

CONSTRUCTION PLANS FOR

# ALABAMA A&M UNIVERSITY

## DITCH STABILIZATION

PREPARED FOR ALABAMA A&M  
4900 MERIDIAN STREET NORTH, NORMAL, AL

**PROJECT NOTES**

**1. PROJECT OWNER INFORMATION**

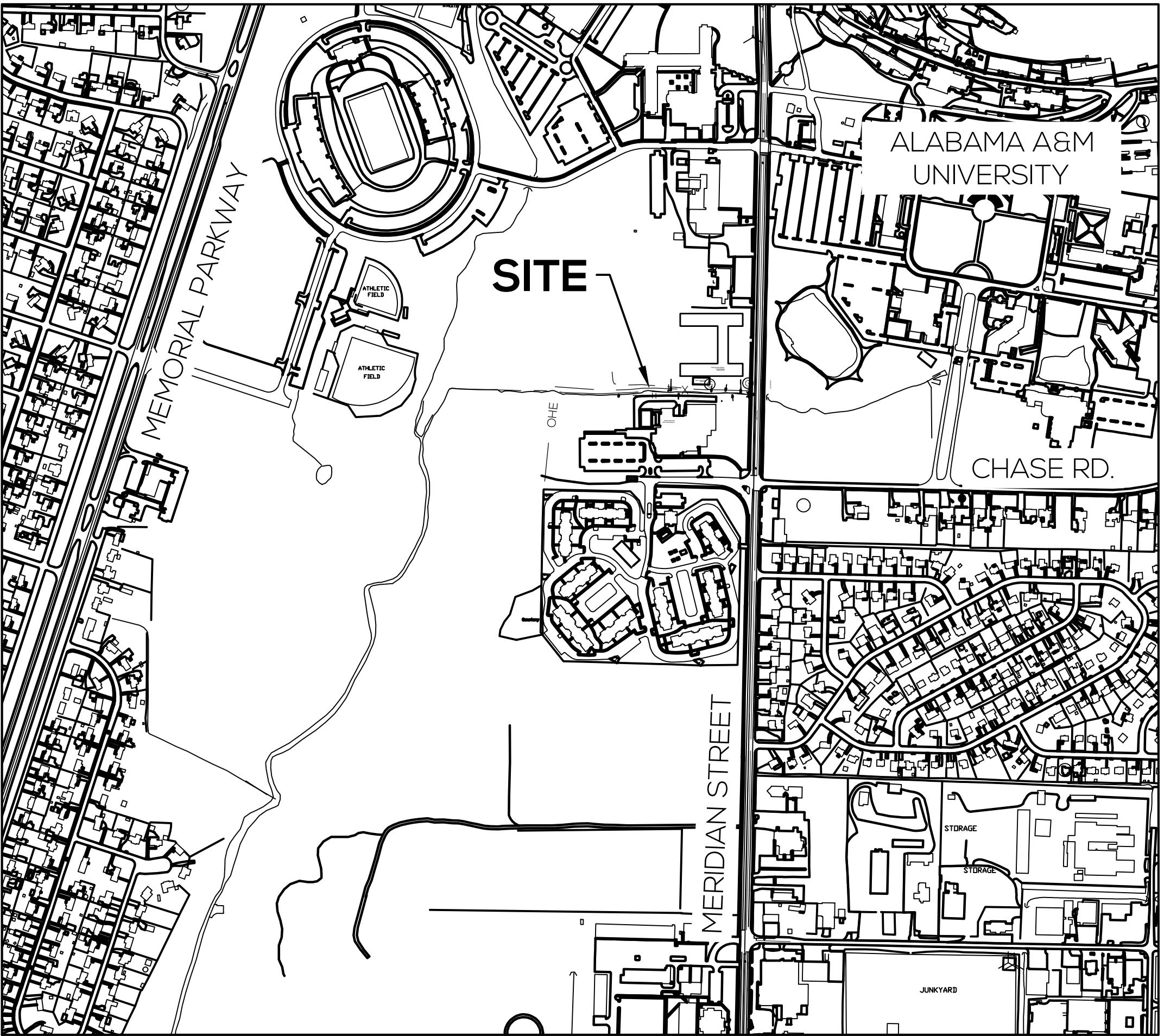
ALABAMA A&M UNIVERSITY  
4900 MERIDIAN STREET NORTH  
NORMAL, ALABAMA

**2. PROPERTY INFORMATION**

SEC 13, T 3 SOUTH, R 1 WEST

**3. GOVERNING MUNICIPALITY**

CITY OF HUNTSVILLE  
ENGINEERING DEPARTMENT  
320 FOUNTAIN CIR SW  
HUNTSVILLE, AL 35801



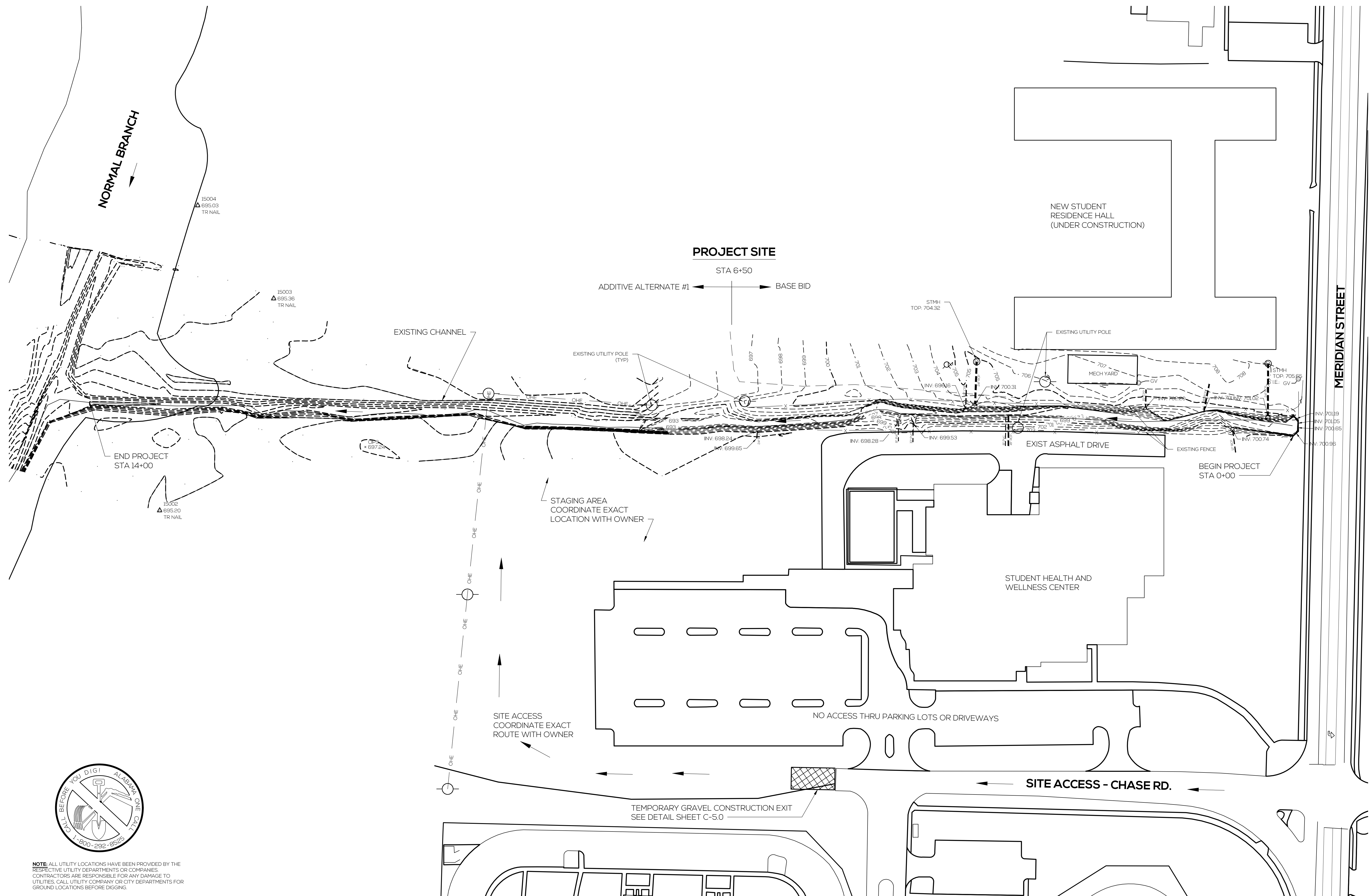
**VICINITY MAP**

**INDEX TO DRAWINGS:**

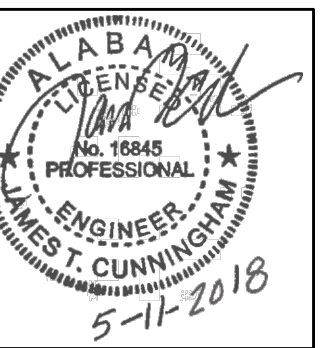
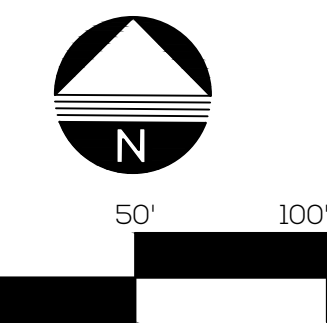
SHEET #	SHEET NAME
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U.S. ARMY CORPS OF ENGINEERS  
PROJECT NUMBER: LRN-2018-00138





**NOTE:** ALL UTILITY LOCATIONS HAVE BEEN PROVIDED BY THE RESPECTIVE UTILITY DEPARTMENTS OR COMPANIES. CONTRACTORS ARE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES, CALL UTILITY COMPANY OR CITY DEPARTMENTS FOR GROUND LOCATIONS BEFORE DIGGING.

[illegible]



GENERAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR MAKING APPLICATION, AND PAYING FOR ALL NECESSARY PERMITS, EXCEPT FOR THE U.S. ARMY CORPS OF ENGINEERS PERMIT WHICH IS INCLUDED WITH THE SPECIFICATIONS.
- 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.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING STREETS AND OTHER STRUCTURES WHICH IS CAUSED BY CONSTRUCTION ACTIVITIES.
- 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.
- 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.
- 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.
- ALL PAVEMENT CUTS SHALL BE REPAIRED WITH MATERIAL IN KIND TO THAT REMOVED.
- 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.
- 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.
- 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.
- 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.
- SIDEWALK RAMPS ARE TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) SPECIFICATIONS.

PAVEMENT CONSTRUCTION  
GENERAL NOTES

- ALDOT., 2012, SHALL MEAN ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2012 EDITION.
- CRUSHED AGGREGATE BASE COURSE PLANT MIXED SHALL BE PLACED IN ACCORDANCE WITH SECTION 301, ALDOT., 2012. ALL MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 825, TYPE B, 100% COMPACTION.
- PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PLACED IN ACCORDANCE WITH SECTION 450, ALDOT., 2012.
- BITUMINOUS CONCRETE BINDER LAYER SHALL BE PLACED IN ACCORDANCE WITH SECTION 424-B, ALDOT., 2012.
- BITUMINOUS CONCRETE WEARING SURFACE LAYER SHALL BE PLACED IN ACCORDANCE WITH SECTION 424-A, ALDOT., 2012.
- THE SITE SHALL BE CLEARED AND ALL UNSUITABLE MATERIAL REMOVED PRIOR TO PLACING AND COMPACTING EMBANKMENTS.
- 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).
- IN ROCK EXCAVATION A MINIMUM OF 1 FOOT OF SOIL SHALL BE PLACED OVER ROCK PRIOR TO PLACEMENT OF BASE MATERIAL.
- 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 EMBEDDED IN WHEEL STOPS AT 1/3 POINTS, AND FIRMLY BONDED TO WHEEL STOP AND PAVEMENT.
- 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 OF 15 mils (.4mm).

REINFORCED CONCRETE NOTES

- ALL CONCRETE SHALL BE AIR ENTRAINED 3000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, (CLASS "A"), UNLESS NOTED OTHERWISE ON THE PLANS.
- ALL CONSTRUCTION JOINTS SHALL BE CONSTRUCTED WITH CONTINUOUS SHEAR KEYS IN ACCORDANCE WITH THE SHEAR KEY DETAIL ON THE PLANS.
- ALL REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS, AND SHALL CONFORM TO STM A615, FOR BILLET STEEL.
- LAP SPLICES AND BAR EMBEDMENTS SHALL BE IN ACCORDANCE WITH THE TABLE ON THE PLANS.
- CONCRETE AIR CONTENT AND SLUMP SHALL BE IN ACCORDANCE WITH THE TABLE ON THE PLANS.
- 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.
- ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, SMOOTH FABRIC WITH AN ASTM YIELD STRENGTH OF 65,000 PSI.

SEEDING NOTES:

- 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.
- 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.
- 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.
- SOIL AMENDMENT SHALL BE RECOMMENDED USING LIME OR SULFUR TO ACHIEVE A SOIL PH OF 5.5 TO 6.5.
- "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.
- PROTECTION OF SEEDED AREAS ON STEEP SLOPES (3:1 OR STEEPER) SHALL BE PROVIDED USING A "SUPER DUTY EXCELSIOR EROSION CONTROL BLANKET" AS MANUFACTURED BY "PPS PACKAGING COMPANY," P.O. BOX 58 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

- 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.
- UNLESS INDICATED OTHERWISE ON THE PLANS, ALL PROPOSED CONTOURS AND ALL PROPOSED SPOT ELEVATIONS SHOWN ARE FINISHED GRADE.
- 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.
- 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.
- 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.
- ALL EARTH FILL SHALL BE PLACED IN UNIFORM LAYERS OR LIFTS NOT EXCEEDING 6" IN COMPACTED THICKNESS, UNLESS INDICATED OTHERWISE ON THE PLANS.
- 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.
- 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:

- 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.
- CONSTRUCT SEDIMENT TRAPS (IF ANY ARE INDICATED ON THE PLANS).
- GRADE IN THE PROPOSED DITCHES AS SHOWN ON THE GRADING PLAN, AND DIRECT DRAINAGE FROM DISTURBED AREAS TO THEM.
- 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.
- MULCH, LIME, FERTILIZE, SEED AND STRAW ALL DISTURBED AREAS AS SOON AS POSSIBLE FOLLOWING FINAL GRADING.
- 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.
- FOLLOWING COMPLETION OF PAVEMENT, STORM SYSTEM, AND MULCHING AND SEEDING ACTIVITIES, FLUSH OR CLEAN ALL SEDIMENT FROM STORM PIPE SYSTEM.
- 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.
- REMOVE SEDIMENT FROM DITCHES, AND REGRADE TO DEPTH AND SIZE SHOWN ON THE GRADING PLAN. SPREAD AND GRADE COLLECTED MATERIALS, AND SEED.
- REMOVE SEDIMENT TRAPS, AND SEED DISTURBED AREA.

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	X EG 661.2	X 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 ---	
SANITARY SEWER MANHOLE		
UTILITY POLE		N/A
LIGHT POLE		N/A
WATER LINE	--- 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
ESMNT	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

PROJECT NOTES

ALABAMA A&M DITCH STABILIZATION

ALABAMA A&M UNIVERSITY

4900 MERIDIAN STREET, NORMAL, ALABAMA



REVISIONS:

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FIELD DATE: --  
OFFICE DATE: 05/11/18  
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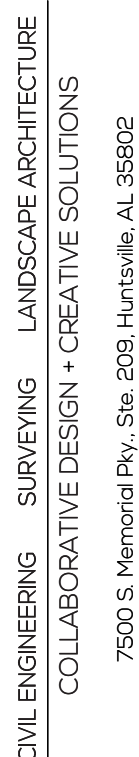
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C-2.0

PROJECT NO.: 17-172





## **GRADING AND STORM DRAINAGE PLAN**

# ALABAMA A&M DITCH STABILIZATION

ALABAMA A&amp;M UNIVERSITY

4900 MERIDIAN STREET, NORMAL, ALABAMA



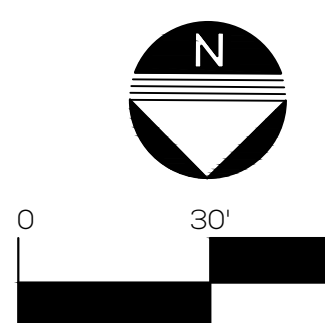
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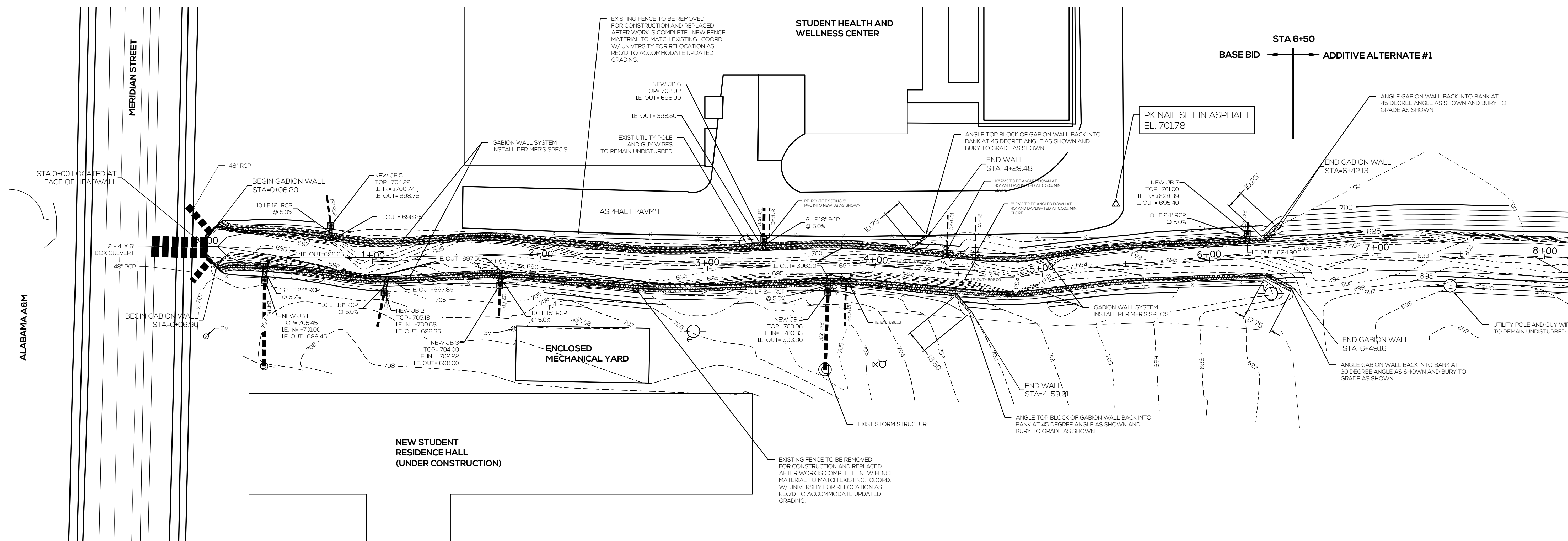
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PROJECT NO.: 17-



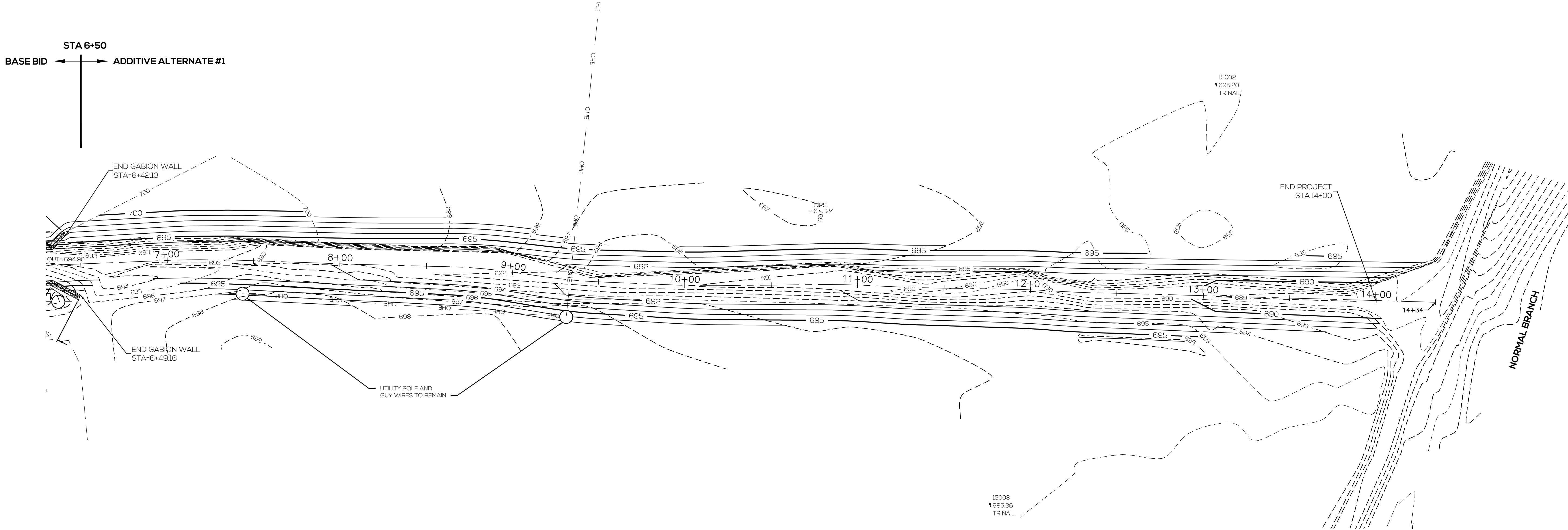
**NOTE: DEMO EXISTING STORM PIPE AS NEEDED TO POSITION PROPOSED STORM  
JUNCTION BOXES AS SHOWN.**



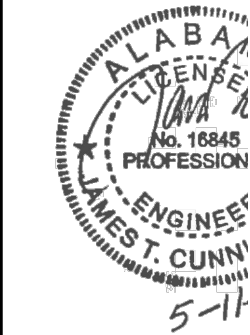
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UNION ENTRE LES ARABES ALIENNA L'ÉTAT DESOBISSANCE MAINTIENS CHANGEMENTS EN COURSE DE CONSTRUCTION SUFFISANT À LA LOUPE CONSTA QU'EST

C:\CLIENT FILES\ALABAMA\ALMO\757 RESERVOIR WALL DRAINAGE CHANNEL\USDA\NDR\BARRAGE\CONSTRUCTION SHEETS\757 LOWER CONCRETE SHEETS

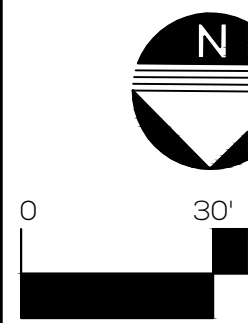


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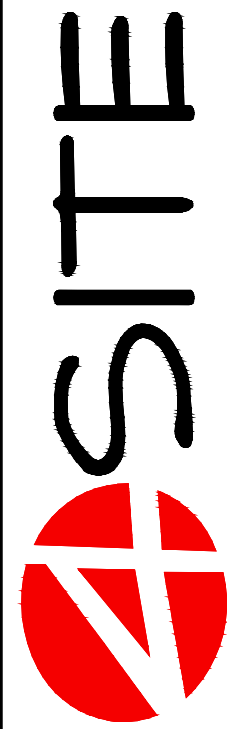


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C-3

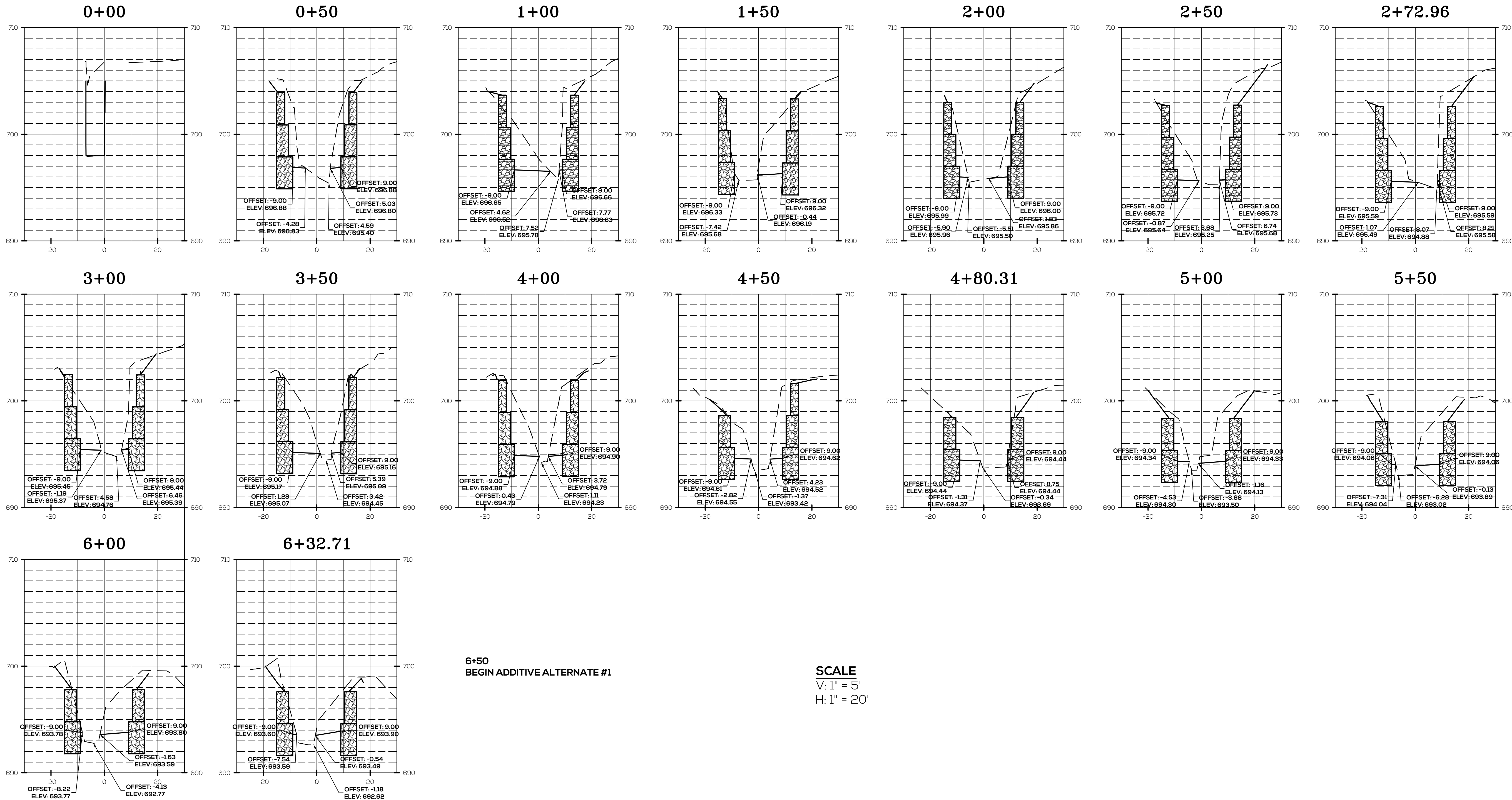
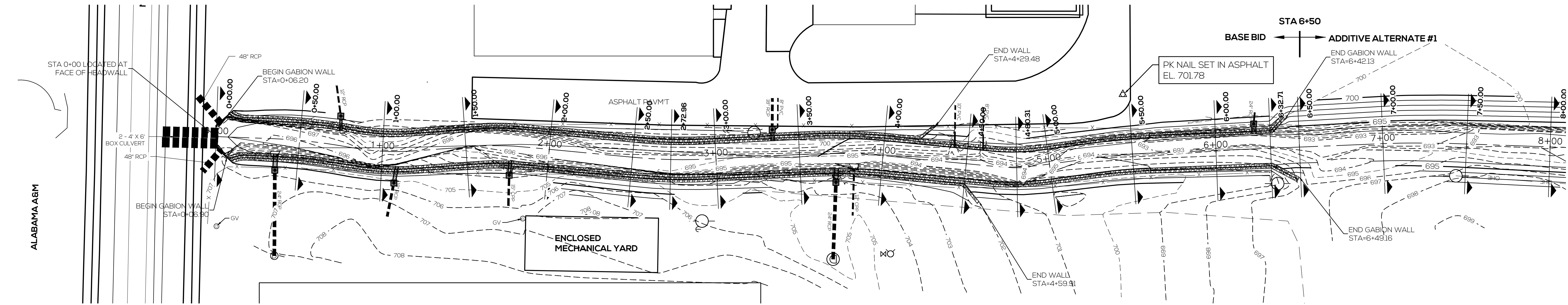
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GRADING AND STORM DRAINAGE PLAN

ALABAMA A&M DITCH STABILIZATION







6+50  
BEGIN ADDITIVE ALTERNATE #1

SCALE  
V: 1" = 5'  
H: 1" = 20'

SECTIONS

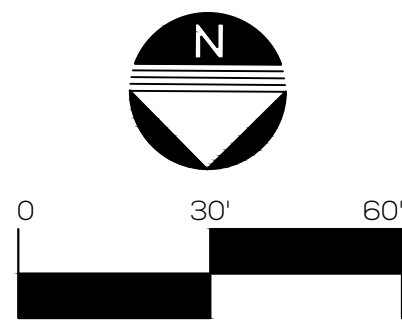
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ALABAMA A&M UNIVERSITY  
4900 MERIDIAN STREET, NORMAL, ALABAMA

SECTIONS

REVISIONS:

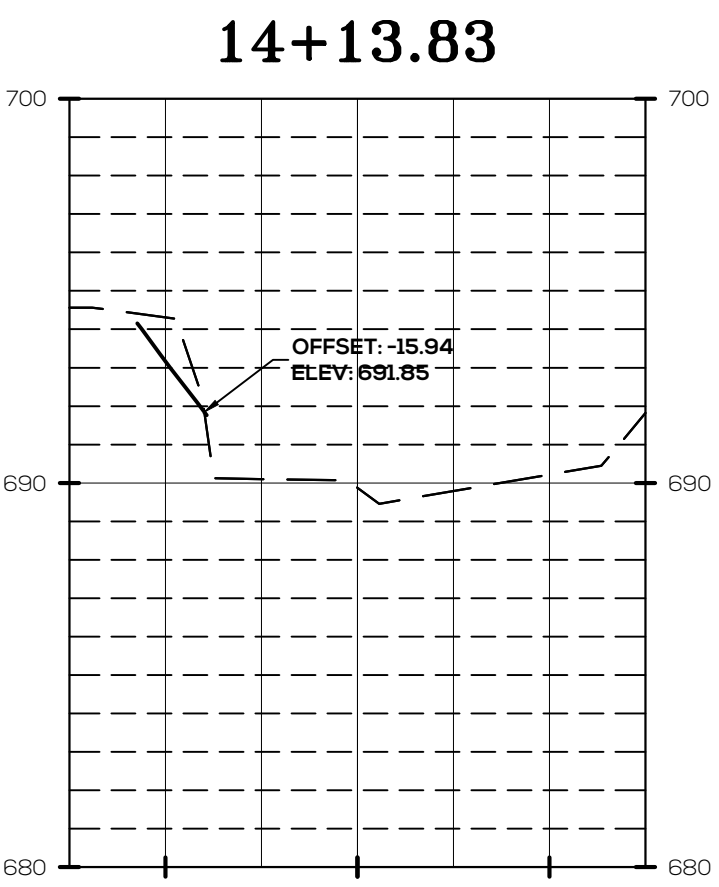
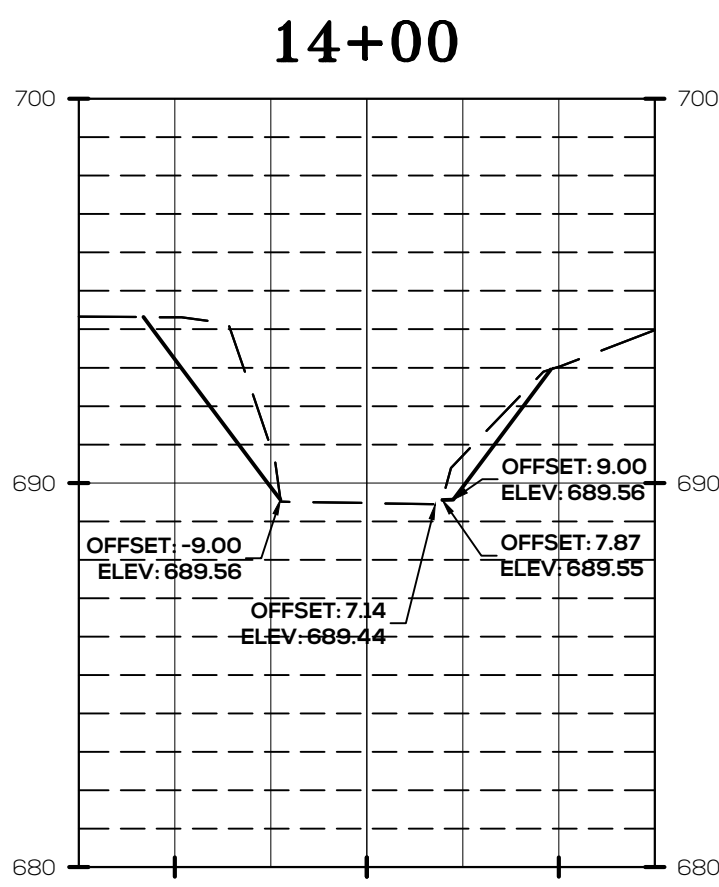
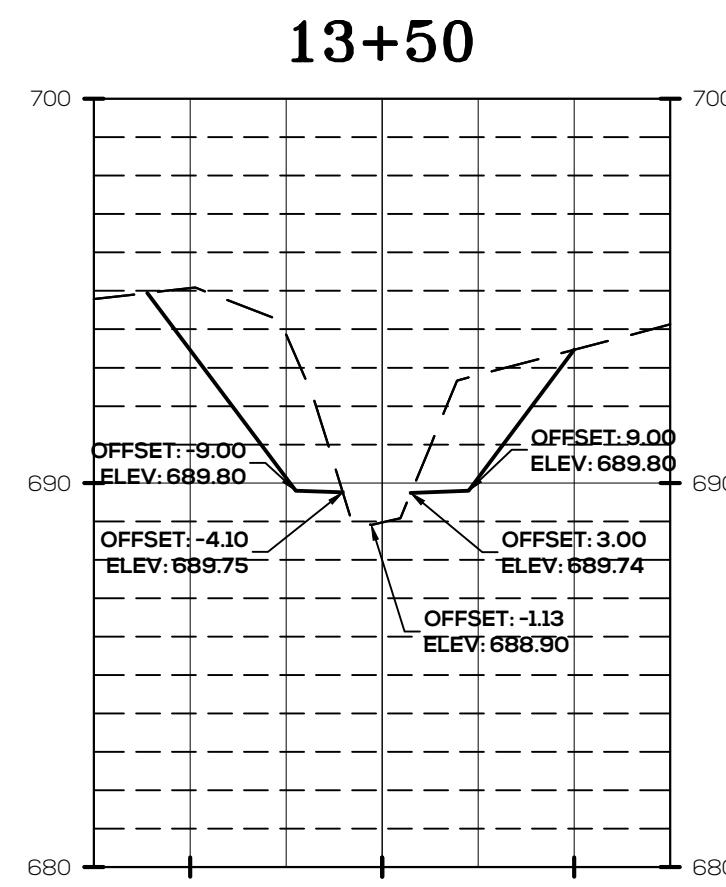
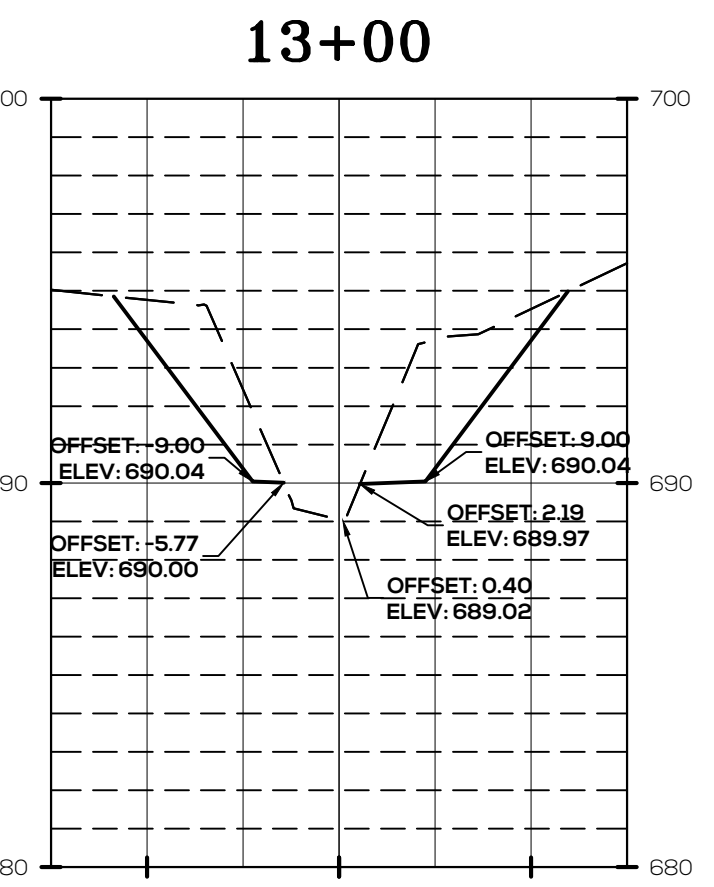
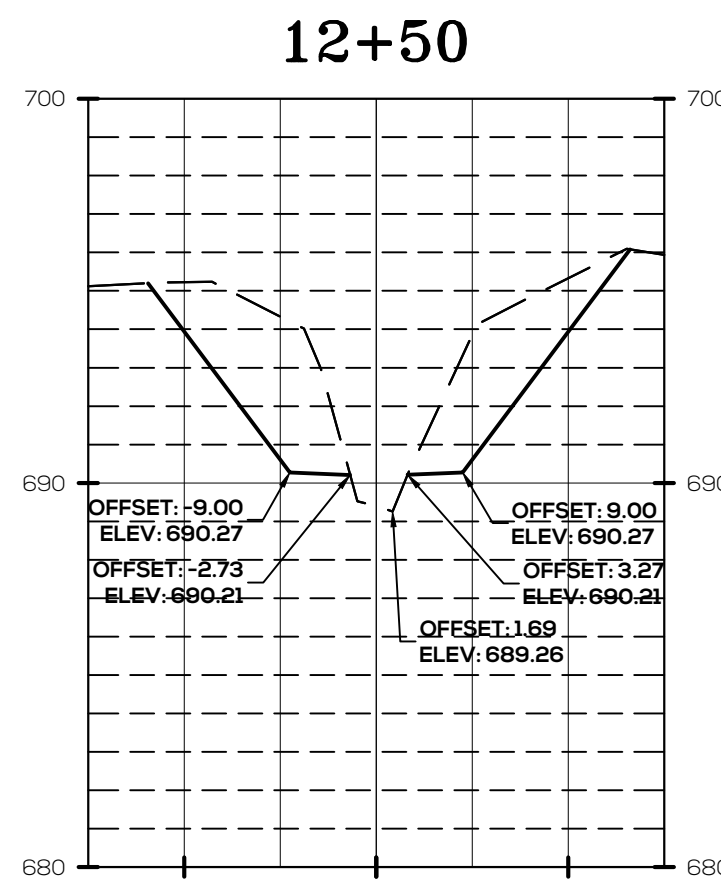
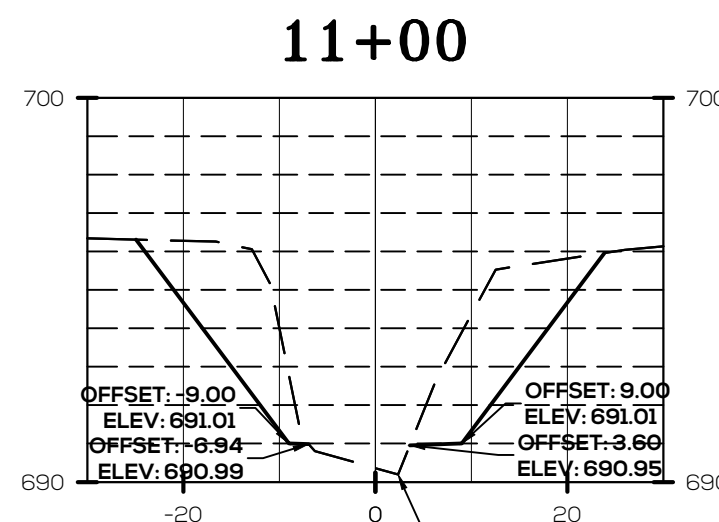
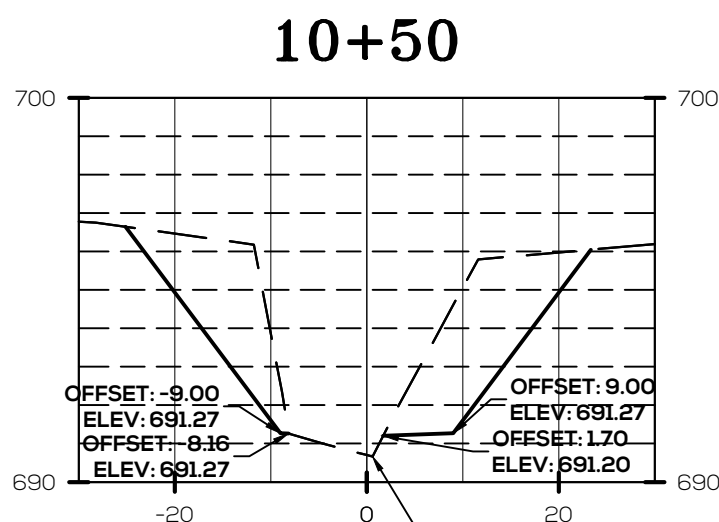
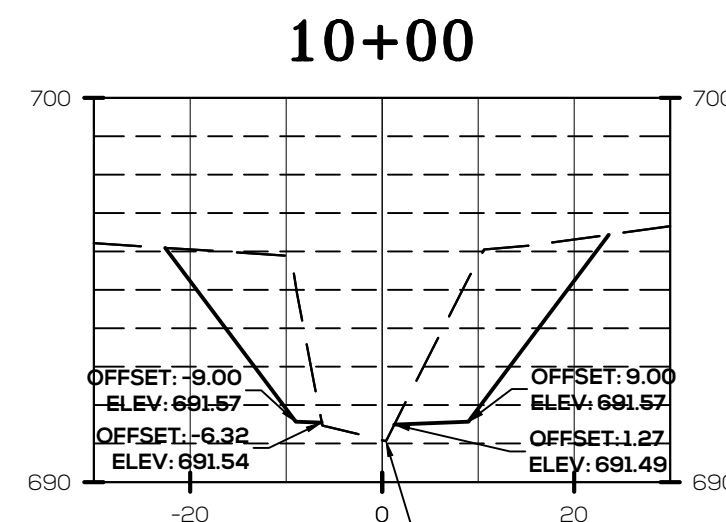
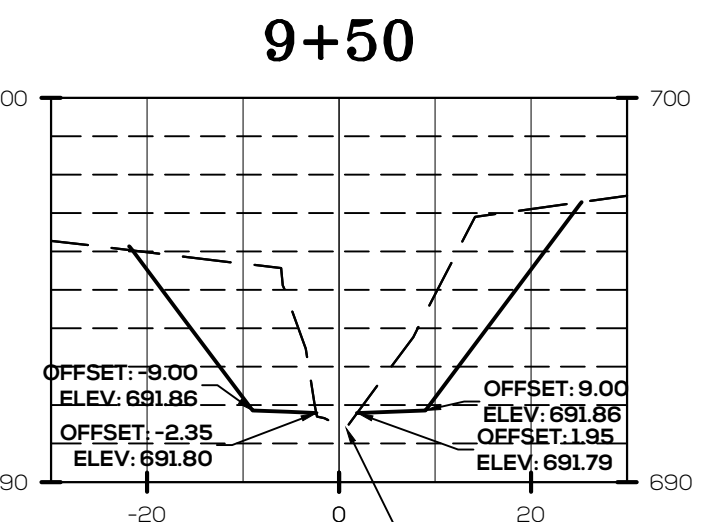
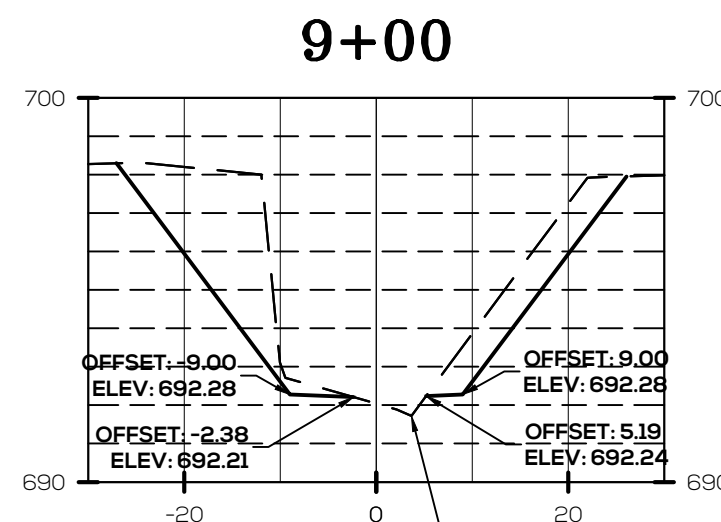
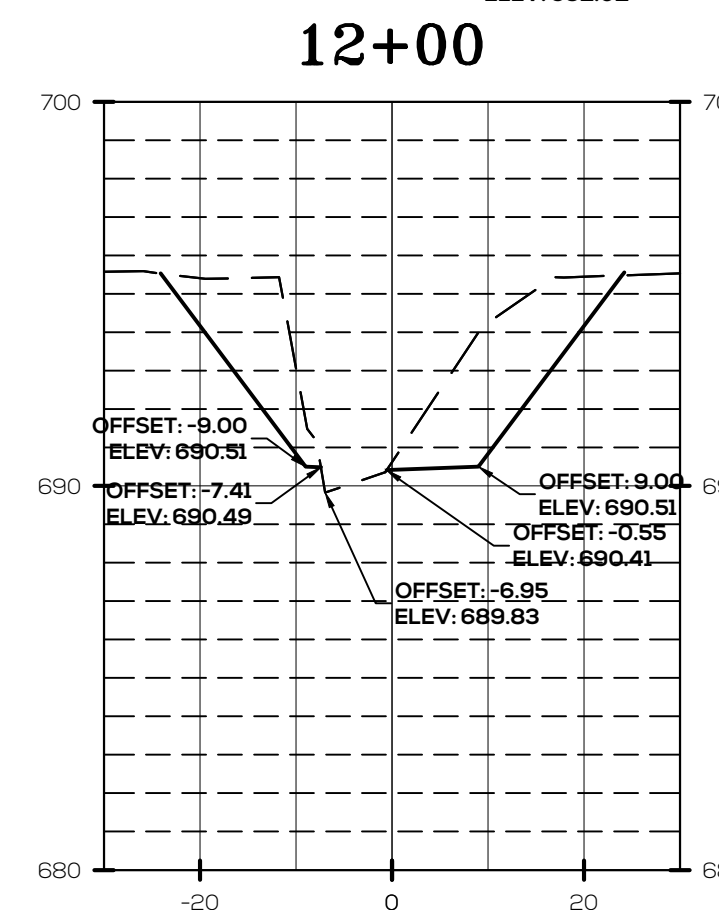
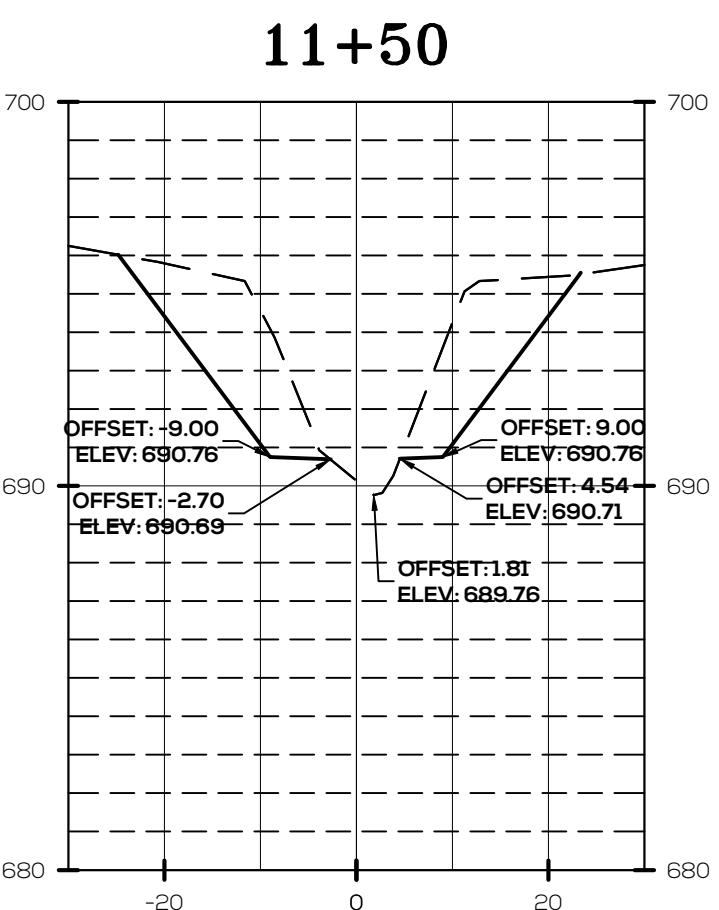
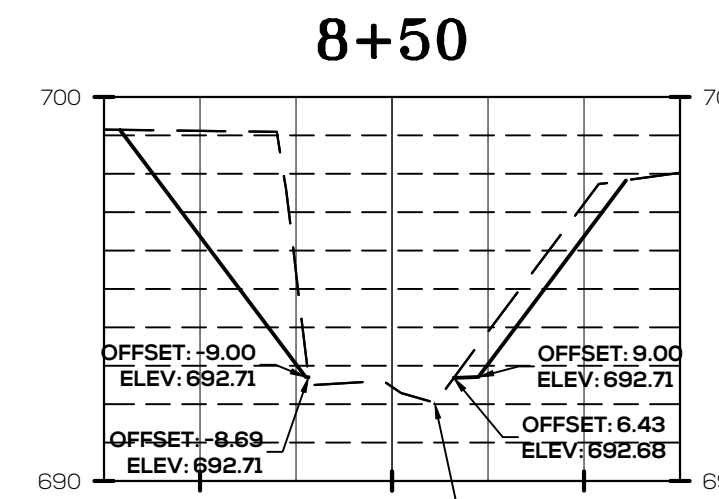
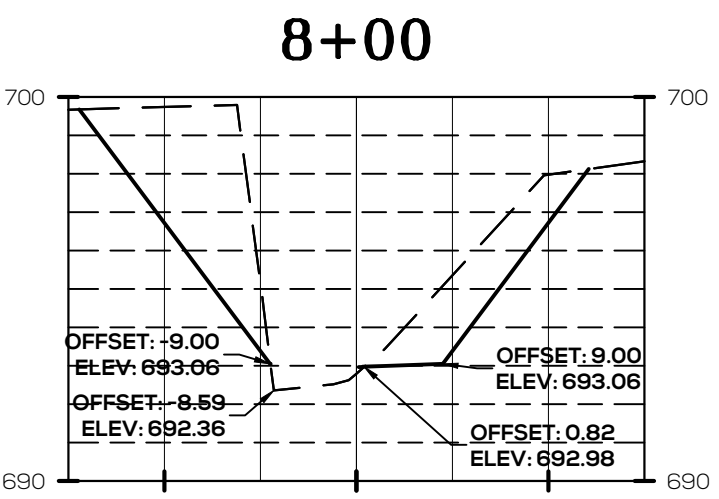
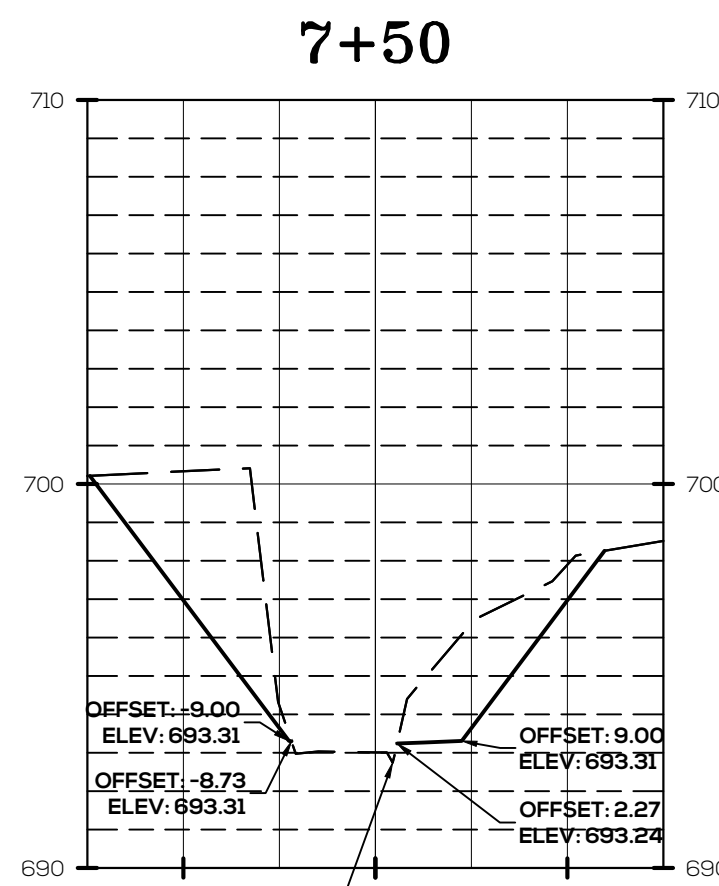
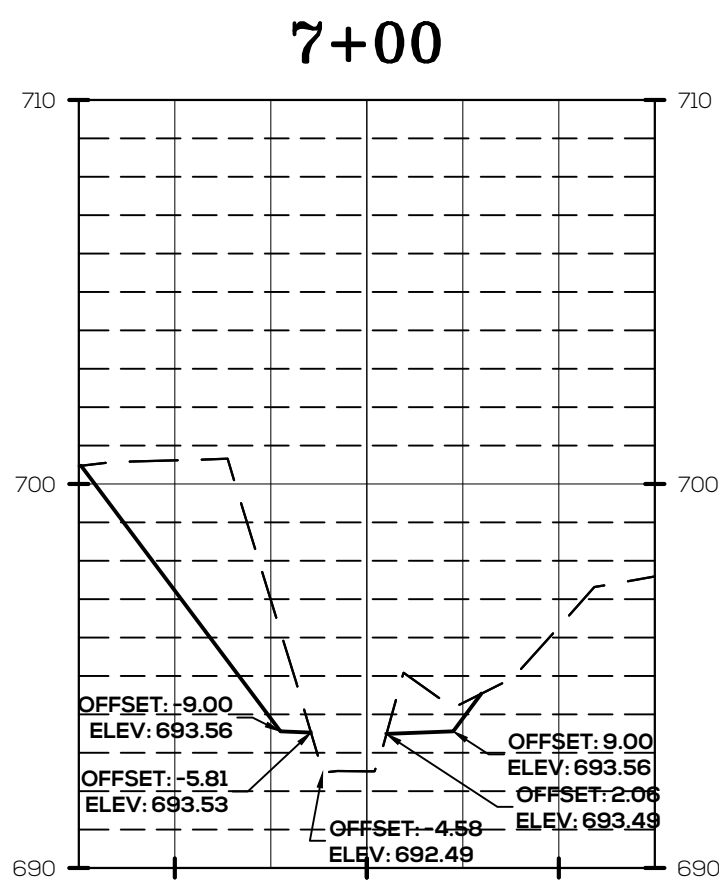
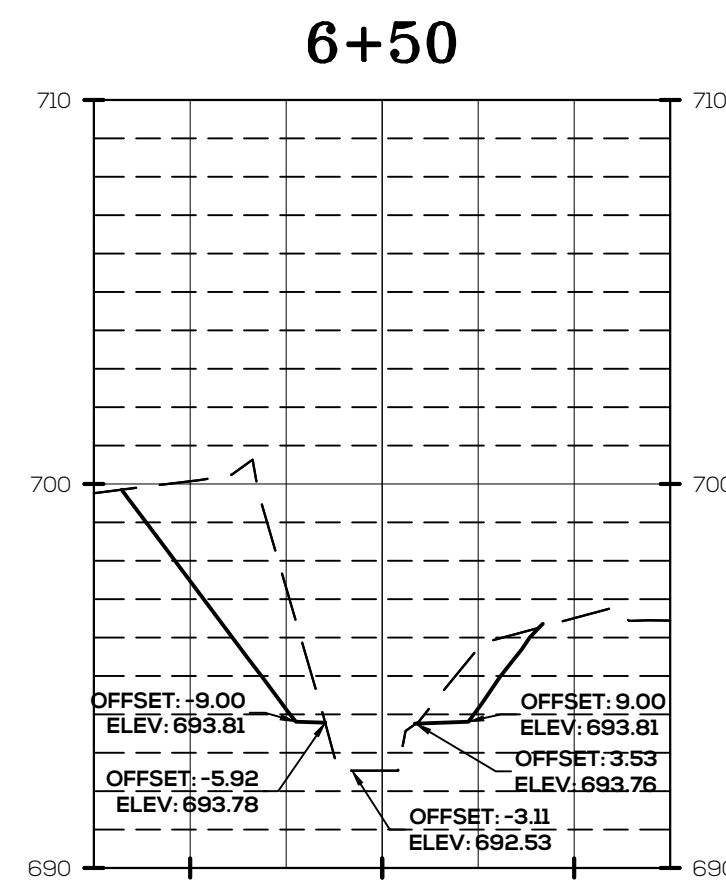
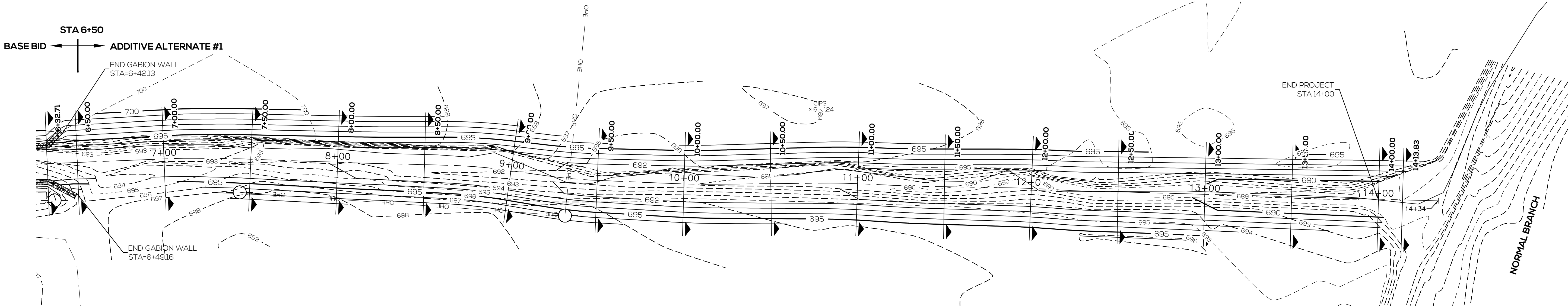
DRAWN BY: RG  
FIELD DATE: --  
OFFICE DATE: 05/11/18  
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SHEET  
**C-4.0**

PROJECT NO.: 17-172





SCALE  
V: 1" = 5'  
H: 1" = 20'

SECTIONS

ALABAMA A&M DITCH STABILIZATION

ALABAMA A&M UNIVERSITY

4900 MERIDIAN STREET, NORMAL, ALABAMA



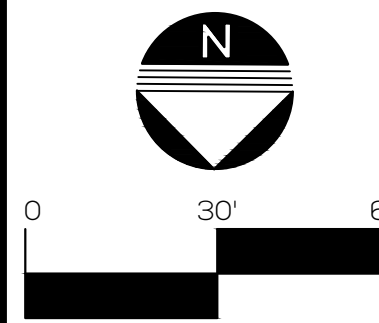
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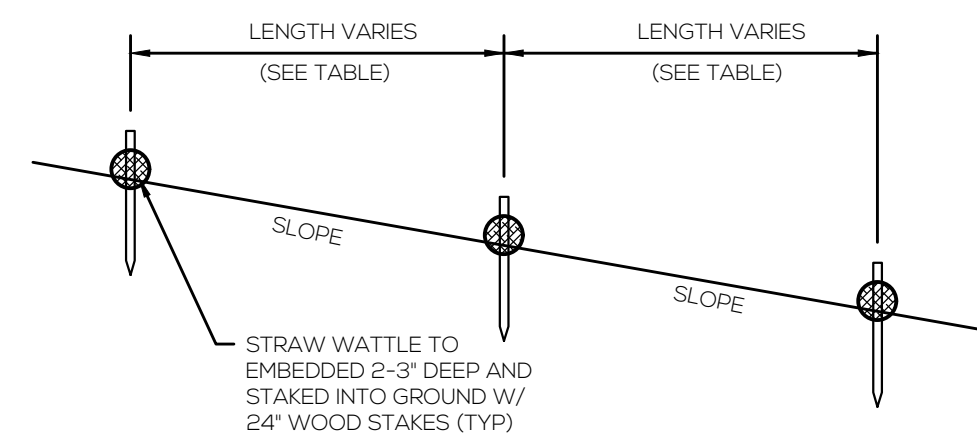
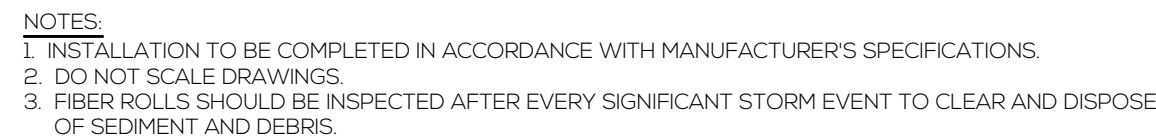


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C-4.1

PROJECT NO.: 17-172





WATTLE SPACING PER SLOPE TABLE	
SLOPE GRADIENT	WATTLE SPACING (FT)
< 6:1 (16.6%)	50'-0"
6:1 - 4:1 (16.6 - 25%)	25'-0"
4:1 - 2:1 (25 - 50%)	20'-0"
2:1 - 1:1 (50 - 100%)	10'-0"

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.

NOT TO SCALE

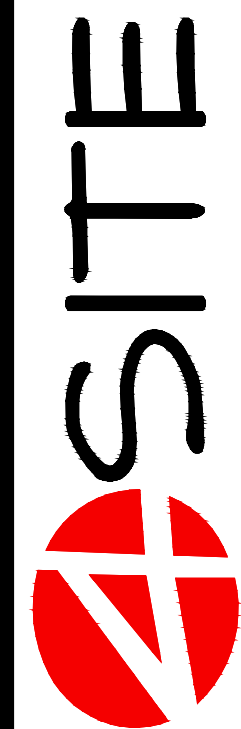


NOT TO SCALE



(WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS  
COST TO BE INCLUDED IN THE ITEMS FOR SILT FENCE)

NOT TO SCALE



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## PROJECT DETAILS

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4900 MERIDIAN STREET, NORMAL, ALABAMA



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NO SCALE

**SHEET**

# C-5.0

PROJECT NO.: 17-172



GABION WALL NOTES:

- GABION SYSTEM SHALL BE DOUBLE TWISTED HEXAGONAL WOVEN WIRE MESH GABION BASKETS IN CONFORMANCE WITH ASTM A975-97 AS MANUFACTURED BY TERRA AQUA GABIONS, SD #GW 7B - 9' GRAVITY WALL, OR EQUAL.
- FILTER FABRIC SHALL BE 8 OUNCE NON-WOVEN FABRIC.
- COMPACT BACKFILL IN 8" LIFTS TO 95% STANDARD PROCTOR.

PLANTING NOTES:

- THE SOD SHALL BE PLACED ON THE PREPARED SURFACE WITH THE EDGES IN CLOSE CONTACT, CRACKS BETWEEN BLOCKS OR ROLLS OF SOD SHALL BE CLOSED WITH SMALL PIECES OF SOD, AND ACCEPTABLE LOAMY TOP SOIL SHALL BE USED TO FILL JOINTS. THE ENTIRE SODDED AREA SHALL THEN BE TAMPED IN PLACE IN A SATISFACTORY MANNER AND WATERED AS NECESSARY.
- VERIFY QUANTITIES ON PLANS BEFORE PRICING WORK AND PROVIDE PLANT MATERIAL SHOWN ON THE DRAWINGS.
- THE OWNER, LESSEE, OR HIS AGENT SHALL BE RESPONSIBLE FOR PROVIDING, MAINTAINING, AND PROTECTING ALL LANDSCAPING IN A HEALTHY AND GROWING CONDITION, AND FOR KEEPING IT FREE FROM REFUSE AND DEBRIS. ALL UNHEALTHY AND DEAD MATERIALS SHALL BE REPLACED WITHIN ONE YEAR AFTER NOTIFICATION OR DURING THE NEXT APPROPRIATE PLANTING PERIOD, WHICHEVER COMES FIRST.
- ALL PLANT MATERIAL SHALL BE GUARANTEED ONE FULL YEAR, FREE REPLACEMENT ON LABOR & MATERIAL. SEPARATE AGREEMENT WITH INSTALLER SHALL BE PROVIDED, TO INCLUDE CONTACT NAME/PHONE NUMBERS.

GABION BLOCK RETAINING WALL  
INSTALL PER MFRS. SPECIFICATIONS.

FILTER FABRIC BETWEEN WALL  
AND BACKFILL AS SHOWN

REQ'D BACKFILL

FILL OR CUT SLOPE AWAY FROM  
TOP BLOCK TO NOT EXCEED 3H:1V

6" #78 STONE  
BOTTOM BLOCK TO BE BURIED  
2 FEET AS SHOWN

GRADE POINT FOR TOE OF SLOPE

INSTALL TIFTON BERMUDA ON THESE SLOPES  
REFER PLANTING TO NOTES 1-4, THIS SHEET

SILT FENCE REQ'D

RELOCATED FENCE TO BE PLACED  
2 FEET BEHIND GABION WALL. MATCH  
EXISTING FENCE MATERIALS. COORD.  
W/ OWNER FOR MORE SPECS.

GABION BLOCK RETAINING WALL  
INSTALL PER MFRS. SPECIFICATIONS.

FILTER FABRIC BETWEEN WALL  
AND BACKFILL AS SHOWN

REQ'D BACKFILL

FILL OR CUT SLOPE AWAY FROM  
TOP BLOCK TO NOT EXCEED 3H:1V

6" #78 STONE

BOTTOM BLOCK TO BE BURIED  
2 FEET AS SHOWN

GRADE POINT FOR TOE OF SLOPE

INSTALL TIFTON BERMUDA ON THESE SLOPES  
REFER TO PLANTING NOTES 1-4, THIS SHEET

CHANNEL INVERT TO REMAIN  
UNDISTURBED AND PROTECTED  
AT ALL TIMES DURING CONSTRUCTION

BASE BID  
TYPICAL GABION WALL CHANNEL SECTION

NOT TO SCALE (SEE SHEET C-40)

GABION WALL SYSTEM

SET PIPE EXIT AT TOP OF  
BOTTOM GABION BASKET

STAKE SOD AT  
PIPE EXIT POINT

6" #78 STONE

TYPICAL PIPE EXIT AT CHANNEL

NOT TO SCALE

SLOPE @ 3H:1V TO EXISTING  
GRADE. SEE GRADING PLAN  
AND NOTE 6, SHEET C-2.0.

4.50'

1.00%

←1.00%

GRADE POINT FOR TOE OF SLOPE

INSTALL TIFTON BERMUDA SOD  
ON THESE SLOPES. REFER TO  
PLANTING NOTES 1-4, THIS SHEET.

CHANNEL INVERT TO REMAIN  
UNDISTURBED AND PROTECTED  
AT ALL TIMES DURING CONSTRUCTION

ADDITIVE ALTERNATE #1  
TYPICAL 3H:1V BANK SLOPE CHANNEL SECTION

NOT TO SCALE (SEE SHEET C-41)

PROJECT DETAILS  
ALABAMA A&M DITCH STABILIZATION

ALABAMA A&M UNIVERSITY

4900 MERIDIAN STREET, NORMAL, ALABAMA



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NO SCALE

SHEET

C-5.1

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