

ADDENDUM NUMBER TWO (2) DATE: February 8, 2024

TO: All Registered Plan Holders Plan Rooms

FROM:Richard Pitts, AIA, LEED APEMAIL:rpitts@kpsgroup.comPROJECT:University of Alabama
McLure Library Addition and Renovation –
Package D Addition and Renovation
UA Project No. 051-23-2688d
KPS Project No. 236002-02BID DATE:
TIME:February 20, 2023TIME:2:00pm Local Time

Notice to Bidders:

This Addendum serves to clarify, revise, and supersede information in the Drawings November 28, 2023. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

Bidders are advised to call attention to all sub-bidders and suppliers for any changes which may affect their work.

Bidders shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form. Failure to do so may subject Bidder to disqualification.

Deadline for questions from Bidders is Tuesday, February 13 at 5:00pm local time. Deadline for substitution requests is Tuesday, February 13 at 5:00pm local time.

CLARIFICATIONS:

- 1. The following work restrictions are in place:
 - a. No work can be performed during Fridays before home football games.
 - b. No work can be performed the Friday before the 2024 or 2025 A-Day game.
 - c. Elevator contractor required to begin installation by December 1, 2024 and complete by February 1, 2025.

REPONSE TO CONTRACTOR QUESTIONS:

- 1. Is there a hazardous material report that will be issued for this project? Will any asbestos abatement or any other hazardous materials to be disposed as part of this project?
 - a. Refer to specification section 02 82 00 Asbestos Abatement
- 2. Is there a hazardous material report that will be issued for this project? Will any asbestos abatement or any other hazardous materials to be disposed as part of this project?
 - a. The Owner requires use of #8910 stone setting bed in all locations. The "sand setting bed" note should be deleted.

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- 3. Roof Plan A1.14 calls for a fully adhered membrane, insulation and coverboard system at R1 existing concrete decks. The Roof Plan also shows the membrane on the R2 existing wood and R3 new steel deck to be fully adhered with R-25 insulation and ½" coverboard mechanically attached. However, the PVC Spec Roofing Section B is not clear whether the insulation and coverboard are mechanically attached. Please confirm whether it is acceptable to mechanically attach insulation and coverboard on the R2 Wood Deck and R3 Steel Deck portions of the roof, and only fully adhere the Roof System at the R1 concrete decks show on the roof plan.
 - a. Insulation and cover board mechanically attached for R2 and R3 roofs. Specification to be updated in forthcoming addendum.
- 4. Details A6/A323 and C5/A553 call for copper lock seam roofing at the small entry canopy. No specification is provided. Please confirm if this is to be 16 oz copper, and if it is acceptable to provide shop fabricated standing seam panels at this location.
 - a. Soldered 16oz copper with interlocking hemmed seams and cleats @ 18" O.C. max. Specifications to be updated in forthcoming addendum.
- Key Note 310 on the Roof Plan call for copper Conductor Heads and Downspouts at existing locations. The SMF&T spec calls for 0.032 Aluminum Downspouts and 0.040 Aluminum Conductor Heads. Please confirm which is correct.
 - a. 16 oz copper. Specifications to be updated in forthcoming addendum.
- 6. Coping details call for new shop formed metal coping. The SMF&T spec does not reference the coping metal. Please confirm if this is copper or aluminum and provide the metal thickness.
 - a. 0.050" Aluminum.
- 7. The Areas of Roof 1 showing Tapered Insulation Crickets (308) @ ½" per ft. are structural wood decking crickets currently built into that roofs decking. Is the intention to overlay ½" Tapered ISO over these areas in addition to the R-25 flat ISO or will using the structural crickets be sufficient?
 - a. Use of existing structure acceptable. Keynote 308 revised to clarify that tapered should be used when required to achieve necessary slope.
- Is the Window Sill Height on Roof #4 going to stay at its current elevation? It seems low now and roof level will rise with thicker insulation to achieve R-25. Please detail sill detail at low PVC roof Termination planned for this location.
 - a. Intent is to raise sills for new windows. Detail to be provided in forthcoming addendum.
- Is the contractor responsible for the structured cabling and datacomm equipment?
 a. Structured cabling and data comm equipment by Owner. Conduit provided by GC.
- 10. Is the contractor responsible for the equipment, cabling, and install for speakers and microphones shown on E4.02 and E4.03?
 - a. Equipment, cabling, and install by Owner.

SPECIFICATIONS:

- 1. 00 00 00 COVER Vol 1 Revise job number on cover to match this project.
- 2. 00 00 00 COVER Vol 2 Revise job number on cover to match this project.
- 3. 00 01 10 TABLE OF CONTENTS Updated with revised sections.
- 4. 00 02 01 PQ AND PLANS WITH PQ Add section.
- 5. 00 02 04 SUPPLEMENTAL INSTRUCTIONS TO BIDDERS Add section
- 6. 00 02 06 BID PROPOSAL FORM Replace in its entirety.
 - a. Revised to align with revised Allowances and Unit Prices.
- 7. 00 50 08 SUPPLEMENTAL GENERAL CONDITIONS Replace section in its entirety.

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- 8. 00 50 09 C-9 ROOF GUARANTEE Add specification in its entirety.
- 9. 00 50 18a PRE-EXCAVATION NOTIFICATION AND SIGN-OFF SHEET Add specification in its entirety.
- 10. 01 21 00 ALLOWANCES Replace specification in its entirety.
 - a. Added language to 1.7C.
 - b. Part 3 Revised list of allowances.
- 11. 01 22 00 UNIT PRICES
 - a. Part 3 Unit prices revised to align with Allowances.
- 12. 01 41 00 REGULATORY REQUIREMENTS Add section.
- 13. 04 01 23 MASONRY RESTORATION AND CLEANING Add section.
- 14. 05 51 00 METAL STAIRS Replace section in its entirety.
- 15. 05 51 33 FIXED ALUMINUM LADDERS Add section.
- 16. 09 25 23 LIME BASED PLASTERING Add section.
- 17. 11 31 00 RESIDENTIAL APPLIANCES Remove dishwasher and coffee maker.
- 18. 32 22 90 EROSION CONTROL
 - a. Part 2.1.E paragraph for temporary seeding and mulching revised.
 - b. Part 3.1.i added to the specification section addressing new UA standard requirements for temporary mulching and seeding.
 - c. Part 3.2.F added to the specification section addressing new UA standards in regards to prohibited discharges on the project.

DRAWINGS:

- 1. G0.00
 - a. Added critical project sequencing and milestones.
- 2. C0.1 Project Notes
 - GENERAL PROJECT NOTE #13 modified to include bronze utility markers at all new and existing utilities.
 - b. GENERAL PROJECT NOTE #15 added to include new UA requirement for owner provided / contractor installed markers on storm drainage inlet covers.
 - c. GENERAL PROJECT NOTE #16 added addressing new UA standards in regards to prohibited discharges on the project.
 - d. EROSION CONTROL NOTE #5 modified to include new UA standard requirements for temporary mulching and seeding along with stabilization of bare earthen areas.
 - e. EROSION CONTROL NOTE #19 added which addresses handling sediment removed from the work area.
- 3. C2.0 Erosion Control Plan
 - a. Modifications to best management practice plans and erosion control requirements on the project. Note - A more stringent emphasis will be required by the UA in regards to erosion control, site stabilization, and handling of sediment on all UA projects moving forward.
- 4. C3.0 Site Plan
 - a. Adjustment of site light poles at the front are of the building. Light poles shown for location and reference only. Details of site lighting to be part of electrical.
- 5. C5.0 Storm Sewer Plan
 - a. Added stubout for retaining wall drains at dumpster enclosure and South walls.
 - b. Storm Structure No. 5-1 grate changed to a dome type.
 - c. Project Notes
- 6. C6.4 Standard Details
 - a. Modified note regarding frame, and cover specification.
- 7. S0.03
 - a. Clarified the use for typical retaining wall and added wall height.
- 8. S0.04
 - a. Added typical detail for beam bearing on cold-formed steel studs for use at elevator hoist beam.

- b. Added typical detail for precast concrete lintel.
- 9. S1.01, S1.02, & S1.03
 - a. Columns along grid 8 moved to grid 9.
 - b. Colum grid dimensions between grids 5-9 revised.
- 10. S1.04
 - a. Column grid dimensions between grids 5-9 revised.
 - b. Joist bearing elevation modified at elevator penthouse.
- 11. S5.03
 - a. Section 15 steel lintel modified.
- 12. S5.04
 - a. Top of steel for elevator hoist beam adjusted.
- 13. A1.01
 - a. Adjust grids to match structural.
- 14. A1.02
 - a. Adjust grids to match structural.
- 15. A1.11
 - a. Adjust grids to match structural.
- 16. A1.12
 - a. Adjust grids to match structural.
 - b. Show cricket for plaza drainage.
- 17. A1.13
 - a. Adjust grids to match structural.
- 18. A1.14
 - a. Adjust grids to match structural.
 - b. Show direction of roof slope on Roof 4.
 - c. Revised keynote 303.
 - d. Revised keynote 308.
 - e. Add keynote 321.
 - f. Show roof drain sumps.
- 19. A2.01
 - a. Revise ENTERIOR ELEVATION GENERAL NOTES items 6-9.
 - b. Revise EXTERIOR ASSEMBLIES LEGEND to clarify Wall types 1 and 5.
 - c. A2: Revise cornice and entablature to more closely resemble existing conditions. Revise note to clean and repair cornices and entablatures. Adjust grids to match structural. Indicate limestone around door.
 - d. Elevation D2: Revise cornice, entablature, and arched window keystones to more closely resemble existing conditions. Revise note to clean and repair cornices and entablatures. Adjust grids to match structural.
- 20. A2.02
 - a. Revise ENTERIOR ELEVATION GENERAL NOTES items 6-9.
 - b. Revise EXTERIOR ASSEMBLIES LEGEND to clarify Wall types 1 and 5.
 - c. A2: Revise cornice, entablature, and arched window keystones to more closely resemble existing conditions. Revise note to clean and repair cornices and entablatures. Adjust grids to match structural. Indicate areas to receive mortar repointing. Indicate stucco to be cleaned and repaired.
 - d. Elevation D2: Revise cornice and entablature to more closely resemble existing conditions. Add note to clean and repair cornices and entablatures. Adjust grids to match structural. Remove reference to brick alternate.
- 21. A4.07
 - a. Plan A6: Adjust opening location.
 - b. Detail D3 and Appliance Schedule: Remove dishwasher.
- 22. A4.13
 - a. Details A2, A5, B5, D5, E3: Revise stairs to match Landscape. Adjusted railings.
- 23. A4.41

- a. Details A6, C6: Clarified that elevator pit concrete to receive crystalline waterproofing admixture.
- b. Sections A5, A3: Lowered height of elevator overrun.
- c. Details E3, E5: Removed.
- 24. A5.21
 - a. Detail C3: Revise column grid.
 - b. Detail A1: Revised product note.

ATTACHMENTS:

This Addendum includes the following 8.5"x 11" Attachments [87 pages]:

- 1. 00 00 00 COVER VOL 1 (1 sheet)
- 2. 00 00 00 COVER VOL 2 (1 sheet)
- 3. 00 01 10 TABLE OF CONTENTS (7 sheets)
- 4. 00 02 01 PQ AND PLANS WITH PQ (3 sheets)
- 5. 00 02 04 SUPPLEMENTAL INSTRUCTIONS TO BIDDERS (4 sheets)
- 6. 00 02 06 BID PROPOSAL FORM (6 sheets)
- 7. 00 50 08 SUPPLEMENTAL GENERAL CONDITIONS (1 sheet)
- 8. 00 50 09 C-9 ROOF GUARANTEE (2 sheets)
- 9. 00 50 18a PRE-EXCAVATION NOTIFICATION AND SIGN-OFF SHEET (1) sheet
- 10. 01 21 00 ALLOWANCES (6 sheets)
- 11. 01 22 00 UNIT PRICES (4 sheets)
- 12. 01 41 00 REGULATORY REQUIREMENTS (2 sheets)
- 13. 04 01 23 MASONRY RESTORATION AND CLEANING (16 sheets)
- 14. 05 51 00 METAL STAIRS (9 sheets)
- 15. 05 51 33 FIXED ALUMINUM LADDERS (4 sheets)
- 16. 09 25 23 LIME BASED PLASTERING (12 sheets)
- 17. 11 31 00 RESIDENTIAL APPLIANCES (3 sheets)
- 18. 32 22 90 EROSION CONTROL (5 sheets)

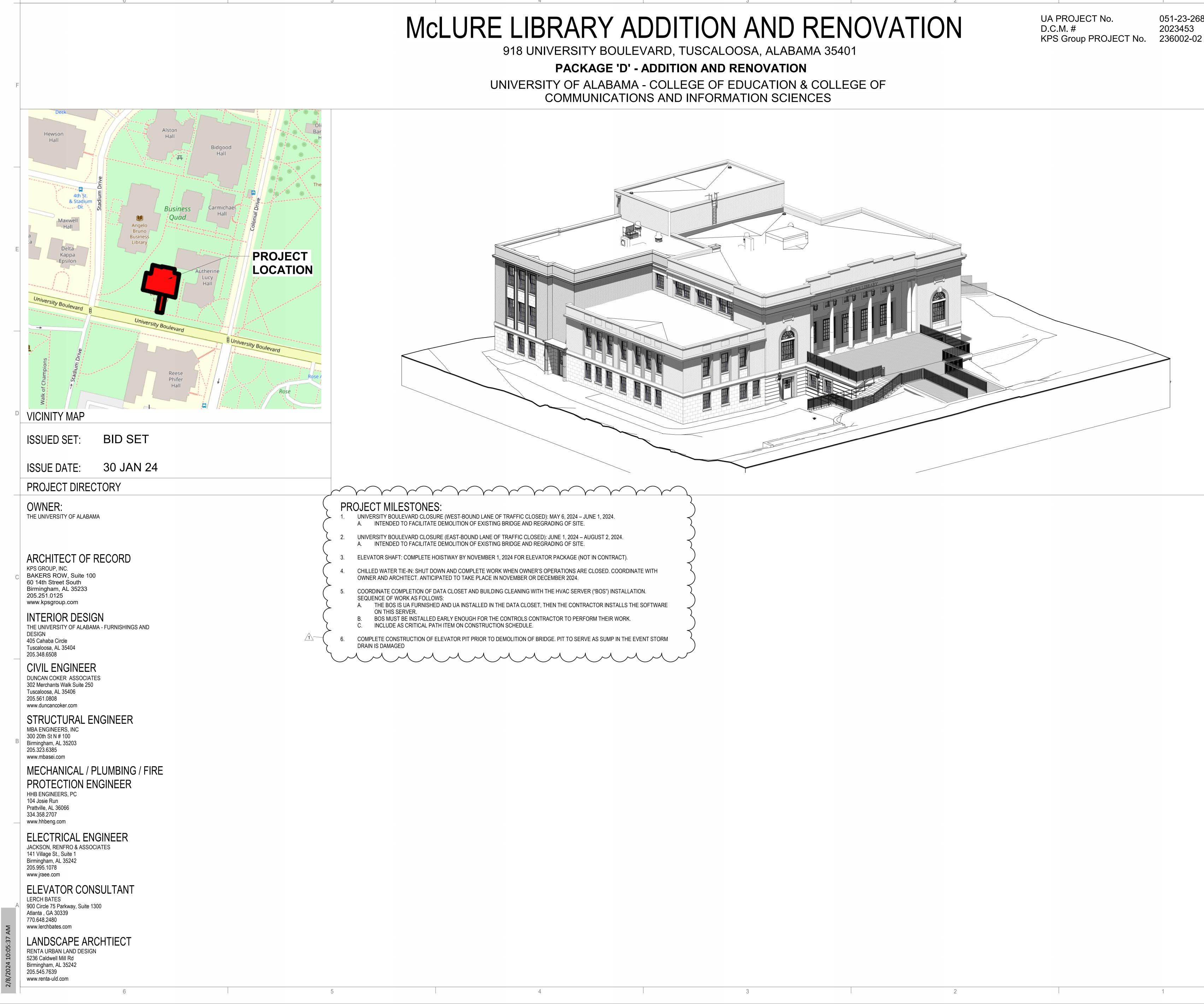
This Addendum includes the following 30"x 42" Attachments [26 sheets]

- 1. G0.00
- 2. C0.1
- 3. C2.0
- 4. C3.0
- 5. C5.0
- 6. C6.4
- 7. S0.03
- 8. S0.04
- 9. S1.01
- 10. S1.02
- 11. S1.03
- 12. S1.04
- 13. S5.03
- 14. S5.04
- 15. A1.01
- 16. A1.02
- 17. A1.11
- 18. A1.12
- 19. A1.13
- 20. A1.14
- 21. A2.01
- 22. A2.02
- 23. A4.07

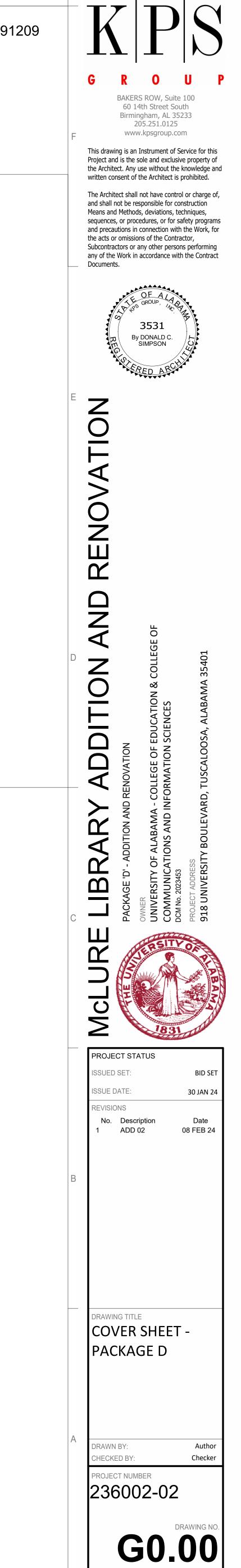
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24. A4.13 25. A4.41 26. A5.21

END OF ADDENDUM



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| | - | RAL PROJECT NOTES: |
|---|---|---|
| | 2. T W | THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE BASED ON LOCATES PROVIDED BY UTILITY OWNERS. THESE LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY OF THE CONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY OF THE CONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND TO CONDUCT HIS WORK IN A MANNER TO PROTECT HIS EMPLOYEES, SUBCONTRACTOR'S RESPONSIBILITY FOR THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BY HAND EXCAVATION ("POTHOLING") OR OTHER MEANS. IT IS THE SOLE RESPONSIBILITY FOR THE EXCAVE AND EXCAVATION ("POTHOLING") OR OTHER MEANS. IT IS THE SOLE RESPONSIBILITY FOR THE EXCAVE AND EXCAVATION ("POTHOLING") OR OTHER MEANS. IT IS THE SOLE RESPONSIBILITY FOR THE EXCAVE AND EXCAVATION (FOR THE EXCAVE AND |
| | 4. T | THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE ACROSS THE PROJECT SITE DURING CONSTRUCTION. NO ADDITIONAL PAYMENT WILL BE MADE FOR DEWATERING. THE CONTRACTOR SHALL INSTALL ASPHALT PATCHING WITHIN 24 HOURS AFTER THE COMPLETED INSTALLATION OF UTILITY CROSSING (S) ON ROADWAYS OPEN TO TRAFFIC. IF THE ROADWAY IS CLOSED TO TRAFFIC, THEN ALL ASPHALT CUT LOCATIONS SHALL BE PATCHED BEFORE THE ROADWAY IS REOPENED. |
| | 6. T | THE CONTRACTOR SHALL DE NOT MIX SHALL DE NOT MIX SHALL DE NOT MIX SHALL DE NOT MIX SHALL DE NOT DE ACCEPTED AND SHALL NOT DE ACCEPTED AND SHALL DE NOT DE ACCEPTED AND SHALL NOT DE ACCEPTED AND SHALL DE NOT DE ACCEPTED A |
| : | 8. A 9. E | AT THE END OF THE PROJECT, THE CONTRACTOR SHALL POWER WASH ALL CONCRETE SURFACES (I.E., CURB AND GUTTERS, SIDEWALK, DRIVES, STORM SEWER BOXES, BRICK PAVERS, EXISTING BUILDING BRICK, ETC.), SPECIFICALLY EXISTING CONCRETE ABUTTING REQUIRED CONCRETE SURFACES WITHIN THE PROJECT LIMITS TO ELIMINATE STAINING FROM EARTHEN MATERIAL, CONSTRUCTION EQUIPMENT, OILS, PAINTS, ETC. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN. |
| | 12. T | THE CONTRACTOR SHALL BE AWARE THAT MULTIPLE UA CONSTRUCTION PROJECTS ARE OR WILL BE ONGOING CONCURRENTLY WITH THIS PROJECT. THE CONTRACTOR SHALL ANTICIPATE THAT COORDINATION, AND/OR WORK ASSOCIATED WITH ACCOMMODATING OTHER PROJECTS. |
| | 14. A | |
| | { · · · · · · · · · · · · · · · · · · · | N ACCORDANCE WITH AND SUBJECT TO THE PROVISIONS OF THE FEDERAL WATER POLLUTION CONTROL ACT, THE FOLLOWING DISCHARGES ARE PROHIBITED: A. WASTEWATER FROM WASHOUT OF CONCRETE B. WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS C. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE D. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WEBHING E. DISCHARGES FROM DEWATERING ACTIVITIES INCLUDING ADT NECESSARILY LIMITED TO OF GROUND WATER OF TRENCHES, EXCAVATIONS, FOUNDATIONS, VAULTS, OR OTHER SIMILAR POINTS OF ACCUMULATION UNLESS MANAGED BY APPROPRIATE BMP'S / CONTROLS. |
| • | [| F. DISCHARGES TO SURFACE WATERS FROM SEDIMENT BASINS OR IMPOUNDMENTS UNLESS AN OUTLET STRUCTURE THAT WITHDRAWS WATER FROM THE SURFACE IS UTILIZED. G. TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR RELEASE. |
| | 1. T B 2. T 3. D | DLITION NOTES: The approximate areas of work have been outlined on the demolition plan. It is not practical to label every specific item to be removed, demolished, etc. across the site, so the area has been hatched. Some labeling has been added for identification of items that shall be removed and a few for items that fall in the hatched area or just outside of it that shall be retained. It is the contractor's responsibility to highlight any items he is unsure of during the bid process and request clarific item to be removed, and a few for items that shall be removed and a few for items that fall in the hatched area or just outside of it that shall be retained. It is the contractor's responsibility to highlight any items he is unsure of during the bid process and request clarific item to be retained area. |
| | 5. A 6. T 7. T | |
| - | | ALL DEBRIS CREATED FROM CLEARING, GRUBBING, AND DEMOLITION SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF. NO ON-SITE BURIAL OR BURNING OF DEBRIS WILL BE PERMITTED. XISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN TAKEN FROM LINE LOCATES AND/OR OTHER AVAILABLE RESOURCES AND ARE APPROXIMATE AND FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY, THROUGH THE UA, ALABAMA ONE CALL OR OTHER UTILITY LINE LOCATE PROCEDURES, ALL UTILITY LOCATIONS BEFORE CONSTRUCTION BEGINS. IN THE EVENT OF ANY DAMAGE TO ANY EXISTING UTILITIES, THEY SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE UA REPRESENTATIVE AND /OR UTILITY OWNER BY THE CONTRACTOR AT NO ALL |
| | 1. A | ION CONTROL NOTES: A BEST MANAGEMENT PRACTICES PLAN SHALL AT A MINIMUM, RETURN ALL EXPOSED OR DISTURBED AREAS TO ORIGINAL OR BETTER CONDITION WITH SOLID SOD AND/OR LANDSCAPING. EROSION CONTROL MEASURES, INCLUDING CONSTRUCTION EXIT PADS(S) SHOWN HEREIN TO PREVENT EROSION AND SEDIMENT RUNOFF ARE A MINIMUM AND SHALL NOT BE INTERPRETED AS BEING ALL THAT IS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL BE INTERPRETED AS DEING ALL THAT IS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL BE INTERPRETED AS DEING ALL THAT IS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL BE INTERPRETED AS DIMENSION AND SEDIMENTATION ON THE PROJECT AT ALL TIMES REQUIRED FOR THE PROJECT. CONTRACTOR SHALL BE INTERPRETED AS DIMENSION AND SHALL NOT BE INTERPRETED AS BEING ALL THAT IS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL BE INTERPRETED AS DIMENSION AND SEDIMENTATION ON THE PROJECT AT ALL TIMES REQUIRED BY ADEM AND "THE ALABAMA HANDBOOK FOR EROSION CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS". CURRENT EDITION. |
| | 2. T | THE PROJECT AREA SHALL REMAIN CLEAN AT ALL TIMES. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO KEEP THE PROJECT AREA CLEAN INCLUDING MOTORIZED STREET SWEEPERS, WATER AND VACUUM TRUCKS, HAND SWEEPING AND SHOVELING, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADDRESS THIS ISSUE EACH DAY INCLUDING WEEKENDS AND SPECIFICALLY BEFORE AND AFTER RAIN EVENTS. |
| | C | THE CONTRACTOR SHALL BE RESPONSIBLE FOR USING BEST MANAGEMENT PRACTICES (BMP'S) FOR EROSION AND SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" 5. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL ITEMS, ADDITIONAL EROSION CONTROL ITEMS, REQUIRED TO COMPLY WITH THE NPDES PERMIT. |
| | 3 A T | ALL DISTURBED AREAS SHALL BE STABILIZED AND PROTECTED FROM SEDIMENT LOSS DURING ALL TIMES AND THE FULL DURATION OF CONSTRUCTION. FOR LOCATIONS WHERE FINAL LANDSCAPE AND / OR CONCRETE-ASPHALT WILL BE COMPLETED WITHIN 30 CALENDAR DAYS, ALL BARE GROUND SHALL BE STABILIZED WITH TEMPORARY SEEDING AND THAM. AT NO TIME SHALL BAND THE FULL DURATION OF CONSTRUCTION. FOR LOCATIONS WHERE FINAL LANDSCAPE AND / OR CONCRETE-ASPHALT WILL BE STABILIZED WITH TEMPORARY SEEDING AND THAM. AT NO TIME SHALL BARE GROUND SHALL BE STABILIZED WITH TEMPORARY SEEDING AND THAM. AT NO TIME SHALL BARE GROUND GO MORE THAN THIRTEEN (13) CONSECUTIVE CALENDAR DAYS WITHOUT BEING HYDRAULICALLY STABILIZED IF WORK IS NOT ON-GOING IN THE IMMEDIATE AREA, INCLUDING EARTHEN MATERIAL SPOILS OR STOCKPILES. FURTHERMORE, ANY BARE GROUND AREA SHALL BE COVERED WITH THAM A MINIMUM OF TWENTY-FOUR (24) HOURS PARAS TO BE TEMPORARY SEEDED AND / OR MULCHED MAY BE LEFT IN A ROUGH GRADED CONDITION. AREAS THAT ARE SMOOTH OR HARD SHALL BE LIGHTLY SCARIFIED WITH SCARIFIED WITH SCARFFUNG TEETH OR SOME OTHER ACCEPTABLE METHOD, RUNNING PERPENDICULAR TO THE DIRECTION OF WATER FLOW, IN ORDER TO PROVIDE A ROUGH SURFACE AREA TO HOLD THE SEED / MULCH AND ASSIST IN PREVENTING THE FORMATION OF RILLS AND GULLEYS. THAM SHALL BE APPLIED AT A RESTRUCTURE SCARE ATO HOLD THE SEED / MULCH AND ASSIST IN PREVENTING THE FORMATION OF RILLS AND GULLEYS. THAM SHALL BE APPLIED RATE BE LESS THAN 2,000 LBS PER ACRE. TEMPORARY SEEDING AREAS SHALL BE AS REQUIRED BY SOIL TESTS (OBTAINED BY THE CONTRACTOR) BUT AS A MINIMUM BE APPLIED AT A RATE OF 200 LBS PER ACRE. CONTRACTORY SEEDING AREAS SHALL BE AS REQUIRED BY SOIL TESTS (OBTAINED BY THE CONTRACTOR) BUT AS A MINIMUM BE APPLIED AT A RATE OF 200 LBS PER ACRE. CONTRAC |
| | | ANY FINES INCURRED DUE TO FAILURE TO MAINTAIN EROSION CONTROL MEASURES SHALL BE PAID FOR BY THE CONTRACTOR. ANY ADDITIONAL WORK AND MATERIALS REQUIRED TO COMPLY WITH ANY FINES SHALL BE AT THE CONTRACTOR'S EXPENSE. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO DIRECT ADDITIONAL ITEMS OR REVISE IN-FIELD PLACEMENT OF EROSION CONTROL ITEMS AS DEEMED NECESSARY DURING ALL PHASES OF THE PROJECT. |
| | | CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OUT ALL SANITARY OR STORM SEWER MAINS AND MANHOLES ON A CONTINUAL BASIS IF CONSTRUCTION DEBRIS OR MATERIALS IN SEWERS. CONTRACTOR SHALL IMMEDIATELY REMOVE ANY SUCH DEBRIS OR MATERIAL TO SATISFACTION OF OWNER'S REPRESENTATIVE. |
| | 10. A | ALL TEMPORARY AND/OR EXCESS STONE USED FOR CONSTRUCTION ACCESS, SIDEWALKS, ROADWAYS, ETC. SHALL BE COMPLETELY REMOVED FROM THE PROJECT PRIOR TO FINAL SUBGRADE PREPARATION AND SHALL NOT BE WASTED ON-SITE. |
| | 12. A | ALL DEWATERING ACTIVITIES, INCLUDING BUT NOT LIMITED TO THE EXCAVATION PITS ASSOCIATED WITH THE BUILDING CONSTRUCTION AND SEDIMENT TRAPS, MUST DISCHARGE TO A BMP FOR TREATMENT PRIOR TO DISCHARGING TO THE RECEIVING STORM DRAIN. |
| | 14. A | SEE TECHNICAL SPECIFICATIONS FOR PARTICULAR REQUIREMENTS REGARDING DAILY SITE INSPECTIONS OF ALL BMP'S BY CONTRACTOR'S QCI. ALL CONCRETE WASHOUT WATER SHALL BE COLLECTED IN A LEAK PROOF CONTAINER SO THAT IT DOES NOT REACH THE SOIL SURFACE AND THEN MIGRATE TO SURFACE WATERS OR INTO GROUNDWATER. ALL OF COLLECTED CONCRETE WASHOUT WATER AND SOLIDS SHALL BE RECYCLED. |
|) | 16. T | THE UNIVERSITY OF ALABAMA HOLDS A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES) FOR THE ENTIRE UNIVERSITY CAMPUS. THIS PERMIT REQUIRES A DAILY INSPECTION OF BMP'S FOR ANY SITE WHERE THERE IS SITE DISTURBANCE ACTIVITY. THIS INSPECTION SHALL MEASUREMENTS AND ANY APPARENT BMP DEFICIENCIES. ALL INSPECTIONS MUST BE PERFORMED BY A QUALIFIED CREDENTIALED INSPECTION SHALL NOTE ANY RAINFALL MEASUREMENTS AND ANY APPARENT BMP DEFICIENCIES. ALL INSPECTIONS MUST BE PERFORMED BY A QUALIFIED CREDENTIALED INSPECTION SHALL NOTE ANY RAINFALL MEASUREMENTS AND ANY APPARENT BMP DEFICIENCIES. ALL INSPECTIONS MUST BE PERFORMED BY A QUALIFIED CREDENTIALED INSPECTION SHALL NOTE ANY RAINFALL MEASUREMENTS AND ANY APPARENT BMP DEFICIENCIES. ALL INSPECTIONS MUST BE PERFORMED BY A QUALIFIED CREDENTIALED INSPECTION SHALL NOTE ANY RAINFALL MEASUREMENTS AND ANY APPARENT BMP DEFICIENCIES. ALL INSPECTIONS MUST BE PERFORMED BY A QUALIFIED CREDENTIALED INSPECTION SHALL NOTE ANY RAINFALL MEASUREMENTS AND ANY APPARENT BMP DEFICIENCIES. ALL INSPECTIONS MUST BE PERFORMED BY A QUALIFIED CREDENTIALED INSPECTION SHALL NOTE ANY RAINFALL MEASUREMENTS AND ANY APPARENT BUP DEFICIENCIES. ALL INSPECTIONS MUST BE PERFORMED THAT IS KNOWLEDGEABLE OF BMP'S FOR ANY SITE WRETTED THE CONTRACTOR MUST MUST BE PERFORMED THAT IS KNOWLEDGEABLE OF BMP'S AND HAVE IT UPLOADED MONTHLY THE CONSTRUCTION ADMINISTRATION SHALL NOTE MUST BE REPORTED THE CONTRACTOR MUST BE PERFORMED THAT IS KNOWLEDGEABLE OF BMP'S AND HAVE IT UPLOADED MONTHLY TO THE CONSTRUCTION ADMINISTRATION SHAREPOINT PROJECT SITE. THE UA RESERVES THE RIGHT TO WITHHOLD THE CONTRACTOR'S MONTHLY PAYMENT. IF THESE REPORTED TO BE ADDRESSED. A FOLLOW UP INSPECTION SHALL NEED TO BE ADDRESSED. A FOLLOW UP INSPECTION WILL BE PERFORMED 7 DAYS FOLLOWING THE INITIAL INSPECTION TO DOCUMENT CORRECTED BMP'S. AT THIS TIME, IF ISSUES ON-SITE HAVE NOT BEEN ADDRESSED. A FOLLOW UP INSPECTION WILL BE PERFORMED 7 DAYS FOLLOWING THE INITIAL INSPECTION TO DOCUMENT CORRECTED BMP'S. AT THIS TIME, IF ISSUES ON-SITE HAVE NO |
| | Ν | ANY AND ALL AREAS DISTURBED AS PART OF THIS PROJECT, INCLUDING BUT NOT NECESSARILY LIMITED TO AREAS ASSOCIATED WITH LAYDOWN, SITE TRAILERS, ETC., SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL BMP'S, MAINTENANCE OF EROSION CONTROL BMP'S, ETC., AS REQUIRED FOR ADDITIONAL DISTURBED AREAS. ALL COSTS ASS MAINTENANCE, ETC. FOR THESE AREAS SHALL BE INCIDENTAL TO THE OVERALL BID UNLESS SPECIFICALLY APPROVED OTHERWISE BY THE UA. |
| | C | CONTRACTOR STALL BE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATELY REMOVED FROM THE SITE. THE SITE AT THE END OF THE PROJECT. ALL SEDIMENT DEPOSITS REMOVED FROM BMP's SHALL BE IMMEDIATELY DISPOSED OF OFF-SITE. |
| | 1. A | FIC CONTROL NOTES: ALL MATERIAL AND CONSTRUCTION SHALL COMPLY WITH CURRENT MUTCD, CITY OF TUSCALOOSA (OFFICE OF THE CITY ENGINEER) AND ALABAMA DEPARTMENT OF TRANSPORTATION STANDARDS AND POLICIES. |
| | 3. L | ROAD WORK AHEAD SIGNS SHALL BE POST MOUNTED ON ALL SIDE STREETS THAT FALL WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE PROJECT. ENGTH BETWEEN SIGNS SHALL VARY BASED ON MUTCD AND DESIGN SPEED. THE CONTRACTOR SHALL MODIFY AS PER MUTCD WHEN NECESSARY BASED ON LOCATION OF ROAD WORK. ALL TRAFFIC CONTROL DEVICES THAT ARE NOT APPLICABLE AT ANY SPECIFIC TIME SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER. COST SHALL BE INCIDENTAL TO THE PROJECT. |
| | 5. T 6. G 7. A | THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE SAFETY OF PEDESTRIAN TRAFFIC CROSSING THE WORK ZONES DURING CONSTRUCTION. GENERALIZED WORK ZONE TRAFFIC CONTROL PLANS HAVE BEEN PROVIDED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW THE MUTCD (LATEST EDITION) FOR ALL TRAFFIC CONTROL NECESSARY FOR HIS EXACT OPERATIONS AND SEQUENCING. ALL MATERIAL USED FOR ROADWAY SIGNAGE SHALL COMPLY WITH SECTION 880 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. |
| | 9. U | NSTALLATION OF ALL ROADWAY SIGNAGE SHALL COMPLY WITH SECTION 710 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. JNLESS OTHERWISE NOTED, SIGN SUPPORTS SHALL BE SINGLE "U" CHANNEL STEEL OR ALUMINUM POSTS MEETING THE REQUIREMENTS SET FORTH IN SECTION 880.04 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. TYPE III BARRICADES SHALL MEET THE REQUIREMENTS OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. |
| | | WARNING LIGHTS SHALL BE TYPE "A" LOW INTENSITY FLASHING TYPE LIGHTS MEETING THE REQUIREMENTS OF MUTCD LATEST EDITION. ALL ADVANCE WARNING SIGNS POSTED A THE BEGINNING AND END OF THE PROJECT SHALL BE POST-MOUNTED. SIGNS REQUIRED FOR ANY LANE CLOSURES SHALL BE TEMPORARILY MOUNTED. |
| | | ALTHOUGH PERIODIC ROAD CLOSURES MAY BE REQUIRED DURING THE PROJECT, THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUILDINGS AT ALL TIMES. T SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE UA A MINIMUM OF TEN DAYS IN ADVANCE OF ALL LANE AND/OR ROAD CLOSURES PRIOR TO CLOSINGS. THE FORMAT BELOW SHALL BE FOLLOWED WHEN PROVIDING SUCH NOTIFICATION: ROAD CLOSURE NOTICE FORMAT: |
| | | * * > INDICATES INFORMATION THAT SHOULD BE FILLED IN ON A CLOSURE BASIS. PLEASE REMOVE THE BRACKETS WHEN COMPLETING THE DATA. CLOSURE LASTING MULTIPLE DAYS: * CROAD NAME> WILL BE CLOSED BETWEEN < NEAREST INTERSECTING ROAD> AND <other intersecting="" nearest="" road=""> FROM <start time=""> <start day="" of="" the="" week=""> <start abbreviated="" month,="" not=""> <end day="" of="" the="" wonth="">, <four digit="" end="" year="">. CONTRACTOR NAME> ON BEHALF OF <owner name=""> WILL BE PERFORMING <brief description<="" p=""> * CROAD NAME> WILL BE CLOSED BETWEEN < NEAREST INTERSECTING ROAD> AND <other intersecting="" nearest="" road=""> FROM <start time=""> <start day="" of="" the="" week=""> <end abbreviated="" month,="" not=""> <end day="" of="" the="" wonth="">, <four digit="" end="" year="">. CONTRACTOR NAME> ON BEHALF OF <owner name=""> WILL BE PERFORMING <brief description<="" p=""> * CONTRACTOR NAME> ON THE WONTH, NOT ABBREVIATED> <end day="" of="" the="" week=""> <end abbreviated="" month,="" not=""> <end day="" of="" the="" wonth="">, <four digit="" end="" year="">. CONTRACTOR NAME> ON BEHALF OF <owner name=""> WILL BE PERFORMING <brief description<="" p=""> * CONTRACTOR NAME> ON THE WONTH, NOT ABBREVIATED> <end day="" of="" the="" week=""> <end abbreviated="" month,="" not=""> <end day="" of="" the="" wonth="">, <four digit="" end="" year="">. CONTRACTOR NAME> ON THE WEEK> <end abbreviated="" month,="" not=""> <end day="" of="" the="" week=""> <end abbreviated="" month,="" not=""> <end day="" of="" the="" wonth="">, <four digit="" end="" year="">.</four></end></end></end></end></four></end></end></end></brief></owner></four></end></end></end></brief></owner></four></end></end></start></start></other></brief></owner></four></end></start></start></start></other> |
| | | ROAD CLOSURE LASTING A SINGLE DAY FORMAT: * <road name=""> WILL BE CLOSED BETWEEN <nearest intersecting="" road=""> AND <other intersecting="" nearest="" road=""> FROM <start time=""> UNTIL <end time=""> <day of="" the="" week="">, <month, abbreviated="" not=""> <day month="" of="" the="">, <four digit="" year="">. <contractor name=""> WILL BE PERFORMING <brief being="" description="" of="" performed="" work="">. EXAMPLE:</brief></contractor></four></day></month,></day></end></start></other></nearest></road> |
| | | PAUL BRYANT DRIVE WILL BE CLOSED BETWEEN 10TH AVENUE AND WALLACE WADE AVENUE FROM 8:00 A.M. MONDAY FEBRUARY 22, 2021 UNTIL 5:00 P.M. FRIDAY MARCH 5, 2021. ABC CONTRACTING ON BEHALF OF THE UNIVERSITY OF ALABAMA WILL BE INSTALLING UTILITIES UNDER A PERMIT ISSUED BY THE CITY OF TUSCALOOSA. THE CLOSURE(S) SHALL NOT OCCUR UNTIL SUCH TIME THAT THE UA HAS APPROVED THE NOTICE AND PUBLISHED / DISTRIBUTED THE CLOSURE ANNOUNCEMENT. |
| | 1. 2. | THE WATER DISTRIBUTION AND FIRE PROTECTION SYSTEM IS OWNED AND OPERATED BY THE CITY OF TUSCALOOSA AND THE UA. THE CONTRACTOR SHALL NOT AT ANY TIME OPERATE EXISTING WATER VALVES AND FIRE HYDRANTS. THE CITY OF TUSCALOOSA OFFICE OF THE CITY ENGINEER (OCE), WATER DISTRIBUTION DIVISION PERSONNEL AND THE UA FIELD COORDINATOR(S) SHALL OPERATE ALL VALVING OWNED BY EACH ENTITY RESPECTIVELY WHE MATER SPECTIVELY WHE MATER DISTRIBUTION DIVISION PERSONNEL AND THE UA FIELD COORDINATOR(S) SHALL OPERATE ALL VALVING OWNED BY EACH ENTITY RESPECTIVELY WHE MATER SPECTIVELY WHE MATER SPECTIVELY BY THE CONTRACTOR FOR IMPROPER OPERATION OF THE WATER DISTRIBUTION DIVISION. ANY FINES AND/OR PENALTIES INCURRED BY THE CONTRACTOR FOR IMPROPER OPERATION OF THE WATER DISTRIBUTION AND FIRE PROTECTION SYSTEM SHALL BE THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS. |
| | 3. | BEGINS, THE CONTRACTOR SHALL HAVE ADEQUATE PERSONNEL, EQUIPMENT, AND MATERIALS TO WORK CONTINUOUSLY FROM THE TIME OF THE SHUTDOWN UNTIL THE WATER SERVICE IS RE-ESTABLISHED. ALL MATERIALS, WITH THE EXCEPTION OF THE CITY OF TUSCALOOSA WATER METER ASSEMBLY, SHALL BE PROVIDED BY THE CONTRACTOR. AND CITY PROVIDED MATERIALS SHALL BE INSTALLED BY THE CONTRACTOR. AND CITY PROVIDED MATERIALS SHALL BE INSTALLED BY THE CONTRACTOR. FOR THIS PROJECT, THERE ARE NO CITY WATER / SEWER SERVICE ASSESSMENT OR IMPACT FEES ASSOCIATED WITH THE PROPOSED NEW WATER METERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND PAYM ALL MATERIALS, WITH THE EXCEPTION OF THE CITY OF TUSCALOOSA WATER METERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND PAYM ALL CONTRACTOR. FOR THIS PROJECT, THERE ARE NO CITY WATER / SEWER SERVICE ASSESSMENT OR IMPACT FEES ASSOCIATED WITH THE PROPOSED NEW WATER METERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND PAYM ALL CONTRACTOR. FOR THIS PROJECT, THERE ARE NO CITY WATER / SEWER SERVICE ASSESSMENT OR IMPACT FEES ASSOCIATED WITH THE PROPOSED NEW WATER METERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND PAYM DOMESTIC WATER METER FEES / COSTS FOR THE DOMESTIC WATER METERS. AND METER ASSOCIATED WITH THE FIRE VAULT ASSEMBLY. COSTS OF SUCH METER FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL INCLUDE ONE (1) EACH 3/4" DOMESTIC METER ASSEMBLY (\$1,018.00), ONE (1) EACH 4.00, ONE (1 |
| | | THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL METERS / VAULTS. THE CITY OF TUSCALOOSA DOMESTIC WATER METER ASSEMBLY AND FIRE DETECTOR CHECK METER ASSEMBLY, INCLUDING THE ASSOCIATED VAULTS / BOXES, SHALL BE BE PROVIDED BY THE CITY AS PART OF THE WATER METER PERMIT FEE(S). THE UA METERS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. ALL UA PORTIONS OF THE BELOW GRADE UA DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE HDPE, INCLUDING ALL FITTINGS, JOINTS, BENDS, ETC., JOINED BY HEAT FUSION METHOD. |
| | | ALL MAINS AND SERVICE LINES SHALL HAVE 30" MINIMUM COVER SHALL BE MAINTAINED FROM EXISTING GROUND ELEVATIONS. TO THE TOP OF THE WATERMAIN. WATERMAINS SHALL BE INSTALLED BENEATH EXISTING UTILITIES AS NECESSARY TO PROVIDE 30" MINIMUM COVER, WITH ALL REQUIRED FITTINGS, BENDS, ETC. |
| | 9. | ALL UTILITY TRENCH BACKFILL SHALL BE INSTALLED AND COMPACTED PER TRENCH DETAILS WITH IN-PLACE DENSITY TESTS PERFORMED BY AN APPROVED GEOTECHNICAL TESTING FIRM. SCHEDULING OF ALL TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. |
| | 10. | SLEEVES (NO FABRICATED SLEEVES ALLOWED). ALL WATER DISTRIBUTION SYSTEM CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF TUSCALOOSA AND UA SPECIFICATIONS. |
| 3 | | ITARY SEWER NOTES: The contractor shall verify all elevations of existing utilities before installing required sanitary sewer structures and piping. The elevations shall be provided to the owner's representative for design verification and adjustments. If the contractor does not pothole and shoot existing utility elevations for design verification, any reconstruction shall be his responsibility |
| | | UNLESS OTHERWISE NOTED, THE COST OF INVERTS AND STEPS SHALL BE INCLUDED IN THE PRICE FOR SANITARY SEWER STRUCTURES. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR INVERTS AND STEPS. UNLESS OTHERWISE NOTED, THE COST OF RINGS AND COVERS SHALL BE INCLUDED IN THE PRICE FOR SANITARY SEWER STRUCTURES. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR RINGS AND COVERS. |
| | | PRECAST CONCRETE MANHOLES SHALL BE SIZED TO ACCOMMODATE REQUIRED PIPE ALIGNMENTS & ELEVATIONS AS SHOWN IN CONSTRUCTION PLANS, BUT IN NO CASE SHALL MANHOLES LESS THAN 48" INSIDE DIAMETER. SANITARY SEWER STRUCTURES MEASURING FOUR (4) FEET OR GREATER IN DEPTH FROM THE FINISHED TOP OF THE SANITARY SEWER STRUCTURE TO THE INVERT OUT ELEVATION SHALL HAVE STEPS INSTALLED. |
| | | ALL REQUIRED SANITARY SEWER RINGS/COVERS WITHIN PAVED AREAS SHALL MATCH TOP AND SLOPE OF ASPHALT FINISHED GRADE. PORTIONS OF ANY RING/COVERS AND/OR MANHOLES SHALL BE REMOVED AND RESET AS NECESSARY, IF THIS REQUIREMENT IS NOT MET. WHEN CONNECTING TO EXISTING UTILITIES WITH PROPOSED SANITARY SEWER MANHOLES, THE CONTRACTOR SHALL USE EXTREME CARE TO ONLY EXCAVATE AND REMOVE THE MINIMAL AMOUNT OF PIPING NECESSARY TO INSTALL THE STRUCTURE. DAMAGE CAUSED BY OVER-EXCAVATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CORRECT AT NO ADDITIONAL COST TO THE PROJECT. |
| | | ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF TUSCALOOSA SANITARY SEWER SPECIFICATIONS. SANITARY SEWER AND SANITARY SEWER AND SANITARY SEWER MAINS AND LATERALS (6" AND GREATER) SHALL, AS A MINIMUM BE AIR AND MANDREL TESTED IN THE PRESENCE OF A CITY OF TUSCALOOSA INSPECTOR PRIOR TO CONNECTING TO THE EXISTING SEWER AND/OR STRUCTURES. THE CONTRACTOR SHALL ALSO REQUEST A CCTV INSPECTION OF SEWER MAINS AND LATERALS (6" AND GREATER) SHALL, AS A MINIMUM BE AIR AND MANDREL TESTED IN THE PRESENCE OF A CITY OF TUSCALOOSA INSPECTOR PRIOR TO CONNECTING TO THE EXISTING SEWER AND/OR STRUCTURES. THE CONTRACTOR SHALL ALSO REQUEST A CCTV INSPECTION OF SEWER MAINS ANITARY SEWER MAINS AND LATERALS (6" AND GREATER) SHALL, AS A MINIMUM BE AIR AND MANDREL TESTED IN THE PRESENCE OF A CITY OF TUSCALOOSA INSPECTOR PRIOR TO CONNECTING TO THE EXISTING SEWER AND/OR STRUCTURES. THE CONTRACTOR SHALL ALSO REQUEST A CCTV INSPECTION OF SEWER MAINS ANITARY SEWER MAINS AND LATERALS (6" AND GREATER) SHALL ALSO REQUEST A CCTV INSPECTION OF SEWER MAINS ANITARY SEWER MAINS ANITARY SEWER MAINS AND CONNECTING TO THE EXISTING SEWER AND/OR STRUCTURES. THE CONTRACTOR SHALL ALSO REQUEST A CCTV INSPECTION OF SEWER MAINS AND AND TO THE EXISTING SEWER AND/OR STRUCTURES. THE CONTRACTOR SHALL ALSO REQUEST A CCTV INSPECTION OF SEWER MAINS AND AND TO THE EXISTING SEWER MAINS AND AND TO THE EXIST OF TUSCALOOSA, THROUGH THE OWNER'S REPRESENTATIVE. |
| | | CONTRACTOR SHALL PERFORM ANY BY-PASS PUMPING OF EXISTING SEWER DURING THE INSTALLATION AND CONNECTIONS OF SANITARY SEWER ASSOCIATED WITH THE PROJECT. BY-PASS PUMPING SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF SANITARY SEWER MAINS AND LATERAL RE-CONNECTIONS. THE SUB-CONTRACTOR RESPONSIBLE FOR INSTALLATION OF SANITARY SEWER SHALL SUBMIT TO THE CITY ENGINEER, 14 DAYS PRIOR TO COMMENCING CONSTRUCTION, A WASTEWATER CONTAINMENT AND MANAGEMENT PLAN (THE "PLAN"). THE PLAN SHALL ADEQUATELY ADDRESS THE MEANS, METHODS AND TECHNIQUES TO BE EMPLOYED BY THE SUB-CONTRACTOR FOR CONTAINING AND TRANSPORTING WASTEWATER IN A SANITARY MANNER WITHOUT |
| | | WASTEWATER INTO THE ENVIRONMENT OR CREATING THE NECESSITY OF A STATE REQUIRED SANITARY SEWER OVERFLOW REPORT. THE PLAN SHALL BE SUBMITTED BY THE SUB-CONTRACTOR TO THE OFFICE OF CITY ENGINEER FOR REVIEW AND APPROVAL BEFORE COMMENCING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ANY AND ALL REQUIREMENTS OF THE REQUIRED CITY OF TUSCALOOSA SANITARY SEWER CONSTRUCTION PERMIT (PERMIT). THE PERMIT WILL BE OBTAINED BY THE UA. |
| | 15. | FOR ALL CONSTRUCTION/RECONSTRUCTION/CONNECTIONS OF SEWER SERVICE LINES (LATERALS) BEYOND PUBLIC ROAD RIGHT-OF-WAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND DEVELOPMENT SERVICES. UNLESS OTHERWISE NOTED WITHIN THE CONSTRUCTION DOCUMENTS, COSTS FOR THE "PLUMBING PERMITS" SHALL BE INCIDENTAL TO THE PROJECT A LICENSED PLUMBER (STATE OF ALABAMA) MUST PERFORM ALL WORK ASSOCIATED WITH CONSTRUCTION/RECONSTRUCTION/RECONSTRUCTION/CONNECTIONS OF SEWER SERVICE LINES (LATERALS) BEYOND PUBLIC ROAD RIGHT-OF-WAY. |
| | | SYSTEM NOTES: At a 3/4" @ Pe2406 PIPE with Interim tracer wire along the top of the distribution PIPE. Attach the tracer wire to transition riser above ground for PIPING locating. |
| | 2. ALL | L MAINS SHALL HAVE A MINIMUM COVER OF 36" FROM FINISHED GRADE TO TOP OF PIPE. S SYSTEM SUBCONTRACTOR SHALL BE TRAINED AND CERTIFIED FOR USE AND INSTALLATION OF POLYETHYLENE PIPE. UAC 2000 SYSTEM TO BE JOINED BY BUTT FUSION, UNLESS OTHER ACCEPTABLE METHOD IS APPROVED. FOLLOW AGA OR ASTM INSTALLATION SUGGESTIONS AND RECOMMENDATIONS. |
| | | SYSTEM SUBCONTRACTOR SHALL BE TRAINED AND CERTIFIED FOR USE AND INSTALLATION OF POLYETHYLENE PIPE. UAC 2000 SYSTEM TO BE JOINED BY BUTT FUSION, UNLESS OTHER ACCEPTABLE METHOD IS APPROVED. FOLLOW AGA OR ASTM INSTALLATION SUGGESTIONS AND RECOMMENDATIONS. |
| 4 | 1. POL | LY PIPE GDY20 PE2406/PE2708 SDR 11.0 YELLOW MDPE PIPE FOR NATURAL GAS DISTRIBUTION OR APPROVED EQUAL. |
| | 3. CEN | NTRAL PLASTICS COMPANY ANODELESS RISERS W/ PE2406 / 2708 PIPE WITH TRACER WIRE CONNECTIONS. SCHEDULE 40 STEEL GAS CARRIER FOR WELDED CONNECTIONS. STEEL PROTECTED WITH ELECTROSTATICALLY DESIGNED FOR THE EXTERIOR OF GAS PETROLEUM PIPELINES. 2", 6", AS NEEDED. |
| | | LYBALL PE2406 BALL VALVES, FULL PORT, SDR11.0, BUTT FUSION, OR APPROVED EQUAL. ER UNION 6855 SLIP TYPE VALVE BOX, C.I., 2-PIECE WITH CAP INDICATING "GAS," OR EQUAL. SELECT FOR APPLICATION OR APPROVED EQUAL BY OTHERS. |
| | 7. THE | CEPTABLE MANUFACTURERS: M.T. DEASON, KEROTEST, POLYBALL, CENTRAL PLASTICS. E CONTRACTOR SHALL BE REQUIRED TO PERFORM A 24-HOUR AIR TEST OF THE ENTIRE SYSTEM BEFORE GAS IS INTRODUCED TO THE SYSTEM. ALL TESTING PROCEDURES AND RESULTS SHALL BE REVIEWED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF ALABAMA. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THIS CONSULTANT. UPON APPROVAL OF THE TEST RESULTS AT THE PRESSURES DICTATED BY THE LICENSED ENGINEER, GAS MAY BE INTRODUCED INTO ESTEM DEFORE GAS IS INTRODUCED TO THE SYSTEM. ALL TESTING PROCEDURES AND RESULTS SHALL BE REVIEWED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF ALABAMA. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THIS CONSULTANT. UPON APPROVAL OF THE TEST RESULTS AT THE PRESSURES DICTATED BY THE LICENSED ENGINEER, GAS MAY BE INTRODUCED INTO ESTEM DEFORE GAS IS INTRODUCED TO THE SYSTEM. ALL TESTING PROCEDURES AND RESULTS SHALL BE REVIEWED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF ALABAMA. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THIS CONSULTANT. UPON APPROVAL OF THE TEST RESULTS AT THE PRESSURES DICTATED BY THE LICENSED ENGINEER, GAS MAY BE INTRODUCED INTO ESTEM DEFORE GAS IS INTRODUCED TO THE SYSTEM. ALL TESTING PROCEDURES AND RESULTS SHALL BE REVIEWED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF ALABAMA. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THIS CONSULTANT. UPON APPROVAL OF THE TEST RESULTS AT THE PRESSURES DICTATED BY THE LICENSED ENGINEER, GAS MAY BE INTRODUCED INTO ESTEM DEFORE GAS IS INTRODUCED TO THE SYSTEM. |
| | 8. ALL | E SYSTEM IN COORDINATION WITH SPIRE, OWNER, BUILDING CONTRACTOR, AND SURROUNDING PROPERTY OWNERS. REQUIRED MATERIAL SUBMITTALS FOR THE PROJECT MATERIALS SHALL BE REVIEWED AND STAMPED APPROVED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF ALABAMA. HE SHALL ALSO MAKE PERIODIC SITE VISITS DURING THE GAS SYSTEM INSTALLATION, TESTING, AND GAS INTRODUCTION. |
| | 9. THE | E CONTRACTOR SHALL BE REQUIRED TO SUBMIT DURING THE SUBMITTAL PROCESS A COPY OF HIS ENGINEERING CONSULTANT'S PROFESSIONAL LICENSE, ALL REQUIRED LICENSES AND CERTIFICATIONS FOR HIS GAS SYSTEM INSTALLER. NO WORK SHALL BE ALLOWED TO BEGIN UNTIL THIS INFORMATION IS RECEIVED AND APPROVED. |

SHALL, AS A MINIMUM BE AIR AND MANDREL TESTED IN THE PRESENCE OF A CITY OF TUSCALOOSA INSPECTOR PRIOR TO CONNECTING TO THE EXISTING SEWER AND/OR STRUCTURES. THE CONTRACTOR SHALL ALSO REQUEST A CCTV INSPECTION OF SEWER MAINS AND LATERALS 6" OR GREATER BY THE CITY OF JSCALOOSA, THROUGH THE OWNER'S REPRESENTATIVE. IPING SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF SANITARY SEWER MAINS AND LATERAL RE-CONNECTIONS.

MENT OF THE SLEEVE, TESTING, ETC. TAPPING SLEEVES SHALL BE "BLOCKED" TO PREVENT STRESSES ON MAINS DURING THE TAPPING OPERATION. TAPPING OPERATION. TAPPING SLEEVES SHALL BE FULL BODY DUCTILE IRON MECHANICAL JOINT

TING WATER VALVES AND FIRE HYDRANTS. THE CITY OF TUSCALOOSA OFFICE OF THE CITY ENGINEER (OCE), WATER DISTRIBUTION DIVISION PERSONNEL AND THE UA FIELD COORDINATOR(S) SHALL OPERATE ALL VALVING OWNED BY EACH ENTITY RESPECTIVELY WHEN REQUIRED. TAPS AND CONNECTIONS TO EXISTING WATER DISTRIBUTION AND FIRE PROTECTION SYSTEM SHALL BE THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS. , METER INSTALLATIONS, AND/OR TIE-INS TO BE PERFORMED AFTER HOURS (6:00 PM - 6:00 AM) OR ON WEEKENDS AT TIMES / DATES DETERMINED AND THE UA AND THE CITY OF TUSCALOOSA. A MINIMUM OF 72 HOURS NOTICE PRIOR TO ANY SHUT-DOWNS SHALL BE REQUIRED. ONCE SHUT-DOWN

Sent documenting the BMP's that need to be addressed. A follow up inspection will be performed 7 days following the initial inspection to document corrected BMP's. At this time, if issues on-site have not been addressed, the city of tuscaloosa will initiate its escalating ITLY STABILIZED UPON PROJECT COMPLETION. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL BMP'S, MAINTENANCE OF EROSION CONTROL BMP'S, ETC., AS REQUIRED FOR ADDITIONAL DISTURBED AREAS. ALL COSTS ASSOCIATED WITH STABILIZATION, ADDITIONAL BMP'S, T / VEHICLES LEAVING THE SITE. THE SIZE AND LENGTH SHALL BE AS NECESSARY TO PREVENT TRACKING AND / OR SEDIMENT LEAVING THE SITE. CONSTRUCTION PADS SHALL BE MAINTAINED AT ALL TIMES BY ANY AND ALL MEANS NECESSARY AND / OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL /EXIT IS CONSIDERED INCIDENTAL TO THE PROJECT REGARDLESS THE NUMBER OF TIMES SUPPLEMENTAL STONE IS REQUIRED. ALL STONE SHALL BE COMPLETELY REMOVED FROM THE SITE AT THE END OF THE PROJECT.

OR SHALL PROMPTLY MEDIATE, CLEAN UP, REMOVE ANY EROSION OR SEDIMENTATION FROM ALL EROSION CONTROL ITEMS, STRUCTURES, TRAPS, BASINS, ETC. AND REPAIR, MAINTAIN, RE-INSTALL, SUPPLEMENT SUCH IMMEDIATELY FOLLOWING EACH RAIN EVENT OR AS DIRECTED BY OWNER'S REPRESENTATIVE.

E REMOVED FROM THE SITE. / OR CONCRETE-ASPHALT WILL BE COMPLETED WITHIN 30 CALENDAR DAYS, ALL BARE GROUND SHALL BE STABILIZED WITH TEMPORARY HYDRAULICALLY APPLIED MULCH (NO SEEDING) WITH A TACKIFIER ADHESIVE (THAM). FOR LOCATIONS WHERE FINAL LANDSCAPE AND / OR CONCRETE-ASPHALT WILL NOT BE COMPLETED WITHIN 30 CALENDAR DAYS, ALL BARE GROUND SHALL BE STABILIZED WITH A TACKIFIER ADHESIVE (THAM). FOR LOCATIONS WHERE FINAL LANDSCAPE AND / OR CONCRETE-ASPHALT WILL NOT BE COMPLETED WITHIN 30 WITHOUT BEING HYDRAULICALLY STABILIZED IF WORK IS NOT ON-GOING IN THE IMMEDIATE AREA, INCLUDING EARTHEN MATERIAL SPOILS OR STOCKPILES. FURTHERMORE, ANY BARE GROUND AREA SHALL BE COVERED WITH THAM A MINIMUM OF TWENTY-FOUR (24) HOURS PRIOR TO ANY FORECASTED / ANTICIPATED RAIN EVENT SOME OTHER ACCEPTABLE METHOD, RUNNING PERPENDICULAR TO THE DIRECTION OF WATER FLOW, IN ORDER TO PROVIDE A ROUGH SURFACE AREA TO HOLD THE SEED / MULCH AND ASSIST IN PREVENTING THE FORMATION OF RILLS AND GULLEYS. THAM SHALL BE APPLIED AT A RATE AS DESIGNATED BY THE MANUFACTURER FOR TEMPORARY SEEDING MIX SHALL BE PER THE PROJECT SPECIFICATIONS. NECESSARY FERTILIZER FOR TEMPORARY SEEDING AREAS SHALL BE AS REQUIRED BY SOIL TESTS (OBTAINED BY THE CONTRACTOR) BUT AS A MINIMUM BE APPLIED AT A RATE OF 200 LBS PER ACRE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ANY

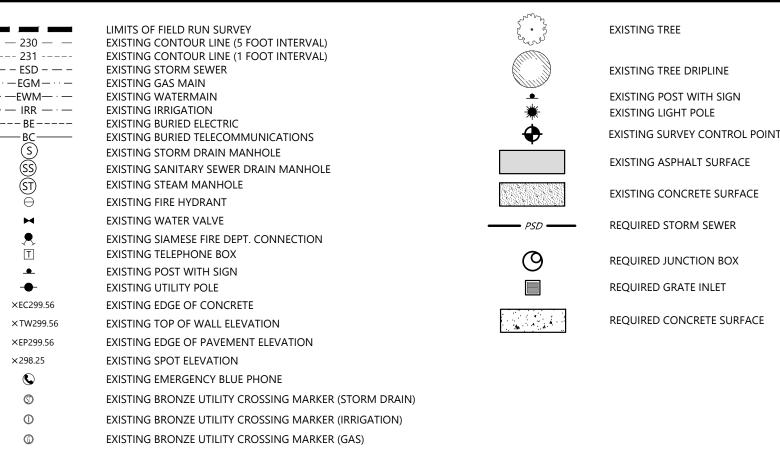
NDBOOK FOR EROSION CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS", CURRENT EDITION. ERS, WATER AND VACUUM TRUCKS, HAND SWEEPING AND SHOVELING, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADDRESS THIS ISSUE EACH DAY INCLUDING WEEKENDS AND SPECIFICALLY BEFORE AND AFTER RAIN EVENTS. LAN IS PROVIDED AS A MINIMUM GUIDE FOR PROVIDING STRUCTURAL BMP'S. PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT" SHALL BE UTILIZED TO MINIMIZE EROSION. NO EXTRA

OSION CONTROL MEASURES, INCLUDING CONSTRUCTION EXIT PADS(S) SHOWN HEREIN TO PREVENT EROSION AND SEDIMENT RUNOFF ARE A MINIMUM AND SHALL NOT BE INTERPRETED AS BEING ALL THAT IS REQUIRED FOR THE PROJECT. CONTRACTOR SHALL BE MINDFUL DURING ALL PHASES OF THE PROJECT AND

AMA ONE CALL OR OTHER UTILITY LINE LOCATE PROCEDURES, ALL UTILITY LOCATIONS BEFORE CONSTRUCTION BEGINS. IN THE EVENT OF ANY DAMAGE TO ANY EXISTING UTILITY OWNER BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT OR THE UTILITY OWNER.

ABELING HAS BEEN ADDED FOR IDENTIFICATION OF ITEMS THAT SHALL BE REMOVED AND A FEW FOR ITEMS THAT SHALL BE REMOVED AND A FEW FOR ITEMS THAT FALL IN THE HATCHED AREA OR JUST OUTSIDE OF IT THAT SHALL BE RETAINED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HIGHLIGHT ANY ITEMS HE IS UNSURE OF DURING THE BID PROCESS AND REQUEST CLARIFICATION. NO CLAIMS SHALL BE REMOVED AND A FEW FOR ITEMS THAT FALL IN THE HATCHED AREA OR JUST OUTSIDE OF IT THAT SHALL BE REMOVED AND A FEW FOR ITEMS THAT FALL IN THE HATCHED AREA OR JUST OUTSIDE OF IT THAT SHALL BE REMOVED AND A FEW FOR ITEMS THAT FALL IN THE HATCHED AREA OR JUST OUTSIDE OF IT THAT SHALL BE REMOVED AND A FEW FOR ITEMS THAT FALL IN THE HATCHED AREA OR JUST OUTSIDE

SYMBOLS LEGEND ONTROL, ETC. OF ALL LANDSCAPE AREAS INSIDE THE SITE CONSTRAINT FENCING DURING THE ENTIRE COURSE OF THE PROJECT AT NO ADDITIONAL COSTS TO THE OWNER. OWNER RESERVES THE RIGHT TO PERFORM THE WORK OR HIRE A 3RD PARTY LANDSCAPE CREW IF CONTRACTOR FAILS TO PERFORM AND BACK CHARGE THE CONTRACTOR FOR ALL COSTS. e the exact location of all underground utilities by hand excavation ("Potholing") or other means. It is the sole responsibility of the contractor to protect all utilities, both overhead and underground, and to conduct his work in a manner to protect his employees, subcontractors and others from hazardous conditions associated LIMITS OF FIELD RUN SURVEY — 230 — — --- 231 -----— – ESD – — – EXISTING STORM SEWER · -- EGM -- · · --EXISTING GAS MAIN · —EWM— · — EXISTING WATERMAIN EXISTING IRRIGATION ---- BE -----EXISTING BURIED ELECTRIC — BC — — ONCRETE ABUTTING REQUIRED CONCRETE SURFACES WITHIN THE PROJECT LIMITS TO ELIMINATE STAINING FROM EARTHEN MATERIAL, CONSTRUCTION EQUIPMENT, OILS, PAINTS, ETC. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN. EXISTING STORM DRAIN MANHOLE EXISTING STEAM MANHOLE EXISTING FIRE HYDRANT ((S) SHALL BE PERFORMED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL SURVEYOR IN THE STATE OF ALABAMA. A COPY OF THE SURVEYOR'S LICENSE SHALL BE PROVIDED TO THE OWNER WITH OTHER REQUIRED SUBMITTALS. THE OWNER SHALL PROVIDE DIGITAL FILES AND FIELD CONTROL AS NECESSARY FOR THE SURVEYOR'S LICENSE SHALL BE PROVIDED TO THE OWNER WITH OTHER REQUIRED SUBMITTALS. THE OWNER SHALL PROVIDE DIGITAL FILES AND FIELD CONTROL AS NECESSARY FOR THE SURVEYOR'S LICENSE SHALL BE PROVIDED TO THE OWNER WITH OTHER REQUIRED SUBMITTALS.



SIONAL (QCP), A CTOR MUST MAINTAIN A LOG OF ALL DAILY INSPECTIONS AND HAVE IT UPLOADED MONTHLY TO THE CONSTRUCTION ADMINISTRATION SHAREPOINT PROJECT SITE. THE UA RESERVES THE RIGHT TO WITHHOLD THE CONTRACTOR'S MONTHLY PAYMENT IF THESE REPORTS ARE NOT UPLOADED.

TART DAY OF THE MONTH>, <FOUR DIGIT START YEAR> UNTIL <END TIME> <END DAY OF THE WEEK> <END MONTH, NOT ABBREVIATED> <END DAY OF THE MONTH>, <FOUR DIGIT END YEAR>. <CONTRACTOR NAME> ON BEHALF OF <OWNER NAME> WILL BE PERFORMING <BRIEF DESCRIPTION OF WORK BEING PERFORMED>

HALL BE INSTALLED BY THE CONTRACTOR. FOR THIS PROJECT, THERE ARE NO CITY WATER / SEWER SERVICE ASSESSMENT OR IMPACT FEES ASSOCIATED WITH THE PROPOSED NEW WATER METERS. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND PAYMENT OF THE TYPICAL CITY OF TUSCALOOSA TY OF THE CONTRACTOR AND SHALL INCLUDE ONE (1) EACH 3/4" DOMESTIC METER ASSEMBLY (\$1,018.00), ONE (1) EACH 2" IRRIGATION METER ASSEMBLY (\$3,250.00), AND ONE (1) EACH 6" FIRE DETECTOR METER (\$358.20), BASED ON THE CURRENT CITY OF TUSCALOOSA REGULATIONS. THE CONTRACTOR SHALL ALSO BE ERVATION FEES PER CURRENT CITY STANDARDS. DURING CONSTRUCTION, INCLUDING WATERMAIN FLUSHING AND TESTING OPERATIONS, COST OF WATER USAGE SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR AND BE INCIDENTAL TO THE OVERALL COST OF THE PROJECT. COSTS ASSOCIATED WITH THE

INMENT AND MANAGEMENT PLAN (THE "PLAN"). THE PLAN SHALL ADEQUATELY ADDRESS THE MEANS, METHODS AND TECHNIQUES TO BE EMPLOYED BY THE SUB-CONTRACTOR FOR CONTAINING AND TRANSPORTING WASTEWATER IN A SANITARY MANNER WITHOUT, AT ANY TIME, PERMITTING THE DISCHARGE OF

PROFESSIONAL SURVEYOR JUSTIN McPHERSON, P.L.S. P.O. BOX 870186 TUSCALOOSA, AL 35401 OFFICE: (205) 348-2788 MOBILE: (205) 242-2300

MECHANICAL DWIGHT STEWART, P.E. P.O. BOX 870294 TUSCALOOSA, AL 35401 OFFICE: (205) 348-1910 MOBILE: (205) 523-3361

RICHARD POWELL, P.E. P.O. BOX 870186 TUSCALOOSA, AL 35401 OFFICE: (205) 348-1392 MOBILE: (205) 292-7840

POWER DISTRIBUTION ALABAMA POWER COMPANY CONTACT: RUSSELL HILL 915 QUEEN CITY AVENUE TUSCALOOSA, ALABAMA 35401 (205) 614-1212

POWER TRANSMISSION ALABAMA POWER COMPANY CONTACT: GLEN EASTERWOOD 915 QUEEN CITY AVENUE TUSCALOOSA, ALABAMA 35401

UNIVERSITY OF ALABAMA CONTACTS

PLUMBING, HEATING & COOLING STEVEN MIZE P.O. BOX 870294 TUSCALOOSA, AL 35401 OFFICE: (205) 348-1622 MOBILE: (205) 361-1604

PROJECT MANAGEMENT MARY KATHRYN HOLT P.O. BOX 870186 TUSCALOOSA, AL 35401 OFFICE: (205) 348-5950 MOBILE: (256) 710-5834 EMAIL: zickl001@ua.edu ELECTRICAL

BILLY KILGORE, P.E. OFFICE: (205) 348-6526 MOBILE: (205) 919-5429

1205 14TH STREET, ROOM 2154 TUSCALOOSA, AL 35401 OFFICE: (205) 348-1629 MOBILE: (205) 242-6179

BONNER LEE, P.L.A.

SANITARY SEWER

P.O. BOX 870186

RICHARD POWELL, P.E.

TUSCALOOSA, AL 35401

OFFICE: (205) 348-1392

MOBILE: (205) 292-7840

LANDSCAPE ARCHITECT

SHANE MERRITT P.O. BOX 870346 TUSCALOOSA, AL 35401 OFFICE: (205) 348-5610 MOBILE: (205) 292-7840

UTILITY COMPANY CONTACTS

CONTACT: JOHN PRICE

(205) 349-1050

GAS

SPIRE

PHONE AT&T CONTACT: BRETT AVERETTE 3121 BUTTERMILK ROAD COTTONDALE, ALABAMA 35453 OFFICE: (205) 562-3095 MOBILE: (205) 764-7045

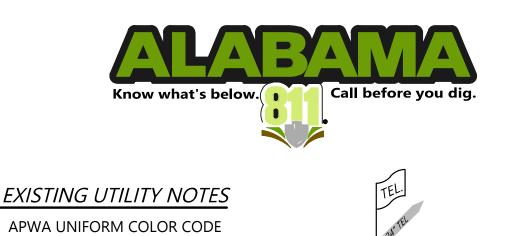
CABLE TV COMCAST CABLE CONTACT: DANIEL HOLT 1131 WHIGHAM PLACE TUSCALOOSA, ALABAMA 35405 OFFICE:(205) 391-3687 MOBILE:(205) 233-4181

5220 METRO PARK DRIVE TUSCALOOSA, ALABAMA 35401

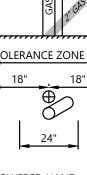
CITY OF TUSCALOOSA CONTACT OFFICE OF THE CITY ENGINEER CONTACT: MIKE GARDINER, P.E. /P.L.S. 2201 UNIVERSITY BOULEVARD TUSCALOOSA, ALABAMA 35401

(205) 248-5367

CITY OF TUSCALOOSA NOTIFICATION REQUIREMENTS: 1. MIKE GARDINER WITH THE OFFICE OF THE CITY ENGINEER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION COMMENCING.

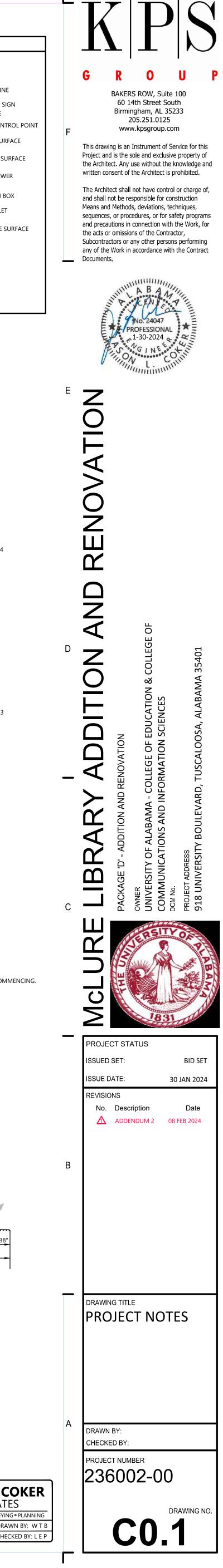


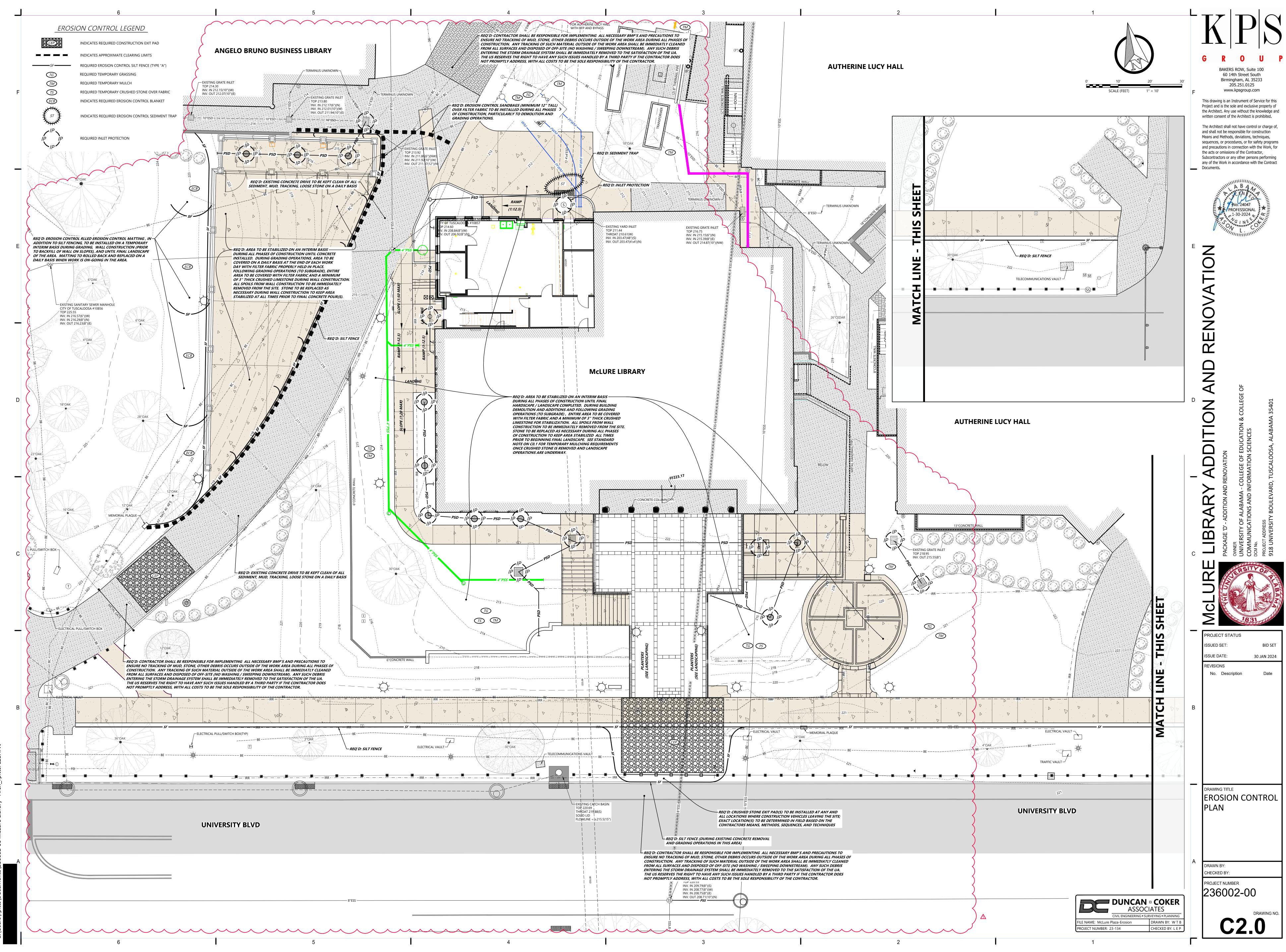
FOR MARKING UNDERGROUND UTILITY LINES WHITE - Proposed excavation PINK - Temporary survey markings RED - Electric Power Lines, Cables, Conduit and Lighting Cables YELLOW - Gas, Oil, Steam, Petroleum or Gaseous Materials BLUE - Potable Water PURPLE - Reclaimed Water, Irrigation and Slurry Lines **GREEN** - Sewers and Drain Lines

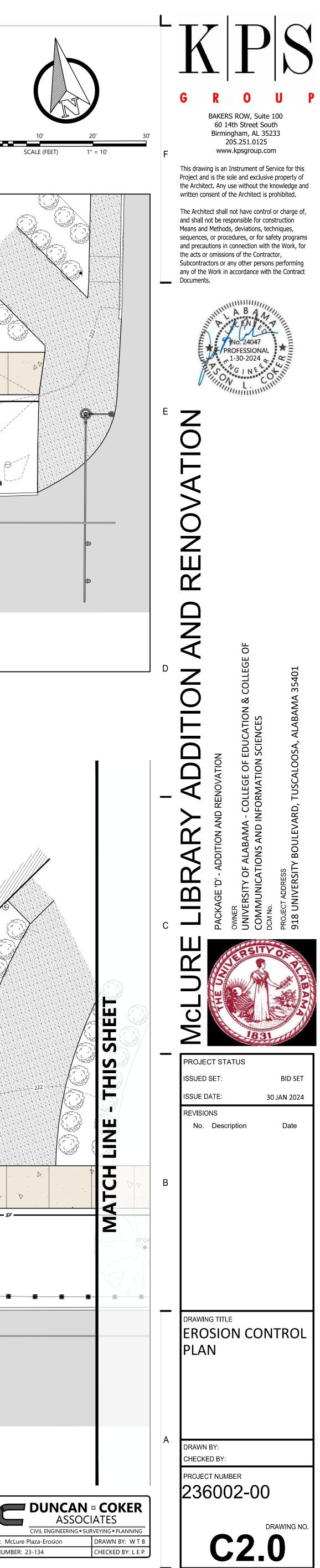


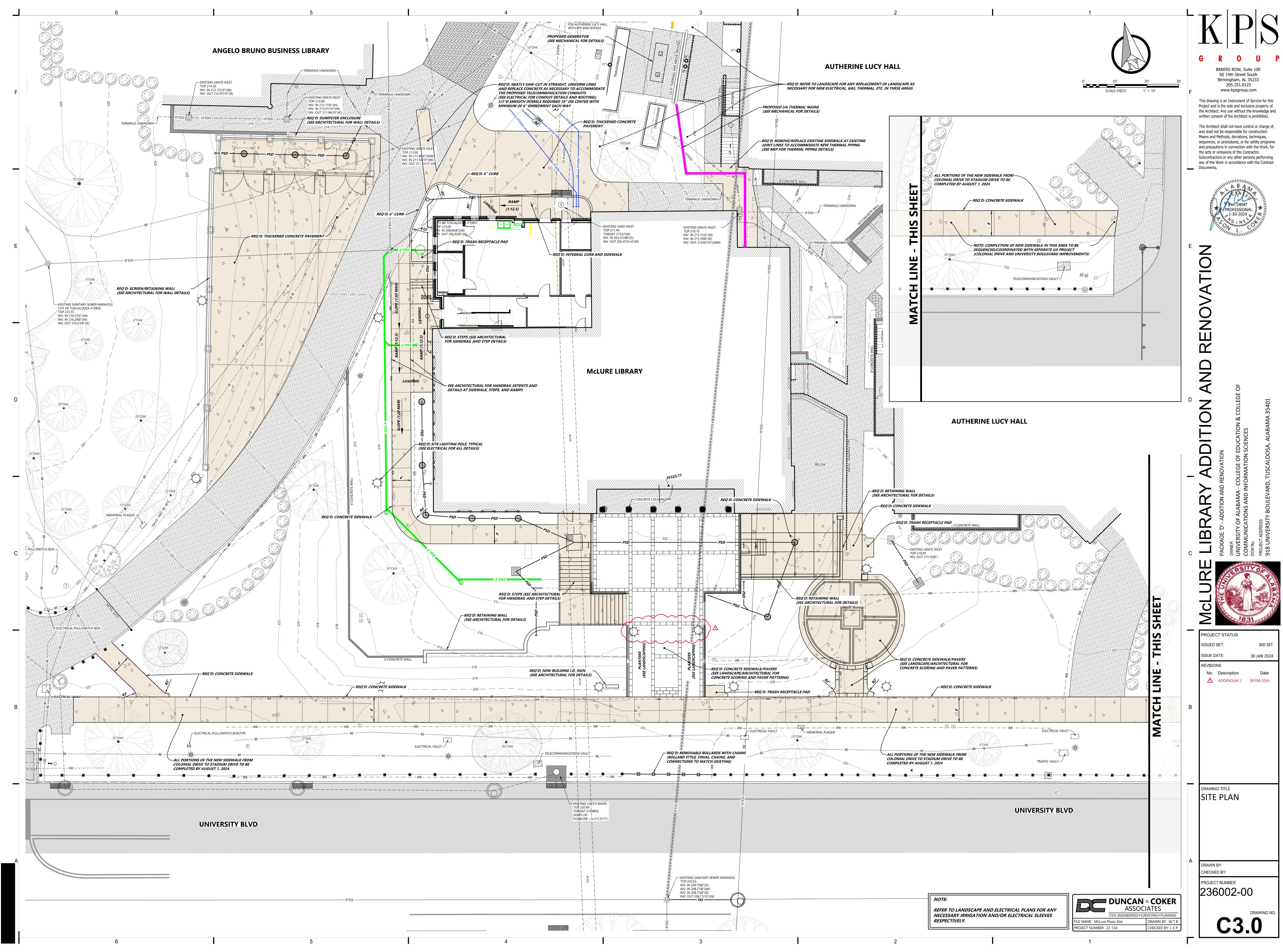
ANY EXCAVATION WITHIN THE TOLERANCE ZONE SHOULD BE PERFORMED WITH NON-POWERED HAND TOOLS OR NON-INVASIVE METHODS UNTIL THE MARKED FACILITY IS EXPOSED. THE WIDTH OF THE TOLERANCE ZONE MAY BE SPECIFIED IN LAW OR CODE. IF NOT, 500mm (18") IS REQUIRED FROM EACH SIDE OF THE FACILITY. THE TOLERANCE ZONE INCLUDES THE WIDTH OF THE FACILITY PLUS 18" (500mm) MEASURED HORIZONTALLY FROM EACH SIDE OF THE FACILITY.

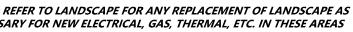
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| CIVIL ENGINE | ERING = SURVEY |
| FILE NAME: McLure Plaza-Notes | DF |
| PROJECT NUMBER: 23-134 | CH |
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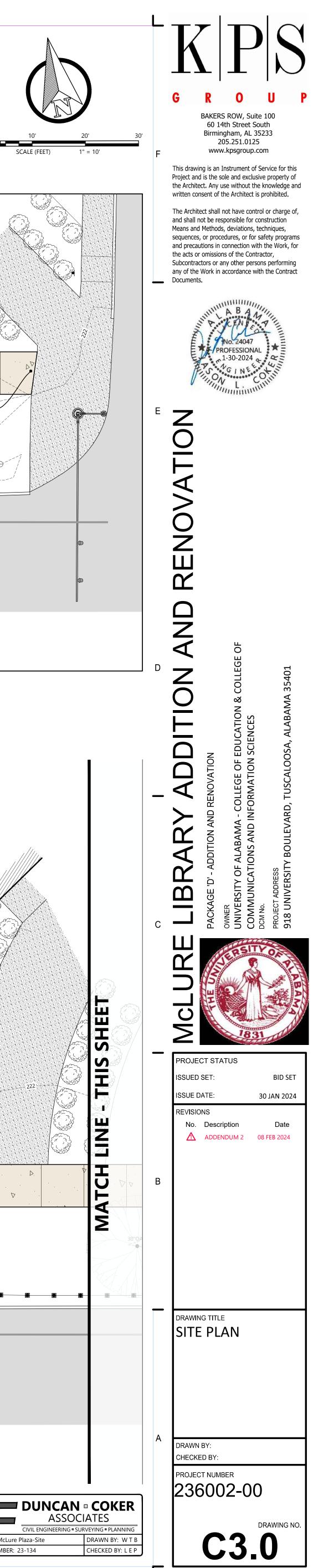


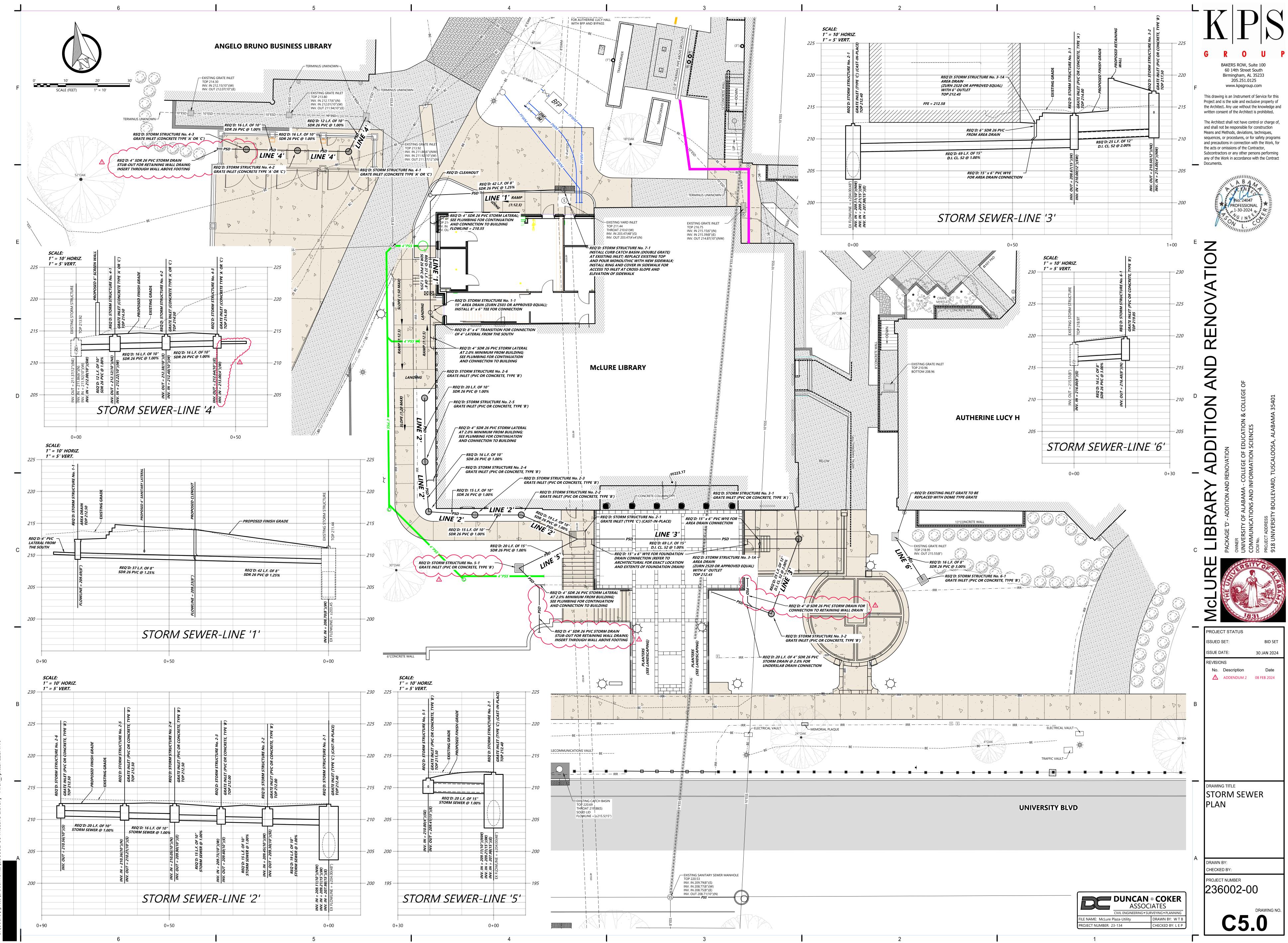


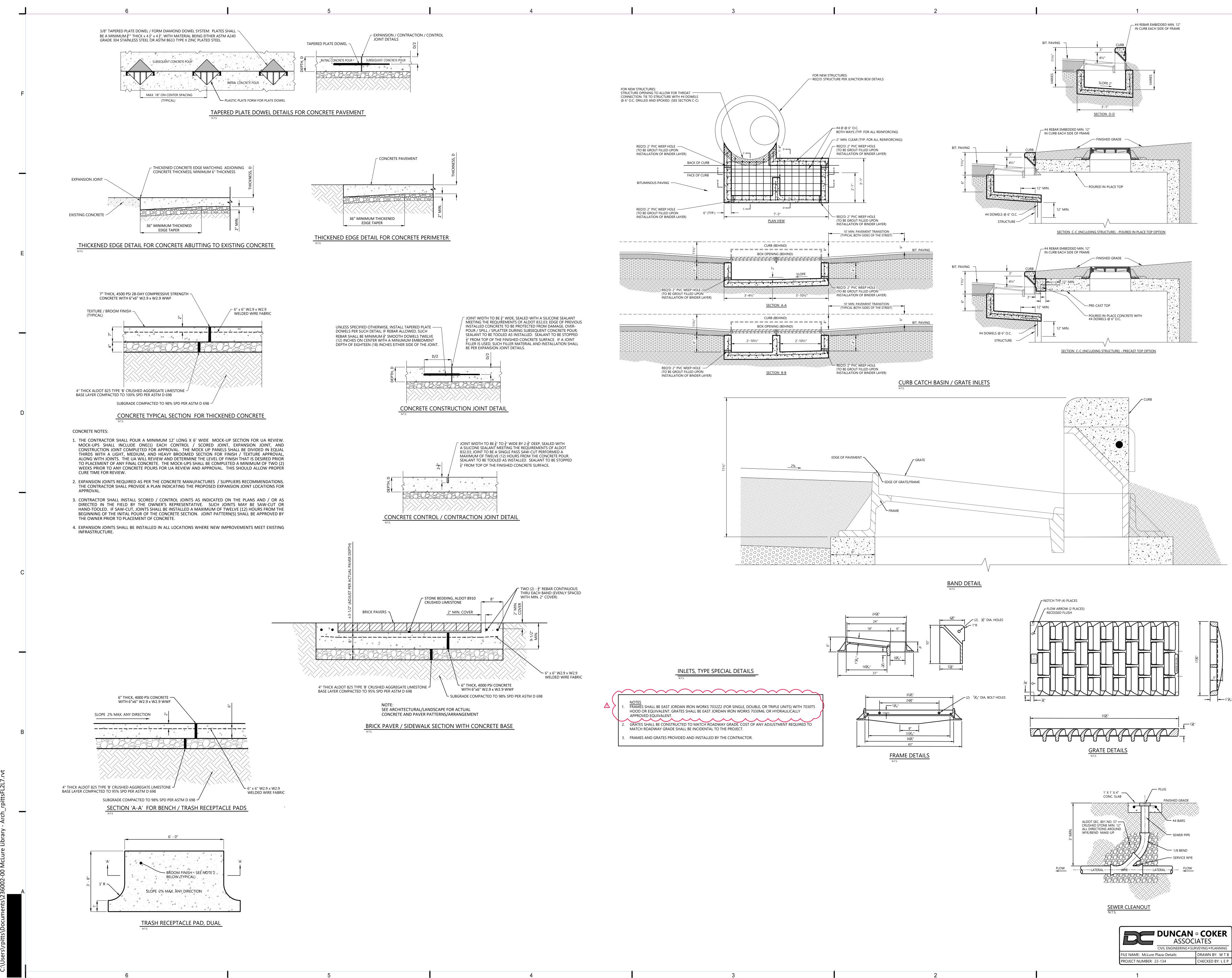




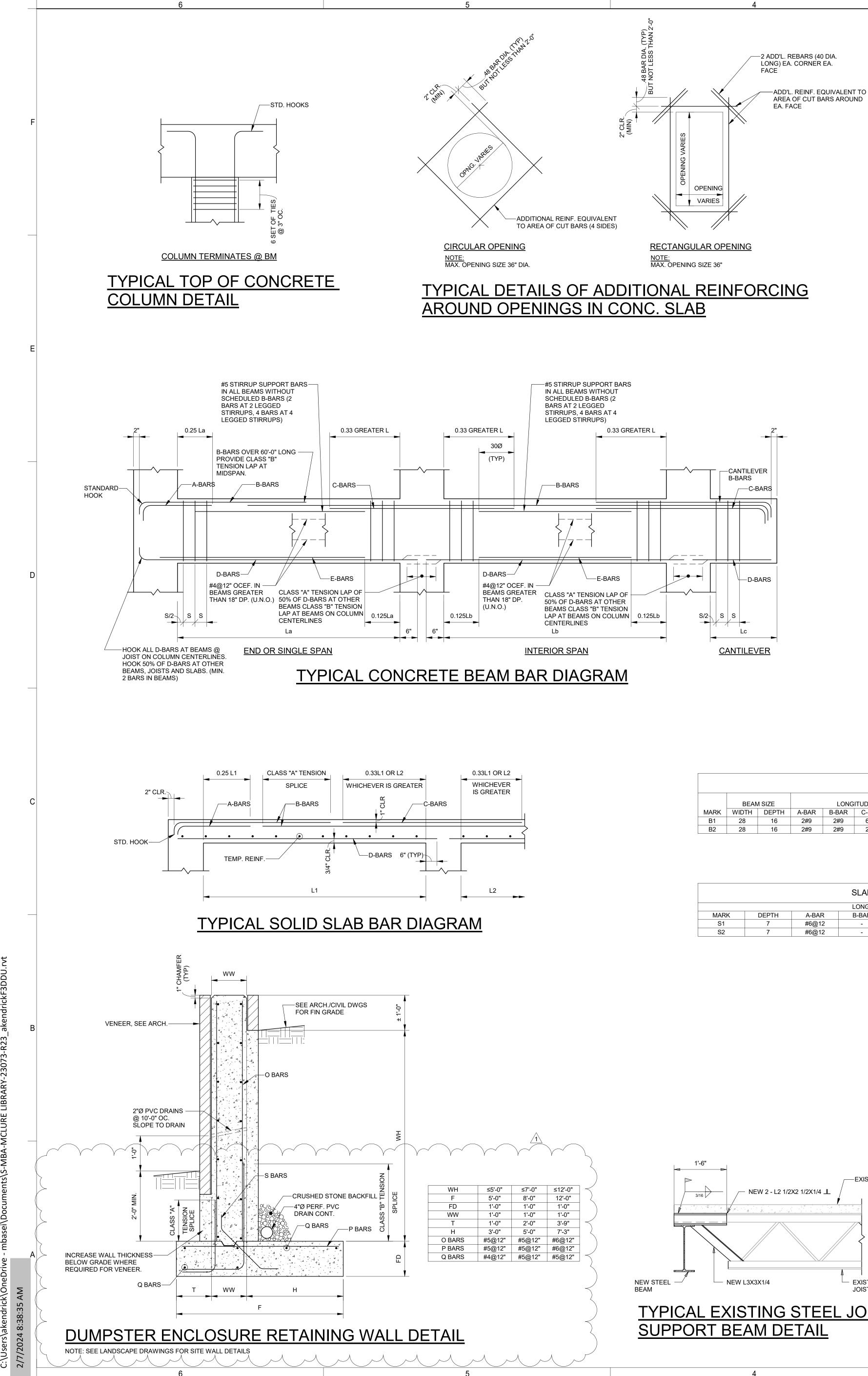


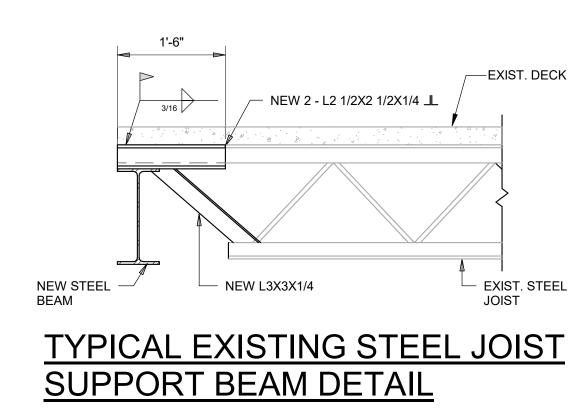










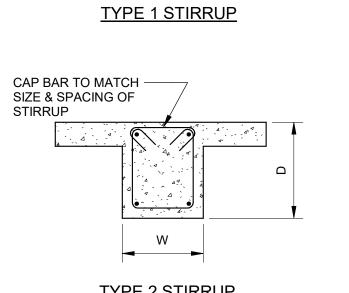


INFILL BEAM MAX SPAN = 5'-0"

| INFILL OPENING V FLOOR CONSTRU | | |
|-----------------------------------|--------|---------|
| SEE PLAN NOTES | \ \ | 2" MIN. |
| | | |

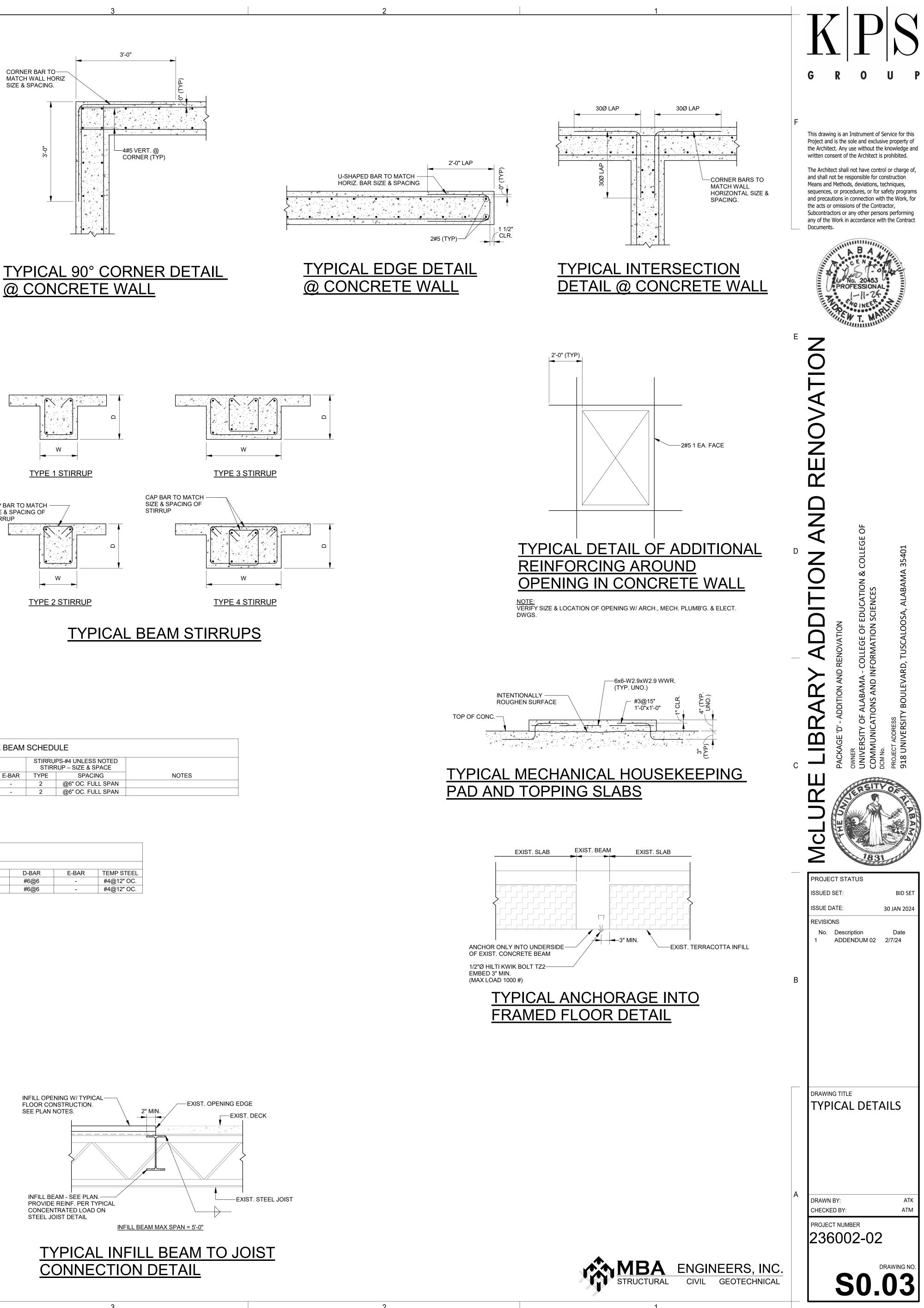
| | SLAB SCHEDULE | | | | | | | | | |
|------|---------------|-------|-----------|-----------|-------|-------|------------|--|--|--|
| | | | LONGITUDI | NAL STEEL | | | | | | |
| MARK | DEPTH | A-BAR | B-BAR | C-BAR | D-BAR | E-BAR | TEMP STEEL | | | |
| S1 | 7 | #6@12 | - | #6@12 | #6@6 | - | #4@12" OC. | | | |
| S2 | 7 | #6@12 | - | #6@12 | #6@6 | - | #4@12" OC. | | | |

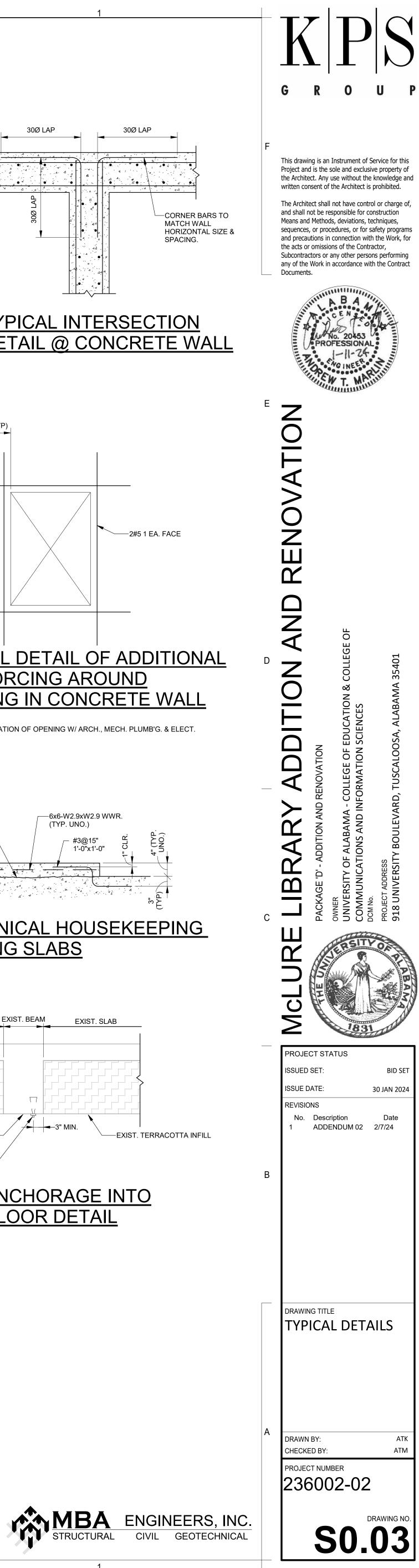
| CONCRETE BEAM SCHEDULE | | | | | | | | | | |
|------------------------|-------|--------|-------|-------|------------|-------|-------|------|--|------|
| | BEAN | / SIZE | | LONG | ITUDINAL S | STEEL | | | PS-#4 UNLESS NOTED RUP – SIZE & SPACE | |
| MARK | WIDTH | DEPTH | A-BAR | B-BAR | C-BAR | D-BAR | E-BAR | TYPE | SPACING | NOTE |
| B1 | 28 | 16 | 2#9 | 2#9 | 6#9 | 8#9 | - | 2 | @6" OC. FULL SPAN | |
| B2 | 28 | 16 | 2#9 | 2#9 | 2#9 | 8#9 | - | 2 | @6" OC. FULL SPAN | |

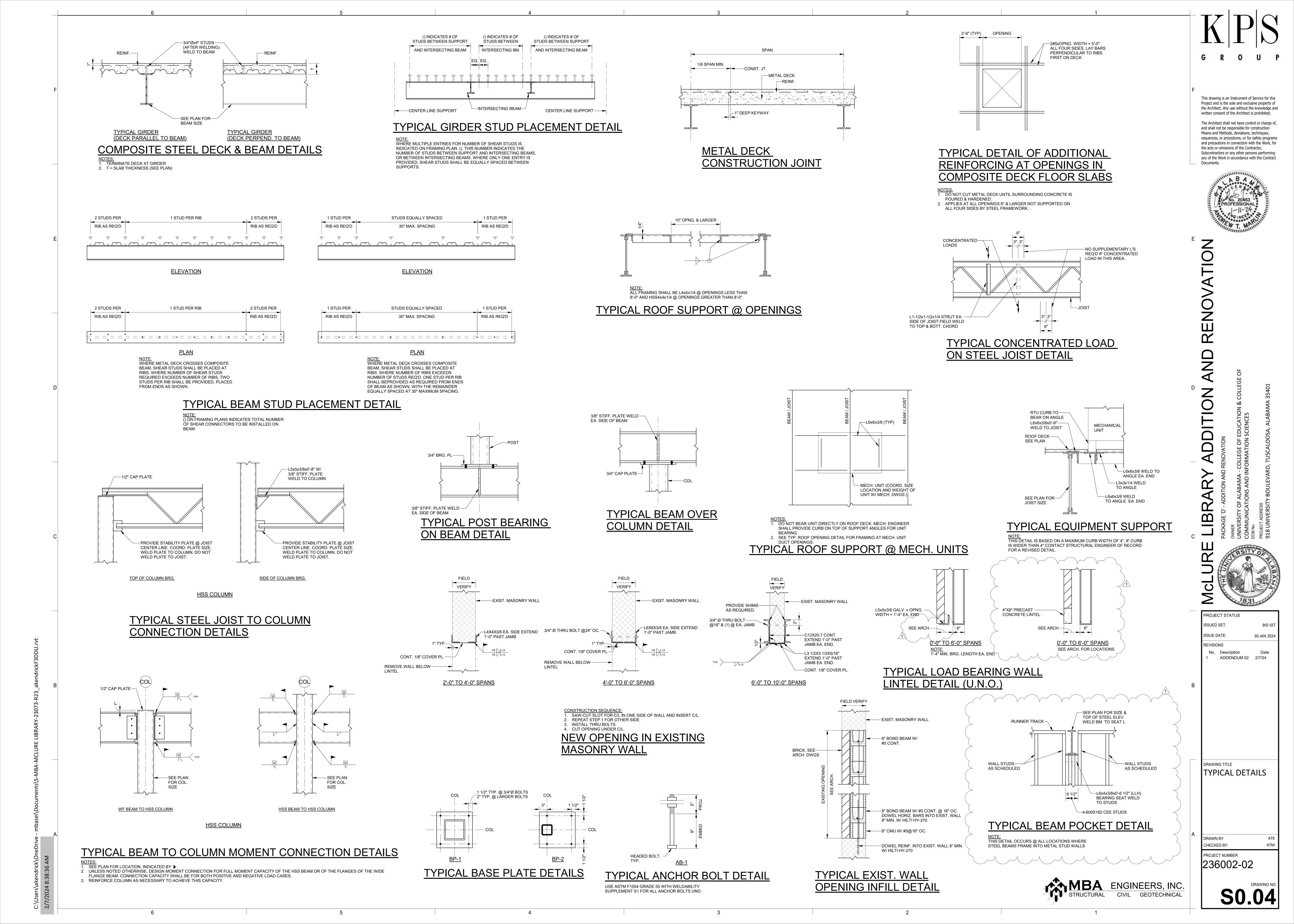


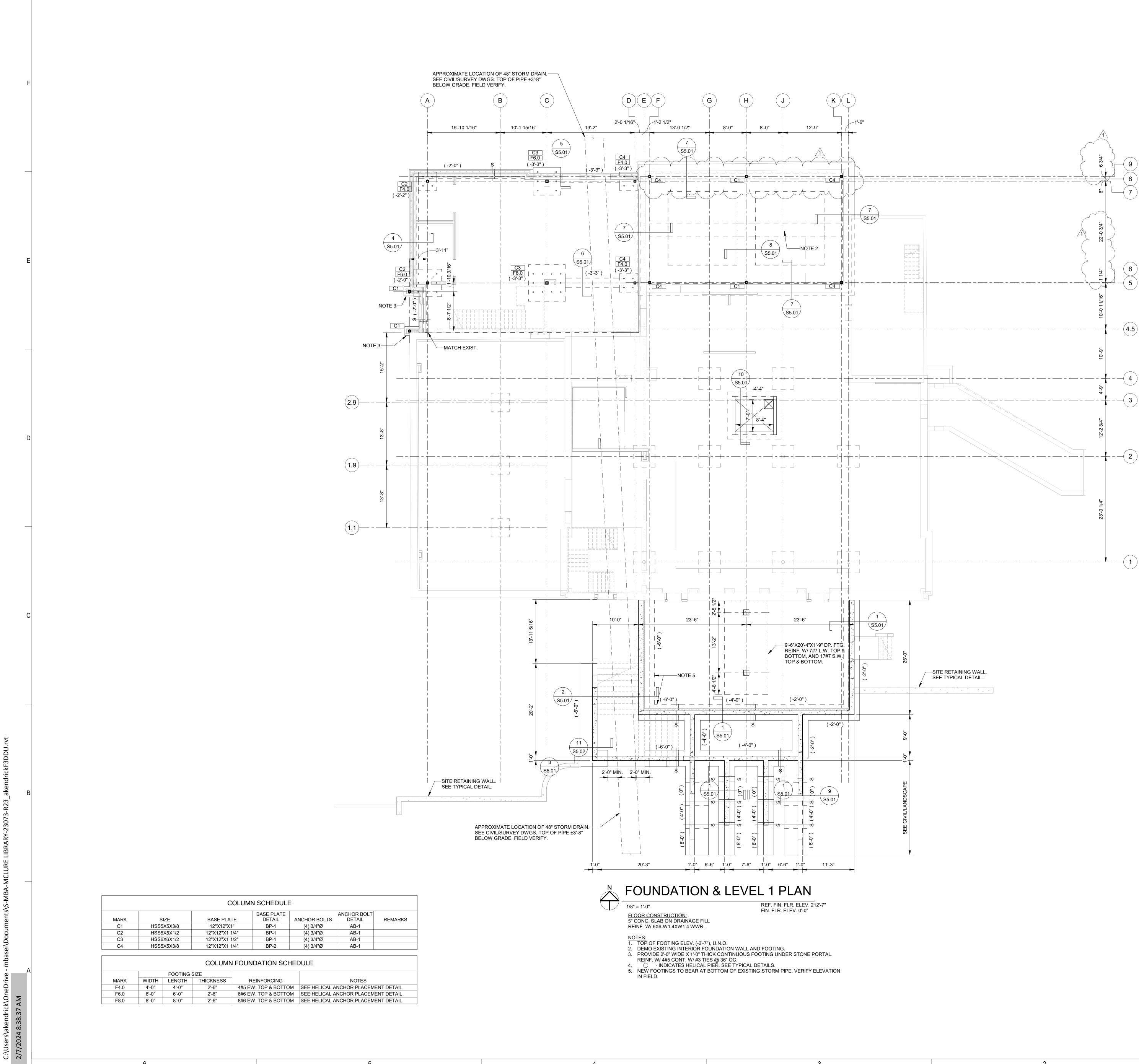
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@ CONCRETE WALL

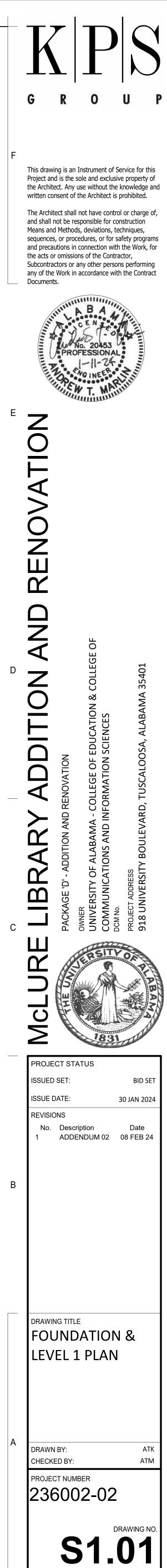




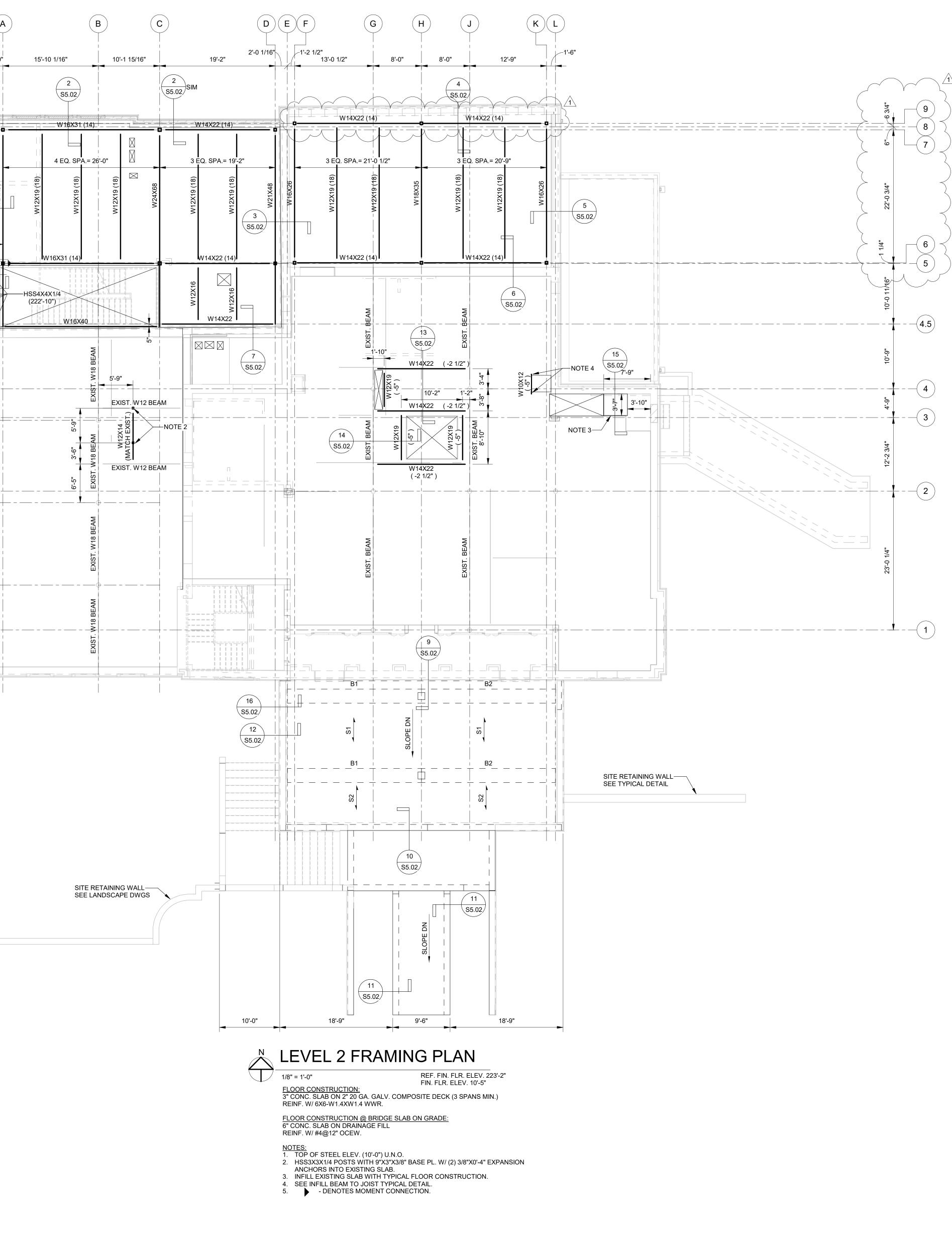




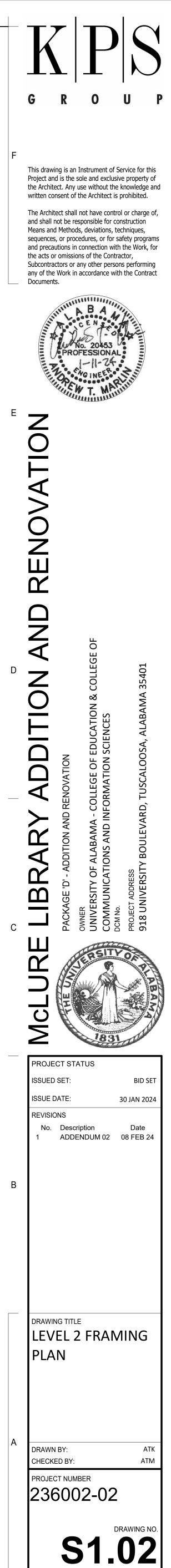
MBA ENGINEERS, INC. STRUCTURAL CIVIL GEOTECHNICAL



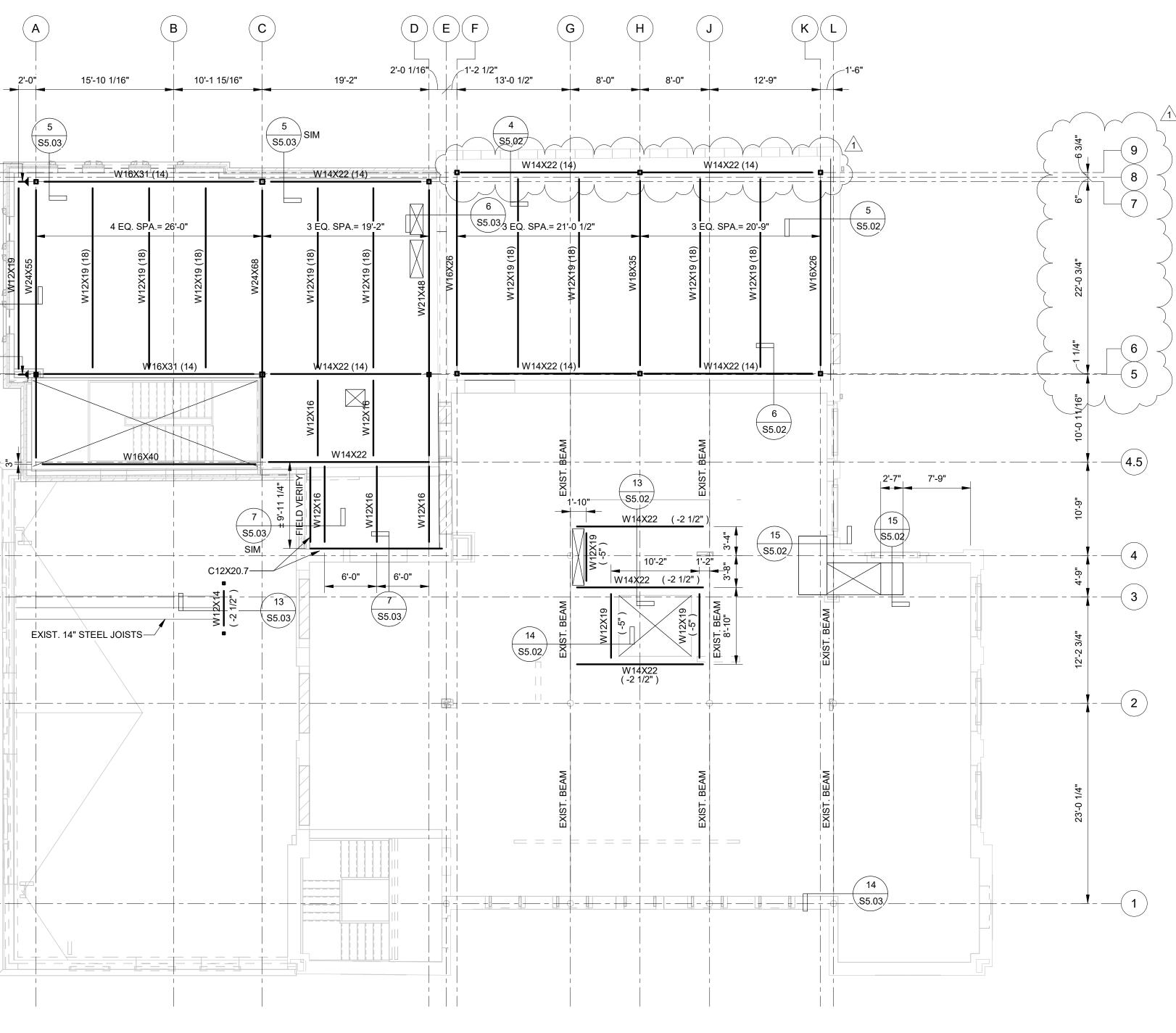
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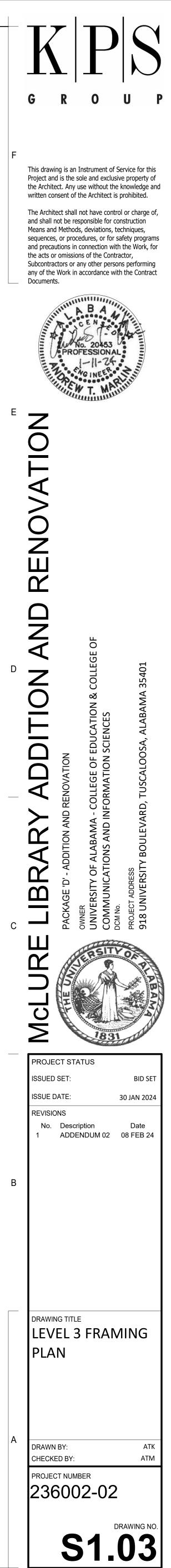
N LEVEL 3 FRAMING PLAN 1/8" = 1'-0" REF. FIN. FLR. ELEV. 23 FIN. FLR. ELEV. 23 FIN. FLR. ELEV. 23

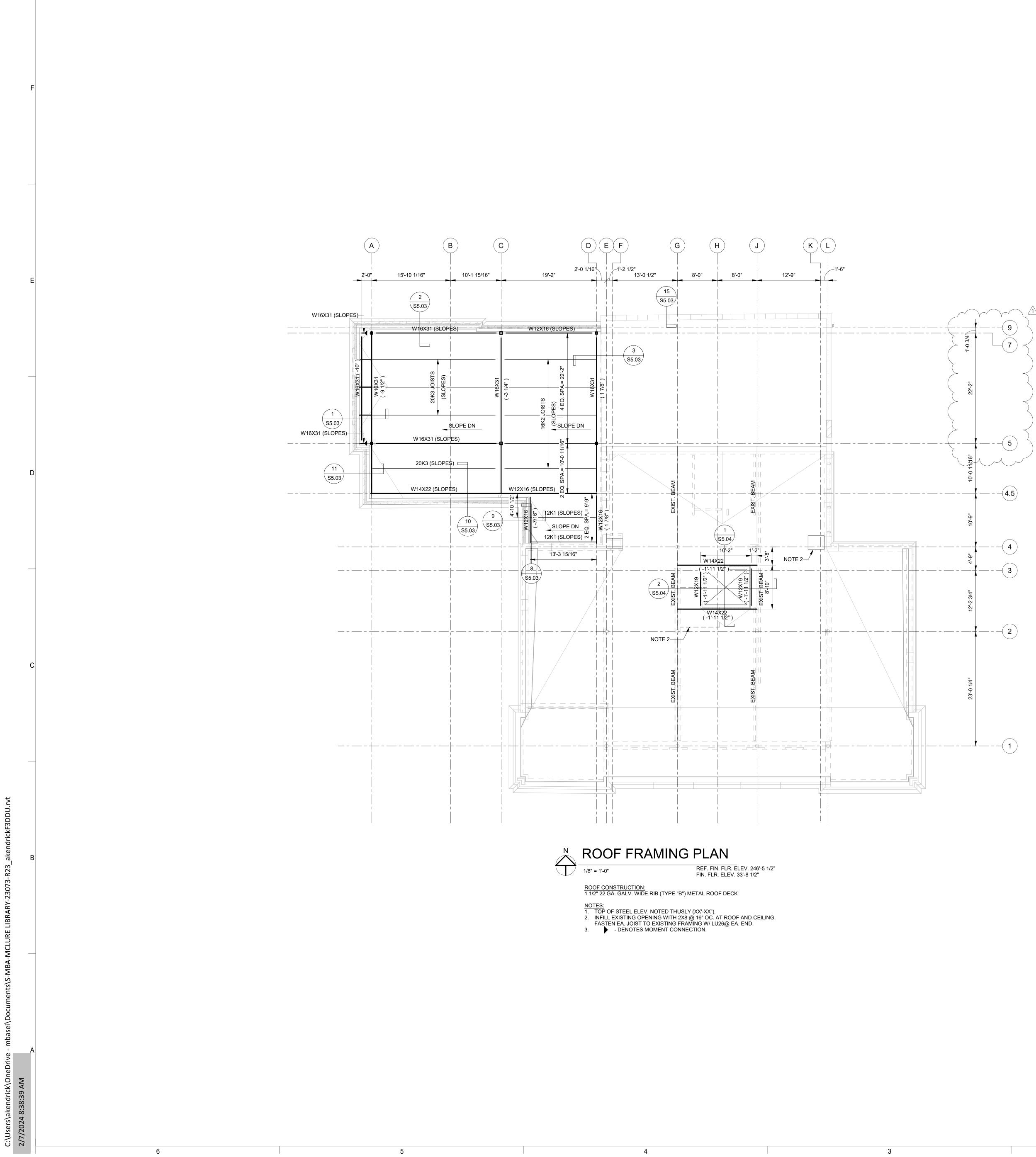
REF. FIN. FLR. ELEV. 235'-2" FIN. FLR. ELEV. 22'-5"

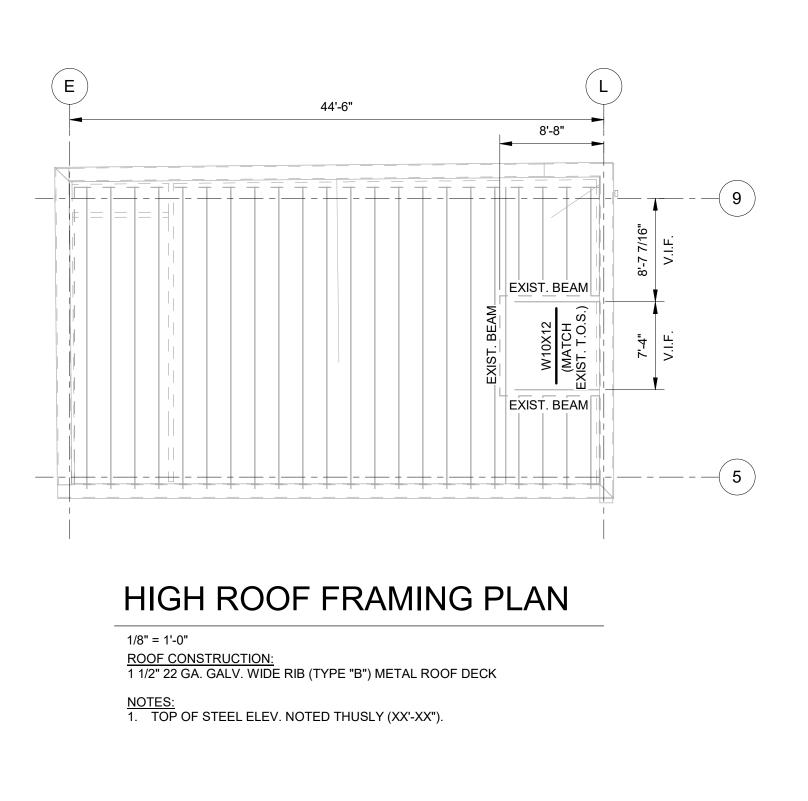
FIN. FLR. ELEV. 22-5 <u>FLOOR CONSTRUCTION:</u> 3" CONC. SLAB ON 2" 20 GA. GALV. COMPOSITE DECK (3 SPANS MIN.) REINF. W/ 6X6-W1.4XW1.4 WWR.

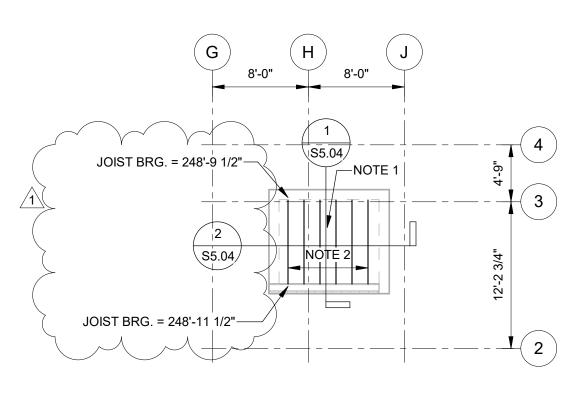
NOTES: 1. TOP OF STEEL ELEV. (22'-0") U.N.O. 2. INFILL EXISTING SLAB WITH TYPICAL FLOOR CONSTRUCTION. 3. SEE INFILL BEAM TO JOIST TYPICAL DETAIL. 4.
• DENOTES MOMENT CONNECTION.









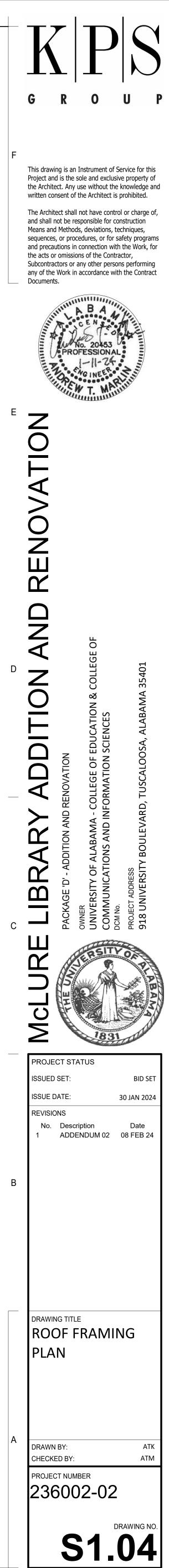


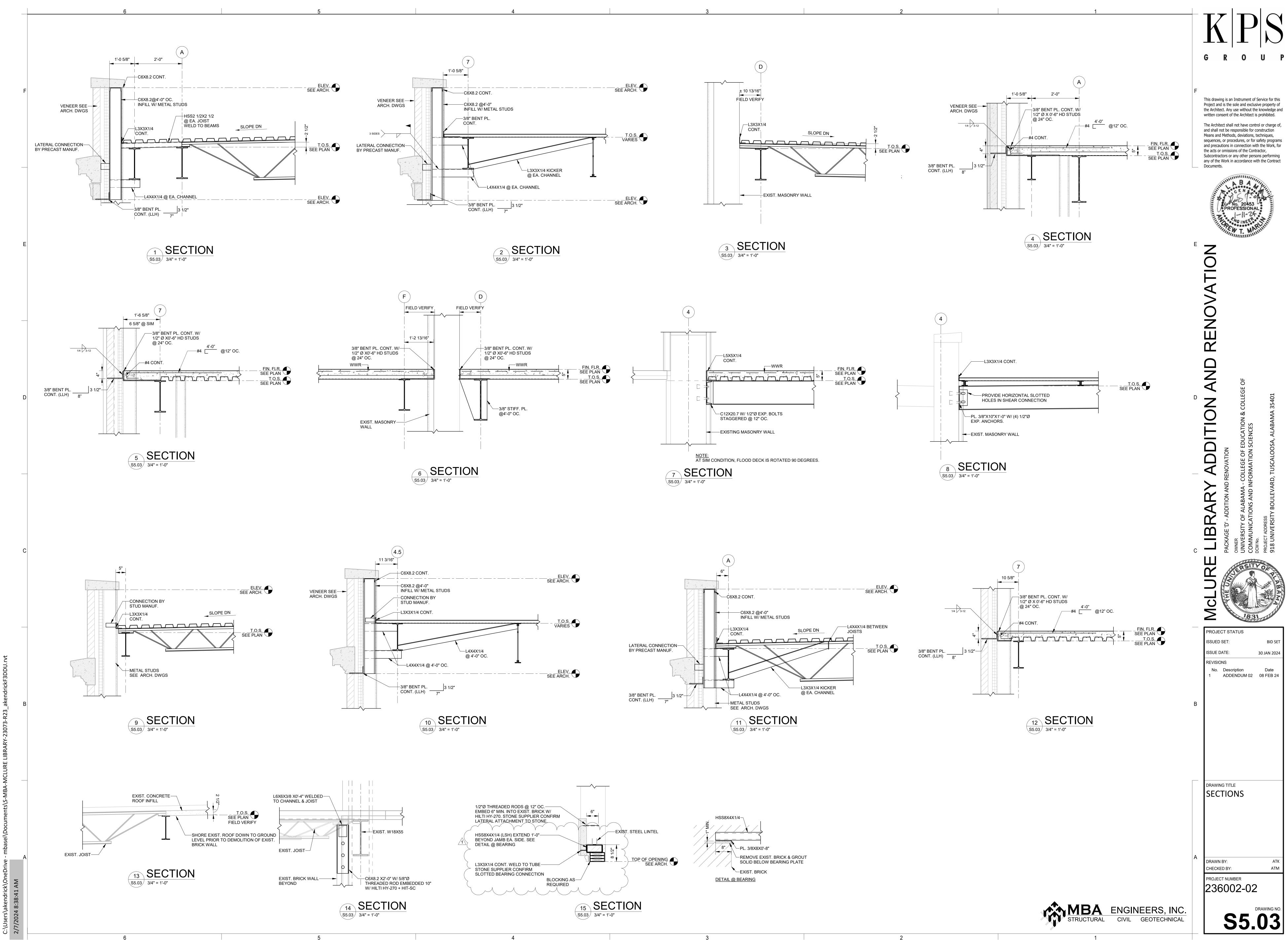
ELEVATOR PENTHOUSE ROOF FRAMING PLAN

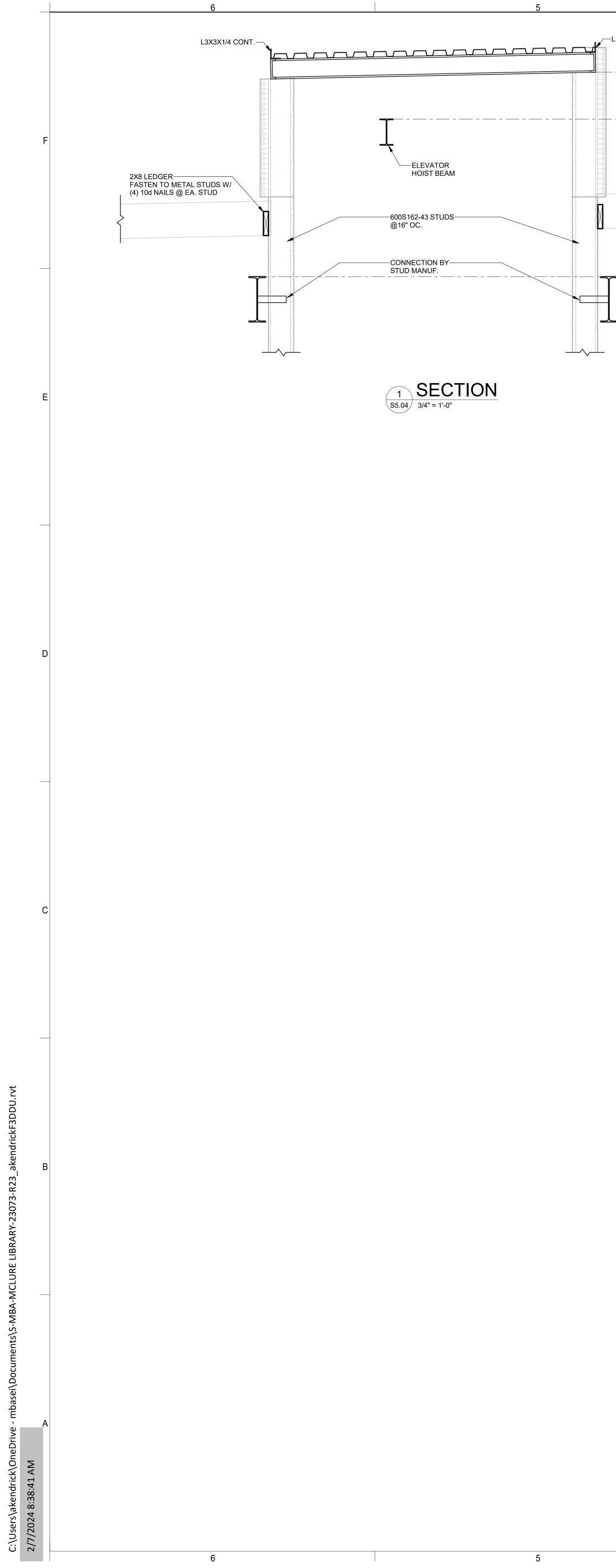
_____1

1/8" = 1'-0" <u>ROOF CONSTRUCTION:</u> 1 1/2" 22 GA. GALV. WIDE RIB (TYPE "B") METAL ROOF DECK NOTES: 1. W8X10 ELEVATOR HOIST BEAM TOP OF STEEL 248'-5 1/2". 2. 600S162-43 JOISTS @ 16" OC.









-L3X3X1/4 CONT.

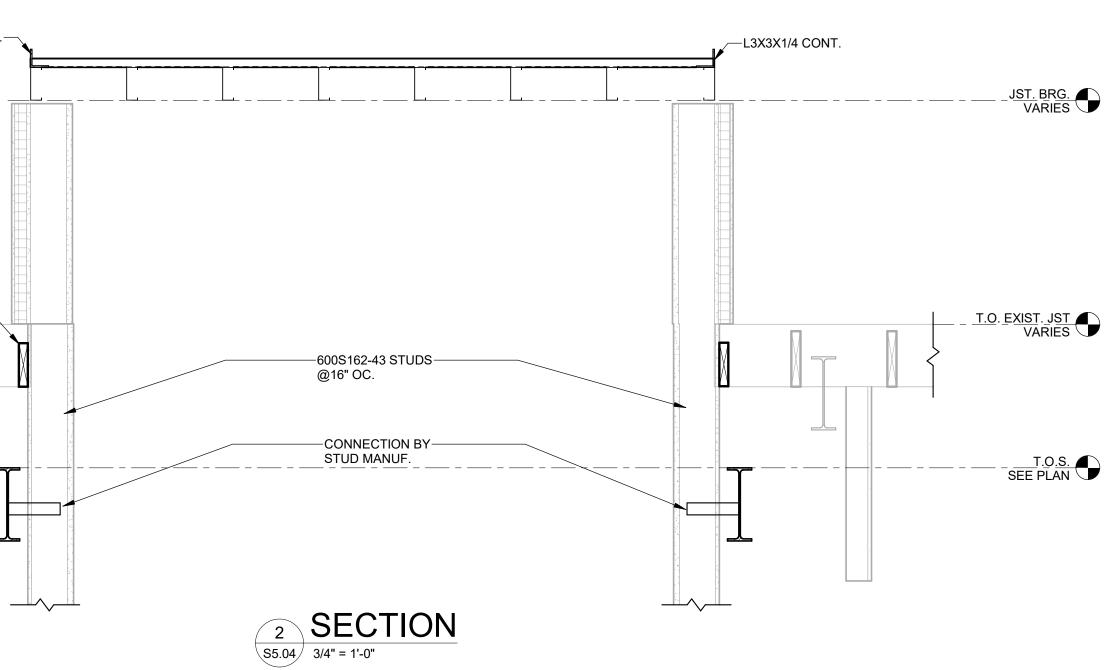
| <u>JOIST BRG.</u> SEE PLAN |
|-----------------------------------|
| T.O.S. SEE PLAN |
| <u>T.O. EXIST. JST</u> SLOPES |

L3X3X1/4 CONT.-

2X8 LEDGER FASTEN TO METAL STUDS W/ (4) 10d NAILS @ EA. STUD

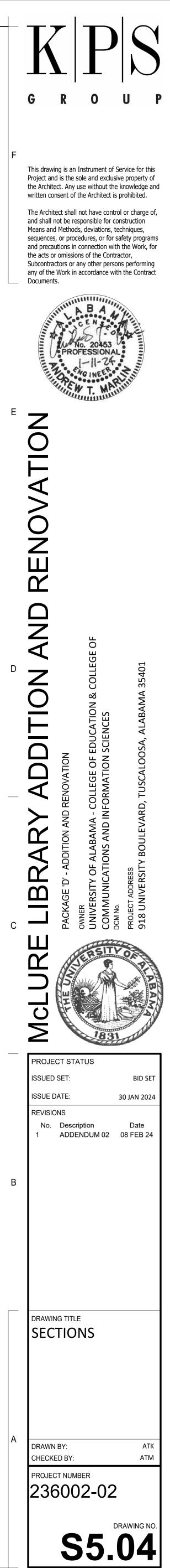
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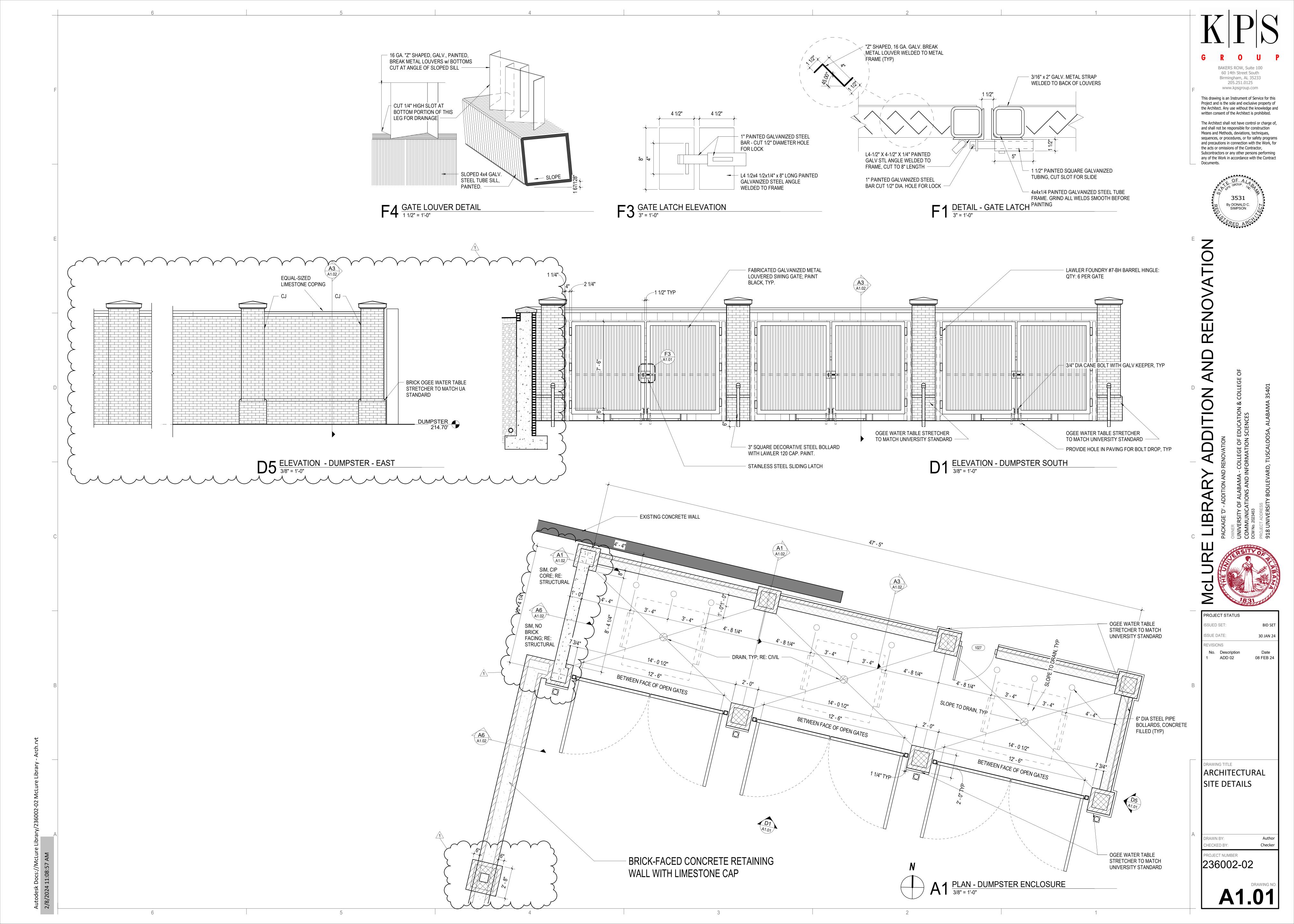
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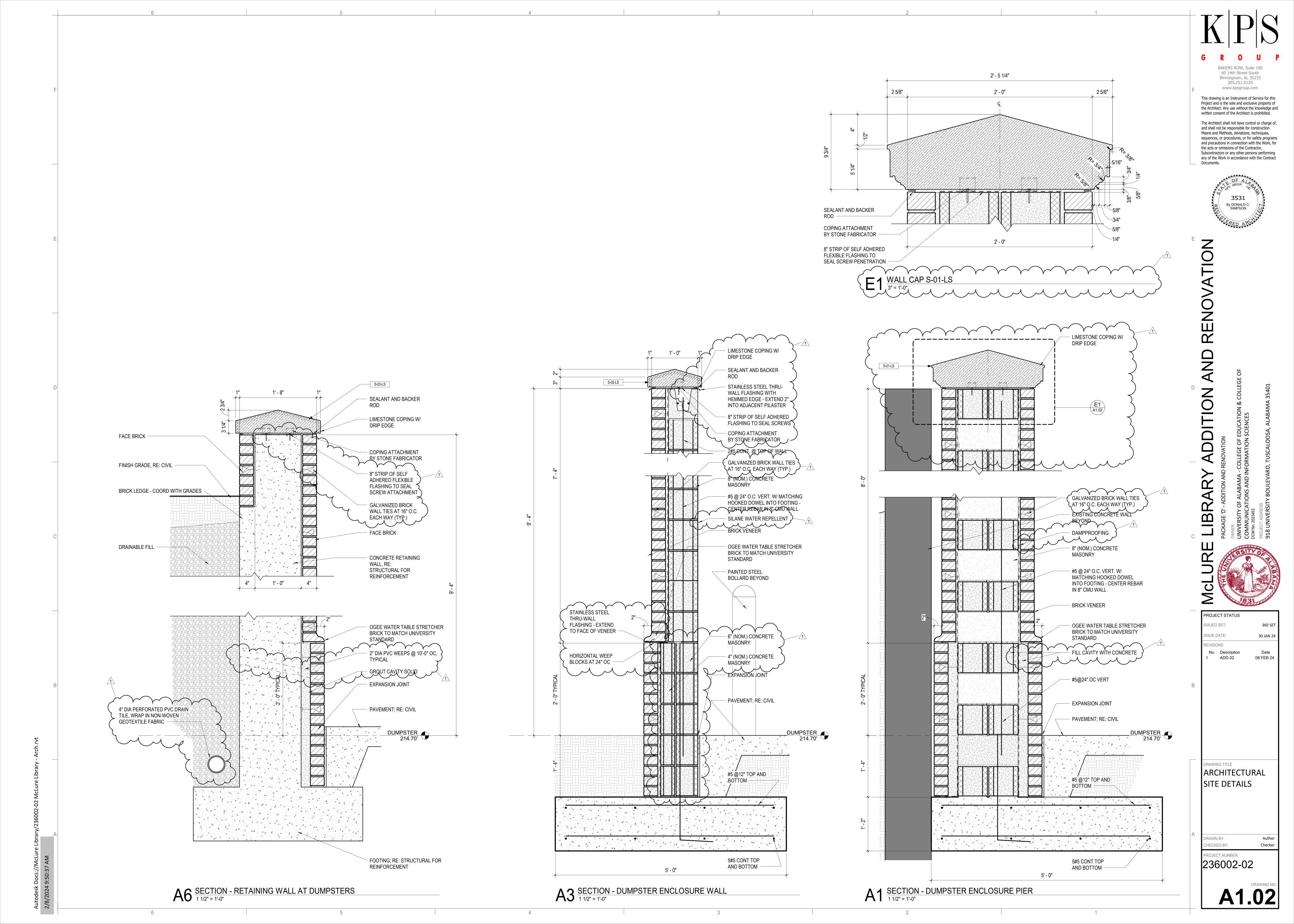


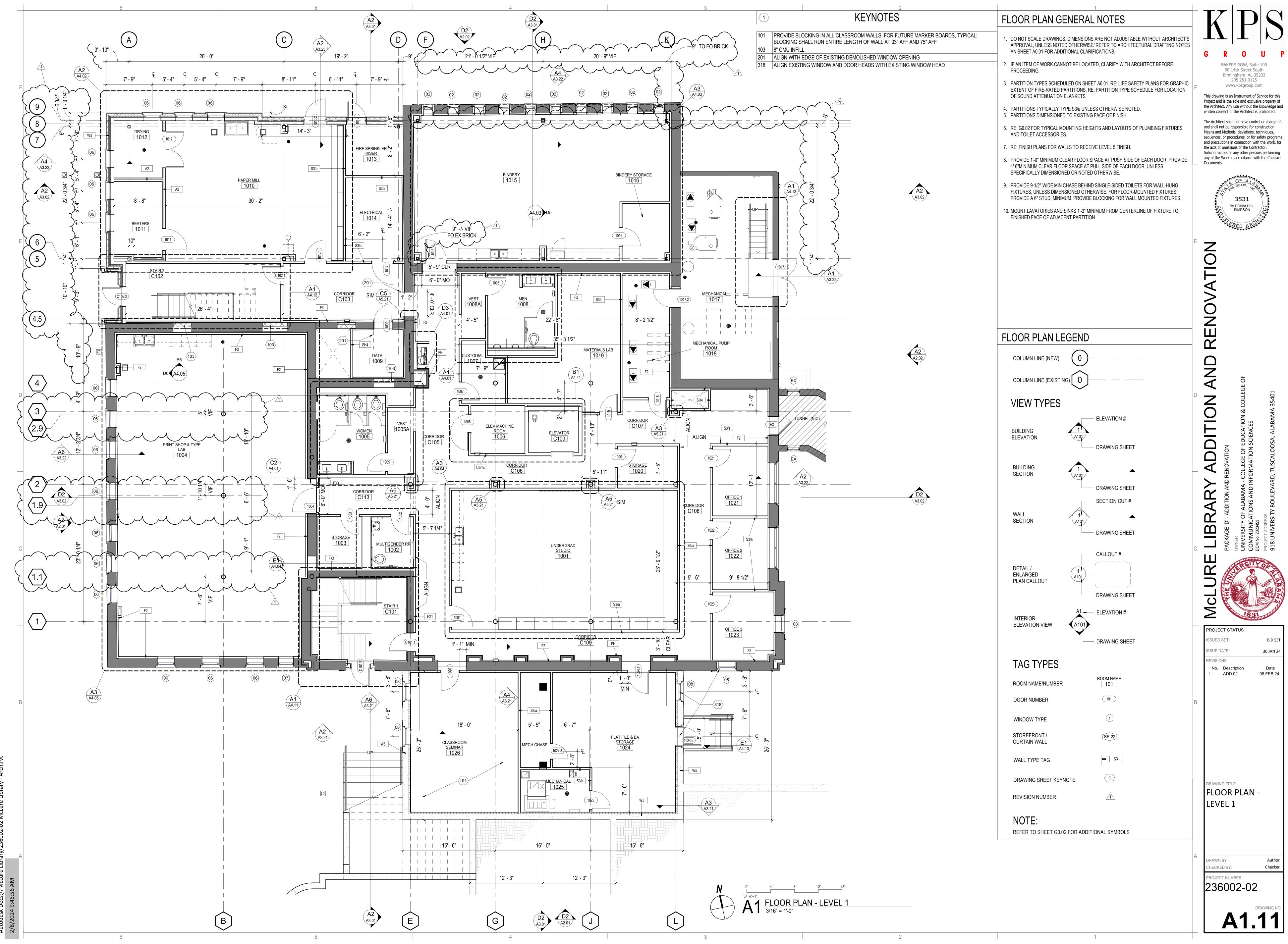
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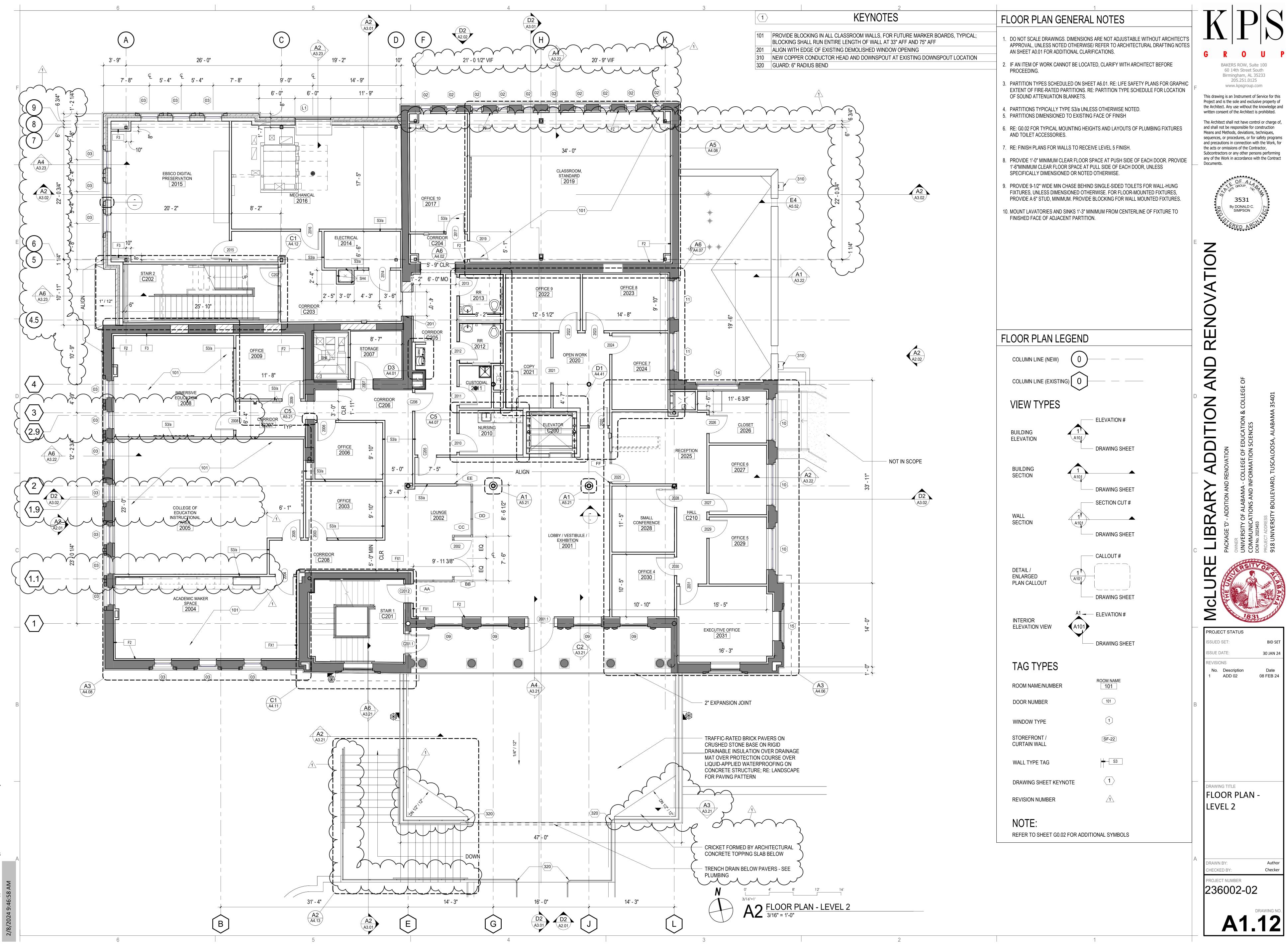


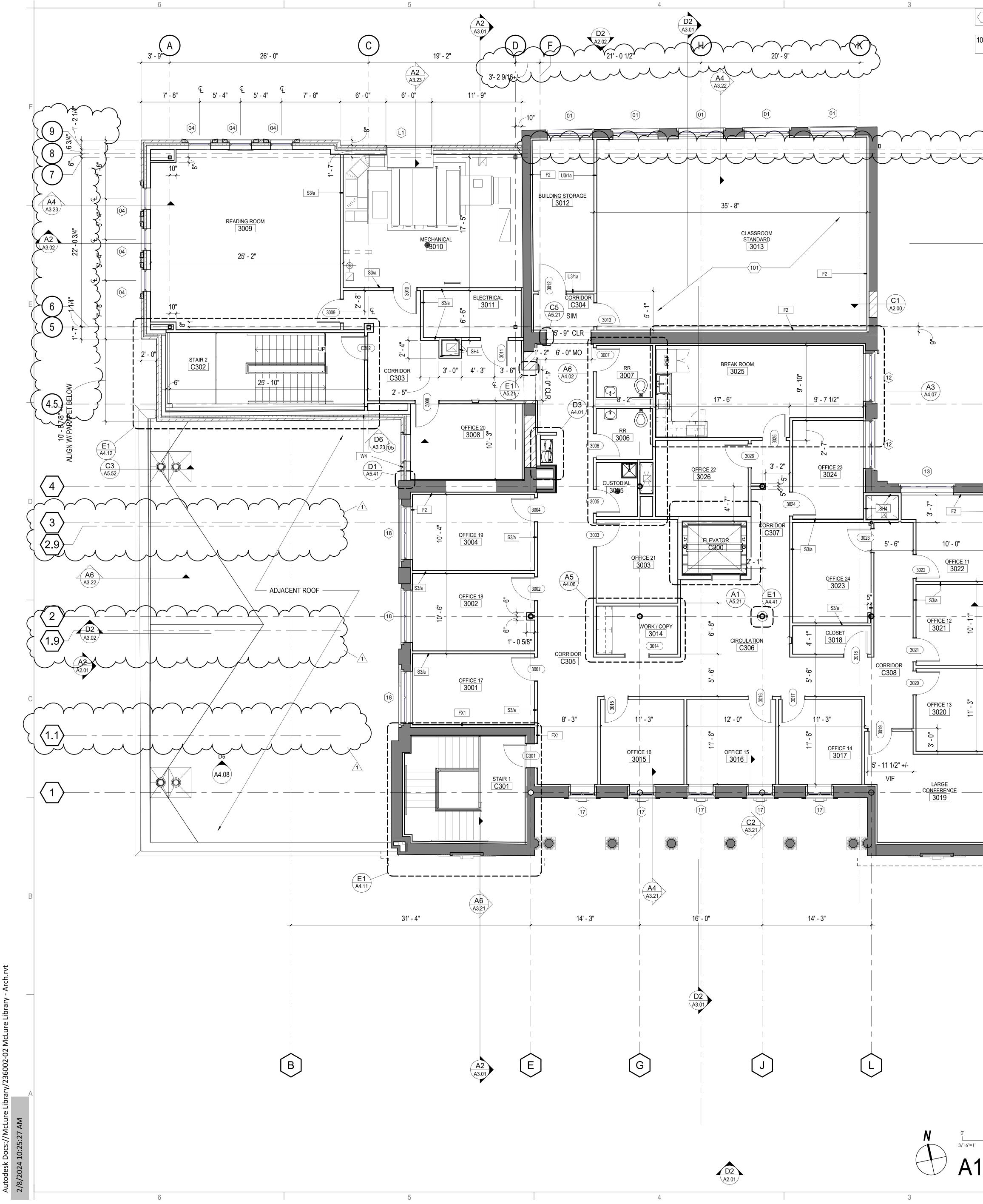








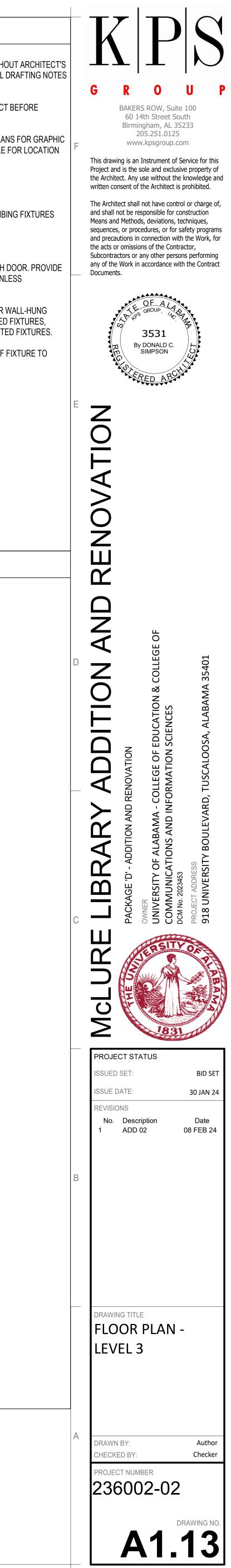


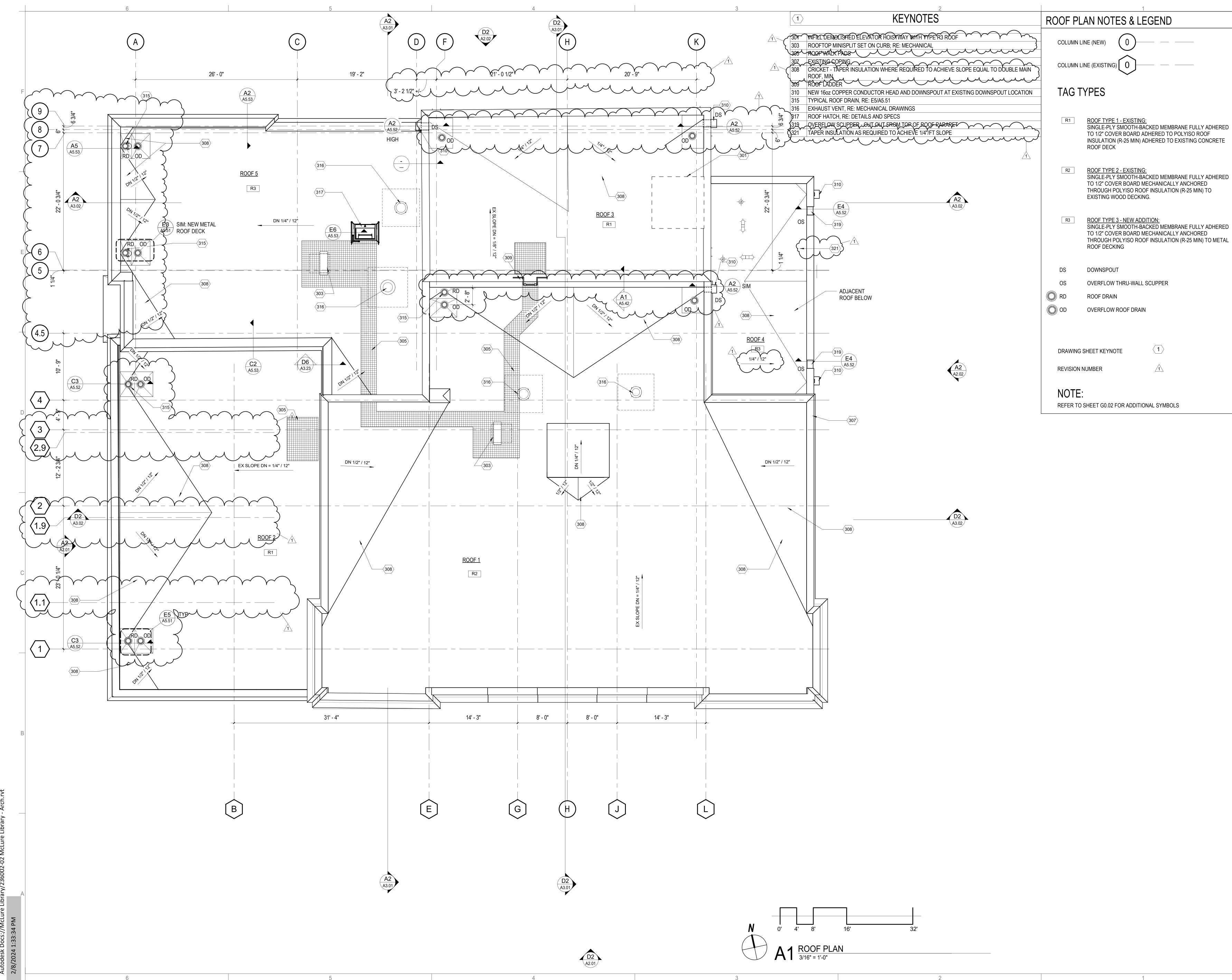


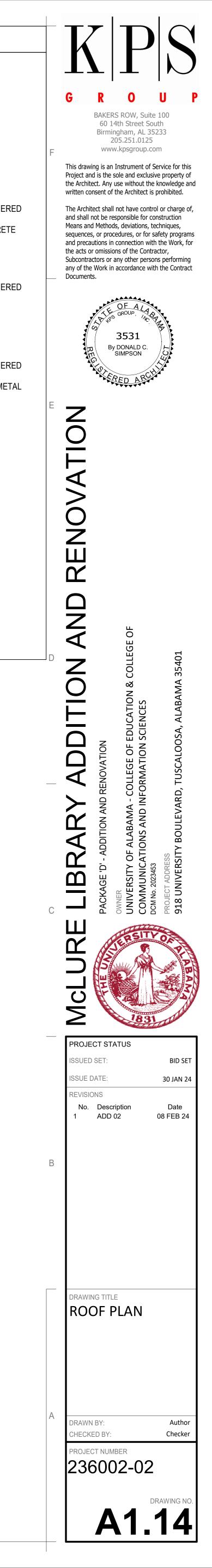
| 1 KEYNOTES | FLOOR PLAN GENERAL NOTES |
|---|---|
| 101 PROVIDE BLOCKING IN ALL CLASSROOM WALLS, FOR FUTURE MARKER BOA BLOCKING SHALL RUN ENTIRE LENGTH OF WALL AT 33" AFF AND 75" AFF | DO NOT SCALE DRAWINGS. DIMENSIONS ARE NOT ADJUSTABLE WITHOU APPROVAL, UNLESS NOTED OTHERWISE/REFER TO ARCHITECTURAL DR AN SHEET A0.01 FOR ADDITIONAL CLARIFICATIONS. IF AN ITEM OF WORK CANNOT BE LOCATED, CLARIFY WITH ARCHITECT B PROCEEDING. PARTITION TYPES SCHEDULED ON SHEET A6.01. RE: LIFE SAFETY PLANS EXTENT OF FIRE-RATED PARTITIONS. RE: PARTITION TYPE SCHEDULE FC OF SOUND ATTENUATION BLANKETS. PARTITIONS TYPICALLY TYPE S3/a UNLESS OTHERWISE NOTED. PARTITIONS DIMENSIONED TO EXISTING FACE OF FINISH RE: G0.02 FOR TYPICAL MOUNTING HEIGHTS AND LAYOUTS OF PLUMBING AND TOILET ACCESSORIES. RE: FINISH PLANS FOR WALLS TO RECEIVE LEVEL 5 FINISH. PROVIDE 1'-0" MINIMUM CLEAR FLOOR SPACE AT PULL SIDE OF EACH DOOR, UNLES SPECIFICALLY DIMENSIONED ON NOTED OTHERWISE. PROVIDE 9-112" WIDE MIN CHASE BEHIND SINGLE-SIDED TOILETS FOR WA FIXTURES, UNLESS DIMENSIONED OTHERWISE. FOR FLOOR-MOUNTED FI PROVIDE A 6" STUD, MINIMUM. PROVIDE BLOCKING FOR WALL MOUNTED 10. MOUNT LAVATORIES AND SINKS 1'-3" MINIMUM FROM CENTERLINE OF FID FINISHED FACE OF ADJACENT PARTITION. |
| | FLOOR PLAN LEGEND COLUMN LINE (NEW) 0 |
| | DETAIL / ENLARGED PLAN CALLOUT INTERIOR ELEVATION VIEW DRAWING SHEET A1 DRAWING SHEET |
| | TAG TYPES ROOM NAME/NUMBER 101 DOOR NUMBER 101 WINDOW TYPE 10 STOREFRONT / SF-22 WALL TYPE TAG + 33 DRAWING SHEET KEYNOTE 1 REVISION NUMBER 1 NOTE: REFER TO SHEET G0.02 FOR ADDITIONAL SYMBOLS |

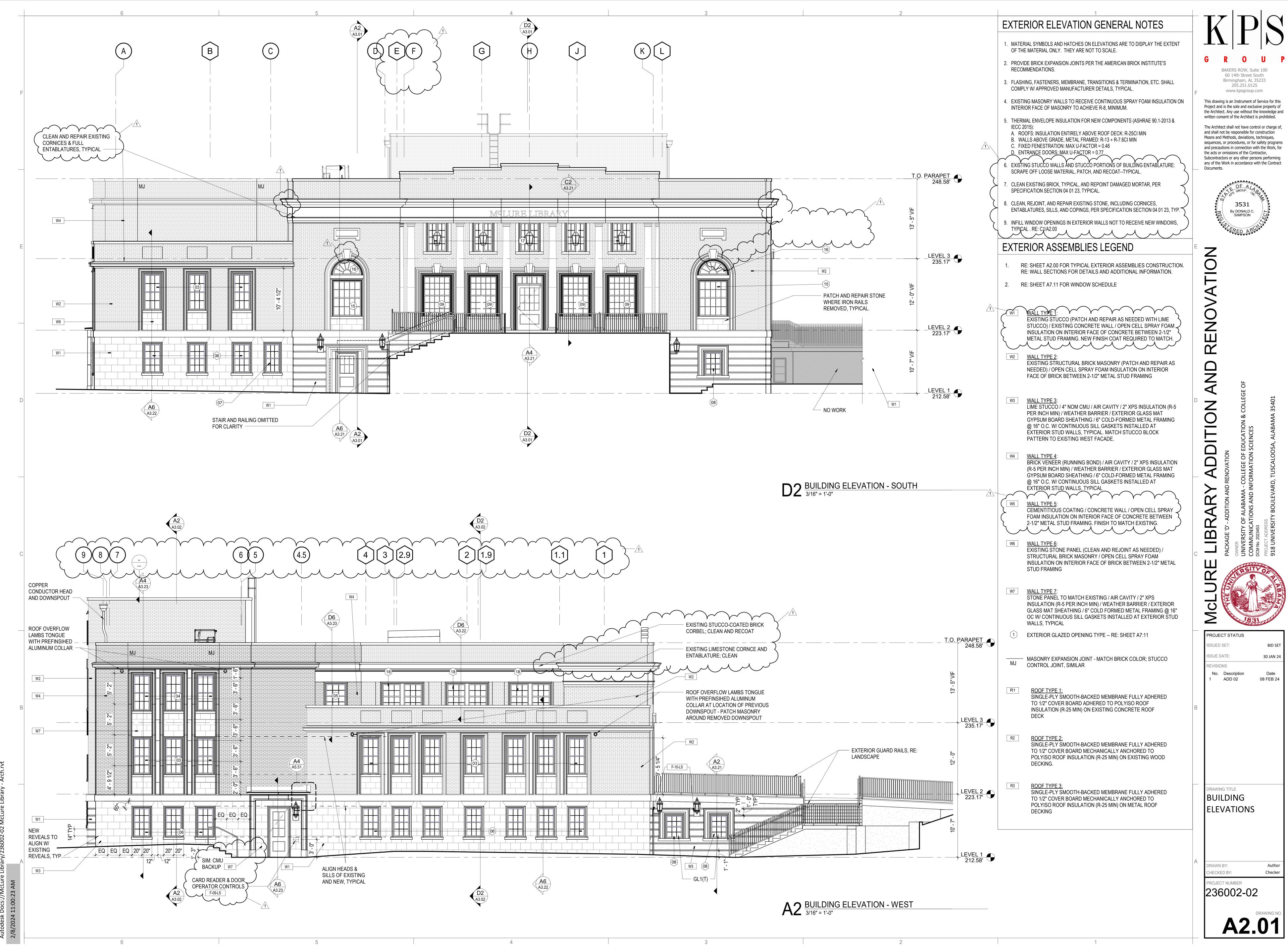
0' 4' 8' 12' 16'

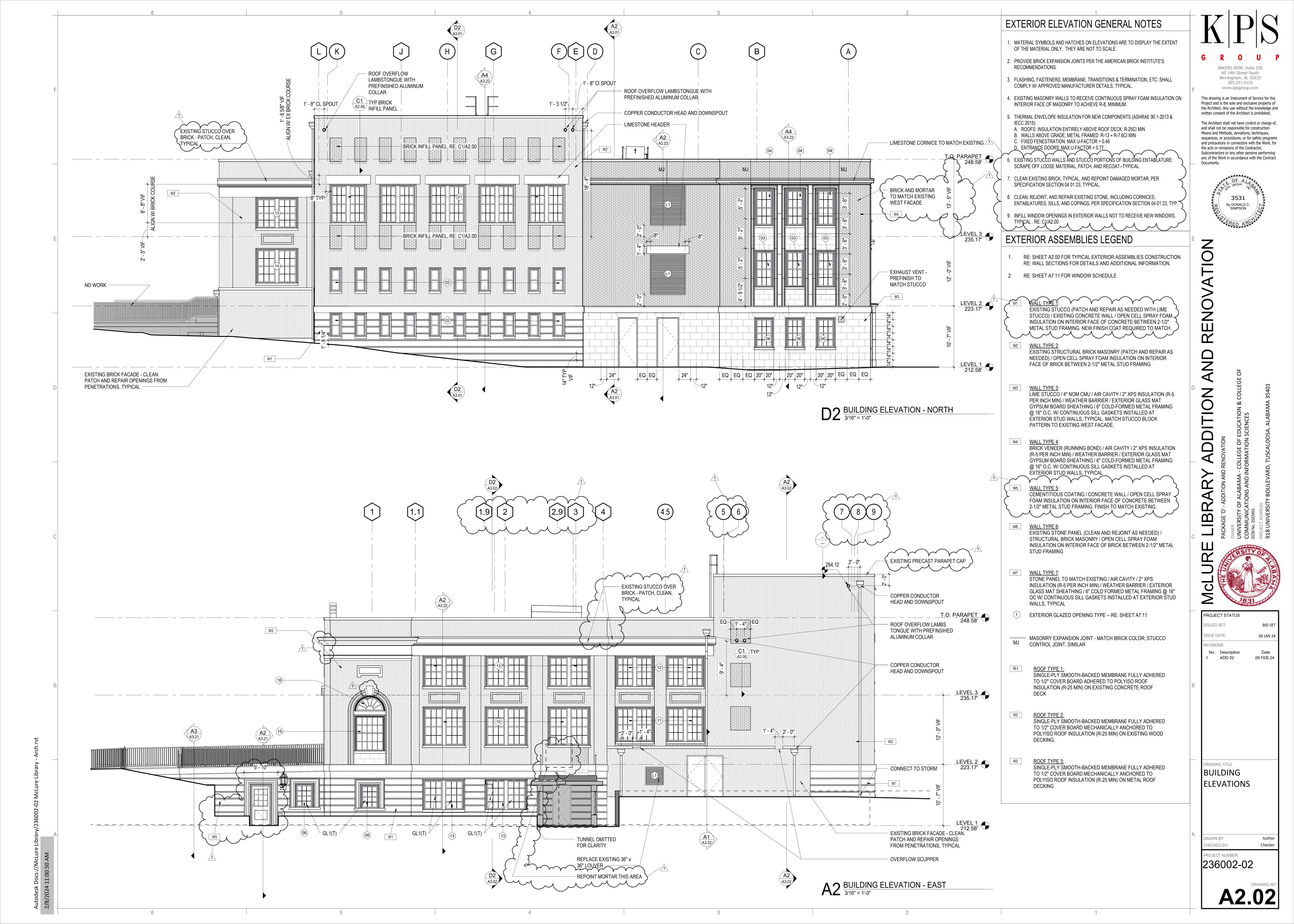
A1 $\frac{\text{FLOOR PLAN - LEVEL 3}}{3/16" = 1'-0"}$

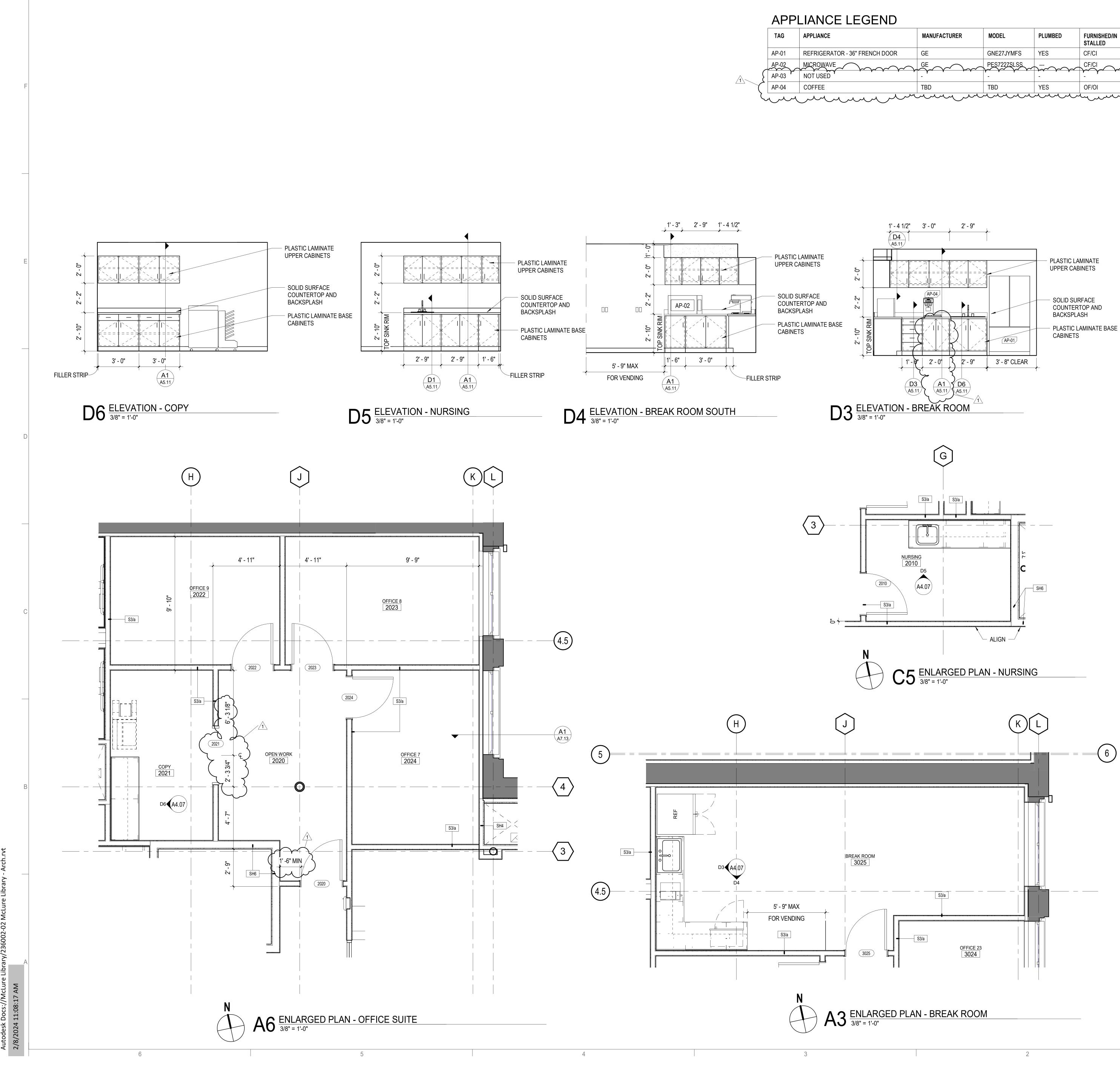








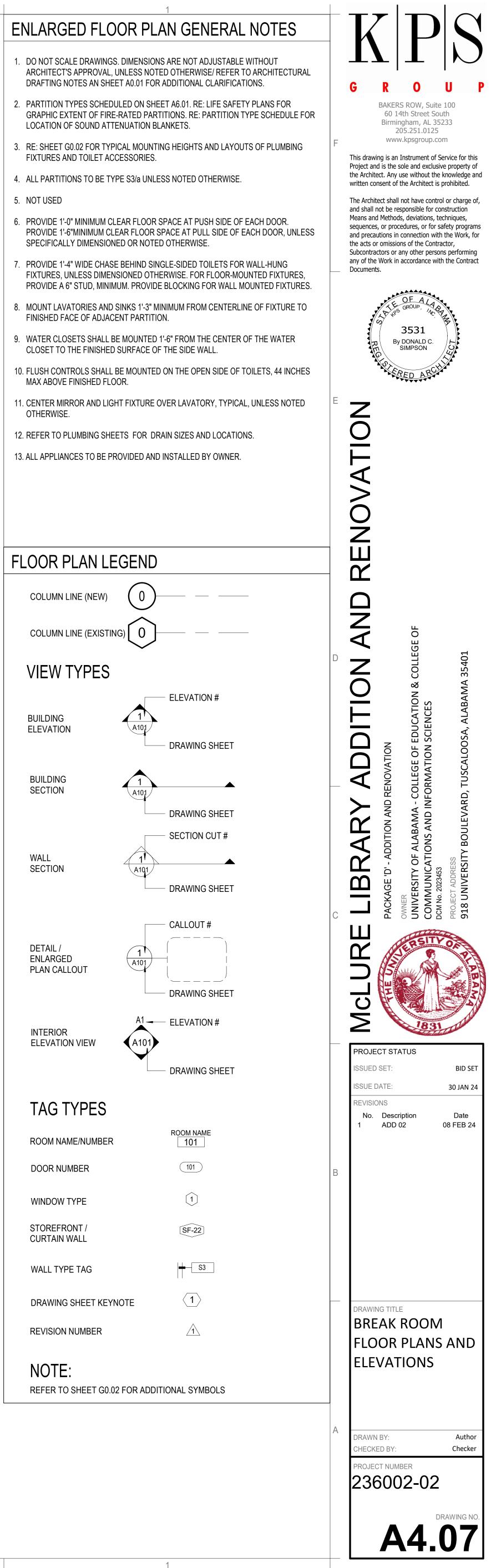


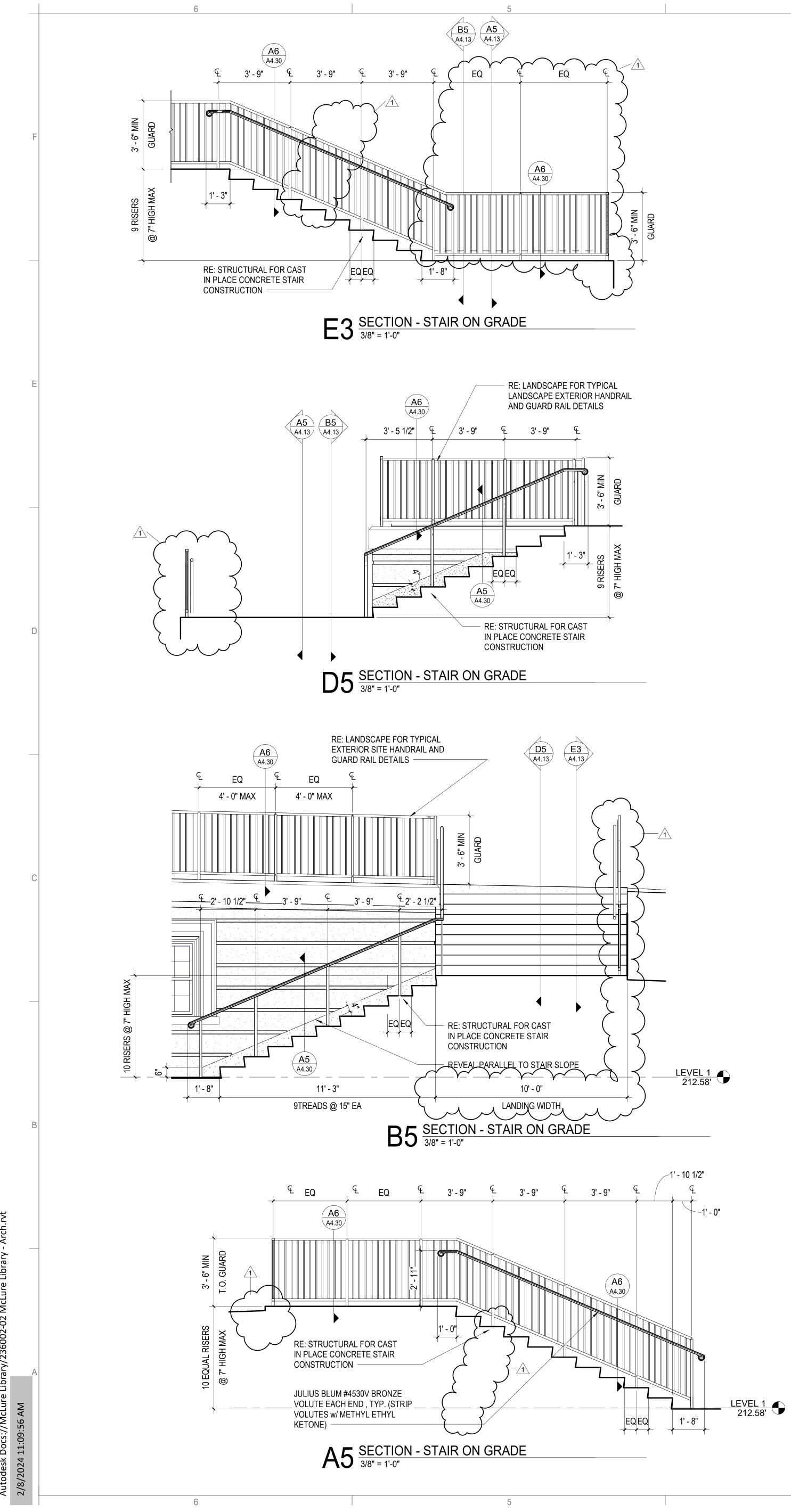


| MANUFACTURER | MODEL | PLUMBED | FURNISHED/IN STALLED |
|--------------|---------------|-------------------------------------|---|
| GE | GNE27JYMFS | YES | CF/CI |
| GE | PES7227SLSS | | CF/CI |
| - | - | - | - |
| TBD | TBD | YES | OF/OI |
| | GE GE - | GE GNE27JYMFS GE PES7227SLSS | GE GNE27JYMFS YES GE PES7227SLSS |

- DRAFTING NOTES AN SHEET A0.01 FOR ADDITIONAL CLARIFICATIONS.
- LOCATION OF SOUND ATTENUATION BLANKETS.

- SPECIFICALLY DIMENSIONED OR NOTED OTHERWISE.
- FINISHED FACE OF ADJACENT PARTITION.
- CLOSET TO THE FINISHED SURFACE OF THE SIDE WALL.
- MAX ABOVE FINISHED FLOOR.
- OTHERWISE.





A4.13 A4.13 EA 8 11.-VDS െ D5 A4.13 E3 A4.13 \mathcal{O}^{\prime}

A2 $\frac{\text{PLAN} - \text{EXTERIOR STAIRS ON GRADE}}{3/8" = 1'-0"}$

3

10' - 0"

8 TREADS @ 15" EA

10' - 0"

LANDING WIDTH

 \sim

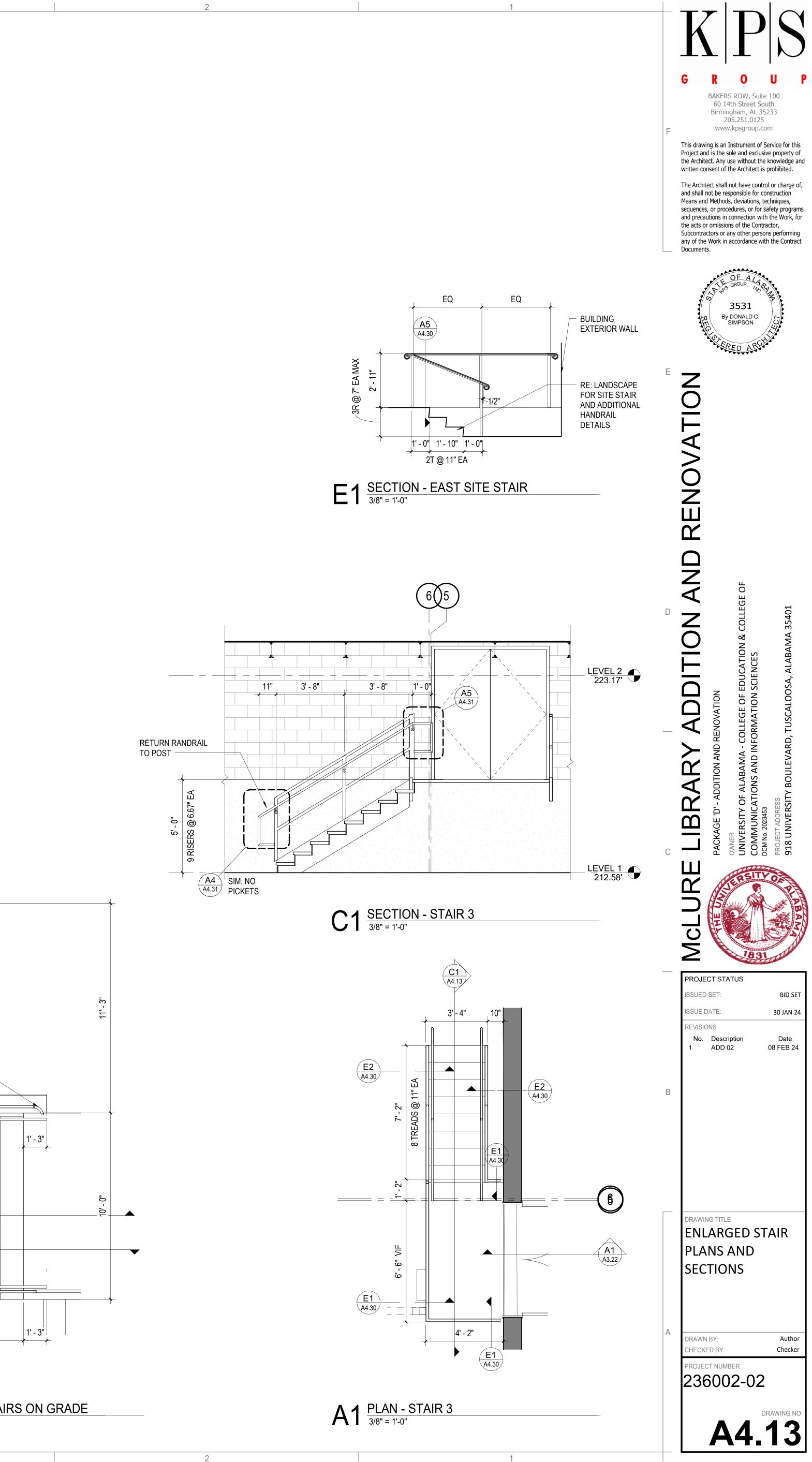
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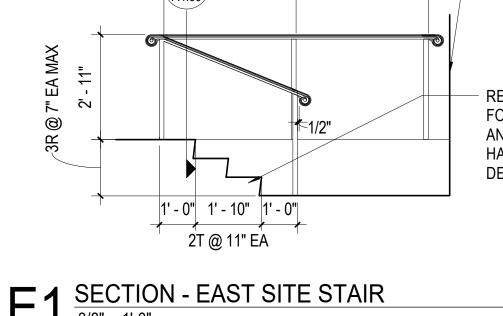
- GUARD RAIL

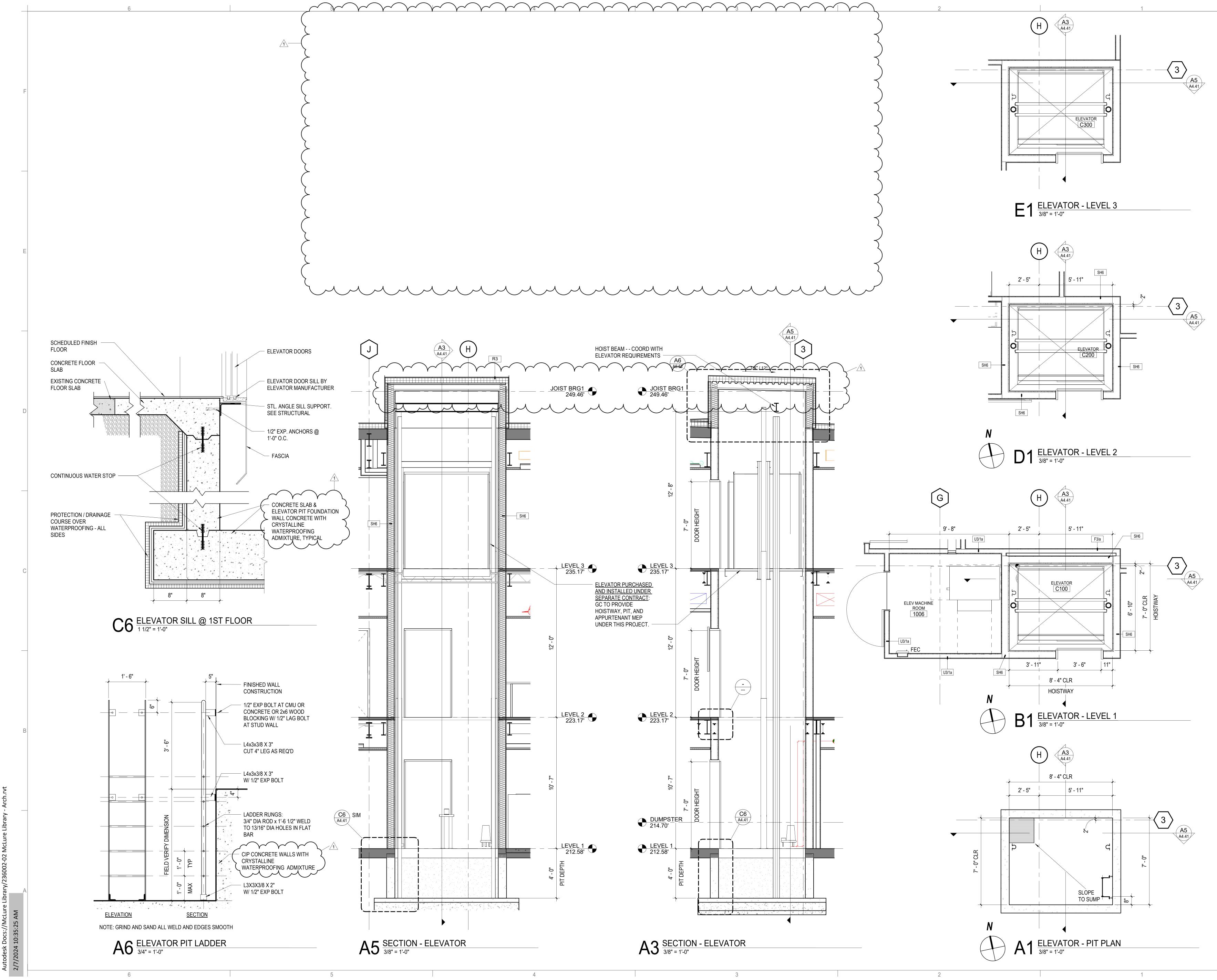
RADIUSED GUARDRAIL @ OUTSIDE CORNER,

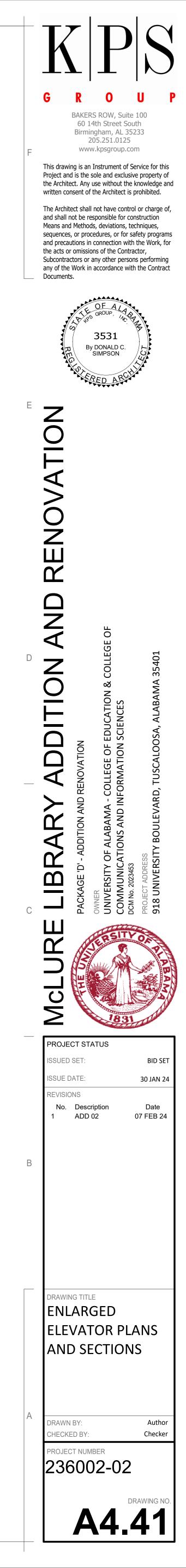
TYPICAL

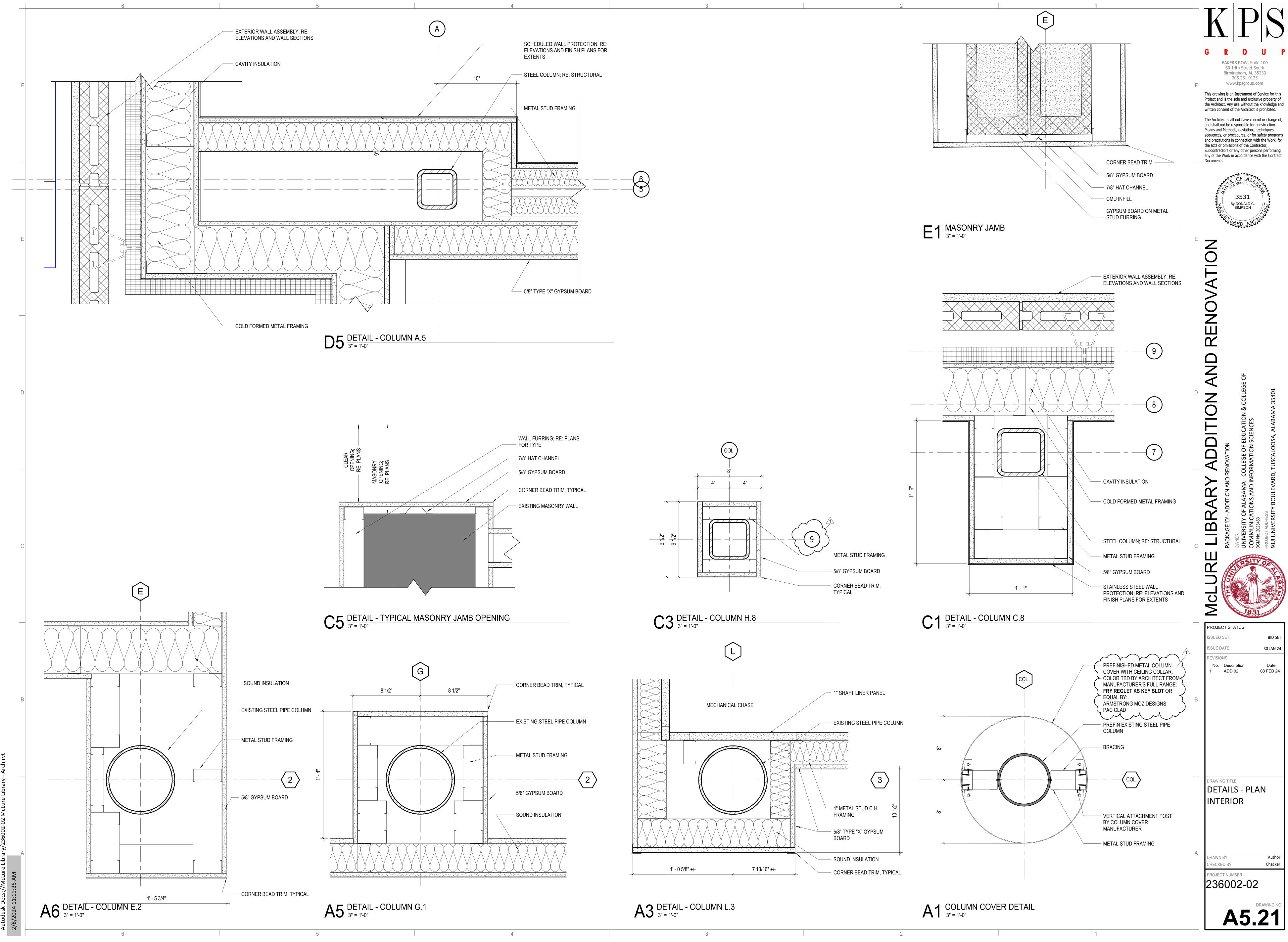


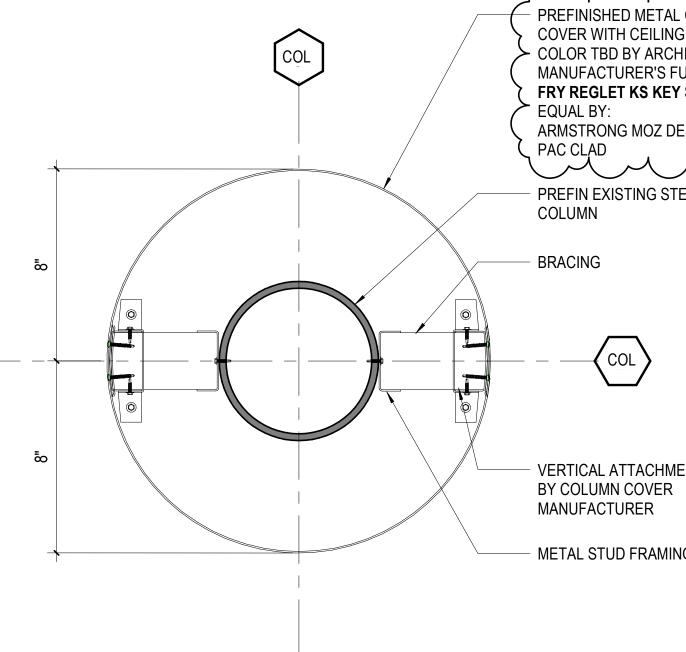












MCLURE LIBRARY ADDITION AND RENOVATION

PACKAGE D - ADDITION AND RENOVATION

The University of Alabama, Tuscaloosa, Alabama

UA Project No.: 051-23-2688D / 91209 KPS Project No.: 236002-02 DCM No.: 2023453

Bid Set – Vol. 1 – Addendum 2 January 30, 2024







ArchitectureInterior DesignPlanningUrban Design60 14thStreet South, Suite 100, Birmingham, Alabama 35233
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MCLURE LIBRARY ADDITION AND RENOVATION

PACKAGE D - ADDITION AND RENOVATION

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Bid Set – Vol. 2 – Addendum 2 January 30, 2024







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KPS Group, Inc. University of Alabama – McLure Library **Package D - Addition and Renovation** Tuscaloosa, Alabama **Addendum 2**

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NOT APPLICABLE

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UA Project Name: McLure Library Addition and Renovation UA Project No.: 051-22-2688D

Thank you for your interest in this Project at The University of Alabama. Please read this entire document for information on how to obtain plans and specifications and prequalify for this project.

WHO IS REQUIRED TO PREQUALIFY FOR THIS PROJECT?

The following are required to prequalify prior to submitting bids or working on this project. Please note that firms listed on the UA Prequalification Master List in the categories below will not be required to prequalify. Firms listed on the Master List for any category other than General Contractor are not required to prequalify to work as subcontractors in the trades(s) for which they are listed. If a project has one main trade, the University may allow a subcontractor on the Master List to bid as a prime contractor for that trade-specific project, however, the University reserves the right to require the firm to prequalify to bid as a prime contractor. For a copy of the UA Master List, contact the UA Project Manager listed below.

General Contractors

HOW DO I SUBMIT A PREQUALIFICATION PACKET?

Send your request for a prequalification packet to:

Mary Kathryn Holt, UA Project Manager 256-710-5834 zickl001@ua.edu

Completed packets may be submitted by email to:

Mary Kathryn Holt, UA Project Manager zickl001@ua.edu and Richard Pitts KPS Group, Inc. rpitts@kpsgroup.com

If necessary, hard copy submissions should be sent to:

Mary Kathryn Holt, UA Project Manager The University of Alabama, Construction Administration 413 Cahaba Circle, Tuscaloosa, AL 35404 and Richard Pitts KPS Group, Inc. 60 14th Street South Suite 100 Birmingham, AL 35233

Submissions must be received by the deadline stated in the ad. Emailed submissions are highly encouraged, but it is the responsibility of the submitting firm to make sure the submission was received prior to the deadline. In reviewing the submittals, emphasis will be placed on your firm's experience with projects similar in size and type to this Project and experience with projects on college campuses.

PREQUALIFICATION SUBMISSION MUST BE RECEIVED BY 5:00 PM LOCAL TIME ON TUESDAY, JANUARY 23, 2024

UA WILL ISSUE THE NAMES OF ALL FIRMS WHO HAVE PREQUALIFIED BY FRIDAY, JANUARY 26, 2024

HOW DO I REQUEST A WAIVER FROM PREQUALIFICATION?

Any Contractor not already on UA's Master List that has been previously prequalified for or has a successful track record on University of Alabama projects may submit a letter to the Project Manager requesting a waiver of the prequalification requirement for this project. The decision on whether to grant the waiver shall be at the discretion of the UA Executive Director for Construction Administration or delegate and shall be based on prior prequalification on projects of a similar size and scope, successful past performance on UA projects, or other demonstrated ability to complete the project. The Project Manager shall advise the Contractor in writing within two business days from the receipt of the request as to whether the waiver shall be granted. The Awarding Authority reserves the right to request additional relevant project specific information and relevant experience information to determine whether to grant the waiver or to request the Contractor to submit a full prequalification packet. Contractors are advised to request waivers as soon as possible. UA will not accept prequalification submissions after the submission deadline and the denial of a waiver will not extend the deadline.

THE DEADLINE FOR REQUESTING A WAIVER IS 5:00 PM LOCAL TIME TUESDAY, JANUARY 23, 2024.

WHEN AND WHERE CAN I REVIEW PLANS AND SPECIFICATIONS?

Preliminary and Final Plans, Specifications, and Contract Documents are open to public inspection and will be available for EXAMINATION ONLY on the dates listed below at The University of Alabama, Office of Construction Administration, 1115 14th Street, Ancillary Services Building, Second Floor, Tuscaloosa, AL 35401. Final Plans and specifications will also be made available on this date for PRINTING and/or EXAMINATION at Tuscaloosa Blueprinting and Reprographics LLC, 1926 University Blvd., Tuscaloosa, Alabama 35401; ConstructConnect, 30 Technology Parkway South, Suite 100, Norcross, GA, 30092; and Dodge Data & Analytics at network.construction.com.

PRELIMINARY PLANS AND SPECS CAN BE REVIEWED IN THE UA PLAN ROOM ON MONDAY, JANUARY 15, 2024 FINAL PLANS AND SPECS CAN BE REVIEWED IN THE UA PLAN ROOM ON TUESDAY, JANUARY 30, 2024. FINAL PLANS AND SPECS WILL BE AVAILABLE FOR PRINTING AND/OR EXAMINATION IN THE ABOVE-LISTED PLAN ROOMS ON TUESDAY, JANUARY 30, 2024.

WHEN AND WHERE CAN I GET COPIES OF PLANS AND SPECIFICATIONS; HOW MUCH IS THE DEPOSIT?

Plans, Specifications, and Contract Documents will be available on the dates listed below, are open to public inspection, and may be obtained from the Architect/Engineer (or their representative as designated below). Up to two sets of full-size drawings and specifications may be obtained by Contractors, upon request to the Architect/Engineer and upon payment of the <u>deposit</u> listed below, made payable to the Architect/Engineer, which is refundable in full upon the return of the drawings and specifications in good condition within ten days after the bid opening, else deposit shall be forfeited. Additional sets for bidders, subcontractors, vendors, or dealers may be obtained upon payment of the same deposit. This deposit shall be refunded less the cost of printing, reproduction, handling, and distribution, upon return of the documents in reusable condition within 10 days after the bid opening.

Plans and Specs will be available starting Tuesday, January 30, 2024. The deposit is \$\$350 per set.

TO OBTAIN PLANS AND SPECS CONTACT RICHARD PITTS AT KPS GROUP, INC., 205-458-3237, RPITTS@KPSGROUP.COM

This attachment is part of the Contract Documents and shall be binding on parties seeking to bid or work on this Project. The terms and dates contained herein may be changed by addendum and it is the bidder's responsibility to review any addenda prior to bidding. Bid security shall be deposited with each bid as provided in Instructions to Bidders. No bid may be withdrawn after the scheduled closing time for the receipt of bids for a period of 60 days. The Owner reserves the right to reject any or all bids and to waive informalities and technical errors if, in the Owner's judgment, the best interest of the Owner will thereby be promoted. All bidders shall meet licensing requirements of Title 34, Chapter 8, Code of Alabama and must show evidence of license before bidding or bid will not be received or considered. Bidder shall show such evidence by clearly displaying its current license number on the outside of the sealed envelope in which the proposal is delivered.

SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

A. NAMING OF SUBCONTRACTORS AND SUPPLIERS

For certain projects, the Owner may require a list of subcontractors/suppliers to be designated with the bid submittal. Unless otherwise designated in the bid documents, this bid proposal form will have spaces to list these subcontractors/suppliers. The Contractor must utilize those subcontractors and suppliers turned in with their Bid, unless they can demonstrate to the Owner's satisfaction a compelling reason to change any of those named. Upon request from the Owner, Bidder shall produce written confirmation from the originally designated subcontractor or supplier consenting to the change. For each subcontractor trade or supplier required for the base bid, bidders shall name only one entity.

Where the technical specifications give a list of, and the University requires the use of a specialty subcontractor (or other term which means a firm or company who is currently engaged in that trade as their primary work trade), one must be named on the bid proposal form and employed on the project at no additional cost to the Owner.

Should the prime contractor bidder be one who regularly performs one or more of the specialty trades/subcontracts with its own forces, the prime contractor bidder shall list itself, provided it can demonstrate without question to the Owner and the Architect that it performs this specific trade/specialty on a regular basis, utilizing skilled, experienced tradespersons who are on the full time payroll of the prime, and that it has the licensed to do so. Furthermore, the prime must submit proof, when requested by the University, that it has completed a substantial number (ten or more) of similar projects, requiring similar specialty trades during the past two years, using its own forces. (Refer to the General Conditions for other requirements)

Failure to submit this list of subcontractors and suppliers in full with the Bid Proposal Form may render bidder's bid non-responsive.

B. ADDITIONAL SUBMITTALS WITHIN 48 HOURS OF RECEIPT OF BIDS

The apparent low bidder shall submit to the Owner and the Architect on the bidder's letterhead, a complete list of all major subcontractors and all suppliers, including those submitted with their bid. Major subcontractors and suppliers include, but are not limited to sitework/utilities, irrigation/landscaping, masonry, roofing, fire protection, HVAC, plumbing, and electrical. The Owner reserves the right to require additional trades and/or suppliers to be included. This list shall be on contractor's letterhead and include subcontractor's/supplier's name, contact person with their email address, and Alabama license number (unless supplier).

C. PREQUALIFICATION OF PRIME CONTRACTORS & SUBCONTRACTORS

- 1. As referenced in Article 2.c.and 2.d. of the Instructions to Bidders, the awarding authority may elect to pre-qualify all general contractors and subcontractors listed: sitework/utilities subcontractors, irrigation/landscaping subcontractors, masonry subcontractors, roofing subcontractors, fire protection subcontractors, mechanical/plumbing subcontractors, and electrical subcontractors.
- 2. A list of prequalified general contractors and subcontractors which require no further prequalification by the Owner are listed in item 5 below.
- 3. The University decides to prequalify contractors on a "per project" basis. Each projects' advertisement will state if that project is prequalifying and, if so, which disciplines. Information in the advertisement will tell who to contact to receive a "Prequalification Packet" and the deadline to return said packets. General Contractors can get an updated list of subcontractors, when needed, by contacting the UA Project Manager for the project they are interested in bidding.

- 4. If a project has one main trade, the University may elect to allow one or more of the subcontractors listed below in that trade to bid as a Prime Contractor for that trade-specific project. Such subcontractor would have to meet all the licensing requirements of Title 34, Chapter 8, Code of Alabama.
- 5. The following list, updated **<u>February 1, 2024</u>**, includes all companies considered to be prequalified at this time without any further action:

General Contractors Unlimited

B L Harbert International, LLC – Birmingham, AL M. J. Harris Construction Services, LLC – Birmingham, AL Harrison Construction Company, Inc. - Northport, AL WAR Construction, Inc. - Tuscaloosa, AL

General Contractors Limited

Cornerstone Restoration, Inc. – Helena, AL (\$2,000,000) Duncan & Thompson Construction Services, LLC – Birmingham, AL (\$20,000,000) Hall-Taylor Construction Company, Inc. – Tuscaloosa, AL (\$20,000,000) K&A Builders, Inc. – Tuscaloosa, AL (\$10,000,000) Kyser Construction, LLC – Tuscaloosa, AL (\$5,000,000) P&M Mechanical, Inc. – Birmingham, AL (\$5,000,000) RCI Contractors & Engineers, Inc. – Tuscaloosa, AL (\$5,000,000) Snow-Blakeney Construction, Inc. – Tuscaloosa, AL (\$5,000,000)

<u>AV</u>

AVX Commercial, Inc.- Birmingham, AL Diversified aka One Diversified- Birmingham, AL ESB Group, Inc.- Springville, AL Redpoint Audio, LLC – Tuscaloosa, AL

Demolition and Abatement

Alabama Restoration and Remediation, LLC – Tuscaloosa, AL D. H. Griffin Wrecking Company, Inc. – Birmingham, AL MAK Environmental, LLC – Northport, AL

Electrical

A & B Electric Company, Inc. - Tuscaloosa, AL Bright Future Electric, LLC – Birmingham, AL Marathon Electrical Contractors, Inc. - Birmingham, AL Mills Electric, Inc. - Tuscaloosa, AL Patco Electrical Contractors, Inc. – Tuscaloosa, AL Premier Service Company, Inc. - Tuscaloosa, AL Taylor Electrical Contractors, Inc. – Tuscaloosa, AL Team B Electrik, LLC – Brookwood, AL

(continued)

Fire Protection

Alabama Fire Sprinkler Contractors, LLC – Alabaster, AL American Fire Protection, LLC – Birmingham, AL Central Fire Protection, Inc. – Homewood, AL International Fire Protection, Inc. – Irondale, AL Joiner Fire Sprinkler Co., Inc. – Birmingham, AL United States Sprinkler, Inc. – Birmingham, AL

Heating, Ventilation and Air Conditioning (HVAC)

Adkins and Kimbrough Mechanical, LLC – Bessemer, AL Bradley Plumbing and Heating, Inc. – Montgomery, AL Burkes Mechanical, Inc. - Brent, AL Comfort Systems USA Mid South, Inc. – Birmingham, AL Hardy Corporation – Birmingham, AL J. D. Esco, Inc. – Tuscaloosa, AL (\$250,000) Jolly Heating and Air Conditioning, Inc. – Northport, AL McAbee Construction, Inc. - Tuscaloosa, AL McKelvey Mechanical, Inc. - Tuscaloosa, AL P&M Mechanical, Inc. – Birmingham, AL Premier Service Company, Inc. – Tuscaloosa, AL Southern Air, Inc. – Tuscaloosa, AL

Landscape / Irrigation

GLS, LLC (Guthrie Landscape Services) - Tuscaloosa, AL GradeScape, Inc. – Northport, AL Landscape Workshop, LLC – Bessemer, AL Traweek Construction, LLC – Northport, AL

<u>Masonry</u>

Jones Masonry Construction, Inc. – Tuscaloosa, AL Selective Masonry, Inc. – Birmingham, AL

Plumbing

Adkins and Kimbrough Mechanical, LLC – Bessemer, AL Black Warrior Mechanical Contractors, Inc. – Tuscaloosa, AL Bradley Plumbing and Heating, Inc. – Montgomery, AL Comfort Systems USA Mid South, Inc. – Birmingham, AL Hardy Corporation – Birmingham, AL Jimmy Hall Plumbing Company, Inc. - Tuscaloosa, AL John Wayne Plumbing & Drain Services Company, Inc. – Tuscaloosa, AL McAbee Construction, Inc. - Tuscaloosa, AL P&M Mechanical, Inc. – Mt. Olive, AL Turner Plumbing, Inc. – Tuscaloosa, AL

(continued)

Roofing

Alabama Roofing & Sheet Metal Co., Inc. - Anniston, AL All-South Subcontractors, Inc. - Birmingham, AL Deason Roofing & Sheet Metal Contractors, Inc. – Tuscaloosa, AL Johns and Kirksey, Inc. - Tuscaloosa, AL Metal Roofing Solutions, Inc. – Tuscaloosa, AL Standard Roofing of Montgomery, Inc. – Montgomery, AL

Sitework / Utilities

Ballard Contractors, Inc. – Moundville, AL Chilton Contractors, Inc. – Clanton, AL CivilWorx Construction, LLC – Tuscaloosa, AL Cornerstone Civil Contractors, LLC - Tuscaloosa, AL Dominion Construction Company, Inc. – Duncanville, AL GFC Construction, Inc. - Duncanville, AL John Plott Company, Inc. – Tuscaloosa, AL L&D Moore Contracting, LLC – Tuscaloosa, AL Lavender, Inc. – Aliceville, AL Price Civil Services, Inc. – Vance, AL Price Construction Company, Inc. – Tuscaloosa, AL REV Construction, Inc. – Tuscaloosa, AL

Waterproofing and Concrete Repair

Building Restoration and Waterproofing Company (BRAWCO), Inc. – Bessemer, AL C-Sharpe Co., LLC – Orange Beach, AL J. J. Morley Enterprises, Inc. – Birmingham, AL RCS Waterproofing, LLC – Pelham, AL (Waterproofing Subcontractor Only) Simpson Plastering, LLC – Birmingham, AL Western Specialty Contractors – Atlanta, GA

END OF SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

BID PROPOSAL FORM

THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ALABAMA c/o Construction Administration Box 870186 413 Cahaba Circle Tuscaloosa, Alabama 35487-0186

BID PROPOSAL FOR:

McLure Library Addition and Renovation 051-23-2688D

The Undersigned, as Bidder, hereby declares that the only person or persons interested in the Proposal as Principals is or are as herein named and that no other person than herein named has any interest in this Proposal or in the Contract to be entered into; that this Proposal is made without connection with any other person, company, or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work, and informed himself fully in regard to all conditions pertaining to the place where the work is to be done, and that he has examined the Drawings and Specifications, including Addenda Nos._______ for the work and the other Contract Documents relative thereto, and that he has satisfied himself relative to the work to be performed.

The Bidder certifies by submitting this bid that they are in full compliance with the Code of Alabama, Section 39-3-1 and 39-3-4 and agrees to provide domestic products if the same are available at reasonable and competitive prices. The Bidder further certifies and agrees that if foreign made materials prices have been used as the basis of the bid because domestic products are not available at a reasonable and competitive price, there has been a downward adjustment in contract price equal to any realized savings or benefit to the Bidder and the foreign materials utilized are of an equal or greater quality.

The Bidder certifies by submitting this bid that they are in full compliance with State of Alabama Act No. 2006-557, that they are not barred from bidding or entering into a contract pursuant to Section 41-4-116, Code of Alabama 1975, and that they acknowledge that the Awarding Authority may declare the bid and/or contract void if the certification is false.

The Bidder further declares that he is aware of the tax exempt status of the Owner and that sales/use/severance taxes are **<u>excluded</u>** from the amount of the bid. The Owner may elect to enter into a "Purchasing Agent Agreement" as described in the Contract Documents.

| In compliance with your Advertisement for Bids datedan | | | |
|---|---|----------|--|
| to all the conditions thereof, the undersigned | | _ | |
| Alabama General Contractor's License # | | | |
| Classification, | A corporation organized and existing un | nder the | |
| Laws of the State of | | | |
| A Partnership consisting of | | | |
| Or an Individual trading asof the City of Hereby proposed to furnish all labor and materials and perform all work required for the construction of in accordance with Drawings and Specifications. | | | |

| BASE BID : For construction complete as shown and specified, the sum of | | |
|--|--|--|
| Dollars (\$ |) | |
| E | STIMATED SALES TAX: \$ | |
| ADD ALTER | NATE 1: Decorative Pendant Lighting. | |
| Dollars (\$ |) | |
| E | STIMATED SALES TAX: \$ | |
| ADD ALTER | NATE 2: Provide Custom post-set snap-in window head and jamb panning. | |
| Dollars (\$ |) | |
| E | STIMATED SALES TAX: \$ | |
| JNIT PRICES: | | |
| Unit Price No. | .1: Floor Leveling and Patching Material | |
| \$ | per cubic foot | |
| Unit Price No | . 2: Additional Light Structural Steel | |
| \$ | per ton | |
| Unit Price No | . 3: Infilling Holes in Slabs (6" or less) | |
| \$ | per hole | |
| Unit Price No | 4. Infilling Holes in Slabs (6" to 12") | |
| \$ | per hole | |
| Unit Price No. | 5: Excavation and Replacement of Unsuitable Materials | |
| \$ <u></u> | per cubic yard in place | |
| Unit Price No. | 6: Erosion Control, Temporary Site Stabilization (hydraulicly applied) | |
| | per pound | |
| Ψ | por pourte | |

Unit Price No. 7: Erosion Control, Silt Fence

\$_____per linear foot

Unit Price No. 8: Interior Masonry repair, Exterior Pointing and Mortar Repair (Isolated areas less than 5 square feet)

\$_____per square foot

Unit Price No. 9: Interior Masonry repair, Exterior Pointing and Mortar Repair (Isolated areas greater than 5 square feet)

\$____per square foot

Unit Price No. 10: Stucco Repair

\$____per square foot

Unit Price No. 11: Replacement and Repair of Existing Window Blocking

\$_____per board foot

Unit Price No. 12: Replacement and Repair of Existing Wood Roof Decking

\$_____per square foot

Unit Price No. 13: Contingency for Damage to Existing Storm Sewer

\$_____per linear foot

Landscape Unit prices: included on page 4 and 5 of the bid proposal form

UNIVERSITY OF ALABAMA BID PROPOSAL Page 4 of 6 UNIVERSITY OF ALABAMA MISCELLANEOUS LANDSCAPING UNIT PRICES UNIT PRICES:

Bidders should complete and submit the attached list of unit prices for miscellaneous landscaping with their bid proposals. These unit prices are not associated with the Base Bid and will only be applicable to additional work done at the direction of the Owner. All work currently shown in the drawings should be included in the lump sum Base Bid. Refer to Instructions to Bidders, Section 18.b.

| Item No. | Unit | Description | Unit Price | | |
|------------|------------|---|------------|--|--|
| | PLANTING | | | | |
| 1 | sq. yd. | Shredded Pinebark Mulch | | | |
| 2 | sq. yd. | Pinestraw | | | |
| 3 | sq ft. | Seasonal Color | | | |
| 4 | sq. yd. | Zoysia Sod | | | |
| 5 | sq. yd. | Bermuda Sod | | | |
| 6 | sq. yd. | Centipede Sod | | | |
| 7 | sq. yd. | Seeding | | | |
| 8 | each | Shrub - 7 gallon | | | |
| 9 | each | Shrub - 3 gallon | | | |
| 10 | each | Holly 10' height (Standard or full to ground) | | | |
| 11 | each | Crape Myrtle 10' height | | | |
| 12 | each | Southern Magnolia 15' height | | | |
| 13 | each | 4 1/2" caliper Tree | | | |
| IRRIGATION | | | | | |
| 14 | each | Rainbird 5000 rotor | | | |
| 15 | each | Rainbird 1806 spray | | | |
| 16 | each | Rainbird 1812 Spray | | | |
| 17 | each | Irrigation Pipe replacement per 10' length - 3" sch. 40 | | | |
| 18 | each | Irrigation Pipe replacement per 10' length - 2 1/2" sch. 40 | | | |
| 19 | each | Irrigation Pipe replacement per 10' length - 2" sch. 40 | | | |
| 20 | each | Irrigation Pipe replacement per 10' length - 1 1/2" sch. 40 | | | |
| | | | | | |

UNIVERSITY OF ALABAMA BID PROPOSAL Page 5 of 6

| Item No. | Unit | Description | Unit Price |
|----------------|------------|--|-----------------------------|
| 21 | each | Irrigation Pipe replacement per 10' length - 1" sch. 40 | |
| 22 | each | Rainbird PE Valve 1 1/2" | |
| 23 | each | Rainbird PE Valve 1" | |
| 24 | l.f | Irrigation Control Wire | |
| 25 | l.f | Irrigation 2 Wire | |
| 26 | each | NDS Pro Valve Box - Jumbo | |
| 27 | each | NDS Pro Valve Box - 10" round | |
| 28 | each | 4" Sleeve per 10' length - sch. 40 | |
| 29 | each | 6" Sleeve per 10' length - sch. 40 | |
| | | SERVICES | |
| 30 | l.f | Chain link Tree Protection (4' ht.) | |
| 31 | sq. yd. | Grading | |
| 32 | cu. yd. | Concrete (demo and replacement) | |
| 33 | sq. yd. | Wattles | |
| 34 | sq. yd. | Silt Fence (Type A) | |
| 35 | sq. ft. | Plant removal | |
| 36 | each | Tree Pruning | |
| 37 | sq. ft. | Shrub Pruning | |
| 38 | each | Deep Root Fertilization | |
| 39 | sq. ft. | Pressure washing | |
| 40 | sq. yd. | River Rock @ 3" depth | |
| 41 | sq. yd. | Red Rock @ 3" depth | |
| 42 | sq. yd. | Herbicide and Pre-emergent | |
| 43 | sq. yd. | Fertilizer | |
| 44 | sq. yd. | Mowing (includes edging, line trim and blowing) | |
| 45 | hr | Watering | |
| Note: mulch | price on | ly applies to areas not designated for planting. | |
| Note: All unit | prices f | or heads shall include all parts required from head to connect to latera | l line. |
| irrigation sys | tem. | hall be inclusive of materials/ fittings required to provide a complete a | · · · |
| | | isted above shall be reflective of a complete installation such as, but r nulch materials, miscellaneous parts, etc | ot limited to: mobilization |

To be filled out if cashier's check accompanies bid:

The undersigned further agrees that in case of failure on his part to execute the Contract Agreement and required Contract Bonds within fifteen (15) consecutive calendar days after being given written notice of the Award of the Contract, the check accompanying this Bid and the monies thereon shall be paid into the funds of <u>THE BOARD OF TRUSTEES OF THE</u> <u>UNIVERSITY OF ALABAMA, a corporation</u> as liquidated damages for such failure; otherwise the check accompanying this Proposal shall be returned to the undersigned.

Attached hereto is a cashier's check on the

Υ Υ

(Institution Name)

for the sum of

(\$_____).

To be filled out if bidder's bond accompanies bid:

The undersigned further agrees that in case of failure on his part to execute the Contract and Required Contract Bonds within fifteen (15) consecutive calendar days after being given written Notice of the award of the Contract, the Bidder's Bond accompanying this Bid is callable and the Surety will be called upon the Owner(s) for the liquidation; otherwise said Bidder's Bond shall be returned to the undersigned.

| Attached hereto is a bidder's bond of | | |
|---------------------------------------|-------------------|---------|
| | (Bonding Company) | |
| for the sum of | | Dollars |

(\$_____) made payable to <u>THE BOARD OF TRUSTEES OF THE</u> <u>UNIVERSITY OF ALABAMA, a corporation.</u>

The full names and residences of persons and firms submitting the bid as Principles are as follows: (must be signed to be a valid bid proposal)

Date: _____

Signature of Bidder

Title

Business Address

Dollars

SUPPLEMENTAL GENERAL CONDITIONS

McLure Library Addition and Renovation – Package D Addition and Renovation UA 051-23-2688D

1. OWNER-FURNISHED/CONTRACTOR-INSTALLED (OFCI) PRODUCTS

- A. Owner's Responsibilities: Owner will furnish products indicated and perform the following, as applicable:
 - 1. Provide to Contractor Owner-reviewed Product Data, Shop Drawings, and Samples.
 - 2. Provide for delivery of Owner-furnished products to Project site.
 - 3. Upon delivery, inspect, with Contractor present, delivered items.
 - a. If owner-furnished products are damaged, defective, or missing, arrange forreplacement.
 - b. If, after inspection, Owner and Contractor agree the Owner-furnished materials are complete, free from damage or defect, and generally acceptable, ownership of and responsibility for the materials shall be transferred to the Contractor and shall remain with the Contractor until the project is substantially complete and turned over to the Owner. Any Owner-furnished material that is damaged, lost, stolen, or otherwise rendered unusable after acceptance but prior to substantial completion shall be replaced by the Contractor at no additional cost to the Owner.
 - 4. Obtain manufacturer's inspections, service, and warranties.
 - 5. Inform Contractor of earliest available delivery date for Owner-furnished products.
- B. Contractor's Responsibilities: The Work includes the following, as applicable:
 - 1. Designate delivery dates of Owner-furnished products in Contractor's construction schedule, utilizing Owner-furnished earliest available delivery dates.
 - 2. Review Owner-reviewed Product Data, Shop Drawings, and Samples, noting discrepancies and other issues in providing for Owner-furnished products in the Work.
 - 3. Receive, unload, handle, store, protect, and install Owner-furnished products.
 - 4. Owner shall bear no responsibility regarding any of the above listed activities.
 - 5. Make building services connections for Owner-furnished products.
 - 6. Protect Owner-furnished products from damage during storage, handling, and installation and prior to Substantial Completion.
 - 7. Repair or replace Owner-furnished products damaged following receipt.
- C. Owner-Furnished-Contractor-Installed (OFCI) Products:
 - 1. Fire Alarm Control Panel.
 - 2. Lime stucco material per Section 09 25 23.
 - 3. Face Brick per Section 04 20 00
 - 4. Exterior light poles
 - 5. Electrical Service Meter
 - 6. Distech controls as noted on Mechanical drawings and in Division 25.

2. PRIORITY SUBMITTALS TO BE SUBMITTED WITHIN 30 DAYS OF LOI

- A. Structural steel
- B. Bar joists
- C. Concrete reinforcing
- D. Concrete
- E. Electrical gear
- F. Windows
- G. Storefronts and Curtain wall

END OF SUPPLEMENTAL GENERAL CONDITIONS

UA Pre-Excavation Notification & Sign-Off Sheet

| UA Project: | | UA Project/Account No.: | | |
|--|---------------------------------|--|--|--|
| | | | | |
| UA FC: | | | | |
| Contractor Contacts: | | | | |
| | | | | |
| | | Phone/Email: | | |
| | | Phone/Email: | | |
| Other: | | Phone/Email: | | |
| Description and Location | of Excavation (map to be inclu- | ded): | | |
| Alabama One-Call (1-800 Ticket No.: | -292-8525) – To be requested of | n same day as UA Locates | | |
| Request Date: | Refresh Date: | Expiration Date: | | |
| | Underground Utili | tv Locator Sign-Off | | |
| | (To Be Facilitated by UA | Line Locate Coordinator) | | |
| UA Work Order No.: | | (Electrical/Plumbing/Grounds) | | |
| UA Electrical Rep. Signat | ure: | Date: | | |
| UA Plumbing Rep. Signat | ure: | Date: | | |
| UA Telecommunications | Rep. Signature: | Date: | | |
| UA Grounds Rep. Signatu | re: | Date: | | |
| UA Support Services Rep | . Signature: | Date: | | |
| UA Locate Request | | | | |
| Request Date: | Refresh Date: | Expiration Date: | | |
| | In Case of | Emergency | | |
| For A | | A Police Department (205) 348-5454 | | |
| UA Support Serv | vices Coordinator Alison Hew | son (205) 348-1684 / <u>linelocate@ua.edu</u> | | |
| If una | ble to reach Support Services C | coordinator, please see contacts below. | | |
| UA Telecommunio | cations (205) 348-9555 | UA Plumbing (205) 348-8710 | | |
| UA Electrica | al (205) 348-3961 | UA Grounds (205) 348-2657 | | |
| Comments: | | | | |
| | | | | |
| | | | | |
| By signature below, prim | ary party has visually located | markings, understands these markings, and will abide by | | |
| | | on is to remain within the areas specified on attached, arkings must be refreshed per the Underground Utilities | | |

Primary Party:______Signature: ______

Locate Procedure.

SECTION 01 21 00

ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Quantity allowances.
 - 2. Lump-sum allowances.
- B. Related Sections:
 - 1. Section 01 22 00 Unit Prices: Procedures for using unit prices.
 - 2. Divisions 02 through 49 Sections: Items of Work covered by allowances.

1.2 DEFINITIONS

- A. Allowance is a quantity of work or dollar amount established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.
- 1.3 SELECTION AND PURCHASE
 - A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
 - B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
 - C. Purchase products and systems selected by Architect from the designated supplier.

1.4 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.
- 1.5 INFORMATIONAL SUBMITTALS
 - A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
 - B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
 - C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.6 QUANTITY ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
 - 1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.
 - 2.

1.7 UNIT-COST ALLOWANCES

- A. Unit prices include all necessary material, cost for delivery, installation, insurance, overhead, profit, and applicable taxes.
- B. Unless otherwise indicated, Contractor's overhead and profit, labor, handling, installation, demolition, preparation, installation, access and other cost associated with the unit price shall be included in unit price allowances.
- C. Measurement and Payment: Where unit prices are for quantities that are more or less than what is provided for in the base contract, Contractor shall keep a record of amounts used as the work progresses. Such work shall be recorded daily on the as-built drawings or Owner approved log for verification. Contractor shall transmit unit quantity tracking information to Owner or Designer on a daily basis for verification. Designer or Owner shall verify the need for unit repairs prior to installation of repairs and track quantities. No contract adjustments will be made on any unit price quantities not verified by the Designer or Owner. In the event that a discrepancy exist between the contractor's counted quantities and the designer's counted quantities, the designer's quantities shall prevail.
- D. Adjustments to final payments will be the quantity difference between the allowance and quantity applied times the unit price quoted in the bid.
- E. Schedule: A "Unit Allowance Schedule" is included at the end of this Section.
- 1.8 LUMP-SUM ALLOWANCES
 - A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight, and delivery to Project site.
 - B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
 - C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.9 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
 - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unitcost allowances.
 - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALLOWANCES

<u>Allowance No. 1 - Floor Leveling and Patching Material:</u> Include in base bid 200 cubic feet of floor leveling and patching material as specified in "Section 03 54 16 - Hydraulic Cement Underlayment,"

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

<u>Allowance No. 2 - Additional Light Structural Steel:</u> Include in base bid the in-place cost of **3 TONS** of Light Structural Steel (weights of less than 20 pounds per linear foot) in addition to all other steel shown on the drawings or in the specifications.

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This in-place cost shall include all costs associated with the steel including, but not limited to:
 - a. Steel detailing, shop drawings, material, labor, etc.
 - b. This extra steel shall be installed in the building in such sizes and locations as the Structural Engineer or Architect may direct without additional cost to the Owner.
 - c. Any unused portion shall be subject to credit.

<u>Allowance No. 3 – Infilling Holes in Slabs (6" across or less):</u> Include in the Base bid the infilling of 50 existing holes in accordance with the structural requirements.

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation, and Contractor overhead and profit.

<u>Allowance No. 4 – Infilling Holes in Slabs (between 6" and 12" across):</u> Include in the Base bid the infilling of 25 existing holes in accordance with the structural requirements.

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation, and Contractor overhead and profit.

<u>Allowance No. 5 – Excavation and Replacement of Unsuitable Materials</u>: Include in base bid 500 cubic yard in place (cyip) of unsuitable materials to excavate and dispose of off-site in the area of hardscape, concrete, foundations, or other areas as determined necessary in the field during construction by the Owner's geotechnical representative and replace with materials as specified as embankment fill in the technical specifications or other materials as approved by the Owner's geotechnical representative

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. All excavation, including unsuitable / unconsolidated materials, from existing ground elevation to the finished grade elevations (including excavation for any footings, foundations, temporary supports such as shoring, subgrade, concrete / pavement build-ups, etc.) shall be included in the base bid and shall not be considered as and therefore paid as Removal and Replacement of Unsuitable Materials. Following demolition, topsoil stripping in fill sections and excavation operations to finished subgrade elevations in cut-sections, the Contractor shall notify the Owner's geotechnical representative before any questionable material is excavated, so the area(s) of unsuitable unconsolidated materials may be identified. Following the removal of such material identified by the Owner's geotechnical representative, the Contractor shall once again notify the Owner's geotechnical representative before any embankment fill material is placed so the area may be delineated and removal depths measured to derive at the appropriate cubic yards of unsuitable material removal and subsequent replacement. Failure to notify the Owner's geotechnical representative and performing unsuitable excavation along with subsequent replacement material without his/her presence for measurement shall forfeit payment of that amount of unobserved work. The Owner's Representative measurement of the quantities shall be final. Haul tickets shall not be considered a valid determination of quantities. The Contractor shall anticipate and include the cubic yards of Unsuitable Materials Removal and Replacement stated below as part of their base bid. The unit price shall be used to adjust the base bid accordingly for either deductions or additions to the anticipated volume of excavation. The stability of the subgrade shall be established as per the technical specifications (proof-rolling) and / or as required by the Owner's geotechnical representative. There shall be no additional payment for removal or remediation of spoil material, unsuitable, unconsolidated materials and / or subgrade stability required due to deterioration of such subgrade associated with contractor's negligence, including but not necessarily limited to, keeping the area dewatered, grading to provide positive drainage, erosion / siltation, sumps, etc.
- 3. This allowance includes material cost, tools, labor, handling, installation and Contractor overhead and profit.

- Allowance No. 6 Erosion Control, Temporary Site Stabilization (hydraulicly applied): Include in base bid 3,000 lbs of all materials, equipment, tools, labor, surface preparation, soil testing, fertilizer, soil amendments, etc. necessary for site stabilization by hydraulically applied temporary mulching and seeding (as required based on the specifications and sequence of work) of all disturbed and bare earthen areas on the project. The timing and frequency shall be as per the project specification Section 32 2290 and plan notes. The measurement shall be per truck tickets provided to the Owner's Representative prior to beginning applications. Any material placed but no record of truck tickets to justify the poundage of material used shall not be paid for by the Owner. It is the contractors responsibility to ensure weight tickets are provided to the Owner and tracked for record of usage. If the amount used differs from the weight ticket in the opinion of the Owner, an adjustment shall be made to the weight used as determined by the Owner. The Contractor shall anticipate and include the quantity of material stated below as part of the base bid. The unit price shall be used to adjust the base bid accordingly for either deductions or additions to the anticipated quantity.
 - 1. This allowance includes material cost, tools, labor, handling, installation and Contractor overhead and profit.
- <u>Allowance No. 7 Erosion Control, Silt Fence:</u> Provide all materials, equipment, tools, labor and incidentals necessary to provide temporary erosion control silt fencing at a minimum in the areas as indicated on the construction plans and also in additional areas as directed by the Owner's Representative(s). This unit price shall cover the initial installation of silt fencing only. Any replacement of silt fencing due to negligence by the contractor or their subcontractors, failure to properly maintain such silt fencing, failing silt fencing during rain events, improperly installed silt fencing, contractors sequencing of the work, etc. shall not be paid as part of this silt fence but rather be the sole responsibility of the contractor. Any silt fencing required due to such failures listed above shall be re-installed at no additional costs to the Owner. Any silt fencing installed in locations different from or in addition to that as shown on the construction plans without prior consent / coordination with the Owner's representative(s) also shall not be the responsibility of the Owner and therefore not be paid as part of this Unit Price. The measurement and accurate, continuous log of the installed silt fencing shall be the responsibility of the installed silt fencing shall be the responsibility of the Owner. Failure to keep an accurate and continuous log of the installed silt fencing to be paid by this unit price will be grounds for no payment at the discretion of the Owner.
 - The Contractor shall anticipate and include the quantity stated below as part of the base bid. The unit price shall be used to adjust the base bid accordingly for either deductions or additions to the anticipated quantity.
 - 2. The amount and unit of measurement for this unit price shall be 500 linear feet.

Allowance No. 8 – Interior Masonry Repair, Exterior Pointing and Mortar Repair (Isolated areas less than

<u>5 square feet</u>): Include in the base bid cost for **1,000 square feet** of repointing and repair of deteriorating mortar on existing building, and repair of deteriorating interior masonry requiring repair as specifed in "Section 04 01 23 – MASONRY RESTORATION AND CLEANING."

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

<u>Allowance No. 9 – Interior Masonry Repair, Exterior Pointing and Mortar Repair (Areas greater than 5</u> <u>square feet):</u> Include in the base bid cost for 1,000 square feet of repointing and repair of deteriorating mortar on existing building, and repair of deteriorating interior masonry requiring repair as specified in "Section 04 01 23 – MASONRY RESTORATION AND CLEANING."

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

<u>Allowance No. 10 – Stucco Repair:</u> Include in the base bid cost for **4000 square feet** of stucco repair to damaged stucco walls and entablatures.

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

<u>Allowance No. 11 – Replacement and Repair of Existing Window Blocking:</u> Include in the base bid cost for **2,000 board feet** of lumber for replacement of existing blocking and substrates found unsuitable for attachment of new windows and storefronts, as determined by installer, with pressure-treated wood blocking.

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

<u>Allowance No. 12 – Replacement and Repair of Existing Wood Roof Decking:</u> Include in the base bid cost 2,000 square feet of ³/₄" CDX plywood for replacement of existing wood roof decking found unsuitable by roof installer for securement of new roof.

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

<u>Allowance No. 13 – Contingency for Damage to Existing Storm Sewer:</u> Include in base bid cost for 32 feet of four-foot diameter reinforced concrete pipe and cost to install, as specified in 33 24 33 - Reinforced Concrete Pipe, as contingency in the event of damage to existing clay storm sewer line near Bridge.

- 1. Coordinate quantity allowance adjustment with unit price requirements in "Section 01 22 00 Unit Prices."
- 2. This allowance includes material cost, receiving, handling, installation and Contractor overhead and profit.

<u>Allowance No. 14 - Traffic Control Signage and Barriers:</u> Include the lump-sum of **\$15,000** for pedestrian and vehicular traffic control signage and barriers. Type and location of traffic control signage and barriers will be selected by Owner.

1. This allowance includes material cost, receiving, handling, and installation.

<u>Allowance No. 15 – Site Improvements Adjacent to Autherine Lucy Hall:</u> Include in base bid \$100,000 for additional undefined site work between McLure and Lucy Hall.

1. This allowance includes material cost, receiving, handling, and installation.

<u>Allowance No. 16 – Selective Demolition Allowance:</u> Include in base bid \$15,000 for selective demolition of

- unforeseen Mechanical, Electrical, and Plumbing materials encountered during selective demolition.
- 1. This allowance includes material cost, receiving, handling, and installation.

END OF SECTION

SECTION 01 22 00

UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Administrative and procedural requirements for Unit Prices.
- B. Related Sections:
 1. Section 01 21 00 Allowances: For procedures using unit prices to adjust quantity allowances.

1.2 DEFINITIONS

A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

Unit Price No. 1 - Floor Leveling and Patching Material:

- 1. Provide a unit price per CUBIC FOOT of leveling and patching material placed as specified in "Section 03 54 16 - Hydraulic Cement Underlayment."
- 2. Quantity Allowance: Coordinate unit price with allowances in "Section 01 21 00 Allowances."

Unit Price No. 2 - Additional Light Structural Steel:

1. Provide a unit price per **TON** for providing and installing additional Light Structural Steel as defined in **"Section 01 21 00 - Allowances."**

2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 - Allowances."

Unit Price No. 3 - Infilling Holes in Slabs (6" across or less):

- 1. Provide a unit price **per hole less than 6**" **across** for infilling the hole in accordance with the structural requirements as defined in "Section 01 21 00 Allowances."
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 4 - Infilling Holes in Slabs (6" to 12" across):

- 1. Provide a unit price **per hole 6"-12" across** for infilling the hole in accordance with the structural requirements as defined in "**Section 01 21 00 Allowances.**"
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 5 – Excavation and Replacement of Unsuitable Materials:

- 1. Provide a unit price per **cubic yard in place** for excavation and replacement of unsuitable soils in accordance with the requirements as defined in **"Section 01 21 00 Allowances."**
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 6 – Erosion Control, Temporary Site Stabilization (hydraulicly applied):

- 1. Provide a unit price **per pound** for Erosion Control, Temporary Site Stabilization in accordance with the requirements as defined in **"Section 01 21 00 Allowances."**
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 7 – Erosion Control, Silt Fence:

- 1. Provide a unit price **per linear foot** for Erosion Control, Silt Fence in accordance with the requirements as defined in "Section 01 21 00 Allowances."
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

<u>Unit Price No. 8 - Interior Masonry Repair, Exterior Pointing and Mortar Repair (areas less than 5 square feet:</u>

- Provide a unit price per square foot for repointing and repair of deteriorating mortar on existing building, and repair of deteriorating interior masonry requiring repair as specifed in "Section 04 01 23 – MASONRY RESTORATION AND CLEANING."
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

<u>Unit Price No. 9 – Interior Masonry Repair, Exterior Pointing and Mortar Repair (Areas greater than 5 square feet):</u>

- Provide a unit price per square foot for repointing and repair of deteriorating mortar on existing building, and repair of deteriorating interior masonry requiring repair as specified in "Section 04 01 23 – MASONRY RESTORATION AND CLEANING."
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 10 – Stucco Repair:

- 1. Provide a unit price **per square foot** for repair to damaged stucco walls and entablatures as described in "**Section 01 21 00 Allowances.**"
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 11 – Replacement and Repair of Existing Window Blocking:

- 1. Provide a unit price **per board foot** needed for replacement of existing blocking and substrates as described in "**Section 01 21 00 Allowances.**"
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 12 – Replacement and Repair of Existing Wood Roof Decking:

- 1. Provide a unit price **per square foot** needed for replacement of existing wood decking described in **"Section 01 21 00 - Allowances."**
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Unit Price No. 13 – Contingency for Damage to Existing Storm Sewer:

- 1. Provide a unit price **per linear foot** needed for reinforced concrete pipe as described in **"Section 01 21 00 - Allowances."**
- 2. Quantity Allowance: Coordinate unit price with allowance adjustment requirements in "Section 01 21 00 Allowances."

Landscape Unit prices: Bidders should complete and submit the list of unit prices attached to the bid proposal form for miscellaneous landscaping with their bid proposals. These unit prices are not associated with the Base Bid and will only be applicable to additional work done at the direction of the Owner. All work currently shown in the drawings should be included in the lump sum Base Bid. Refer to Instructions to Bidders, Section 18.b.

END OF SECTION

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes:
 - 1. Information related to environmental regulatory requirements.
 - 2. Information related to contractor training requirements.

1.2 PRECONSTRUCTION MEETING

- A. After award of Contract and prior to the commencement of the Work, schedule and conduct meeting with Owner and Architect to discuss the applicable environmental regulations.
- B. Verify procedures and requirements necessary to ensure implementation of Environmental Protection Plan is coordinated with applicable environmental regulatory requirements.
- C. Verify continual improvement efforts exceed environmental regulatory compliance.
- D. Verify procedures and requirements necessary to ensure implementation of continual improvement of environmental quality is coordinated with applicable environmental regulatory requirements.

1.3 SUBMITTALS

- A. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with environmental regulations bearing on performance of the Work.
- B. Contractor's Training Program: At least monthly, the General Contractor shall conduct training with all subcontractors that at a minimum covers the following Federal Environmental Regulation:

"AS PER FEDERAL WATER POLLUTION CONTROL ACT THE FOLLOWING ITEMS ARE PROHIBITED FROM GROUND SURFACE, STORM SEWER, AND SANITARY SEWER DISCHARGE (1) WASTEWATER FROM WASHOUT OF CONCRETE AND MORTAR, (2) WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCOM PAINT, FORM RELEASE OILES, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS, (3) FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT WASHING, (5) DISCHARGES FROM DEWATERING ACTIVITIES, INCLUDING DISCHARGES OF GROUNDWATER OR ACCUMULATED STORMWATER FROM DEWATERING OF TRENCHES, EXCAVATIONS, FOUNDATIONS, VAULTS, OR OTHER SIMILAR POINTS OF ACCUMULATION, UNLESS MANAGED BY APPROPRIATE CONTROLS, (6) DISCHARGES TO SURFACE WATERS FROM SEDIMENT BASINS OR IMPOUNDMENTS, (7) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR RELEASE. The records of this training including attendee sign-in sheet shall be available for Owner's records and shall be submitted electronically to the Owner upon request.

1.4 QUALITY ASSURANCE

- A. Federal Environmental Regulatory Requirements: Comply with applicable regulations. The following is for Contractor's information only:
 - 1. Storm water permits; refer to ADEM Construction Stormwater Regulations: <u>https://adem.alabama.gov/programs/water/constructionstormwater.cnt</u> and NPDES Storm Water Program: <u>http://www.epa.gov/npdes/stormwater</u>.
 - 2. Oil spill requirements for construction activities; refer to EPA Oil Program web site: <u>http://www.epa.gov/oilspill/</u>
 - 3. Air quality requirements for construction activities; refer to EPA'S Air Program: <u>Air Quality</u> <u>Management Process | US EPA</u>
 - 4. Asbestos requirements for construction activities; refer to EPA's Asbestos Management and Regulatory Requirements Website: <u>http://www.epa.gov/asbestos/</u>
 - 5. National Environmental Policy Act (NEPA) requirements for construction activities
- B. State and Local Environmental Regulatory Requirements: Comply with applicable regulations. The following is for Contractor's information only:
 - 1. State Office/Department of Environmental Quality.
 - 2. Local Office/Department of Environmental Quality.
 - 3. The Associated General Contractors of America (AGC): <u>http://www.agc.org/</u>
- C. Contractor's Training Program: Contractor shall provide environmental training for workers performing work on the project site. Training shall include the following:
 - 1. Compliance with applicable federal environmental regulatory requirements.
 - 2. Compliance with applicable state and local environmental regulatory requirements.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION 01 41 00

SECTION 04 01 23

MASONRY RESTORATION AND CLEANING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Repair, replacement, repointing and cleaning of existing brick and limestone masonry as indicated on Drawings. The scope of work includes, but is not limited to the following:
 - 1. Repair and/or replacement of existing brick to match existing brick.
 - 2. Unused anchor removal.
 - 3. Cleaning exposed brick and limestone masonry surfaces to remove mildew and biological growth.
 - 4. Repointing brick and stone joints with mortar.
 - 5. Repointing stone joints with sealant.
- B. Related Sections:
 - 1. Section 04 20 00 Unit Masonry: New and existing face brick.
 - 2. Section 07 92 00 Joint Sealants.

1.2 ALLOWANCES

A. Allowances for repointing brick masonry and stone are specified in "Section 01 21 00 - Allowances."

1.3 UNIT PRICES

A. Unit Prices for repointing brick masonry and stone are specified in "Section 01 22 00 - Unit Prices."

1.4 DEFINITIONS

- A. Very Low-Pressure Spray: Under 100 psi.
- B. Low-Pressure Spray: 100 to 400 psi; 4 to 6 gpm.
- C. Rebuilding (Setting) Mortar: Mortar used to set and anchor masonry in a structure, distinct from pointing mortar installed after masonry is set in place.
- E. Saturation Coefficient: Ratio of the weight of water absorbed during immersion in cold water to weight absorbed during immersion in boiling water; used as an indication of resistance of masonry units to freezing and thawing.
- F. Stone Terminology: ASTM C 119.
- 1.5 PREINSTALLATION MEETINGS
 - A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Review methods and procedures related to masonry restoration and cleaning including, but not limited to, the following:

- a. Verify brick masonry and stone repointing specialist's personnel, equipment, and facilities needed to make progress and avoid delays.
- b. Verify masonry-cleaning equipment and facilities needed to make progress and avoid delays.
- c. Materials, material application, sequencing, tolerances, and required clearances.
- d. Quality-control program.
- e. Cleaning program.
- f. Coordination with building occupants.

1.6 SEQUENCING AND SCHEDULING

- A. Order pointing mortar immediately after approval of mockups. Take delivery of and store at Project site a sufficient quantity to complete Project.
- B. Work Sequence: Perform brick masonry and stone repointing work in the following sequence:
 - 1. Remove plant growth.
 - 2. Inspect masonry for open mortar joints and permanently or temporarily point them before cleaning to prevent the intrusion of water and other cleaning materials into the wall.
 - 3. Remove paint.
 - 4. Clean masonry.
 - 5. Rake out mortar from joints surrounding masonry to be replaced and from joints adjacent to masonry repairs along joints.
 - 6. Repair brick masonry and stonework, including replacing existing masonry with new masonry materials.
 - 7. Rake out mortar from joints to be repointed.
 - 8. Point mortar and sealant joints.
 - 9. After repairs and repointing have been completed and cured, perform a final cleaning to remove residues from this work.
 - 10. Where water repellents are to be used on or near brick masonry or stonework, delay application of these chemicals until after pointing and cleaning. Refer to "Section 07 19 00 Water Repellents."
- C. As scaffolding is removed, patch anchor holes used to attach scaffolding. Patch holes in masonry units to comply with "Masonry Unit Patching" Article. Patch holes in mortar joints to comply with "Repointing Masonry" Article.

1.7 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
 - 2. Include recommendations for product application and use. Include test data substantiating that products comply with requirement.
- B. Samples for Verification: Before erecting mockup, submit samples of the following:
 - 1. Brick: Each type of brick unit to be used for replacing existing units.
 - 2. Pointing Mortar: Submit sets of mortar for pointing in the form of sample mortar strips, 6 inches long by 1/4 inch wide, set in aluminum or plastic channels
 - 3. Sealant Materials: See "Section 07 92 00 Joint Sealants."
 - 4. Accessories: Each type of anchor, accessory, and miscellaneous support.

1.8 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For restoration specialists including field supervisors and restoration workers.
- B. Qualification Data: For chemical-cleaner manufacturer.
- C. Quality-control program.
- D. Preconstruction Test Reports: For cleaning materials and methods.
- E. Cleaning program.

1.9 QUALITY ASSURANCE

- A. Chemical-Cleaner Manufacturer Qualifications: A firm regularly engaged in producing masonry cleaners that have been used for similar applications with successful results, and with factory-trained representatives who are available for consultation and Project-site inspection and assistance at no additional cost.
- B. Brick Masonry and Stone Repointing Specialist Qualifications: Engage an experienced masonry restoration and cleaning firm to perform work of this Section. Firm shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance. Experience installing standard unit masonry is not sufficient experience for masonry restoration work.
 - 1. At Contractor's option, work may be divided between two specialist firms: one for cleaning work and one for repair work.
 - 2. Field Supervision: Restoration specialist firms shall maintain experienced full-time supervisors on Project site during times that clay masonry restoration and cleaning work is in progress.
 - 3. Restoration Worker Qualifications: Persons who are experienced and specialize in restoration work of types they will be performing.
- C. Quality-Control Program: Prepare a written quality-control program for this Project to systematically demonstrate the ability of personnel to properly follow methods and use materials and tools without damaging brick and stonework. Include provisions for supervising performance and preventing damage.
- D. Cleaning Program: Prepare a written cleaning program that describes cleaning process in detail, including materials, methods, and equipment to be used; protection of surrounding materials; and control of runoff during operations. Include provisions for supervising worker performance and preventing damage.
 - 1. If materials and methods other than those indicated are proposed for any phase of cleaning work, add a written description of such materials and methods, including evidence of successful use on comparable projects and demonstrations to show their effectiveness for this Project
- E. Mockups Repointing: Prepare mockups of brick masonry and stone repointing to demonstrate aesthetic effects and to set quality standards for materials and execution. Prepare mockups on existing walls under same weather conditions to be expected during remainder of the Work.
 - 1. Repointing: Rake out joints in two separate areas approximately 36 inches high by 72 inches wide for each type of repointing required and repoint one of the two areas
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing

- 3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- F. Mockups Cleaning: Prepare mockups of cleaning on existing surfaces to demonstrate aesthetic effects and to set quality standards for materials and execution.
 - 1. Cleaning: Clean an area approximately 5 sq. ft. in area for each type of brick masonry and stone surface condition.
 - a. Test cleaners and methods on samples of adjacent materials for possible adverse reactions unless cleaners and methods are known to have deleterious effect.
 - b. Allow a waiting period of not less than seven days after completion of sample cleaning to permit a study of sample panels for negative reactions.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing
 - 3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- 1.10 DELIVERY, STORAGE, AND HANDLING
 - A. Deliver products in time to avoid construction delays.
 - B. Deliver materials to site in manufacturer's original unopened containers and packaging, bearing labels as to type and names of products and manufacturers.
 - C. Store all mortar ingredients in manufacturer's packaging, or when delivered loose, with adequate weatherproof covering.
 - D. Protect masonry restoration materials during storage and construction from wetting by rain, snow or ground water, and from staining or intermixture with earth or other types of materials.
 - E. Protect mortar and other materials from deterioration by moisture and temperature. Store in a dry location or in waterproof containers. Keep containers tightly closed and away from open flames. Protect liquid components from freezing. Comply with manufacturer's recommendations for minimum and maximum temperature requirements for storage.

1.11 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit masonry restoration and cleaning work to be performed according to manufacturers' written instructions and specified requirements.
- B. Cold-Weather Requirements: Comply with the following procedures for masonry repair and mortar-joint pointing unless otherwise indicated:
 - 1. When air temperature is below 40 deg F, heat mortar ingredients, masonry repair materials, and existing masonry walls to produce temperatures between 40 and 120 deg F.
 - 2. When mean daily air temperature is below 40 deg F, provide enclosure and heat to maintain temperatures above 32 deg F within the enclosure for 7 days after repair and pointing.
- C. Hot-Weather Requirements: Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials. Provide

artificial shade and wind breaks and use cooled materials as required to minimize evaporation. Do not apply mortar to substrates with temperatures of 90 deg F and above unless otherwise indicated.

- D. For manufactured repair materials, perform work within the environmental limits set by each manufacturer.
- E. Clean masonry surfaces only when air temperature is 40 deg F and above and is predicted to remain so for at least 7 days after completion of cleaning.
- F. Protect persons, motor vehicles, building site and surrounding buildings from injury resulting from masonry restoration work. This includes surface areas on adjacent wall surfaces or roofs not included in this scope of work.
- G. Prevent repointing mortar from staining the face of masonry or other surfaces to be left exposed. Immediately remove all repointing mortar that comes in contact with such surfaces.
- H. Cover partially completed work when work is not in progress.
- I. Protect sills, ledges and projections from droppings.
- J. Damage occurring to the building as a result of work of this section of Contractor's failure to protect against such damage shall be the Contractor's responsibility. The contractor shall restore damaged areas to the complete satisfaction of the Architect at no expense to the Owner.

PART 2 - PRODUCTS

- 2.1 MATERIALS, GENERAL
 - A. Source Limitations: Obtain each type of material for repointing brick masonry and stone from single source with resources to provide materials of consistent quality in appearance and physical properties.
- 2.2 MASONRY MATERIALS
 - A. Face Brick: As required to complete brick masonry repair work.
 - 1. Brick Matching Existing: Units with colors, color variation within units, surface texture, size, and shape that match existing brickwork and with physical properties.
 - a. For existing brickwork that exhibits a range of colors or color variation within units, provide brick that proportionally matches that range and variation rather than brick that matches an individual color within that range.
 - 2. Tolerances as Fabricated: According to tolerance requirements in ASTM C 216, Type FBS.

2.3 MORTAR MATERIALS

- A. Portland Cement: ASTM C 150, Type I or Type II, white or gray or both where required for color matching of existing mortar.
 - 1. Provide cement containing not more than 0.60 percent total alkali when tested according to ASTM C 114.
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Masonry Cement: Not Permitted.

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- D. Mortar Sand: ASTM C 144 unless otherwise indicated.
 - 1. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
 - 2. Color: Natural sand or ground marble, granite, or other sound stone of color necessary to produce required mortar color.
- E. Mortar Pigments (If required): Natural and synthetic iron oxides, compounded for mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortars.
- F. Water: Potable.

2.4 PAINT REMOVERS

- A. Low-Odor, Solvent-Type Paste Paint Remover: Manufacturer's standard low-odor, water-rinsable, solventtype paste, gel, or foamed emulsion formulation, for removing paint from masonry; containing no methanol or methylene chloride.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to the following:
 - a. American Building Restoration Products, Inc.; ABR Citrus Paint Removers; Super Bio Strip Gel.
 - b. Cathedral Stone Products, Inc.; S-301; S-305.
 - c. Dumond Chemicals, Inc; Smart Strip; Smart Strip Pro.
 - d. EaCo Chem, Inc.; InStrip.
 - e. PROSOCO, Inc; Enviro Klean SafStrip; Enviro Klean SafStrip 8.

2.5 CLEANING MATERIALS

- A. Water: Potable.
- B. Hot Water: Water heated to a temperature of 140 to 160 deg F.
- C. Job-Mixed Detergent Solution: Solution prepared by mixing 2 cups of tetrasodium polyphosphate, 1/2 cup of laundry detergent, and 20 quarts of hot water for every 5 gal.of solution required.
- D. Job-Mixed Mold, Mildew, and Algae Remover: Solution prepared by mixing 2 cups of tetrasodium polyphosphate, 5 quarts of 5 percent sodium hypochlorite (bleach), and 15 quarts of hot water for every 5 gal.of solution required.
- E. Nonacidic Gel Cleaner: Manufacturer's standard gel formulation, with pH between 6 and 9, that contains detergents with chelating agents and is specifically formulated for cleaning masonry surfaces.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Price Research, Ltd.; Price Marble Cleaner-Gel.
 - b. PROSOCO; Sure Klean 942 Limestone and Marble Cleaner.
- F. Nonacidic Liquid Cleaner: Manufacturer's standard mildly alkaline liquid cleaner formulated for removing mold, mildew, and other organic soiling from ordinary building materials, including polished stone, brick, aluminum, plastics, and wood.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

- a. Diedrich Technologies Inc.; Diedrich 910PM Polished Marble Cleaner.
- b. Dominion Restoration Products, Inc.; Bio-Cleanse.
- c. Dumond Chemicals, Inc.; Safe n' Easy Architectural Cleaner/Restorer.
- d. Price Research, Ltd.; Price Non-Acid Masonry Cleaner.
- e. PROSOCO; Enviro Klean 2010 All Surface Cleaner.
- G. Mild Acidic Cleaner: Manufacturer's standard mildly acidic cleaner containing no muriatic (hydrochloric), hydrofluoric, or sulfuric acid; or ammonium bifluoride or chlorine bleaches.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. ABR Products, Inc.; X-190 Limestone & Concrete Cleaner.
 - b. Diedrich Technologies Inc.; Envirorestore 100.
 - c. Dominion Restoration Products, Inc.; DR-60 Stone and Masonry Cleaner.
 - d. PROSOCO; Enviro Klean BioWash.
- H. Acidic Cleaner: Manufacturer's standard acidic masonry cleaner composed of hydrofluoric acid or ammonium bifluoride blended with other acids, detergents, wetting agents, and inhibitors.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. ABR Products, Inc.; 801 Heavy Duty Masonry Cleaner.
 - b. Diedrich Technologies Inc.; Diedrich 101 Masonry Restorer or Diedrich 101G Granite, Terra Cotta, and Brick Cleaner.
 - c. Dumond Chemicals, Inc.; Safe n' Easy Ultimate Stone and Masonry Cleaner or Safe n' Easy Heavy Duty Restoration Cleaner.
 - d. EaCo Chem, Inc.; GS-Restoration.
 - e. Hydroclean, Hydrochemical Techniques, Inc.; Hydroclean Brick, Granite, Sandstone and Terra Cotta Cleaner (HT-626).
 - f. Price Research, Ltd.; Price Restoration Cleaner.
 - g. PROSOCO; Enviro Klean Restoration Cleaner Sure Klean Restoration Cleaner or Sure Klean Heavy-Duty Restoration Cleaner.
- I. One-Part Limestone Acidic Cleaner: Manufacturer's standard one-part acidic formulation for cleaning limestone.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. American Building Restoration Products, Inc.; X-190 Limestone & Concrete Cleaner.
 - b. EaCo Chem, Inc.; HD Britenol; OneRestore; OneRestore Gel.
 - c. Hydroclean; Hydrochemical Techniques, Inc; HydroClean HT-907 Limestone and Marble Cleaner & Brightener.
 - d. Price Research, Ltd.; Price Limestone Restorer.
 - e. PROSOCO, Inc; Sure Klean Limestone Restorer.

2.6 ACCESSORY MATERIALS

A. Liquid Strippable Masking Agent: Manufacturer's standard liquid, film-forming, strippable masking material for protecting glass, metal, and polished stone surfaces from damaging effects of acidic and alkaline masonry cleaners.

- 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. ABR Products, Inc.; Rubber Mask.
 - b. Price Research, Ltd.; Price Mask.
 - c. PROSOCO; Sure Klean Strippable Masking.
- B. Masonry Repair Anchors, Spiral Type (If required): Type 304 stainless-steel spiral rods designed to anchor to backing and veneer. Anchors are flexible in plane of veneer but rigid perpendicular to it.
 - 1. Provide adhesive-installed anchors complete with manufacturer's standard epoxy adhesive and injection tubes, or other devices required for installation.
 - 2. Provide driven-in anchors designed to be installed in drilled holes and relying on screw effect rather than adhesive to secure them to backup and veneer.
 - 3. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. BLOK-LOK Limited; Spira-Lok.
 - b. Dur-O-Wal, a division of Dayton Superior; Dur-O-Pair Resin Anchor or Dur-O-Flex Friction Pin Anchor.
 - c. Heckmann Building Products Inc.; #391 Remedial Tie.
 - d. Hohmann & Barnard, Inc.; Helix Spiro-Ties.
- C. Sealant Materials: Single-component silicone in accordance with "Section 07 92 00 Joint Sealants."
 - 1. Colors: Provide colors of exposed sealants to match colors of masonry adjoining installed sealant unless otherwise indicated.
- D. Joint-Sealant Backing:
 - 1. Cylindrical Sealant Backer Rods: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.
 - 2. Bond-Breaker Tape (If required): Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where acceptable.
- E. Masking Tape: Nonstaining, nonabsorbent material, compatible with pointing mortar, joint primers, sealants, and surfaces adjacent to joints; that will easily come off entirely, including adhesive.

2.7 MORTAR MIXES

- A. Measurement and Mixing: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
- B. Do not use admixtures in mortar unless otherwise indicated.
- C. Mortar Proportions: Mix mortar materials in the following proportions:
 - 1. Pointing Mortar for Brick and Stone: ASTM C 270, Proportion Specification, **Type N** unless otherwise indicated; with cementitious material limited to portland cement and lime.
 - 2. Rebuilding (Setting) Mortar: Same as pointing mortar.

2.8 CHEMICAL CLEANING SOLUTIONS

- A. Dilute chemical cleaners with water to produce solutions not exceeding concentration recommended by chemical-cleaner manufacturer.
- B. Acidic Cleaner Solution for Brick: Dilute with water to produce hydrofluoric acid content of 3 percent or less, but not greater than that recommended by chemical-cleaner manufacturer.
- C. Acidic Cleaner Solution for Limestone: Dilute with water to concentration demonstrated by testing that does not etch or otherwise damage stone surface, but not greater than that recommended by chemical-cleaner manufacturer.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from masonry restoration work.
- B. Comply with chemical-cleaner manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products. Prevent chemical-cleaning solutions from coming into contact with people, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
 - Cover adjacent surfaces with materials that are proven to resist chemical cleaners used unless chemical cleaners being used will not damage adjacent surfaces. Use materials that contain only waterproof, UV-resistant adhesives. Apply masking agents to comply with manufacturer's written instructions. Do not apply liquid masking agent to painted or porous surfaces. When no longer needed, promptly remove masking to prevent adhesive staining.
 - 2. Keep wall wet below area being cleaned to prevent streaking from runoff.
 - 3. Do not clean masonry during winds of sufficient force to spread cleaning solutions to unprotected surfaces.
 - 4. Neutralize and collect alkaline and acid wastes for disposal off Owner's property.
 - 5. Dispose of runoff from cleaning operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.
- C. Prevent mortar from staining face of surrounding masonry and other surfaces.
 - 1. Cover sills, ledges, and projections to protect from mortar droppings.
 - 2. Keep wall area wet below rebuilding and pointing work to discourage mortar from adhering.
 - 3. Immediately remove mortar in contact with exposed masonry and other surfaces.
 - 4. Clean mortar splatters from scaffolding at end of each day.

3.2 ABANDONED ANCHOR REMOVAL

- A. Remove masonry anchors, brackets, screws, nails, and other extraneous items no longer in use.
 - 1. Remove items carefully to avoid spalling or cracking masonry.
 - 2. Patch the hole where each item was removed unless directed to remove and replace the masonry unit.

3.3 BRICK REMOVAL AND REPLACEMENT

- A. At locations indicated, remove bricks that are damaged, spalled, or deteriorated or are to be reused. Carefully demolish or remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.
 - 1. When removing single bricks, remove material from center of brick and work toward outside edges.
- B. Support and protect remaining masonry that surrounds removal area. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition.
- C. Notify Architect of unforeseen detrimental conditions including voids, cracks, bulges, and loose units in existing masonry backup, rotted wood, rusted metal, and other deteriorated items.
- D. Remove in an undamaged condition as many whole bricks as possible.
 - 1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.
 - 2. Remove sealants by cutting close to brick with utility knife and cleaning with solvents.
 - 3. Store brick for reuse. Store off ground, on skids, and protected from weather.
 - 4. Deliver cleaned brick not required for reuse to Owner unless otherwise indicated.
- E. Clean bricks surrounding removal areas by removing mortar, dust, and loose particles in preparation for replacement.
- A. Replace removed damaged brick with other removed brick in good condition, where possible, or with new brick matching existing brick. Do not use broken units unless they can be cut to usable size.
- B. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw designed to cut masonry with clean, sharp, unchipped edges.
 - 1. Maintain joint width for replacement units to match existing joints.
- C. Lay replacement brick with completely filled bed, head, and collar joints. Butter ends with sufficient mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min. Use wetting methods that ensure that units are nearly saturated but surface is dry when laid.
 - 1. Tool exposed mortar joints in repaired areas to match joints of surrounding existing brickwork.
 - 2. Rake out mortar used for laying brick before mortar sets and point new mortar joints in repaired area to comply with requirements for repointing existing masonry, and at same time as repointing of surrounding area.
- D. Curing: Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.
 - 1. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.

3.4 CLEANING MASONRY, GENERAL

- A. Proceed with cleaning in an orderly manner; work from top to bottom of each scaffold width and from one end of each elevation to the other. Ensure that dirty residues and rinse water will not wash over cleaned, dry surfaces.
- B. Use only those cleaning methods indicated for each masonry material and location.
 - 1. Brushes: Do not use wire brushes or brushes that are not resistant to chemical cleaner being used. Do not use plastic-bristle brushes if natural-fiber brushes will resist chemical cleaner being used.
 - 2. Spray Equipment: Use spray equipment that provides controlled application at volume and pressure indicated, measured at spray tip. Adjust pressure and volume to ensure that cleaning methods do not damage masonry.
 - a. Equip units with pressure gages.
 - b. For chemical-cleaner spray application, use low-pressure tank or chemical pump suitable for chemical cleaner indicated, equipped with nozzle having a cone-shaped spray.
 - c. For water-spray application, use fan-shaped spray that disperses water at an angle of 25 to 50 degrees.
- C. Perform each cleaning method indicated in a manner that results in uniform coverage of all surfaces, including corners, moldings, and interstices, and that produces an even effect without streaking or damaging masonry surfaces. Keep wall wet below area being cleaned to prevent streaking from runoff.
- D. Water Application Methods:
 - 1. Water-Spray Applications: Unless otherwise indicated, hold spray nozzle at least 6 inches from surface of masonry and apply water in horizontal back and forth sweeping motion, overlapping previous strokes to produce uniform coverage.
- E. Chemical-Cleaner Application Methods: Apply chemical cleaners to masonry surfaces to comply with chemical-cleaner manufacturer's written instructions; use brush or spray application. Do not spray apply at pressures exceeding 50 psi. Do not allow chemicals to remain on surface for periods longer than those indicated or recommended by manufacturer.
- F. Rinse off chemical residue and soil by working upward from bottom to top of each treated area at each stage or scaffold setting. Periodically during each rinse, test pH of rinse water running off of cleaned area to determine that chemical cleaner is completely removed.
 - 1. Apply neutralizing agent and repeat rinse if necessary to produce tested pH of between 6.7 and 7.5.
- G. After cleaning is complete, remove protection no longer required. Remove tape and adhesive marks.

3.5 PRELIMINARY CLEANING

- A. Preliminary Cleaning: Before beginning general cleaning, remove extraneous substances that are resistant to planned cleaning methods. Extraneous substances include paint, calking, asphalt, and tar.
 - 1. Carefully remove heavy accumulations of rigid materials from masonry surface with sharp chisel. Do not scratch or chip masonry surface.
 - 2. Remove paint and calking with paint remover.
 - a. Comply with requirements in "Paint Removal" Article.
 - b. Repeat application up to two times if needed.

MASONRY RESTORATION AND CLEANING

3.6 PAINT REMOVAL

- A. Paint-Remover Application, General: Apply paint removers according to paint-remover manufacturer's written instructions. Do not allow paint removers to remain on surface for periods longer than those indicated or recommended in writing by manufacturer.
- B. Paint Removal with Solvent-Type Paste Paint Remover:
 - 1. Remove loose and peeling paint using low-pressure water spray, scrapers, stiff brushes, or a combination of these. Let surface dry thoroughly.
 - 2. Apply thick coating of paint remover to painted surface with natural-fiber cleaning brush, deep-nap roller, or large paint brush. Apply in one or two coats according to manufacturer's written instructions.
 - 3. Allow paint remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing.
 - 4. Rinse with cold water applied by low-pressure spray to remove chemicals and paint residue.

3.7 CLEANING BRICK AND STONE

- A. Cold-Water Soak:
 - 1. Apply cold water by intermittent spraying to keep surface moist.
 - 2. Use perforated hoses or other means that will apply a fine water mist to entire surface being cleaned.
 - 3. Apply water in cycles with at least 30 minutes between cycles.
 - 4. Continue spraying until surface encrustation has softened sufficiently to permit its removal by water wash, as indicated by cleaning tests.
 - 5. Remove soil and softened surface encrustation from masonry with cold water applied by lowpressure spray.
- B. Cold-Water Wash: Use cold water applied by low-pressure spray.
- C. Hot-Water Wash: Use hot water applied by low-pressure spray.
- D. Steam Cleaning: Apply steam at very low pressures not exceeding 80 psi. Remove dirt softened by steam with wood scrapers, stiff-nylon or -fiber brushes, or cold-water wash, as indicated by cleaning tests.
- E. Detergent Cleaning:
 - 1. Wet masonry with cold water applied by low-pressure spray.
 - 2. Scrub masonry with detergent solution using medium-soft brushes until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from mortar joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that masonry surface remains wet.
 - 3. Rinse with hot water applied by low-pressure spray to remove detergent solution and soil.
 - 4. Repeat cleaning procedure above where required to produce cleaning effect established by mockup.
- F. Mold, Mildew, and Algae Removal:
 - 1. Wet masonry with cold water applied by low-pressure spray.

- 2. Apply mold, mildew, and algae remover by brush or low-pressure spray.
- 3. Scrub masonry with medium-soft brushes until mold, mildew, and algae are thoroughly dislodged and can be removed by rinsing. Use small brushes for mortar joints and crevices. Dip brush in mold, mildew, and algae remover often to ensure that adequate fresh cleaner is used and that masonry surface remains wet.
- 4. Rinse with hot water applied by low-pressure spray to remove mold, mildew, and algae remover and soil.
- 5. Repeat cleaning procedure above where required to produce cleaning effect established by mockup.
- G. Nonacidic Gel Chemical Cleaning:
 - 1. Wet masonry with cold water applied by low-pressure spray.
 - 2. Apply nonacidic gel cleaner in 1/8-inch thickness by brush, working into joints and crevices. Apply quickly and do not brush out excessively so area will be uniformly covered with fresh cleaner and dwell time will be uniform throughout area being cleaned.
 - 3. Let cleaner remain on surface for period indicated below:
 - a. As recommended by chemical-cleaner manufacturer.
 - b. As established by mockup.
 - 4. Remove bulk of nonacidic gel cleaner by squeegeeing into containers for disposal.
 - 5. Rinse with hot water applied by low-pressure spray to remove chemicals and soil.
 - 6. Repeat cleaning procedure above where required to produce cleaning effect established by mockup. Do not repeat more than once. If additional cleaning is required, use steam cleaning.
- H. Nonacidic Liquid Chemical Cleaning:
 - 1. Wet masonry with cold water applied by low-pressure spray.
 - 2. Apply cleaner to masonry in two applications by brush or low-pressure spray. Let cleaner remain on surface for period indicated below:
 - a. As recommended by chemical-cleaner manufacturer.
 - b. As established by mockup.
 - c. Two to three minutes.
 - 3. Rinse with hot water applied by low-pressure spray to remove chemicals and soil.
 - 4. Repeat cleaning procedure above where required to produce cleaning effect established by mockup. Do not repeat more than once. If additional cleaning is required, use steam cleaning.
- I. Mild Acidic Chemical Cleaning:
 - 1. Wet masonry with cold water applied by low-pressure spray.
 - 2. Apply cleaner to masonry in two applications by brush or low-pressure spray. Let cleaner remain on surface for period indicated below:
 - a. As recommended by chemical-cleaner manufacturer.
 - b. As established by mockup.
 - c. Two to three minutes.
 - 3. Rinse with cold water applied by low-pressure spray to remove chemicals and soil.
 - 4. Repeat cleaning procedure above where required to produce cleaning effect established by mockup. Do not repeat more than once. If additional cleaning is required, use a steam cleaning.
- J. One-Part Limestone Chemical Cleaning:
 - 1. Wet surface with cold water applied by low-pressure spray.
 - 2. Apply cleaner to surface by brush or low-pressure spray.
 - 3. Let cleaner remain on surface for period recommended in writing by chemical-cleaner manufacturer.

- 4. Immediately repeat application of one-part limestone cleaner as indicated above over the same area.
- 5. Rinse with cold water applied by medium-pressure spray to remove chemicals and soil.

3.8 REPOINTING MASONRY

- A. Rake out and repoint joints to the following extent:
 - 1. All joints in areas indicated.
 - 2. Joints indicated as sealant-filled joints.
 - 3. Joints at locations of the following defects:
 - a. Holes and missing mortar.
 - b. Cracks that can be penetrated 1/4 inch or more by a knife blade 0.027 inch thick.
 - c. Cracks 1/32 inch or more in width and of any depth.
 - d. Hollow-sounding joints when tapped by metal object.
 - e. Eroded surfaces 1/4 inch or more deep.
 - f. Deterioration to point that mortar can be easily removed by hand, without tools.
 - g. Joints filled with substances other than mortar.
- B. Do not rake out and repoint joints where not required.
- C. Joint Raking: Rake out joints as follows, according to procedures demonstrated in approved mockup:
 - 1. Remove mortar from joints to depth of 2 to 2-1/2 times joint width, but not less than 3/4 inch or not less than that required to expose sound, unweathered mortar.
 - 2. Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
 - 3. Do not spall edges of masonry units or widen joints. Replace or patch damaged masonry units as directed by Architect.
 - a. Cut out mortar by hand with chisel and resilient mallet. Do not use power-operated grinders without Architect's written approval based on approved quality-control program.
- D. Notify Architect of unforeseen detrimental conditions including voids in mortar joints, cracks, loose masonry units, rotted wood, rusted metal, and other deteriorated items.
- E. Pointing with Mortar:
 - 1. Rinse joint surfaces with water to remove dust and mortar particles. Time rinsing application so, at time of pointing, joint surfaces are damp but free of standing water. If rinse water dries, dampen joint surfaces before pointing.
 - 2. Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than 3/8 inch until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
 - 3. After deep areas have been filled to same depth as remaining joints, point all joints by placing mortar in layers not greater than 3/8 inch. Fully compact each layer and allow to become thumbprint hard before applying next layer. Where existing masonry units have worn or rounded edges, slightly recess finished mortar surface below face of masonry to avoid widened joint faces. Take care not to spread mortar beyond joint edges onto exposed masonry surfaces or to featheredge the mortar.

- 4. When mortar is thumbprint hard, tool joints to match original appearance of joints as demonstrated in approved mockup. Remove excess mortar from edge of joint by brushing.
- 5. Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours including weekends and holidays.
- 6. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Completely remove such mortar and repoint.
- F. Pointing with Sealant: Comply with "Section 07 92 00 Joint Sealants" and as follows:
 - 1. After raking out, keep joints dry and free of mortar and debris.
 - 2. Clean and prepare joint surfaces. Prime joint surfaces unless sealant manufacturer recommends against priming. Do not allow primer to spill or migrate onto adjoining surfaces.
 - 3. Fill sealant joints with specified joint sealant.
 - a. Install cylindrical sealant backing beneath the sealant. Where space is insufficient for cylindrical sealant backing, install bond-breaker tape.
 - b. Install sealant using only proven installation techniques that ensure that sealant is deposited in a uniform, continuous ribbon, without gaps or air pockets, and with complete wetting of the joint bond surfaces equally on both sides. Fill joint flush with surrounding stonework and matching the contour of adjoining mortar joints.
 - c. Install sealant as recommended in writing by sealant manufacturer but within the following general limitations, measured at the center (thin) section of the bead:
 - 1) Fill joints to a depth equal to joint width, but not more than 1/2 inch deep or less than 1/4 inch deep.
 - d. Tool sealant to form smooth, uniform beads, slightly concave. Remove excess sealant from surfaces adjacent to joint.
 - e. Sanded Joints: Immediately after first tooling, apply ground-mortar aggregate to sealant, gently pushing aggregate into the surface of sealant. Lightly retool sealant to form smooth, uniform beads, slightly concave. Remove excess sealant and aggregate from surfaces adjacent to joint.
 - f. Do not allow sealant to overflow or spill onto adjoining surfaces, or to migrate into the voids of adjoining surfaces, particularly rough textures. Remove excess and spillage of sealant promptly as the work progresses. Clean adjoining surfaces by the means necessary to eliminate evidence of spillage, without damage to adjoining surfaces or finishes, as demonstrated in an approved mockup.
- G. Where repointing work precedes cleaning of existing masonry, allow mortar to harden at least 30 days before beginning cleaning work.

3.9 FINAL CLEANING

- A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, spray applied at low pressure.
 - 1. Do not use metal scrapers or brushes.
 - 2. Do not use acidic or alkaline cleaners.
- B. Clean adjacent nonmasonry surfaces of spillage and debris. Use detergent and soft brushes or cloths.
- C. Remove mortar and debris from roof, gutters and downspouts. Rinse off roof and flush gutters and downspouts.
- D. Remove masking materials, leaving no residues that could trap dirt.

E. Sweep and rake adjacent pavement and grounds to remove mortar and debris. Where necessary, pressure wash pavement surfaces to remove mortar, dust, dirt, and stains.

END OF SECTION

SECTION 05 51 00

METAL STAIRS

1.1 SUMMARY

- A. Section Includes:
 - 1. Interior Metal Pan "Drop-In" Stairs: Preassembled "drop-in" steel stairs with concrete-filled treads; steel tube railings attached to metal stairs and walls; factory primed.
 - 2. Industrial-type stairs with steel grating treads.
- B. Related Sections:
 - 1. Section 03 30 00 Cast-In-Place Concrete: Cast-in-place concrete for treads and landings.
 - 2. Section 05 52 13 Pipe and Tube Railings: Pipe and tube railings for egress stairs.
 - 3. Section 05 73 00 Decorative Metal Railings: Decorative metal railing system for monumental stair.
 - 4. Section 06 10 00 Rough Carpentry: Wood blocking for anchoring railings.
 - 5. Section 09 91 00 Painting: Field-applied finish for metal stairs and railings.

1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance of Stairs: Provide metal stairs capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Uniform Load: 100 lbf/sq. ft.
 - 2. Concentrated Load: 300 lbf applied on an area of 4 sq. in.
 - 3. Uniform and concentrated loads need not be assumed to act concurrently.
 - 4. Stair Framing: Capable of withstanding stresses resulting from railing loads in addition to loads specified above.
 - 5. Limit deflection of treads, platforms, and framing members to L/360.
- B. Structural Performance of Railings: Provide railings capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails and Top Rails of Guards:
 - a. Uniform load of 50 lbf/ ft. applied in any direction.
 - b. Concentrated load of 200 lbf applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
 - 2. Infill of Guards:
 - a. Concentrated load of 200 lbf applied horizontally on an area of 1 sq. ft.
 - b. Uniform load of 25 lbf/sq. ft. applied horizontally.
 - c. Infill load and other loads need not be assumed to act concurrently.
- C. Seismic Performance: Metal stairs shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
 - 1. Component Importance Factor is 1.5.

1.3 ACTION SUBMITTALS

- A. Product Data: For metal stairs.
 - 1. Paint products.
 - 2. Grout.

- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- C. Samples for Verification: For the following products, in manufacturer's standard sizes:
 - 1. Precast epoxy terrazzo treads.
 - 2. Bronze handrail cap.
 - 3. Grating treads.
 - 4. Abrasive nosings.
- D. Calculations: Provide calculations showing compliance with performance requirements and design criteria, signed and sealed by a qualified professional engineer registered in state of Alabama.

1.4 INFORMATIONAL SUBMITTALS

- A. Manufacturer's Instructions: Submit manufacturer's storage and installation instructions.
- B. Qualification Statements:
 - 1. Submit certificate verification that manufacturer is American Institute of Steel Construction (AISC) Certified for Standard Steel Building Structures.
 - 2. Submit letter of verification for Installer's Qualifications.
- C. Qualification Data: For qualified professional engineer.
- D. Welding certificates.
- E. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers certifying that shop primers are compatible with topcoats.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for stairs and railings.
 - 1. Test railings according ASTM E 894 and ASTM E 935.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of products.
- B. NAAMM Stair Standard: Comply with "Recommended Voluntary Minimum Standards for Fixed Metal Stairs" in NAAMM AMP 510, "Metal Stairs Manual," for class of stair designated, unless more stringent requirements are indicated.
 - 1. Preassembled Stairs: Commercial class.
- C. Welding: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1, "Structural Welding Code--Steel."
 - 2. AWS D1.3, "Structural Welding Code--Sheet Steel."
- 1.6 DELIVERY, STORAGE & HANDLING
 - A. Deliver materials in manufacturer's original packaging with identification labels intact and in sizes to suit project.

B. Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.

1.7 COORDINATION

- A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.
- B. Coordinate installation of anchorages for metal stairs. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry.
 - 1. Deliver such items to Project site in time for installation.
- C. Coordinate locations of hanger rods and struts with other work so that they will not encroach on required stair width and will be within the fire-resistance-rated stair enclosure.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
 - 1. Alfab, Inc.
 - 2. American Stair, Inc.
 - 3. Sharon Companies Ltd.
- B. Substitutions: In accordance with "Section 01 25 13 Product Substitution Procedures."

2.2 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces unless otherwise indicated. For components exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes.

2.3 FERROUS METALS

- A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
- B. Steel Pipe: To ASTM A53 Type E or S, Grade B.
- C. Steel Tubing: ASTM A 500 (cold formed) or ASTM A 513, Type 5 (mandrel drawn).
- D. Rolled-Steel Floor Plate: ASTM A 786/A 786M, rolled from plate complying with ASTM A 36/A 36M or ASTM A 283/A 283M, Grade C or D.
- E. Wire Rod for Grating Crossbars: ASTM A 510.
- F. Uncoated, Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, either commercial steel, Type B, or structural steel, Grade 25, unless another grade is required by design loads; exposed.

G. Uncoated, Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, either commercial steel, Type B, or structural steel, Grade 30, unless another grade is required by design loads.

2.4 FASTENERS

- A. General: Provide zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 25 for exterior use, and Class Fe/Zn 5 where built into exterior walls. Select fasteners for type, grade, and class required.
- B. Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A; with hex nuts, ASTM A 563; and, where indicated, flat washers.
- C. Anchor Bolts: ASTM F 1554, Grade 36, hot-dip or mechanically deposited, zinc-coated anchor bolts; ASME B18.6.3.
- D. Lag Bolts: ASME B18.2.1.
- E. Plain Washers: Round, ASME B18.22.1.
- F. Lock Washers: Helical, spring type, ASME B18.21.1.
- G. Expansion Anchors: Anchor bolt and sleeve assembly with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.
 - 1. Material for Anchors in Interior Locations: Carbon-steel components zinc-plated to comply with ASTM B 633, Class Fe/Zn 5.

2.5 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Shop Primers: Provide primers that comply with "Section 09 91 00 Painting."
- C. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187.
- D. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.
- E. Concrete Materials and Properties (if applicable): Comply with requirements in "Section 03 30 00 Castin-Place Concrete" for normal-weight, air-entrained, ready-mix concrete with a minimum 28-day compressive strength of 3000 psi, unless otherwise indicated.
- F. Welded Wire Fabric: ASTM A 185, 6 by 6 inches--W1.4 by W1.4, unless otherwise indicated.
- 2.6 FABRICATION, GENERAL
 - A. Provide complete stair assemblies, including metal framing, hangers, struts, railings, clips, brackets, bearing plates, and other components necessary to support and anchor stairs and platforms on supporting structure.

- 1. Join components by welding, unless otherwise indicated.
- 2. Use connections that maintain structural value of joined pieces.
- B. Preassembled Stairs: Assemble stairs in shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch, unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- D. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
- E. Form exposed work true to line and level with accurate angles and surfaces and straight edges.
- F. Weld connections to comply with the following:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. Weld exposed corners and seams continuously, unless otherwise indicated.
 - 5. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- G. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Where exposed fasteners are required, use Phillips flat-head (countersunk) screws or bolts unless otherwise indicated. Locate joints where least conspicuous.

2.7 STEEL-FRAMED STAIRS

- A. Stair Framing:
 - 1. Fabricate stringers of steel channels or tubes.
 - a. Provide closures for exposed ends of channel or tube stringers.
 - 2. Construct platforms of steel plate or channel headers and miscellaneous framing members as needed to comply with performance requirements.
 - 3. Weld stringers to headers; weld framing members to stringers and headers.
 - 4. Where stairs are enclosed by gypsum board or shaft-wall assemblies, provide hanger rods or struts to support landings from floor construction above or below. Locate hanger rods and struts where they will not encroach on required stair width and will be within the fire-resistance-rated stair enclosure.
 - 5. Where masonry walls support metal stairs, provide temporary supporting struts designed for erecting steel stair components before installing masonry.
- B. Preassembled Metal Pan Steel Stairs: Form risers, subtread pans, and subplatforms to configurations shown from steel sheet of thickness needed to comply with performance requirements but not less than 0.0677 inch.
 - 1. Steel Sheet:
 - a. Interior: Uncoated cold-rolled steel sheet.
 - b. Exterior: Galvanized steel sheet.

- 2. Directly weld metal pans to stringers; locate welds on top of subtreads where they will be concealed by concrete fill. Do not weld risers to stringers.
- 3. Shape metal pans to include nosing integral with riser.
- C. Metal Bar-Grating Stairs: Form treads and platforms to configurations shown from metal bar grating; fabricate to comply with NAAMM MBG 531, "Metal Bar Grating Manual."
 - 1. Fabricate treads and platforms from welded steel grating with 1-1/4-by-3/16-inch bearing bars at 15/16 inch o.c. and crossbars at 4 inches o.c.
 - 2. Fabricate treads and platforms from welded steel grating with openings in gratings no more than 3/4 inch in least dimension.
 - 3. Surface: Plain.
 - 4. Finish: Galvanized.
 - 5. Fabricate grating treads with rolled-steel floor plate or cast abrasive nosing and with steel angle or steel plate carrier at each end for stringer connections. Secure treads to stringers with bolts.

2.8 STEEL RAILINGS

- A. General: Fabricate railings and balustrades to comply with requirements indicated for design, dimensions, details, finish, and member sizes, including wall thickness of tube, post spacings, and anchorage, but not less than that needed to withstand indicated loads.
- B. Welded Connections: Fabricate railings with welded connections. Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
- C. Form changes in direction of railings as follows:
 - 1. By bending or by inserting prefabricated elbow fittings.
- D. Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration required; maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- E. Close exposed ends of railing members with prefabricated end fittings.
- F. Provide wall returns at ends of wall-mounted handrails, unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch or less.
- G. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, end closures, flanges, miscellaneous fittings, and anchors for interconnecting components and for attaching to other work. Furnish inserts and other anchorage devices for connecting to concrete or masonry work.
 - 1. Connect posts to stair framing by direct welding, unless otherwise indicated.
 - 2. For nongalvanized railings, provide nongalvanized ferrous-metal fittings, brackets, fasteners, and sleeves, except galvanize anchors embedded in exterior masonry and concrete construction.
- H. Fillers: Provide fillers made from steel plate, or other suitably crush-resistant material, where needed to transfer wall bracket loads through wall finishes to structural supports. Size fillers to suit wall finish thicknesses and to produce adequate bearing area to prevent bracket rotation and overstressing of substrate.

2.9 BRONZE HANDRAIL CAP

A. Monumental Stair Handrail Cap: Refer to Drawings for bronze handrail cap.

2.10 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Finish metal stairs after assembly.
- C. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with minimum requirements indicated below for SSPC surface preparation specifications and environmental exposure conditions of installed products:
 - 1. Interior Stairs (SSPC Zone 1A): SSPC-SP 3, "Power Tool Cleaning."
- D. Apply shop primer to uncoated surfaces of metal stair components, except those with galvanized finishes and those to be embedded in concrete or masonry unless otherwise indicated. Comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.
 - 1. Stripe paint corners, crevices, bolts, welds, and sharp edges.
 - 2. Shop prime railing to be field painted with primers specified in "Section 09 91 00 Painting."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that conditions of substrates previously installed under other sections or contracts are acceptable for product installation in accordance with manufacturer's instructions prior to metal stair and railing installation.
 - 1. Inform Architect of unacceptable conditions immediately upon discovery.
 - 2. Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval from Architect.

3.2 PREPARATION

A. Ensure structure or substrate is adequate to support metal stairs and railings.

3.3 INSTALLATION, GENERAL

- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing metal stairs to in-place construction. Include threaded fasteners for concrete and masonry inserts, through-bolts, lag bolts, and other connectors.
- B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal stairs. Set units accurately in location, alignment, and elevation, measured from established lines and levels and free of rack.
- C. Install metal stairs by welding stair framing to steel structure or to weld plates cast into concrete, unless otherwise indicated.

- D. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.
- E. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- F. Field Welding: Comply with the following requirements:
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove welding flux immediately.
 - 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- G. Place and finish concrete fill for treads and platforms to comply with "Section 03 30 00 Cast-in-Place Concrete."

3.4 INSTALLING METAL STAIRS WITH GROUTED BASEPLATES

- A. Clean concrete and masonry bearing surfaces of bond-reducing materials, and roughen to improve bond to surfaces. Clean bottom surface of baseplates.
- B. Set steel stair baseplates on wedges, shims, or leveling nuts. After stairs have been positioned and aligned, tighten anchor bolts. Do not remove wedges or shims but, if protruding, cut off flush with edge of bearing plate before packing with grout.
 - 1. Use nonmetallic, nonshrink grout unless otherwise indicated.
 - 2. Pack grout solidly between bearing surfaces and plates to ensure that no voids remain

3.5 INSTALLING STEEL RAILINGS

- A. Adjust railing systems before anchoring to ensure matching alignment at abutting joints. Space posts at spacing indicated or, if not indicated, as required by design loads. Plumb posts in each direction. Secure posts and rail ends to building construction as follows:
 - 1. Anchor posts to steel by welding directly to steel supporting members.
 - 2. Anchor handrail ends to concrete and masonry with steel round flanges welded to rail ends and anchored with postinstalled anchors and bolts.
- B. Attach steel handrails to wall with wall brackets. Provide bracket with 1-1/2-inch clearance from inside face of handrail and finished wall surface. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads. Secure wall brackets to building construction as follows:
 - 1. Use type of bracket with flange tapped for concealed anchorage to threaded hanger bolt.
 - 2. For concrete and solid masonry anchorage, use drilled-in expansion shields and hanger or lag bolts.
 - 3. For hollow masonry anchorage, use toggle bolts.
 - 4. For steel-framed gypsum board assemblies, fasten brackets directly to steel framing or concealed steel reinforcements using self-tapping screws of size and type required to support structural loads.

3.6 INSTALLING BRONZE HANDRAILS

- A. Attach bronze handrail caps to top rails and handrails as indicated on drawings.
- B. Minimize number of joints in bronze handrails by installing in lengths as long as possible.
- 3.7 ADJUSTING
 - A. Adjust components and systems for correct function and operation in accordance with manufacturer's written instructions.
 - B. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
 - 1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.

3.8 CLEANING

A. Upon completion, remove surplus materials, rubbish, tools and equipment.

3.9 PROTECTION

A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

END OF SECTION

SECTION 05 51 33

FIXED ALUMINUM LADDERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Roof access ladders.
 - 1. Aluminum access ladder with platform and return.
 - 2. Aluminum ship's ladder with platform.
 - 3. Aluminum ship's ladder with platform and return.
- B. Related Sections:
 - 1. Section 05 50 00 Metal Fabrications: Fasteners and installation requirements used to attach ladders to structure.
 - 2. Section 07 54 19 Polyvinyl-Chloride (PVC-KEE) Roofing System.
 - 3. Section 07 72 00 Roof Accessories: Roof curbs for support of ship's ladders.

1.2 REFERENCES

- A. AA Aluminum Association.
- B. ASTM B 209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- C. ASTM B 221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
- D. OSHA 1910.27 Fixed Ladders.

1.3 ACTION SUBMITTALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- B. Shop Drawings:
 - 1. Detail fabrication and erection of each ladder indicated. Include plans, elevations, sections, and details of metal fabrications and their connections.
 - 2. Provide templates for anchors and bolts specified for installation under other Sections.
 - 3. Provide reaction loads for each hanger and bracket.
- 1.4 INFORMATIONAL SUBMITTALS
 - A. Certificates and Qualification Data: Provide proof of compliance with items listed in Quality Assurance article.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm with not less than ten (10) years of experience in producing aluminum metal ladders similar to those indicated for this Project including the following:
 - 1. Record of successful in-service performance.
 - 2. Sufficient production capacity to produce required units.
 - 3. Professional engineering competent in design and structural analysis to fabricate ladders in compliance with industry standards and local codes.
- B. Installer Qualifications: Competent and experienced firm capable of selecting fasteners and installing ladders to attain designed operational and structural performance.
- C. Product Qualification: Product design shall comply with OSHA 1910.27 minimum standards for ladders.
- D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Install ladder in area designated by Architect.
 - 2. Do not proceed with remaining work until workmanship and installation are approved by Architect.
 - 3. Rework mock-up as required to produce acceptable work.
- 1.6 DELIVERY, STORAGE, AND HANDLING
 - A. Deliver and store products in manufacturer's unopened packaging until ready for installation.
- 1.7 PROJECT CONDITIONS
 - A. Field Measurements: Verify dimensions by field measurement before fabrication.
 - 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, indicate established dimensions on shop drawing submittal and proceed with fabrication.

1.8 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard limited (5) five-year warranty against defects in materials and workmanship commencing on date of Substantial Completion including the following:
 - 1. Deterioration of material and surface performance below minimum OSHA standards as certified by independent third party testing laboratory. Ordinary wear and tear, unusual abuse or neglect excepted.
 - 2. Within the warranty period, the manufacturer shall, at its option, repair, replace, or refund the purchase price of defective ladder.

PART 2 - PRODUCTS

- 2.1 MANUFACTURERS
 - A. Basis-Of-Design Product/Manufacturer: Fixed aluminum access are based on products as manufactured by O'KEEFFE'S, INC.; 100 N Hill Drive, Suite 12, Brisbane, CA 94005. Toll Free Tel: (888) 653-3333. Tel: (415) 824-4900; Email: info@okeeffes.com; Web: http://www.okeeffes.com
 - 1. Approved Substitutions:
 - a. Alaco Ladder Company.
 - b. ACL Industries, Inc.

c. Precision Ladders, LLC.

2. Other Substitutions: In accordance with Section 01 25 13 - Product Substitution Procedures.

B. MATERIALS

- C. Aluminum Sheet: Alloy 5005-H34 to comply with ASTM B209.
- D. Aluminum Extrusions: Alloy 6063-T6 to comply with ASTM B221.
- E. Fasteners: Series 300 stainless steel, in accordance with "Section 05 50 00 Metal Fabrications."

2.2 FIXED ACCESS LADDERS

- A. Tubular Fixed Access Ladder at Mechanical Room:
 1. Basis-of-Design: "Model 501"; O'Keeffe's Inc.
- B. Tubular Rail High Parapet Access Ladder with Platform and Return at exterior:
 1. Basis-of-Design: "Model 503"; O'Keeffe's Inc.

2.3 FABRICATION

- A. Rungs: Not less than 1-1/4 inches (32 mm) in section and 18–3/8 inches (467mm) long, formed from tubular aluminum extrusions; squared and deeply serrated on all sides.
 - 1. Rungs shall withstand a 1,500 pound (454 kg) load without deformation or failure.
- B. Channel Side Rails: Not less than 1/8 inch (3 mm) wall thickness by 3 inches (76 mm) wide.
- C. Heavy Duty Tubular Side Rails: Assembled from two interlocking aluminum extrusions no less than 1/8 inch (3 mm) wall thickness by 3 inches (76 mm) wide. Construction shall be self-locking stainless steel fasteners, full penetration TIG welds and clean, smooth and burr-free surfaces.
- D. Ship Ladders: Not less than 1-1/4 inches (32mm) high, 4-1/8 inch (105 mm) deep and 2 feet (610 mm) wide; tread spacing shall be 1 foot (305 mm) on center. Handrails shall be aluminum pipe, not less than 1-1/2 inches (38 mm) in diameter with hemispheric end caps.
- E. Walk-Through Rail and Roof Rail Extension: Not less than 3 feet 6 inches (1067 mm) above the landing and shall be fitted with deeply serrated, square, tubular grab rails.
- F. Landing Platform: 1-1/2 inches (38 mm) or greater diameter, tubular aluminum guardrails and decks of serrated aluminum treads.

2.4 FINISHES

A. Manufacturer's standard mill finished aluminum.

PART 3 - EXECUTION

- 3.1 EXAMINATION
 - A. Coordinate anchorages. Furnish setting drawings, templates, and anchorage structural loads for fastener resistance. Do not begin installation until substrates have been properly prepared.
 - B. Do not begin installation until supporting structure is complete and ladder/stair installations will not interfere with supporting structure work.
 - C. If supporting structure preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- 3.2 INSTALLATION
 - A. Install in accordance with manufacturer's instructions and approved shop drawings, and in compliance with OSHA regulations.
- 3.3 PROTECTION
 - A. Protect installed products and adjacent construction until completion of project.
 - B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 09 25 23

LIME BASED PLASTERING (STUCCO)

PART 1 – GENERAL

- 1.1 RELATED DOCUMENTS:
 - A. Scope of Work, Specifications and Drawings, apply to work of this section.

1.2 SUMMARY:

- A. Section Includes: The work specified in this Section includes a light-weight three-layer application of pure lime stucco directly over a sound mineral, concrete, masonry, or fired-clay surface without a weather barrier. Plaster assembly consists of a base "scratch coat" layer of plaster to fill and embed the lath, an intermediate bridge "brown coat" layer of plaster producing a level and smooth surface plane, and a top "finish" layer of plaster with or without color, textured as desired.
- B. Repairs of lime based stucco as shown on the Drawings and as specified herein. Include all supplementary materials and installation accessories required for a complete and proper installation.
- C. Related Sections: Related sections include the following:
 - 1. Section 03 30 00 Cast-in-Place Concrete
 - 2. Section 03 45 00 Precast Architectural Concrete
 - 3. Section 04 20 00 Unit Masonry
 - 4. Section 07 62 00 Metal Flashings, Trim, and Accessories
 - 5. Section 07 92 00 Joint Sealants
 - 6. Section 09 91 00 Painting

1.3 QUALITY ASSURANCE:

- A. References: Some products and execution are specified in this section by reference to published specifications or standards of the following (latest edition, with respective abbreviations used):
 - 1. The American Society for Testing and Materials (ASTM).
 - 2. American Natural Standards Institute (ANSI).
 - 3. Portland Cement Association (PCI).
 - 4. American Concrete Institute (ACI)
- B. Standard References:

- 1. The current edition of the following standard references shall apply to work of this section as indicated unless otherwise specified herein. However, no provision of any standard code, references, or guide whether or not specifically incorporated by references in the Contract Documents shall be effective to change the duties and responsibilities of the Owner, Contractor, Architect, or any of their Consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to the Architect or any of the Architect's consultants, agents, or employees any duty or authority to supervise or direct the performance of the work or authority to undertake any responsibilities for safety precautions or programs incidental to safety, nor for the Contractor's failure to perform work in accordance with the Contract Documents.
 - a. ANSI A42.2 "Portland Cement and Portland Cement Lime Plastering, Exterior (Stucco) and Interior."
 - b. ASTM C 78, "Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)"
 - c. ASTM E 96, "Standard Test Methods for Water Vapor Transmission of Materials"
 - d. ASTM C 109, "Standard Test Method for Compressive Strength of Hydraulic Cement Mortars"
 - e. ASTM C206 Standard Specification for Finishing Hydrated Lime.
 - f. ASTM C207 Standard Specification for Hydrated Lime for Masonry Purposes
 - g. ASTM C1063 "Standard Specifications for Installation of Lathing and Furring to receive interior and exterior Portland Cement-Based Plaster."
 - h. ASTM D 1475, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products"
 - i. ASTM C 1583, "Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method)"
- C. Qualifications:
 - 1. All material specified and described herein shall be installed by skilled, trained applicators conforming to installation methods and procedures in accordance with the manufacturer's printed instruction and these Contract Documents.
 - 2. Stucco installer shall have 5 years experience installing stucco systems proposed for use for this project.
 - 3. Do not proceed with the work of this section until all other work preceding this work is complete and has been approved, including flashing, building felt, metal lath, and accessories. Correct any deficiencies as recommended by the Engineer prior to beginning the work.
- D. Stucco wall system shall have ICC Evaluation Service Report establishing the criteria for which the stucco products shall be used.

- E. Mock-Ups:
 - 1. One mockup for each type of stucco installed on the project is required. Stepped mockups shall be installed to illustrate hidden elements of the installation.
 - 2. Locate mock-ups on-site in the location and of the size indicated or, if not indicated, as directed by Designer or Owner. Mock-up may be installed on existing substrate. Mock-up, if acceptable in quality and appearance, may be allowed to remain.
 - 3. Notify Designer seven days in advance of the dates and times when mock-ups will be constructed.
 - 4. The mockup shall demonstrate the proposed range of aesthetics for the project from which the designer or owner shall select. Mockup may be rejected, and new mockup required, if workmanship does no meet industry standards.
 - 5. Obtain Designer's approval of mock-ups before start of plaster work.
 - 6. Retain and maintain mock-ups during construction in an undisturbed condition as a standard for judging the completed Portland cement plaster work.
 - 7. The stucco finish shall contain a texture to match the existing. The approved sample shall be used as the standard for acceptance of the finish coat.
 - 8. Mock-up must contain one spall repair (if spall repairs are identified). Unless otherwise permitted, mock-up must be 5'-0" x 5'-0".
- F. Manufacturer's Requirements:
 - 1. Contractor shall arrange and schedule periodic site visit inspections during each phase of the project by the metal lath and stucco manufacturers.
 - 2. Site visit inspections shall include field reports, provided to Contractor, and submitted to Engineer.

1.4 SUBMITTALS:

- A. Submit shop drawings showing anchorage, terminations, transition, and penetrations required for the project. Details from contract documents may be marked up and used as shop drawings.
- B. Submit test reports and data on physical and performance results for materials specified herein.
- C. Submit recent sieve analysis of aggregate.
- D. Submit manufacturer's product data with application and installation instructions. Installation instructions shall include procedures for installing finish coat over existing stucco.

- E. Material Certificates: Submit certificate signed by manufacturer for each kind of plaster aggregate certifying that materials comply with requirements.
- F. Submit Material Safety Data Sheets (MSDS) on all products specified in this Section.

1.5 ENVIRONMENTAL CONDITIONS:

- A. Environmental Requirements, General: Comply with requirements of referenced plaster application standards and recommendations of plaster manufacturer for environmental conditions before, during, and after plaster application.
- B. Do not apply stucco on exterior surface of walls when outside air temperatures are below 50°F and falling, during the curing period of the stucco, nor when temperatures are predicted to fall below 50°F within 48 hours after installation for lime stucco.
- C. Cold-Weather Requirements: Provide heat and protection, temporary or permanent, as required to protect each coat of plaster from freezing for at least 24 hours after application (72 hours for lime stucco). Distribute heat uniformly to prevent concentration of heat on plaster near heat sources; provide deflection or protective screens.
- D. Do not apply any stucco on exterior surfaces during periods when there is rain.
- E. Do not apply any stucco during periods when the outside ambient temperature exceeds 90°F.
- F. Warm-Weather Requirements: Protect plaster against uneven and excessive evaporation and from strong flows of dry air, both natural and artificial. Apply and cure plaster as required by climatic and job conditions to prevent dry out during cure period. Cure period shall be 7 days for lime stucco.
- G. Provide suitable coverings, moist curing, barriers to deflect sunlight and wind, or combinations of these, as required during cure period.

1.6 PROTECTION:

- A. Protect finish surfaces of other materials and adjacent surfaces of stucco at all times during the installation of the stucco. Mask adjacent areas to prevent overlap and damage from splatter.
- B. Protect finished surface below to prevent damage from droppings and spillage.

1.7 DELIVERY, HANDLING, AND STORAGE:

- A. Material shall be delivered to the site in the manufacturer's original, unopened packages with manufacturer's brand name clearly marked thereon. Packages shall bear the identification of the product, manufacturer, as well as batch number, and expiration date, as applicable.
- B. Store materials in areas free from physical abuse and contamination. Store at temperatures recommended by the manufacturer. Store in areas that are maintained dry and that are not in direct sunlight. Prior to use, condition the materials to appropriate temperature for use in accordance with the manufacturer's recommendations.

- C. Protect aggregate from moisture by covering with polyethylene or other acceptable waterproofing materials.
- D. Handle products with care and appropriate precautions as stated in the material safety data sheets.

1.8 WARRANTY

- A. Contractor shall provide stucco manufacturer's 10-year materials warranty at completion of the project. Warranty shall provide for full labor and material costs required to repair stucco problems issues resulting material defects.
 - 1. Contractor shall schedule meeting with stucco manufacturer to review manufacturer's requirements necessary for specified warranty.
- B. Contractor shall provide a 2 year labor and material warranty against problems arising from poor workmanship.

PART 2 – PRODUCTS

- 2.1 LIME BASED STUCCO SYSTEMS:
 - A. Stucco systems may be installed per ASTM C926 or may be manufactured three coat systems that meet ASTM C926. Material shall be Hydraulic Hydrated Lime (HHL) or Natural Hydrated Lime (NHL) systems shall be the following. Stucco material furnished by Owner. Contractor to obtain stucco from Owner storage.
 - 1. Scratch and brown Coat: Ecomortar F-3.5 as manufactured by Transmineral USA, Inc. in Petaluma, CA—a subsidiary of Saint-Astier in Saint-Astier, France.
 - 2. Finish Coat: Finish Coat shall be as required to match existing structure. If not matching existing structure, finish coat shall be one of the following
 - a. Thermocormex as manufactured by Transmineral, USA, Inc.
 - b. Ecomortar F-3.5
 - c. Approved equal HHL or NHL 3.5 systems.
 - 3. If required on drawings or with prior approval, scratch brown and finish coats may be field mixed according to the proportions listed below.
- 2.2 LATH (Where required)
 - A. Expanded-Metal Lath: Comply with ASTM C 847 for material, type, configuration, and other characteristics indicated below. Also see Section 9205.
 - 1. Material: Fabricate expanded-metal lath from sheet metal conforming to the following:

- a. Galvanized Steel: Structural-quality, zinc-coated (galvanized) steel sheet complying with ASTM A 653, G90 (ASTM A 653M, Z180) minimum coating designation.
- 2. Diamond-Mesh Lath: Comply with the following requirements:
 - a. Configuration: Self-furring.
 - b. Weight: 3.4 lb/sq. yd. (1.8 kg/sq. m).
- 3. Moisture Barrier: Unless noted otherwise on Drawings, the moisture barrier shall be:
 - a. Asphalt Saturated Felt: ASTM D226, asphalt-saturated organic felt, 1 layer of #15 over 1 layer of #30, Type I, non-perforated, as specified on the drawings.
 - b. Polymer material may be used in leiu of felt.
- 4. Slip Layer: Slip layer shall be No. 15 felt or other generic building wrap.

2.3 ACCESSORIES:

- A. General: Comply with material provisions of ASTM C 1063 and the requirements indicated below; coordinate depth of accessories with thicknesses and number of plaster coats required.
 - 1. Zinc-Alloy Components: ASTM B 69, 99 percent pure zinc.
- B. Cornerbeads: Small nose cornerbeads fabricated from the following metal, with expanded flanges of large-mesh diamond-metal lath allowing full plaster encasement.
 - 1. Zinc Alloy: Minimum 0.0207 inch (0.53 mm) thick.
 - Metal Corner Reinforcement: Expanded, large-mesh, diamond-metal lath fabricated from zinc-alloy specially formed to reinforce external corners of Portland cement plaster on exterior exposures while allowing full plaster encasement.
- C. Cornerbeads (Alternate material if permitted in writing by designer):
 - 1. Corneraid, by Stockton Products, 4675 Vandenberg Drive, N. Las Vegas, NV 89031.
- D. Casing Beads: Square-edged style, with expanded flanges of the following material:
 - 1. Zinc Alloy: Minimum 0.0207 inch (0.53 mm) thick.
- E. Control Joints: Prefabricated, of material and type indicated below:
 - 1. Zinc Alloy: Minimum 0.0207 inch (0.53 mm) thick.
 - 2. One-Piece Type: Folded pair of nonperforated screeds in M-shaped configuration, with expanded or perforated flanges.

- a. Provide removable protective tape on plaster face of control joints.
- F. Lath Attachment Devices: Material and type required by ASTM C 1063 and Section 9205 for installations indicated.
- G. Flashing: As specified in Section 07620 and 07700.
- H. Stucco Crack Filler: Sto Flexible Crack Filler or approved equal.
- I. Stucco Finish Coating: Acrylic modified, thin mill protective coating. Sto Acryl Plus or Equal. Tint to match existing finish color.

2.4 EXTERIOR LIME STUCCO:

- A. Hydraulic Hydrated Lime (HHL) or Natural Hydrated Lime (NHL) must meet ASTM C141.
- B. Hydrated Lime: ASTM C207, Type S Hydrated Lime.
- C. Portland Cement: C150 Type I, II, or ASTM C595 IL. White if required on drawings or other contract documents.
- D. Quicklime (Unhydrated Lime): ASTM C5 Pulverized medium or slow slaking quicklime.
- E. Aggregate (Sand): Clean, sharp plaster sand, ASTM C 897 or masonry sand, ASTM C 144, free of iron pyrite.
- F. All materials (except added pigments) shall be non-staining per ASTM C 641.
- G. Water: Clean and potable. Free of amounts of mineral or organic substances that would adversely affect the materials.

2.5 LIME STUCCO MIXES AND COMPOSITIONS:

- A. General: Comply with ASTM C 207 for scratch, base and finish-coat mixes as applicable to plaster bases, materials, and other requirements indicated.
- B. Manufactured Systems: Use HHL 3.5 (NHL 3.5) 1 part to 2.0 or 2.5 parts sand for scratch, brown, and finish coats. Less sand may be required by manufacturer for finish coat. Proportions shall be adjusted to provide a 6 month strength of 700 psi.
 - 1. Systems from Transmineral, USA Inc. (Subsidiary of Saint-Astier, of Saint Astier, France or prior written approved equal.
- C. Job Mixed Systems: Only allowed with prior written approval.
 - 1. 1 Part Hydrated Lime

- 2. ¹/₄ Part Cement
- 3. ¹/₄ Part Quicklime
- 4. 3 to 4 parts Sand. Finish coat may require less sand.
- D. Three-Coat Work Direct Applied or over Metal Lath:
 - 1. Scratch Coat: 5/16 to 3/8-inch total thickness.
 - 2. Brown Coat: 5/16 to 3/8-inch total thickness.
 - 3. Primer: Not required. Written approval required for use.

4. Finish Coat: Thickness and texture required to match texture of existing system or approved mockups.

- 5. In no case shall the total thickness of the stucco be less than 7/8-inch.
- 2.6 MIXING:
 - A. LIME STUCCO:
 - 1. Mix manufactured systems per manufacturer's written requirements.
 - 2. Job mixed stucco. Use a mechanical mixer and mix per the following.
 - a. Add 2/3 of the water to mechanical mixer.
 - b. Add all sand to mixer and allow to fully blend
 - c. Add all hydrated lime.
 - d. Slowly add the Quicklime. Water may be needed to fully mix.
 - e. Add remaining water to achieve desired consistency. Mix for 5 minutes and let stand 10 minutes.
 - f. Add cement and mix until well blended.

PART 3 - EXECUTION

- 3.1 EXAMINATION:
 - A. Verification of Conditions: Confirm by examination the areas and conditions under which the work is to be applied for compliance with manufacturer's instructions. Do not proceed with the work until unsatisfactory conditions have been corrected.

- 1. New concrete, stucco, and masonry must be cured minimum 28 days.
- 2. Verify substrate is secure, sound, dry, and absorbent, and free of construction dust and debris, grease, salts, oil-based paints, release agents, non-mineral-based curing agents, and similar bond breakers.
- 3. Obtain manufacturer's approval for application over substrates having other pretreatments or priming materials applied.
- 4. Beginning of the work shall indicate acceptance of the areas and conditions as satisfactory by the Applicator.

3.2 PROTECTION:

- A. Protect adjacent work and surrounding areas from contact with Stucco System materials.
 - 1. Protection: Lay ground cloths and take measures as necessary to protect surfaces subject to contact by products specified by this Section.

3.3 PREPARATIONS FOR PLASTERING:

- A. Clean plaster bases and substrates for direct application of plaster, removing loose material and substances that may impair the work.
- B. Install temporary grounds and screeds to ensure accurate rodding of plaster to true surfaces; coordinate with scratch-coat work.
- C. Flashing: Refer to Division 7 Sections and Construction Drawings for installing flashing as indicated.

3.4 INSTALLATION OF PLASTERING ACCESSORIES:

- A. <u>General:</u> Comply with referenced lathing and furring installation standards for provision and location of plaster accessories of type indicated. Miter or cope accessories at corners; install with tight joints and in alignment. Attach accessories securely to plaster bases to hold accessories in place and in alignment during plastering. Install accessories of type indicated at following locations:
 - 1. External Corners: Install corner reinforcement at external corners.
 - 2. Terminations of Plaster: Install casing beads, unless otherwise indicated.
 - 3. Control Joints: Install in accordance with ASTM C 1063 and at locations indicated or, if not indicated, at locations complying with the following criteria and approved by Engineer:
 - a. Where an expansion or contraction joint occurs in surface of construction directly behind plaster membrane.
 - b. Distance between Control Joints: Not to exceed 18 feet (5.4 m) in either direction or a length-to-width ratio of 2-1/2 to 1.
 - c. Wall Areas: Not more than 144 square feet (13 sq. m).

- d. Horizontal Surfaces: Not more than 100 square feet (9 sq. m) in area.
- e. Where plaster panel sizes or dimensions change, extend joints full width or height of plaster membrane.
- f. Install as shown on drawings.
- 4. Wall Penetrations: Unless noted otherwise herein or on drawings, follow water barrier manufacturer recommendations for sealing all penetrations water tight.
 - a. Flashing shall be turned into openings to cover cut edges of wall board. Flashing shall extend a minimum of 4" onto sheathing and into rough opening.
 - (1) A water tight silicone sealant shall be installed between the flashed opening and the product penetrating the veneer.
 - (2) All rectangular penetrations at windows and doors shall have a control joint at the corners of the penetrations.
 - b. All mechanical penetrations shall be sleeved using 22 gage stainless steel metal. Exterior flange shall be hemed. Interior flange shall extend into rough opening or shall turn onto sheathing and be anchored to wall framing. The top of the sleeve shall be extended outward over the bottom of the sleeve and provide a 30 degree minimum sloped toward the bottom of the sleeve to provide a rain shield for all grouped pipe penetrations
 - (1) Flashing shall turn onto sleeve.
 - (2) Install a water tight silicone sealant joint between stucco termination hardware and sleeve.
 - (3) Install water tight silicone sealant joint between mechanical unit and interior of sleeve.

3.5 DIRECT APPLIED PLASTER APPLICATION:

- A. Plaster Application Standard: Apply plaster materials, composition, and mixes in accordance with manufacturer's instructions.
- B. Do not use materials that are frozen, caked, lumpy, dirty, or contaminated by foreign materials.
- C. Do not use excessive water in mixing and applying plaster materials.
- D. Flat Surface Tolerances: Do not deviate more than plus or minus 1/8 inch in 10 feet (3 mm in 3 m) from a true plane in finished plaster surfaces, as measured by a 10-foot (3-m) straightedge placed at any location on surface.
- E. Sequence plaster application with installation and protection of other work so that neither will be damaged by installation of other.
- F. Install sealant prior to installing acrylic finishes.

- G. Corners: Make internal corners and angles square; finish external corners flush with cornerbeads on interior work, square and true with plaster faces on exterior work.
- H. Decorative Joints:
 - 1. Install exterior contraction joints after initial set, scribed as indicated on Drawings by cutting through lime plaster depth, neatly, in straight lines, to depth indicated on drawings.
- I. Number of Coats: Apply plaster of composition indicated, to comply with the following requirements:
 - 1. One/Two Coats: One or two coats unless indicated otherwise on Construction Drawings.
- J. Moisture Barrier:
 - 1. Mortar joints on new masonry to accept lime based stucco are to be tooled flush.
 - 2. Pressure wash bonding surface with 3,000 psi to remove surface residue, laitance and loose mortar. If mortar is soft, it is acceptable to remove up to ³/₄" of mortar from the joints.
 - 3. Prewet brick bonding surfaces of masonry until the masonry is saturated but without surface water. This will be damp to the touch, but no running water, and can usually be achieved during the pressure washing activity.
 - 4. Point all mortar joints eroded more than ³/₄" deep. Saturate the brick prior to pointing. Cure pointed joints by misting several times daily for 3 days. Pointing mortar shall be a type N mortar or he same mix as the stucco scratch coat.
 - 5. Pneumatically apply or scrub in a prickling coat taking care to fill all remaining mortar joints and voids in substrate. Air driven hopper guns or stiff brushes can adequately apply this coat. The prickling coat is a mixture of hydraulic lime (1 part), coarse sand (1.5 parts) and water. The coarse sand is obtained by sieving ASTM C33 concrete sand to remove aggregate greater than ¼". The prickly coat shall be 1/16 to 1/8" thick. If the base coat is not to be applied for several days, cure the prickling coat by misting several times daily for 3 days.
 - 6. Apply scratch coat and brown coat 3/8 to ½ inch thick each. Slightly thicker scratch coats are permitted if needed to achieve a vertical, flat surface. If prickling coat has been applied more than 2 days, prewet prickling coat prior to applying scratch coat. Screed and finish brown coat to receive finish.
 - 7. After brown coat has cured, repair all cracks by routing and filling with the brown coat mixture. Cure these repairs as stated below.
 - 8. Apply finish coat. Finish coat shall match existing if contiguous with existing structures. Install lime based finished coats immediately after brown coat has attained adequate strength to withstand application of finish coat without damaging brown coat. Cure by missing at least 4 times daily for at least 5 days. Install polymer based finish coats after full cure of scratch and brown coat.

3.6 CURING:

- A. Lime based stucco:
 - Moist-cure plaster scratch coats, brown coats, repairs and lime based finish coats to comply with ASTM C 926, including written instructions for time between coats and curing in the ASTM "Annex A2 Design Considerations" and manufacturer's instructions, whichever is more stringent. At minimum curing shall be conducted by misting 4 times daily for 7 days. In hot and/or windy weather, misting up to 6 times daily and/or installation of wind breaks may be required.
 - 2. Allow sufficient time between coats to permit each coat to cure and develop sufficient strength to resist cracking or other physical damage before the next coat is applied.
 - 3. Curing each coat until the subsequent coat is applied, or a minimum of 7 days.

3.7 CUTTING AND PATCHING:

- A. Cut, patch, replace, repair, and point up plaster as necessary to accommodate other work. Repair cracks and indented surfaces. Point-up finish plaster surfaces around items that are built into or penetrate plaster surfaces. Repair or replace work to eliminate blisters, buckles, check cracking, dry outs, efflorescence, excessive pinholes, and similar defects. Repair or replace work as necessary to comply with required visual effects.
- B. Leave 2" of lathe extended and wire tie to new lathe for full depth repairs.
- C. Edges of stucco at repairs shall be cleanly cut or broken, leaving a bonding or mating surface that is roughly perpendicular to the face of the stucco.
- D. Prewet all bonding and adjacent surfaces prior to applying repair material. If a primer is used, prewetting may not be required. Consult primer manufacturer's written instructions.

3.10 CLEANING AND PROTECTING:

- A. Remove temporary covering and other provisions made to minimize spattering of plaster on other work. Promptly remove plaster from door frames, windows, and other surfaces not to be plastered. Repair surfaces stained, marred or otherwise damaged during plastering work. When plastering work is completed, remove unused materials, containers, equipment, and plaster debris.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer that ensure plaster work is without damage or deterioration at the time of substantial completion.

END OF SECTION

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RESIDENTIAL APPLIANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Refrigerator.
 - 2. Microwave.
- B. Related Sections:
 - 1. Section 06 40 23 Interior Architectural Woodwork: Custom-made cabinets and tops that receive residential appliances.
 - 2. Division 22 PLUMBING: Water distribution piping connections to residential appliances.
 - 3. Division 26 ELECTRICAL: Electrical service and connections to residential appliances.
- 1.2 SUBMITTALS
 - A. Product Data: For each type of product indicated. Include operating characteristics, dimensions of individual appliances, and finishes for each appliance.
 - B. Samples: For each exposed finish.
 - C. Appliance Schedule: Use same designations indicated on Drawings.
 - D. Maintenance data.
- 1.3 QUALITY ASSURANCE
 - A. Installer Qualifications: An employer of workers trained and approved by manufacturer for installation and maintenance of units required for this Project.
 - B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 - C. Residential Appliances: Comply with NAECA standards.

1.4 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer of each appliance specified agrees to repair or replace residential appliances or components that fail in materials or workmanship within specified warranty period.
 - 1. Refrigerator/Freezer: Five-year limited warranty for in-place service on the sealed refrigeration system.
 - 2. Dishwasher: 10-year warranty for in-place service against deterioration of tub and door liner
 - 3. Icemakers: Five-year limited warranty on compressor and condenser.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Products: The design for each residential appliance is based on the product named. Subject to compliance with requirements, provide either the named product or a comparable product by one of the following manufacturers:
 - 1. Amana Refrigeration, Inc.
 - 2. Frigidaire Appliance Company.
 - 3. Hotpoint.
 - 4. Kitchen Aid Inc.
 - 5. Maytag Corporation.
 - 6. Whirlpool Corporation.
 - 7. Bosch.

2.2 RESIDENTIAL APPLIANCES

- A. <u>Freestanding, Stainless Steel, Counter-Depth, French Door Refrigerator:</u>
 - 1. Basis-of Design Product: **GENERAL ELECTRIC "Model No. GNE27JYMFS,"** Stainless steel finish, 69 7/8" high, 35 ³/₄" wide, 35 7/8" deep.
- B. <u>Microwave Oven:</u> 1.5 cu. ft. Countertop Convection/Microwave Oven.
 - 1. Basis-of Design Product: **GENERAL ELECTRIC** "Model No. PES7227SLSS," Stainless Steel finish.

2.3 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Examine roughing-in for piping systems to verify actual locations of piping connections before equipment installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.
- 2.4 INSTALLATION, GENERAL
 - A. General: Comply with manufacturer's written instructions.
 - B. Built-in Equipment: Securely anchor units to supporting cabinets or countertops with concealed fasteners. Verify that clearances are adequate for proper functioning and rough openings are completely concealed.
 - C. Freestanding Equipment: Place units in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment.
 - D. Utilities: Refer to Mechanical and Electrical Divisions plumbing and electrical requirements.
- 2.5 CLEANING AND PROTECTION
 - A. Test each item of residential appliances to verify proper operation. Make necessary adjustments.

RESIDENTIAL APPLIANCES

- B. Verify that accessories required have been furnished and installed.
- C. Remove packing material from residential appliances and leave units in clean condition, ready for operation.

END OF SECTION

SECTION 32 22 90 EROSION CONTROL

PART 1 – GENERAL

1.1 SUMMARY

A. This section of specifications covers the requirements of the contractor to protect the project site and adjoining properties from soil erosion and runoff, reviews methods of construction, erosion control measures, maintenance of erosion control features, and construction runoff permitting.

PART 2 - PRODUCTS

2.1 MATERIALS

All materials used for erosion and sedimentation control on the project shall follow the guidelines and requirements within the Alabama Handbook for Erosion Control, Sedimentation Control, and Stormwater Management on Construction Sites and Urban Areas, latest edition.

- A. Temporary Berm. Temporary berm is constructed of compacted soil or riprap, with or without a shallow ditch, at the top of fill slopes or transverse to the centerline of fills. These berms are used temporarily at the top of newly constructed slopes to prevent excessive erosion until permanent controls are installed or slopes stabilized.
- B. Temporary Slope Drain. Temporary slope drain is a facility consisting of temporary earthen swale, stone gutters, fiber mats, plastic sheets, concrete or asphalt gutters, half-round pipe, metal pipe, plastic pipe, sod or other material acceptable to the Owner that may be used to carry water down slopes to reduce erosion. These items shall be required at no additional compensation to manage the stormwater runoff during construction.
- C. Sediment Structures. Sediment basins, ponds, and traps are prepared storage areas constructed to trap and store sediment from erodible areas in order to protect properties and stream channels below the construction areas from excessive siltation.
- D. Check Dams. Check dams are barriers composed of logs and poles, large stones, or other materials placed across a natural or constructed drainageway in order assist in reducing run-off velocities and to protect properties and stream channels below the construction areas from excessive siltation.
- E. Temporary Seeding and Mulching. Temporary seeding and mulching are measures consisting of seeding, mulching (hydraulically applied), fertilizing, and matting (as necessary) utilized to reduce erosion. All bare earthen areas, including waste sites and borrow pits, shall be stabilized in accordance with these project requirments.
- F. Brush Barriers. Brush barriers shall consist of brush, tree trimmings, shrubs, plants, and other approved refuse from the clearing and grubbing operations. Brush barriers are placed on natural ground at the bottom of fill slopes, where the most likely erodible areas are located, to retain sedimentation particles.
- G. Baled Hay or Straw Checks. Baled hay or straw erosion checks are temporary measures to control erosion and prevent siltation. Bales shall be either hay or straw, containing five (5) cubic feet or more of material. Baled hay or straw checks shall be used where the existing ground slopes toward or away from the embankment along the toe of slopes, in ditches, or other areas where siltation erosion or water runoff is a problem.
- H. Temporary Silt Fences. Silt fences are temporary measures utilizing woven wire or other approved material attached to posts with filter cloth composed of burlap, plastic filter fabric, etc., attached to the upstream side of the fence to retain the suspended silt particles in the run-off water.

EROSION CONTROL

PART 3 - EXECUTION

3.1 GENERAL

- A. A National Pollutant Discharge Elimination System (NPDES) General Permit Number ALR100000 (permit) from the Alabama Department of Environmental Management (ADEM) for discharge associated with regulated construction activity shall not be required since the disturbances will be less than one (1) acre. The contractor shall still be required to follow all regulations established by the Environmental Protection Agency (EPA) and ADEM in regards to disturbances on the project. The Contractor shall be responsible for providing a Qualified Credentialed Inspector (QCI) for monitoring oil, grease, other contaminates. The QCI shall inspect all BMP's daily and keep daily inspection reports in a log book that shall be submitted for review by the Owner's Representative prior to approval of the monthly pay request. The cost of any and all inspections, monitoring, reporting, and associated documentation shall be the responsibility of the Contractor.
- B. The Contractor shall be responsible for providing the necessary field representative to inspect all BMP's daily and keep daily inspection reports in a log book as required by the permit (even though permit is not required) that shall be submitted for review by the Owner's Representative prior to approval of the monthly pay request. The Contractor shall also be responsible for all aspects of monitoring oil, grease, fuel / fuel tanks, fertilizers, or other contaminates as part of Part III.E of the permit. The cost of any and all inspections, monitoring, reporting, and documentation which the Contractor is responsible for shall be incidental to the overall cost of the project.
- C. The Contractor shall exercise planning and forethought in coordinating the work of protecting the project and adjoining properties from soil erosion by effective and continuous erosion control methods of either a temporary or a permanent nature. This shall also include measures to prevent soil, mud, debris, contaminants from tracking and accumulating on streets, roads, other surfaces, leaving the project area, and / or entering into the storm drainage system ultimately leading to the streams or other bodies of water.
- D. The erosion control plan and details included with the construction plans represents the minimum and shall be considered as a guide for the Contractor, not inclusive of all items potentially necessary. Based on the Contractors anticipated means, methods, techniques, sequences along with their proposed project phasing, prior to beginning construction the Contractor shall develop a detailed erosion control plan based on their intended scope. As part of the Owner Pre-Construction meeting, such plan shall be reviewed with any expected problem areas in regards to the erosion control work pointed out. Different solutions shall be discussed so that the best method might be determined. It is ultimately the responsibility of the Contractor to develop and implement a final detailed erosion control plan on the project.
- E. The Contractor shall plan his clearing work and his entire construction operations in such a manner as to effectively control soil erosion and prevent pollution of streams, ponds, and/or drains as would result from silt or soil runoff or as would result from any materials used in the construction operations such as oil, grease, paints, chemicals, or any construction debris.
- F. The Contractor shall intercept and protect drainage from the construction site by means of silt fences, silt barriers, sedimentation traps, or other measures as required.
- G. Silt fences, wherever used on the site, shall consist of fabric securely fastened in place or, if approved, permeable-barrier fabric designed to filter water and retain silt. Fabric shall be set securely in the ground and firmly held in place.
- H. The erosion control work shall cover all disturbed areas within the project. Erosion control work shall not be limited to the project area but shall include all disturbed areas associated with any staging, material laydown, and / or storage.

- I. All disturbed areas shall be stabilized and protected from sediment loss during all times and the full duration of construction. For locations where final landscape and / or paving will be completed within 30 calendar days, any bare ground shall be stabilized with temporary hydraulicly applied mulch with a tackifier adhesive (THAM). For locations where final landscape and / or paving will not be completed within 30 calendar days, any bare ground shall be stabilized with temporary seeding and THAM. At no time shall bare ground go more than thirteen (13) consecutive calendar days without being hydraulically stabilized if work is not on-going in the immediate area, including earthen material spoils or stockpiles. Furthermore, any bare ground area shall be covered with THAM a minimum of twenty-four (24) hours prior to any forecasted / anticipated rain event. Areas to be temporarily seeded and / or mulched shall be left in a rough graded condition. Areas that are smooth or hard shall be lightly scarified with scarifying teeth or some other acceptable method, running perpendicular to the direction of water flow, in order to provide a rough surface area to hold the seed / mulch and assist in preventing the formation of rills and gulleys. THAM shall be applied at a rate as designated by the manufacturer for the specific slope where being applied to provide a solid blanket of mulch product with no soil showing, but in no case shall the applied rate be less than 2000 lbs per acre. Temporary seeding mix and application rates shall be per the project specifications. Necessary fertilizer for temporary seeding areas shall be as required by soil tests (obtained by the contractor) but as a minimum be applied at a rate of 200 lbs per acre. Contractor shall be responsible for protection of any building, pavement surfaces, fencing (permanent or temporary), lighting, poles, structures, signage, etc. from the temporary seeding and / or THAM. Any residual on such shall be immediately and completely washed from such type items.
 - a. No temporary seed shall contain more than 1% weed seed. Limitation of noxious weed seeds shall be as specified by the rules and regulations for administration of the current Sate Seed Law. Seed mixes for temporary seeding shall be in accordance with the following, based on the season:
 - i. September through December
 - Annual Ryegrass at 25 lbs per acre
 - Kentucky Fescue at 30 lbs per acre
 - Wheat at 20 lbs per acre
 - ii. January through April 15
 - Annual Ryegrass at 15 lbs per acre
 - Kentucky Fescue at 30 lbs per acre
 - Unhulled Bermuda Grass at 10 lbs per acre
 - iii. April 16 through August
 - Brown top millet at 30 lbs per acre
 - Kentucky Fescue at 30 lbs per acre
 - Hulled Bermuda Grass at 10 lbs per acre

3.2 CONSTRUCTION & INSTALLATION OF BMP'S

- A. The Contractor shall use any and all acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of silt fences, waddles, check dams, water diversion structures, diversion ditches, and settling basins.
- B. Construction operations shall be restricted to the areas of work which must be entered for the construction of temporary or permanent facilities. The Owner's Representative reserves the right to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow, and fill operations and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of any surrounding property, drainages, wetlands, and / or adjacent watercourses. Such work may involve the construction of temporary berms, dikes, dams, sediment basins, slope drains, and use of temporary mulches, mats, or other best management practices (BMP's) or methods as necessary to control erosion.

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- C. Excavated soil material shall not be placed adjacent to any surrounding property, drainages, wetlands, and / or adjacent watercourses in a manner that will cause it to be washed away by high water or runoff. Earthen berms or diversions shall be constructed to intercept and divert runoff water away from such areas. Diversion outlets shall be stable or shall be stabilized by means acceptable to the Owner. If, for any reason, construction materials are washed away during the course of construction, the Contractor shall immediately remove those materials from the fouled areas as directed by the Owner at no cost to the project.
- D. The Contractor shall not pump silt-laden water from trenches or other excavations into wetlands or adjacent watercourses. Instead, silt-laden water from excavations shall be discharged within areas surrounded by baled hay, sediment traps, or other appropriate BMP's to ensure that only sediment-free water is returned to the watercourses. Damage to vegetation by excessive watering or silt accumulation in the discharge area(s) shall be avoided.
- E. Prohibited construction procedures include, but are not limited to, the following:
 - i. Dumping of spoil material into any streams, wetlands, surface waters, or unspecified locations.
 - ii. Indiscriminate, arbitrary, or capricious operation of equipment in wetlands or surface water areas.
 - iii. Pumping of silt-laden water from trenches or excavations into surface waters or wetlands.
 - iv. Damaging vegetation adjacent to or outside of the construction area limits.
 - v. Disposal of trees, brush, debris, paints, chemicals, asphalt products, concrete curing compounds, fuels, lubricants, insecticides, wash-water from concrete trucks or hydro-seeders, or any other pollutant in wetlands, surface waters, or unspecified locations.
 - vi. Permanent or unauthorized alteration of any stream.
- F. In accordance with and subject to the provisions of the Federal Water Pollution Control Act, the following discharges are prohibited:
 - i. Wastewater from washout of concrete.
 - ii. Wastewater from washout And cleanout of stucco, paint, from release oils, curing compounds, and other construction materials.
 - iii. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
 - iv. Soaps or solvents used in vehicle and equipment washing.
 - v. Discharges from the dewatering activities including but not necessarily limited to of groundwater or accumulated stormwater from dewatering of trenches, excavations, foundations, vaults, or other similar points of accumulation unless managed by appropriate BMP's / controls.
 - vi. Discharges to surface waters from sediment basins or impoundments unless an outlet structure that withdraws water from the surface is utilized.
 - vii. Toxic or hazardous substances from a spill or release.

3.3 MAINTENANCE

- A. The temporary erosion control features installed by the Contractor shall be acceptably maintained by the Contractor until no longer needed or permanent erosion control methods are installed.
- B. Silt fences shall have sediment deposits removed if it reaches a depth of fifteen inches (15") or ½ the height of the fence. Sediment removed from the silt fence shall be removed from the site.
- C. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of work as scheduled, and are ordered

EROSION CONTROL

by the Owner or the Owner's Representatives, such work shall be performed by the Contractor at his own expense.

3.4 FINES, FEES, PENALTIES

A. The Contractor shall be responsible for any fines, fees, penalties, claims, legal actions, disputes, etc. arising from any faulty or negligent erosion control practices as levied by ADEM, EPA, local governments, or any such passed to the Owner.

END OF SECTION 322290