Civil Engineering | Land Surveying | Landscape Architecture
Environmental | Water Resources | Laser Scanning + Modeling
SCHOEL
1001 22nd Street South
Birmingham, Alabama 35205
205.323.6166
7500 Memorial Pkwy SW, Ste 209
Huntsville, Alabama 35802
256.539.1221
Schoel.com

CONSTRUCTION PLANS FOR
TERRACES AT HIGH MOUNTAIN

PREPARED FOR ZIMMER DEVELOPMENT COMPANY
4130 HIGH MOUNTAIN ROAD NE - HUNTSVILLE, ALABAMA

SECTION 20 - TOWNSHIP 3 SOUTH - RANGE 1 EAST - MADISON COUNTY

HUNTSVILLE UTILITIES ELECTRIC DEPARTMENT

THE HUNTSVILLE UTILITIES ELECTRIC DEPARTMENT HAS REVIEWED THE REQUIRED SUBMISSION MATERIAL FOR THE PROPOSED SUBDIVISION IN SUFFICIENT DETAIL TO DETERMINE THAT SERVICE CAN BE MADE AVAILABLE. WHEN IMPROVEMENTS ARE COMPLETED, "AS BUILT" CONSTRUCTION PLANS WILL BE SUBMITTED TO THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT.

THIS THE _____ DAY OF _____,2021

_____
NAME AND TITLE
HUNTSVILLE UTILITIES ELECTRIC DEPARTMENT

HUNTSVILLE UTILITIES GAS DEPARTMENT

THE HUNTSVILLE UTILITIES GAS DEPARTMENT HAS REVIEWED THE REQUIRED SUBMISSION MATERIAL FOR THE PROPOSED SUBDIVISION IN SUFFICIENT DETAIL TO DETERMINE THAT SERVICE CAN BE MADE AVAILABLE. WHEN IMPROVEMENTS ARE COMPLETED, "AS BUILT" CONSTRUCTION PLANS WILL BE SUBMITTED TO THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT.

THIS THE _____ DAY OF _____,2021

_____
NAME AND TITLE
HUNTSVILLE UTILITIES GAS DEPARTMENT

HUNTSVILLE UTILITIES WATER DEPARTMENT

THE HUNTSVILLE UTILITIES WATER DEPARTMENT HAS REVIEWED THE REQUIRED SUBMISSION MATERIAL FOR THE PROPOSED SUBDIVISION IN SUFFICIENT DETAIL TO DETERMINE THAT SERVICE CAN BE MADE AVAILABLE. WHEN IMPROVEMENTS ARE COMPLETED, "AS BUILT" CONSTRUCTION PLANS WILL BE SUBMITTED TO THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT.

THIS THE _____ DAY OF _____,2021

_____
NAME AND TITLE
HUNTSVILLE UTILITIES WATER DEPARTMENT

CABLE TV COMPANY

THE _____ REVIEWED THE REQUIRED SUBMISSION MATERIAL FOR THE PROPOSED SUBDIVISION IN SUFFICIENT DETAIL TO DETERMINE THAT SERVICE CAN BE MADE AVAILABLE. WHEN IMPROVEMENTS ARE COMPLETED, "AS BUILT" CONSTRUCTION PLANS WILL BE SUBMITTED TO THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT.

THIS THE _____ DAY OF _____,2021

_____
NAME AND TITLE
CABLE TV COMPANY

TELEPHONE COMPANY

THE _____ REVIEWED THE REQUIRED SUBMISSION MATERIAL FOR THE PROPOSED SUBDIVISION IN SUFFICIENT DETAIL TO DETERMINE THAT SERVICE CAN BE MADE AVAILABLE. WHEN IMPROVEMENTS ARE COMPLETED, "AS BUILT" CONSTRUCTION PLANS WILL BE SUBMITTED TO THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT.

THIS THE _____ DAY OF _____,2021

_____
NAME AND TITLE
TELEPHONE COMPANY

HUNTSVILLE GENERAL NOTES

1. A CONSTRUCTION PERMIT WILL BE REQUIRED FROM THE CITY ENGINEERING DIVISION BEFORE CONSTRUCTION BEGINS.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM THE ADJOINING STREETS DURING CONSTRUCTION. ANY DAMAGE TO ADJOINING AND EXISTING STREETS MUST BE REPAIRED BY THE CONTRACTOR DURING THE CONSTRUCTION OF THIS SUBDIVISION.
3. NO FILL DIRT SHALL BE PLACED ON THE PROPERTY THAT MIGHT INTERFERE WITH DRAINAGE FLOW FROM ADJACENT PROPERTY. STORM DRAINAGE SYSTEM SHALL BE INSTALLED PRIOR TO FILL MATERIAL BEING PLACED.
4. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR TVI, VACUUM TESTING MANHOLES AND AIR TESTING SEWER LINE.
5. NO CHANGES SHALL BE MADE TO THESE APPROVED PLANS WITHOUT THE ENGINEER OF RECORD BEING NOTIFIED BEFORE CHANGES ARE MADE, AND THE ENGINEER OF RECORD ACQUIRING APPROVAL FROM THE CITY ENGINEER.
6. ALL PRECAST STORM STRUCTURES MUST BE APPROVED BY THE ENGINEER OF RECORD AND THE CITY OF HUNTSVILLE ENGINEER PRIOR TO INSTALLATION.
7. ALL REAR YARD DITCHES, SWALES, AND BERMS MUST BE FULL BERMUDA SOD AND ALL RIGHTS OF WAY MUST HAVE A FULL STAND OF GRASS PRIOR TO CITY OF HUNTSVILLE FINAL INSPECTION.
8. RETENTION PONDS ARE TO BE FULLY SODDED FROM 1' BELOW NORMAL POOL ELEVATION TO THE TOP OF BERM . (NOT APPLICABLE)
9. AN AS-BUILT OF THE RETENTION POND, DIMENSIONS OF THE POND OUTLET STRUCTURE, AND A POND CERTIFICATION LETTER FROM THE ENGINEER OF RECORD WILL BE REQUIRED PRIOR TO ACCEPTANCE OF THE SUBDIVISION INTO THE CITY'S MAINTENANCE PROGRAM. (NOT APPLICABLE)

MAP DATA: 2019 MICROSOFT BING MAPS

VICINITY MAP

INDEX TO DRAWINGS:

Sheet Number	Sheet Title
C-0.0	COVER
1	LAYOUT PLAT
2	PRELIMINARY PLAT
C-3.0	PROJECT NOTES
C-4.0	EXISTING CONDITIONS & DEMOLITION PLAN
C-5.0	SITE DEVELOPMENT PLAN
C-6.0	LAYOUT PLAN
C-7.0	GRADING PLAN
C-7.1	SPOT ELEVATION PLAN
C-7.2	SPOT ELEVATION PLAN
C-7.3	WALL PROFILES
C-7.4	WALL PROFILES
C-7.5	WALL PROFILES
C-8.0	EROSION CONTROL PLAN
C-9.0	DRAINAGE PLAN
C-10.0	SANITARY SEWER PLAN
C-11.0	UTILITY PLAN
C-12.0	PROJECT DETAILS
C-12.1	PROJECT DETAILS
C-12.2	PROJECT DETAILS
C-12.3	PROJECT DETAILS
C-12.4	PROJECT DETAILS
C-12.5	PROJECT DETAILS
C-12.6	PROJECT DETAILS
L604	CODE MINIMUM PLANTING PLAN
L001	PHOTOMETRIC PLAN

OWNER & DEVELOPER

ZIMMER DEVELOPMENT COMPANY
111 PRINCESS STREET
WILMINGTON, NC 28401

NO SCALE

REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 13827 PROFESSIONAL ENGINEER JAMES M. CHRISTIAN

C-0.0
COVER

3 NORTH

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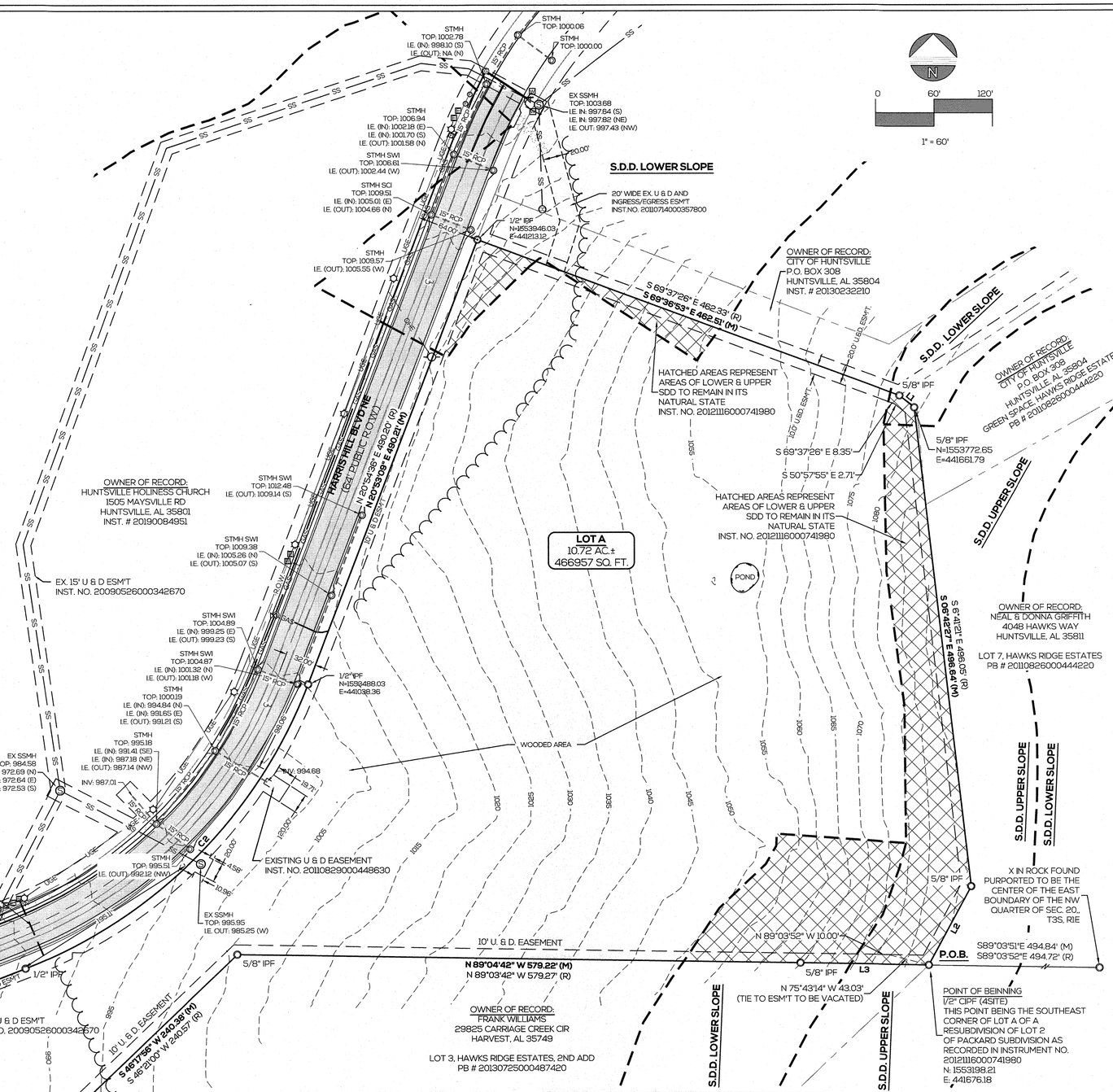
www.3north.com
804 232 8900

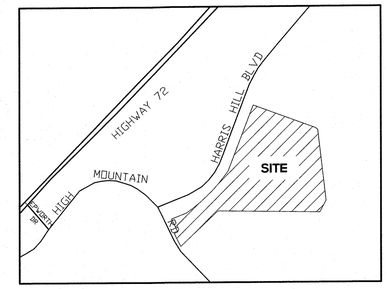
LEGEND

- CONCRETE MONUMENT FOUND
- PROPERTY CORNER FOUND
- 5/8" CAPPED IRON PIN SET (CA#003)
- SUBJECT PROPERTY LINE
- ADJOINER PROPERTY LINE
- F/O — FIBER OPTIC LINE
- STORM SEWER LINE
- UTILITY POLE
- LIGHT POLE
- TELEPHONE PEDESTAL
- GAS — NATURAL GAS LINE
- SIGN
- EXISTING TREELINE
- OHE — OVERHEAD ELECTRICAL LINE

ABBREVIATIONS

CIPF	CAPPED IRON PIN FOUND
CIPS	CAPPED IRON PIN SET
CMF	CONCRETE MONUMENT FOUND
CMP	CORRUGATED METAL PIPE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ESM'T	EASEMENT
(M)	MEASURED
(R)	RECORDED
RCP	REINFORCED CONCRETE PIPE
R.O.W	RIGHT OF WAY
RRSF	RAILROAD SPIKE FOUND
SDD	SLOPE DEVELOPMENT DISTRICT
SSMH	SANITARY SEWER MANHOLE
STMH	STORM MANHOLE
TBM	TEMPORARY BENCHMARK
U & D	UTILITY AND DRAINAGE





VICINITY MAP
(NOT TO SCALE)

GENERAL NOTES:

1. NORTH ARROW AND COORDINATES AS SHOWN HEREON ARE BASED ON ALABAMA STATE PLANE COORDINATE SYSTEM EAST ZONE, NAD '83.
2. ALL MEASUREMENTS SHOWN ARE TO U.S. SURVEY FEET.
3. THERE IS ONE LOT IN THIS BOUNDARY, WHICH CONTAINS 10.72 ACRES ON 466957 SQ. FT. MORE OR LESS.
4. DIMENSIONS TO CENTERLINE AS SHOWN ARE IN REFERENCE TO CENTERLINE OF EXISTING STREET SECTION AT TIME OF FIELD SURVEY.
5. PUBLIC UTILITY AND DRAINAGE EASEMENTS (P.U.D.E.'S) ARE AS SHOWN.
6. THIS SUBDIVISION IS LOT 'A' ACCORDING TO THE FINAL PLAT OF A RESUBDIVISION OF LOT 2 OF PACKARD SUBDIVISION AS RECORDED IN INSTRUMENT NO. 20110714000357800 AND INSTRUMENT NO. 20120910000578620 AS RECORDED IN THE OFFICE OF THE JUDGE OF PROBATE, MADISON COUNTY, ALABAMA, AND WHICH FINAL PLAT IS RECORDED AT DOCUMENT NO. 20121116000741980 IN THE RECORDS OF THE OFFICE OF THE JUDGE OF PROBATE OF MADISON COUNTY, ALABAMA.
7. SOURCES OF INFORMATION - DOCUMENT NUMBER 20121116000741980
8. PROPERTY OWNER: HIGH MOUNTAIN RESERVE LLC
   7262 GOVERNOR'S WEST DR , STW 104,
   HUNTSVILLE, AL 35805
   DOCUMENT NO. 20121116000741980
9. ENGINEER / SURVEYOR: SCHOEL ENGINEERING
   7500 MEMORIAL PKWY. STE. 209
   HUNTSVILLE, ALABAMA 35802
   TELEPHONE: 256-539-1221

DENSITY TABLE FOR GROUP HOUSING:

TOTAL SITE AREA = 466,957 S.F.
INTERNAL DRIVEWAYS = 62,605 S.F.

TOTAL DWELLING UNITS (ALLOWED) = 199 UNITS
TOTAL DWELLING UNITS (PROVIDED) = 198 UNITS

TOTAL DWELLING UNITS ALLOWED:
= (LAND AREA PROVIDED - 6,000) / 2,000 + 2 UNITS
= (404,352 - 6,000) / 2,000 + 2 UNITS
= 199 UNITS

LAND AREA PROVIDED:
= (TOTAL SITE AREA) - (INTERNAL DRIVEWAYS)
= 466,957 - 62,605
= 404,352 S.F.

MEASURED CURVE TABLE

NUMBER	LENGTH	RADIUS	DELTA	CHORD	CHORD DIRECTION
C1	66.15'	745.00'	5°05'14"	66.12'	N 27°08'36" W
C2	424.54'	507.00'	47°58'37"	412.25'	N 44°54'04" E

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L8	111.17'	N 68°54'22" E

TRAFFIC ENGINEER

THE WITHIN SUBDIVISION PLAT HAS BEEN REVIEWED BY THE TRAFFIC ENGINEER FOR THE CITY OF HUNTSVILLE, ALABAMA.

19TH APRIL 2021
DATE

TRAFFIC ENGINEER
CITY OF HUNTSVILLE, ALABAMA

FLOOD INFORMATION

THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X" (UNSHADED) OF THE NATIONAL FLOOD INSURANCE PROGRAM, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), FLOOD INSURANCE RATE MAP (FIRM), MADISON COUNTY, ALABAMA COMMUNITY PANEL NUMBER 01089C0193F, DATED AUGUST 16, 2018.

SURVEYOR CERTIFICATION

I, BENJAMIN T. PROCTOR, A REGISTERED PROFESSIONAL LAND SURVEYOR WITH THE FIRM OF SCHOEL ENGINEERING COMPANY INC., HEREBY CERTIFY THAT TO THE BEST OF MY INFORMATION, KNOWLEDGE AND BELIEF THAT THE SURVEY SHOWN HEREON HAS BEEN COMPLETED IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR SURVEYING IN THE STATE OF ALABAMA.

ACCORDING TO THIS SURVEY, UNDER MY SUPERVISION, THIS THE

5th DAY OF April, 2021.

BENJAMIN T. PROCTOR PLS #26624

Civil Engineering | Land Surveying | Landscape Architecture
Environmental | Water Resources | Laser Scanning + Modeling
SCHOEL
1001 22nd Street South
Birmingham, Alabama 35205
205.323.6166
7500 Memorial Pkwy SW, Ste 209
Huntsville, Alabama 35802
256.539.1221

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ALABAMA LICENSED No. 26624 PROFESSIONAL LAND SURVEYOR BENJAMIN T. PROCTOR

TERRACES AT HIGH MOUNTAIN

CITY OF HUNTSVILLE, MADISON COUNTY, AL
SECTION 20, TOWNSHIP 3 SOUTH, RANGE 1 EAST

REVISIONS:

LAYOUT PLAT

DATE:	04/01/2021
DRAWN BY:	JM / ASM
CHECKED BY:	BTP
FIELD DATE:	09.02.20
FIELD CREW:	B. BARNES
PROJECT NO.:	20286.H0

LEGEND

- CONCRETE MONUMENT FOUND
- PROPERTY CORNER FOUND
- 5/8" CAPPED IRON PIN SET (CA#003)
- SUBJECT PROPERTY LINE
- ADJOINER PROPERTY LINE
- F/O — FIBER OPTIC LINE
- STORM SEWER LINE

ABBREVIATIONS

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TBM	TEMPORARY BENCHMARK
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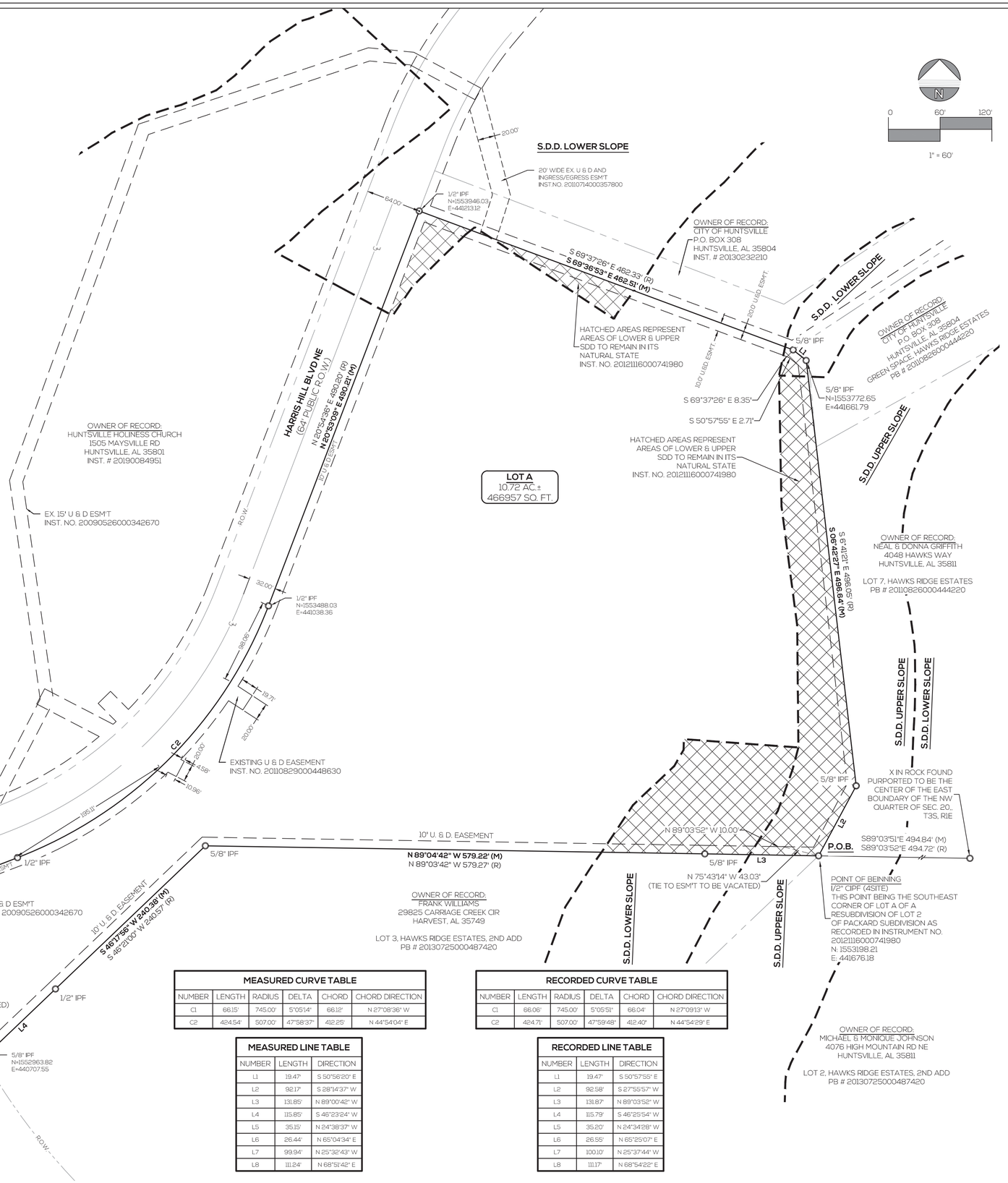

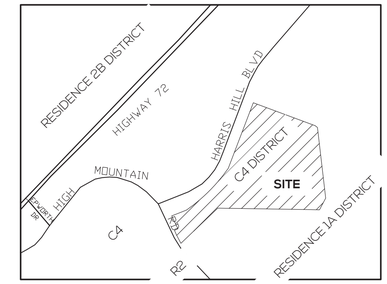

VICINITY MAP
(NOT TO SCALE)

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SURVEYOR CERTIFICATION

I, BENJAMIN T. PROCTOR, A REGISTERED PROFESSIONAL LAND SURVEYOR WITH THE FIRM OF SCHOEL ENGINEERING COMPANY INC., HEREBY CERTIFY THAT TO THE BEST OF MY INFORMATION, KNOWLEDGE AND BELIEF THAT THE SURVEY SHOWN HEREON HAS BEEN COMPLETED IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR SURVEYING IN THE STATE OF ALABAMA.

ACCORDING TO THIS SURVEY, UNDER MY SUPERVISION, THIS THE 4th DAY OF MAY 2021.

BENJAMIN T. PROCTOR PLS #26624

MEASURED CURVE TABLE

NUMBER	LENGTH	RADIUS	DELTA	CHORD	CHORD DIRECTION
C1	66.15'	745.00'	5°05'14"	66.12'	N 27°08'36" W
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ALABAMA LICENSED No. 26624 PROFESSIONAL LAND SURVEYOR BENJAMIN T. PROCTOR

TERRACES AT HIGH MOUNTAIN

CITY OF HUNTSVILLE, MADISON COUNTY, AL
SECTION 20, TOWNSHIP 3 SOUTH, RANGE 1 EAST

REVISIONS:

PRELIMINARY PLAT

DATE:	03/01-2021
DRAWN BY:	JM / ASM
CHECKED BY:	BTP
FIELD DATE:	09.02.20
FIELD CREW:	B. BARNES
PROJECT NO.:	20286.H0

Civil Engineering | Land Surveying | Landscape Architecture
Environmental | Water Resources | Laser Scanning + Modeling

SCHOEL

1001 22nd Street South
Birmingham, Alabama 35205
205.323.6166

7500 Memorial Pkwy SW, Ste 209
Huntsville, Alabama 35802
256.539.1221

Schoel.com

REVISIONS

CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR MAKING APPLICATION, AND PAYING FOR ALL NECESSARY PERMITS.
2. THE CONTRACTOR SHALL PREVENT THE DESTRUCTION OF ALL SURVEY MONUMENTS, BENCH MARKS, PROPERTY CORNERS AND ALL OTHER SURVEY POINTS. WHERE THE REMOVAL OF SUCH POINTS IS NECESSARY FOR THE ACCOMPLISHMENT OF THE WORK, THE CONTRACTOR IS TO INFORM THE ENGINEER IN WRITING, PRIOR TO THE DISTURBANCE OF ANY POINT, AND IS NOT TO DISTURB THE POINT UNTIL WRITTEN PERMISSION TO DO SO HAS BEEN GRANTED BY THE ENGINEER.
3. ALL EXISTING TREES AND SHRUBS OUTSIDE OF THE LIMITS OF WORK SHALL BE PROTECTED DURING CONSTRUCTION, AND ARE NOT TO BE DAMAGED IN ANY MANNER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING STREETS AND OTHER STRUCTURES WHICH IS CAUSED BY CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF ALL BOULDERS, DEBRIS, EXCESS CONSTRUCTION MATERIALS, MATERIAL GENERATED FROM THE DEMOLITION OF EXISTING STRUCTURES AND FACILITIES, AND TRASH.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING EXISTING UTILITIES LOCATED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE ENGINEER/SURVEYOR ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OR COMPLETENESS OF THE EXISTING UTILITIES SHOWN ON THE PLANS.
7. UNLESS INDICATED OTHERWISE ON THE PLANS, ALL STORM DRAINAGE PIPES SHALL BE REINFORCED CONCRETE CLASS III (ASTM C-76). COMPACTED GRANULAR MATERIAL FOR BEDDING SHALL BE REQUIRED WHERE UNSUITABLE GROUND WATER OR OTHER CONDITIONS PREVENT THE CONTRACTOR FROM OBTAINING A PROPERLY SHAPED TRENCH BOTTOM.
8. ALL PAVEMENT CUTS SHALL BE REPAIRED WITH MATERIAL IN KIND TO THAT REMOVED.
9. UNLESS INDICATED OTHERWISE ON THE PLANS, ALL RIP RAP SHALL BE CLASS I, IN ACCORDANCE WITH SECTION 814, ALDOT., 2012, AND SHALL BE GROUTED WHERE INDICATED ON THE PLANS.
10. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
11. THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL DEVICES AND SAFETY MEASURES FOR CONSTRUCTION WORK WITHIN PUBLIC RIGHT-OF-WAYS AND OTHER AREAS WHICH REQUIRE ITS USE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (M.U.T.C.D.) LATEST EDITION.
12. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE DOES NOT INCLUDE REVIEW OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.
13. SIDEWALK RAMPS ARE TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) SPECIFICATIONS.

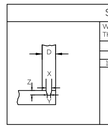
PAVEMENT CONSTRUCTION GENERAL NOTES

1. ALDOT., LATEST EDITION, SHALL MEAN ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
2. CRUSHED AGGREGATE BASE COURSE PLANT MIXED SHALL BE PLACED IN ACCORDANCE WITH SECTION 301, ALDOT., LATEST EDITION. ALL MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 825, TYPE B. 100% COMPACTION.
3. PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PLACED IN ACCORDANCE WITH SECTION 450, ALDOT., LATEST EDITION.
4. BITUMINOUS CONCRETE BINDER LAYER SHALL BE PLACED IN ACCORDANCE WITH SECTION 424-B, ALDOT., LATEST EDITION.
5. BITUMINOUS CONCRETE WEARING SURFACE LAYER SHALL BE PLACED IN ACCORDANCE WITH SECTION 424-A, ALDOT., LATEST EDITION.
6. THE SITE SHALL BE CLEARED AND ALL UNSUITABLE MATERIAL REMOVED PRIOR TO PLACING AND COMPACTING EMBANKMENTS.
7. ALL SUBGRADES SHALL BE CLEARED AND GRUBBED, SCARIFIED TO A DEPTH OF 6", AND THEN RECOMPACTED TO 100% OF THE MAXIMUM DRY DENSITY, PLUS OR MINUS 2% OF OPTIMUM MOISTURE (ASTM-D6798).
8. IN ROCK EXCAVATION A MINIMUM OF 1 FOOT OF SOIL SHALL BE PLACED OVER ROCK PRIOR TO PLACEMENT OF BASE MATERIAL.
9. CONCRETE WHEEL STOPS ARE TO BE PRECAST 2500 PSI MIN. COMPRESSIVE STRENGTH CONCRETE, 6"Hx9"Wx84"L. WHEEL STOPS ARE TO BE SECURELY ATTACHED TO PVMT. WITH A MINIMUM OF 2-5/8"x24" GALV. STEEL DOWELS EMBEDED IN WHEEL STOPS AT 1/3 POINTS, AND FIRMLY BONDED TO WHEEL STOP AND PAVEMENT.
10. PAVEMENT MARKING PAINT SHALL BE ALKYD-RESIN TYPE, READY-MIXED, COMPLYING WITH FS TT-P-115, TYPE I, AASHTO M-248, TYPE N, OR LATEX WATER-BASE EMULSION, READY-MIXED, COMPLYING WITH FS TT-P-1952. APPLY PVMT. MARKING PAINT WITH MECHANICAL EQUIPMENT, PER THE MFR'S RECOMMENDATIONS TO PRODUCE PVMT. MARKINGS OF DIMENSIONS INDICATED ON THE PLANS WITH UNIFORM, STRAIGHT EDGES, AND A MINIMUM WET FILM THICKNESS OF15 mils (.4mm).

REINFORCED CONCRETE NOTES

1. ALL CONCRETE SHALL BE AIR ENTRAINED 3000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, (CLASS "A-"), UNLESS NOTED OTHERWISE ON THE PLANS.
2. ALL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED WITH CONTINUOUS SHEAR KEYS IN ACCORDANCE WITH THE SHEAR KEY DETAIL ON THE PLANS.
3. ALL REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS, AND SHALL CONFORM TO STM A615, FOR BILLET STEEL.
4. LAP SPLICES AND BAR EMBEDMENTS SHALL BE IN ACCORDANCE WITH THE TABLE ON THE PLANS.
5. CONCRETE AIR CONTENT AND SLUMP SHALL BE IN ACCORDANCE WITH THE TABLE ON THE PLANS.
6. ALL REINFORCING BARS SHALL BE SHOP BENT IN ACCORDANCE WITH THE TABLE ON THE PLANS. HEATING OF REINFORCING BARS TO BEND THEM, OR STRAIGHTEN THEM WILL NOT BE ALLOWED.
7. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, SMOOTH FABRIC WITH AN ASTM YIELD STRENGTH OF 65,000 PSI.

SHEAR KEY DETAIL



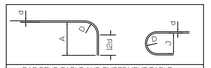
WALL (D) THICKNESS	NOMINAL KEY SIZE	X	Y	Z
4" - 7"	2" X 2"	1 1/2"	1"	1 1/2"
8" - 13"	2" X 4"	3 1/2"	3"	1 1/2"
14" - 25"	2" X 6"	5 1/2"	5"	1 1/2"
SITE DRAWINGS	2" X 8"	7 1/4"	6 3/4"	1 1/2"
	2" X 10"	9 1/4"	8 3/4"	1 1/2"
	4" X 4"	3 1/2"	3"	3 1/2"
	4" X 6"	5 1/2"	5"	3 1/2"
	4" X 8"	7 1/4"	6 3/4"	3 1/2"
	4" X 10"	9 1/4"	8 3/4"	3 1/2"
	4" X 12"	11 1/4"	10 3/4"	3 1/2"

SLUMP TABLE

TYPE OF CONSTRUCTION	SLUMP (INCHES)	
	MAX.	MIN.
REINFORCED FOOTINGS AND SLABS	3	1
REINFORCED WALLS AND PAVEMENTS	4	1
BACKFILL CONCRETE	6	3

CONCRETE AIR CONTENT TABLE

NOMINAL MAXIMUM SIZE COARSE AGGREGATE (INCHES)	TOTAL AIR CONTENT PERCENT (BY VOLUME)
3/4	4 TO 8
1	3.5 TO 6.5
1 1/2	3 TO 6



BAR BEND TABLE AND EMBEDMENT TABLE

BAR SIZE (D)	#3	#4	#5	#6	#7	#8	#9	#10
DIAMETER	0.375"	0.5"	0.625"	0.750"	0.875"	1.0"	1.128"	1.270"
A	4.50"	6.0"	7.25"	8.50"	9.25"	10.7"	12.00"	13.50"
B	6"	9"	10"	12"	14"	16"	18"	20"
C	3"	4"	5"	6"	7"	8"	9.00"	10.10"
LAP SPACE LENGTH	15"	20"	26"	31"	36"	41"	57"	73"
EMBEDMENT LENGTH	12"	15"	18"	21"	27"	35"	44"	56"

SEEDING NOTES:

1. THE CONTRACTOR IS REQUIRED TO FURNISH ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY FOR THE SEEDING OF ALL DISTURBED AREAS, AND OTHER AREAS SPECIFIED ON THE GRADING PLANS. ALL SPECIFIED SURFACE AREAS SHALL BE SEEDED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS.
2. TOPSOIL SHALL BE STRIPPED AND STOCK PILED DURING CONSTRUCTION. A MINIMUM OF 6 INCHES OF CONDITIONED AND AMENDED TOPSOIL SHALL BE RESPREAD OVER ALL AREAS SPECIFIED FOR SEEDING. GRADING SHALL CONFORM WITH THE GRADING PLAN.
3. SEEDING SHALL BE AS FOLLOWS: (A)"REBEL" OR "FALCON" FESCUE SEED ("TIL APRIL 15TH) WITH 95% GERMINATION. APPLICATION RATE SHALL BE 8 LBS. PER 1,000 SQUARE FEET. (B)BERMUDA SEED (FROM APRIL 15TH TO AUGUST 15TH) WITH 95% GERMINATION. APPLICATION RATE SHALL BE 3 LBS. PER 1,000 SQUARE FEET.
4. SOIL AMENDMENT SHALL BE RECOMMENDED USING LIME OR SULFUR TO ACHIEVE A SOIL PH OF 5.5 TO 6.5.
5. "2-4-D ROUNDUP" OR EQUIVALENT POST-EMERGENT HERBICIDE SHALL BE REQUIRED TO KILL EXISTING WEEDS PRIOR TO SEEDING. "TREFLAN," "DACTAL" OR EQUIVALENT PRE-EMERGENT HERBICIDE SHALL BE REQUIRED FOR ALL SEEDED AREAS TO PREVENT WEED GERMINATION.
6. PROTECTION OF SEEDED AREAS ON STEEP SLOPES SHALL BE PROVIDED USING A "SUPER DUTY EXCELSIOR EROSION CONTROL BLANKET", AS MANUFACTURED BY "PPS PACKAGING COMPANY," P.O. BOX 56 FOWLER, CA, 93625, OR APPROVED EQUIVALENT WHERE INDICATED ON THE GRADING PLAN. APPLICATION OF "EXCELSIOR" BLANKET SHALL COMPLY WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE INDICATED ON THE PLANS, APPLY BLANKET TO THE SLOPE AFTER PROPER PREPARATION AND SEEDING OF THE GROUND.

EARTHWORK GENERAL NOTES

1. THE SITE TOPOGRAPHY AND OTHER TOPOGRAPHIC DATA SHOWN ON THE PLANS OR INCLUDED IN THE SPECIFICATIONS ARE FOR THE INFORMATION OF THE CONTRACTOR. THE CONTRACTOR SHALL MAKE SUCH ADDITIONAL INVESTIGATIONS AS REQUIRED TO ACQUAINT HIMSELF ADEQUATELY WITH THE SITE, INCLUDING SUBSURFACE SOIL CONDITIONS, FOR PREPARATION OF HIS BID, AND FOR THE SUCCESSFUL EXECUTION OF THE WORK.
2. UNLESS INDICATED OTHERWISE ON THE PLANS, ALL PROPOSED CONTOURS AND ALL PROPOSED SPOT ELEVATIONS SHOWN ARE FINISHED GRADE.
3. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE PROTECTION OF HIS WORK. SUCH GRADING AS IS REQUIRED FOR THIS PURPOSE SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. THE OWNER MAY DIRECT THE CONTRACTOR TO PERFORM SUCH GRADING AND DRAINAGE AS IS NECESSARY TO PREVENT SURFACE RUNOFF FROM DAMAGING THE WORK.
4. THE CONTRACTOR SHALL BE REQUIRED TO INSTALL SILT FENCES, STRAW BALES, AND OTHER EROSION & SEDIMENT CONTROL MEASURES TO PREVENT LOOSE DIRT AND SEDIMENT FROM WASHING ONTO STREETS AND ADJACENT PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF EROSION & SEDIMENT CONTROL MEASURES UNTIL FINAL INSPECTION BY THE LOCAL GOVERNING AGENCY.
5. ALL EARTH FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY, PLUS OR MINUS 2% OF OPTIMUM MOISTURE (ASTM-D6798), EXCEPT FOR EARTH FILLS UNDER ROADS WHICH ARE TO COMPLY WITH THE PAVING SPECIFICATIONS.
6. ALL EARTH FILL SHALL BE PLACED IN UNIFORM LAYERS OR LIFTS NOT EXCEEDING 6" IN COMPACTED THICKNESS, UNLESS INDICATED OTHERWISE ON THE PLANS.
7. ALL EARTH FILL SHALL BE PLACED IN ACCORDANCE WITH SECTION 210, ALDOT., 2012. ALL EARTH FILL UNDER BUILDINGS SHALL ALSO MEET THE REQUIREMENTS OF THE ARCHITECT'S PLANS AND SPECIFICATIONS.
8. IF A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THE SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING THE SITE PREPARATION RECOMMENDATIONS SPECIFIED WITHIN THIS DOCUMENT, UNLESS MORE STRINGENT REQUIREMENTS ARE GIVEN ON THE PLANS OR WITHIN THE PROJECT SPECIFICATIONS.

EROSION & SEDIMENT CONTROL CONSTRUCTION SEQUENCE:

1. INSTALL CONSTRUCTION ENTRANCES WITH CRUSHED AGGREGATE BASE COURSE AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL BE ENTERING AND EXITING THE SITE. CONSTRUCTION ENTRANCES USED FOR REMOVAL OF ONSITE MATERIALS SHALL EXTEND TO THE LOADING AREA, BUT IN NO CASE SHALL ANY CONSTRUCTION ENTRANCE BE LESS THAN 50 FEET IN LENGTH OR 6" IN DEPTH. WIDTH SHALL NOT BE LESS THAN 15 FEET.
2. CONSTRUCT SEDIMENT TRAPS (IF ANY ARE INDICATED ON THE PLANS).
3. GRADE IN THE PROPOSED DITCHES AS SHOWN ON THE GRADING PLAN, AND DIRECT DRAINAGE FROM DISTURBED AREAS TO THEM.
4. INSTALL STRAW BALE DAMS IN DITCHES AS THEY ARE CONSTRUCTED, AND INSTALL SILT FENCES AT INDICATED LOCATIONS. INSTALL STRAW BALES AND GRAVEL BAG FILTERS AT STORM SEWER STRUCTURES AS THEY ARE CONSTRUCTED.
5. MULCH, LIME, FERTILIZE, SEED AND STRAW ALL DISTURBED AREAS AS SOON AS POSSIBLE FOLLOWING FINAL GRADING.
6. WASH DOWN CONSTRUCTION ENTRANCE AS NECESSARY TO LIMIT MUD AND DEBRIS BEING CARRIED ONTO ADJACENT ROADS. DRAINAGE FROM CONSTRUCTION ENTRANCE SHALL BE GRADED TO DRAIN TO SILT FENCES, OR OTHER EROSION CONTROL MEASURES.
7. FOLLOWING COMPLETION OF PAVEMENT, STORM SYSTEM, AND MULCHING AND SEEDING ACTIVITIES, FLUSH OR CLEAN ALL SEDIMENT FROM STORM PIPE SYSTEM.
8. WHEN CONSTRUCTION IS COMPLETE AND UPON APPROVAL OF THE LOCAL GOVERNING AGENCY, REMOVE SILT FENCES, STRAW BALES, AND GRAVEL BAG FILTERS. SPREAD AND GRADE COLLECTED MATERIALS, AND MULCH, LIME, FERTILIZE, SEED AND STRAW.
9. REMOVE SEDIMENT FROM DITCHES, AND REGRADE TO DEPTH AND SIZE SHOWN ON THE GRADING PLAN. SPREAD AND GRADE COLLECTED MATERIALS, AND SEED.
10. REMOVE SEDIMENT TRAPS, AND SEED DISTURBED AREA.

HUNTSVILLE GENERAL NOTES

1. A CONSTRUCTION PERMIT WILL BE REQUIRED FROM THE CITY ENGINEERING DIVISION BEFORE CONSTRUCTION BEGINS.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEANING DIRT AND DEBRIS FROM THE ADJOINING STREETS DURING CONSTRUCTION. ANY DAMAGE TO ADJOINING AND EXISTING STREETS MUST BE REPAIRED BY THE CONTRACTOR DURING THE CONSTRUCTION OF THIS SUBDIVISION.
3. NO FILL DIRT SHALL BE PLACED ON THE PROPERTY THAT MIGHT INTERFERE WITH DRAINAGE FLOW FROM ADJACENT PROPERTY. STORM DRAINAGE SYSTEM SHALL BE INSTALLED PRIOR TO FILL MATERIAL BEING PLACED.
4. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR TVI, VACUUM TESTING MANHOLES AND AIR TESTING SEWER LINE.
5. NO CHANGES SHALL BE MADE TO THESE APPROVED PLANS WITHOUT THE ENGINEER OF RECORD BEING NOTIFIED BEFORE CHANGES ARE MADE, AND THE ENGINEER OF RECORD ACQUIRING APPROVAL FROM THE CITY ENGINEER.
6. ALL PRECAST STORM STRUCTURES MUST BE APPROVED BY THE ENGINEER OF RECORD AND THE CITY OF HUNTSVILLE ENGINEER PRIOR TO INSTALLATION.
7. ALL REAR YARD DITCHES, SWALES, AND BERMS MUST BE FULL BERMUDA SOD AND ALL RIGHTS OF WAY MUST HAVE A FULL STAND OF GRASS PRIOR TO CITY OF HUNTSVILLE FINAL INSPECTION.
8. RETENTION PONDS ARE TO BE FULLY SODDED FROM 1' BELOW NORMAL POOL ELEVATION TO THE TOP OF BERM . (NOT APPLICABLE)
9. AN AS-BUILT OF THE RETENTION POND, DIMENSIONS OF THE POND OUTLET STRUCTURE, AND A POND CERTIFICATION LETTER FROM THE ENGINEER OF RECORD WILL BE REQUIRED PRIOR TO ACCEPTANCE OF THE SUBDIVISION INTO THE CITY'S MAINTENANCE PROGRAM. (NOT APPLICABLE)

LEGEND

DESCRIPTION	EXISTING	PROPOSED
BENCH MARK		N/A
CONCRETE MONUMENT FOUND		N/A
CONCRETE MONUMENT SET		N/A
PROPERTY CORNER FOUND		N/A
PROPERTY CORNER SET		N/A
CALCULATED POINT		N/A
INDEX CONTOURS	600	600
INTER CONTOURS	601	601
SPOT ELEVATIONS	EG 661.2	FG 662.50
DEMOLITION	N/A	
CONCRETE		
HEAVY DUTY ASPHALT	N/A	
SUBJECT PROPERTY LINE		N/A
ADJOINER PROPERTY LINE		N/A
MINIMUM BUILDING SET BACK		N/A
FENCE	X	
COMMUNICATION BOX		N/A
UNDERGROUND TELEPHONE LINE	UGT	N/A
ELECTRIC BOX		N/A
FIBER OPTIC LINE	F/O	N/A
OVERHEAD ELECTRIC LINE	OHE	N/A
UNDERGROUND ELECTRIC LINE	UGE	N/A
STORM SEWER LINE		
AREA INLET		
SANITARY SEWER LINE	SS	SS
SANITARY SEWER MANHOLE		
UTILITY POLE		N/A
LIGHT POLE		N/A
WATER LINE	W	W
WATER VALVE		
FIRE HYDRANT		
WATER METER		
NATURAL GAS LINE	GAS	GAS
GAS VALVE		N/A
SIGN		
GUY WIRE		N/A
TREE LINE		N/A
TREES		SEE LANDSCAPE PLAN IF APPLICABLE
TEMPORARY SILT FENCE	N/A	X
TEMPORARY STONE CHECK DAM	N/A	
TEMPORARY STRAW WATTLE	N/A	

ABBREVIATIONS

AI	AREA INLET
(C)	CALCULATED
CIPF	CAPPED IRON PIN FOUND
CIPS	CAPPED IRON PIN SET
CMF	CONCRETE MONUMENT FOUND
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
CTP	CRIMP TOP PIPE FOUND
CO	CLEAN OUT
ELEV	ELEVATION
ESMN'T	EASEMENT
EX	EXISTING
F.F.E	FINISHED FLOOR ELEVATION
HDPE	HIGH DENSITY POLYETHYLENE
I.E.	INVERT ELEVATION
(M)	MEASURED
M.B.L	MINIMUM BUILDING LINE
MNF	MAG NAIL FOUND
OTP	OPEN TOP PIPE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
PVC	POLYVINYL CHLORIDE
(R)	RECORDED
RCP	REINFORCED CONCRETE PIPE
RMF	R.O.W. MONUMENT FOUND
R.O.W	RIGHT OF WAY
RRS	RAIL ROAD SPIKE FOUND
SSMH	SANITARY SEWER MANHOLE
STMH	STORM SEWER MANHOLE
TBM	TEMPORARY BENCHMARK

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 13627 PROFESSIONAL ENGINEER JAMES M. CAROLLO

C-3.0 PROJECT NOTES

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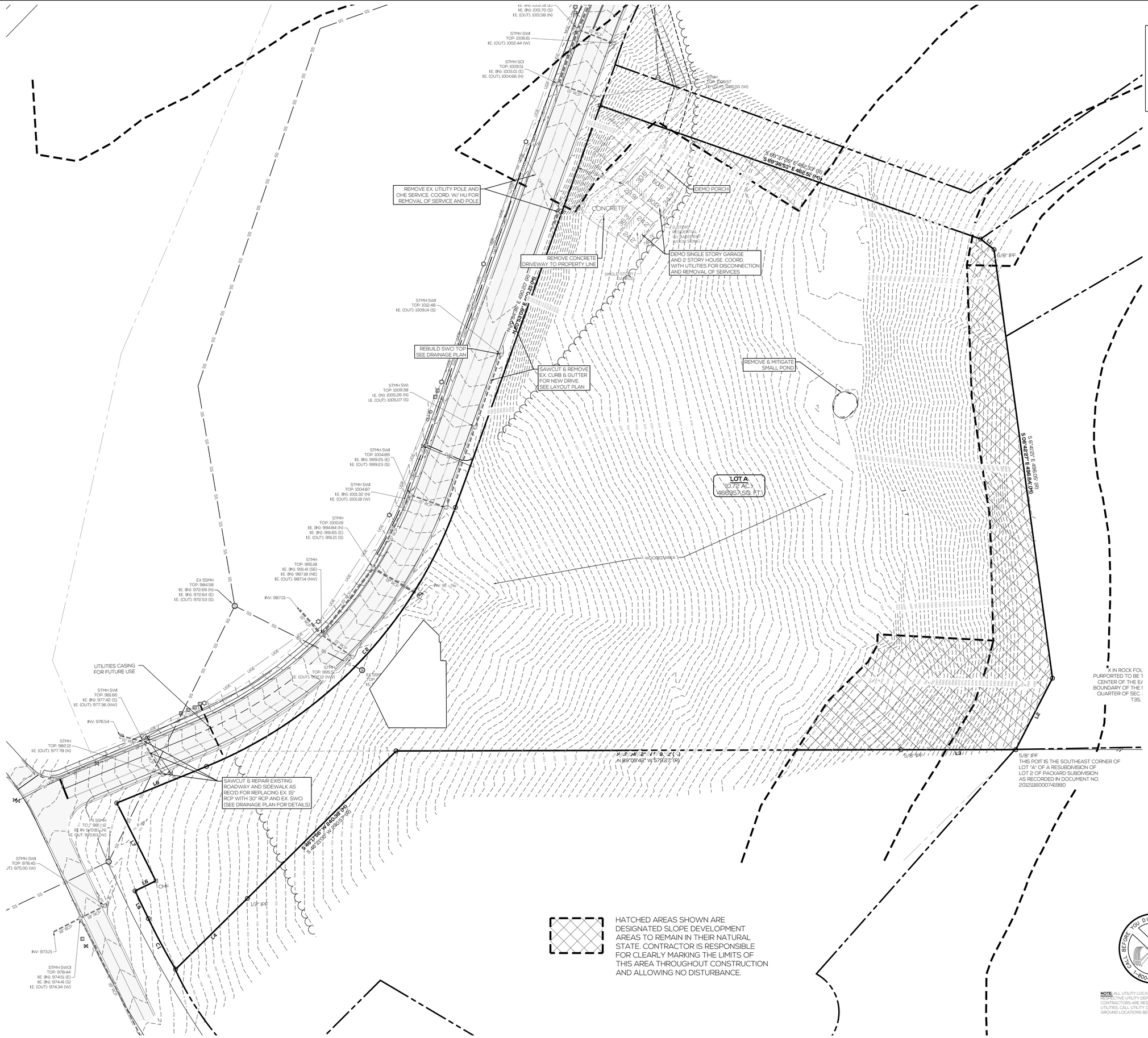

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NOTE:
1. ALL UTILITIES TO REMAIN UNLESS OTHERWISE NOTED
2. REMOVE ALL TREES REQUIRED FOR CONSTRUCTION

REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 18827 PROFESSIONAL ENGINEER
JAMES M. CARR

C-4.0
EXISTING CONDITIONS & DEMOLITION PLAN

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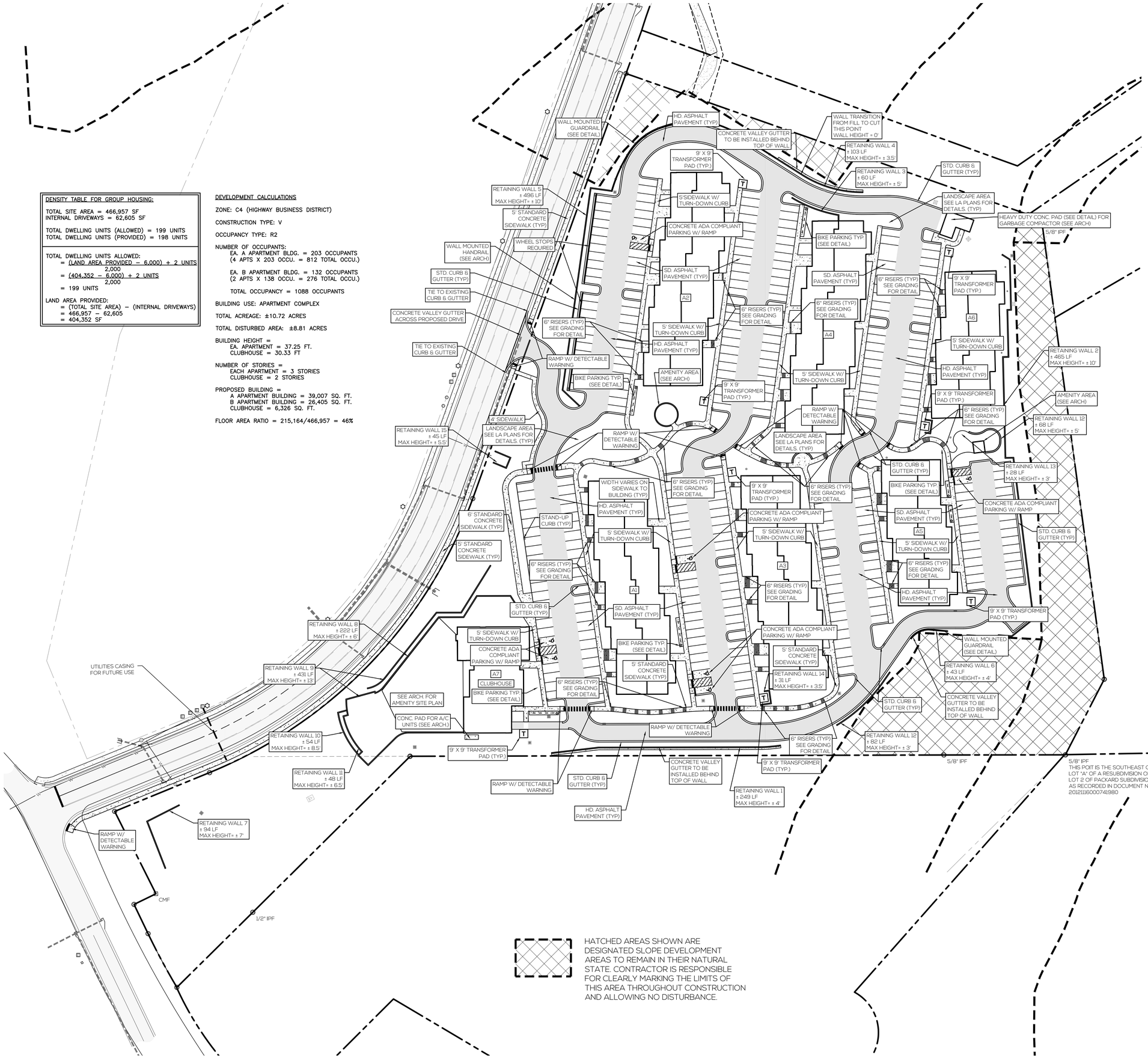

DENSITY TABLE FOR GROUP HOUSING:

TOTAL SITE AREA = 466,957 SF
INTERNAL DRIVEWAYS = 62,605 SF

TOTAL DWELLING UNITS (ALLOWED) = 199 UNITS
TOTAL DWELLING UNITS (PROVIDED) = 198 UNITS

TOTAL DWELLING UNITS ALLOWED:
= (LAND AREA PROVIDED – 6,000) + 2 UNITS / 2,000
= (404,352 – 6,000) + 2 UNITS / 2,000
= 199 UNITS

LAND AREA PROVIDED:
= (TOTAL SITE AREA) – (INTERNAL DRIVEWAYS)
= 466,957 – 62,605
= 404,352 SF

DEVELOPMENT CALCULATIONS

ZONE: C4 (HIGHWAY BUSINESS DISTRICT)

CONSTRUCTION TYPE: V

OCCUPANCY TYPE: R2

NUMBER OF OCCUPANTS:
EA. A APARTMENT BLDG. = 203 OCCUPANTS
(4 APTS X 203 OCCU. = 812 TOTAL OCCU.)

EA. B APARTMENT BLDG. = 132 OCCUPANTS
(2 APTS X 138 OCCU. = 276 TOTAL OCCU.)

TOTAL OCCUPANCY = 1088 OCCUPANTS

BUILDING USE: APARTMENT COMPLEX

TOTAL ACREAGE: ±10.72 ACRES

TOTAL DISTURBED AREA: ±8.81 ACRES

BUILDING HEIGHT =
EA. APARTMENT = 37.25 FT.
CLUBHOUSE = 30.33 FT

NUMBER OF STORIES =
EACH APARTMENT = 3 STORIES
CLUBHOUSE = 2 STORIES

PROPOSED BUILDING =
A APARTMENT BUILDING = 39,007 SQ. FT.
B APARTMENT BUILDING = 26,405 SQ. FT.
CLUBHOUSE = 6,326 SQ. FT.

FLOOR AREA RATIO = 215,164/466,957 = 46%

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WALL NOTES:

1. WALLS TO BE CONTRACTOR DESIGN/BUILD. PLANS STAMPED BY AN ALABAMA LICENSED STRUCTURAL ENGINEER WILL BE REQUIRED FOR APPROVAL FROM THE CITY OF HUNTSVILLE FOR WALL DESIGNS.
2. FINISHED WALL HEIGHT AND AREA MAY VARY WITH FIELD CONDITIONS. MAXIMUM HEIGHTS ARE MEASURED FROM LOWEST ADJACENT FINISHED GRADE TO TOP OF WALL. CONTRACTOR SHALL CONSIDER ADDITIONAL SQUARE FOOTAGE REQUIRED DOWN TO FOOTINGS.
3. EXCAVATION FOR WALL CONSTRUCTION IS NOT PERMITTED IN THE DESIGNATED SDD RESTRICTED AREAS.
4. THE BASE/FOOTING LOCATIONS MAY VARY WITH FIELD CONDITIONED AND SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO DESIGN.
5. CONTRACTOR RESPONSIBLE FOR COORDINATING WALL DESIGN AND CONSTRUCTION WITH UTILITIES AND STORM DRAINAGE SHOWN IN THESE PLANS.
6. CONTRACTOR RESPONSIBLE FOR DRAINAGE DESIGN BEHIND TOP OF WALLS.
7. WALL DIMENSIONS ARE PROVIDED FOR BUDGETARY PRICING ASSISTANCE.
8. FOUNDATION WALL DESIGN TO BE SUBMITTED WITH ARCHITECTURAL DRAWINGS FOR BUILDING PERMIT.

NOTE:

1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL SIGNAGE AND STRIPING SHALL BE PER M.U.T.C.D. LATEST ADDITION.
3. ANY REQUIRED TRAFFIC CONTROL SHALL BE PER ALDOT STANDARDS AND IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. NO GEOTEXTILE FABRIC PERMITTED IN EASEMENTS.
5. ALL TRANSFORMERS TO HAVE BOLLARDS AND PADS. SEE DETAILS. COORDINATE WITH HUNTSVILLE UTILITIES AND ELEC. DWGS.
6. ALL STRIPING TO BE THERMOPLASTIC.
7. SIGN SHEETING SHALL BE 3M HIP (HIGH INTENSITY PRISMATIC REFLECTIVE SHEETING.
8. STOP SIGNS TO BE INSTALLED AT 7' FROM THE GROUND TO THE BOTTOM OF THE SIGN.
9. SIGN POSTS TO BE 12' LONG, GALVANIZED U-CHANNEL POSTS AT 3LB. PER FOOT
10. SIGN INSTALLATION HARDWARE TO INCLUDE STAINLESS BOLTS AND BRASS NUTS WITH NYLON INSERTS.

THE WITHIN LAYOUT HAS BEEN REVIEWED BY THE TRAFFIC ENGINEER FOR THE CITY OF HUNTSVILLE, ALABAMA.

DATE _____ TRAFFIC ENGINEER, CITY OF HUNTSVILLE, ALABAMA

I, _____ THE TRAFFIC ENGINEER FOR THE CITY OF HUNTSVILLE, ALABAMA, CONCUR IN THE GEOMETRIC DESIGN OF THE STREET SYSTEM AND THE USE OF THE STREET NAME(S) AS SHOWN IN THESE PLANS.

DATE _____ TRAFFIC ENGINEER, CITY OF HUNTSVILLE, ALABAMA

I, _____ THE CITY ENGINEER FOR THE CITY OF HUNTSVILLE, ALABAMA, APPROVE OF THE DESIGN AND THE CONSTRUCTION PLANS OF THE STREET SYSTEM AS SHOWN IN THESE PLANS.

DATE _____ CITY ENGINEER, CITY OF HUNTSVILLE, ALABAMA

I, JERRY M. CARGILE, REGISTERED ENGINEER, CERTIFY THAT THE INTERSECTION SIGHT DISTANCE OF ANY ROADWAY CONSTRUCTED IN CONJUNCTION WITH THIS SUBDIVISION MEETS OR EXCEEDS SPECIFICATIONS AS SET FORTH IN THE PREVAILING AASHTO STANDARDS TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE _____ ENGINEER OF RECORD, AL PE #19827

PARKING SUMMARY

TOTAL REQUIRED PARKING =
- 310 STANDARD SPACES (304 W/ PARKING REDUCTION)
- 7 ADA ACCESSIBLE SPACES
- 40 BIKE SPACES

PROVIDED PARKING:
- 305 STANDARD SPACES
- 7 ADA ACCESSIBLE SPACES
- 40 BIKE SPACES

NOTE:
1. SEE ARCH. FOR REQUIRED HANDRAILS AND GUARDRAILS AT TOPS OF RETAINING WALLS AND STAIRCASES.
2. ALL RISERS TO BE 6" UNLESS OTHERWISE NOTED.
3. RISERS REQUIRED AT FRONT OF BUILDING ENTRANCE WALK WAYS WHERE APPLICABLE. SEE GRADING PLAN

INTERSECTION SIGHT DISTANCE

NORTH: 405 FT TO VERTICAL CURVE
SOUTH: 630 FT TO INTERSECTION

REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 19827 PROFESSIONAL ENGINEER JERRY M. CARGILE

C-5.0
SITE DEVELOPMENT PLAN

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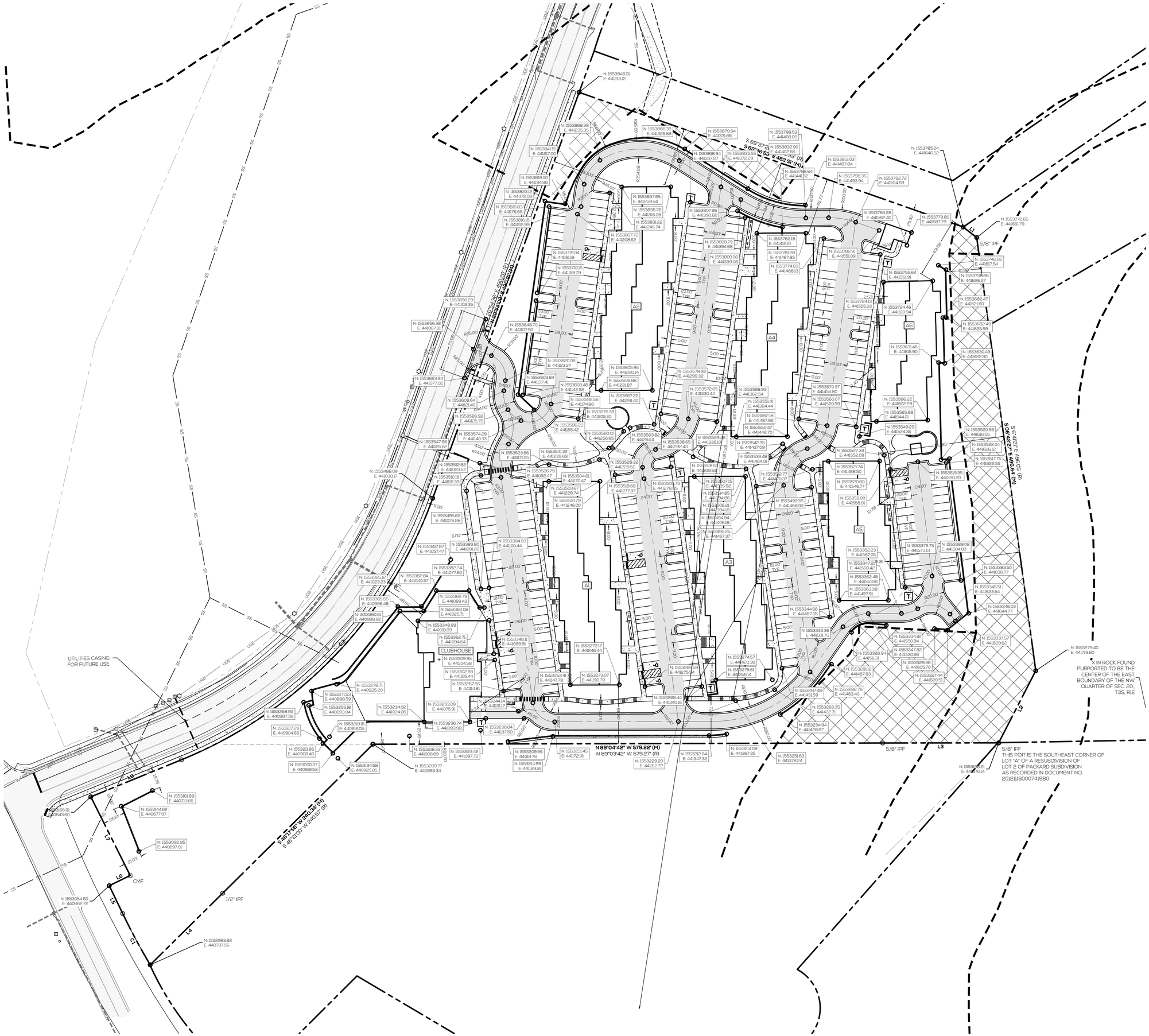

NOTE:
1. ALL DIMENSIONS TO FACE OF CURB UNLESS OTHERWISE NOTED
2. COORD. W/ HUNTSVILLE UTILITIES' ELEC. DWGS FOR FINAL LOCATION OF ALL TRANSFORMERS (TYP)
3. COORD. W/ ARCH. DWGS FOR WIDTH AND LOCATION OF WALKS TO BUILDING (TYP)

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REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN

4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 13827 PROFESSIONAL ENGINEER

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LAYOUT PLAN

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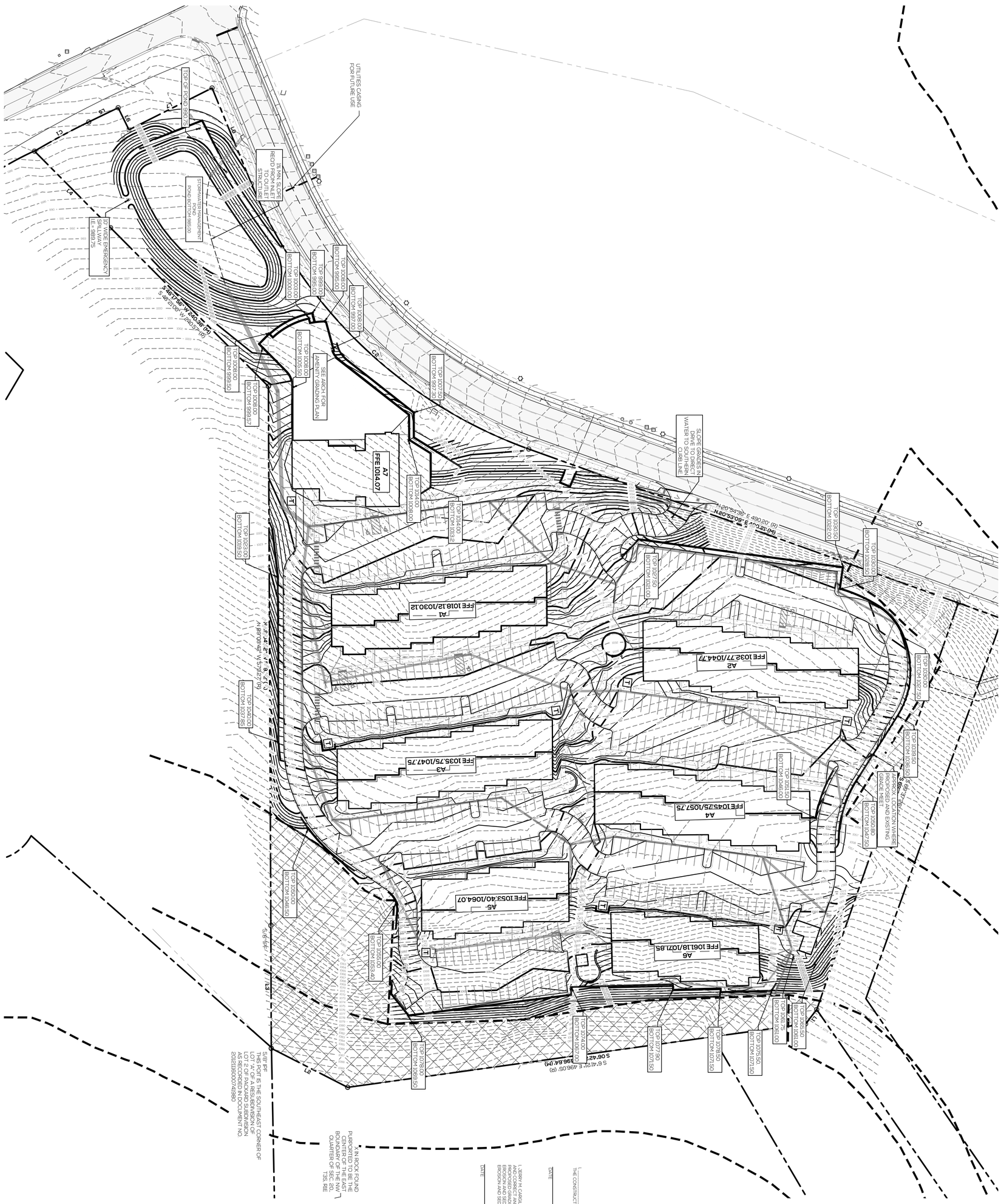

SOD NOTES

1. ALL DITCHES, SWALES, AND OTHER DISTURBED AREAS INSIDE RIGHTS-OF-WAY AND EASEMENTS ARE TO BE FULLY SODDED.
2. ALL DETENTION PONDS SHALL RECEIVE FULL SOD FROM TOP OF SLOPE TO TOP OF SLOPE PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
3. ALL DISTURBED AREAS SHALL HAVE A FULL STAND OF GRASS PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.

NOTES

1. AN ASBUILT SURVEY OF THE DETENTION POND, DIMENSIONS OF THE POND OUTLET STRUCTURE, AND A POND CERTIFICATION LETTER MUST BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO ANY CERTIFICATE OF OCCUPANCY BEING ISSUED. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE ENGINEER AND SCHEDULING THIS WORK.
2. ALL BUILDINGS AND DIRECT DRAINAGE AWAY FROM ALL BUILDINGS AND DIRECT DRAINAGE INTO NEAREST INLET.

THE CONSTRUCTION PLANS FOR GRADING AND EROSION AND SEDIMENTATION CONTROL AS SHOWN IN THESE PLANS.

CITY ENGINEER FOR THE CITY OF HUNTSVILLE, ALABAMA, APPROVE OF THE DESIGN AND

DATE _____ CITY ENGINEER, CITY OF HUNTSVILLE, ALABAMA

I, JERRY M. CARGILE, THE ENGINEER OF RECORD, DO HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS COMPLETE AND ACCURATE AND THAT THE PROPOSED GRADING AND DRAINAGE IMPROVEMENTS SHOWN HEREON COMPLIES WITH GOOD ENGINEERING PRACTICE AND FURTHER DO CERTIFY THAT ALL PROPOSED GRADING AS SHOWN HEREON COMPLIES WITH GOOD ENGINEERING PRACTICE AND FURTHER DO CERTIFY THAT ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ARE DESIGNED TO MINIMIZE THE EFFECTS OF EROSION AND SEDIMENTATION ON SITE TO THE BEST OF MY KNOWLEDGE.

DATE _____ JERRY M. CARGILE
AL PE NUMBER 18627

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TERRACES AT HIGH MOUNTAIN

4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

CONSTRUCTION DOCUMENTS

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GRADING PLAN

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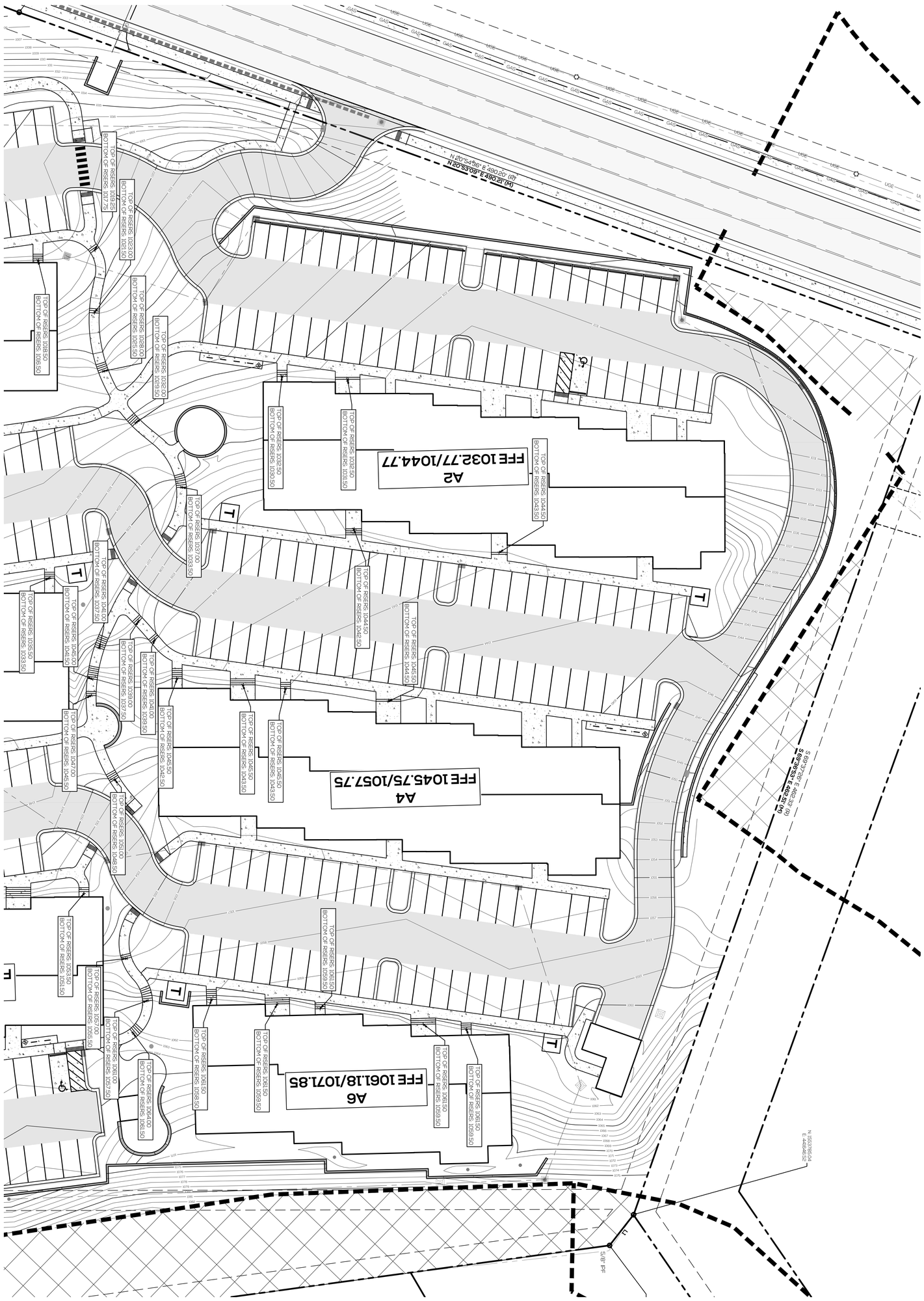

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SPOT ELEVATION PLAN

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4130 HIGH MOUNTAIN ROAD NE

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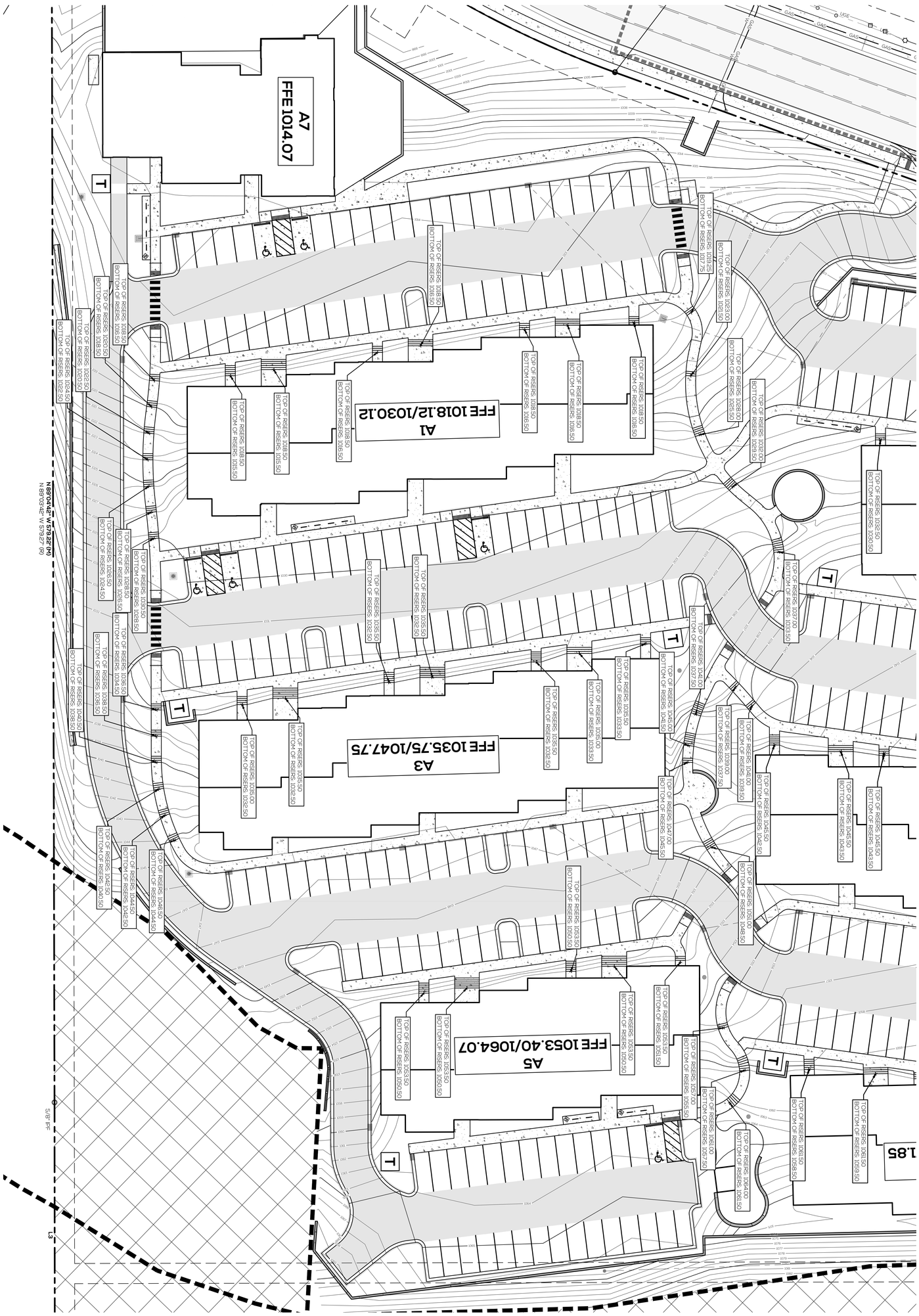

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SPOT ELEVATION PLAN

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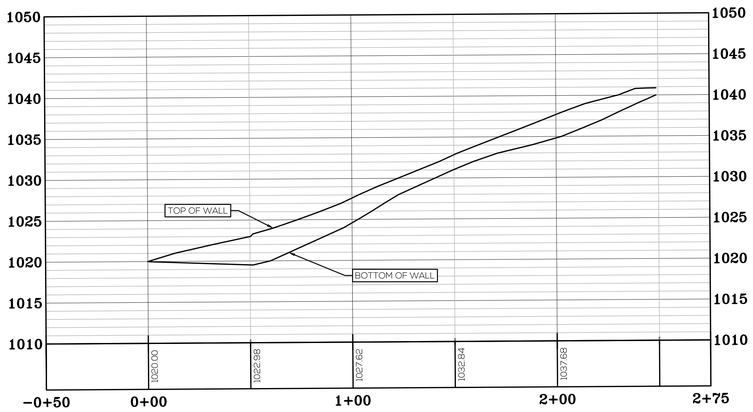
NOTE:
SEE GRADING PLAN FOR DETAILS

WALL 1



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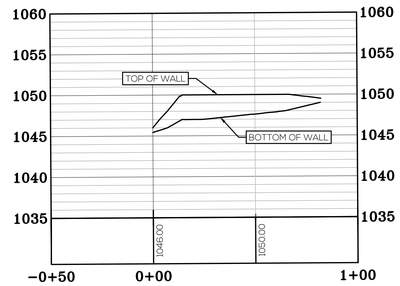

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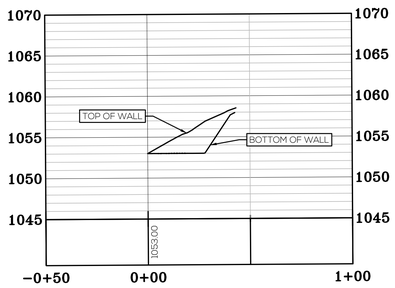

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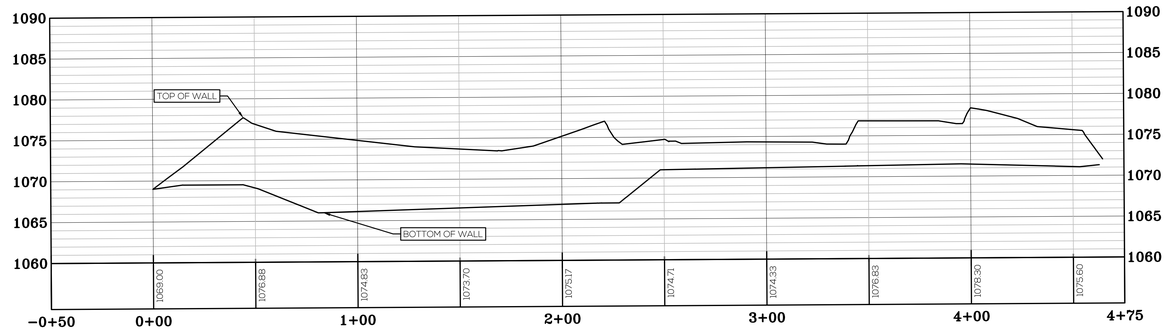

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REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN

4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA AGENDA No. 13627 PROFESSIONAL ENGINEER 6-4-21

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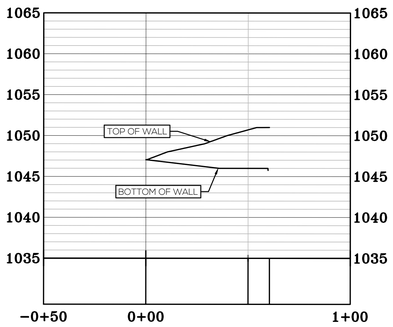
WALL 5



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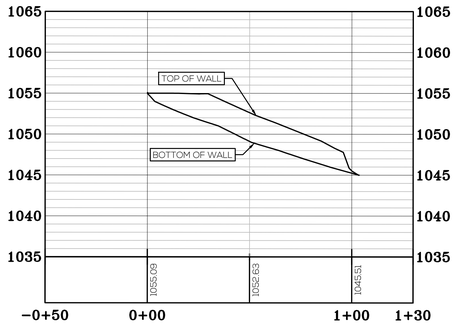

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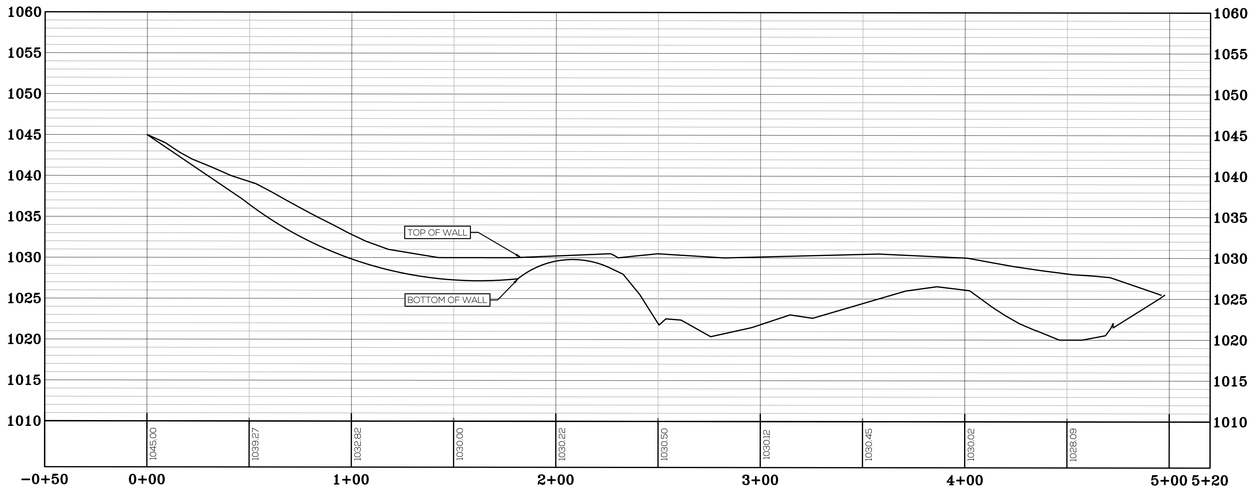

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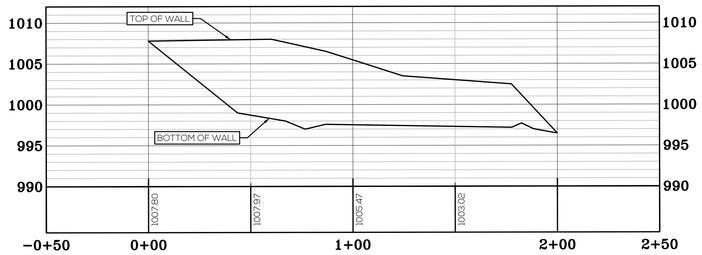

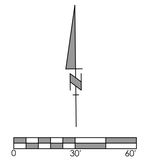

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TERRACES AT HIGH MOUNTAIN
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NOTE:
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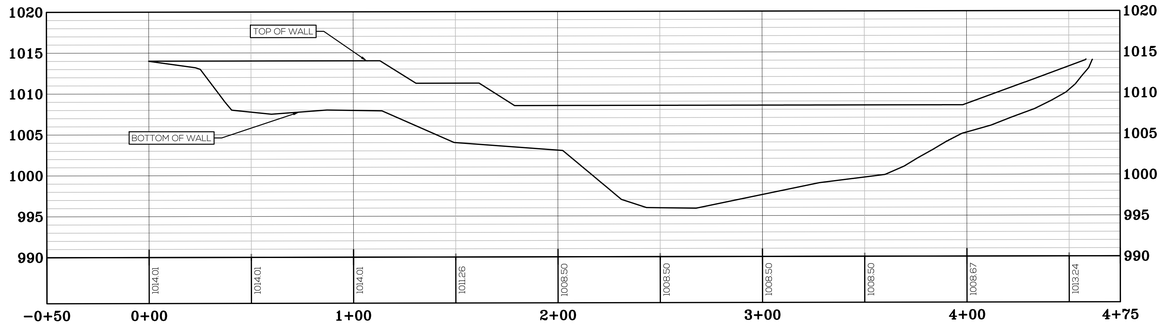
WALL 9



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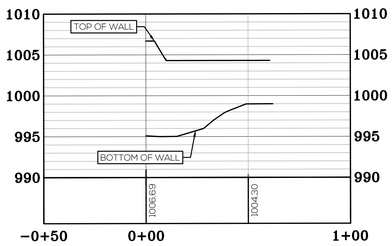

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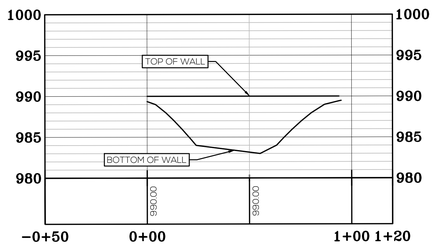

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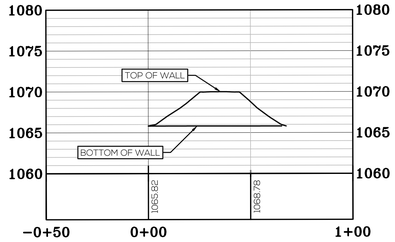

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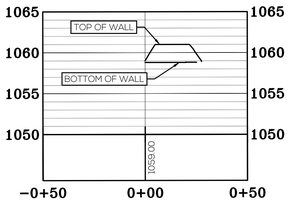

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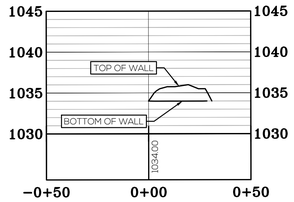

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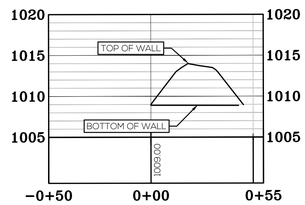

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TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 NO. 19827 PROFESSIONAL ENGINEER

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OUTFALL 004
S 68°37'26" E 462.33' (R)
S 69°36'53" E 485.
(M)
RIP-RAP WITH FABRIC FILTER
STRAW WATTLE INLET PROTECTION (TYP)
INSTALL NORTH AMERICAN GREEN S-75 EROSION CONTROL BLANKET STAPLE PATTERN C
SILT FENCE (TYP)
5/8" IPF
CONCRETE WASHOUT
N 60°56'06" E 489.27' (R)
N 59°32'09" E 490.21' (M)
TEMPORARY CONSTRUCTION EXIT PAD
A2
FFE 1032.77/1044.77
A4
FFE 1045.75/1057.75
A6
FFE 1061.18/1071.85
S 51°21'31" E 499.05' (R)
S 06°42'27" E 496.64' (M)
A5
FFE 1053.40/1064.07
A1
FFE 1018.12/1030.12
A3
FFE 1035.75/1047.75
DOUBLE ROW SILT FENCE (TYP)
OUTFALL 001
A7
FFE 1014.07
X IN ROCK FOUND PURPORTED TO BE THE CENTER OF THE EAST BOUNDARY OF THE NW QUARTER OF SEC. 20, T3S, R1E
OUTFALL 002
3:1 SLOPE
RIP-RAP W/ FABRIC FILTER
STORMWATER MANAGEMENT POND
INLET PROTECTION (TYP)
N 89°04'42" W 579.22' (M)
N 89°03'42" W 579.27' (R)
S 67°17'20" W 240.38' (M)
S 67°17'20" W 240.57' (R)
SOD INSTALLATION REQ'D ON POND TOP, BOTTOM, INTERIOR, & EXTERIOR SLOPES.
1/2" IPF
S/8" IPF
THIS POIT IS THE SOUTHEAST CORNER OF LOT "A" OF A RESUBDIVISION OF LOT 2 OF PACKARD SUBDIVISION AS RECORDED IN DOCUMENT NO. 20121116000741980
OUTFALL 003
L1
L2
L3
L4
L5
L6
L7
L8
L9
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
C13
C14
C15
C16
C17
C18
C19
C20
C21
C22
C23
C24
C25
C26
C27
C28
C29
C30
C31
C32
C33
C34
C35
C36
C37
C38
C39
C40

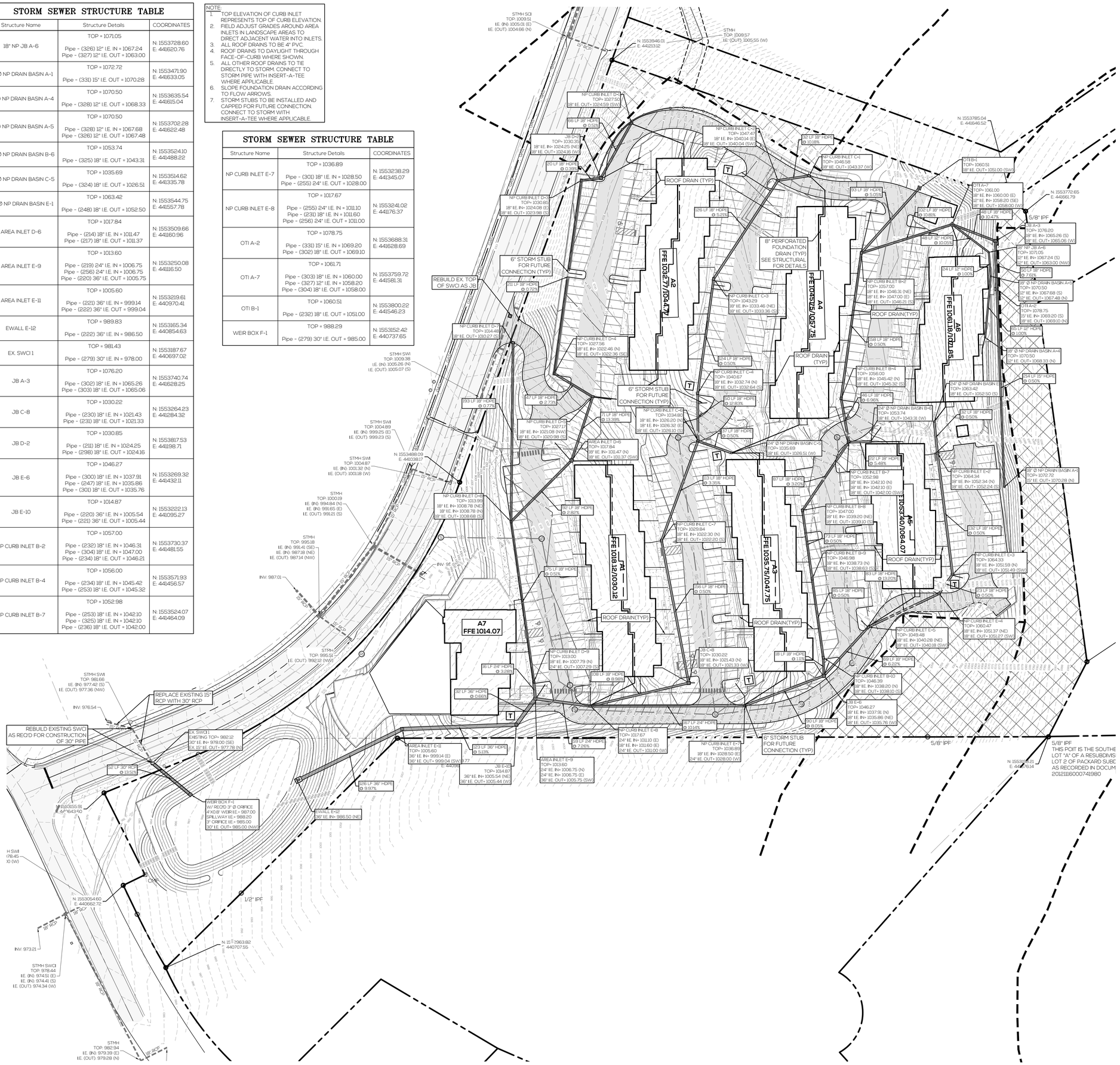
STORM SEWER STRUCTURE TABLE

Structure Name	Structure Details	COORDINATES
18" NP JB A-6	TOP = 1071.05 Pipe - (326) 12" I.E. IN = 1067.24 Pipe - (327) 12" I.E. OUT = 1063.00	N: 1553728.60 E: 441620.76
18" Ø NP DRAIN BASIN A-1	TOP = 1072.72 Pipe - (331) 15" I.E. OUT = 1070.28	N: 1553471.90 E: 441633.05
18" Ø NP DRAIN BASIN A-4	TOP = 1070.50 Pipe - (328) 12" I.E. OUT = 1068.33	N: 1553635.54 E: 441615.04
18" Ø NP DRAIN BASIN A-5	TOP = 1070.50 Pipe - (328) 12" I.E. IN = 1067.68 Pipe - (326) 12" I.E. OUT = 1067.48	N: 1553702.28 E: 441622.48
24" Ø NP DRAIN BASIN B-6	TOP = 1053.74 Pipe - (325) 18" I.E. OUT = 1043.31	N: 1553524.10 E: 441488.22
24" Ø NP DRAIN BASIN C-5	TOP = 1035.69 Pipe - (324) 18" I.E. OUT = 1026.51	N: 1553514.62 E: 441335.78
24" Ø NP DRAIN BASIN E-1	TOP = 1063.42 Pipe - (248) 18" I.E. OUT = 1052.50	N: 1553544.75 E: 441557.78
AREA INLET D-6	TOP = 1017.84 Pipe - (214) 18" I.E. IN = 1011.47 Pipe - (217) 18" I.E. OUT = 1011.37	N: 1553509.66 E: 441160.96
AREA INLET E-9	TOP = 1013.60 Pipe - (219) 24" I.E. IN = 1006.75 Pipe - (256) 24" I.E. IN = 1006.75 Pipe - (220) 36" I.E. OUT = 1005.75	N: 1553250.08 E: 441116.50
AREA INLET E-11	TOP = 1005.60 Pipe - (221) 36" I.E. IN = 999.14 Pipe - (222) 36" I.E. OUT = 999.04	N: 1553219.61 E: 440970.41
EWALL E-12	TOP = 989.83 Pipe - (222) 36" I.E. IN = 986.50	N: 1553165.34 E: 440854.63
EX. SWCI 1	TOP = 981.43 Pipe - (279) 30" I.E. IN = 978.00	N: 1553187.67 E: 440697.02
JB A-3	TOP = 1076.20 Pipe - (302) 18" I.E. IN = 1065.26 Pipe - (303) 18" I.E. OUT = 1065.06	N: 1553740.74 E: 441628.25
JB C-8	TOP = 1030.22 Pipe - (230) 18" I.E. IN = 1021.43 Pipe - (231) 18" I.E. OUT = 1021.33	N: 1553264.23 E: 441284.32
JB D-2	TOP = 1030.85 Pipe - (211) 18" I.E. IN = 1024.25 Pipe - (298) 18" I.E. OUT = 1024.16	N: 1553817.53 E: 441198.71
JB E-6	TOP = 1046.27 Pipe - (300) 18" I.E. IN = 1037.91 Pipe - (247) 18" I.E. IN = 1035.86 Pipe - (301) 18" I.E. OUT = 1035.76	N: 1553269.32 E: 441432.11
JB E-10	TOP = 1014.87 Pipe - (220) 36" I.E. IN = 1005.54 Pipe - (221) 36" I.E. OUT = 1005.44	N: 1553222.13 E: 441095.27
NP CURB INLET B-2	TOP = 1057.00 Pipe - (232) 18" I.E. IN = 1046.31 Pipe - (304) 18" I.E. IN = 1047.00 Pipe - (234) 18" I.E. OUT = 1046.21	N: 1553730.37 E: 441481.55
NP CURB INLET B-4	TOP = 1056.00 Pipe - (234) 18" I.E. IN = 1045.42 Pipe - (253) 18" I.E. OUT = 1045.32	N: 1553571.93 E: 441456.57
NP CURB INLET B-7	TOP = 1052.98 Pipe - (253) 18" I.E. IN = 1042.10 Pipe - (325) 18" I.E. IN = 1042.10 Pipe - (236) 18" I.E. OUT = 1042.00	N: 1553524.07 E: 441464.09

NOTE:
1. TOP ELEVATION OF CURB INLET REPRESENTS TOP OF CURB ELEVATION.
2. FIELD ADJUST GRADES AROUND AREA INLETS IN LANDSCAPE AREAS TO DIRECT ADJACENT WATER INTO INLETS.
3. ALL ROOF DRAINS TO BE 4" PVC.
4. ROOF DRAINS TO DAYLIGHT THROUGH FACE-OF-CURB WHERE SHOWN.
5. ALL OTHER ROOF DRAINS TO TIE DIRECTLY TO STORM. CONNECT TO STORM PIPE WITH INSERT-A-TEE WHERE APPLICABLE.
6. SLOPE FOUNDATION DRAIN ACCORDING TO FLOW ARROWS.
7. STORM STUBS TO BE INSTALLED AND CAPPED FOR FUTURE CONNECTION. CONNECT TO STORM WITH INSERT-A-TEE WHERE APPLICABLE.

STORM SEWER STRUCTURE TABLE

Structure Name	Structure Details	COORDINATES
NP CURB INLET E-7	TOP = 1036.89 Pipe - (301) 18" I.E. IN = 1028.50 Pipe - (255) 24" I.E. OUT = 1028.00	N: 1553238.29 E: 441345.07
NP CURB INLET E-8	TOP = 1017.67 Pipe - (255) 24" I.E. IN = 1011.10 Pipe - (231) 18" I.E. IN = 1011.60 Pipe - (256) 24" I.E. OUT = 1011.00	N: 1553241.02 E: 441176.37
OTI A-2	TOP = 1078.75 Pipe - (331) 15" I.E. IN = 1069.20 Pipe - (302) 18" I.E. OUT = 1069.10	N: 1553688.31 E: 441628.69
OTI A-7	TOP = 1061.71 Pipe - (303) 18" I.E. IN = 1060.00 Pipe - (327) 12" I.E. IN = 1058.20 Pipe - (304) 18" I.E. OUT = 1058.00	N: 1553759.72 E: 441581.31
OTI B-1	TOP = 1060.51 Pipe - (232) 18" I.E. OUT = 1051.00	N: 1553800.22 E: 441546.23
WEIR BOX F-1	TOP = 988.29 Pipe - (279) 30" I.E. OUT = 985.00	N: 1553152.42 E: 440737.65



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I, JERRY M. CARGILE, THE ENGINEER OF RECORD, CERTIFY THAT THE STORM DRAINAGE SYSTEM SHOWN ON THIS DRAWING IS DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CITY ENGINEER OF THE CITY OF HUNTSVILLE, ALABAMA, AND THE HUNTSVILLE SUBDIVISION REGULATIONS. IT IS CERTIFIED THAT THE INFORMATION SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. IT IS FURTHER CERTIFIED THAT ADEQUATE STORM DRAINAGE EASEMENTS ARE PROVIDED, WHERE NECESSARY, TO THE BEST OF MY KNOWLEDGE.

DATE

JERRY M. CARGILE
AL PE NUMBER 19827

I, _____, THE CITY ENGINEER FOR THE CITY OF HUNTSVILLE, ALABAMA, APPROVE OF THE DESIGN AND THE CONSTRUCTION PLANS OF THE SANITARY AND STORM DRAINAGE SYSTEM AS SHOWN IN THESE PLANS.

DATE

CITY ENGINEER
CITY OF HUNTSVILLE, ALABAMA

STORM SEWER STRUCTURE TABLE

Structure Name	Structure Details	COORDINATES
NP CURB INLET B-8	TOP = 1047.00 Pipe - (236) 18" I.E. IN = 1039.20 Pipe - (237) 18" I.E. OUT = 1039.10	N: 1553450.39 E: 441412.10
NP CURB INLET B-9	TOP = 1046.98 Pipe - (237) 18" I.E. IN = 1038.73 Pipe - (238) 18" I.E. OUT = 1038.63	N: 1553375.57 E: 441421.26
NP CURB INLET B-10	TOP = 1046.39 Pipe - (238) 18" I.E. IN = 1038.20 Pipe - (300) 18" I.E. OUT = 1038.10	N: 1553289.13 E: 441431.83
NP CURB INLET C-1	TOP = 1046.58 Pipe - (308) 18" I.E. OUT = 1043.37	N: 1553815.72 E: 441426.05
NP CURB INLET C-2	TOP = 1047.47 Pipe - (308) 18" I.E. IN = 1040.14 Pipe - (225) 18" I.E. OUT = 1040.04	N: 1553811.29 E: 441392.03
NP CURB INLET C-3	TOP = 1043.29 Pipe - (225) 18" I.E. IN = 1033.46 Pipe - (226) 18" I.E. OUT = 1033.36	N: 1553704.96 E: 441319.77
NP CURB INLET C-4	TOP = 1040.67 Pipe - (226) 18" I.E. IN = 1032.74 Pipe - (227) 18" I.E. OUT = 1032.64	N: 1553580.49 E: 441300.01
NP CURB INLET C-6	TOP = 1034.80 Pipe - (227) 18" I.E. IN = 1026.20 Pipe - (324) 18" I.E. IN = 1026.32 Pipe - (229) 18" I.E. OUT = 1026.10	N: 1553528.23 E: 441299.37
NP CURB INLET C-7	TOP = 1029.84 Pipe - (229) 18" I.E. IN = 1022.30 Pipe - (230) 18" I.E. OUT = 1022.20	N: 1553420.15 E: 441257.55
NP CURB INLET D-1	TOP = 1027.50 Pipe - (211) 18" I.E. OUT = 1024.59	N: 1553876.79 E: 441232.99
NP CURB INLET D-3	TOP = 1030.85 Pipe - (298) 18" I.E. IN = 1024.08 Pipe - (212) 18" I.E. OUT = 1023.98	N: 1553815.15 E: 441176.95
NP CURB INLET D-4	TOP = 1027.56 Pipe - (212) 18" I.E. IN = 1022.46 Pipe - (213) 18" I.E. OUT = 1022.36	N: 1553605.07 E: 441143.54
NP CURB INLET D-5	TOP = 1027.17 Pipe - (213) 18" I.E. IN = 1021.08 Pipe - (214) 18" I.E. OUT = 1020.98	N: 1553578.65 E: 441185.28
NP CURB INLET D-7	TOP = 1014.48 Pipe - (299) 18" I.E. OUT = 1010.27	N: 1553639.39 E: 441099.40
NP CURB INLET D-8	TOP = 1013.99 Pipe - (217) 18" I.E. IN = 1008.78 Pipe - (299) 18" I.E. IN = 1008.78 Pipe - (218) 18" I.E. OUT = 1008.68	N: 1553443.99 E: 441093.57
NP CURB INLET D-9	TOP = 1013.00 Pipe - (218) 18" I.E. IN = 1007.79 Pipe - (219) 24" I.E. OUT = 1007.29	N: 1553268.51 E: 441115.16
NP CURB INLET E-2	TOP = 1064.34 Pipe - (248) 18" I.E. IN = 1052.34 Pipe - (244) 18" I.E. OUT = 1052.24	N: 1553510.58 E: 441560.67
NP CURB INLET E-3	TOP = 1064.33 Pipe - (244) 18" I.E. IN = 1051.59 Pipe - (251) 18" I.E. OUT = 1051.49	N: 1553377.50 E: 441574.73
NP CURB INLET E-4	TOP = 1060.47 Pipe - (251) 18" I.E. IN = 1051.37 Pipe - (252) 18" I.E. OUT = 1051.27	N: 1553356.76 E: 441559.59
NP CURB INLET E-5	TOP = 1049.48 Pipe - (252) 18" I.E. IN = 1040.28 Pipe - (247) 18" I.E. OUT = 1040.18	N: 1553321.60 E: 441481.56

REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 NO. 19827 PROFESSIONAL ENGINEER JERRY M. CARGILE

C-9.0
DRAINAGE PLAN

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CITY OF HUNTSVILLE UTILITY NOTES:

1. PRIOR TO ANY SANITARY SEWER MAIN BEING CONSTRUCTED OUTSIDE RIGHTS OF WAY OR UTILITY AND DRAINAGE EASEMENTS, THE CONTRACTOR IS REQUIRED TO OBTAIN A PLUMBING PERMIT FROM THE CITY OF HUNTSVILLE INSPECTION DEPARTMENT.
2. PRIOR TO CONNECTING SERVICE LATERAL TO SANITARY SEWER MAIN, THE CONTRACTOR IS REQUIRED TO OBTAIN A SEWER TAP PERMIT FROM THE CITY OF HUNTSVILLE ENGINEERING DEPARTMENT.

I, JERRY M. CARGILE, THE ENGINEER OF RECORD, CERTIFY THAT THE STORM DRAINAGE SYSTEM SHOWN ON THIS DRAWING IS DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CITY ENGINEER OF THE CITY OF HUNTSVILLE, ALABAMA, AND THE HUNTSVILLE SUBDIVISION REGULATIONS. IT IS CERTIFIED THAT THE INFORMATION SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. IT IS FURTHER CERTIFIED THAT ADEQUATE STORM DRAINAGE EASEMENTS ARE PROVIDED, WHERE NECESSARY, TO THE BEST OF MY KNOWLEDGE.

DATE

JERRY M. CARGILE
AL PE NUMBER 19827

I, _____ THE CITY ENGINEER FOR THE CITY OF HUNTSVILLE, ALABAMA, APPROVE OF THE DESIGN AND THE CONSTRUCTION PLANS OF THE SANITARY AND STORM DRAINAGE SYSTEM AS SHOWN IN THESE PLANS.

DATE

CITY ENGINEER
CITY OF HUNTSVILLE, ALABAMA

SANITARY SEWER GENERAL NOTES

A) "ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF THE CIVIL ENGINEER."

B) "THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR TV, VACUUM TESTING MANHOLES, AND AIR TESTING SEWER LINES. A 48-HOUR NOTICE IS REQUIRED PRIOR TO TESTING PROCEDURES. REPRESENTATIVES FROM BOTH THE CITY ENGINEERING OFFICE AND WATER POLLUTION CONTROL SHALL BE PRESENT TO VERIFY.

C) "NOTICE TO CONTRACTOR: THE CONTRACTOR SHALL PROVIDE THE TESTING RESULTS." CITY ENGINEER WITH A COMPLETE SET OF RECORD DRAWINGS (AS-BUILTS) IN DIGITAL FORM (DGN OR DXF FORMAT) AND HARDCOPY FORM UNLESS OTHERWISE SPECIFIED, UPON COMPLETION OF CONSTRUCTION. THEY SHALL INCLUDE ACTUAL FIELD ANGLES BETWEEN LINES, ALL ACTUAL SERVICE LINES AND TEE LOCATIONS, THE DISTANCE OF THE END OF SERVICE LINES, TO PROPERTY CORNERS AND LINES, THE DEPTH TO TOP OF THE END OF THE SERVICE LINE, AND SHALL REFLECT ALL ALIGNMENT AND GRADE CHANGES FROM THE DESIGN DRAWINGS MADE DURING CONSTRUCTION. RECORD DRAWINGS MUST BE COMPLETED AND SUBMITTED PRIOR TO ACCEPTANCE OF THE SEWERS INTO THE PUBLIC SYSTEM AND ANY CONNECTIONS.

D) "NOTICE TO CONTRACTOR: ALL EVIDENT EXISTING UTILITIES BEING MADE THERETO ARE SHOWN. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXACT SIZES AND LOCATIONS OF ALL EXISTING UTILITIES BEFORE INITIATING ANY CONSTRUCTION OPERATIONS. ANY EXISTING STRUCTURE, PIPING OR UTILITY DISTURBED OR DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND/OR ENGINEER. THE CONTRACTOR SHALL CALL ALABAMA LINE LOCATION CENTER, INC., 1-800-292-8525, AND HUNTSVILLE UTILITIES, 1-256-882-8255, TWO (2) DAYS BEFORE ANY EXCAVATION ON THIS PROJECT." IF THE PROJECT IS WITHIN AN ALDOT RIGHT-OF-WAY, ADD THE FOLLOWING SENTENCE: "THIS REQUIREMENT OF THE ALABAMA DEPARTMENT OF TRANSPORTATION AND ALABAMA ACT 94-487."

0 40' 80'

REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA
GENERAL
6-4-21
No. 19827
PROFESSIONAL
JERRY M. CARGILE

C-10.0
SANITARY SEWER PLAN

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NOTE:
COORD. WITH MEP FOR REQUIRED BFP TO BE PROVIDED ON EVERY FIRE AND DOMESTIC WATER LINE INSIDE THE BUILDING BEFORE THE FIRST SERVICE POINT.

NOTES:

1. DOMESTIC WATER LINES SHALL BE C900 PVC PIPE, PRESSURE CLASS 200, SUITABLE FOR POTABLE WATER SERVICE AT SIZES INDICATED ON PLANS

2. ALL WATER LINES TO BE INSTALLED PER HUNTSVILLE UTILITIES STANDARDS DISINFECTED AND TESTED

3. THRUST BLOCKS OR FULLY RESTRAINED JOINTS ARE REQUIRED AT ALL WATER LINE TEES AND FITTINGS. SEE DETAILS

4. COORDINATE WITH MEP AND FIRE SPRINKLER CONTRACTOR TO ENSURE REQUIRED BACKFLOW PREVENTORS ARE PROVIDED ON ALL FIRE AND DOMESTIC SERVICES AT BUILDING ENTRY

5. TAMPER - PROOF SWITCH REQUIRED AT HUNTSVILLE UTILITIES METER VAULTS - COORDINATE WITH ELECTRICAL TO PROVIDE POWER AT TIME OF WATERLINE INSTALLATION.

REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 NO. 19827 PROFESSIONAL ENGINEER J. M. CARGILE

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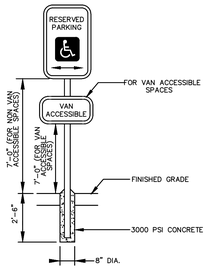
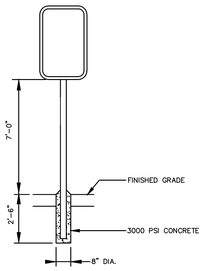


NOTES:

1. HANDICAP PARKING SIGN SHALL CONFORM TO ALL GOVERNING REGULATIONS.
2. HANDICAP SIGN SHALL BE 12" x 18" x .080", FASTENED WITH TWO EACH 3/8" CADIUM BOLTS, NUTS AND WASHERS.
3. POST SHALL BE 1.75" x 3-1/2" HEAVY DUTY GALVANIZED.
4. CONTRACTOR SHALL INSTALL A HANDICAP PARKING SIGN AT EACH HANDICAP PARKING SPACE.

HANDICAP SIGN

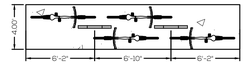
NOT TO SCALE



STANDARD SIGN

NOT TO SCALE

NOTE: MAGLIN 2300 SERIES ICONIC BIKE RACKS TO BE PROVIDED



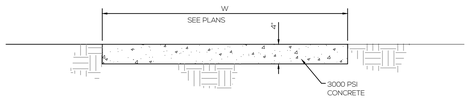
BIKE PARKING DETAIL

NOT TO SCALE

NOTE: CONTRACT TO INSTALL "BICYCLE PARKING ONLY" SIGN# K-4301-LK OR EQUAL. INSTALL SO SIGN IS VISIBLE FROM PARKING (TYP.)

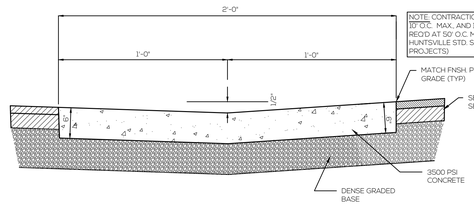
UNLESS EXPLICITLY INDICATED OTHERWISE:
1. CROSS SLOPE ON SIDEWALKS SHALL NOT EXCEED 2%
2. HAND RAILING IS REQUIRED WHERE THE RUNNING SLOPE EXCEEDS 5%. (SEE ARCHITECTURAL FOR DETAILS)
3. LANDINGS ARE REQUIRED AT THE END OF SECTIONS EQUAL TO OR EXCEEDING 5%. THESE LANDINGS SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION.
4. RUNNING SLOPE SHALL NOT EXCEED 5% FOR ACCESSIBLE ROUTES.

NOTE: CONTRACTION JOINTS SHALL BE SPACED AT "W" (MAX) CENTER TO CENTER, AND SHALL BE FORMED USING PLASTIC OR HARDBOARD PREFORMED STRIPS (1/3 DEPTH OF SLAB) PLACED IN THE SIDEWALK AND CURB AT THE TIME OF CONSTRUCTION, OR BY SAWCUTTING THE SIDEWALK AND CURB TO 1/3 DEPTH WITHIN 12 HOURS AFTER CONSTRUCTION.



SIDEWALK DETAIL

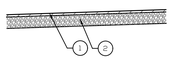
NOT TO SCALE



NOTE: CONTRACTION JOINTS REQ'D AT 10' O.C. MAX. AND 1/2" EXP. JOINTS REQ'D AT 50' O.C. MAX. (PER CITY OF HUNTSVILLE STD. SPEC'S FOR CONSTR PROJECTS)

2' VALLEY GUTTER

NOT TO SCALE

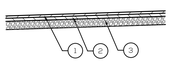


TOP 6" OF SUBGRADE IS TO BE COMPACTED TO 100% PROCTOR DENSITY. BELOW TOP 6" IS TO BE COMPACTED TO 95% PROCTOR DENSITY AS DETERMINED BY AASHTO T-99 COMPACTION TEST. SEE PAVEMENT NOTES FOR ADDITIONAL TESU INFORMATION.

1. 224 LBS./S.Y. 2" HOT BITUMINOUS CONCRETE WEARING COURSE, ALDOT, REF. 424-A OF THE SPECIFICATIONS.
2. 6" LAYER OF DENSE GRADED LIMESTONE BASE COURSE ALDOT REF. 301 OF SPECIFICATIONS. ALL MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 825, TYPE "B", COMPACTION TO 100% PROCTOR DENSITY.

STANDARD ASPHALT PAVEMENT SECTION

NOT TO SCALE

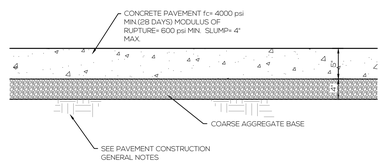


TOP 6" OF SUBGRADE IS TO BE COMPACTED TO 100% PROCTOR DENSITY. BELOW TOP 6" IS TO BE COMPACTED TO 95% PROCTOR DENSITY AS DETERMINED BY AASHTO T-99 COMPACTION TEST. SEE PAVEMENT NOTES FOR ADDITIONAL TESU INFORMATION.

1. 168 LBS./S.Y. (1.5") HOT BITUMINOUS CONCRETE WEARING COURSE, ALDOT, REF. 424-A OF THE SPECIFICATIONS.
2. 252 LBS./S.Y. (3") HOT BITUMINOUS CONCRETE BINDER COURSE, ALDOT, REF. 424-B OF SPECIFICATIONS.
3. 6" LAYER OF DENSE GRADED LIMESTONE BASE COURSE ALDOT REF. 301 OF SPECIFICATIONS. ALL MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 825, TYPE "B", COMPACTION TO 100% PROCTOR DENSITY.

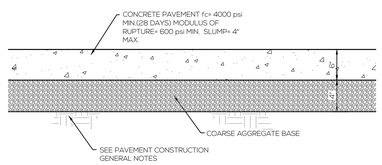
HEAVY DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE



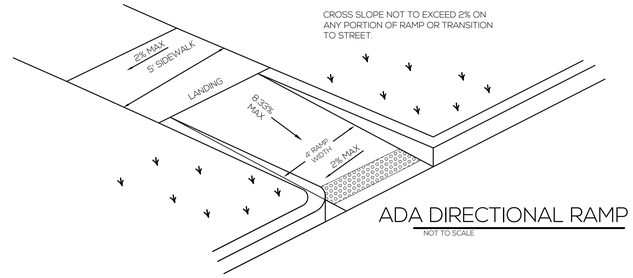
STANDARD CONCRETE PAVEMENT

NOT TO SCALE



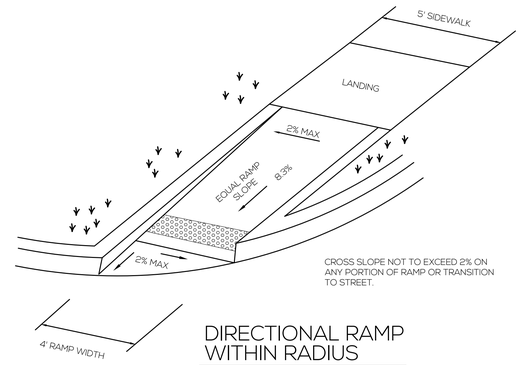
HEAVY DUTY CONCRETE PAVEMENT

NOT TO SCALE



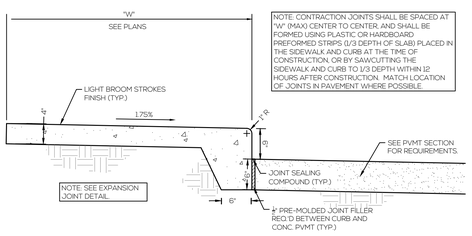
ADA DIRECTIONAL RAMP

NOT TO SCALE



DIRECTIONAL RAMP WITHIN RADIUS

NOT TO SCALE



NOTE: CONTRACTION JOINTS SHALL BE SPACED AT "W" (MAX) CENTER TO CENTER, AND SHALL BE FORMED USING PLASTIC OR HARDBOARD PREFORMED STRIPS (1/3 DEPTH OF SLAB) PLACED IN THE SIDEWALK AND CURB AT THE TIME OF CONSTRUCTION, OR BY SAWCUTTING THE SIDEWALK AND CURB TO 1/3 DEPTH WITHIN 12 HOURS AFTER CONSTRUCTION. MATCH LOCATION OF JOINTS IN PAVEMENT WHERE POSSIBLE.

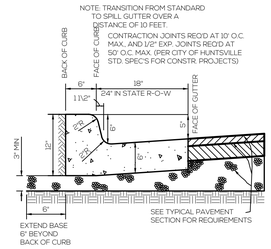
NOTE: SEE EXPANSION JOINT DETAIL

CONCRETE SIDEWALK & TURN-DOWN CURB DETAIL

NOT TO SCALE

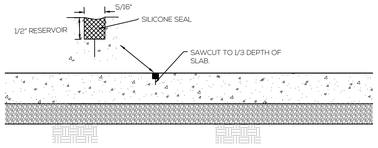
NOTE: TRANSITION FROM STANDARD TO SPILL GUTTER OVER A DISTANCE OF 10 FEET.

CONTRACTION JOINTS REQ'D AT 10' O.C. MAX. AND 1/2" EXP. JOINTS REQ'D AT 50' O.C. MAX. (PER CITY OF HUNTSVILLE STD. SPEC'S FOR CONSTR. PROJECTS)



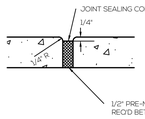
STANDARD CURB & GUTTER

NOT TO SCALE



CONTRACTION JOINT DETAIL

NOT TO SCALE

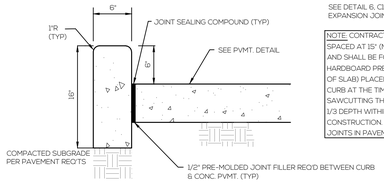


NOTE: SPACE EXPANSION JOINTS AT 50' MAX. AND AT ALL LOCATIONS WHERE CURB OR SIDEWALK TERMINATES AGAINST A RIGID OBJECT.

1/2" PRE-MOLDED JOINT FILLER REQ'D BETWEEN CURB & CONC. PVMT. (TYP)

SIDEWALK & CURB EXPANSION JOINT DETAIL

NOT TO SCALE



SEE DETAIL 6, C1.05 FOR EXPANSION JOINT REQ'TS

NOTE: CONTRACTION JOINTS SHALL BE SPACED AT 15' (MAX) CENTER TO CENTER, AND SHALL BE FORMED USING PLASTIC OR HARDBOARD PREFORMED STRIPS (1/3 DEPTH OF SLAB) PLACED IN THE SIDEWALK AND CURB AT THE TIME OF CONSTRUCTION, OR BY SAWCUTTING THE SIDEWALK AND CURB TO 1/3 DEPTH WITHIN 12 HOURS AFTER CONSTRUCTION. MATCH LOCATION OF JOINTS IN PAVEMENT WHERE POSSIBLE.

STAND-UP CURB END DETAIL (6 X 16)

NOT TO SCALE

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO

DETAIL CALL-OUTS: A

1. RAMPS:
   16'-0" MAX LENGTH
   8.3% (12:1) MAX RUNNING SLOPE
   5.0% (20:1) MIN RUNNING SLOPE
   2.0% (50:1) MAX CROSS SLOPE
2. FLARES
   10.0% (10:1) MAX RUNNING SLOPE
3. LANDING (TURNING SPACE)
   2.0% (50:1) MAX RUNNING SLOPE
   2.0% (50:1) MAX CROSS SLOPE
4. BLENDED TRANSITIONS
   5.0% (20:1) MAX RUNNING SLOPE
5. SIDEWALKS
   5.0% (20:1) MAX RUNNING SLOPE A
   2.0% (50:1) MAX CROSS SLOPE
6. DRIVEWAYS
   8.0% (12.5:1) MAX CHANGE IN GRADE BETWEEN ROAD SURFACES AND DRIVEWAY
   8.0% (12.5:1) MAX CHANGE IN GRADE BETWEEN DRIVEWAY AND SIDEWALK

GENERAL NOTES FOR CURB RAMPS AND SIDEWALKS:

1. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK-OF-SIDEWALK SUCH AS, A BUILDING ADJACENT TO THE SIDEWALK, THE TURNING SPACE SHALL BE 4'-0" MIN BY 5'-0" MIN. THE 5'-0" DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.
2. SIDEWALK, RAMP, AND CURB RAMP SURFACES SHALL BE NON-SKID PREPARED BY BRUSHING.
3. 2% (50:1) OR LESS IS CONSIDERED FLAT.
4. A INSTALL EXPANSION JOINT MATERIAL WHERE NEW CONSTRUCTION MEETS EXISTING SIDEWALKS, CURBS, GUTTERS, OR FOUNDATIONS. THE CONSTRUCTION JOINT MATERIAL SHALL MEET THE REQUIREMENT OF SECTION 832.01 AND SEALED IN ACCORDANCE WITH SECTION 832.02.
5. THE SUBGRADE SHALL BE FREE OF ALL ROOTS AND OTHER UNDESIRABLE MATERIALS WITH THE ROOTS CUT BACK ONE (1) FOOT FROM FACE OF SIDEWALK.
6. SIDEWALKS, RAMPS, LANDINGS, AND CURB RAMPS SHALL BE FOUR (4) INCHES THICK UNLESS NOTED OTHERWISE.
7. RAMP AND CURB RAMP GRADE(SLOPE IN THE DIRECTION OF PEDESTRIAN TRAVEL) SHALL NOT EXCEED 8.3% (12:1).

A GUTTER COUNTER SLOPE SHALL NOT EXCEED 5.0% (20:1).

A WITHIN THE STREET OR HIGHWAY RIGHT-OF-WAY, THE GRADE OF THE PEDESTRIAN ACCESS ROUTES SHALL NOT EXCEED THE GENERAL GRADE ESTABLISHED FOR THE ADJACENT STREET OR HIGHWAY. WHERE PEDESTRIAN ACCESS ROUTES ARE NOT CONTAINED WITHIN A STREET OR HIGHWAY RIGHT-OF-WAY, THEY SHALL HAVE A MAXIMUM SLOPE OF 2011 (5.0%).

A PROVIDE A TWO (2) FEET MINIMUM TRANSITION STRIP IF ALGEBRAIC DIFFERENCES BETWEEN ROADWAY SLOPE AND CURB RAMP SLOPE ARE GREATER THAN 911 (11.0%). TRANSITION STRIP SHALL NOT EXCEED 2.0% (5011).

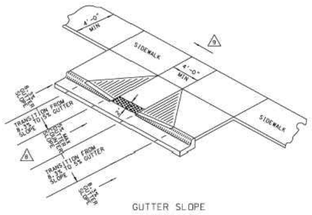
A DETECTABLE WARNING SURFACES MUST BE TWO (2) FEET IN LENGTH IN THE DIRECTION OF PEDESTRIAN TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP. THE DETECTABLE WARNING MATERIAL AND MANUFACTURER SHALL BE FROM THE ALABAMA DEPARTMENT OF TRANSPORTATION LIST OF QUALIFIED PRODUCTS SOURCES, AND SPECIFIED. THE COLOR SHALL BE SELECTED FROM OPTIONS PROVIDED BY THE ENGINEER THAT SHALL CONTRAST THE SURROUNDING SURFACES LIGHT-ON-DARK OR DARK-ON-LIGHT.

A VERTICAL SURFACE DISCONTINUITIES SHALL BE 0.50 INCH MAXIMUM. VERTICAL SURFACE DISCONTINUITIES BETWEEN 0.25 AND 0.5. INCH SHALL BE BEVELED WITH A SLOPE NOT GREATER THAN 211 (50.0%).

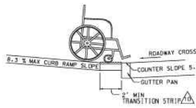
A DOMES SHALL BE PARALLEL TO THE RAMP SO THAT THE WHEELCHAIR WHEELS CAN TRAVEL BETWEEN THE DOMES.

A THESE MAXIMUM SLOPES SHALL NOT BE EXCEEDED.

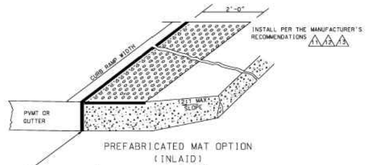
A TO PREVENT STANDING WATER AT THE BASE OF CURB RAMPS, LOCATE STORM DRAIN INLETS UPSTREAM.



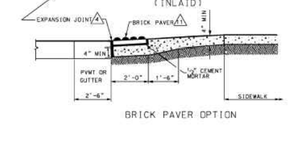
GUTTER SLOPE TRANSITIONS



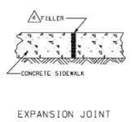
CHANGE OF GRADE LIMITATIONS



PREFABRICATED MAT OPTION (INLAID)



BRICK PAVER OPTION



EXPANSION JOINT DETAILS

—SPECIFICATIONS—
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

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MONTGOMERY, AL 36130-1102

DESIGN BUREAU SPECIAL DRAWING

CURB RAMP DETAIL CALLOUTS, GENERAL NOTES FOR CURB RAMPS AND SIDEWALKS, AND DETAILS

DRAWN BY:
DATE DRAWN:

SPECIAL DRAWING NO.
SW-618 (SHEET 1 OF 4)

SHEET NO.
734

NOT TO SCALE

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TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 18827 PROFESSIONAL ENGINEER J. M. CARGILE

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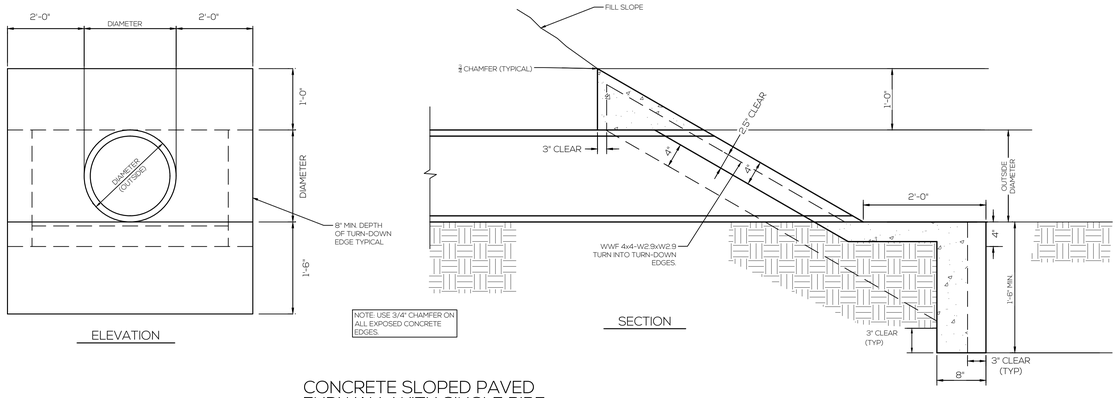
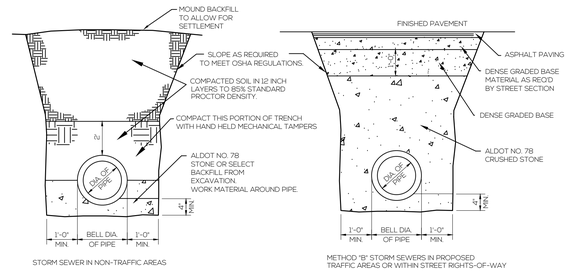


CONCRETE SLOPED PAVED ENDWALL WITH SINGLE PIPE

NOT TO SCALE



STORM SEWER PIPE BEDDING

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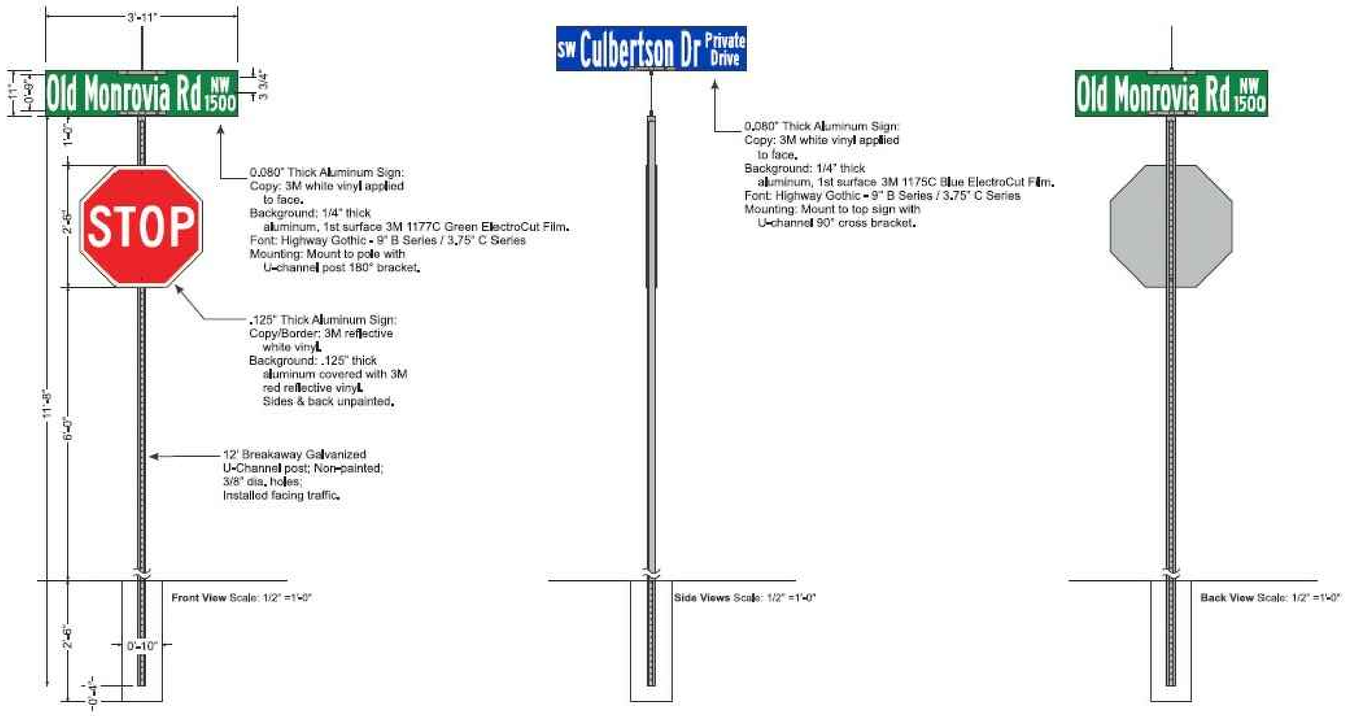
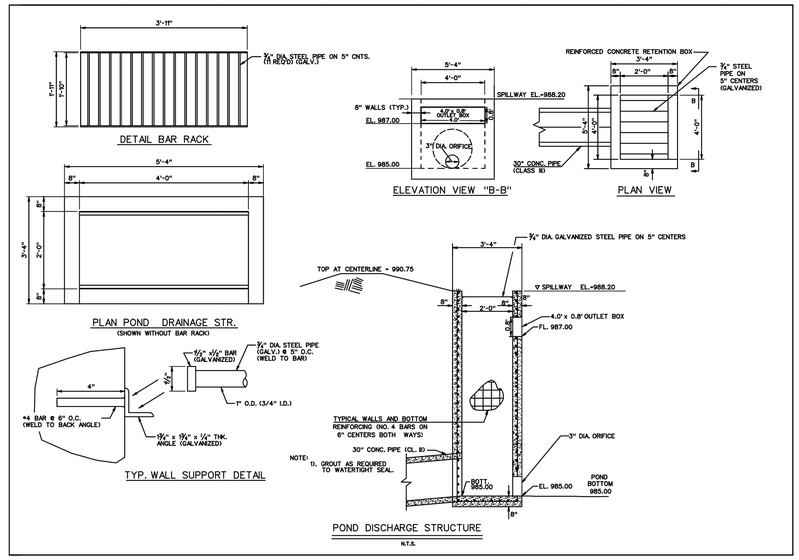


SIGN DETAILS

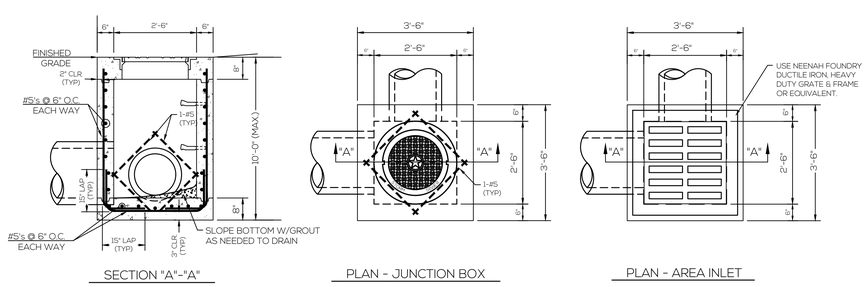
NOT TO SCALE



POND OUTLET STRUCTURE DETAIL

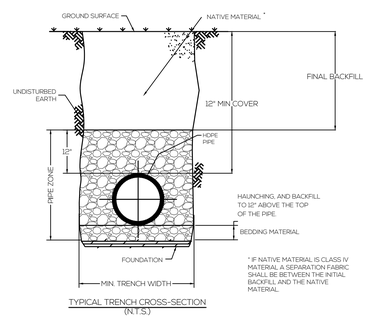
NOT TO SCALE

NOTES:
1. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS (CLASS "A").
2. ALL REINFORCING SHALL BE GRADE 60 DEFORMED BARS, AND SHALL CONFORM TO THE REQ'TS OF THE STANDARD SPECIFICATIONS FOR BILLET STEEL (ASTM A-15), WITH DEFORMATIONS CONFORMING TO ASTM A-305.



JUNCTION BOX / AREA INLET (15"-24" PIPES)

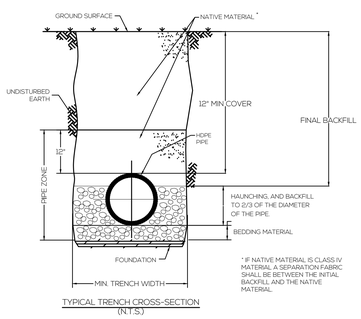
NOT TO SCALE



TRENCH INSTALLATION DETAIL FOR VEHICULAR LOADING

NOTES
1. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A WOVEN GEOTEXTILE FABRIC.
2. BEDDING: SUITABLE MATERIAL SHALL BE ADOT #78 COARSE AGGREGATE AND COMPACTED TO MIN. OF 90% SPD.

   UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" TO 6" THICK AND SHALL BE ADOT #78 COARSE AGGREGATE.
3. HAUNCHING INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE ADOT #78 COARSE AGGREGATE COMPACTED INTO 6 INCH MAXIMUM LIFTS AND COMPACTED TO 90% SPD.
4. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER MINIMUM TRENCH WIDTHS SHALL BE NOT LESS THAN THE GREATER OF EITHER THE PIPE OUTSIDE DIMENSIONS PLUS 16" (400 MM) OR THE PIPE OUTSIDE DIAMETER TIME 1.25, PLUS 12" Ø (300 MM).
5. MINIMUM COVER: MINIMUM RECOMMENDED DEPTHS OF COVER FOR PIPE SIZES 4-48" SHALL BE 12". FOR PIPE SIZE 60", MIN COVER SHALL BE 24".
6. ALL HIGH DENSITY POLYETHYLENE (HDPE) PIPE USED FOR CULVERT AND STORM DRAIN APPLICATIONS SHALL CONFORM TO THE REQUIREMENT OF AASHTO M294 CURRENT EDITION AND BE CERTIFIED THROUGH THE PLASTIC PIPE INSTITUTE (PPI) THIRD PARTY CERTIFICATION PROGRAM. ALL HDPE PIPE DELIVERED AND USED SHALL BEAR THE THIRD PARTY ADMINISTERED PPI SEAL.



TRENCH INSTALLATION DETAIL NO VEHICULAR LOADING

ADS BEDDING DETAIL

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TERRACES AT HIGH MOUNTAIN

4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 19827 PROFESSIONAL ENGINEER JAMES M. CAROLLO

C-12.1

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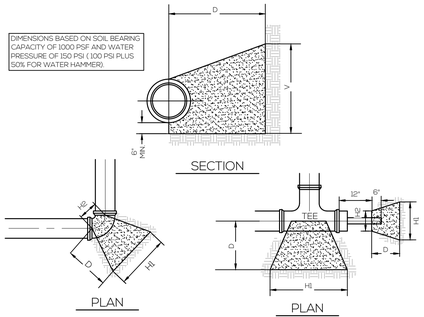
DIMENSIONS BASED ON SOIL BEARING CAPACITY OF 1000 PSF AND WATER PRESSURE OF 150 PSI (100 PSI PLUS 50% FOR WATER HAMMER)



PIPE SIZE	11-1/4° BEND			
	H1	H2	D	V
4"	12"	8"	12"	12"
6"	16"	10"	18"	12"
8"	8"	11"	18"	16"

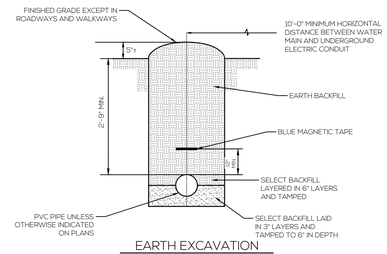
PIPE SIZE	22-1/2° BEND			
	H1	H2	D	V
4"	12"	8"	12"	12"
6"	18"	10"	18"	18"
8"	27"	11"	18"	20"

PIPE SIZE	45° BEND			
	H1	H2	D	V
4"	24"	8"	12"	12"
6"	30"	10"	18"	20"
8"	36"	11"	18"	30"

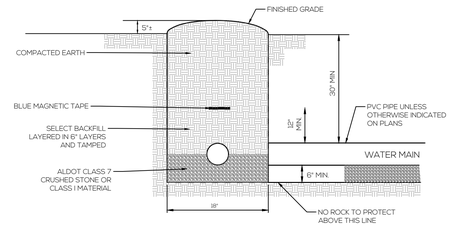
PIPE SIZE	90° BEND			
	H1	H2	D	V
4"	24"	12"	12"	24"
6"	36"	18"	18"	30"
8"	48"	18"	18"	36"

PIPE SIZE	TEES & PLUGS			
	H1	H2	D	V
4"	24"	12"	12"	18"
6"	30"	18"	18"	24"
8"	40"	18"	18"	30"

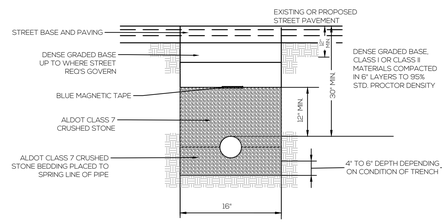
CONCRETE THRUST BLOCK DETAIL
NOT TO SCALE



EARTH EXCAVATION

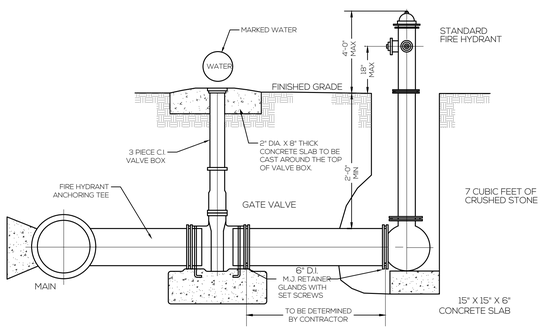


ROCK EXCAVATION

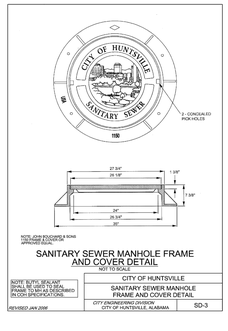


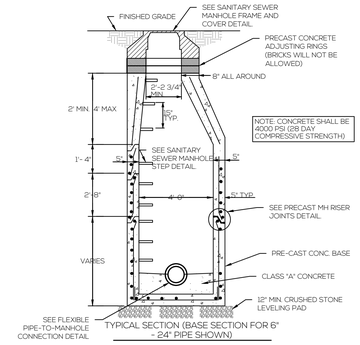
TRAFFIC AREA

WATER MAIN TRENCH DETAILS
NOT TO SCALE



FIRE HYDRANT DETAIL
NOT TO SCALE

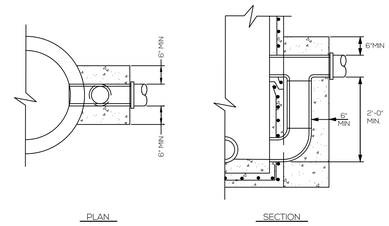




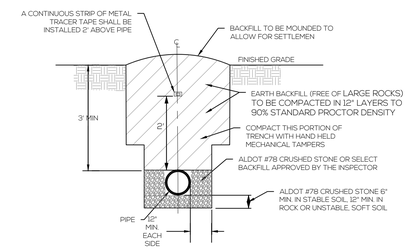
TYPICAL SECTION (BASE SECTION FOR 6" - 24" PIPE SHOWN)

STANDARD SANITARY SEWER MANHOLE DETAIL
NOT TO SCALE

NOTE: FOR MANHOLES LESS THAN 4.5' IN DEPTH, CONTRACTOR SHALL PROVIDE A SPECIAL ORDER MANHOLE OR A POURED-IN-PLACE MANHOLE AS APPROVED BY THE CITY ENGINEER

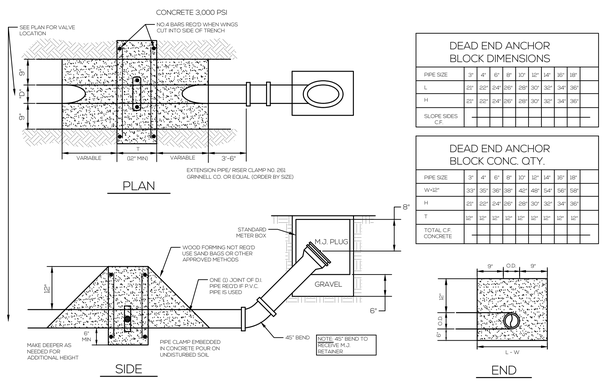


SANITARY SEWER MANHOLE EXTERNAL DROP CONNECTION DETAIL
NOT TO SCALE



TYPICAL TRENCH DETAIL FOR DUCTILE IRON OR REINFORCED CONCRETE SANITARY SEWER PIPE IN NON-TRAFFIC AREA
NOT TO SCALE

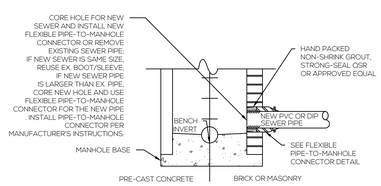
NOTE: ALL EXCAVATION WORK SHALL BE IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF GOVERNING AUTHORITIES HAVING JURISDICTION



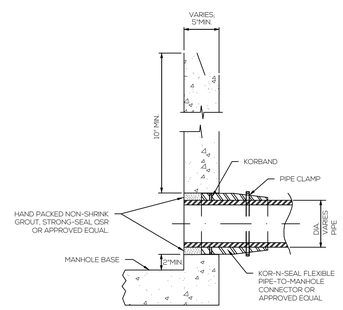
DEAD END ANCHOR BLOCK DIMENSIONS										
PIPE SIZE	3"	4"	6"	8"	10"	12"	14"	16"	18"	
L	22"	22"	24"	26"	28"	30"	32"	34"	36"	
H	22"	22"	24"	26"	28"	30"	32"	34"	36"	
SLOPE SIDES C.F.										

DEAD END ANCHOR BLOCK CONC. QTY.										
PIPE SIZE	3"	4"	6"	8"	10"	12"	14"	16"	18"	
W=12"	22"	25"	36"	36"	42"	48"	54"	56"	58"	
H	22"	22"	24"	26"	28"	30"	32"	34"	36"	
T	12"	12"	12"	12"	12"	12"	12"	12"	12"	
TOTAL C.F. CONCRETE										

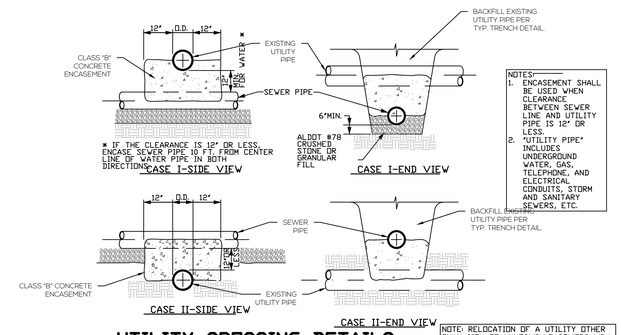
8" BLOWOFF ASSEMBLY
NOT TO SCALE



CONNECTION OF NEW SEWER TO EXISTING MANHOLE
NOT TO SCALE



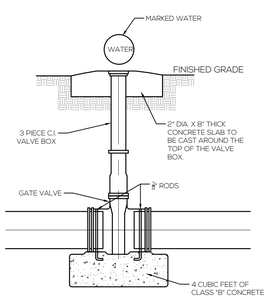
FLEXIBLE PIPE-TO-MANHOLE CONNECTOR DETAIL
NOT TO SCALE



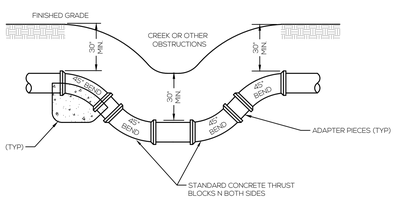
NOTES:
1. ENCASEMENT SHALL BE USED WHEN CLEARANCE BETWEEN SEWER LINE AND UTILITY PIPE IS 12" OR LESS.
2. "UTILITY PIPE" INCLUDES UNDERGROUND WATER, GAS, TELEPHONE, AND ELECTRICAL CONDUITS, STORM AND SANITARY SEWERS, ETC.

UTILITY CROSSING DETAILS
NOT TO SCALE

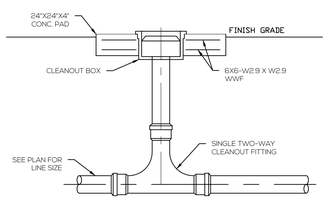
NOTE: RELOCATION OF A UTILITY OTHER THAN CITY OF HUNTSVILLE SEWERS WILL BE THE RESPONSIBILITY OF THAT UTILITY. HOWEVER, CONTRACTOR SHALL COORDINATE WITH OTHER UTILITIES.



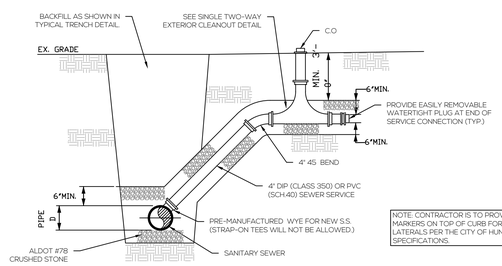
VALVE BOX DETAIL
NOT TO SCALE



(IF REQUIRED) DITCH AND OBSTRUCTION CROSSING DETAIL
NOT TO SCALE

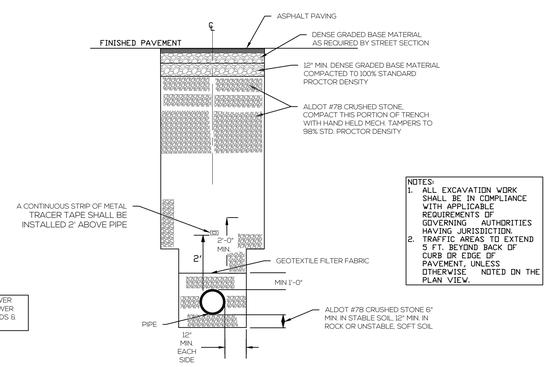


SINGLE TWO-WAY EXTERIOR CLEANOUT
NOT TO SCALE



NOTE: CONTRACTOR IS TO PROVIDE SANITARY SEWER MARKERS ON TOP OF CURB FOR ALL SANITARY SEWER LATERALS PER THE CITY OF HUNTSVILLE STANDARDS & SPECIFICATIONS.

SERVICE CONNECTION FOR DEEP SEWER (MORE THAN 6')
NOT TO SCALE



NOTES:
1. ALL EXCAVATION WORK SHALL BE IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF GOVERNING AUTHORITIES HAVING JURISDICTION.
2. TRAFFIC AREAS TO EXTEND 5 FT. BEYOND BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED ON THE PLAN VIEW.

TYPICAL TRENCH DETAIL FOR SANITARY SEWER PIPE IN TRAFFIC AREA
NOT TO SCALE

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4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 18827 PROFESSIONAL ENGINEER N. CAROLINA

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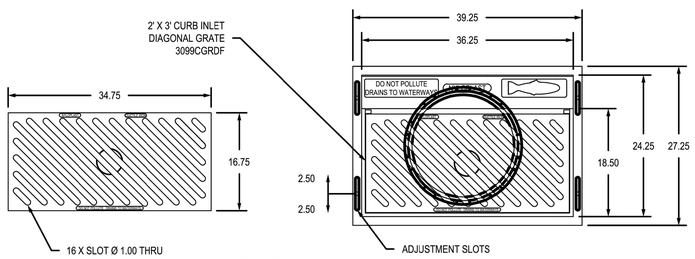
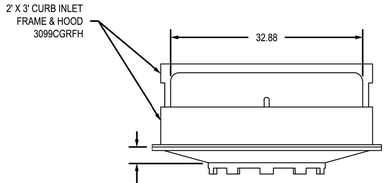
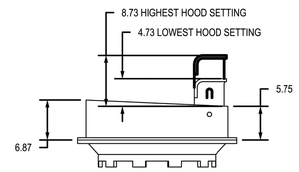
3099CGRDF & 3099CGRFH

APPROX. GRATE DRAIN AREA = 232.87 SQ IN
*APPROX. WEIGHT WITH FRAME & HOOD = 344.00 LBS







DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
GRATE MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536
GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO. 7002-110-057
SLOPE OF GRATE SURFACE IS 5.2%
CURB INLET FRAME INSIDE VOLUME IS APPROX 2.73 CU FT
APPROX. DRAIN AREA OF GRATE & HOOD
LOWEST SETTING = 369.54 SQ IN
LOWEST + 1" SETTING = 402.41 SQ IN
LOWEST + 2" SETTING = 435.29 SQ IN
LOWEST + 3" SETTING = 468.16 SQ IN
HIGHEST SETTING = 501.04 SQ IN

TOP OF BASE PLATE TO TOP OF DRAIN BASIN
18BASER: 2.83
24BASER: 2.83
30BASER: .44

*WEIGHT DOES NOT INCLUDE
DUCTILE IRON BASE PLATE
18BASER: APPROX. 133.50 LBS
24BASER: APPROX. 122.00 LBS
30BASER: APPROX. 92.50 LBS

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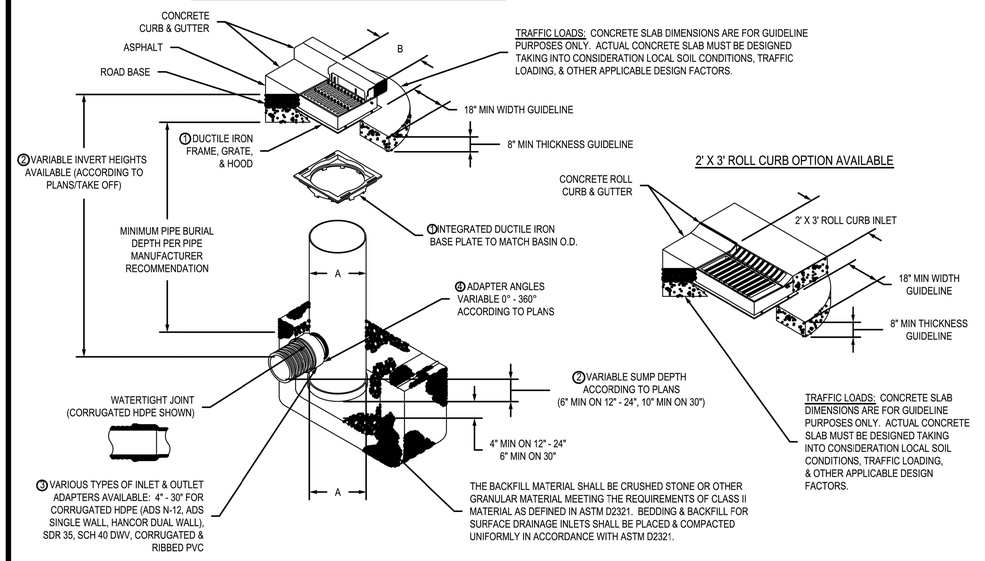
DRAWN BY	EBC	MATERIAL	DUCTILE IRON
DATE	04-10-06		
REVISED BY	CCA	PROJECT NO./NAME	
DATE	09-05-13		
DWG SIZE	A	SCALE 1:16	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE
2 FT X 3 FT CURB INLET DIAGONAL GRATE ASSEMBLY

DWG NO. 7002-110-046 REV D

NYLOPLAST CURB INLET STRUCTURE: 30 _ _ AGR _ _ X & 30 _ _ AGS _ _ X



1 - 12" - 30" GRATES, FRAMES, HOODS, & BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
4 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012, 7001-110-013, & 7001-110-014
5 - ALL CURB INLET GRATE OPTIONS SHALL MEET H-20 LOAD RATING

A	B	PART #	GRATE OPTIONS	
12"	2' X 2'	3012AGS	STANDARD	DIAGONAL
15"	2' X 2'	3015AGS	STANDARD	DIAGONAL
18"	2' X 2'	3018AGS	STANDARD	DIAGONAL
24"	2' X 2'	3024AGS	STANDARD	DIAGONAL
30"	2' X 2'	3030AGS	STANDARD	DIAGONAL

A	B	PART #	GRATE OPTIONS	
18"	2' X 3'	3018AGR	DIAGONAL	HIGH FLOW
24"	2' X 3'	3024AGR	DIAGONAL	HIGH FLOW
30"	2' X 3'	3030AGR	DIAGONAL	HIGH FLOW

DRAWN BY	EBC	MATERIAL	
DATE	1-23-06		
APPD BY	CJA	PROJECT NO./NAME	
DATE	1-23-06		
DWG SIZE	A	SCALE 1:50	SHEET 1 OF 1

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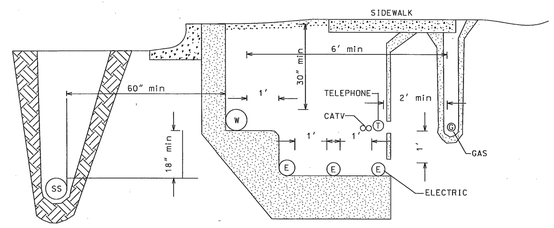
TITLE
DRAIN BASIN WITH CURB INLET GRATE
QUICK SPEC INSTALLATION DETAIL

DWG NO. 7002-110-032 REV C

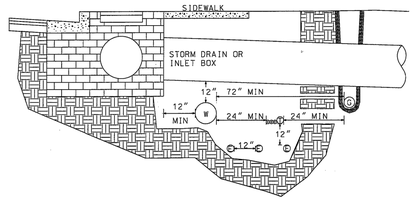
COMMON TRENCH DETAIL (NO CONFLICTS)



NOTES:

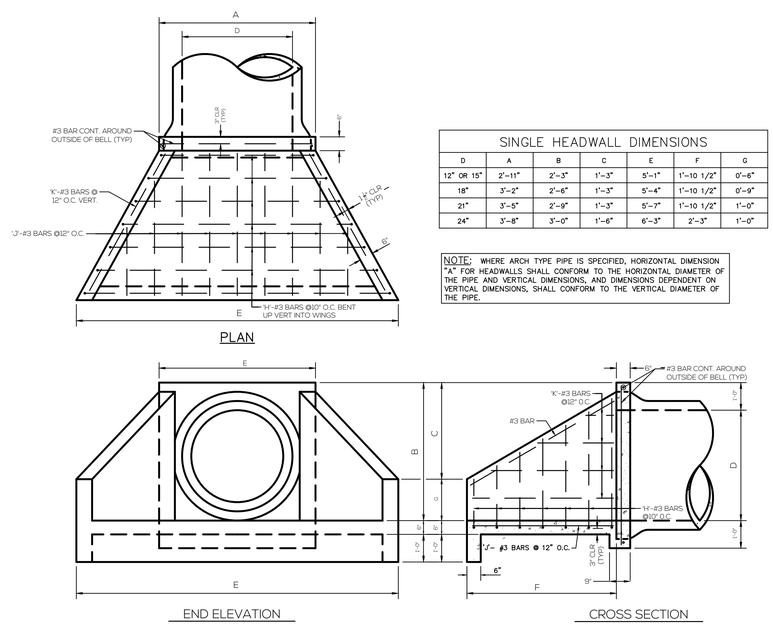
1. EXACT NUMBER, SIZE, AND CONFIGERATION OF CONDUITS WILL VARY. FIGURE ABOVE SHOWS TYPICAL INSTALLATION ONLY. SEE MINIMUM SPACING REQUIREMENTS FOR MORE DETAILS.
2. 4" MINIMUM CLEAR SPACE REQUIRED ALONG SIDES OF CONDUITS IF DITCHLINE IS IN ROCK.
3. COMPACTED PUG MIX OR OTHER BACKFILL AS REQUIRED AND APPROVED BY PUBLIC WORKS SHALL BE INSTALLED UNDER ALL SIDEWALKS AND PAVED AREAS.
4. ALL ELLS, TURNOUTS, ETC. SHALL BE ENCASED IN CONCRETE.
5. LOCATOR TAPE SHALL BE PLACED A MINIMUM OF 6" AND A MAXIMUM OF 12" BELOW FINAL GRADE.

COMMON TRENCH DETAIL (W/ STORM DRAIN CONFLICT)



NOTES:

1. ALL DIMESNSIONS SHOWN ARE MINIMUM REQUIREMENTS. SEE MINIMUM SPACING REQUIREMENTS FOR MORE DETAILS CONCERNING SPACING BETWEEN CONDUITS.
2. EXACT NUMBER, SIZE, AND CONFIGURATION OF CONDUITS WILL VARY. FIGURE ABOVE SHOWS TYPICAL INSTALLATION ONLY.
3. 4" MINIMUM CLEAR SPACE REQUIRED ALONG SIDES OF CONDUIT IF DITCHLINE IS IN ROCK.
4. TELEPHONE CONDUIT SHALL NOT BE INSTALLED AT A DEPTH OF COVER LESS THAN WATER.
5. COMPACTED PUG MIX OR OTHER BACKFILL AS REQUIRED AND APPROVED BY PUBLIC WORKS SHALL BE INSTALLED UNDER ALL SIDEWALKS AND PAVED AREAS.
6. ALL ELLS, TURNUPS, ETC. SHALL BE ENCASED IN CONCRETE.
7. LOCATER TAPE SHALL BE PLACED AT A MINIMUM OF 6" AND A MAXIMUM OF 12" BELOW FINAL GRADE OR BELOW GRADE FOR SIDEWALK.

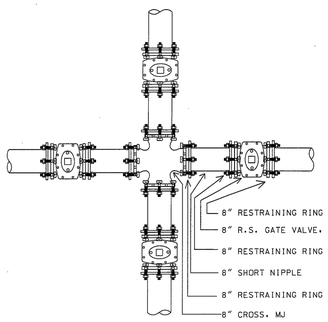


SINGLE HEADWALL DIMENSIONS						
D	A	B	C	E	F	G
12" OR 15"	2'-11"	2'-3"	1'-3"	5'-1"	1'-10 1/2"	0'-6"
18"	3'-2"	2'-6"	1'-3"	5'-4"	1'-10 1/2"	0'-9"
21"	3'-5"	2'-9"	1'-3"	5'-7"	1'-10 1/2"	1'-0"
24"	3'-8"	3'-0"	1'-6"	6'-3"	2'-3"	1'-0"

NOTE: WHERE ARCH TYPE PIPE IS SPECIFIED, HORIZONTAL DIMENSION "A" FOR HEADWALLS SHALL CONFORM TO THE HORIZONTAL DIAMETER OF THE PIPE AND VERTICAL DIMENSIONS, AND DIMENSIONS DEPENDENT ON VERTICAL DIMENSIONS, SHALL CONFORM TO THE VERTICAL DIAMETER OF THE PIPE.

CONCRETE HEADWALL W/ SINGLE PIPE
NOT TO SCALE

PIPE CROSS DETAIL



ALL NIPPLES 12" TO 18" LONG AND THE SAME LENGTH

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 NO. 19827 PROFESSIONAL ENGINEER
JAMES M. GARRETT

C-12.3
PROJECT DETAILS

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ADEM CBMPP DETAILS AND NOTES

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Huntsville, Alabama 35802
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Schoel.com

EROSION CONTROL NOTES

THESE NOTES MUST BE SITE SPECIFIC.

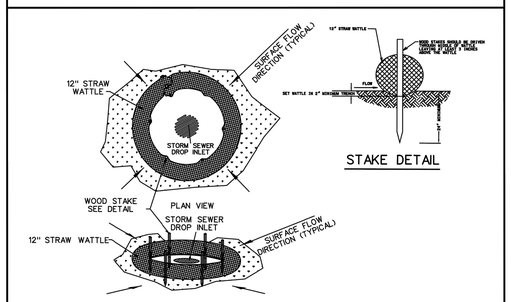
EROSION CONTROL NOTES

1. THE OWNER HAS OBTAINED THE REQUIRED NPDES STORMWATER GENERAL PERMIT FOR DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGMENT (ADEM). THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE ACTIVITIES ASSOCIATED WITH THIS PERMIT. CONTRACTOR SHOULD OBTAIN A COPY OF THIS PERMIT AND REQUIRMENTS PRIOR TO COMMENCING CONSTRUCTION AND MAINTAIN A COPY AT THE SITE.
2. A REVIEW OF REQUIREMENTS AND RESPONSIBLITIES FOR THE NPDES PERMIT FOR STORM WATER MAY BE CONDUCTED PRIOR TO ON-SITE OPERATIONS. THE CONTRACTOR SHALL BE PREPARED TO IDENTIFY THE RESPONSIBLE INDIVIDUAL FOR PERMIT COMPLIANCE, AS WELL AS THE INDIVIDUAL(S) RESPONSIBLE FOR INSPECTIONS AND MAINTENANCE.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY EROSION CONTROL DEVICES DURING CONSTRUCTION SO AS TO INSURE PERMIT COMPLIANCE, INCLUDING PROTECTING ADJACENT PROPERTY, STREAMS, CHANNELS, AND PUBLIC ROADS. THE CONTRACTOR SHALL ASSUME LIABILITY FOR ALL FAILURES OF THE SYSTEM AND BE RESPONSIBLE FOR CLEANUP AND/OR REPAIRS TO THE SYSTEM.
4. TEMPORARY EROSION CONTROL DEVICES SHALL BE OBSERVED BY THE CONTRACTOR EACH DAY THERE IS ACTIVITY AT THE SITE AND SHALL MAKE ANY NECESSARY ADJUSTMENTS/REPAIRS AS NEEDED TO MAINTAIN THE EROSION CONTROL MEASURES.
5. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COSTS ASSOCIATED WITH ANY FINES CAUSED BY THE DISCHARGE OF SEDIMENTS OR ANY OTHER VIOLATION UNDER THIS PERMIT.
6. THE MEASURES SHOWN ON THE PLANS ARE INTENDED FOR CONTROL DURING SITE CLEARING AND GRADING. ADDITIONAL MEASURES, INCLUDING SILT FENCES WILL BE REQUIRED AS SITE CONDITIONS CHANGE DURING CONSTRUCTION.
7. COORDINATE THE INSTALLATION OF THE SEDIMENTATION AND EROSION CONTROL MEASURES WITH THE CLEARING AND GRUBBING OPERATION. THESE ACTIVITES MUST OCCUR AT THE PROPER TIME IN RELATION TO ONE ANOTHER TO COMPLY WITH THE PERMIT.
8. INSTALL AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES (BOTH TEMPORARY AND PERMANENT) AS A CONTINUING PROGRAM UNTIL THE SITE WORK IS COMPLETE AND THE SITE IS STABILIZED. THIS INCLUDES, BUT IS NOT LIMITED TO, REPAIRS AND DAMAGE FROM STORMS, REGULAR MAINTENANCE, AND REMOVAL / DISPOSAL OF ACCUMULATED SILT. SILT FENCES AND OTHER EROSION CONTROL DEVICES SHOULD BE INSPECTED AFTER EVERY SIGNIFICANT RAIN EVENT.
9. ALL EROSION CONTROL MEASURES COMPROMISED BY SEDIMENT BUILD-UP, INCLUDING SILT FENCES AND STRAW WATTLES OR OTHER DEVICES, WILL BE REPAIRED OR REPLACED AS NECESSARY.
10. ANY PIPE, CREEK, OR OTHER STORM DRAINAGE FEATURE SHOWING EVIDENCE OF SEDIMENT ACCUMULATION SHALL BE CLEANED OUT. THE SEDIMENT REMOVED SHALL BE DISPOSED OF IN A LOCATION APPROVED BY THE OWNER OR HIS REPRESENTATIVE.
11. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF SILT/SEDIMENT (IF NOT REUSABLE ON-SITE) AND SHALL REMOVE ANY SILT/SEDIMENT BEYOND THE PROPERTY RESULTING FROM CONSTRUCTION OPERATIONS.
12. DO NOT DEPOSIT WASTE, LOOSE SOIL OR OTHER MATERIALS IN LIVE STREAMS, SWALES OR DRAINAGE WAYS, EXCEPT AS APPROPRIATE FOR EROSION CONTROL (E.G. LOG AND BRUSH CHECKS).
13. AFTER THE LAND DISTURBANCE ACTIVITY HAS STABILIZED, THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION CONTROL DEVICES AT THE DIRECTION OF THE OWNER AND CLEANING UP AND DRESSING THE AREA TO THE SATISFACTION OF THE OWNER.
14. SILT FENCES ARE TEMPORARY EROSION CONTROL DEVICES THAT SHALL BE ERECTED OPPOSITE ERODABLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
15. SILT FENCE SEDIMENT BARRIER SHALL BE CONSTRUCTED WITH TYPE A FABRIC 36 INCHES IN WIDTH (MIN.). THE FABRIC SHALL BE SUPPORTED BY WOVEN WIRE FENCE, HAVING A MINIMUM OF 6 LINE WIRES AND A MAXIMUM 12" STAY SPACING. WIRE FENCE SHALL BE SUPPORTED BY STEEL POSTS WITH #9 GAGE GALVANIZED FENCE TENSION WIRE (1½" L MIN.) THE BOTTOM EDGE OF THE FENCE SHALL BE PLACED IN AN EXCAVATED TRENCH 6" DEEP AND COVERED AS SHOWN IN THE SILT FENCE SEDIMENT BARRIER DETAIL
16. IN FLAT AREAS, SILT FENCES SHOULD BE CONSTRUCTED IN THE SHAPE OF A HORSESHOE, WHENEVER POSSIBLE, SO AS TO AID IN PONDING AND TO FACILITATE SEDIMENTATION
17. ALL STORM SEWER INLETS IN DISTURBED AREAS OR IN OTHER AREAS SUBJECT TO POTENTIAL INFLOW OF SEDIMENT SHALL BE PROTECTED AT A MINIMUM WITH STRAW WATTLES.
18. ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR MORE THAN 13 DAYS MUST BE IMMEDIATELY SEEDED AND MULCHED.
19. AS NECESSARY, ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED TO PREVENT SILT FROM LEAVING THE PROJECT CONFINES DUE TO EXTREME WEATHER CONDITIONS OR ACCIDENTS.
20. ANY DISTURBANCE OF SOIL AND VEGETATION OUTSIDE THE LIMITS OF THE CLEARING LINE WILL NOT BE PERMITTED UNDER ANY CONDITION.
21. PREVENT RUN-ON AND RUN-OFF FROM SOIL AND SEDIMENT PILES BY SURROUNDING PILE WITH STRAW WATTLES AND/OR SILT FENCE.
22. PREVENT AND CONTROL SOIL EROSION AND GULLYING WITHIN THE PROPERTY COVERED BY CONTRACT AND THE ADJACENT PROPERTIES AS A RESULT OF CONSTRUCTION.
23. CONSTRUCT ROADSIDE DITCHES AS REQUIRED DURING ROAD CONSTRUCTION TO ALLOW STORM RUNOFF TO DRAIN.
24. AN ACCESS ROUTE SUFFICIENT TO ALLOW THE USE OF APPROPRIATE MAINTENANCE EQUIPMENT SHALL BE EXTENDED TO EACH STRUCTURAL EROSION CONTROL DEVICE.
25. THE CONTRACTOR WILL BE RESPONSIBLE FOR REVIEWING AND IMPLEMENTING THE SITE SPECIFIC SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN.
26. THE CONTRACTOR IS RESPONSIBLE FOR PROPER COLLECTION, STORAGE, AND DISPOSAL OF SOLID AND SANITARY WASTES. DISPOSAL OF THESE WASTES SHALL BE OFF-SITE IN AN APPROPRIATELY PERMITTED FACILITY.
30. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER ON-SITE HANDLING, USE, STORAGE, AND DISPOSAL OF PAINTS, SOLVENTS, CHEMICALS, PESTICIDES, HERBICIDES, FERTILIZERS, OILS, GREASE, FUEL, AND OTHER HAZARDOUS MATERIALS USED DURING THIS PROJECT. APPROPRIATE SPILL PREVENTION SHOULD BE PROVIDED FOR ANY CHEMICAL OR HAZARDOUS MATERIAL TO REDUCE EXPOSURE AND CONTAMINATION OF SOILS, STREAMS, CHANNELS, AND STORM WATER RUNOFF.
31. THE SITE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN EROSION AND SEDIMENT CONTROL DEVICES ON-SITE DURING CONSTRUCTION IN ACCORDANCE WITH THESE PLANS, AS A MINIMUM STANDARD FOR NPDES STORM WATER PERMIT COMPLIANCE.

INLET PROTECTION

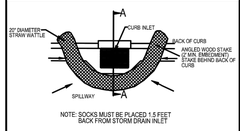
NOTE: INLET PROTECTION PHASES

1. USE STRAW WATTLE INLET PROTECTION DETAIL FOR INITIAL INLET STRUCTURE INSTALLATION
2. USE STRAW WATTLE CURB INLET PROTECTION DETAIL FOR INITIAL CURB & GUTTER INSTALLATION
3. USE FILTREXX INLET PROTECTION DETAIL AFTER PAVING SURFACE IS APPLIED



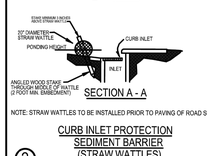
① STRAW WATTLE INLET PROTECTION

N.T.S.



NOTE: SOCKS MUST BE PLACED 1.5 FEET BACK FROM STORM DRAIN INLET

PLAN VIEW

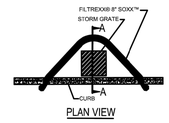


SECTION A - A

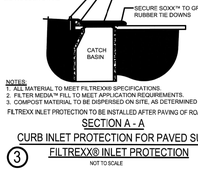
NOTE: STRAW WATTLES TO BE INSTALLED PRIOR TO PAVING OF ROAD SURFACES

② CURB INLET PROTECTION SEDIMENT BARRIER (STRAW WATTLES)

NOT TO SCALE



PLAN VIEW



NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX INLET PROTECTION TO BE INSTALLED AFTER PAVING OF ROAD SURFACES

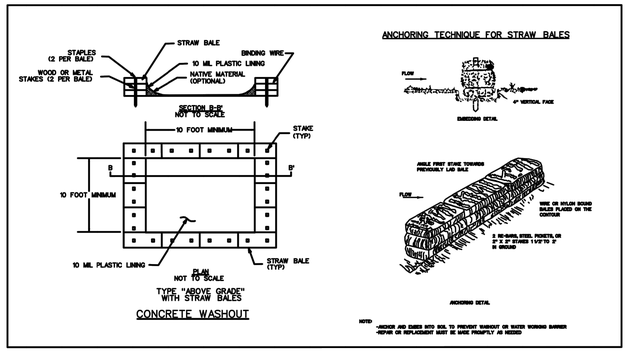
SECTION A - A

③ CURB INLET PROTECTION FOR PAVED SURFACES FILTREXX® INLET PROTECTION

NOT TO SCALE

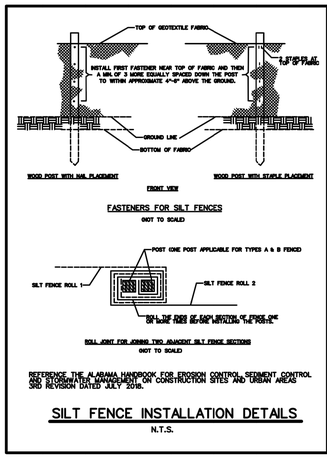
CONCRETE WASHOUT

INCLUDE STAW BALE ANCHOR DETAIL



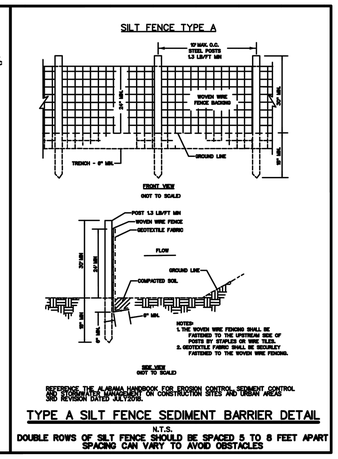
CONCRETE WASHOUT

SILT FENCE



SILT FENCE INSTALLATION DETAILS

N.T.S.

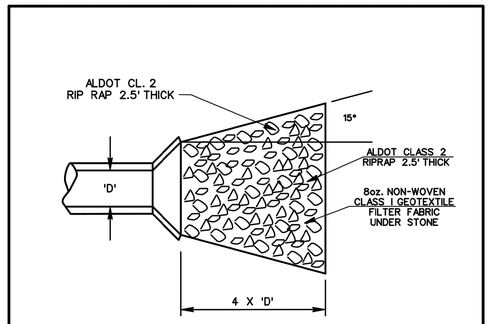


TYPE A SILT FENCE SEDIMENT BARRIER DETAIL

N.T.S.

DOUBLE ROWS OF SILT FENCE SHOULD BE SPACED 5 TO 8 FEET APART SPACING CAN VARY TO AVOID OBSTACLES

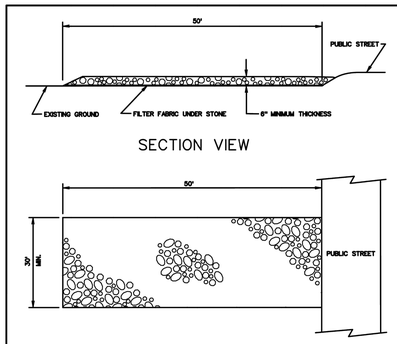
OUTLET PROTECTION



Rp STORM OUTLET PROTECTION (TYPICAL)

N. T. S.

CONSTRUCTION EXIT



STONE SHALL BE ALDOT COARSE AGGREGATE GRADATION NO.1 STONE WHICH IS 2" TO 3" AVERAGE DIAMETER STONE MATERIAL.

A STABILIZED PAD OF CRUSHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL BE LEAVING OR ENTERING A CONSTRUCTION SITE TO OR FROM A PUBLIC STREET.

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.

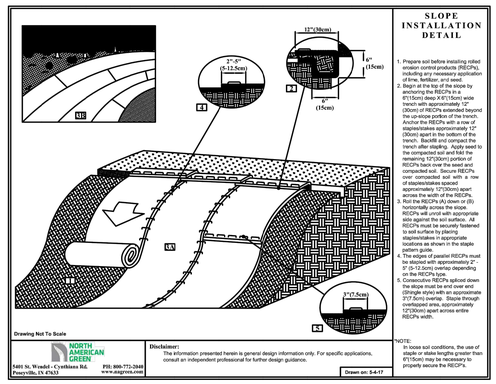
FILTER FABRIC SHOULD BE CLASS IV NON-WOVEN GEOTEXTILE

CONSTRUCTION EXIT

(TYPICAL)

N. T. S.

SLOPE PROTECTION INSTALLATION



REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 13827 PROFESSIONAL ENGINEER JAMES M. CARDWELL

C-12.4
PROJECT DETAILS

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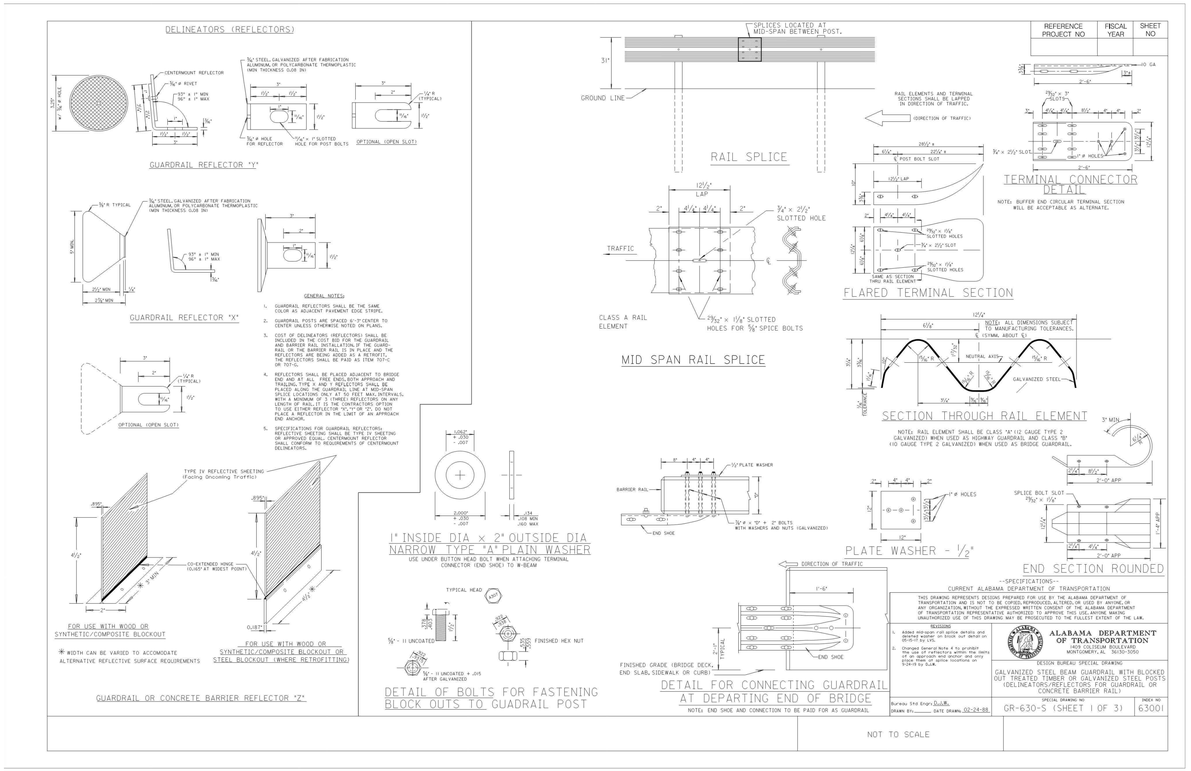

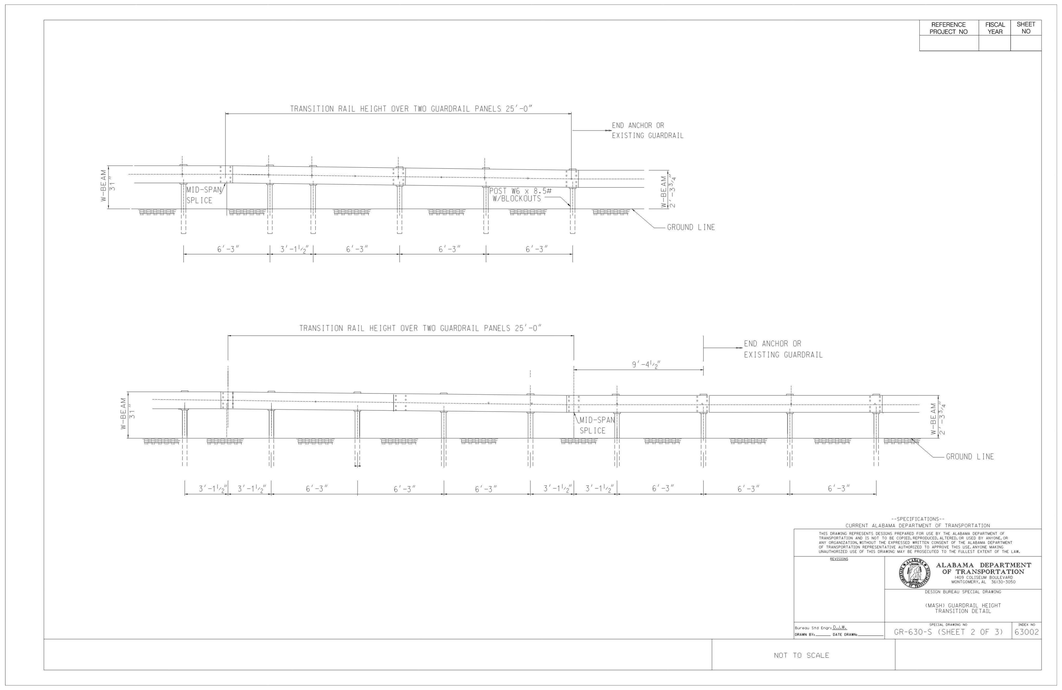

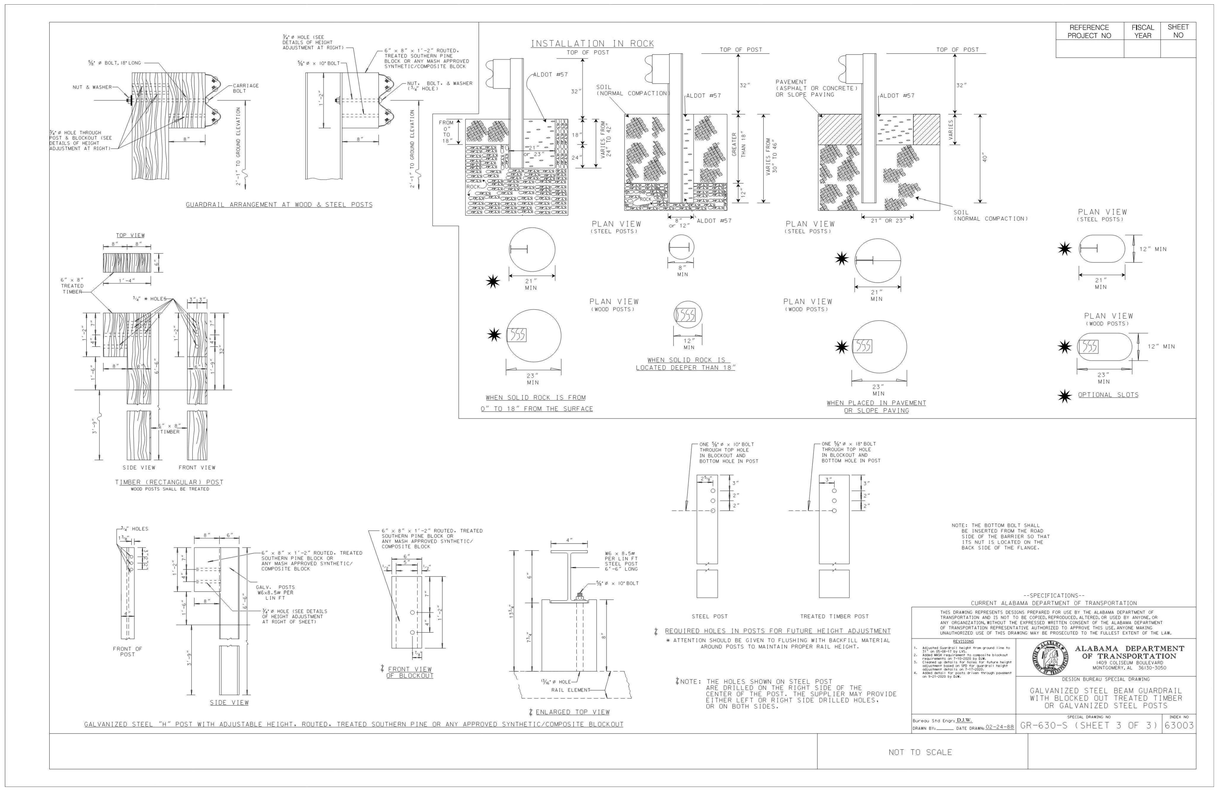

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REVISIONS

CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

04 JUNE 2021

ALABAMA LICENSED 6-4-21 No. 13827 PROFESSIONAL ENGINEER JAMES M. CARGILE

C-12.5
PROJECT DETAILS

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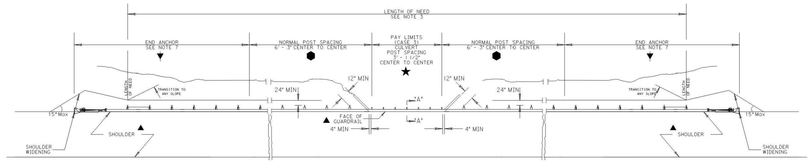
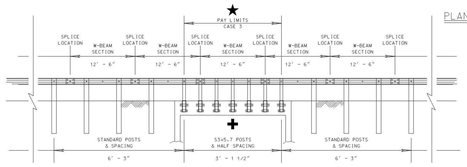
REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO



TRAFFIC

PLAN - CASE 3



PROFILE - CASE 3

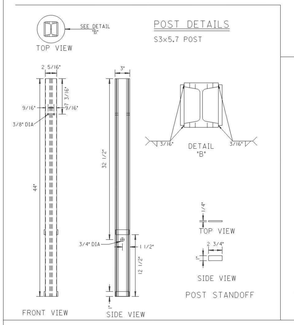
VERTICAL DEPICTION NOT TO SCALE.

GENERAL NOTES

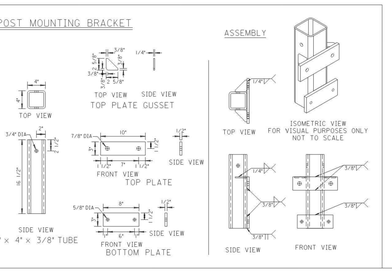
1. NO PUNCHING, DRILLING, CUTTING OR WELDING WILL BE PERMITTED AFTER GALVANIZATION IS APPLIED.
2. THE GUARDRAIL POSTS DEPICTED IN THESE DETAILS ARE FOR PICTORIAL PURPOSES AND SHALL NOT BE CONSTRUED AS INDICATING THE NUMBER OF POSTS REQUIRED.
3. THE LENGTH OF NEED SHOWN IS FOR THE GUARDRAIL SYSTEM REQUIREMENT, ADDITIONAL GUARDRAIL LENGTH MAY BE NEEDED FOR SECONDARY HAZARDS SUCH AS SLOPE, WATERWAY, ETC...
4. FACE OF GUARDRAIL SHOULD (WHERE PRACTICAL) BE LOCATED A MINIMUM OF 4' FROM THE EDGE OF PAVEMENT, OR LOCATED AT THE EDGE OF SHOULDER, WHICHEVER IS GREATER.
5. POSTS ATTACHED TO THE PARAPET WALL SHALL BE S3x5.7 STEEL POSTS, MODIFIED AS PER THE DETAILS PROVIDED. OTHER POSTS MAY BE EITHER WOOD OR STEEL.
6. SEE APPROPRIATE GUARDRAIL DETAILS FOR SPLICE DETAILS, MOUNTING HEIGHT, ETC.
7. ANY APPROVED END ANCHOR THAT HAS BEEN DESIGNED TO FUNCTION PROPERLY IN THE SITE CONDITIONS GIVEN MAY BE USED IN LIEU OF THE TYPE 20 SERIES END ANCHOR SHOWN. SEE SPECIFIC END ANCHOR DETAIL DRAWINGS FOR DESIGN CRITERIA AND INSTALLATION GUIDELINES.
8. THE PAY LIMITS FOR CASE 3 SHALL BE FROM THE FROM THE FIRST POST MOUNTED TO THE PARAPET TO THE LAST. THE PAY LIMITS SHALL INCLUDE ALL REQUIRED GUARDRAIL, BACKUP PLATES, POSTS, DRILLING, HARDWARE, BRACKETS, POSTS, ETC. NECESSARY FOR THE INSTALLATION.
9. ALL NUTS, BOLTS, ETC. SHALL MEET GRADE 60 STEEL REQUIREMENTS. ALL EPOXY SHALL MEET 1,500 PSI MINIMUM BOND STRENGTH REQUIREMENTS.
10. A MINIMUM OF 12'- 6" OF GUARDRAIL SHALL BE REQUIRED BETWEEN THE FIRST / LAST POST AND THE END OF THE PARAPET WALL. WHEN USING A TYPE 20 SERIES GUARDRAIL END ANCHOR, THIS REQUIREMENT IS INCREASED TO A MINIMUM OF 25'- 0" WHEN TYPE 10 SERIES GUARDRAIL END ANCHORS ARE USED.
11. NO PIECE OF W-BEAM GUARDRAIL SHORTER THAN 9'- 4 1/2" SHALL BE ALLOWED IN EITHER THE CASE 3 INSTALLATIONS, IN ADJACENT GUARDRAIL SECTIONS, OR IN THE TRANSITION BETWEEN THE TWO.
12. THE POST BRACKETS FOR THE CASE 3 INSTALLATION SHALL BE LOCATED IN SUCH A MANNER THAT THEY DO NOT STRADDLE A CULVERT JOINT.

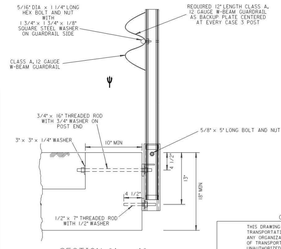
POST DETAILS

S3x5.7 POST



POST MOUNTING BRACKET





SECTION "A - A"

DRILL AND EPOXY BOTTOM BOLTS
DRILL THROUGH TOP BOLTS

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

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REVISIONS
1. Completely redraw sheet to meet MASH criteria on 10-11-19 by SLM.
2. Added Backup plate note to detail 10-9 and General Notes 10, 11, and 12 on 11-20-19 by SLM.
3. Modified Note 10 on 11-24-19 by SLM.
4. Modified Backup Plate length on 3-25-20 by SLM.
5. Removed the length from Note 4 on 9-30-2020 by SLM.

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-5050

DESIGN BUREAU SPECIAL DRAWING

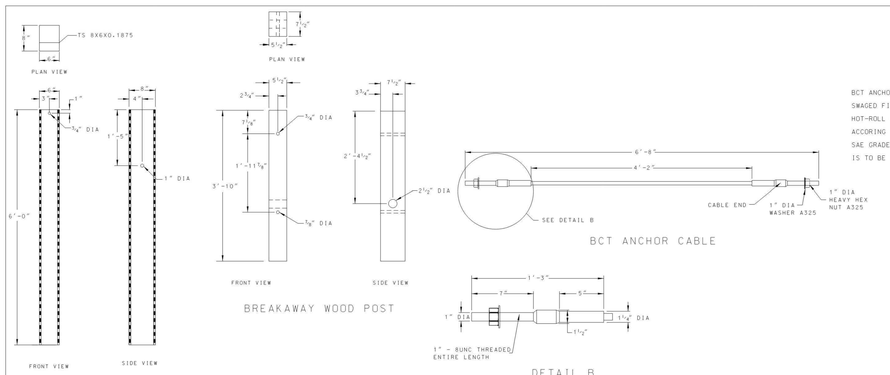
DETAILS FOR GUARDRAIL (MASH) AT CULVERTS WHERE POSTS ARE BOLTED TO THE PARAPET OF THE CULVERT

Bureau Std Engr. D.L.W.
DRAWN BY: D.L.W. DATE DRAWN: 10-25-2019

SPECIAL DRAWING NO: GR-630-CL (SHEET 3 OF 4)
INDEX NO: 63015

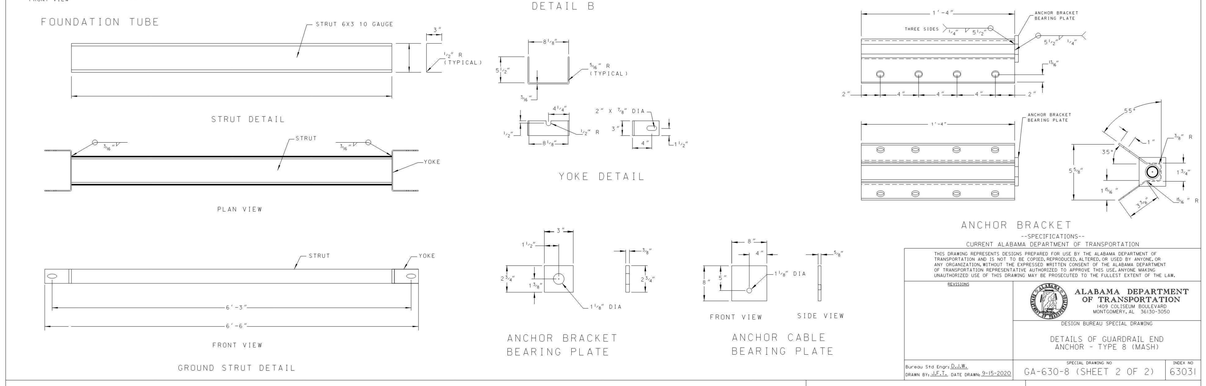
NOT TO SCALE

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO



GENERAL NOTES

BCT ANCHOR CABLE IS A 3/4" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. END FITTINGS SHALL BE MANCHINED FROM HOT-ROLL CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORING TO GALVANIZED ASTM A123. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LBS WIRE ROPE IS TO BE TAUT.



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REVISIONS

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-5050

DESIGN BUREAU SPECIAL DRAWING

DETAILS OF GUARDRAIL END ANCHOR - TYPE 8 (MASH)

Bureau Std Engr. D.L.W.
DRAWN BY: J.P.T. DATE DRAWN: 3-15-2020

SPECIAL DRAWING NO: GA-630-8 (SHEET 2 OF 2)
INDEX NO: 63031

NOT TO SCALE

Civil Engineering | Land Surveying | Landscape Architecture
Environmental | Water Resources | Laser Scanning + Modeling
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Birmingham, Alabama 35205
205.323.6166
7500 Memorial Pkwy SW, Ste 209
Huntsville, Alabama 35802
256.539.1221
Schoel.com

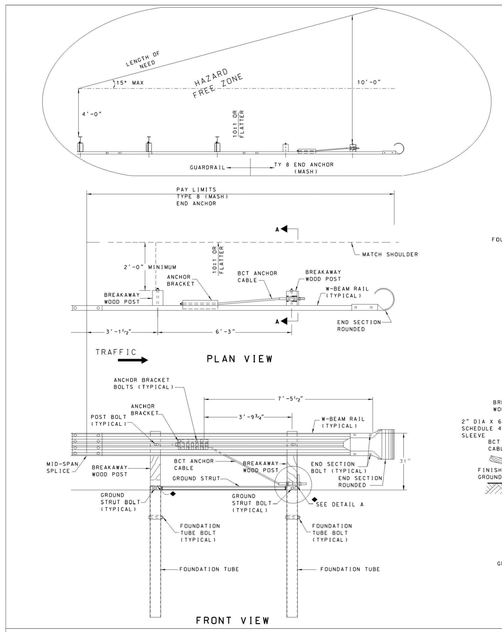
REVISIONS

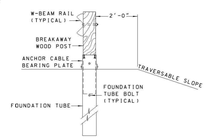
CONSTRUCTION DOCUMENTS

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE

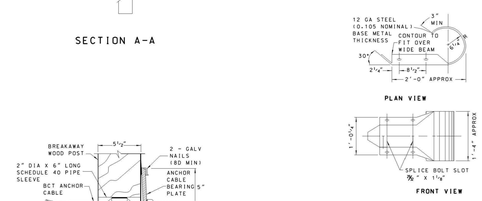
04 JUNE 2021

REFERENCE PROJECT NO	FISCAL YEAR	SHEET NO

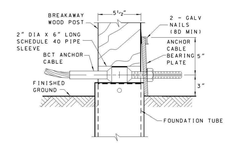




SECTION A-A



W BEAM END SECTION ROUNDED



DETAIL A

GROUND STRUT NOT SHOWN FOR CLARITY

--SPECIFICATIONS--
CURRENT ALABAMA DEPARTMENT OF TRANSPORTATION

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REVISIONS
1. Change connection to GA-630-8 (SHEET 1 OF 2) on 9-15-2020 by J.P.T.

ALABAMA DEPARTMENT OF TRANSPORTATION
1409 COLISEUM BOULEVARD
MONTGOMERY, AL 36130-5050

DESIGN BUREAU SPECIAL DRAWING

DETAILS OF GUARDRAIL END ANCHOR - TYPE 8 (MASH)

Bureau Std Engr. D.L.W.
DRAWN BY: J.P.T. DATE DRAWN: 09-15-2020

SPECIAL DRAWING NO: GA-630-8 (SHEET 1 OF 2)
INDEX NO: 63030

NOT TO SCALE

ALABAMA LICENSED 6-4-21 No. 19827 PROFESSIONAL ENGINEER J. M. CARSON

C-12.6
PROJECT DETAILS

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PLANT SCHEDULE

QTY	SYM	NAME BOTANICAL	NAME COMMON	HEIGHT	SPREAD	SIZE	SPACING	CONTAINER	NOTES
DECIDUOUS TREE									
24	ACER -	ACER RUBRUM	RED MAPLE	10'-12'	8'-10'	3" CAL.	SEE PLAN	B&B	
18	AMEG-	AMELANCHIER x GRANDIFLORA 'AUTUMN BRILLIANCE'	SERVICEBERRY	8'-10'	6'-8'	2.5" CAL.	SEE PLAN	50 GAL.	
10	CERC-	CERCIS CANADENSIS	EASTERN REDBUD	8'-10'	6'-8'	2.5" CAL.	SEE PLAN	50 GAL.	
16	LIRT-	LIRIODENDRON TULIPIFERA	TULIP POPLAR	12'-14'	10'-12'	3" CAL.	SEE PLAN	B&B	
EVERGEEN TREE									
38	CEDD-	CEDRUS DEODARA	DEODAR CEDAR	8'-10'	6'-8'	2.5" CAL.	SEE PLAN	50 GAL.	FULL TO BASE. SINGLE, UN-CUT LEADER.
SHRUB									
185	ILEB-	ILEX VERTICILLATA 'BERRY POPPINS'	BERRY POPPINS WINTERBERRY			#3	SEE PLAN	3 GAL.	
240	ITEV-	ITEA VIRGINICA 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE			#3	SEE PLAN	3 GAL.	

GROUNDCOVER SCHEDULE

QTY	SYM	NAME BOTANICAL	NAME COMMON	HEIGHT	SPREAD	SIZE	SPACING	NOTES
GRASSES								
138	MUHW	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD'	WHITE MUHLY GRASS			#1	54"	
SHRUB GROUNDCOVER								
150	RHUG	RHUS AROMATICA 'GRO-LOW'	GRO-LOW SUMAC			#1	54"	

CITY OF HUNTSVILLE CODE NOTES

ZONING: HIGHWAY BUSINESS (C-4)

71.4.2 Perimeter Landscaping Requirements

- Must be provided within the property lines between the PVA and adjoining properties and public rights-of-way
- Shall be at least 5 continuous feet in depth, excluding walkways, measured perpendicularly from the adjacent property line or right-of-way to the back of curb or pavement edge
- Include at least an average of 1 tree and 6 shrubs per full 50 linear feet of perimeter requiring perimeter plantings (less accessways)
- Shrubs are optional in areas where a berm at least three feet in height is used
- Trees and shrubs shall be well-distributed, though not necessarily evenly spaced

NORTH PROPERTY LINE: 483 LF
OF TREES REQUIRED: 10
OF TREES PLANTED: 11

OF SHRUBS REQUIRED: 60
OF SHRUBS PLANTED: 60

SOUTH PROPERTY LINE: 1294 LF
OF TREES REQUIRED: 26
OF TREE PLANTED: 28

OF SHRUBS REQUIRED: 156
OF SHRUBS PLANTED: 175

WEST PROPERTY LINE: 1,025 LF - 29' LF (ENTRY DRIVE) = 996 LF
OF TREES REQUIRED: 20
OF TREES PLANTED: 29

OF SHRUBS REQUIRED: 120
OF SHRUBS PLANTED: 156

EAST PROPERTY LINE: 589 LF
OF TREES REQUIRED: 12
OF TREES PLANTED: 12

OF SHRUBS REQUIRED: 71
OF SHRUBS PLANTED: 80

REQUIREMENT SATISFIED

ZONING: HIGHWAY BUSINESS (C-4)

71.4.3 Interior Landscaping Requirements

- Minimum interior landscape area = total PVA (sq ft) x [1.826 + (0.00435 x total number of parking spaces planned)]/100
- Up to maximum requirement of 4% of PVA area for PVAs containing 500 or more parking spaces, each island or peninsula shall be at least 100 sq ft in area to count toward the total interior landscape requirements
- Maximum contribution of any individual island or peninsula to the total interior landscaping requirement shall be 1,000 sq ft
- Island and peninsulas must be at least 5 ft in their least dimension
- Shall contain at least an average of 1 tree and 4 shrubs per 200 sq ft of landscaped areas
- Each island or peninsula shall contain at least one tree
- In the case where the loading, storage or vehicular access requirements of a particular use make the interior landscaping impracticable, then the requirements for interior islands and peninsulas may be waived provided that an equivalent area is added to the landscaping elsewhere and is in addition to the landscaping otherwise required on the site.

TOTAL PVA 124,996 SF X [1.826 + (.00435 X 305 PARKING SP)]/100

MINIMUM INTERIOR LANDSCAPE REQUIRED = 3,940 SF

TOTAL INTERIOR LANDSCAPE AREA PROVIDED = 5,165 SF

TOTAL SQ FT OF LANDSCAPED AREAS REQUIRED: 3,940 SF

1 TREE AND 4 SHRUBS PER 200 SF OF INTERIOR LANDSCAPE
5,165 SF / 200 SF = 26

TOTAL # OF TREES REQUIRED: 26
TOTAL # OF TREES PROVIDED: 26

TOTAL # OF SHRUBS REQUIRED: 104
TOTAL # OF SHRUBS PROVIDED: 288

REQUIREMENT SATISFIED

SITE LEGEND

- EXISTING FOOTPRINT
- NEW CONSTRUCTION
- PROPERTY LINE
- SETBACK LINE
- EASMENT LINE

PLANTING FILL PATTERNS

- MUHW
- RHUG

PLANTING NOTES

1. LANDSCAPE CONTRACTOR SHALL REFER TO THE "STANDARDIZED LANDSCAPE SPECIFICATIONS MANUAL FOR THE STATE OF VA" FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL ABIDE BY ITS CONTENTS, HOWEVER ANY NOTES OR SPECIFICATIONS ON THESE PLANS SHALL SUPERCEDE THOSE OUTLINED IN THE MANUAL.

2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO BEGINNING CONSTRUCTION FOR LOCATION OF ALL UTILITY LINES. TREES SHALL BE LOCATED A MINIMUM OF 5' FROM SEWER/WATER CONNECTIONS. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY OF ANY CONFLICTS.

3. NOTIFY APPROPRIATE REGULATORY AGENCIES AND SECURE ANY REQUIRED PERMITS PRIOR TO ANY CONSTRUCTION.

4. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES AND PERFORMED IN A WORKMANLIKE MANNER AT ALL TIMES AND UNDER THE SUPERVISION OF AN EXPERIENCED PLANTSPERSON.

5. ANY FINE GRADING SHALL BE THE RESPONSIBILITY OF THE LANDSCAPECONTRACTOR.

6. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT MATERIAL QUANTITIES SHOWN ON PLAN WITH TOTALS IN PLANT SCHEDULE. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO FINAL BIDDING. UNIT PRICES SHALL BE SUBMITTED TO LANDSCAPE ARCHITECT WITH BID.

7. FIELD ADJUSTMENTS MAY BE NECESSARY DUE TO SITE CONDITIONS (EX. ROOT BALL AND UTILITY CONFLICT). MAJOR ADJUSTMENTS MUST BE APPROVED BY LANDSCAPE ARCHITECT.

8. THE LANDSCAPE ARCHITECT IS THE OWNER REPRESENTATIVE AND SHALL BE THE APPROVING AUTHORITY FOR INFORMATION PROVIDED IN THESE PLANS AND SPECIFICATIONS.

9. THE CONTRACTOR SHALL LAYOUT AND MARK ALL LOCATIONS FO ALL PLANT MATERIAL AND IMPROVEMENTS SHOWN AND REQUEST IN FIELD APPROVAL FROM LANDSCAPE ARCHITECT.

10. ALL PLANT MATERIAL, TOPSOIL, MULCH, FERTILIZERS, SOIL AMENDMENTS, PLANTING SUPPLIES AND METHODS SHALL BE SUBJECT TO LANDSCAPE ARCHITECT'S APPROVAL. REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE WITHOUT DELAY.

11. BEDS TO CONTAIN SHRUBS AND/OR GROUNDCOVER SHALL BE TILLED TO A DEPTH OF 6" AND THE SOIL CONDITIONED BY ADDING CLEAN, WELL-ROTTED MANURE. BEDS SHALL BE TREATED TO ELIMINATE WEEDS AND SEEDS.

12. ALL PLANTED BEDS SHALL BE MULCHED A MINIMUM OF 3" WITH SHREDDED HARDWOOD MULCH AND EDGED WHERE ADJACENT TO LAWN.

13. ALL PLANT MATERIAL AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF OWNER'S APPROVAL AND ACCEPTANCE OF THE PLANTING INSTALLATION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL WATERING AND MAINTENANCE DURING CONSTRUCTION UNTIL ACCEPTANCE OF ANY DEAD OR DAMAGED PLANT MATERIAL.

14. LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION AS WELL AS PLANTS THAT DO NOT CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.

15. THE OWNER IS RESPONSIBLE FOR REPLACEMENT OF ANY PLANT MATERIAL LOCATED IN A PUBLIC EASEMENT THAT IS REMOVED OR DAMAGED AS A RESULT OF THE USE OR MAINTENANCE OF THE PUBLIC FACILITY LOCATED IN THE EASEMENT.

16. CONTRACTOR TO SUPPLY AUTOMATIC IRRIGATION SYSTEM, COMPLETE AND INSTALLED. SYSTEM TO INCLUDE ALL VALVES, PIPES, HEADS, FITTINGS, AND BACKFLOW PREVENTER, TIMER AND CONTROLLER. SYSTEM TO PROVIDE 100% COVERAGE OF ALL NEW SOD AND PLANTING BEDS. COORDINATE IRRIGATION WITH OWNER'S REPRESENTATIVE FOR POWER SUPPLY AND CONTROLLER LOCATION.

17. ALL EXISTING TREES SHOWN TO BE PRESERVED.

18. SEED ALL DISTURBED AREAS, SEE CIVIL DRAWINGS FOR LIMIT OF DISTURBANCE. SEED WITH TURF TYPE TALL FESCUE.

IRRIGATION PERFORMANCE SPECIFICATION

CONTRACTOR SHALL PROVIDE A FULLY AUTOMATED IRRIGATION SYSTEM WHICH SHALL SUPPLY FULL COVERAGE IRRIGATION FOR ALL PLANTING AREAS. TREES, SHRUBS AND GROUNDCOVERS SHALL BE WATERED BY MEANS OF DRIP IRRIGATION LINE ON DEDICATED ZONES WITH SIMILAR PLANTING MATERIAL SPECIES AND WATERING REQUIREMENTS. THE SYSTEM SHALL INCLUDE AN EVAPOTRANSPIRATION (ET) / RAIN-FREEZE SENSOR. FINAL LOCATION OF CONTROLLER AND LOCATION OF SLEEVING AND CONDUIT TO BE DETERMINED PRIOR TO PAVING INSTALLATION AND TO BE APPROVED BY OWNER/OWNER'S REPRESENTATIVE. AS-BUILT PLANS AND OPERATIONS MANUALS TO BE SUPPLIED TO THE OWNER UPON ACCEPTANCE OF THE INSTALLATION. SYSTEM SHALL MEET THE MORE STRINGENT OF EITHER LOCAL JURISDICTIONAL REQUIREMENTS OR ESTABLISHED INDUSTRY STANDARD.

CODE MINIMUM PLANTING PLAN - AREA 1
1" = 40'-0"

REVISIONS

STATE OF ALABAMA
JOHN A. HUGO III
NUMBER 885
REGISTERED LANDSCAPE ARCHITECT

BID SET

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE
HUNTSVILLE, AL 35811

28 MAY 2021

L.604
CODE MINIMUM PLANTING PLAN

3 NORTH

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1 LANDSCAPING PHOTOMETRICS PLAN
L001 SCALE: 1" = 40'

Luminaire Schedule									
Symbol	Qty	Label	Arrangement	Lum. Lumens	Lum. Watts	LLF	Description	[MANUFAC]	Filename
	58	E-SA	SINGLE	12519	74.23	0.649	All Green Razor, 75W, 3000°K, Type 4, 15ft Pole	ALL GREEN LIGHTING,	RAZOR-75W-5050-T4.IES

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
Site	Illuminance	Fc	1.14	9.7	0.0	N.A.	N.A.	10ft Grid

PLAN NORTH

40' 0' 40' 80'
GRAPHIC SCALE 1" = 40'

ALABAMA LICENSED No PE33607-E PROFESSIONAL 29-APR-2021 ENGINEER MALCOLM H. LYLE III

TERRACES AT HIGH MOUNTAIN
4130 HIGH MOUNTAIN ROAD NE
HUNTSVILLE, AL 35811

REVISIONS

#	DATE	DESCRIPTION
	29-APR-2021	ISSUE FOR PERMIT

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POWHATAN, VIRGINIA 23139
PHONE: 804-372-3501 FAX: 804-980-7110
EMAIL: malcolml@oneil-engineering.com

PROJECT #:	K118
DATE:	29-APR-2021
SCALE:	AS NOTED
DRAWN BY:	JT
APPROVED BY:	ML

LANDSCAPING SITE PHOTOMETRIC AND CALCULATIONS

HIGH MOUNTAIN

SHEET:
L001