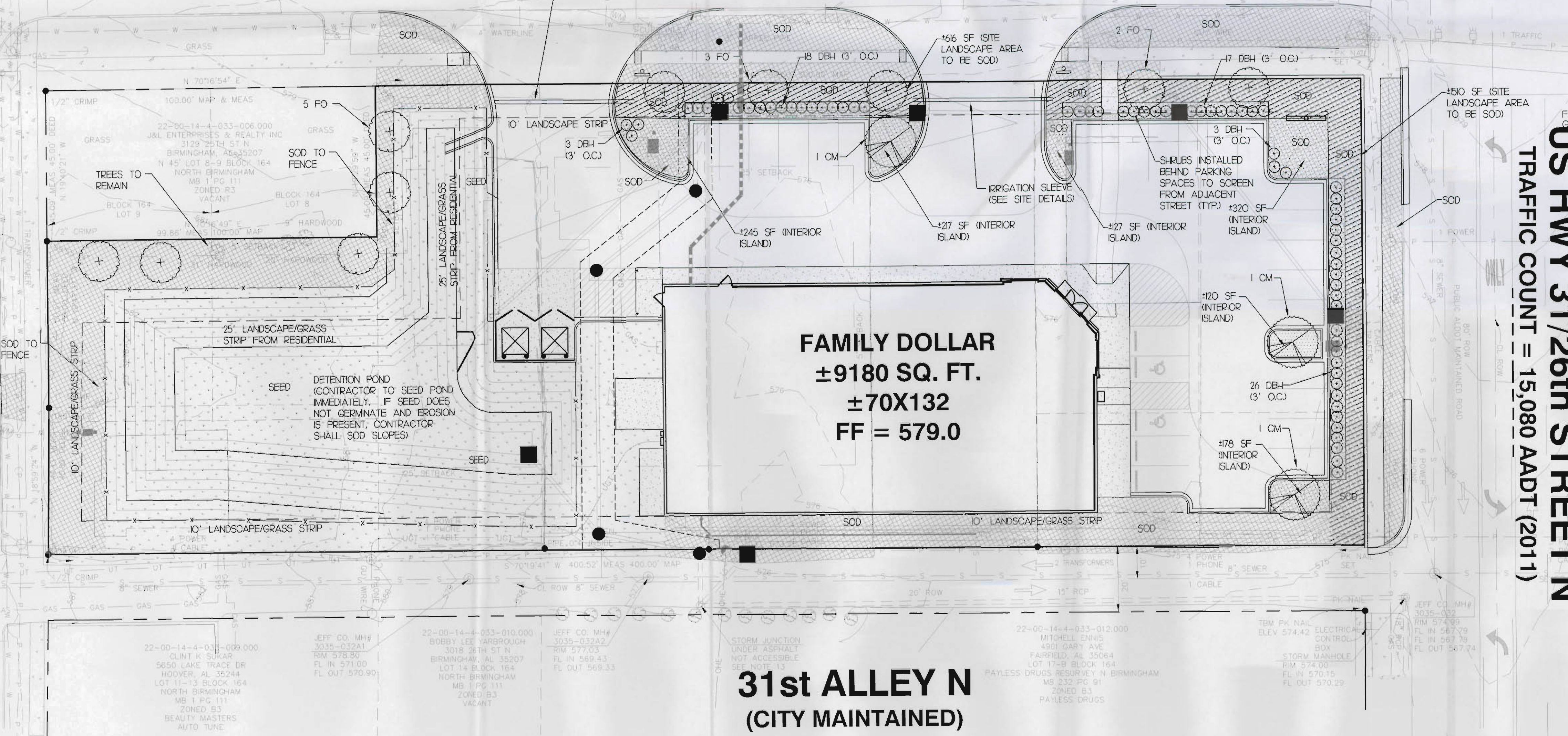
**SITE LANDSCAPING:**

- IN ADDITION TO PARKING LOT LANDSCAPING, THERE ARE ALSO AN OVERALL GENERAL LANDSCAPING REQUIREMENTS OF FIVE (5) PERCENT FOR SITE. THE SITE'S GROSS AREA 'X' = 51,600 SF.
- CALCULATE THE TOTAL SQUARE FOOTAGE OF ALL STRUCTURES. THE TOTAL STRUCTURAL FOOTPRINT 'Y' = 9,180 SF.
- CALCULATE THE SQUARE FEET OF THE PAVED/MANEUVERING AREAS. THE SUM TOTAL PARKING LOT AREA 'Z' = 18,400 SF.
- THE GENERAL FIVE PERCENT SITE LANDSCAPING REQUIREMENT SHALL BE DETERMINED AS: X - (Y + Z) TIMES 0.05 = 51,600 SF - (9,180 SF + 18,400 SF) X 0.05 = 1,200 SF. = 2,126 SF OF SITE LANDSCAPING SHOWN

PLANT LIST							
SYMBOL	KEY	QTY	COMMON NAME	BOTANICAL NAME	SIZE	SPACING	NOTES
⊗	CM	3	GRAPE MYRTLE	LAGERSTROEMIA 'NATCHEZ'	2.0" CALIPER	SEE PLAN	6' TALL • PLANTING
+	FO	10	FOSTER HOLLY	ILEX X ATTENUATA 'FOSTERI'	2.0" CALIPER	20" O.C.	6' TALL • PLANTING
⊙	DBH	67	DWARF BURFORD	ILEX CORNUTA 'BURFORDI NANA'	3 GAL.	3' O.C.	
■	SOD		BERMUDA				SEE DEMOLITION PLAN SHEET C-3.0 FOR EXISTING TREES AND VEGETATION TO BE REMOVED.
■	MULCH		HARDWOOD				

ALL SLOPES 3:1 OR STEEPER SHALL RECEIVE NORTH AMERICAN GREEN P3000 ALONG FACE OF SLOPE. MAXIMUM SLOPE SHALL BE 2:1

**32nd AVENUE N**  
(60' R/W - CITY MAINTAINED)



**811**  
Know what's below.  
Call before you dig.

0 20' 40' 60'  
1" = 20'

**FAMILY DOLLAR**  
STORE #615  
SWC OF 32ND AVE N & US HWY 31  
CITY OF BIRMINGHAM, AL  
JEFFERSON COUNTY

**DEVELOPER:**  
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DRAWING BY: FSE  
DATE: 04/16/14  
JOB NUMBER:  
TITLE: LANDSCAPE PLAN  
SHEET NUMBER: C-8.0  
COMMENTS:



CONCRETE PAVING, WALKS, CURBS, GUTTERS, AND APPROACHES

PART I - GENERAL

101 SECTION INCLUDES

- A. CONCRETE PEDESTRIAN TRAFFIC SURFACES (WALKS, RAMPS, ETC)
- B. CONCRETE VEHICULAR TRAFFIC SURFACES
- C. CONCRETE CURBS AND GUTTERS
- D. CONCRETE TRAFFIC APPROACHES AS SHOWN ON PLANS
- E. DUMPSTER PADS
- 103 REFERENCE PUBLICATIONS AND STANDARDS
- A. GOVERNING AUTHORITY:  
APPLICABLE STANDARDS AND REGULATIONS OF STATE AND MUNICIPAL AGENCIES HAVING GOVERNING AUTHORITY OVER THE WORK SPECIFIED IN THIS SECTION SHALL TAKE PRIORITY OVER ITEMS SPECIFIED HEREIN AND SHOWN ON THE DRAWINGS UNLESS THE WORK SPECIFIED FORTH HEREIN REQUIRE A SUPERIOR QUALITY WORK.
- B. MATERIAL STANDARDS:  
AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)
- C. CONCRETE STANDARDS:  
AMERICAN CONCRETE INSTITUTE (ACI) ACI-607 STANDARD SPECIFICATIONS FOR CONCRETE PAVEMENT AND BASES; ACI-309 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE

104 SUBMITTALS

- A. TESTING LABORATORY REPORTS:  
FURNISH THREE COPIES OF THE TEST REPORTS TO THE OWNER INDICATING RESULTS OF THE CYLINDER TEST.

PART II - PRODUCTS

- 2.01 FORM MATERIAL
  - A. AS SPECIFIED IN CONCRETE FORMWORK.
- 2.02 BASIC MATERIALS
  - A. CONCRETE:  
AS SPECIFIED IN CAST-IN-PLACE CONCRETE
  - B. REINFORCING STEEL:  
AS SPECIFIED IN CONCRETE REINFORCEMENT
- 2.03 MISCELLANEOUS MATERIALS
  - A. AIR ENTRAINING AGENT:  
ASTM C-626, MASTER BUILDERS OR EQUAL.
  - B. DISPERSING ADMIXTURE:  
ASTM C-494, MASTER BUILDERS OR EQUAL.
  - C. CURING COMPOUND:  
ASTM C-309, NO. 40W BY A. C. HORN COMPANY OR EQUAL.
  - D. JOINT FILLER:  
ASTM D1751 PRE-MOLDED FIBER FILLER, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
  - E. JOINT SEALER:  
ASTM D-190, CODE 235L
- 2.04 CONCRETE MIX DESIGN
  - A. CONTRACTOR SHALL EMPLOY AND PAY FOR AS A PART OF THE CONTRACT PRICE, THE SERVICES OF AN OWNER APPROVED INDEPENDENT TESTING LABORATORY TO DETERMINE ACTUAL DESIGN MIX TO BE USED, BASED ON THE FOLLOWING:  
1. ALL CONCRETE PAVED VEHICULAR USE AREAS:  
5000 PSI AT 28 DAYS.  
2. ALL CONCRETE SIDEWALK AND CURB & GUTTER:  
4000 PSI AT 28 DAYS.

PART III - EXECUTION

- 3.01 INSPECTION OF SUBGRADE
  - A. INSPECT SUBGRADES PREPARED AS SPECIFIED ELSEWHERE IN THESE SPECIFICATIONS AND REPORT ANY DEFICIENCIES TO THE OWNER BEFORE BEGINNING WORK. COMMENCEMENT OF WORK SHALL INDICATE ACCEPTANCE OF SUBGRADES BY THIS CONTRACTOR.
- 3.02 CONSTRUCTION
  - A. GENERAL:  
DELIVER AND PLACE CONCRETE AS SPECIFIED IN CAST-IN-PLACE CONCRETE.
  - B. CURBS AND GUTTERS:
    - 1. CONFIGURATIONS  
CONSTRUCT TO CROSS-SECTIONAL DETAILS SHOWN ON DRAWINGS AND AT INDICATED LOCATIONS. CURBS MAY BE FULLY FORMED OR PULLED AND TROWELED TO CONFIGURATIONS SHOWN ON THE DRAWINGS.
    - 2. REINFORCEMENT  
REINFORCE AS INDICATED ON THE DRAWINGS WITH CONTINUOUS REINFORCING BARS LAPPED 30 BAR DIAMETERS AND SECURELY TIED AT ALL SPLICES. METAL CHAIRS SHALL BE USED TO HOLD THE REINFORCING STEEL IN THE PROPER PLANE.
    - 3. EXPANSION JOINTS  
CONSTRUCT 1/2" WIDE EXPANSION JOINTS WITH JOINT FILLER ACROSS LENGTHS OF CURB AT ALL TANGENT POINTS AND AT NOT MORE THAN TWENTY FOOT INTERVALS. CONSTRUCT ONE INCH WIDE EXPANSION JOINTS WITH JOINT FILLER BETWEEN CURBS AND CONCRETE PAVING. ALL FIXED OBJECTS, SUCH AS BUILDINGS, POLES, PIPES, CATCH BASINS, ETC. WITHIN OR ABUTTING THE CONCRETE SHALL BE SEPARATED FROM THE CONCRETE BY EXPANSION JOINTS.
    - 4. FINISHING  
FINISH SURFACES WITH DENSE UNIFORM TEXTURE EQUAL TO BURLAP DRAG AND CROSS-SCORE WITH 1/4" DEEP CROSS JOINTS AT TEN FOOT INTERVALS WITH EDGES SMOOTHED 1/8".

5. JOINTS

- FILL EXPANSION JOINTS WITH JOINT FILLER EXCEPT FOR SPACE 3/4" DEEP AT SURFACE AFTER CONCRETE HAS SET. CLEAN THE OPEN JOINT ABOVE FILLER AND FILL WITH JOINT SEALER IN ACCORDANCE WITH INSTRUCTIONS OF SEALER MANUFACTURER.
- C. TRAFFIC APPROACHES, VEHICULAR TRAFFIC SURFACES, AND DUMPSTER PADS:
  - 1. CONFIGURATION  
CONSTRUCT TO CROSS-SECTIONAL DETAILS SHOWN ON DRAWINGS AND AT INDICATED LOCATIONS.
  - 2. REINFORCEMENT  
REINFORCE WITH #4 MINIMUM SIZE REINFORCING BARS 18 INCHES ON CENTER BOTH WAYS, UNLESS OTHERWISE INDICATED OR NOTED ON THE DRAWINGS.
  - 3. EXPANSION AND CONSTRUCTION JOINTS  
AT INTENTIONAL POINTS FOR STOPPAGE OF CONCRETE PLACING, USE EXPANSION JOINTS. AT UNINTENTIONAL POINTS OF STOPPAGE OF CONCRETE PLACING, USE CONTINUATION OF REINFORCING THROUGH JOINTS. CONSTRUCT 1/2 INCH WIDE EXPANSION JOINTS WITH JOINT FILLER AT LOCATIONS SHOWN ON THE DRAWINGS OR AT NOT MORE THAN FIFTEEN FOOT INTERVALS EACH WAY. IF NOT SHOWN, CONSTRUCT 1/2 INCH WIDE EXPANSION JOINTS WITH JOINT FILLER BETWEEN CURBS AND CONCRETE PAVING. ALL FIXED OBJECTS, SUCH AS BUILDINGS, POLES, PIPES, CATCH BASINS, ETC. WITHIN OR ABUTTING THE CONCRETE SHALL BE SEPARATED FROM THE CONCRETE BY EXPANSION JOINTS.
  - 4. JOINT FILLING AND SEALING  
FILL EXPANSION JOINTS WITH JOINT FILLER EXCEPT FOR SPACE 3/4" DEEP AT SURFACE AFTER CONCRETE HAS SET. CLEAN THE OPEN JOINT ABOVE FILLER AND FILL WITH JOINT SEALER IN ACCORDANCE WITH INSTRUCTIONS OF SEALER MANUFACTURER.
  - 5. FINISHING  
VIBRATE, SMOOTHE AND FLOAT CONCRETE TO LEVEL AND TEST THE SURFACE WHICH SHALL NOT VARY OVER 1/4" IN TEN FEET WHEN TESTED WITH TEN FOOT STRAIGHT EDGE. FINISH SURFACE TO GRITTY TEXTURE WITH BURLAP DRAG OR STRAIGHT CONTINUOUS STROKES WITH A STIFF BRISTLE PUSH BROOM. FINISH ALL EDGES SMOOTH WITH 1/8" OR 1/4" RADIUS.
- D. WALKS
  - 1. REFER TO ARCHITECTURAL SPECS/DRAWINGS.

3.03 CURING CONCRETE

- A. APPLY A WHITE-PIGMENTED TYPE CURING COMPOUND AT A UNIFORM RATE OF APPROXIMATELY 200 TO 500 FT/GALLON OR AS RECOMMENDED BY CURING COMPOUND MANUFACTURER AS SOON AS FINISHING OPERATION HAS BEEN COMPLETED AND THE CONCRETE HAS LOST ITS WATER SHEEN. THE CURING PROCEDURE MUST PROTECT THE CONCRETE, INCLUDING ALL EXPOSED SURFACES AGAINST LOSS OF MOISTURE AND RAPID TEMPERATURE CHANGE FOR A PERIOD OF NOT LESS THAN FOUR DAYS FROM THE BEGINNING OF THE CURING OPERATION AND WITHOUT DAMAGE TO OR MARKING OF THE FINISHED CONCRETE SURFACE. TRAFFIC SHALL NOT BE ALLOWED ON FINISHED CONCRETE FOR A MINIMUM PERIOD OF SEVEN DAYS.

3.04 TESTING

- A. INDEPENDENT TESTING LABORATORY:  
CONTRACTOR SHALL EMPLOY AND PAY FOR AS A PART OF THE CONTRACT PRICE, THE SERVICES OF AN OWNER APPROVED INDEPENDENT TESTING LABORATORY TO PERFORM CONCRETE CYLINDER TESTING. TEST CYLINDERS SHALL BE TAKEN AND CURED BY THE CONTRACTOR AND TESTED BY THE TESTING LABORATORY FOR EACH DIFFERENT CLASS OF CONCRETE POURED IN ANY ONE DAY. CYLINDERS SHALL BE TAKEN IN ACCORDANCE WITH ASTM C31 AND CURED AND TESTED IN ACCORDANCE WITH ASTM C39. ONE SET OF THREE CYLINDERS IS REQUIRED FOR EACH 50 CUBIC YARDS OF CONCRETE OR LESS, PLACED IN ANY ONE DAY. ONE CYLINDER SHALL BE TESTED AT 7 DAYS, ONE CYLINDER SHALL BE TESTED AT 28 DAYS AND ONE CYLINDER SHALL BE HELD AS A SPARE FROM EACH SET OF THREE CYLINDERS AS SPECIFIED ABOVE.
- B. CONTRACTOR TESTS:
  - 1. SLUMP TESTS  
SLUMP TESTS SHALL BE TAKEN BY THE CONTRACTOR WHEN CYLINDERS ARE TAKEN AND SHALL SHOW MAXIMUM SLUMP 5" AND MINIMUM SLUMP 3".
  - 2. AIR ENTRAINMENT  
AIR CONTENT BY VOLUME: 4% TO 6% BASED ON MEASUREMENTS MADE IN CONCRETE MIXTURES AT POINT OF DISCHARGE AT JOB SITE. AT TIME SLUMP TESTS ARE MADE, AIR CONTENT BY VOLUME SHALL BE DETERMINED IN ACCORD WITH ASTM C231.
- 3.05 CLEANING CONCRETE
  - A. CONCRETE APPROACHES, SIDEWALKS AND RELATED WORK SHALL BE HOSED DOWN WITH WATER, SCRUBBED WITH FIBER BRUSHES, ALLOWED TO DRY AND BE LEFT BROOM CLEAN AND IN CONDITION ACCEPTABLE TO THE OWNER.
- 3.06 CLEAN-UP
  - A. UPON COMPLETION OF WORK OF THIS SECTION REMOVE RELATED DEBRIS FROM PREMISES.

END OF SECTION

ASPHALTIC CONCRETE PAVING

PART I - GENERAL

- 101 SECTION INCLUDES
  - A. PAVING BASE
  - B. BASE COURSE AND SURFACE COURSE
- 102 REFERENCE STANDARDS
  - A. AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS (AASHTO)
  - B. AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM)
  - C. GOVERNING AUTHORITY: APPLICABLE PUBLICATIONS OF GOVERNING BODIES HAVING JURISDICTION OVER THE WORK.
  - D. AL DOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURE: 1991 SECTIONS 400 PAGE 29 FOR TYPE F OR TYPE H FOR SURFACE COURSE MIX AND SECTION 400 FOR TYPE B-MODIFIED FOR E ASPHALT BASE FOR BINDER.
  - E. APPLICABLE STANDARDS AND REGULATIONS OF STATE AND MUNICIPAL AGENCIES HAVING GOVERNING AUTHORITY OVER THE WORK SPECIFIED IN THIS SECTION SHALL TAKE PRIORITY OVER ITEMS SPECIFIED HEREIN AND SHOWN ON THE DRAWINGS UNLESS THE REQUIREMENTS SET FORTH HEREIN REQUIRE A SUPERIOR QUALITY WORK.
- 103 SUBMITTALS
  - A. SUBMIT THREE COPIES OF DESIGN MIX TEST REPORTS TO OWNER.

PART II - PRODUCTS

- 2.01 MATERIALS
  - A. SUB-BASE:  
ONLY IF SHOWN ON THE SITE PLAN DRAWINGS AND SPECIFIED IN OTHER SECTIONS OF THESE SPECIFICATIONS
  - B. BASE COURSE (BINDER):  
UNLESS OTHERWISE SHOWN ON THE DRAWINGS, UNIFORM MIX OF COARSE AGGREGATE AND ASPHALT AS DETERMINED BY DESIGN MIX
  - C. SURFACE COURSE:  
UNLESS OTHERWISE SHOWN ON THE DRAWINGS, UNIFORM MIX OF COARSE AGGREGATE AND FINE AGGREGATE (PEA GRAVEL) WILL NOT BE ACCEPTABLE. MINERAL FILLER AND ASPHALT AS DETERMINED BY DESIGN MIX
  - D. DESIGN MIXES:  
CONTRACTOR SHALL EMPLOY AND PAY FOR THE SERVICES OF AN OWNER APPROVED INDEPENDENT TESTING LABORATORY TO DETERMINE DESIGN MIXES FOR BASE AND SURFACE COURSES, INCLUDING ASPHALT BITUMEN CONTENT. ASTM D1772 LATEST EDITION, ENTITLED, "QUANTITATIVE EXTRACTION OF BITUMEN FROM BITUMINOUS PAVING MIXTURES"

PART III - EXECUTION

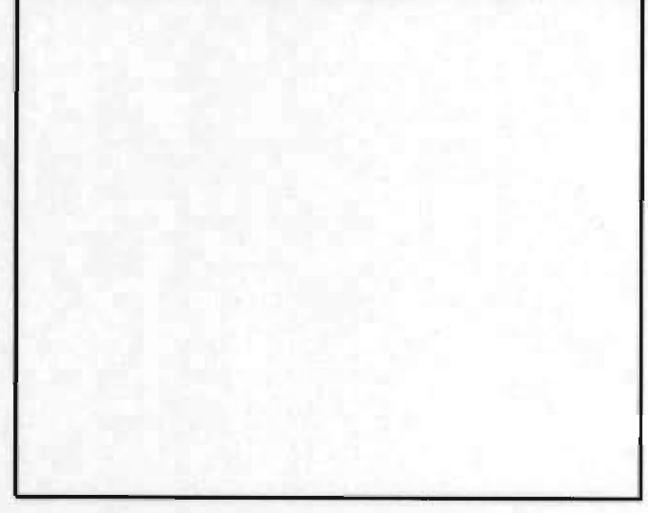
- 3.01 GRADE CONTROL
  - A. ESTABLISH AND MAINTAIN LINES AND GRADES SHOWN ON DRAWINGS BY MEANS OF LINE AND GRADE STAKES.
- 3.02 TRANSPORTATION
  - A. TRANSPORT PAVING MIXES FROM APPROVED MIXING PLANT TO SITE IN TIGHT VEHICLES WITH METAL BOTTOMS PREVIOUSLY CLEANED OF FOREIGN MATERIALS. VEHICLES SHALL BE SUITABLY INSULATED TO AVOID HEAT LOSSES. COVER EACH LOAD TO PREVENT COOLING AND LOSS OF INGREDIENTS.
- 3.03 PLACING
  - A. GENERAL:  
THICKNESS SHOWN ON SITE DRAWINGS, UNLESS OTHERWISE SHOWN ON THE DRAWINGS, PLACE ASPHALTIC CONCRETE IN TWO COURSES, FIRST A COARSE GRADED BASE COURSE AND SECOND A FINE GRADED SURFACE COURSE. APPLY BASE COURSE TO PREPARED SUB-BASE (WHEN APPLICABLE) WHICH HAS BEEN PRIMED WITH ASPHALT MCH. APPLICATION TEMPERATURE 90 TO 120 DEGREES F. AT A RATE OF 0.9 TO 0.40 GAL/50 YD. APPLY SURFACE COURSE TO BASE COURSE TO WHICH HAS BEEN APPLIED A TACK COAT OF ASPHALT RC-2. APPLICATION TEMPERATURE 100 TO 175 DEGREES F. AT RATE OF 0.05 TO 0.25 GAL/50 YD. PLACE EACH COURSE UNDER TEMPERATURE CONDITIONS OF 40 TO 90 DEGREES F.
  - B. MEANS:  
DUMP AND SPREAD MIXTURE ON PRIMED BASE WITH SPREADING AND FINISHING MACHINE SO THAT AFTER COMPACTION, SURFACE WILL BE SMOOTH OF UNIFORM DENSITY AND MEETS REQUIREMENTS FOR TYPICAL CROSS-SECTION SHOWN. OTHER PLACING MEANS MAY BE PROPOSED.
  - C. TIME AND TEMPERATURE:  
PLACE AND INITIALLY ROLL DURING DAYLIGHT HOURS. MIXTURE PLACING TEMPERATURE, BETWEEN 225 AND 325 DEGREES F.
  - D. PROTECTION OF CURBS AND GUTTERS:  
PREVENT SPLATTERING OF ADJACENT CURBS, GUTTER, CONCRETE PAVING AND STRUCTURES. HAND SPREADING MAY BE EMPLOYED WHERE MACHINE IS IMPRACTICAL.
  - E. FINISH GRADES:  
APPROXIMATELY 6 INCHES BELOW ADJACENT CONCRETE SIDEWALKS, AND/OR CURBS, EXCEPT AS SPECIFICALLY SHOWN OTHERWISE ON THE DRAWINGS. TRUE TO GRADES SHOWN AND STRAIGHT WITHIN 1/4 INCH IN 10 FEET WHEN CHECKED WITH A STRAIGHT EDGE. NO "BIRD BATHS" WILL BE ALLOWED.

3.04 ROLLING

- A. GENERAL:  
AFTER ROLLING WITH MEDIUM WEIGHT STEEL-WHEELED ROLLER, ROLL WITH PNEUMATIC THREE OR TANDEM ROLLERS LONGITUDINALLY AT SIDES AND PROCEED TOWARD CENTER OF PAVEMENT, OVERLAPPING ON SUCCESSIVE TRIPS BY AT LEAST HALF WIDTH OF REAR WHEELS. ALTERNATE TRIPS OF ROLLER SHALL BE SLIGHTLY DIFFERENT IN LENGTH.
- B. COMPRESSION AND ROLLER MARKS:  
ROLL UNTIL NO FURTHER COMPRESSION CAN BE OBTAINED AND ROLLER MARKS ARE ELIMINATED. REQUIRED ROLL DIAGONALLY IN EACH DIRECTION WITH TANDEM ROLLER WITH SECOND DIAGONAL ROLLING CROSSING LINE OF FIRST ROLLING. PREVENTION OF MIXTURE ADHESION TO ROLLER:  
KEEP WHEELS MOISTENED WITH WATER. EXCESSIVE USE OF WATER WILL NOT BE PERMITTED. DO NOT PERMIT ROLLERS TO STAND ON PAVEMENT WHICH HAS NOT BEEN FULLY COMPACTED AND WHICH HAS NOT COOLED TO ATMOSPHERIC TEMPERATURE.  
DISPLACEMENT:  
KEEP MOVEMENT OF ROLLER SLOW ENOUGH TO AVOID DISPLACEMENT OF MIXTURE. CORRECT ANY DISPLACEMENT AT ONCE BY USE OF RAKES AND ADDITION OF FRESH MIXTURE.  
PRECAUTIONS:  
PREVENT DROPPING OF OIL, GASOLINE AND GREASE ON PAVEMENT.  
HAND OPERATIONS:  
THOROUGHLY COMPACT EDGES OF PAVEMENT ALONG CURBS, LEADERS, APRONS, MANHOLES, VALVE BOXES AND SIMILAR PLACES NOT ACCESSIBLE TO ROLLER WITH LIGHTLY OILED HAND-OPERATED VIBRATING ROLLERS OR MECHANICAL TAMPERS.
- 3.05 SPECIAL TESTING
  - A. EXTRACTION AND GRADATION TEST:  
ASTM D1772 FOR EACH TYPE NUMBER AND LOCATION TO BE DETERMINED ON THE JOB BY THE OWNER.
  - B. FIELD-IN-PLACE DENSITY TEST:
  - C. THICKNESS TEST:  
ASTM D188 FOR EACH TYPE NUMBER AND LOCATION TO BE DETERMINED ON THE JOB BY THE OWNER.  
DETERMINE BY TEST BORINGS, MAKE ONE TEST FOR EACH 5000 SQ FT OF PAVING SURFACE. IF AVERAGE THICKNESS IS DEFICIENT BY NO MORE THAN 1/4 INCH AND NO INDIVIDUAL THICKNESS IS DEFICIENT BY MORE THAN 5/8 INCH, INSTALLATION WILL BE HELD TO MEET REQUIREMENTS. IF AVERAGE THICKNESS IS DEFICIENT BY MORE THAN 1/4 INCH OR IF ANY INDIVIDUAL THICKNESS DETERMINATION IS DEFICIENT BY MORE THAN 5/8 INCH, PAVEMENT THICKNESS WILL BE HELD TO NOT MEET REQUIREMENTS. DEFICIENT AREAS SHALL BE DEFINED, REMOVED AND REPLACED, OR ADJUSTED TO DESIGN THICKNESS BY METHODS ACCEPTABLE TO THE OWNER.
- 3.06 CLEAN-UP
  - A. UPON COMPLETION OF WORK OF THIS SECTION REMOVE RELATED DEBRIS FROM PREMISES.

END OF SECTION

PLANS PREPARED BY:  
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JEFFERSON COUNTY

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DATE: 04/16/14  
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TITLE:  
**SITWORK SPECIFICATIONS**  
SHEET NUMBER:  
**C-9.1**  
COMMENTS: