



CERTIFIED MAILED/EMAILED

TO: All Vendors
Tywana Scott, Procurement Assurance Analyst
Hameed Malik, Augusta Engineering and Environmental Services Department
FROM: Geri A. Sams Procurement Director
DATE: August 28, 2024
SUBJ: Responses to Vendor's Questions and Clarifications to the Specifications
BID ITEM: Bid Item #24-215 Construction Services for McNutt Road Improvement Project for Augusta, GA - Augusta Engineering and Environmental Services Department

BID OPENING DATE: Friday, September 6, 2024 @ 11:00 a.m.

ADDENDUM NO. 2

This Addendum shall form a part of the referenced Bid Item #24-215 Construction Services for McNutt Road Improvement Project and any agreement entered into in connection therewith equally as if bound into the original document. Acknowledge receipt of all Addendums on Attachment "B" within the Specifications package.

Responses to Questions:

- 1. Question: Will "knock out" precast drainage structures be allowed. Response: Assume no.
2. Question: Will videoing and/or laser profiling of the storm drain be required? Response: Assume yes, once installed, contractor to price it under grading complete before preliminary walk through.
3. Question: Please provide schedules and milestone dates for relocation of third-party utilities. Is the time required for the relocation of the third-party utilities estimated in the established calendar days in the agreement? Response: Utility Relocation plan shall be discussed with the selected contractor, Contractor will be responsible to coordinate the utility relocation. AED is open to discuss the Utility adjustment schedule and needed time for relocation with the selected contractor.
4. Question: In General Conditions, GC-110, Will a field office be required? If so, how is it to be paid? Response: Assume, not required.
5. Question: In General Conditions, GC-26, it states, "all storm drain pipe shall have a minimum 6" bedding..." and addresses a "Foundation Backfill" Pay item. Can this pay item be added? Response: Assume, incidental to pipe line item.
6. Question: Is a soil survey or other geotechnical evaluations available? Response: Assume, no.

Room 605 - 535 Telfair Street, Augusta Georgia 30901
(706) 821-2422 - Fax (706) 821-2811
www.augustaga.gov

Register at www.demandstar.com/supplier for automatic bid notification



Scan this QR code with your smartphone or camera equipped tablet to visit the Augusta, Georgia

7. Question: In General Conditions, GC-28, references GDOT Specification 155. Has a non-infested area been designated on the plans that soil can be moved to as stated in the specification?
Response: The contractor will be responsible for providing a suitable disposal site for insect infested debris and abide by all conditions of Section 155 of the Georgia specifications under grading complete.
8. Question: Will this project be indexed per the GDOT asphalt index specification since this project has federal transportation funds?
Response: Assume , no.
9. Question: Item No. 001-1000, "Force Account", does not show a Unit price or total. Please clarify what these amounts should be?
Response: See revised bid proposal attached to this Addendum 1.
10. Question: Item Nos. 641-1200,641-5001, and 641-5015 on the bid schedule has the item #'s in the unit price columns. Please revise.
Response: See revised bid proposal attached to this Addendum 1.
11. Question: Please clarify what Item # W-17, "Misc 3000 PSI Concrete" on the bid schedule is to be used for?
Response: Item W-17 is the standard bid item to be used for AUD details calling for use of concrete, specifically AUD Detail 1.14
12. Question: Is item No. M-4 on the bid schedule to be used "as directed by the engineer"?
Response: Item M-4 is to be used "as directed by the Engineer/Augusta Utilities" and in instances where backfill material is not suitable for use.
13. Question: On page A-1 of the bid specifications, "Section 4: Agreement", states "AUGUSTA" as the "Owner". Is this correct?
Response: Owner is Augusta, GA.
14. Question: Can a "Allowable Materials Chart" be provided on the plans for materials that will be allowable for all storm and side drain pipe on this project? If not, please provide what material is acceptable and allowed for the side drain pipe on this project?
Response: Assume, all storm drain pipe shall be concrete, if situation arises, it shall be dealt in case by case basis.
15. Question: There is an existing chain link fence shown on the plans at Parcels 13 and 14, hog wire fence at Parcel 16, wire fence at Parcel 88, and Fence at Parcels 93 and 94, that is going to have to be removed. Will this fence need to be replaced? If so, how is the replacement to be paid?
Response: It will be replaced as per direction of AED project manager, Line item added, see revised proposal attached to this Addendum 1.
16. Question: There are several sheds and a tree house shown on the plans on McNutt Road in Parcels 14-16 that will be in the new ROW that will have to be removed or relocated. Will these be relocated, removed, or replaced? If so, how will this be paid?
Response: Assume, it will be removed and will be paid under grading complete. Contractor shall be responsible to notify the property owners. A 60-day advance notice is required to the owner before removal may occur.
17. Question: Can a "Signage Quantity chart" be provided on the plans showing a breakdown of the Highway signs that will be required on this project?
Response: Please see revised plans attached.

Clarifications to the Specifications:

- **Note: for AUD construction details refer <https://www.augustaga.gov/2390/Standard-Construction-Details>**

Please acknowledge addendum in your submittal

END ADDENDUM

ATTACHMENTS:

REVISED BID PROPOSAL (4 PAGES)
AUD RELOCATION PLAN (37 PAGES)
HIGHWAY SIGN QUANTITY (1 PAGE)
FINAL GENERAL NOTES (6 PAGES)
AUD MEASUREMENT AND PAYMENTS (11 PAGES)
WATER QUALITY MONITORING (6 PAGES)

SECTION 3: BID PROPOSAL

Date: _____

Gentlemen:

In compliance with your invitation for bids dated _____, 2024, the undersigned hereby proposed to furnish all labor, equipment, and materials, and to perform all work for the installation of roadway improvements, and appurtenances referred to herein as:

**AUGUSTA ENGINEERING DEPARTMENT
MCNUTT RD IMPROVEMENTS PROJECT**

In strict accordance with the Contract Documents and in consideration of the amounts shown on the Bid Schedule attached hereto and totaling:

_____ DOLLARS

(\$ _____)

The undersigned hereby agrees that, upon written acceptance of this bid, he will within 10 days of receipt of such notice execute a formal contract agreement with the OWNER, and that he will provide the bond or guarantees required by the Contract Documents.

The undersigned hereby agrees that, if awarded the contract, he will commence the work within **10** calendar days after the date of written notice to proceed, and that he will complete all work within **360** calendar days.

The undersigned acknowledges receipt of the following addenda:

Addendum Number:

Addendum Date:

Respectfully submitted:

(Name of the Firm)

(Business Address)

By: _____

Title: _____

**AUGUSTA ENGINEERING DEPARTMENT
MCNUTT RD IMPROVEMENTS 2023**

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	PRICE
ROAD ITEMS					
001-1000	FORCE ACCOUNT	LS	1	\$300,000	\$300,000
150-1000	TRAFFIC CONTROL	LS	1		
210-0100	GRADING COMPLETE	LS	1		
ASPHALT PAVING (INCL DRIVEWAYS)					
310-1101	GR AGGR BASE CRS, INCL MATL (6")	TN	12326		
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (2")	TN	3496		
402-3100	RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 2, INCL BITUM MATL & H LIME (1.5")	TN	2932		
412-1000	TACK COAT	TN	1613		
CONCRETE PAVING DRIVEWAYS					
441-0016	DRIVEWAY CONCRETE 6 IN THK	SY	775		
STORM SYSTEM					
550-4218	FLARED END SECTION 18 IN, STORM DRAIN	EA	8		
550-4230	FLARED END SECTION 30 IN, STORM DRAIN	EA	4		
550-4236	FLARED END SECTION 36 IN, STORM DRAIN	EA	2		
550-1180	STORM DRAIN PIPE, 18 IN, H 1-10	LF	196		
550-1300	STORM DRAIN PIPE, 30 IN, H 1-10	LF	104		
550-1360	STORM DRAIN PIPE, 36 IN, H 1-10	LF	70		
550-2180	SIDE DRAIN PIPE, 18 IN, H 1-10	LF	2060		
550-2240	SIDE DRAIN PIPE, 24 IN, H 1-10	LF	72		
550-3618	SAFTY END SECTION, 18 IN, SIDE DRAIN, 6:1 SLOPE	EA	114		
550-3624	SAFTY END SECTION, 24 IN, SIDE DRAIN, 6:1 SLOPE	EA	4		
GUARDRAIL					
641-1200	GUARDRAIL, TP W	LF	1940		
641-5001	GUARDRAIL ANCHORAGE, TP1	EA	6		
641-5015	GUARDRAIL TERMINAL, TP 12A, 31 IN, TANGENT, ENERGY ABSORBING	EA	6		
643-4000	WOVEN WIRE FENCE	LF	1000		
643-1133	CH LK FENCE, ZC COAT, 4 FT, 11 GA	LF	250		
643-8040	GATE, GALVANIZED METAL - 6-FT	EA	4		

**AUGUSTA ENGINEERING DEPARTMENT
MCNUTT RD IMPROVEMENTS 2023**

EROSION CONTROL ITEMS					
163-0300	CONSTRUCTION EXIT	EA	2		
163-0232	TEMPORARY GRASSING	AC	23		
700-6910	PERMANENT GRASSING	AC	23		
163-0240	MULCH	TN	138		
163-0501	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 1	EA	5		
163-0527	CONSTRUCT AND REMOVE RIP RAP CHECK DAMS, STONE PLAIN RIP RAP/SAND BAGS	EA	235		
163-0528	CONSTRUCT AND REMOVE FABRIC CHECK DAMS, TYPE C SILT FENCE	EA	107		
171-0030	TEMPORARY SILT FENCE, TYPE C	LF	26444		
603-2181	STONE DUMPED RIP RAP, TP 3, 18 IN	SY	330		
165-0030	MAINTENANCE OF TEMPORARY SILT FENCE, TYPE C	LF	26444		
165-0041	MAINTENANCE OF CHECK DAMS - ALL TYPES	EA	342		
165-0085	MAINTENANCE OF SILT CONTROL GATE, TP 1	EA	5		
603-7000	PLASTIC FILTER FABRIC	SY	330		
700-7000	AGRICULTURAL LIME	TN	23		
700-8000	FERTILIZER MIXED GRADE	TN	14		
711-0100	TURF REINFORCING MATTING, TP 1	SY	6000		
SIGNING AND MARKING ITEMS					
663-1501	THERMOPLASTIC SOLID TRAFFIC STRIPE, 5 IN, WHITE	LF	23582		
663-1502	THERMOPLASTIC SOLID TRAFFIC STRIPE, 5 IN, YELLOW	LF	23582		
652-5701	24 IN STOP BAR	LF	72		
636-1014	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 1	SF	153		
636-2010	GALV STEEL POST, TP1	LF	102		
636-1033	WY SIGNS, TP 1 MATL, REFL SHT TP. 9	SF	7		
652-1036	HWY SIGNS, TP 2 MATL, REFL SHT TP. 11	SF	118		
WATER MAIN					
W-1	6" DIA., PVC, C-900, STANDARD PIPE	LF	3000		
W-2	6" DIA., PVC, C-900, RESTRAINED PIPE	LF	1800		
W-4A	6" 45 DEGREE BEND, DIP MECHANICAL JOINT	EA	40		
W-4B	6" 22.5 DEGREE BEND, DIP MECHANICAL JOINT	EA	15		

**AUGUSTA ENGINEERING DEPARTMENT
MCNUTT RD IMPROVEMENTS 2023**

W-4C	6" 11.25 DEGREE BEND, DIP MECHANICAL JOINT	EA	15		
W-4D	6" END CAP, DIP MECHANICAL JOINT	EA	18		
W-10	6" X 6" TAPPING SLEEVE AND VALVE, INSTALLED	EA	9		
W-13	1" NEW WATER SERVICE AND RECONNECT EXISTING METER	EA	69		
W-16	WATER MAIN TIE-IN	EA	9		
W-17	MISC 3000 PSI CONCRETE	CY	10		
M-4	SELECT BACKFILL, GDOT TYPE I, CLASS I & II (SAND/CLAY) – MEASURED IN-PLACE VOLUME	CY	500		
P-7	DRIVEWAY REPLACEMENT	SY	100		
GRAND TOTAL					

GRAND TOTAL (IN WORDS):

_____ **DOLLARS**

***GRADING COMPLETE:** *Shall include any work without a specific pay item such as:* removal and disposal of all miscellaneous roadway items, utility items, and drainage items (i.e., demolition items). Additional items shall be included in the item of grading complete, unless otherwise established as separate contract items, including, but not limited to: removal/demolition of pavement, removal/demolition of concrete sidewalks and driveways / valley gutter, removal of curb and gutter, removal of abandoned drainage structures, removal of street signs, and any other miscellaneous removal items whether shown on the plans or not. The items of grading complete shall also include other miscellaneous items of construction not otherwise shown as a separate pay item such as fine grading, general clearing, cut and fill, constructing shoulder and subgrade, finish grading, construction layout, the hauling and disposal of undesirable or surplus materials, removing and/or resetting mailboxes, removing and/or resetting gates and fences, removing and/or resetting irrigation sprinkler heads, mobilization and demobilization, required bonds and insurance etc. Remove/reconnect water services, reconnect sanitary services, remove/reset signs (type varies), remove/reset water sprinkler systems(complete), remove/reset water valves (size varies), remove/reset yard lamps (type varies) shall be included in grading complete where no separate bid item is established.

****LS (LUMP SUM)** – For all Lump Sum items, attach itemized break of lump sum amount on separate sheet

GENERAL AUD NOTES

1. All construction of water distribution systems and wastewater collection system lines shall be in accordance with Augusta Utilities Department (AUD) Water & Sanitary Sewer Systems-Design Standards, Construction Specifications and Details (latest publication).
2. The Contractor is responsible for verifying the exact location, size, and material of any existing water or sanitary sewer utility proposed for connection or use by the project.
3. Contractor shall contact the Utilities Protection Inc. "Call Before You Dig" service (811) in order to locate utilities prior to starting any excavation or construction. The locations of underground utilities as shown on plans are approximate as determined from existing records.
4. The Contractor shall coordinate the work of the utility companies.
5. The Augusta Engineering Department (AED) shall be notified at least 48 hours (two working days) in advance during regular working hours (8:30am to 5:00pm, Monday-Friday, excluding Augusta, Georgia holidays) prior to the commencement of any construction activity within Augusta, Georgia right-of-way. Contact AED at (706-821-1706).
6. The AUD Engineering Division shall be notified at least 48 hours (two working days) in advance during regular working hours (8:30 am to 5:00 pm, Monday-Friday, excluding Augusta, Georgia holidays) prior to any construction, tie-ins, or testing of water or wastewater utilities. No work shall commence until contact is made with the project's AUD inspections representative.
7. Disturbance of any Survey Markers or Monuments requires re-establishment by a Professional Land Surveyor at the Contractor's expense. Documentation of the work must be presented to the AUD Engineering Division before the project is completed.
8. Any discrepancies, errors, or omissions discovered on plans or in the specifications should be noted on the contract proposal and does not relieve the Contractor of responsibility to correct the same.
9. All concrete shall and have minimum 28-day strength of 3,000 psi.
10. If a conflict arises between the new work and the existing water and sewer utilities during the course of construction, it will be the responsibility of the

Owner/Developer/Contractor, at their expense and not AUD's, to correct the discrepancy as directed by a representative of AUD.

11. All existing Augusta road structures such as storm manholes, inlet boxes, etc., shall be maintained and or adjusted as is appropriate to ensure proper use.
12. All materials deemed salvageable by AUD are the property of Augusta, Georgia and will be removed and stored on site in a secured area determined during construction by the contractor, and Augusta Utilities Department.
13. For private developments, AUD shall not be responsible for pavement patching and/or replacement and the site restoration whenever AUD performs repair, replacement or installation work.
14. If AUD must repair or replace utilities on the work site, then the responsible party shall arrange for access by AUD as required to repair or replace the utility.
15. A minimum (20') Utility Easement centered over all water lines and a minimum 20' Utility Easement centered over all wastewater lines shall be deeded to Augusta, Georgia at completion and acceptance of said lines. Easements containing both water and sewer shall be 10' from the center of the utility to outside of the easement, while maintaining minimum separation requirements as listed in AUD's Water and Sanitary Sewer Systems-Design Standards, Construction Specifications, and Details.
16. A right-of-way encroachment permit shall be obtained from AED prior to commencing any work within an Augusta, Georgia right-of-way. The utilities encroachment permit must be applied for through AUD.
17. "A Georgia DOT right-of-way encroachment permit may be required for work on temporary or permanent state routes. Contact AUD Engineering Division to determine if a permit is required. The utilities encroachment permit must be applied for through AUD. Conditions of the permit must be complied with fully. The permit must be in hand a minimum 24 hours notice given to GDOT prior to beginning any work in the GDOT right-of-way."
18. Traffic control devices shall meet and be installed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). Also, a traffic control/detour plan shall be submitted to the City Engineer for approval as noted in the Augusta-Richmond County, Georgia-Rights of Way Encroachment Guidelines.
19. The Contractor and the AUD representative shall have a copy of the Augusta-Richmond County, Georgia-Rights of Way Encroachment Guidelines Development Document #15, adopted June 1999, amended August 2000,

amended June 2021. The requirements set forth in this document shall be adhered to at all times.

20. Clearing and grubbing shall be at the Contractor's discretion, subject to AUD approval, to facilitate construction.
21. The implementation of best management practices (BMP's) for erosion and sediment control in accordance with the Manual for Erosion and Sediment Control in Georgia shall be installed and maintained at all times.

AUD WATER NOTES

1. An AUD inspector shall be present or section left uncovered until inspected by the inspector when a tap, tie-in occurs, restrained joints are installed, bends, fittings, fire hydrants, valves and pressure testing. Contractor is to provide at least 48 hour notice (two working days) in advance during regular working hours (8:30 am to 5:00 pm, Monday-Friday, excluding Augusta, Georgia holidays).
2. All PVC water lines shall be a minimum DR-18 PVC meeting AWWA C-900 and/or C-905, unless otherwise shown or specified.
3. All DIP water lines shall be class 350 for lines 16" diameter and smaller, and class 300 for lines 18" diameter through 24" diameter, unless otherwise specified or shown.
4. All new water lines shall be installed per pipeline manufacturer recommendations.
5. All water lines shall be tested, chlorinated, and checked for bacteria per AUD's Water & Sanitary Sewer Systems-Design Standards, Construction Specifications and Details.
6. Copper Wire (12-gauge, Insulated, Single Strand) shall be attached along top of all buried water lines, wrapped around service corporations and brought up on the outside of all valve boxes, stubbing out at the top to facilitate traceability. This wire shall be properly spliced with a water proof connector for electrical connectivity, and then insulated to protect against corrosion. (Reference AUD Details when applicable).
7. Detector Tape shall be 4 inches wide and placed 2 feet above pipe. Add similar device to conduit per AUD detail 3.6.

8. All water valves on the main lines, including hydrant laterals, shall be open-left if installed south of Gordon Highway (S.R. 10), or open-right if installed north of Gordon Highway.
9. The Contractor shall furnish, install, and maintain a meter box at the termination point of all water services. Meter boxes will in no way be placed under driveways. Meter boxes will preferably be located in the center of the lot and within 1' inside of the R/W, and maintained by the Contractor until such time the meter is installed.
10. Water services shall have minimum diameter of 1 inch (Reference AUD Details when applicable).
11. Any existing water service lines which are extensions off an existing water main to be abandoned discovered during construction shall be replaced. These new service lines are to tie into the new water main and be reconnected to the existing water meter.
12. All existing water services shall be extended and meter boxes relocated as required beyond the limits of construction. The services shall be connected to the new water main after said main has been sterilized, pressure tested and put into service. In the event that the service line is not active, a new water service will be required to be constructed.
13. All water meters shall be purchased from AUD Construction and Maintenance Division.
14. The Developer/Contractor shall locate water services and valves by etching a "W" for the water service and a "V" for a valve in the curb or in the pavement if no curb is available, and highlight the etching with blue paint per the APWA uniform color code. In the event that the valve is located behind the curb or pavement, invert the "V" marking so that it points to the valve outside the roadway.
15. Fire hydrants are to be located a minimum of one foot inside existing right-of-way with a 3 foot radius clearance.
16. Existing fire hydrants and meters that are removed shall be turned over to AUD.
17. Per AUD's Water & Sanitary Sewer Systems-Design Standards, Construction Specifications and Details:
 - a. For backflow installations for non-residential development, a minimum "double-check" backflow-prevention device shall be installed on the customer's side of all services.
 - b. Fire lines require a minimum "double detector" backflow device.

- c. For backflow installations for residential developments, a "dual check" backflow device shall be installed on the customer's side of the service line at the point of tie-in to the water meter.
 - d. For some medium hazard to high hazard locations, a reduced pressure zone (RPZ) backflow device will be required.
18. Backflow devices shall be tested by a certified person within five (5) working days of installation and the results furnished to the AUD Back Flow Inspector within 10 working days of installation prior to any water use. AUD shall be notified prior to testing Contact the Augusta Utilities Back Flow Inspector at 706-722-1639.

AUD SEWER NOTES

1. An AUD inspector shall be present or section left uncovered until inspected by the inspector when a core, tap, tie-in occurs, manhole installed, and all required testing. Contractor is to provide at least 48 hour notice (two working days) in advance during regular working hours (8:30 am to 5:00 pm, Monday-Friday, excluding Augusta, Georgia holidays).
2. The Contractor is to verify the invert elevations (I.E.) of existing pipes prior to beginning construction.
3. Sewer force main shall be PVC DR-18 C-900 or C-905 as applicable or DIP class 350, epoxy lined.
4. All new sewer lines shall be installed per pipeline manufacturer requirements.
5. Copper Wire (12-gauge, Insulated, Single Strand) shall be attached along top of all buried sewer lines to facilitate traceability. The wire shall run along the top of the main and along individual service lines and brought up on the outside of all manholes, cleanouts, or other above ground features stubbing out at the top for locating purposes. This wire shall be properly spliced with a water proof connector for electrical connectivity, and then insulated to protect against corrosion. (Reference AUD Details when applicable).
6. Detector Tape shall be 4 inches wide and placed 2 feet above pipe add similar device to conduit per AUD detail 3.6.
7. All tie-ins to existing manholes shall be cored unless otherwise approved by AUD Inspector.
8. All manholes require "K or N Seal" or equal, rubber boots, unless otherwise approved by AUD Inspector.

9. No connection shall be made to existing wastewater lines until the proposed line is inspected and approved by AUD's Engineering Division.
10. All wastewater manholes shall have an elevation drop of 0.2 foot across the inlet and outlet inverts.
11. Wastewater clean-outs shall be installed at all individual services as shown in AUD-Details, and shall not be installed under driveways or any paved areas without prior approval from AUD.
12. Service lines to sanitary sewer main shall be bedded per these AUD Specifications and AUD Details.
13. Maximum sanitary sewer infiltration shall not exceed 100 GPD/inch of pipe diameter per mile.
14. The Contractor shall locate sanitary sewer services by etching an "S" in the curb or in the pavement if no curb is available, and highlight the etching with green paint per the APWA uniform color code.
15. Finished floor elevations of all proposed buildings shall be a minimum of five (5) feet above the invert elevation of the wastewater main or manhole at the point of tie-in. In instances where this is not possible, a backwater valve shall be installed in the sewer service.



**AUGUSTA UTILITIES DEPARTMENT
MEASUREMENT AND PAYMENT**

WATER MAIN

ITEMS W-1(A-Z) - All piping line items shall be measured in linear feet and shall include costs for piping and installation, locating wire, locating tape, normal joints and gaskets, trench excavation, trench protection, dewatering, bedding material, asphalt cutting, normal backfill, pressure and leakage testing, pipe sterilization, bacteriological testing, and flushing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS W-2(A-Z) - All piping line items shall be measured in linear feet and shall include costs for piping and installation, locating wire, locating tape, restrained joints and gaskets, trench excavation, trench protection, dewatering, bedding material, asphalt cutting, normal backfill, pressure and leakage testing, pipe sterilization, bacteriological testing, and flushing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-3(A-Z) - Jack and bore line items shall be measured in linear feet and shall include costs for casing piping, field lok gasket carrier piping, and installation. Shall also include costs for bore pit excavation, trench protection, dewatering, bedding material, asphalt cutting, end seals, casing spacers, normal backfill, pressure and leakage testing, pipe sterilization, bacteriological testing, and flushing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-4 (A-Z) - Miscellaneous pipe fittings shall be measured individually (each) and include costs for the complete fitting and installation including polywrap and mechanical joint restraint, regardless of material. Miscellaneous Pipe Fittings shall either be Mechanical Joint Fittings unless otherwise specified on the plans or contract documents. All mechanical joint fittings shall be installed using approved restraining glands, no separate payment will be made for these restraining glands. Approved adapters shall be used where necessary to provide a transition between pipes and/or fittings of differing outside diameters. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items. Thrust blocking shall only be utilized, in addition to restraining glands, if specified on plans, when tying-into existing non-restrained pipe, or when approved by AUD Construction Inspector, and will be paid for under pay M-2.

ITEM W-5 - Fire hydrants shall be measured individually (each) and shall include costs for hydrants, fire hydrant riser, restrained ductile iron lead pipe, polywrap, valve, valve box, fittings associated with connecting to water main, connection to water main, stone drain bed, soil surface preparation excavation, asphalt/concrete cutting, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS W-6 (A-Z) - All vertical gate valve line items shall be measured individually (each) and shall include costs for full body ductile iron valves, polywrap, hand wheel where specified, valve boxes/vaults, manholes, concrete collar, excavation, dewatering, asphalt/concrete cutting, all associated fittings, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS W-7 (A-Z) - All horizontal gate valve line items shall be measured individually (each) and shall include costs for full body ductile iron valves, polywrap, hand wheel where specified, valve boxes/vaults, manholes, concrete collar, excavation, dewatering, asphalt/concrete cutting, all associated fittings, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS W-8 (A-Z) - All butterfly valve line items shall be measured individually (each) and shall include costs for full body ductile iron valves, polywrap hand wheel where specified, valve boxes/vaults, manholes, concrete collar, excavation, dewatering, asphalt/concrete cutting, all associated fittings, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS W-9 (A-Z) - All combination air valve, dual air valve, and air and vacuum valve line items shall be measured individually (each) and shall include costs for the specified air valve, brass fittings, copper tubing, PVC fittings, PVC schedule 80 pipe, painted air release pipe with cap, bollards, pipeline marker, manhole, concrete collar, excavation, dewatering, asphalt/concrete cutting, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-10 - Tapping sleeve and valves shall be measured individually (each) and shall include costs for tapping sleeve, tapping valve, associated hardware, polywrap, valve boxes, concrete collar, temporary plugging/drainage of pipeline, excavation, dewatering, asphalt/concrete cutting, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-11 - Check valves, Actuator valves, and Pressure Reducing Valves shall be measured individually (each) and shall include costs for valves, valve boxes/vaults, manholes, concrete collars, excavation, dewatering, asphalt/concrete cutting, all associated pipe and fittings, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-12 - All cut-in gate valves shall be measured individually (each) and shall include costs for full body ductile iron valves, valve boxes/vaults, concrete collar, manholes, excavation, dewatering, asphalt/concrete cutting, all associated fittings, installation, normal backfill, and testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-13 (A-Z) - Long side water service connections shall be measured individually (each) and shall include costs for piping, all associated fittings, water meter connection, relocating water meter if necessary, dewatering, asphalt/concrete cutting (including service markings), installation: open cut and/or by torpedo, normal backfill, grassing, and property restoration. This line item shall include the cost of reconnection of any existing services, if required. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-14 (A-Z) - Short side water service connections shall be measured individually (each) and shall include costs for piping, all associated fittings, water meter connection, relocating water meter if necessary, dewatering, asphalt/concrete cutting (including service markings), installation: open cut and/or by torpedo, normal backfill, grassing, and property restoration. This line item shall include the cost of reconnection of any existing services, if required. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-15 - Polyethylene pipe wrap shall be measured in linear feet and shall include costs for pipe wrap materials and installation. Polyethylene pipe wrap shall be 8.0 mils in thickness. No additional payment shall be made for these items.

ITEM W-16 - Tie-ins to existing lines shall be measured individually (each) and shall include costs for cutting, removal of any needed existing pipe, concrete anchor block with stainless steel rods to the existing line, and abandoning the existing line. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-17 - Miscellaneous concrete shall be measured in cubic yards and shall include costs for 3,000 psi concrete, form work, installation, excavation, dewatering, soil stabilization, pipe stabilization, asphalt cutting, and normal backfill. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM W-18 - Abandon valve shall be measured individually (each) and shall include costs for closing valve, removing valve riser, removing valve collar, removing valve lid, filling with flowable fill or dirt, situational specific. No additional payment shall be made for these items.

ITEM W-19 - Adjust valve box to grade shall be measured individually (each) and shall include costs for adjusting the height of the riser and the lid, remove and replacing the concrete collar. No additional payment shall be made for these items.

ITEM W-20 - Adjust water meter to grade shall be measured individually (each) and should only include costs for fill dirt, dirt removal, grassing, and property restoration. No additional pay item shall be made for this item.

SANITARY SEWER

ITEMS S-1 (A-Z) - All gravity sewer line piping line items shall be measured in linear feet and shall include costs for piping and installation, locating wire, locating tape, trench excavation, trench protection, dewatering, 57 stone, asphalt cutting, normal joints and gaskets, normal backfill, infiltration and exfiltration testing, and mandrel pulling. CCTV camera inspection will be performed by the Augusta Utilities Department. Lines will not be approved or accepted until the Augusta Utilities Department's Project Manager approves all testing results. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS S-2 (A-Z) - All force main sewer line piping line items shall be measured in linear feet and shall include costs for piping and installation, locating wire, locating tape, trench excavation, trench protection, dewatering, bedding material, asphalt cutting, normal joints and gaskets, normal backfill, pressure testing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS S-3 (A-Z) - All force main sewer line piping line items shall be measured in linear feet and shall include costs for piping and installation, locating wire, trench excavation, trench protection, dewatering, bedding material, asphalt cutting, restrained joints and gaskets, welded, fused, normal backfill, air testing. Ductile Iron Pipe shall be lined with Protecto 401 Ceramic Epoxy. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-4 (A-Z) - Jack and bore line items shall be measured in linear feet and shall include costs for casing piping, field lok gasket carrier piping, and installation. Shall also include costs for bore pit excavation, trench protection, dewatering, asphalt cutting, end seals, casing spacers, normal backfill, infiltration and exfiltration testing, and mandrel pulling. CCTV camera inspection will be performed by the Augusta Utilities Department. Lines will not be approved or accepted until the Augusta Utilities Department's Project Manager approves all testing results. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-5 - Miscellaneous pipefittings shall be measured individually (each) and include costs for all sewer fittings and installation including polywrap and mechanical joint restraint, regardless of material. Miscellaneous Pipe Fittings shall either be Mechanical Joint Fittings and/or Flanged Fitting unless otherwise specified on the plans or contract documents. All mechanical joint fittings shall be installed using approved restraining glands, no separate payment will be made for these restraining glands. Approved adapters shall be used where necessary to provide a transition between pipes and/or fittings of differing outside diameters. Ductile Iron Pipe shall be lined with Protecto 401 Ceramic Epoxy. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items. Thrust blocking shall only be utilized, in addition to restraining glands, if specified on plans, when tying-into existing non-restrained pipe, or when approved by AUD Construction Inspector, and will be paid for under pay Item M-2.

ITEMS S-6 (A-Z) - Pre-cast manholes shall be measured individually (each) and shall include costs for manholes, ring and cover as specified on the plans, risers, concrete collar, excavation, 57 stone, dewatering, asphalt cutting, collars and boots, grouting and/or other connections, installation, normal backfill, and vacuum testing. Manhole vacuum testing shall include all costs for testing equipment, testing labor, mobilization, demobilization, and reporting. Manholes failing testing shall be re-tested at Contractor's expense. Repairs to failing manholes shall be made external to the manhole utilizing a method approved by the Augusta Utilities Department. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS S-7 (A-Z) - Additional sanitary manhole depth line items shall be measured by vertical foot and shall include costs for excavation, dewatering, and backfill as specified by type and class. No additional payment shall be made for these items.

ITEMS S-8 (A-Z) - Sanitary sewer exterior manhole joint wrapping shall be measured individually and shall include the costs for wrapping material and installation. No additional payment shall be made for these items.

ITEMS S-9 (A-Z) - Sanitary sewer interior protective coating shall be measured by the vertical foot of manhole and shall include the costs for coating material and installation. No additional payment shall be made for these items.

ITEM S-10 - Outside drop piping shall be measured individually (each) and shall include the costs for all piping, fittings, joint restraints, brick dam, and 57 stone. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-11 - Dog house/connector manholes shall be measured individually (each) and shall include the costs for excavation, 57 stone, dewatering, asphalt cutting, pipe cutting and removal, collars and boots, grouting and/or other connections, installation, normal backfill, and vacuum testing as specified. The costs for the manhole, ring and cover as specified on the plans, risers, and concrete collar shall be included within this line item. Additional depth manhole sections shall be included within the appropriate manhole line item. Manhole vacuum testing shall include all costs for testing equipment, testing labor, mobilization, demobilization, and reporting. Manholes failing testing shall be re-tested at Contractor's expense. Repairs to failing manholes shall be made external to the manhole utilizing a method approved by the Augusta Utilities Department. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-12 - Sanitary sewer manhole tie-ins shall be measured individually (each) and shall include costs for cutting/coring of existing manholes, collars, rubber boots, any required gaskets, concrete collar, excavation, dewatering, soil stabilization, asphalt cutting, and normal backfill. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-13A - Sanitary sewer service long side connections shall be measured individually (each) and shall include costs for 6-inch PVC piping, concrete collar or precast concrete valve ring, PVC twist-off plug, mainline wye, 6" wye, cleanout, plug, excavation, dewatering, asphalt/concrete cutting (including service markings), installation, normal backfill, and property restoration. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-13B - Sanitary sewer service short side connections shall be measured individually (each) and shall include costs for 6-inch PVC piping, concrete collar or precast concrete valve ring, PVC twist-off plug, mainline wye, 6" wye, cleanout, plug, excavation, dewatering, asphalt/concrete cutting (including service markings), installation, normal backfill, and property restoration. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-14 - Concrete pipe encasement shall be measured in cubic yards and shall include costs for concrete, reinforcing steel when specified or detailed, form work, installation, excavation, dewatering, soil stabilization, pipe stabilization, asphalt cutting, and normal backfill. No additional payment shall be made for these items.

ITEM S-15 - Water main crossings shall be measured individually (each) and shall include costs for pipe cutting, excavation, ductile iron water piping, connection sleeves, normal backfill, and property restoration. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-16 - Polyethylene pipe encasement shall be measured in linear feet and shall include costs for pipe wrap materials and installation. Polyethylene pipe wrap shall be 8.0 mils in thickness. No additional payment shall be made for these items.

ITEM S-17 - Cut and plug sewers shall be measured in cubic yards and shall include costs for cutting of existing pipelines, plugging of existing pipelines with flowable fill, excavation, dewatering, asphalt/concrete cutting, and normal backfill. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM S-18 - Abandon manhole shall be measured individually (each) and shall include costs for removing the cone, filling the trough with flowable fill, and filling the remainder of the manhole with select fill or flowable fill, situation specific. No additional payment shall be made for these items.

ITEM S-19 - Adjust manhole to grade shall be measured individually (each) and shall include costs for adjusting the height of the riser, manhole ring and cover, remove and replacing the concrete collar. No additional payment shall be made for these items.

ITEM S-20 - Miscellaneous concrete shall be measured in cubic yards and shall include costs for 3,000 psi concrete, form work, installation, excavation, dewatering, soil stabilization, pipe stabilization, asphalt cutting, and normal backfill. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

PAVEMENT STRUCTURES

ITEM P-1 - Asphalt overlay shall be measured in square yards and shall include costs for asphalt materials, tack coat, and installation, temporary striping and permanent striping (replaced in kind), and markers (both temporary and permanent). AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-2 - Aggregate base (10 ½" thick) and asphalt patch (2 ½" thick) shall be measured in square yards and shall include costs for existing pavement removal and disposal, all aggregates (regardless of type), 2 ½" graded aggregate base removal and disposal, bituminous tack coat, asphalt, installation, excavation, striping (both temporary and permanent), and markers (both temporary and permanent). The square yardage calculation shall be based upon a standard width of seven (7) feet for payment purposes. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-3 - Asphalt pavement leveling shall be measured in tons and shall include costs for all asphalt (regardless of type) used to create a level road surface prior to asphalt overlay as authorized by the project representative. The payment shall be based upon confirmed delivery tickets. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-4 - Milling shall be measured in square yards and shall include all materials, labor, equipment, and material removal and disposal costs. No additional payment shall be made for these items.

ITEMS P-5 - Concrete sidewalk shall be measured in square yards and shall include costs for existing sidewalk removal and disposal, 3000 psi concrete, installation, site preparation, formwork, and finishing. Existing concrete shall be removed to the nearest joint as directed by the project representative. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEMS P-6 - Concrete driveways shall be measured in square yards and shall include costs for existing driveways removal and disposal, 3000 psi concrete, installation, site preparation, formwork, and finishing. Existing concrete shall be removed to the nearest joint as directed by the project representative. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-7 - Asphalt driveway replacement shall be measured in square yards and shall include costs for existing asphalt removal and disposal, asphalt, tack coat, installation, site preparation. Existing asphalt shall be removed to the nearest joint as directed by the project representative. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-8 - Curb and/or gutter placement shall be measured in linear feet and shall include costs for concrete, installation, site preparation, formwork, and finishing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-9 - Curb and/or gutter removal and replacement shall be measured in linear feet and shall include costs for removal and disposal of existing concrete curb and/or gutter, concrete, installation, site preparation, formwork, and finishing. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-10 - Raised edge asphalt curb removal/replacement shall be measured in square yards and shall include costs for removal and disposal of existing asphalt curb, site preparation, tack coat, asphalt, and installation. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM P-11 - Concrete Cap (8" thick) and asphalt patch (2" thick) shall be measured in square yards and shall include costs for select backfill, bituminous tack coat, asphalt, installation, excavation, striping (both temporary and permanent), and markers (both temporary and permanent). The square yardage calculation shall be based upon a standard width of 4' plus the outside diameter of the utility for payment purposes. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

MISCELLANEOUS

ITEM M-1 - Flowable fill shall be measured in cubic yards and shall include costs for all materials, labor, equipment, and excess materials. No additional payment shall be made for these items.

ITEM M-2 - 3000 psi concrete shall be measured in cubic yards and shall include costs for excavation, labor, equipment, formwork, and concrete material placement. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM M-3 - Rock excavation shall be measured in cubic yards and shall include costs for blasting, labor, equipment, and material removal and disposal. No additional payment shall be made for these items.

ITEM M-4 - Select backfill shall be measured in cubic yards and shall include costs for the backfill and installation as well as all transportation, stockpiling, removal and disposal charges. The volume of material included shall be the actual measured "in-place" volume. The maximum trench width used to calculate the volume will be 7 feet. AUD will coordinate materials testing, and be responsible for the cost of all passing tests. Costs

associated with any failed materials tests will be the responsibility of the contractor. No additional payment shall be made for these items.

ITEM M-5 - Clearing and grubbing shall be measured in acres and shall include costs for vegetation removal, stockpiling, disposal and any required permitting. No additional payment shall be made for these items.

ITEM M-6 (A-Z) - Fence removal and replacement shall be measured in linear feet and shall include all costs associated with removal and replacement of the existing fence with new materials of like quality as necessary for water line installation. No additional payment shall be made for these items.

ITEM M-7 - Fiber Optic Cable shall be measured in linear feet and shall include costs for conduit and installation, locating tape, trench excavation, trench protection, dewatering, asphalt cutting, and normal backfill. No additional payment shall be made for these items.

LUMP SUM CONSTRUCTION

ITEM LS- 1- Mobilization, Demobilization includes, but is not limited to, performance of preparatory work and operations for the assembling and setting up necessary for work on the Project, such as shops, plants, storage areas, sanitary facilities, moving in of personnel and equipment, incidentals to the Project, and any other facilities, as required by the Specifications and special requirements of the Contract Documents, as well as by Laws and Regulations in effect at the Site. Partial payments will be made with 50 percent payable following receipt and approval of preconstruction video with the first pay application and the remaining 50 percent payable with receipt and approval of post-construction video. No separate or additional payment shall be made for these items.

ITEM LS- 2- Bonds, Insurance includes all costs associated with obtaining any bonds or insurance required to perform the work in accordance with the plans and specifications and as required by local and state law. Partial Payments shall be made base on the percentage complete on the current pay application excluding payments made for mobilization (LS-1), bonds, insurance (LS-2), and temporary erosion and sediment control (LS-3). No separate or additional payment shall be made for these items.

ITEM LS- 3- Temporary Erosion and Sediment Control includes, but is not limited to, the installation, maintenance, and removal of all temporary erosion and sediment control measures as required by the engineer, local and state law, and in accordance with plans and specifications during construction to ensure no sediment leaves the construction site until a time at which final stabilization is approved by the local issuing authority and/or the state. Partial Payments shall be made base on the percentage complete on the current pay application excluding payments made for mobilization (LS-1), bonds, insurance (LS-2), and temporary erosion and sediment control (LS-3). No separate or additional payment shall be made for these items.

ITEM LS- 4- Traffic Control includes, but is not limited to, all flaggers, labor, materials, equipment, and all other items necessary and incidental to completion of the work as required by all local and state laws and permits and in accordance with plans and specifications. Progress payments will be made based upon the percentage of estimated

total time that traffic control will be required unless otherwise specified. No separate or additional payment shall be made for these items.

ITEM LS- 5- Permanent Grassing includes, but is not limited to, all labor, materials and maintenance required to establish permanent grassing on all disturbed areas in accordance with plans and specifications. Payment will not be made for this item until such a time that the Notice of Termination (NOT) has been filed and the grass is established to the satisfaction of the local issuing authority and/or the state. No separate or additional payment shall be made for these items.

ITEM LS- 6- As-built Survey includes all labor required to prepare an As-built Survey Drawing. The As-built Survey Drawing will be produced using Georgia State Plane Coordinates (GSPC) (NAD83, NAVD88) in accordance with the latest Georgia Minimum Technical Standards and to the satisfaction of the Engineer. A table shall be provided on the drawing with each Structure Identification number, the corresponding GSPC, and the top elevation of the structure. Sewer Manholes shall also include rim and all invert elevation, diameter of the Manhole, and any other information needed by the Engineer. Sewer Lines shall also include invert elevations (Gravity only), size, materials, slope, and length. The As-built Survey shall be performed by a Georgia Licensed Surveyor. No Partial Payment will be made. Full Payment will only be made after a Sealed As-built Survey drawing, in PDF format and an AutoCAD version, is complete, received, and approved. No separate or additional payment shall be made for these items.

ITEM LS-7 - Allowance to be used only at the approval of the Owner.

ITEM LS-8 - Allowance for CSX Railroad Flagging and Inspection. Allowance to only be used at the approval of the engineer. Costs can not include prime contractor's supervisor, project manager, overhead, profit or any other non-direct cost. All of these indirect costs need to be included in the base bid of the applicable Items (S-1 & S-4). Receipts for paid invoices will be provided with pay applications requesting reimbursement.

Date: August 26, 2002
First Use Date 2001 Specifications: November 1, 2002
Revised: January 16, 2003
Revised: August 1, 2003
Revised: February 1, 2004
Revised: October 15, 2005
Revised: July 15, 2008
Revised: March 18, 2013
Revised: October 22, 2013
Revised: May 2, 2014
Revised: September 2, 2014

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
SUPPLEMENTAL SPECIFICATION
Section 167—Water Quality Monitoring**

167.1 General Description

This Specification establishes the Contractor's responsibility to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) Infrastructure Permit No. GAR 100002 as it pertains to Part IV. Erosion, Sedimentation and Pollution Control Plan. In the case of differing requirements between this specification and the Permit, whichever is the more stringent requirement shall be adhered to.

167.1.01 Definitions

Certified Personnel—certified personnel are defined as persons who have successfully completed the appropriate certification course approved by the Georgia Soil and Water Conservation Commission. For Department projects the certified person must also have successfully completed the Department's WECS certification course.

Water Quality Sampling – as used within this specification, the term “monitoring” shall be inclusive of the acts of detecting, noting, discerning, observing, etc. for the purpose of gauging compliance with the NPDES General Permit GAR100002.

Qualifying Rainfall Sampling Event—as used within this specification, means that which is defined in the 2013 NPDES General Permit GAR 1000002, Part IV.D.6.d(3).

167.1.02 Related References

A. Standard Specifications

[Section 161—Control of Soil Erosion and Sedimentation](#)

B. Referenced Documents

NPDES Infrastructure Permit No. GAR100002

GDOT WECS Seminar

EPD Rule Chapter 391-3-7

GSWCC Certification Level IA Course

OCGA 12-7-1

167.1.03 Submittals

General Provisions 101 through 150

167.2 Materials

General Provisions 101 through 150.

167.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

167.3 Construction Requirements

167.3.01 Personnel

Use GSWCC level IA certified and WECS certified personnel to perform all monitoring, sampling, inspections, and rainfall data collection.

Use the Contractor-designated WECS or select a prequalified consultant from the Qualified Consultant List (QCL) to perform water quality monitoring, sampling, inspections, and rainfall data collection.

The Contractor is responsible for having a copy of the GAR100002 Permit onsite at all times.

167.3.02 Equipment

Provide equipment necessary to complete the Work or as directed.

167.3.03 Preparation

General Provisions 101 through 150.

167.3.04 Fabrication

General Provisions 101 through 150.

167.3.05 Construction

A. General

Perform inspections, rainfall data collection, testing of samples, and reporting the test results on the project according to the requirements in Part IV of the NPDES Infrastructure Permit and this Specification. Take samples manually or use automatic samplers, according to the GAR100002 Permit GAR100002. Note that GAR100002 requires the use of manual sampling or rising stage sampling for qualifying events that occur after the first instance of the automatic sampler not being activated during a qualifying event. Analyze all samples according to the Permit, regardless of the method used to collect the samples. If samples are analyzed in the field using portable turbidimeters, the monitoring results shall state they are being used and a digital readout of NTUs is what is provided. Submit bench sheets, work sheets, etc., when using portable turbidimeters. There are no exceptions to this requirement. Perform required inspections and submit all reports required by this Specification within the time frames specified. Failure to perform the inspections within the time specified will result in the cessation of all construction activities with the exception of traffic control and erosion control. Failure to submit the required reports within the times specified will result in non-refundable deductions as specified in [Subsection 161.5.01.B](#).

B. Water Quality Inspections

The Department will provide one copy of the required inspection forms for use and duplication. Inspection forms may change during the contract to reflect regulatory agency needs or the need of the Department. Any costs associated with the change of inspection forms shall be considered incidental. Alternate formats of the provided forms may be created, used and submitted by the Contractor provided the required content and/or data fields and verbatim certification statements from the Department's current forms are included.

The Engineer shall inspect the installation and condition of each erosion control device required by the erosion control plan within seven days after initial installation. This inspection is performed for each stage of construction when new devices are installed. The WECS shall ensure all installation deficiencies reported by the Engineer are corrected within two business days.

Ensure the inspections of the areas listed below are conducted by certified personnel and at the frequencies listed. Document all inspections on the appropriate form provided by the Department.

1. Daily (when any work is occurring):

Conduct inspections on the following areas daily:

- a. Petroleum product storage, usage, and handling areas for spills or leaks from vehicles or equipment
- b. All locations where vehicles enter/exit the site for evidence of off-site sediment tracking

Continue these inspections until a Notice of Termination (NOT) is submitted, and use the daily inspection forms.

2. Weekly and after Rainfall Events:

Conduct inspections on these areas every seven calendar days and within twenty-four hours after the end of a rainfall event that is 0.5 in (13 mm) or greater (unless such storm ends after 5:00 PM on any Friday or any non-working Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first):

- a. Disturbed areas not permanently stabilized
- b. Material storage areas that are exposed to precipitation
- c. Structural control measures, Best Management Practices (BMPs) to ensure they are operating correctly
- d. Water quality sampling locations and equipment
- e. Discharge locations or points, e.g., outfalls and drainage structures that are accessible to determine if erosion control measures are effective in preventing significant impacts to receiving waters

Continue these inspections until all temporary BMPs are removed and a NOT is submitted and use the EC-1 Form.

3. Monthly:

Once per month, inspect all areas of the site that have undergone final stabilization or have established a crop of annual vegetation and a seeding of target perennials appropriate for the region. Look for evidence of sediments or pollutants entering the drainage system and or receiving waters. Inspect all permanent erosion control devices remaining in place to verify the maintenance status and that the devices are functioning properly. Inspect discharge locations or points, e.g. outfalls, drainage structures, that are accessible to determine if erosion control measures are effective in preventing significant impacts to receiving waters.

Continue these inspections until the Notice of Termination is submitted and use the monthly inspection form.

C. Water Quality Sampling

When the sampling location is a receiving water, the upstream and downstream samples are taken for comparison of NTU values. When the sampling location is an outfall, a single sample is taken to be analyzed for its absolute NTU value.

D. Reports

1. Inspection Reports:

Summarize the results of inspections noted above in writing on the appropriate Daily, Weekly, Monthly, or EC-1 form provided by the Department and includes the following information:

- Date(s) of inspection
- Name of certified personnel performing inspection
- Construction phase
- Status of devices
- Observations
- Action taken in accordance with Part IV.D.4.a.(5) of the GAR100002 Permit
- Signature of personnel performing the inspection
- Any instance of non-compliance

When the report does not identify any non-compliance instances, the inspection report shall contain a statement that the best management practices are in compliance with the Erosion, Sedimentation, and Pollution Control Plan. (See the EC-1 form.)

The reports shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to the Georgia Department of Natural Resources Environmental Protection Division (GAEPD). Such reports shall be readily available by the end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. The inspection form certification sheet shall be signed by the project WECS and the inspector performing inspections on behalf of the WECS (if not the same person). Submit all inspection reports to the Engineer within twenty-four hours of the inspection. The Engineer will review the submitted reports to determine their accuracy. The Engineer will notify the certified personnel of any additional items that should be added to the inspection report.

Correct any items listed in the inspection report requiring routine maintenance within seventy-two (72) hours of notification or immediately during perimeter BMP failure emergencies. Deficiencies that interfere with traffic flow, safety, or downstream turbidity are to be corrected as soon as practical but in case later than seven (7) calendar days following the inspection.

Assume responsibility for all costs associated with additional sampling as specified in Part IV.D.6.d.3.(c) of the NPDES GAR100002 Permit if either of these conditions arise:

- BMPs shown in the Plans are not properly installed and maintained, or
- BMPs designed by the Contractor are not properly designed, installed and maintained.

2. Sampling Reports

- a. All sampling shall be performed in accordance with the requirements of the GAR100002 Permit for the locations identified in the ESPCP approved by the Department.

b. Report Requirements

Include in all reports, the following certification statement, signed by the WECS or consultant providing sampling on the project:

“I certify under penalty of law that this report and all attachments were prepared under my direct supervision in accordance with a system designed to assure that certified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

When a rainfall event requires a sample to be taken, submit a report of the sampling results to the Engineer within seven working days of the date the sample was obtained. Include the following information in each report:

- 1) Date and time of sampling
- 2) Name of certified person(s) who performed the sampling and analyses.
- 3) Date the analyses were performed
- 4) Time the analyses were initiated
- 5) Rainfall amount on the sampling date (sampling date only)
- 6) NTU of each sample & analytical method
- 7) Location where each sample was taken (station number and left or right offset)
- 8) Identification of whether a sample is a receiving-water sample or an outfall sample
- 9) Project number and county
- 10) References and written procedures, whenever available, for the analytical techniques or methods used: whether the samples were taken by automatic sampler, rising-stage sampler, or manually (grab sample)
- 11) The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results
- 12) A clear note if a sample exceeds 1000 NTUs by writing “exceeds 1000 NTUs” prominently upon the report

c. Report Requirements with No Qualifying Rainfall Events

In the event a qualifying rainfall event does not produce a discharge to sample, or sampling is “impossible”, as defined in the GAR100002 Permit, a written justification must be included in the report as required at Part IV.D.4.a.(6) of the GAR100002 Permit.

d. Sampling Results

Provide sampling results to the Project Engineer within 48 hours of the samples being analyzed. This notification may be verbal or written. This notification does not replace the requirement to submit the formal summary to the Engineer within 7 working days of the samples being collected. The Engineer will ensure submission of the sampling report to GAEPD by the 15th of the month following the sampling results as per the GAR100002 Permit. The WECS will be held accountable for delayed delivery to the Department which results in late submissions to EPD resulting in enforcement actions.

3. Rainfall Data Reports:

Record the measurement of rainfall once each twenty-four hour period, except for non-working Saturdays, non-working Sundays and non-working Federal Holidays until a Notice of Termination is submitted. Project rain gauges and those used to trigger the automatic samplers are to be emptied after every rainfall event. This will prevent a cumulative effect and prevent automatic samplers from taking

samples even though the rainfall event is not a qualifying event. The daily rainfall data supplied by the WECS to the Engineer will be the official rainfall data for the project.

167.3.06 Quality Acceptance

General Provisions 101 through 150.

167.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

167.4 Measurement

Water Quality Inspections in accordance with the inspection and reports sub-sections will be measured for payment by the month up to the time the Contract Time expires. Required inspections and reports after Contract Time has expired will not be measured for payment unless a time extension is granted.

Water Quality Sampling is measured per each. "Each" means each qualifying rainfall sampling event, not each sampled site.

167.4.01 Limits

General Provisions 101 through 150. Submit the monitoring summary report to the Engineer within 7 working days

167.5 Payment

Payment for Water Quality Inspections and Water Quality Sampling will be made as follows:

Water Quality Inspections will be paid at the Contract Price per month. This is full compensation for performing the requirements of the inspection section of the NPDES Permit and this Specification, any and all necessary incidentals, and providing results of inspections to the Engineer, within the time frame required by the NPDES Infrastructure Permit, and this Specification.

Water Quality Monitoring and Sampling per each qualifying rainfall sampling event is full compensation for meeting the requirements of the monitoring sections of the NPDES Permit and this Specification, obtaining samples, analyzing samples, any and all necessary incidentals, and providing results of turbidity tests to the Engineer, within the time frame required by the NPDES Infrastructure Permit, and this Specification. This item is based on the rainfall events requiring sampling as described in Part IV.D. 6 of the Permit. The Department will not pay for samples taken and analyzed for rainfall events that are not qualifying events as compared to the daily rainfall data supplied by the WECS.

Payment will be made under:

Item No. 167	Water quality inspections	Per month
--------------	---------------------------	-----------

Water Quality Monitoring and Sampling will be paid per each qualifying rainfall sampling event.

Payment will be made under:

Item No. 167	Water quality monitoring and sampling	Per each
--------------	---------------------------------------	----------

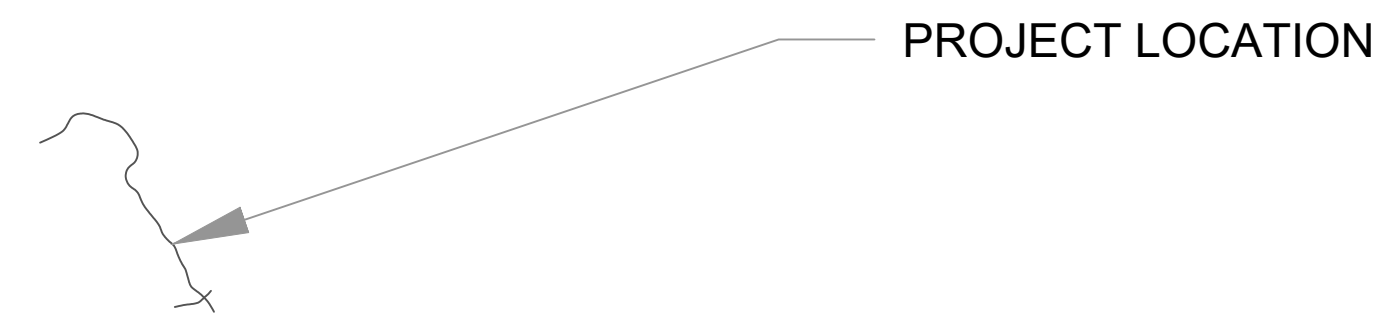
167.5.01 Adjustments

STATION	INSTALL NO	SIGN CODE	STANDARD HIGHWAY SIGNS									GALVANIZED STEEL POSTS - GDOT T-3A									636-3010 BREAKAWAY SIGN SUPPORT (EACH)			
			636-1033 TP 1 MATL, REFL SHT TP 9			636-1041 TP 2 MATL, REFL SHT TP 9			636-1036 TP 1 MATL, REFL SHT TP 11			636-1045 TP 2 MATL, REFL SHT TP 11			636-2070 TYPE 7			636-2080 TYPE 8				636-2090 TYPE 9		
			SIZE	QUANTITY	SQ FT	SIZE	QUANTITY	SQ FT	SIZE	QUANTITY	SQ FT	SIZE	QUANTITY	SQ FT	LENGTH	QUANTITY	TOTAL LENGTH	LENGTH	QUANTITY	TOTAL LENGTH		LENGTH	QUANTITY	TOTAL LENGTH
McNUTT ROAD																								
0+24	1	R1-1							36"	1	7						16	1	16					
2+00	2	W1-5R							36"X36"	1	9						16	1	16					
		W7-3A							24"X12"	1	2						16	1	16					
4+00	3	R2-1	12"X24"	1	2												16	1	16					
5+00	4	W3-1A							36"X36"	1	9						16	1	16					
93+00	5	W3-1A							36"X36"	1	9						16	1	16					
		R1-4	6"X24"	1	1												16	1	16					
94+00	6	R2-1	12"X24"	1	2												16	1	16					
96+50	7	W7-3A							24"X12"	1	2						16	1	16					
		W1-5R							36"X36"	1	9						16	1	16					
97+85	8	R1-1							36"	1	7						16	1	16					
97+90	9	R1-1							36"	1	7						16	1	16					
98+25	10	R1-1							36"	1	7						16	1	16					
98+30	11	R1-1							36"	1	7						16	1	16					
98+80	12	W14-1							36"X36"	1	9						16	1	16					
McNUTT WAY																	16	1	16					
0+24	13	R1-1							36"	1	7						16	1	16					
2+50	14	R2-1	12"X24"	1	2												16	1	16					
5+00	15	W3-1A							36"X36"	1	9						16	1	16					
5+50	16	W3-1A							36"X36"	1	9						16	1	16					
11+10	17	W14-1							36"X36"	1	9						16	1	16					
TOTALS					7			0			118			0		0			336			0		

PLAN AND PROFILE OF PROPOSED

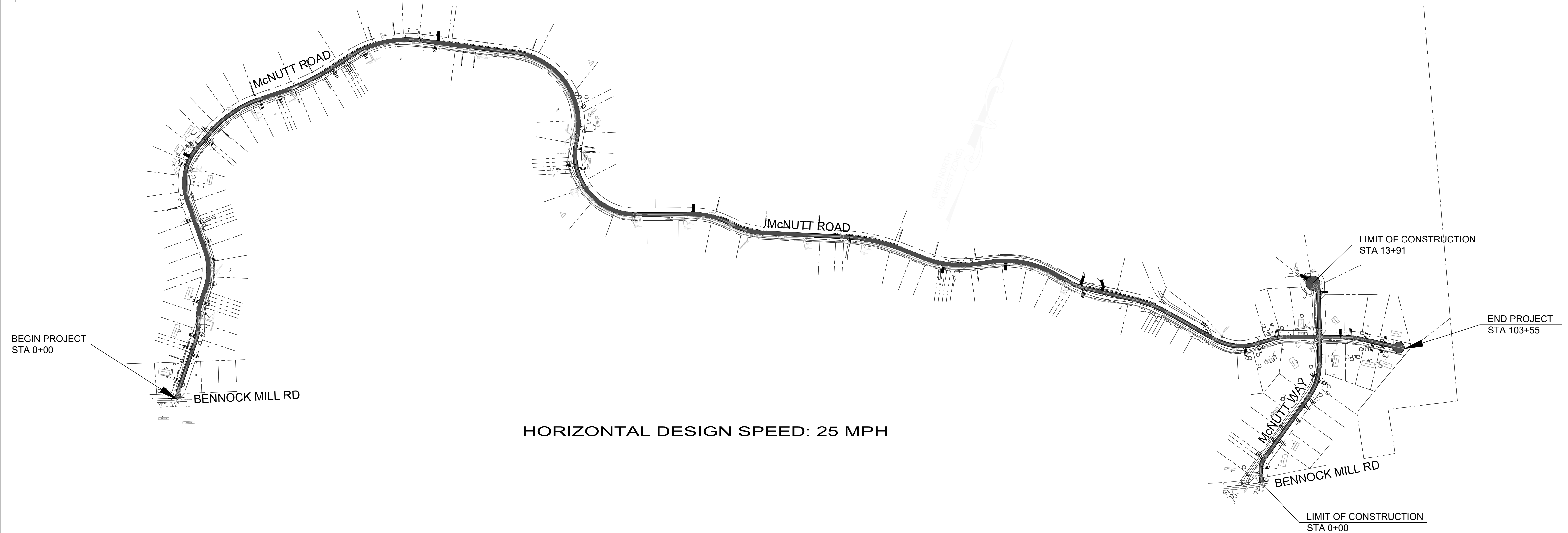
GRADING, DRAINAGE AND PAVING OF McNUTT ROAD AND McNUTT WAY

CITY OF AUGUSTA RICHMOND COUNTY, GEORGIA



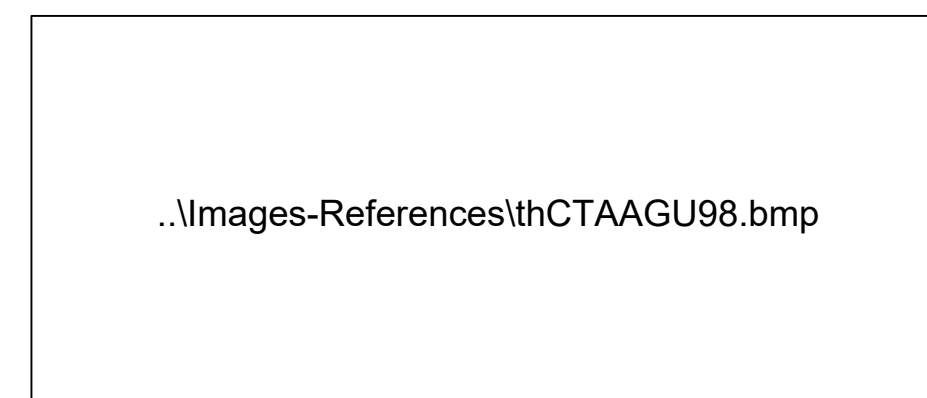
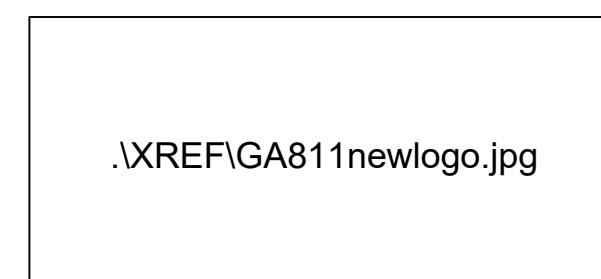
Missing or invalid reference
File: ..\Images-References\Location.pdf
Sheet: 1

LOCATION SKETCH



HORIZONTAL DESIGN SPEED: 25 MPH

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 (NAD 1983)94 WEST ZONE, AND THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.



LENGTH OF ROAD	1.96
	MILES

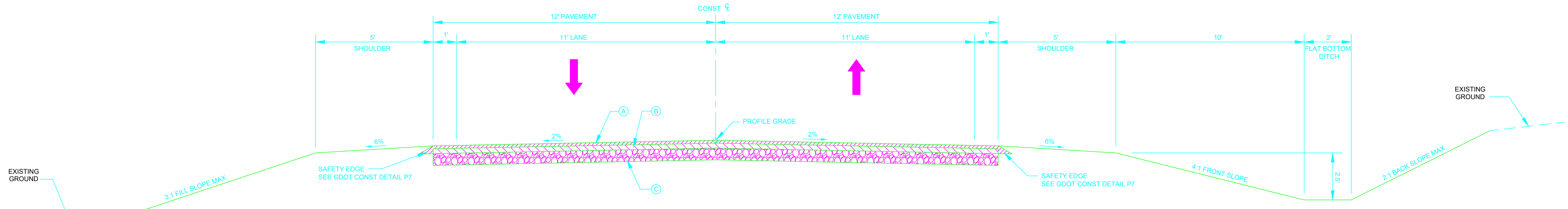
MA
MORELAND ALTOBELLI
 AN ATLAS COMPANY
 2450 Commerce Avenue
 Suite 100
 Duluth, Georgia 30096
 Telephone (770) 263-5945

PLANS COMPLETED	--
REVISIONS	

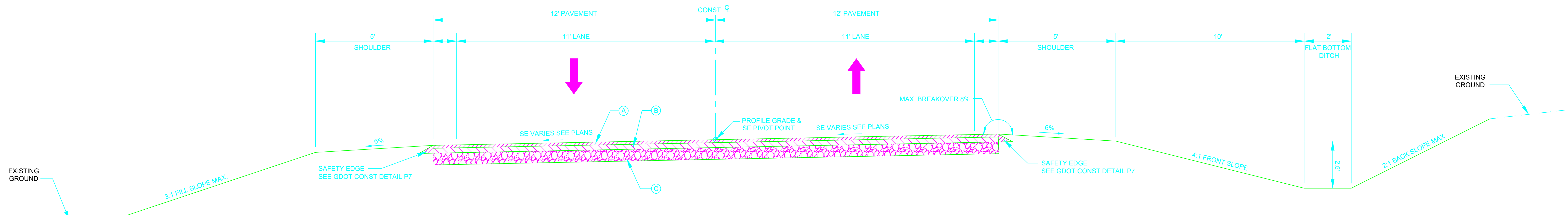
THIS PROJECT IS 100% WITHIN RICHMOND COUNTY AND IS 100% IN CONG. DIST. 12. DRAWING NO. 01-0001

GENERAL NOTES - STANDARD SIGNS

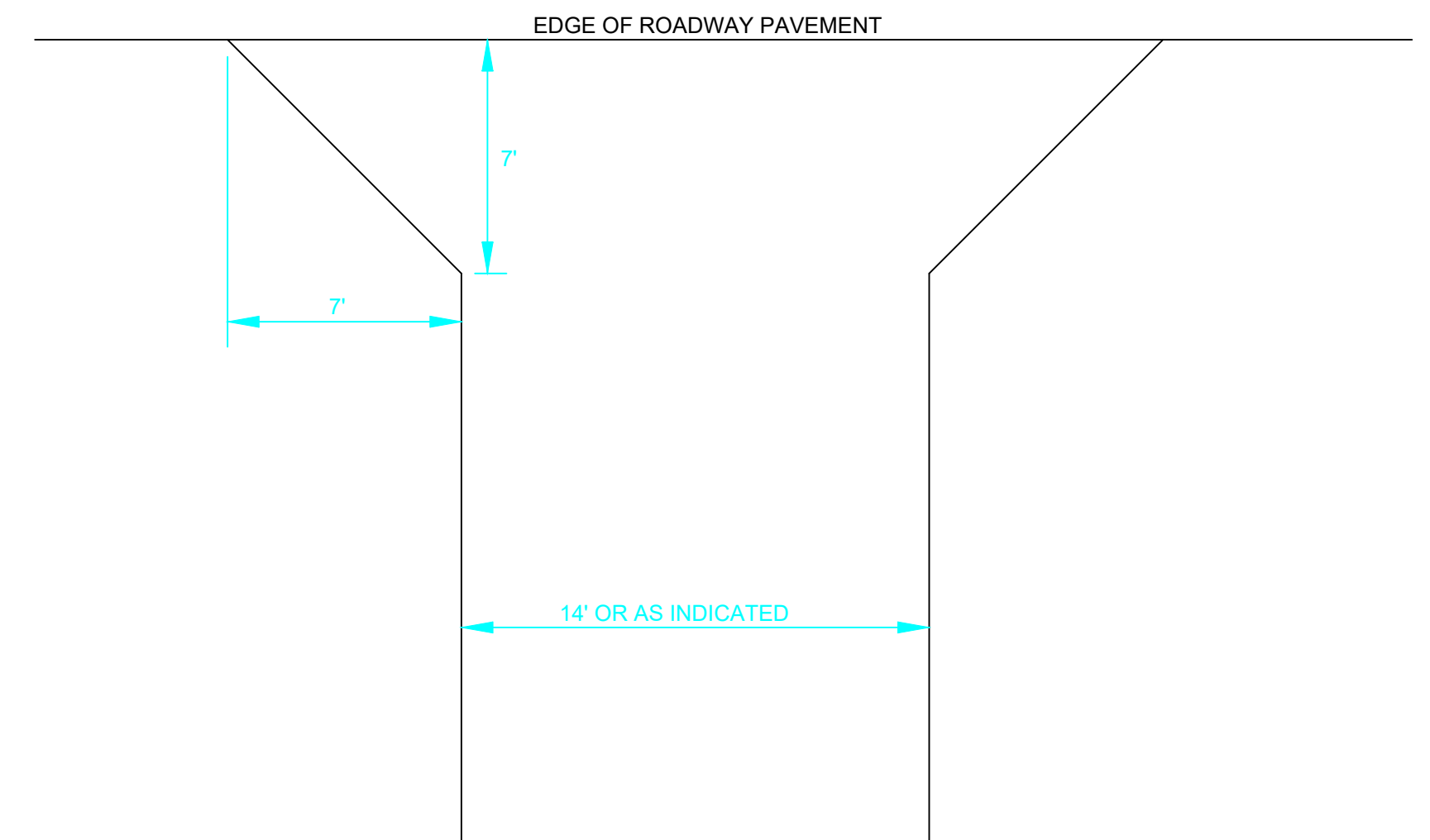
1. ALL STANDARD HIGHWAY SIGNS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, AND THE GEORGIA SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND/OR SPECIAL PROVISIONS.
2. SIGN ERECTION STATIONS ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS WHERE NECESSARY, BUT SHALL BE WITHIN THE LIMITATIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION. NO SIGN LOCATION SHALL BE CHANGED BY THE CONTRACTOR OR BY THE PROJECT ENGINEER WITHOUT PRIOR APPROVAL FROM THE OFFICE OF TRAFFIC OPERATIONS.
3. ALL STANDARD HIGHWAY SIGNS SHALL BE ERECTED AT A HEIGHT OF 7 FEET ABOVE THE NORMAL EDGE OF PAVEMENT TO THE BOTTOM OF THE SIGN OR ASSEMBLY,
- 4a. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS ON INTERSTATE HIGHWAYS SHALL BE 32 FEET FROM THE NORMAL EDGE OF PAVEMENT TO THE NEARER EDGE OF THE SIGN(S), UNLESS SPECIFIED OTHERWISE IN THE PLANS. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS ON RAMPS SHALL BE 2 FEET FROM THE NORMAL EDGE OF PAVED SHOULDER, OR EDGE OF GRADED SHOULDER WHEN PRESENT.
- 4b. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS ON ALL OTHER ROADWAYS SHALL BE 6 FEET FROM THE EDGE OF THE PAVED SHOULDER OR 12 FEET FROM THE NORMAL EDGE OF PAVEMENT TO THE NEARER EDGE OF THE SIGN(S), WHICHEVER IS GREATER. THE HORIZONTAL CLEARANCE IN NON-MOUNTABLE CURB SECTIONS SHALL BE AT LEAST 2 FEET FROM THE CURB FACE TO THE NEARER EDGE OF THE SIGN(S).
- 4c. HORIZONTAL CLEARANCE FOR STANDARD HIGHWAY SIGNS MOUNTED BEHIND GUARD RAIL SHALL BE 6 FEET FROM THE FACE OF THE GUARD RAIL TO THE NEARER EDGE OF THE SIGN(S).
5. SINGLE PLATE, HORIZONTAL RECTANGULAR SIGNS OVER 48 INCHES IN WIDTH SHALL BE MOUNTED ON TWO POSTS WITH 2 EACH 2 INCH x 2 INCH x (WIDTH OF SIGN) ALUMINUM OR GALVANIZED STEEL STRAPS. THE STRAPS SHALL BE FLUSH WITH THE BACK OF THE SIGN WITH ONE EACH ACROSS THE TOP AND BOTTOM OF THE SIGN. THE CENTERLINE OF EACH POST SHALL BE INSET 1/6TH OF THE SIGN WIDTH FROM THE EDGE OF THE SIGN. SIGN PLATE BOLT HOLES SHALL BE... INCH DIAMETER, DRILLED OR PUNCHED, AS SHOWN ON THE SIGN PLATE DETAILS.
6. EACH 42 OR 48 INCH WIDE x 18 OR 24 INCH HIGH SIGN REQUIRES ONE 2 INCH x 2 INCH x (WIDTH OF SIGN) ALUMINUM OR GALVANIZED STEEL STRAP LOCATED IN THE CENTER OF THE SIGN AND FLUSH WITH THE BACK OF THE SIGN.
7. SIGN ASSEMBLIES SHALL BE MOUNTED ON ALUMINUM OR GALVANIZED STEEL STRAP FRAMES. FOR DETAILS AND STRAP SPECIFICATIONS REFER TO SIGN ASSEMBLY-TYPICAL FRAMING DETAILS.
8. TYPE 9 (HIGH INTENSITY) REFLECTIVE SHEETING SHALL BE USED FOR ALL STANDARD HIGHWAY SIGNS REQUIRING REFLECTORIZED BACKGROUNDS EXCEPT AS SPECIFIED BELOW OR SPECIFIED OTHERWISE IN THE PLANS. EITHER CLASS 1 OR CLASS 2 ADHESIVE BACKING IS PERMISSIBLE.
9. TYPE 11 (VERY HIGH INTENSITY) REFLECTIVE SHEETING SHALL BE USED FOR ALL RED SERIES SIGNS (R1-1, R1-2, R1-3P, R5-1, R5-1A, R5-1B).
10. TYPE 9 (VERY HIGH INTENSITY) FLUORESCENT YELLOW GREEN REFLECTIVE SHEETING SHALL BE USED FOR SCHOOL ZONE (S1-1, S2-1, S3-1, S4-3, AND THE TOP PORTION OF THE S5-1) SIGNS, BICYCLE CROSSING (W11-1) SIGNS, AND PEDESTRIAN CROSSING (W11-2 AND W11A-2) SIGNS. SIGNS WITHIN THE SAME ASSEMBLY AS THE SCHOOL ZONE SIGNS SPECIFICALLY LISTED ABOVE AND ALL REGULATORY SIGNS PLACED AS PART OF THE SCHOOL ZONE SIGNING SHALL HAVE TYPE IX (VERY HIGH INTENSITY) REFLECTIVE SHEETING BACKGROUNDS OF THE APPROPRIATE COLOR.
11. TYPE 9 (VERY HIGH INTENSITY) FLUORESCENT YELLOW REFLECTIVE SHEETING SHALL BE USED FOR ALL WARNING SIGNS.
12. A 1/2 INCH MINIMUM AIR SPACE SHALL BE REQUIRED BETWEEN ALL SIGN PLATES WITHIN AN ASSEMBLY.
13. WHERE SIGNS WITHIN AN ASSEMBLY EXTEND BELOW THE STANDARD MOUNTING HOLES ON THE POST(S), ADDITIONAL...INCH DIAMETER HOLE(S), DRILLED OR PUNCHED, SHALL BE REQUIRED TO PROPERLY MOUNT THE ASSEMBLY.
14. INTERSTATE SHIELDS SHALL CONTAIN THE WORD GEORGIA. ALL INTERSTATE, U.S., AND GEORGIA SHIELDS REQUIRING ALT, BUS, CONN, LOOP, OR SPUR SHALL USE 4 INCH SERIES "D" LETTERS. REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, FOR DETAILS.
15. FOR DETAILS OF SPECIAL DESIGN HIGHWAY SIGNS, SEE DETAILS OF MISCELLANEOUS SIGNS.
16. REFER TO PLAN SHEETS FOR LOCATION OF THE DISTRICT ENGINEERS OFFICE TO BE SHOWN ON ALL R552-1 (LIMITED ACCESS) SIGNS IN THIS PROJECT, IF ANY.
17. THE CONTRACTOR WILL, AS REQUESTED BY THE DISTRICT TRAFFIC OPERATIONS ENGINEER, BE REQUIRED TO REMOVE ANY EXISTING SIGNS THAT ARE DUPLICATED OR ARE CONTRARY TO THESE SIGN PLANS.



TYPICAL SECTION NO. 1
TANGENT SECTION
McNUTT ROAD & McNUTT WAY

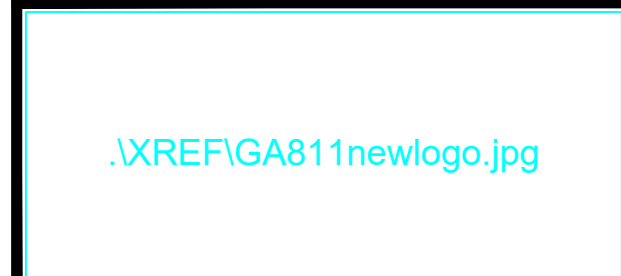


TYPICAL SECTION NO. 2
SUPERELEVATED SECTION
McNUTT ROAD & McNUTT WAY
(SEE CONSTRUCTION PLANS FOR S.E.)



TYPICAL DRIVEWAY PLAN

- (A) RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 2, INCL MITUM MATL & H LIME, 165 lbs / sy
- (B) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR GP 2, INCL MITUM MATL & H LIME, 220 lbs / sy
- (C) GRADED AGGREGATE BASE COURSE 6", INCL MATL



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

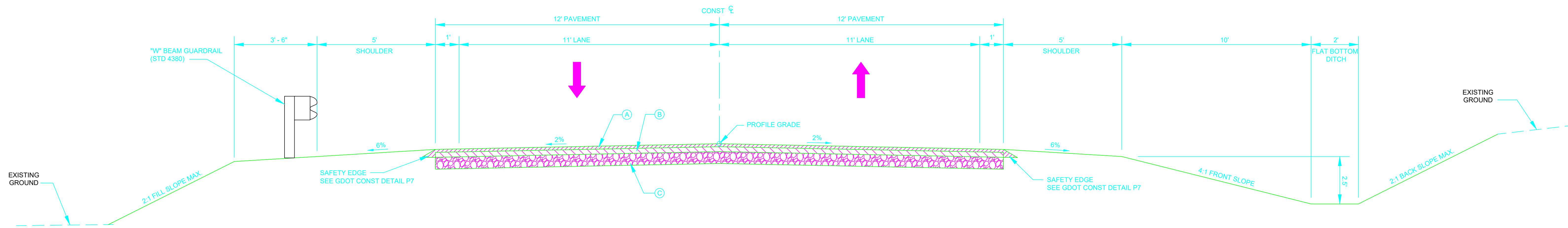
..\Images-References\thCTAAGU98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS

REVISION DATES	

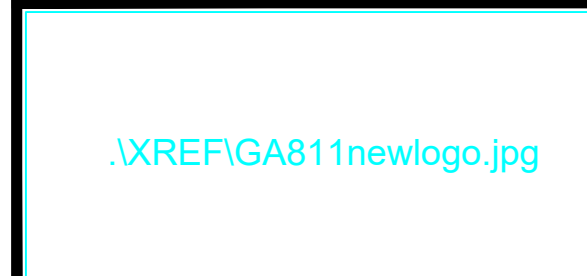
TYPICAL SECTIONS
 McNUTT ROAD AND
 McNUTT WAY

DRAWING NUMBER
05-0001



TYPICAL SECTION NO. 3
 GUARDRAIL SECTION
 McNUTT ROAD
 (STA 26+00 TO 29+50)
 (STA 34+25 TO 39+50)
 (STA 58+50 TO 60+75)
 (STA 66+00 TO 69+50)
 (STA 73+50 TO 74+50)
 (STA 82+60 TO 86+50)

- (A) RECYCLED ASPH CONC 9.5 MM SUPERPAVE, GP 2, INCL MITUM MATL & H LIME, 165 lbs / sy
- (B) RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 2, INCL MITUM MATL & H LIME, 220 lbs / sy
- (C) GRADED AGGREGATE BASE COURSE 6", INCL MATL



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
DRAWN BY	NAA	03-12-20
CHECKED BY	NAA	03-12-20
	KEQ	03-12-20

..\\images-References\\thCTAAGU98.bmp

**McNUTT ROAD
 ROAD CONSTRUCTION PLANS**

REVISION DATES	

TYPICAL SECTIONS
 McNUTT ROAD

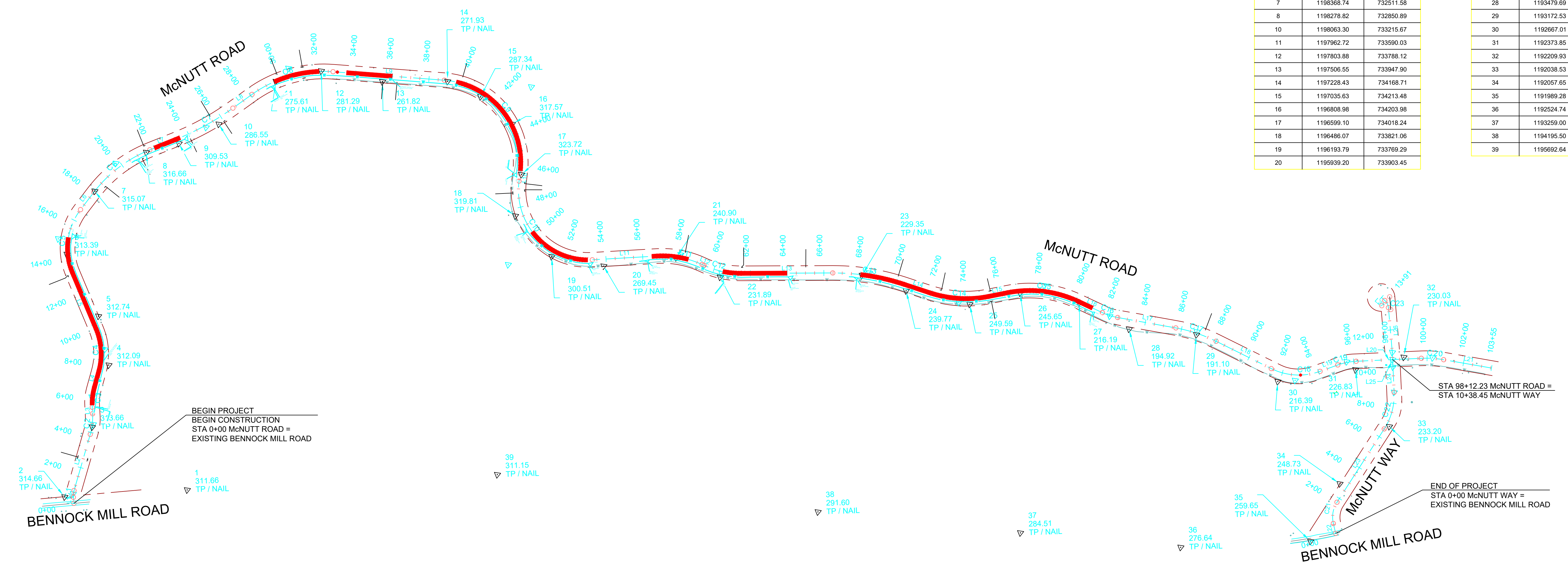
DRAWING NUMBER
05-0002

TRAVERSE POINT TABLE

Point #	Northing	Easting
1	1196967.81	731544.59
9	1198168.81	732999.05
2	1197468.29	731102.23
3	1197585.19	731494.00
4	1197723.34	731814.87
5	1197932.08	731989.31
6	1198275.16	732147.02
7	1198368.74	732511.58
8	1198278.82	732850.89
10	1198063.30	733215.67
11	1197962.72	733590.03
12	1197803.88	733788.12
13	1197506.55	733947.90
14	1197228.43	734168.71
15	1197035.63	734213.48
16	1196808.98	734203.98
17	1196599.10	734018.24
18	1196486.07	733821.06
19	1196193.79	733769.29
20	1195939.20	733903.45

TRAVERSE POINT TABLE

Point #	Northing	Easting
21	1195656.96	734183.71
22	1195403.92	734247.92
23	1194802.64	734732.67
24	1194562.44	734815.73
25	1194244.90	734971.99
26	1194067.37	735190.00
27	1193781.05	735347.12
28	1193479.69	735402.08
29	1193172.53	735604.40
30	1192667.01	735678.30
31	1192373.85	735990.29
32	1192209.93	736205.91
33	1192038.53	735860.91
34	1192057.65	735449.53
35	1191989.28	735104.57
36	1192524.74	734642.15
37	1193259.00	734164.59
38	1194195.50	733572.98
39	1195692.64	732653.45



HORIZONTAL DESIGN SPEED: 25 MPH

LINE TABLE: McNUTT ROAD

LINE #	LENGTH	DIRECTION	BEGIN STA	END STA	BEGIN NORTH	BEGIN EAST	END NORTH	END EAST
L1	33.32	N46°45'54"E	0+00.00	0+33.32	1197407.00	731106.09	1197429.83	731130.37
L2	317.92	N67°55'22"E	0+70.25	3+88.17	1197449.64	731161.28	1197569.13	731455.90
L3	35.56	N48°42'18"E	5+01.88	5+37.44	1197628.58	731552.20	1197652.04	731578.82
L4	91.89	N67°12'02"E	6+46.87	7+38.76	1197709.86	731671.27	1197745.47	731755.98
L5	332.55	N29°01'04"E	9+72.37	13+04.92	1197898.58	731926.68	1198189.38	732088.00
L6	118.54	N89°12'54"E	16+67.39	17+86.93	1198367.00	732384.96	1198368.62	732503.49
L7	149.48	S59°57'13"E	21+73.37	23+22.85	1198271.94	732673.86	1198197.09	733003.25
L8	128.16	S73°48'51"E	26+80.87	28+09.04	1198056.88	733331.73	1198021.15	733454.82
L9	607.18	S33°49'35"E	32+76.64	38+83.83	1197750.68	733824.64	1197246.28	734162.64
L10	42.72	S59°13'11"W	46+14.61	46+57.33	1196609.16	734019.10	1196587.30	733982.40
L11	352.67	S41°30'22"E	53+25.37	56+78.04	1196009.00	733892.28	1195744.89	734126.00
L12	11.44	S13°40'12"E	59+30.67	59+42.11	1195523.18	734241.85	1195512.06	734244.55
L13	499.30	S38°24'50"E	61+49.41	66+48.70	1195327.26	734334.86	1194936.04	734645.09
L14	149.67	S19°57'02"E	70+41.85	71+91.52	1194594.28	734835.95	1194453.59	734887.02
L15	105.83	S49°21'49"E	75+14.93	76+20.76	1194190.47	735068.92	1194121.55	735149.24
L16	146.46	S13°08'17"E	80+12.76	81+59.23	1193791.98	735349.23	1193649.35	735382.52
L17	321.33	S28°00'51"E	82+47.24	85+68.58	1193567.18	735413.37	1193283.50	735564.29
L18	334.83	S11°48'58"E	88+00.40	91+35.23	1193066.26	735642.99	1192738.53	735711.56
L19	102.29	S68°06'02"E	94+09.08	95+11.37	1192520.14	735864.24	1192466.09	735951.08
L20	354.87	S40°48'51"E	96+13.65	99+68.52	1192399.86	736028.51	1192131.28	736280.46
L21	264.09	S28°17'32"E	100+90.91	103+55.00	1192030.68	736329.74	1191798.14	736454.91

LINE TABLE: McNUTT WAY

LINE #	LENGTH	DIRECTION	BEGIN STA	END STA	BEGIN NORTH	BEGIN EAST	END NORTH	END EAST
L22	55.17	N38°32'29"E	0+00.00	0+55.17	1191908.48	735223.30	1191951.63	735257.67
L23	475.02	N84°35'54"E	1+75.74	6+50.77	1192007.50	735380.87	1192052.21	735833.79
L27	24.21	N3°31'01"E	13+67.14	13+91.35	1192482.11	736385.03	1192506.28	736386.51

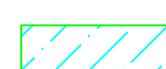
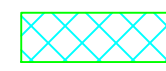
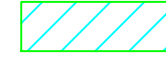
CURVE TABLE: McNUTT ROAD

CURVE #	RADIUS	LENGTH	PI STA	PI NORTH	PI EAST	DELTA	D (ARC)	T
C1	100.00	36.93	N57°20'38.36"E	1197442.62	731143.98	158°50'32"	57°17'45"	18.88
C2	339.00	113.71	N68°18'50.09"E	1197590.70	731509.08	160°46'56"	16°54'05"	57.39
C3	339.00	109.43	N57°57'09.89"E	1197688.47	731620.39	161°30'16"	16°54'05"	55.20
C4	350.54	233.60	N48°06'33.12"E	1197792.48	731867.83	141°49'03"	16°20'42"	121.33
C5	345.00	362.47	N69°06'59.13"E	1198364.26	732185.00	119°48'11"	16°36'27"	199.98
C6	720.00	387.44	S75°22'09.69"E	1198371.34	732702.01	149°10'07"	7°57'28"	198.53
C7	1480.00	358.03	S66°53'02.07"E	1198107.02	733158.97	166°08'23"	3°52'17"	179.89
C8	670.00	467.60	S53°49'12.88"E	1197853.19	733688.93	140°00'44"	8°33'06"	243.78
C9	450.00	730.78	S12°41'47.80"W	1196852.03	734426.83	86°57'14"	12°43'57"	474.58
C10	380.00	668.04	S8°51'24.39"W	1196352.54	733588.28	79°16'28"	15°04'40"	458.73
C11	520.00	252.63	S27°35'17.10"E	1195648.39	734211.40	152°09'51"	11°01'06"	128.86
C12	480.00	207.29	S26°02'31.50"E	1195409.76	734269.44	155°15'22"	11°56'12"	105.29
C13	1220.00	393.14	S29°10'56.16"E	1194780.67	734768.29	161°32'11"	4°41'47"	198.29
C14	630.00	323.41	S34°39'25.50"E	1194288.16	734943.44	150°35'13"	9°05'40"	165.35
C15	620.00	392.00	S31°15'02.84"E	1193989.47	735303.13	143°46'27"	9°14'29"	202.80
C16	339.00	88.02	S20°34'33.75"E	1193606.25	735392.58	165°07'28"	16°54'05"	-44.28
C17	820.00	231.82	S19°54'54.67"E	1193180.48	735619.10	163°48'07"	6°59'14"	116.69
C18	339.00	273.85	S34°57'29.97"E	1192596.71	735741.23	133°42'57"	16°54'05"	144.89
C19	339.00	102.28	S49°27'26.20"E	1192438.86	735994.83	162°42'49"	16°54'05"	51.53
C20	560.00	122.39	S34°33'11.17"E	1192084.78	736300.62	167°28'41"	10°13'53"	-61.44

CURVE TABLE: McNUTT WAY

CURVE #	RADIUS	LENGTH	PI STA	PI NORTH	PI EAST	DELTA	D (ARC)	T
C21	150.00	120.58	N61°34'11.57"E	1192001.50	735297.40	133°56'34"	38°11'50"	63.76
C22	339.00	209.52	N66°53'31.82"E	1192062.40	735941.54	144°35'15"	16°54'05"	108.23
C23	60.00	45.41	N25°11'52.76"E	1192458.30	736383.56	136°38'16"	95°29'35"	23.85

		Moreland Altobelli Associates, LLC 327 Dahlonega Street Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5307	DESIGNED BY: NAA 03-12-20 DRAWN BY: NAA 03-12-20 CHECKED BY: KEQ 03-12-20	NAME: _____ DATE: _____	McNUTT ROAD ROAD CONSTRUCTION PLANS	REVISION DATES: _____	CONSTRUCTION LAYOUT SHEET McNUTT ROAD AND McNUTT WAY	DRAWING NUMBER: 11-0001
			PROJECT: _____					

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE

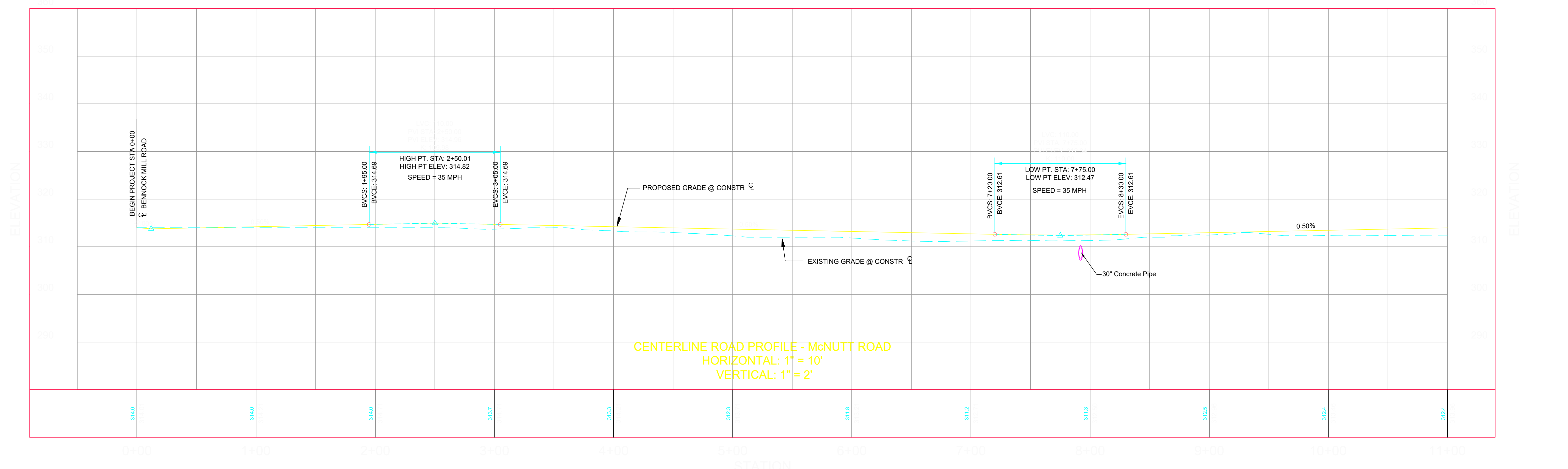
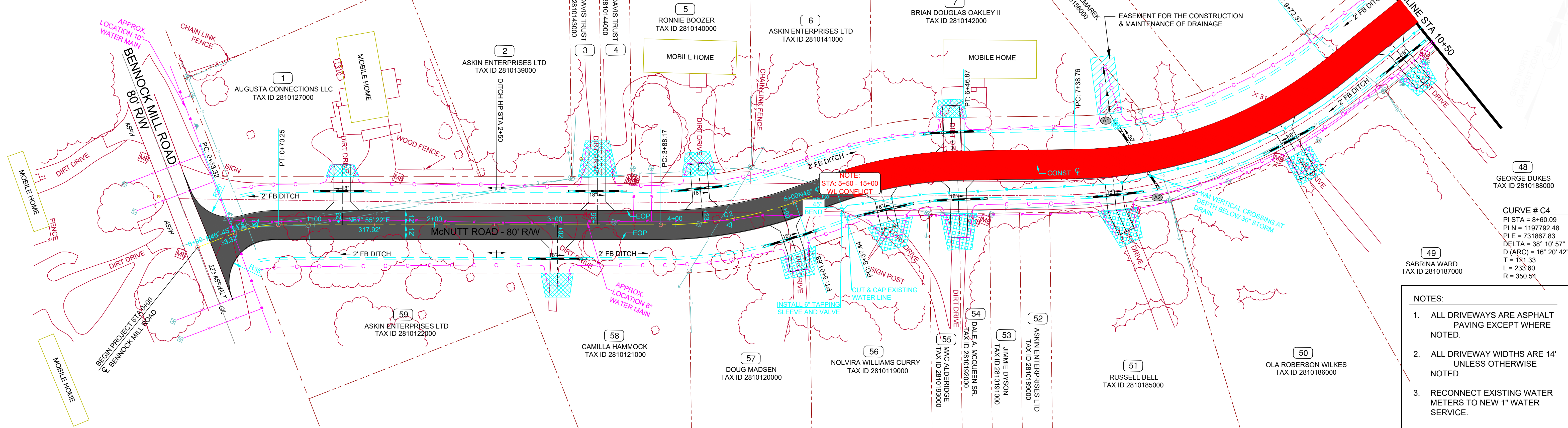
CURVE # C1
 PI STA = 0+52.00
 PI N = 1197442.62
 PI E = 731143.98
 DELTA = 21° 09' 28"
 D (ARC) = 57° 17' 45"
 T = 18.68
 L = 36.93
 R = 100.00

CURVE # C2
 PI STA = 4+45.56
 PI N = 1197590.70
 PI E = 731509.08
 DELTA = 19° 13' 04"
 D (ARC) = 16° 54' 05"
 T = 57.39
 L = 113.71
 R = 339.00

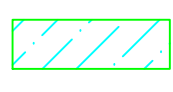

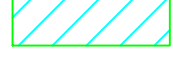
CURVE # C3
 PI STA = 5+92.63
 PI N = 1197688.47
 PI E = 731620.39
 DELTA = 18° 29' 44"
 D (ARC) = 16° 54' 05"
 T = 55.20
 L = 109.43
 R = 339.00

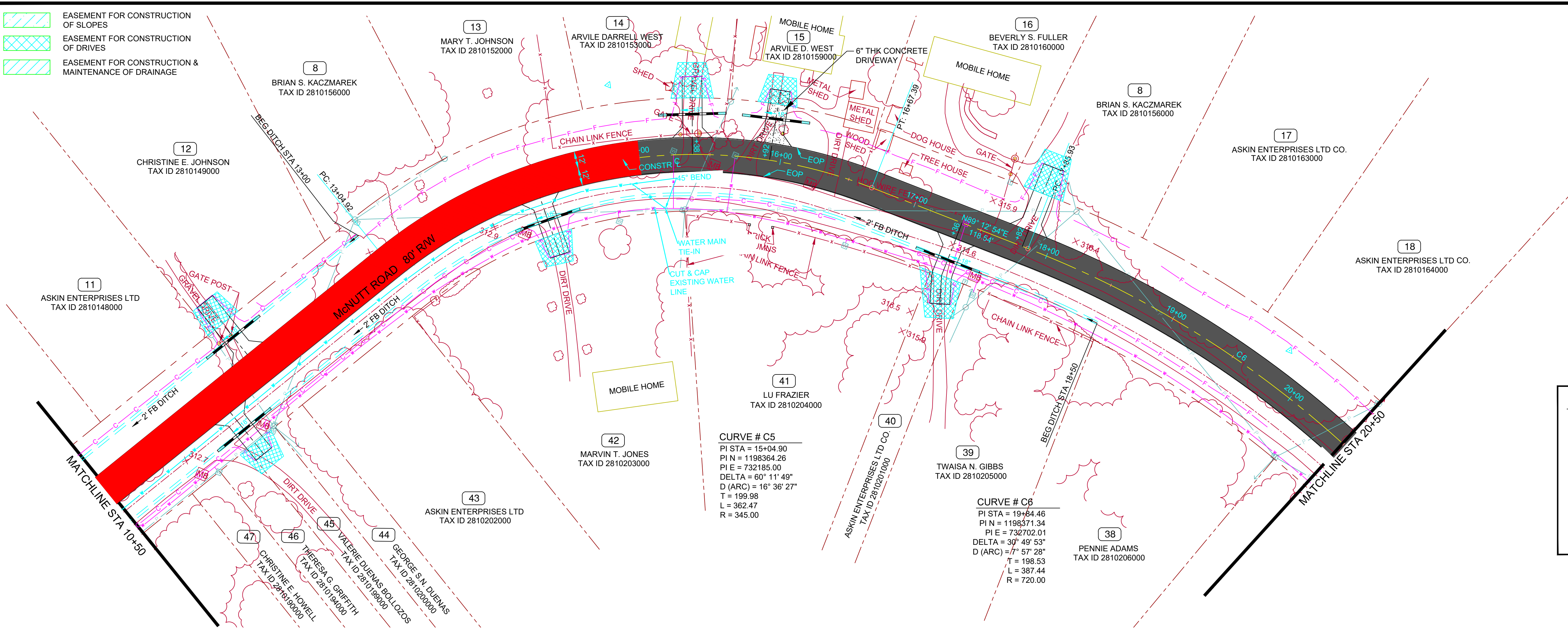
CURVE # C4
 PI STA = 8+60.09
 PI N = 1197792.48
 PI E = 731867.83
 DELTA = 38° 10' 57"
 D (ARC) = 16° 20' 42"
 T = 121.33
 L = 233.60
 R = 350.54

PROJECT: _____

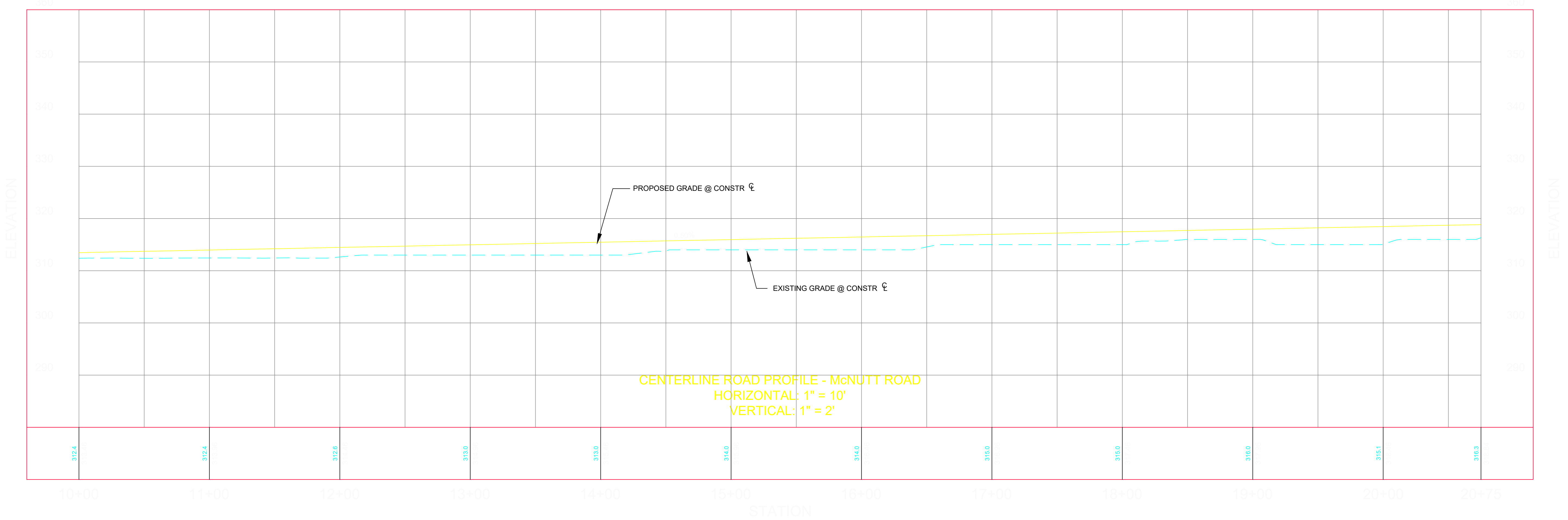


	HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1" = 10'	 <p>Moreland Altobelli Associates, LLC 327 Dahlonega Street Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5307</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>DESIGNED BY</th><td>NAA</td><th>DATE</th><td>03-12-20</td></tr> <tr><th>DRAWN BY</th><td>NAA</td><td></td><td>03-12-20</td></tr> <tr><th>CHECKED BY</th><td>KEQ</td><td></td><td>03-12-20</td></tr> </table>	DESIGNED BY	NAA	DATE	03-12-20	DRAWN BY	NAA		03-12-20	CHECKED BY	KEQ		03-12-20	<p>McNUTT ROAD ROAD CONSTRUCTION PLANS</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th colspan="2">REVISION DATES</th></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>	REVISION DATES						<p>PLAN AND PROFILE</p> <p>McNUTT ROAD 0+00 to 10+50</p>	DRAWING NUMBER <p>13 - 0001</p>
DESIGNED BY	NAA	DATE	03-12-20																						
DRAWN BY	NAA		03-12-20																						
CHECKED BY	KEQ		03-12-20																						
REVISION DATES																									

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



- NOTES:**
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAUG98.bmp

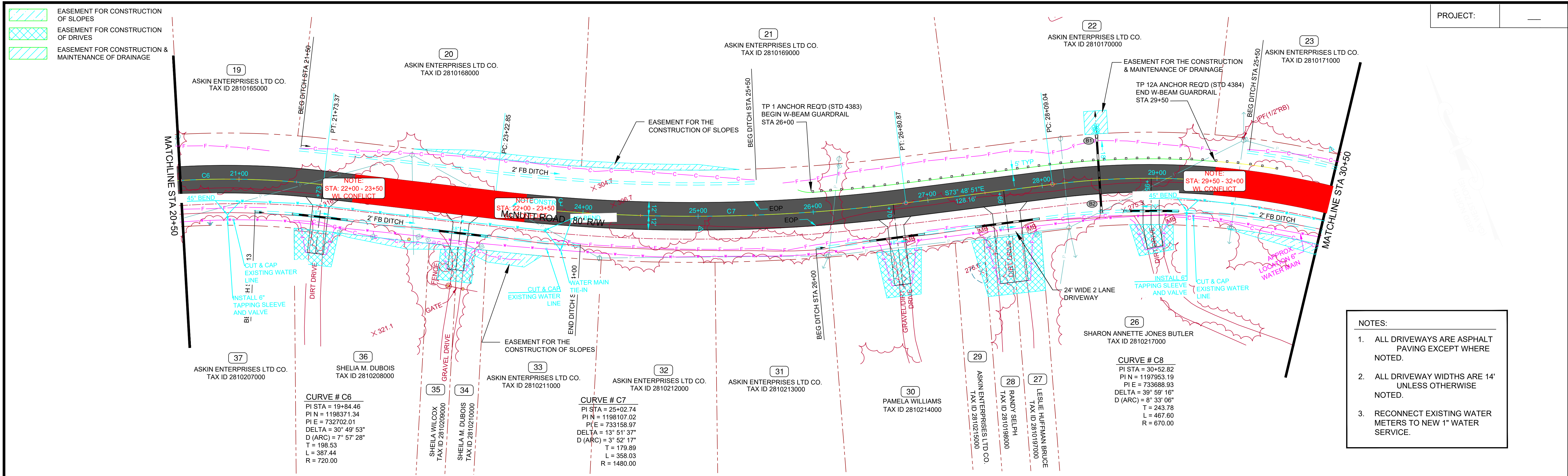
McNUTT ROAD ROAD CONSTRUCTION PLANS

REVISION DATES

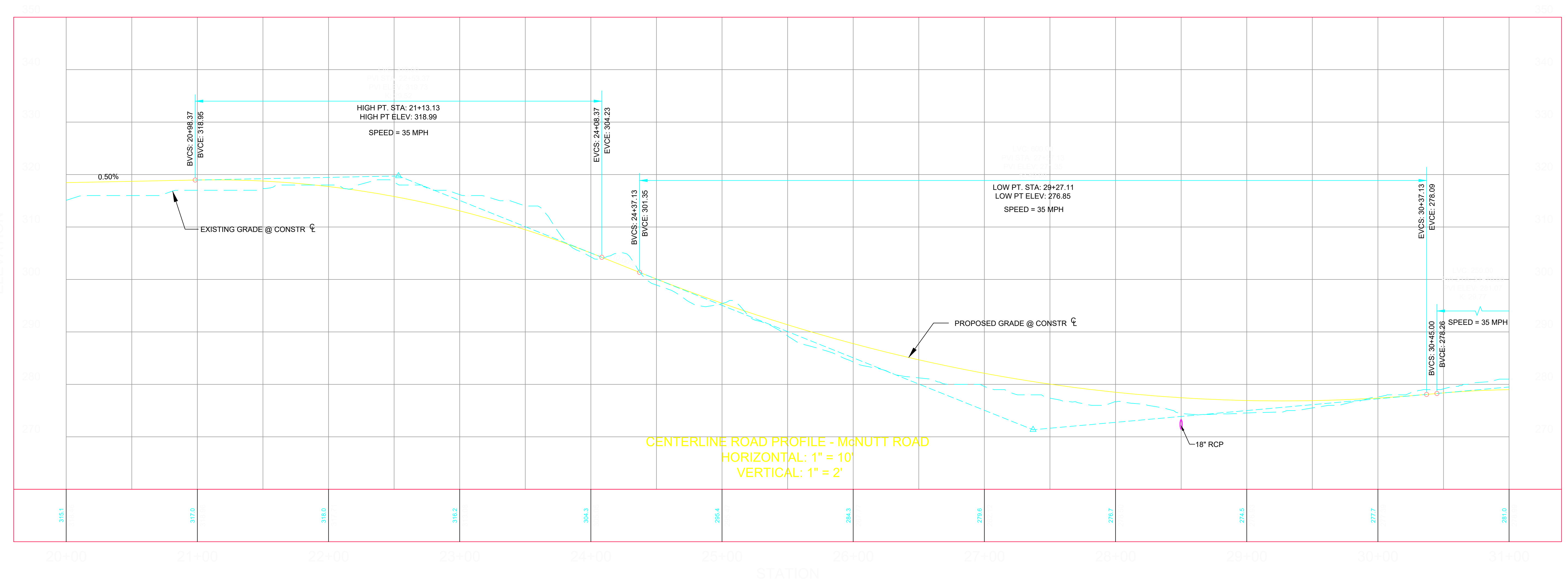
PLAN AND PROFILE

McNUTT ROAD
 10+50 to 20+50

DRAWING NUMBER
13 - 0002



- NOTES:**
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF:GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..Images-References\thCTAAGU98.bmp

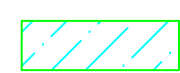
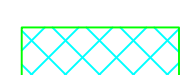
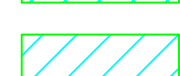
McNUTT ROAD ROAD CONSTRUCTION PLANS

REVISION DATES

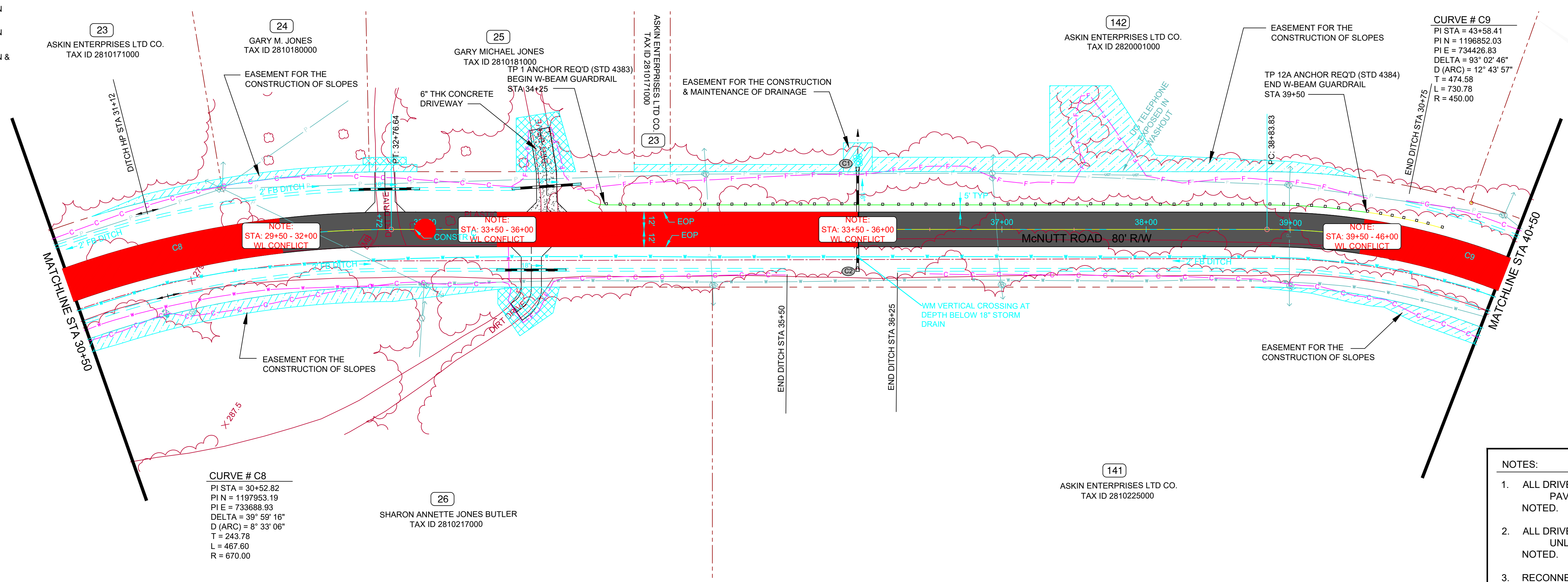
PLAN AND PROFILE

McNUTT ROAD
 20+50 to 30+50

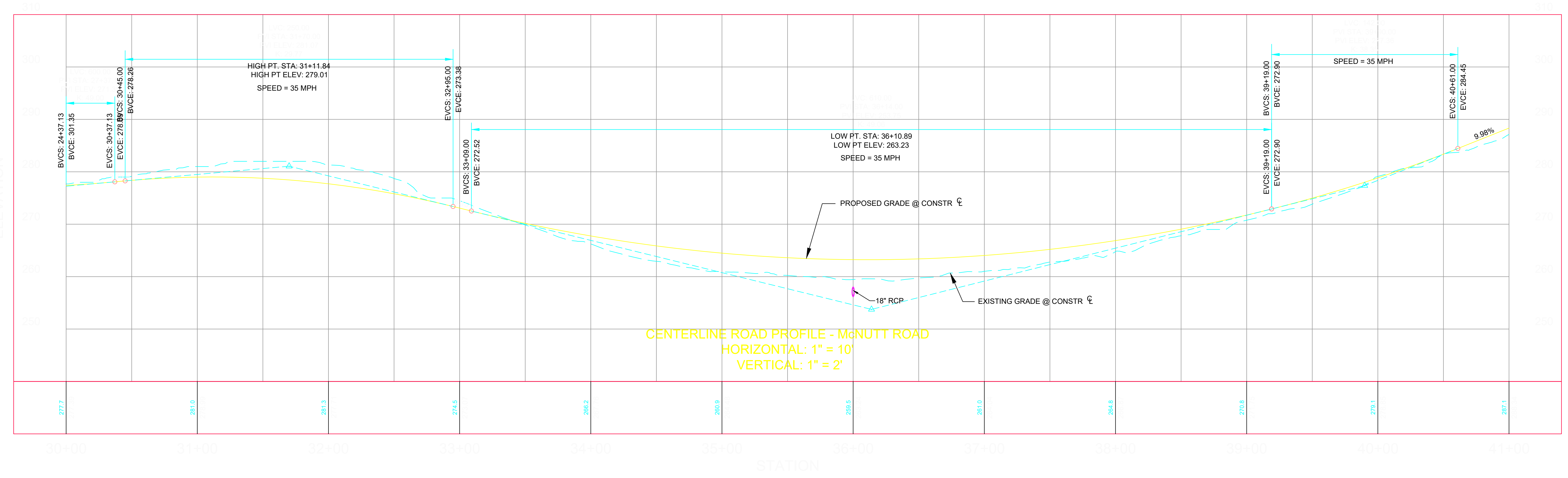
DRAWING NUMBER
13 - 0003

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE

PROJECT: _____



- NOTES:**
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAGU98.bmp

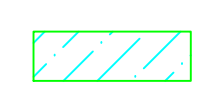
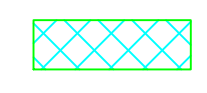
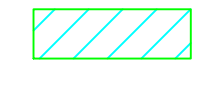
McNUTT ROAD ROAD CONSTRUCTION PLANS

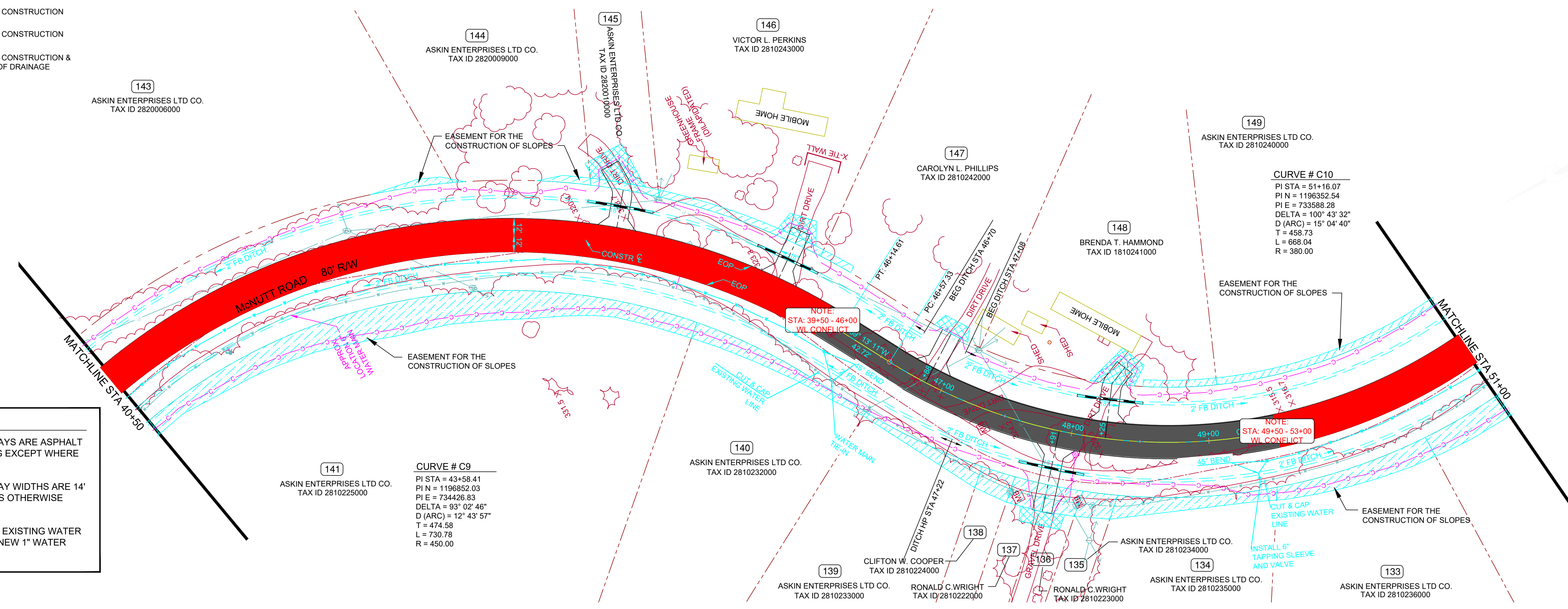
REVISION DATES	

PLAN AND PROFILE

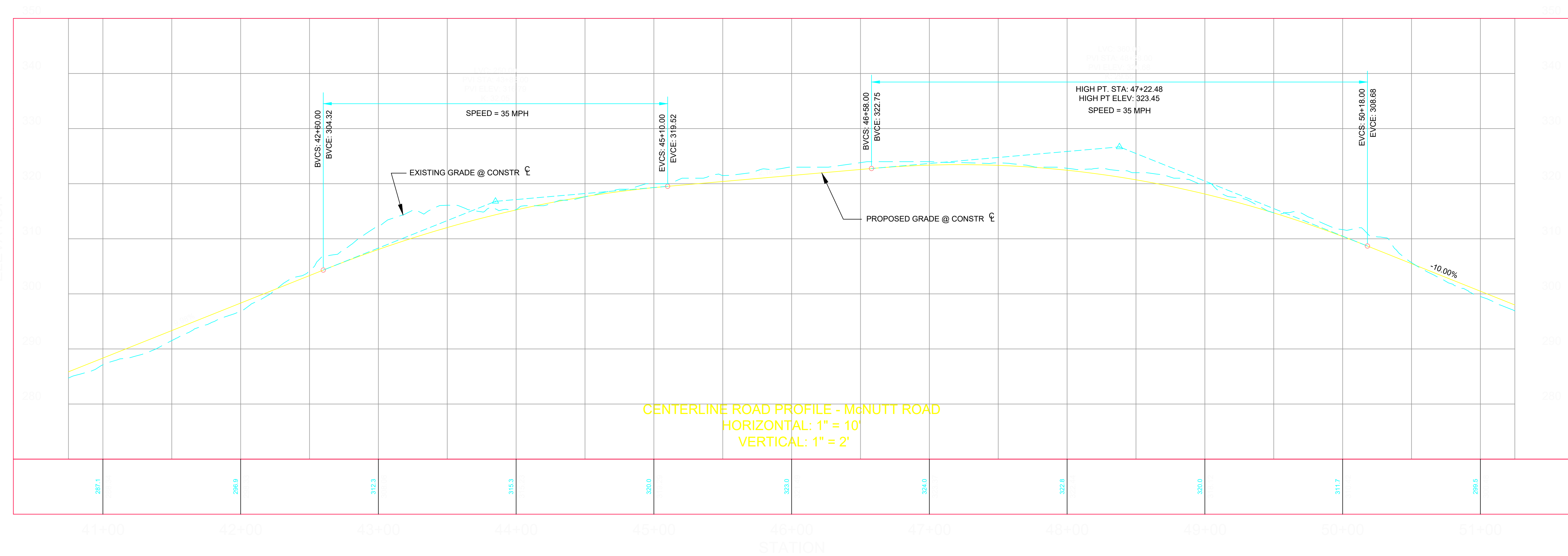
McNUTT ROAD
30+50 to 40+50

DRAWING NUMBER
13 - 0004

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



- NOTES:**
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



CENTERLINE ROAD PROFILE - McNUTT ROAD
 HORIZONTAL: 1" = 10'
 VERTICAL: 1" = 2'

.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

NAME	DATE
DESIGNED BY: NAA	03-12-20
DRAWN BY: NAA	03-12-20
CHECKED BY: KEQ	03-12-20

..\Images-References\thCTAAAGU98.bmp

**McNUTT ROAD
 ROAD CONSTRUCTION PLANS**

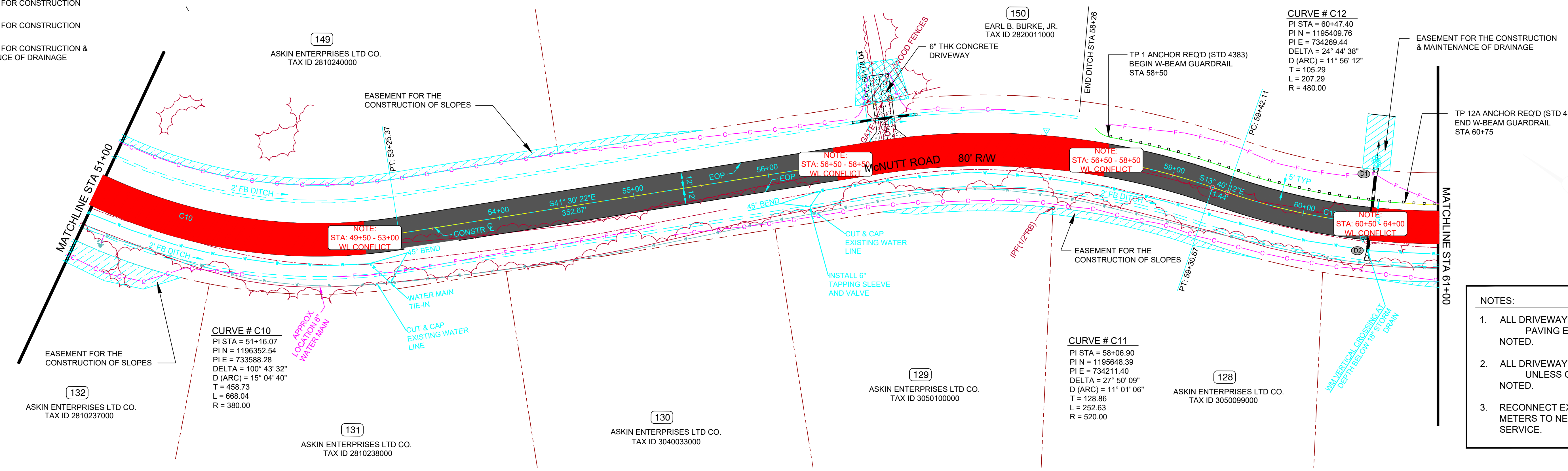
REVISION DATES	

PLAN AND PROFILE

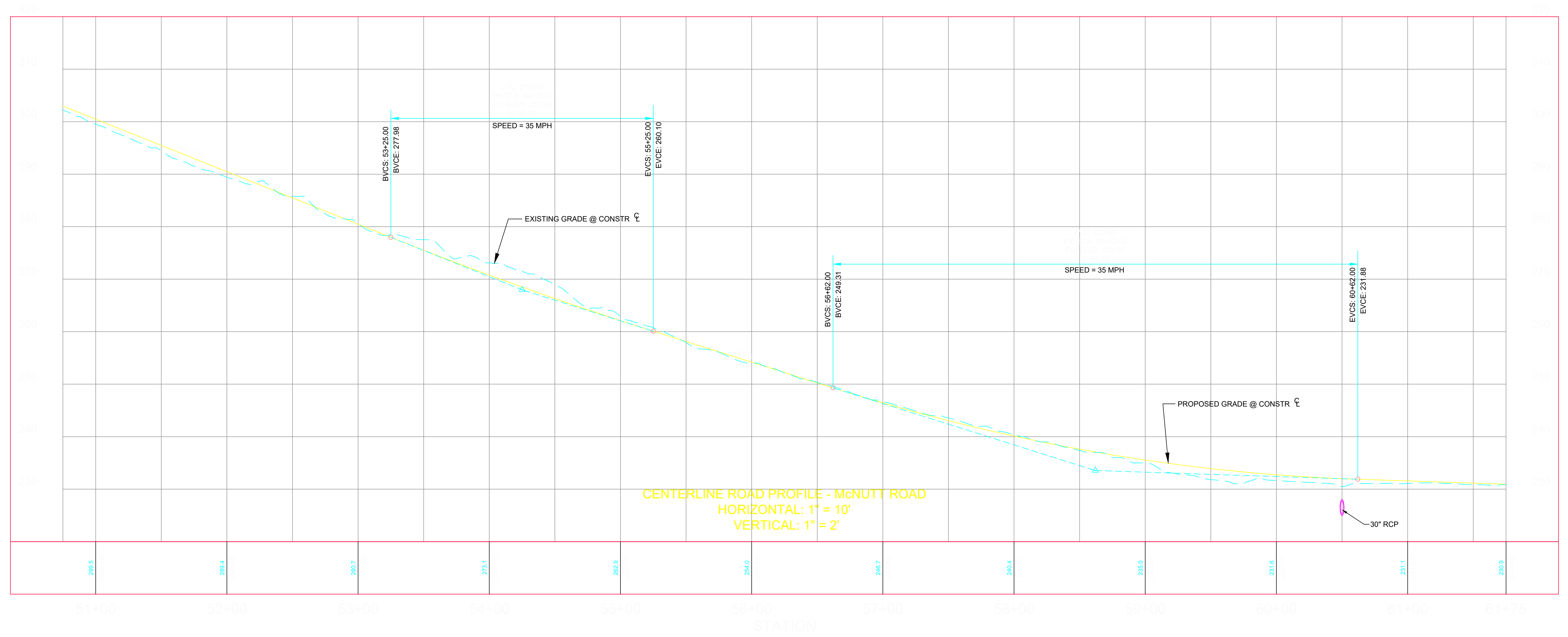
McNUTT ROAD
 40+50 to 51+00

DRAWING NUMBER
13 - 005

- EASEMENT FOR CONSTRUCTION OF SLOPES
- EASEMENT FOR CONSTRUCTION OF DRIVES
- EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



- NOTES:
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREFIGA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
BY	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

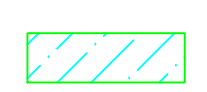
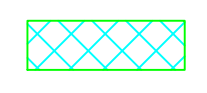
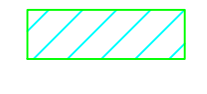
..Images-References\thCTAAGU98.bmp

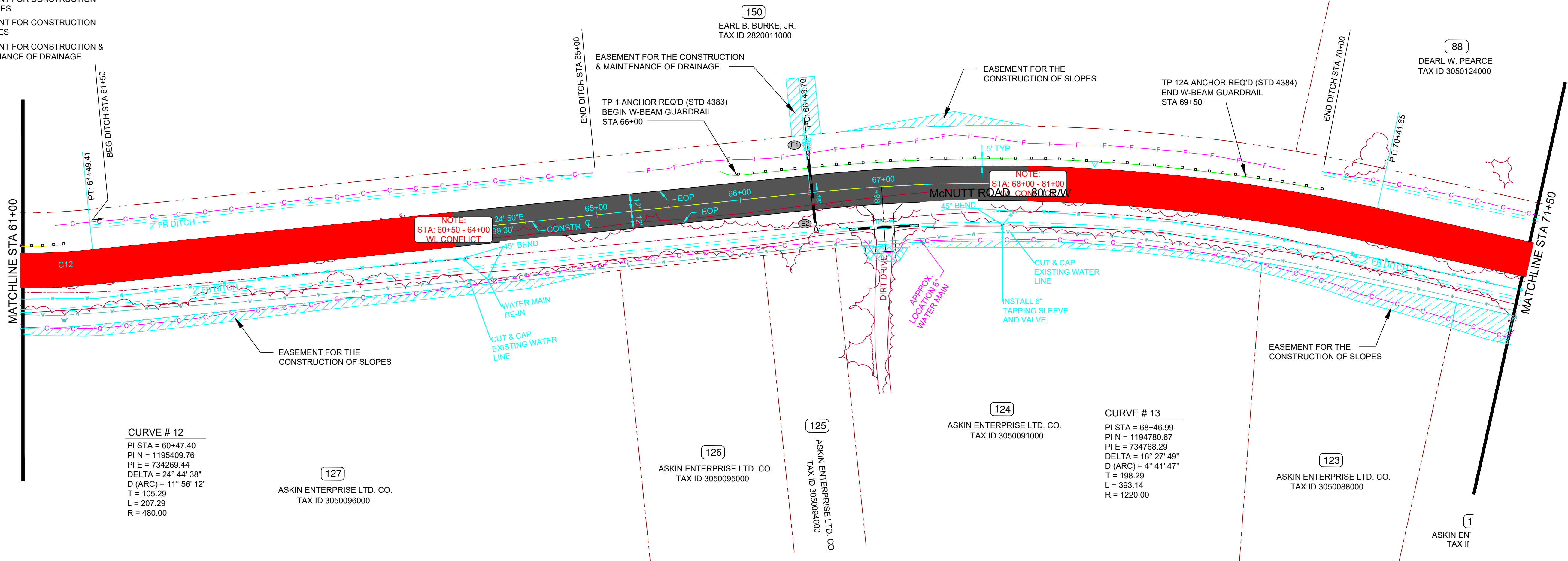
McNUTT ROAD ROAD CONSTRUCTION PLANS

REVISION DATES

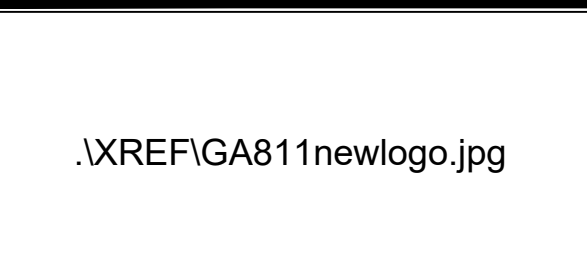
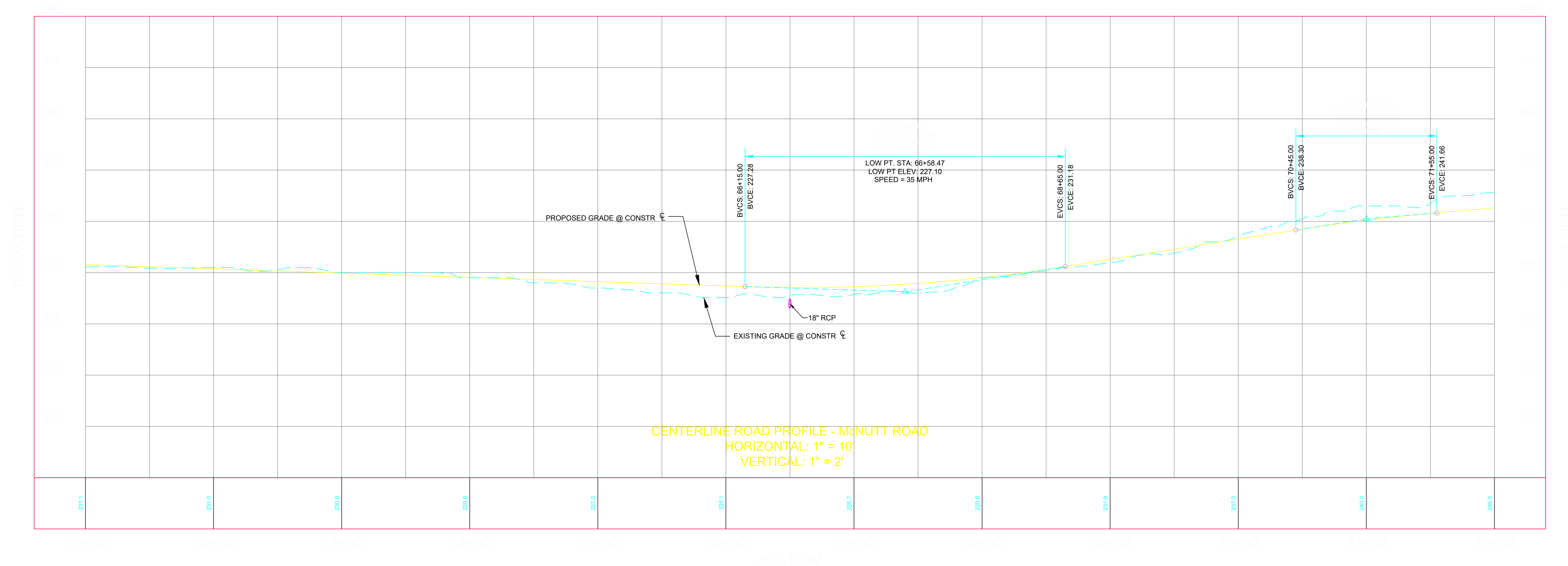
PLAN AND PROFILE
McNUTT ROAD
51+00 to 61+00

DRAWING NUMBER
13 - 0006

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



- NOTES:**
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
BY	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20


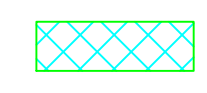
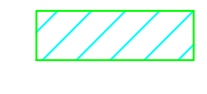
..\Images-References\thCTAAAGU98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS

REVISION DATES

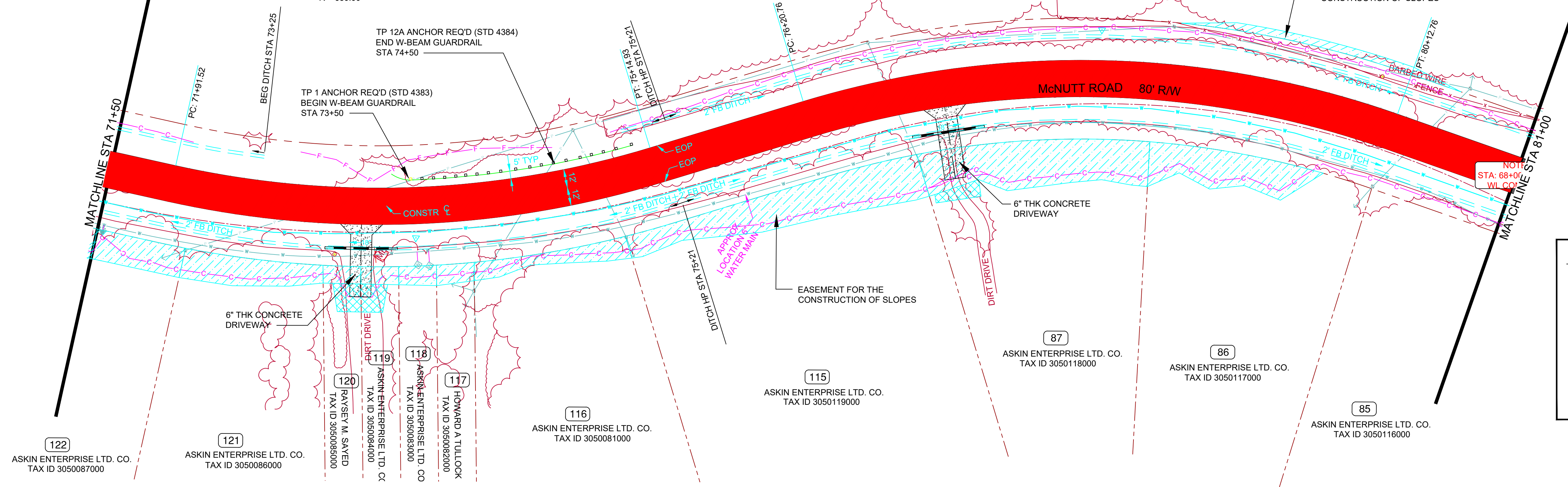
PLAN AND PROFILE
 McNUTT ROAD
 61+00 to 71+50

DRAWING NUMBER
13 - 0007

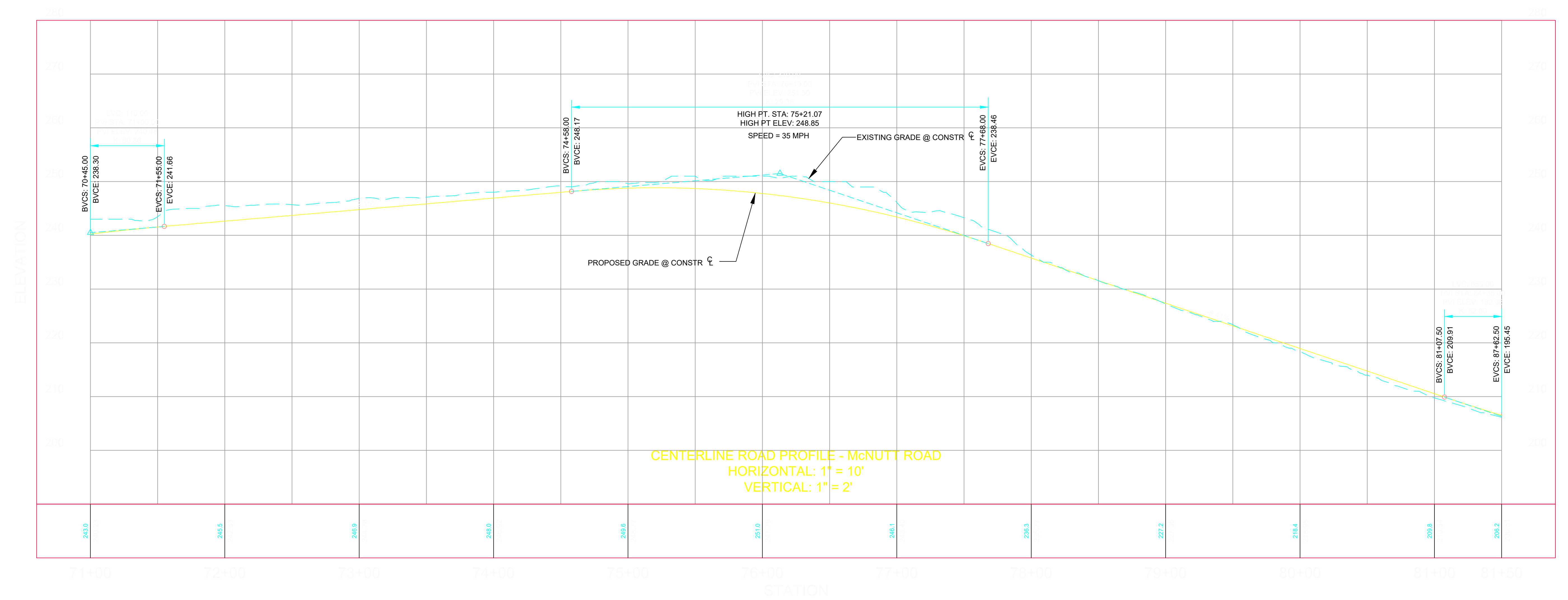
-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE

CURVE # C14
 PI STA = 73+56.87
 PI N = 1194298.16
 PI E = 734943.44
 DELTA = 29° 24' 47"
 D (ARC) = 9° 05' 40"
 T = 165.35
 L = 323.41
 R = 630.00

CURVE # C15
 PI STA = 78+23.57
 PI N = 1193989.47
 PI E = 735303.13
 DELTA = 36° 13' 33"
 D (ARC) = 9° 14' 23"
 T = 202.80
 L = 392.00
 R = 620.00



- NOTES:
- ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 - ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 - RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.\XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAGU98.bmp




McNUTT ROAD ROAD CONSTRUCTION PLANS

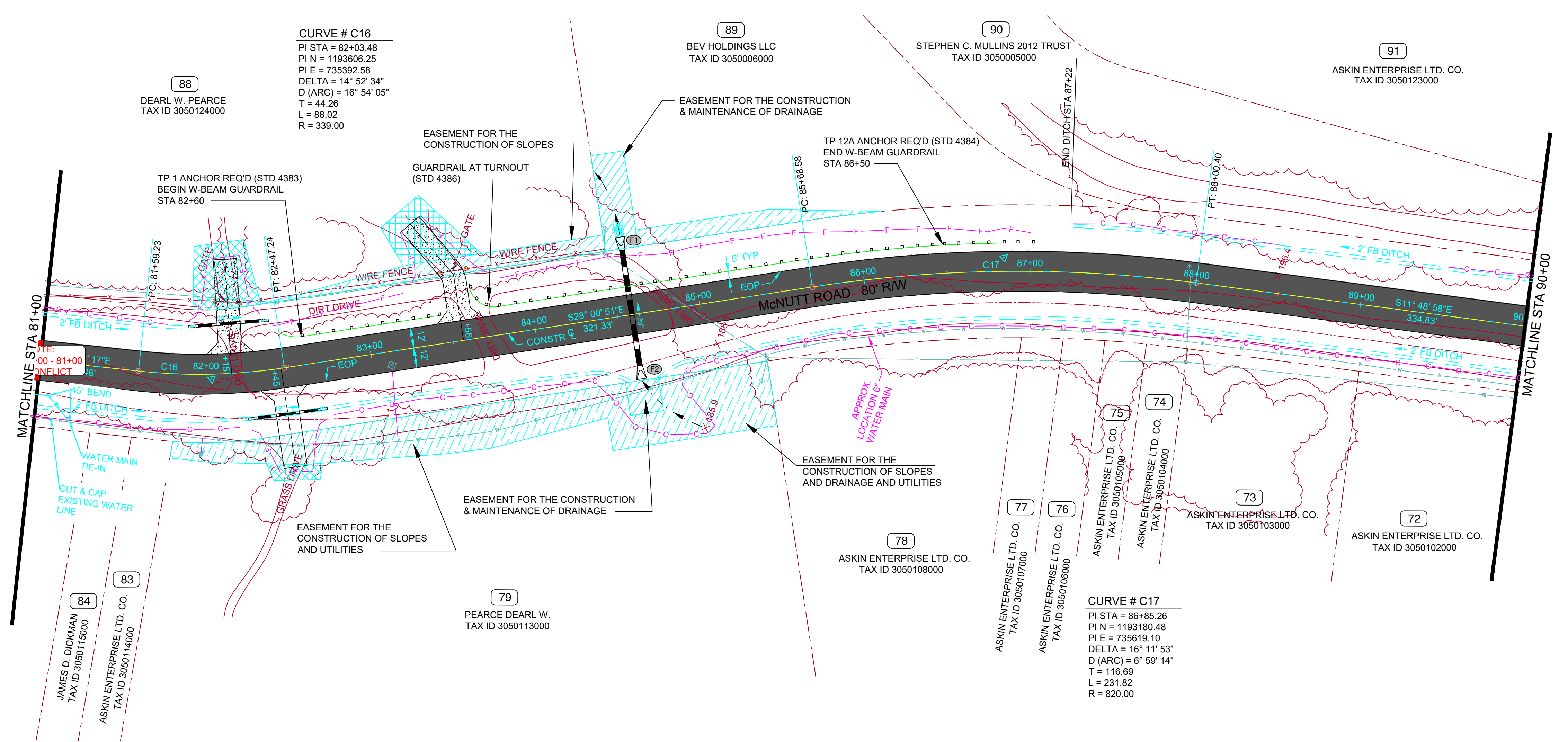
REVISION DATES

PLAN AND PROFILE

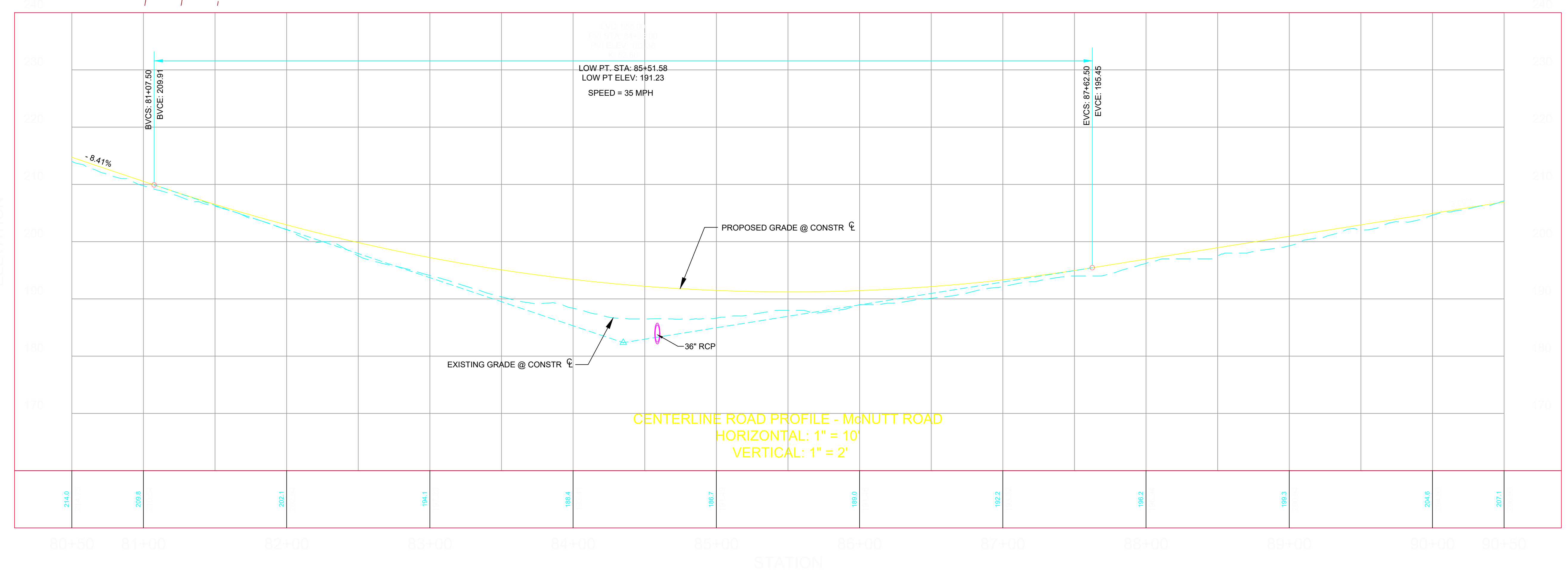
McNUTT ROAD
 71+50 to 81+00

DRAWING NUMBER
13 - 0008

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



- NOTES:
- ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 - ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 - RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

\\Images-References\thCTAAAGU98.bmp


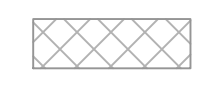

McNUTT ROAD ROAD CONSTRUCTION PLANS

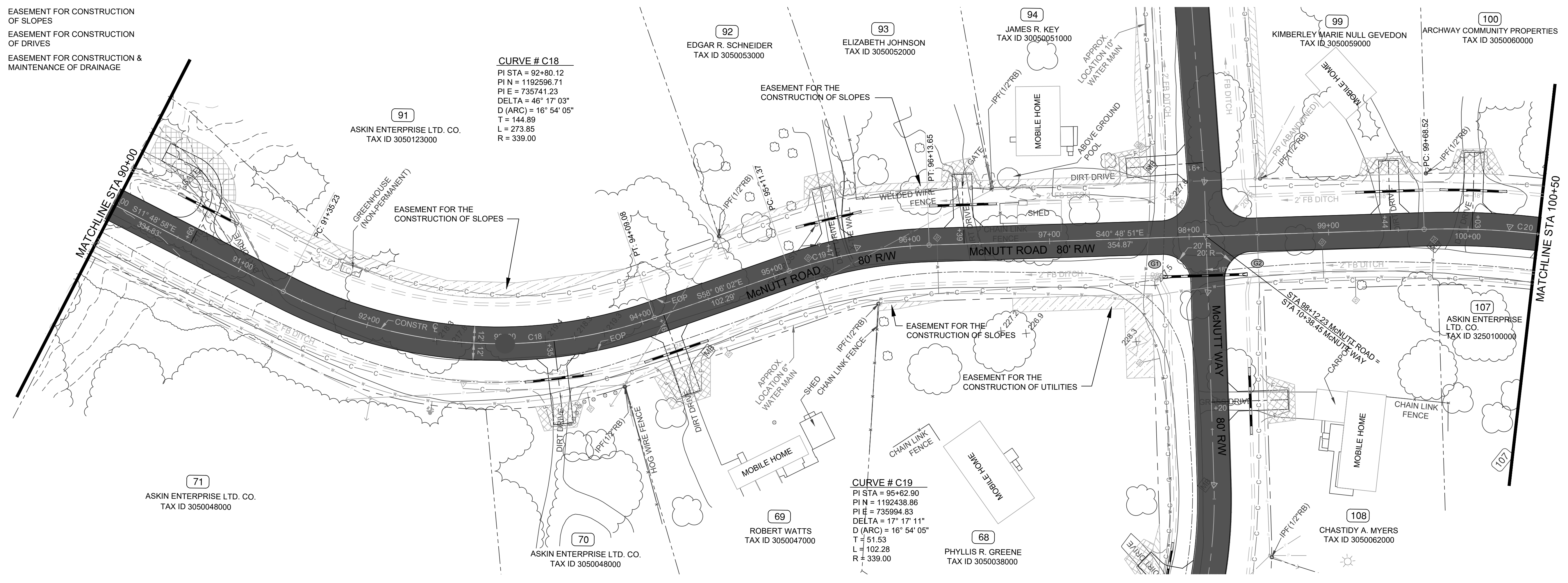
REVISION DATES

PLAN AND PROFILE

McNUTT ROAD
81+00 to 90+00

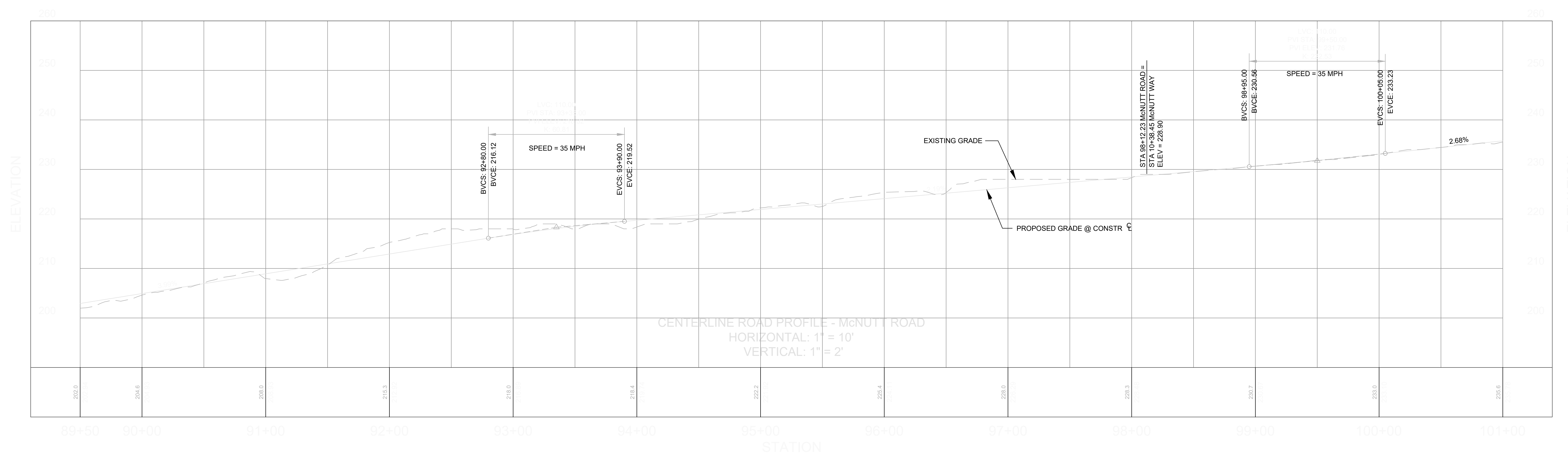
DRAWING NUMBER
13 - 0009

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



CURVE # C20
 PI STA = 100+29.96
 PI N = 1192084.78
 PI E = 736300.62
 DELTA = 12° 31' 19"
 D (ARC) = 10° 13' 53"
 T = 61.44
 L = 122.39
 R = 560.00

- NOTES:**
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20




.\Images-References\thCTAAAGU98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS

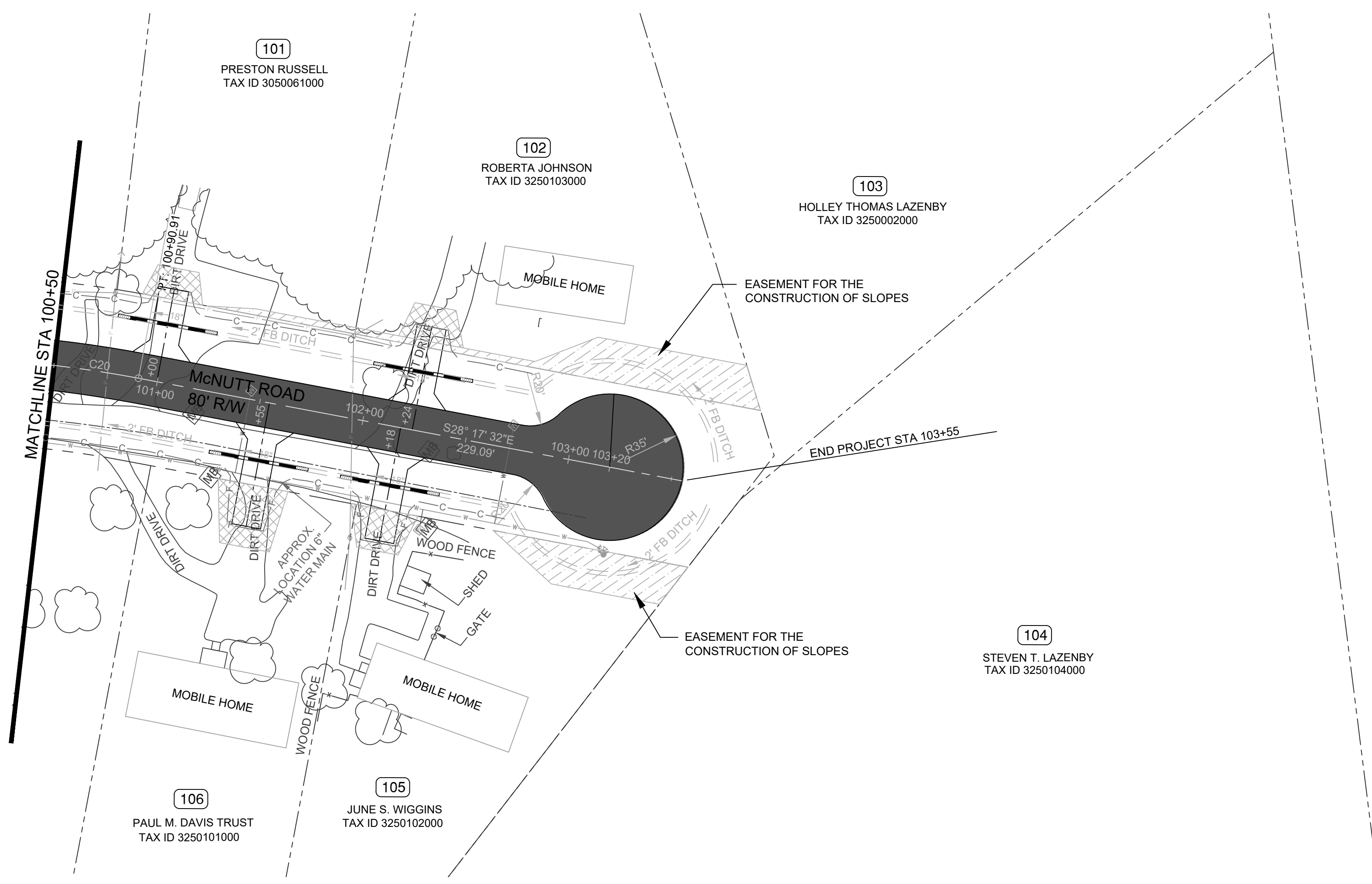
REVISION DATES

PLAN AND PROFILE
 McNUTT ROAD
 90+00 to 100+50

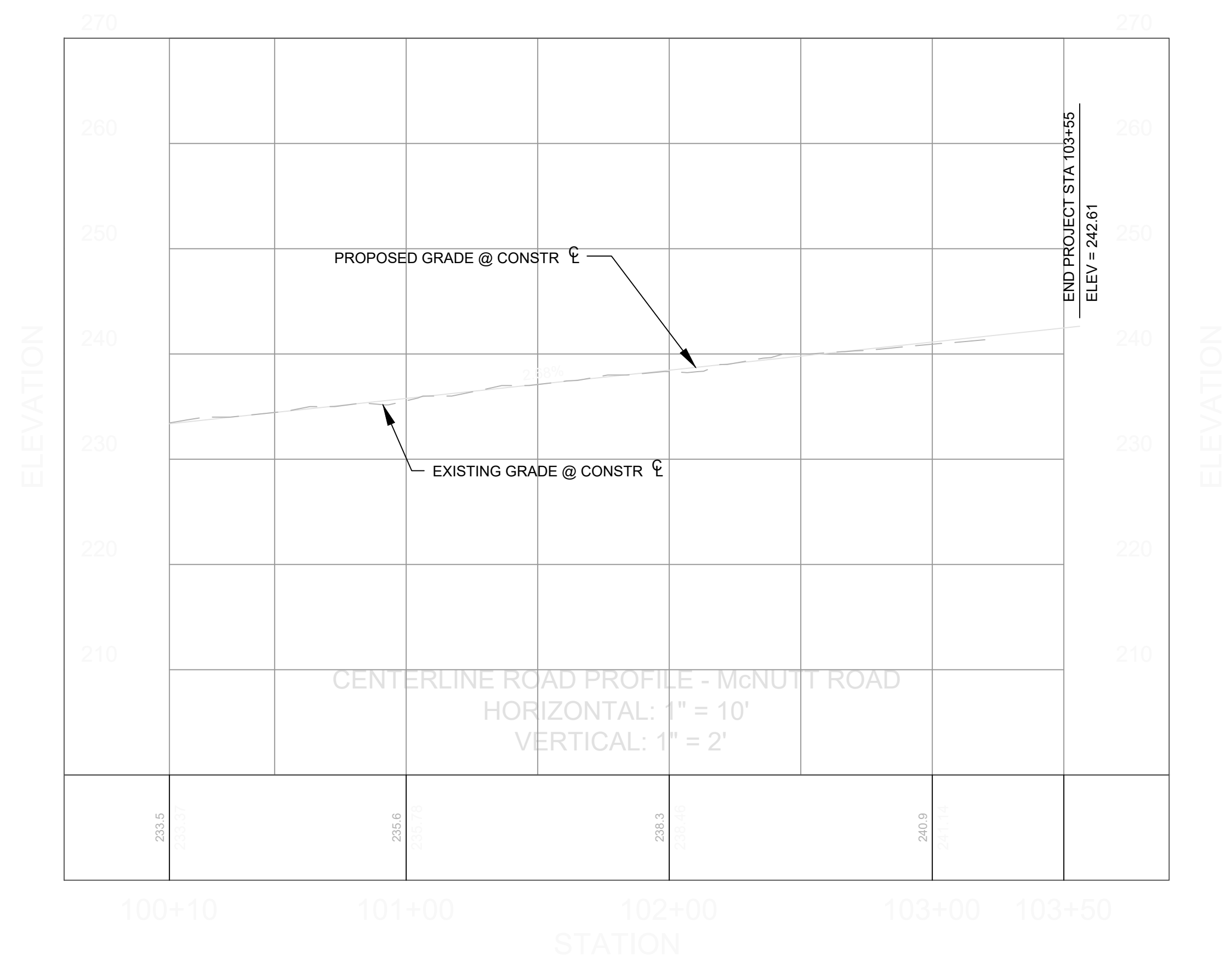
DRAWING NUMBER
13 - 0010

-  EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE

CURVE # C20
 PI STA = 100+29.96
 PI N = 1192084.78
 PI E = 736300.62
 DELTA = 12° 31' 19"
 D (ARC) = 10° 13' 53"
 T = 61.44
 L = 122.39
 R = 560.00



- NOTES:
1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
BY	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAGU98.bmp

**McNUTT ROAD
 ROAD CONSTRUCTION PLANS**

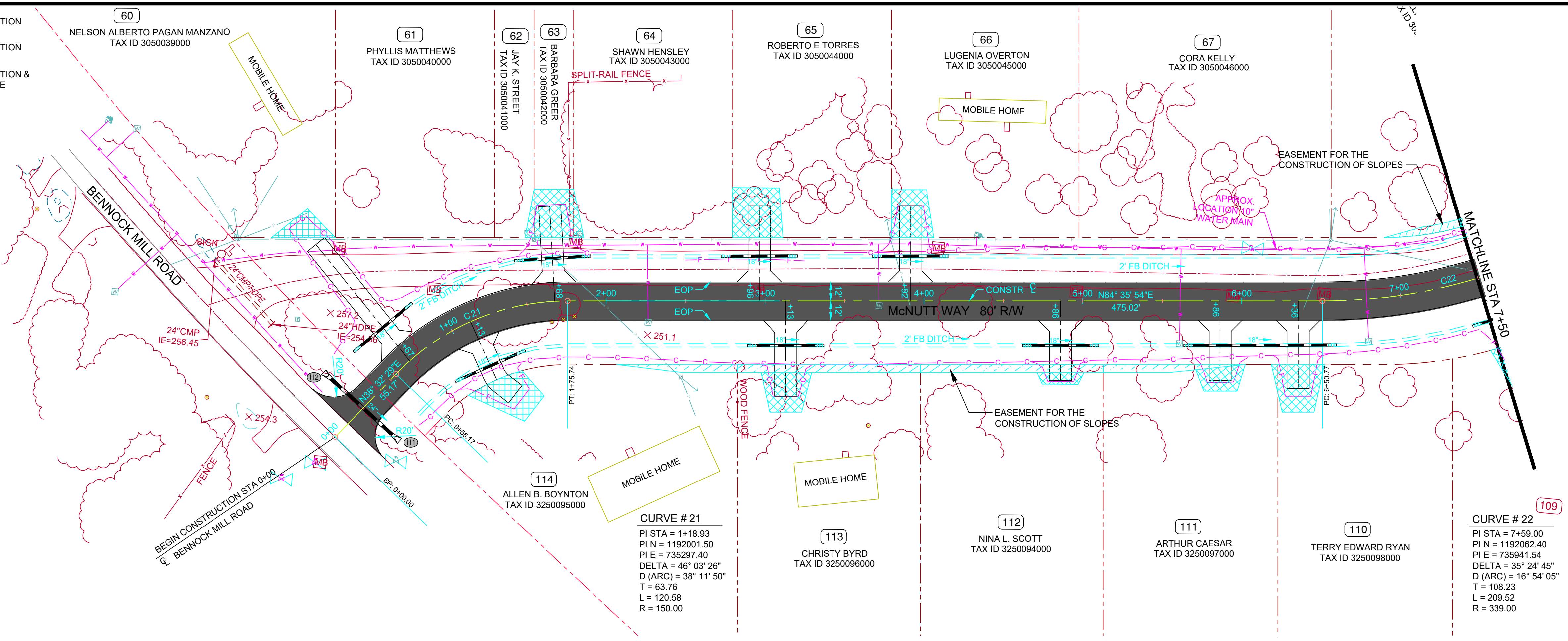
REVISION DATES	

PLAN AND PROFILE

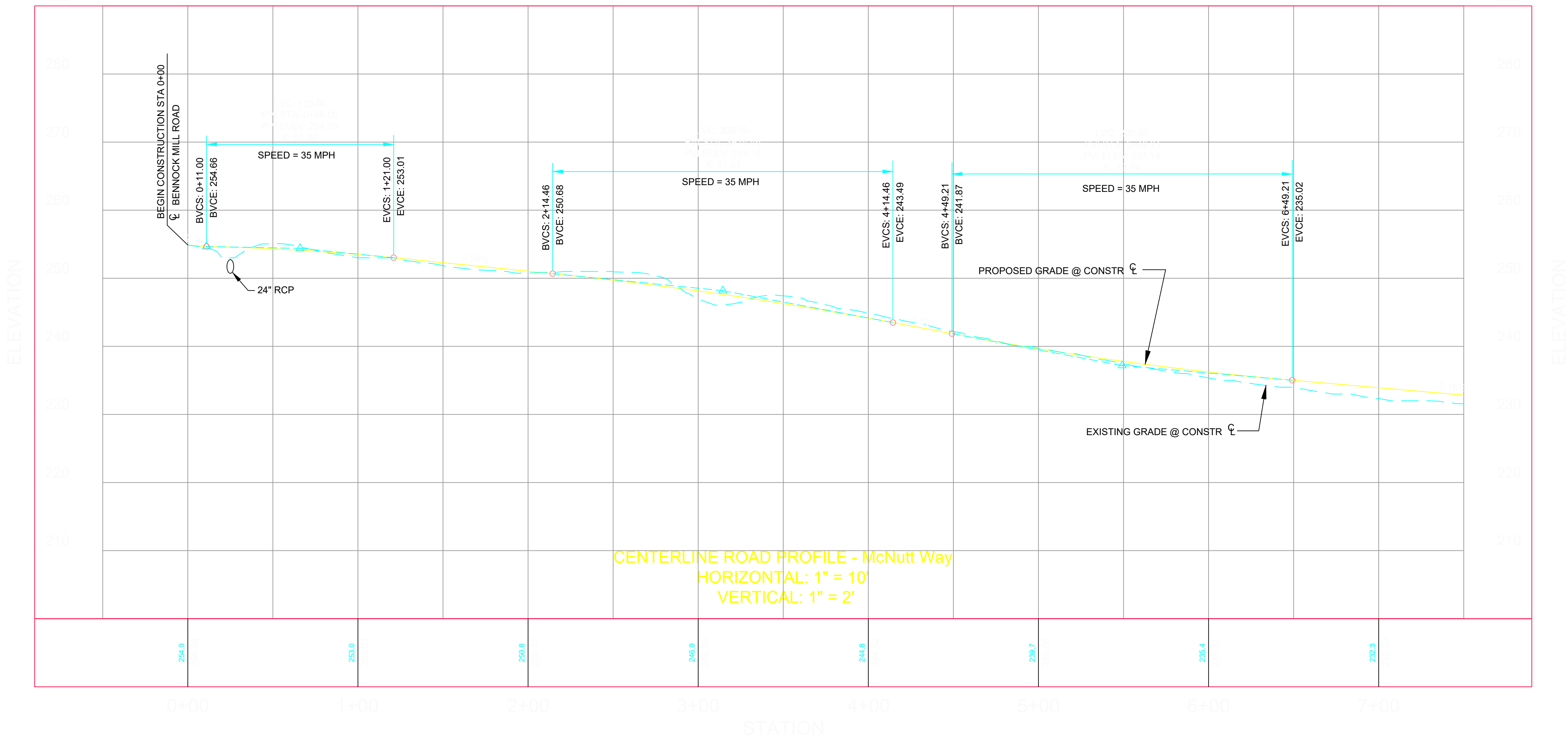
McNUTT ROAD
 100+50 to END

DRAWING NUMBER
13 - 0011

- EASEMENT FOR CONSTRUCTION OF SLOPES
- EASEMENT FOR CONSTRUCTION OF DRIVES
- EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



- NOTES:**
- ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 - ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 - RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

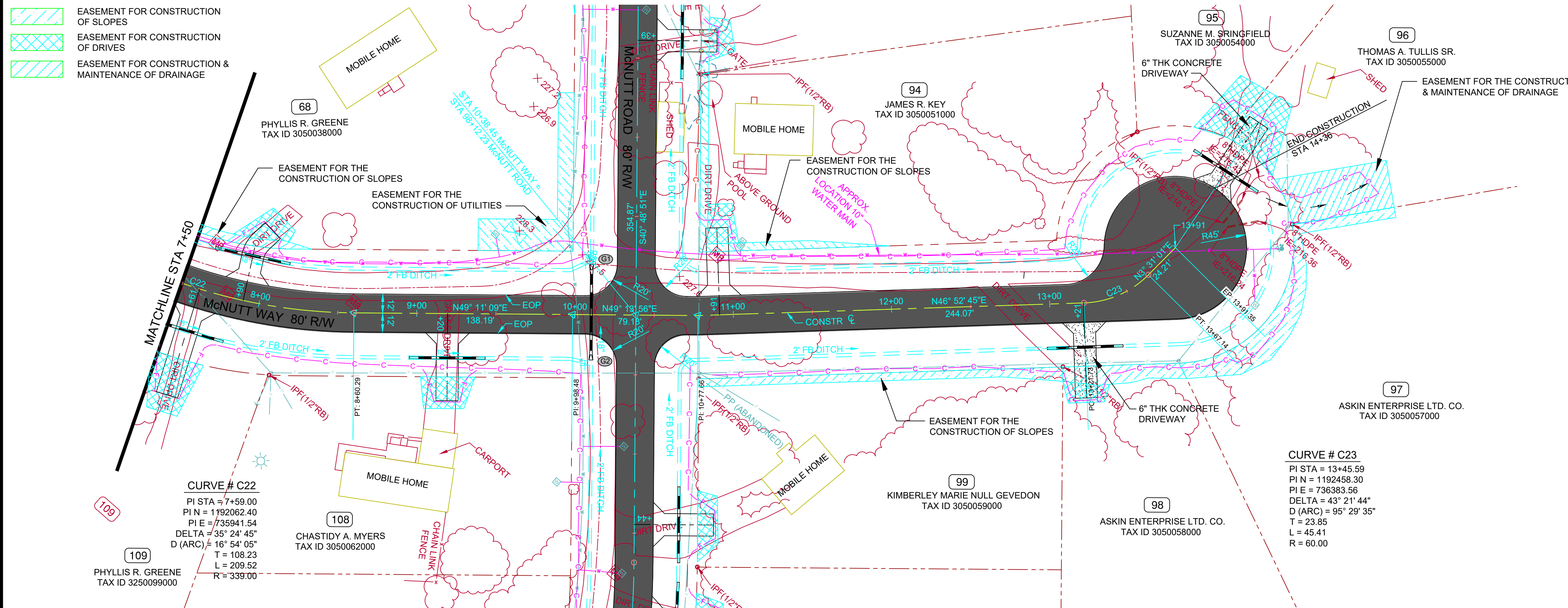
DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

McNUTT ROAD ROAD CONSTRUCTION PLANS

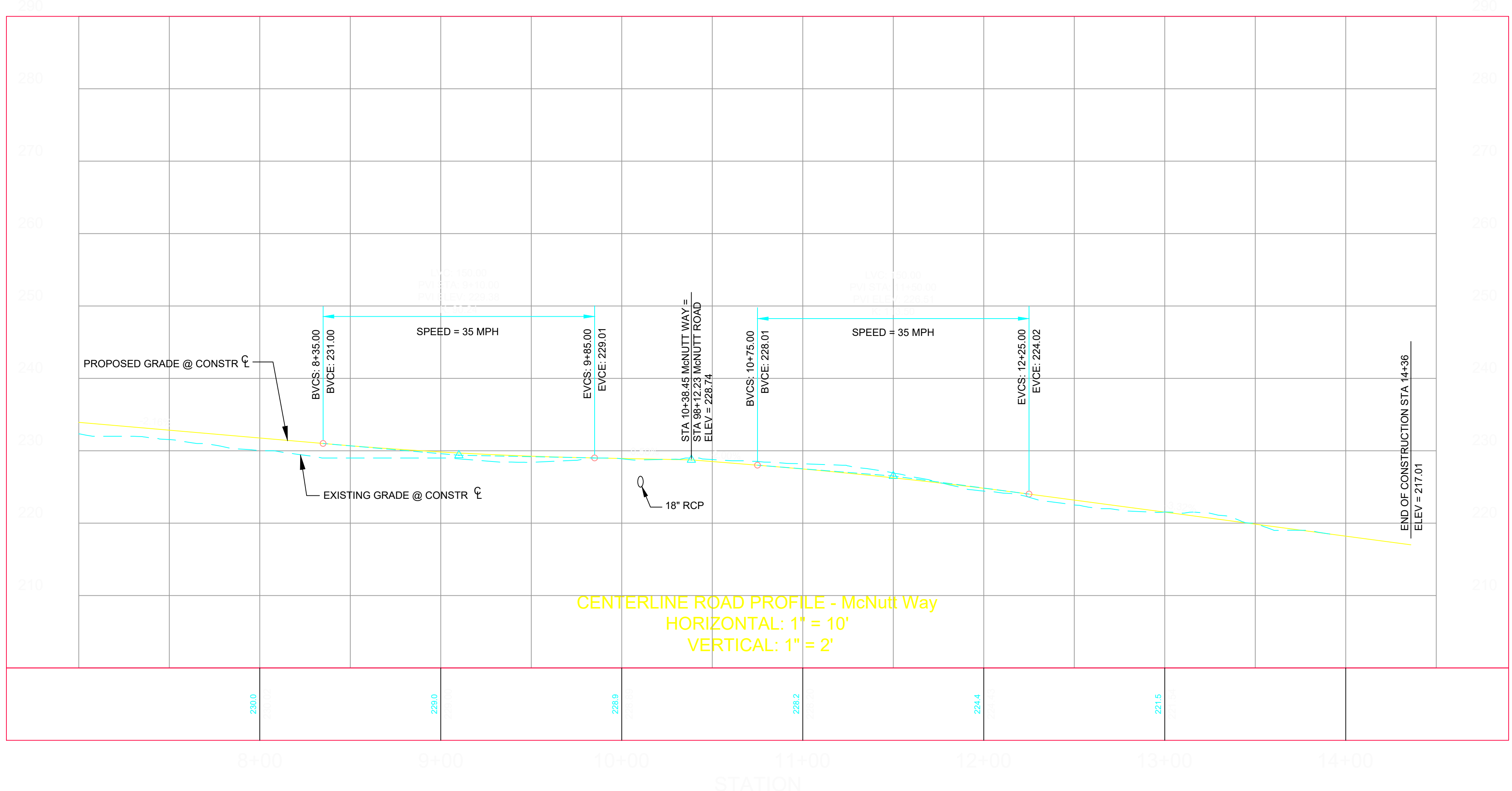
REVISION DATES

PLAN AND PROFILE
 McNUTT WAY
 0+00 to 7+50

DRAWING NUMBER
13 - 0012



- NOTES:**
- 1. ALL DRIVEWAYS ARE ASPHALT PAVING EXCEPT WHERE NOTED.
 - 2. ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.
 - 3. RECONNECT EXISTING WATER METERS TO NEW 1" WATER SERVICE.



.XREF\GA811newlogo.jpg

HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 10'

Moreland Altobelli Associates, LLC
 327 Dahlonga Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

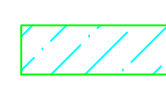
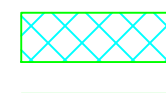
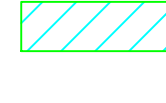
DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAGU98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS	
REVISION DATES	

PLAN AND PROFILE
 McNUTT WAY
 7+50 to END

DRAWING NUMBER
13 - 0013

-  TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE

CURVE # C1
 PI STA = 0+52.00
 PI N = 1197442.62
 PI E = 731143.98
 DELTA = 21° 09' 28"
 D (ARC) = 57° 17' 45"
 T = 18.68
 L = 36.93
 R = 100.00

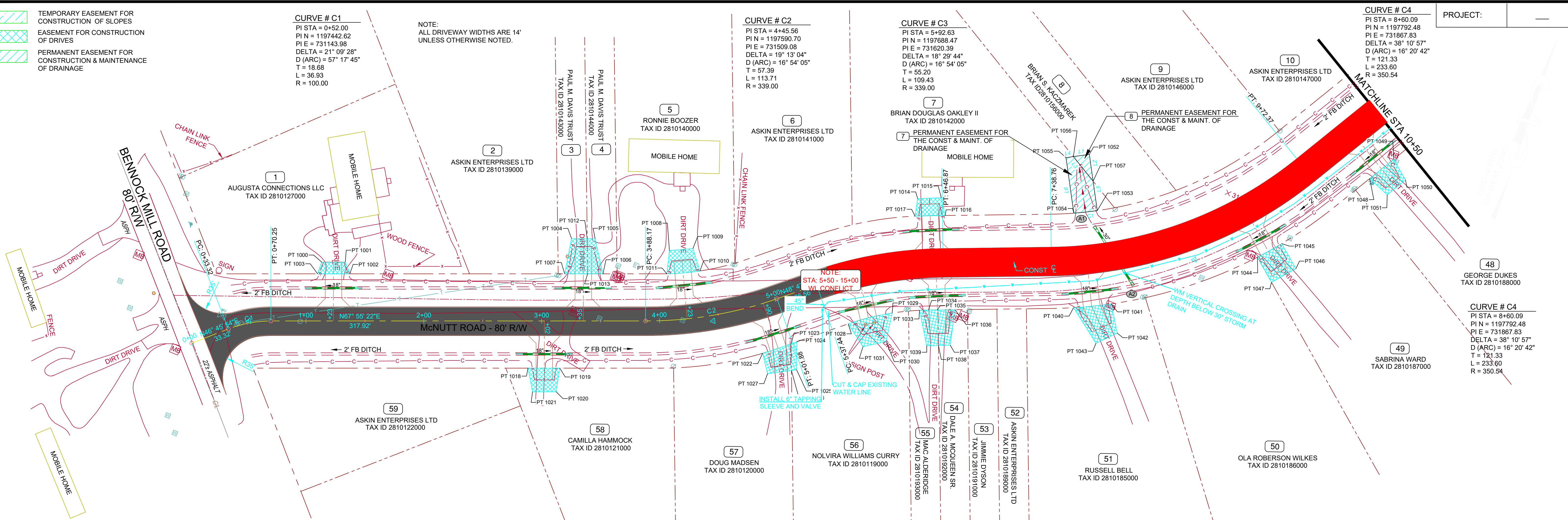
NOTE:
 ALL DRIVEWAY WIDTHS ARE 14'
 UNLESS OTHERWISE NOTED.

CURVE # C2
 PI STA = 4+45.56
 PI N = 1197590.70
 PI E = 731509.08
 DELTA = 19° 13' 04"
 D (ARC) = 16° 54' 05"
 T = 57.39
 L = 113.71
 R = 339.00

CURVE # C3
 PI STA = 5+92.63
 PI N = 1197688.47
 PI E = 731620.39
 DELTA = 18° 29' 44"
 D (ARC) = 16° 54' 05"
 T = 55.20
 L = 109.43
 R = 339.00

CURVE # C4
 PI STA = 8+60.09
 PI N = 1197792.48
 PI E = 731867.83
 DELTA = 38° 10' 57"
 D (ARC) = 16° 20' 42"
 T = 121.33
 L = 233.60
 R = 350.54

PROJECT: _____



PARCEL 1 - REQ'D DRWY EASM'T

234.41 SF
 Alignment Name: McNUTT ROAD
 Description: STA 1+23 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1000	1+13.37	-49.906'
1001	1+33.37	-49.906'
1002	1+37.20	-40.000'
1003	1+09.87	-40.000'

PARCEL 5 - REQ'D DRWY EASM'T

477.90 SF
 Alignment Name: McNUTT ROAD
 Description: STA 4+23 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1008	4+12.72	-49.041'
1009	4+36.92	-58.565'
1010	4+40.51	-38.886'
1011	4+08.62	-39.505'

PARCEL 7 - REQ'D DRWY EASM'T

341.00 SF
 Alignment Name: McNUTT ROAD
 Description: STA 6+38 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1014	6+28.90	-55.121'
1015	6+46.11	-55.149'
1016	6+49.18	-40.000'
1017	6+26.04	-40.534'

PARCEL 49 - REQ'D DRWY EASM'T

576.21 SF
 Alignment Name: McNUTT ROAD
 Description: STA 9+11 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1044	9+01.48	40.000'
1045	9+22.72	40.000'
1046	9+22.25	64.395'
1047	9+02.18	64.438'

PARCEL 58 - REQ'D DRWY EASM'T

469.89 SF
 Alignment Name: McNUTT ROAD
 Description: STA 3+02 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1018	2+88.38	40.000'
1019	3+15.37	40.000'
1020	3+12.27	60.000'
1021	2+92.27	60.000'

PARCEL 56 & 57 - REQ'D DRWY EASM'T

561.82 SF
 Alignment Name: McNUTT ROAD
 Description: STA 4+90 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1025	4+98.31	62.339'
1026	4+94.69	61.558'
1027	4+77.51	58.510'
1022	4+77.88	40.648'
1023	5+00.70	40.002'
1024	5+05.81	40.000'

PARCEL 54 & 55 - REQ'D DRWY EASM'T

758.20 SF
 Alignment Name: McNUTT ROAD
 Description: STA 6+41 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1033	6+23.59	39.429'
1036	6+56.42	40.000'
1037	6+52.09	70.183'
1039	6+28.24	69.938'

PARCEL 48 - REQ'D DRWY EASM'T

461.43 SF
 Alignment Name: McNUTT ROAD
 Description: STA 10+23 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1048	10+09.98	40.000'
1049	10+36.13	40.000'
1050	10+32.90	59.918'
1051	10+12.90	60.084'

PARCEL 3 & 4 - REQ'D DRWY EASM'T

784.46 SF
 Alignment Name: McNUTT ROAD
 Description: STA 3+35 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1004	3+25.36	-69.906'
1005	3+45.36	-69.906'
1006	3+52.03	-40.000'
1007	3+19.57	-40.000'
1012	3+38.65	-69.906'
1013	3+39.03	-40.000'

PARCEL 56 - REQ'D DRWY EASM'T

664.28 SF
 Alignment Name: McNUTT ROAD
 Description: STA 5+74 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1028	5+53.77	39.658'
1029	5+97.30	38.972'
1030	5+86.24	61.758'
1031	5+61.78	61.758'

PARCEL 51 - REQ'D DRWY EASM'T

753.63 SF
 Alignment Name: McNUTT ROAD
 Description: STA 7+69 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1040	7+55.19	40.000'
1041	7+84.16	40.000'
1042	7+85.36	65.290'
1043	7+69.48	71.594'

PARCEL # 8
 PERMANENT EASEMENT FOR THE CONST. AND MAINTENANCE OF DRAINAGE

Parcel Area Table

Parcel #	Area SF	Area AC
8	156.85	0.004

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L1	13.65	N59° 53' 07"E			
L2	22.99	N30° 06' 53"W			
L3	26.73	S60° 48' 21"E			

PARCEL # 7
 PERMANENT EASEMENT FOR THE CONST. AND MAINTENANCE OF DRAINAGE

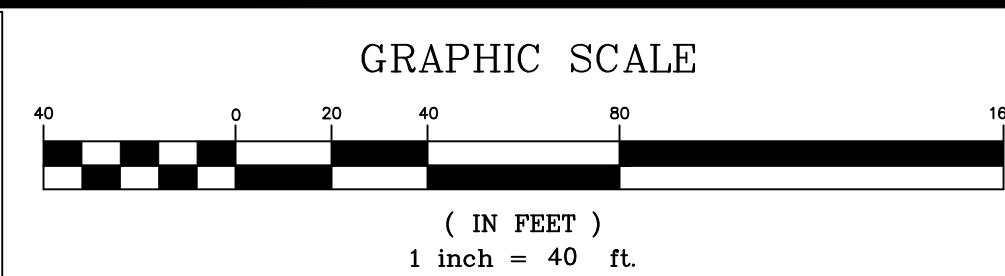
Parcel Area Table

Parcel #	Area SF	Area AC
7	803.00	0.018

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C1	20.01	N61° 44' 37"E	310.54	3° 41' 34"	20.01
L3	26.73	S60° 48' 21"E			
L4	6.35	N69° 53' 07"E			
L5	25.22	N30° 06' 53"W			
L6	47.56	N30° 06' 53"W			

.\XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30004
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

McNUTT ROAD ROAD CONSTRUCTION PLANS

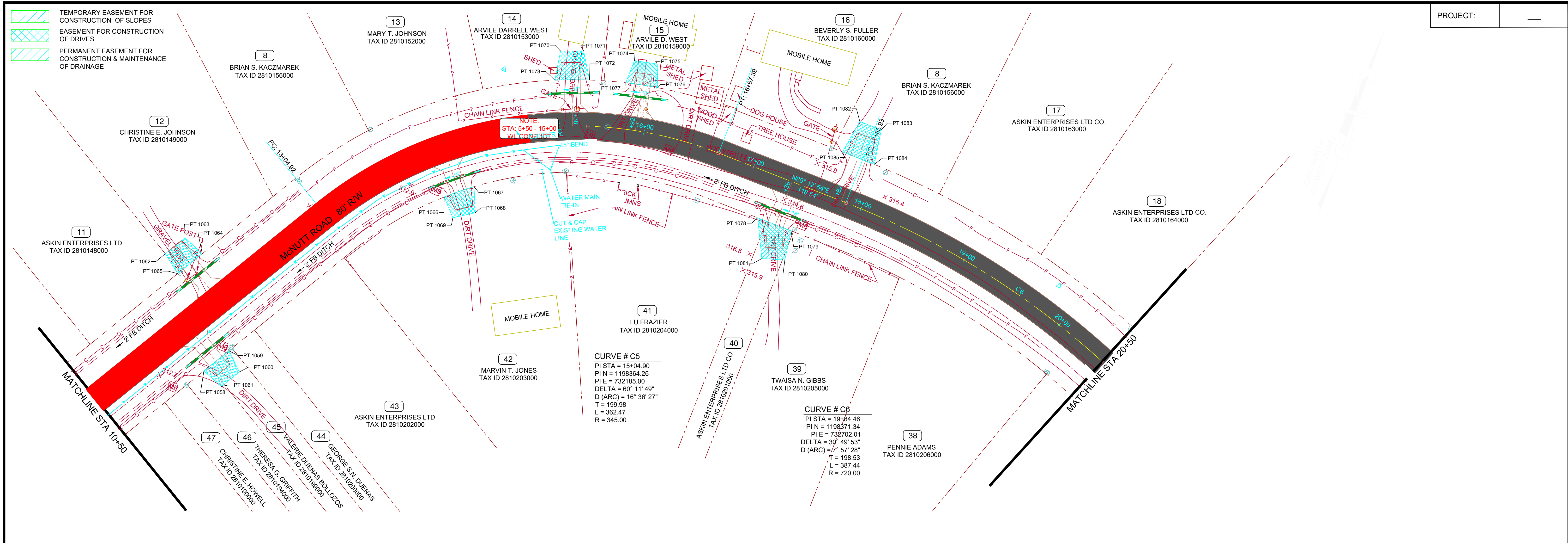
REVISION DATES

NO.	DATE	DESCRIPTION

RIGHT OF WAY PLANS
 McNUTT ROAD
 0+00 to 10+50

DRAWING NUMBER
60 - 0001





PARCEL 45 & 46 - REQ'D DRWY EASM'T

479.33 SF
Alignment Name: McNUTT ROAD
Description: STA 11+51 RT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1058	11+38.02	40.000'
1059	11+65.95	40.000'
1060	11+61.43	60.000'
1061	11+41.43	60.000'

PARCEL 14 - REQ'D DRWY EASM'T

626.33 SF
Alignment Name: McNUTT ROAD
Description: STA 15+38 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1070	15+29.17	-65.122'
1071	15+46.00	-65.122'
1072	15+51.03	-40.000'
1073	15+24.14	-40.000'

PARCEL 8 - REQ' DRWY EASM'T

744.89 SF
Alignment Name: McNUTT ROAD
Description: STA 17+82 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1082	17+71.64	-70.003'
1083	17+91.14	-70.017'
1084	17+96.25	-40.000'
1085	17+67.22	-40.000'

PARCEL 11 & 12 - REQ'D DRWY EASM'T

496.38 SF
Alignment Name: McNUTT ROAD
Description: STA 11+87 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1062	11+75.79	-60.137'
1063	11+97.79	-60.000'
1064	12+00.76	-40.000'
1065	11+73.29	-40.000'

PARCEL 15 - REQ'D DRWY EASM'T

479.43 SF
Alignment Name: McNUTT ROAD
Description: STA 15+92 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1074	15+83.82	-60.060'
1075	16+00.86	-60.060'
1076	16+04.44	-40.000'
1077	15+79.31	-40.000'

PARCEL 42 - REQ'D DRWY EASM'T

496.44 SF
Alignment Name: McNUTT ROAD
Description: STA 14+24 RT
Station Range: Start: 0+00.00, End: 103+20.00

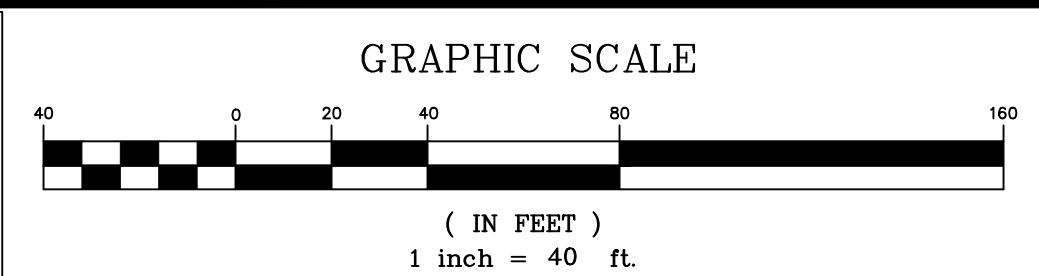
Point	Station	Offset
1066	14+08.42	40.000'
1067	14+39.37	40.000'
1068	14+32.85	61.955'
1069	14+08.75	59.542'

PARCEL 39, 40, 41 - REQ'D DRWY EASM'T

747.15 SF
Alignment Name: McNUTT ROAD
Description: STA 17+36 RT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1078	17+19.36	40.000'
1079	17+50.47	40.000'
1080	17+54.61	65.481'
1081	17+35.58	71.621'

.XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

\\Images-References\thCTAAGU98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS


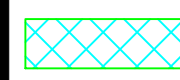
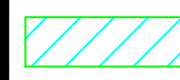
REVISION DATES

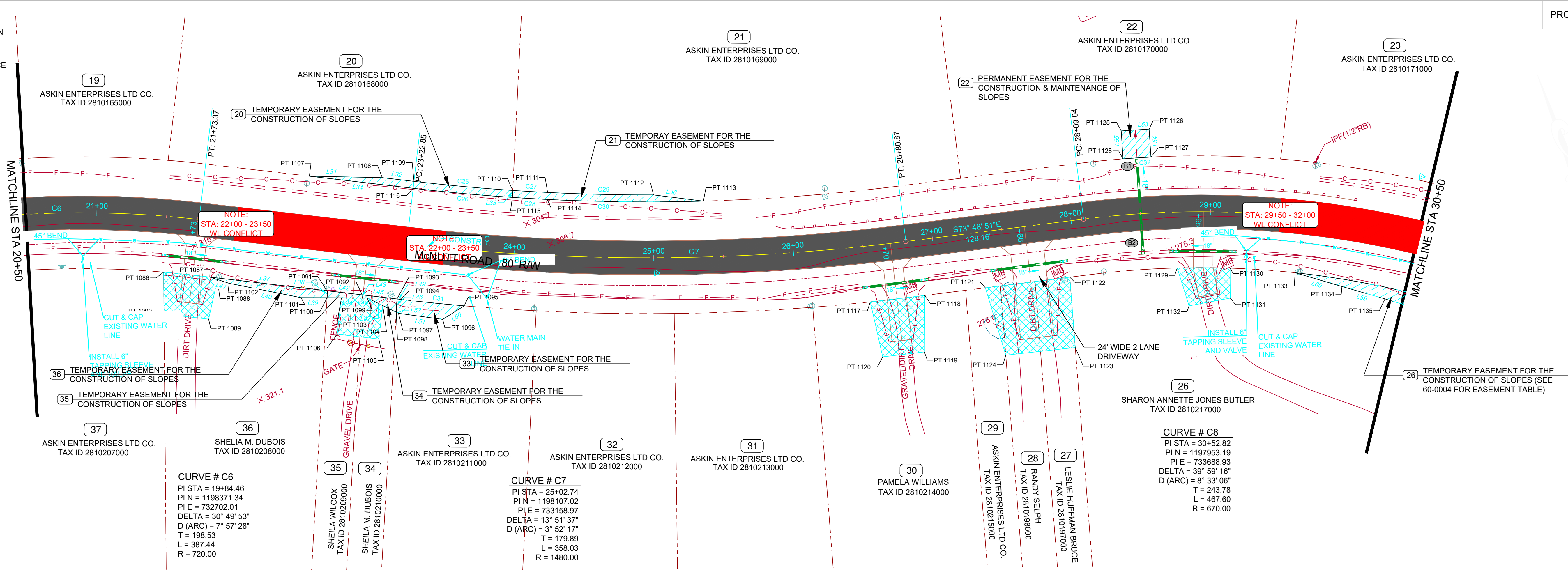
RIGHT OF WAY PLANS

McNUTT ROAD
10+50 to 20+50

DRAWING NUMBER
60 - 0002



-  TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



PARCEL 36 - REQ'D DRWY EASM'T

1061.21 SF
 Alignment Name: McNUTT ROAD
 Description: STA 21+73 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1086	21+51.28	40.000'
1087	21+85.70	40.000'
1088	21+91.30	41.105'
1089	21+88.37	70.000'
1090	21+54.40	69.805'

PARCEL 30 - REQ'D DRWY EASM'T

1386.95 SF
 Alignment Name: McNUTT ROAD
 Description: STA 26+70 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1117	26+51.02	40.000'
1118	26+89.36	40.000'
1119	26+84.12	80.069'
1120	26+55.50	80.072'

PARCEL 26 - REQ'D DRWY EASM'T

833.87 SF
 Alignment Name: McNUTT ROAD
 Description: STA 28+95 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1129	28+75.19	40.000'
1130	29+15.36	40.000'
1131	29+16.33	61.437'
1132	28+83.78	67.284'

PARCEL # 36
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
36	388.39	0.009

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L37	84.77	S59° 57' 13"E			
L38	4.95	S26° 37' 54"W			
L39	18.63	S66° 27' 09"E			
L40	52.43	S55° 19' 33"E			
L41	14.57	S48° 47' 35"E			

PARCEL # 35
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
35	88.31	0.002

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L38	4.95	S26° 37' 54"W			
L42	25.04	S59° 57' 13"E			
L43	2.11	N26° 37' 54"E			
L44	25.04	S66° 27' 09"E			

PARCEL # 34
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
34	126.46	0.003

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L45	25.04	S59° 57' 13"E			
L46	9.50	N26° 37' 54"E			
L47	23.19	S40° 20' 13"E			
L48	3.66	S66° 27' 09"E			

PARCEL 34 & 35 - REQ'D DRWY EASM'T

805.66 SF
 Alignment Name: McNUTT ROAD
 Description: STA 22+96 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1099	22+99.28	41.695'
1103	22+80.99	43.779'
1104	23+10.99	45.868'
1105	23+10.99	70.000'
1106	22+80.99	70.000'

PARCEL 27, 28, 29 - REQ'D DRWY EASM'T

2774.16 SF
 Alignment Name: McNUTT ROAD
 Description: STA 27+66 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1121	27+33.15	40.000'
1122	27+94.03	40.000'
1123	27+91.64	90.440'
1124	27+41.62	89.663'

PARCEL # 20
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
20	599.63	0.014

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C25	70.95	S61° 22' 12"E	1435.00	2° 49' 58"	70.94
C26	71.28	S61° 22' 18"E	1440.00	2° 50' 10"	71.27
L31	52.17	N65° 27' 11"W			
L32	22.85	N59° 57' 13"W			
L33	5.00	N26° 12' 55"E			
L34	74.78	S59° 57' 13"E			

PARCEL # 21
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
21	598.97	0.014

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C27	25.00	N63° 17' 08"W	1435.00	0° 59' 54"	25.00
C28	25.00	S63° 17' 14"E	1440.00	0° 59' 41"	25.00
C29	75.82	S65° 17' 54"E	1435.00	3° 01' 38"	75.81
C30	111.76	S66° 00' 29"E	1440.00	4° 26' 48"	111.73
L33	5.00	N26° 12' 55"E			
L36	35.96	N59° 31' 50"W			

PARCEL # 22
 PERMANENT EASEMENT FOR THE CONST. AND MAINT. OF DRAINAGE

Parcel Area Table

Parcel #	Area SF	Area AC
22	400.47	0.009

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C32	20.00	N70° 18' 40"W	710.00	1° 36' 50"	20.00
L53	20.00	S70° 18' 40"E			
L54	20.07	S19° 41' 20"W			
L55	20.07	N19° 41' 20"E			

PARCEL # 33
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

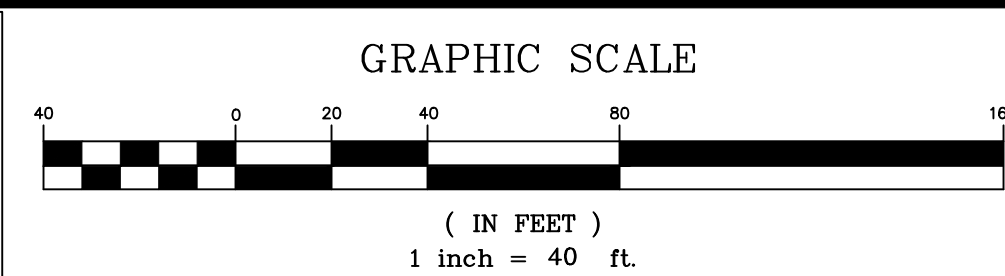
Parcel Area Table

Parcel #	Area SF	Area AC
33	432.95	0.010

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C31	46.05	S60° 49' 18"E	1520.06	1° 44' 09"	46.05
L49	2.28	S59° 57' 13"E			
L50	18.20	N81° 09' 56"E			
L51	31.91	S58° 47' 53"E			
L52	1.79	S40° 20' 13"E			

.\XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
 327 Dahleona Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAME	DATE
NAA	NAA	03-12-20
CHECKED BY	NAME	DATE
KEQ	KEQ	03-12-20

McNUTT ROAD ROAD CONSTRUCTION PLANS

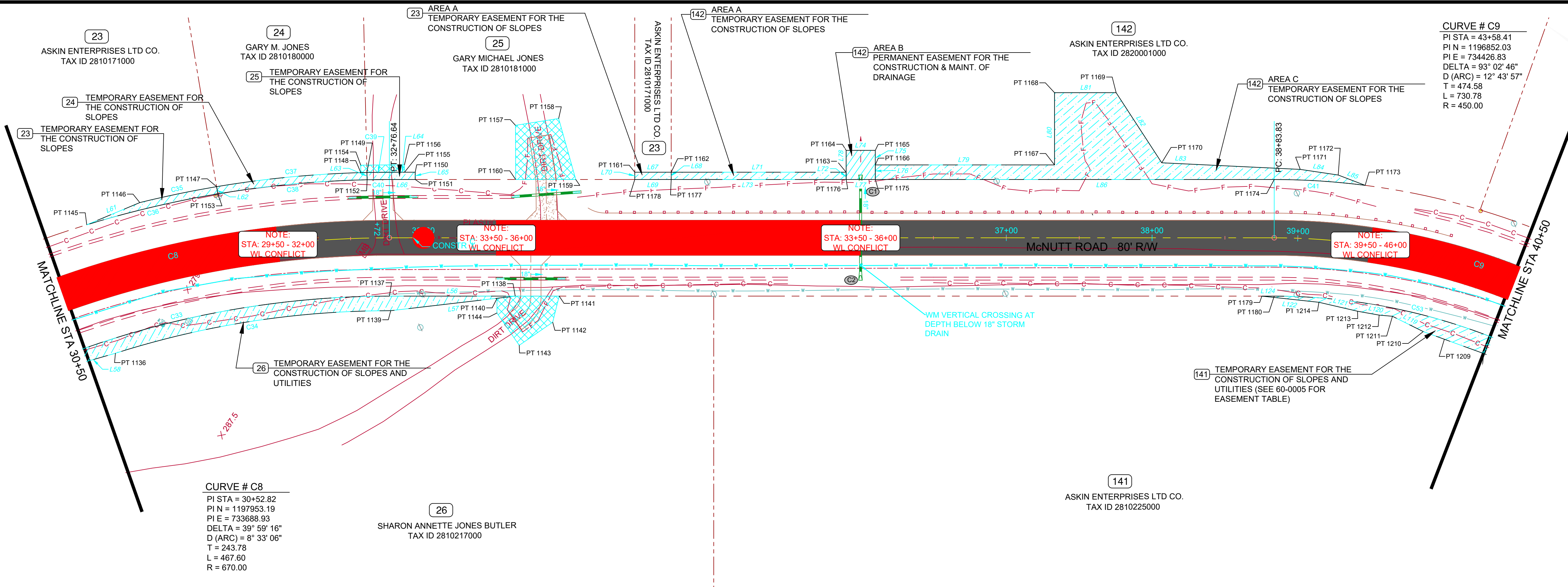
REVISION DATES

RIGHT OF WAY PLANS
 McNUTT ROAD
 20+50 to 30+50



60 - 0003

- TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
- EASEMENT FOR CONSTRUCTION OF DRIVES
- PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



CURVE # C9
 PI STA = 43+58.41
 PI N = 1196852.03
 PI E = 734426.83
 DELTA = 93° 02' 46"
 D (ARC) = 12° 43' 57"
 L = 474.58
 L = 730.78
 R = 450.00

PROJECT: _____

CURVE # C8
 PI STA = 30+52.82
 PI N = 1197953.19
 PI E = 733668.93
 DELTA = 39° 59' 16"
 D (ARC) = 8° 33' 06"
 L = 243.78
 L = 467.60
 R = 670.00

PARCEL 24 & 25 - REQ'D DRWY EASM'T

153.58 SF
 Alignment Name: McNUTT ROAD
 Description: STA 32+72 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1148	32+58.27	-45.000'
1154	32+58.35	-50.107'
1155	32+87.03	-45.000'
1156	32+86.98	-50.130'

PARCEL # 26
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES AND UTILITIES

Parcel Area Table

Parcel #	Area SF	Area AC
26	2974.71	0.068

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C33	293.02	S47° 09' 03"E	630.00	26° 38' 55"	290.38
C34	191.92	N42° 36' 35"W	620.00	17° 44' 09"	191.16
L56	86.37	S33° 49' 35"E			
L57	86.04	N40° 30' 05"W			
L58	31.56	N49° 45' 55"W			
L59	32.08	N50° 32' 06"W			
L60	34.91	N50° 12' 07"W			

PARCEL # 24
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
24	516.76	0.012

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C37	103.71	S39° 12' 55"E	715.00	8° 18' 40"	103.62
C38	102.99	N39° 12' 55"W	710.00	8° 18' 40"	102.90
L62	5.00	S46° 37' 45"W			
L63	5.00	N54° 56' 25"E			

PARCEL # 23 - AREA A
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
23 AREA A	125.00	0.003

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L67	25.00	S33° 49' 35"E			
L68	5.00	S56° 10' 25"W			
L69	25.00	N33° 49' 35"W			
L70	5.00	N56° 10' 25"E			

PARCEL # 142 - AREA B
 PERMANENT EASEMENT FOR THE CONST. AND MAINT. OF DRAINAGE

Parcel Area Table

Parcel #	Area SF	Area AC
142 AREA B	400.00	0.009

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L74	20.00	N33° 49' 35"W			
L75	10.00	S56° 10' 25"W			
L76	10.00	N56° 10' 25"E			
L77	20.00	S33° 49' 35"E			
L78	15.00	N56° 10' 25"E			

PARCEL 26 - REQ'D DRWY EASM'T

967.99 SF
 Alignment Name: McNUTT ROAD
 Description: 33+73 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1138	33+63.01	40.000'
1140	33+50.53	41.461'
1141	33+93.16	40.000'
1142	33+88.70	57.871'
1143	33+65.77	73.708'

PARCEL # 23
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
23	358.79	0.008

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C35	53.85	S45° 31' 42"E	715.00	4° 18' 55"	53.84
C36	92.47	N47° 06' 06"W	710.00	7° 27' 43"	92.40
L61	39.44	S56° 32' 22"E			
L62	5.00	S46° 37' 45"W			

PARCEL # 25
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
25	165.38	0.004

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C39	15.39	S34° 26' 35"E	715.00	1° 14' 00"	15.39
C40	15.28	N34° 26' 35"W	710.00	1° 14' 00"	15.28
L64	17.74	S33° 49' 35"E			
L65	5.00	S56° 10' 25"W			
L66	17.74	N33° 49' 35"W			

PARCEL # 142 - AREA A
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
142 AREA A	600.40	0.014

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L68	5.00	S56° 10' 25"W			
L71	120.08	N33° 49' 35"W			
L72	5.00	N56° 10' 25"E			
L73	120.08	S33° 49' 35"E			

PARCEL # 142 - AREA C
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
142 AREA C	5941.94	0.136

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C41	62.60	N30° 10' 00"W	490.00	7° 19' 10"	62.55
L79	122.98	S33° 49' 35"E			
L80	49.58	N56° 10' 25"E			
L81	42.26	S33° 49' 35"E			
L82	57.38	S23° 08' 00"W			
L83	95.16	S31° 05' 23"E			
L84	26.32	S25° 20' 54"E			
L85	19.83	S12° 56' 53"E			
L86	273.73	N33° 49' 35"W			

PARCEL 25 - REQ'D DRWY EASM'T

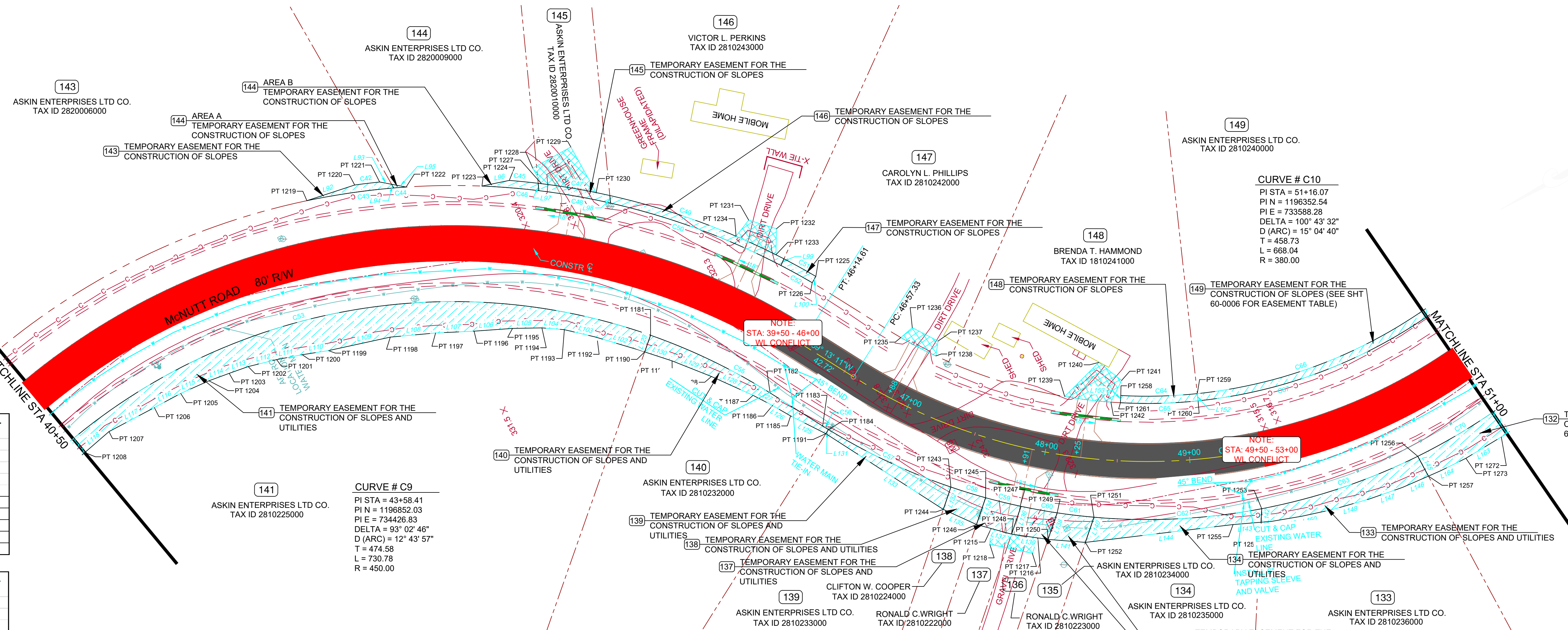
1413.83 SF
 Alignment Name: McNUTT ROAD
 Description: STA 33+85 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1157	33+63.17	-77.177'
1158	33+92.80	-81.845'
1159	34+04.55	-40.000'
1160	33+63.32	-40.000'



	<p>Moreland Altobelli Associates, LLC 327 Dahlonega Street Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5307</p>	DESIGNED BY: NAA 03-12-20 DRAWN BY: NAA 03-12-20 CHECKED BY: KEQ 03-12-20	NAME: _____ DATE: _____	<p>McNUTT ROAD ROAD CONSTRUCTION PLANS</p>	REVISION DATES: _____	<p>RIGHT OF WAY PLANS</p> <p>McNUTT ROAD 30+50 TO 40+50</p>	<p>DRAWING NUMBER 60 - 0004</p>
		PROJECT: _____	REVISION DATES: _____				

- TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
- EASEMENT FOR CONSTRUCTION OF DRIVES
- PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



PARCEL 136 & 137 - REQ'D DRWY EASM'T

Alignment Name: McNUTT ROAD
Description: STA 47+91 RT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1227	44+17.25	-45.000'
1228	44+10.84	-54.915'
1229	44+31.91	-72.830'
1230	44+52.04	-45.000'

PARCEL 144 & 145 - REQ'D DRWY EASM'T

Alignment Name: McNUTT ROAD
Description: STA 44+38 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1227	44+17.25	-45.000'
1228	44+10.84	-54.915'
1229	44+31.91	-72.830'
1230	44+52.04	-45.000'

PARCEL 146 - REQ'D DRWY EASM'T

Alignment Name: McNUTT ROAD
Description: STA 45+58 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1231	45+47.20	-58.635'
1232	45+64.70	-61.211'
1233	45+71.51	-45.000'
1234	45+43.97	-45.000'

PARCEL 147 - REQ'D DRWY EASM'T

Alignment Name: McNUTT ROAD
Description: STA 46+88 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1235	46+72.03	-40.000'
1236	46+75.99	-49.849'
1237	46+99.02	-49.849'
1238	47+02.52	-40.000'

PARCEL 148 - REQ'D DRWY EASM'T

Alignment Name: McNUTT ROAD
Description: STA 48+25 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1239	48+06.83	-40.000'
1240	48+30.22	-66.509'
1241	48+50.01	-55.378'
1242	48+42.70	-40.000'

PARCEL # 143
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
143	197.05	0.005

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C42	17.35	N20° 09' 59"E	495.00	2° 00' 28"	17.35
C43	60.52	N18° 42' 38"E	490.00	7° 04' 37"	60.48
L92	34.66	S8° 52' 39"W			
L93	8.39	S37° 50' 17"W			
L94	2.93	S87° 17' 03"W			

PARCEL # 144 - AREA A
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
144 AREA A	11.22	0.000

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C44	8.56	N22° 44' 57"E	490.00	1° 00' 02"	8.56
L95	10.17	S37° 50' 17"W			

PARCEL # 144 - AREA B
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
144 AREA B	147.39	0.003

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C45	20.01	N32° 40' 41"E	495.00	2° 18' 58"	20.01
C46	39.38	N31° 39' 39"E	490.00	4° 36' 17"	39.37
L96	19.24	S15° 22' 43"W			
L97	5.12	N68° 25' 38"W			

PARCEL # 145
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
145	250.49	0.006

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C47	50.08	N36° 44' 03"E	495.00	5° 47' 47"	50.06
C48	50.12	N36° 53' 36"E	490.00	5° 51' 37"	50.09
L97	5.12	N68° 25' 38"W			
L98	5.26	N68° 25' 38"W			

PARCEL # 146
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
146	633.36	0.015

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C49	128.01	S47° 02' 27"W	495.00	14° 48' 59"	127.65
C50	125.34	N47° 09' 05"E	490.00	14° 39' 22"	125.00
L98	5.26	N68° 25' 38"W			
L99	5.01	N38° 31' 56"W			

PARCEL # 147
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
147	124.33	0.003

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C51	25.12	N55° 54' 11"E	495.00	2° 54' 28"	25.12
C52	24.61	S55° 55' 06"W	490.00	2° 52' 39"	24.61
L100	5.00	S32° 38' 35"E			

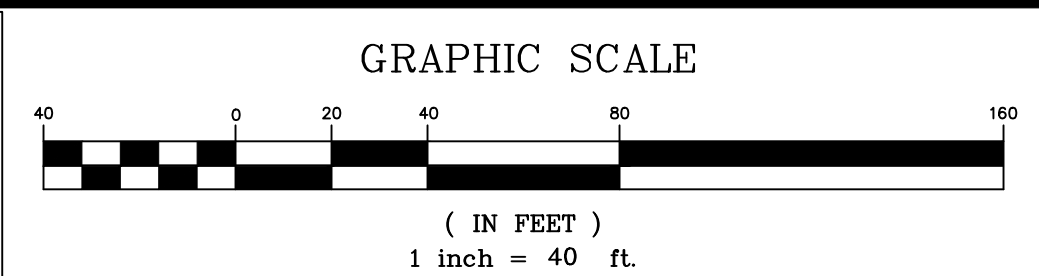
PARCEL # 141
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES AND UTILITIES

Parcel Area Table

Parcel #	Area SF	Area AC
141	8333.98	0.191

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C53	574.15	N6° 17' 28"E	410.00	80° 14' 06"	528.37
L102	30.61	S43° 37' 43"W			
L103	21.75	S40° 17' 53"W			
L104	15.52	S31° 39' 33"W			
L105	20.21	S25° 59' 13"W			
L106	26.58	S22° 58' 52"W			
L107	26.54	S24° 19' 00"W			
L108	31.32	S21° 47' 38"W			
L109	43.57	S14° 45' 27"W			
L110	18.29	S18° 07' 28"W			
L111	17.97	S16° 12' 36"W			
L112	20.17	S13° 18' 00"W			
L113	13.91	S7° 25' 47"W			
L114	14.90	S6° 56' 06"W			
L115	21.27	S2° 50' 12"W			
L116	20.58	S1° 11' 48"E			
L117	35.39	S0° 51' 18"E			
L118	66.14	S13° 51' 45"E			
L119	23.59	S7° 25' 27"E			
L120	15.06	S23° 42' 18"E			
L121	27.21	S20° 45' 56"E			
L122	39.39	S27° 41' 26"E			
L123	12.18	S43° 35' 29"E			
L124	8.50	N33° 49' 35"W			



Moreland Altobelli Associates, LLC
327 Dahlonega Street Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

McNUTT ROAD
ROAD CONSTRUCTION PLANS

McNUTT ROAD
40+50 to 51+00

REVISION DATES

RIGHT OF WAY PLANS

DRAWING NUMBER
60 - 0005



PARCEL # 140
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
140	1158.49	0.027

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C55	91.67	N52° 48' 51"E	410.00	12° 48' 39"	91.48
C56	4.70	N68° 53' 56"E	420.00	0° 38' 30"	4.70
L123	12.18	S43° 35' 29"E			
L125	27.19	S53° 45' 48"W			
L126	14.33	S57° 06' 53"W			
L127	15.18	S54° 39' 15"W			
L128	31.46	S51° 21' 40"W			
L129	29.20	S48° 42' 56"W			
L130	19.84	S45° 10' 04"W			
L131	3.35	S30° 46' 49"E			

PARCEL # 136
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
136	490.57	0.011

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C60	25.29	S37° 16' 21"W	420.00	3° 26' 58"	25.28
L136	20.22	N44° 09' 56"W			
L138	19.36	N43° 57' 10"W			
L139	25.35	N35° 19' 28"E			

PARCEL # 148
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES

Parcel Area Table		
Parcel #	Area SF	Area AC
148	265.97	0.006

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C64	52.78	S25° 39' 21"W	335.00	9° 01' 38"	52.73
C65	53.61	N25° 39' 09"E	340.00	9° 02' 01"	53.55
L152	5.00	N69° 17' 25"W			
L153	5.00	S59° 49' 50"E			

PARCEL # 139
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
139	752.39	0.017

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C57	93.42	S52° 12' 22"W	420.00	12° 44' 37"	93.22
L131	3.35	S30° 46' 49"E			
L132	16.25	N44° 12' 15"W			
L133	96.30	N59° 51' 36"E			

PARCEL # 135
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
135	467.88	0.011

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C61	25.57	S33° 48' 14"W	420.00	3° 29' 15"	25.56
L138	19.36	N43° 57' 10"W			
L140	18.33	N44° 04' 26"W			
L141	25.84	N31° 36' 13"E			

PARCEL # 138
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
138	443.30	0.010

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C58	25.01	S44° 07' 41"W	420.00	3° 24' 45"	25.01
L132	16.25	N44° 12' 15"W			
L134	19.47	N44° 09' 56"W			
L135	25.11	N51° 29' 55"E			

PARCEL # 134
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
134	1199.69	0.028

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C62	116.09	S24° 08' 29"W	420.00	15° 50' 15"	115.73
L140	18.33	N44° 04' 26"W			
L142	9.34	N60° 02' 37"W			
L143	19.34	N22° 18' 38"E			
L144	102.50	N20° 09' 41"E			

PARCEL # 137
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
137	492.96	0.011

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C59	25.10	S40° 42' 34"W	420.00	3° 25' 29"	25.10
L134	19.47	N44° 09' 56"W			
L136	20.22	N44° 09' 56"W			
L137	25.04	N42° 24' 21"E			

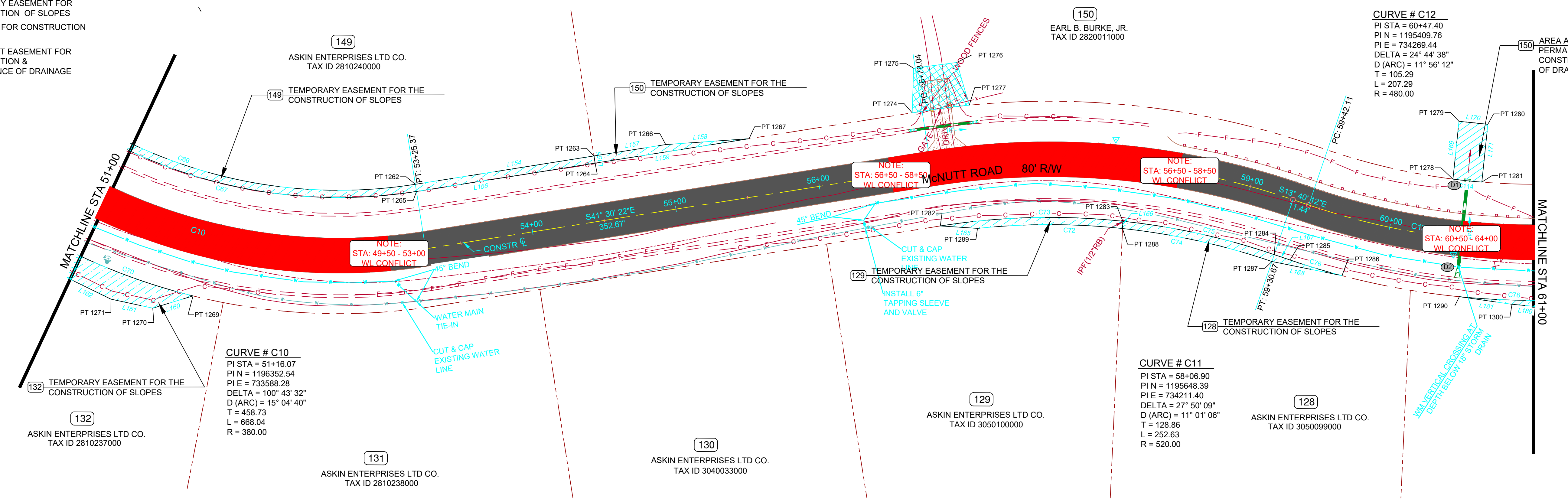
PARCEL # 133
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES AND UTILITIES

Parcel Area Table		
Parcel #	Area SF	Area AC
133	1480.43	0.034

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C63	113.72	S8° 27' 57"W	420.00	15° 30' 51"	113.38
L142	9.34	N60° 02' 37"W			
L145	15.50	S88° 47' 54"W			
L146	19.37	N3° 27' 03"E			
L147	24.56	N7° 48' 00"E			
L148	26.34	N11° 04' 32"E			
L149	21.24	N17° 24' 28"E			
L150	21.43	N14° 46' 22"E			
L151	7.15	N22° 18' 38"E			



- TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
- EASEMENT FOR CONSTRUCTION OF DRIVES
- PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



PARCEL 150 - REQ'D DRWY EASMT

1048.13 SF

Alignment Name: McNUTT ROAD
Description: STA 56+90 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1274	56+71.13	-40.000'
1275	56+76.91	-70.176'
1276	57+03.48	-70.177'
1277	57+08.44	-40.000'

PARCEL # 149
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel #	Area SF	Area AC
149	2468.08	0.057

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C66	366.30	S10° 10' 55"E	335.00	62° 38' 54"	348.32
C67	371.72	N10° 11' 06"W	340.00	62° 38' 31"	353.49
L152	5.00	N69° 17' 25"W			
L154	124.61	S41° 30' 22"E			
L155	5.00	S48° 29' 38"W			
L156	124.61	N41° 30' 22"W			

PARCEL # 129
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel #	Area SF	Area AC
129	568.41	0.013

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C72	100.08	S32° 26' 43"E	475.00	12° 04' 18"	99.89
C73	126.17	N33° 58' 33"W	480.00	15° 03' 37"	125.81
L165	25.70	S28° 46' 39"E			
L166	5.01	S60° 06' 23"W			

PARCEL # 150 - AREA A
PERMANENT EASEMENT FOR THE CONST. AND MAINTENANCE OF DRAINAGE

Parcel #	Area SF	Area AC
150 AREA A	802.54	0.018

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C114	20.00	S26° 32' 54"E	440.00	2° 36' 16"	20.00
L169	40.05	S63° 27' 06"W			
L170	20.00	N26° 32' 54"W			
L171	40.05	N63° 27' 06"E			

PARCEL # 132
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel #	Area SF	Area AC
132	2237.34	0.051

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C70	59.84	S3° 21' 35"E	420.00	8° 08' 12"	59.59
L145	15.50	S88° 47' 54"W			
L160	28.98	N49° 25' 59"W			
L161	29.45	N20° 20' 12"W			
L162	35.78	N6° 26' 28"W			
L163	28.45	N3° 59' 58"W			
L164	19.43	N0° 42' 52"E			

PARCEL # 128
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

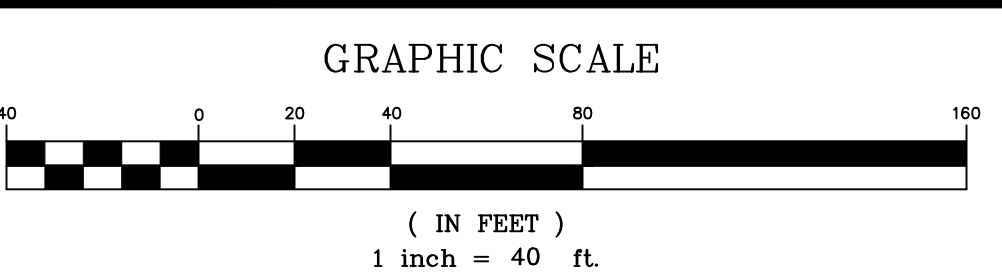
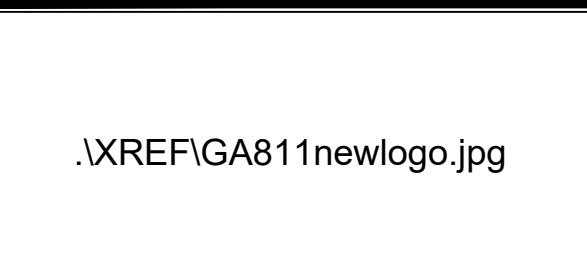
Parcel #	Area SF	Area AC
128	637.60	0.015

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C74	105.61	S20° 02' 23"E	475.00	12° 44' 22"	105.40
C75	107.03	N20° 03' 29"W	480.00	12° 46' 33"	106.81
C76	37.43	N15° 43' 56"W	520.00	4° 07' 28"	37.42
L166	5.01	S60° 06' 23"W			
L167	11.44	N13° 40' 12"W			
L168	49.25	S21° 04' 28"E			

PARCEL # 150
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel #	Area SF	Area AC
150	393.52	0.009

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L155	5.00	S48° 29' 38"W			
L157	50.02	S41° 30' 22"E			
L158	57.58	S36° 31' 27"E			
L159	107.38	N41° 30' 22"W			



Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
NAA	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

McNUTT ROAD ROAD CONSTRUCTION PLANS

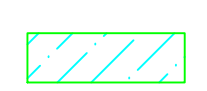
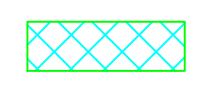
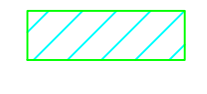
REVISION DATES

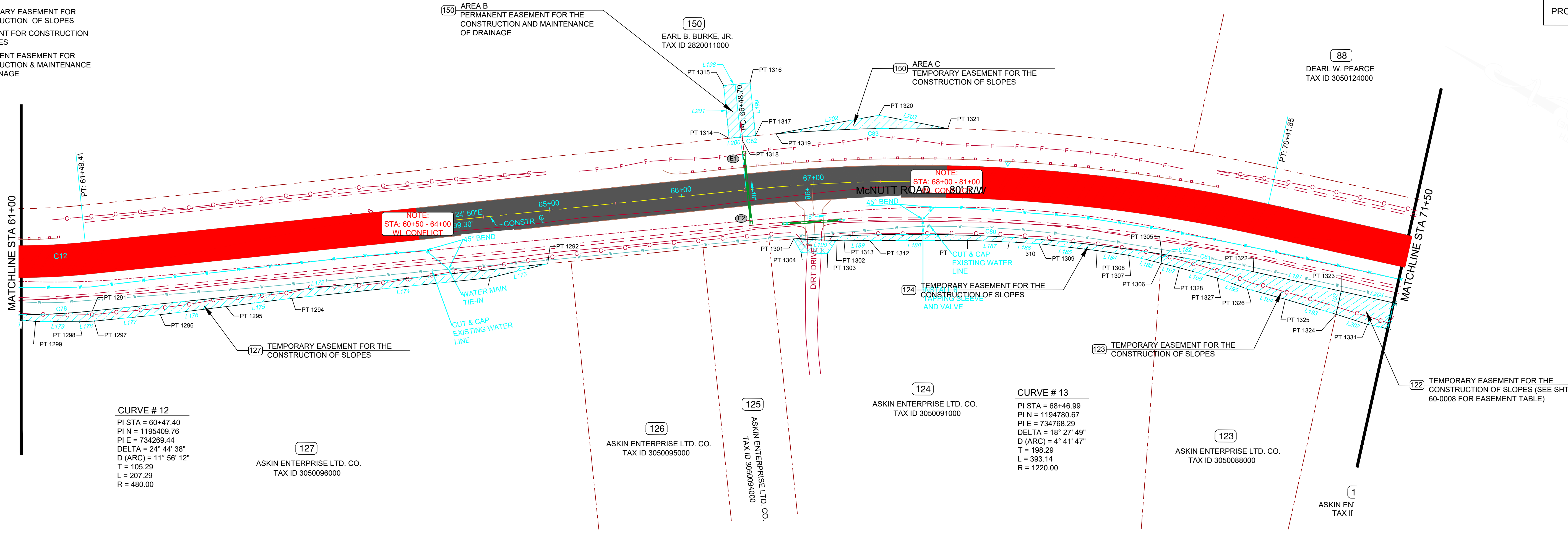
RIGHT OF WAY PLANS

McNUTT ROAD
51+00 to 61+00

DRAWING NUMBER
60 - 0006



-  TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



PARCEL 124 - REQ'D DRWY EASM'T

262.59 SF
 Alignment Name: McNUTT ROAD
 Description: STA 66+98 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1301	66+81.73	40.000'
1302	67+14.46	43.256'
1303	67+07.41	52.890'
1304	66+86.65	50.675'

PARCEL # 127
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
127	2561.48	0.059

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C78	104.89	S32° 38' 08"E	520.00	11° 33' 24"	104.71
L172	344.94	S38° 24' 50"E			
L173	44.75	N46° 07' 08"W			
L174	150.00	N38° 24' 50"W			
L175	50.01	N39° 42' 25"W			
L176	50.01	N39° 26' 46"W			
L177	50.00	N38° 04' 25"W			
L178	11.31	N35° 09' 33"W			
L179	32.77	N32° 01' 37"W			
L180	25.92	N27° 09' 06"W			
L181	36.60	N24° 17' 58"W			

PARCEL # 124
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
124	1087.60	0.025

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C80	278.16	N30° 06' 36"W	1180.00	13° 30' 22"	277.51
L182	6.90	N61° 46' 54"E			
L183	25.14	S18° 37' 38"E			
L184	24.07	S24° 00' 26"E			
L185	44.14	S25° 45' 37"E			
L186	22.37	S28° 59' 53"E			
L187	31.66	S30° 23' 36"E			
L188	73.54	S32° 31' 40"E			
L189	19.32	S33° 26' 37"E			
L190	37.92	S30° 12' 57"E			

PARCEL # 123
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
123	1747.84	0.040

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C81	70.16	N21° 39' 13"W	1180.00	3° 24' 23"	70.15
L182	6.90	N61° 46' 54"E			
L191	67.85	N19° 57' 02"W			
L192	17.81	N70° 02' 58"E			
L193	39.84	S15° 59' 37"E			
L194	29.59	S17° 18' 36"E			
L195	24.18	S12° 35' 06"E			
L196	29.59	S17° 18' 36"E			
L197	14.14	S18° 37' 38"E			

PARCEL # 150 - AREA B
 PERMANENT EASEMENT FOR THE CONST. AND MAINTENANCE OF DRAINAGE

Parcel Area Table

Parcel #	Area SF	Area AC
150 AREA B	800.18	0.018

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C82	11.33	N38° 09' 23"W	1260.00	0° 30' 55"	11.33
L198	20.00	S38° 24' 50"E			
L199	40.05	S51° 35' 10"W			
L200	8.67	N38° 24' 50"W			
L201	40.00	N51° 35' 10"E			

PARCEL # 150 - AREA C
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

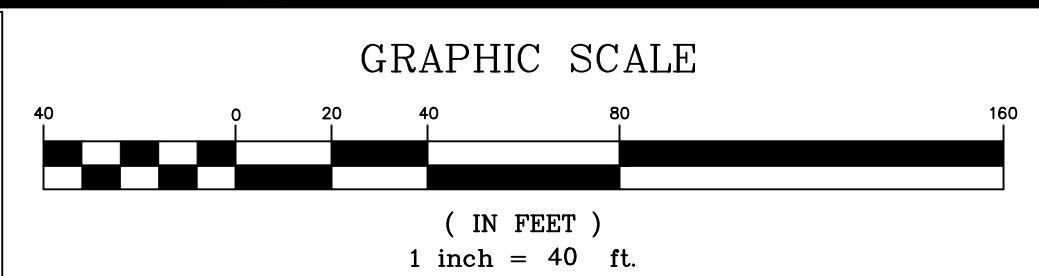
Parcel #	Area SF	Area AC
150 AREA C	607.03	0.014

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C83	129.54	N34° 15' 14"W	1260.00	5° 53' 27"	129.49
L202	78.84	S42° 42' 42"E			
L203	52.80	S21° 34' 00"E			



.XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAAGU98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS


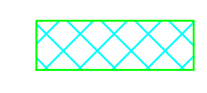
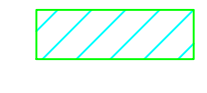
REVISION DATES

NO.	DATE	DESCRIPTION

RIGHT OF WAY PLANS

McNUTT ROAD
 61+00 to 71+50

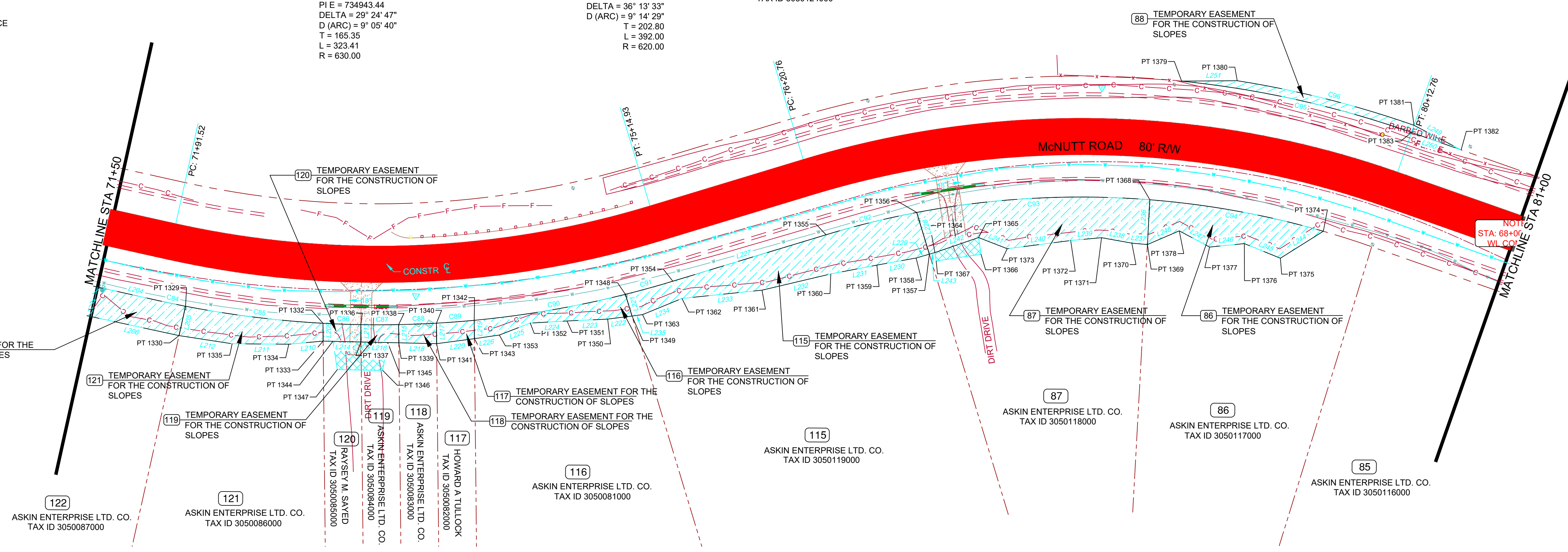
DRAWING NUMBER
60 - 0007

-  TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE

CURVE # C14
 PI STA = 73+56.87
 PI N = 1194298.16
 PI E = 734943.44
 DELTA = 29° 24' 47"
 D (ARC) = 9° 05' 40"
 T = 165.35
 L = 323.41
 R = 630.00

CURVE # C15
 PI STA = 78+23.57
 PI N = 1193989.47
 PI E = 735303.13
 DELTA = 36° 13' 33"
 D (ARC) = 9° 14' 29"
 T = 202.80
 L = 392.00
 R = 620.00

88
 DEARL W. PEARCE
 TAX ID 3050124000



PARCEL 119 & 120 - REQ' D DRWY EASM'T

615.14 SF
 Alignment Name: McNUTT ROAD
 Description: 73+18 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1337	73+18.59	51.424'
1344	73+01.42	51.577'
1345	73+34.90	51.748'
1346	73+31.79	70.161'
1347	73+04.80	70.161'

PARCEL # 122
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
122	1964.75	0.045

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C84	18.19	S20° 43' 42"E	670.00	1° 33' 19"	18.19
L192	17.81	N70° 02' 58"E			
L204	81.81	S19° 57' 02"E			
L205	19.87	S70° 02' 58"W			
L206	75.26	N20° 18' 23"W			
L207	24.85	N14° 41' 22"W			

PARCEL # 120
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
120	288.06	0.007

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C86	25.03	S34° 41' 17"E	670.00	2° 08' 25"	25.03
L209	11.77	S56° 55' 36"W			
L213	11.43	S56° 55' 36"W			
L214	25.01	N31° 11' 53"W			

PARCEL # 118
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
118	317.55	0.007

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C88	25.01	S34° 41' 17"E	670.00	2° 08' 20"	25.01
L215	12.02	S56° 55' 36"W			
L217	13.54	S56° 55' 36"W			
L218	25.01	N31° 11' 53"W			

PARCEL # 116
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
116	1064.60	0.024

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C90	101.52	S42° 14' 27"E	670.00	8° 40' 53"	101.42
L219	12.12	S56° 55' 36"W			
L221	14.98	S40° 38' 11"W			
L222	16.22	N39° 46' 04"W			
L223	26.88	N35° 08' 54"W			
L224	24.36	N35° 43' 40"W			
L225	21.89	N53° 40' 04"W			
L226	16.69	N40° 44' 55"W			

PARCEL 87 - REQ'D DRWY EASM'T

252.79 SF
 Alignment Name: McNUTT ROAD
 Description: STA 77+11 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1364	76+94.49	68.266'
1365	77+28.04	62.684'
1366	77+28.38	73.898'
1367	76+94.32	73.898'

PARCEL # 121
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
121	1606.22	0.037

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C85	91.61	S25° 25' 23"E	670.00	7° 50' 04"	91.54
L205	19.87	S70° 02' 58"W			
L209	11.77	S56° 55' 36"W			
L210	22.79	N37° 43' 30"W			
L211	37.46	N32° 00' 04"W			
L212	35.53	N23° 45' 04"W			

PARCEL # 119
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
119	291.14	0.007

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C87	25.00	S32° 32' 59"E	670.00	2° 08' 17"	25.00
L213	11.43	S56° 55' 36"W			
L215	12.02	S56° 55' 36"W			
L216	25.01	N31° 11' 53"W			

PARCEL # 117
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
117	318.86	0.007

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C89	25.06	S36° 49' 44"E	670.00	2° 08' 33"	25.05
L217	13.54	S56° 55' 36"W			
L219	12.12	S56° 55' 36"W			
L220	25.19	N40° 02' 59"W			

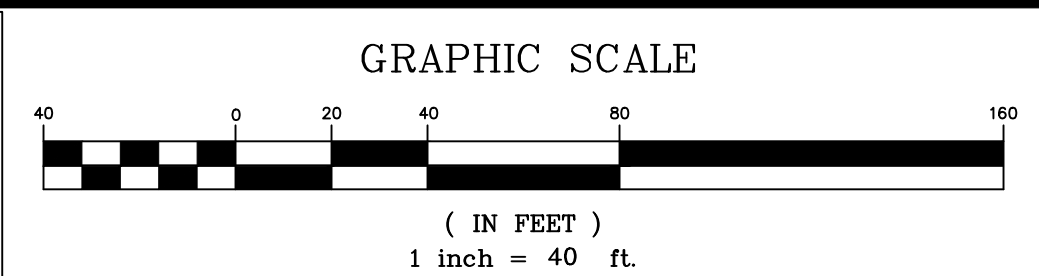
PARCEL # 115
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
115	4424.17	0.102

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C91	32.53	S47° 58' 21"E	670.00	2° 46' 56"	32.53
C92	61.76	S46° 18' 47"E	580.00	6° 06' 04"	61.73
L221	14.98	S40° 38' 11"W			
L227	105.83	S49° 21' 49"E			
L228	28.82	S40° 38' 11"W			
L229	9.11	N48° 33' 49"W			
L230	26.37	N42° 46' 17"W			
L231	31.01	N43° 20' 51"W			
L232	46.71	N45° 45' 45"W			
L233	53.21	N38° 24' 09"W			
L234	28.17	N54° 48' 25"W			
L235	7.05	N40° 05' 15"W			



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

MORELAND ALTOBELLI
 AN ATLAS COMPANY

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

McNUTT ROAD
 ROAD CONSTRUCTION PLANS

..Images-References\thCTAAGU98.bmp

REVISION DATES

NO.	DATE	DESCRIPTION

RIGHT OF WAY PLANS

McNUTT ROAD
 71+50 to 81+00



DRAWING NUMBER
60 - 0008

PARCEL # 87
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES

Parcel Area Table		
Parcel #	Area SF	Area AC
87	4245.85	0.097

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C93	154.84	N35° 36' 53"W	580.00	15° 17' 44"	154.38
L228	28.82	S40° 38' 11"W			
L236	29.66	N60° 38' 50"E			
L237	10.34	S27° 21' 48"E			
L238	20.36	S22° 17' 14"E			
L239	20.46	S37° 45' 53"E			
L240	42.28	S39° 51' 17"E			
L241	20.40	S11° 13' 24"E			
L242	30.52	S51° 32' 12"E			
L243	3.81	S48° 33' 49"E			

PARCEL # 88
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES

Parcel Area Table		
Parcel #	Area SF	Area AC
88	772.81	0.018

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C95	156.08	S19° 54' 46"E	660.00	13° 32' 59"	155.72
C96	120.69	N18° 20' 13"W	665.00	10° 23' 54"	120.52
L249	35.15	N4° 57' 34"W			
L250	34.79	S13° 08' 17"E			
L251	36.78	N32° 55' 23"W			

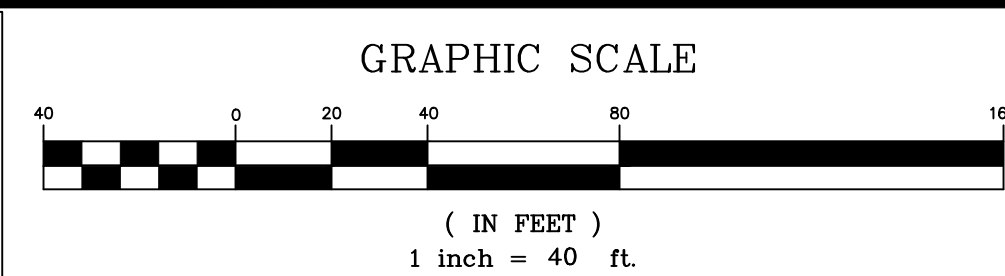
PARCEL # 86
TEMPORARY EASEMENT FOR THE
CONST. OF SLOPES

Parcel Area Table		
Parcel #	Area SF	Area AC
86	2401.17	0.055

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C94	116.76	N22° 12' 00"W	580.00	11° 32' 01"	116.56
L236	29.66	N60° 38' 50"E			
L244	33.53	S64° 37' 48"E			
L245	25.71	S10° 24' 40"E			
L246	23.08	S38° 09' 46"E			
L247	22.76	S4° 24' 47"E			
L248	22.91	S55° 45' 48"E			



.\XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307
— AN ATLAS COMPANY —

DESIGNED BY	NAME	DATE
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAGU98.bmp

**McNUTT ROAD
ROAD CONSTRUCTION PLANS**

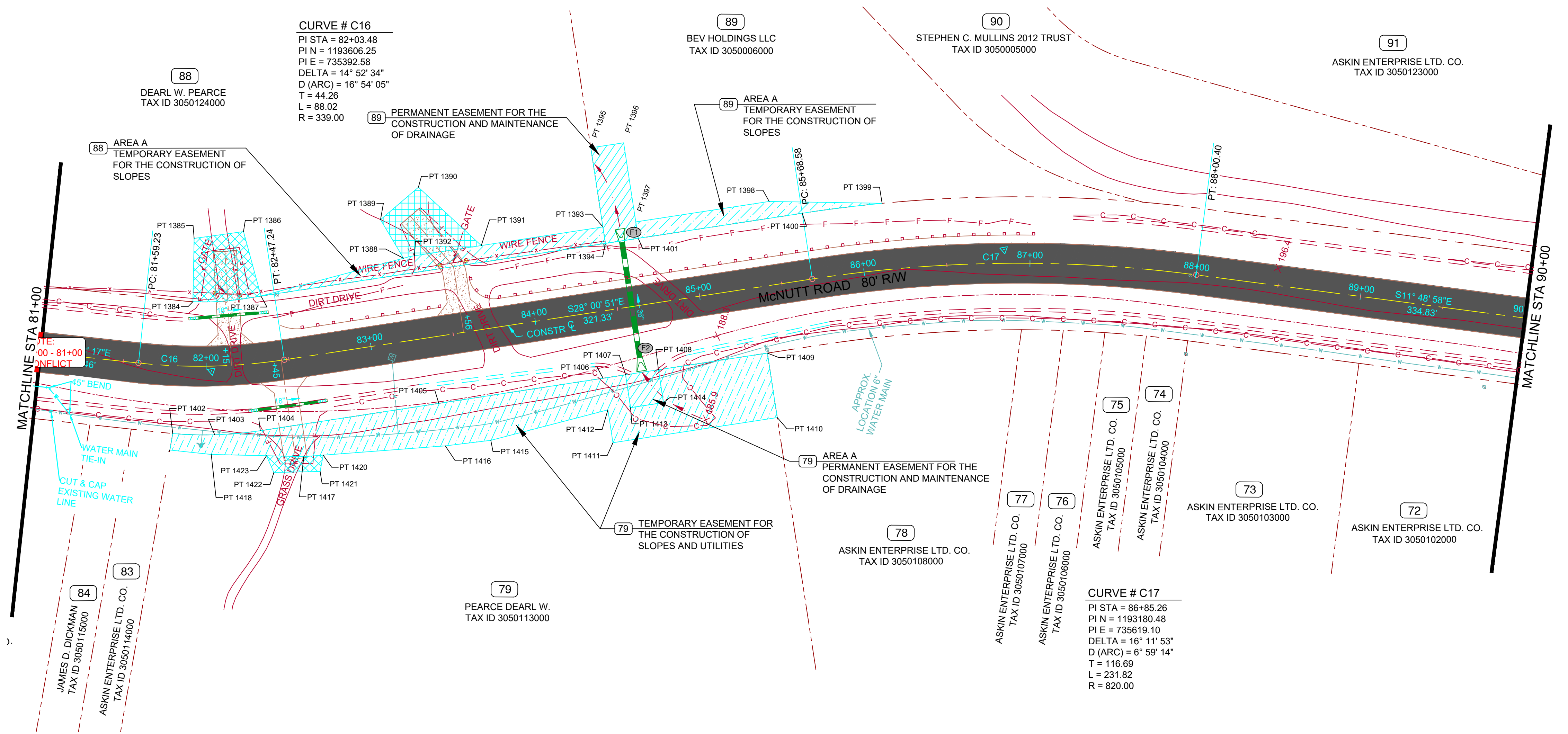
REVISION DATES	

RIGHT OF WAY PLANS

McNUTT ROAD
71+50 to 81+00

DRAWING NUMBER
60 - 0008A

- TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
- EASEMENT FOR CONSTRUCTION OF DRIVES
- PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



NOTE: ALL DRIVEWAY WIDTHS ARE 14' UNLESS OTHERWISE NOTED.

PARCEL 79 - REQ'D DRWY EASMT

295.66 SF
 Alignment Name: McNUTT ROAD
 Description: STA 82+45 RT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1417	82+50.00	59.352'
1420	82+61.67	60.242'
1421	82+58.37	69.678'
1422	82+33.44	66.385'
1423	82+30.62	55.916'

PARCEL 88 - REQ'D DRWY EASMT

1407.03 SF
 Alignment Name: McNUTT ROAD
 Description: STA 82+15 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1384	81+91.56	-38.855'
1385	81+91.91	-76.927'
1386	82+30.77	-79.668'
1387	82+38.06	-39.936'

PARCEL 88 - REQ'D DRWY EASMT

1354.11 SF
 Alignment Name: McNUTT ROAD
 Description: STA 83+56 LT
 Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1388	83+27.38	-49.526'
1389	83+17.21	-74.560'
1390	83+42.70	-90.388'
1391	83+74.78	-50.000'

PARCEL # 79
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES AND DRAINAGE AND UTILITIES

Parcel Area Table				
Parcel #	Area SF	Area AC		
79	6901.34	0.20		

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C97	25.27	S17° 32' 48"E	220.00	6° 34' 52"	25.26
C98	27.56	S24° 25' 32"E	220.00	7° 10' 37"	27.54
L253	25.05	N13° 08' 17"W			
L254	10.06	N80° 36' 36"E			
L255	108.63	S28° 00' 51"E			
L257	85.37	N23° 38' 56"W			
L258	55.69	N17° 59' 14"W			
L259	100.00	S28° 00' 51"E			
L261	72.80	N33° 53' 27"W			
L262	27.59	N26° 15' 29"W			
L263	13.68	S28° 00' 51"E			
L264	20.00	S61° 59' 09"W			
L265	20.00	S28° 00' 51"E			
L266	20.00	N61° 59' 09"E			
L267	66.32	S28° 00' 51"E			
L268	39.24	S61° 59' 09"W			
L269	100.00	N28° 00' 51"W			
L270	20.00	N61° 59' 09"E			

PARCEL # 79 - AREA A
 PERMANENT EASEMENT FOR THE CONST. AND MAINTENANCE OF DRAINAGE

Parcel Area Table			
Parcel #	Area SF	Area AC	
79 AREA A	400.00	0.009	

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L264	20.00	S61° 59' 09"W			
L265	20.00	S28° 00' 51"E			
L266	20.00	N61° 59' 09"E			
L271	20.00	N28° 00' 51"W			

PARCEL # 89
 PERMANENT EASEMENT FOR THE CONST. AND MAINTENANCE OF DRAINAGE

Parcel Area Table			
Parcel #	Area SF	Area AC	
89	1163.28	0.027	

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L274	9.98	N61° 59' 09"E			
L276	48.16	N61° 59' 09"E			
L277	20.00	S28° 00' 51"E			
L278	48.16	S61° 59' 09"W			
L279	9.99	S61° 59' 09"W			
L280	20.00	N28° 00' 51"W			

PARCEL # 88 - AREA A
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

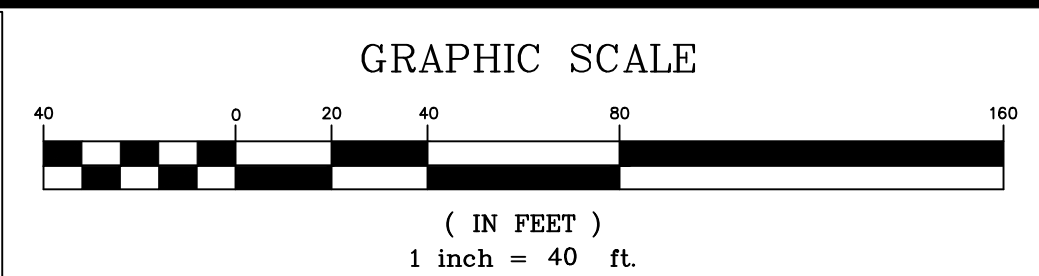
Parcel Area Table			
Parcel #	Area SF	Area AC	
88 AREA A	1628.85	0.037	

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L272	93.18	N34° 08' 47"W			
L273	117.00	N28° 00' 51"W			
L274	9.98	N61° 59' 09"E			
L275	209.65	S28° 00' 22"E			

PARCEL # 89 - AREA A
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table			
Parcel #	Area SF	Area AC	
89 AREA A	1122.61	0.026	

Parcel Line and Curve Table					
Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L279	9.99	S61° 59' 09"W			
L281	81.21	N28° 00' 51"W			
L282	67.94	N18° 23' 09"W			
L283	99.78	S28° 00' 22"E			



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

McNUTT ROAD ROAD CONSTRUCTION PLANS


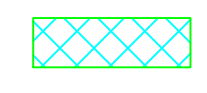
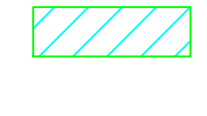
REVISION DATES

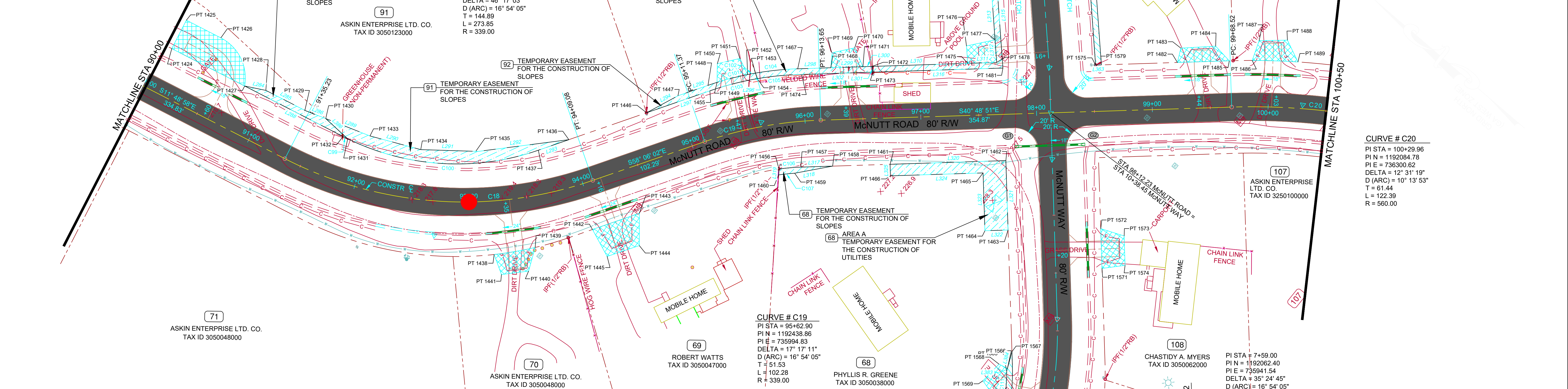
RIGHT OF WAY PLANS

McNUTT ROAD
 81+00 to 90+00

DRAWING NUMBER
60 - 0009



 TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
 EASEMENT FOR CONSTRUCTION OF DRIVES
 PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



CURVE # C18
PI STA = 92+80.12
PI N = 1192596.71
PI E = 735741.23
DELTA = 46° 17' 03"
D (ARC) = 16° 54' 05"
T = 144.89
L = 273.85
R = 339.00

CURVE # C19
PI STA = 95+62.90
PI N = 1192438.86
PI E = 735994.83
DELTA = 17° 17' 11"
D (ARC) = 16° 54' 05"
T = 51.53
L = 102.28
R = 339.00

CURVE # C20
PI STA = 100+29.96
PI N = 1192084.78
PI E = 736300.62
DELTA = 12° 31' 19"
D (ARC) = 10° 13' 53"
T = 61.44
L = 122.39
R = 560.00

PARCEL 90 - REQ'D DRWY EASM'T

1678.92 SF
Alignment Name: McNUTT ROAD
Description: STA 90+60 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1424	90+04.91	-40.000'
1425	90+04.91	-67.592'
1426	90+38.35	-67.592'

PARCEL 93 - REQ'D DRWY EASM'T

353.09 SF
Alignment Name: McNUTT ROAD
Description: STA 96+39 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1468	96+23.69	-45.000'
1469	96+24.77	-58.373'
1470	96+44.90	-61.525'
1471	96+51.45	-45.000'

Parcel Area Table

Parcel #	Area SF	Area AC
90	435.69	0.010

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C99	4.46	N12° 24' 39"W	215.00	1° 11' 21"	4.46
L284	18.65	S27° 22' 01"E			
L285	37.88	S11° 48' 58"E			
L286	19.34	S17° 32' 28"E			
L288	95.47	N11° 48' 58"W			
L386	25.77	S3° 40' 28"W			

Parcel Area Table

Parcel #	Area SF	Area AC
92	425.03	0.010

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C101	42.38	S53° 28' 05"E	262.08	9° 15' 54"	42.33
C102	42.38	S53° 28' 05"E	262.08	9° 15' 54"	42.33
C103	42.39	N53° 22' 37"W	257.08	9° 26' 48"	42.34
L294	30.77	S67° 27' 06"E			
L295	27.44	S58° 06' 02"E			
L296	5.07	S31° 53' 58"W			
L297	57.81	N58° 06' 02"W			

Parcel Area Table

Parcel #	Area SF	Area AC
94	1011.33	0.023

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L301	5.05	N41° 01' 47"E			
L310	82.67	S40° 48' 51"E			
L311	25.02	S40° 48' 51"E			
L312	19.59	N46° 52' 45"E			
L313	45.14	N46° 52' 45"E			
L314	50.25	N52° 35' 23"E			
L315	119.94	S46° 52' 45"W			
L316	112.18	N40° 48' 51"W			

Parcel Area Table

Parcel #	Area SF	Area AC
68 AREA A	2000.00	0.046

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L320	100.00	S40° 48' 51"E			
L321	60.00	S49° 11' 09"W			
L322	20.00	N40° 48' 51"W			
L323	50.00	N49° 11' 09"E			
L324	80.00	N40° 48' 51"W			
L325	10.00	N49° 11' 09"E			

Parcel Area Table

Parcel #	Area SF	Area AC
68	152.28	0.003

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C106	18.99	N43° 53' 11"W	177.08	6° 08' 40"	18.98
C107	13.97	S44° 58' 23"E	172.08	4° 39' 08"	13.97
L317	27.43	N40° 48' 51"W			
L318	33.33	S49° 35' 46"E			
L319	5.11	S54° 35' 40"W			

PARCEL 70 - REQ'D DRWY EASM'T

544.22 SF
Alignment Name: McNUTT ROAD
Description: STA 93+35 RT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1438	93+18.72	46.225'
1439	93+50.41	44.186'
1440	93+42.96	63.530'
1441	93+23.06	63.918'

PARCEL 99 - REQ'D DRWY EASM'T

476.10 SF
Alignment Name: McNUTT ROAD
Description: STA 99+44 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1482	99+22.95	-40.000'
1483	99+26.26	-52.315'
1484	99+56.37	-53.031'
1485	99+67.75	-40.000'

Parcel Area Table

Parcel #	Area SF	Area AC
91	1879.97	0.043

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C100	169.22	N35° 33' 11"W	215.00	45° 05' 42"	164.88
L289	41.03	S17° 32' 28"E			
L290	45.38	S23° 53' 43"E			
L291	49.66	S37° 12' 23"E			
L292	78.91	S46° 22' 36"E			
L293	27.89	N58° 06' 02"W			
L386	25.77	S3° 40' 28"W			

Parcel Area Table

Parcel #	Area SF	Area AC
93	502.40	0.012

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C104	36.69	N44° 49' 29"W	262.08	8° 01' 17"	36.66
C105	35.18	S44° 44' 02"E	257.08	7° 50' 23"	35.15
L296	5.07	S31° 53' 58"W			
L298	28.58	N40° 48' 51"W			
L299	27.76	N40° 48' 51"W			
L300	7.86	N40° 48' 51"W			
L301	5.05	N41° 01' 47"E			
L302	64.91	S40° 48' 51"E			

Parcel Area Table

Parcel #	Area SF	Area AC
68	152.28	0.003

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C106	18.99	N43° 53' 11"W	177.08	6° 08' 40"	18.98
C107	13.97	S44° 58' 23"E	172.08	4° 39' 08"	13.97
L317	27.43	N40° 48' 51"W			
L318	33.33	S49° 35' 46"E			
L319	5.11	S54° 35' 40"W			

PARCEL 69 - REQ'D DRWY EASM'T

946.98 SF
Alignment Name: McNUTT ROAD
Description: STA 94+16 RT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1442	93+96.41	40.265'
1443	94+37.76	40.000'
1444	94+28.56	66.346'
1445	94+00.85	66.244'

PARCEL 100 - REQ'D DRWY EASM'T

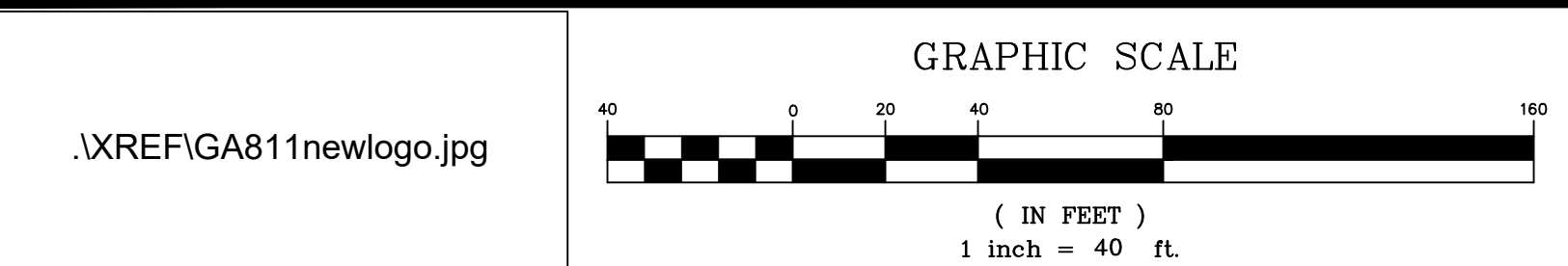
566.76 SF
Alignment Name: McNUTT ROAD
Description: STA 100+03 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1486	99+86.27	-40.000'
1487	99+91.69	-57.116'
1488	100+13.82	-58.295'
1489	100+23.15	-40.000'

PARCEL 92 - REQ'D DRWY EASM'T

356.94 SF
Alignment Name: McNUTT ROAD
Description: STA 95+47 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1449	95+34.95	-45.802'
1450	95+38.73	-61.339'
1451	95+55.67	-61.339'
1452	95+59.01	-46.391'



Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

MORELAND ALTOBELLI
— AN ATLAS COMPANY —

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

\\Images-References\thCTAAUG98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS

REVISION DATES

RIGHT OF WAY PLANS

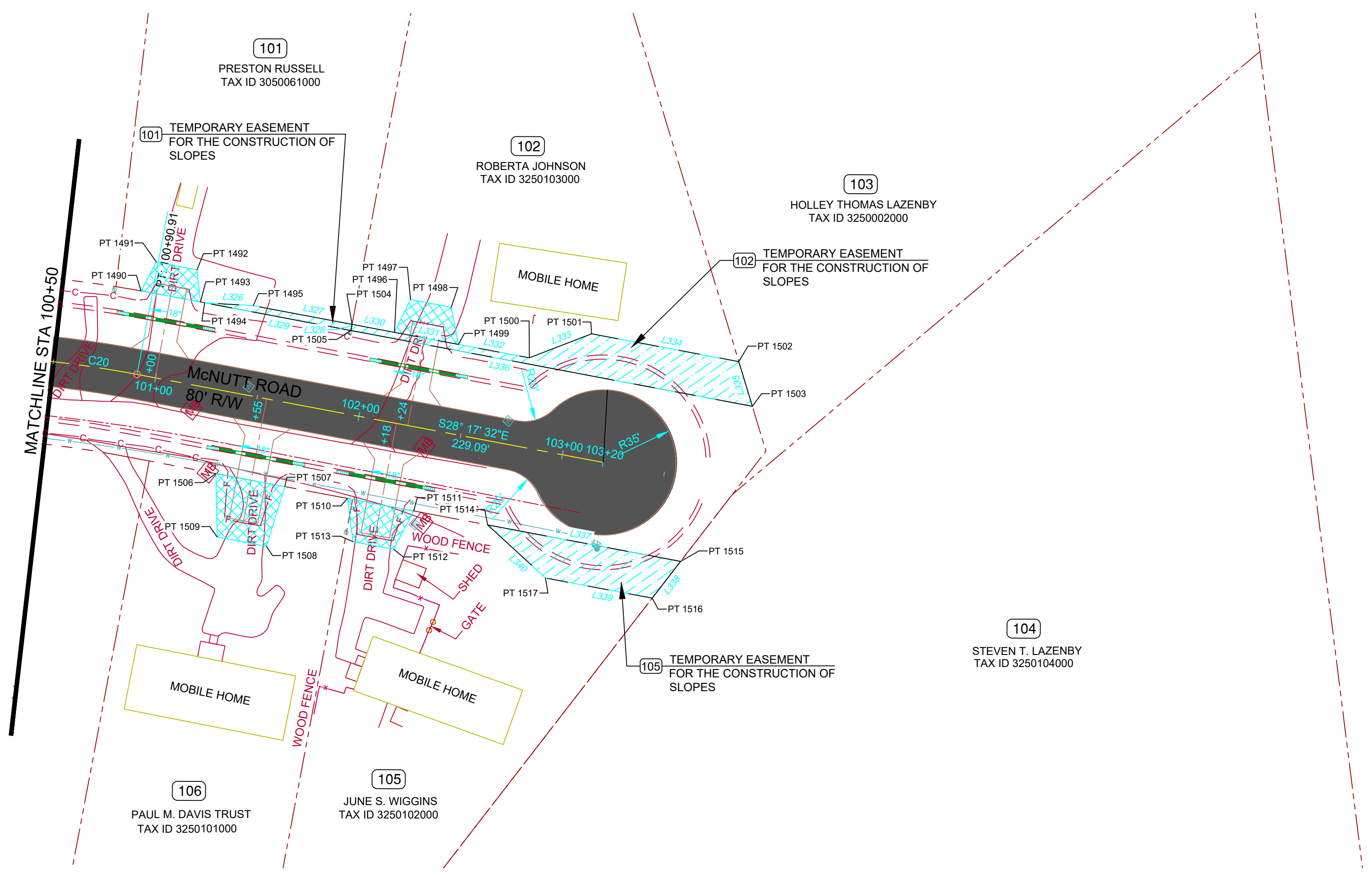
McNUTT ROAD
90+00 to 100+50

60 - 0010



- TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
- EASEMENT FOR CONSTRUCTION OF DRIVES
- PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE

CURVE # C20
 PI STA = 100+29.96
 PI N = 1192084.78
 PI E = 736300.62
 DELTA = 12° 31' 19"
 D (ARC) = 10° 13' 53"
 T = 61.44
 L = 122.39
 R = 560.00



PARCEL 101 - REQ' DRWY EASM'T

369.53 SF
Alignment Name: McNUTT ROAD
Description: STA 101+00 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1490	100+85.65	-40.000'
1491	100+90.08	-55.001'
1492	101+10.00	-55.000'
1493	101+14.51	-40.000'

PARCEL # 101
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
101	180.76	0.004

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L326	23.54	N35° 36' 46"W			
L327	48.58	N28° 17' 32"W			
L328	3.00	N61° 42' 28"E			
L329	71.93	S28° 17' 32"E			

PARCEL # 105
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
105	1473.13	0.034

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L337	94.87	S28° 17' 32"E			
L338	22.45	S88° 44' 12"W			
L339	52.45	N28° 17' 32"W			
L340	37.92	N3° 32' 14"E			

PARCEL 106 - REQ'D DRWY EASM'T

871.92 SF
Alignment Name: McNUTT ROAD
Description: STA 101+55 RT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1506	101+37.19	40.000'
1507	101+71.10	40.000'
1508	101+67.71	70.000'
1509	101+43.49	70.000'

PARCEL # 102
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
102	2128.25	0.049

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L328	3.00	N61° 42' 28"E			
L330	20.84	N28° 17' 32"W			
L331	31.47	N28° 17' 32"W			
L332	34.83	N28° 17' 32"W			
L333	32.23	N60° 07' 17"W			
L334	72.37	N28° 17' 32"W			
L335	22.56	N34° 08' 12"E			
L336	197.35	S28° 17' 32"E			

PARCEL 105 & 106 - REQ'D DRWY EASM'T

525.60 SF
Alignment Name: McNUTT ROAD
Description: STA 102+18 RT
Station Range: Start: 0+00.00, End: 103+20.00

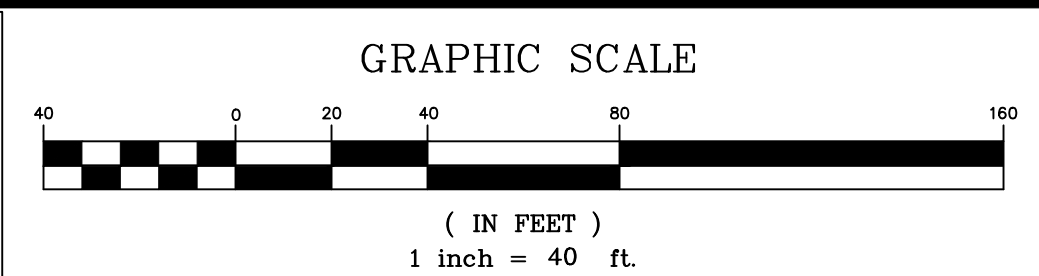
Point	Station	Offset
1510	102+01.90	40.000'
1511	102+34.46	40.000'
1512	102+28.38	60.000'
1513	102+08.38	60.000'

PARCEL 102 - REQ'D DRWY EASM'T

437.50 SF
Alignment Name: McNUTT ROAD
Description: STA 102+24 LT
Station Range: Start: 0+00.00, End: 103+20.00

Point	Station	Offset
1496	102+09.31	-43.000'
1497	102+14.01	-60.000'
1498	102+34.01	-60.000'
1499	102+40.78	-43.000'

.\XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
 327 Dahlonga Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

MORELAND ALTOBELLI
 — AN ATLAS COMPANY —

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

..\Images-References\thCTAAGU98.bmp

McNUTT ROAD ROAD CONSTRUCTION PLANS

REVISION DATES

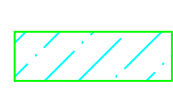
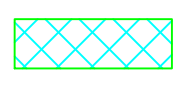
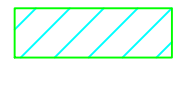
NO.	DATE	DESCRIPTION

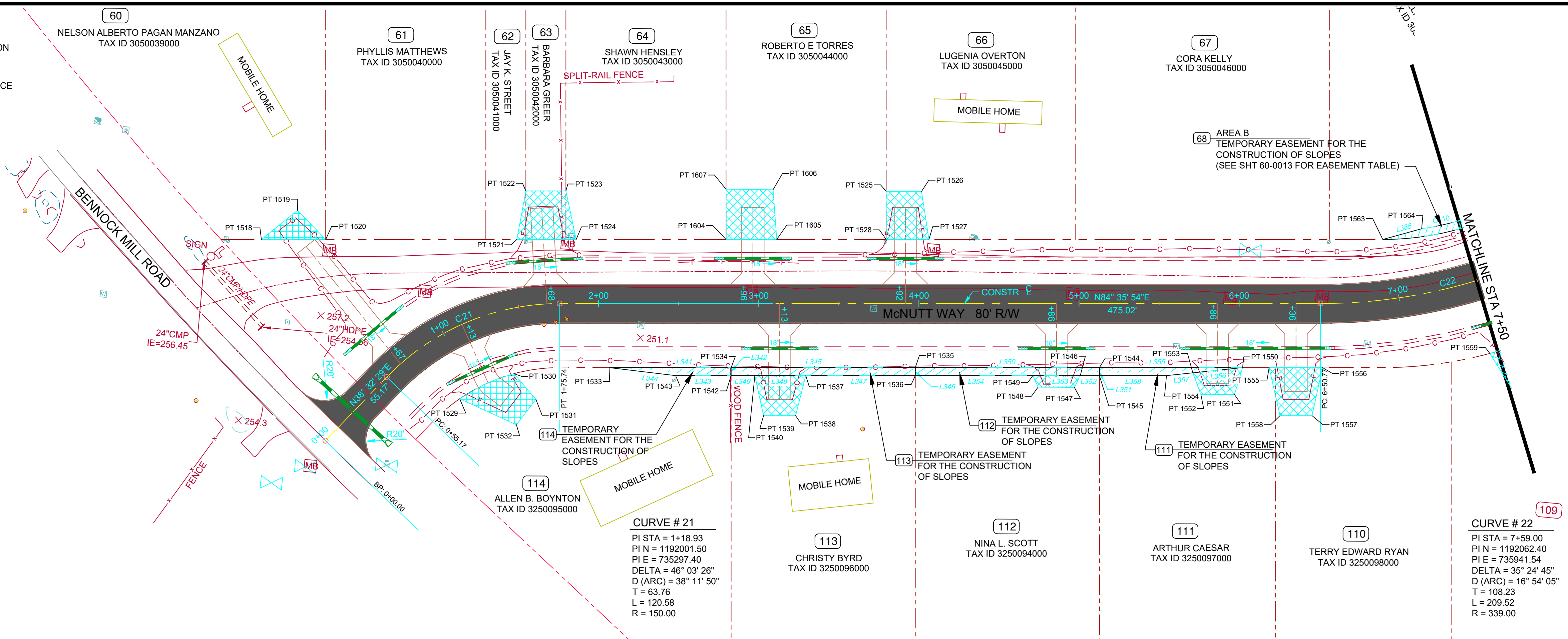
RIGHT OF WAY PLANS

McNUTT ROAD
 100+50 to END

DRAWING NUMBER
60 - 0011



-  TEMPORARY EASEMENT FOR CONSTRUCTION OF SLOPES
-  EASEMENT FOR CONSTRUCTION OF DRIVES
-  PERMANENT EASEMENT FOR CONSTRUCTION & MAINTENANCE OF DRAINAGE



PARCEL 60 - REQ'D DRWY EASM'T

365.25 SF

Alignment Name: McNutt Way
Description: STA 0+67 LT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1518	0+59.40	-116.111'
1519	0+75.78	-114.854'
1520	0+77.39	-89.714'

PARCEL 66 - REQ'D DRWY EASM'T

731.68 SF

Alignment Name: McNutt Way
Description: STA 3+92 LT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1525	3+79.58	-70.000'
1526	4+01.65	-70.000'
1527	4+06.30	-40.000'
1528	3+79.58	-40.000'

PARCEL 65 - REQ'D DRWY EASM'T

Alignment Name: McNutt Way
Description: STA 3+92 LT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1604	2+79.58	-40.000'
1605	3+11.25	-40.000'
1606	3+08.94	-71.000'
1607	2+79.58	-71.000'

PARCEL # 114
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
114	277.15	0.006

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L341	76.19	N84° 35' 54"E			
L342	5.00	S5° 24' 06"E			
L343	34.67	S84° 35' 54"W			
L344	41.82	N88° 32' 03"W			

PARCEL # 112
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
112	575.00	0.013

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L346	5.00	S5° 24' 06"E			
L350	115.00	N84° 35' 54"E			
L351	5.00	S5° 24' 06"E			
L352	11.98	S84° 35' 54"W			
L353	29.58	S84° 35' 54"W			
L354	73.44	S84° 35' 54"W			

PARCEL # 113
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
113	575.00	0.013

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L342	5.00	S5° 24' 06"E			
L345	115.00	N84° 35' 54"E			
L346	5.00	S5° 24' 06"E			
L347	68.36	S84° 35' 54"W			
L348	31.84	S84° 35' 54"W			
L349	14.80	S84° 35' 54"W			

PARCEL # 111
TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
111	328.17	0.008

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L351	5.00	S5° 24' 06"E			
L355	89.42	N84° 35' 54"E			
L356	31.27	S78° 35' 56"W			
L357	16.57	S78° 35' 56"W			
L358	41.85	S84° 35' 54"W			

PARCEL 114 - REQ'D DRWY EASM'T

796.09 SF

Alignment Name: McNutt Way
Description: STA 1+13 RT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1529	0+85.14	40.000'
1530	1+36.27	40.000'
1531	1+51.22	58.620'
1532	1+23.38	70.942'

PARCEL 112 - REQ'D DRWY EASM'T

190.37 SF

Alignment Name: McNutt Way
Description: STA 4+86 RT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1546	5+00.78	45.000'
1547	4+97.12	52.375'
1548	4+74.43	52.193'
1549	4+71.20	45.000'

PARCEL 62, 63, 64 - REQ'D DRWY EASM'T

939.94 SF

Alignment Name: McNutt Way
Description: STA 100+68 LT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1521	1+54.73	-41.880'
1522	1+61.38	-71.320'
1523	1+79.58	-70.306'
1524	1+85.98	-40.000'

PARCEL 111 - REQ'D DRWY EASM'T

394.74 SF

Alignment Name: McNutt Way
Description: STA 5+86 RT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1550	6+02.18	40.000'
1551	5+97.07	56.803'
1552	5+76.11	56.803'
1553	5+71.09	43.268'

PARCEL 113 - REQ'D DRWY EASM'T

647.95 SF

Alignment Name: McNutt Way
Description: STA 3+13 RT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1537	3+29.40	45.000'
1538	3+23.03	70.000'
1539	3+03.03	70.000'
1540	2+97.56	45.000'

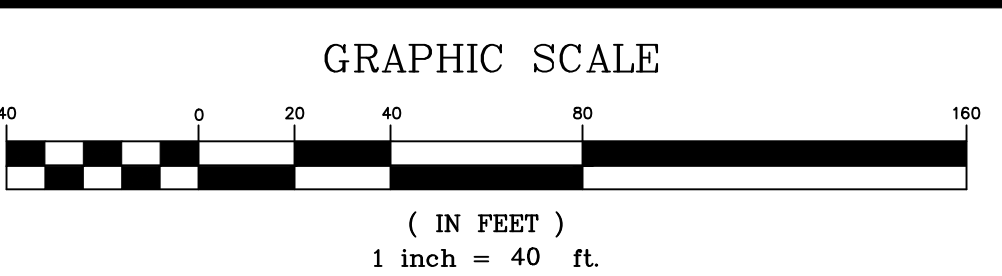
PARCEL 110, 111 - REQ'D DRWY EASM'T

800.13 SF

Alignment Name: McNutt Way
Description: STA 6+36 RT
Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1555	6+18.72	40.000'
1556	6+51.92	40.002'
1557	6+45.50	70.000'
1558	6+25.50	70.000'

.\XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
327 Dahlonega Street
Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5307

NAME	DATE
DESIGNED BY: NAA	03-12-20
DRAWN BY: NAA	03-12-20
CHECKED BY: KEQ	03-12-20

McNUTT ROAD ROAD CONSTRUCTION PLANS

McNUTT ROAD ROAD CONSTRUCTION PLANS

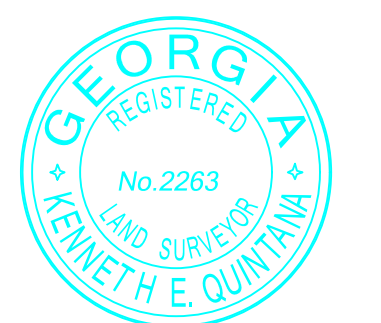
REVISION DATES

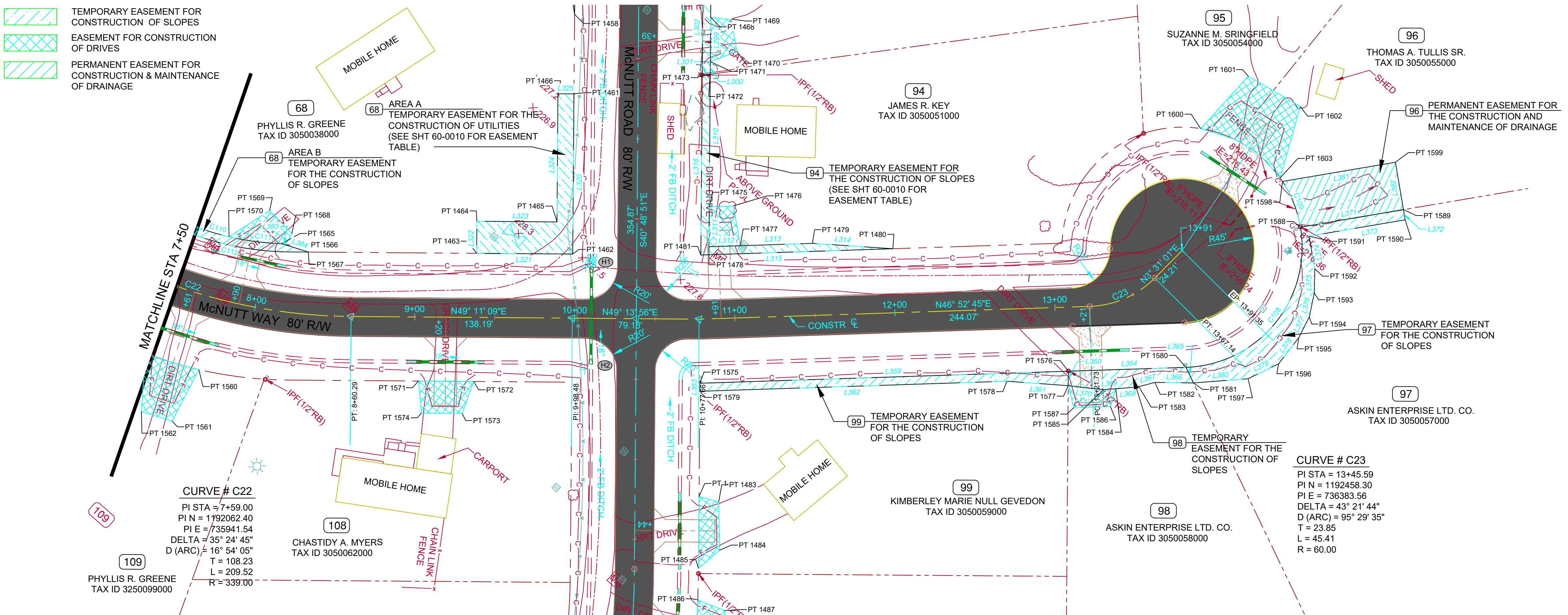
NO.	DATE	DESCRIPTION

RIGHT OF WAY PLANS

McNUTT WAY
0+00 to 7+50

DRAWING NUMBER
60 - 0012





PARCEL 109 - REQ'D DRWY EASM'T

967.59 SF

Alignment Name: McNutt Way
 Description: STA 7+61 RT
 Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1559	7+45.11	45.972'
1560	7+75.93	45.716'
1561	7+69.40	81.154'
1562	7+53.26	81.154'

PARCEL 98 - REQ'D DRWY EASM'T

311.27 SF

Alignment Name: McNutt Way
 Description: STA 13+21 RT
 Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1577	13+06.66	49.020'
1584	13+29.51	52.843'
1586	13+27.02	63.373'
1587	13+09.71	62.894'

PARCEL # 68 - AREA B
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
68 AREA B	504.40	0.012

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C110	44.04	N69° 09' 06"E	172.08	14° 39' 47"	43.92
C111	33.25	N56° 17' 05"E	172.08	11° 04' 14"	33.20
C112	109.45	S66° 53' 32"W	177.08	35° 24' 45"	107.71
L383	2.42	N66° 05' 25"E			
L384	14.99	N66° 05' 25"E			
L385	25.21	N69° 07' 41"E			

PARCEL # 98
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
98	793.98	0.018

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L360	9.03	S40° 48' 51"E			
L364	73.50	N46° 52' 45"E			
L365	10.80	S66° 53' 56"E			
L366	24.04	S49° 34' 53"W			
L367	11.49	S33° 55' 39"W			
L368	13.37	S44° 25' 21"W			
L369	7.64	S44° 25' 21"W			
L370	22.25	S55° 09' 44"W			

PARCEL # 96
 PERMANENT EASEMENT FOR THE CONST. AND MAINTENANCE OF DRAINAGE

Parcel Area Table

Parcel #	Area SF	Area AC
96	2019.26	0.046

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C109	30.86	S62° 40' 34"E	75.98	23° 16' 12"	30.65
L371	65.24	N39° 06' 47"E			
L381	71.50	S39° 06' 47"W			
L382	30.00	N50° 53' 13"W			

PARCEL 68 - REQ'D DRWY EASM'T

443.80 SF

Alignment Name: McNutt Way
 Description: STA 7+90 LT
 Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1566	8+13.08	-41.479'
1568	8+16.46	-49.084'
1569	7+97.35	-61.083'
1570	7+72.74	-39.225'

PARCEL 95 & 96 - REQ'D DRWY EASM'T

1897.80 SF

Alignment Name: McNutt Way
 Description: STA 13+91
 Station Range: Start: 0+00.00, End: 14+62.60

Point	Station	Offset
1600	14+60.77	32.49' LF
1601	15+04.44	25.95' LT
1602	15+06.75	11.58' RT
1603	14+62.60	28.81' RT

PARCEL # 99
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
99	1228.02	0.028

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
L359	230.19	N46° 52' 45"E			
L360	9.03	S40° 48' 51"E			
L361	38.40	S52° 53' 20"W			
L362	191.84	S46° 52' 45"W			
L363	5.00	N40° 48' 51"W			

PARCEL # 97
 TEMPORARY EASEMENT FOR THE CONST. OF SLOPES

Parcel Area Table

Parcel #	Area SF	Area AC
97	2157.74	0.050

Parcel Line and Curve Table

Line #/Curve #	Length (FT)	Bearing/Chord	Radius (FT)	Delta	Ch Length (FT)
C108	127.98	N2° 00' 14"W	75.00	97° 45' 57"	113.01
L365	10.80	S66° 53' 56"E			
L371	65.24	N39° 06' 47"E			
L372	6.45	S50° 53' 13"E			
L373	60.90	S39° 06' 47"W			
L374	20.70	S51° 16' 46"E			
L375	15.10	S39° 09' 09"E			
L376	15.26	S29° 27' 59"E			
L377	14.57	S14° 19' 26"E			
L378	20.52	S3° 30' 06"E			
L379	21.21	S22° 33' 56"W			
L380	34.24	S44° 21' 31"W			

PARCEL 108 - REQ'D DRWY EASM'T

598.34 SF

Alignment Name: McNutt Way
 Description: STA 9+20 RT
 Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1571	9+02.71	40.000'
1572	9+37.10	40.000'
1573	9+30.14	60.000'
1574	9+04.70	60.000'

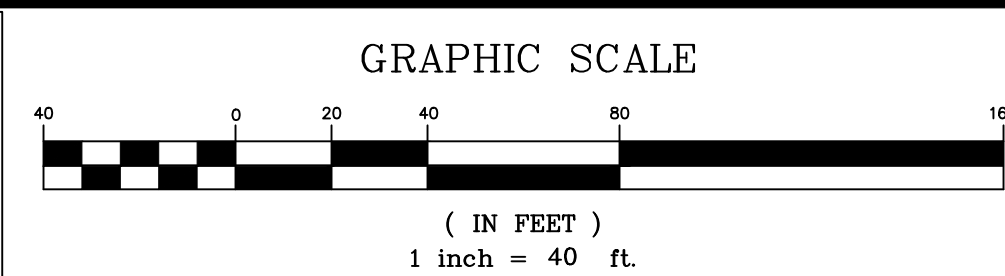
PARCEL 94 - REQ'D DRWY EASM'T

433.60 SF

Alignment Name: McNutt Way
 Description: STA 10+91 LT
 Station Range: Start: 0+00.00, End: 13+91.35

Point	Station	Offset
1475	10+86.27	-70.000'
1476	11+01.37	-70.000'
1477	11+04.86	-45.000'
1478	10+85.27	-45.000'

.XREF\GA811newlogo.jpg



Moreland Altobelli Associates, LLC
 327 Dahlonega Street
 Suite 1401
 Cumming, Georgia 30040
 Telephone (770) 781-5307

MORELAND ALTOBELLI
 AN ATLAS COMPANY

DESIGNED BY	NAME	DATE
	NAA	03-12-20
DRAWN BY	NAA	03-12-20
CHECKED BY	KEQ	03-12-20

McNUTT ROAD ROAD CONSTRUCTION PLANS

\\Images-References\thCTAAUG98.bmp

REVISION DATES

RIGHT OF WAY PLANS

McNUTT WAY
 7+50 to END

DRAWING NUMBER
60 - 0013

